1

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Outgoing Chairman's Report 2007

The three years that I have spent as Chairman of the Group have passed by very quickly. Looking back at the other reports that past Chairmen have written I have noticed that this thought is a very common one, perhaps it is related in part to the successful way that GCG committee works with everyone sharing the work load and bringing their different skills and interests to the attention of the Committee and the membership. I am pleased to be leaving the committee in a very healthy state with committed officers and younger members of the profession on board. May I also encourage anyone who is thinking that it would be of interest to them to consider standing for committee – after all what have you got to lose by putting your name forward?

One of the successful outcomes for 2007 has been the rationalisation of the holdings of the back issues of the Geological Curator kept in Manchester. We have made sure that there are complete runs at the national museums, large regional museums and in our own archive. Over twenty of our members received near complete sets of the journal for the price of postage. Work has started on the digitisation of the journal and I hope that this can be finished by next years AGM. This would mean that the back issues would be available from our web site for anyone to read and download for their own use.

Dynamic rationalisation of the collections held in our institutions is a topic that has been discussed in 2007. Geological collections are not easy for a non specialist to assess and it is here that the extensive datasets and expertise that GCG can quickly access that have proved very useful in our dealings with other institutions responsible for geological collections. I am sure that this is an area that will be of concern to the committee in the future as well.

One way that we can add to the knowledge of our members and the museum profession as a whole is though our provision of meetings and training days. The training days we have organised this year have been very successful and we intend to build on this success and offer more of these courses to everyone. However our general interest meetings have struggled to attract sufficient numbers to make them viable to run. The committee spend a lot of time trying to make the venues and topics of our meetings relevant to the members of GCG and I must make special mention of Steve McLean who has worked very hard in his role as Programme Secretary. On a personal note I hope that GCG will be visiting further a field again on our study trips.
I am very pleased with the way our web site works now and we are publishing more content on our site all the time. The web site is a very important tool in communicating the group's aims to a wide audience.

On a final note I would like to thank all of the people who have helped GCG by serving on the committee or its smaller working groups and have helped to keep GCG relevant in today's museum profession and I wish my successor a fulfilling, busy and enjoyable three years. Thank you.
Mandy Edwards (Chairman 2005-2007)

From the incoming Chairman

Though I am excited about taking on the role of GCG chairman, I have to say I feel quite daunted by the list of my predecessors. Though not sure that I have enough experience to justify being here, I will try to do the role justice.

Officially starting out in museums in 1990 with voluntary work on the geological collections at Cliffe Castle

Museum, Keighley (my home town), in reality I had always intended to work in museums deciding at the grand old age of 10 to either be an archaeologist or an historian …. before discovering that science in general and geology in particular was far more worthy of my interests.

I have now been in the enviable position of being paid to work in museums for 15 years, though I still feel like a novice. I've been a documentation and curatorial assistant in Bradford Museums Service (thanks to Alison Armstrong), an assistant keeper of geology in Tyne & Wear Museums at the Hancock Museum, Newcastle and Sunderland Museum (thanks to Steve McLean) and am currently keeper of natural history at Plymouth City Museum. I am also currently trying to convince my five-year-old boy that rocks are really quite interesting … but it is proving rather difficult.

After working on GCG committee for a number of years now, and most recently as Recorder, I am constantly surprised at how much work the committee members do behind the scenes to keep the group going. Time pressures seem to be increasing for many of us by the day and I just hope that enough people will continue to find the time to support the running of the group (often in their own time).

Within the next three years I think that it is crucial to define (again) where we sit in relation to other specialist groups within geology and museums. There seem to be a proliferation of interest groups and organisations that claim responsibility for the care of our geological heritage whether it is on site or in museum collections and we are in danger of being seen as one small voice amongst many.

One crucial relationship is with the Natural Sciences Collections Association (Nat SCA) that developed from the merging of the Biological Curators Group (BCG) and the Natural Sciences Conservation Group (NSCG). Due to the original interests of the NSCG, which included geological specimen conservation, this merger has thrown up some interesting issues relating to approaches for advice and consultation that need to be understood in the next year or so. GCG and NatSCA have also found themselves offering almost identical seminars, workshops and study trips over the years. In the light of this, it would benefit both groups to be a little more coordinated.

An area in which the group can positively develop in the next few years is the website (thanks to our webmasters). This resource provides an outcome for many of our activities, so please do keep having a look as it is added to. I would certainly like to see the website becoming a first stop resource for members as well as non-members with a responsibility for geological collections and geological education using museum collections – but it relies on everyone submitting content! This will also drive our approach to long term publication projects over the next few years, with sections of ongoing work placed online when that section is completed (rather than wait for the whole work to be published, especially as updates can be added when needed online).

There are, as usual, many challenges arising for museums, specialist curators, non-specialists and geological collections in the near future including dynamic rationalisation, funding reductions, museum staff restructures, recruiting new curators and keeping old ones. But a strong support network, like the GCG, will always allow us to share knowledge, experience, problems, solutions, worries, skills and enthusiasm; and hopefully enable us to be listened to by decision and policy makers in our organisations.

Helen Fothergill, Plymouth City Museum & Art Gallery

GCG Committee 2008

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Subscriptions reminder

Subscriptions were due on 1 January 2008. All individual members have now been invoiced. If you pay by standing order, please ensure that it has been updated with the new amount following last year's increase. Subscriptions unpaid by 1 April 2008 will be deemed to have lapsed.

New members

GCG is pleased to welcome the following new members: **Isla Gladstone**, Royal Cornwall Museum; **Hans Arne Nakrem**, Natural History Museum, University of Oslo; **Simon Howard** and **Sarah Stewart**, National Museum of Scotland; **Kay Hawkins**, Department of Geology, University of Leicester; **Christine Thompson**, British Geological Survey, Keyworth; **Lindsay Percival**, Doncaster; **Paul Audin,** Hull Museum Service.

Musical curators

Leslie Noè has moved from the Sedgwick Museum, Cambridge to Birmingham science museum, Thinktank to the new post of Curator of Natural Science.

Newish publications

The great naturalists edited by Robert Huxley, 2007. London: Thames and Hudson in association with the Natural History Museum, London. ISBN 978 0 500 251393, 304pp.

Curiosity and enlightenment. Collectors and collections from the sixteenth to the nineteenth century by Arthur MacGregor, 2007. New Haven and London: Yale University Press. ISBN 978 0 300 12493 4, x + 386pp.

Dry Store Room No.1: The secret life of the Natural History Museum by Richard Fortey, 2008. London: Fourth Estate/Knopf, 352pp. £20.00.

Fossil, mineral and gem shows 2008

29-30 March Cheltenham Racecourse, Prestbury Park, Gloucestershire
5-6 April Brighton Racecourse, Freshfield Road, Brighton, East Sussex
26-27 April Newark Showground, Winthorpe, Newark, Nottinghamshire
31 May-1 June Norfolk Showground, Costessey, Norwich
7-8 June Kempton Park Racecourse, Sunbury, West London
14-15 June Newcastle Racecourse, High Gosforth Park, Tyne & Wear

For further information contact Rock and Gem Ltd, PO Box 72, Maidenhead SL6 7GB tel 01628 621697 email info@rockngem.co.uk www.rockngem.co.uk

Natural History Museum, Dublin open to staff and researchers

Staff at the Natural History Museum, Merrion Street, Dublin returned to the building on 11 December. This follows the collapse of a staircase on 5 July 2007. The stairs were part of the emergency evacuation route from the building. Protracted accident investigations ruled the offices out of bounds until early December.

The exhibition building remains closed to the general public but research visitors are welcome back. Please make an appointment with curatorial staff before your visit (naturalhistory@museum.ie). Staff are also now available at their normal museum extension numbers.

The building is to undergo a complete safety audit followed by major refurbishment of the 150 year old structure. This means that exhibitions will not be available for several years. The 10,000 exhibits are to be removed and conserved, the building is to be refurbished and an extension is to be provided with education spaces, lift, shop and cafe.
Media coverage is online at http://www.rte.ie/news/2007/1206/museum_av.html?2315888,null,230

New display specimen at World Museum Liverpool.

In January 2008 a new specimen was installed on the Earth gallery at World Museum Liverpool. It is a fossil of a 50 million year old palm leaf (frond) of *Sabalites* sp. It was found in Folly Quarry on the Lewis Ranch, near Kemmerer, Western Lincoln County, Wyoming, USA, and comes from the Fossil Butte Member of the Green River Formation. The specimen (8 foot/2.44 metres high) still retains its leaf sheath at the base of the frond. This is an unusual feature in most fossilised palm specimens. The slab also contains a large number of fish bones, mainly vertebrae.

The formation the palm was found in contains many spectacular fossilised plants and animals. These fossilised remains provide evidence for a rare glimpse into the world of 50 million years ago. At that time Wyoming was a warm subtropical area with lush and exotic vegetation at the edge of large fresh water lakes. This is very different from the Wyoming of today, which has a high mountain desert with long winter snows and freezing temperatures.

Future GCG Workshops

A while ago I circulated a list of possible GCG workshops for you to consider for the future. With 26 responses the results below, perhaps give a representative opinion for the group ….. but if you disagree, please tell us!

The top ten popular workshops requested are:

STORAGE of geological materials

IMAGING & IMAGE USE for geological collections

Collecting and ON-SITE conservation

SORTING, DOCUMENTING & DATABASES for geological collections

Identification of TRACE FOSSILS

DISASTER PLANS for geological collections

Care and conservation of MINERALS

Identification of ECHINOIDS & CRINOIDS

Identification, care and conservation of SUB-FOSSIL BONES (repeat)

Identification of AMMONITES

The list of ideas was not meant not be comprehensive, but more a starting point for planning and discussing future options. The full "results" are listed on the next page.

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Some of the comments we received:

"While the workshops 1-18 sound excellent & certainly noteworthy, my museum administration would be more apt to pay for travel when it comes to the care & conservation of specimens.could more easily be granted funds to attend a workshop on hazardous materials, storage, disaster plans,… rather than the identification of brachiopods.they would understand my interest in brachs, they would certainly be more keen to sponsor a trip to one of the other workshops."

"It would be best to do some new workshops rather than repeating old workshops.What about asking

each convenor of a workshop to make available as a pdf their workshop booklet which then could be published on-line in a 'gcg handbook series'."

"I would be interested in 22,23, and 27. I have always wanted to know more about collecting & fieldwork.How to get permissions, when permission is required, who is the best person to write to for access?Any tips on how to carry all the stuff back if it's a long walk!"

"Personally I would attend the following: 3,16,18,21,24,26. But all of these sound good! "

"Could some of these events be held in northern England at venues with good rail links? York and Leeds would be ideal."

"Hold more in Scotland or Northern England."

Additional workshop suggestions included: identification of bryozoans; a workshop on marine reptiles; dealing with collection archives; how to do historic research on collections; a summary of UK policies relating to collecting and conservation; updates on import/export laws for geologists; European laws relating to specimen collection (might be good for linking to Euro museums for study trips!).

Thanks to all of you who found the time to respond, we will be using this feedback to drive the workshop programme for the next few years.
Helen Fothergill (on behalf of Steve McLean, GCG Programme Secretary)

GCG Workshop: Identification, care and conservation of sub-fossil bone
Natural History Museum, London
7 November 2007

I began my museum career, like most museum curators today, by volunteering. I was fortunate enough to start out at the Natural History Museum, London (NHM) with the great and enthusiastic Andy Currant, working with the fossil mammals. Andy has an awesome way of passing on his mammoth knowledge through his almost unreal true stories. One of the most memorable is the accidental swallowing of a very important vole tooth, which had to be rescued after it had been passed!

Andy is an expert on Quaternary mammals. He has worked in the NHM for over 30 years; most recently on the Ancient Human Occupation of Britain (AHOB) project with Chris Stringer. It was no wonder that this GCG workshop was so popular. Andy was the morning speaker on the identification of sub-fossil bones. Chris Collins and Adrian Doyle, in the Conservation Department in the NHM spoke in the afternoon on the conservation of sub-fossil material.

Both Andy and Chris began by explaining what sub-fossil means. Andy described them as 'bones with significant amount of organic content'. Chris said sub-fossils are 'bone that has been subject to sub-aerial weathering and then burial…it has not been subject to secondary mineralisation.' We know what sub-fossil bones look like, but describing them is a bit more difficult! As there are some sub-fossil bones that have been partially mineralised, and prone to the same problems, I would describe them as: '…teeth and bones which have some organic content and may be partially mineralised, on their way to becoming fossils.'

The day began with a warm welcome with tea and biscuits. The workshop was held in the conservation lab and Andy started of by describing, in his fantastic way, the Pleistocene and what type of mammals can be found in their deposits. This article wont go into too much detail, as Andy and myself are writing something up for *The Geological Curator* on the Pleistocene updated for museum curators. Below is a brief overview of the Pleistocene, explained by Andy.

The Pleistocene goes back 1.8 million years ago, and includes the Quaternary Period (1.8 million years ago to present, including the Pleistocene and the Holocene). The diversity of mammal fauna during this period is so different to anything present humans have seen. The British material is mainly from the late Pleistocene (120, 000 years ago), but does contain earlier material. The late Pleistocene was a time of large rapid changes in the Earth's climate, constantly changing and affecting the very existence of mammals at the time.

The late Pleistocene was witness to several changes in the climate, causing glacials (cold periods) and interglacials (warmer periods). This can be demonstrated in the Oxygen Isotope records of marine invertebrates with carbonate shells, where Oxygen 16 and Oxygen 18 isotopes are measured (written as O^{16} and O^{18}, respectively). Measuring these isotopes can be used to illustrate glacial periods and interglacial periods by comparing to the deep sea palaeomagnetic reversals. High evaporation will 'pick up' more of the

lighter O^{16} than the heavier O^{18} and when this lands as snow on glaciers, the O^{16} is trapped in the ice:

Less O^{16} in the oceans during glacial periods.

More O^{16} in the oceans in interglacial periods.

The peaks and troughs in this record are described as stages, with the odd numbers depicting glacials and the even numbers illustrating interglacials. The last major interglacial stage was Stage 5e, which was (120,000 years ago) and interestingly, a lot hotter than today's climate. (There were smaller advances and retreats of the ice within the major stages, particularly Stage 5, and these are broken down as 5a to 5e.) Below is a simplified summary of the main mammal fauna in the different stages:

Stage 5 (120,000 years ago) had several interglacial fauna types, including hippo, wolves and brown bear. It also included reindeer and bison, even in the warm retreats of ice; this may be due to the rising sea level and being cut off from mainland Europe.

Stage 4 (60,000 years ago) marked the arrival of horses to Britain.

Stage 3 (30,000 years ago) had lots of spotted hyena, indicated by lots of crunched bones and lots and lots of *coprolite*!

Stage 2 (20,000 years ago) was very cold, dominated by musk ox and artic hare.

There was a large infux of animals as the ice disappeared, including reindeer and voles.

The morning talk finished off with a tour of the mammal stores in the mid-70's built palaeontology building. The ground floor holds the fossil mammals; a vast collection of fossils from all over the world, from the great armoured *Glyptodon* from South America, to the smallest vole tooth from Westbury.

Although curators often don't get the chance to sit down with lots of their collections, it is so important – and also very satisfying! Cut marks on a specimen (very fine, close together and oriented in the same direction) were first discovered on a specimen almost by accident! The lights were being fixed on the ground floor, and someone was looking at a bone, when they noticed a glimmer on the specimen, which turned out to be cut marks.

The *pièce de résistance* was a beautiful, almost fully complete woolly rhino skeleton, which has an interesting and rather complicated history, which is too long for this small article. The beautiful specimen did display signs of cracking, particularly on the skull. The interesting store tour, which brought back many fond memories for me, was the main topic of discussion at lunch.

After lunch, Chris Collins discussed the different problems faced by sub-fossil material, which were plentiful. These problems arise due to the complex structure of teeth and bones. The inside of bone is formed by a network of fine tunnels, giving it an almost spongy appearance, whereas the outside of the bone is stronger, more compact. Teeth are made up of laminar structured layers of dentine and enamel. Tusks have a more radial structure, so when they are dry they appear to flake.

Chris argued the sometimes with sub-fossil material it is better to not do anything at all. He explained how it is important to try and stabilise the whole specimen without destroying the internal structure (DNA, proteins and amino acids).

Too dry an environment for the sub-fossil material and the specimens will show signs of shrinking and cracking, as the moisture holding the specimens together escapes. Too damp an environment will cause swelling as additional moisture is added to the specimen and can cause severe problems with mould. The ideal stable environment, Chris recommended, was 35-45% relative humidity.

Adrian Doyle talked after Chris, about the different types of glues (or 'adhesives' as conservators call them), which sub-fossil material has been subject to in the past:

Shellac – was used to colour the fossil and is light brown in colour. It becomes sticky at room temperature and attracts dust.

Paraloid – can be used to soak into the specimens and hold them together. (Although, this was not recommended at the workshop).

Adrian then showed us a rather large metallic rectangular machine, with probes and sensors on little 'arms' coming out of it. It was used to measure the strain on a deteriorating sub-fossil bone. Unfortunately the machine wasn't working! It was supposed to demonstrate that strain on the sub-fossil material is happening all the time.

The workshop was interesting, and I was very excited about the sub-fossil 'identification' and 'conservation'.

Unfortunately, there was not much hands on for those attending. The store tours were fantastic and Andys' handouts were great and useful. There were no handouts for the conservation of sub-fossil material. Indeed, there was no advice, or 'workshop activities' on how to conserve material. I would have liked to see how we can conserve a deteriorating sub-fossil specimen in front of me and maybe give it a go myself!

Feedback from the course was similar to above. The main thing the feedback brought up was the noise throughout the whole day! The huge fan whirring away in the conservation lab was loud, and made hearing the speakers difficult. Hopefully the next sub-fossil workshop will have more hands on activities for identifying and conserving material, so we really can get our teeth into and be in a room with no large fan on the roof!

Sub-fossil material is held in many museums, and these are rarely looked at by curators, and probably even less likely to be conserved. They are fragile, but important specimens. They are a window into a past we are slowly leaving behind, of turbulent climates and exotic strange animals. To help understand the future as we are slowly coming to the end of this ice age (an ice age is defined by the Earth having ice at both Poles), we need to preserve the clues hidden in the sub-fossil material.
Jan Freedman, Plymouth City Museum

GCG seminar and 34th AGM: Local Heroes
National Museum of Ireland, Collins Barracks, Dublin
3-4 December 2007

To commemorate the 200th anniversary of the Geological Society, the 150th anniversary of the Natural History Museum in Dublin and as a frontrunner event for the International Year of Planet Earth on 2008, this seminar adopted the theme of Local Heroes, which the Geological Society has promoted throughout 2007. Speakers selected their own heroes, some Irish and others from across Britain - all having made a significant impact on our science. If you came expecting grand tales of 19th and 20th Century men and women of science (the former sporting the compulsory beard, manicured moustache and mutton chop sideboards), then you were not to be disappointed!

Recent events of an architectural nature meant a change of venue to the Collins Barracks site situated on the north bank of the River Liffey opposite the Guinness brewery, where delegates were welcomed by Matthew Parkes, the organiser of the seminar.

Clara Cullen of University College Dublin first took Sir Robert John Kane (1809-1890) as her subject and talked about his scientific career and his contribution to the wider scientific and educational endeavour in Victorian Ireland. The young Kane studied chemistry (his father owned a factory that produced sulphuric acid), he went on to study medicine at Trinity College and pharmacy in Paris. He published many important chemical papers and on the strength of his book *Elements of Practical Pharmacy* he was elected to the Royal Irish Academy in 1832, becoming president in 1877. He was also appointed director of the Museum of Irish Industry in Dublin in 1845 and was first president of Queen's College, Cork (1845-1873). He was committed to non-denominational education and endeavoured to put this into practice in his institutions despite the condemnation of the catholic hierarchy. Under his directorship, the Museum of Irish Industry flourished and developed into one of the leading institutions of its type. His best remembered work today is *The industrial resources of Ireland,* but otherwise he and his museum have been all but forgotten.

Christine Thomson and Louise Neep of the BGS presented an entertaining double act (and fashion show!) as they spoke about Dr Robert Kidston, who published more than 180 papers in over 40 years, and was honorary Palaeozoic Plant consultant to the Geological Survey of Ireland. At the time of his death in 1924, he was the leading authority on fossil plants and his collection of 7,500 fossils was bequeathed to the Survey. He was also asked by the British Museum if he would catalogue their entire Palaeozoic plant collection which he duly finished in 1886. What is not so well known is that he was also awarded two medals for his photography, and his superb collection of 4,000-glass plate negatives were also bequeathed to the Survey. Dr Kidston was also a very artistic man as his Registers show; his beautiful illustrations demonstrate strict attention to detail, and show how wonderfully meticulous he was.

The final speaker before coffee was Michael Taylor (NMS) who gave a very interesting talk on Hugh Miller's collections. Miller, born in Cromarty, Ross-shire in 1802, was a self-educated stonemason turned journalist and geologist. He brought many qualities to science, helping to convince worried Victorians that geology was not un-Christian. In Miller's last years the collection was housed in a purpose-built personal museum in the garden. When he died, the collection was saved for the nation as a memorial to him, and placed in the Natural History Museum, Edinburgh, now National Museums Scotland. However the family retained part of the collection to be kept in Miller's home town of Cromarty, and this became the nucleus of a small museum

founded in Miller's birthplace cottage in the 1880s by his son, also called Hugh Miller; this is now the Hugh Miller Museum of the National Trust for Scotland. Finally, the fate of Miller's personal papers was outlined, because of their importance as exhibits and evidence in their own right, as well as giving potential information about the fossils. Mike also traced the varying documentation, displays and uses of the collections over the years, and explored issues such as: what was understood by a 'museum'; the interplay of national and local museums; and the curatorial problems posed by the collection.

Mike Howe from the British Geological Survey, spoke about Darwin as the bicentenary of his birth (in Shrewsbury) will be upon us in 2009. Darwin, who was educated in Edinburgh, accompanied Adam Sedgwick on his annual trip to Wales in August of 1831, returning home to find an invitation to join the HMS Beagle expedition. It was the observations made on this trip which led to his famous publication 'On the Origin of Species by means of Natural Selection'. Although most of his specimens are held in the Sedgwick Museum, the Geological Survey has a collection of 136 rocks from Ascension Island and the Galapagos Islands. These appear to have been presented to the Survey at about the time of the opening of their Museum of Practical Geology in Jermyn Street, London. Mike also showed images of the early displays in the Jermyn Street building which was finally abandoned in 1928 due to structural damage, perhaps caused by nearby bombing during the First World War.

Lyall Anderson of the Sedgwick Museum spoke about Charles W Peach, the coastguard and natural historian. Peach lived and collected throughout much of the UK and became very interested in marine zoology during his time as a coastguard. In 1849 he moved to Peterhead in Aberdeenshire, then to Wick in 1853. Between moving and collecting Peach found the time to father 9 children. Much of what Peach collected was sold, whether this was through necessity in having 9 children is not known! After his retirement, in 1865, he moved from Wick to Edinburgh where he maintained his interest in natural history and made significant palaeobotanical collections from the Carboniferous of the Midland Valley of Scotland. His collection is distinguished by some interesting characteristics of its documentation which following generations of fossil collectors and researchers would do well to emulate. The majority of his fossil plant specimens have not only the locality detail, but the date, month, and year of collection neatly handwritten on attached paper labels; as a result Peach's collecting activities can be followed over a period of some 18 years or so. Comments and even illustrative sketches on the labels of some specimens give an insight into Peach's observations. His collection also includes some unique glass plates with mounted *Sphenopteris* cuticles, removed intact from Mississippian shales and limestones from West Lothian. Peach's collection raises questions about the evolution of accepted standards of documentation in private collections, in parallel with the evolution of collecting practices by the new professionals such as the workers of the Geological Survey.

Nigel Monaghan of the National Museum of Ireland adopted Leopold McClintock as his hero and went on to tell us how the 'Arctic Fox' should have been as famous as Scott or Shackleton. He joined the Royal Navy at the age of 12, only being allowed to stay because he weighed more than the ship's dog. He gained fame and rank through his exploits in the Navy during expeditions inside the Arctic Circle in Northern Canada in search of the missing expedition of Sir John Franklin. During voyages in the 1840s and 1850s McClintock perfected sledging techniques that allowed for long trips far from the safety of the ship, using polar bear blubber to prime the expedition stoves. He collected geological 'waistcoat pocket' sized specimens and produced one of the first geological maps of the area around the Northwest Passage. McClintock's fossils were described by Samuel Haughton and Oswald Heer. They included Tertiary plants that show a warm polar region before the ice cap developed and Jurassic ammonites that caused a stir in the 1860s with the suggestion of warmer waters at the poles. McClintock brought his collections back to the Royal Dublin Society museum where they form part of the National Museum of Ireland collections. In addition to geological specimens, he brought a polar bear and two musk ox that have been on exhibition longer that the current museum building has been in existence. For over 150 years McClintock has been famous as the man who put the bullet hole in the polar bear seen by generations of Irish visitors to the 'dead zoo'.

Jean Archer next gave a very informative talk, full of amusing anecdotes, revealing the truth about the compilation of Sir Richard Griffith's geological map of Ireland. By careful detective work drawing clues from annotated notes on original field slips, she showed how the real work behind the mapping was done by the unheralded surveyors, John Kelly and Patrick Ganly. Griffith was always content to bask in the glory of 'his map', while Kelly and Ganly were largely ignored.

Lunch was laid on in the excellent Brambles café within the museum, and afterwards everyone gathered in the somewhat fresh air to be photographed beside the *Sea Stallion* - the reconstruction of a 900 year old Viking long ship originally built in Dublin in 1042. This, the world's longest reconstruction of such a ship,

sailed the 1000 miles from Roskilde in Denmark this summer in 7 weeks, with 65 crew members on board reliving the experiences and hardships typical to Viking warriors. It ended its journey in August and was craned into the courtyard where it will remain for a year before sailing back to Denmark.

The afternoon session began with Patrick Wyse Jackson and Matthew Parkes assessing the role of William Hellier Baily. Initially employed as a curatorial assistant to Samuel Stuchbury in Bristol, he then joined the Geological Survey of Ireland in 1844 as a draughtsman and was responsible for the illustration of official publications and research papers. The following year he was appointed as Assistant Geologist and in 1857 his palaeontological expertise was officially recognized when he was appointed 'Geologist (Acting Palaeontologist)' the Irish branch of the Geological Survey. Baily was unhappy with his job title, causing him much resentment, and probably thought that his 'superiors' regarded him as a lesser employee. Undoubtedly this led to various clashes with successive Directors of the Survey. It may also have led to some personal difficulties resulting in him and his family following a peripatetic existence in Dublin. Nevertheless Baily produced a large volume of work, possibly with his tour de force of *Figures of Characteristic British Fossils* published in London in 1875.

This was followed by a second talk by Patrick who spoke about one of Ireland's greatest polymaths, John Joly, former Professor of Geology at Trinity College Dublin. Joly is remembered for pioneering work in a variety of disciplines, including the invention of the 'Dublin Method' of colour photography, radioactivity and early work on radium therapy and the ascent of sap in tall trees, but is perhaps best known for his work on the age of the Earth, which he worked out from the sodium content of the oceans. He was also a competent sailor, and Patrick described Joly's sailing exploits, including the well-known story of his daring expedition to the Foze Rocks off Kerry's southwest shore, the most westerly point of Europe, in a currach.

The final speaker was David Gelsthorpe of Manchester Museum who related the tale of Marie Stopes who was best known as a social reformer, but before this was a pioneering palaeobotanist. She was the first woman to be appointed to the scientific staff at Manchester University where she undertook research into coal fossils and the Jurassic flora of Scotland. She often insisted on going down coal mines to collect specimens herself, which was unheard of for a woman in 1904. Whilst at Manchester she met Robert Falcon Scott and showed him examples of *Glossopteris* fossils. Scott went on to collect fossils of this type on his fateful polar expedition of 1913 and his specimens later became a key piece of evidence for reconstructing Gondwanaland.

Afternoon tea break was followed by the awarding of the 7th Brighton Medal to Geoffrey Tresise in recognition for his long years of service to the Group and the profession as a whole. Members were then welcomed to the 34th Annual General Meeting of the group, the proceedings of which will be published in the *Geological Curator* in due course.

Following the AGM Professor Gordon Herries Davies, Ireland's Doyen of the History of Science and author of numerous books on the subject, gave a wonderfully colourful lecture to the group on the men of science in Ireland during the 18th century, who laid the foundation work for all that followed in the 19th and 20th centuries. Speaking from his chair, leaning on his stick, and without a single note, he entertained us for 45 minutes (and could have gone on) with fascinating detail about how these men interacted with each other and with the social and political atmosphere of their day. Gordon later joined us for the Annual Dinner at the nearby Nancy Hands Restaurant.

Tuesday morning (a bitterly cold day) saw an enthusiastic and well wrapped up group of members gather at Mount Jerome Cemetery. This was established in 1835 to replace the large number of small overfilled burial grounds around the city churches. Much research has been done by Patrick, and others, in order to find the final resting places of the many scientists buried here. A handout describes over 30 notable memorials, and we were given the opportunity to pay our respects to many of those we have heard so much about the day before, such as John Joly, Sir Richard Griffith and William Hellier Baily. It was also an invaluable chance to view many of the Irish rocks used for memorials, although some of the party seemed to be more interested in looking inside the gratings. One memorial still had a chain hanging down inside and attached to a bell on top - placed there by a lady who was afraid of being buried whilst still alive.

A very welcome lunch was provided, courtesy of Patrick Wyse Jackson and his wife, Vanessa, at their home in Rathmines, which gave everyone a chance to warm up and also to view a Griffith map. Later a slightly depleted group set off for the coast to visit Howth and Portrane with Matthew Parkes. The first stop was Howth Head, a prominent headland of Cambrian quartzite to the north of Dublin Bay. A viewpoint on the top of the hill offered excellent views south across the mouth of the Bay towards Dublin and the Wicklow Mountains with the Great Sugarloaf mountain visible in the distance. Back in the minibus we drove down

through the village of Howth, from the north of which we saw offshore the uninhabited island 'Ireland's Eye'. With only a couple of hours of daylight left, and wishing to avoid the start of Dublin's famous afternoon rush hour traffic, we battled north up the coast towards Portrane.

Matthew has produced several papers on the geology of this stretch of coastline. The area provides an excellent opportunity to view the remnants of an Ordovician volcanic island with younger slumped fossiliferous limestones and black slates. A palaeokarstic feature in the Portrane Limestone Formation offers evidence for the Hirnantian glaciation. From the car park we descended to the beach past outcrops of black slates to view an outcrop of volcaniclastic rocks. These rocks were deposited in the sea around a volcanic island during violent eruptions. This island was part of an arc of volcanoes which formed during the closure of the Iapetus Ocean and was centred roughly in the same position as Lambay Island today (seen several miles off the coast to the east). Interbedded between the volcaniclastic rocks are pale grey limestones with quartz veins, these were deposited in shallow waters at the same time as the volcanic rocks. Both Lambay Island and the small headland to the east are composed of andesite. After leaving the beach we ascended back to the car park and followed the coastal path a short distance to the south to view outcrops of the Portrane Limestone Formation. Here we observed slump folding and the palaeokarstic surface, but unfortunately due to failing light and planes to catch, we soon had to leave for the airport. Matthew did very well to fit such a very interesting trip into the short afternoon that we had.

Overall, it was a packed, informative and very enjoyable meeting, very well organised by Matthew Parkes with help from his colleagues.

Cindy Howells & Andrew Haycock, National Museum of Wales

Forthcoming GCG seminars and workshops

Check our website www.geocurator.org for updates to our seminar programme

9 April 2008.The Manchester Museum, University of Manchester
GCG Workshop: Geological archives

Archives form an integral part of any museum collection and are often critical to the understanding of the history and importance of museum specimens. This session will provide an opportunity to learn about caring for geological archives in your museum collection, especially for non specialists. The session, led by David Gelsthorpe of Manchester Museum, will benefit from the specialist input of archivists from the University of Manchester and staff from the Archives Hub.

Provisional program

10.30: Arrive at Manchester Museum and short walk to the University library
10.45: How do you deal with archives? Cataloguing and conservation for non-archivists. Session delivered by University of Manchester archivists.
11.45: Coffee break
12.00: How to put archives on the web: the Archives Hub. Jane Stephenson of the Archives Hub.
13.00: Lunch at the Museum café and chance to look around the museum. Participants to pay for their own lunch.
14.00: How to deal with real archives: apply what you have learnt to a mystery archive at Manchester museum.
15.00: End

There is no charge for the session, but participants will be required to pay for lunch on the day. Spaces are limited to 15 so please book early to avoid disappointment.

For further details and to book a place contact David Gelsthorpe, Manchester Museum, University of Manchester, Oxford Road, Manchester, M13 9PL. email: David.Gelsthorpe@manchester.ac.uk

12-13 May 2008 Geological Society, Burlington House, Piccadilly, London
A joint meeting between the Geoscience Information Group and the Geological Curators' Group: Exploiting geoscience collections

Geoscience collections (records, samples and digital data) are a key resource for research of all types. The compilation, management and exploitation of these resources are fundamental to a wide range of work. The conference aims to bring together the users and custodians of geoscience collections of all types to explore in detail the nature of the material being collected, how it is selected for long-term preservation, how collections are documented using metadata (collection-level descriptions), the way in which potential users

can discover the information, and the ways in which this information is exploited and reused to advance science.

Check GCG's website for an updated programme and booking form.
Contact: Jeremy Giles, National Geoscience Data Centre, British Geological Survey, Keyworth, Nottingham NG12 5GG, tel +44 115 936 3220 email jrag@bgs.ac.uk

September 2008 Leeds City Museums Discovery Centre
GCG workshop: Microclimates for your collections
A practical guide to dealing with your sensitive pyrites, delicate bones and fragile fossils in an individual tailor-made way.
With help fromButtler, geological conservator from the National Museum of Wales and the in-house conservation staff at Leeds City Museums, you can learn how to create and maintain microclimates and there reasons why microclimates might be the best way to safeguard some of your geological specimens.
To express an interest, please contact Helen Fothergill at Plymouth City Museum & Art Gallery on 01752 304765 or by email: helen.fothergill@plymouth.gov.uk

October 2008 Portugal
We hope to participate in a collections conference being organised in Portugal and to combine this with our annual study visit. Watch out for further details.
Contact: Steve McLean, The Hancock Museum, Barras Bridge, Newcastle upon Tyne NE2 4PT tel 0191 222 6765 fax 0191 222 6753 email s.g.mclean@ncl.ac.uk

1-2 December 2008 University of Portsmouth
GCG Seminar and 35th AGM: A new look at old fossils
Contact: Steve McLean, The Hancock Museum, Barras Bridge, Newcastle upon Tyne NE2 4PT tel 0191 222 6765 fax 0191 222 6753 email s.g.mclean@ncl.ac.uk

Chairman: Helen Fothergill, Keeper of Natural History, Plymouth City Museum & Art Gallery, Drake Circus, Plymouth, Devon, PL4 8AJ tel 01752 304774 fax 01752 304775 email Helen.fothergill@plymouth.gov.uk

Secretary: Matthew A Parkes, Natural History Division, National Museum of Ireland, Merrion Street, Dublin 2, Ireland tel +353 87 122 1967 email mparkes@museum.ie

Treasurer: John Nudds, School of Earth, Atmospheric and Environmental Sciences, The University of Manchester, Oxford Road, Manchester, M13 9PL tel 0161 275 7861 email: john.nudds@manchester.ac.uk

GCG website: http://www.geocurator.org

	Workshop title	Y	Maybe	N	Done	Comments

1	Identification of FOSSIL CORALS	11	6	4		
2	Identification of TRILOBITES	6	9	6		
3	Identification of GRAPTOLITES	6	6	10		
4	Identification of AMMONITES	12	5	2	1	
5	Identification of FOSSIL BIVALVES (repeat)	7	4	7	3	
6	Identification of GEMSTONES (repeat)	4	3	14		"It is a good course"
7	Identification of BRACHIOPODS	11	4	6		
8	Identification of ECHINOIDS & CRINOIDS	13	4	4		
9	Identification of MICROFOSSILS	9	5	7		
10	Identification of TRACE FOSSILS	14	4	4		
11	Identification of IGNEOUS ROCKS	4	7	11		"would not be allowed to attend"
12	Identification of SEDIMENTARY ROCKS	9	5	7		
13	Identification of METAMORPHIC ROCKS	5	7	9		"would not be allowed to attend"
14	Identification of ROCK STRUCTURES	9	5	7		
15	Identification, care and conservation of SUB-FOSSIL BONES (repeat)	13	3	5	1	"going next week"
16	Understanding & identifying CARBONIFEROUS FOSSIL PLANTS (repeat)	9	4	7	1	
17	Identification of MINERALS in hand specimen	10	4	7		"possibly too big a group to handle in one day"
18	Care and conservation of MINERALS	13	4	6		
19	Managing HAZARDOUS MINERALS (repeat)	7	3	10	2	"important this one"
20	IMAGING & IMAGE USE for geological collections	16	4	3		
21	Understanding /managing HISTORIC MINERAL COLLECTIONS	11	3	9		
22	Recording geological SECTIONS	11	1	11		
23	Collecting and ON-SITE conservation	14	4	6		
24	STORAGE of geological materials	18	2	4		
25	DISASTER PLANS for geological collections	13	5	5		
26	SORTING, DOCUMENTING & DATABASES for geological collections	14	4	5		"perhaps with an emphasis on the quick and easy waystackledocumenting a collection within the standards and with users andin mind"
27	FUNDRAISING	10	3	10		