



DROPPINGS  
FROM THE  
GEOLOGICAL  
CURATORS  
GROUP

*Coprolite* is compiled and produced by Tom Sharpe, Department of Geology, National Museum of Wales, Cardiff CF10 3NP (tel 029 20 573265, fax 029 20 667332, e-mail Tom.Sharpe@nmgw.ac.uk). It is published three times a year in March, June and November. Any material for inclusion should be sent to Tom Sharpe by the first of the previous month, i.e. by 1 February, 1 May or 1 October.

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**GCG website:** [www.man.ac.uk/Geology/geocurgrp/gcghome.html](http://www.man.ac.uk/Geology/geocurgrp/gcghome.html)

## Notice of Annual General Meeting

Please note that the 28<sup>th</sup> AGM of the Geological Curators' Group will be held at 16.00 on Wednesday 5 December 2001 at Oxford University Museum of Natural History, Parks Road, Oxford. Nominations for the posts of Chairman, Officers, and 2 Committee Members must be made by two members of the Group and submitted in writing to Amanda Edwards, GCG Secretary, Department of Geology, University of Manchester M13 9PL by 14 November 2001.

## Subscriptions 2002

Subscriptions are due on 1 January 2002. Rates remain the same as last year, i.e. £10.00 for UK Personal Members and £12.00 for Overseas Personal Members. A subscription renewal form is included with this issue of *Coprolite*. Subscriptions unpaid by 30 April 2002 will be deemed to have lapsed. Please return the subscription form promptly, with your payment, to Mandy Edwards, GCG Secretary, Department of Geology, University of Manchester, Manchester M13 9PL.

## Musical curators

At the National Museum of Ireland, **Nigel Monaghan** has been appointed Keeper of the Natural History Division, responsible for staff and collections in zoology, entomology and geology; **Steve Donovan**, formerly Keeper of Palaeontology at

the Natural History Museum in London has moved to Naturalls Nationaal Natuurhistorisch Museum in Leiden in The Netherlands; Steve is succeeded at the Natural History Museum by **Norman MacLeod**, currently Acting Keeper of Palaeontology; **Sarah Tuft**, a graduate geologist from Plymouth University, was appointed Assistant Curator of Natural History at the Royal Cornwall Museum for 4 months from 30 July to work on reorganisation of the mineral collection; **Alistair Bowden**, formerly Project Officer at Yorkshire Dinosaur Coast Project, is now Durham Studies Manager for Durham County Council, a post he took up in September; **Jayne Dunn**, previously at the Palaeontology Department of the Natural History Museum, has been appointed Assistant Curator of the Geological Collections at University College London.

### **New members**

GCG is pleased to welcome the following new members: **Will Watts**, York; **Nerein Siddie**, Louth, Lincolnshire; **Stephen Dawson**, Ashton under Lyne, Lancashire; **Duncan McIlroy**, University of Liverpool; **David Roberts**, Liverpool; **Cathy Painter**, Norwich Castle Museum; **Lyall Anderson**, National Museum of Scotland; **Maxine Morgan**, Oxford Brookes University.

### **Exhibitions 2001**

*Walking with dinosaurs* Hancock Museum, Newcastle upon Tyne until 24 February 2002.

### **Mineral, fossil and gem shows**

- 3-4 November Kempton Park Racecourse, A308, Sunbury, Middlesex. Contact: The Exhibition Team tel 01628 621697, fax 01628 680702 email Rockngems@aol.com
- 17 November Sussex Mineral Show, Clair Hall, Perrymount Road, Haywards Heath, Sussex. 10.00-16.00 Contact: John Pearce tel 01444 233958.
- 8 December Amateur Geological Society Annual Bazaar, St Mary's Hall, Hendon Lane, Finchley 10.15-15.30. Contact: Jean Miller tel 0208 202 9616.
- 10-11 December Newmarket Racecourse, Newmarket, Suffolk. Contact: The Exhibition Team tel 01628 621697, fax 01628 680702 email Rockngems@aol.com

### **Newish publications**

- A future for fossils* edited by MG Bassett, AH King, JG Larwood, NA Parkinson and VK Deisler, 2001. National Museum of Wales Geological Series No19, 156pp. ISBN 0 7200 0479 9, £14.50.
- The map that changed the world. The tale of William Smith and the birth of a science* by Simon Winchester, 2001. London: Viking, xiv + 338pp. ISBN 0 670 88407 3, £12.99.
- Search for life* by Monica Grady, 2001. London: Natural History Museum, 96pp. ISBN 0 565 09157 3, £9.95.
- Designing exhibitions. Museums, heritage, trade and world fairs* by Giles Velarde, 2001. Aldershot: Ashgate, xxiv + 193pp, 2<sup>nd</sup> edition, ISBN 0 566 08317 5.

- Geology and landscape of Taunton Deane* by Hugh Prudden, 2001. Taunton: Taunton Deane Borough Council, 141pp. ISBN 0 954052 0 2, £8.50.
- The Dinosaur Coast – Yorkshire rocks, reptiles and landscape* by Roger Osborne and Alistair Bowden, 2001. North York Moors National Park, 60pp. ISBN 0 907 48088 8, £4.99.
- Dinosaurs of the Isle of Wight* by David Martill and Darren Naish, 2001. Palaeontological Association, 358pp. ISBN 0 901 70272 2, £16.00.
- The Geologist's Directory 2001*. London: Geological Society. ISBN 1 86239 088 6, £79.00 (Geological Society Member's rate £39.00)
- British Upper Jurassic stratigraphy* by JK Wright and BM Cox, 2001. Geological Conservation Review Series No 21. Peterborough: Joint Nature Conservation Committee, xiv + 266pp. ISBN 1 86107 482 4
- Mesozoic and Tertiary palaeobotany of Great Britain* by CJ Cleal, BA Thomas, DJ Batten and ME Collinson, 2001. Geological Conservation Review Series No 22. Peterborough: Joint Nature Conservation Committee, xviii + 335pp. ISBN 1 86107 489 1
- Mesozoic vertebrate life* edited by DH Tanke and K Carpenter, 2001. Bloomington: Indiana University Press, xvii + 577pp. ISBN 0 253 33907 3, £37.95.

### **Any old cabinets?**

Clinton Burhouse, sponsor of *Coprolite*, is looking for any display cabinets which museums may be disposing of. If you have any glass cabinets of any sort (table cases or uprights) going spare, Clinton would like to hear from you. Contact him at Burhouse Ltd, Quarmby Mills, Tanyard Road, Oakes, Huddersfield HD3 4YP, tel 01484 460036.

### **State and Status Survey 2001**

A brief word to say thank you to all those who have completed and returned the questionnaire to me. I am now beginning the laborious process of analysing the results. For those who have not yet returned the questionnaire- it is not too late!! I would like to be able to have as full a picture as possible and would appreciate it if 10 minutes could be found to complete these. I would like to get as good a response as the 1981 report. If you would like another copy please contact me! I hope to have all questionnaires in by December, so the report and findings can be published next year.

Glenys Wass, GCG Recorder

### **Baldwin and his books**

Fossil Hall Bookshop is closing down so the proprietor, Stuart Baldwin, can work from home on a smaller basis to give him time to concentrate on a PhD. In the meantime, he has several thousands of books to dispose of, many of which are reduced to £1 each. The book sale will last as long as stocks do. Stuart is still buying, however, and visitors will be able to see many shelves of stock just arrived. Topics cover the whole of geology, palaeontology, earth sciences and the sciences from astronomy to zoology, plus natural history, biography and numerous other subjects. Visitors will also be able to see prints, minerals and other items for sale at

reduced prices.

Contact: Stuart Baldwin, Baldwin's Scientific Books, Fossil Hall, Boars Tye Road, Silver End, Witham, Essex CM8 3QA tel 01376 583502, fax 01376 585960, email sbaldwin@fossilbooks.co.uk

### **Psst...got any photos...?**

Susan Cooke is looking for photographs of GCG in action (yes, there should be a space between 'in' and 'action') for the new edition of our membership leaflet. She wants colour photographs of GCG members doing GCG-type things and enjoying themselves. It is proving surprisingly difficult to get pictures of GCG members looking happy, at least while they're sober. Can you help? If you have any photos that you think might fit the bill and make us look like a friendly and welcoming bunch who organise an enjoyable programme, please contact Susan at scooke@leics.gov.uk or telephone 0116 265 6783.

### **Environmental Refurbishment Project at the NHM**

The Department of Palaeontology at The Natural History Museum, London is preparing for a phased, temporary closure of the NHM Palaeontology Building from 2002 to 2004 while the a major refurbishment project is carried out. This refurbishment is essential for the preservation of the collections. Though no timetable has been formally approved yet, it is expected that from 1 January 2002 substantial parts of the collection and other facilities will become unavailable for periods of approximately 6 months at a time.

This rolling programme is expected to have the following effects:

- No guaranteed access to all parts of the collections for the duration of the project.
- No guaranteed access to the Earth Sciences serials, rare books, geological maps, Anthropology Library, and the specialist libraries located within the Department of Palaeontology.
- Specimen loans from parts of the collections will be suspended for periods of time (please enquire as to specimen availability before you plan your visit).
- Enquiry services will be disrupted/limited.
- Department staff will be temporarily relocated during this interval and communication will likely be impaired.

Under these difficult circumstances every effort will be made to accommodate requests for loans of material and access to the collection prior to the closure. As an increase in the use of the collections is expected in the run-up to the project, it would be appreciated if you would contact an appropriate staff member to discuss your requirements as soon as possible.

No firm timetable has yet been drawn up for the refurbishment work pending selection of a contractor. However, the work is scheduled and will take place. Announcements about the refurbishment project will appear shortly on the Palaeontology Department's website (<http://www.nhm.ac.uk/palaeontology>) to

provide you with up-to-date project news.

The Museum apologises for the disruption that this will inevitably cause, but must emphasise that this essential work will provide a greatly improved environment for the collections.

General enquiries regarding the project should be addressed to: Mrs Kim Gale, Departmental Administrator, Department of Palaeontology, The Natural History Museum, Cromwell Road, London, SW7 5BD tel 020 7942 5549, fax 020 7942 5546, email K.Gale@nhm.ac.uk

### **Canterbury Roadshow**

Canterbury's Royal Museum will be holding its Fossil Roadshow on Saturday 12 January 2002. This popular annual event will feature Moon-rock - the real thing - brought back to Earth by the Apollo astronauts between 1969 and 1973 and now on loan from NASA through the Particle Physics and Astronomy Research Council. The loan also includes meteorites from the Natural History Museum.

Local fossil and mineral groups, who have lent their support to the Roadshow over the past three years, will be exhibiting their latest fossil finds. As usual, a team of experts will be on hand to identify mystifying items brought in by the public, which don't always turn out to be fossils, rocks or minerals! There will also be several fun-events and activities, suitable for both children and adults, such as creating your own moon craters or finding real fossil sharks teeth. Free samples of Britain's oldest rock, the Lewisian gneiss, will be on offer to the first 100 children attending the Roadshow.

The Roadshow takes place at the Museum in High Street, Canterbury, Kent from 10am to 4pm, and admission is free. For further details contact Ralph Anderson or Martin Crowther on 01227 452747.

### **Science Week 2002**

The 8<sup>th</sup> BA National Science Week, which took place in March this year, was the most successful yet. Thanks to the huge efforts of over 1,475 organisers, there were over 2,500 events related to science, engineering and technology organised around the UK, and 1.4 million people participating in the events. Organisers in the countryside resourcefully worked around restrictions of Foot and Mouth Disease outbreaks to hold their events. There were talks, exhibitions, science drama, trails and competitions. The events during the week generated so much media coverage (nine bound volumes) that the BA has applied for a PR Week Award for best regional press coverage.

The 9<sup>th</sup> BA National Science Week will take place from Friday 8 to Sunday 17 March 2002. An added bonus this year is that Science Year was launched in September 2001. Science Year aims to engage as many young people as possible in science-related projects. The target audience for Science Year is 10-19 year olds, their parents, siblings, grandparents and teachers. To find out more, visit the Science

Year website [www.scienceyear.com](http://www.scienceyear.com)

We anticipate that the 2002 BA National Science Week will be the most publicised and most exciting yet as it will see a culmination of long-term projects initiated during Science Year and a whole host of new events and organisers. The BA hopes to see a record number of organisers, events and audiences participating and engaging in science-related activities.

If you have plans for Science Week 2002 events, the BA would welcome details as soon as possible. This year, the BA is encouraging organisers to email their event information to speed up data entry. If you have email access, please contact Lisa Jones, National Science Week Officer, at [nationalscienceweek@the-ba.net](mailto:nationalscienceweek@the-ba.net).

### **Do your collections include specimens from the Forest of Dean?**

As part of my research for a Leicester University MSc. in Museum Studies, I am trying to locate geological collections incorporating material from the Forest of Dean, Gloucestershire.

The Forest of Dean is defined differently for different purposes. Geologists have tended to limit their definition to the syndinal basin of Upper Palaeozoic rocks, which is roughly similar in extent to the modern silvicultural Forest of Dean. My interest encompasses the whole area presently administered by the Forest of Dean District Council and the former Royal Forest at its greatest extent. South of a line from Ross on Wye to Gloucester this is bounded by the lower courses of the Severn and Wye. North of this, the border generally follows the Gloucestershire county boundaries, except in the east, where it follows the boundary between the Forest of Dean District and Tewkesbury Borough Councils.

This area has a diverse geology. Precambrian rocks of the Malvernian complex, and the Bronsil Shale (Cambrian/Ordovician), outcrop in the north; Silurian rocks are exposed, around Dymock, May Hill and Huntley. In the central basin Devonian Sandstones are overlain by Carboniferous limestones and coal measures. North of Newent the Haffield Breccia and Bridgnorth Sandstone (Permian) are overlain by the Bromsgrove Sandstone (Triassic), which in turn largely conceals a small Upper Carboniferous coalfield. Along the Severn vale, rocks of the Mercian Mudstone Group are succeeded by the Lower Lias (Jurassic). Many of the marine and fresh water sediments incorporate a fossil fauna and/or flora. Historically, iron ore and coal have been the chief economic minerals. Many other geological resources have been exploited on a smaller scale.

Fieldwork, by professional and amateur geologists, has given rise to an extensive literature on the district. Over the next couple of months, I will be using it to identify collectors and correlating this information with museum geological literature, to identify likely repositories for their collections. This is both laborious and unlikely to pick up all museums with relevant holdings. I would, therefore, be most grateful if geological curators with material from the Forest of Dean in their collections would short-circuit the process and contact me.

David Mullin, The White House, Lea, Herefordshire, HR9 7LQ tel 01989 750593  
email g.andd.mullin@care4free.net

### **Jurassic crocodile is a spineless monster**

Staff at the Sedgwick Museum have excavated a Jurassic crocodile found by amateur fossil hunters in Cambridgeshire. The specimen was discovered by Serena Queeney and Ed Mullett on an old airfield site in Mepal, near Ely, which is currently being cleared to make way for a fish farm. Leslie Noè from the museum identified the fossil as *Stenosaurus*. Over a two-week dig, a team from the museum uncovered a large part of the animal's skeleton, but curiously, they found its backbone had completely disappeared.

Leslie said, "This is a really exciting find. We have excavated a large number of *Stenosaurus* bones and have already identified teeth, ribs, a number of knuckle bones and quite a large part of its jaw. One obvious omission is the animal's backbone, which we could find no trace of in the clay and at the moment there is no apparent reason for its disappearance. We are particularly pleased that Ed and Serena contacted the museum when they realised what they had found, as we will be able to conserve the remains and hopefully learn more about *Stenosaurus*".

Nigel Viney, Managing Director of OceanFresh (UK) Ltd, the company developing the farm, said, "We were very pleased to be able to allow the Sedgwick Museum to excavate the site. Our fish farm has been designed to principles of sustainable development. We want to protect the environment and it is very important that we also do our best to preserve what treasures are found on the site for the benefit of future generations".

### **RNLI round Britain walk**

GCG Member Martyn King and his fiancée Alison Shaw have been walking the British coastline since 1 January 2000 to raise money for the Royal National Lifeboat Institution. In July he sent this latest report on their progress:

We have reached Weymouth, but have had to stop for a couple of reasons. The first is because of the epidemic which decimated much of this year's tourism industry, yes, Foot and Mouth Disease. News of the outbreak reached us just before we left to visit the Channel Islands. Our first experience of path closures was as we approached the firing ranges at West Lulworth where the Army had closed the range walks long before the whole country was closed! This we think was done to show they were protecting the farmers on their land. All well and good, but we reached that part of the coast perfectly for a weekend when we knew the paths through the ranges should be open!

Our trip to the Channel Islands was amazing, with so much help from a holiday company and the ferry services. With half-board or B&B accommodation throughout, we were able to walk Jersey, Guernsey and Alderney pack free. Radio,

TV and press interviews plus lots of good people made our trip there so special. We couldn't have hoped for a better visit. On our return, the footpaths across the country were closed and we were stuck! So a quick return to London to plan our next step was the only thing to do and we planned to return to Weymouth to work and sit out the crisis. It was here that the second reason for stopping became apparent.

Allison started having severe and continuous headaches. Further investigation when we returned to Weymouth revealed she has a brain tumour. After undergoing brain surgery at Southampton, she has just completed a course of radiotherapy treatment in Manchester. She has approached this with a very determined and positive attitude and aims to return to Weymouth to finish what we started. For my part, I have promised her and the RNLI that I will complete the walk, but clearly intend to wait and see how well she responds to treatment in the hope that she will be by my side.

Throughout this ordeal, Alison received a number of supportive messages from the personnel and crews of lifeboat stations we have visited, which has fired our determination to meet our £5,000 target even more.

Now the South West Coastal Path is opening up we are planning to get up and go again. We are returning to Weymouth in a couple of weeks' time to begin walking the 1200-1500 miles still remaining, then we are getting married. We expect to finish our walk at the beginning of December, but first we'll have our honeymoon!

### **Ghar Dalam Museum, Malta – the new exhibition**

Ghar Dalam is a 48 metre karstic cave on the southeastern side of Malta containing water-borne Pleistocene deposits with remains of hippopotami, elephants and deer capped by Cultural Layers dating back to the earliest Neolithic, about 5200 BC. Numerous remains of this rich fauna are exhibited in a 1929 Victorian-type museum above the cave. In 1999, a new wing with a floor area of about 900 square metres was added to the small museum building to house a didactic permanent display of the Maltese Quaternary. The modern exhibition contrasts beautifully with the old museum holding hundreds of identical bones wired to wooden boards. Except for some added labels to guide the visitor, it has been preserved in its original state.

In spite of a series of administrative problems and obstructions, the new exhibition has now reached the final stages. It consists of a number of wall panels introducing the visitor to *Earth, time and life*, and then to an integrated account of the sedimentary *origin of the Maltese Islands* during the Tertiary and of the karstic *origin of Ghar Dalam* during the Pleistocene.

A key display case on the *effects of the European Ice Age on Malta* introduces the visitor to the origin of the local Pleistocene fauna, whilst a large coloured map of the Middle Sea, lists and compares the *endemic Pleistocene Fauna of the various Mediterranean Islands*. This is followed by another showcase containing large models, diagrams and pictures illustrating the various stages of the karstic

*formation of Ghar Dalam cave.* The difference in *local Pleistocene stratigraphy* between the 'covered cave' and 'open sites' is explained in the next display case. Pictures of both sequences, as well as a sample of the 45cm-thick volcanic ash layer discovered by the present author capping the Pleistocene deer layer in an open site in central Malta, are also displayed. Osteological and odontological exhibits, along with coloured illustrations demonstrate various *evolutionary adaptations* to running, island conditions, weight and size noted in the Maltese Pleistocene fauna. Here, the visitor gets visual evidence of the dwarf endemic forms of hippopotamus, elephant, and deer, and of the giant dormouse and turtle inhabiting the island during the Ice Age.

The next display, *Teeth - Food Relationship*, stresses the importance of teeth to the palaeontologist and illustrates structure and sequence of molar wear in the elephant. The *large pelvic bone and jaw of a large hippopotamus* with canines, incisors and three molars still *in situ* (recovered by the present writer in December 1995 from a flooded branch of the cave) receive pride of place in a display case of their own. Then follow two large *bone breccia* blocks: one incorporating pebbles, deer bone and hippo molars, and the other (perhaps a deeper horizon) with the same ingredients but lacking remains of deer.

The next four display cases deal respectively with each of the main large Pleistocene animals recovered from the water-borne layers of the cave sequence. Pictures, maps, large clear texts and original remains illustrate the Maltese fossil record of *Hippopotamus*, *Elephant*, *Deer* and *Carnivores* (wolf, fox, bear, otter). The last upright display case in the series, entitled *Ghar Dalam: The Cultural Layers*, displays artifacts (tools, amulets, weapons and pottery dating back to c. 5,200 BC) as well as domestic animal remains of goat/sheep, horse, cow, pig and marine shells which early people had gathered for food or amusement and now located in the uppermost cave deposits. A large *Plan of the Cave* with various cross sections follows and the exhibition ends with an historical display (in four low cases) titled: *Ghar Dalam and Maltese Pleistocene Research - Historical Highlights*.

On his way out, the visitor can handle a humerus of *Hippopotamus pentlandi* and a tibia of a still smaller dwarf *Hippopotamus melitensis* (the bones rubber-cushioned and securely chained to the wall!) before proceeding down the back garden to visit the Cave. On his way there he will come across a set of Cart Tracks (probably Bronze Age) and specimens of the endemic National Plant (*Palaeocyanus crassifolius* Dostal) and of the locally rare endemic National Tree (*Tetraclinis articulata* Mast.). Other trees encountered on the way down are Carob, Aleppo Pine, Agave, Laurel, Pomgranates, *Acacia longifolia*, Prickly pear, *Caesalpinia*, Myrtle, Oleander and *Hibiscus*; whilst *Eucalyptus*, *Melia* (Rosary tree), *Jacaranda*, and *Acacia cyclops* can be seen in the front garden on the way out.

George Zammit Maempel

## **Dinosaur Isle opens**

The first purpose-built dinosaur museum in the UK opened to the public on 10

August and has attracted over 45,000 visitors in the first six weeks. Costing £2.7 million, and supported by a lottery grant from the Millennium Commission, Dinosaur Isle is intended to be an imaginative window on the growing number of exciting dinosaur and other finds made on the Isle of Wight. Museums Officer, Mike Bishop, said, "After so many years of waiting, we are finally achieving something that will enable so much of our collection to be properly displayed in a dramatic way instead of languishing in cupboards. There will be something of interest to everybody here, from rocks, to fossil shells and dinosaur bones to a giant robotic dinosaur. As well as being a fascinating place for dinosaur finds, the island is an internationally recognised classic area of British geology."

Dinosaur Isle, which is both a leisure and education attraction, uses around 1,000 of the best specimens from the present collection at Sandown's geological museum, plus life-size reconstructions and full-scale models. As well as the Millennium Commission, the project has also been helped by cross-Solent ferry operators, Wightlink.

The project involved creating a concept to tell the story of the island's development from evidence revealed in the geology and fossil remains discovered on the island. This was achieved through evolving progressive thematic displays in two major galleries. The first gallery invites visitors to step back in time to explore *Ice Age Wight* (Pleistocene), *The Last Paradise* (Palaeogene) and finally the *Ammonite Sea* (Cretaceous) before emerging in the multi-sensory *Dinosaur Gallery* where they can discover and explore dinosaur life in the Wealden landscape. This unique immersive experience was designed and created through the articulation and reconstruction of dinosaur specimens, integrated with interactives, animatronics, models, audio-visual presentations, dynamic graphics and the opportunity to witness the conservation laboratory in operation. The exhibition designers were Haley Sharpe of Leicester and the displays follow a storyline created by the Curator, Martin Munt.

Dinosaur Isle is housed in a dramatic and modern building designed by Isle of Wight architects Rainey Petrie Johns. The site on Sandown seafront is fairly bare and open, so a strong outline for the building was required to give it presence. It is sited to accommodate future development on adjacent sites. It was never the intention that the building should actually resemble a dinosaur, but rather its scale, form and construction detail would give a hint of a dinosaur. The building is of a typical steel framed construction, with ribbed silver cladding and a single membrane roof, and cost about £1.5 million.

### **Jurassic coast makes a splash on the World Wide Web**

A new and exciting website about the internationally important geology and fossils of the Dorset and East Devon coast is now accessible on the World Wide Web. The website aims to promote new forms of special interest and out of season tourism through sections exploring interests such as fossil collecting, Portland Stone, dinosaur footprints, geology in the landscape and how the use of local stone has created the different character of the coastal towns and villages. Much of the

content is based on the current nomination of this coastline for World Heritage Site status centred on the case that has been made to UNESCO by Dorset and Devon County Councils and the Dorset Coast Forum. A further section provides educational resources for schools and colleges, based on the difficult issues of coast protection. It is hoped that the site will help people who already come to the coast to enjoy it further. However, many of these interests, by their very nature, are best explored outside of the main season and therefore we hope to promote visits in the spring, autumn and even winter.

Dorset and Devon County Councils and the Dorset Coast Forum have developed the web site. The funding partners reflect the multiple aims of the site: the Countryside Agency wish to promote awareness of the coast, the South West Grid for Learning are developing local educational resources and SCOPAC, (the Standing Conference On Problems Associated with the Coast) wish to explain the difficult issues that coastal engineers face when seeking to manage the coast. The Okehampton-based company, Image Makers, has provided the technical expertise.

Richard Edmonds said: 'In order to appreciate the problems facing the coastal engineers it is important to understand the geology and coastal processes acting along this coast. That is why we are developing a series of animations to illustrate the last 125 thousand years of history along this coast, including the latest theories on the formation of Chesil Beach. And this is just the start as the site offers the potential to link with other internationally important fossil and geology sites around the world in order to promote a network of the top geological sites, again promoting special interest tourism.'

The web site can be accessed at: [www.jurassiccoast.com](http://www.jurassiccoast.com)

For further information, contact: Richard Edmonds, Geological Co-ordinator, Environmental Services Directorate, Dorset County Council, County Hall, Dorchester DT1 1XJ Tel 01305 224477 or Sally King, Visitor Management Officer, at the same address, tel 01305 225091

### **The West Dorset Fossil Code and Key Scientifically Important Fossil Recording scheme**

The West Dorset coast contains one of the finest exposures of rocks from the Lower and Middle Jurassic Period to be found anywhere in the world. High erosion rates, particularly in the winter, ensure a plentiful supply of fossils onto the beaches. This coast is one of the best sources of marine Jurassic fossils in the world and numerous important finds have been and continue to be made here. Not surprisingly, it has been designated by English Nature as a Site of Special Scientific Interest (SSSI) for its geology, fossils, landslides and associated wildlife habitats. It also forms part of a proposed World Heritage Site based on the wealth of Earth science interest exhibited along virtually the entire Dorset and East Devon coast and the role that this coast has played in the historical development of geological and geomorphological science.

The West Dorset fossil collecting code of conduct has been running since 1998 and was formally adopted in the summer of 2000. It applies to the coastal cliffs and foreshore in the ownership of the National Trust and Charmouth Parish Council between Lyme Regis and Burton Bradstock. The code was developed by Dorset County Council's Jurassic Coast Project, English Nature, the National Trust, Dorset Heritage Coast Project, Charmouth Parish Council, Charmouth Heritage Coast Centre, Dorset and Somerset County Museum Services and local collectors.

The code promotes best practice amongst all collectors and seeks to ensure that all scientifically important fossils are recorded. The Key Scientifically Important Fossils Recording Scheme (KSIRS) is managed by the Charmouth Heritage Coast Centre and is accessible on their web site at [www.charmouth.org](http://www.charmouth.org) off the 'Fossils' page. The site is also available for researchers and museums to register their particular interests that can then be communicated to the collectors, thus hopefully encouraging dialogue and co-operation. To further assist in this aim, the web site now has the provision for interested parties to 'sign on' to an email group in order to receive updates each time a Category I specimen (those that represent new species, are extremely rare or exhibit exceptional preservation) is registered.

Fossils that are found *in situ* clearly belong to the landowner and permission is required for their extraction. For those collectors who follow the scheme, ownership of the specimens they have recovered will automatically be transferred to them. The scheme does not attempt to determine the value of fossils but collectors intending to sell their finds are obliged to offer Category I specimens firstly to registered museums for a six month period. The acquisition of these fossils by UK museums is an area that the parties who developed and manage the code intend to explore further in the near future. Greater communication and involvement by the museum and academic community is another area of concern and therefore the web site now has the provision for individuals to 'sign up' to an e-mailing list. Each time a record is made an electronic update of the find will be mailed out. Full details about the code are available on the Charmouth Heritage Coast Centre web site or by contacting Richard Edmonds, Geological Co-ordinator, Dorset County Council, County Hall, Dorchester DT1 1XJ tel 01305 224477 e-mail [r.edmonds@dorset-cc.gov.uk](mailto:r.edmonds@dorset-cc.gov.uk)

**GCG seminar: The commercial trade: ethics versus science.  
University of Manchester, 23 May 2001**

Seminar convenor, John Nudds, Keeper of Geology at the Manchester Museum welcomed everyone to the day's conference. The audience included a wide range of delegates from UK museums, universities, the trade, local government and national conservation bodies.

John then outlined the idea behind the day's conference. The impetus came from work carried out during the Dinosaur Egg and Embryo Project. Currently few museums in the UK are willing to get involved in the trade in Chinese dinosaur eggs, although enquiries show that at the moment such purchases are legal. What is

likely to be the fate of these specimens? Will they get into the hands of private collectors and never be studied? What is the correct thing to do for our science? Is it time to stop sitting on the fence and make a decision for or against such trade?

This led into John's presentation, *Ethics, science and the trade: lets get together!* John stated that he was originally apprehensive about the trade in geological specimens until he visited Tucson Show, Arizona in 1999. At Tucson top quality specimens go for top prices, often to private collectors. Material for sale during John's visit included many Chinese specimens including some from the Lower Cambrian Chengjiang fauna of China, equivalent to the Burgess Shale, and early Cretaceous birds which were discovered as recently as 1996. With this type of material going to private buyers there is the danger that museum collections will no longer be representative of the fossil and mineral world as a whole. It is possible, with recent changes in provincial laws in China, that little of this material will be available in the future. So, should museums be allowed to acquire this type of material while it is available? Ethical objections can be raised against such trade. All Registered museums have signed up to the Museums Association (MA) Codes of Ethics, as do all holders of the AMA. The MA also endorses the Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (UNESCO 1970), even though the United Kingdom Government has not yet signed up to this Convention. Material can still leave countries illegally even after export bans and the laws in some countries can change frequently.

John believes that the Codes of Ethics as they stand are fine for antiquities, being written by antiquarians, but are not valid for natural science material. What happens to specimens that are not collected? John cited an example concerning the Burgess Shale. Due to restrictions on collecting this important material, the Royal Ontario Museum in Canada has sole permission to collect for ten years; however, the ROM only takes what may be new species of animal, and the rest of the material is discarded and lost. This discarded material would be welcome in museums across the world. Do collectors and the scientific community need to get together to develop a code of practice for collecting which includes offering finds to museums and universities first? Would wider restrictions on collecting cause a black market to develop, to the detriment of the data collected with specimens? Some researchers have suggested that unrestricted collecting destroys the fossil database, although there is little evidence that this occurs with reputable collectors and dealers.

In summing up, John suggested that we should respect the sentiments of the UNESCO convention of 1970, but also to be wary of the MA Codes of Ethics as they currently apply to natural science material. We also need to talk more with collectors and dealers to learn what can be done to benefit all parties.

The second presentation, *Frontiers to science: free trade and museum ethics* was by Tristram Besterman, Director of the Manchester Museum. At the beginning, Tristram stated his own belief that there is nothing ethically wrong with museums

buying specimens from the trade, and that museums would be much poorer if it was not for the relationship many have with dealers. Problems should not arise as long as good practice has been followed and checks have been made to acquire and safeguard all data associated with the specimens. It could be argued that demand from museums fuels a wider demand outside, but this is already occurring with the growth in commercial sites on the Internet. The Internet could be more of a problem as it could lead to important specimens and data going into private hands before museums and researchers have a chance to acquire them. However, we should not be in any doubt of the divergent reasons for the existence of dealers and curators, which is primarily one of profit versus use. The dealer benefits from being associated with particular museums as this can be good for trade.

Tristram then turned to the subject of illicit trade in objects. Illicit trade involves anyone who imports, deals in or is in possession of any cultural object that has been removed from a country contrary to the laws of that state. There are international codes and conventions that give guidance on dealing with illicit material. The International Council of Museums (ICOM) published the Code of Professional Ethics in 1986. In 1970 the United Nations Educational, Scientific and Cultural Organisation (UNESCO) published the Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property. The convention came into force in April 1972 and although the United Kingdom government has not yet signed up to it, it is likely to ratify it soon. The UNESCO Convention is biased toward art and antiquities material, although this and the ICOM Code do include palaeontological material. UNESCO 1970 groups a wide range of material together under the title "cultural property", but are fossils cultural property? Yes, if a particular state has designated them as being of importance. If these conventions and codes interfere with collecting, has science the right to be above claims of national sovereignty? There are no simple answers to this but Tristram suggests that there is no distinction between acquiring artefacts and natural specimens: they are both subject to the same laws.

Trade in objects tends to be a one-way system – cultural objects moving from poor to rich countries. Tristram cited Brazil as an example of how things should work. Since 1942, all fossiliferous deposits in Brazil are the property of the state. It is illegal to collect without permission, and as no permission has been given since 1942 it therefore follows that all specimens collected since that date are illegal. Since the 1990s, any foreign scientists studying Brazilian material must have a Brazilian partnership. In addition, all taxonomically important specimens must remain in Brazil. Even with these laws there is still a large-scale fossil trade in Brazil, but there are not the resources available to police it. Cutting ethical corners can cause more problems. If a new species is seen for sale is it ethical to purchase it for study and then try to publish the results? This is not possible as described specimens need to be in a recognised institution but would any take it if it were known to be illegally obtained? Research undertaken in Brazil and other countries suggests that the illegal trade may be resulting in a loss of unique specimens for research.

Tristram Besterman ended his presentation by saying that the fact that this seminar was taking place at all suggested that there was need for some accord between the trade and museums.

The third speaker was Dr David Martill of the University of Portsmouth. The title of his presentation was *The Brazilian fossil trade: a scientist's perspective*. After a somewhat lively start to his talk, in which Dr Martill referred to a few of the points made by the previous speaker, he outlined the start of his interest in Brazilian fossils. This started with the collection of some well-preserved ostracods extracted from nodules obtained from Terry Manning of Leicester. This prompted him to visit the area where the nodules were obtained, the Shapada Do Araripe area of north-eastern Brazil. Specimens are found in limestones of the Crato Formation (Lower Cretaceous), the rock itself being worked for cement making and as ornamental stone. The formation is well known for its vertebrate fossils but also includes plant and invertebrate fossils – mostly flying insects but also terrestrial animals such as spiders, scorpions and beetles. The land is often controlled by a big landowner and is usually farmed. The local villagers work on the land when employment is available, but supplement their incomes by excavating fossils. The fossils are then passed to an intermediary who pays a small fee for each specimen. The fossils are then taken away for preparation work.

Dr Martill explained that to obtain grants for further work he needs to write papers. To write papers he needs the fossils. He has a colleague in Sao Paulo with whom he has written a number of joint papers. He obtains permission and relevant documentation to collect and remove material from officials of the local state government. He is also offered material from a commercial dealer in Brazil. This material is often of very good quality, and it may be that this dealer has better preparation facilities than most non-commercial institutions. Dr Martill emphasised that he always sought permission from the local state government, and added that he has never been under any obligation or been approached to return material to Brazil. *Some of this is now accessioned into UK museums, and can also be found in museums in Europe.*

After a welcome buffet lunch, and a tour of the Fossils Gallery at Manchester Museum, the afternoon was started by one of our overseas visitors: Neal Larson of the Black Hills Institute of Geological Research, South Dakota, USA who spoke on *Fossils for sale: is it good for science?* Neal started by explaining something about how the Black Hills Institute is run. *It is a not-for-profit organisation and the staff members have produced many books and other publications, and for 27 years the have helped to provide fossils for museums around the world. However, this is not a new development. Marsh and Cope in the nineteenth century scoured the west and mid-west of the USA in search of fossil vertebrates and employed teams of people to collect for them. Barnum Brown, who found the first *Tyrannosaurus rex*, started the Canadian "dinosaur rush" in 1910 while collecting for the American Museum of Natural History. It was common practice in the early 20<sup>th</sup> century for American museums to sell fossils from collections if they were surplus to requirements. The work done by Ward's Scientific Establishment in supplying rocks,*

minerals and fossils has brought to light many new species over the years. The Black Hills Institute was founded in 1974. Since then the Institute has supplied replicas of finds to many museums and other organisations and a great amount of research is done to get displays correct. The key to success is museums, collectors and the trade working together.

Dr Jonathan Larwood, English Nature, spoke next on *Collecting fossils: English Nature Position Statement*. English Nature gives guidance on site based resource management. Of the 4000 SSSI's in England, 1450 have geological interest. English Nature's position statement on fossil collecting, first published in 1996, has been revised and re-issued. The position statement includes a code of good practice for those intending to collect fossils. The statement treats all collectors equally, making no distinction between hobbyists and commercial collectors. It also states that the fossil resource is finite and will only remain viable through a prudent approach to collecting.

English Nature acknowledges the role collectors have made towards protection of many of the famous fossil collecting sites. Local codes of practice have been drawn up for the Yorkshire Coast, Dorset and the Isle of Wight in consultation with collectors and local users. For the Dorset Coast, a voluntary recording scheme has been set up and an agreed Code of Collecting published. For the voluntary recording scheme, important finds are registered at the Charmouth Heritage Centre. This type of good site management helps to fulfil part of the criteria for World Heritage Site Designation.

The Yorkshire Dinosaur Coast Project is a partnership between four local organisations: Scarborough Museum, Whitby Museum, Yorkshire and Humberside Museums Council and the North Yorkshire Moors National Park. It emphasises and encourages partnerships between these groups, land managers and collectors to fulfil the objectives of the project. Dr Larwood gave two examples where co-operation with collectors and developers has been successful. The development of the Charmouth By-pass in Dorset provided an opportunity to collect and record in sequences not normally accessible. In a Liassic ironstone quarry in Humberside, a commercial collector is working the remaining sections of the pit. Key finds are passed on to a local museum. The collector retains none-key specimens for sale. This agreement, using the expertise of the collector, has meant that many new finds have been discovered and saved.

In summary, Dr Larwood emphasised that in the three key areas: museums, research and collecting, there needs to be good communication in order to manage the fossil resource properly. It allows good collecting practices and codes to be drawn up. Damage can occur to sites but the benefit of good communication is generally good for the sites.

The last speaker of the day was Maurice Davies, Deputy Director of the Museums Association. In his presentation, *The Advisory Panel on Illicit Trade*. Maurice revisited a number of issues covered by Tristram Besterman earlier in the day but

the emphasis was on what the advisory panel was recommending to counter illegal trade.

The recommendations are to have the UK government ratify the 1970 UNESCO convention and to introduce a new criminal offence for anyone found dealing illegally, to tighten export and licensing procedures, to set up databases of legislation and illegally removed objects, and to introduce a campaign of education. The new criminal offence is not likely to be retrospective and may be difficult to apply to palaeontological material. Returning specimens to their country of origin could also become an issue for museums and other institutions as Article 7a of the 1970 UNESCO convention states that institutions should "inform a State of origin Party to this Convention of an offer of such cultural property illegally removed from that State".

Although the UK Government has not ratified UNESCO 1970, it still advises that museums should avoid obtaining material without secure ownership history, unless there is reliable documentation available to show that it has been exported before 1970, or the museum has been able to obtain permission from the relevant authorities in the country of origin. Surely this is a standard policy followed by most museum professionals? If there is any doubt about an object's origin or legal status it should not be obtained. In drawing up their codes and guidelines have the Museums Association forgotten to consult the people who actually work in museums?

After tea a discussion session was held, the outcome of which should have been a set of draft guidelines to help museum professionals in their dealings with collectors and traders. However the, at times lively, discussion tended to focus on the "illegal" trade and the apparent restrictions being placed on Earth Sciences collecting by guidelines and codes which are biased towards art, ethnology and archaeology. For example, there are no Earth scientists on the Advisory Panel on Illicit Trade. However, the MA are aware that some groups are not represented but petitions can be made to the Panel. Mick Stanley suggested that interested groups need to take up this invitation for further discussion with the Advisory Panel. Hugh Torrens (Keele) urged that researchers be included in any discussions.

Neal Larson suggested that restrictions on obtaining material could result in the trade going "underground". This would mean the supply of specimens to museums drying up due to high black market prices being asked for specimens, thereby squeezing out poorer institutions in favour of wealthy private collectors.

Tristram Besterman tried to allay fears on the repatriation of material by stating that this will not happen for material collected prior to the UK signing up to the UNESCO convention. It will not stop trade, but will ensure that it is regulated properly.

Maurice Davies suggested that natural history material obtained for research is already covered by stringent procedures that safeguard it against being of dubious provenance. Specimens cited in scientific journals have to be lodged with a

recognised institution and the institutions own procedures should ensure that material without relevant documentation is not accepted.

John Nudds asked what would be covered by the proposed criminal law. Maurice Davies replied that it would depend on which articles of the 1970 convention are ratified and what type of material is covered by the term "cultural property".

Tony Weighell (Joint Nature Conservancy Council) brought up the issue of material collected in the UK for sale in other countries. As current laws stand there is an anomaly as it is possible to export important fossils from the UK but restrictions are placed on man-made objects such as geological maps.

A number of speakers asked how it would be possible and practical to keep track of what local laws are in different countries. It had already been mentioned that states within countries often have different "local" laws, and that some countries change their laws quite frequently.

In summing up Tom Sharpe (GCG Chairman) made three main points:

- A database of laws for various countries needs to be set up.
- There needs to be local and international consultation over the issues covered by today's meeting.
- Earth Scientists and bodies such as the MA and DCMS need to liaise to ensure that our requirements are represented and our voice heard when new regulations are drafted.

Tony Morgan, Liverpool Museum

### **Forthcoming GCG seminars and workshops**

#### **8- 12 November 2001 American Museum of Natural History, New York GCG Study Visit**

Despite the tragic events in the United States on 11 September, we have decided, in consultation with our travel agent and our colleagues in New York, to proceed with our study visit to the American Museum of Natural History. Arrangements have been finalised for those who have registered. If you would like to meet up with the group in New York, please contact Ros Gourgey, tel 01371 811429, email rosgourgey@hotmail.com

#### **Wednesday 21 November 2001 Natural History Museum, London**

##### **GCG Workshop: Identifying fossil: 1. Bivalves**

##### **NB CHANGE OF DATE.**

##### **BOOK NOW!!!**

This course will give an introduction to bivalve biology, including a taste of the wide variety of unexpected lifestyles that have recently been documented for bivalves, including chemosymbiosis and carnivory. We will consider key bivalve characters and how bivalves can be distinguished from other bivalved, but non-molluscan, taxa in the fossil record. We will focus on the sorts of characters useful for identifying major systematic and ecological groups. These will include overall morphology, diagnostic shell characters, mineralogy and life habits. We will also consider how taphonomy and diagenesis may help and hinder the identification process.

The course will begin at 10am and finish at 5pm. Course Fee: £20. Local contact: Dr Jonathan Todd, The Natural History Museum, Cromwell Road, London, SW7 5BD, tel 020 7942 5000. e-mail jont@nhm.ac.uk

Please complete the booking form on the centre pages and return it, with payment (cheques payable to GCG) by **11 November** to Steve McLean, The Hancock Museum, Barras Bridge, Newcastle upon Tyne, NE2 4PT

**5-6 December 2001 Oxford University Museum of Natural History, Parks Road, Oxford**

**GCG Seminar, AGM and field trip: Geology, art and architecture**

Wednesday 5 December

- 10.00-10.30 Registration and coffee
- 10.30-10.35 Introduction
- 10.35-11.15 The Oxford University Museum building Prof Keith Thomson
- 11.15-11.30 Coffee
- 11.30-12.00 Decorative stone Monica Price
- 12.00-12.30 Ashford Black Marble Trevor Ford
- 12.30-14.00 Lunch
- 14.00-14.30 Ammonite motifs in architecture John Cooper
- 14.30-15.00 Illustrations of 19th century Pal Soc monographs Peter Crowther
- 15.00-15.30 Art and geology Liz Mellings
- 15.30-16.00 Tea
- 16.00 AGM followed by Museum tour

Thursday 6 December

Fieldtrip to nearby quarries, including dinosaur trackway site. Hard hats and high visibility vests will be provided, but please bring your wellies.

Meeting fee: £10.00, to include refreshments and lunch; fieldtrip: £5.00

Accommodation in Oxford is limited and early booking is advised; see [www.visitoxford.org.uk](http://www.visitoxford.org.uk).

Please complete the form on the centre pages and send it, with payment (cheques payable to Oxford University Museum of Natural History) to Phil Powell, Geological Collections, Oxford University Museum of Natural History, Parks Road, Oxford OX1 3PW tel 01865 272950, fax 01865 272970, email philip.powell@university-museum.oxford.ac.uk

**8-9 March 2002 Dinosaur Isle, Sandown, Isle of Wight**

**GCG seminar and field trip**

For nearly a century the Museum of Isle of Wight Geology, above Sandown Library, has housed the island's geology and fossil collections. On August 10 2001 this changed with the opening of the new £2.7million *Dinosaur Isle* a purpose-built attraction replacing the old museum, and which now provides the space and

facilities to display the geological collections. This meeting will include a tour of these new facilities.

The meeting will begin at 10.00 at the Museum on Friday 8 March, so those attending are advised to travel to the Isle of Wight on Thursday 7 March.  
Meeting Fee: £10.

A full programme will appear in the next issue of *Coprolite* (March 2002), but if you are interested in attending please complete the form on the centre pages and return it to Martin Munt (Curator), Dinosaur Isle, Culver Parade, Sandown, Isle of Wight, tel 01983 404344, fax: 01983 402748.

**15 May 2002 British Geological Survey, Keyworth, Nottingham.  
GCG and Geological Information Group joint meeting: Geological collections databases, the World Wide Web and GIS**

The meeting will start at 11.00am with a session of invited talks related to Geological Collections Databases. During lunch and for the early part of the afternoon, demonstrations of systems discussed in the morning will be available. There will also be time available for 10-15 minute talks on related subjects during the afternoon. Following the afternoon session there will be an opportunity to take a guided tour of parts of the BGS Collections.

If you would like to present a talk at this meeting or would like to attend, please contact Mike Howe at the British Geological Survey, Keyworth, Nottingham (mhowe@bgs.ac.uk@bgs.ac.uk) or Giles Miller, Natural History Museum, Cromwell Road, London SW7 5BD (G.Miller@nhm.ac.uk) for further details.

**29 May 2002 National Museum of Wales, Cardiff  
GCG Workshop: Identifying fossils 2: Ammonites**

This workshop, led by Dr John Cope of Cardiff University, will give participants an opportunity to get to grips with the fundamentals in ammonite identification as well as reviewing the major ammonite groups, their biology and biostratigraphy.

Course fee: £10.00

Contact: Tom Sharpe, Department of Geology, National Museum of Wales, Cardiff CF10 3NP tel 029 20 573265, fax 029 20 667332, email Tom.Sharpe@nmgw.ac.uk

**Nov 2002 Natural History Museum, Prague  
GCG Study Visit**

For this year's study visit we plan to visit the Natural History Museum in Prague (part of the National Museum). The museum houses a magnificent collection of palaeontological and mineralogical material and has several permanent geology displays. Check the Museum's website to see for yourself! (<http://www.nm.cz/english>).

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

**10-11 December 2002 Sedgwick Museum, Downing Street, Cambridge  
GCG Seminar, AGM and study visit**

This visit will include an opportunity to view the new gallery redevelopment at the Sedgwick scheduled to open in summer 2002 and to view the collections. Contact: Dr Liz Hide, Sedgwick Museum, Department of Earth Sciences, University of Cambridge, Downing Street, Cambridge, CB2 3EQ tel 01223 766969, email eah17@esc.cam.ac.uk

**Other meetings**

**7 November 2001 Hampshire County Council Museums Service  
NSCG seminar: Fluid preservation – do we really understand it?**

Meeting fee: £20.00 (£25.00 non NSCG members), including lunch  
Contact: Simon Moore tel 01962 846337

**14-15 March 2002 Geological Society, Burlington House, London  
History of Geology Group: The amateur in British geology**

Contact: Stuart Baldwin, Fossil Hall, Boars Tye Road, Silver End, Witham, Essex CM8 3QA tel 01376 583502, fax 01376 585960, email sbaldwin@fossilbooks.co.uk

**3-5 April 2002 National Museum of Wales, Cathays Park, Cardiff  
Stone in Wales: materials, heritage and conservation**

This conference, sponsored by the National Museum & Galleries of Wales, the Countryside Council for Wales, and CADW will provide a forum for all those who are involved in the past, present and future use of natural building materials, particularly building stones in Wales. It is aimed at quarry workers, archaeologists, historians, planners, stone-masons, architects, conservation geologists, monumental masons, geographers and many others both professional and amateur. Conference themes include: the resource; the property of the materials; the historical use of stone; planning considerations of the vernacular use of building materials; and the future management of ancient stone quarries

*Conference fee: £40 (includes tea/coffee/buffet lunches)*

Contact: Dr J. Davies, Y Gelli, Stryd Fawr, Llandysul, Ceredigion SA44 4DP tel 01559 362429, fax 01559 362429, email sion\_cwm\_hir@hotmail.com

**8-13 May 2002 Redpath Museum, McGill University, Montreal, Canada  
SPNHC 2002: Collections hazards and mitigations**

Contact: Ingrid Birker, Redpath Museum, McGill University, 859 Sherbrooke St West, Montreal, Quebec, Canada H3A 2K6 tel 514 398 4086 ext 4094, fax 514 398 3185, email ibirke1@po-box.mcgill.ca

**23-26 August 2002 The Spa Centre, Scarborough, Yorkshire  
Geologists' Association: Earth Alert 2. A festival of geology**

Contact: Dr W French, Geologists Association Office, Burlington House, Piccadilly, London W1V 9AG

**1-6 September 2002 Edinburgh International Conference Centre**  
**18<sup>th</sup> Quadrennial Meeting of the International Mineralogical Association**  
For further information: email [ima2002@ed.ac.uk](mailto:ima2002@ed.ac.uk) or [info@minersoc.org](mailto:info@minersoc.org) or see  
[www.minersoc.org/IMA2002](http://www.minersoc.org/IMA2002)

**11-13 October 2002 Victoria Hall, Cromarty**  
**3rd Miller in Context conference, celebrating the bicentenary of the birth of Hugh Miller**  
For further information see [www.hughmiller.org](http://www.hughmiller.org)

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