

## 2007

**December 6–9** Halogens in Volcanic Systems and their Environmental Impacts, Yosemite National Park, California, USA. Details: D. Baker; e-mail: donb@eps.mcgill.ca; webpage: eps.mcgill.ca/~donb/workshop/

**December 10–14** AGU Fall Meeting, San Francisco, California, USA. E-mail: meetinginfo@agu.org; web page: www.agu.org/meetings

## 2008

**January 4–5** Volcanic and Magmatic Studies Group meeting (Joint meeting of the MinSoc and the Geol. Soc. London) Trinity College Dublin. Details: Valentin Troll; e-mail: trollv@tcd.ie; website: www.vmsg.org.uk

**January 7–12** Winter Conference on Plasma Spectrochemistry, Temecula, CA, USA. E-mail: wc2006@chem.umass.edu; web page: www.unix.oit.umass.edu/~wc2006

**January 13–18** Gordon Research Conference: Composites, Ventura, CA, USA. Details: T. Peijs; e-mail: t.peijs@qmul.ac.uk; web page: www.grc.org/programs.aspx?year=2008&program=composites

**February 4–5** Workshop on Martian Gullies: Theories and Tests, Lunar and Planetary Institute (LPI), Houston, Texas, USA. Details: Allan Treiman; e-mail: treiman@lpi.usra.edu; webpage: www.lpi.usra.edu/meetings/gullies2008

**January 22–25** Terrestrial Planets: Evolution through Time, Ahmedabad, India. E-mail: djconf08@prl.res.in; web page: www.prl.res.in/~djconf08/

**January 27–February 1** 32<sup>nd</sup> International Conference & Exposition on Advanced Ceramics and Composites, Daytona Beach, FL, USA. Web page: www.ceramics.org/meetings/schedule.asp

**February 10–14** Space Technology and Applications International Forum, Albuquerque, NM, USA. E-mail: isnps@unm.edu; web page: www.unm.edu/~isnps/staifhome.html

**February 11–15** Gruppo Nazionale di Mineralogia (GNM) International School: HP-HT Mineral Physics – Implications for Geosciences, Bressanone (BZ), Italy. Details: Paola Comodi; e-mail: comodip@unipg.it; web page: simp.dst.unipi.it/GNM/2008school/index.htm

**February 18–22** International Astronomical Union Symposium 251: Organic Matter in Space, Hong Kong, China. E-mail: iau251@hku.hk; webpage: www.hku.hk/science/iau251

**February 18–22** High-Pressure Experimental Techniques and Applications to the Earth's Interior (DMG Short Course), Bayerisches Geoinstitut, University of Bayreuth, Germany. E-mail: bayerisches.geoinstitut@uni-bayreuth.de; web page: www.bgi.uni-bayreuth.de

**February 20–21** First Iranian National Zeolite Conference, Tehran, Iran. Web page: www.zeoliteconference.spag-co.com/

**March 9–12** Shaping the Future: Deep-Sea Minerals and Mining, Congress and Workshop, Aachen, Germany. E-mail: dsmm2008@iml.rwth-aachen.de; web page: www.dsmm2008.de

**March 9–13** TMS Annual Meeting & Exhibition, New Orleans, LA, USA. E-mail: mtgserv@tms.org

**March 10–14** 39<sup>th</sup> Lunar and Planetary Science Conference (LPSC 2008), League City, Texas, USA. Details forthcoming

**March 24–28** Materials Research Society Spring Meeting, San Francisco, CA, USA. Web page: www.mrs.org/s\_mrs/sec.asp?CID=6689&DID=174642

**March 31–April 2** 26<sup>th</sup> European Conference of the Society of Environmental Geochemistry and Health (SEGH 2008), Athens, Greece. E-mail: segh2008@geol.uoa.gr; webpage: conferences.geol.uoa.gr/segh2008

**March 31–April 2** 31<sup>st</sup> Annual Conference of the BZA (British Zeolite Association), Keele, UK. E-mail: cha10@keele.ac.uk; webpage: www.keele.ac.uk/depts/ch/bza2008

**April 5–10** 45<sup>th</sup> Annual Meeting of The Clay Minerals Society, New Orleans, LA, USA. Details: Brenda Ross, e-mail: bross@cottey.edu; web page: www.clays.org/home/HomeAnnualMeeting.html

**April 6–10** American Chemical Society 235<sup>th</sup> National Meeting, New Orleans, LA, USA. E-mail: natlmtgs@acs.org; web page: www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=meetings%5cfuture.html

**April 13–18** European Geological Union (EGU) General Assembly, Vienna, Austria. Details: G. Ganssen; e-mail: gerald.ganssen@falw.vu.nl; webpage: meetings.copernicus.org/egu2008

**April 14–16** 4<sup>th</sup> International Conference of the Association of African Women Geoscientists (AAWG4), Cairo, Egypt. Details: Dr. Hanaa Salem; e-mail: aawg4@virtualacademia.com; web page: www.aawg4.virtualacademia.com

**April 15–17** Astrobiology Science Conference, Santa Clara, California, USA. Web page: abscicon.seti.org

**April 20–23** AAPG Annual Convention and Exhibition, San Antonio, TX, USA. Web page: www.aapg.org/meetings/annuel.cfm

**May 12–16** ISA 2008 – 37<sup>th</sup> International Symposium on Archaeometry, Siena, Italy. Details: Isabella Memmi Turbanti; e-mail: memmi@unisi.it; web page: www.unisi.it/eventi/isa2008

**May 18** XRD and Minerals, meeting of the British Crystallographic Association - Industrial Group, Nottingham, United Kingdom. Web page: http://bca.cryst.bbk.ac.uk/bca/ig/meet08MIN.htm

**May 22–25** 3<sup>rd</sup> International Symposium on Environment, Athens, Greece. E-mail: atiner@atiner.gr; web page: www.atiner.gr/docs/Environment.htm

**May 24–25** Working with Migmatites: Mineralogical Association of Canada Short Course, Quebec City, QC, Canada. Details: Ed Sawyer, e-mail: ewsawyer@uqac.ca; web page: www.quebec2008.net

**May 24–25** Uranium: Mineralogical Association of Canada and SGA Short Course, Quebec City, QC, Canada, Details: Kurt Kyser; e-mail: kyser@geol.queensu.ca; web page: www.quebec2008.net

**May 26–28** Geological Association of Canada, Mineralogical Association of Canada, Society of Economic Geologists, and Society for Geology Applied to Ore Deposits Joint Meeting, Québec, QC, Canada. Website: www.quebec2008.net

**May 27–30** American Geophysical Union (AGU) 2008 Joint Assembly, Fort Lauderdale, Florida, USA. E-mail: ja-help@agu.org; webpage: www.agu.org/meetings/ja08

**May 31–June 5** American Crystallographic Association (ACA) Annual Meeting, Knoxville, TN, USA. Details: Paul Butler, e-mail: butler@nist.gov; web page: www.hwi.buffalo.edu/ACA/meetingspg\_list/futuremeetings.html

**June 9–12** International Materials Research Conference, Chongqing, PRC. Web page: www.mrs.org/s\_mrs/sec.asp?CID=7060&DID=178708

**June 29–July 3** 2<sup>nd</sup> International Congress on Ceramics, Verona, Italy. Web page: http://www.icc2.org

**June 29–July 4** Gordon Conference on Geochemistry of Mineral Deposits, Il Ciocco, Italy. E-mail: grc08@erdw.ethz.ch; websites: www.grc.org/conferences.aspx?id=0000113, www.grc.org/sites.aspx?id=10&tab=0

**June 29–July 4** Gordon Research Conference: Research at High Pressure, Biddeford, ME, USA. Details: Stanley W. Tozer; e-mail: tozer@magnet.fsu.edu; web page: www.grc.org/programs.aspx?year=2008&program=highpress

**July 6–9** Resurgence of Economic Geology and the Minerals Industry in Africa, Joint Conference of the Geological Society of South Africa and SEG, Johannesburg, South Africa. E-mail: info@seg-gssa2008.org; web page: www.seg-gssa2008.org

**July 7–11** 10<sup>th</sup> EMU School: High-Resolution Electron Microscopy of Minerals, Nancy, France. Web page: www.lcm3b.uhp-nancy.fr/emu10

**July 13–18** Goldschmidt 2008, Vancouver, BC, Canada. E-mail: gold2008@the-conference.com; website: www.goldschmidt2008.org

**July 14–18** Asteroids, Comets, Meteors 2008, Baltimore, MD, USA. E-mail: margaret.simon@jhuapl.edu; web page: http://acm2008.jhuapl.edu

**July 20–25** Australian Earth Sciences Convention 2008, Perth, Western Australia. E-mail: publicity@gsa.org.au

**July 27–August 1** Gordon Research Conference: Water and Aqueous Solutions, Plymouth, NH, USA. Details: Alan K. Soper; email: a.k.soper@rl.ac.uk; web page: www.grc.org/programs.aspx?year=2008&program=water

**July 28–August 1** Meteoritical Society Annual Meeting, Matsue, Japan. Details: Dr. Mitsuru Ebihara; e-mail: ebihara-mitsuru@metro-u.ac.jp; web page: www.metsoc2008.jp

**August 3–8** Gordon Research Conference: Organic Geochemistry, Plymouth, NH, USA. Details: Katherine H. Freeman; e-mail: kate@essc.psu.edu; web page: www.grc.org/programs.aspx?year=2008&program=orggeo

**August 3–8** Gordon Research Conference: Rock Deformation, Tilton, NH, USA. Details: Greg Hirth; e-mail: ghirth@whoi.edu; web page: www.grc.org/programs.aspx?year=2008&program=rockdef

**August 5–14** The 33<sup>rd</sup> International Geological Congress (IGC 33), Lillestrom (Oslo), Norway. Website: www.33igc.org

**August 10–15** 9<sup>th</sup> International Kimberlite Conference, Frankfurt, Germany. Web page: www.9ikc.com

**August 10–15** Gordon Research Conference: Biomineralization, New London, NH, USA. Details: James De Yoreo, e-mail: deyoreo1@lnl.gov; web page: www.grc.org/programs.aspx?year=2008&program=biomin

**August 10–15** Gordon Research Conference: Solid State Studies in Ceramics, Andover, NH, USA. Details: Helen M. Chan; e-mail: Helen.chan@lehigh.edu; web page: www.grc.org/programs.aspx?year=2008&program=ceramics

**August 17–21** American Chemical Society 236<sup>th</sup> National Meeting, Philadelphia PA, USA. Details: ACS Meetings, e-mail: natlmtgs@acs.org; web page: www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=meetings%5cfuture.html

**August 17–22** Geochemistry of the Earth's Surface 8: Joint Meeting of the IAGC, MinSoc and the Natural History Museum (UK). Contact: M.E. Hodson, m.e.hodson@reading.ac.uk; www.minersoc.org/GES8.htm

**August 18–22** Large Meteorite Impacts and Planetary Evolution IV, Vredefort Dome, South Africa. Web page: www.lpi.usra.edu/meetings/lmi2008

**August 18–24** IAVCEI 2008 General Assembly, Reykjavik, Iceland. Details: Dr. Armann Hoskuldsson, e-mail: armh@hi.is; web page: www.iavcei.org/meetings\_w.html

**August 23–31** XXI Congress of the International Union of Crystallography, Osaka, Japan. Web page: www.congre.co.jp/iucr2008

**September 2–6** 4<sup>th</sup> FEZA (Federation of European Zeolite Associations) Conference, Paris, France. E-mail: feza2008@ccr.jussieu.fr; web page: www.congres.upmc.fr/feza2008

**September 7–9** 6<sup>th</sup> International Conference on Mineralogy and Museums, Denver, Colorado, USA. Details: Paul Bartos; e-mail: pbartos@mines.edu; web page: www.mines.edu/outreach/cont\_ed/ICMM6

**September 8–10** 9<sup>th</sup> International Congress for Applied Mineralogy, Brisbane, Australia. Details: Alison M. McKenzie, e-mail: conference@ausimm.com.au; website: www.icam2008.com/home.asp

**September 8–12** Meteoritical Society Annual Meeting, Matsue, Japan. Details: Dr. Mitsuru Ebihara; e-mail: ebihara-mitsuru@metro-u.ac.jp

**September 9–14** Second Central European Mineralogical Conference (11–14 September) and Workshop on Powder Diffraction Rietveld Refinement (9–10 September), Lower Silesia, Poland. Details forthcoming

**September 22–25** XIII All-Russian Conference on Thermobarogeochimistry, Moscow, Russia. E-mail: tbg2008@minsoc.ru; web page: www.minsoc.ru/tbg2008

**September 24–28** 4<sup>th</sup> Mid-European Clay Conference, Kraków, Poland. Details forthcoming; e-mail: gorniak@agh.edu.pl

## WILDERNESS AND HUMOUR IN THE NORTHWEST HIGHLANDS

My parting shots are a postscript to the travelogue on page 364. Although, overall, the little island of Great Britain is one of the world's most densely populated places, visitors from North America are often surprised by the wild emptiness of northwest Scotland. Vast, craggy, treeless landscapes like the Coigach Mountains, devoid of views even of distant buildings, have all the feel of true wilderness. The Northwest Highlands Geopark covers 2000 square kilometres and has a population of only 2400, 74% of whom live in four villages. But geologically we are in fact looking at North America, a tiny fragment of Laurentia left on the feather-edge of Eurasia when the North Atlantic opened. The unmetamorphosed red Torridonian sandstones forming the Coigach hills have sedimentary ages, with large errors, between 1200 and 950 Ma. They correlate with, and look very similar to, the Igaliko sandstones in the Gardar rift of South Greenland and the Keweenaw sequence in the mid-continental rift of North America, which extends from Lake Erie to Kansas, although the thick alkali basalt sequences are missing in Scotland.

The relationships of the Torridonian rocks to earlier and younger formations are intriguing and much employed in the UK for the instruction of students. They rest unconformably on what the early surveyors, with profound insight, called the 'fundamental gneiss', now properly called the Lewisian Gneiss Complex. Around Loch Assynt, the gneiss has a metamorphic age near 2.5 Ga. The Lewisian forms the featureless



A fragment of Laurentia. Neoproterozoic Torridonian sandstones of the Coigach Mountains from the summit of Stac Pollaidh. The single-track road is 600 m below.

topography at the base of the slopes in my second photograph. The land surface on which the Torridonian rocks were deposited had high relief, and this can be deduced using the geological map and seen in the field because of the contrast provided by the striking horizontal bedding of the sandstones. The pronounced bedding in the picture is genuinely horizontal in three



The 'double unconformity' on Beinn Garbh (539 m), seen looking south across Loch Assynt

dimensions, with only minor flexures of a few degrees. Resting on top of the Torridonian, but dipping at up to 20° to the east, is a succession of Cambrian sedimentary rocks which, in the picture, are composed of white quartzite, forming topography that is less strikingly bedded than the Torridonian. The plane of this second unconformity can be seen dipping from the summit of the hill down to the middle left edge of the picture where it truncates the Torridonian–Lewisian unconformity, a feature always known as the 'double unconformity'. It's a marvellous example of in-your-face geology, large-scale features marking enormous missing intervals of geological time, easily perceived at a roadside stop. But switched-on students will ask a simple question: 'How can it be that the younger Cambrian sequence is tilted but the ancient Torridonian sandstones are horizontal?' I'm sure *Elements* readers will have a sound explanation. My personal view is that it shows that Nature has a sense of humour!

Ian Parsons

**October 5–8 Geological Society of America Annual Meeting**, Houston, TX, USA. E-mail: [meetings@geosociety.org](mailto:meetings@geosociety.org); web page: [www.geosociety.org/meetings/index.htm](http://www.geosociety.org/meetings/index.htm)

**October 5–9 Materials Science & Technology 2008 Conference and Exhibition** – MS&T '08 combined with the American Ceramic Society (ACerS) 110<sup>th</sup> Annual Meeting, Pittsburgh, Pennsylvania, USA. Web page: [www.ceramics.org/meetings/schedule.asp](http://www.ceramics.org/meetings/schedule.asp)

**December 1–5 Materials Research Society Fall Meeting**, Boston, MA, USA. Web page: [www.mrs.org/s\\_mrs/sec.asp?CID=2073&DID=92005](http://www.mrs.org/s_mrs/sec.asp?CID=2073&DID=92005)

**December 1–5 Eighth International Geostatistics Congress - GEOSTATS 2008**, Santiago, Chile. E-mail: [info@geostats2008.com](mailto:info@geostats2008.com); Website: [www.geostats2008.com](http://www.geostats2008.com)

**December 15–19 2008 AGU Fall Meeting**, San Francisco, CA, USA. E-mail: [meetinginfo@agu.org](mailto:meetinginfo@agu.org); web page: [www.agu.org/meetings](http://www.agu.org/meetings)

### 2009

**January 18–23 33<sup>rd</sup> International Conference & Exposition on Advanced Ceramics & Composites**, Daytona Beach, Florida, USA. Web page: [www.ceramics.org/meetings/schedule.asp](http://www.ceramics.org/meetings/schedule.asp)

**March 22–26 American Chemical Society 237<sup>th</sup> ACS National Meeting & Exposition**, Salt Lake City, UT, USA. Web page: [www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=meetings%5Cfuture.html](http://www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=meetings%5Cfuture.html)

**April 2009 3<sup>rd</sup> International Maar Conference**, Malargue, Argentina. E-mail: [corinarisso@fibertel.com.ar](mailto:corinarisso@fibertel.com.ar) or [haller@cenpat.edu.ar](mailto:haller@cenpat.edu.ar); web page: [www.iavcei.org/meetings\\_w.html](http://www.iavcei.org/meetings_w.html)

**April 13–17 2009 MRS Spring Meeting**, San Francisco, CA, USA. Web page: [www.mrs.org/s\\_mrs/index.asp](http://www.mrs.org/s_mrs/index.asp)

**July 5–10 Goldschmidt 2009**, Davos, Switzerland. Details forthcoming

**July 7–10 American Association of Petroleum Geologists (AAPG) Annual Meeting**, Denver, CO, USA. Web page: [www.aapg.org/meetings/misc\\_mtgcs.cfm](http://www.aapg.org/meetings/misc_mtgcs.cfm)

**Summer 2009 71<sup>st</sup> Annual Meeting of the Meteoritical Society**, Nancy, France. Web page: [www.cprg.cnrs-nancy.fr/NEWS/MetSoc](http://www.cprg.cnrs-nancy.fr/NEWS/MetSoc)

**August 2009 25<sup>th</sup> European Crystallographic Meeting (ECM25)**, Istanbul, Turkey. Web page: [www.ecm25.org](http://www.ecm25.org)

**August 16–20 American Chemical Society 238<sup>th</sup> ACS National Meeting & Exposition**, Washington, DC, USA. Web

page: [www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=meetings%5Cfuture.html](http://www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=meetings%5Cfuture.html)

**August 17–20 Society for Geology Applied to Mineral Deposits 10<sup>th</sup> Biennial Meeting**, Townsville, QLD, Australia. E-mail: [SGA2009@jcu.edu.au](mailto:SGA2009@jcu.edu.au)

**September 7–11 Geoanalysis 2009**, Drakensburg Region, South Africa. Details forthcoming. Web page: [geoanalysis2009.org.za](http://geoanalysis2009.org.za)

**October 18–21 Geological Society of America Annual Meeting**, Portland, Oregon, USA. E-mail: [meetings@geosociety.org](mailto:meetings@geosociety.org); web page: [www.geosociety.org/meetings/index.htm](http://www.geosociety.org/meetings/index.htm)

**October 25–30 Materials Science & Technology 2009 Conference and Exhibition** – MS&T '09 combined with

the American Ceramic Society (ACerS) 111<sup>th</sup> Annual Meeting, Pittsburgh, Pennsylvania, USA. Details forthcoming

**November 30–December 4 2009 MRS Fall Meeting**, Boston, MA, USA. Web page: [www.mrs.org/s\\_mrs/index.asp](http://www.mrs.org/s_mrs/index.asp)

### 2010

**August 22–27 20<sup>th</sup> General Meeting of the International Mineralogical Association**, Budapest, Hungary. Website: [www.univie.ac.at/Mineralogie/IMA\\_2010](http://www.univie.ac.at/Mineralogie/IMA_2010)

The meetings convened by the societies participating in *Elements* are highlighted in yellow. This meetings calendar was compiled by Andrea Koziol. To get meeting information listed, please contact Andrea at [Andrea.Koziol@notes.udayton.edu](mailto:Andrea.Koziol@notes.udayton.edu)

## PARTING QUOTES

WE KNOW MORE ABOUT THE MOVEMENT OF CELESTIAL BODIES THAN ABOUT THE SOIL UNDERFOOT. – **LEONARDO DA VINCI**

THE THIN LAYER OF SOIL COVERING THE EARTH'S SURFACE REPRESENTS THE DIFFERENCE BETWEEN SURVIVAL AND EXTINCTION FOR MOST TERRESTRIAL LIFE. – **DEFINING AND ASSESSING SOIL QUALITY**  
BY **JOHN W. DORAN AND TIMOTHY B. PARKIN**