



GEOPHEMERA

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The Newsletter of

THE BRITISH GEOMORPHOLOGICAL RESEARCH GROUP
Registered Charity 1054260

March 2005 No. 94

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IGCP Project No. 495, Bar Harbor, Maine, U.S.A. 14th-17th October 2004

The first international conference of the International Geological Correlation Program (IGCP) Project 495, was held between the 14th and 17th of October 2004 in the Atlantic Oakes Hotel Conference Centre, Bar Harbor, Maine and attracted delegates from across the globe, including a number of participants from the United Kingdom. The IGCP Project, entitled 'Quaternary Land-Ocean Interactions: Driving Mechanisms and Coastal Responses' is led by Professor Antony Long (University of Durham, U.K.) and Dr Shahidul Islam (University of Chittagong, Bangladesh). The conference furthered my understanding of connectivity between coasts and land and of the geomorphological processes which occur at this boundary, particularly with respect to changes in relative sea-level.

The conference was organised by Dr Dan Belknap, Dr Joseph Kelley (both University of Maine, U.S.A.), Dr Duncan Fitzgerald (Boston University, U.S.A.) and Dr Ilya Buynevich (Woods Hole Oceanographic Institute, U.S.A.). The conference consisted of paper presentations, poster presentations, one full day and two half-day fieldtrips, with invited speakers on two evenings and a Conference Banquet in the Conference Centre.

Papers were presented all day Thursday 14th and half-day Friday 15th and talks were divided into four main sections:

1. Quaternary Variations in Sea-Level And Coastal Responses
2. Holocene Sea-Level Changes and Coastal Process Responses
3. Human Interactions with Climate and Coastal Change
4. Sea-Level Proxies and Stratigraphic Records

The first session consisted of eight papers and was



Figure 1: Thunder Hole, Acadia National Park.
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introduced with a welcome from Belknap and Kelley, followed by their paper introducing the fieldtrips and whetting the audience's appetites for the sights and sites to come. The session ended with John Shaw's (Geological Survey of Canada) description of 'Ice retreat, sea-level variation, and palaeogeographic changes in Atlantic Canada, from the Last Glacial Maximum to the present'.

This led nicely into the second session of nine papers, with the focus reducing from the Quaternary to the Holocene and which began with a pair of papers by David Smith (Oxford) and Peter Fretwell (Oxford) presenting new raised shorelines from Scotland. Roland Gehrels (Plymouth) *et al.* considered the 'Onset of rapid sea-level rise' by presenting data from no less than seven countries and project leader Antony Long (Durham) along with David Roberts (Durham) described 'Neoglacial sea-level changes in Greenland: driving mechanisms and coastal responses'. The session concluded with Simon Jennings (London Metropolitan) and Julian Orford (Queen's, Belfast) describing the 'Long-term behaviour of coastal cells' using examples from the south coast of England.

Report continued on page 6

A B.G.R.G. non-publication compiled by Sue McLaren, Department of Geography,
University of Leicester, Leicester LE1 7RH

PLEASE SUBMIT MATERIAL FOR GEOPHEMERA 95 BY 1 June 2005

Executive Committee: 2004-2005

Chair	Prof. Mark Macklin	Aberystwyth	mvm@aber.ac.uk
Vice-Chair	Prof. Angela Gurnell	KCL	angela.gurnell@kcl.ac.uk
Junior Vice-Chair	Prof. Paul Bishop	Glasgow	pbishop@geog.gla.ac.uk
Hon. Secretary	Dr Barbara Rumsby	Hull	b.t.rumsby@hull.ac.uk
Hon. Treasurer	Prof. Michael Thomas	Stirling	m.f.thomas@stirling.ac.uk
Membership Secretary	Prof Derek Mottershead	Portsmouth	d.mottershead@charlesbye.demon.co.uk
Geophemera, ex-officio	Dr Sue McLaren	Leicester	sjm11@le.ac.uk
Publications ex-officio	Dr Jon French	UCL	jfrench@geog.ucl.ac.uk
Education, co-opted	Dr David Simm	Bath Spa	d.simm@bathspa.ac.uk
Web Officer	Dr Richard Chiverrell	Liverpool	rchiv@liv.ac.uk
PG Reps	Sarah Crowe	Manchester	sarah.k.crowe@stud.man.ac.uk
	Helen Moggridge	KCL	Helen.moggridge.kcl.ac.uk
Ordinary members	Dr Ruth Robinson	St Andrews	rajr@st-andrews.ac.uk
	Dr Louise Bracken	Durham	L.J.Bracken@durham.ac.uk
	Dr Trevor Hoey	Glasgow	thoey@geog.gla.ac.uk
	Dr David Favis-Mortlock	Queen's Belfast	d.favis-mortlock@qub.ac.uk
	Dr Stephen Rice	Loughborough	s.rice@lboro.ac.uk

Editorial, Geophemera 94

Welcome to the first *Geophemera* of 2005. With the July issue of *Geophemera* (95) being dominated with B.G.R.G Business in readiness for the September Annual Meeting, *Geophemera* 94 concentrates on reports from meetings that have recently taken place, both here in the U.K. as well as in the United States of America.

Please can I remind everyone that if they want to see reports on conferences, calls for papers for meetings etc., in the next issue of *Geophemera*, the documents must reach the *Geophemera* editor on or before the next deadline (June 1, 2005).

Thanks,

Sue McLaren, Leicester

Contact the B.G.R.G.

For further information on the BGRG contact:

Honorary Secretary

Dr Barbara Rumsby

Dept of Geography, Cottingham Rd, University of Hull, Hull, HU6 7RX
Tel: 01482 466062 Fax: 01482 466340 Email: b.t.rumsby@hull.ac.uk

For information regarding membership/change of address contact: BGRG Administrator

Christine James

BGRG Administration, The Royal Geographical Society (with IBG), 1 Kensington Gore, London SW7 2AR

Tel: 020 7591 3028 Fax: 020 7591 3001 Email: bgrg@rgs.org

To supply information about BGRG meetings & reports contact: Editor of Geophemera & Meetings Officer

Dr Sue McLaren

Dept of Geography, University of Leicester, University Road, Leicester, LE1 7RH

Tel: 0116 252 3829 Fax: 0116 252 3854 Email: sjm11@le.ac.uk

For further information about BGRG postgraduate issues contact: Postgraduate Rep

Sarah Crowe

Department of Geography, University of Manchester

Email: sarah.k.crowe@stud.man.ac.uk

Visit the BGRG Web Site at: <http://www.bgrg.org>

Submit electronic copy for *Geophemera* to: sjm11@le.ac.uk

BULLETIN BOARD

MEMBERSHIP SECRETARY

Please note that the New Membership Secretary for 1 year is Prof. Derek Mottershead, University of Portsmouth. The BGRG will be looking to fill this position for a further 3 years from October 2005.

Spring Field Meetings from 2006

The EC is seeking offers to host the Spring Field meetings from 2006 onwards. Please contact the Honorary Secretary.

Halcrow

If you're interested in a career in applied geomorphology, there may be a place for you at Halcrow. We're looking for graduates and post-graduates to expand our young and dynamic team of engineering geomorphologists in Birmingham. The specialist work we do includes geomorphological mapping and geographical information systems, geohazards and risk (on and offshore), catchment and river engineering, and landform change prediction.

For more information, contact Dr Roger Moore on tel 0121 456 2345 or email moorer@halcrow.com. Otherwise, send your CV and a covering letter to Greta Woolley, Halcrow, Red Hill House, 227 London Road, Worcester WR5 2JG or email woolleygl@halcrow.com.

Discussion List: Future of the BGRG

The BGRG would like to give all members the opportunity to communicate their ideas and thoughts about the future of the BGRG via the web at <http://www.bgrg.org/pages/about/maillinglist/index.html> There are also plans for an open discussion on this topic at the September BGRG AM meeting in Southampton.

POSTDOCTORAL RESEARCH FELLOW

Engineering and Physical Sciences Research Council Research Project:

Modelling pre-failure shear strain (solifluction) in freezing and thawing soils

A postdoctoral Research Fellowship is available in the School of Earth Sciences to support this research programme that will be carried out in collaboration with the Cardiff School of Engineering, where a second postdoctoral Research fellow will be based. The project will utilise process observations from field monitoring and scaled geotechnical centrifuge modelling to constrain and validate new numerical modelling protocols to predict styles and rates of solifluction. It is anticipated that the appointees will work closely together, with the Earth Sciences Post Doctoral position being primarily concerned with centrifuge modelling and field measurements and the Engineering Post Doctoral position responsible for developing numerical modelling.

Further details from: Professor Charles Harris, Cardiff School of Earth Sciences (harrisc@cardiff.ac.uk)

BGRG Spring Field Meeting: May 20-22 2005

The meeting will encompass all aspects of the geomorphology of SW England (processes, landforms, Quaternary geology / environmental change) but will specifically examine 'the geomorphological impact of extreme Atlantic weather conditions'.

Program: Friday 20th May - a 1 day paper conference at the University of Plymouth. Papers & poster presentations examining the geomorphology of SW England are invited.

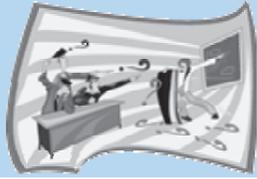
Saturday 21st & Sunday 22nd May - a 2 day field trip to west Cornwall (Quaternary storm beaches) & north Cornwall/Devon (low frequency high magnitude flash floods - Boscastle region with the British Geological Survey).

Meeting registration & further information: Email Martin Stokes (m.stokes@plymouth.ac.uk) to register your interest & to get further information.

Meeting web link: full details & downloadable registration forms: <http://www2.plymouth.ac.uk/BGRG>

Deadlines: 4th April 2005 for the Paper/Poster abstract & conference, fieldtrip registration & payment deadline.

Costs: Conference & field trip = £69 (includes fieldtrip transport, overnight field trip accommodation and meals). Conference only = £23 (includes refreshments & lunch).



Meetings



RGS-IBG Conference 31 August-2nd September

Web site: <http://www.rgs.org/category.php?Page=3resann05int>

Recent Environmental Change in Shallow Coastal Environments: Most of the world's coasts are composed of soft and relatively easily eroded sediment. The habitats within the coastal zones include vulnerable lagoonal and barrier-protected lake systems and many of these systems are particularly important in some of the poorest regions of the Globe. Recent and predicted changes associated with both terrestrial inputs and relative sea level change have had, and will continue to have, knock-on effects within these sensitive ecological environments. One example is increased sediment deposition caused by relative sea level rise or managed realignment, in combination with eutrophication or heavy metal pollution as a result of agricultural and urban and rural development. In many areas the continuation of lagoonal ecosystems is dependent upon relatively fragile barrier systems. Coastal environmental changes are particularly significant in these shallow coastal embayments and lagoonal systems where sediment deposition is the dominant process, altering the hydrodynamics of the system, as well as the geomorphology and ecology. The changing conditions have high contemporary significance due to changes in coastal configuration resulting from climate change and predicted sea level rise and also the environmental impacts of planned barriers for power generation and management of flood risk, creation of lagoons and managed realignment. For further details contact: Dr Katherine Selby, Email: ksselby@bournemouth.ac.uk

Other sessions include:

Sediment Dynamics in a Changing World—for details contact angela.gurnell@kcl.ac.uk and

Modelling Geography: Histories & Practices—for details contact david.demerritt@kcl.ac.uk or see the RGS website.



The Remote Sensing and Photogrammetry Society Annual Conference - First Call for papers: *Measuring, Mapping & Managing a Hazardous World*

University of Portsmouth 6 - 9 September 2005

RSPSoc2005 will cover the use of photogrammetry & remote sensing in measuring, mapping & managing the wide range of hazardous features that we face today. It will be held in the conference facilities at the University of Portsmouth, with all grades of residential accommodation close by. The conference will include the Society's AGM, the Taylor & Francis reception & the Society Awards ceremony. There will be a reception at Southsea Castle & the Conference Dinner will be held on board HMS Warrior, a 19th century 'iron-clad' battleship.

Sessions will be led by keynote speakers and there will be plenty of opportunity for the presentation of papers, both orally and as posters. A list of possible topics is given below – this is by no means definitive: all presentations that meet the conference theme will be considered.

As this is the Society's annual conference there will also be sessions for which papers on any aspect of photogrammetry or remote sensing will be welcome. **Global scale issues:** climate change, ozone 'holes', meteorology, oceanography, carbon sequestration, deforestation, desertification, urbanisation, international cooperation. **Specific hazards:** coastal zone, rivers and floods, soil erosion and land degradation, landslides, subsidence, volcanoes, earthquakes, wildfires, crop diseases, air and water pollution, contaminated land, accelerated weathering of monuments. **Mapping & managing:** civil emergency planning, hazard mapping, risk assessment, conflict prevention, mapping minefields, disaster preparedness, disaster relief, insurance industry links. **New technologies and their utilisation:** satellite; airborne (eg, LiDAR, hyperspectral); ground-based (eg, LiDAR, InSAR); data fusion and GIS applications.

If you wish to make a presentation, either orally or as a poster, please email a 400-word Abstract to richard.teeuw@port.ac.uk The abstract should cover the main points of the paper, including a summary of key research findings. Papers that specifically address the conference theme are encouraged and will be given preference. Deadline for the submission of abstracts: Friday 11th March 2005; Notification of acceptance of papers: Friday 29th April 2005; Deadline for submission of full papers: Friday 24th June 2005

If you would like to register your interest for the Annual Conference, so we can keep you informed, please email us at rspsoc@nottingham.ac.uk

BGRG 2005 ANNUAL MEETING
“ADVANCES IN GEOMORPHOLOGY”

At

Southampton University, School of Geography

On

19th – 21st September 2005

We are looking for papers that highlight advances in any aspect of geomorphology including theory, measurement, modelling and application. In addition we would be interested in papers that cover that include advances within ecogeomorphology and the impacts of climate change on geomorphic processes and systems. Both paper and poster contributions are welcome and contributions are especially welcome from postgraduate students. We hope to be able to publish posters and papers in a CD format.

Southampton is an exciting venue at the interface of the Chalk landscapes and groundwater dominated rivers systems of the South, the Tertiary landscapes of the Hampshire basin and the coastal landscapes of the Solent and Isle of Wight. Post conference field trips are available to study the recent floodplain restoration work and geomorphological processes in wooded streams within the New Forest, Chine development and coastal processes in the southern Isle of Wight, and gravel dune processes in the Severn Estuary.

The conference will be held within the School of Geography <http://www.geog.soton.ac.uk/school> with accommodation within nearby Halls of Residence which are located within easy walking distance. Costs will be:

£170 - £155 Full conference costs including accommodation, all meals, Conference dinner, Registration.

£115 Postgraduate rate for full conference.

£45 (1-day) £65 (2-day) Day Delegate Rate (does not include accommodation or conference dinner).

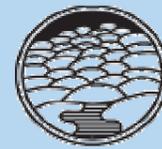
£30 (1-day) or £50 (2-day) Day Delegate Rate for postgraduates.

Further Information and full registration details will be posted on the School of Geography Website from March 15th at <http://www.geog.soton.ac.uk>, BGRG Website <http://www.bgrg.org/> and circulated via Geomorphlist.

For up-to-date information and enquiries please contact Cassandra or Julia at the GeoData Institute at BGRG@Geodata.soton.ac.uk or phone on 02380592719.



Reports



continued from page 1: The third session encompassed a variety of topics presented by nine authors, under the general theme of 'Human interactions with climate and coastal change'. These ranged from Pamela Abuodha's (Kenya Marine and Fisheries Research Institute) summary of 'Human impact on coastal evolution at Malindi Bay, north Kenya coast' to Juan González (Illinois) *et al.*'s presentation of 'A high-resolution basal peat record of sea-level change from the Mississippi Delta, 600 to 1400 years AD: preliminary findings' via Ben Horton (Pennsylvania) *et al.*'s description of 'Holocene sea levels and palaeoenvironments of the Malay-Thai Peninsula, South-east Asia: implications for geophysical modelling'.

The fourth and final session considered 'Sea-level proxies and stratigraphic records', with nine further presentations. These included local New England examples by Ilya Buynevich (Wood's Hole) *et al.* on 'Geological archives of Holocene storms in mid-coastal Maine: radiocarbon and optical dating of event horizons' and Robin Edwards (Trinity, Dublin) and Orson van de Plassche (Amsterdam) discussing 'A 2000 year foraminiferal record of century-scale mean high water variations from Connecticut, USA'. The session and indeed the papers were concluded by a statistician, Andrew Parnell (Sheffield), and co-authors elucidating 'A statistical method for reconstructing Holocene relative sea level change' and making suggestions for improving the accuracy of sea-level curves and their error boundaries.

A key note address by Andrew Cooper (Ulster), held on Thursday 14th and entitled 'Attributing cause and effect in land-ocean geomorphic interactions: a century-scale perspective', considered the range of factors affecting coastal geomorphology on this geologically short timescale, with examples provided from the coasts of Africa and Ireland.

Highlights from the poster session came from William Marshall (Plymouth) *et al.*'s 'Dating salt-marsh sediments by palaeomagnetic secular variations: potential applications in sea-level reconstructions' and Julia Daly (Maine) and Trevor Bell's (Newfoundland) 'Late Holocene sea-level change in northeastern Newfoundland'.

The Conference Banquet took place on the evening of Friday 15th, following an intense days of papers, posters and fieldtrips. This was a subtle ice-breaker as delegates worked out original ways of preparing to eat the shelled lobster without creating too much mess! The meal was followed by a discussion led by Antony Long concerning the direction of IGCP 495 and a speaker, David Sanger (Maine) on 'Prehistoric archaeology of Maine and the Gulf of Maine region'.

Fieldtrips were split into three sessions, each separated by geographical location:

- Friday 15th: Mt Desert Island and Acadia National Park
- Saturday 16th: Eastern coastal Maine: Lubec to Bar Harbor
- Sunday 17th: Central coastal Maine: Rockland to Popham Beach.

Memorable stops on the field trip included a visit to a popular tourist attraction on Friday, Thunder Hole (see Figure 1) in Acadia National Park. During particular high tidal levels, the resounding noise of waves crashing against rocks is reminiscent of thunder, hence the

name! Another impressive stop, also on the Friday was to Jasper Beach (see Figure 2), located in Howard Cove, western Machias Bay. The name of the beach originates from the resemblance of the pebbles to jasper, although they are not actually jasper. At the opposite end of the noise scale to Thunder Hole, the rhythmic washing of waves onto the pebble beach was very relaxing.

Figure 2: Jasper Beach, Howard Cove, western Machias Bay.



© M. Harman The organisers of the conference, Dan Belknap, Duncan Fitzgerald, Joseph Kelley and Ilya Buynevich, should be congratulated in creating such a full and interesting programme. I am very grateful to the BGRG and Queen's Alumni Fund for funding which allowed me to attend and present at this conference. Further information can be found online regarding the project:

http://www.geography.dur.ac.uk/research/IGCP_495/index.html and the conference: <http://www.geology.um.maine.edu/IGCP/index.html>

Melissa Harman, School of Geography, Queen's University, Belfast BT9 6DN m.harman@qub.ac.uk

Controlling the loss of soil to water Geological Society, London. 21st January 2004 Discussion session report

Introduction: The conference dealt with one of the main environmental problems facing land managers, scientists and policy makers in the UK today; the accelerated movement of soil from land to water. While soil erosion has negative implications on-site for biodiversity and productivity, the off-site impacts, such as sedimentation in watercourses and the transfer of sediment-associated nutrients and contaminants, have far-ranging implications for water quality, infrastructure, fish stocks and biodiversity in both freshwater and marine environments.

It is predicted that future changes in climate, land use and land management will exacerbate these problems, while threatening the success of initiatives to protect water quality, such as the Water Framework Directive.

By bringing researchers investigating accelerated soil loss together with those involved in the practical mitigation of erosion-associated problems, this meeting promoted discussion on the way forward to controlling the loss of soil to water. During the discussion session at the end of the meeting, four questions were considered. This document summarises that discussion and will be widely disseminated to promote the thoughts of the meeting and highlight the key issues identified.

Overview: The most important issues identified were

- The need to **raise public awareness** of soil as a non-renewable resource with all land managers such as farmers, landscape architects, civil engineers, as well as school children, university students, and the general public
- Improvements in **soil science education**, including understanding soils in terms of their functional capability, are required in order to benefit future policy development
- Increased focus, particularly through the media, is needed on the ecological, economical and social **benefits of good soil management**, rather than the negative impacts of poor management
- The need for **increased communication** between policy-makers, researchers and all end-users (particularly the farming community and construction industries) is essential.
- The need for **meaningful legislation** and a **soil advisory scheme** to provide all land managers, including farmers, with coherent, impartial and useful advice on soil-related matters, relevant to current legislation and policy.
- **Relevant soils data** are required to support future legislation. Key data sets should be updated, improved in spatial coverage and detail and made more accessible.

Responses to Question 1: How significant is soil loss and to whom?

- On-site, soil loss is significant to farmers and other land managers including, nature conservation managers, and archaeologists, landscape architects and civil engineers. It also impacts on the public when affected sites are used for recreation
- Off-site, soil loss affects water authorities, fisheries, riparian owners, highways and planning departments, coastal zone management groups and harbour authorities
- Improved understanding of soil as an under-valued resource and the environmental functions it performs is required through improved coverage of soils within the National Curriculum, promotion of University degrees in soil science, science fairs and increased use of alternative

resources for support, including BSSS and Royal Society

- Increased public awareness is needed by emphasising the links between soil erosion, sediment redistribution and negative environmental impacts
- Representation of soils by the media must be increased (currently very little) and be more balanced to show positive issues as well as negative. The soil science community (in particular our national societies) should work more closely with the media to ensure this happens

Responses to Question 2: What existing and emerging EU and UK policy is relevant to controlling soil loss?

- Water Framework Directive
- EU Soil Thematic Strategy
- Defra Soil Action Plan for England
- Welsh Assembly Environment Strategy
- Habitats Directive
- UK Water Resources Act 1991
- Salmon & Freshwater Fisheries Act 1985
- Nitrate Directive
- Bathing Waters Directive

Responses to Question 3: How can we bridge the gap between research products outcomes and both policy and end-user groups?

- Ensure input from the research community in identifying future research directions
- Improve allowance from Defra and EA for research contracts to combine contractual work and academic needs
- Reinstate an ADAS-like advisory service to improve contact with land managers
- Target legislation to ensure it is meaningful to end-user groups
- Encourage pilot schemes to showcase good practice and impacts
- Use appropriate terminology to engage the public
- Encourage researchers to connect with farmers and other land managers

Responses to Question 4: What further research is required?

- Quantification of control and mitigation measures
- Scaling up of R&D studies from laboratory-scale to the field and catchment scales
- Greater spatial coverage to account for natural variability in field
- Greater emphasis on field evaluation to counter a lack of ground skills (as opposed to new technologies) and over-reliance on remote sensing techniques
- Improved techniques to identify and map the risk of soil erosion and sediment delivery
- Provision of toolboxes for selection of site-specific management tools for local environment and conditions
- Land capability maps including social and economic components to emphasise social and economic benefits of good

soil management

- Identification of different sediment sources and their relevant importance (i.e. sources are not purely from arable land)
- Updated soil data to provide relevant data to support legislation
- Monitoring network which provides information on the degradation of our soils

Conference organisers and contact details: -

Michelle Clarke, NSRI Cymru, 07775 865701; michelle.clarke@cranfield.ac.uk. Alison Collins, NSRI Silsoe, 01525 863243; a.j.collins@cranfield.ac.uk. Marianne McHugh, NSRI North Wyke, 01837 883547; marianne.mchugh@bbsrc.ac.uk. Phil Owens, NSRI North Wyke, 01837 89188; philip.owens@bbsrc.ac.uk

SWAPNET 2005

Department of Geography, Portsmouth University, 4th to 6th January 2005

Geomorphologists have often been accused of not communicating enough with scientists from other disciplines, and not focusing their studies adequately enough on real world problems. The recent SWAPNET meeting in Portsmouth proves that, at least within the sphere of weathering and stone decay research, such fears are unfounded. SWAPNET is a non-organisation. It has no committee, chair, membership, fees or remit. It was originally started by Ron Cooke and others in the late 1980s as a forum for discussion and promotion of stone decay research amongst geomorphologists and other scientists involved in such research. Since then it has held meetings most years, usually in combination with a field visit to historic monuments undergoing decay and conservation. It has attracted European and North American scientists to its meetings, and held several meetings overseas. Most meetings have resulted in a peer-reviewed volume (eg Prikryl and Viles, 2002; Viles and Wild, 2003; Smith and Turkington, 2004). The ethos of all SWAPNET meetings has been to present research in a preliminary phase, to encourage debate and interchange of ideas, and to foster and encourage the work of graduate researchers.

Twenty geomorphologists, geologists, microbiologists and building scientists attended the most recent SWAPNET meeting in Portsmouth. A day of papers was followed by a half-day field trip. Robert Inkpen (Portsmouth) kicked off the first session on 'observing change due to weathering and erosion' by describing the design and testing of a GIS system designed to store, handle and analyse photographic images of decayed stonework. The system had been designed to provide a general platform for stone decay researchers and non-experts alike. Cherith Moses and Rendel Williams then (Sussex) provided a truly fascinating example of geomorphological

search converging with landscape art, in their discussion of a project monitoring the weathering of giant chalk spheres set up by Andy Goldsworthy as part of an outdoor installation. They have already been able to confirm that the artist's prediction that the spheres would disintegrate totally in around 2 years is way off beam. Bill Duane (Portsmouth) continued the monitoring theme, illustrating the use of laser total station technology (with an accuracy of +/- c. 3mm) to monitor the erosion of salt rock surfaces in northern Spain. As he noted, laser scanning technology is now able to produce highly detailed small-scale digital terrain data, with which weathering scientists can utilise geospatial data analysis techniques to investigate spatial and temporal patterning of surface lowering in great detail. The papers in this session illustrated nicely the challenges involved in trying to match technology to problems.

Liz Laycock (Sheffield Hallam) started the second session on 'material properties and durability' by reviewing the work her laboratory had undertaken developing and applying methods for testing the durability of a range of stone types under consideration for use as repair stones at Truro Cathedral. Muzahim Al-Mukhtar (Orleans) illustrated the careful and diverse testing necessary for developing suitable mortars for use on monuments (such as Chateaux along the Loire) constructed from tuffeaux (a soft limestone). Patricia Warke (Queen's University, Belfast) continued the theme of developing testing regimes, in her discussion of recent EPSRC-funded research to understand complex weathering effects on the durability of Stanton Moor sandstone. Joan Walsh (Paisley) finished the session by reviewing the range of durability tests she has been carrying out on roofing slates in Scotland. The whole session focused our minds clearly on the difficulties of deciding what such a complex concept as durability means, which parameters are the most relevant to measure for any one project, and what constitute good testing regimes.

In the session on 'mechanisms of weathering and decay' Miguel Gomez-Heras and Bernie Smith (Madrid and Queens University, Belfast) provided a most interesting insight into the issues surrounding thermal fatigue and thermal shock. These concepts are often bandied around by stone decay scientists and geomorphologists, without any clear consideration of what the two processes actually are and how/ if they really can be separated. Stephen McCabe (Queen's University Belfast) illustrated progress on his PhD research on untangling the history of decay and how it has conditioned the current decay situation on medieval sandstone monuments in Northern Ireland. He also proved to be extremely adept at coping with the obligatory data projector equipment failure, remaining cool and professional.

The final session 'developments in conservation techniques', had a biological feel. Eric May (Portsmouth) described the progress of the EU-funded BioBrush project which has produced and is now testing a novel technique to use microorganisms to remove sulphate and nitrate from crusted stonework in combination with microbial biocalcification to produce benign calcite crusts on the cleaned surface. Maureen Young (Robert Gordon University) reviewed another EU-funded project (Biodam) with totally contrasting aims, ie to develop a multifaceted series of techniques to remove damaging biofilms from stone surfaces. Finally, Heather

Viles (Oxford) illustrated progress on an English heritage-funded research project to develop and test the performance of soft wall capping (soil and turf covers on ruined wall tops) as a cost-effective, attractive and ecologically-sensitive method of conservation.

The field trip covered issues of both building conservation in Portsmouth City and of the Mary Rose ship. Portsmouth is a city in which the rapid expansion in the late nineteenth and early twentieth century has left a number of buildings and structures which require conservation. John Pike Conservation Officer, Portsmouth City Council explained to delegates the current classification of both scheduled monuments and listed buildings within the context of the Portsmouth area.

The City has over 600 listed buildings which are possessed of special architectural or historical interest and about 70 scheduled monuments. In general the Georgian buildings, and all other pre-1700 buildings, are listed. Victorian and Edwardian buildings (those between 1840 and 1914) must be of definite quality to be listed, while twentieth century buildings can be considered for listing only if they are older than 10 years.

Care is taken to avoid the erosion of character of the buildings, particularly if they occur within an area which has period character, and conservation areas are designated where it is desirable to preserve or enhance the appearance or character of the area. There are currently 23 conservation areas within Portsmouth. There are detailed leaflets to residents to encourage the replacement of original features with appropriate choices, with particular emphasis on doors, windows and roofing slates. Much of the conservation work is only possible with the collaboration of residents and the city council is involved with provision of information as to the types of finished and components which would and would not be acceptable for use on listed buildings.

Delegates were then taken to the Mary Rose Trust to meet part of the conservation team; Glenn McConnachie & Simon Ware. The Mary Rose sank in 1545, and was excavated and raised in 1982 and brought to dry dock in Portsmouth for conservation and exhibition. While there are still many hundreds of artefacts awaiting conservation, the majority have now been done and reports on the finds are currently being published. The difficulties with stabilising the materials recovered were discussed. Objects recovered were primarily wooden or skeletal as the prevailing conditions destroyed linen and organic material such as horn, although leather and some rope survived. Iron was noted to be particularly unstable, and only larger fragments were recovered. Conservation strategies which had been employed were detailed for wood and for iron. Stone samples were relatively rare, although examples of shot casting stone and unidentified pieces of carved stone were in extremely good preservation.

The organisers, Derek Mottershead and Robert Inkpen, are to be congratulated on organising yet another useful and sociable SWAPNET meeting. The next meeting is planned to be held in Madrid in 2006.

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Heather Viles (Oxford), Liz Laycock (Sheffield Hallam)

BGRG Windsor Workshop Cumberland Lodge, Windsor Great Park Postgraduate Report

The annual research training workshop for BGRG and NERC first year PhD students ran from the 13th -16th December at Cumberland Lodge. A total of 26 students attended, 25 from the UK and 1 from overseas, with 12 being research Council funded, 6 university/department funded and 8 funded by other bodies. Final night drinks and discussion about the workshop in the local pub, had all delegates agreeing that the workshop had been a positive experience and success. At the end of the night, we called over Brian Whalley, Bernie Smith, Tony Parsons, Sue McLaren and Mark Macklin, to say thank you, for organizing and running the workshop. Thanks also to Paul Farres, Simon Reid and Avril Allman for their contribution.

Day one saw students arriving in high spirits, and commenting on how amazing the rooms were. The day began, with a session of ice breaker games ran by Brian Whalley and myself, after a high energy start, their negotiating and teamwork skills were put to the test as they all attempted to construct individual geomorphological jigsaws. After dinner, Brian Whalley discussed the changing nature of the PhD before all students departed to the bar, to relax with a drink. Day two began with a talk on research practice and philosophy, followed by project planning. Postgraduates were then split into groups and later in the afternoon presented their hypothetical research projects to the facilitators, with the winning team treated to a bottle of wine during dinner. Day three saw a talk on the practical and post practical aspects of fieldwork neatly followed by a talk on modeling in geomorphology followed by individual student presentations after lunch. There was a good mix of presentations, from glaciers in Norway, UK river systems, to Radon in aquifers, with the majority being fieldwork-based PhD's, which was good to see.

The Guest evening lecture was a light-hearted talk by BGRG chairperson Prof Mark Macklin, who took us through a history of his life in research and the 10 things that he'd wished his supervisor would have told him. Following dinner, we made for the local pub where the workshop was discussed amidst much beer and attempts not to



Figures 3 & 4: students involved in the Windsor workshop 2005 © Brian Whalley

talk about our PhD's (which failed) or whether University mountaineering clubs, should be re-named climbing clubs (due to a substantial number of attendees who go out hill walking, climbing and ice climbing). The final day saw a morning talk on expectation and good practice in research, before Simon Reid, the outgoing postgraduate rep, talked about his experiences during his PhD, after briefing all the postgraduates on the BGRG, the final talk of the day commenced by Avril Allman from NERC, who informed the NERC funded students about their facilities and services before a brief discussion about postgraduate issues and a final goodbye. Overall the workshop was appreciated by all who attended, with many postgraduates agreeing to meet-up with their new found friends in the future (and hopefully at the postgraduate symposium).

Sarah Crowe, BGRG Postgraduate Representative, University of Manchester

Workshop on the Geomorphological and Quaternary Science Applications of Cosmogenic Isotope Analysis

23-25 October 2004

Institute of Geography, University of Edinburgh and Scottish Universities Environmental Research Centre (SUERC)

On the 23rd to 25th October the Institute of Geography at the University of Edinburgh welcomed more than 80 participants from around the UK, the EU and further afield. The purpose of this three-day workshop was to bring together those with expertise in technical aspects and applications of cosmogenic isotope analysis with the wider geomorphological and Quater-

nary research community. It is hoped that in doing so useful information was provided and potentially fruitful contacts made in this exciting and dynamic new area of research. The workshop was generously supported by NERC, BGRG, Scottish Universities' Environmental Research Centre (SUERC - also host to a visit by participants on the final day of the conference), and the Institute of Geography.

The workshop participants arrived in Edinburgh on a wet and blustery Saturday afternoon. The brisk and somewhat damp autumnal weather remained for much of the weekend, although the participants were able to use the occasional break in the weather and the full programme of talks to enjoy what must be one of the most scenic cities in Europe, with the Institute of Geography situated near the heart of Old Town.

The Saturday afternoon session began with the principal organiser of the workshop, Mike Summerfield, welcoming attendees and providing a brief introduction to the programme for the next three days. This was followed by an introductory talk given by Keith Fifield (Australian National University) who, in a comprehensive and entertaining session, set the scene for the weekend by introducing common cosmogenic isotopes, their measurement by accelerator mass spectrometer, and important subtleties in the application of the technique. He followed this up by highlighting a range of exciting uses of cosmogenic isotopes in geomorphological and environmental studies. These included applications to glacial sequences, fault scarps, knick-point retreat, burial dating and the determination of erosion rates for surfaces and catchments. It was around these key themes that other speakers would present some of their research experiences with cosmogenic isotopes over the course of the workshop. This concluded the days session and participants retired to a drinks reception in the Old Library of the those provided by the scheduled talks.

Following the reception participants ventured out into the Edinburgh night to explore some of the city's numerous restaurants and pubs, with the hardy few, perhaps encouraged by the more generous licensing hours north of the border, making the most of their brief stay in Edinburgh.

The second day of the workshop consisted of an intensive, but extremely informative, programme of talks in which speakers elaborated on key aspects of the use of *in situ* cosmogenic isotopes as well as presenting some of their innovative research. The morning session built upon introduction to cosmogenics given the previous afternoon. John Stone (University of Washington) provided a comprehensive review of the cosmogenic isotope analysis and with great skill provided the foundations of the technique to the audience, of which many were enjoying (?) perhaps their first taste of the more technical aspects of cosmogenics. This was followed up with a talk by Mike Summerfield (University of Edinburgh) that introduced some of the key issues in geomorphology that might be addressed with cosmogenic isotopes and challenged the audience to take up the technique as a valuable addition to the geomorphologists' toolbox.

The morning session resumed following a coffee break, an important opportunity throughout the workshop to socialise and digest the morning's talks. With this session we saw the talks begin to

place a greater emphasis on specific applications and the experiences of researchers with the technique. The theme of this session, which was continued after lunch, was of research conducted in cold glaciated regions. It is in glacial applications that cosmogenics have perhaps been used most intensively, largely due to difficulty in finding appropriate material for other dating techniques. Susan Ivy-Ochs (ETH Zurich) lead off the session with a lively and engaging presentation on her use of cosmogenics in establishing glacial chronologies, as well as dating landslide events in alpine regions. This was followed by Helen Margerison (University of Edinburgh) who presented her findings from the Dry Valleys of East Antarctica using ^3He and stimulated much interest as she presented exposure histories in the many millions of years, demonstrating the variety of timescales at which cosmogenics can be useful. The final talk before lunch was given by Jeremy Everest (BGS Edinburgh) who presented results from the dating of moraines in the Scottish Highlands and insight into how they can be used to investigate glacial chronologies.

An impressive lunch was provided, followed by a resumption of glacial-themed talks. Colin Ballantyne (University of St. Andrews) presented work on establishing the extent and nature of the last British ice sheet, highlighting the usefulness, but also the difficulties of interpreting cosmogenic data. Finally, the glacial sessions were rounded off by Mike Kaplan (University of Edinburgh) who presented some results from the geographically significant region of southern South America, as well as issues with applications to 'young' and 'old' moraines.

The workshop then moved on to the use of stable cosmogenic isotopes, with first Tibor Dunai (Vrije Universiteit, Amsterdam) presenting an introduction to Neon isotopes as well as an application to extremely old surfaces in the Atacama, Chile. Fin Stuart (SUERC) then provided an overview of ^3He isotopes providing important details on how they are analysed and on the advantages and limitations of their application.

The day was rounded off with talks on some recent and exciting developments in cosmogenics. First Tibor Dunai and John Stone introduced the recently approved CRONUS projects that have received considerable funding in both the EU and the USA. These projects will bring in a number of researchers and institutions and should make great strides in refining the cosmogenic technique. This was followed by Christoph Schnabel (SUERC) introducing the new NERC Cosmogenic Isotope Analysis Facility at SUERC East Kilbride, which provides a valuable avenue to the resources required to undertake cosmogenic research. This concluded the activities for the day and again many of the workshop participants ventured out into the night to again make the most of Edinburgh away from the stimulation of the seminars.

The final day of the conference was broken into 2 parts with a packed schedule of seminars throughout the morning followed by a trip to the SUERC facilities at East Kilbride. The theme of the mornings' talks focussed on the determination of erosion rates through cosmogenic isotopes.

This session was led off by Freidhelm von Blanckenburg

(University of Hannover) who introduced the concept of using detrital quartz in alluvium to determine spatially-averaged denudation rates. This was followed by Niels Hovius (University of Cambridge) who demonstrated how this technique can be applied to determining palaeoerosion rates and assessing river terraces and landscape response to climate change. Mike Bickle (University of Cambridge) then presented findings from the Himalayas where, alongside other methods, cosmogenic isotopes have been applied to determine long-term erosion rates. Next, Steve Binnie (University of Edinburgh) presented results from a detailed case study of spatially-averaged erosion rates in the San Bernardino Mountains, California and how they compared to other methods for determining long-term erosion rates. Finally, Rod Brown (University of Glasgow) discussed the application of cosmogenics to passive margin regions and in particular findings from southern Africa.

The morning coffee break was a final opportunity for participants to view the numerous posters that experienced cosmogenic researchers had provided and to discuss some of the many issues and potential opportunities that had been highlighted in the talks.

The final session of seminars in the workshop begun with Paul Bishop (University of Glasgow) looking at applications to bedrock channels and knickpoint retreat and highlighting some of the difficulties and the potential of applying cosmogenics in that type of landscape. Sanjeev Gupta (Imperial College) continued this theme presenting results of a case study in knickpoint migration in a landscape of active normal faulting. The final seminar of the workshop was given by Ruth Robinson (University of St Andrews) who presented research in Argentina that looked at depth profiling of cosmogenics within alluvial sediment and compared the method with OSL dating.

The seminar component of the workshop thus concluded, armed with a packed lunch the participants boarded coaches for the journey to SUERC, East Kilbride. After an introduction to the accelerator mass spectrometer (AMS) facility by Stewart Freeman, participants split into specialist groups to visit other parts of the Centre. Fin Stuart led a tour of the cosmogenic noble gas isotope facility, which is capable of measurement of ^3He , ^{21}Ne , and U/Th-He. Christoph Schnabel and Alan Davidson introduced participants to the cosmogenic radionuclide chemistry laboratories, which are routinely used to prepare ^{10}Be and ^{26}Al targets. Colin Maden, Stewart Freeman and Sheng Xu gave detailed tours of the AMS facility, while Gordon Cook introduced SUERC's radiocarbon laboratories and *in situ* ^{14}C preparation facility. These tours of the technical facilities, led by experts in the respective fields, complimented the impressively wide range of research presented by experienced users of cosmogenic isotopes from around the world.

It is hoped that the workshop succeeded in achieving its aims of introducing cosmogenic isotope analysis to the wider geomorphological and Quaternary community, and demonstrating a variety of applications of this growing area of research. It is also hoped that useful links were generated between experienced users of cosmogenic techniques and those considering its use in their current research.

Joseph Hägg, Jonathan Butler (University of Edinburgh)

BGRG Annual Meeting
17-20 August 2004
Joint International
Geomorphology Conference
Glasgow

The Annual BGRG conference of 2004 was held last August in conjunction with the IGC-UK meeting on the post-industrial right bank of the Clyde in Glasgow. Janet Hooke and Adrian Harvey coordinated the meeting with Ken Gregory and more than admirably overcame the considerable logistical headaches associated with organising a joint conference, negotiating room bookings and timings with the IGC UK, as well as finding tables and poster boards for the roughly 157 delegates who gathered in the Moat House Hotel next to the SECC. Not the easiest of venues to navigate, it has to be said. On the afternoon of Tuesday 17th, Trevor Hoey and Paul Bishop (Glasgow) took a number of people on a general tour of SU-ERC in East Kilbride, including the NERC Cosmogenic Isotope Analysis Facility and the new AMS. This amazing new JIF-funded facility has been established to provide cosmogenic radionuclide analytical facilities to the UK scientific community. A fitting start then for a conference addressing timescales of landscape behaviour and geomorphic instability.

On Tuesday evening, after the introductions by Adrian Harvey (Liverpool) and Mario Panizza (President of the IAG), Tim Burt (Durham) delivered the Frost Lecture on "Esensual geomorphology". I was wondering what particular field shots Tim might include in this curiously titled talk! Tim stressed the importance of field work and observation in teaching geomorphology to students and took us on a fantastic geotour of his favourite field localities. Tim's lecture was a good reminder of just how enthusiastic students feel on, and after, a great field trip. Later on that evening, I believe some people managed to catch the last of the sherry at the Civic Reception which was hosted by the Lord Provost of the City of Glasgow and held in the Glasgow Science Centre.

Over the next three days, there was a broad selection of presentations on the main conference theme, **Geomorphology and Sustainability**. The sessions on Wednesday were focused around Geomorphic Instability. Adrian Harvey kicked off the first session, chaired by Janet Hooke (Portsmouth), and set the scene for the day's presentations by providing an over-

view of temporal scales and landscape response. Alan Dykes (Huddersfield) gave an interesting talk on bogflows and mass movements of peat, Lea Wittenberg (Haifa, Israel) reported on the change in the duration and intensity of rainstorm events in a catchment in the Mt Carmel region of Israel and the resulting increase in the number of floods per year.

Adrian Harvey chaired the morning's second session and introduced the first keynote lecture, presented by Jonathan Phillips (Kentucky, USA), on instability and the interaction of global and local forcings on landscape behaviour. The talk was very interesting and gave a great summary of Jonathan's recent research on the historical contingency, or path-dependence, of landscape evolution. Following this, there were talks on alluviation rates in the tropical lowlands of Fiji by James Terry (South Pacific, Fiji), earthquake-driven landslides and high sediment discharges in Taiwan rivers by Simon Dadson (Cambridge), and gully evolution in New Zealand by Tom Parkner (Shinshu, Japan). Tom Coulthard (Abersytwyth) presented modelling results on sediment delivery response to increased frequency and magnitude of storms over the last 10,000 years and the session concluded with a talk on bank erosion and channel widening in the Jiaa Dhansiri river of Assam by Rana Sarmah (Pandu College, Assam, India). The related poster session was truly international with contributions from the UK (Harvey), Taiwan (Lin), France (Gweth), Poland (Soja), Japan (Tamura) and Brazil (Lopez).

The two Wednesday 19th afternoon oral sessions focussed on the themes of short-term and longer-term geomorphic response. Mark Macklin (Aberystwyth) chaired the short-term change session with several presentations addressing issues of channel instability due to human-induced change from Janet Hooke (Portsmouth), Kirstie Fryirs (Macquarie, Australia), Oliver Harmer (Nottingham), Tímea Kiss (Szeged, Hungary), Nikolaus Callow (Western Australia), Felicia Federico (USA) and Stanley Trimble (USA). Longer-term change was the theme of the last oral session on Wednesday. John Thornes (Kings College London) gave a historical perspective of the development of mathematical and conceptual models of longer term landform evolution. This was followed by two talks on landscape instability throughout the Quaternary by Mike Thomas (Stirling) and Richard Chiverrell (Liverpool), and then Phil Hughes (Cambridge), Liz Maher (Chester, Liverpool), Devora (Ben-Gurion, Israel), John Jansen (Glasgow), and Jong Yeon Kim (Glasgow) presented talks on landscape stability during glaciations, river capture, fluvial profiles in the Dead Sea and knickpoint migration. A wide range of topics were presented in the poster sessions, including the response of deserts to road construction, sediment dynamics, and the behaviour of regulated rivers. The posters were presented by researchers from Hungary (Kiss, Sipos), Iran (Hosseinzadeh), Poland (Owczarek, Zawiejska), UK (Kim, Reid and Zorzou), and the USA (Francis, Price).

The 2004 BGRG awards ceremony began after this session. The Wiley Award for the best ESPL paper was presented to Dave Breshears, Jeff Whicker, Matthew Johansen and John Pinder for their paper on wind and water erosion in dryland ecosystems. The 2004 Majorie Sweeting Award goes to David Milledge (Leeds), and the Warwick Award was presented to Jo Bullard (Loughborough) for her research on aeolian processes in drylands. The Linton Award was presented to David Sugden (Edinburgh) and was followed by his thorough lecture on Antarctic ice sheet stability since the Miocene. It was memorable, as well as thought provoking, highlighting the variety of approaches and techniques that David has used in his Antarctic research over the years. It was really an inspiring hour. Afterwards, we either popped into buses or walked on a rather bright evening to the University buildings for the JIGC dinner. And there we found a very fancy reception area in the Wolfson Medical School Building. The atmospheric bright room and tasty buffet went down well and initiated a free flow of conversation and people. I do believe a few folk were spotted in the West End's finest watering holes later on that evening.

Thursday 19th August was a busy day. There were two concurrently running theme sessions, with Tom Spencer (Cambridge Coastal Research) convening the **Geomorphology in the 21st Century** sessions, whilst Ken Gregory (Southampton) convened the talks focussed around the ICSU-funded project entitled **Past Hydrological Events related to understanding Global Change**. Keith Richards chaired the first Scales in Space and Time session of the **Geomorphology in the 21st Century** and introduced the keynote speaker John Thornes (KCL), who presented a historical perspective on the importance of non-linear dynamics in modern spatial geomorphology. Nick Preston (Macquarie, Australia) talked about system history and the interactions of multiple spatio-temporal scales and the session finished with a talk by André Roy (Montréal, Canada) on macrotubulent structures in rivers. Olav Slaymaker (British Columbia, Canada) chaired the next Continents to Oceans session and gave the first of four talks on drainage basin sediment budgets. William Renwick (Miami, Ohio) and Dave Higgitt (National University of Singapore) talked about sediment budgets in agricultural regions, and sediment delivery and carbon budgets in the South China Sea. Tom Spencer (Cambridge Coastal Research) concluded the session with a presentation of coral reef survival and recovery after El Niño ocean warming events.

Andrew Goudie (Oxford) chaired the post-lunch Deserts and Neotectonics session with contributions on desert environments, pavement and surface characteristics and tectonic geomorphology from Mahmoud Ashour (Ain Shams, Cairo), Asma Al-Farraj (U.A.E. University), and Recep Efe (Istanbul, Turkey), respectively. David Sugden

chaired the next Glacial and Periglacial session with four stimulating talks. Tony Payne (Bristol) presented his fascinating Antarctic ice sheet modelling work, Frank Lehmkuhl (Aachen, Germany) outlined the different styles and timing of Late Quaternary glaciations in Siberia, Derek Fabel (ANU, Australia) illustrated the novel use of cosmogenic radionuclide concentrations to estimate amounts of subglacial erosion, and Sven Lukas (St Andrews) presented evidence for temperate climate during ice retreat in Younger Dryas deposits of Scotland. Due to a cancellation, the last session on Wednesday only had one person in it – someone called Robinson (St Andrews) droning on about OSL dating of Holocene coastal deposits. There were six busy and lively poster sessions during the day and, again, the number of contributing countries reflects both the popularity of the Annual BGRG meeting and the benefits of having a joint international conference. Poster presentations were from Armenia (Balyan), Chile (Manriquez-Tirado), China (Li), Czech Republic (Stepancikova, Vilimek, Kalvoda), France (Noyola), Germany (Rossow), Hungary (Szalai), Israel (Lekach), Japan (Nogami, Yamamoto), Kuwait (Al-Awadhi), Poland (Zygmunt), UK (Darby, Fonseca, Mueller, Willgoose, Bracken, Cunningham, Dickie, Manning, Parsons, Thomas, Charlton, Ghaffari, Goudie, Lukas, Yorke, Butler, Salisbury), USA (Güneralp, Singer, Kamp), Sweden (Beylich) and Switzerland (Milzow).

Meanwhile, in another room in the Moat House Hotel, the **Past Hydrological Events** sessions were also well attended. Ken Gregory (Southampton) was convenor of the five sessions. The first, chaired by Des Walling (Exeter), included Ken Gregory who gave an overview of the ICSU project, followed by three talks on Holocene rivers and climate change in Europe by Eric Johnstone (Aberystwyth), Leszek Starkel (Polish Ac.Sc., Poland), and Varyl Thorndycraft (Centro de Ciencias Medio Ambiente, Spain). These talks complimented each other really well and illustrated the enormity of radiocarbon data being used to understand the Holocene palaeoflood record. Les Starkel chaired the session after coffee with talks by Peter Houben (Frankfurt) and Andreas Lang (Liverpool) on the LUCIFS project of human impact, land use and climate change in the Rhine catchment. Next in this session were two talks from Andrey Panin (Moscow, Russia) and Valentin Golosov (Moscow, Russia) who reported on palaeochannel behaviour and sedimentation and erosion in central Russian rivers. During the meeting, there were hydrological events, and some rather extreme weather conditions, occurring in Europe. True to form, Scotland had a wee bit of rain and some associated flooding. Alan Werritty (Dundee) had to change his talk time for the first session after lunch so that he could comment on the *current* floods to the media. Richard Dikau (Bonn) chaired this session with John Wainwright (KCL), Natalie Mountain (Aberystwyth) and Xiaoping Yang (Chinese Acad. Sciences, China) covering hillslope-channel coupling, a stochastic weather generator for hydrological modelling, and a palaeohydrological reconstruction of the Chinese Badain Jaran desert based on water chemistry. Mark Macklin stepped into Alan

Werritty's slot and gave a talk on erosion and sedimentation changes during the Holocene and possible climate implications. Ken Gregory chaired the second last session. Jamie Woodward (Manchester) gave a talk on rapid hydrological change in the Nile during the Holocene, Alan Werritty (Dundee) presented proxy records of flooding in the Lower Tay of Scotland, David Leigh (Georgia, USA) presented on the Late Pleistocene braided to meandering transition in South Atlantic coastal plain and Vic Baker (Arizona, USA) closed this session with a splendid talk on the importance of palaeoflood data for hazard assessment. The last oral session of the day was chaired by Tony Parsons (Leicester) and included contributions from David Sear (Southampton), who discussed river management decisions and palaeoenvironmental records, and posters by Hoffman (Bonn, Germany), Shimazu (Rissho, Japan) and Georgiadi (Russian Academy, Russia) were also discussed. Gerardo Benito (Centro de Ciencias Medio Ambiente, Spain) wrapped up the days presentations with some concluding remarks and areas of future research.

The discussions and lively debate arising from the day's theme sessions were continued in the poster area. The final presentation of the day was the BGRG Wiley Lecture given by David Breshears (USA) who presented this novel framework for comparing horizontal mass transport of wind- and water-transported materials and combines, for three different semi-arid ecosystems, data on wind erosion and sediment transport from field measurements and water erosion and transport data from rainfall simulations. Comprehensive stuff! After such a busy day, people drifted off to various Glasgow establishments for dinner and refreshment.

Friday 20th August was the final day of the meeting and the theme was **The Managed Landscape and Restoring Nature**. Isis Brook (Lancaster), Gary Brierley (Macquarie, Australia), Joe Wheaton (Southampton), Malcolm Newson (Newcastle), and Julian Orford (Queen's) presented a series of talks on ethics and philosophical approaches to management including landscape authenticity and restoration, the inclusion of uncertainty and interdisciplinary approaches in river restoration and management, and the future potential impacts of sediment starved coastlines on habitats from relative rises in sea level. Will Graf (USC, USA) chaired the second session that included presentations on restoration techniques and erosion modelling by Mike Kirkby (Leeds), the restoration of coastal habitats and mitigating loss by Malcolm Bray (Portsmouth), using naturally revegetating gullies in blanket peat bogs as a model for managed revegetation by Sarah Crowe (Manchester), restoration techniques in steep forested catchments by Mary Ann Madej (USGS, USA) and a catchment-wide study of flood management for the River Clyde by Paul Fish (Halcrow). Posters contributions, covering a range of management strategies and methodolo-

gies, were presented by researchers from the USA (Abad) and the UK (Hooke, Hansom, Lawler). The plenary lecture before lunch was given by Will Graf and his interesting talk covered issues of "wilderness" and how to preserve it in river restoration.

After a very quick lunch, people gathered for the BGRG AGM. This year there was considerable lively debate about the future direction of the BGRG. Members suggested that a listserv would be a suitable medium for promoting discussion amongst more people than were present at the meeting. This would also make it possible to debate the issues more thoroughly and a Discussion Mailing List (discussion-subscribe@bgrg.org) has now been set up. Adrian Harvey and John Wainwright were thanked for their hard work over the years on the EC. Mark Macklin and Barbara Rumsby now take over the positions of Chair and Honorary Secretary; and Paul Bishop (Junior Vice-Chair), Richard Chiverell (Web Officer) and Jim Brasington (Ordinary Members) were voted onto the EC as new members. Steve Rice will continue as an Ordinary Member after replacing Mary Bourke over the past year. Heather Viles and Harriet Orr were voted onto the Awards and Education and Outreach sub-committees, respectively.

The last sessions of the meeting involved case studies of managed landforms. Janet Hooke chaired the first session and talks covering management issues from a variety of environmental settings and countries were presented by Antony Orme (UCLA, USA), Anthony Milnes (EWL Sciences, Australia), Allan James (South Carolina, USA), Ian Fuller (Massey, New Zealand), Pete Downs (Stillwater Sciences, USA), Geoff Petts (Birmingham) and Denise Reed (New Orleans, USA). Posters associated with the Friday sessions were presented by researchers from the UK (McEwan, Mant) and Poland (Migon). The last oral session of the meeting featured papers from Kate Rowntree (Rhodes, South Africa), Kalyani Chatterjea (Nanyang, Singapore), Mesmin Tchindjang (Yaoundé, Cameroun), Fethis Ayache (Erryadh, Tunisia), Carol Harden (Tennessee, USA), Jahadi Toroghi (Tehran, Iran), and Mary Boulton (Tennessee, USA).

So thanks again to the main organisers, Janet Hooke and Adrian Harvey, for all their efforts in coordinating a successful Annual BGRG meeting, and to Paul Bishop and Trevor Hoey for organising the evening entertainment at the University of Glasgow.

Ruth Robinson, St Andrews



Grants Available From the B.G.R.G.

The B.G.R.G. runs a range of different grant programmes spanning research and education initiatives and conference travel. Full details of eligibility, and application forms are available on the B.G.R.G. Website at <http://www.bgrg.org/> The main categories of grant available are:

Research Grants: Funds are available to contribute to small projects or specific costs of research. These grants are available to all non-postgraduate members of the B.G.R.G. and are judged on their scientific merit. Maximum £1000

Postgraduate Research Funds: Funds available to all postgraduate members registered for a higher degree. They are primarily to support students who do not receive full funding, or where an opportunity has arisen to add value to an existing PhD programme. Maximum £500

Postgraduate Conference Fund: This fund assists postgraduate members in presenting a paper or poster at a conference and is intended to cover part of the total cost of registration, accommodation and travel.

B.G.R.G. Fixed Term Working Groups: The B.G.R.G. funds up to three working groups at one time to enable members to meet to discuss specific topic areas Funding up to £500/year

Long Term Geomorphological Monitoring: Aims to supply small sums (up to £200 pa) to support individuals to maintain long term monitoring sites (at least 10 years)

Promotion of Geomorphology in Schools: Grants of up to £500 for projects involving school teachers and pupils that will raise the profile of Geomorphology in schools

Task forces to develop proposals for major research projects: Funding of up to £1000 available for groups of members aiming to develop major proposals for submission to external funding bodies.

New Grants

Institution:	Funder: & Title	Amount:	Holders:
Cardiff	EPSRC—Modelling pre-failure shear strain (solifluction) in freezing & thawing soil slopes	£359,994	Prof. C. Harris, Prof. Hywel Thomas and Dr Peter Cleall, Cardiff School of Engineering.

New Appointments / Promotions

Institution	Name	Position	Previous position
Loughborough	Prof. N.J. Anderson	Professor	Geological Survey of Denmark & Greenland
Loughborough	Dr D. B. Ryves	Lecturer	As above
Loughborough	Dr I. Candy	Lecturer	Royal Holloway

New Postgraduates

University	Student	Place of Graduation	Research Topic	Funding Body	Supervisor(s)
Sheffield	Sarah Greenwood	Sheffield	Palaeoglaciology of the last Irish Ice sheet	Sheffield	Dr C. Clark Prof. G. Bigg
Sheffield	Anna Hughes	Royal Holloway	Quaternary ice sheet reconstruction	NERC-CASE (with BGS)	Dr C. Clark Dr C. Jordan (BGS)
Sheffield	Tristram Irvine-Fynn	Calgary	Glacier hydrology in the high-Arctic	Sheffield	Dr A. Hodson
Sheffield	Corinne Weaver	Sheffield	Aeolian sediment transport and sand dune dynamics	NERC	Dr G. Wiggs
Leicester	Rob Thornhill	Leicester	Patterns and processes of scour and fill in dryland stream channels: a combined field and modelling study	Leicester	Prof A. Parsons, Dr D.M.Powell



Diary

Events convened / supported by the BGRG

Date	Conference	Location	Contact
2005			
20-22 May	BGRG Field Spring Meeting	Plymouth	M.stokes@plymouth.ac.uk
31 Aug-2 Sept	RGS-IBG Annual International Conference	RGS, London	Http://www.rgs.org/category.php?Page=3resanno5int
19-21 Sept	2005 BGRG Annual Conference	Southampton	D.Sear@soton.ac.uk

Events convened by organisations other than the BGRG

Date	Conference	Location	Contact
2005			
22 March	Water for Life—The UK Input	RGS-IBG	H.binney@rgs.org
5-9 April	QRA/IQUA Field meeting	W. Ireland	pcoxon@tcd.ie
16-22 May	The Fluvial system—past and present dynamics and controls	Bonn, Germany	fs2005@guib.uni-bonn.de
23-27 Aug	Glacial Sedimentary Processes & products	Wales	mjh@aber.ac.uk
7-11 Sept	6th International Conference on Geomorphology	Zaragoza, Spain	iag2005@unizar.es
8-11 Sept	QRA Short Field meeting—Rossendale Forest & Greater Manchester	Greater Manchester	rgc@bgs.ac.uk
13-16 Sept	IV International Symposium ProGEO	Braga, Portugal	progeo2005@dct.uminho.pt
2006			
Jan 06	Isotope & noble gas analysis in Quaternary Research	Glasgow	marian@stats.gla.ac.uk

JOINING THE BRITISH GEOMORPHOLOGICAL RESEARCH GROUP

Why join the BGRG?

- Contact with a world-wide body of geomorphologists;
- Geophemera, the tri-annual newsletter of the BGRG containing news, views, reports, forthcoming conference announcements, registers of new students & grants and much, much more;
- access to a variety of research & conference funding opportunities; funds targeted directly at postgraduates;
- opportunities to attend fixed-term working groups on specific developments or topic areas within Geomorphology, postgraduate training workshops, conferences & field trips;
- discounted subscriptions to Earth Surface Processes & Landforms and other Journals – e.g. Hydrological Processes, Journal of Quaternary Science & Geomorphology.

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