

DEPARTMENT OF GEOGRAPHY AND GEOLOGY

Professor David Barker, BSc Wales, PhD Bristol, Dip Urb & Reg
Studies Birmingham – Head of Department

WORK OF THE DEPARTMENT

The academic year 2006/2007 was a year of transition and consolidation. Consolidation was needed to recover from the shortfalls and difficulties imposed by the budget cuts of recent times. Transition partly reflects staff turnover. We welcomed as new, full-time colleagues Dr Arpita Mandal, Lecturer in Geology, and Dr David Dodman and Dr Savitha Ganapathy, Lecturers in Geography. Dr Susan Mains returned to the Department from Fellowship Leave. Consolidation and transition were a necessary part of our Quality Assurance Review process, in the light of increased student numbers, inadequate physical resources, and insufficient human resources compounded by the impending retirement of other experienced lecturers.



Student numbers continued to increase in Geology, which recorded its highest numbers ever. The Geography first year numbers were slightly lower than in 2005/2006, notably from the Faculty of Humanities and Education, although the final-year Geography class was the largest ever. The fall in the number of first-year Geography students from the Faculty of Humanities and Education was due to an unusually small number of offers made to applicants by Admissions, and we have tried to ensure that this does not occur again.

The Department enjoys a vibrant and active postgraduate group. We continue to attract high-quality Geography research students, but it is harder to attract new Geology postgraduates because the job market for geologists is buoyant. We continue to encourage and support postgraduates in making research presentations at international conferences. The weekly brown-bag research seminars continue to be

highly successful, with audiences frequently exceeding 30 persons, including campus colleagues from other departments.

During 2006/2007 the Department continued an incremental process of improvements to its teaching and research facilities, but was constrained by limited financial resources. The refurbishing of two teaching laboratories (begun in 2005/2006) continued, and electrical fittings were upgraded. The Computer Laboratory was rewired. The Sedimentology Laboratory was refurbished, and the Optics Laboratory was relocated and refurbished. The Map Library was relocated and a new Reading Room was added for the use of the undergraduate students. New multi-media equipment was acquired for teaching purposes.

The OBUS Quality Assurance Reviews for Geography and Geology were held in January and April, respectively. The quality of our first-degree programmes (curricula, delivery, and student performance) was commended, in spite of our limited human and physical resources. Good relationships among staff, undergraduates and postgraduates were highlighted. Among the weaknesses was a need for more staff, a need for more student fieldwork, a shortage of physical space, a shortage of vehicles for fieldwork, and a shortage of scientific equipment, especially microscopes and a rock-cutting machine for thin-section work. The Department held a retreat in May to discuss the recommendations of the two reviews, and is developing an Action Plan for 2007/2008.

The Department was asked by the Ministry of Agriculture and Lands to undertake an important consultancy project to define a boundary for the Cockpit Country based on geomorphological, geological and historical criteria. This decision was made in the context of a high-profile public debate surrounding the Cockpit Country and bauxite mining. The Department put together a strong team comprised of Professor Simon Mitchell, Dr Savitha Ganapathy, Dr David Miller and Dr Balfour Spence. The final report was submitted in the summer of 2007.

Dr Balfour Spence collaborated with Professor Toshitaka Katada and Virginia Clerveaux of Gunma University, Japan, in the development of a Disaster Awareness Game as an educational tool for promoting disaster awareness in schools. The game was successfully tested by Dr Spence and his colleagues on Grade 5 students in St Vincent and the Grenadines and the Turks and Caicos Islands during the summer of

2007. The game will be tested among children of similar age in Japan in October 2007.

A number of postgraduate students in the Department attended and presented papers at international conferences. Robert Kinlocke (MPhil Geography) presented a paper at the 2006 meeting of the South East Division of the Association of American Geographers in Morgantown, West Virginia, USA, in November 2006. Chanelle Fingall (MPhil Geography) and Kevon Rhiney (PhD Geography) presented papers at the annual conference of the Association of American Geographers in San Francisco, California, USA, in April 2007.

The Department continued to administer the Earthquake Unit, the Unit for Disaster Studies, the Environmental Management Unit, and the Marine Geology Unit.

PAPERS PRESENTED

R. Ahmad

- “Anthropography of the Jamaica Earthquakes of January 14, 1907 and January 13, 2003.” Forum on Impact of Earthquakes - Revolutionizing our Response, Strengthening our Resilience - Financial, Economic, Legal, Kingston, Jamaica, February 2007.
- “Climate Change Induced Natural Hazards in the Caribbean.” Conference on Climate Change: Impacts on the Caribbean, Mona, Jamaica, June 2007.
- “Caribbean Tsunami Hazard.” UWI-NGI Tsunami Hazard Mitigation Workshop, Cave Hill, Barbados, July 2007.

D. Barker

- (with C. Beckford). “Agricultural intensification in Jamaican Small-Scale Farming Systems: Vulnerability, Sustainability and Global Change.” Annual Conference of the Association of American Geographers, San Francisco, California, USA, April 2007.

Savitha Ganapathy

- “Fire management in tropical deciduous forests of India - potential implications for Jamaica.” International Symposium

on Caribbean Fire Ecology and Management, Puerto Rico, April 2007.

T. Jackson

- “The mineralogy and ore mineral assemblages of the ultramafic rocks of Tobago, West Indies.” 4th Conference of the Geological Society of Trinidad and Tobago, Port-of-Spain, Trinidad, June 2007.

S. Mains

- “Locating movements and moving stories: narrating Jamaican migration.” Annual Conference, Association of American Geographers, San Francisco, California, USA, April 2007.

S. Mitchell

- “Tectonic and Stratigraphic Settings for Hydrocarbon Exploration in Jamaica.” To support the second licensing round for hydrocarbon exploration in Jamaica, Houston, Texas, USA, January 2007

E. Robinson

- “Some physical factors influencing adaptation to climate changes.” JIEP Third Conference on the Environment - Business and Sound Environmental Management in the Caribbean, Kingston, Jamaica, May 2007.
- “Identifying worst wave impacts on Jamaica's coastline during the last four millennia.” Conference on Climate Change: Impacts on the Caribbean, Mona, Jamaica, June 2007.

B. Spence

- “Disaster Management Challenges in the Caribbean.” OECS/USAID-COTS National Workshops on Implementing the Disaster Risk Management Benchmarking Tool, Dominica, St Vincent and the Grenadines, and Antigua and Barbuda, September 2006.
- “The nature and impact of natural disasters in the Caribbean.” OECS/USAID-COTS National Workshops on Implementing

the Disaster Risk Management Benchmarking Tool, Dominica, St Vincent and the Grenadines, and Antigua and Barbuda, September 2006.

- “Assistance to improve local agricultural emergency preparedness in Caribbean countries highly prone to hydro-meteorological disasters - Jamaica.” UN Food and Agriculture Organization, December 2006.
- “Agricultural Good Practices to Mitigate the Impact of Hydro-Meteorological Hazards - Jamaica.” Inter-Regional Seminar on Agricultural Good Practices for Hazard Mitigation, UN-FAO, Jamaica, January 2007.
- “Disseminating and responding to flood early warning: a community-based approach.” OECS, March 2007.

E. Thomas-Hope

- “Assessing the Impact of Sports Events on the Environment.” Regional Seminar on Sport and Environment, Kingston, Jamaica, August 2006.
- “Environmental Challenges associated with changes in the Agriculture and Tourism Sectors in the Caribbean.” US State Department Seminar on Caribbean Issues, Washington, DC, October 2006.
- “Training the trainers - public education in adaptation to climate change.” Commonwealth Secretariat Conference on Preparing for Change - Adaptive Strategies for Climate Change and Disaster Management in the Commonwealth, Mahe, Seychelles, October 2006.
- “Migration vulnerability and trafficking in persons in the Caribbean.” OAS Conference on Organized Crime: A Threat to the Caribbean, Montego Bay, Jamaica, March 2007.
- “Background on Intra-Caribbean Migration for the development and establishment of policy and principles on contingent rights associated with the free movement of persons in the CARICOM Single Market and Economy.” First Meeting of Officials on Contingent Rights, Georgetown, Guyana, May 2007.

- “Issues of scale: migration of health professionals in the Caribbean context.” Conference on Migration, Globalization and Poverty, Sussex, UK, May 2007.

Postgraduate Conference Papers

- Chanelle Fingal (MPhil Geography). “Quality production and a better deal for producers and consumers: globalization, fair trade and the St Lucian banana industry.” Annual Conference, Association of American Geographers, San Francisco, California, USA, April.
- Robert Kinlocke (MPhil Geography). “Securing boundaries, securing children and sustaining networks: gated communities in the Kingston Metropolitan Area.” 2006 Meeting, South East Division, Association of American Geographers, Morgantown, West Virginia, USA, November.
- Kevon Rhiney (PhD Geography). “(Re)defining the link? The case of cooperatives and their link with the Negril tourism industry.” Annual Conference, Association of American Geographers, San Francisco, USA, April.

PUBLICATIONS

Books and Monographs

D. Barker

* (ed.). Caribbean Geography, 14(1), 2006/2007.

* Caribbean Journal of Earth Science.

Refereed Book Chapters and Journal Articles

D. Barker

* (with C. Beckford). "Plastic yam and plastic yam sticks - perspectives on indigenous technical knowledge among Jamaican farmers." *Tidjschrift voor Economische en Sociale Geographie*, 97(5), 2006, pp. 535-546.

* (with C. Beckford). "The role and value of local knowledge in Jamaican agriculture: adaptation and change in small-scale farming." *Geographical Journal*, 173(2), 2007, pp. 118-128.

- * (with L. Miller). "Land policy in Jamaica in the decade after Agenda 21." In J. Besson & J. Momsen (eds.), Caribbean Land and Development Revisited. London, Palgrave MacMillan, 2007, pp. 119-132.

D. Dodman

- * (with J. Dodman). "'Nuff respect?' Widening and deepening participation in academic and policy research in the Caribbean." In J. Pugh & J. Momsen (eds.), Participatory Environmental Planning in the Caribbean. Aldershot, Ashgate, 2006, pp. 93-109.
- * (with K. Rhiney). "'We be nyammin?' Food supply, authenticity and the tourist experience in Negril, Jamaica." In M. Daye, D. Chambers & S. Roberts (eds.), New Perspectives in Caribbean Tourism. New York, Routledge, 2007.
- * "Making a living: small-scale metal smelting as a livelihood strategy in Kingston, Jamaica." In R. Jaffe (ed.), The Caribbean City. Kingston, Ian Randle, 2007.
- * "A place or a people? Social and cultural geographies of the Anglophone Caribbean." *Social and Cultural Geography*, 8(1), 2007, pp. 143-150.
- * "Post-independence optimism and the legacy of waterfront development in Kingston, Jamaica." *Cities*, 24(4), 2007, pp. 275-286.

S. Mains

- * "Spatial inequality." In B. Warf et al. (eds.), Encyclopedia of Human Geography. New York, Sage, 2006, pp. 453-454.
- * "Discourse." In B. Warf et al. (eds.), Encyclopedia of Human Geography. New York, Sage, 2006, pp. 111-113.
- * (with C. Clifford). "A dialogue with masculinity in Jamaica." In A. Jones (ed.), Men of the Global South. New York, Zed Books, 2006.
- * "Hurricanes in Toronto: distance, identity and the Jamaican diaspora." *Focus on Geography*, 50(1), 2007, pp. 1-8.

S. Mitchell

- * (with S. Donovan, D. Lewis). "The irregular echinoid *Nucleopygus Agassiz* from the Upper Cretaceous of western Jamaica." *Cretaceous Research*, 27, 2006, pp. 577-583.
- * (with S. James, I. Brown). "A late Pleistocene progradational clastic shoreface succession in Jamaica: implications for the preservation potential of the echinoid *Leodia*." *Lethaia*, 39, 2006, pp. 321-327.

B. Spence

- * (with E. Thomas-Hope). "Agrobiodiversity as an environmental management tool in small-scale farming landscapes: implications for agrochemical use." In J. Besson & J. Momsen (eds.), Caribbean Land and Development Revisited. London, Palgrave MacMillan, 2007, pp. 68-84.

T. Stemann

- * (with S. Donovan). "Where have all the sponges gone? The significance of spicules from the Upper Pliocene Hopegate Formation of Jamaica." *Caribbean Journal of Earth Science*, 42(2), 2006, pp. 239-243.
- * T. Stemann, G. Gunter & S. Mitchell. "Reef coral diversity in the Late Maastrichtian of Jamaica." In B. Hubmann & W.E. Piller (eds.), *Fossil Corals and Sponges. Proceedings of the 9th International Symposium on Fossil Cnidaria and Porifera*. Osterr. Akad. Schiffenr. Erdwiss. Komm., 17, 2007, pp. 455-469.

E. Thomas-Hope

- * "Maximizing migration: Caribbean return movements and the organization of transnational space." In D.E. Plaza & F. Henry (eds.), Returning to the Source: The Final Stage of the Caribbean Migration Circuit. Mona, UWI Press, 2006, pp. 167-187.
- * "Human trafficking in the context of Caribbean labor migration." In N. Bruni et al. (eds.), Intra-Caribbean Migration and the Conflict Nexus. Port-of-Spain, Trinidad, UWI in cooperation with the Association of Caribbean States and the International Organization for Migration, 2006, pp. 68-91.

- * (with T. Ferguson). "Environmental education and constructions of sustainable development in Jamaica." In J. Hill et al. (eds.), Sustainable Development: National Aspirations, Local Implementation. Aldershot, Ashgate, 2006, pp. 91-113.
- * (with B. Spence). "Challenges to promoting agro-biodiversity in Caribbean small-farming systems: a Jamaican case study." In J. Pugh & J. Momsen (eds.), Environmental Planning in the Caribbean. Aldershot, Ashgate, 2006, pp. 33-51.
- * (with A. Ishemo, & H. Semple). "Population mobility and the survival of small farming in the Rio Grande valley, Jamaica." The Geographical Journal, 172(4), 2006, 318-330.
- * (with A. Jardine-Comrie). "Caribbean agriculture in the new global environment." In G. Baker (ed.), No Island is an Island: The Impact of Globalization on the Commonwealth Caribbean. London, Chatham House, Royal Institute of International Affairs, 2007, pp. 19-43.
- * "'No nook of ground secure from rash assault?' Ecotourism, heritage tourism and the Jamaican Maroons." In C. Jayawardena (ed.), Caribbean Tourism: More than Sun, Sand and Sea. Kingston, Ian Randle, 2007, pp. 193-204.
- * "Shifting location and negotiating place: women in Caribbean intra-regional migration." In K. Hall & M. Chuck-A-Sang (eds.), CARICOM Single Market and Economy: Genesis and Prognosis. Kingston & Miami, Ian Randle, 2007.
- * (with A. Jardine-Comrie). "Valuation of environmental resources for tourism in small island developing states: implications for planning in Jamaica." International Development Planning Review, 29, 2007, pp. 93-112.

Non-Refereed Articles

D. Dodman

- * "Review of Order and Place in a Colonial City by J. De Barros." Caribbean Reviews, May 2006.

- * "Review of Social Power and the Urbanization of Water: Flows of Power by E. Swyngedouw." *European Planning Studies*, 14(5), 2006, pp. 718-720.

T. Jackson

- * (with P. Scott), "The mineralogy and ore mineral assemblages of the ultramafic rocks of Tobago." Abstracts, 4th Geological Conference of the Geological Society of Trinidad and Tobago, Port-of-Spain, Trinidad, June 2007.

T. Stemann

- * "Disturbance and the size of *Acropora palmate* on late Pleistocene Jamaican reefs." *Geological Society of America, Abstracts with Programs*, 38(7), 2006, p. 535.
- * (with S. James & S. Mitchell). "Coral reefs and patch reefs at Dean Man's Bones: rapid burial or slow sediment stress?" *Geological Society of America, Abstracts with Programs*, 2006, p. 515.

Technical Reports

R. Ahmad

- * Evaluation of the Jamaica Earthquakes of 1907 and 1993. Prepared for the United Nations Development Programme, April 2007.
- * Risk Management, Vulnerability and Natural Disasters in the Caribbean. Prepared for the International Federation of the Red Cross, May 2007.

S. Ganapathy

- * (with T.V. Ramachandra). Vegetation Analysis using GIS and Remote Sensing. ENVIS Technical Report, Ministry of Environment and Forests, Government of India, July 2007.

B. Spence

- * (with J. Opadeyi). Disaster Risk Management Benchmarking Tool. A Technical Manual. OECS and USAID/Caribbean Open Trade Support Programme.
- * (with H. Spaulding). Assistance to Improve Local Agricultural Emergency Preparedness in Caribbean

Countries Highly Prone to Hydro-Meteorological Hazards - Jamaica. UN Food and Agriculture Organization.

E. Thomas-Hope

- * Study to Facilitate the Development and Establishment of Policies and Principles on Contingent Rights associated with the Free Movement of Persons in the CARICOM Single Market and Economy. Prepared for the CARICOM Secretariat, December 2006.
- * (with V. Vassall). Manual on Environmental Stewardship for Trainers, 2007.

INCOME GENERATION

The Marine Geology Unit, under the direction of Professor Emeritus Edward Robinson, received a grant of J\$250,000 in November 2006 from the Special Initiatives Research Programme of the UWI to carry out radiocarbon dating of samples for coastal hazard evaluation.

In December 2006, the Marine Geology Unit received a grant of J\$302,000 from the National Works Agency to carry out sediment analyses from the Palisadoes, in cooperation with the Cuban team retained to plan protection works for the Palisadoes access road.

In April 2007, a grant of J\$300,000 was awarded by the US Geological Survey to the Marine Geology Unit to carry out palaeoenvironmental studies of core data for the South Florida Water Management Agency.

The Marine Geology Unit completed the main part of the second phase of the BEACHES programme in June 2007. The final report, with hazard maps, will be delivered in October 2007. The 12-month project was funded by the Environmental Foundation of Jamaica, with a total value of J\$3.87 million.

In June 2007, the Marine Geology Unit received a grant of US\$20,000 from the United Nations Development Programme and the Meteorological Service to carry out the coastal resources section of Jamaica's Second Communication to the UNFCCC over the period June 2007 to June 2008.

The Environmental Management Unit, under the direction of Professor Elizabeth Thomas-Hope, was awarded a grant of US\$50,000 in July 2007 by the UK Institute of Public Policy Research and the Global

Development Network for an international project on "The Impact of Migration on Development."

PUBLIC SERVICE

R. Ahmad

- Member, National Damage Assessment, Recovery and Rehabilitation Subcommittee, Office of Disaster Preparedness and Emergency Management, Government of Jamaica
- Council Member, Geological Society of Jamaica
- Associate editor, Quarterly Journal of Engineering Geology and Hydrogeology of the Geological Society of Jamaica
- Fellow, Geological Society of London

D. Barker

- Editor, Caribbean Geography
- President, Jamaican Geographical Society

D. Dodman

- Board Member, Local Initiative Facility for the Urban Environment
- Board Member, Public Education Committee of the United Church in Jamaica and the Cayman Islands
- Member, Expert Committee for the Jamaica Social Policy Evaluation, Sustainable Livelihoods Goal
- Member, Stakeholder Group for the Downtown Kingston Development Area Profile and Plan
- Member, Resolutions Committee, Southeastern Division of the Association of American Geographers

T. Jackson

- Honorary member, Geological Society of Jamaica
- Member, Geological Society of Trinidad and Tobago
- Member, American Geophysical Union
- Member, Association of Geoscientists for International Development
- Fellow, Caribbean Academy of Sciences

- Member, Geological Society of America
- Member, Yorkshire Geological Society

S. Mains

- Manuscript reviewer, Geoforum

D. Miller

- Book review editor, Caribbean Geography
- Council member, Jamaican Geographical Society
- Secretary, Jamaican Association of Geomorphologists

S. Mitchell

- Permanent member, Standing Committee for the Caribbean Geological Conferences
- Member, Scientific Committee, International Rudist Congress
- Chairman, Commission on Jamaican Lithostratigraphy
- Editor, Caribbean Journal of Earth Science
- Vice-President, Geological Society of Jamaica
- Editor, UWI Contributions to Geology
- External examiner, Geology, Council of Community Colleges of Jamaica (Associate BSc programme)

B. Spence

- Member, Government of Jamaica Task Force on Hazard Risk Reduction and Climate Change.

T. Stemann

- Council Member, Geological Society of Jamaica.
- Editor, Caribbean Journal of Earth Science.

E. Thomas-Hope

- Director, Luis Fred Kennedy Environmental Foundation
- Chair of the Board, Jamaica Sustainable Development Network
- Member, Government of Jamaica (Ministry of Environment and Housing) Tribunal for the Adjudication of Environmental Disputes under the NRCA Act

- Member, National Watershed Council, NEPA and the Office of the Prime Minister
- Member, Natural Resources Management Task Force, Planning Institute of Jamaica
- Representative for Latin America and the Caribbean on the International Geographical Union Health and Development Commission
- Representative for the Americas, Commonwealth Geographical Bureau
- Member, International Scientific Advisory Group for the People, Land Management and Ecosystem Conservation, United Nations University, Tokyo, Japan
- Referee for Social and Economic Studies, Journal of Developing Areas, Geoforum, Journal of Eastern Caribbean Studies, Caribbean Journal of Social Work, World Health Organization Bulletin, Progress in Development Studies, International Development Planning Review, and Gender, Place and Culture

CATEGORIES OF STUDENTS

Undergraduates: Geography

Year I:	113
Year II:	61
Year III:	72

Undergraduates: Geology

Year I:	63
Year II:	34
Year III:	50

Postgraduates:

MPhil Geography:	8
MPhil Geology:	6
PhD Geography:	2
PhD Geology:	5
MPhil Environmental Management:	1
PhD Environmental Management:	8