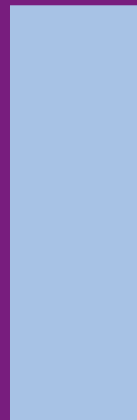


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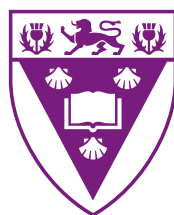
RESEARCH REPORT



RHODES UNIVERSITY

2014

RESEARCH REPORT



RHODES UNIVERSITY

Where leaders learn

A publication of the Rhodes University Research Office,
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FOREWORD

Dr Sizwe Mabizela

Vice-Chancellor

Rhodes University is a remarkable institution which deservedly enjoys an enviable reputation for academic excellence. Founded in 1904, Rhodes University is one of the oldest universities in this country.

- We are, by far, the smallest of the established universities in South Africa. Unlike at some other universities, each one of our students is young person with a name and a face; not just a number or statistic.
- We have a well-entrenched culture, tradition and experience of developing and nurturing exceptional intellectual talent in our students.
- We are proud of, and strive to maintain, our reputation as an outstanding university that provides high quality formative education for its students. We are fortunate to have a core group of top researchers and teachers.
- We enjoy the best undergraduate pass and graduation rates of any South African university.
- We have outstanding Postgraduate success rates and enjoy one of the best research outputs per academic staff member of any South African university. Our students are taught by academics who are actively engaged in advancing the frontiers of knowledge.
- We have one of the highest proportions of academic staff with doctoral degrees.

This is the kind of success and achievement which has defined Rhodes University for generations.

I am keenly aware of the significance of this legacy and what it demands of me as I seek to lead this university into a new and what I am sure will be a profoundly exciting future. I draw strength, courage and inspiration from the past and am intensely aware that one of my duties is to lead in a way which will enhance the standing of our university as a truly exceptional institution of higher learning and academic excellence. We must strive to uphold and grow this legacy and I assure you of my deep commitment to my own role in promoting the continued success of this remarkable place of learning.

We must jealously protect our intellectual space by ensuring that there is little or no encroachment into the research time and resources of our academics.

In the next ten years, we will, among other things,

- Increase the percentage of academics with doctoral level qualifications;
- Raise the total research output for the institution by encouraging and supporting all academic staff members to produce at least one accredited output per year;
- Grow the Postgraduate proportion of the student body to 30% whilst, at the same time, ensuring the diversity of the postgraduate population.



Dr Sizwe Mabizela, Vice-Chancellor
Photo: Paul Greenway

- Grow the number of research focus areas with significant critical mass behind them, for which the university is known as a place of scholarly excellence, across all faculties of the university.

In the year under review, individual academics continued to receive widespread recognition for their work. Particularly noteworthy were the accolades that Distinguished Professor Tebello Nyokong continued to attract. In 2014 she was chosen as one of South Africa's 21 Icons. Professor Nyokong was also appointed by United Nations Secretary-General Ban Ki-Moon to the High-Level Panel on Technology Bank For Least Developed Countries. Money cannot buy the kind of positive profile that Professor Nyokong brings to Rhodes.

Professor Janice Limson was awarded the DST/NRF SARCHI Chair in Science Communication. This brought to 11 the number of SARCHI Chairs awarded to Rhodes University.

Professor Heila Lotz-Sisitka was appointed as the inaugural Director of the new Postgraduate Studies Centre, to lead and manage the provision of additional support for enhancing the quality, quantity, and equity of our Postgraduate population.

Following a renewed funding cycle from the Andrew W. Mellon Foundation for the support of Research Focus Areas in the Humanities Faculty, a competitive process was held to award two new focus area grants under this programme, intended to grow scholarly outputs and Postgraduate numbers in fields where Rhodes is able to exhibit research strength, research potential, or unique fields of study which would attract scholars and Postgraduate students. New awards were made to Professor Louise Vincent, in a focus area on "Higher Education Institutional Cultures, Equity and Transformation", and Professor Kirk Helliker, in the focus area around the theme of "Zimbabwean Studies".

Significant funding was attracted from the National Equipment Programme and other sources to enhance our already high quality scientific equipment base. Minister Naledi Pandor visited in 2014 to officially unveil a new R17 million Time-of-Flight Mass Spectrometer in Professor Nyokong's Centre, and construction began on the novel multi-million rand Carbon Dioxide Chamber facility under the leadership of Professor Brad Ripley of the Botany Department and Professor Martin Hill of the Department of Zoology and Entomology.

The Vice-Chancellor's Distinguished Senior Research Award for 2014 was awarded to two recipients, Professor Laurence

Juma of the Faculty of Law, and Professor Charlie Shackleton, SARCHI Chair holder, of the Department of Environmental Science, for the national and international impact of their research over a sustained period. The Vice-Chancellor's Distinguished Research Award (in the age group 40 and below) for 2014 was awarded to Professor Barry Irwin of the Department of Computer Science, for the impact and influence of his research outputs to date. The Vice-Chancellor's Book Award for 2014 went to Professor Leonhard Praeg of the Department of Political and International Studies for his book entitled *A Report on Ubuntu* (UKZN Press, 2014).

I extend my congratulations and thanks to all of our researchers, collaborators, funders, donors, and partners who contributed to making 2014 a year in which research at Rhodes University flourished. Your expertise, integrity, dedication, rigour and generosity make Rhodes University the rich and distinctive intellectual space that it is.

As one might expect, with change in leadership, there will always be continuities, discontinuities and adjustments. My promise is that I will use my leadership to further our shared objective of strengthening our university's position as a distinct and distinctive institution providing outstanding education to young people of our country and beyond, generating and disseminating knowledge of high quality which advances human understanding and wisdom; knowledge that helps us build and sustain a better society and a better world.

Dr Sizwe Mabizela
Vice-Chancellor

INTRODUCTION

Dr Peter Clayton

Deputy Vice-Chancellor: Research and Development

Rhodes University maintained its record of high achievement in overall accredited research outputs in 2014, and in other forms of scholarship which enhance the intellectual space of the university.

The results of the 2014 academic year were celebrated during a bumper graduation weekend in April 2015, in which a record 2 298 degree graduates were capped at 6 graduation ceremonies, 46% of whom were postgraduates, 61% were women, and 23% were international students from 37 different countries. A record number of 75 PhD degrees and 281 Masters degrees were awarded.

The university's Enrolment Plan outlines our intention of becoming a more Postgraduate university, and our overall strategy is to enhance our contribution to knowledge production through research and scholarship. Rhodes is well-positioned for such a trajectory, and we look to strengthening our capacity to serve society in this way by striving to provide our academics with effective research support.

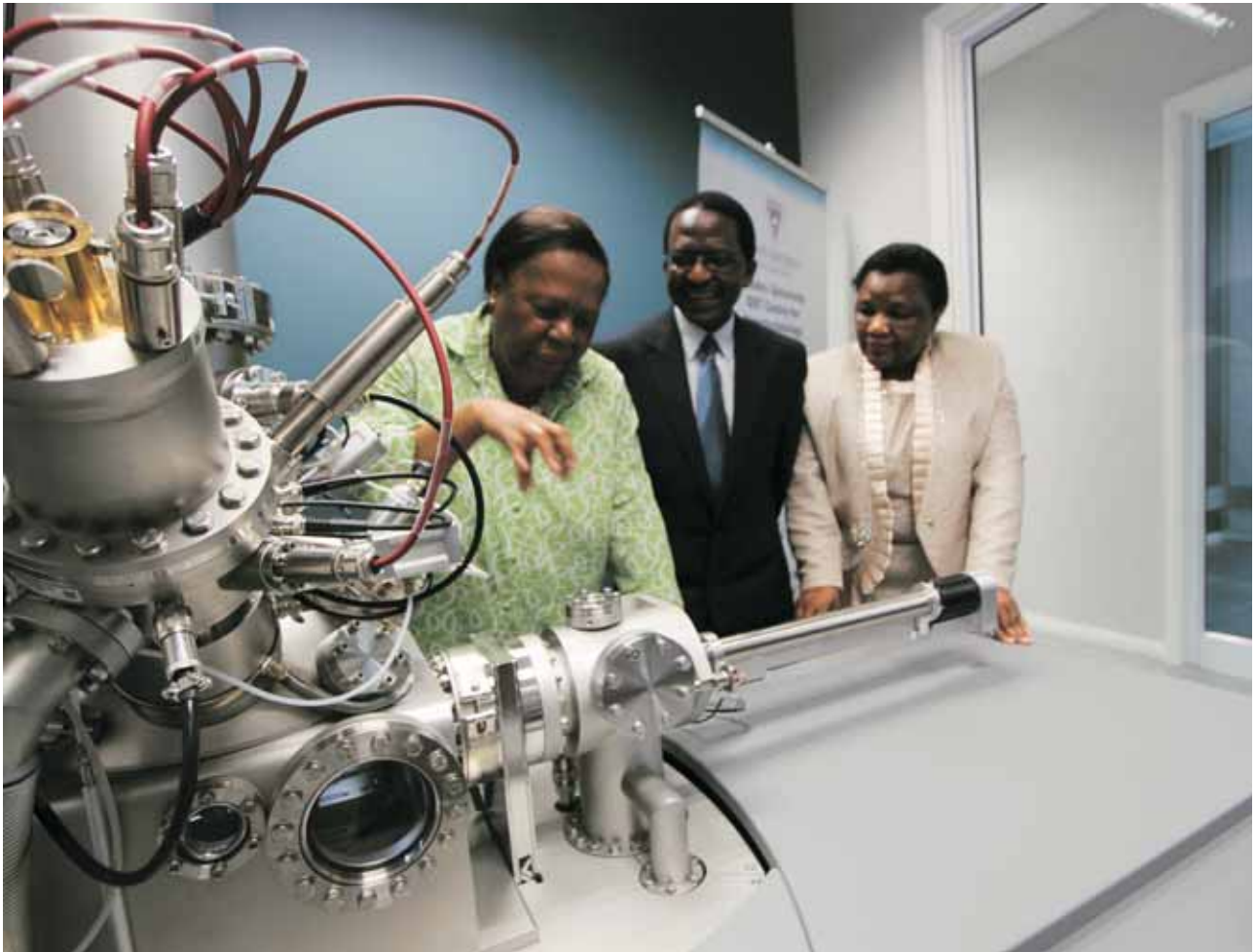
In the latest DHET Ministerial Report on National Research Outputs, Rhodes University is listed as having the third most favourable research output rate per capita (the accepted norm for measuring efficiency of investment in the research domain) in the South African university system, and the amongst the highest percentage of academic staff with PhDs (56%). Other studies show that Rhodes has the top PhD graduation rate of South African Universities, and very good Postgraduate throughput rates overall.

We continue to give special attention to identifying potential new Postgraduate and research niche areas and programmes, and to developing the appropriate institutional arrangements to effectively support larger numbers of Honours, Masters and Doctoral students, and further enhance their academic and social experiences.

The audited result of our DHET submission of accredited research outputs for 2014 had not yet been received at the time of writing, so exact success rates in book and conference submissions are not yet known. These are the smaller components of our overall accredited outputs (in 2013, books and accredited conference proceedings each contributed 7% of our total accredited publishing output, while journals contributed 86%). In 2014, Rhodes submitted 67.5 book and book chapter units for consideration (well up on the 2013 submission), and 34.27 accredited conference proceeding weighted units (a similar number to 2013). Year-on-year variance on the relatively small submission base in these categories is to be expected.



Dr Peter Clayton, Deputy Vice-Chancellor:
Research and Development
Photo: Jane Berg



Department of Science and Technology Minister Naledi Pandor admires the hi-tech nanotechnology equipment with Rhodes University Vice-Chancellor Dr Sizwe Mabizela and Distinguished Professor Tebello Nyokong
Photo: David Macgregor

For the big component of Rhodes's publication output, our journal publications, 405.07 units were submitted for the 2014 academic year. This is a similar figure to that of 2013.

I add my warm thanks and congratulations to all of our researchers, funders, collaborators and partners who contributed to the excellent accredited research results of 2014, as well as those generating the many forms of scholarship that are not counted in the accreditation exercise, but which contribute much to the rich intellectual space that is Rhodes. I also thank all of the administrators who play a crucial role in preparing the university's meticulous audited submissions.

Dr Peter Clayton

Deputy Vice-Chancellor: Research and Development

PHD GRADUATES

Faculty of Commerce Degree of Doctor of Philosophy

LANCASTER, Jonathan Charles
Swinburne, M.A. (Rhodes), CA (SA), in Accounting, in the Department of Accounting. Degree by thesis. Thesis: *"Watch-dogs for an Economy." A determination of the origins of the South African Public Accountants' and Auditors' Board - as the Regulator of the Profession - principally through an analysis of the debates and related reports to the House of Assembly of the Parliament of the Union of South Africa in the period 1913-1940.*

TAYLOR, Simon Michael, M.Ed. (Rhodes), in Management, in the Department of Management. Thesis: *The development of a personal philosophy and practice of servant leadership: A grounded theory study.*

Faculty of Education Degree of Doctor of Philosophy

CLARENCE, Sherran Lyn, M.A. (York, Ontario), in Education, in the Centre for Higher Education Research, Teaching and Learning. Degree by thesis. Thesis: *Enabling cumulative knowledge-building through teaching: A Legitimation Code Theory analysis of pedagogic practice in Law and Political Science.* Supervisor: Professor SM McKenna.

FELIX, Clyde Benedict Aurelius, M.Ed. (UWC), in Education, in the Department of Education. Degree by thesis. Thesis: *Narratives that shape the professional identities of mathematics teachers.* Supervisor: Professor M Schäfer.

FREIMUTH, Hilda, M.Ed. (Berne), in Education, in the Centre for Higher Education Research, Teaching and Learning. Degree by thesis. Thesis: *Cultural bias on the IELTS examination: A critical realist investigation.* Supervisor: Professor CM Boughey.

JAMES, Sally Jane, B.Sc. (Hons) P.G.C.E. (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *Teacher's roles and participation in a school-based intervention in rural KwaZulu Natal.* Supervisor: Professor PD Wilmot. Co-supervisor: Professor PR Irwin.

JOHNSON, Pamela, M.Ed. (UWC), in Education, in the Centre for Higher Education Research, Teaching and Learning. Degree by thesis. Thesis: *Control, compliance and conformity at the University of Fort Hare 1916 - 2000: A Gramscian approach.* Supervisor: Emeritus Professor P Vale.

LEE, Amanda Jane, M.Ed. (UKZN), in Education, in the Department of Education. Degree by thesis. Thesis: *A case study of a pre-service mathematics education course to grow and develop proficient teaching in mathematics in the Intermediate Phase.* Supervisor: Professor M Schäfer.

LINDLEY, David Stewart, B.Sc. (Hons) (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *Can expansive (social) learning processes strengthen organisational learning for improved wetland management in a plantation forestry company, and if so how? A case study of Mondi.* Supervisor: Professor H Lotz-Sisitka.

LÜCK, Jacqueline Catherine, M.Phil. (Stell), in Education, in the Centre for Higher Education Research, Teaching and Learning. Degree by thesis. Thesis: *Knowledge and knowing in the public management and public administration programmes at a comprehensive university.* Supervisor: Professor SM McKenna. Co-supervisor: Dr M Harran (NMMU).

MBELANI, Madeyandile, M.Ed. (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *An investigation into the development of knowledge and strategies for the teaching of visual literacy in under-resourced Eastern Cape schools.* Supervisor: Professor H van der Mescht. Co-supervisor: Professor MG Hendricks.

MILLAR, Bernadette Theresa, M.A. (Stell), in Education, in the Centre for Higher Education Research, Teaching and Learning. Degree by thesis. Thesis: *Becoming and Being: A critical realist exploration of graduate attributes and the emergence of identity in emergency medical science professional qualifications.* Supervisor: Prof CM Boughey. Co-supervisor: Dr SL Southwood.

OTEKI, Jane Bosibori, M. Environ Studies (Kenyatta), in Education, in the Department of Education. Degree by thesis. Thesis: *An exploration of an environmental resource management course as a process for sustainable development practitioners in Kenya: A case study.* Supervisor: Professor RB O'Donoghue.

SABAI, Daniel, M.Sc. (Wageningen University, Netherlands), in Environmental Education, in the Department of Education. Degree by thesis. Thesis: *Mobilising processes of abstraction, experiential learning and representation of traditional ecological knowledge in participatory monitoring of mangroves and fisheries: an approach towards enhancing social learning processes on the Eastern Coast of Tanzania.* Supervisor: Professor H Lotz-Sisitka.

SIBANDA, Jabulani, M.Ed. (Zimbabwe), in Education, in the Department of Education. Degree by thesis. Thesis: *Investigating the English vocabulary needs, exposure, and knowledge of IsiXhosa speaking learners for transition from learning to read in the Foundation Phase to reading to learning in the Intermediate Phase: A case study*. Supervisor: Professor J Baxen. Co-supervisor: Ms SR Murray.

STEPHANUS, Gervasius Hivengwa, M.Ed. (Namibia), in Education, in the Department of Education. Degree by thesis. Thesis: *Exploring teaching proficiency in geometry of selected effective mathematics teachers in Namibia*. Supervisor: Professor M Schäfer.

Faculty of Humanities

Degree of Doctor of Philosophy

BOULIND, Melissa Jane, M.A. (Rhodes), in Psychology, in the Department of Psychology. Thesis: *"I felt that I deserved it". An investigation into HIV-related PTSD, traumatic life events and the personal experiences of living with HIV: A mixed-method study*. Supervisor: Professor C Young.

DASS, Minesh, M.A. (UJ), in English, in the Department of English. Thesis: *"The Stranger at home": Representations of home and hospitality in three South African post-transitional novels*. Supervisor: Professor M Marais.

FOBE, Mila Pamella, M.A. (Rhodes), in African Languages, in the School of Languages. Thesis: *Curriculum outcomes, teaching practices and learner competencies in isiXhosa in three Grahamstown schools*. Supervisor: Professor R Kaschula. Co-supervisor: Dr D Nkomo.

MAKHUBU, Nomusa Mary, M.A. (Rhodes), in Art History, in the Department of Fine Art. Thesis: *The fantastic subject: A visio-cultural study of Nollywood video-film*. Supervisor: Professor R Simbao.

MARAIS, Susan Jacqueline, M.A. (UPE), in English, in the Department of English. Thesis: *(Re-) investing ourselves/ ourselves: Identity and community in contemporary South African short fiction cycles*. Supervisor: Professor G Cornwell.

MUTIZWA-MANGIZA, Shingai Price, M.Sc. (London), in Political and International Studies, in the Department of Political and International Studies. Thesis: *Political party institutionalisation: A case study of Kenya*.

NGQANGWENI, Hlonelwa, B.A. (Hons) (Rhodes), in Psychology, in the Department of Psychology. Thesis: *'Gender' and constructions of spousal mourning among the AmaXhosa in the Eastern Cape*. Supervisor: Professor C Macleod.

PITHOUSE, Richard Michael, M.A. (UKZN), in Political and International Studies, in the Department of Political and International Studies. Thesis: *In the forbidden quarters: Race, space and the enduring rationality of rebellion in Durban*.

REYNOLDS, John Hunter, M.Soc.Sci. (Rhodes), in Sociology, in the Department of Sociology. Thesis: *Challenging Hegemony: A provincial perspective on the limits of policy challenge in the South African state*. Supervisor: Professor FT Hendricks.

SMIT, Sonja, M.A. (Rhodes), in Drama, in the Department of Drama. Thesis: *Challenging Desire: Representations of whiteness in post-apartheid South Africa*. Supervisor: Dr A Krueger. Co-supervisor: Professor AE Sutherland.

TANYANYIWA, Precious, M.Soc.Sci. (Rhodes), in Sociology, in the Department of Sociology. Thesis: *A sociological analysis of the provision of extended studies as a means of addressing transformation at a historically white university*. Supervisor: Professor M Drewett.

TUKWASIBWE, Constance, M.A. (Makerere), in African Languages, in the School of Languages. Thesis: *The influence of indigenous languages on Ugandan English as used in the media*. Supervisor: Professor R Kaschula. Co-supervisor: Dr D Nkomo.

Faculty of Law

Degree of Doctor of Philosophy

OBURA, Ken Otieno, LL.M. (UP), in the Faculty of Law. Degree by thesis. Thesis: *Combating corruption while respecting human rights: A critical study of the non-conviction based assets recovery mechanism in Kenya and South Africa*. Supervisor: Professor L Juma.

Faculty of Pharmacy

Degree of Doctor of Pharmacy

COETZEE, Renier, M.Pharm. (North West)

Degree of Doctor of Philosophy

FAUZEE, Ayesah Fateemah Beebee, M.Sc. (Pharmacy) (Rhodes), in Pharmaceutics, in the Faculty of Pharmacy. Degree by thesis. Thesis: *Establishing a formulation design space for a generic clobetasol 17-propionate cream using the principles of Quality by Design*. Supervisor: Professor RB Walker.

MUGORE, Linnetie, MPH (Zimbabwe), in Pharmacy Practice, in the Faculty of Pharmacy. Degree by thesis. Thesis: *Adherence to antiretroviral therapy in children in Zimbabwe: A randomized control trial to validate a new self-*

PHD GRADUATES

reported adherence monitoring tool. Supervisor: Professor R Dowse. Co-supervisor: Professor K Nathoo (University of Zimbabwe).

Faculty of Science Degree of Doctor of Philosophy

ADEGOKE, Oluwasesan, B.Sc. (Hons) (Abeokuta), M.Sc. (Nottingham), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *The design of quantum dots and their conjugates as luminescent probes for analyte sensing.* Supervisor: Distinguished Professor T Nyokong. Co-supervisor: Dr E Antunes.

AWOKOYA, Kehinde Nurudeen, M.Sc. (Ibadan), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Development of styrene-based imprinted sorbents for selective clean-up of metalloporphyrins in organic media.* Supervisor: Professor N Torto. Co-supervisor: Professor Z Tshentu.

BALDANZI, Simone, B.Sc. (Hons) (Genova), M.Sc. (Rhodes), in Marine Biology, in the Department of Zoology and Entomology. Degree by thesis. Thesis: *Inter-individual variability and phenotypic plasticity: Tracking the effect of the environment on the biogeography, population structure, ecophysiology and reproduction of the sandhoppers Talorchestia capensis and Africorchestia quadrispinosa.* Supervisor: Distinguished Professor CD McQuaid. Co-supervisor: Dr F Porri.

BRITTON, Jonathan, M.Sc. (Rhodes), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Nonlinear optical studies of metallophthalocyanines and hemiporphyrazines in solution, polymer films and in the presence of nanomaterials.* Supervisor: Distinguished Professor T Nyokong. Co-supervisor: Dr E Antunes.

BURGER, Adélie, B.Sc. (UP), M.Sc. (Rhodes), in Biotechnology, in the Department of Biochemistry, Microbiology and Biotechnology. Degree by thesis. Thesis: *Purification and characterization of TbHsp70.c, a novel Hsp70 from Trypanosoma brucei.* Supervisor: Dr A Boshoff. Co-supervisor: Dr MH Ludewig.

CHIBAYA, Colin, M.Sc. (NUST), in Computer Science, in the Department of Computer Science. Degree by thesis. Thesis: *An investigation into XSets of primitive behaviours for path finding in stigmergic and message passing ant agents.* Supervisor: Professor S Bangay (Deakin). Co-supervisor: Professor G Wells.

CHIGWAMBA, Nyasha, M.Sc. (Rhodes), in Computer Science, in the Department of Computer Science. Degree by thesis. Thesis: *An investigation of parameter relationships*

in a high-speed digital multimedia environment. Supervisor: Professor RJ Foss.

DANIYAN, Michael Oluwatoyin, M.Sc. (Obafemi Awolowo), in Biochemistry, in the Department of Biochemistry, Microbiology and Biotechnology. Degree by thesis. Thesis: *The Plasmodium falciparum exported Hsp40 co-chaperone, PFA0660w.* Supervisors: Dr A Boshoff and Professor GL Blatch (Victoria).

DOWNEY, Nicola Jean, M.Sc. (NMMU), in Fisheries Science, in the Department of Ichthyology and Fisheries Science. Degree by thesis. Thesis: *The role of the deep spawning grounds in chokka squid (Loligo reynaudi D'Orbigny, 1845) recruitment.* Supervisor: Professor WHH Sauer. Co-supervisor: Professor M Roberts (Marine and Coastal Management).

ELLENDER, Bruce Robert, B.Sc. (Hons) (Rhodes), in Fisheries Science, in the Department of Ichthyology and Fisheries Science. Degree by thesis. Thesis: *Ecological consequences of non-native fish invasion in Eastern Cape headwater streams.* Supervisor: Dr OLF Weyl (SAIAB). Co-supervisor: Dr E Swartz (SAIAB).

GAMA, Repson, B.Sc. (Hons) (NUST), M.Sc. (Wageningen), in Biochemistry, in the Department of Biochemistry, Microbiology and Biotechnology. Degree by thesis. Thesis: *A lignocellulolytic enzyme system for fruit waste degradation: Commercial enzyme mixture synergy, immobilisation and bioreactor design.* Supervisor: Professor BI Pletschke. Co-supervisor: Dr JS van Dyk.

HUMPHRIES, Austin Turner, M.Sc. (Louisiana State), in Marine Biology, in the Department of Zoology and Entomology. Degree by thesis. Thesis: *Fishing for resilience: Herbivore and algal dynamics on coral reefs in Kenya.* Supervisor: Distinguished Professor CD McQuaid.

IGUMBOR, Osedum Peter, B.Sc. (Venda), M.Sc. (Rhodes), in Computer Science, in the Department of Computer Science. Degree by thesis. Thesis: *An investigation of protocol command translation as a means to enable interoperability between networked audio devices.* Supervisor: Professor RJ Foss.

IITEMBU, Johannes Angala, B.Sc. (Namibia), M.Sc. (Tromsø), in Marine Biology, in the Department of Zoology and Entomology. Thesis: *Trophic relationships of hake (Merluccius capensis Castelnau, 1851 and M. paradoxus Franca 1960) from the northern Benguela Current ecosystem (Namibia): Inferences from stable isotopes and fatty acids.* Supervisor: Dr NB Richoux. Co-supervisor: Professor TW Miller (Bunkyo-cho Ehime, Japan).

KLEYI, Phumelele Eldridge, M.Sc. (NMMU), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis:

The development of functionalized electrospun nanofibers for the control of pathogenic microorganisms in water.

Supervisor: Professor N Torto. Co-supervisor: Professor Z Tshentu.

MAKAME, Makame Omar, B.A. (Khartoum), M.A. (Dar es Salaam), in Environmental Science, in the Department of Environmental Science. Degree by thesis. Thesis: *Vulnerability and adaptation of Zanzibar east coast communities to climate variability and change and other interacting stressors.* Supervisor: Professor SE Shackleton. Co-supervisor: Dr T Andrew (Western Indian Ocean Marine Science Association).

MANN, Gareth Kerry Hamilton, M.Sc. (UCT), in Zoology, in the Department of Zoology and Entomology. Degree by thesis. Thesis: *Aspects of the ecology of leopards (Panthera pardus) in the Little Karoo, South Africa.* Supervisor: Dr DM Parker. Co-supervisor: Professor MJ O'Riain (UCT).

MIYA, Tshoanelo Portia, M.Sc. (UFS), in Ichthyology, in the Department of Ichthyology and Fisheries Science. Degree by thesis. Thesis: *Molecular systematics and antifreeze biology of Sub-Antarctic notothenioid fishes.* Supervisor: Dr M Mwale (SAIAB). Co-supervisor: Mr O Gon (SAIAB).

MMONWA, Kolobe Lucas, B.Sc. (Hons) (Limpopo), M.Sc. (Rhodes), in Marine Biology, in the Department of Zoology and Entomology. Degree by thesis. Thesis: *Molecular phylogeny, phylogeography and evolutionary adaptation of foraging behaviour amongst sympatric patellid limpets along the southern African shoreline.* Supervisor: Distinguished Professor CD McQuaid. Co-supervisor: Professor NP Barker.

MUDABUKA, Boitumelo, B.Sc. (Botswana), M.Sc. (Rhodes), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Electrospun fibre based colorimetric probes for biological molecules.* Supervisor: Professor N Torto.

MUTSVUNGUMA, Lorraine Zvichapera, M.Sc. (Rhodes), in Biochemistry, in the Department of Biochemistry, Microbiology and Biotechnology. Degree by thesis. Thesis: *The characterization of DNAJC3: Elucidating the function of the TPR domains.* Supervisor: Dr AL Edkins. Co-supervisors: Professor O Tastan Bishop and Professor GL Blatch (Victoria).

NAKAYINGA, Ritah, M.Sc. (Nottingham), in Microbiology, in the Department of Biochemistry, Microbiology and Biotechnology. Degree by thesis. Thesis: *Understanding the replication biology of Providence Virus: Elucidating the function of non-structural proteins.* Supervisor: Professor RA Dorrington.

NGNIE TUEMGNIE, Gaelle Tatiana, M.Sc. (Yaounde), in Chemistry, in the Department of Chemistry. Degree by

thesis. Thesis: *Synthesis and evaluation of novel heterocycles as potential HIV-1 enzyme inhibitors.* Supervisor: Dr R Klein.

NJUNGE, James Mwangi, M.Sc. (Kenyatta), in Biochemistry, in the Department of Biochemistry, Microbiology and Biotechnology. Degree by thesis. Thesis: *Characterization of the Hsp40 partner proteins of Plasmodium falciparum HSp70.* Supervisors: Dr A Boshoff and Professor GL Blatch (Victoria). Co-supervisor: Dr ER Pesce (Victoria).

ODUME, Oghenekaro Nelson, B.Sc. (Delta State), M.Sc. (Rhodes), in Water Resource Science, in the Institute for Water Research. Degree by thesis. Thesis: *An evaluation of macroinvertebrate-based biomonitoring and ecotoxicological assessments of deteriorating environmental water quality in the Swartkops river, South Africa.* Supervisor: Professor CG Palmer.

OGUNLAJA, Adeniyi Sunday, M.Sc. (Ilorin), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Oxidative desulfurization of fuel oils-catalytic oxidation and adsorptive removal of organosulfur compounds.* Supervisor: Professor Z Tshentu. Co-supervisor: Professor N Torto.

ONABOLU, Boluwaji, M.Sc. (Ibadan), in Water Resource Science, in the Institute for Water Research. Degree by thesis. Thesis: *Evaluating the post-implementation effectiveness of selected household water treatment technologies in rural Kenya.* Supervisor: Professor CG Palmer. Co-supervisor: Professor L Obi (Fort Hare).

PADAYACHEE, Eden Rebecca, M.Sc. (Rhodes), in Biochemistry, in the Department of Biochemistry, Microbiology and Biotechnology. Degree by thesis. Thesis: *Biochemical mechanisms towards understanding Alzheimer's disease.* Supervisor: Professor CG Whiteley. Co-supervisor: Dr AL Edkins.

PANICKER, Rekha Manoj, M.Sc. (Mahatma Gandhi), in Mathematics, in the Department of Mathematics. Degree by thesis. Thesis: *Some general convergence theorems on fixed points.* Supervisor: Professor V Murali. Co-supervisor: Professor SN Mishra (Fort Hare).

PULE, Bellah Oreeditse, M.Sc. (Rhodes), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Electrospun fiber based colorimetric probes for aspartate aminotransferase and 17 β -estradiol.* Supervisor: Professor N Torto.

SSESSANGA, Nicholas, B.Sc. (Makerere), M.Sc. (Rhodes), in Physics, in the Department of Physics and Electronics. Degree by thesis. Thesis: *Development of an ionospheric map for Africa.* Supervisor: Dr L-A McKinnell (SANSa).

TANCU, Yolanda, B.Sc. (Hons) (UWC), M.Sc. (Stell), in Chemistry, in the Department of Chemistry. Degree by

PHD GRADUATES

thesis. Thesis: *Electrospun nanofibers as solid phase extraction sorbents and support for alkylphenols colorimetric probes*.

Supervisor: Professor N Torto.

TANNER, Jane Louise, B.Sc. (Hons) (Reading), in Hydrology, in the Institute for Water Research. Degree by thesis. Thesis: *Understanding and modelling of surface and groundwater interactions*. Supervisor: Professor DA Hughes.

THOMPSON, Ernst Frederick, B.Sc. (Hons) (UCT), M.Sc. (Rhodes), in Fisheries Science, in the Department of Ichthyology and Fisheries Science. Degree by thesis. Thesis: *Towards the development of a larval feeding strategy for the white-margined sole* (*Dagietichthys marginatus*). Supervisor: Professor T Hecht.

VAN HEERDEN, Renier Pelser, M.Eng. (UP), in Computer Science, in the Department of Computer Science. Degree by thesis. Thesis: *A formalized ontology for network attack classification*. Supervisor: Professor BW Irwin. Co-supervisor: Dr L Leenen (CSIR).

VEALE, Clinton Gareth Lancaster, B.Pharm. (Rhodes), M.Sc. (Edin), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Synthetic analogues of marine bisindole alkaloids as potent selective inhibitors of MRSA pyruvate kinase*. Supervisor: Dr KA Lobb. Co-supervisor: Professor MT Davies-Coleman.

VILJOEN, Janet Erica, B.A. (H.M.S.), M.Sc. (Rhodes), in Human Kinetics and Ergonomics, in the Department of Human Kinetics and Ergonomics. Degree by thesis. Thesis: *Strength training and cardiovascular risk post-menses, with particular emphasis on the plasma lipoproteins: A randomised controlled trial*. Supervisor: Dr CJ Christie.

WALMSLEY, Tara Aisling, B.Sc. (Hons) (Rhodes), in Microbiology, in the Department of Biochemistry, Microbiology and Biotechnology. Degree by thesis. Thesis: *An investigation into the bacterial diversity associated with South African *latrunculid* sponges that produce bioactive secondary metabolites*. Supervisor: Professor RA Dorrington. Co-supervisor: Professor MT Davies-Coleman.

WASSERMAN, Ryan John, M.Sc. (NMMU), in Zoology, in the Department of Zoology and Entomology. Degree by thesis. Thesis: *Direct and indirect effects of zooplanktivorous predators on the estuarine plankton community*. Supervisor: Professor PW Froneman.



Photo: Paul Greenway

VICE-CHANCELLOR'S BOOK AWARD

A Report on Ubuntu - Professor Leonhard Praeg

Department of Political and International Studies

Ubuntu, a Nguni word that roughly translates as 'humanness', is widely known throughout South Africa, as well as across and beyond the African continent. This traditionally communal concept speaks to a humanism that contradicts individualism in any form by emphasizing the interdependence of human-kind. In 1994, the idea of *Ubuntu* crucially facilitated the process of forgiveness and reconciliation that saw South Africa peacefully overcome more than fifty years of violent apartheid rule. This socio-political transition was hailed as "a deed resounding over the earth"¹ and *Ubuntu* became a global sentiment for our shared humanity, an ethical orientation often expressed in catchphrase maxims such as 'I am because we are' or 'a person is a person through other persons'.

In the years since however, the meaning and orientation of *Ubuntu* have blurred. This is especially true in South Africa where the term is largely considered shorthand for 'being nice' or as a sign of the passing fad of an exhausted nationalism.² As such, its nature and relevance have largely been side-lined from popular culture and instead have become the domain of academics in a struggle to incorporate *Ubuntu* into a post-apartheid, globalised 21st Century South Africa.

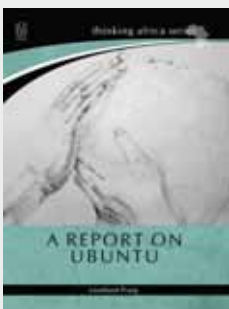
One such academic is Leonhard Praeg, Associate Professor in the Department of Political and International Studies. In March 2014 UKZN Press published his book *A Report on Ubuntu*³ - a dense, 320-page work of original theorising that reflects on the politics and philosophy that shape our use and understanding of *Ubuntu* today.

As the title reflects, Professor Praeg proceeds as an archivist of sort to structure a broad argument for *Ubuntu* that mediates between Western and African philosophy; colonial and post-colonial history; tradition and modernity; as well as communalism, constitutionalism and more to reveal the fault lines in debates which have informed the nature of *Ubuntu* over the past fifty years. The book also considers the role *Ubuntu* can play in post-apartheid South Africa, with the aim of reviving the concept. As he explains:

"It is a strange business that a concept we leaned on so fundamentally, at such an important moment in our history, has been so relegated to the margins of our political discourse. I think the nationalist discourse of the time is partly to blame because in that moment of transition the concept of *Ubuntu* got so sentimentalized that we now think there was nothing of



Professor Leonhard Praeg
Photo: FotoFirst



Professor Leonhard Praeg's book 'A Report on Ubuntu' published by UKZN Press

1 F.W. de Klerk, former South African President (September 1989 to May 1994), Acceptance and Nobel Lecture, December 10 1993.

2 Praeg, L. *A Report on Ubuntu*, (UKZN Press, 2014), cover review.

3 Ibid.

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substance left and we may as well give up exploring the concept and its emancipatory potential. I think another part of the reason is that neither the government nor the African National Congress (ANC) have truly sustained the ethical or taken the ethics of *Ubuntu* seriously. If that ethical impulse had been sustained into our contemporary politics then there could have been something very powerful about *Ubuntu* today, but that hasn't happened. So one of the questions I pose is this: is there a way of reviving this thing we call *Ubuntu*, in both popular and socio-political terms, in order to have an ethic to lean on in an effort to give more substance to our politics and to a society that has become largely driven by self-interest?"

As one reviewer notes, *A Report on Ubuntu* is "a necessary, important and unprecedented philosophical intervention into a debate that, for all the political posturing, has shown itself unable to think the politics of *Ubuntu*. Praeg's text redresses that lack by interrogating, it would seem, every element, every possible contingency, every possible variegation, of the term. He is relentless in his pursuit of rescuing *Ubuntu* from inanity and political nonsense and, moreover, instilling it in an intellectual integrity." ⁴

The repositioning of Ubuntu: 'First Philosophy' and 'critical humanism'

In order to approach this question of a revival in *A Report on Ubuntu*, Professor Praeg calls for a temporary suspension of those things which have drained *Ubuntu* of its nature and relevance - in essence, "the nationalist matrix and all the dead-end questions that have resulted from it".⁵ These 'dead-end' questions often fall into the domain of 'identity politics', a phrase that speaks to previous attempts by African scholars and philosophers to theorize *Ubuntu* by asserting its distinctiveness from dominant, oppressive characterizations of the West. Therefore, rather than over-determining *Ubuntu* by asking questions such as: what is African about this humanism, what does it mean to be African, what makes *Ubuntu* unique and authentic, Professor Praeg instead positions *Ubuntu* in the cosmopolitan terms of a 'critical humanism.' As he explains:

"If you talk about Ubuntu simply as if it could be unproblematically recalled, you are invoking what is called an African humanism but you are doing it in a very uncritical fashion, as if it were simply a matter of remembering what Ubuntu meant. What I mean by 'critical humanism' is when someone appropriates that historical humanism full knowing that the act of interpretation and appropriation co-determines

the meaning. So, for example, if you look at how African humanism was appropriated in the sixties, it was thought of as a kind of African socialism. And if you look at the use of the concept before that, in the 1930s or 1940s, when people first started talking about Africa humanism, no one equated the concept with reconciliation and forgiveness because that Christian discourse wasn't what they needed *Ubuntu* to do at that moment. This in itself shows you that you are not dealing with anything in itself - the context within which you revive this concept is going to co-determine the meaning you give it. It is therefore the responsibility of the academic or the philosopher to constantly be aware of that, and that is what I mean by 'critical humanism' - you are constantly, self-reflectively aware of how time and context and the nature of the academic project play into or co-determine the meaning of the thing that you think you are objectively analysing or remembering."

As one reviewer notes, "this method of discoursing about *Ubuntu* is best summarized by the slogan that 'everything is political'...and every scholar of *Ubuntu* must expose this political incubator that grounds the discussions, controversies, frames, epistemologies and ontologies that create certain meanings of Ubuntu or reject others."⁶

Therefore, the philosophical questions that determine the nature and relevance of *Ubuntu* are first and foremost political, a way not of saying something, but a way of doing something. For Professor Praeg, this philosophical practice of prioritizing the political, or of positing the political as 'First Philosophy', is central to his book, as it determines who takes part in a discourse and what direction the discourse will take.

In this sense, talk about *Ubuntu* also finds an expression that hardly appears in the literature, namely *Ubuntu* as power. Generally, talk of *Ubuntu* as associated with power represents a struggle by Black people to assert their identity and the meaning of their existence as legitimate. This power struggle is almost always invariably rooted against the West, as Professor Praeg explains:

"We are not just talking about *Ubuntu* because it is interesting; we are also talking about it in a real sense because we want to assert that African ways of being and thinking have a place in the world. Any knowledge we produce about Africa is inescapably rooted in a power struggle against the west, the history of colonialism, against the idea that there is nothing really here to think about, that Western stuff is more interesting or complex or worthwhile or more valuable. I am saying no, it's absolutely not."

⁴ Grant Farred, Professor of Africana Studies, Cornell University, United States.

⁵ Praeg, L. *A Report on Ubuntu*, (UKZN Press, 2014), cover review.

⁶ Molefe, M. 2014. *A Report on Ubuntu by Leonard Praeg*, Acta Academia, 2, p158.

ubuntu, Ubuntu and the 'glocal phenomenon'

Within this political framework, Professor Praeg introduces a critical distinction between *ubuntu* and *Ubuntu*. The former refers to 'cultural praxis' - a certain historical mode of life and enquiry that grew out of traditional sub-Saharan lifestyles. The latter refers to contemporary 'philosophical practice' - theories and ideologies that attempt to explain traditional modes of being and apply them to a secular, global and contemporary space.⁷ This distinction is further explained by Professor Praeg as a trajectory which moves from the old to the new and from the small to the big, from life's practice to abstract philosophy.

As such, it becomes crucial to consider the structures of knowledge that inform *Ubuntu* to further understand the power struggle between African and Western discourse, as Professor Praeg explains:

"If you look at the way people write about *Ubuntu* you realise that the things being said are inextricably linked to and rely quite heavily on global languages and borrowings from global discourses, such as Christianity, to explain the notions of reconciliation, forgiveness and dignity, all the things we have come to associate with *Ubuntu*."

Therefore, *Ubuntu* is positioned as something both local and global - a 'glocal phenomenon', traditionally African but informed by Western structures of knowledge such as Christianity, human rights and so on. Therefore, while advocates of 'identity politics' wish to retain *Ubuntu* as something purely African and local, Professor Praeg contends that this is no longer possible, as the global and the local of *Ubuntu* are tightly-woven, meshed understandings of two separate discourses that feed off each other. In other words, while Western structures of knowledge are often considered dominant, Professor Praeg insists the 'glocal' nature of *Ubuntu* is not a one-way street:

"It is not as if *Ubuntu* discourse only borrows from Western discourses for its articulation, it also feeds back into those discourses. So, for example, it gives us a different understanding of human rights, of Christianity, of dignity."

These discussion of 'critical humanism', 'First Philosophy' and the glocal-nature of *Ubuntu* constitute the first two chapters of *A Report on Ubuntu* - structuring the conditions under which we have come to think and write about *Ubuntu* in contemporary, post-apartheid South Africa. Throughout, Professor Praeg reiterates that *Ubuntu* should be approached as a critique rather than alternative to Western political

and philosophical forms. As one reviewer notes, "it remains rather a 'praxis of humanising' that resists the reductions and closing-downs of dominant systems of thought, thus helping us to recapture the promise of the future, and to open up the horizons of such a future."⁸ It is from this positioning that the remaining chapters follow.

Levelling the playing field: individualism vs. altruism

Largely concerned with jurisprudence, the last two chapters of *A Report on Ubuntu* turn to consider the emancipatory potential of *Ubuntu* in South African law. In other words, they seek to establish the emancipatory potential of an essentially communitarian philosophy set against a liberal democracy based on individual rights. Professor Praeg interprets *Ubuntu* in relation to the law through a 'double epoche' or 'double suspension' of two assumptions we uncritically make about *Ubuntu*: one, that only Africans have ever lived the transition from communal moral praxis to abstract moral theorizing; two, that only in Africa do we struggle with a tension between communitarian and liberal values.

Commenting on the latter, he says: "In the jurisprudence of any modern legal culture, you have a tension between altruistic and individualistic interpretations of the law. In certain legal discourses there is a recognition that individual rights are not supreme and sometimes you have to interpret the law in order to foster community as opposed to protecting individual rights - for me this is really the crux of the book. I don't believe *Ubuntu* is exhausted and I think there's a way this concept can provide us with a social philosophy as a counterweight against this brutal liberal, capitalist, individualist fascination with the individual and his or her self-interest. What are the social philosophies we can really invoke to critique capitalism? Socialism is over. So where are you going to go? And I think this is where local traditions can play an important role and can provide a counterweight and a critique, a supplement to liberal democracy."

From a strictly legal perspective, the concern of the last two chapters is therefore focused on whether or not *Ubuntu* can be drawn on to realize socio-economic rights which, because they are merely promissorial, are notoriously difficult to realize. Moreover, in a legal system where the state is left to rationally decide what it wishes to spend its money on, *Ubuntu* could provide the necessary leverage to bring about the realization of socio-economic rights in the country. In defense of his position, Professor Praeg references amongst others, the well-known landmark judgment of

⁷ Metz, T. 2011. *Ubuntu: Curating the Archive*, Philosophical Papers, 43:3, p451.

⁸ Wolmarans, G. 2014. *Book Reviews*, Strategic Reviews for Southern Africa, 36:2, p223.

⁹ *Port Elizabeth Municipality vs Various Occupiers* 2005 (1) SA 217 (CC).

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Judge Albie Sachs, namely *Port Elizabeth Municipality vs Various Occupiers*.⁹ In this judgment, Sachs J made reference to the 'new task'¹⁰ of the court, which was to manage the individual right of ownership against the new, equally relevant, rights not to be arbitrarily deprived of a home.

In this judgment, Sachs J went on to say that "the spirit of *ubuntu*, part of the deep cultural heritage of the majority of the population, suffuses the whole constitutional order. It combines individual rights with a communitarian philosophy. It is a unifying motif of the Bill of Rights, which is nothing if not a structured, institutionalized and operational declaration in our evolving new society of the need for human interdependence, respect and concern."¹¹

This judgment illustrates the potential emancipatory power of *Ubuntu* in jurisprudence. However, in the years since, this potential has fallen short for a number of reasons, as explained by Professor Praeg.

"One of the complications we have today is, ironically, the legacy of those very beautiful first generation constitutional court judgments. In them we get a glimpse of how a communitarian philosophy can supplement liberal democracy but they are also problematic judgements because nobody really grappled substantially with the meaning of Ubuntu. As a result the judgments got a bad name for being sentimental and overly idealistic, of making use of a concept without really giving it substance. It is not enough to say that things should be done 'in the spirit of ubuntu' - that is just not going to cut it anymore. However, it can be done and if you look at other legal cultures, at how they battle with the tension of individualist and communitarian understandings of the law, you can find a way to incorporate *Ubuntu* into the law in order to maximize socio-economic rights, notions of commonality, a sense of belonging, all of those things."

As such, *A Report on Ubuntu* aims its intense academic weight and rigour at South African jurisprudence with the ambition of reinventing the relationship between law and politics. While some have deemed the book unnecessarily difficult to read and complex, Professor Praeg hopes that his dense theoretical work will give substance and dignity to *Ubuntu*, both as a theoretical and jurisprudential concept, with the hope of placing it back on the agenda so that political theorists, activists and judges can draw on the concept for achieving emancipatory ends.

Ultimately, Professor Praeg's contribution is one that Judge Albie Sachs describes as the work of "an ultra-forceful, ultra-provocative and ultra-erudite mind" responsible for a journey that is "complicated and upstream, with a number of brilliant insights along the way."¹²

It is for this contribution that Professor Praeg's work, *A Report on Ubuntu*, was awarded the Vice Chancellor's Book Award.

Laura Watermeyer

¹⁰ Ibid, para 23.

¹¹ *Port Elizabeth Municipality vs Various Occupiers*, para 37.

¹² Praeg, L. *A Report on Ubuntu*, (UKZN Press, 2014), cover review.

VICE-CHANCELLOR'S DISTINGUISHED SENIOR RESEARCH AWARD



Professor Laurence Juma
Photo: Paul Greenway

Professor Laurence Juma

Faculty of Law

Professor Laurence Juma, a Professor in the Faculty of Law, has been acknowledged for his significant accomplishments as a researcher, scholar and teacher by being awarded the Vice-Chancellor's Distinguished Senior Research Award for 2014. Apart from this prestigious award, he obtained a NRF¹ rating in 2013 in recognition of his intellectual engagement and production of quality research outcomes in his field. Professor Juma holds degrees² from all over the globe - from Nairobi to Pennsylvania and from Notre Dame to Denmark - and has held teaching and research positions in Kenya, Denmark, Czech Republic, and Lesotho before coming to settle at Rhodes University.

His research interests range from African customary law, international human rights law and humanitarian law to general public international law. His principle research, however, spans two legal fields. The first is public international law, an area in which he has co-authored a book appearing shortly, published by Oxford University Press.³

The second is international human rights law. Inspired by the complexities of this field, Professor Juma began his legal career in international human rights and humanitarian law by working for a small human rights law firm in Nairobi representing the interests of detainees, while pursuing his academic interests as well. In the years since, Professor Juma has built an enviable, international reputation as a much sought-after scholar of human rights law. This interest is driven by his belief that human rights are essential in improving the lives of people in society, both locally and across the African continent, and it is this understanding that forms the basis of Professor Juma's highly regarded book, *Human Rights and Conflict Transformation in Africa*,⁴ published in 2013.

Human Rights and Conflict Transformation in Africa

It is estimated that roughly 35,000 people died in conflict in sub-Saharan Africa in 2014, making it the bloodiest year in the region in the past ten years.⁵ This violence results in explicit economic and material costs to African states and is also indirectly responsible for the death and

- ¹ The National Research Foundation (NRF) is a government agency that promotes and supports research in all fields of knowledge.
- ² Professor Juma received his bachelor of law (LLB) degree from the University of Nairobi, masters of law (LLM) from the University of Pennsylvania (USA), masters of arts (MA) in peace studies from the University of Notre Dame (USA) and doctor of laws (LLD) from the University of Fort Hare (RSA).
- ³ Citation for the Vice-Chancellor's Distinguished Research Award: Professor Laurence Juma, Rhodes University Graduation 2015.
- ⁴ Juma, L., *Human Rights and Conflict Transformation in Africa*, (Langaa RPCIG, 2013).
- ⁵ Africa Check: Fact Sheets and Guides (<https://africacheck.org>)

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displacement of millions, contributing significantly to the abject poverty and low levels of human security that exist across the region. This situation is worsened by steadily increasing numbers of civilian victims, as attacks against non-combatants are 'employed as deliberate strategies of war. This includes tactics such as systematic rape, executions, ethnic cleansing, and even genocide'.⁶

Therefore, while conflict resolution requires the reconstruction of economies, infrastructure and institutions, it also requires the reestablishment of society. How then do war-torn communities approach the matter of conflict resolution and peace-building, especially when limited by reduced social capacity and extreme civil disorder?

For Professor Juma, potential solutions can be found in the role played by human rights in armed conflict and in the interconnectedness between human rights norms and processes of conflict transformation. Embedded in this approach is an understanding of the dual-role of human rights as both sources of, and solutions to, political conflict. However, Professor Juma's approach is not merely theoretical but also pragmatic, aimed at providing solutions for conflict management and peace building in Africa.

Through a conflict continuum analogy, *Human Rights and Conflict Transformation in Africa* provides a workable framework for understanding the changing characteristics of a political conflict - moving from a stage of pre-conflict to the escalation stage, and finally to the stage of social and political reconstruction. Professor Juma then locates how interests of belligerents change as they relate to and interact with human rights norms and values at each stage of the conflict continuum. Through this approach the book aims to provide potential tools and solutions to help ease turmoil, strengthen the rule of law and promote the human rights agenda. As Dr Harri Englund Notes, the book's approach "will inspire further nuance in the study of conflict and post-conflict societies."⁷

"Ultimately, everybody recognizes that there are certain values that should be upheld, whether we are fighting or not, and there is an increasing recognition of the need to protect and respect human rights. This is why I believe my book makes a unique and significant contribution," says Professor Juma.

The Resurgence of International Law

Professor Juma is also interested in understanding the tensions that exist between domestic and international institutions, and interrogates this tension in a recent paper.⁸ He attributes it to the resurgence of international law and to the growing recognition of the legal authority of institutions resident within the international system. Indeed, he argues that this resurgence is "evident in the international system's ability to prosecute individuals for international crimes, independently resolve trade disputes, and even enforce the rights of individuals against their governments."⁹

These developments are further supported by the strong culture of international judicialism and the increasingly assertive role that international organisations, such as the United Nations (UN) and International Criminal Court (ICC), have played in the maintenance of international peace and security. This is affecting Africa's relationship with the international system, as he explains:

"Domestic states are realizing that international institutions have weight and power, and that they have universal jurisdiction, meaning you remain accountable around the world no matter where you may have committed a crime. This universal jurisdiction is making people realize that any crime is a crime committed against all of us as a human community. However, just as quickly as international law resurges, countries are trying to kill it because they don't want to sacrifice their sovereignty and won't always allow international institutions to take away a responsibility they feel they should have, so states are fighting this shift."

In South Africa, for example, the national Parliament passed the ICC Act in 2002, making provisions of the Rome Statute of the International Court (ICC), an international treaty, part of domestic law. However, South Africa has since signed an agreement with the African Union (AU), a continental union comprising of 54 African states, causing tension between South Africa and the ICC.

"Members of the national government have even called for the country's withdrawal from the ICC - but what about all those values that are embodied in the ICC Treaty, such as the rule of law, and the values of human dignity and equality? Are these values not something we should cherish?"

Recently, the African Union and many states in Africa that supported the establishment of the court and even referred

⁶ Paris, R., *At War's End: Building Peace after Civil Conflict*, Cambridge: Cambridge University Press, 2004, pg1.

⁷ Dr Harri Englund was a Reader and is the Director of the Centre of African Studies at the University of Cambridge.

⁸ Juma, L. "Unclogging the Wheels: How the Shift from Politics to Law Affects Africa's Relationship with the International System." *Transnat'l L. & Contemp. Probs.* 23 (2014): 305.

⁹ Ibid., p306.

matters to the court, have openly indicated their displeasure at the court pursuing African leaders. Professor Juma's work attempts to unravel the complexities inherent in Africa's paradoxical relationship with the international system, manifested in the current tension between African states and the ICC. His work isolates the increasing uneasiness of states with the international system, premised on their inability to play politics in resolving certain kinds of international disputes as the main reason why many African states currently oppose the work of the ICC. He emphasises the role of law in the making of an international system that may be much more successful in ending impunity, providing human security and protecting human rights.

Infusing Human Rights into the Research Agenda & Beyond

Through his research, Professor Juma has had a notable impact at the intersection of politics and law. His studies and writings on various conflict situations in Africa provide valuable insights into a number of subjects, such as political violence, transnational conflicts and approaches to peace, conflict management and conciliation, peacekeeping and post-conflict peace building in Africa.¹⁰

This interest has also resulted in a collaborative project between the Faculty of Law, Rhodes University, and the Netherlands School of Human Rights Research, Utrecht University, namely the ICC & Africa Research Project. Established in 2012, the project aims to provide a platform for academics and Law students to participate in forum discussions on international criminal justice and on the role of the ICC in Africa. The project has further enabled the two institutions to convene workshops at The Hague for academics drawn from across the African continent. In addition, the project has a student exchange component that is already benefitting LLM students.

Professor Juma further demonstrates the transformative power of human rights in strengthening the position of vulnerable parties in society through his research into customary law.¹¹ Here in particular he is interested in revising aspects of the Lesotho customary code, much of which still prejudices women in society. In 2013, for example, Professor Juma supported the case of a woman who wanted to be a chief but wasn't allowed to for the simple reason that she was a woman. Despite losing in the court of appeal, the case, while challenging the customary code, has inspired a nationwide debate around whether or not some aspects of the customary law are still relevant.

To further demonstrate his scholarly influence, Professor Juma has served as an expert panelist for the United Nations Working Group on the Use of Mercenaries as a Means of Violating and Impeding the Exercise of Right of People to Self-Determination and was recently a key note speaker at the 16th meeting of the UN Panel of Experts on People of African Descent in Geneva. He has also referred for leading international Journals and has been a member of the editorial boards of *Speculum Juris*, the *African Yearbook on International Humanitarian Law*, and the *Journal of International Law & Diplomacy*.¹²

As one of his peer reviewers for the Vice-Chancellor's Distinguished Senior Award notes, "...Professor Juma's human rights scholarship, in particular, captures the nuances and complexities of human rights in an ever-changing, diverse and complex world. His publications...can rightly be described as path-breaking and inspiring. Overall, his scholarship is not merely theoretical and analytical, but also pragmatic and aimed at solving real-life problems."

The national and international impact of Professor Juma's scholarly activities has cemented his reputation as a distinguished researcher at Rhodes University.

Laura Watermeyer

¹⁰ Citation for the Vice-Chancellor's Distinguished Research Award: Professor Laurence Juma, Rhodes University Graduation 2015.

¹¹ Juma, L., "Chieftainship Succession And Gender Equality In Lesotho: Negotiating The Right To Equality In A Jungle Of Pluralism", *Texas Journal of Women and the Law*, 22 (2012): 157.

¹² Citation for the Vice-Chancellor's Distinguished Research Award: Professor Laurence Juma, Rhodes University Graduation 2015.

VICE-CHANCELLOR'S DISTINGUISHED SENIOR RESEARCH AWARD



Professor Charlie Shackleton
Photo: Paul Greenway

Professor Charlie Shackleton

Department of Environmental Science

The majority of sub-Saharan Africa's population resides in rural areas. With scattered development and limited access to commercial resources, these millions of people rely heavily on biological products from the wild to secure their livelihoods. This includes the use of edible products such as fruits, vegetables and bush meats, as well as a variety of alternative uses including firewood collection and the harvesting of medicinal plants.

Over the years research into the role, sustainability and conservation of these wild natural resources in South and southern-Africa has become the domain of Professor Charlie Shackleton from the Department of Environmental Science. Now a considerable field of study, he was first introduced to the subject in 1989 when he obtained a position at Wits Rural Facility in the Mpumalanga lowveld.

"That is when the research really opened up. My wife, Professor Sheona Shackleton, and I were part of a start-up team responsible for looking at plant and animal species and human usage and how the two interact. Slowly we started getting deeper and deeper into the nexus of natural resources and human wellbeing, and, fortunately, I was there when the research really started to blossom and have stayed with it as it has become something stimulating and significant."

Through a focused study on the relationship between wild natural resources and livelihoods, Professor Shackleton revealed the various roles these products play in assisting households on two primary levels.

The first, termed the 'daily net', describes the everyday collection of wild natural resources to secure food, energy and shelter. This 'daily net' enables households to use scarce cash resources to secure other commercial household needs that cannot be collected from the wild, including education and investment in agricultural tools.¹

The second is as an 'emergency net' assisting households in times of sudden economic, social or environmental change. This includes, for example, the death of a breadwinner or when facing an increase in the cost of staple foods and goods. In this instance, the collection of wild natural resources becomes a coping strategy that allows households to sustain their livelihoods in times of hardship.²

However, not all wild natural resources are used within households - much is also used in commercialization and trade, both within rural communities and in external, regional markets. For many, the selling and crafting of wild natural resources is their main livelihood activity, enabling them to generate

1 Shackleton, C. and Shackleton, S. 2004. *The Importance of non-timber forest products in rural livelihood security and as safety nets: a review of evidence from South Africa*, South African Journal of Science, p659.

2 Ibid.

income well above the poverty line. Moreover, the income saved and generated through the use of wild natural resources has benefits not only at a household level but also at a national level - it is estimated that the 'daily net' of wild natural resources alleviates some of the costs incurred by government in rural areas, to the value of billions of rands annually.³

Through these and other insights Professor Shackleton's research is able to make an economic case for something often seen as lacking value and significance, thereby having a direct bearing on the lives of rural individuals.⁴

"There tends to be little regard for rural lifestyles or for the lives of the rural poor in South Africa and in neighbouring countries. Our research challenges this. We were poised at a time when this research was breaking and I like to believe that my spouse and I were at its forefront locally and internationally, and that we have influenced this research internationally. We have actively pushed our research into policy wherever we can, especially around the uses of rural land and the sustainable use of resources, to influence the potential future of this development area in South Africa and abroad."

The urban-rural continuum and the use of wild natural resources

Over the years Professor Shackleton's research has therefore focused primarily on rural populations to demonstrate the vital role wild natural resources play in providing opportunities for poor and marginalized communities. This dedication has seen him become one of the top researchers of sustainable livelihoods in South Africa and was further rewarded in 2013, when he was awarded the prestigious South African Research Chairs Initiative (SARChI) Chair in *Interdisciplinary Science in Land & Natural Resource Use for Sustainable Livelihoods*.

However, as his research seeks to maintain an impact-orientated approach, this focus has undergone a shift in recent years. Africa is now home to as many urban dwellers as North America, and increasing urbanisation in sub-Saharan Africa has transformed spatial configurations in and around town and cities. It therefore becomes important to examine how rapid urban growth influences the availability and use of wild natural resources for livelihoods across the rural-urban continuum.

To better understand this link, Professor Shackleton and colleagues conducted an interview-based study across six small to mid-sized cities (SMCs) in five African countries.⁵ The purpose of this study was to examine the importance of these resources for livelihoods, as well as to investigate the differences in their use along the rural-urban continuum.

"What we discovered is that the mode of acquisition of natural resources changes through time and space, but not the demand. So we found that the longer people live in urban or peri-urban areas, for example, rather than dropping their use of natural resources they tend to purchase them," explains Professor Shackleton.

Therefore, while most urban households are largely just consumers of these resources, for peri-urban and rural households wild natural resources still form a fundamental part of their diet and provide a source of cash and non-cash income. Further, for recent migrants moving into urban centres, the use of wild resources remains widespread in the face of limited access to land and other productive resources. This demonstrates that despite increasing urban pressure and distance from rural centres, wild natural resources remain integral in sustaining livelihoods, as further illustrated by Professor Shackleton:

"Another recent study by one of our students aimed to quantify the use of these resources that people living in SMCs extract from their urban settings. This is compared to all other sources of incomes, such as what might be earned from selling or salaried employment, for example. The study reveals that approximately 20% of household income is made up from what is being collected in urban environments. That is massive and if it were taken away, the impact on livelihoods would be huge."

Insights such as these are crucial in understanding the role wild natural resources play in local livelihoods in Africa and are further significant when considering urban planning, land usage and the development and maintenance of rural-urban landscapes. This is particularly true for South and sub-Saharan Africa as much research looking at the interplay between these resources and urbanisation is coming from the United States and Europe.

"This means that the various policy agendas, and most of the debates, are being tabled abroad. They provide us with their approach, however it is often very different to what we need in our country and while we can learn from what they are doing, there are multiple contextual differences that we

³ Ibid, p660.

⁴ Citation for the Vice-Chancellor's Distinguished Senior Research Award: Professor Charlie Shackleton, Rhodes University Graduation 2015.

⁵ Schlesinger, J., Drescher, A., and Shackleton, C. 2015. *Socio-spatial dynamics in the use of wild natural resources: Evidence from six rapidly growing medium-sized cities in Africa*, Applied Geography.

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have to consider and that we have to adapt to suit our research, our focus and our societal development.”

Land and resource reform in South Africa

A fundamental factor influencing national land use in South Africa is the history of extreme inequality and resource ownership that resulted from Apartheid and the infamous Land Act of 1913, resulting in high rates of urban in-migration and poverty. This complicates the role wild natural resources play in sustaining livelihoods, as vacant land close to urban centres, often sites of harvesting and resource collection, become transient areas of housing and informal development.

“Every time vacant land is occupied or built up and developed we have to consider what sort of natural resources it may be supplying to people. It might be nothing, the land might already be degraded but it might be something. Perhaps that land holds significant volumes of firewood or fruit that people use on a daily basis to survive. If you wipe that out, the consequences are going to be pretty serious.”

To better examine this tension Professor Shackleton and his Postgraduate, Humphrey Kaoma, conducted a study that sought to interrogate the reliance of urban populations on the direct benefits provided by trees, which, amongst others, include energy, construction, fruits, medicines and carved utensils.⁶

The research revealed that of the 450 households interviewed, 91% relied on firewood - the main source of which was trees on the edge of town. This is crucial when considering livelihood sustainability, as firewood remains for many their main household energy source. In small towns in the Eastern Cape, for example, 65% of households use firewood as their primary energy source.⁷

Fruits were also used widely in urban informal settlements, collected outside of the home space (33%) or from the homestead plot (48%). Their research therefore revealed that collected fruits remain an important nutritional source to poor urban households, providing many micronutrients and vitamins, thereby contributing to food security. This is significant when one considers that urban poverty, malnutrition and food insecurity are increasing in urban households.

However, these and other direct consumptive uses of tree products were not the only benefits described in the research. Environmentally, trees help reduce storm-water runoff thereby reducing soil erosion as well as provide windbreaks in agricultural and residential areas. Moreover, trees have a number of non-consumptive benefits including, shade and psychological rejuvenation. For some, trees also contribute to cultural identity.

Taken together, the direct consumptive and non-consumptive uses as well as environmental benefits, “have the potential to improve human wellbeing, enhance local environmental sustainability and reduce poverty.”⁸

Low-cost housing and urban greening

Trees and green spaces therefore play a significant role in securing livelihoods, especially for the many migrating from rural to urban settlements. As such, it is important to examine the policy environment for urban forestry and greening in South Africa, set against the striking need for access to adequate housing.

“Basically, we have all the right sentiments but we are struggling to express them. A lot of the time issues around the provision of green spaces and the maintenance and development of urban greening come second to what is considered a more pressing need. For many living in South Africa that need is housing but unfortunately I think our current approach lacks long-term strategic vision. We are spending a lot of money to provide what, in my opinion, is largely temporary housing because it is not viable for long term survival. Most of these places are still far away from work and amenities but on top of that they lack green spaces, trees, spaces for recreation and ultimately confer no dignity on the people living there and that is not ‘adequate housing’.”

Looking at recent, centrally planned and built low-income housing schemes (known as RDP suburbs) in South Africa, Professor Shackleton and colleagues sought to examine whether environmental and sustainability concerns were present in national urban development and housing policies.⁹ The results indicated that while present, specific guidelines for implementation were absent. Further, the study indicated that the density and number of species of trees was lowest in the new RDP suburbs relative to the township and informal

6 Kaoma, H. and Shackleton, C. 2014. *Collection of urban tree products by households in poorer residential areas of three South African towns*, Urban Forestry & Urban Greening.

7 Ibid, p250.

8 Kaoma, H. and Shackleton, C. 2014. *Collection of urban tree products by households in poorer residential areas of three South African towns*, Urban Forestry & Urban Greening, p244.

9 Shackleton, C. et al., 2014. *Low-cost housing developments in South Africa miss the opportunities for household level urban greening*, Land Use Policy.

10 Ibid, p500.

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Professor Charlie Shackleton

areas. However, common in all three suburbs, was a high level of appreciation for the value and intangible benefits of trees by residents.¹⁰

"What people get from trees and access to green spaces is massive, across the range - from utilitarian goods you can't live without through to psychological and health benefits. Unfortunately, our research has shown a lot of missed opportunities in new RDP suburbs to improve overall urban sustainability and liveability, instead housing developments seem to constrain all the tangible and intangible benefits of trees and green spaces to the environment and the people living in it."

For Professor Shackleton, a big part of redirecting the approach to poverty alleviation, low-cost housing developments and urban greening is by positioning the role and use of wild natural resources on the development agenda. This is especially significant as these resources provide multiple livelihood benefits to local communities and regional and national economies.¹¹

"Development requires all dimensions, it requires a social aspect, an economic aspect and I would argue an environmental aspect. Is social or economic development at the expense of the environment really development, because ultimately these things exist in a balance and more of one or another will tip that balance. I don't think you can have long-term development without considering the environment. If you exploit it, you are going to have a lot of pollution, degradation and waste, which impacts on health and wellbeing and so you might have a massive economic boom but at what expense?"

Drawing the links

While many national and international policy and development blockages still exist to hinder the contribution wild natural resources can make to people's lives, Professor Shackleton is still positive about the impact his and others research is having.

"Change on the kind of level we are talking about takes sustained engagement but things are picking up momentum. We have been approached by researchers from around the world, by people in other disciplines, all of who want to include South African examples in their research outputs or in their publications. What we are doing here is being recognized and its spilling out into other areas of social and natural science and that gives me hope."

Professor Shackleton has collaborated with researchers from around the world and has attracted research funding from a range of international funding organisations based in Australia, the United Kingdom, Canada, Germany and India. He has also made gains to ensure his work is not only felt in academia, but also in civil society - he has, over the years acted on the advisory panel in development of the National Strategy for Sustainable Development, been the Chair of the Technical Liaison Committee of the Albany Working for Water Programme, was a member of the International Advisory Committee for the multinational research project on Sustainable Adaptive Strategies of Rural Communities, and was member of the WWF technical advisory group on resource co-management for the Wild Coast.¹²

Moreover, he is not only dedicated to his research but also to his students - since coming to Rhodes University, Professor Shackleton has supervised 8 PhD students, 32 Master's students and over 45 Honour's students, covering a wide range of topics that bridge the social and natural sciences.¹³

As such, Professor Shackleton has contributed significantly to the growth and development of the Environmental Science Department, which is now recognized as one of the fastest growing at the University, and shows no signs of letting up.

"I want to keep drawing the links between the rural and urban work I have been doing to enable us to approach policy makers with concrete ideas that can guide decisions and policy choices in South Africa and further afield. Ultimately, this research just keeps growing and no one knows where it might take us from here. It is really exciting."

In light of these and his many other influential contributions to the study of wild natural resources and sustainable livelihoods, as well as his for his dedication to holistic, methodologically rigorous and impact-orientated research and learning, Professor Charles Shackleton was awarded the 2014 Vice-Chancellor's Distinguished Senior Research Award.

Laura Watermeyer

11 Shackleton, C. and Pandey, A. 2014. *Positioning non-timber forest products on the development agenda*, Forest Policy and Economics.

12 Citation for the Vice-Chancellor's Distinguished Senior Research Award: Professor Charlie Shackleton, Rhodes University Graduation 2015.

13 Citation for the Vice-Chancellor's Distinguished Senior Research Award: Professor Charlie Shackleton, Rhodes University Graduation 2015.

VICE-CHANCELLOR'S DISTINGUISHED RESEARCH AWARD

Professor Barry Irwin

Department of Computer Science

The internet has changed the world. As of May 2014 this global chain of data - unrestricted by time or space - connected roughly 2.9 billion users on every continent, even Antarctica. It is estimated that the number of connected devices will reach 80 billion by 2020, generating an internet economy of roughly \$14.7 trillion. This offers extraordinary opportunity for the development of information technology (IT), improved global convenience and unprecedented ease of access to information. However, this all comes at a considerable risk.

As the world becomes increasingly digital, more and more information is being stored electronically and made available on networked devices. As a result, the internet is an increasingly attractive hunting ground for intruders looking to make money and get noticed. This stream of cyber-activity threatens the online security of retailers, banks, gaming networks, corporations, organisations, governments and more.

Therefore, to protect the confidentiality, integrity and availability of their computer system data from malicious attacks, internet users turn to specialists in Information Security (IS). In South Africa, Professor Barry Irwin, Associate Professor in the Department of Computer Science at Rhodes University, is widely regarded as one of the leading specialists in the IS community. Professor Irwin is also one of the few national academics qualified as a Certified Information Systems Security Professional (CISSP)¹, highlighting the depth of his technical ability to protect organisations and individuals from the growing number of sophisticated online attacks, as he explains:

"We have seen a massive growth in the level of cyber-threat sub-Saharan Africa is facing, especially over the last couple of years. One of the biggest reasons for this is because Africa is swimming in bandwidth at the moment, making the continent an increasingly interesting target for malicious cyber-activity. In South Africa, this is especially true because of the immense roll-out of fibre optics since 2010. This increased high-bandwidth internet connectivity makes Africa an attractive target for exploitation by cyber-criminals who can take advantage of it to commit fraud, or Denial of Service attacks. The region is also facing a huge shortage of IT skills, and then, within that, an even worse shortage of security skills, so there is a definite risk we are opening up to."

In South Africa one of the most common forms of cybercrime is phishing, which refers to the act of tricking individuals to divulge their financial data, like usernames and passwords, through the use of counterfeit websites, emails or SMSs. According to the South African Banking Risk Information



Professor Barry Irwin
Photo: Paul Greenway

¹ CISSP is a vendor-neutral certification backed by the International Information Systems Security Certificate Consortium (ISC²), a globally recognised, non-profit organisation dedicated to enhancing the IS field.

Centre, South Africans lost more than R2.2 billion to phishing scams in 2013. However, this is considered a conservative estimate, as much fraud still goes undetected in the absence of more effective fraud prevention. This highlights the significant need for IS professionals in South Africa and across the continent.

Security and Networks

Professor Irwin brought his considerable wealth of knowledge to Rhodes University after working for a number of years in the commercial Tele-communications industry. It was on joining Rhodes University that Professor Irwin went on to establish the Security and Networks Research Group (SNRG) in 2003. Concentrated in the areas of IS and Computer Networks, members of SNRG are involved in a variety of projects that include a selection of visualisation techniques for security metrics, network traffic classification and monitoring, intrusion detection and hardware accelerations of these and other network and security centric tasks using commodity graphic cards.

In 2011 Professor Irwin lead the launch of an innovative Masters programme in the Department of Computer science, focussed on the needs of professionals within the IS industry. Through its breadth and depth of scope, this has been one of Professor Irwin's most visible achievements, as he explains:

“Over the years the program has been incredibly successful and it has continued to expand and develop, building up extensive expertise at Rhodes University in the IS field. There has also been a lot of outside investment in SNRG because there is huge international demand for people who have the skills we build here. In South Africa, we probably don't graduate more than thirty students as a whole in the security field and we are one of the biggest programs in the country. This means that we average roughly two hundred people on a waiting list with space for no more than ten or fifteen.”

Since its inception in 2003, SNRG has developed into amongst the largest and most active research groups at Rhodes University, and is the biggest research group in the Department of Computer Science.²

From 2005, Professor Irwin directed the focus of SNRG to

passive traffic analysis - where devices are used to watch the flow of data, or traffic, as it passes through a network system. This focus resulted in the construction of a network telescope that is able to provide a sampled view of malicious traffic on the internet. More specifically, network telescopes are able to provide empirical data on this traffic by monitoring ranges of unused internet space. The network telescope established by Professor Irwin in 2005 is the longest continuously running monitor of its kind anywhere in the world. The next biggest is found in the United States, however it is only able to record up to one week of internet traffic. The network telescope at Rhodes University has recorded every single day for the last ten years.

“In a perfect world we would never see any traffic, because there is no legitimate reason for it. However, we are seeing upwards of a couple of million packets of traffic every month related to scanning, misconfiguration, and the results of attacks elsewhere on the internet. So effectively, we get splash-damage reflected back to us, which allows us to infer a lot of what is happening on the global internet by looking at a very small slice of it. We then use this information for a whole range of different things, such as a data source for some of the visualisation projects we have done to data processing. There is always something new to come from the network telescopes we have and we have also produced a vast number of research papers from the data we have collected. Really, it is a gift that just keeps giving.”

Since the initiation of the first network telescope in 2005, Professor Irwin has added another four, allowing him to capture around seven million packets of traffic a month over 1280 individual internet addresses

Ramping up SNRG's Capacity

Recently, Professor Irwin's has shifted the research focus of SNRG from passive intelligence gathering to its more strategic application. This includes working alongside the South African National Research Network (SANReN) ³, the Council for Scientific and Industrial Research (CSIR) ⁴ as well as partnering with firms such as KPMG ⁵.

“A lot of what we are doing now looks at how we can scale up our traditional monitoring networks to larger, faster networks, theoretically right up to a national level. SANReN, for example, wants to build a security services capacity

² Citation for the Vice-Chancellor's Distinguished Research Award: Professor Barry Irwin, Rhodes University Graduation 2015.

³ SANReN is a high-speed network dedicated to science, research, education and innovation traffic. It is part of the South African government's comprehensive approach to a National Integrated Cyber-infrastructure System (NICIS) to ensure successful participation of national researchers and scientists in the global knowledge production effort.

⁴ The CSIR is a scientific and technology research, development and implementation organisation in Africa that performs multidisciplinary research and technological innovation with the aim of contributing to industrial development and improving the quality of life of people in South Africa.

⁵ KPMG is an international network of member firms offering audit, tax and advisory services.

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network and they are looking at what they can offer to institutions to ensure that those who are members of SANReN feel they are getting value from the service. We have also done a lot of collaboration with CSIR around national defence contracts. Through this collaboration we have secured significant student funding and have had a number of Masters and PhD students to work on areas relating to national defence. I have also done work with KPMG and partnered with them in the security analytic space, which means mapping the huge piles of data generated by the security systems in an organisation. It has reached a point where humans are unable to process that breadth of data - banks, for example, can produce over a terabyte of security logs a day - so you have to start looking at how you can put processes in place that can filter it down to something that can be reactioned. I think this is going to be a very interesting project that fuses two of the hot areas in IS - big data and security - keeping SNRG, and the students involved in the research group, up to date with all the big trends on the horizon."

His dedication to impact-orientated research and development has resulted in Professor Irwin being ranked amongst the high-productivity researchers at the University. To date, Professor Irwin's publications have attracted more than 300 citations in the work of other authors, further demonstrating the significance of his scholarly voice. This dedication further extends to his exceptional mentoring of Postgraduate students in recent years. Since coming to Rhodes University in 2003, Professor Irwin has supervised a total of 40 Masters and PhD students - with many valuing the quality of his mentorship long after they're gone. ⁶

"Our students are motivated by the opportunity to contribute to conferences, so they produce great work and a significant research yield year after year. This really helps to boost the reputation of our research group internationally and locally and get us on the map, which is fantastic. I have also been very lucky working at Rhodes University because I have been allowed to focus on attracting and supervising Postgraduate students and on nurturing them through our program. This has really helped to build fantastic relationships with our students and they don't forget about us once they move on from here. In fact, the many alumni have been incredibly supportive and many have gone on to hire graduates of the research group. These relationships have also helped us to develop the SNRG program because we stay connected to what is happening beyond campus, to 'real-world' problems. Some of the students have even managed to take their research projects with them and put them into use within their new organisations, which shows

me that the research we are doing here, and that the program we are running, is relevant and useful and we are not just doing research for the sake of doing it."

Going Global with HoneyNet

In 2011, Professor Irwin co-founded the South African Chapter of the Global HoneyNet project. As an international, non-profit security research organisation, the HoneyNet Project is dedicated to the investigation of cyber-attacks with the aim of developing open-source security tools to improve IS. ⁷ These security tools are made available to businesses and government agencies to improve awareness and educate the public about threats to information systems around the world.

"The HoneyNet Project is something I got involved with quite selfishly really. It is a fantastic platform with really valuable data that we can use to understand what bad guys are really doing out there. Most of it looks at malware analysis. So we set up a juicy-looking target, a machine that doesn't have all its patches on, for example, and we basically wait for it to get infected. Then we grab all the infected stuff and pull it apart to try and unpack the tool chains that are involved in malicious cyber-activity."

With Chapters all over the world, the HoneyNet Project also provides Professor Irwin with access to other IS professionals around the globe.

"In Africa, there is really only us, Kenya and Tunisia, with a large number of Chapters in Europe. So we are quite stuck away out here, on the southern-most tip of Africa in Grahamstown, which sometimes feels like the middle of nowhere. The HoneyNet Project really gives us a fantastic platform to stay connected with the rest of the world through knowledge-sharing, conferences and more."

Despite being a side-project to SNRG, Professor Irwin still ensures his students benefit from his involvement with this world-leading security research organisation.

"The HoneyNet Project is by invitation only, so we have the advantage of being able to invite people we know and trust and people we know have a dedicated interest in improving the security space. For our students, this means networking and potentially collaborating with some fantastic, world-best IS professionals and this is one of the reasons we have produced some really great things for the South African Chapter."

⁶ Citation for the Vice-Chancellor's Distinguished Research Award: Professor Barry Irwin, Rhodes University Graduation 2015.

⁷ The Global HoneyNet Project (www.honeynet.org).

Information Security and Beyond

Professor Irwin is also a regular speaker at national forums such as ZaCon, the annual South African Telecommunications and Applications Conference (SATNAC), as well as the annual Information Security for South Africa conference (ISSA). Internationally, work from Professor Irwin and his students has been presented at the NATO conference on Cyber Conflict (CyCon) and the International Conference of Cyber and Information Warfare (ICCIW). On a more local scale, Professor Irwin has shared his significant IS knowledge with a number of community and public service organisations, ranging from rural schools in the Eastern Cape through to non-profit organisations like Scifest Africa, and the South African Anti-Phishing working group.⁸

This contribution to local knowledge-sharing, as well as his significant research-yield, resulted in Professor Irwin being awarded the Vice-Chancellor's Distinguished Research Award for 2014. This recognition is a platform he plans on using to continue the success of SNRG and beyond.

"The receipt of the Vice-Chancellor's Distinguished Research Award is recognition not only of my own work, but of the substantial work done over the years by the Postgraduate students within SNRG, along with the other staff I have collaborated with. Looking towards the future, I envisage growing the number of staff involved in SNRG, and our subsequent involvement in larger projects nationally, particularly in the areas of security analytics and large scale security monitoring."

Laura Watermeyer

⁸ Citation for the Vice-Chancellor's Distinguished Research Award: Professor Barry Irwin, Rhodes University Graduation 2015.

TOP 30 RESEARCHERS

Rhodes University acknowledges and congratulates the following for their accredited research outputs (Journal Publications, Books & Chapters, and Masters/Doctoral students graduated) in 2014:

1. **Distinguished Professor Tebello Nyokong**
Department of Chemistry
2. **Dr Adrienne Edkins**
Department of Biochemistry & Microbiology
3. **Professor Denis Hughes**
IWR (Institute for Water Research)
4. **Professor Chrissie Boughey**
CHERTL (Centre for Higher Education, Research, Teaching & Learning)
5. **Professor Martin Hill**
Department of Zoology & Entomology
6. **Dr Nicole Richoux**
Department of Zoology & Entomology
7. **Professor Heila Lotz-Sisitka**
Environmental Learning Research Centre
8. **Professor Mellony Graven**
Department of Education
9. **Professor William Froneman**
Department of Zoology & Entomology
10. **Professor Sheona Shackleton**
Department of Environmental Science
11. **Professor Gary Baines**
Department of History
12. **Professor Charlie Shackleton**
Department of Environmental Science
13. **Professor Keith Cowan**
Institute for Environmental Biotechnology
14. **Professor Barry Irwin**
Department of Computer Science
15. **Professor Amitav Acharya**
Department of Political & International Studies
(Research Associate)
16. **Professor Russell Kaschula**
School of Languages
17. **Dr Julie Coetzee**
Department of Zoology & Entomology
18. **Dr Claudiu Remsing**
Department of Mathematics

TOP 30 RESEARCHERS

19. **Professor Martin Villet**
Department of Zoology & Entomology
20. **Professor Louise Vincent**
Department of Political & International Studies
21. **Distinguished Professor Christopher McQuaid**
Department of Zoology & Entomology
22. **Professor Kirk Helliker**
Department of Sociology
23. **Professor Leonhard Praeg**
Department of Political & International Studies
24. **Professor Lynette Louw**
Department of Management
25. **Dr Joanna Dames**
Department of Biochemistry & Microbiology
26. **Dr Dan Parker**
Department of Zoology & Entomology
27. **Professor Lucien van der Walt**
Department of Sociology
28. **Professor Makaiko Chithambo**
Department of Physics & Electronics
29. **Professor Mike Marais**
Department of English
30. **Professor Lilla Stack**
Department of Accounting

BIG DISCOVERIES FROM A MICROSCOPIC WONDERLAND



Dr Adrienne Edkins
Photo: Paul Greenway

Dr Adrienne Edkins

Head of Biomedical Biotechnology
Research Unit (BioBRU)

It is easy to be captivated by molecular biology's complex symmetries, what Dr Adrienne Edkins pithily calls its "elegance". Added to the subject's wonderland neatness, the pleasing aesthetic swirl, say, of the DNA helix, are the intrigues of its language. We find ourselves here, for example, in the world of "chaperones" and "co-chaperones", of "chaperone functions" and "perturbed shapes".

This is the fascinating microscopic universe of "folded" and "unfolded" proteins - the difference between the two relating to a protein's ideal 3-D shape (folded) compared with its perturbed or stressed shape, which is referred to as unfolded. "I love the intricacy of biology and the elegance of its systems," says Edkins, Head of the university's Biomedical Biotechnology Research Unit (BioBRU).

"For me the reward comes from finding something completely new and looking at it microscopically. That's what I find fascinating. I think big discoveries come from a deep understanding of details. Think of how much came about, for example, from the understanding of the DNA structure."

Edkins' field of study owes much to a little-known but pioneering Italian geneticist called Ferruccio Ritossa. In his study of the salivary glands of small flies called *Drosophila*, Ritossa noticed that flies' cells respond differently when placed under, say, the stress induced by an increase in temperature when compared to how they behave at ambient temperature. Strange as it may sound, the change in laboratory temperature wasn't planned. It happened by accident because a colleague left an incubator on by mistake. Never let it be said that science doesn't progress via the odd lightning strike of luck.

Ritossa's research led him to propound the notion of what he called *heat shock response* - the idea that cells respond to different types of environmental stress by producing specific groups of proteins - and therefore repairing themselves, or at least trying to do so. Ideally, this protein production will help to return them to a state of normality, or what is called homeostasis.

Ritossa's work was added to and strengthened by the experiments of Alfred Tissieres, a Swiss biochemist and molecular biologist who worked closely with James Watson after Watson and Francis Crick had discovered the DNA helix. Back in the 1970s, Tissieres revisited Ritossa's work and effectively discovered heat shock proteins. These proteins deal with the protein damage caused by stresses in that they produce or express what are called molecular chaperones. These chaperone proteins help with the

BIG DISCOVERIES FROM A MICROSCOPIC WONDERLAND

Dr Adrienne Edkins



Dr Adrienne Edkins with Postgraduate students

Photo: Paul Greenway

refolding of damaged proteins, returning the protein to its ideal 3-D state, and so soften or alleviate what is referred to as protein aggregation.

In layman's terms, chaperone and co-chaperone proteins play an ameliorating or restorative role, as the cells try to respond positively to forms of stress. Stresses can take many forms and can range from extremes in temperature and nutrient deprivation, to genetic changes that occur in many cancers and degenerative illnesses. This is the very point at which Edkins and Postgraduate members of her laboratory find things interesting, because in studying the biology of certain molecular chaperones - like Hsp90 - more light may be thrown on cancer and stem cell biology, which is what they are really interested in. "What we are trying to understand are the fundamentals of the cellular stress response in different environments," says Edkins. "How do physiological and pathological functions relate? This is important because this will govern how and why cells enter the disease state. Cancer-causing mutations manifest in a slight changes in specific proteins and activate the cell's inherent stress response. In this context, a system that is meant to help cells survive in times of stress, gets hijacked and used to sustain the diseased state. This makes the stress response a target for disease prevention and treatment - but only if we understand its activity in detail".

Molecular biology is in some ways a slightly ambiguous space - Ritossa, after all, was a geneticist who discovered heat shock response almost by accident - for no other reason that it often strays into other areas. From a disciplinary point of view it can wander into fields such as biochemistry and genetics and even gravitate towards chemistry. For all this, Edkins has never found any problems, whether they

be institutional or collegial, and is exceptionally grateful for her hitherto and continuing institutional support, believing that Rhodes is unique. She has seldom - if ever - found that she suffers from lack of respect or has had her way blocked because she is a woman.

"The lack of bureaucracy and academic freedom [here at the university] has been absolutely vital to me," she maintains.

"I haven't had to find a place in that academic pecking order and that has been very precious. It also has something to do with the size of the institution. Rhodes is unique in that we don't have an associated medical school, which is traditionally where most of this type of research would have been done. We have to work at the level of novel approaches and ideas. We have to be clever in the way that we design our questions in the absence of easy access to clinical samples."

As an analogous point, Edkins is almost a pure academic in that she doesn't only favour research that is used solely for commercial ends. "While commercialisation of research is important, I believe that we shouldn't neglect fundamental curiosity-based research in the search for a product," she says with zeal. The examples of Crick and Watson, Ritossa and Tissieres would certainly support her view. Here were scientists who doggedly went about their business in a pure realm untainted by the need to produce commodities. Some of them even had a little luck along the way, like the time when a colleague forgot to turn off the incubator.

Luke Alfred

ECOLOGICAL BORDERS AND TRANSITIONAL SPACES

Dr Nicole Richoux

Department of Zoology & Entomology



Dr Nicole Richoux
Photo: Paul Greenway

Spend any prolonged period with Dr Nicole Richoux of the Department of Zoology and Entomology and you realise she uses phrases like “interest me” and “fascinate me” with almost frightening regularity. Not only do the phrases tell you something about her intellectual restlessness - the way in which she has ranged across related fields, wandering from marine biology to ecosystem ecology like a curious albatross - but they’re suggestive of her willingness to adapt in following her passions. It means that over the course of her career she’s travelled some way from her original interests and at the moment she finds herself most interested in spaces called “eco-tones”. These are best defined as those ecological borders or transitional spaces where, for example, the ocean meets the land, or freshwater estuarine systems engage or connect with both terrestrial and saltwater habitats around it.

It wasn’t always this way for the Canadian from British Columbia who did her Phd in Newfoundland. Once upon a time she was interested in more conventional marine biology work done in the Southern Ocean, particularly as far as trophic feeding relationships were concerned. She even went so far as to follow Professor William Froneman, a leader in his field, all the way from her home in Canada to continue her research here in South Africa.

“I originally wanted to study jellyfish,” she says stifling a gentle laugh as she thinks back on it all. “But they were quite ephemeral and only really found in abundance on the West Coast, so then I started studying estuary life. I’ve learned that you have to be flexible!”

Much of her research into estuarine systems has been where the Kariega River meets the sea south of Grahamstown. She’s particularly interested in how habitats in the estuary are connected - and what the consequences of those connections happen to be. “We asked ourselves where the organisms in the water were getting their carbon, energy and basic nutrients from. I utilised fatty acids and stable isotopes ratios in animal tissues to give me an idea of the trophic connections - who is eating whom, for example - and where it is being done.”

Not only is Richoux interested in estuarine spaces, she’s interested, in fact, with any line of spatial or habitat intersection. She finds rocky shores fascinating therefore, for their changeability and dynamism; she’s also interested in that point where saltwater meets freshwater and the life that

moves in and around the tidal pools and edges of the sand and sea. The advantage here is that often terrestrial habitats or freshwater systems are studied in isolation from the habitants around it. One of the real scientific advantages of being sensitive to 'eco-tones' is that it gives one a broader or more holistic view, one which is less fragmented than that offered by simply focusing on a single habitat. "The changes in inter-tidal spaces really interest me," she says. "I like to look at those changes from one space to the next. How is it effecting the barnacles or mussels. And how is that environment changing."

As well as the Kariega, the Kowie River freshwater system has provided another site of investigation and research, not only for her but a bunch of Postgraduate students. "Last year we had a large team of students looking at that system and what we were really looking at was connectivity," she tells me. "How, for example, the ocean is linked to the freshwater system and how what we call reciprocal subsidies - in other words, movements both ways - play themselves out. So how do insects from the streams relate to the terrestrial landscape? What happens to land insects once they fall into the stream? We're interested in the aquatic insects, dragonflies, spiders, frogs, small indigenous fish and their feeding habits. All the time we are trying to find out more about how their behaviour influences the system."

Like many academics working at Rhodes, Richoux has a strongly-defined sense of place, and is passionate about the estuarine-rich Eastern Cape. She says that the Eastern Cape offers both unique opportunities and a distinctive land and seascape across which life is played out. Estuaries in South Africa, for example, are unique in that rivers are not always strong enough to break through beaches or sandbanks close the edge the sea - with the result that rivers or lagoons are often landlocked, leading to specific local habitats and situations. Often, she says, the models from, say, North America are only partially applicable to what occurs on the ground in the Eastern Cape. "The focus elsewhere is on huge systems and models," she maintains. "And while we can use a combination of systems to make sense of our estuaries here, it is important to show that these concepts don't tell the entire local story."

All of Richoux and her department's research takes place against a backdrop of profound environmental change, whether this be alterations in local temperature, seasonal rainfall variations or water purity. She mentions, for example, that sewerage run-off from Grahamstown is noticeable in the Blaauwkrantz River's nitrogen signatures where the river is closest to the town. Once the Blaauwkrantz has joined the Kowie downriver, the water tends to be less polluted, however, the river having found its own means to purify itself. The important thing here, presumably, is that the system can't be self-regulating forever. Sooner or later all

systems reach a point of no return from which it becomes almost impossible to recover.

As far as tipping points are concerned, Richoux's take on transformation follows the course that campus politics are best practised close to home. "I'm trying to do my bit for diversity and transformation by initiating a dialogue with a diverse group of students in my environment," she tells me. "We have quite an international collection of students here at Rhodes and we have strong bonds in the department. We try and talk and get to know each other and I believe those things are important."

Luke Alfred

CROSSING INTER-DISCIPLINARY BOUNDARIES

Professor Sheona Shackleton

Head of Department of Environmental Science

If you were looking for one word in which to sum up Professor Sheona Shackleton's research, the point around which almost everything else gravitates, that word would be vulnerability. Certainly, there's an element of falsification in reducing research and academic work to a single word or idea, but much that fascinates Shackleton - and much she cares about - revolve around the vulnerabilities of the rural poor in the Eastern Cape.

An environmental scientist by training and profession, Shackleton covers much ground and crosses many inter-disciplinary boundaries, but the real fault-line in her work would be the point at which rural lives - and vulnerabilities - intersect with other processes, natural and human. These could be economic, climatic and geographic, gender-related and cultural - even political. The list isn't endless, but it is deep and dynamic, containing everything from dependence on the social grant because of widespread unemployment, to a generalised decline in small-scale farming and subsistence gardening which leaves the poor further exposed to hikes in food prices, to the use of food gathered from people's local environment.

Some of these processes might simply be social and involve, for example, the fact that rural life is changing in ways (think technological) no one would have envisaged even 20 years ago. No longer do youngsters want to be shepherds or play a role in tending crops or small gardens, for example. Growing cycles are changing with climate change and the stampede for scarce resources is a constant and everyday battle. Young people are themselves vulnerable to the temptations of modern life and one of the key findings in Shackleton's research is that the young are objects of widespread social concern, even anxiety, from their parents and elders.

"The biggest thing that older people and the middle-aged are concerned about is the youth and the future of the areas in which they live," says Shackleton. "There are big concerns about crime and violence as well as drugs and alcoholism."

Like much in the rural communities in which she does her work, we should be careful not to be too hasty in our generalisations. She finds, for example, that concerns about widespread poverty and the youth and their future tend to come from women, while men are more worried about unemployment. As a caveat to this, however, she said that while men are interested in youth matters - and support the women's views - they are not interested to the same extent that women tend to be. It's often simply the case that they don't articulate their fears of the future in the same way.



Professor Sheona Shackleton
Photo: Paul Greenway

Rural women, Shackleton has found, are the pivots or lode stars around which much of community life revolves. They are, for example, more creative than men in getting money into impoverished households in times of acute need, and they generally have more chutzpah and creativity. As an example of such creativity Shackleton talks about the cutting and weaving of palms, reeds and grasses or the picking or harvesting of wild fruits and other natural products. Rural necessity, to adapt the phrase, is the mother of singular invention.

In single-headed households women's social capital, says Shackleton, surpasses that of men, but men have more land, given that these societies are patriarchal and patrilineal. "Women, we've found, are the main cultivators and they collect resources like water," she says. "They also deal with care in the community by and large, while men tend livestock. Women show greater creativity in terms of self-employment and women generally are supporting each other in interesting ways."

Shackleton's work through the department is not only academic but socially-oriented and community-engaged, in that she and members of the environmental sciences department regularly visited communities in Lesseyton (outside of Queenstown) and one in Gatyana, roughly between Willowvale and the Wild Coast. The aim here is to use what Shackleton calls "social learning" to make members of the communities more knowledgeable, more resourceful and ultimately more confident.

Shackleton describes the process as a very "bottom-up" process where problems were posed and solved and knowledge and learning were produced by reciprocity rather than rote or top-down interventions. "Essentially we took the social learning groups through a process where they learnt about the world and told us about their world, but more as facilitators than teachers - there was certainly an emotional dynamic and a give-and-take," she says. "Some of them became more confident and found jobs. Those who completed the problem-solving course received a certificate from Rhodes University. Some members went off afterwards and formed poultry groups and soccer groups and care-givers groups. The idea is that the knowledge gained in the process then spreads through social networks. We also had some *Imbizos*, open forums to share what was learned with other people from the community who hadn't been able to attend some of the initial groups."

Although life in the rural heartlands of the Eastern Cape is marginal, often requiring skills of survival alien to most city dwellers, Shackleton has always been impressed by the communities' capacity for mutual help and support. She notes that such communities have their informal institutions and deep lore and practical knowledge abounds. "People

certainly understand life cycles of plants and plant products," she says, noting that while such knowledge is important, it's also being tested - perhaps threatened - by climate change. "Everybody is saying that the growing season is coming later. The problem there is that if there's some early rain and people plant, you have to endure a long dry period before the actual rains come - you have what is called an intra-seasonal drought and that's difficult to deal with," she says.

For all the fact that here are people with limited means and limited opportunities, Shackleton believes the rural poor are remarkably spirited and resourceful. "What we've found in our research is that in general people are amazingly adaptive," she says. "We need to find ways of building on that because the reality of the situation out there is that life is really tough."

Luke Alfred

DE-MYTHOLOGISING THE BORDER WAR

Professor Gary Baines

Head of Department of History

Professor Gary Baines, Head of the Department of History, has always been fascinated by the Border War, its conscription, indoctrination and camaraderie, even its language and its myths. What he didn't perhaps foresee when he first started investigating the Border conflict, was that there would be a corresponding growth of interest from the society at large, whether this has taken popular or academic forms. "I would go so far as to say that it's almost an industry," he says wryly, "or, if not, almost a sector of the book industry that has boomed in the last ten or so years. There's certainly a healthy captive audience out there."

The interest in the Border War and the memories it spurned has been driven from many quarters and sectors of society. There have been memoirs and fictional accounts in English and Afrikaans, bar-room gossip and reunions, orthodox military history and dispute, all of it giving Baines' project both fuel and credibility. Most importantly, however, has been the rise of the Internet, a libertarian realm for the deviant, the suspect, the pained and - sometimes, just sometimes - the desperately unguarded. "The internet is a space for gravitation," he says. "It isn't censored or controlled in any way. It's a virtual pub."

For all this, the stream of memoir and witness couldn't have happened in the years directly after the war or, for that matter, in the honeymoon period after democracy. "Given the nature of our political transition I think it was almost seen to be politically incorrect to talk from the point-of-view of white conscripts," he says from his departmental study, light spring rain spotting the windows. "The Truth and Reconciliation Commission did address the trauma - although very few conscripts came forward - but it generally takes about ten years for the first writing and memoirs to appear. Most traumatic events are followed by relative silence."

As well as documenting the stories and sifting through the memories - his ten-years-in-the-making *'South Africa's Border War: Contested Narratives and Conflicting Memories'* was published in 2014 - Baines has also found himself de-mythologising the war. The conflict in the then South West Africa and southern Angola was, for example, not experienced by the majority of conscripts as unpopular. While the conflict might have been politically dubious for some the outside world and deeply suspect for the black South African majority, the war was experienced almost schizophrenically by those on the ground. "There is quite evidently a sense that not everything about the apartheid military era was bad," says Baines. "You often hear things like: 'These were the best years of my life - which I wouldn't want to repeat', that's quite a common refrain. There's the camaraderie and the brotherhood, some of these units still have reunions, so it's not all bad by any means."



Professor Gary Baines
Photo: Paul Greenway

Another aspect of de-mythologising the war, holding it up to the light of more robust enquiry, is the idea that the public at large were led to believe that the SADF was one of the best fighting machines on the continent - a fact with which Baines quietly demurs. "The professional soldiers believed that their hands were tied by the political decision makers and that compromised their fighting capabilities," says Baines. "On the other hand, when considering Operation Savannah in 1975, the SADF won early, but that was before Cuban involvement and stalemate and withdrawal later on."

"In the end, a lot of it is bluster, soldier talk, you know, some SADF equipment was obsolete and I don't think they were as good as they thought they were. Generally I don't think that the SADF was nearly as successful as it was made out to be. A myth of invincibility was created by the politicians' and the propaganda machine."

As a young man straight out of school, Baines himself was conscripted for a year, so his investigations have a neat autobiographical backstory. He points out that military service was first dealt with by a ballot system, before conscription was instituted for a year, then 18 months and then a full two years, although camps remained mandatory. Between 1967 and 1989 - the period of universal white male conscription - 600 000 white South African men were conscripted, with military spending consuming approximately 25% of the Gross National Product when the war in Angola was at its height. "There was probably also a fair bit of slush fund money for nefarious deeds like the Civil Co-operation Bureau, so these kinds of figures can be misleading," he says.

For all of his de-mythologising and excavation, there's a sense from Baines that his project has subtly changed emphasis, an organic shift which has almost happened without him noticing. Now memory itself is the battleground. "The remembrance is now almost more important than what happened on the ground," says Baines. "It tells us something about who and what we are, about the past and its relationship to the present."

There is a profound sense, too, that the behind-the-scenes chafing and murmuring isn't yet done - by a long shot. People are slowly excavating their past, coming to terms with the conflict, the upheaval, the guilt and the shame. As people get older and trauma recedes, so they want to communicate their stories, hand them down to younger generations and generally commemorate and memorialise the past, some of this finding its way into the public realm, some simply circulating amongst friends and family.

In this respect, you can't help but feel Baines has tapped into a rich and potentially endless vein of remembrance. There is much of this going on at the moment. On the balance of probabilities, as democracy ripens and matures, as the new nation becomes a little bit more confident about its place in the world, so the memory of the war might become the memory wars - as various groups jostle for control of the past.

Luke Alfred

AT HOME IN THE FIELD OF FORENSIC ENTOMOLOGY

Professor Martin Villet

Department of Zoology and Entomology

African flies get around, or so contends Professor Martin Villet of the Department of Zoology and Entomology. "They've invaded South America," he says, "particularly those that are attracted to dead bodies. In a hundred years' time they might have moved into Europe and Asia."



Professor Martin Villet
Photo: Paul Greenway

Villet is an entomologist, so his professional interests include flies, but he's an entomologist with a twist, in that he's made an academic home for himself in the fledgling field of forensic entomology. What this boils down to is that he studies insects - flies, beetles and maggots - for the clues they give about a decomposing body, be it human or rhinoceros. They tell a surprisingly deep and complicated tale, ranging from time and even place of death (if this isn't known already, or the body has been moved) to the presence of possible toxins or unusual traces in the corpse. "There's a clock-like process of change which will help a forensic entomologist estimate how long the corpse has been dead," says Villet soberly, as he goes on to detail the eruption of bacteria from the intestines as an immune system fails, and the volatile smell that bacteria produce, attracting flies that will lay eggs, which produce larvae that grow at a clock-like pace. As the maggots go about their lives, predatory insects like ants and beetles follow in their wake. "You can get forensically useful information about a dead body for about three weeks from flies. If you are looking at beetles, that period probably extends to about eight weeks," he says.

By forensically investigating the insects attracted to a corpse, the entomologist can tell intriguing and useful things about its death. So, for example, if someone has taken an overdose or been poisoned, the forensic entomologist can often see the poison or drug residue in flies. "Less common - but not impossible - is when we realise the body has been moved or stored because the flies that have been attracted to the body aren't from that area. Sometimes we can even extract DNA from the intestines of a maggot found in the boot of a car and confirm whether the maggot has fed on human tissue, and if so, match it to a body, which would allow us to identify the human and associate them with the vehicle," he says.

For all this, there are certain quality assurance protocols that need to be observed when scanning insects for tell-tale clues. When removed as evidence from a decomposing body, flies should ideally be transported to a laboratory quickly, in a cooler box, with constant monitoring of their temperature. This is not only academically sound practice but evidentially sound practice, too. Villet says that, in part, his work is concerned with the quality assurance measures necessary for guaranteeing the trustworthiness and validity of evidence. "Once credibility is ruined," he says, "there is no real way back." Seeing to it that evidence is properly gathered and presented - in a word, authoritative - is one way of guaranteeing this.

Villet's journey to becoming only one of three active forensic entomologists in Africa (all three of them are in South Africa) is a slightly circuitous one. He admits late in our interview to always having been captivated by puzzles and jigsaws but, narrowly-defined, he is a zoologist working on insects rather than an entomologist. In the mid-1990s, he started to study and lecture on the ecological processes of how communities of animals change over time following disturbance. This, in turn, led to the study of dead animals and the insects they attract. This was a good teaching tool that became a research programme, and so, almost serendipitously, new fields of enquiry and investigation were opened up.

Given that Villet is doing fascinating work in a crime-riven, even crime-obsessed country, one might common-sensically expect that his expertise is in greater demand. This isn't the case. He has a B-rated academic reputation nationally and has increasingly come to be seen internationally as an African expert. This, however, contrasts sharply with his comparative neglect by the police, the crime authorities and the criminal justice system, where his knowhow is only rarely used. "This is really an unaddressed field," he says.

"In the last 30 years there have only been three active forensic entomologists in the entire continent, all of them here in South Africa. As far as science is concerned, you only have three African countries involved: Nigeria, Egypt and South Africa. Kenya is involved with the agricultural sciences but broadly, science is confined to those three."

As far as his growing international reputation is concerned, in 2014 he contributed to an international reference work on the need for standardised practices in forensic entomology globally, the main purpose of which is to ensure that evidence is robust and authoritative (that word again) enough to stand up in court. This is important because it contributes to the formation of best-practice protocols in the field throughout the world. He also contributed a chapter of forensics to *The Manual of Afrotropical Diptera*, a catalogue of African flies edited by the Curator of Entomology at the State Museum and published by the South African National Biodiversity Institute. As far as the near future is concerned, he wants to spend more time investigating the entomological clock. "We know it exists and can describe it," he says. "But to understand the mechanism better will allow us to make predictions. Once we have that greater predictive ability, we have greater knowledge. That would be an academic priority for me."

He would also like to see the work he is doing being used to a greater extent in a more formalised setting. "I would like to get national protocols established so that when police bring evidence to court it is credible," he says. "This is the technology transfer dimension of research. We need to make the judicial and investigative systems aware that this kind of evidence can be used. This is the public awareness and social engagement element of my work."

Listening to Villet carefully, one notices two things: his passion and his neatly understated sense of humour, a possible necessity in as fraught a field as the one in which he finds himself. He admits, for example, to encountering reserve - possibly even disgust - from people in social settings, particularly when they ask him what he does. He has strategies for dealing with this. So, for example, he generally uses more value-neutral words like 'larvae' rather than the word 'maggot' when talking to those who he is likely to unnerve or offend. It is, he finds, a careful balancing act. Although he doesn't say this explicitly, people are interested in what he does and how he goes about it, but there is a corresponding threat that the more they hear, the more chance there is for them to be turned off. Unless, of course, he's exceptionally careful with his registers, and refers to maggots as larvae and corpses as bodies, and other such lawyerly sleights of rhetorical hand.

Luke Alfred

Professor Kirk Helliker

Head of Department of Sociology

Although it is well-hidden, Professor Kirk Helliker has a beautifully dry sense of humour. "God comes first with 90% of my students," he says gently, reflecting on the convention of dedications in post-graduate theses.

"Then I [as supervisor] get a second passing reference. After that its parents, friends, aunts, brothers - the entire support network. This can be surprisingly large where my students are concerned."

Head of both the Sociology Department and the Unit of Zimbabwean Studies, Helliker was born in Canada, plugging into an understated liberal tradition that has allowed him freedom for openness and open-mindedness without prescription. This has combined over the years with a healthy degree of wanderlust, particularly when it comes to southern Africa. He left Canada in 1976 as a 20 year old and studied at Rhodes before his political activities forced him to flee northwards to Zimbabwe; so began a fairly stable toing and froing between Canada, South Africa and Zimbabwe, a situation that culminated in him suddenly leaving the Zimbabwe farm on which he lived at the time of the veterans' land occupations in 2007. "You could probably say that the chickens and pigs managed to negotiate a slightly better deal for themselves," he muses without apparent bitterness.

While destabilising, the move back to Rhodes after leaving Zimbabwe has had hidden benefits. "It's allowed me to look at things from a different perspective," he says. "It's allowed me to be quite fresh, and, in a sense, quite productive since I came back."

Helliker's academic interests and research revolve around questions of socio-political transformation, agrarian and land reform, social movements and theories of emancipation. For all this, he still gets an emotional and pedagogic thrill in shepherding a post-graduate student towards the submission of their thesis, walking the long road with them and helping to avoid the blind rises, potholes and invariable thunderstorms. It's frequently an emotional (and often tiring) time, and despite the fact that he is frequently relegated to second-place on the dedications page, he wouldn't change the intensity of the partnership for anything in the world.

In 2014, he had eight full-thesis Masters students graduate, a considerable load, with their thesis topics ranging from discussions of the taxi industry in East London to the role of international aid agencies in Matabeleland South. There was a thesis on development aid in Mozambique and one on land reform in the Eastern Cape; there were even theses on the dynamics of child support grants in KwaZulu-Natal and issues of male medical circumcision in Harare. Given this wide sweep, one might expect a dwindling of interest when faced by some slightly worthy topics but Helliker dubs his engagement with his post-graduate students "invigorating". He



Professor Kirk Helliker
Photo: Paul Greenway

sharpens the point at a different stage of the interview when he compares the academic standard of students nowadays to what he encountered in the mid-eighties. "Their intellectual and thinking skills are far, far improved from what was the case back then," he says.

While he's been given a healthy fillip in the last seven or eight years by the move south, Helliker has also found that his identity as a relatively non-judgemental Canadian has helped - both with academic research and inter-acting with his students. He admits that he isn't bothered by certain subjects - certainly not to the degree that, say, local South African academics are - with the result that issues in need of discussion that might be avoided by others are grabbed with a healthy lust. "I guess in many ways I don't carry the baggage that many white South Africans carry - I don't know," he reflects. "It has certainly allowed me to be pretty open about race. The discussions don't make me uncomfortable. I'm not sure if this is my liberal Canadian Anglo-Saxon background or quite what. It's not a problem for me."

Given that he isn't made uncomfortable about contemporary discussions of race, Helliker is worth listening to for the calm reasonableness of his views. He says that in general, his students aren't a particularly radical bunch, the implication being that they shouldn't be pigeon-holed as firebrands or old-style 1980s *betoozers*. "The feeling of student disconnection from the university here at Rhodes is broadening," he says soberly. "Somehow we've got to restore trust, otherwise things are going to get worse." It's a statement which probably holds for the rest of the country, although, closer to home, he is well-pleased with the strides made by young black women intellectuals at the university, saying: "They are beginning to provide an intellectual vibrancy in the [Sociology] department. We need young black academics to spur us on and women, through their engagement with black feminist thinking, are doing just that."

As well as the hardy perennial that is the discussion of race, Helliker isn't afraid to confront another emotive issue given particular relevance when it comes to the rich farming soils in parts of the Eastern Cape - land reform. Helliker is not one given to reactive or crude pessimism but his prognosis is not optimistic. The outcome of reform, he says, is not likely to be 'particularly positive'. "I'm interested in socio-political transformation," he says. "I don't see the state is a vehicle to process change. I think that must come from autonomous struggle - the state is no more than a bulwark against change when it comes to issues of land reform."

When he is prodded on issues around when exactly it was that things started heading south with our neighbour to the

north, particularly with regard to Robert Mugabe, he says that he isn't comfortable with "big man" theories of politics. He prefers instead to map matters onto the structures of the party and the state and, in this regard, mentions that the seeds of democratic Zimbabwe's decline might be found in the rigid centralities of Zanu-PF before independence. The implication here is that there was a lack of political vitality both pre and post-independence, something which, as Helliker well understands, has cost the country dear.

Few academics can have combined the practical and the intellectual as seamlessly. His exposure to the realities of land occupations has given his experience a sharp edge, as has his experience of increasingly desperate forms of state repression. As well as informing his work, and giving it a cutting edge relevance, it has given him the patience and wherewithal to deal empathetically with his post-graduate students. For them, he has an unusual authority. It gives their academic and emotional interactions a heft and ballast that is rare on contemporary South African campuses. It's a weight - in a manner of speaking - which places Helliker just below God.

Luke Alfred

THE IMPORTANCE OF LOCAL KNOWLEDGE

Dr Dan Parker

Department of Zoology and Entomology

Dan Parker is one lucky zoologist. This is because his work in recent years has coincided with the re-arrival of the big predators - lion, cheetah and leopard - in the private game reserves of the Eastern Cape. It's like having a very fine, complex and well-stocked laboratory on your doorstep, and Parker is well aware of the excitement - and convenience - of having the big boys around.

"Yes, it's been a bit of a bonanza to have them re-introduced," he says with a twinkle in his eye.

When it comes to the reserves and game farms of the Eastern Cape, Parker says that, in general, predators were historically victims of both ignorance and habit. They were removed from landscapes because they instilled fear and because that's the way it had always been done, with wisdom, such as it was, being passed down from generation to generation.

Now large land-owners and zoologists like him are finding that their re-introduction produces a ripple of effects throughout the ecosystem. Some of these are straightforward and easy to spot - leopards jump even high fences, lions and cheetahs do not - but some are subtle, even opaque.

"We've had systems and processes that have been without predators for some time," he says. "Suddenly you put lions into a system and not only do they eat kudu and eland but they instil fear. They alter the buffaloes' feeding habits. We think that these habitats are frightening and that can cascade all the way through to the plants."

He adds that while the serendipitous re-introduction of predators to the greater Eastern Cape has been commercially and academically welcome, this hasn't necessarily translated into easy conclusions and scientific results. "From a strictly scientific point of view, it has been difficult to unpack," he says. This is because the African ecosystem is what is known as a "high-productivity" ecosystem. In other words, the biodiversity is greater than ecosystems in more temperate zones. The rainfall is greater. There are more predators and more ungulates, which means, in turn, more complicated relationships. It is precisely the complexity and subtlety of these relationships that Parker and the Wildlife and Reserve Management Research Group at Rhodes are trying to pin down and scientifically explain.

We've all seen the You Tube clip where the re-introduction of wolves into Yellowstone National Park in 1995 ultimately alters the course of a local river - a fine example of what is called a 'trophic cascade'. While this is pleasing because it has both causal and emotional symmetry, it's only possible because of the comparative low-productivity of that particular system. The wolves eat the over-abundant deer who move to less exposed pastures and stay out of valleys and gorges - therefore allowing the grass to regenerate; this, in turn, means that river banks are less susceptible to erosion. This, in other words, is how wolves change the course of rivers.



Dr Dan Parker
Photo: Paul Greenway

THE IMPORTANCE OF LOCAL KNOWLEDGE

Dr Dan Parker

By contrast, the African experience doesn't proceed quite as pleasingly, says Parker. "Because of the high-productivity of African ecosystems and the high number of predators, it is far more difficult to see the more dramatic effects that you see in more temperate zones," he argues.

While Parker remains an ardent zoologist, his work often brings him back to the social and the human. He says that it has been interesting to see, for example, how different groups respond to the idea of the re-introduction of wild dogs in the Great Fish River Reserve, a part of the Eastern Cape that is occupied by, on the one hand, pastoralists and commercial farmers; on the other contains a section which is in the midst of a land claim from a local community. "Interestingly what we found was that of all the groups canvassed, the most negative views about the re-introduction of wild dogs came from the commercial farmers," he says. "And it wasn't necessarily because they had the most to lose."

With age, Parker has found that his views have softened, becoming more liberal. He says he's still the cynical old scientist but he's far happier now to occupy the grey, the ambiguous and the equivocal. "I think I'm more open than I perhaps was," he says. "I think long-term memories within the context of local cultures are vital. Local knowledge of an area is so important. You can learn so much over a casual fireside chat over a cup of coffee or a beer. That kind of knowledge isn't to be under-estimated."

On the perpetually thorny issue of how conservation impacts on local communities, Parker departs from his usual wide tolerance - if only slightly. "If you put cattle in the Kruger National Park, certainly there's a risk," he says. "But you thereby reduce the fire load so there are compensatory benefits. In this country generally conservation is a preservationist mindset - put up a fence and keep out the people. We've got to take the social and social pressures more seriously. We can't protect vast tracks of land in perpetuity. It's just not tenable."

As an example of a conservation initiative more in tune with social dynamics and the needs of the community, Parker talks about the Amakhala Game Reserve near Paterson, just off the N2 from Grahamstown to Port Elizabeth. Formed by pooling six adjacent private farms approximately 15 years ago, the reserve was once mainly sheep and cattle farming country that had been in the hands of original settler families since the 1820s. It was decided, however, that this

type of farming was too marginal and a private game reserve was established. Various species have been re-introduced to the reserve and what excites Parker most are the reserve's outreach initiatives. They are planning a wilderness school, he says, and the reserve might yet act as a model for a win-win partnership, where the needs of the local community dovetail more harmoniously with the commercial imperatives of the reserve.

In the places he goes to research and interact, Parker, in general, finds that there's a far greater awareness of social imperatives and social needs. According to a strict definition of his calling, he's a zoologist, but increasingly he finds that the social and the human impact on the environment he studies. In a way, it's not surprising, and makes already satisfying work all the more rewarding.

Luke Alfred

THE SUBTERRANEAN FIRE OF CLASS STRUGGLE



Professor Lucien van der Walt
Photo: Paul Greenway

Professor Lucien van der Walt

Department of Sociology

"Reports of the death of the broad working class are greatly exaggerated," says Lucien van der Walt with mild but discernible flourish. "Too many experts believed it anachronistic, passé. But if you look around internationally, and locally too, that's just not the case. It is bigger than ever; its rumblings shake the world. It has now overtaken the peasantry as the biggest class, as the majority of humanity."

Van der Walt, a Professor in the Department of Sociology, has a wide range of academic interests including anarchism and syndicalism, labour and left-wing history and politics, and working-class responses to neo-liberal economics. While he's happy to admit that some of the grand political narratives like Marxism-Leninism and Third World nationalism have foundered, he nonetheless believes that there's ample evidence to suggest that the struggles of labour and the Left are by no means done and dusted.

And this applies internationally as well as closer to home. Whether these are neighbourhood blockades by the unemployed in Argentina demanding tools to work, or whether it's the anarchist- and Marxist-influenced Kurdistan Workers' Party (PKK) creating a revolutionary zone in Kurdish Syria, strikes in China, or ongoing battles in South Africa, working class-struggle is alive and kicking. Sometimes you have to know where to look; you need to be prepared to scratch the surface, and look beyond neglect, dissembling, and even propaganda.

"The page has by no means turned on working-class organisations," says van der Walt. "If you look at the struggles of the unemployed, the rural poor, at neighbourhood organisations, at unions, the working class remains of one type or another. There's undeniable vitality there. The subterranean fire of class struggle always smoulders, sometimes flaring red and black."

Much of van der Walt's work in 2014 has been on the global history of anarchism and syndicalism across the world, an act he characterises as one of reclamation. This is the story of anarchism as a movement globally, whether this be in Latin America and the Caribbean, or Asia, or part of large swathes of Europe, and elsewhere, anarchism has a rich, significant history, a product of class struggles.

Van der Walt stresses any conversation about intellectual and political history has to also be a conversation about the Left traditions of the working class, including Marxism, anarchism and syndicalism. In his work, van der Walt has ventured into the anarchist histories of countries as diverse as Poland and Korea, but notes that telling a global history has

THE SUBTERRANEAN FIRE OF CLASS STRUGGLE

Professor Lucien van der Walt

practical and analytical difficulties. "I think access to information isn't the issue, so much as pulling it together in a balanced and coherent narrative," he says.

Whether he's investigating the history of anarchism or simply commenting on the refusal of left-wing movements to wither and die, van der Walt understands that history is an enigmatic and challenging space, in that what was should not be mixed up with what had to be. For every turning, there were different roads: human choices shaped where we are today, and we forget how very different things were, and *could* have been. "History always points to paths not taken," he says with subtlety. "And it's significant to remember that what happened wasn't always what had to happen. We think today as if the ANC was always the major resistance force, the inevitable victor. But for much of the 1920s and 1930s, for example, the ANC was a comparatively minor player; in the 1940s the Communist Party was far, far bigger. People forget that the ANC didn't have a single trade union affiliate in the 1940s, while the Communist Party led unions of hundreds of thousands, and dozens of townships."

While van der Walt notes the ongoing emergence of pockets of dissent and radicalism, of autonomous organisations and the flexing of left-wing muscle worldwide, he's less sanguine about the role taken by the more orthodox unions. Generally he believes sections within unions have been compromised by alliances with the state and political parties, leading to a softening of their stance. This applies generally, whether we are talking at home or abroad. "Many union leaders have been co-opted, and this within the context of dire economic conditions. The Congress of SA Trade Unions (Cosatu) may be keeping its numbers stable, but it's stagnated, mired in the party system, hardly grown in 15 years. Of course, an entire union can't be co-opted, because capitalism and the state cannot buy off the class they exploit. But leaders can be captured easily."

Fragmentation has become another major issue for unions. As examples locally, he cites the Association of Mineworkers and Construction Union's (Amcu) breakaway from the National Union of Mineworkers (NUM), and the National Union of Metalworkers' (Numsa) split from Cosatu. The latter he dubs "very important" because in Numsa's move away from Cosatu and rejection of the ANC, there are signs of a possible re-alignment, "It could be a game-changer if a big national union like Numsa provided support for the sporadic but potent township revolts, often very localised, or hooked up with mass strikes on the farms in the Western Cape, or with the rural unemployed - and helped build a real, effective working class united front," he says. "The But Numsa is divided internally - they really can't agree on what to do or how to do it, and the moment can end sooner than people think. If ordinary people do not seize it, politicians will hijack it."

This, then, is the rub in the contemporary South African landscape: while there are many outbursts of dissatisfaction and rage, there's no umbrella body or mass front, or even widespread cohesion, whether union-driven or not. This is what distinguishes the current scenario from, say, what was happening in the 1980s, where the rise of powerful and radical formations like the Federation of South African Trade Unions (Fosatu) and the United Democratic Front (UDF) gave coherence to the struggle against apartheid (and in some cases the struggle against capital).

This moment requires a hard-nosed analysis of the state. In South Africa's semi-industrial capitalist economy, van der Walt argues, the state has become a major vehicle in class formation. This is largely because that while opportunities nominally exist in the private sector for advancement and promotion, in actuality such pathways are few and far between. "It's very difficult for an independent black industrialist class to get a foothold on the economy because white capital has been so centralised historically," he says. "The state then becomes important to class formation through circuits of accumulation and patronage. The civil service suddenly is an arena for self-advancement, which means South Africa has two elites, pitted against the people: private capital and state managers."

Given all of this - from the structural imbalances of the South African economy, to recession and outpourings of popular dissatisfaction - the current moment is difficult to assess. "It's unpredictable and I steer clear of predictions anyway," says van der Walt. "I really don't know if we will have a Tunisia Moment or not, and if we did, where it would go. But I know the consciousness of the working class will be decisive."

Luke Alfred

SCIENCE NEEDS TO ASK THE BIG QUESTIONS

Professor Makaiko Chithambo

Head of Department of Physics

This is the story of a fearless physicist, a stern Japanese schoolteacher and a forest in Malawi. The main subject of the story is Professor Makaiko Chithambo, Head of the Department of Physics, the forest a playground in which Chithambo used to range with his boyhood friends, picking berries and figs, and trying not be scared when darkness fell.

According to Chithambo, his journeys to the forest led to a certain fearlessness. He wasn't frightened - as were his friends - of the softness and lack of noise and the falling night. Such fearlessness, he was to discover, came in useful with a stern Japanese high-school teacher named Mr Kitano. Mr Kitano was respected but never liked, and, as an otherwise gifted student, Chithambo once found that at the end a term he received 27% for Maths - mainly the result of not being able to understand a word of what Kitano was saying. "After receiving that mark in the first term, I simply borrowed the maths textbook out of the classroom and taught myself during the school holidays that followed," says Chithambo with a smile. "Since I overcame Kitano I can overcome anything. It was that - plus my fearlessness in the forest as a boy - that reminded me that I can challenge anything. I suppose that has stuck."

This refusal to accept the given, the commonly-accepted and the status quo has come in useful to Chithambo as a professional physicist. In recent years he read, for example, that prosthetic limbs weren't lasting as long as they should and, his curiosity pricked, began investigating why.

He discovered that in the process of sterilisation (all prosthetic materials need to be sterilised through radiation) some of the polymer chains in the limbs were being severed. This meant that the limbs were weakened, and therefore didn't last as long as they should. "I discovered that even with less radiation than used for sterilisation you were getting damage to the polymer chains, the creation of free radicals and therefore luminescence. So then you would work backwards to interpret the damage that radiation produces in the material."

He realised that the problem needed to be investigated much more systematically than had ever been done (to emphasise the need for sterilisation methods, ones that didn't damage polymer chains through radiation), Chithambo managed to get his hands on prosthetic samples from the manufacturer in the US - no easy task. He then needed to go to Pretoria twice a year for three years to use their machines, Rhodes not being sufficiently well-equipped in this regard. His research into the irradiation of polymer materials used in prosthetics was patient and time-consuming. More importantly, Chithambo refused to bow to the accepted wisdom which held that sterilisation through radiation was doing no or little damage to the polymer chains in prosthetics. "There is a saying that I grew up with: 'The elephant that kills a rat is not a hero'," he says. "You can go for the small problems, you can do that. I feel, though, that you



Professor Makaiko Chithambo
Photo: Paul Greenway

SCIENCE NEEDS TO ASK THE BIG QUESTIONS

Professor Makaiko Chithambo

should also go for the inconvenient bigger problems. When you go for the big things and come up with unconventional solutions, the natural conclusion by others is that you've made a mistake. But the results are there, you can see them in black and white. Science needs to ask the big questions. I think I've always had a certain fearlessness. It's always been there."

Imperfection - or weakness, if you like - is a regular theme in Chithambo's work. For a solid to be stable, for example, it needs to contain imperfections (these are called "point defects" in the language of physics) such as extra or missing atoms. Gemstones for example, for all their apparent perfection, are in fact imperfect at the atomic level, and that's what he really finds interesting. He and his colleagues in his research community joke, in fact, that solids are just like humans, in that their imperfections make them fascinating. Indeed, you could say that imperfection is what makes the physical and the emotional and human world go round.

The way in which point defects in solids are studied is to expose (or induce) them to radiation, and then note the luminescence they produce or give off. In this way they can be analysed and even dated. Here we enter the world of radiation dosimetry and retrospective dosimetry, basically a measure of how much radioactivity a material has absorbed. This is what really turns Chithambo on and he finds there are no shortage of practical applications to this kind of work. Not only has he been able to break open the received wisdom involving prosthetics but he's also been able to explain how radiation moves charge about in insulating materials including quartz.

It's remarkable to consider, given all that Chithambo has achieved, that he was once a little boy amongst other boys in a Malawi forest. Here's a man who didn't accept the world as he found it, whether this arrived in the form of a stern Japanese teacher of maths, or the kind of lives his friends in rural Malawi have gone on to.

After spending four years studying post high school, Chithambo found himself at the University of Sussex; he's also done Postgraduate work in Edinburgh and the walls of his office are decorated with postcards of universities he's visited, often as far afield as Finland and Italy. In September 2017 Cape Town will be hosting the 15th International Conference on Luminescence and Electron Spin Resonance Dating (LED 2017), the awarding of which owes much to Chithambo himself. Having beaten off bids from Bordeaux, Jerusalem and Copenhagen, the fact that

private-sector researchers, academics and researchers will be gravitating to Cape Town that September is another sizeable feather in his already-considerable academic cap.

Solids in a state of stability might incline towards imperfection but this doesn't seem readily applicable to the man himself. His study is well-ordered, his mind neat. In many respects you could in fact say that perfection is pretty close to hand.

Luke Alfred

HOSPITALITY IS THE FOUNDATION OF COMMUNITY

Professor Mike Marais

Department of English

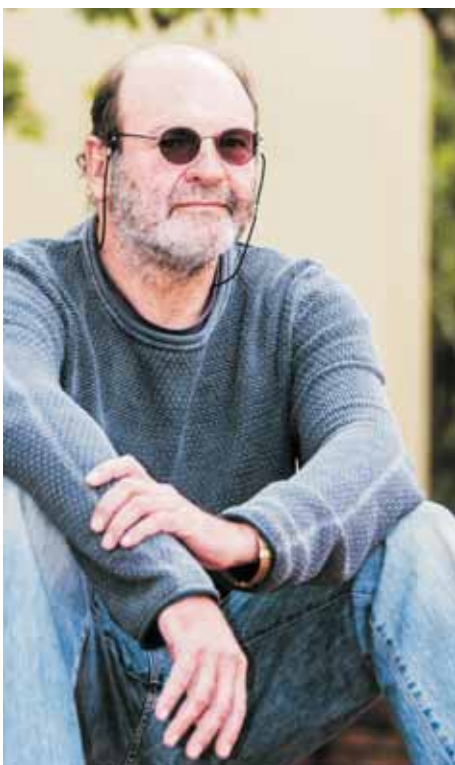
Beavering away in his study, trademark beanie on his head, Professor Mike Marais labours under the weight of concepts and ideas both heavy and charmingly insubstantial. At the moment, he says, he's interested in issues of vulnerability and hospitality, community and security, and how they play themselves out in both contemporary South African fiction and the work of international literary figures such as Samuel Beckett and Michael Ondaatje.

By vulnerability he means the way in which we read with body as well as mind and, how, quite literally, books affect us. Literature, he believes, is unlike philosophy, in that it engages one at a corporeal, even visceral level. It speaks, in other words, to the body, and does so in ways we can't readily imagine or predict beforehand. It follows, therefore, that reading becomes an act of opening, of self-exposure or exposure of the self. "We can't secure ourselves against texts: they infiltrate our minds and bodies," he argues. "In that sense, when we read, we make ourselves vulnerable to that which we read."

Vulnerability and hospitality are related - at least superficially - in that they're predicated on an openness or sensitivity to otherness. Hospitality is at least partly understood by distinguishing it from charity, which is frequently careless, often self-regarding, almost always guilty. Hospitality, on the other hand, is about exposure and vulnerability (that word again) and would appear to be the more slippery concept, because it cannot only be understood literally but should be embraced philosophically, perhaps even soulfully.

Hospitality is, according to Marais, closely related to community and is very possibly the foundation upon which it rests. Community (and communities), however, are problematic concepts in the sense that they invariably exclude - they are by their very definition exclusive and exclusionary; indeed, it is a condition of their existence for there to be an outsider, the potential enemy, the man in rags banging tunelessly on the city gates.

This is fruitful dramatic terrain for fiction and Marais notes that Hillbrow and its breezy cosmopolitanism has often been figured in contemporary South African fiction as an exciting alternative to the endless security fence and the benumbed gated community. "Yes, South African fiction has always concerned itself with exclusion - more so than most other literatures," he says. "While the emphasis has shifted in the post-apartheid period, this is still an issue. One regularly finds, for example, that Hillbrow is depicted as a more diverse and open community that is more responsive



Professor Mike Marais
Photo: Paul Greenway

to difference than the homogenous gated community. One finds this in Mpe, Moele and even Beukes. There's also a concern with hospitality in Vladislavic and even Wicomb. The best example, I suppose, would be Coetzee. Just think of all the houses in his novels."

Further afield, we see the same dynamic at work in, say, Beckett, whose characters are so quaintly beyond the pale they're forever on the move or live in dustbins. Sometimes they patiently wait for what they do not know (or wait for what they do not know what?). The tramps and vagabonds lie outside of the community, the city walls, the polity, and are therefore the condition upon which generosity and hospitality take place. "The one thing community can't exclude is exclusion. Conditional hospitality, on the other hand, involves a process of selection and invitation. I decide who I want to invite and do so on my own terms. It follows that this form of hospitality isn't exactly hospitable," says Marais.

True hospitality, by contrast, is a form of forfeiture, almost a negation of self. It is only when ideas of mastery and control are sacrificed that true hospitality can flower although, having said this, hospitality is also, finally, chimerical, impossible, a philosophical Holy Grail. "You can think of this in terms of expecting someone without having any expectation, (and so advance knowledge) of that person," says Marais cannily. "This is the kind of waiting that Beckett stages in his plays and novels. To wait without expectation necessarily entails a loss of self. When the host loses the ability to offer hospitality, then he or she becomes truly hospitable. As I've said though, unconditional hospitality is not finally possible. It's not something that I plan and then do (because I forfeit my self). If it happens, it happens to me. The ethical imperative is not so much to be unconditionally hospitable as to render conditional hospitality less conditional."

There is another element to hospitality - that of one's relationship to the home and therefore the community. Unlike the cheap grains of charity, there's nothing affirming about hospitality. Instead, it leaves one bereft, alone, unmoored. "There's nothing comfortable and self-affirming about it," says Marais. "It culminates in insecurity and unbelonging. One loses one's place and sense of being at home."

This theme of discomfort is radically played-out in Ken Barris' novel, 'What Kind of Child', a piece of contemporary South African fiction about which Marais has thought at length. The novel contrasts the life of a street child with that

of a middle-class boy but is designed in such a way as to keep the street child's life at a faraway remove. "We watch, as though from afar, a distant suffering," says Marais, noting that the novel cleverly implicates the reader in such suffering by refusing him or her the easy route of identification. "The novel doesn't allow a facile sympathy with this character, since my sympathy would proclaim my innocence and enable me to distance myself from the social condition responsible for the kid's suffering. It follows that the text requires readers to relate to that from which it nevertheless distances them. There's a kind of tension between proximity and distance that is sustained throughout the narrative. It's a deeply uncomfortable read because it seeks to shame one."

Marais continues: "I don't like feeling ashamed because when I do, I am no longer at ease with myself. Shame is, by definition, unsettling. It differs from guilt in that it is more communal than individual. I feel guilt because of my individual actions. I feel shame when I realise that I am part of a community whose practices and actions cause suffering. Shame distances me from my community and from myself...It makes me see myself through the eyes of the other person, as though from a distance. I become estranged from myself, my former self. And when I feel shame I am forced to act, to do something about my indifference and that of my community."

Like many other academics interviewed for this Research Report, Marais seems at his most intellectually fecund - his most pointed, perhaps - talking about South African literature and fiction. This might be a slightly facile point but it seems that considerations of hospitality and security, community and vulnerability, take on an edge or special flavour in contemporary life. With our shantytowns and gated communities, our mute poor and bejewelled rich, South African life will always rub uncomfortably and challengingly against its citizens (and, for that matter, it's writers). Fiction brings joy and inspiration. But it also teases out the many facets of our contemporary discomfort. Carefully, and with painstaking rigour, Marais goes still further, divining from books their secrets so we might become better readers.

Luke Alfred

THE TRANSFER OF TECHNOLOGY

Professor Janice Limson

SARChI Chair and Director, Biotechnology Innovation Centre (RUBIC)

If ever you're looking for an example of cutting-edge scientific work tied to both a ramped-up sense of social justice and a healthy awareness of some of the entrepreneurial opportunities this work provides, then look no further than Professor Janice Limson, currently Director of Rhodes' Biotechnology Innovation Centre (RUBIC).

Of all Limson's achievements, it was the establishment of RUBIC on January 1 last year that has arguably given her the most satisfaction. Envisaged as an academic space that facilitates the translation of biotechnology-related research into products and processes, RUBIC has the related function of providing an academic home for targeted programs in undergraduate and Postgraduate teaching.

Finally, RUBIC was formed with the intention of providing a springboard for the better communication of scientific ideas. "As far as such a centre is concerned we aren't able to keep all of our bio-tech graduates in this country because we can't employ them," Limson says. "We need a space that develops our own research and potential products, in which our graduates can create opportunities for themselves. I just don't think that biotechnology is best served by being confined to a traditional academic space. We need to be free to innovate and pursue commercial opportunities and work successfully with other faculties and departments - as we've demonstrated in the past."

One of the key words as far as RUBIC is concerned is entrepreneurship. Not only does the Innovation Centre ensure that teaching programs are structured in such a way as to be sensitive to possible commercial opportunities but there is a self-conscious accent on innovation. How, for example, can biotechnological research impact positively on human and environmental health in a way that is of benefit to the community and socioeconomic development in general? To answer the question with a concrete example, Limson and her research group have recently been experimenting with a cell phone app that can be used in the detection of low CD4 cell counts. Such counts invariably lead to lowered immunity which often heralds the arrival of full-blown HIV/Aids.

The idea is for this diagnostic kit to be portable, cheap and accurate - the strip is similar to a do-it-yourself pregnancy kit - requiring only limited medical intervention at this early stage. Practically it involves the app (designed by collaborators in Computer Science), the strip and a cone or 'hood' which attaches to the top of the phone to make reading of the strip easier. "There's UN funding for this work through UNICEF and what we've done is to develop a cell phone app that allows you to read a strip that is impregnated with a glucose enzyme," she says. "Once a drop of blood is placed on the strip there will be a colour-change reaction and we can



Professor Janice Limson
Photo: Paul Greenway

see what the CD4 count is like. The aim is for this to be on-the-spot. There's also the capacity to SMS the results to a central database and gather information there."

The same basic principle is being applied to the early detection of malaria and with regard to foetal and maternal health. Malaria comes in many nasty forms and Limson's research group, in conjunction with some pioneering work being done by the University of KwaZulu-Natal, have developed a "capture molecule" that tells you what kind of malaria you have and what can be done about it, particularly if you are trapped in an impoverished rural area and it's some way to the nearest clinic or hospital.

The process is pretty much the same as far as foetal health is concerned because - in layman's terms - there are proteins that give scientists an early snapshot of foetal health and if these can be captured and interpreted, the appropriate steps can be taken for cure or remedial action. As such, it acts as a trustworthy early warning-system, both sophisticated and relatively accessible.

"What really sets us apart [here in South Africa] is low-cost diagnostics and environmental diagnostics" says Limson with relish. "We can't assume things like fridges and stable humidity so we just have to go out and work around that. I think in general we need to show the rest of the world that we do good science here in South Africa and we're not simply reliant on the rest of the world to do it for us."

Other than research issues and her evangelical zeal for RUBIC, Limson was recently awarded one of the prestigious SA Research Chair Initiative (SARChI) chairs. Awarded by the National Research Foundation in conjunction with the Department of Science and Technology, the chair, in Biotechnology Innovation and Engagement, dovetails neatly with the Innovation Centre's work and gives a fillip to Limson and her Centre's engaged research in early disease detection and parasitology, also giving her a five-year window of research freedom free from the onerous duties of academic administration. "It is a win-win situation - our research and innovation work is informed by our engagement with a targeted community, our students become more conscientised about social issues and finally the community itself becomes an active participant in engaging on future technology that can have direct benefit socio-economically," she says.

Allied to her enviably strong sense of self, is an equally well-developed sense of place. The daughter of a Chinese father and a Coloured mother, she was educated at a Catholic High School in Port Elizabeth and proceeded on an academic journey littered with more obvious pitfalls than most. There was encouragement, however, and a will-to-learn, and the longer she stayed in the system the easier it became. An undergraduate degree at Rhodes was followed by

Postdoctoral Research Fellowships both at the University of Texas in San Antonio and back at Rhodes, with her climb up the academic ladder being sound and steady.

Despite the attractions of overseas work and travel, the Eastern Cape and its qualities and problems remain dear. There's no evidence of "scientific cringe" in any thing she says or does and ultimately she would like to see Rhodes pioneer a biotechnology space or institute that will allow for research freed from some of the always-onerous burdens of teaching and administration. Such a centre would also - in Limson's view - provide ultimately for commercial opportunities, an aspect of a universities' future health that doesn't get paid enough attention to.

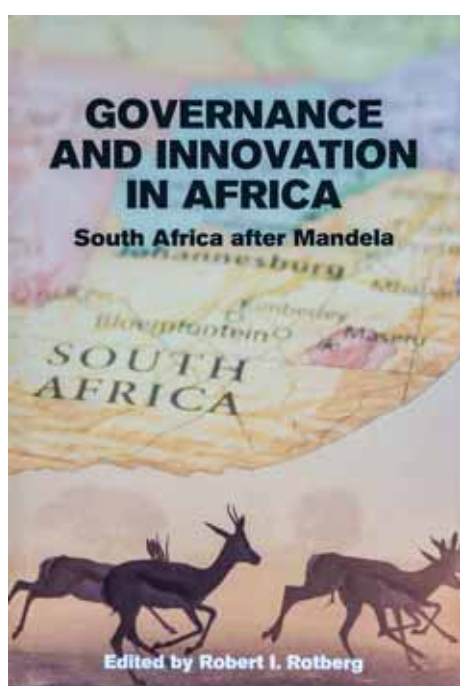
In everything Limson says there is a crusade for science to be more central in everyday life and more publically accessible. Her career as a bullish evangelist for science started years ago when she invented herself as a science journalist and started the online science magazine, *Science in Africa* (www.scienceinafrica.com). "It wasn't simply about communicating science and making science more accessible [through my journalistic work]," she says. "We need to look a little bit deeper and ask the question: 'How do we use science communication or engagement as a tool to benefit and advance science itself'."

A trawl across the current homepage reveals features ranging from the scientifically highbrow to articles which are more accessible to the casually interested reader. What caught my eye was a piece on the evidence of tooth extraction in the fossilised remains of *Homo erectus* - with this example of early dentistry leading the author to tentatively posit the development of empathy. "Scans provide paleopathological evidence highly suggestive of an intentional extraction thus indicating the early origin of prosocial behaviour to relieve pain in another and indicates a complex societal structure in early *Homo erectus*," conclude the authors.

Other articles on the site include the benefits of locally pressed olive and sunflower oils (which are rich in unsaturated fatty acids), the relentlessness of global warming and the relatively uncharted terrain of biomimicry - a form of science "that looks to the technology of nature for its inspiration". As a forum for debate and scientific enquiry the magazine has all the trademarks of Limson's love of the subject allied to her steadfast belief in Africa and the fact that substantially more needs to be done to innovate and self-publicise the cause of science and scientific research on the continent. Limson's professional life and endeavours demonstrates time and time again that such talk isn't hollow. For here's someone who can talk the talk and walk the walk.

Luke Alfred

PUBLICATIONS FROM THE VICE-CHANCELLORATE AND ADMINISTRATION



Dr Saleem Badat and Professor Yusuf Sayed contributed the chapter *South African Education: The Challenge of Social Justice* to the book *Governance and Innovation in Africa: South Africa After Mandela*.

Photo: Paul Greenway



Dr Saleem Badat
Photo: Julie Borland

PUBLICATIONS

Books/Chapters/Monographs

Badat, S.

Badat, S. (2014) Institutional Combinations and the Creation of a New Higher Education Institutional Landscape in post-1994 South Africa. In: Curaj, A., Georghiou, L., Harper, J.C. and Egron-Polak, E. (eds.). *Mergers and Alliances in Higher Education: International Practice and Emerging Opportunities*. London: Springer. p.199-230. ISBN: 9783319131344.

Badat, S. and Sayed, Y. (2014) Post-1994 South African Education: The Challenge of Social Justice. In: Rotberg, R.I. (ed.). *Governance and Innovation in Africa: South Africa after Mandela*. Canada: CIGI: Centre for International Governance Innovation. p.149-172. ISBN: 9781928096085.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Badat, S.

Badat, S. (2014) "Education is the most powerful weapon which you can use to change the world." - Nelson Mandela. *Explorations in Adult Higher Education: An Occasional Paper Series: Voices That Shape Our Vision*. 2014 (3). p.5-15.

Peer Reviewed Subsidy-Earning Journal Research Publications

Badat, S.

Badat, S. and Sayed, Y. (2014) Post-1994 South African Education: The Challenge of Social Justice. *Annals of the American Academy of Political and Social Science*. 652 (2014). p.127-148.

Obers, N.M.T.

Obers, N.M.T. (2014) Career success for women academics in higher education: Choices and challenges. *South African Journal of Higher Education*. 28 (3). p.1107-1122.

CENTRE FOR HIGHER EDUCATION RESEARCH, TEACHING AND LEARNING (CHERTL)

RHODES UNIVERSITY
RESEARCH REPORT | 2014

INTRODUCTION

The Centre for Higher Education Research, Teaching and Learning (CHERTL) undertakes research in all aspects of higher education studies. In 2014, CHERTL's Doctoral programme was in its fifth year of existence and saw the graduation of five (5) PhD scholars and the Postgraduate Diploma in Higher Education graduated nineteen (19) scholars, five of whom were Rhodes staff, and all of whom undertook coursework and research into their teaching practice. CHERTL staff, students and associates published twenty-one (21) journal articles and one (1) book chapter.

Postgraduates/Graduations

PhD Graduations 2014

Sherran Clarence's investigation of the ways in which knowledge-building takes place in the disciplines of Law and Political Science was supervised by **Professor Sioux McKenna**, as was Jacqueline Lück's study of public management and public administration courses, with the latter co-supervised by Dr Marcelle Harran (NMMU).

Professor Chrissie Boughey supervised Hilda Freimuth's research on cultural bias in the International English Language Testing System. Professor Chrissie Boughey also co-supervised, with **Dr Sue Southwood**, Bernadette Millar's study on graduate attributes in emergency medical science qualifications. Pamela Johnson's *Gramscian analysis of control and compliance at the University of Fort Hare over a period of 84 years* was supervised by Professor Peter Vale.



Professor Sioux McKenna, leader of the NRF funded project Institutional Differentiation in South African Higher Education
Photo: Supplied by CHERTL

Distinguished Visitors/International Visits

In March 2014, **Professor Mala Singh** ran a one-week short course on the university as a public good. In July 2014, Nico Cloete and Ian Bunting from the Centre for Higher Education Transformation presented the latest research on the sector in South Africa and seven other African countries. They also presented their research on the doctorate in South Africa. Professor Lis Lange presented a seminar on the relationship between national policy and higher education practice and a workshop on policy analysis in research. Dr Rachel Kurian from the Institute of Social Studies at the University of Rotterdam presented a series of seminars on the political economy of economics.

In September 2014, CHERTL **Visiting Professor, Karl Maton**, from the University of Sydney, presented a seminar on the movement between data and theory in doctoral research. Professor Jenni Case from the University of Cape Town presented on researching student learning, Dr Stephanie Allais from the University of Witwatersrand, ran a seminar on the National Qualifications Framework and Professor Viv Bozalek, from the University of the Western Cape, ran a workshop on the ethics of care.

Significant Research Aligned Events

In 2014, CHERTL launched an NRF funded project on Institutional Differentiation in South African Higher Education, with Sioux McKenna as the grantholder. Four (4) PhD scholars and three (3) Pre-Doctoral scholars joined the programme, which consists of a year of coursework to be followed by individual PhD studies. The NRF funded project on Social Inclusion continued, with Chrissie Boughey as the grantholder. Two scholars graduated from the project in 2014, Sherran Clarence and Jacqueline Lück, and the remaining six (6) continue with their PhD research.

CHERTL staff continued to collaborate in a number of other national projects such as the NRF funded 'Enabling and Constraining Conditions for Staff Development' (Lynn Quinn, Jo-Anne Vorster and Chrissie Boughey), 'Higher Education in Society: The influence of university participation on the life course of young South Africans' (Sioux McKenna) and the SANORD funded project entitled 'The role of doctoral education in early career development' (Sioux McKenna).

The national project aimed at enhancing supervision capacity and funded through NUFFIC, enjoyed a boost of funding from the DHET so that the *Strengthening Postgraduate Supervision* course can be offered a further 18 times. Chrissie Boughey continues as project director with Sioux McKenna

as project manager (www.postgraduatesupervision.com). In addition, The Andrew W. Mellon Foundation funded MPAD2 (Academic Staff Development) continued in 2014.

Jo-Anne Vorster and Lynn Quinn participated in a roundtable discussion with colleagues from across the world on the future of the field at the meeting of the International Consortium for Educational Development in Stockholm, Sweden in June 2014.

Professor Lynn Quinn

Head of Department: CHERTL

PUBLICATIONS

Books/Chapters/Monographs

McKenna, S.

McKenna, S. and Motshoane, P.L. (2014) 'More than Agency: The Multiple Mechanisms Affecting Postgraduate Education'. In: Bitzer, E., Albertyn, R., Grant, B. and Kelly, F. (eds.). *Pushing Boundaries in Postgraduate Supervision*. Bloemfontein: SUN MeDIA. p.185-199. ISBN: 9781920689155.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Belluigi, D.Z.

Belluigi, D.Z. (2014) The paradox of 'teaching' transformation in fine art studio practice: assessment in the South African context. *International Journal of Education Through Art*. 10 (3). p.349-362.

Maton, K.

Georgiou, H., **Maton, K.** and Sharma, M. (2014) Recovering Knowledge for Science Education Research: Exploring the "Icarus Effect" in Student Work. *Canadian Journal of Science, Mathematics and Technology Education*. 14 (3). p.252-268.

Maton, K. (2014) A TALL order? Legitimation Code Theory for academic language and learning. *Journal of Academic Language and Learning*. 8 (3). p.34-48.

Quinn, L.E.

Quinn, L.E. (2014) Teaching in higher education. *International Journal for Academic Development*. 19 (2). p.156-158.

Quinn, L.E. and Vorster, J.E.

Quinn, L.E. and Vorster, J.E. (2014) Isn't it time to start thinking about developing academic developers in a more systematic way? *International Journal for Academic Development*. 19 (3). p.255-258.

Peer Reviewed Subsidy-Earning Journal Research Publications

Belluigi, D.Z.

Thondhlana, G. and **Belluigi, D.Z.** (2014) Group work as 'terrains of learning' for students in South African higher education. *Perspectives in education*. 32 (4). p.40-55.

Knowles, C.R.

Knowles, C.R. (2014) Vulnerability: Self-study's contribution to social justice education. *Perspectives in education*. 32 (2). p.89-101.

McKenna, S.

McKenna, S. (2014) Higher Education Studies as a Field of Research. *The Independent journal of teaching and learning*. 9 (2014). p.6-16.

McKenna, S. and Boughey, C.

McKenna, S. and **Boughey, C.** (2014) Argumentative and trustworthy scholars: the construction of academic staff at research-intensive universities. *Teaching in Higher Education*. 19 (7). p.825-834.

Southwood, S.

Dukhi, N., **Southwood, S.** and Srinivas, S.C. (2014) Evaluating students' experience of an integrated assessment: A case study in health promotion. *Indian Journal of Pharmaceutical Education and Research*. 48 (3). p.1-5.

Thomson, C.I.

Arbee, A., Hugo, W. and **Thomson, C.I.** (2014) Epistemological access in Marketing - a demonstration of the use of Legitimation Code Theory in Higher Education. *Journal of Education*. 59 (2014). p.39-63.

Research Papers Presented at Academic/ Scientific Conferences (Non-peer reviewed Proceedings)

Boughey, C.

Boughey, C. Developing researchers: the undergraduate years. *Higher Education Close Up*. University of Lancaster, Lancaster. United Kingdom. July 2014.

Mostert, M.

Barnard, K.J. and Mostert, M. Exploring student perceptions and experiences of ICT-enhanced formative assessment in an undergraduate management accounting course. *2014 SAAA Eastern Cape Regional Conference*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. October 2014.

Barnard, K.J. and Mostert, M. Exploring student perceptions and experiences of ICT-enhanced formative assessment in an undergraduate management accounting course. *Faculty of Commerce Research Colloquium*. Rhodes University, Grahamstown. South Africa. September 2014.

Barnard, K.J. and Mostert, M. Exploring student perceptions and experiences of ICT-enhanced formative assessment in an undergraduate management accounting course. *Rhodes University Teaching and Learning Showcase*. Rhodes University, Grahamstown. South Africa. November 2014.

Barnard, K.J. and Mostert, M. Exploring student perceptions and experiences of ICT-enhanced formative assessment in an undergraduate management accounting course. *2014 Conference SAAA Teaching and Learning in Accountancy*. University of Cape Town, Cape Town. South Africa. December 2014.

Quinn, L.E. and Vorster, J.E.

Quinn, L.E. and Vorster, J.E. Collaborative research from within academic development: the emergence of a rich learning environment. *Higher Education Learning and Teaching Association of Southern Africa*. University of the Free State, Bloemfontein. South Africa. November 2014.

Vorster, J.E.

Vorster, J.E. Knowledge and identity in curriculum development processes for a professional programme. *Higher Education Learning and Teaching Association of Southern Africa*. University of the Free State, Bloemfontein. South Africa. November 2014.

Vorster, J.E. and Quinn, L.E.

Vorster, J.E. and Quinn, L.E. Interplay of structure, culture and agency: a study on professional development in higher education in South Africa - what can we learn about context and does it matter? *Higher Education Learning and Teaching Association of Southern Africa*. University of the Free State, Bloemfontein. South Africa. November 2014.

Vorster, J.E. and Quinn, L.E. Stewardship of academic development: conversations on the future of the field. *International Consortium of Educational Development Conference*. Karolinska Institute, Stockholm. Sweden. June 2014.

Vorster, J.E. and Quinn, L.E. Practicing what we preach: responding to academic literacy dilemmas in a course for lecturers. *Higher Education Learning and Teaching Association of Southern Africa*. University of the Free State, Bloemfontein. South Africa. November 2014.



Farhana Kajee and Nimi Hoffmann at the September Doc Week



Participants at the September 2014 Doc Week



Front Row: (From left to right) Professor Chrissie Boughey, Ms Priya Vallabh, Professor Heila Lotz-Sisitka, Ms Sibongile Masuku and Ms Ruth Andrews at the September 2014 Doc Week.

COMMUNITY ENGAGEMENT DIVISION

PUBLICATIONS

Other Publications

Paphitis, S.A.

Tabensky, P.A. and Paphitis, S.A. (2014) Get Out of Your Armchairs, Academics. In: Mail & Guardian, (ed.). *Mail & Guardian Print Newspaper*. Johannesburg: Mail & Guardian print newspaper.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Hornby, D.

Katsinde, S.M., Hornby, D. and Srinivas, S.C. (2014) The Need for Culture Sensitive Participatory Health Promotion Activities to Promote Breastfeeding. *Indian Journal of Pharmacy Practice*. 7 (2). p.2-9.

Peer Reviewed Subsidy-Earning Journal Research Publications

Hornby, D.

Siruma, A., Hornby, D. and Srinivas, S.C. (2014) An Assessment of Maternal Health Issues in Two Villages in the Eastern Cape Province of South Africa. *International Journal of Environmental Research and Public Health*. 11 (2014). p.9871-9884.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Hornby, D.

Chemuru, N.R., Hornby, D. and Srinivas, S.C. Teenage pregnancy: beliefs of community care workers in two rural communities. *35th Conference of the*



Academy of Pharmaceutical Sciences. Summerstrand Hotel, Port Elizabeth. South Africa. September 2014.

Katsinde, S.M., Hornby, D. and Srinivas, S.C. Exclusive breastfeeding: community care workers' perspectives. *35th Conference of the Academy of Pharmaceutical Sciences*. Summerstrand Hotel, Port Elizabeth. South Africa. September 2014.

Chemuru, N.R., Hornby, D. and Srinivas, S.C. Using a cultural model to explore factors contributing to teenage pregnancy in rural communities in the Eastern Cape, South Africa. *6th Interdisciplinary Postgraduate Conference*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. October 2014.

Chemuru, N.R., Hornby, D. and Srinivas, S.C. Development and implementation of health promotion activities for the prevention of teenage pregnancy. *Critical studies in sexualities and reproduction programme colloquium*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. September 2014.

Paphitis, S.A.

Kelland, L.A. and Paphitis, S.A. Community Engagement and the University as a Site for Transformation. *CHERTL Roundtable Series on Critical Issues in Education*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. June 2014.

Kelland, L.A. and Paphitis, S.A. Community Engagement and the University as a Site for Transformation. *17 Seminario Internacional del Aprendizaje y Servicio Solidario (17th International Seminar on Service Learning)*. School of Economics, University of Buenos Aires, Buenos Aires. Argentina. August 2014.

As part of the service-learning within the Department of Entomology, fourth year entomology students work with learners from 5 schools around the Makana Municipality area. Here the students are at the Amakala Education Centre to discuss insects and collect data on attitudes towards insects in the Eastern Cape for their service-learning course on Cultural entomology.



COMMUNITY ENGAGEMENT DIVISION



The second year chemistry service-learning dye practicals taking place with Grahamstown local school learners from grade 11 at Nathaniel Nyaluza in the Rhodes Chemistry Labs.



Grahamstown local school learners proudly display their final products of the second year chemistry service-learning dye practicals. The students created the t-shirts using the dyes they made in the labs working with second year students from Rhodes as Lab partners for their service-learning course.



The Biological Control Research Group (BCRG) in the Department of Zoology and Entomology focuses on understanding the ecology, biology and management of invasive aquatic weeds. Their mass-rearing programs, in which biological control agents are cultivated for study and distribution, have been run in partnership with the Working for Water initiative, SAEON Elwandle Node, GADRA, and local Grahamstown schools.

LIBRARY SERVICES Rhodes University Library

INTRODUCTION

Academic libraries exist to provide information expertise and facilitate the research and information needs of their defined user communities in alignment with the university's priorities and academic projects. However, the changing higher education and economic landscapes, together with emerging technologies and demanding organisational dynamics and culture are key drivers that are prompting academic libraries to understand their context, review their standards and infrastructure, and redefine their role, position, space and value within the academic project of their institutions. The aim is that libraries emerge as focused and dynamic academic partners.

Conversely it is important for academic communities to understand that technology-enabled academic library environments provide an integrated solution for teaching, learning, research and collaboration. This integrated solution includes a sophisticated IT infrastructure; networked, wired and wireless connectivity; discovery tools across platforms; customized interfaces for mobile devices that provide 24/7 access to information resources; and tools that support scholarly communication and enhance research visibility. In the face of the digital deluge of information, academic libraries have consolidated their positions as trusted places for accessing authentic information in support of academic scholarship.



The new Library building provides a range of facilities and services that benchmark it against the finest in South Africa and internationally

In addition to the above, the role of the librarian is further being redefined by advancing discovery tools, evolving research methods, pedagogies and changing research communication practices and the abundance of information in varied formats. Greater engagement, relationship building and collaborative partnerships across the institution are also now expected of librarians. This evolving academic library environment and changing user expectations requires new expertise and specialist librarians in support of the changing teaching, learning and research paradigm.

The Rhodes University Library is cognisant of these trends and developments, which have been incorporated in its 2012-2015 Strategic Plan. This Plan informs the following:

- Access to appropriate, authoritative and relevant resources and services
- Active support for the research endeavours of the University
- Library as Place - repurposing existing spaces
- Continuing professional development of staff
- Investigating tools and initiatives to enhance the visibility of RU research

Postgraduates

The Rhodes University Library concertedly supports the needs of Postgraduates by:

- actively engaging with individual students through the faculty liaison model
- providing training in the use of discovery and reference tools
- sourcing research material through inter-library loans from libraries around the world
- providing dedicated spaces for research and writing

LIBRARY SERVICES

Rhodes University Library



Visitors can sign in simply to browse, or to read a newspaper in the News Lounge

The Research Commons and the Postgraduate Commons, located within the Library, are attractive dedicated spaces for Postgraduates from Honours level. An internal survey conducted in November 2014 confirmed that access to Wifi and computers, quiet study spaces, seminar rooms and librarians were of high importance. This was encapsulated in the response to the question, *Has the Research Commons added value to your Postgraduate experience at Rhodes University Library?*

"Yes, I used the Research Commons on a daily basis when I was writing up my PhD thesis. I found it to be the most convenient and conducive environment for critical thinking. Indeed it is a good space"

Professor Heila Lotz-Sisitka, newly appointed Director of the Postgraduate Studies Centre shared her vision and plans for this new post and facility at the Library Management Forum held on 08 October 2014. This was an opportunity to also identify areas of common purpose and the role of the Library in supporting the mandate of the Postgraduate Studies Centre.

The Library continues to facilitate the acquisition and training in the use of InCites, the customized, web-based research evaluation tool that allows researchers to analyse institutional productivity and benchmark their output against peers worldwide.

Significant Research Aligned Events

As an advocate of Open Access, the Rhodes University



The Postgraduate Commons is a spacious area containing 28 workstations with access to the Internet, productivity software and course-specific software. The Postgraduate Commons has been designed as a scholarly common room for all Rhodes University postgraduate students registered for Honours, Masters and PhD degrees.



Supported by expert librarians, Rhodes University students, academics and researchers have at their fingertips both extensive print holdings and the latest digital research databases for both an engagement with current knowledge and for the creation of new knowledge.

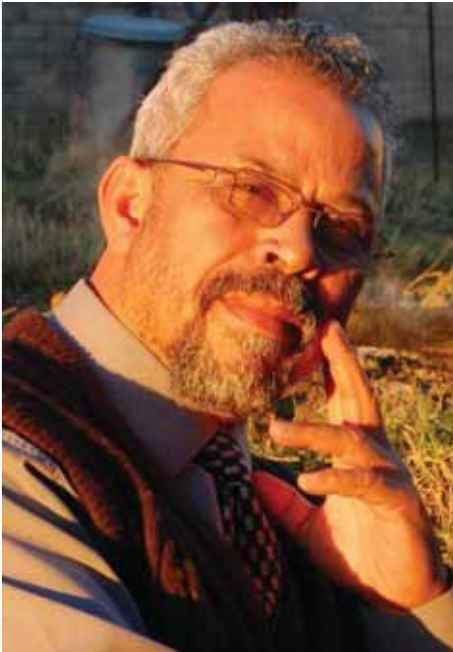
the Rhodes Digital Commons, wherein electronic theses, dissertations and research collections are located.

Open Access Week (20-26 October 2014) was also observed during which various presentations on Open Access, ResearcherID and ORCID were made. An Open Access Symposium was hosted which addressed the importance of Open Access, Open Access publishing in South Africa and the role of the Library in facilitating Open Access to the institution's research output on the institutional repository. Staff also participated in an Open Access webinar wherein the importance of Open Access and the librarian's role was discussed.

Ms Ujala Satgoor

Director: Library Services

CORY LIBRARY FOR HUMANITIES RESEARCH



Dr Cornelius Thomas, Head of Cory Library
Photo: Marcus Thomas

INTRODUCTION

Cory Library for Humanities Research is dedicated to research in and study of Eastern Cape humanities in particular and southern African topics in general. As our stock consists mostly of English manuscript materials and books, we are especially keen to acquire deposits in Afrikaans, German and isiXhosa to diversify our holdings. Cory Library supports research in history, visual history and culture, sociology, politics, theology, literature and anthropology. It renders support services especially to Rhodes University staff members and history students. Scholars, family historians and genealogists from across the globe daily interrogate Cory Library materials.

Cory Library is currently engaged in a photograph and manuscript digitization project funded by the Andrew W. Mellon Foundation.

Distinguished Visitors/International Visits

- Carl Vernon, co-editor of *Into the Hitherto Unknown*, Van Riebeeck Society;
- Robert Ross, History Professor, University of Leiden;
- Liz Stanley, University of Edinburgh;
- Andrea Salter, University of Edinburgh;
- Jeff Peires, University of Fort Hare;
- Alan Rycroft, University of Cape Town;
- Hazel Crampton, Independent Writer (South Africa); and
- Marguerite Poland, prize-winning author of *The Keeper*, Penguin Books, 2014 (South Africa).

Significant Research Aligned Events

Cory Library managed, funded, and launched:

- Edna Bradlow and Tony Westby-Nunn, *Frederick I'Ons Artist 1802-1887*, Cape Town, 2014.

Cory Library launched the following books in 2014:

- Robert Ross, *Borders of Race in Colonial South Africa: The Kat River Settlement 1829-1856*, Cambridge University Press, 2014;
- Liz Stanley and Andrea Salter, *The World's Great Question: Olive Schreiner's South African Letters 1889-1920*, Van Riebeeck Society, 2014.

Dr Cornelius Thomas

Head of Cory Library

PUBLICATIONS

Books/Chapters/Monographs

Thomas, C.C.

Thomas, C.C. (2014) Coloureds: A Complex History. In: Pretorius, F. (ed.). *A History of South Africa: From the Distant Past to the Present Day*. Pretoria, South Africa: Protea Book House. ISBN: 9781869199081.

Peer Reviewed Subsidy-Earning Journal Research Publications

Thomas, C.C.

Thomas, C.C. (2014) Finding Voice, Vocabulary and Community. The UWC Student Movement 1972-1976. *Journal for Contemporary History*. 39 (1). p.19-37.

Concerts, Exhibitions, Performances, Workshops, Events

Cartwright, L.M.

Cartwright, L.M. and **Nkomo, D.** Organiser. *International Dictionary Week Celebrations*. International Dictionary Week. Rhodes University Library, Grahamstown. South Africa. 13 - 17 October 2014.

Satgoor, U.

Satgoor, U. Keynote Speaker. New Frontiers of Librarianship. *NMMU Annual LIS Lecture*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. 11 August 2014.

Satgoor, U. President, Library and Information Association of South Africa (LIASA). Celebrating libraries in 20 years of democracy. *Official launch: South African Library Week*. National Library of South Africa, Cape Town. South Africa. 15 - 22 March 2014.

Satgoor, U. Facilitator. International Federation of Library Associations and Institutions (IFLA). *Building Strong Library Associations, Africa Region*. Kwame Nkrumah University of Science and Technology, Kumasi. Ghana. 10 - 14 February 2014.

Van Der Walt, W.D.

Van Der Walt, W.D. Facilitator. IUGSA 2014. *Digitisation, Project Management, Data Manipulation and Data Mapping*. Vaal University of Technology, Vereeniging. South Africa. 20 November 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Ntaka, L.

Ntaka, L. Poster presentation: An observation of differences and similarities between public and academic librarianship a necessary debunking of myths? *16th LIASA Annual Conference. "Celebrating libraries in 20 years of democracy: continuing the dialogue"*. Birchwood Conference Centre, Ekurhuleni. South Africa. September 2014.

Satgoor, U.

Satgoor, U. Panel presentation: IFLA Trend Report. *Standing Conference of Eastern, Central and South Africa Library and Information Associations (SCECSAL). "Information and knowledge management as a driving force for socio-economic development in Africa"*. Sunbird Capital Hotel, Lilongwe. Malawi. July 2014.

Satgoor, U. Invited Speaker. "It's not business as usual!

Continuing professional development (CPD) as a change imperative for LIS professionals". *LISC75 Conference, University of Cape Town. LIS Education and Research in a Dynamic Information Landscape*. University of Cape Town, Cape Town. South Africa. November 2014.

Van Der Walt, W.D.

Van Der Walt, W.D. Strategic Information Systems (IS) Management. *Innovative User Group Southern Africa Conference 2014*. Vaal University of Technology, Vereeniging. South Africa. November 2014.

Van Der Walt, W.D. Content Pro Development and Standardisation within SEALS. *Innovative User Group Southern Africa Conference 2014*. Vaal University of Technology, Vereeniging. South Africa. November 2014.

Vanda, P.

Vanda, P. Program Management (ILS): The Rhodes Experience. *Innovative User Group Southern Africa Conference 2014*. Vaal University of Technology, Vereeniging. South Africa. November 2014.

DEPARTMENT OF ACCOUNTING

INTRODUCTION

The Department of Accounting successfully hosted the biennial Southern African Accounting Association (SAAA) Eastern Cape Regional Conference in 2014. The elected executive committee of this particular division of the strongly research-oriented SAAA is dominated by Rhodes University academic staff members, with **Mr Richard Poole** as its Chair, **Ms Lindsay Webber** as Treasurer, and **Mr Edward Horn** in charge of the Secretariat. The Department's continuing commitment to its research activities was dramatically demonstrated by the fact that well over half the conference's papers were attributable to Rhodes University, despite it being one of four institutions represented. In addition to this, there were significant research contributions from colleagues in a number of academic fields, with papers presented on tax, accounting history, finance, nonprofit financial analysis, tax education, and accounting education.

Significant Research Aligned Activities

Tax

Professor Jackie Arendse is one of three co-authors of *Silke on Tax Administration*, a fully peer reviewed and comprehensive guide to the administrative provisions of taxation legislation in South Africa. Following its original publication in 2010, the book has been updated every year, including a complete rewrite in 2012. Widely used by professionals, academics and students, it explains the investigation and audit powers of SARS, provides guidance on taxpayers' rights



Participants of the South African Accounting Association (SAAA) Eastern Cape Regional Conference, which was held in October 2014 and hosted by the Department of Accounting.

relating to taxation, and incorporates commentary and interpretation on a range of legislative items, including the Constitution, the Promotion of Administrative Justice Act, the Tax Administration Act and the Criminal Procedures Act, in addition to relevant case law.

Professor Lilla Stack co-authored an article, published in the *Journal of Economic and Financial Sciences*, on the legal status of double taxation agreements. This research contributes to the literature by demonstrating that the Vienna Convention on the Law of Treaties represents customary international law. Therefore, double taxation agreements have a dual nature, forming part of domestic legislation as well as being classified as international agreements. From a South African point of view, such agreements are shown to override any conflicting legislation in the Income Tax Act.

Accounting history

Professor Jonathan Lancaster successfully completed his PhD in accounting history. In his thesis he examines the origins of the auditing regulator in South Africa, with a particular focus on an analysis of its early development in the context of the South African economy and changing political framework in the period 1913-1940.

Finance

During 2014, **Mr Kevin Barnard** and **Professor Mark Bunting** were awarded two separate conference best paper prizes for presentations of their research work on investment strategies during the global financial crisis. The recognition accorded to their research included the award from an international peer group of the Emerald Best Paper in Finance at the 4th African Accounting and Finance Association Conference.

In addition, Professor Bunting and Mr Barnard further developed their collaborative work in theoretical and empirical finance, completing a new



David Grenville (2nd left) with his supervisor Professor Lilla Stack (2nd right) and representatives from the South African Institute of Professional Accountants (SAIPA). David was awarded the Norton Rose Fullbright tax thesis prize for the best 2013 Master's degree tax thesis (co-sponsored by SAIPA).



Professor Jackie Arendse is one of three co-authors of *Silke on Tax Administration*, a fully peer-reviewed and comprehensive guide to the administrative provisions of taxation legislation in South Africa.

Photo: Paul Greenway

manuscript on capital markets research in accounting. In this paper (accepted for review by the editor of an international journal), they examine the premise underlying the practice of fundamental analysis, which is that accounting numbers are relevant to the prediction of security returns. Although the theoretical foundation for this proposition is well established, empirical evidence is less clear on whether a contextual partition of the securities universe, on the basis of value-growth or other characteristics, is a necessary precondition for the efficacy of fundamental analysis. Their paper investigates the matter in the frame of reference of the South African equity market for the eleven-year period that ended 30 June 2014, and finds statistically significant correlations in unexpected partitions of the market.

Nonprofit finance

Professor Bunting continued his research work on economic and financial dimensions of South African higher education, presenting papers at a number of workshops and conferences. He added two further lines of enquiry during the year. The first of these involves consolidated financial analyses of the universities on the basis of clusters defined with reference to dimensions of historical advantage or disadvantage, urban or rural location, size, and status as a merged or standalone institution. The second is the application of an innovative analytical technique to establish the comparative research output efficiencies of the universities, with reference to the academy as a multiple-input and multiple-output system.

Accounting and tax education

Mr Edward Horn presented a conference paper in which he described his innovative work on incorporating

professional-level tax opinion work into his undergraduate classes.

Ms Peta Myers successfully completed her Masters degree in education, and she continues to focus on her research in accounting education. Building on her responsibilities as a first-year lecturer, Myers is closely examining knowledge structures as a mechanism for the development of a coherent curriculum for dealing with two categories of students in the same classroom: those who have a background in school-level accounting, and those who do not. During the year, she presented her work at a number of international conferences and other colloquia.

Mr Kevin Barnard co-authored a cross-disciplinary paper on information communications technology-enhanced formative assessment in an undergraduate management accounting course, which has been accepted for publication in a future edition of the South African Journal of Accounting Research.

Significant Research Aligned Events

Southern African Accounting Association Biennial Regional Conference: Hosted by the Department of Accounting, Rhodes University, at the Gavin Relly Postgraduate Village in Grahamstown, 31 October 2014 - 1 November 2014. Fifteen (15) papers were presented by the academic staff of Nelson Mandela Metropolitan University, University of Fort Hare, Walter Sisulu University and Rhodes University.

Professor Mark Bunting

Academic Leader: Research

PUBLICATIONS

Other Publications

Bunting, M.B.

Bunting, M.B. (2014) Sloth. In: *SA Financial Markets Journal*. Johannesburg: South African Institute of Financial Markets.

Bunting, M.B. (2014) Thomas Bayes. In: *SA Financial Markets Journal*. Johannesburg: South African Institute of Financial Markets.

Bunting, M.B. (2014) The market for lemons. In: *SA Financial Markets Journal*. Johannesburg: South African Institute of Financial Markets.

Bunting, M.B. (2014) The bell-shaped curve. In: *SA Financial Markets Journal*. Johannesburg: South African Institute of Financial Markets.

Peer Reviewed Subsidy-Earning Journal Research Publications

Costa, D.P.A. and Stack, E.M.

Costa, D.P.A. and Stack, E.M. (2014) The Relationship Between Double Taxation Agreements and the Provisions of the South African Income Tax Act. *Journal of Economic and Financial Sciences*. 7 (2). p.271-282.

Peer Reviewed Proceedings

Myers, L.P.

Myers, L.P. Introductory financial accounting: The impact of knowledge structures on teaching and learning. *SAAA Teaching and Learning Conference*. University of Cape Town, Cape Town. South Africa. December 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Barnard, K.J. and Mostert, M.

Barnard, K.J. and Mostert, M. Exploring student perceptions and experiences of ICT-enhanced formative assessment in an undergraduate management accounting course. *Faculty of Commerce Research Colloquium*. Rhodes University, Grahamstown. South Africa. September 2014.

Barnard, K.J. and Mostert, M. Exploring student perceptions and experiences of ICT-enhanced formative assessment in an undergraduate management accounting course. *2014 SAAA Eastern Cape Regional Conference*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. October 2014.

Barnard, K.J. and Mostert, M. Exploring student perceptions and experiences of ICT-enhanced formative assessment in an undergraduate management accounting course. *Rhodes University Teaching and Learning Showcase*. Rhodes University, Grahamstown. South Africa. November 2014.

Barnard, K.J. and Mostert, M. Exploring student perceptions and experiences of ICT-enhanced formative assessment in an undergraduate management accounting course. *2014 Conference SAAA Teaching and Learning in Accountancy*. University of Cape Town, Cape Town. South Africa. December 2014.

Barnard, K.J. and Bunting, M.B.

Barnard, K.J. and Bunting, M.B. Value and size investment strategies during the global financial crisis: Evidence from the South African equity market. *Faculty of Commerce Research Colloquium*. Rhodes University, Grahamstown. South Africa. May 2014.

Barnard, K.J. and Bunting, M.B. Value and size investment strategies during the global financial crisis: Evidence from the South African equity market. *2014 SAAA Eastern Cape Regional Conference*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. October 2014. **Winner of Conference Best Paper Award.**

Barnard, K.J. and Bunting, M.B. Value and size investment strategies during the global financial crisis: Evidence from the South African equity market. *4th African Accounting and Finance Association Conference*. Lord Charles Hotel, Somerset West. South Africa. September 2014. **Winner of Emerald Best Paper in Finance Award.**

Bunting, M.B.

Bunting, M.B. The financial health of Rhodes University: A seven-year review 2006-2012. *Commerce Faculty Research Colloquium*. Rhodes University, Grahamstown. South Africa. January 2014.

Bunting, M.B. Assessing the financial health of a university. *Ministerial Council Appointees Workshop, Department of Higher Education and Training, Johannesburg*. University of the Witwatersrand, Johannesburg. South Africa. March 2014.

Bunting, M.B. The financial health of the University of KwaZulu-Natal (UKZN): A seven-year review 2006-2012. *University Councils Regional Workshop*. Westville campus, UKZN, Durban. South Africa. July 2014.

Bunting, M.B. Cluster analysis of South African universities on the basis of financial indicators. *Centre for Higher Education Transformation Differentiation Dialogue*. Lanzerac, Stellenbosch. South Africa. October 2014.

Bunting, M.B. A response to the South African government's 2014 policy framework on differentiation in higher education. *2014 SAAA Eastern Cape Regional Conference*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. October 2014.

Bunting, M.B. University research performance in South Africa: A data development analysis. *Higher Education Research and Advocacy Network in Africa Conference, Stellenbosch University*. South Africa. November 2014.

Horn, E.B.

Horn, E.B. An Integrated Written Tax Opinion Assignment. *2014 SAAA Eastern Cape Regional Conference*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. January 2014.

Myers, L.P.

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DEPARTMENT OF ANTHROPOLOGY

INTRODUCTION

Rhodes' Department of Anthropology is one of the oldest Anthropology Departments in South Africa. In recent years the Department extended its research endeavours beyond the Eastern Cape to include research on postcolonial identities in Madagascar, Seychelles, and Tanzania, marine and ecological systems in the Solomon Islands, the response to the AIDS pandemic in KwaZulu-Natal and transnational Congolese migrants in Cape Town. As a result of this regional expansion the course offerings in the Department have included cutting edge research in the fields of Heritage Studies, Transnational Migration, Marine Anthropology and Childhood Studies.

In the near future we hope to expand our regional specialisations to include North Africa and other global South countries through the arrival of new staff members, and the expansion of the regional foci of existing academic staff.

Dr Joy Owen

Acting Head of Department

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Dr Michelle Cocks from the Department of Anthropology, along with Mr Tony Dold from the Department of Botany, contributed the chapter *A Case Study of Cassipourea flanaganii, a Valuable Cosmetic Bark Traded Informally in South Africa* in the book *Bark: Use, Management and Commerce in Africa (Advances in Economic Botany)*.

Dr Michelle Cocks also co-authored a second chapter, entitled *Markets for Three Bark Products in Zimbabwe: A Case Study of Markets for Bark of Adansonia digitata, Berchemia discolor, and Warburgia salutaris*.

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Books/Chapters/Monographs

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Veeman, M.M., **Cocks, M.L.**, Muwonge, F., Choge, S.K. and Campbell, B.M. (2014) *Markets for Three Bark Products in Zimbabwe: A Case Study of Markets for Bark of Adansonia digitata, Berchemia discolor, and Warburgia salutaris*. In: Cunningham, A.B., Campbell, B.M. and Luckert, M.K. (eds.). *Bark: Use, Management and Commerce in Africa (Advances in Economic Botany)*. USA: New York Botanical Garden Press. p.227-245. ISBN: 9780893274931.

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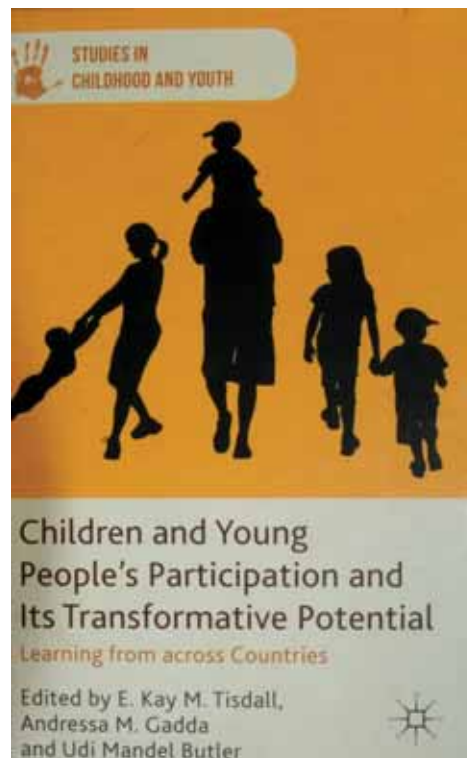
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Cocks, M.L.

Vetter, S., Dold, A.P. and Cocks, M.L. Culture inextricably entwined with nature: the importance of cultural environmental values and relationships to human wellbeing. *Resilience 2014*. Corum, Montpellier. France. May 2014.



Dr Patti Henderson, along with co-authors Shirley Pendelbury and Lucy Jamieson, contributed the chapter *Unsettling Notions of Participation: A View from South Africa* in the book *Children and Young People's Participation and its Transformative Potential: Learning from across Countries*.

DEPARTMENT OF BIOCHEMISTRY AND MICROBIOLOGY

INTRODUCTION

This year saw the establishment of the SARChI Chair in Marine Natural Product Research, funded by the National Research Foundation (NRF). **Professor Rosemary Dorrington** was appointed to the Chair to provide leadership in this exciting biodiscovery research field. Marine natural products can potentially fulfill an important economic role in the global pharmaceutical industry, while also expanding our indigenous knowledge and rich biodiversity.

The Research Unit in Bioinformatics (RUBi), as a member of H3Africa Consortium, has been recognized as one of the main bioinformatics nodes in Africa in structural bioinformatics research. The marker paper of the Consortium, entitled "Research capacity. Enabling the genomic revolution in Africa" was published in the June 2014 issue of *Science Journal* and **Professor Özlem Tastan Bishop** was a co-author.

Postgraduates/Graduations

The pulse of the Department are the Postgraduate students and their achievements were celebrated over the Graduation weekend. 2014 was an exceptional year with nineteen (19) and eight (8) students, graduating with MSc and PhD degrees respectively. We are immensely proud of all our graduates.

Professor Özlem Tastan Bishop accompanied ten (10) of her Postgraduate students to the joint SASBi-SAGS Congress which was held at Kwalata Game Ranch,



Members of the Biomedical Biotechnology Research Unit (BioBRU) and international visitors Professor Didier Picard (University of Geneva) and Professor Gregory Blatch (University of Melbourne and Rhodes University) at the Swiss-RSA mini-symposium held in Grahamstown in November 2014

Tshwane, in September 2014. Her four (4) PhD students (David Brown, Rowan Hatherley, Thommas Musyoka and Ngonidbashe Faya) gave oral presentations on their research. D. Brown also presented his latest findings in the ECCB'14 13th European Conference on Computational Biology, in Strasburg, France, in September 2014.

Professor Joanna Dames and her PhD student, Christine Bizabani, both gave presentations at the African Mycology Association (AMA) symposium which was held in conjunction with the AETFAT Congress in Stellenbosch.

Dr Adrienne Edkins of the Biomedical Biotechnology Research Unit (BioBRU) and fourteen (14) of her Postgraduate and Postdoctoral researchers attended the 2014 Congress of the South African Society for Biochemistry and Molecular Biology (SASBMB) at Goudini Spa, Worcester in July.

Twelve (12) of the Postgraduates presented posters on their work and two researchers, PhD student, Mr Jason Sterrenberg and Postdoctoral Fellow Dr Lorraine Mutsunguma, gave oral presentations of their research. In addition, a number of researchers from BioBRU presented their work at international conferences during 2014. PhD students Ms Cindy Slater and Mr Jason Sterrenberg attended the prestigious EMBL conference on Stem cells in cancer and regenerative medicine in Heidelberg, Germany, while Ms Stacey Weeks and Ms Cindy Slater presented their research at the 7th International Conference on the Hsp90 chaperone machine in Seon, Germany. Dr Lorraine Mutsunguma presented research from her Postdoctoral work at the 7th International Symposium on Heat Shock Proteins in Biology and Medicine held in Washington DC, USA.

Distinguished Visitors/International Visits

Professor Özlem Tastan Bishop attended the H3ABioNet meeting in Casablanca in October 2014 and presented the latest research outputs of her group relevant to the H3Africa Consortium. Further, RUBi hosted

Members of the Department of Biochemistry and Microbiology at the South African Society for Biochemistry and Molecular Biology (SASBMB) congress at Goudini Spa, Worcester, Western Cape in July 2014



one (1) PhD student (co-supervised by Professor Özlem Tastan Bishop) from Tunisia and one (1) Postdoctoral Fellow from Malawi in October - November 2014 to initiate collaborative projects and for knowledge transfer.

Professor Joanna Dames hosted an exchange student from Nigeria for six (6) months as part of an OWSD Postgraduate Fellowship program.

Dr Adrienne Edkins hosted a visit by Professor Didier Picard from University of Geneva, Switzerland and Professor Greg Blatch from University of Victoria, Australia. Professor Picard is a leading international researcher in the field of Hsp90 chaperone biology and his visit is part of an international collaboration grant with Dr Edkins that is funded by a grant from the National Research Foundation. Professor Blatch is Dean of Biomedicine at Victoria University in Melbourne and Visiting Professor at Rhodes University. During this visit, Dr Edkins held the South Africa-Swiss research symposium and Postgraduate and Postdoctoral Fellows were given the opportunity to present their research and interact with the international visitors. Professor Picard also presented a seminar on his research within the Department.

Significant Research Aligned Events

Dr Mez Jiwaji, a Postdoctoral Fellow in Professor Rosemary Dorrington's research group, was awarded a five (5) year NRF Emerging Researchers Fellowship.

Professor Brett Pletschke, along with colleagues **Professor Joanna Dames**, **Dr Brendan Wilhelmi**, **Dr Gwynneth Matcher** (all in the Department of Biochemistry and Microbiology), Professor Rui Krause (Department of Chemistry, Rhodes University) and Dr Konanani Rashamuse (CSIR



Graduates and Members of the Biomedical Biotechnology Research Unit (BioBRU) at the 2014 Graduation Garden Party

Biosciences) were awarded a 3 year *Sandisa Imbewu* grant entitled: "Enzymes: Biocatalysts for the Bioeconomy" for 2015-2017. The focus of this proposal is on using modern bioprospecting tools for the discovery of novel enzymes with greater catalytic efficiency to make the process of value added commodity (biofuels and platform chemicals such as xylitol and mannitol) production more economically feasible.

Professor Dames was elected onto the council of AMA and was a member of the international organizing committee for the African Network on Mycorrhizas (AFRINOM) symposium which was held in Morocco. **Professor Özlem Tastan Bishop**, as the first president of the South African Society for Bioinformatics (SASBi), organized a joint SASBi-SAGS national Congress together with Professor Zander Myburg (University of Pretoria). The theme was "Beyond Genes and Genomes" with an emphasis on the integration of diverse biological data to understand the function and evolution of biological systems from single gene to whole-genome levels. During the AGM of SASBi, the Bioinformatics Student Council was formed. Candice Ryan (RUBi, PhD student) was elected as President of the Student Council and Professor Özlem Tastan Bishop as the mentor.

Dr Adrienne Edkins was invited to give oral presentations on her research at the SASBMB 2014 Congress in Worcester in the Cape and at the 7th International Conference on the Hsp90 chaperone machine in Seon, Germany. Dr Edkins was also invited to be the plenary speaker at the WITS Molecular Biology Research Thrust Research Day held in December 2014. At the SASBMB meeting, Dr Adrienne Edkins was elected as the secretary of the council of the South African Society for Biochemistry and Molecular Biology (SASBMB).

It is increasingly evident that interdisciplinary research is the focus of many research groups in the Department of Biochemistry and Microbiology involving other departments at Rhodes University as well as other Institutions at both the national and International level.

Professor Joanna F. Dames
Head of Department

PUBLICATIONS

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Dorrington, R.A., Prinsloo, E., Klein, R., Mashazi, P., Krause, R.W.M., Afolayan, A., Perks, T., Ayeni, A., Waterworth, S.C., Khanye, S.D. and Britton, J. Symposium. Chemico- and Biomedical Research Symposium sponsored

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Other Publications

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molecules with antimalarial activity. *Biological Chemistry*. 395 (11). p.1353-1362.

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Beckley, S.J., Contu, L., Blatch, G.L. and Edkins, A.L.

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Coombes, C.A., Hill, M.P., Moore, S.D. and Dames, J. Entomopathogenic fungi for control of false codling moth in South African citrus orchards. *47th International Congress on Invertebrate pathology and Microbial Control*. Mainz. Germany. August 2014.

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De Almeida, L.K.S., Chigome, S., Torto, N., Frost, C.L. and Pletschke, B.I. A novel nanofiber-based colorimetric sensor for the detection of glyphosate in water. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

De La Mare, J.A., Perks, T. and Edkins, A.L.

De La Mare, J.A., Perks, T. and Edkins, A.L. Investigation of the role of microenvironmental niche factors TGF β 946; and Hsp90 in colon cancer metastasis in vitro. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

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Dhanani, K.C.H. and Edkins, A.L. Human FN1 expression is modulated by the cell stress machinery in breast cancer cells. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

Edkins, A.L.

Edkins, A.L. Regulation of cell migration processes by the Hsp90-Hsp70 organising protein (HOP). *Invited short talk at the 7th International Conference on the Hsp90 chaperone machine*. Seeon Abbey, Seeon. Germany. October 2014.

Edkins, A.L. The Hsp90 molecular chaperone complex regulates cancer biology. *Symposium of the Chemico- and Biomedical Research Centre*. Rhodes University, Grahamstown. South Africa. October 2014.

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Hatherley, R., Brown, D.K., Musyoka, T.M., Faya, N., Penkler, D.L. and Tastan Bishop, A.O.

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Isolation, genetic characterisation and evaluation of biological activity of a novel South African *Phthorimaea operculella* granulovirus (PhopGV). *47th International Congress on Invertebrate Pathology and Microbial Control*. Mainz. Germany. August 2014.

Abdulkadir, F., Knox, C.M., Marsberg, T., Hill, M.P. and Moore, S.D.

Genetic and biological characterisation of a novel South African *Plutella xylostella* granulovirus, PlxyGV-SA. *47th International Congress on Invertebrate Pathology and Microbial Control*. Mainz. Germany. August 2014.

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Laurence, J.E., Wilhelmi, B.S. and Edkins, A.L. Sequence variation of autosomal short tandem repeats in Southern African sub-populations, characterized using next generation sequencing. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

Lesoro, M.N., Morrison, R., Whiteley, C.G. and Wilhelmi, B.S.

Lesoro, M.N., Morrison, R., Whiteley, C.G. and Wilhelmi, B.S. Bioinformatic identification, molecular cloning and expression of an equine cytochrome p450 for use in an in vitro system for the production of drug metabolites. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. January 2014.

Malgas, S., Van Dyk, S. and Pletschke, B.I.

Malgas, S., Van Dyk, S. and Pletschke, B.I. Synergism between mannanolytic enzymes and CTec2 for the enhanced hydrolysis of delignified sugarcane bagasse. *CATSA 2014*. Saint Georges Hotel and Conference Centre, Pretoria. South Africa. November 2014.

Matcher, G.F.

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Meiklejohn, K.I., Nel, W., Davis, J., Dwight, R., Hansen, C.D., Hedding, D., Lee, J., Loubser, M., Matcher, G.F., Rudolph, L., Scott, D.A. and van der Merwe, B. Landscape processes in Antarctic ecosystems: A review of geomorphological research in Western Dronning land since the 2007-2008 International Polar Year. *Society of South African Geographers: 10th Conference*. University of Fort Hare,

Fort Hare. South Africa. June 2014.

Meiklejohn, K.I., Nel, W., Davis, J., Dwight, R., Hansen, C.D., Hedding, D., Kotze, C., Lee, J., le Roux, J., Loubser, M., Matcher, G.F., Rudolph, L., Scott, D.A. and van der Merwe, B. Landscape processes and the active layer environment in Western Dronning Land. *SCAR: 2014 Open Science Conference*. Auckland. New Zealand. August 2014.

Dwight, R., Meiklejohn, K.I., Lee, J., Hansen, C.D. and Matcher, G.F. Geomorphic biological interactions in the Ahlmannryggen and Jutelsessen areas of Western Dronning Maud Land, Antarctica. *SCAR: 2014 Open Science Conference*. Auckland. New Zealand. August 2014.

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Meyer, A.H., Wooldridge, J. and Dames, J. Assessing the Performance of Enzyme-Based Soil Alteration Index Three (AI3) Under Organic and Integrated Apple Production Practices. *Combined Congress*. Barrat Lecture Theatre, Rhodes University, Grahamstown. South Africa. January 2014.

Mkabayi, L. and Wilhelmi, B.S.

Mkabayi, L. and Wilhelmi, B.S. In vitro drug metabolism using liver microsomes and recombinant cytochrome P450 1A2. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

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Morrison, R., Van Marwijk, J., Tastan Bishop, A.O. and Wilhelmi, B.S. The expression, purification and characterisation of two novel cytochrome P-450s from the equine: towards an in vitro system for the identification of drug metabolites. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

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Musyoka, T.M., Kanzi, A.M., Lobb, K.A. and Tastan Bishop, A.O. In silico based methodology to determine the activity of non-peptidic compounds against plasmodial cysteine proteases. *PACN Congress on Biodiversity and Global Challenges: A Chemical Sciences Approach*. Addis Ababa. Ethiopia. December 2014.

Mutsvunguma, L.Z., Tastan Bishop, A.O., Blatch, G.L. and Edkins, A.L.

Mutsvunguma, L.Z., Tastan Bishop, A.O., Blatch, G.L. and Edkins, A.L. Characterization of the DNAJC3 TPR domains. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference: short talk*. Goudini Spa, Worcester. South Africa. July 2014.

Parsons, M., Edkins, A.L. and Wilhelmi, B.S.

Parsons, M., Edkins, A.L., Parker, D.M. and Wilhelmi, B.S. A rhinoceros DNA barcode for the use in wildlife forensics. *24th South African Society for Biochemistry and Molecular*

Biology (SASBMB) Biennial Conference. Goudini Spa, Worcester. South Africa. July 2014.

Perks, T., De La Mare, J.A. and Edkins, A.L.

Perks, T., De La Mare, J.A. and Edkins, A.L. The interaction between Hsp90 and the TGF β 946; signaling pathway in genetically paired cancer cell lines derived from a primary colon tumour and its lymph node metastasis. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

Pletschke, B.I.

Pletschke, B.I. Mining psychrophilic microorganisms for industrially important enzymes. *NRF SANAP PI Symposium*. The Highlander, Grahamstown. South Africa. June 2014.

Sitole, P. and Dames, J.

Sitole, P. and Dames, J. Investigating soil microbes of selected organic and conventional citrus farms in the Eastern Cape. *8th Citrus Research Symposium*. Champagne Sports Resort, Central Drakensberg. South Africa. August 2014.

Slater, C. and Edkins, A.L.

Slater, C. and Edkins, A.L. Selective targeting of the stress-inducible HSP90AA1 affects Wnt/ β 946-catenin signaling in colon cancer cells. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

Sterrenberg, J.N. and Edkins, A.L.

Sterrenberg, J.N., Scholefield, J., Mhlanga, M. and Edkins, A.L. OCT4 and the HSP90 multi-chaperone complex. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference: short talk*. Goudini Spa, Worcester. South Africa. July 2014.

Thoresen, M., Van Dyk, S. and Pletschke, B.I.

Thoresen, M., Den Haan, R., Van Zyl, W.H., Van Dyk, S. and Pletschke, B.I. An investigation into the synergistic co-operation between various cellulases on complex cellulosic substrates. *CATSA 2014*. Saint Georges Hotel and Conference Centre, Pretoria. South Africa. November 2014.

Vaaltyn, M.C., Contu, L., Mutsvunguma, L.Z. and Edkins, A.L.

Vaaltyn, M.C., Contu, L., Mutsvunguma, L.Z. and Edkins, A.L. The interaction of Hop with RhoC in mammalian cells. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

Weeks, S.A., Contu, L., Blatch, G.L. and Edkins, A.L.

Weeks, S.A., Contu, L., Blatch, G.L. and Edkins, A.L. Characterization of the Hsp70-Hsp90 organizing protein gene and its link to cancer. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

Whiteley, C.G.

Whiteley, C.G. Medical Biotechnology: Kinases as biomedical targets against infectious diseases: Malaria and trypanosomiasis: influence of Ag nanoparticles. *Global Biotechnology Congress*. Boston. United States of America. June 2014.

Wilhelmi, B.S. and Whiteley, C.G.

Mutanda, T., **Wilhelmi, B.S. and Whiteley, C.G.** Enzymatic Synthesis, Detection and Quantification of Short Chain Fructooligosaccharides and Inulooligosaccharides for Potential Pharmaceutical Applications. *6th International Conference on Appropriate Technology*. Kenyatta University Conference Centre, Nairobi. Kenya. November 2014.

Wilhelmi, B.S., Yao, J., Van Marwijk, J., Mnkandhla, D., De Moor, W.R.J., Mlozen, M.M. and Whiteley, C.G.

Wilhelmi, B.S., Yao, J., Van Marwijk, J., Mnkandhla, D., De Moor, W.R.J., Mlozen, M.M. and Whiteley, C.G. Inhibition of target parasitic enzymes by silver nanoparticles. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

Wingate, I., Contu, L. and Edkins, A.L.

Wingate, I., Contu, L. and Edkins, A.L. Proteomic analysis of Hop in cell migration and invasion in cancer. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

Yao, J., Van Marwijk, J., Wilhelmi, B.S. and Whiteley, C.G.

Yao, J., Van Marwijk, J., Wilhelmi, B.S. and Whiteley, C.G. Synthesis of silver nanoparticles and their role against a thiazolekinase enzyme from Plasmodium falciparum. *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

2013 Publications Submitted to DHET in 2014

Books/Chapters/Monographs

Arowolo, A.T., van Marwijk, J., Boshoff, A. and Whiteley, C.

Arowolo, A.T., van Marwijk, J., Boshoff, A. and Whiteley, C. (2013) Rolls and Sandwiches: Cages and Barrels. In: Rai, M. and Posten, C. (eds.). *Green Biosynthesis of Nanoparticles: Mechanisms and Applications*. United Kingdom: CABI. p.92-121. ISBN: 9781780642239.

BIOTECHNOLOGY AND THE BIOTECHNOLOGY INNOVATION CENTRE (RUBIC)

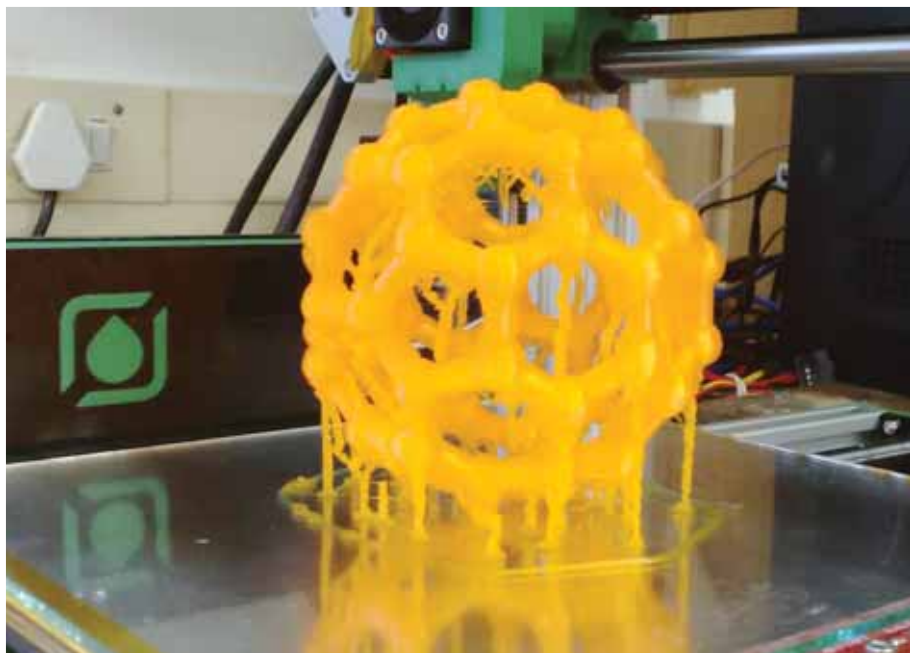
INTRODUCTION

Educate - Innovate - Communicate

The Rhodes University Biotechnology Innovation Centre (RUBIC) was formed in 2014 as the new home of Biotechnology at Rhodes, incorporating the academic discipline of Biotechnology. Being a discipline geared towards innovation and technology transfer and one that holds much promise to impact positively on society, RUBIC was founded on three, inter-connected pillars: **Educate** (teaching and research); **Innovate** (technology transfer and innovation activities based on its research) and **Communicate** (purposed and directed engagement to foster technology transfer).

An applied field, Biotechnology holds much promise for the development of new products and processes, for technology transfer, and for new innovation that can impact positively on the lives of South Africans and beyond, from water and energy to healthcare and agriculture. The RUBIC model seeks to unlock the opportunities for technology transfer that may emanate from higher education research.

Led by a Director with overseeing of all three pillars (Educate; Innovate; Communicate), and supported by an Academic Head of Biotechnology (fulfilling the Head of Department role), academic staff, Post-doctoral Fellows and Research Associates, and advised by a Management Board, the Centre represents a new model in higher education transcending the traditional department format for Postgraduate



3D Printed Carbon 60 model, printed in biodegradable Poly-Lactic Acid.
Photo: Dr Earl Prinsloo

research. At RUBIC Postgraduates are trained in applied biotechnology, conducting research geared towards product and process development. An enabling environment provided by innovation laboratories situated alongside the research wing is aimed at better transitioning research from the laboratory to prototype development to life-changing benefits for society.

In its first year, RUBIC has much to celebrate. Beginning with a core staff of three, including **Dr Earl Prinsloo** (promoted to Senior Lecturer in 2014), **Dr Aileen Boshoff** and **Professor Janice Limson**, the announcement of a South African Research Chair (SARChI) in Biotechnology Innovation and Engagement brought with it a fourth full-time post for RUBIC. The announcement of the Chair was made following a visit by Minister of Science and Technology, the Honourable Minister Naledi Pandor to Rhodes University's Centre for Nanotechnology Innovation. Professor Janice Limson will take up the SARChI chair in 2015. This chair embodies the core principles of RUBIC, bridging biotechnology Postgraduate research and the technology transfer of products and processes in an informed engagement process with society. The research aims to use technology as an engagement tool that ultimately fosters and drives innovation and product development with society as co- path-finders.

The year ended with the announcement of a prestigious Medical Research Council Career Development award for **Dr Ronen Fogel** who will take this up in 2015 and 2016. A generous research stipend from the MRC will support his work in aptamers and stem cell technology.

Postgraduates/Graduations

RUBIC hosted twenty-seven (27) Honours, Masters and PhD students in 2014.

Significant Research and Innovation Aligned Events

Serving as the founding Director of RUBIC and in the role of Academic Head of Biotechnology in 2014, **Professor Janice Limson** was appointed as full Professor of Biotechnology. Her BioSENS research group focused on two core areas: biomedical diagnostics and microbial fuel cells. Joined by NRF Innovation Postdoctoral Fellow **Dr Ronen Fogel**, the BioSENS group patented their aptamers for malaria and for CD4 monitoring for HIV positive patients. The latter patent seeks to develop point-of-care technologies for rapid and on-site CD4 counts, currently not available at the time of HIV diagnosis in clinics. Access to CD4 counts alongside HIV testing can improve HIV management and care. A strong emphasis will be placed on developing prototype technology for both malaria and CD4 counts in 2015.

The research group of **Dr Earl Prinsloo** strengthened a focus on stem cell biology and tissue engineering through the publication of two peer reviewed articles in respected international journals (Biochemical and Biophysical Research Communications and IUBMB Life). A further publication through collaboration with Dr Adrienne Edkins (BioBRU, Department of Biochemistry and Microbiology) was published in the journal PLoS One. Furthermore, Dr Prinsloo's laboratory equipment expanded with the purchase of 3D printers for the further development of tissue engineering scaffolds.

Dr Prinsloo's group delivered well-received oral and poster presentations at the International Conference for Tissue Engineering and Regenerative Medicine (Tshwane University of Technology, Pretoria). The conference was attended by leaders in the field of bone and cartilage tissue engineering and the oral and poster presentations were very well received.

Dr Aileen Boshoff continued developing her core research focus in parasitology, focusing on sleeping sickness and malaria. The Ebola outbreak of 2014 sheds light on the need

for fundamental research and the continued need to support such research in neglected diseases of the continent.

Nationally, RUBIC was represented in policy making for the country with **Professor Janice Limson** serving on the Department of Science and Technology Bio-economy Industry and Environment Sector Coordinating Committee, mandated with developing an implementation plan for the new Bioeconomy Strategy for South Africa.

Distinguished Visitors/International Visits

As part of a National Research Foundation South Africa - and Campus France (Protea) bilateral agreement, the BioSENS group hosted Dr Mathieu Etienne and a Masters student, Stephane Pinck, from the Laboratory of Physical Chemistry and Microbiology for the Environment (LCPME), CNRS and the University of Lorraine, France, in January and July.

Professor Limson and **Dr Fogel** strengthened their collaboration with Dr Etienne by visiting the LCPME in Nancy, France, in early November 2014. Courtesy of this bilateral agreement, BioSENS PhD student Ms Lwazikazi Madikiza spent one month at the LCPME developing techniques for encapsulating bacteria for application in fuel cells.

Professor Limson served as International Liaison of the IEEE Biocas conference held in Lausanne, Switzerland in October 2014. Two (2) papers were presented at this conference by **Shane Flanagan** and **Dr Rory Brimecombe**.

In August 2014, **Mr Jan Kruid**, also from the BioSENS group, presented aspects of his PhD in chemical and biological remediation at the 65th Annual Meeting of the International Society of Electrochemistry, in Switzerland.

Professor Janice Limson

Director and Head of Department, Biotechnology
Innovation Centre



Biotechnology Postgraduate students (from left to right) Jan Kruid, Trisha Mpofu, Mark Rubidge, Lance Ho, Aphiwe Mfuku, Lwazikazi Madikiza, Nombuso Sithole
Photo: Paul Greenway

PUBLICATIONS

Concerts, Exhibitions, Performances, Workshops, Events

Nyakundi, O.D. and Boshoff, A.

Nyakundi, O.D. and Boshoff, A. Symposium. *Chemico- and Biomedical Research Symposium hosted by and organized by Rhodes Centre of Chemico- and Biomedical Research*. Rhodes University, Grahamstown. South Africa. 1 October 2014.

Prinsloo, E.

Dorrington, R.A., Prinsloo, E., Klein, R., Mashazi, P., Krause, R.W.M., Afolayan, A., Perks, T., Ayeni, A., Waterworth, S.C., Khanye, S.D. and Britton, J. Symposium. Chemico- and Biomedical Research Symposium sponsored by The National Research Foundation and Rhodes University. *Chemico- and Biomedical Research Symposium hosted by and organized by Rhodes Centre of Chemico- and Biomedical Research*. Rhodes University, Grahamstown. South Africa. 1 October 2014.

Distinguished Visitors

Etienne, M.

Dr M Etienne. Laboratory of Physical Chemistry and Microbiology for the Environment, CNRS, University of Lorraine, Nancy, France. *Research Collaboration*. January 2014.

International Visits

Limson, J. and Fogel, R.

Limson, J. and Fogel, R. Laboratory of Physical Chemistry and Microbiology for the Environment, CNRS, University of Lorraine. Dr Mathieu Etienne, Nancy, France. *Research visit to CNRS, Nancy, France*. 27 - 30 October 2014.

Madikiza, L.

Madikiza, L. Laboratory of Physical Chemistry and Microbiology for the Environment, CNRS, University of Lorraine. Dr Mathieu Etienne, Nancy, France. *Research visit to CNRS, Nancy, France*. 26 October - 23 November 2014.

Patents

Cromhout, M.E., Fogel, R., Frith, K.A. and Limson, J.
Cromhout, M.E., Fogel, R., Frith, K.A. and Limson, J. (2014) *Analysis of human immune status*. South Africa. 2014. 2014/01017.

Frith, K.A., Fogel, R., Cromhout, M.E. and Limson, J.
Frith, K.A., Fogel, R., Cromhout, M.E., Goldring, D. and Limson, J. (2014) *Malaria Aptamer*. South Africa. 2014. 2014/05720.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Burger, A., Ludewig, M. and Boshoff, A.

Burger, A., Ludewig, M. and Boshoff, A. (2014) Investigating the Chaperone Properties of a Novel Heat Shock Protein,

Hsp70.c, from *Trypanosoma brucei*. *Journal of Parasitology Research*. 2014 (2014). p.1-12.

Peer Reviewed Subsidy-Earning Journal Research Publications

Boshoff, A.

Cockburn, I.L., Boshoff, A., Pesce, E.R. and Blatch, G.L. (2014) Selective modulation of plasmodial Hsp70s by small molecules with antimalarial activity. *Biological Chemistry*. 395 (11). p.1353-1362.

Kadye, R., Kramer, A.H., Joos-Vandewalle, J. and Prinsloo, E.

Kadye, R., Kramer, A.H., Joos-Vandewalle, J., Parsons, M., Njengele, Z., Hoppe, H.C. and Prinsloo, E. (2014) Guardian of the Furnace: Mitochondria, TRAP1, ROS and Stem Cell Maintenance. *IUBMB Life*. 66 (1). p.42-45.

Kramer, A.H., Joos-Vandewalle, J. and Prinsloo, E.

Kramer, A.H., Joos-Vandewalle, J., Edkins, A.L., Frost, C.L. and Prinsloo, E. (2014) Real-time monitoring of 3T3-L1 preadipocyte differentiation using a commercially available electric cell-substrate impedance sensor system. *Biochemical and Biophysical Research Communications*. 443 (2014). p.1245-1250.

Kruid, J., Fogel, R. and Limson, J.

Kruid, J., Fogel, R. and Limson, J. (2014) Voltammetric investigations of complex growth media at a bare glassy carbon electrode: A case study of oxytetracycline. *Electrochimica Acta*. 128 (2014). p.41-47.

Mshoperi, E.K., Fogel, R. and Limson, J.

Mshoperi, E.K., Fogel, R. and Limson, J. (2014) Application of carbon black and iron phthalocyanine composites in bioelectricity production at a brewery wastewater fed microbial fuel cell. *Electrochimica Acta*. 128 (2014). p.311-317.

Prinsloo, E.

Hunter, M.C., O'Hagan, K.L., Kenyon, A., Dhanani, K.C.H., Prinsloo, E. and Edkins, A.L. (2014) Hsp90 binds Directly to Fibronectin (FN) and Inhibition Reduces the Extracellular Fibronectin Matrix in Breast Cancer Cells. *PLoS One*. 9 (1). p.1-17.

Peer Reviewed Proceedings

Brimecombe, R.D. and Limson, J.

Brimecombe, R.D. and Limson, J. Electrochemical inclusion of catechol into single-walled carbon nanotubes: application for sensors. *2014 IEEE BioCAS Proceedings*. EPFL, Lausanne. Switzerland. October 2014.

Flanagan, S.P., Limson, J. and Fogel, R.

Flanagan, S.P., Limson, J. and Fogel, R. Fluorescent and Peroxidase Labeled aptamer Assay Comparison of MUC1 Expressing MCF7 and SW620 Cancer Cells. *2014 IEEE BioCAS Proceedings*. EPFL, Lausanne. Switzerland. October 2014.

Laming, D.

Laming, D. Development of a High-Throughput Bioassay to Determine the Rate of Antimalarial Drug Action Using Fluorescent Vitality Probes. *Microscopy Society of Southern Africa Proceedings. 52nd Annual Conference*. Protea Hotel, Stellenbosch. South Africa. December 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Brimecombe, R.D. and Limson, J.

Brimecombe, R.D. and Limson, J. Electrochemical inclusion of catechol into single-walled carbon nanotubes: application for sensors. *Biomedical Circuits and Systems Conference*. EPFL, Lausanne. South Africa. October 2014.

Flanagan, S.P., Limson, J. and Fogel, R.

Flanagan, S.P., Limson, J. and Fogel, R. Comparison of Fluorophore and Peroxidase Labeled Aptamer Assays for MUC1 Detection in Cancer Cells. *Biomedical Circuits and Systems Conference*. EPFL, Lausanne. Switzerland. October 2014.

Ho, L.S.J., Fogel, R. and Limson, J.

Ho, L.S.J., Fogel, R. and Limson, J. An Evaluation of Gold Pre-treatment for a Streptavidin-based Electrochemical Impedance Thrombin Aptasensor. *7th International Symposium on Macro- and Supramolecular Architectures and Materials (MAM-14)*. Emperors Palace Hotel, Johannesburg. South Africa. November 2014.

Joos-Vandewalle, J. and Prinsloo, E.

Joos-Vandewalle, J., Olawode, E.O. and Prinsloo, E. The effect of novel thiazole derived small molecules on the self-renewal and differentiation of human multipotent neural progenitor cells. *International Conference on Tissue Engineering and Regenerative Medicine (ICTERM)*. Tshwane University of Technology, Pretoria. South Africa. September 2014.

Kruid, J., Fogel, R. and Limson, J.

Kruid, J., Fogel, R. and Limson, J. Catalyst-assisted electro-Fenton reaction for removal of endocrine disrupting compounds (EDCs). *65th Annual Meeting of the International Society of Electrochemistry*. EPFL, Lausanne. Switzerland. September 2014.

Prinsloo, E.

Frost, C.L., Levendal, R., Prinsloo, E. and Beukes, N.N. When designing an ER stress model, is one method of determining INS1 Ebeta viability enough? *24th South African Society for Biochemistry and Molecular Biology (SASBMB) Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.

Prinsloo, E., Kramer, A.H., Joos-Vandewalle, J. and Honiball, J.R.

Prinsloo, E., Kramer, A.H., Joos-Vandewalle, J. and Honiball, J.R. Development of Novel Real-Time Methodologies for the in vitro monitoring of cellular differentiation. *International Conference on Tissue Engineering and Regenerative Medicine (ICTERM)*. Tshwane University of Technology, Pretoria. South Africa. September 2014.

DEPARTMENT OF BOTANY

INTRODUCTION

The Department of Botany continued to consolidate its research focus on global change, with the flagship elevated CO₂ research facility entering its construction phase. This project, led by **Professor Brad Ripley** with collaborators at Rhodes University and other institutions, is expected to be completed in 2015 and will create exciting research opportunities on the effects of elevated atmospheric CO₂ on crop plants, natural vegetation dynamics and the effectiveness of biological control of alien weeds.

Dr Susi Vetter continued her research on the cultural values of biodiversity and was invited to give a plenary talk at the 2014 Arid Zone Ecology-Thicket Fusion meeting on this topic. She also worked on the dynamics and feedbacks of bush encroachment, a collaboration with Professor Brad Ripley and Professor Sally Archibald at the University of Witwatersrand, for which they secured a 3-year NRF grant.

Professor Nigel Barker was on sabbatical leave for the first half of the year. In January 2014 he undertook extensive fieldwork in Lesotho that resulted in a report for the Lesotho Highlands Development Authority, contributed significantly to his Great Escarpment Biodiversity programme, and provided data and specimens for a detailed analysis of vegetation change over 20 years in the Maluti mountain grasslands. He was invited to give two plenary talks at national conferences on montane biodiversity.

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Megan Mulcahy conducting research on the *Nymphaea* (water lily) pollination.
Photo: Professor Craig Peter.

Dr Anusha Rajkaran continued her research into coastal ecology, notably the expansion of mangroves into new areas as a result of global warming. She has also been active in collaborations with institutions in Kenya and Tanzania, where she has attended workshops on the ecology and management of marine and coastal resources and to promote training and capacity building. Her first MSc student graduated with distinction.

Associate Professor Craig Peter was invited to a workshop to launch Wild Orchids South Africa, an initiative to document and conserve the little-known orchid flora of southern Africa. He launched OrchidMAP (<http://vmus.adu.org.za/?vm=OrchidMAP>) in September 2014. This is a citizen science project to map the distribution of South Africa's 470 species of native orchids as well as the 3300 species found throughout Africa, Madagascar and the western Indian Ocean Islands. He also commenced research on the orchid species *Brachycorythis conica* subsp. *Transvaalensis* that has led to the species being elevated from Endangered to Critically Endangered.

Mr Tony Dold and collaborators from the Karl-Franzens-University (Graz, Austria) described four new species of *Massonia*.

Distinguished Visitors/International Visits

The Department hosted Professor Guy Midgley from the University of Stellenbosch as a Distinguished Visiting Fellow for three weeks. Professor Midgley is an international leader in the field of climate change, a Co-ordinating Lead author of the Intergovernmental Panel on Climate Change (IPCC) and was co-awarded the 2007 Nobel Peace Prize in this capacity. He lectured the 3rd year class for two weeks and interacted with staff around research collaborations about land cover change and elevated CO₂.



Massonia amoena, a newly described species of *Massonia* from the Winterberg.
Photo: Tony Dold.

Significant Research Aligned Events

Professor Brad Ripley attended an international NESCENT (The National Evolutionary Synthesis Center) workshop on fire ecology in Durham, USA.

Dr Susi Vetter presented a paper as part of a special session on cultural ecosystem services at the Resilience 2014 conference in Montpellier, France.

Associate Professor Craig Peter attended the World Orchid Conference in Johannesburg.

Dr Rajkaran presented a paper at a meeting on Sustainable use of marine and coastal resources in Kilifi County, Kenya.

Staff and students presented twenty-three (23) papers and posters at national conferences, including three (3) invited plenary talks. We are particularly proud that three of our students won prizes: Aviwe Matiwane (MSc student, supervised by Professor Nigel Barker) won best poster at the South Africa Society for Systematic Biology conference; Phumlile Cotiyane (MSc, supervised by Dr Anusha Rajkaran) won best poster at the South African Marine Science Symposium; and Kyle Lloyd (Honours) won best paper at the Arid Zone Ecology-Thicket Fusion meeting where he presented his third year research project that was supervised by Associate Professor Craig Peter.

Dr Susi Vetter

Head of Department



The newly established elevated CO₂ research facility
Photo: Professor Brad Ripley.



PUBLICATIONS

Books/Chapters/Monographs

Clark, V.R. and Barker, N.P.

Clark, V.R. and Barker, N.P. (2014) The Role of Edaphic Substrate Versus Moisture Availability in Montane Endemic Plant Distribution Patterns - Evidence from the Cape Midlands Escarpment, South Africa. In: Hobohm, C. (ed.). *Endemism in Vascular Plants*. New York: Springer. p.260-281. ISBN: 9789400769120.

Dold, A.P.

Cocks, M.L., Dold, A.P. and Husselman, M. (2014) New Shoots, Old Roots - the Incorporation of Alien Weeds into Traditional Food Systems. In: Singh, R.K., Turner, N.J., Reyes-Garcia, V. and Pretty, J. (eds.). *Social-Ecological Diversity and Traditional Food Systems: Opportunities from the Biocultural World*. New Delhi: New India Publishing Agency. p.199-215. ISBN: 9789383305360.

Cocks, M.L. and Dold, A.P. (2014) A Case Study of *Cassipourea flanaganii*, a Valuable Cosmetic Bark Traded Informally in South Africa. In: Cunningham, A.B., Campbell, B.M. and Luckert, M.K. (eds.). *Bark: Use, Management and Commerce in Africa (Advances in Economic Botany)*. United States of America: New York Botanical Garden Press. p.271-283. ISBN: 9780893274931.

Other Publications

Dold, A.P.

Barber-James, H., De moor, F.C., Prevec, R., Dold, A.P. and de Klerk, W.J. (2014) The Albany Museum Natural Science Collections and Research. In: Kearney, T. and Nakin, V. (eds.). *Aardvark (Newsletter of the Zoological Society of South Africa)*. South Africa: Zoological Society of South Africa.

Cocks, M.L. and Dold, A.P. (2014) My goat that produces white kids: Narratives of the sea and seashore in Xhosaland. In: Ribbink, A. and Ribbink, T. (eds.). *South African Coasts: A Celebration of our Seas and Shores*. Cape Town: Struik Nature.

Peer Reviewed Subsidy-Earning Journal Research Publications

Barker, N.P.

Linder, H.P., Perl, F., Bouchenak-Khelladi, Y. and **Barker, N.P.** (2014) Phylogeographical Pattern in the Southern African Grass *Tenaxia disticha* (Poaceae). *Systematic Botany*. 39 (2). p.428-440.

Teske, P., Papadopoulos, I., Barker, N.P., McQuaid, C.D. and Beheregaray, L.B. (2014) Mitonuclear discordance in genetic structure across the Atlantic/Indian Ocean biogeographical transition zone. *Journal of Biogeography*. 41 (2014). p.392-401.

Linder, H.P. and **Barker, N.P.** (2014) Does polyploidy facilitate long distance dispersal? *Annals of Botany*. 113 (7). p.1175-1183.

Clark, V.R., Dold, A.P. and Barker, N.P.

Clark, V.R., Dold, A.P., McMaster, C., McGregor, G.K., Bredenkamp, C. and Barker, N.P. (2014) Rich sister, poor cousin: Plant diversity and endemism in the Great Winterberg-Amatholes (Great Escarpment, Eastern Cape, South Africa). *South African Journal of Botany*. 92 (2014). p.159-174.

Els, Y.

Kong, T.M., Kellner, K., Austin, D.E., **Els, Y.** and Orr, B.J. (2014) Enhancing Participatory Evaluation of Land Management through Photo Elicitation and Photovoice. *Society & Natural Resources*. 2014 (2014). p.1-18.

Ibraheem, O. and Botha, C.E.J.

Ibraheem, O., Botha, C.E.J., Bradley, G., Dealtry, G. and Roux, S. (2014) Rice sucrose transporter1 (OsSUT1) up-regulation in xylem parenchyma is caused by aphid feeding on rice leaf blade vascular bundles. *Plant Biology*. 16 (2014). p.783-791.

Jaquemet, S.

Ternon, J.F., Bach, P., Barlow, R., Huggett, J., **Jaquemet, S.**, Marsac, F., Menard, F., Penven, P., Potier, M. and **Roberts, M.J.** (2014) The Mozambique Channel: From physics to upper trophic levels. *Deep-Sea Research Part II-Topical Studies in Oceanography*. 100 (2014). p.1-9.

Danckwerts, D.K., McQuaid, C.D., Jaeger, A., McGregor, G.K., Dwight, R., Le Corre, M. and Jaquemet, S. (2014) Biomass consumption by breeding seabirds in the western Indian Ocean: indirect interactions with fisheries and implications for management. *ICES Journal of Marine Science*. 2014 (2014). p.1-10.

Jaquemet, S. and Kaehler, S.

Jaquemet, S., Ternon, J.F., Kaehler, S., Thiebot, J.B., Dyer, B., Bemanaja, E., Marteau, C. and Le Corre, M. (2014) Contrasted structuring effects of mesoscale features on the seabird community in the Mozambique Channel. *Deep-Sea Research Part II-Topical Studies in Oceanography*. 100 (2014). p.200-211.

Kaehler, S.

Porter, S.N., **Kaehler, S.**, Branch, G.M. and Sink, K.J. (2014) Riverine subsidies for inshore filter-feeder communities: potential influences on trophic patterns among bioregions. *Marine Ecology Progress Series*. 498 (2014). p.13-26.

Khan, F., **Hill, J., Kaehler, S.**, Allsopp, M. and van Vuuren, S.F. (2014) Antimicrobial properties and isotope investigations of South African honey. *Journal of Applied Microbiology*. 117 (2014). p.366-379.

Kolasinski, J. and Jaquemet, S.

Kohler, S.A., Connan, M., Kolasinski, J., Cherel, Y., McQuaid, C.D. and Jaquemet, S. (2014) Trophic overlap between sexes in the dimorphic African black oystercatcher foraging on an alien mussel. *Austral Ecology*. 39 (2014). p.567-578.

Lubke, R.

Brunbjerg, A.K., Cavender-Bares, J., Eiserhardt, W.L., Ejrnaes, R., Aarssen, L.W., Buckley, H.L., Forey, E., Jansen, F., Kattge, J., Lane, C., **Lubke, R.**, Moles, A.T., Monserrate, A.L., Peet, R.K., Roncal, J., Wootton, L. and Svenning, J.C. (2014) Multi-scale phylogenetic structure in coastal dune plant communities across the globe. *Journal of Plant Ecology*. 2014 (2014). p.1-14.

Martinez-Azorin, M. and Dold, A.P.

Wetschnig, W., **Martinez-Azorin, M.**, Pinter, M., Brudermann, A., Deutsch, G., Crespo, M.B., **Dold, A.P.** and Pfosser, M. (2014) *Massonia saniensis* (Asparagaceae, Scilloideae), a new species from Lesotho, southern Africa. *Phytotaxa*. 173 (3). p.181-195.

Martinez-Azorin, M., Crespo, M.B., **Dold, A.P.**, Pinter, M. and Wetschnig, W. (2014) *Nicope rosulata* (Ornithogaloideae, Hyacinthaceae), a New Species from the Little Karoo in South Africa, with a New Combination in the Genus. *Systematic Botany*. 39 (3). p.785-790.

Martinez-Azorin, M., Pinter, M., Deutsch, G., Brudermann, A., **Dold, A.P.**, Crespo, M.B., Pfosser, M. and Wetschnig, W. (2014) *Massonia amoena* (Asparagaceae, Scilloideae), a striking new species from the Eastern Cape, South Africa. *Phytotaxa*. 181 (3). p.121-137.

Martinez-Azorin, M., Clark, V.R., Dold, A.P. and Barker, N.P.

Martinez-Azorin, M., Clark, V.R., Pinter, M., **Dold, A.P.**, Crespo, M.B., **Barker, N.P.**, Pfosser, M. and Wetschnig, W. (2014) *Massonia dentata* (Asparagaceae, Scilloideae), a new species from the Nuweveldberge, and typification of the Sneeuwberg endemic *M. calvata* (southern Great Escarpment, South Africa). *Phytotaxa*. 175 (4). p.201-215.

Mckenzie, R.J. and Barker, N.P.

Iamónico, D., **Mckenzie, R.J.** and **Barker, N.P.** (2014) (2281) Proposal to reject the name *Arnica coronopifolia* (Asteraceae). *Taxon*. 63 (2). p.436-437.

Peter, C.I.

Peter, C.I. and Johnson, S.D. (2014) A pollinator shift explains floral divergence in an orchid species complex in South Africa. *Annals of Botany*. 113 (2). p.277-288.

Martos, F., Johnson, S.D., **Peter, C.I.** and Bytebier, B. (2014) A molecular phylogeny reveals paraphyly of the large genus *Eulophia* (Orchidaceae): A case for the reinstatement of *Orthochilus*. *Taxon*. 63 (1). p.9-23.

Duffy, K.J., Johnson, S.D. and **Peter, C.I.** (2014) A Temporal Dimension to the Influence of Pollen Rewards on Bee Behaviour and Fecundity in *Aloe tenuior*. *PLoS One*. 9 (4). p.1-8.

Peter, C.I. and Shuttleworth, A. (2014) Catching on to concatenation: evidence for pre-pollination intra-sexual selection in plants. *New Phytologist*. 203 (2014). p.4-6.

Rajkaran, A.

Saintilan, N., Wilson, N.C., Rogers, K.L., **Rajkaran, A.** and Krauss, K.W. (2014) Mangrove expansion and salt marsh decline at mangrove poleward limits. *Global Change Biology*.

20 (2014). p.147-157.

Ripley, B.S., Martin, T. and De Wet, L.A.

Taylor, S.H., **Ripley, B.S.**, **Martin, T.**, **De Wet, L.A.**, Woodward, F.I. and Osborne, C.P. (2014) Physiological advantages of C4 grasses in the field: a comparative experiment demonstrating the importance of drought. *Global Change Biology*. 20 (2014). p.1992-2003.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Barker, N.P.

Barker, N.P. Mind the gaps! Or: what we don't know can't hurt us... or can it? South African Association of Systematics Biologists (SASSB) Hogsback, April 2014.

Barker, N.P. Mind the gaps! Or: what we don't know can't hurt us... or can it? Arid Zone Ecology - Thicket Fusion Forum, Rhodes University, Grahamstown, September 2014.

Barker, A. & Barker, N.P. and Villet, M.H.

Barker, A., **Barker, N.P.** and **Villet, M.H.** Phylogeny of African bruchines associated with Acacia species. South African Association of Systematics Biologists (SASSB) Hogsback, April 2014.

Barker, N.P., Clark, V.R., Taylor, S. and Bentley, L.

Barker, N.P., Clark, V.R., Taylor, S. and Bentley, L. Mountains: The over-looked research frontier for South African climate change. 2nd National Conference on Global Change, NMMU, Port Elizabeth, December 2014.

Bentley, L.K., and Barker, N. P.

Bentley, L.K., Robertson, M. P. and Barker, N. P. Trends in historical rainfall records from the Eastern Cape escarpment - empirical evidence of local climate change. 2nd National Conference on Global Change, NMMU, Port Elizabeth, December 2014.

Clark, V.R., Dold, A.P. and Barker, N.P.

Clark, V.R., Dold, A.P., McMaster, C., McGregor, G.K., Bredenkamp, C. and Barker, N.P. Rich sister, poor cousin: plant diversity and endemism in the Great Winterberg - Amatholes (Great Escarpment, Eastern Cape). South African Association of Systematics Biologists (SASSB), Hogsback, April 2014.

Cole, M. and Barker, N.P.

Cole, M., Daniels, R., Barker, N.P., Villet, M.H. and Herbert, D.G. Systematics of the forest snail *Chondrocyclus* using morphology and molecules. South African Association of Systematics Biologists (SASSB), Hogsback, April 2014.

Cotiyane, P. and Rajkaran, A.

Cotiyane, P. and Rajkaran, A. The physical and biological effects of a tidal creek on a mangrove forest at Nahoon Estuary. *South African Marine Science Symposium*. Stellenbosch. June 2014.

Els-Erasmus, Y., Ripley, B.S. and Vetter, S.

Els-Erasmus, Y., Ripley, B.S. and Vetter, S. The effect of herbivory on the carbon balance of *Portulacaria afra*. 2nd National conference on global change. Port Elizabeth, December 2014.

Els-Erasmus, Y. and Vetter, S.

Els-Erasmus, Y. and Vetter, S. Can livestock utilisation and carbon-accumulation co-exist on restored spekboomveld? Poster presented at the Arid Zone Ecology - Thicket Fusion, Grahamstown, September 2014.

Leslie, T. and Rajkaran, A.

Leslie, T., James, N., Rajkaran, A. and Potts, W. Assessing nursery habitats for juvenile Cape stumpnose (*Rhabdosargus holubi*) in the Bushmans Estuary, Eastern Cape. *South African Marine Science Symposium*. Stellenbosch. June 2014.

Lloyd, K.J. and Peter, C.I.

Lloyd, K.J. and Peter, C.I. Pollination of *Aloe ferox*: are short-billed generalist birds more effective than long-billed specialists? *Arid Zone Ecology - Thicket Fusion Forum Rhodes University, Grahamstown*. South Africa. September 2014.

Matiwane, A. and Barker, N.P.

Matiwane, A. and Barker, N.P. Is there evidence of Climate Filtering in the Southern Mistbelt Forests' of the Eastern Cape? South African Association of Systematics Biologists (SASSB) Hogsback, April 2014.

Ngqiyaza, N.P. and Vetter, S.

Ngqiyaza, N.P. and Vetter, S. Patterns of plant diversity and cultural meaning in a rural landscape in the Albany Thicket implications for conservation. *Arid Zone Ecology - Thicket Fusion*. Rhodes University, Grahamstown. South Africa. September 2014.

Perumal, L., Vetter, S. and Ripley, B.S.

Perumal, L., Vetter, S. and Ripley, B.S. The role of herbivory and drought in suppressing acacia seedling establishment in a semi-arid savanna. *2nd National conference on global change*. Port Elizabeth, December 2014.

Perumal, L., Vetter, S. and Ripley, B.S. The role of herbivory and drought in suppressing *Acacia karroo* seedling establishment in semi-arid savanna. *Arid Zone Ecology - Thicket Fusion*. Grahamstown, September 2014.

Peter, C.I.

Peter, C.I. Bees, beetles and selfing: an emerging understanding of the pollination biology of *Eulophia* and allied African genera. *21st World Orchid Conference*. Sandton Convention Centre, Johannesburg. South Africa. September 2014.

Phaliso, N., Barker, N.P. and McKenzie, R.J.

Phaliso, N., Barker, N.P., McKenzie, R.J. and Karis, P.O. A phylogenetic study of *Berkheya* and allies. *South African Association of Systematics Biologists (SASSB)*. Hogsback, April 2014.

Rajkaran, A.

Rajkaran, A. and Adams J. South African estuaries: natural and anthropogenic drivers of ecosystem state. *Sustainable use of marine and coastal resources in Kenya: from research to societal benefits*. Kilifi County, Kenya. October 2014.

Rajkaran, A., Bolosha, U. and Geldenhuys, C.

Rajkaran, A., Adams J., Bolosha, U. and Geldenhuys, C. Mangrove recovery and expansion in temperate estuaries of South Africa - drivers of population dynamics and consequences for other macrophyte communities. *South*

African Marine Science Symposium. Stellenbosch. June 2014.

Situngu, S. and Barker, N.P.

Situngu, S. and Barker, N.P. The biology and diversity of mites found within leaf domatia. *South African Association of Systematics Biologists (SASSB)*. Hogsback, April 2014.

Stodart, D. and Barker, N.P.

Stodart, D. and Barker, N.P. The phylogenetic relationships with and between *Carissa* species using various molecular methods. *South African Association of Systematics Biologists (SASSB)*. Hogsback, April 2014.

Taylor, C.L. and Barker, N.P.

Taylor, C.L., Barker, N.P. and Barber-James, H. Investigating cryptic variation in a widespread mayfly, *Afroptilum sudafricanum* (Ephemeroptera: Baetidae), using mitochondrial sequence data. *SASSB XI Conference*. Hogsback. South Africa. April 2014.

Vetter, S.

Vetter, S. The link between culture, nature and wellbeing an unexplored opportunity for engagement in biodiversity custodianship. *Arid Zone Ecology - Thicket Fusion*. Rhodes University, Grahamstown. South Africa. September 2014.

Vetter, S. and Dold, A.P.

Vetter, S., Dold, A.P. and Cocks, M.L. Culture inextricably entwined with nature: the importance of cultural environmental values and relationships to human wellbeing. *Resilience 2014*. Corum, Montpellier. France. May 2014.

Vetter, S. and Konje, M.M.

Vetter, S., Konje, M.M. and Griffin, N.J. The effects of rainfall, soil nutrients, landform and grazing on composition, richness and primary productivity of annual plants in the Richtersveld National Park. *Arid Zone Ecology - Thicket Fusion*. Rhodes University, Grahamstown. South Africa. September 2014.

DEPARTMENT OF CHEMISTRY

INTRODUCTION

The Department of Chemistry had another bountiful year in 2014. We had a record number of undergraduates, and seventy-five (75) students crossed the stage for their first degree. They were joined by eighteen (18) BSc (Hons) students (another record), six (6) MSc students and ten (10) PhD graduates. The Department congratulates them all on their success. While we saw many leave us, the Department is still bursting at the seams with another record of Postgraduate students who have taken up higher studies in Chemistry: eighteen (18) BSc (Hons), twenty-three (23) MSc, thirty-one (31) PhD students. Seven (7) Postdoctoral Fellows were with us in 2014. The efforts of these students and their supervisors saw the Department publish eighty-nine (89) research papers, and saw them present their work through fifty-five (55) presentations at various national and international conferences. In addition, several MSc Exchange Students had the opportunity to spend time at Tohoku University, Japan; at Frumkin Institute of Physical Chemistry and Electrochemistry, Russian Academy of Sciences, Moscow, and at The School of Chemistry, University of East Anglia, Norwich, United Kingdom.

The Department was also fortunate to receive the Solid State probe for our 400 MHz, the Cryoprobe for our 600 MHz (both firsts for the Eastern Cape) and a new 300 MHz NMR spectrometer, as well as a Bench-Top Mass Spectrometer (Advion). In addition on the 14th November 2014, Science and Technology Minister Naledi Pandor officially



Masego Kotane (MSc) is using the Rotary Evaporator to evaporate solvents for her research project.

unveiled the new state of the art Time-of-Flight-Secondary-Ion-Mass-Spectrometer (TOF-SIMS) equipment at the Rhodes/DST Centre for Nanotechnology Innovation, which is hosted by the Department. This national facility, which cost R17-million, places the institution at the forefront of international nanotechnology research.

Apart from the many distinguished academics who visited us (such as *The Barker Lecturer* for 2014, Dr Richard Gordon - Director and Head of SAMI & SATRII Platforms) the Department attracted a variety of visitors including the head of the NRF (Professor Albert Van Jaarsveld) and the French ambassador to South Africa (Dr Pierre Lemonde) as a result of the strong research basis within the Department. **Professor Nyokong** continued to highlight both the Department and the Rhodes University. She was appointed by United Nations Secretary-General Ban Ki-moon to the United Nations Secretary-General's High-Level Panel on Technology Bank For Least Developed Countries. She also featured as one of South Africa's 21 Icons (SABC 3). The Department congratulates her on this recognition.

Awards

1. **Professor Nyokong:** Appointed by United Nations Secretary-General Ban Ki-moon as part United Nations Secretary-General's High-Level Panel on Technology Bank For Least Developed Countries.
2. **Professor Nyokong:** Featured as one of the 21 Icons of South Africa, South Africa.

Professor Rui Krause

Head of Department

PUBLICATIONS

Concerts, Exhibitions, Performances, Workshops, Events

Klein, R., Mashazi, P., Krause, R.W.M., Ayeni, A., Khanye, S.D. and Britton, J.

Dorrington, R.A., Prinsloo, E., Klein, R., Mashazi, P., Krause, R.W.M., Afolayan, A., Perks, T., Ayeni, A., Waterworth, S.C., Khanye, S.D. and Britton, J. Symposium. Chemico- and Biomedical Research Symposium sponsored by the National Research Foundation and Rhodes University. *Chemico- and Biomedical Research Symposium hosted by and organized by Rhodes Centre of Chemico- and Biomedical Research.* Rhodes University, Grahamstown. South Africa. 1 October 2014.

Managa, M. and Nyokong, T.

Managa, M. and Nyokong, T. Oral Presentation. Conjugation of Platinum Nanoparticles with Gallium Tetra- (4-Carboxyphenyl) Porphyrin and their use in Photodynamic Antimicrobial Chemotherapy when in Solution Or Embedded in Electrospun Fiber. *Electrospinning Workshop.* Marine Protea Hotel, Port Elizabeth. South Africa. 2-3 December 2014.

Osifeko, O.L. and Nyokong, T.

Osifeko, O.L. and Nyokong, T. Oral presentation. Bacteria Inactivation with Metallophthalocyanines Supported on Electrospun Fiber. *Electrospinning Workshop.* Marine Protea Hotel, Port Elizabeth. South Africa. 2-3 December 2014.

Stone, J. and Nyokong, T.

Stone, J. and Nyokong, T. Oral Presentation. Dyed Fibers: Electrospinning Applications for Porphyrin Analogues. *Electrospinning Workshop.* Marine Protea Hotel, Port Elizabeth. South Africa. 2-3 December 2014.

Distinguished Visitors

Assumption, H.

Dr H. Assumption, SASOL. *Honours Lecture Series.* September 2014.

Forbes, P.

Professor P Forbes. University of Pretoria, Pretoria, South Africa. *Lecture.* September 2014.

Glass, B.D.

Professor BD Glass. James Cook University, Townsville, Australia. *Lecture: Sunscreens: Photostability, formulation and skin penetration.* September 2014.

Gordon, R.

Dr R Gordon. Director, Director Head: SAMI & SATRII Platforms, Cape Town, South Africa. *Barker Lecturer 2014. Can South Africa play in the global biopharmaceuticals world, why do we have to?* August 2014.

Haineworth, S.

Professor S Haineworth. University of Leicester, Leicester, United Kingdom. *Lecture: Frontiers of Science "Richard III - Modern Forensic Techniques Applied to a 500 year old King."* March 2014.

Kobayashi, N.

Professor N Kobayashi. Tohoku University, Sendai, Japan. *Research Collaboration (SA/Japan).* November 2014.

Lemonde, P.

Dr P Lemonde. French Embassy, South Africa, Cape Town, South Africa. *NIC tour.* July 2014.

Pandor, N.

Ms N Pandor. Department of Science and Technology, Pretoria, South Africa. *Officially opened the Rhodes/DST Centre for Nanotechnology Innovation and launch of new equipment time-of-flight-secondary-ion-mass-spectrometer (TOF-SIMS).* November 2014.

Van Jaarsveld, A.

Professor A Van Jaarsveld. National Research Foundation (NRF), Pretoria, South Africa. *Officially opened the Rhodes/DST Centre for Nanotechnology Innovation and launch of new equipment time-of-flight-secondary-ion-mass-spectrometer (TOF-SIMS).* November 2014.

Wilcots, E.

Professor E Wilcots. University of Wisconsin-Madison, Madison, United States of America. *Lecture: Frontiers of Science "The Monster's Fiery Breath: Jets, Feedback, and the Ecosystem of Groups of Galaxies".* January 2014.

International Visits

Britton, J.

Britton, J. University of Münster, Münster, Germany. *9th European Workshop on Secondary Ion Mass Spectrometry SIMS Europe 2014.* 6 - 12 September 2014.

Mack, J.

Mack, J. Tohoku University, Sendai, Japan. *Research Collaboration (SA/Japan).* 12 - 31 October 2014.

Managa, M. and Tshangana, C.

Managa, M. and Tshangana, C. University of East Anglia (The School of Chemistry), Norwich, United Kingdom. *The School of Chemistry, University of East Anglia, Norwich, United Kingdom Pearson Young Memorial Trust Funded students. Part of funding agreement was that students obtain international exposure to cancer research. Students also met up with funders in London.* 16 May - 15 June 2014.

Mkhize, C.

Mkhize, C. Frumkin Institute of Physical Chemistry and Electrochemistry, Russian Academy of Sciences, Moscow, Russia. *Research Collaboration (SA/Russia): MSc Exchange Student.* 18 October - 17 November 2014.

Nyokong, T.

Nyokong, T. L'Oreal-UNESCO, Paris, France. *Jury Member of 2015 L'Oreal-UNESCO Laureates.* 15 - 17 September 2014.

Watkins, Z.K. and Nxele, S.R.

Watkins, Z.K. and Nxele, S.R. Tohoku University, Sendai, Japan. *Research Collaboration (SA/Japan): MSc Exchange Students.* 18 August - 19 October 2014.

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Ayeni, A. and Watkins, G.M. Studies on Schiff/Mannich Bases of Salicylaldehyde and their Copper Complexes. *Symposium on Chemico- and Biomedical Research*. Rhodes University, Grahamstown. South Africa. October 2014.

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Britton, J., Mkhize, C., Antunes, E. and Nyokong, T. Nonlinear Optical Studies of Metallophthalocyanines in Polymer Films and in the Presence of quantum dots. *8th International Conference on Porphyrins and Phthalocyanines (ICPP-8)*. Istanbul Lütfi Kirdar Convention and Exhibition Centre, Istanbul. Turkey. June 2014.

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A Facile Synthesis of 3-hydroxymethylcoumarin and Coumarin-3-carbaldehyde using Baylis-Hillman Approach. *SACI-ACS Binational Organic Chemistry Conference*. Stellenbosch University, Stellenbosch. South Africa. December 2014.

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Kaye, P.T. and Lobb, K.A. Determination of the Mechanism of an Unusual Skeletal Rearrangement of a Spirobornyl Tosylate Derivative. *10th Congress of the World Association of Theoretical and Computational Chemists (WATOC)*. Santiago, Chile. January 2014.

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Makoni, P.G. and Chithambo, B.

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Ngomane, N. Biosensor for the detection of dopamine using electrospun fibres and gold nanoparticles. *The Twenty-second Annual International Conference on Composites/Nano Engineering (ICCE-22)*. Malta. Italy. July 2014.

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Ngomane, N., Torto, N., Vilakazi, S.L. and Krause, R.W.M. A colorimetric probe for dopamine based on gold nanoparticles hosted in electrospun nanofibers. *MAM14 Macro- and Supramolecular Architectures and Materials Conference 2014*. Mintek, Johannesburg. South Africa. November 2014.

Ngubeni, G.N. and Khene, S.

Ngubeni, G.N. and Khene, S. Spectroscopy and Electrochemistry of Novel Binuclear Phthalocyanine Complexes. Oral presentation. *International Conference on Porphyrins and Phthalocyanines (ICPP)*. Istanbul, Istanbul. Turkey. June 2014.

Nokalipa, I.C., Adeyemi, C.M., Faridoon, H., Lobb, K.A., Krause, R.W.M. and Kaye, P.T.

Nokalipa, I.C., Adeyemi, C.M., Faridoon, H., Lobb, K.A., Krause, R.W.M. and Kaye, P.T. Rational Design and

Synthesis of Pf DXR Inhibitors as Potential Antimalarial Agents. **Nokalipa, C., Adeyemi, Faridoon, K.A. Lobb, R. Krause, P.T. Kaye.** *SACI-ACS Binational Organic Chemistry Conference*. Stellenbosch University, Stellenbosch. South Africa. December 2014.

Nxele, S.R. and Nyokong, T.

Nxele, S.R. and Nyokong, T. Synthesis of Silver Nanoparticles and their use as Immobilization Matrix for Glucose Oxidase towards the Construction of a Glucose Sensor. *5th International Conference on Nanoscience and Nanotechnology (NanoAfrica 2014)*. Quest Conference Estate, Vanderbijlpark. South Africa. March 2014.

Nyokong, T.

Nyokong, T. Conjugates of nanoparticles with phthalocyanine dyes for cancer therapy. Invited Speaker. *7th International Symposium on Macro- and Supramolecular Architectures and Materials (MAM-14)*. Emperors Palace Hotel, Johannesburg. South Africa. November 2014.

Nyokong, T. Conjugates of nanoparticles with phthalocyanine dyes for cancer therapy. Plenary Speaker. *5th International Conference on Nanoscience and Nanotechnology (NanoAfrica 2014)*. Quest Conference Estate, Vanderbijlpark. South Africa. March 2014.

Nyokong, T. Design of Phthalocyanines with Improved Photophysical Properties (Invited Speaker). *8th International Conference on Porphyrins and Phthalocyanines (ICPP-8)*. Istanbul Lütfi Kirdar Convention and Exhibition Centre, Istanbul. Turkey. June 2014.

Ogbodu, R.O. and Nyokong, T.

Ogbodu, R.O. and Nyokong, T. Synthesis and Photophysical Properties of Zinc Phthalocyanine-Ascorbic Acid Conjugate Adsorbed on Single Walled Carbon Nanotube. *8th International Conference on Porphyrins and Phthalocyanines (ICPP-8)*. Istanbul Lütfi Kirdar Convention and Exhibition Centre, Istanbul. Turkey. June 2014.

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Osifeko, O.L. and Nyokong, T. Photochemical degradation of endocrine disrupting chemical with modified metallophthalocyanine embedded in electrospun fiber. *7th International Symposium on Macro- and Supramolecular Architectures and Materials (MAM-14)*. Emperors Palace Hotel, Johannesburg. South Africa. November 2014.

Reddy, M. and Sewry, J.D.

Reddy, M. and Sewry, J.D. Service-Learning: an insight into chemical education. *SAARMSTE 2014 Conference*. Port Elizabeth. South Africa. January 2014.

Sanusi, K., Amuhaya, E. and Nyokong, T.

Sanusi, K., Amuhaya, E. and Nyokong, T. Enhanced Optical Limiting Behaviour of Phthalocyanine-Single-Walled Carbon Nanotube (and quantum dots) Composites. *8th International Conference on Porphyrins and Phthalocyanines (ICPP-8)*. Istanbul Lütfi Kirdar Convention and Exhibition Centre, Istanbul. Turkey. June 2014.

Sekhosana, K., Amuhaya, E., Mack, J., Antunes, E. and Nyokong, T.

Sekhosana, K., Amuhaya, E., Mack, J., Antunes, E. and

Nyokong, T. Studies of Optical Nonlinearities of Lanthanide Bisphthalocyanines in solution and thin films. *8th International Conference on Porphyrins and Phthalocyanines (ICPP-8)*. Istanbul Lütfi Kırdar Convention and Exhibition Centre, Istanbul. Turkey. June 2014.

Singh, A., Kaye, P.T. and Lobb, K.A.

Singh, A., Kaye, P.T. and Lobb, K.A. Fenchol-derived surfactants for the generation of chiral micelles. *Fenchol-derived surfactants for the generation of chiral micelles*. Stellenbosch University, Stellenbosch. South Africa. December 2014.

Siwe Noundou, X. and Krause, R.W.M.

Siwe Noundou, X. and Krause, R.W.M. A Drug delivery system (DDS) for anticancer drugs based on gold nanoparticles and medicinal plants extracts. *RSC 2nd International Conference on Natural Products*. Cape Town. South Africa. September 2014.

Siwe Noundou, X. and Krause, R.W.M. Drug delivery systems (DDS) for anticancer drugs originated from medicinal plants. *EACR23, the 23rd Biennial Congress of the Association for Cancer Research*. Munich, Germany. July 2014.

Siwe Noundou, X., Krause, R.W.M. and Chithambo, B.

Siwe Noundou, X., Krause, R.W.M. and Chithambo, B. Search For Antimalarial Compounds From The Bark Of *Morinda Lucida*. *RSC 2nd International Conference on Natural Products*. Cape Town. South Africa. September 2014.

Taylor, J.M., Antunes, E. and Nyokong, T.

Taylor, J.M., Antunes, E. and Nyokong, T. Photophysical properties of aluminum octacarboxy and free base phenylthio phthalocyanines conjugated and physically adsorbed to upconversion nanoparticles. *8th International Conference on Porphyrins and Phthalocyanines (ICPP-8)*. Istanbul Lütfi Kırdar Convention and Exhibition Centre, Istanbul. Turkey. June 2014.

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Tshangana, C., Nyokong, T., Ermilov, E., Hoepfner, M. and Kuzyniak, W. The development of upconversion Nanoparticles for possible sensing. *7th International Symposium on Macro- and Supramolecular Architectures and Materials (MAM-14)*. Emperors Palace Hotel, Johannesburg. South Africa. November 2014.

Watkins, Z.K., Nyokong, T. and Antunes, E.

Watkins, Z.K., Nyokong, T. and Antunes, E. Shape control of upconversion nanoparticles using different synthesis conditions. *5th International Conference on Nanoscience and Nanotechnology (NanoAfrica 2014)*. Quest Conference Estate, Vanderbijlpark. South Africa. March 2014.

Watkins, Z.K., Taylor, J.M., D'Souza, S. and Nyokong, T.

Watkins, Z.K., Taylor, J.M., D'Souza, S. and Nyokong, T. Fluorescence properties of water soluble Phthalocyanines combined with upconversion nanoparticles for use in photodynamic therapy. *7th International Symposium on Macro- and Supramolecular Architectures and Materials (MAM-14)*. Emperors Palace Hotel, Johannesburg. South Africa. November 2014.

Wildervanck, M., Nyokong, T. and Antunes, E.

Wildervanck, M., Nyokong, T. and Antunes, E. The development of upconversion Nanoparticles for possible sensing. *5th International Conference on Nanoscience and Nanotechnology (NanoAfrica 2014)*. Quest Conference Estate, Vanderbijlpark. South Africa. March 2014.

Young, R. and Lobb, K.A.

Veale, C.G.L., Zoraghi, R., Young, R., Morrison, J.P., Pretheeban, M., Lobb, K.A., Reiner, N.E. and Davies-Coleman, M.T. Hit Optimization of Marine Bisindoles to Deliver Potent Selective Inhibitors of MRSA Pyruvate Kinase. *Binational Organic Chemistry Conference*. Stias, Stellenbosch. South Africa. November 2014.



Rotary Evaporator - used for the evaporation of solvents, it works on the principle of boiling point of the solvent; the pressure reduces the boiling point.

DEPARTMENT OF COMPUTER SCIENCE

INTRODUCTION

The research activity in the Department of Computer Science was as usual organized around the mutually supporting research groups listed below. With the exception of Bioinformatics, all groups are integrated in the Telkom Centre of Excellence in Distributed Multimedia (coe.ru.ac.za), a triple helix initiative that brings together Industry, Government and Academia to every participant's gain. The longevity of the Centre, as an externally funded project, has been remarkable, having started in 1997.

Convergence

Professor Alfredo Terzoli and
Dr Mosiuoa Tsietsi

This group carries the core activity of the Telkom Centre of Excellence, focusing on the rich space at the convergence of legacy telecommunication systems and organizations and the Internet. The theme for 2014 was 'Unified Communications'.

Security and Networks

Professor Barry Irwin

The Security and Networks Research Group (SNRG) concentrates in the areas of Information Security and Computer Networks, both crucial in modern computing and telecommunications.

Mobility

Professor Hannah Thinyane

This group focuses on mobile computing devices, whose explosive growth in number



The installation of a new computer laboratory at Mpume in Dwesa, in August 2014.

and power is dramatically changing the way in which we consume and produce information.

ICT for Development

Professor Alfredo Terzoli, Professor Ingrid Sieborger, Dr Mosiuoa Tsietsi and Professor Hannah Thinyane

This group concentrates on a long-term, multidisciplinary effort to introduce meaningful and sustainable ICT in poor areas of South Africa, rural and peri-urban.

Distributed Audio Networks

Professor Richard Foss

The Audio Networks group deals primarily with the management and control protocol of audio streams to be used in large sound installations such as stadiums, studios and convention centres.

Parallel and Distributed Computing

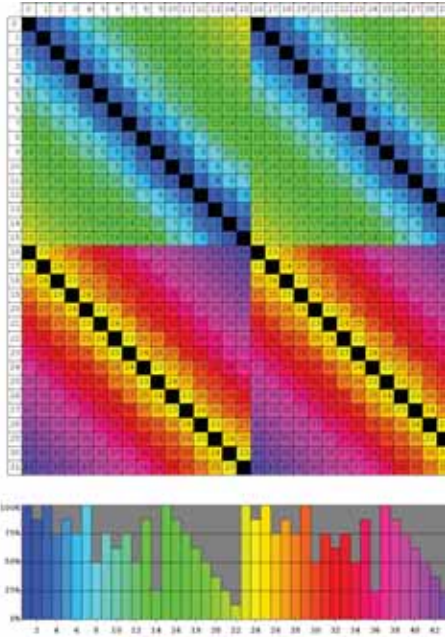
Dr Karen Bradshaw and Professor George Wells

This group focuses on the ever present and important theme of parallel and distributed computations.

Bioinformatics

Professor Philip Machanick

Rhodes University Bioinformatics (RUBi) Research Group is an interdisciplinary group housed in the Department of Biochemistry and Microbiology and focuses on collaborative research to produce computational outcomes of biological significance.



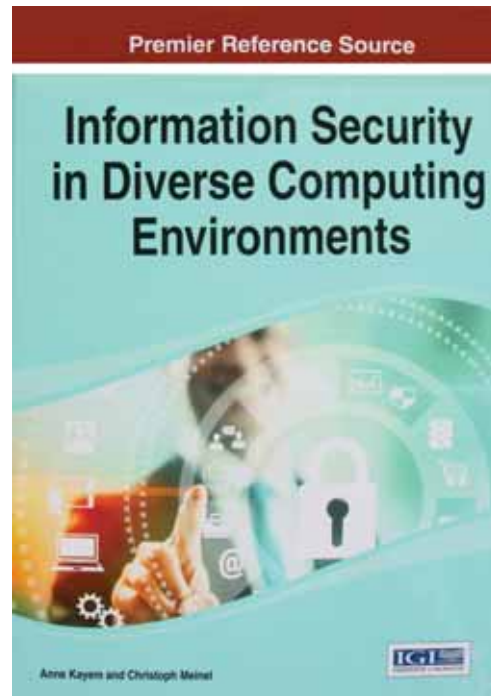
A computer-generated image representing parallel shuffle operation patterns showing the efficiency of the memory usage on an Nvidia GPU system
(Image produced by Alastair Nottingham, PhD student)

Distinguished Visitors/International Visits

Besides visits by the partners of the Telkom Centre of Excellence, below is a selection of visitors to the Department of Computer Science during 2014:

- Professor Denis Riordan from Dalhousie University, Canada, who presented an Honours module on Artificial Intelligence;
- Professor Anthony Maeder from the University of Western Sydney, Australia, in relation to Health Informatics;
- Giles Parnell from Amazon, presenting on the work at EC2 in Cape Town;
- Jaco van Graan and Dominic White from Sensepost;
- Joe Phago, CIO of the Department of Rural Development, for possible ICT support of the new phase of the land claims campaign;
- Drs Aaron Ciaghi and Pietro Molini (Bruno Kessler Foundation, Trento, Italy) as part of an EU FP7-funded mobility programme linked to the Siyakhula Living Lab and software development.

Staff and students of the Computer Science Department routinely attend International conferences. The attendance might be complemented by a visit to an academic institution in the country where the conference takes place. A good



Professor Barry Irwin contributed the chapter *Standing Your Ground: Current and Future Challenges in Cyber Defense* to the book *Information Security in Diverse Computing Environments*

example was the attendance by Dr Mosiuoa Tsietsi to the DAAD UNIFI workshop on "The Future Internet" held in Berlin, Germany, complemented by a visit to the Fokus Fraunhofer Institute there.

Significant Research Aligned Events

As in previous years, the Department received research grants from the partners of the Telkom Centre of Excellence in Distributed Multimedia (Telkom, Tellabs and THRIP, a DTI programme to support industry-academia interaction). Funds were also received from the Ford Foundation, towards the establishment of a cellphone-based local government monitoring system, MobiSAM; the CSIR Defense Peace Safety and Security (DPSS) in support of the work done in Information Security; the NRF in support of various activities, the major one being Bioinformatics; and the e-Skills Institute in support of the work done by the Siyakhula Living Lab and associated entities.

A notable highlight in the context of the research activity is the award to Professor Barry Irwin of the 2014 Vice Chancellor's Distinguished Research Award, reserved for young staff members who excel in research.

Professor George Wells
Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Irwin, B.V.W.

Irwin, B.V.W. (2014) Standing Your Ground: Current and Future Challenges in Cyber Defense. In: Kayem, A. and Meinel, C. (eds.). *Information Security in Diverse Computing Environments*. Hershey PA, United States of America: Information Science Reference. p.100-108. ISBN: 9781466661585.

Concerts, Exhibitions, Performances, Workshops, Events

Gumbo, S.

Dalvit, L., Gunzo, F.T. and Gumbo, S. Seminar presentation. Issues of design and co-creation of services in a South African rural area. *Social Informatics Group*. University of Trento, Trento. Italy. 3 - 4 July 2014.

Dalvit, L., Gumbo, S., Gunzo, F.T., Ciaghi, A., Molini, P. and Villafiorita, A. Seminar presentation. Developing the future. *Centre for International Co-operation*. Centre for International co-operation, Trento. Italy. 10 - 11 December 2014.

Dalvit, L., Gunzo, F.T. and Gumbo, S. Seminar presentation. Steps towards making ICT installations in rural areas sustainable: lessons learnt from the Siyakhula Living Lab in South Africa. *Bruno Kessler Foundation*. Bruno Kessler Foundation, Trento. Italy. 20 - 21 June 2014.

Ntsekhe, M.V.K., Gremu, C.D. and Gumbo, S.
Ntsekhe, M.V.K., Gremu, C.D. and Gumbo, S. Exhibition. Exhibition of selected prototype apps developed by the Makana Apps Factory (a collaboration among iNeSI-Ikamva National e-skills Institute, Rhodes University and the University of Fort Hare). *Eastern Cape ICT Summit*. East London ICC, East London. South Africa. 21 October 2014.

International Visits

Gumbo, S.

Gumbo, S. Fondazione Bruno Kessler, Trento, Italy. *Personnel exchange (Nov-Dec) under LRIT4AE - ICT in Low Resource Settings: Innovating for Africa and Europe through Living Labs*. LRIT4AE was a 2-year project within the 7th Framework Programme for Research and Technological Development (FP7). 31 October - 18 December 2014.

Gumbo, S. Fondazione Bruno Kessler, Trento, Italy. *Personnel exchange (June-July) under LRIT4AE - ICT in Low Resource Settings: Innovating for Africa and Europe through Living Labs*. LRIT4AE was a 2-year project within the 7th Framework Programme for Research and Technological Development (FP7). 2 June - 10 July 2014.

Irwin, B.V.W.

Irwin, B.V.W. L.O.R.I.A., Nancy, France. *Anti-Malware workshop/Conference - Botconf 2014*. 2 - 4 December 2014.

Tsietsi, M.J.

Tsietsi, M.J. Fraunhofer Institute for Open Communication Systems, Berlin, Germany. *DAAD UNIFI Universities research*

collaboration meeting and Fokus Fuseco (Future Seamless Communications) Conference. 11 - 14 November 2014.

Peer Reviewed Subsidy-Earning Journal Research Publications

Machanick, P.

Lesluyes, T., Johnson, J., Machanick, P. and Bailey, T.L. (2014) Differential motif enrichment analysis of paired ChIP-seq experiments. *BMC Genomics*. 15 (752). p.1-13.

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DEPARTMENT OF DRAMA

INTRODUCTION

The list of research outputs and activities in the Department of Drama reflect the growing diversity in the type of research and scholarship being developed in the performing arts. The trajectory of theatre research in the Department includes new foci on dramatic writing, screen dance and scenography and Rhodes remains one of the only places to research choreography in South Africa.

Community Engagement has become integrated into our curriculum development, and alliances with local communities and artists has allowed the Drama Department to grow and transform in significant ways. Senior students and staff continue to question the relationship between practice and research and are actively engaged in proposing innovative ways in which formal research outputs and practical, creative, performed research outputs might find new relationships. This is balanced by a strong drive for academic rigour and attention to detail in the development of formal research skills, and this strength is recognised by critics and external examiners alike. These exchanges and collaborations saw the university represented in centres of performance practice and research as far afield as Hong Kong, Uganda, Greece, London, Scotland, Amsterdam, Germany, and France.

The research outputs from the Drama Department for 2014 include a total of eighty-six (86) performances and workshops from staff and senior students. The Rhodes Drama



Hunger - a new physical theatre work - created by Hong Kong based guest artist Acty Tang with design by Illka Louw
Photo: Stef de Klerk

Department and associated projects had a visible presence and impact at National and International festival venues and stages, as well as conferences.

First Physical Theatre company were invited to tour and perform in Johannesburg (Detours), Cape Town (GIPCA Live Art) and Durban (JOMBA! Festival). A number of recent graduates won accolades at the National Arts Festival - Ms Nicola Elliott won the 2014 Young Artist Award for Dance, while Mr Gavin Krastin and Mr Wesley Deintjie were both awarded Silver Ovation Awards for their creative work and Ms Liezl de Kock, a Masters student, won a Silver Ovation award for her Masters production, *Piet se Optelgoed*. Rhodes students scooped Best Production at the NAF Student Festival and PhD student, Mr Rob Murray's production of *Crazy in Love* (starring Masters student Liezl de Kock and Professor Andrew Buckland) won Best International Production at the Amsterdam Fringe Festival and was subsequently invited to perform at the Cape Town Fringe Festival.

This is a significant contribution to the performing arts industry in South Africa. The input from staff, Postgraduate students and the exciting range of performance researchers who collaborated or visited the Drama Department from different global contexts in 2014 provided a vital expansion of new pedagogical approaches to Theatre and Performance Studies - digital technologies, interdisciplinarity and creative practice - which challenged traditional modes of spectatorship and questioned ways of disseminating performance research. These exchanges and collaborations aligned dynamically with the Department's interest in performance-as-research as a vital and viable methodology for performance research.

These creative collaborations and explorations resulted in a range of types of performance which were distinguishable by the different venues in which they took place: interactive improvisations in rehearsal spaces, formal theatre spaces, street theatre, classrooms, school halls, prisons,



Contributing to student learning: *Unzip your Knowledge* - an Ubom! and Rhodes Drama production - directed by Masters graduate Jess Harrison.
Photo: Mia van der Merwe



Staff creative practice: Professor Andrew Buckland in *Tobacco and the harmful effects thereof* with direction by Sylvaine Strike. The work was presented at the National Arts Festival and selected for the Amsterdam Arts Festival.
Photo: Michelle Avenant

community centres, lecture theatres, conference proceedings, amongst others. This play with unusual and provocative ways of framing work, the inter-animating logic of engaging live technologies and popular forms of social networking in the performance moment and the sharing of new ways of disseminating performance-as-research reveal the diversity of approaches to perceiving and shaping the theatrical encounter. Experimentation and innovation remained key principles driving research in the Drama Department.

Postgraduates/Graduations

The Department has focused in the last couple of years on developing the quantity and quality of research outputs being published or academic papers being presented at conferences by senior students. This has resulted in a trend which has continued in 2014. Our first PhD student, Sonja Smit graduated and was awarded a Postdoctoral Fellowship at Rhodes in 2014. Senior student, Mr Rob Murray and three staff members are also currently working towards their PhDs.

The value of practice-as-research or practice-led research as a viable and vital methodology for performance research has consolidated a presence and is manifest in the growing trend among the Postgraduates to produce their own work as well as create and direct it. Masters students all reflect a range of activities including performance, writing, creating and producing, combined with the writing of academic articles published in peer reviewed journals. Hannah Lax's *Solo* won Best Student production at the National Arts Festival awards and was funded, along with graduates, Tristan Jacobs and Daniel Whitehorn to create a performance work *Fall was in your eyes* and tour it at selected French

universities for a month as part of an intercultural exchange between young theatre-makers from South Africa and France, stimulating contemporary performance research and production. Liezl de Kock won a Silver Ovation award at the National Arts Festival for her MA production of *Piet se Optelgoed*, which was subsequently invited to the Cape Town Fringe Festival and to the Amsterdam Fringe Festival in 2015. Ms Push Nqelenga, was invited to present papers at two conferences critically reflecting on Oral performance in South African Contemporary theatre. Three of the graduating Masters students received distinctions for their Masters by Coursework degrees.

Distinguished Visitors/International Visits

In 2014 the Drama Department made a commitment to extending international exchanges. The Keiga Dance Company from Makerere University in Kampala, Uganda, shared a rich two week residency with Postgraduate choreography students which focussed on the question of a postcolonial choreography in Africa. They also made a work on the resident performers of First Physical Theatre Company. Alumni, and winner of a Young Artist award, Mr Acty Tang, created an original work for the Drama Department entitled *Hunger*. Mr Tang was able to share his rich experiences of working in Hong Kong, China with the students. Ms Athina Vachla (Greece), Ms Athina Copteros (Scotland) and Ms Jeanette Ginslov (Denmark) all taught within the Department bringing their diverse practices of Interdisciplinary and Choreological Studies, Authentic Movement Therapy and Screendance to the Department. PhD researcher and Theatre Anthropologist, Mr Nathanel Vlachos (Rice University, USA) spent a term researching the Drama Department's diverse



First Physical Theatre Company, an associated project of RU Drama: *Caught* choreographed by Nomcebisi Moyikwa and performed at the 2014 Jomba! Contemporary Dance Experience in Durban
Photo: Val Adamson

and varied performance research activities and his engagement and interviews with staff and students fed dynamically into the Department's curriculum.

The Department was also fortunate to host a variety of distinguished South African theatre directors and choreographers who worked closely with undergraduate and Postgraduate students. Seasoned director, Ms Liz Mills, worked for a term with students to produce a startling interpretation of Martin Crimp's *The Treatment*. Alumni, Mr Richard Antrobus returned to do a short exchange with dance students.

Significant Research Aligned Events

The Department's exchanges with Community Engagement (CE) span a diverse range of activities based on the work of individual staff members as well as the work produced by the two associated projects of the Drama Department, First Physical Theatre Company and UBOM! Our curriculum and our students engage regularly with CE as a manifest part of selected courses which places them in touch with the impulses and ethos of CE as our Department envisages it in exchange with stakeholders in the community. The Drama Department has a vital history of CE work.

Ms Alex Sutherland, who won the Rhodes University Community Engagement Award in 2013 has continued to work to integrate CE into many of her Applied theatre courses - which means that our students have regular contact with over eight (8) local schools as well as the prison.

One of our Masters students is currently working with Alex on a theatre project at Fort England with a group of twenty-five (25) patients. Ms Alex Sutherland is continuing a weekly theatre programme with adult men at Grahamstown correctional facility and the theatre project at Fort England has extended to all forensic wards. MA student, Pumelela Nqelenga assisted as a co-facilitator at Fort England. Both sites form part of a larger research project which investigates forensic arts as a developmental tool within a South African context.

FIRST PHYSICAL THEATRE COMPANY

We have drawn one apprentice from the local community to work with The Company in its performance, educational and outreach work and a local performer/choreographer has just been employed onto the staff in The Company.

The Company continues to run its weekly Body Forms Community classes and ran a pilot project called *Intlangano/The Gatherings* with a group of local performers and Rhodes students. The success of the project saw it selected to be part of the Creative City NAF/UN collaboration. Mr Murray's project, *Uyabona Ke*, linked to his doctoral research and First Physical Theatre Company's Ms Nomcebisi Moyikwa's *Intlangano/Gatherings* project were both accepted to be part of the Creative City initiative, a National Arts Festival collaboration with the UN in developing the Makana Arts Academy.

UBOM! produced *The Wangai*, a family orientated show which draws inspiration from the internationally acclaimed story of Dr Seuss' *The Lorax*, while at the same borrowing African heart beat inspiration from the Greenbelt Movement of Kenyan environmentalist, Wangari Maathai. This newly devised fantastical tale is deeply embedded in the Eastern Cape's history of ecology and culture and was performed by ten (10) community artists. Ubom! in association with CHERTL presented *Unzip your Knowledge* - a comical and honest investigation of the Rhodes academic experience. The Vuka Workshops brought drama skills to drama groups situated in various township schools (Archie Mbolekwa, Andrew Moyakhe, Khutliso Daniels High School, Makana Public School, Nathaniel Nyaluza, T.E.M. Mrwetyana), with many culminating in a performance of each group at the annual MDDF (01 November 2014). The two (2) winning township theatre groups of the MDDF are to be given additional support to perform professionally on the National Arts Festival fringe. These groups are managed and administered by Ubom!

It is hoped that this work will not only benefit the dramatists professionally, but will also assist in creating an enduring alliance between the community artists and the University through which drama in our community can grow.

Professor Juanita Praeg
Head of Drama Department

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Concerts, Exhibitions, Performances, Workshops, Events

Buckland, A.F.

Buckland, A.F. Performer. On the Harmful Effects of Tobacco. *National Arts Festival Main Programme*. Box Theatre, Grahamstown. South Africa. 3 - 6 July 2014.

Buckland, A.F. Performer and Co-devised. Crazy In Love. *National Arts Festival Fringe*. Glenie Hall, Grahamstown. South Africa. 6 - 12 July 2014.

Buckland, A.F. Writer and Director. The Wangai. *National Arts Festival Family Theatre*. Box Theatre, Grahamstown. South Africa. 3 - 12 July 2014.

Buckland, A.F. Performer and Co-devised. Crazy in Love. *Conspiracy of Clowns for National School's Festival*. Box Theatre, Grahamstown. South Africa. 15 July - 15 September 2014.

Buckland, A.F. Performer and Co-devised. Crazy In Love. Winner of best International Production Amsterdam Fringe. *Conspiracy of Clowns*. Royal Netherlands Theatre, Amsterdam. Netherlands. 5 - 14 September 2014.

Buckland, A.F. Director. Human Race Exhibit H,I,K,L and M. *Theatre In Motion*. Box Theatre, Grahamstown. South Africa. 22 October - 25 January 2014.

Buckland, A.F. Workshop. *Cirque Du Soleil*. Rosebank Dance Studio, Johannesburg. South Africa. 10 October 2014.

Buckland, A.F. Co-devised and performer. Crazy In Love. *Conspiracy of Clowns Cape Town Fringe*. City Hall, Cape Town. South Africa. 24 September 2014.

Buckland, A.F. Performer. On the Harmful Effects of Tobacco. Fortune Cookie Theatre. *Hilton Festival*. Hilton, Pietermaritzburg. Durban. 19 - 21 September 2014.

Buckland, A.F. Workshop. Crazy In Love. *Conspiracy of Clowns; Amsterdam Fringe*. Royal Netherlands Theatre,

Amsterdam. 5 - 14 September 2014.

Buckland, A.F. Workshop. Global Arts Corp. *Global Arts Corp*. Phare Ponleu Selpak, Battambang. Cambodia. 10 February - 3 March 2014.

Buckland, A.F. Writer. The Wangai. *Children/Family Show*. Box Theatre, Grahamstown. South Africa. 10 - 17 April 2014.

Buckland, A.F. Director. The Wangai. *National Arts Festival*. Box Theatre, Grahamstown. South Africa. 3 - 6 July 2014.

Buckland, J.M.

Buckland, J.M. Artistic Director. The Amazing Other Show. *Educational Theatre for First Year Orientation Programme. Performed to 1500 students*. Rhodes Theatre, Grahamstown. South Africa. 10 - 14 February 2014.

Buckland, J.M. Artistic Director. Unzip Your Knowledge. *Educational Theatre, "A guide to learning at Rhodes University". Performed to 3300 students*. Rhodes Theatre & Box Theatre, Grahamstown. South Africa. 14 - 17 April 2014.

Buckland, J.M. Artistic Director. The Wangai. *Children/Family Show performed to approximately 1350 people during NAF 2014*. Memory Hall, Grahamstown. South Africa. 7 - 13 July 2014.

Buckland, J.M. Artistic Director. Vuka Workshops. *An ongoing programme of drama workshops that take place in various township schools and Grahamstown Prison*. Lower Studio, Grahamstown. South Africa. 1 March - 31 October 2014.

Buckland, J.M. Artistic Director. Makana Drama Development Festival. *A festival divided into juniors and seniors where in these categories the various group compete for titles and prizes of Best Production, Best Actor, Best Actress, Most Innovative etc.* Rhodes Theatre, Grahamstown. South Africa. 1 November 2014.

Buckland, J.M. Artistic Director. The Wangai. *Children's Theatre-performed to 1050 Primary School Children*. Box Theatre, Grahamstown. South Africa. 14 - 17 April 2014.

Cilliers, I.

Cilliers, I. Performer and deviser. Machine For Living performative installation. *National Arts Festival*. Site work, Grahamstown. South Africa. 8 - 12 July 2014.

Cilliers, I. Performer. Samsa-masjien. *Klein Karoo National Arts Festival*. Hangar, Oudtshoorn. South Africa. 2 - 5 April 2014.

Cilliers, I. Performer. Iemand Anders. *Kyknet Shortfilm*. Film Festival, Cape Town. South Africa. 24 - 26 July 2014.

Cilliers, I. Performer. Liewe Heksie. *Play production*. H.B. Thom theatre, Stellenbosch. South Africa. 15 - 16 October 2014.

Cilliers, I. Performer and Director. herTz. *herTz performative installation*. St Andrews Squash Courts, Grahamstown. South Africa. 13 - 15 March 2014.

De Kock, E.

De Kock, E. Director, Sound Designer, Stage Manager. Piet se Optelgoed. *Piet se Optelgoed at Cape Town Fringe Festival*. City Hall 2, Cape Town. South Africa. 25 - 29 September 2014.



Blue Moon: Re-imagining Tolstoy's *Anna Karenina* directed by honours student Megan Wright for the Young Directors Season. Photo: Mia van der Merwe

Gabang, M.M.

Gabang, M.M. Workshop facilitator. *Surfacing the Self. Detours Festival.* University Corner, University of the Witwatersrand, Johannesburg. South Africa. 10 May 2014.

Ginslov, J.

Ginslov, J. Executive producer and director edit and screen dance editor. *Lipstick. Screen Dance Africa (Pty) LTD.* Rhodes Box Theatre, Grahamstown. South Africa. 28 June 2014.

Ginslov, J. Director and Screen dance film maker and editor. *Nightflower. Detours Festival.* University of the Witwatersrand, Downstairs Theatre, Johannesburg. South Africa. 7 - 8 May 2014.

Ginslov, J. Choreographer and Curator. *P(AR)take. Main programme National Arts Festival.* Site Specific, Grahamstown. South Africa. 7 - 10 July 2014.

Ginslov, J. Director and Editor of Dancescreen work. *Translucense. Online dancescreen work produced by Walking Gusto Productions.* Online, Hong Kong. China. 1 - 30 March 2014.

Laric, T.S.

Laric, T.S. Producer and Participant. *Keiga dance Residency.* Keiga Dance. Box Theatre Rhodes University, Grahamstown. South Africa. 10 - 21 February 2014.

Lax, H.

Lax, H. Director. *Solo. Master's Season 2014.* Rhodes University Box Theatre, Grahamstown. South Africa. 23 - 26 July 2014.

Lax, H. Workshop Facilitator. *Fall was in your eyes. SA/France Season: South African school workshops.* St Anne's, St John's, Kearsney, Michaelhouse, The Wykeham Collegiate, Pietermaritzburg. South Africa. 10 January - 13 February 2014.

Lax, H. Director. *Solo. Grahamstown National Arts Festival.* Grahamstown. South Africa. 14 February - 26 July 2014.

Lax, H. Performer/Director. *Fall was in your eyes. South Africa/France Season.* Schlesinger Theatre, Pietermaritzburg.



The Most Amazing Other Show - An Ubom! And Rhodes Drama production - created for student orientation and directed by Masters graduate, Jess Harrison
Photo: Mia van der Merwe

South Africa. 10 January - 7 February 2014.

Lax, H. Director. *Solo. Winner of the Cape Triangular Trophy for Best Student Production at the Grahamstown National Arts Festival.* Grahamstown National Arts Festival, Grahamstown. South Africa. 8 - 12 July 2014.

Louw, I.

Louw, I. Set and Costume Designer. *Bruising. Set and Costume Design for Nicola Elliott, Standard Bank and National Arts Festival Choreographer of the Year.* Alec Mullins Hall, Grahamstown. South Africa. 22 April - 13 July 2014.

Louw, I. Set and Costume Designer. *Standing Taller Than Liberty. Choreographic dance piece by 1st Physical Theatre Company for Jomba! Contemporary Dance Festival.* Elizabeth Sneddon Theatre, Durban. South Africa. 11 August - 7 September 2014.

Louw, I. Set and Costume Designer. *Hunger. Choreographic Performance Piece.* Box Theatre, Rhodes Drama Department, Grahamstown. South Africa. 14 April - 25 May 2014.

Moyikwa, N.

Moyikwa, N. Choreographer and director. *Caught. JOMBA! Contemporary Dance Festival.* Elizabeth Sneddon Theatre, Durban. South Africa. 4 - 7 September 2014.

Moyikwa, N. Performer. *Hunger.* Box Theatre, Rhodes University, Grahamstown. South Africa. 22 - 24 May 2014.

Moyikwa, N. Choreographer and director. *NEDBANK Warmth For Winter Campaign.* The Graham Hotel, Grahamstown. South Africa. 3 July 2014.

Moyikwa, N. Choreographer and Performer. *Caught. Detours festival.* University of the Witwatersrand, University Downstairs Theatre, Johannesburg. South Africa. 8 - 9 May 2014.

Murray, R.I.

Murray, R.I. Directorial composition and sound design. *Piet se Optelgoed. National Arts Festival Fringe.* Rhodes Box Theatre, Grahamstown. South Africa. 3 - 5 July 2014.

Murray, R.I. Director. *Waterline. Makana Drama Development Festival.* Rhodes Theatre, Grahamstown. South Africa. 1 November 2014.

Murray, R.I. Devisor and Facilitator. *Uyabona Ke - See What I Mean? Doctoral research group, offering free skills and*

performance training to local emerging performers. Rhodes Drama Department; Joza, Grahamstown. South Africa. 6 December - 1 January 2014.

Murray, R.I. Facilitator. Visual Theatre - Get the Picture. *Lecture-demonstration at Eastern Cape Schools Festival.* Guy Butler Theatre, Grahamstown. South Africa. 9 May 2014.

Murray, R.I. Devisor and Facilitator. *An Intro to Visual Theatre. Lecture-demonstration for All Girls' Festival in Port Elizabeth.* Girls' Collegiate School, Port Elizabeth. South Africa. 27 April 2014.

Murray, R.I. Co-devisor and Facilitator of Residency. The Contamination of Materials. *St Anne's Diocesan School for Girls Theatre-making Residency.* St Anne's Diocesan School, Hilton. South Africa. 3 - 7 February 2014.

Murray, R.I. Co-author, director, producer. Crazy in Love. *Cape Town Fringe Festival.* City Hall 1, Cape Town. South Africa. 25 - 29 September 2014.

Murray, R.I. Co-author, director, producer. Crazy in Love - winner of Best International Production Award at Amsterdam Fringe Festival. *Crazy in Love.* Spiegeltent, Amsterdam. Netherlands. 13 September 2014.

Murray, R.I. Co-author, director, producer. Crazy in Love. *Amsterdam Fringe Festival.* MC Teaterzaal, Amsterdam. Netherlands. 3 - 13 September 2014.

Murray, R.I. Director and Producer. Crazy in Love. *National Arts Festival.* Victoria Girls School, Grahamstown. South Africa. 3 - 12 July 2014.

Murray, R.I. and De Kock, E.

Murray, R.I. and De Kock, E. Co-devisor and Facilitator of Master Class. *Beckett and the Laugh of Unhappiness Master Class for IEB Teachers in KZN.* The Whykeham Collegiate, Pietermaritzburg. South Africa. 1 - 3 March 2014.

Murray, R.I., Buckland, A.F. and De Kock, E.

Murray, R.I., Buckland, A.F. and De Kock, E. Co-devisor and Facilitator of Master Class. The Space Between - an intro to Visual and Physical Theatre. *Master Class with students from Artez Akademie of Theater in Utrecht.* Stadsschouwburg. Amsterdam. Netherlands. 12 September 2014.

Nonyati, N.

Nonyati, N. Workshop facilitator. Drag 'n Fly. *National Schools Festival.* Movement Room, Rhodes University, Grahamstown. South Africa. 14 - 17 July 2014.

Nqelenga, P.L.

Nqelenga, P.L. Creator, Conceptualizer and Performer. Trace. *Masters Season.* Site Specific, Grahamstown. South Africa. 31 July - 2 August 2014.

Nqelenga, P.L. Performer. Machine for Living. *National Arts Festival Fringe.* Site Specific, Grahamstown. South Africa. 4 - 11 July 2014.

Praeg, J.

Praeg, J. Choreographer. shift. *Theatre In Motion.* Box Theatre, Rhodes University, Grahamstown. South Africa. 23 - 25 October 2014.

Praeg, J. Choreographer and director. nightflower. *Detours Festival.* University of the Witwatersrand, Downstairs theatre, Johannesburg. South Africa. 8 - 9 May 2014.

Praeg, J. Curator and producer. First Physical Theatre Company: Standing Taller Than Liberty. *JOMBA! Contemporary Dance Festival.* Elizabeth Sneddon Theatre, Durban. South Africa. 4 - 7 September 2014.

Praeg, J. Curator and producer. NEDBANK Warmth for Winter Campaign. *Warmth For Winter.* The Graham Hotel, Grahamstown. South Africa. 3 July 2014.

Vachla, A.

Vachla, A. Choreographic workshop Facilitator. Gesture and Rhythm. *Jomba! Contemporary Dance Festival.* Dance Studio Howard College, Durban. South Africa. 6 September 2014.

Vachla, A. Choreographer. Deadringer. *Baxter Dance Festival.* Baxter Theatre, Cape Town. South Africa. 17 - 18 September 2014.

Vachla, A. Choreographer. Deadringer. *Jomba! Contemporary Dance Festival.* Elizabeth Sneddon Theatre, Durban. South Africa. 4 - 7 September 2014.

Vachla, A. Choreographer. *Agon.* Rhodes Box Theatre, Grahamstown. South Africa. 5 - 6 June 2014.

Vachla, A. Choreographer. Standing taller than Liberty. *Jomba! Contemporary Dance Festival.* Elizabeth Sneddon Theatre, Durban. South Africa. 4 - 7 September 2014.

Creative Writing

Krueger, A.R.

Krueger, A.R. (2014) The Programmable Bride. In: Cummiskey, G. (ed.). *New Coin.* Grahamstown: ISEA.

Krueger, A.R. (2014) Verwoerd's Assassin. In: *So Solo Festival.* Johannesburg: University of the Witwatersrand.

Krueger, A.R. (2014) My Sister Sonia. In: Coetzer, T. (ed.). *Ons Klyntji.* Cape Town.

Distinguished Visitors

Praeg, J.

J Praeg. Keiga Dance Company, Makerere University Kampala, Uganda. *Keiga Dance Kampala Postgraduate dance and choreography residency.* February 2014.

J Praeg. Independent professional choreographer and performer, Cape Town, South Africa. *Choreographic residency with First Physical Theatre Company.* October 2014.

J Praeg. Independent professional director, Cape Town, South Africa. *Production of Martin Crimp's the Treatment.* Directed by Liz Mills. February 2014.

J Praeg. Anthropology Department Rice University, Houston, USA. *PhD research associate Mr Nathanael Vlachos.* Research on the Rhodes Drama Department. May 2014.

J Praeg. Independent professional choreographer in association with the Hong Kong Academy for Performing Arts, Hong Kong, China. *Mr Acty Tang. Choreography residency and creation of a new production entitled Hunger with Postgraduate and undergraduate drama students and First Physical Theatre Company.* April 2014.

J Praeg. Queen Margaret University, Edinburgh, Scotland. Ms Athina Copteros. *Staff and Postgraduate seminars and workshops on authentic movement and dance therapy.* June 2014.



Martin Crimp's *The Treatment* directed by guest director, Liz Mills
Photo: Mike Dexter



Solo directed by Masters student Hannah Lax for the Rhodes entry in the Student Theatre Festival. The production was awarded Best Student Theatre Production at the National Arts Festival 2014
Photo: Mia van der Merwe

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Ginslov, J.

Ginslov, J. AffeXity: Capturing Affect with the handful of techne. *Laban/Body/Space? Emergence Conference*. Drama Department Pretoria University, Pretoria. South Africa. January 2014.

Krueger, A.R.

Krueger, A.R. Whose Voice is it Anyway. *ISEA Colloquium Teaching Creative Writing*. ISEA, Grahamstown. South Africa. September 2014.

Krueger, A.R. Performing Consciousness / Activating Mindfulness. *PSI 20 (Performance Studies International) - Avant-garde, Tradition and Community*. Shanghai Theatre Academy, Shanghai. China. July 2014.

Krueger, A.R. Defending Boxing. Performing the Agon. *PSI 20 (Performance Studies International) Avant-garde, Tradition and Community*. Shanghai Theatre Academy, Shanghai. China. July 2014.

Louw, I.

Louw, I. uR: a Case Study in Tracking the Seam of Imaginative Exchange from Designer through Space and Materials to Audience. *International Federation of Theatre Research World Congress*. Warwick University, Warwick. United Kingdom. July 2014.

Nqelenga, P.L.

Nqelenga, P.L. A critical reflection on Oral Performance in South African Contemporary Theatre. *International Conference of the Southern African Folklore Society and general meeting (AGM) (2014)*. University of Botswana, Gaborone. Botswana. August 2014.

Nqelenga, P.L. A Critical Reflection on Oral Performance in South African Contemporary Theatre. *International Conference of the Southern African Folklore Society and annual general meeting (AGM) (2014)*. Rhodes University, Grahamstown. South Africa. September 2014.

Sutherland, A.E.

Sutherland, A.E. The Fort England Psychiatric hospital

theatre project: a multi-disciplinary conversation. *Healing and social transformation in mental health care in South Africa*. University of Cape Town, Cape Town. South Africa. July 2014.

Sutherland, A.E. The meaning of performance in forensic psychiatry: from the personal to the political. *Performing the World*. East Side Institute, New York. United States of America. October 2014.

2013 Publications Submitted to DHET in 2014

Books/Chapters/Monographs

Sutherland, A.E.

Sutherland, A.E. (2013) Dramatic Spaces in Patriarchal Contexts: Constructions and Disruptions of Gender in Theatre Interventions About HIV. In: Barnes, H. (ed.). *Applied Drama and Theatre as an Interdisciplinary Field in the Context of HIV/AIDS in Africa*. Amsterdam: Rodopi. p.177-185. ISBN: 9789042038066.

DEPARTMENT OF ECONOMICS AND ECONOMIC HISTORY

INTRODUCTION

The Department of Economics and Economic History was again productive in terms of research and publications in a variety of media. The Department saw one (1) monograph, seven (7) training papers, three (3) working papers, twenty-four (24) biweekly column articles in *Business Day*, one (1) stand-alone article in *Business Day*, one (1) article in the *Journal of the Helen Suzman Foundation*, four (4) published papers in peer reviewed non-subsidy earning journals, seven (7) publications in peer reviewed subsidy-earning journals and one (1) in peer reviewed conference proceedings.

Academic staff and students also presented eight (8) papers at academic conferences. The papers, presentations and journal articles represented a wide range of economic topics and showcased the expertise available in the Department. The research covered financial markets, economics of happiness, cultural economics, environmental and agricultural economics, water footprint assessment and institutional economics.

Postgraduates/Graduations

The number of Postgraduates registered for Masters and Doctoral degrees increased in 2014. This was largely the result of the Environmental and Natural Economics Research Focus Area (ENREFA). The ENREFA programme enrolled an additional five (5) PhD students. There were also a number of other students registered for Masters studies by thesis in other areas of Economics. The Masters in Financial Markets



Dr Brad Ridoutt (Principal Research Scientist: CSIRO) and Dr Ashok Chapagain (Science Director: Water Footprint Network) with Sam Munro (Economics Masters Student) and Professor Gavin Fraser at a Water Footprint Workshop held at the University of the Free State in September 2014
Photo: Professor Gavin Fraser

degree by coursework and thesis continued to attract students to the programme. The Department had a successful year concerning Masters degree graduates, seven (7) Masters degrees by thesis were awarded and six (6) under the Masters in Financial Markets. This included the first Masters degree being awarded under the ENREFA programme.

Distinguished Visitors/International Visits

As a result of the Department not having a Hobart Houghton Fellow in 2013, two visitors were hosted in 2014. In the first semester Professor Jack Houston from the University of Georgia was in the Department. He is an agricultural economist and provided assistance to Postgraduate students, in particular, Sam Munro who was working on a water footprint study of citrus in the Sunday's River Valley. Dr Hanna Kociemska of the Wroclaw University of Economics visited the Department. She was working on public-private partnerships in the health sector.

Professor Jen Snowball attended the 18th ACEI International Conference on Cultural Economics at the University of Quebec, Montreal, Canada. She presented a paper on art investment as a portfolio diversification strategy in South Africa.

Mr Ferdi Botha also travelled overseas and presented a paper at the 12th Conference of the International Society of Quality of Life Studies at the Free University, Berlin, Germany.

Significant Research Aligned Events

The ENREFA programme has expanded with another five (5) PhD students registering who have come with a variety of interesting research topics. The PhD topics relate to, inter alia, the commercialisation of small-scale mohair farmers in Lesotho, the economic outcomes of ecosystem restoration

of wetland rehabilitation and energy use patterns and trends in South African low-income households.

Professors Gavin Keeton and Pierre Faure were again the front-runners in terms of a biweekly newspaper article and training papers to an ejournal respectively.

Professor Gavin Fraser
Head of Department



Professor Pierre Faure's book, *Money Creation: Advanced Readings*.

PUBLICATIONS

Books/Chapters/Monographs

Faure, A.P.

Faure, A.P. (2014) *Money Creation: Advanced Readings*. London: Quion Institute (Pty) Limited & Bookboon.com. ISBN: 9788740306682.

Concerts, Exhibitions, Performances, Workshops, Events

Ismail, Z.H.I.

Ismail, Z.H.I. Participant. APORDE- African Programme of Rethinking Development Economics. *APORDE- African Programme of Rethinking Development Economics*. Industrial Development Corporation, Johannesburg. South Africa. 1 - 14 September 2014.

Other Publications

Botha, F.

Botha, F. (2014) The Good African Society Index. In: *ERSA Working Paper No. 441*. Cape Town: Economic Research Southern Africa.

Botha, F. and Keeton, G.R.

Botha, F. and Keeton, G.R. (2014) A note on the (continued) ability of the yield curve to forecast economic downturns in South Africa. In: *ERSA Working Paper No. 449*. Cape Town: Economic Research Southern Africa.

Botha, F. and King, D.J.

Botha, F. and King, D.J. (2014) Modelling stock return volatility dynamics in selected African markets. In: *ERSA Working Paper No. 410*. Cape Town: Economic Research Southern Africa.

Faure, A.P.

Faure, A.P. (2014) Interest rates 2: relationship of interest rates. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

Faure, A.P. (2014) Interest rates 7: an optimal rate of interest (the natural rate). In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

Faure, A.P. (2014) Interest rates 3: composition of interest rates. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

Faure, A.P. (2014) Interest rates 1: what are interest rates? In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

Faure, A.P. (2014) Interest rates 6: role of interest rates. In: *Macroeconomics: Monetary & Fiscal Policies eJournal*. USA: SSRN eLibrary.

Faure, A.P. (2014) Interest rates 5: bank liquidity & interest rate discovery. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

Faure, A.P. (2014) Interest rates 4: interest rate discovery. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

Ismail, Z.H.I.

Ismail, Z.H.I. (2014) Infrastructure spending: If users are to pay, they must also have a say on big projects. In: *Business Day*. Johannesburg: Times Media Ltd.

Keeton, G.R.

Keeton, G.R. (2014) New rouble crisis unlikely, but we cannot relax. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.

Keeton, G.R. (2014) Investor exit behind fall in commodity prices. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.

- Keeton, G.R.** (2014) No easy way to fight state spending in a slump. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Revenue shortfalls just part of Eskom's troubles. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Hosting mega-events not as valuable as thought. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Outlook for mining is about the future of jobs. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) No quick solution to the problem of inequality. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Rhetoric aside, what we had was compromise. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) A platinum producers' cartel is not practical. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Lights might be on, for now, but a credible power plan is crucial. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Budget shaped by SA's economic weakness rather than election. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Dissecting inequality leaves only one answer. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Cheap rand no magic wand to increase exports. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Mandela's about-turn on nationalisation. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Inequality in South Africa. In: Focus: *Journal of the Helen Suzman Foundation*.
- Keeton, G.R.** (2014) Unique version of resources curse is not helpful. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Mining pay should reflect rise and fall of profits. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) SA's mining address no longer in a prime area. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) SA must cut exposure to fickle global investors. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Job disparities according to race are alarming. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Rapid growth only real option to fight inequality. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Competition could lift SA's export performance. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Rate hike shows policy makers' predicament. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) Our economic weakness is of our own making. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.
- Keeton, G.R.** (2014) A hard ask for business to criticise government. In: Bruce, P. (ed.). *Business Day*. Johannesburg: Times Media Ltd.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

- Faure, A.P.**
Beukes, A. and **Faure, A.P.** (2014) Extrapolation as potential explanation for persistence of the value premium. *Journal of Business and Behavioral Sciences*. 26 (1). p.131-137.
- Fraser, G.C.G.**
Baiyegunhi, L.J.S. and **Fraser, G.C.G.** (2014) Smallholder farmers' access to credit in the Amathole District Municipality, Eastern Cape Province, South Africa. *Journal of Agriculture and Rural Development in the Tropics and Subtropics*. 115 (2). p.79-89.
- Mutambara, T.E.**
Mutambara, T.E. and Hess, R. (2014) South-South versus North-South Trade Linkages: A Case Study of Ethiopia and Implications for the Country's Industrial Development. *Eastern Africa Social Science Research Review*. 30 (1). p.73-104.
- Rantlo, A.M. and Fraser, G.C.G.**
Rantlo, A.M. and Fraser, G.C.G. (2014) The impact of property rights to water resources on smallholder development in the Kat River Valley. *Time Journals of Agriculture and Veterinary Sciences*. 2 (9). p.145-152.

Peer Reviewed Subsidy-Earning Journal Research Publications

- Botha, F. and Keeton, G.R.**
Botha, F. and Keeton, G.R. (2014) A Note on the (Continued) Ability of the Yield Curve to Forecast Economic Downturns in South Africa. *South African Journal of Economics*. 82 (3). p.468-473.
- Collins, A. and Snowball, J.**
Collins, A. and Snowball, J. (2014) Transformation, job creation and subsidies to creative industries: the case of South Africa's film and television sector. *International Journal of Cultural Policy*. 2014 (2014). p.1-19.
- Fraser, G.C.G.**
Baiyegunhi, L.J.S. and **Fraser, G.C.G.** (2014) Poverty Incidence among Smallholder Farmers in the Amathole District Municipality, Eastern Cape Province, South Africa. *Journal of Human Ecology*. 46 (3). p.261-273.

Ismail, Z.H.I.

Ismail, Z.H.I., Mabuza, P., Pillay, K. and Xolo, S. (2014) Infrastructure Development within a Regulated Environment: Concerns for Regulators. *Journal of Economic and Financial Sciences*. 7 (2014). p.569-586.

Kinghorn, J.W. and Snowball, J.

Kinghorn, J.W., Snowball, J., Britz, P.J. and Weyl, O. (2014) A Cross-Model Comparison of Travel Time Inclusion Techniques in Recreational Fishing Demand Analysis. *Journal for Studies in Economics and Econometrics/Tydskrif vir Studies in Ekonomie en Ekonometrie*. 38 (2). p.47-63.

Marire, J., Snowball, J. and Fraser, G.C.G.

Marire, J., Snowball, J. and Fraser, G.C.G. (2014) Regulatory Incoherence and Economic Potential of Freshwater Recreational Fisheries: The Trout Triangle in South Africa. *Journal of Economic Issues*. 48 (4). p.981-1004.

Snowball, J.

Snowball, J. (2014) Using interactive content and online activities to accommodate diversity in a large first year class. *Higher Education*. 67 (2014). p.823-838.

Peer reviewed Proceedings

Fryer, D.C.A.

Fryer, D.C.A. and Cattaneo, N.S. Structural Change, Productivity and the Middle Income Trap: South Africa in Comparative Perspective. *VI BRICS Academic Forum*. Rio de Janeiro. Brazil. November 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Botha, F.

Botha, F. Satisfaction with family life in South Africa: The role of socioeconomic status. *12th Conference of the International Society of Quality of Life Studies*. Free University, Berlin. Germany. September 2014.

Chandler, B.L. and Keeton, G.R.

Chandler, B.L. and Keeton, G.R. The economic contribution of the tourism accommodation sector in a small Karoo Town. *Emerging views on the Eastern Cape Economy*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. September 2014.

Ismail, Z.H.I.

Ismail, Z.H.I. Infrastructure Development within a Regulated Environment: Concerns for Regulators. *South African Economics and Regulators Conference (SAERC)*. Birchwood Hotel and Conference Centre, Johannesburg. South Africa. March 2014.

Ismail, Z.H.I. An Empirical Estimation of Energy Poverty in Poor South African Households. *South African Economics and Regulators Conference (SAERC)*. Birchwood Hotel and Conference Centre, Johannesburg. South Africa. March 2014.

Ismail, Z.H.I. Determinants of passing Mathematical Economics in third year at Rhodes University. *Teaching and learning conference, Rhodes University 2014*. St Peters Campus, Rhodes University, Grahamstown. South Africa. November 2014.

Marire, J., Snowball, J. and Fraser, G.C.G.

Marire, J., Snowball, J. and Fraser, G.C.G. Regulatory incoherence and economic potential of freshwater recreational fisheries: A case of the Trout Triangle, South Africa. *Agricultural Economics Association of South Africa Conference*. Mpekwani, Port Alfred. South Africa. September 2014.

Munro, S.A., Fraser, G.C.G. and Snowball, J.

Munro, S.A., Fraser, G.C.G. and Snowball, J. Economic perspectives of the water footprint of the lower Sundays River Valley citrus sector. *Agricultural Economics Association of South Africa Conference*. Mpekwani, Port Alfred. South Africa. September 2014.

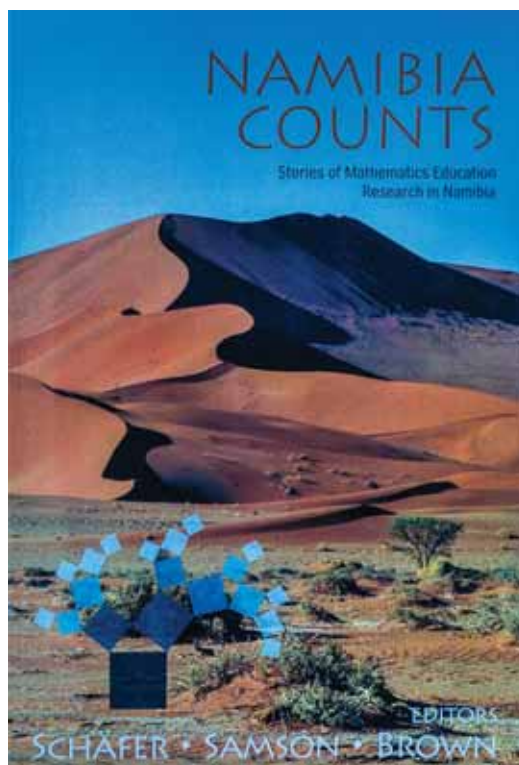
Scott, B.W., Snowball, J. and Botha, F.

Scott, B.W., Snowball, J. and Botha, F. Art investment as a portfolio diversification strategy in South Africa. *18th ACEI International Conference on Cultural Economics*. University of Quebec, Montreal. Canada. June 2014.

INTRODUCTION

This year saw the end of the first period of funding for the First Rand Foundation (FRF) Chair in Mathematics and the programme drew to a close with the dissemination of a number of research publications relating to mathematics education and teacher professional development. Chair recipient, **Professor Marc Schäfer** also supervised three (3) PhD scholars to graduation in 2014. In addition, the work of the Department to develop a community of mathematics education research in Namibia was celebrated with the publication of the book "Namibia Counts" - a compilation of the research of a number of Namibian MEd scholars who were supervised within the Department over the last 7 years.

The research programme of the FRF Chair in Numeracy continued to strengthen over 2014 yielding a number of important publications in this field. Teacher professional development is fundamental to the research of both these Chairs and the communities of teachers working with the Chairs have continued to grow. A significant aspect of this work is the development of awareness, both in the teaching profession and in the public at large, of the importance of effective teaching of numeracy and the Chair was extensively involved in such initiatives. The Chair in Environmental Education is also extensively involved in the raising of awareness of the importance of the environment and sustainability as we educate our children to achieve sustainable global development. To achieve this purpose, the



The book publication *Namibia Counts: Stories of Mathematics Education Research in Namibia*, which is a compilation of the research of a number of Namibian MEd Scholars who were supervised within the Department over the last 7 years
Photo: Paul Greenway

Chair is actively involved in a number of local and global initiatives that contribute to research and policy development.

Distinguished Visitors/International Visits

A number of distinguished international scholars spent time in the Department working at the forefront of international research in numeracy teaching and learning within teacher learning communities, together with **Professor Graven**, the FRF Chair in Numeracy, on current international developments. These were Professor E Simmt, from the University of Alberta, Canada; Professor S Lerman, from London South Bank University, United Kingdom; Professor B Atweh, an educational consultant from Brisbane, Australia; and Professor Phakeng, of UNISA, South Africa.

Dr Bruce Brown
Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Grant, C.

Grant, C. (2014) Leading for Social Justice in South African Schools: Where Have All the Activists Gone? In: Bogotch, I. and Shields, C.M. (eds.). *International Handbook of Educational Leadership and Social(In)justice*. London: Springer. p.521-539. ISBN: 9789400765542.

Grant, C. (2014) Pushing the Boundaries of Postgraduate Supervision: Theorising Research Learning in Community. In: Bitzer, E., Albertyn, R., Grant, B. and Kelly, F. (eds.). *Pushing Boundaries in Postgraduate Supervision*. Bloemfontein: SUN MeDIA. p.109-122. ISBN: 9781920689155.

Graven, M.H.

Graven, M.H. and Lerman, S. (2014) *Encyclopedia of Mathematics Education*. London: Springer. ISBN: 9789400749771.

Graven, M.H. and Schafer, M.

Graven, M.H. and **Schafer, M.** (2014) A love for mathematical playfulness as a key ingredient of mathematical knowledge for teaching. In: Venkat, H., Rollnick, M., Loughran, J. and Askew, M. (eds.). *Exploring Mathematics and Science Teachers' Knowledge*. New York: Routledge: Taylor and Francis. p.163-177. ISBN: 9780415713870.

Joseph, M.V.

Joseph, M.V. and Ramani, E. (2014) Marginalised knowledges and marginalised languages for epistemic access to Piaget and Vygotsky's theories. In: Prinsloo, M. and Stroud, C. (eds.). *Educating for Language and Literacy Diversity: Mobile Selves*. Basingstoke: Palgrave Macmillan. p.133-147. ISBN: 9781137309839.

Kraft, R.L.

Kraft, R.L. (2014) The Namibian Socio-Economic Landscape. In Schafer, M., Samson, D. and Brown, B. (eds.). *Namibia Counts: Stories of Mathematics Education Research in Namibia*. Grahamstown: Rhodes University. ISBN: 9780620611145.

Lotz-Sisitka, H.

Lotz-Sisitka, H. (2014) 'We must start with our own children': reflectively researching intergenerational leadership for social justice, education, and sustainability. In: Corcoran, P.B. and Hollingshead, B.P. (eds.). *Intergenerational Learning and Transformative Leadership for Sustainable Futures*. The Netherlands: Wageningen Academic Publishers. p.43-63. ISBN: 9789086862528.

Kronlid, D.O. and **Lotz-Sisitka, H.** (2014) Transformative Learning and Individual Adaptation. In: Kronlid, D.O. (ed.). *Climate Change Adaptation and Human Capabilities: Justice and Ethics in Research and Policy*. USA: Palgrave Macmillan. p. 75-106. ISBN: 9781137436276.

Mcgarry, D.K.

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Netherlands: Wageningen Academic Publishers. p.189-199. ISBN: 9789086862528.

Schafer, M., Samson, D.A. and Brown, B.J.L.

Schafer, M., Samson, D.A. and Brown, B.J.L. (eds.) (2014) *Namibia Counts: Stories of Mathematics Education Research in Namibia*. Grahamstown: Rhodes University. ISBN: 9780620611145.

Schudel, I.J.

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Nyambe, J. and **Wilmot, P.D.** (2014) Post-apartheid Pedagogic Reform In Namibia: The Route To Learner-Centred Pedagogy And Its Implementation. In: Schafer, M., Samson, D. and Brown, B. (eds.). *Namibia Counts: Stories of Mathematics Education Research in Namibia*. Grahamstown: Rhodes University. p.27-37. ISBN: 9780620611145.

Concerts, Exhibitions, Performances, Workshops, Events

Graven, M.H.

Graven, M.H. Panelist. Who can save our schools. *Up4Debate panelist*. Rhodes University, Grahamstown. South Africa. 1 May 2014.

Graven, M.H. Public Talk. Learners' mathematical learning dispositions. *Rotary Club talk*. Rotary Club, Grahamstown. South Africa. 1 May 2014.

Graven, M.H. Public Lecture. Addressing Challenges in Primary Mathematics Education. *National Research Foundation's Science for Society lectures broadcast live on South African Radio Station SAFM*. Eden Grove, Rhodes University, Grahamstown. South Africa. 26 February 2014.

Graven, M.H. Interview for SABC Television News. *22nd SAARMSTE Conference*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. 14 January 2014.

Graven, M.H. Radio Interview. Why so few girls are participating in the International Maths Olympiad. *Talk radio 702*. Rhodes University, Grahamstown. South Africa. 1 June 2014.

Graven, M.H. Plenary Talk. Connecting research with development. *SAARMSTE Eastern Cape*. Rhodes University, Grahamstown. South Africa. 4 October 2014.

Graven, M.H. Guest Speaker. The importance of developing lifelong resourceful and resilient learning dispositions. *Guest speaker at St Mary's Primary School prize giving*. Recreation Hall, Grahamstown. South Africa. 19 November 2014.

Lotz-Sisitka, H.

Lotz-Sisitka, H. Speaker at Workshop. Setting the Scene. *Green Skill Research Seminar and Workshop*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. 30 July 2014.

Lotz-Sisitka, H. Presentation. Presentation of Draft Africa Regional Action Plan on Environmental Education and Training, followed by Open Discussions. *Africa Regional Environmental Education & Training Action Plan Review Meeting*. UN Complex, Gigiri. Nairobi. 13 - 14 May 2014.

Lotz-Sisitka, H. Workshop Conveners. Professional learning communities and continuing professional development of teachers for environmental learning/ESD. *The Fundisa for Change Teacher Education Conference and Launch*. Emperors Palace, Johannesburg. South Africa. 28 February 2014.

Lotz-Sisitka, H. Speaker. Skills Planning and Research: PhD Research - Environmental Sector Research. *Green Skills Forum*. King David Hotel, East London. South Africa. 5 March 2014.

Lotz-Sisitka, H. Panellist. Towards a Desirable Future. *Transformative Knowledge Workshop 2014: The ISSC'S Transformations to Sustainability Programme*. IASS, Potsdam. Germany. 17 - 19 November 2014.

Lotz-Sisitka, H. Panel Discussion. Mapping Study findings and implications for Universities. *SARUA: Strengthening University Contributions to Climate Compatible Development in Southern Africa. Leadership Dialogue: Climate Compatible Development & Opportunities for University Collaborations*. Spier Conference Centre, Cape Town. South Africa. 5 - 6 May 2014.

Lotz-Sisitka, H. Workshop Coordinator. ESD concept (Cluster I-1). *UNESCO World conference on ESD*. Okoyama, Okayama. Japan. 10 - 12 November 2014.

Lotz-Sisitka, H. Workshop Coordinator. ESD concept (Cluster I-1). *UNESCO World conference on ESD*. Nagoya, Aichi-Nagoya. Japan. 10 - 12 November 2014.

Lotz-Sisitka, H. Presentation. Global Change, the AMCEN Agenda, Climate Change and Sustainable Development. *ESD in Higher Education ITP - Results Seminar: Africa HESD ITP Alumni Review and reflections*. Environmental Learning Research Centre, Grahamstown. South Africa. 25 - 28 November 2014.

Lotz-Sisitka, H. Facilitator. Rhodes University Updates from the field & post UNDESD agenda. *ESD in Higher Education ITP - Results Seminar: Africa HESD ITP Alumni review and reflections*. Environmental Learning Research Centre, Grahamstown. South Africa. 25 - 28 November 2014.

Lotz-Sisitka, H. Lead Presenter. Co-learning about transdisciplinary approaches to deal with wicked problems. *Ecosystems & Social Winter School program*. Nelson Mandela Metropolitan University, George Campus, George. South Africa. 30 June - 4 July 2014.

Lotz-Sisitka, H. Presentation. Mapping Study Institutional Assessment. *SARUA: Strengthening University Contributions to Climate Compatible Development in Southern Africa. Leadership Dialogue: Climate Compatible Development & opportunities for University collaborations*. Spier Conference Centre, Cape Town. South Africa. 5 - 6 May 2014.

Lotz-Sisitka, H. and Agbedahin, A.V.

Lotz-Sisitka, H. and Agbedahin, A.V. Presenter. Researching the ITP: Alumni Tracking Research and USAT research. *ESD in Higher Education ITP - Results Seminar*. Environmental Learning Research Centre, Grahamstown. South Africa. 25 - 28

November 2014.

Lotz-Sisitka, H. and O'Donoghue, R.B.

Lotz-Sisitka, H. and O'Donoghue, R.B. Public Lectures: Speaker/Facilitators. Opening of the 'Re-imagining Education & Social Practices' Exhibition. *Re-Imagining Social Practice for Sustainability*. Environmental Learning Research Centre, Grahamstown. South Africa. 3 - 13 July 2014.

O'Donoghue, R.B.

O'Donoghue, R.B. Talk, Demonstrations & Book Launch. African Heritage Knowledge in the Context of social Innovation. *Re-Imagining Social Practice for Sustainability*. Environmental Learning Research Centre, Grahamstown. South Africa. 3 - 13 July 2014.

O'Donoghue, R.B. Speaker/Facilitator. Education in Anthropocene. *Re-Imagining Social Practice for Sustainability*. Environmental Learning Research Centre, Grahamstown. South Africa. 3 - 13 July 2014.

O'Keeffe, J.

O'Keeffe, J. Talk & Workshop. Water for Dignity in Makana (water options workshop for Makana citizens). *Re-Imagining Social Practice for Sustainability*. Environmental Learning Research Centre, Grahamstown. South Africa. 3 - 13 July 2014.

Schudel, I.J.

Schudel, I.J. Workshop Conveners. Teaching methods and assessment for transformative environmental learning and ESD - how to integrate these into teaching education programmes. *The Fundisa for Change Teacher Education Conference and Launch - workshop*. Emperors Palace, Johannesburg. South Africa. 28 February 2014.

Schudel, I.J. Talk & Demonstrations. Eco-schools - School of the Future! *Re-Imagining Social Practice for Sustainability*. Environmental Learning Research Centre, Grahamstown. South Africa. 3 - 13 July 2014.

Songqwaru, N.Z.

Songqwaru, N.Z. Workshop Presenter. Teachers' subject knowledge and experience of 'new' environmental concepts and teaching practices. *The Fundisa for Change Teacher Education Conference and Launch - Workshop/Parallel Sessions*. Emperors Palace, Johannesburg. South Africa. 28 February 2014.

Songqwaru, N.Z. Talks & Discussions. Fundisa for Change - Transformative Environmental Learning Through Teacher Education. *Re-Imagining Social Practice for Sustainability*. Environmental Learning Research Centre, Grahamstown. South Africa. 3 - 13 July 2014.

Stott, D.A.

Stott, D.A. Panelist. How can we bridge the gap between rich and poor schools within Grahamstown. *Up4Debate panelist*. Rhodes University, Grahamstown. South Africa. 1 September 2014.

Stott, D.A. Plenary Talk. After school Maths clubs as enabling spaces for both recovery and extension of mathematical proficiency in young learners. *2014 Rhodes University PGCE (FP & IP) Research Conference*. Rhodes University, Grahamstown. South Africa. 4 November 2014.

Stott, D.A. Plenary Talk. "Pushing for Progression". *Regional Eastern Cape AMESA conference*. WSU, Butterworth. South Africa. 13 September 2014.

Stott, D.A. Guest Speaker. Changing our mindsets about Maths and on the power of struggling with Maths. Mistakes are opportunities for new learning and for growing our children's brains. *Shaw Park Primary school prize giving*. Shaw Park, Port Alfred. South Africa. 20 November 2014.

Vallabh, P. and Olivitt, L.L.

Vallabh, P. and Olivitt, L.L. Demonstrators. Citizen Science Programme Demonstrators: Connecting Citizens and Sustainability. *Re-Imagining social practice for sustainability*. Environmental Learning Research Centre, Grahamstown. South Africa. 3 - 13 July 2014.

Creative Writing

Stott, D.A.

Stott, D.A. (2014) After-school Maths clubs add up to learning + fun. In: Stott, D. (ed.). *After-school Maths clubs add up to learning + fun*. Grahamstown: Grocott's Mail.

Distinguished Visitors

Graven, M.H.

MH Graven. University of Alberta, Edmonton, Alberta, Canada. *Guest Lecture: Professor Elaine Simmt*. September 2014.

MH Graven. London South Bank University, London, United Kingdom. *Guest seminar: Professor S Lerman*. July 2014.

MH Graven. Educational Consultant, Brisbane, Australia. *Guest seminar: Professor B Atweh*. March 2014.

MH Graven. UNISA, Pretoria, South Africa. *Guest Lecture: Professor Phakeng*. February 2014.

Other Publications

Burt, J.C., Rivers, N. and Lotz-Sisitka, H.

Burt, J.C., Rivers, N., Lotz-Sisitka, H. and Berold, R. (2014) Learning as a Core Transformative Process for the Democratic Management of Water. In: Berold, R. and Standford, M. (eds.). *The Role of Knowledge in a Democratic Society: Investigations into Mediation and Change-Oriented Learning in Water Management Practices*. South Africa: Water Research Commission.

Burt, J.C., Rivers, N., Lotz-Sisitka, H. and Phiri, C.

Burt, J.C., Berold, R., Rivers, N., Lotz-Sisitka, H., Ntshudu, M.E. and Phiri, C. (2014) Learning Resources for Changing Practice: The Importance of Understanding the Socio-Cultural Context in Designing Learning Resources. In: Berold, R. and Standford, M. (eds.). *The Role of Knowledge in a Democratic Society: Investigations into Mediation and Change-Oriented Learning in Water Management Practices*. South Africa: Water Research Commission.

Graven, M.H.

Graven, M.H. (2014) Teaching Numeracy in Pre-School and Early Grades in Low-Income Countries. In: Graven, M. (ed.). *Teaching Numeracy in Pre-School and Early Grades in Low-Income Countries*. Berlin: GIZ.

Graven, M.H. and Stott, D.A.

Graven, M.H. and Stott, D.A. (2014) Engaging families in Maths. In: *The Teacher*. Johannesburg: Mail and Guardian.

Lotz-Sisitka, H., Burt, J.C., Rivers, N. and Jenkin, T.K.

Lotz-Sisitka, H., Burt, J.C., Berold, R., Rivers, N., Ntshudu, M.E. and Jenkin, T.K. (2014) "Changing Practice": Designing and Testing a Professional Development Course for Water Knowledge Mediators Who support community Learning and Practice. In: Standford, M. and Berold, R. (eds.). *The Role of Knowledge in a Democratic Society: Investigations into Mediation and Change-Oriented Learning in Water Management Practices*. South Africa: Water Research Commission.

O'Donoghue, R.B.

O'Donoghue, R.B. (2014) ESD and the Framing of Transformative Social Learning in RCEs. In: Fadeeva, Z., Payyappallimmana, U. and Tabucanon, M. (eds.). *Building a Resilient Future through Multi-stakeholder Learning and Action*. Pacifico-Yokohama: United Nations University Institute of Advanced Studies (UNH-IAS).

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Evaluation Practices in RCEs. In: Fadeeva, Z., Payyappallimmana, U., Tabucanon, M. and Banga Chhokar, K. (eds.). *Building a Resilient Future through Multi-stakeholder Learning and Action: Ten Years of Regional Centres of Expertise on Education for Sustainable Development*. Pacifico-Yokohama: United Nations University Institute of Advanced Studies (UNH-IAS).

Samson, D.A.

Samson, D.A. (2014) Cubes as the sum of two squares. In: Webb, J.H. (ed.). *Mathematical Digest*. Cape Town: University of Cape Town.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Grant, C.

Grant, C. (2014) Postgraduate Research Learning Communities and their Contribution to the Field of Educational Leadership and Management. *International Studies in Educational Administration*. 42 (1). p.89-100.

Graven, M.H.

Graven, M.H. (2014) Poverty, inequality and mathematics performance: the case of South Africa's post-apartheid context. *ZDM: The International Journal on Mathematics Education*. 46 (7). p.1039-1049.

Graven, M.H. and Heyd-Metzuyanim, E. (2014) Exploring the Limitations and Possibilities of Researching Mathematical Dispositions of Learners with low Literacy Levels. *Scientia in Education*. 5 (1). p.1-16.

Graven, M.H. and Lerman, S. (2014) Counting in threes: Lila's amazing discovery. *For the Learning of Mathematics*. 34 (1). p.29-31.

Lotz-Sisitka, H.

Lotz-Sisitka, H. (2014) Sustainability Assessment of university of Gondar, Gondar, North west Ethiopia. *Journal of Education for Sustainable Development*. 8 (1). p.1-12.

Moyo, K.M. and Samson, D.A.

Moyo, K.M. and Samson, D.A. (2014) Exploring mental computation strategies. *Learning and Teaching Mathematics*. 17 (1). p.38-41.

Samson, D.A.

Samson, D.A. (2014) Reciprocals, equal areas and inverse functions. *Learning and Teaching Mathematics*. 17 (1). p.7-11.

Samson, D.A. (2014) Visualising and generalising with square arrays. *The Australian Mathematics Teacher*. 70 (2). p.4-12.

Samson, D.A. and Breetzke, P. (2014) The beauty of cyclic numbers. *Learning and Teaching Mathematics*. 16 (1). p.24-29.

Stott, D.A.

Stott, D.A. (2014) "'I've got it!'" - A Card Game for Developing Number Sense and Fluency. *Learning and Teaching Mathematics*. 17 (2014). p.3-6.

Peer Reviewed Subsidy-Earning Journal Research Publications

Baxen, M.J., Nsubuga, Y. and Botha, L.

Baxen, M.J., Nsubuga, Y. and Botha, L. (2014) A Capabilities perspective on education quality: Implications for foundation phase teacher education programme design. *Perspectives in education*. 32 (4). p.93-105.

Brown, B.J.L.

Brown, B.J.L. (2014) Identifying Systems of Interaction in Mathematical Engagement. *African Journal of Research in Mathematics, Science and Technology Education (AJRMSTE) or African Journal of Research in MST Education*. 18 (3). p.231-241.

Chikunda, C.

Chikunda, C. (2014) Identifying Tensions around Gender-responsive Curriculum Practices in Science Teacher Education in Zimbabwe: An Activity Theory Analysis. *African Journal of Research in Mathematics, Science and Technology Education (AJRMSTE) or African Journal of Research in MST Education*. 18 (3). p.264-275.

Dube, C.

Dube, C. (2014) Environmental Concerns in the Geography Curriculum: Perceptions of South Africa High School Teachers. *Southern African Journal of Environmental Education*. 30 (2014). p.130-146.

Graven, M.H.

Graven, M.H. and Venkat, H. (2014) Primary Teachers' Experiences Relating to the Administration Processes of High-Stakes Testing: The Case of Mathematics Annual National Assessments. *African Journal of Research in Mathematics, Science and Technology Education (AJRMSTE) or African Journal of Research in MST Education*. 18 (3). p.299-310.

Lotz-Sisitka, H., Mukute, M., Belay, M. and Kulundu, I.

Cundill, G., Lotz-Sisitka, H., Mukute, M., Belay, M., Shackleton, S.E. and Kulundu, I. (2014) A reflection on the use of case studies as a methodology for social learning research in sub Saharan Africa. *Njas-Wageningen Journal*

of Life Sciences. 69 (2014). p.39-47.

Mukute, M.

Mukute, M. and Pesanayi, T. (2014) Contextualising Curriculum Design and Recontextualising Its Implementation: The Case of Climate Change Education for Southern African Transfrontier Conservation Area Practitioners. *Southern African Journal of Environmental Education*. 30 (1). p.53-65.

Murray, S.R.

Murray, S.R. (2014) Guest Editor: Special Issue - Standards in Education and Training: The Challenge. *Perspectives in education*. 31 (1). p.5-220.

Ngcoza, K.M.

Sewry, J.D., Glover, S.R., Harrison, T.G., Shallcross, D.E. and Ngcoza, K.M. (2014) Offering Community Engagement Activities To Increase Chemistry Knowledge and Confidence for Teachers and Students. *Journal of Chemical Education*. 94 (2014). p.1611-1617.

O'Donoghue, R.B.

O'Donoghue, R.B. (2014) Re- thinking Education for Sustainable Development as Transgressive Processes of Educational Engagement with Human Conduct, Emerging Matters of Concern and the Common Good. *Southern African Journal of Environmental Education*. 30 (1). p.7-26.

O'Keeffe, J.

Siebrits, R.M., Winter, K., Barnes, J., Dent, M.C., Ekama, G., Ginster, M., Harrison, J., Jackson, B., Jacobs, I., O'Keeffe, J., et al. (2014) Priority water research questions for South Africa developed through participatory processes. *Water SA*. 40 (2). p.199-209.

Pausigere, P. and Graven, M.H.

Pausigere, P. and Graven, M.H. (2014) Learning metaphors and learning stories (stelos) of teachers participating in an in-service numeracy community of practice. *Education as Change*. 18 (1). p.33-46.

Schafer, M.

Mhlolo, M.K. and Schafer, M. (2014) Potential Gaps during the Transition from the Embodied through Symbolic to Formal Worlds of Reflective Symmetry. *African Journal of Research in Mathematics, Science and Technology Education (AJRMSTE) or African Journal of Research in MST Education*. 18 (2). p.125-138.

Schudel, I.J.

Schudel, I.J. (2014) Exploring a Knowledge-focused Trajectory for Researching Environmental Learning in the South African Curriculum. *Southern African Journal of Environmental Education*. 30 (2014). p.96-117.

Sibanda, J.

Sibanda, J. and Baxen, J. (2014) Towards a reconceptualisation of "word" for high frequency word generation in word knowledge studies. *Perspectives in education*. 32 (3). p.92-103.

Sibanda, J. (2014) An analysis of the language of attribution in university students' academic essays. *South African Journal of Education*. 34 (3). p.1-10.

Sibanda, L.

Sibanda, L. (2014) The readability of two Grade 4 natural sciences textbooks for South African schools. *South African Journal of Childhood Education*. 4 (2). p.154-157.

Van Der Mescht, C.

De Vos, M., Van Der Merwe, K. and Van Der Mescht, C. (2014) A Linguistic Research Programme for Reading in African Languages to underpin CAPS. *Journal for Language Teaching (SAALT Journal for Language Teaching)*. 48 (2). p.149-177.

Van Der Mescht, C. (2014) 'Playing school.' An argument for peer teaching role play in home language reading practice. *Journal for Language Teaching (SAALT Journal for Language Teaching)*. 48 (2). p.179-191.

Peer Reviewed Proceedings

Chikiwa, C. and Schafer, M.

Chikiwa, C. and Schafer, M. Teacher Code Switching: A Call for the Development of Mathematics Registers in Indigenous Languages. *ISTE International Conference Mathematics, Science and Technology Education Proceedings: Towards Effective Teaching and Meaningful Learning in Mathematics, Science and Technology*. Kruger National Park, Limpopo. South Africa. October 2014.

Chikiwa, C. and Schafer, M. Investigating Teacher Code Switching Consistency and Precision in a Multilingual Mathematics Classroom. *South Africa International Conference on Education (SAICE) Proceedings: "Rethinking teaching and learning in the 21st Century"*. Manhattan Hotel, Pretoria. South Africa. September 2014.

Felix, C.B.A. and Schafer, M.

Felix, C.B.A. and Schafer, M. A potential interpretive framework for exploring mathematics teachers' narratives of parental support. *Proceedings of the 22nd Annual Conference of SAARMSTE (Southern African Association for Research in Mathematics, Science and Technology Education)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Graven, M.H.

Graven, M.H. Primary learner descriptions of a successful Maths learner. *Proceedings of the 22nd Annual Conference of SAARMSTE (Southern African Association for Research in Mathematics, Science and Technology Education)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Gunzo, F.T.

Dalvit, L. and Gunzo, F.T. One year on: A longitudinal case study of computer and mobile phone use among rural South African youth. *Proceedings of the 8th International Development Informatics Association Conference*. Boardwalk Conference Centre, Port Elizabeth. South Africa. November 2014.

Pausigere, P.

Pausigere, P. On South African primary mathematics learner identity: a Bernsteinian illumination. *Proceedings of the 22nd Annual Conference of SAARMSTE (Southern African Association for Research in Mathematics, Science and*

Technology Education). Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Samson, D.A.

Samson, D.A. The allure of the constant difference in linear generalisation tasks. *Proceedings of the 22nd Annual Conference of SAARMSTE (Southern African Association for Research in Mathematics, Science and Technology Education)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Samson, D.A. and Dzambara, T.M.

Samson, D.A. and Dzambara, T.M. Surveying the distribution and use of mathematics teaching aids in Windhoek: A Namibian case study. *Proceedings of the 22nd Annual Conference of SAARMSTE (Southern African Association for Research in Mathematics, Science and Technology Education)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Agbedahin, A.V. and Lotz-Sisitka, H.

Agbedahin, A.V. and Lotz-Sisitka, H. Exploring the nexus between the position-practice system of University educators and ESD mainstreaming. *2nd SAERA Conference*. Southern Sun Elangeni & Maharani Hotel, Durban. South Africa. August 2014.

Boothway, R.L.

Boothway, R.L. Citizen Science: An Evaluative case Study of Social Learning, Knowledge Production and Change. *32nd EEASA Conference*. University of Windhoek, Windhoek. Namibia. September 2014.

Burger, M.H.

Burger, M.H. Working for Ecosystems, a story of learning pathways emergence towards SMME development. *32nd EEASA Conference*. University of Windhoek, Windhoek. Namibia. September 2014.

Chikiwa, C. and Schafer, M.

Chikiwa, C. and Schafer, M. Analytical tools for exploring code-switching in multilingual mathematics classrooms. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Chisoni, E.M.

Chisoni, E.M. Exploring the Potential of improved Cook Stove (ICS) Programs in Malawi as a Strategy to Climate Change-sustainable Development Responses: Challenges and Prospects. *32nd EEASA Conference*. University of Windhoek, Windhoek. Namibia. September 2014.

Chisoni, E.M. Investigating learning processes in promoting energy - efficient stoves in Malawi. *2nd SAERA Conference*. Southern Sun Elangeni & Maharani Hotel, Durban. South Africa. August 2014.

Chitsiga, C.

Chitsiga, C. An examination of teachers' strategies for mediating the construction of environmental content knowledge in the Grade 11 Life Sciences. *32nd EEASA*

Conference. University of Windhoek, Windhoek. Namibia. September 2014.

Cowley, J.M. and Schafer, M.

Cowley, J.M. and Schafer, M. Developing and using an assessment instrument for spatial skills in Grade 10 learners. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Dotwana, A.Z.S.

Dotwana, A.Z.S. The Factors that constrain or enable black female botany and zoology honors' students in transitioning to masters studies in the Eastern Cape. *32nd EEASA Conference*. University of Windhoek, Windhoek. Namibia. September 2014.

Graven, M.H. and Stott, D.A.

Graven, M.H. and Stott, D.A. Emerging change agents within after school Maths clubs. *SARAECE*. Boardwalk, Port Elizabeth. South Africa. February 2014.

Gumede, S.M.

Gumede, S.M. The promise of Green Economy for Educationally Marginalised Youth in South Africa. *32nd EEASA Conference*. University of Windhoek, Windhoek. Namibia. September 2014.

Haywood, T. and Schafer, M.

Haywood, T. and Schafer, M. An exploration of learners' learning of mathematics by using selected (VITALmaths) video clips: A case study. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Hewana, D.R. and Graven, M.H.

Hewana, D.R. and Graven, M.H. Grade 4 learners mathematical dispositions: a case study of three learners participating in an after school club. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Kangela, N.C. and Schafer, M.

Kangela, N.C. and Schafer, M. Using Wenger's three modes of belonging as an analytical tool to explore mathematics teacher professional identity change. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Lotz-Sisitka, H.

Lotz-Sisitka, H. Absenting absence through reflexive learning processes in environmental education research. *The International Centre of Critical Realism presents the 17th annual conference of the International Association of Critical Realism*. Institute of Education, London. United Kingdom. July 2014.

Lotz-Sisitka, H. Making Fundisa for Change a Reality. *The Fundisa for Change Teacher Education Conference and Launch*. Emperors Palace, Johannesburg. South Africa. February 2014.

Lotz-Sisitka, H. Introducing the programme. *The Fundisa for Change Teacher Education Conference and Launch*. Emperors Palace, Johannesburg. South Africa. February 2014.

Lotz-Sisitka, H. Transgressive learning in the Anthropocene: Agency from below. *Activity, Learning and Agency from Below, 20th anniversary symposium of CRADLE*. Institute of Behavioural Sciences, University of Helsinki, Helsinki. Finland. September 2014.

Lotz-Sisitka, H. Regional perspectives on Higher Education and Sustainability Development. *Blending Higher Education and Traditional Knowledge for Sustainable Development*. Universidad Cienficia del Peru (UCP), Iquitos. Peru. March 2014.

Lotz-Sisitka, H. International Engagement with Global Priorities are Local Levels via a reflexive Professional Development Programme with universities in Africa and Asia. *18th Annual IEASA Conference*. Southern Sun Hotel, Johannesburg. South Africa. August 2014.

Lotz-Sisitka, H. Session 2: Knowledge Representation, Research and Materials Development for Teacher Education. *The Fundisa for Change Teacher Education Conference and Launch*. Emperors Palace, Johannesburg. South Africa. February 2014.

Lotz-Sisitka, H. Plenary Presentation: Summary of the World Conference on Education for Sustainable Development. *UNESCO World Conference on Education for Sustainable Development*. Nagoya Congress Centre, Nagoya. Japan. November 2014.

Lotz-Sisitka, H. and Lindley, D.S.

Lotz-Sisitka, H. and Lindley, D.S. Expansive social learning, morphogenesis and reflexive action in an organisation responding to wetland degradation. *30th EGOS Colloquium, Activity Theory and Organisations*. Rotterdam School of Management, Rotterdam. The Netherlands. July 2014.

Lotz-Sisitka, H. and O'Donoghue, R.B.

Lotz-Sisitka, H. and O'Donoghue, R.B. Environmental Education research and new possibilities for mediation in society. *2nd SAERA Conference*. Southern Sun Elangeni & Maharani Hotel, Durban. South Africa. August 2014.

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Lotz-Sisitka, H., O'Donoghue, R.B., Schudel, I.J., Songqwaru, N.Z., Nkhahle, L.J. and Tshiningayamwe, S.A.N. Through my eyes or yours? A view on classroom observation. *2nd SAERA Conference*. Southern Sun Elangeni & Maharani Hotel, Durban. South Africa. August 2014.

Mbelani, X.L. and Schafer, M.

Mbelani, X.L. and Schafer, M. Exploring learners' experiences and perceptions of boredom in Grade 10 Mathematics classrooms. *22nd Annual Conference of the Southern African*

Association for Research in Mathematics, Science and Technology Education (SAARMSTE). Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Metelerkamp, R.G. and Brown, B.J.L.

Metelerkamp, R.G. and Brown, B.J.L. The importance of the physical analogue clock in mediating learning of analogue clock time in Grade 4 learners. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Narayanan, A.E. and Schafer, M.

Narayanan, A.E. and Schafer, M. Exploring suitable analytical models and instruments to understand how beginner mathematics teachers shape their professional identity. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Ndongeni, S.L. and Graven, M.H.

Ndongeni, S.L. and Graven, M.H. Investigating the nature of learner dispositions in the context of multiplication. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

O'Donoghue, R.B.

O'Donoghue, R.B. Session 1: Transformative Environmental Learning through Teacher Education. *The Fundisa for Change Teacher Education Conference and Launch*. Emperors Palace, Johannesburg. South Africa. February 2014.

O'Donoghue, R.B. How we are approaching classroom research with teachers working on teaching and learning practices in relation to new environmental knowledge in the Fundisa for Change programme. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Price, L.

Price, L. Critical realism in the works of female authors of the 20th Century: Simone de Beauvoir, Iris Murdoch, Doris Lessing, A.S. Byatt and Virginia Woolf. *The International Centre of Critical Realism presents the 17th annual conference of the International Association of Critical Realism*. Institute of Education, London. United Kingdom. July 2014.

Robertson, S.A.

Robertson, S.A. Exploring classroom talk at the literacy/numeracy interface. *SARAECE*. Boardwalk, Port Elizabeth. South Africa. February 2014.

Robertson, S.A. Reflections on the literacy/numeracy interface in Grade 4 Mathematics classrooms. *SAARMSTE EC*. Rhodes University, Grahamstown. South Africa. October 2014.

Schafer, M.

Haywood, T. and Schafer, M. An exploration of learners' learning of Mathematics by using selected (VITAL maths)

video clips. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Schafer, M. Enactivism as a discourse of analysis of teacher practice. *48. Jahrestagung der Gesellschaft für Didaktik der Mathematik (GDM)*. University of Koblenz-Landau, Koblenz. Germany. March 2014.

Schudel, I.J.

Schudel, I.J. Exploring dialectical relationships in learning: Insights from environmental education. *The International Centre of Critical Realism presents the 17th annual conference of the International Association of Critical Realism*. Institute of Education, London. United Kingdom. July 2014.

Schudel, I.J. Exploring dialectical relationships in learning: Deepening insights in environmental education. *17th Annual International Association of Critical Realism Conference*. Institute of Education, London. United Kingdom. July 2014.

Schudel, I.J. Researching the recontextualisation of new knowledge in schools and classrooms. *National Conference on Global Change*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. December 2014.

Schudel, I.J. Teacher Education Theory and Practice (including Assessment) for Trans-formative Environmental Learning. *The Fundisa for Change Teacher Education Conference and Launch*. Emperors Palace, Johannesburg. South Africa. February 2014.

Schudel, I.J., Lotz-Sisitka, H. and Ngcoza, K.M.

Schudel, I.J., Lotz-Sisitka, H. and Ngcoza, K.M. Science, society and sustainability; developing a rights-based approach to science education in an interdisciplinary Masters in Education Course. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Songqwaru, N.Z. and Tshiningayamwe, S.A.N.

Songqwaru, N.Z. and Tshiningayamwe, S.A.N. Fundisa for Change - a professional learning community. *32nd EEASA Conference*. University of Windhoek, Windhoek. Namibia. September 2014.

Sonne, A. and Graven, M.H.

Sonne, A. and Graven, M.H. Investigating how problem solving skills can be developed using a collaborative learning environment. *22nd Annual Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Spira, M.L.

Spira, M.L. Examining the use of a reciprocal teaching approach within a Grade 3 mathematics classroom through action research. *SAARMSTE EC*. Rhodes University, Grahamstown. South Africa. October 2014.

Stott, D.A.

Stott, D.A. A theoretical comparison of the zone of proximal development in mathematics education. *22nd Annual Conference of the Southern African Association for Research*

in Mathematics, Science and Technology Education (SAARMSTE). Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Tshiningayamwe, S.A.N.

Tshiningayamwe, S.A.N. Professional Learning Communities in the context of continuous teacher's professional development. *EASA 2014*. Golden Gate Hotel, Eastern Free State. South Africa. January 2014.

Tshiningayamwe, S.A.N. and Songqwaru, N.Z.

Tshiningayamwe, S.A.N. and Songqwaru, N.Z. Fundisa for Change- a professional learning community. *32nd Annual EEASA conference (2014)*. University of Namibia, Windhoek. South Africa. September 2014.

Van Wyk, S.M.

Van Wyk, S.M. Exploring learning and emergent environmental citizenship in citizen science: A case study of a volunteer frog monitoring group. *32nd EEASA conference*. University of Windhoek, Windhoek. Namibia. September 2014.

2013 Publications Submitted to DHET in 2014

Books/Chapters/Monographs

Togo, M. and Lotz-Sisitka, H.

Togo, M. and Lotz-Sisitka, H. (2013) The Unit-Based Sustainability Assessment Tool and its use in the UNEP Mainstreaming Environment and Sustainability in African Universities Partnership. In: Caeiro, S., Filho, W.L., Jabbour, C., and Azeiteiro, U.M. (eds.). *Sustainability Assessment Tools in Higher Education Institutions: Mapping Trends and Good Practices Around the World*. Switzerland: Springer. p.259-288. ISBN: 9783319023748.

Peer Reviewed Subsidy-Earning Journal Research Publications

Pausigere, P. and Graven, M.H.

Pausigere, P. and Graven, M.H. (2013) Using Bernstein to analyse primary maths teachers' positions and identities in the context of national standardised assessment: the case of the ANAs. *Journal of Education*. 58 (2013). p.1-22.

DEPARTMENT OF ENGLISH

RHODES UNIVERSITY RESEARCH REPORT | 2014

INTRODUCTION

In terms of Postgraduate supervision, research focus areas and academic publications, the Department of English remains strong in the fields of South African literary studies and eco-critical studies. In 2014, fifteen (15) accredited articles were produced covering a range of topics, from the South African crime thriller to the South African post-apartheid sublime, from subaltern suffering to the business of friends, from whiteness studies to the study of the suburban garden.

Distinguished Visitors/International Visits

In July 2014, **Dana Phillips** (Towson) facilitated an interdisciplinary discussion on Environment, Race and Land Use, and teamed up with **Byron Caminero-Santangelo** (Kansas) and **Dan Wylie** (Rhodes) in presenting a colloquium on Eco-criticism and Literature.

In August 2014, **Liz Stanley** (Edinburgh) and **Andrea Salter** (Edinburgh) did a presentation on their ESRC-funded Olive Schreiner Letters Project.

Sam Naidu (Rhodes) gave a conference paper in Hyderabad, India and **Aretha Phiri** (Rhodes Postdoctoral Fellow) gave a paper in London, United Kingdom.



(Top Left) Henri Oripeloye, (Top Right) Philip Aghoghovwia and (Left) Tina Steiner were among the presenters of research seminars in the Department in 2014.

Significant Research Aligned Events

Research seminars were presented throughout the year. Papers such as the ones listed below contributed to the Department's growing capacity in African literary research, complementing its already strong South African research capacity:

- **Henri Oripeloye**, Obafemi Awolowo University (Nigeria), Representations of Exile in Anglophone West African Poetry;
- **Philip Aghoghovwia** (Rhodes Postdoctoral Fellow), Reading Eco-inflections and Petrocultures: The Niger Delta Context;
- **Tina Steiner** (Stellenbosch), Literary Representations of Indian Ocean Travel.

Professor Dirk Kloppe
Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Marais, M.J.

Marais, M.J. (2014) Języki Władzy. Historia Odczytania Michaela K/Michaela K. In: Jakubowski, P. and Jankowska, M. (eds.). *Wielcy Artyci Ucieczek. Antologia tekstów o życiu czasach Michaela K Johna Maxwella Coetzee w trzydziest¹ rocznic¹ publikacji powieci*. Kraków: Korporacja Haart. p.87-105. ISBN: 9788364057182.

Phillips, D.

Phillips, D. (2014) Excremental Ecocriticism and the Global Sanitation Crisis. In: Iovino, S. (ed.). *Material Ecocriticism*. Bloomington: University of Indiana Press. p.172-185. ISBN: 9780253013989.

Phiri, A.M.M.

Phiri, A.M.M. and Milatovic, M. (2014) Dis(re)membering Bodies: Disability and Self-Constitution in Toni Morrison's *The Bluest Eye* and Octavia Butler's *Kindred*. In: Wiseman, S. (ed.). *Assembling Identities*. Newcastle on Tyne: Cambridge Scholars Publishing. p.131-143. ISBN: 9781443865296.

Van der vlies, A.

Van der vlies, A. (2014) "[From] whom this writing then?": Politics, Aesthetics and the Personal in Coetzee's Age of Iron. In: Wright, L., Poyner, J. and Boehmer, E. (eds.). *Approaches to Teaching Coetzee's Disgrace and Other Works (Approaches to Teaching World Literature)*. United States of America: The Modern Language Association of America. p.96-104. ISBN: 9781603291392.

Wylie, D.A.

Wylie, D.A. (2014) 'Now strangers walk in that place': Antjie Krog and the making of //Kabbo's story. In: Lutge Coullie, J. and Visagie, A. (eds.). *Antjie Krog: An Ethics of Body and Otherness*. Durban: UKZN Press. p.215-240. ISBN: 9781869142537.

Concerts, Exhibitions, Performances, Workshops, Events

Klopper, D.C.

Klopper, D.C. Paper "Schreiner's African Farm and the Place of Labour." *Karoo Writers Festival*. Cradock, South Africa. July 2014.

Van Wyk Smith, M.

Van Wyk Smith, M. Paper. 'Carnage incomparable or the pity war distilled'? Another Look at the Poetry of the First World War. *Grahamstown Friends of the Library*. Grahamstown. South Africa. 1 - 30 September 2014.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Marais, M.J.

Marais, M.J. (2014) The Incurious Seeker: Waiting, and the Search for the Stranger in the Fiction of Samuel Beckett and J. M. Coetzee. *MediaTropes*. 4 (2). p.6-30.

Phillips, D.

Berghaller, H., Emmett, R., Johns-Putra, A., Kneitz, A., Lidstrom, S., McCorristine, S., Perez Ramos, I., **Phillips, D.**, Rigby, K. and Robin, L. (2014) Mapping Common Ground: Ecocriticism, Environmental History, and the Environmental Humanities. *Environmental Humanities*. 5 (2014). p.261-276.

Peer Reviewed Subsidy-Earning Journal Research Publications

Aghoghowia, P.O.

Aghoghowia, P.O. (2014) The Poetics and Politics of Transnational Petro-Environmentalism in Nnimmo Bassey's *We Thought it was Oil but it was Blood*. *English in Africa*. 41 (2). p.59-77.

Klopper, D.C.A.

Klopper, D.C.A. (2014) The Pastoral, the Primal and the Post-Apartheid Sublime in Justin Cartwright's *White Lightning*. *English in Africa*. 41 (3). p.97-118.

Marais, M.J.

Marais, M.J. (2014) Shame, Divine Cannibalism, and the Spectacle of Subaltern Suffering in Ken Barris's *What Kind of Child*. *English in Africa*. 41 (3). p.79-95.

Marais, M.J. (2014) 'I am infinitely strange to myself':

Existentialism, the Bildungsroman, and John Fowles's *The French Lieutenant's Woman*. *JNT-Journal of Narrative Theory*. 44 (2). p.244-266.

Marais, M.J. (2014) Necrophiliac Narration and the Business of Friends: Damon Galgut's *The Good Doctor*. *Safundi: journal of South African and American studies*. 15 (4). p.455-470.

Marais, M.J. (2014) An Interview with Ken Barris. *English in Africa*. 41 (1). p.143-152.

Naidu, S.

Naidu, S. (2014) Writing the violated body: representations of violence against women in Margie Orford's crime thriller novels. *Scrutiny2 (Unisa English Studies)*. 19 (1). p.69-79.

Naidu, S. (2014) The Struggle for Authority in George McCall Theal's *Kaffir Folklore* (1882). *Southern African Journal for Folklore Studies*. 24 (1). p.78-97.

Naidu, S. (2014) Crimes against nature: Ecocritical discourse in South African crime fiction. *Scrutiny2 (Unisa English Studies)*. 19 (2). p.59-70.

Seddon, D.A.

Seddon, D.A. (2014) "Be a Mighty Hard Message": Toni Morrison's *Beloved* and the Exploration of Whiteness in the Post-Apartheid Classroom. *Safundi: journal of South African and American studies*. 15 (1). p.29-52.

Van Wyk Smith, M.

Van Wyk Smith, M. (2014) Rape and the Foundation of Nations in JM Coetzee's *Disgrace*. *English in Africa*. 41 (1). p.13-34.

Wylie, D.A.

Wylie, D.A. (2014) Mountainous Freedom: The Awkward Romance of Two Capetonian Poets. *English in Africa*. 41 (1). p.75-90.

Wylie, D.A. (2014) "The garden of love's decay": the suburban garden as eco-poetic space in South Africa. *Scrutiny2* (Unisa English Studies). 19 (2). p.6-17.

Wylie, D.A. (2014) Touching Trunks: Elephants, Ecology and Compassion in Three Southern African Teen Novels. *Journal of Literary Studies*. 30 (4). p.25-44.

Wylie, D.A. (2014) Feral Whispering: Conservation, Community and the Reach of the Literary. *English in Africa*. 41 (3). p.119-140.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Marais, M.J.

Marais, M.J. The Time of Hospitality. *End Times Colloquium*. University of the Witwatersrand, Johannesburg. South Africa. July 2014.

Naidu, S.

Naidu, S. Sherlock Holmes: Evolving Cultural Icon and the Construction of Personhood and Imagined Communities. *IAMCR 2014: Region as Frame: Politics, Presence, Practice*. International Conference Centre, Hyderabad. India. July 2014.

Naidu, S. The Struggle for Authority in George McCall Theal's *Kaffir Folklore* (1882). *International Conference of the Southern African Folklore Society (SAFOS)*. Eden Grove, Rhodes University, Grahamstown. South Africa. September 2014.

Naidu, S. Community and Literature: Towards a symbiosis between secondary and tertiary learners. *Reading Association of South Africa (RASA) 9th Annual conference*. Education Department, Rhodes University, Grahamstown. South Africa. September 2014.

Phiri, A.M.M.

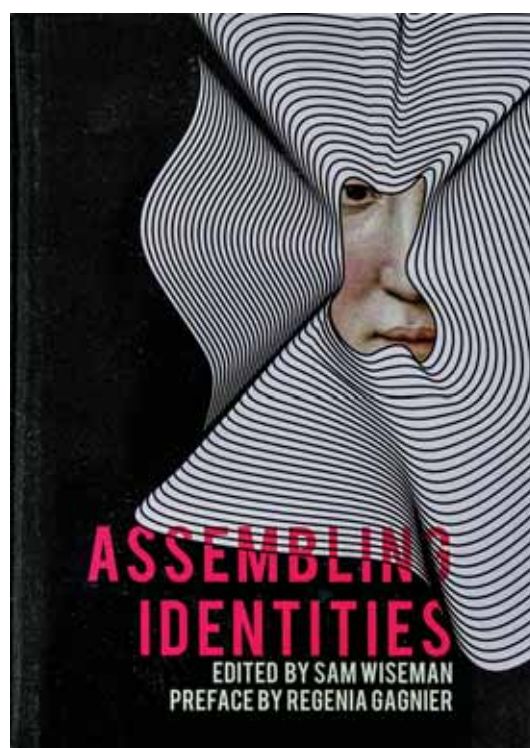
Phiri, A.M.M. (Re)Negotiating Trauma in Chinua Achebe's *Arrow of God* and Chimamanda Ngozi Adichie's *The Headstrong Historian*. *Celebrating the Legacy of Chinua Achebe: Arrow of God at 50*. Senate House, London. United Kingdom. October 2014.

Wylie, D.A.

Wylie, D.A. Water, whiteness and the plights of Zimbabwe. *'Words on Water': 11th Literature & Ecology Colloquium*. Hartebeestepoort dam, Gauteng. South Africa. September 2014.



Professor Mike Marais contributed to the book *Wielcy Artystyci Ucieczek*



Dr Aretha Phiri co-authored the chapter Dis(re)membering Bodies: Disability and Self-Constitution in Toni Morrison's *The Bluest Eye* and Octavia Butler's *Kindred*, published in the book *Assembling Identities*
Photos: Paul Greenway

DEPARTMENT OF ENGLISH LANGUAGE AND LINGUISTICS

INTRODUCTION

The *Sandisa Imbewu* literacy project saw a number of students continue with their research on isiXhosa literacy. Within the Department of English Language and Linguistics, staff also remained active in their research and presented at national and international conferences and symposia as well as publishing journal papers.

Abroad, **Dr Bennett** presented his work in Minneapolis, USA, Tromsø, Norway, Leiden, Netherlands, and Abidjan, Cote d'Ivoire; **Professor Simango** presented his work in Mangochi, Malawi; and **Dr Hunt** presented her work at Nottingham, United Kingdom and Budapest, Hungary.

Locally, **Professor de Vos** and **Dr Bennett** presented their research at Wits and North-West University; **Professor Simango** presented his research at the University of Cape Town, and **Dr Hunt** presented her research at University of Witwatersrand. A number of Postgraduate students also presented papers at national linguistics conferences.

Professor Adendorff continued to serve on the Board of the Dictionary of South African English as well as on the national (PANSALB-affiliated) English Language Board. He and **Professor Simango** remained members of the Academy of Science of South Africa. In addition, **Professor Simango** and **Professor de Vos** continued to serve on the executive board of the Linguistic Society of Southern Africa at which Professor de Vos was elected president; **Dr Hunt** was elected as president



Staff and Postgraduate students at Postgraduate Week
Photo: FotoFirst

of the Southern African Applied Linguistics Society; and **Professor Simango** continued to serve on the editorial board of the journal: *Southern African Linguistics and Applied Language Studies*.

Distinguished Visitors/International Visits

Distinguished visitors and guest lecturers included Professor Stanley Dubinsky, a renowned theoretical linguist from University of South Carolina, USA, and three (3) Postdoctoral Fellows from the African Humanities Program. These scholars undertook seminar presentations in the Department as well as in the Humanities Faculty.

Significant Research Aligned Events

The Department hosted the second Corpus Week which was convened by **Dr Sally Hunt**. The workshop brought together experienced corpus linguists and new researchers from all around the country to share their knowledge and form new research partnerships. The year ended with a two-day research seminar in October 2014 at which all Postgraduate students in the Department presented on their research work.

Professor Silvester Ron Simango
Head of Department



Professor Stanley Dubinsky (visitor from the University of South Carolina) presenting a talk on Language Rights at the Humanities Faculty seminar.
Photo: Ron Simango

PUBLICATIONS

Concerts, Exhibitions, Performances, Workshops, Events

Hunt, S.A.

Hunt, S.A. Organiser and presenter. Corpus Week 2014 (Scientific event and workshop). *Introduction to central concepts in Corpus Linguistics; AntConc (practical); Convener of conference panel: The Application of Corpus Linguistics to Discourse Analysis*. Rhodes University/University of the Witwatersrand, Grahamstown/Johannesburg. South Africa. 19 - 25 June 2014.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Smith, J. and Adendorff, R.

Smith, J. and Adendorff, R. (2014) For the people: Defining communities of readership through an APPRAISAL comparison of letters to two South African newspapers. *Discourse, Context & Media*. 3 (2014). p.1-13.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bennett, W.G.

Bennett, W.G. (2014) Assimilation, dissimilation, and surface correspondence in Sundanese. *Natural Language & Linguistic Theory*. 2014 (2014). p.1-45.

Bennett, W.G. (2014) Some differences between clicks and labio-velars. *South African journal of African languages/Suid-Afrikaanse tydskrif vir Afrikatale*. 34 (2). p.115-126.

Bennett, W.G. (2014) Agreement, dependencies, and Surface Correspondence in Obolo and beyond. *Spil Plus: Stellenbosch Papers in Linguistics Plus*. 44 (2014). p.149-171.

De Vos, M.

De Vos, M. (2014) The Spec-head vs head-Spec asymmetry: Toward a theory of post-syntactic linearization and an account of the embedded-topicalization paradox. *Spil: Stellenbosch Papers in Linguistics*. 43 (2014). p.81-117.

De Vos, M. (2014) The evolutionary origins of syntax: Optimization of the mental lexicon yields syntax for free. *Lingua*. 150 (2014). p.25-44.

De Vos, M. (2014) Head movement is an artefact of optimal solutions to linearization paradoxes. *Spil Plus: Stellenbosch Papers in Linguistics Plus*. 44 (2014). p.23-48.

De Vos, M. (2014) Atomic Homogeneity: A semantic strategy for the determination of plurality in the complex noun phrases of South African English. *Southern African Linguistics and Applied Language Studies*. 32 (1). p.1-19.

De Vos, M. and Van Der Merwe, K.

De Vos, M., Van Der Merwe, K. and Van Der Mescht, C. (2014) A Linguistic Research Programme for Reading in African Languages to underpin CAPS. *Journal for Language Teaching (SAALT Journal for Language Teaching)*. 48 (2). p.149-177.

Ma, X. and Simango, S.R.

Ma, X. and Simango, S.R. (2014) Encoding present situations in Mandarin Chinese and isiXhosa: A comparative study. *Spil: Stellenbosch Papers in Linguistics*. 43 (2014). p.119-135.

Simango, S.R.

Kadenge, M. and Simango, S.R. (2014) Comparing vowel hiatus resolution in ciNsenga and chiShona: An Optimality Theory analysis. *Spil Plus: Stellenbosch Papers in Linguistics Plus*. 44 (2014). p.105-127.

Simango, S.R. and Kadenge, M. (2014) Vowel hiatus resolution in ciNsenga: An Optimality Theory analysis. *Southern African Linguistics and Applied Language Studies*. 32 (2014). p.79-96.

Smith, J. and Adendorff, R.

Smith, J. and Adendorff, R. (2014) The creation of an "imagined community" in readers' letters to the Daily Sun: an APPRAISAL investigation. *Text & Talk*. 34 (5). p.521-544.

Smith, J. and Adendorff, R. (2014) Re-thinking Engagement: Dialogic strategies of alignment in letters to two South African newspapers. *Language Matters*. 45 (2). p.276-288.

Smith, J. and Adendorff, R. (2014) Forward with the people: A linguistic analysis of the imagined community in letters to the Daily Sun. *Journal of African Media Studies*. 6 (2). p.199-212.

Sutherland, A.H. and Adendorff, R.

Sutherland, A.H. and Adendorff, R. (2014) An APPRAISAL analysis of a Women's Day rant, rally and reflection. *Southern African Linguistics and Applied Language Studies*. 32 (4). p.393-415.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Bennett, W.G.

Bennett, W.G. When consonant harmony doesn't look like agreement: nasal dependencies in Obolo. *Linguistic Society of America Annual Meeting*. LSA meeting, Minneapolis. United States of America. January 2014.

Bennett, W.G. and Pulleyblank, D. Arbitrary directionality in Nkore-Kiga sibilant harmony? *Linguistic Society of America Annual Meeting*. LSA meeting, Minneapolis. United States of America. January 2014.

Bennett, W.G. and Lee, S.J. A surface constraint in Xitsonga: *li. *Joint conference of LSSA, SAALA & SAALT*. University of the Witwatersrand, Johannesburg. South Africa. June 2014.

Bennett, W.G. and Braver, A. Wug-testing a case of 'unnatural' labial palatalization in Xhosa. *Palatalization Conference*. University of Tromsø, Tromsø. Norway. December 2014.

Bennett, W.G. and Rose, S. Correspondence and Moro [-voice] dissimilation. *Old World Conference in Phonology*. Universiteit Leiden, Leiden. Netherlands. January 2014.

Bennett, W.G., Akinlabi, A., Connell, B., Obikudo, E. and Essien, I. Moving from a Tone System to an Accentual System: the Ijoid Example. *Challenges and New Prospects on Prosody in West Africa*. Humboldtcollege Abidjan, Abidjan. Cote d'Ivoire. May 2014.

De Vos, M.

De Vos, M. New Perspectives on Nativism. *South African Microlinguistics Workshop 3*. North West University, Potchefstroom. South Africa. November 2014.

De Vos, M. Deriving Holmberg's Generalization without headmovement - a linearization driven approach. *LSSA Annual Conference*. University of the Witwatersrand, Johannesburg. South Africa. July 2014.

Diemer, M.N.

Diemer, M.N. Language-specific assessment of phonological awareness in isiXhosa. *RASA*. Rhodes, Grahamstown. South Africa. September 2014.

Diemer, M.N. An exploratory study of phonological awareness in isiXhosa. *LSSA*. University of the Witwatersrand, Johannesburg. South Africa. June 2014.

Hunt, S.A.

Hunt, S.A. and Jaworska, S.A. Identity representations during global sports events: Nation, race and gender in media reporting on the London Olympics in 2012 and the 2010 FIFA World Cup in South Africa. *ICAME 35*. University of Nottingham, Nottingham. United Kingdom. May 2014.

Hunt, S.A. and Jaworska, S.A. Nation, race and gender in media reporting on the London Olympics in 2012 and the 2010 FIFA World Cup in South Africa. *SAALA/LSSA/SAALT Joint Annual Conference*. University of the Witwatersrand, Johannesburg. South Africa. June 2014.

Hunt, S.A. and Jaworska, S.A. Identity representations during global sports events: Nation, race and gender in media reporting on the London Olympics in 2012 and the 2010 FIFA World Cup in South Africa. *CADAAD*. ELTE, Budapest. Hungary. September 2014.

Hunt, S.A. and Kerford, J.A.

Hunt, S.A. and Kerford, J.A. Mr Twit & Miss Honey: the representation of 'good' and 'bad' characters in Roald Dahl's literature. *SAALA/LSSA/SAALT Joint Conference*. University of the Witwatersrand, Johannesburg. South Africa. June 2014.

Probert, T.N.

Probert, T.N. Effects of Orthography and language of literacy: Transfer of word recognition strategies amongst isiXhosa/English bilinguals. *RASA*. Rhodes, Grahamstown. South Africa. September 2014.

Probert, T.N. Transfer of word recognition strategies from a transparent to an opaque orthography. *LSSA*. University of the Witwatersrand, Johannesburg. South Africa. June 2014.

Rees, S.A.

Rees, S.A. Sesotho adjectival agreement in coordination. *LSSA*. University of the Witwatersrand, Johannesburg. South Africa. June 2014.

Simango, S.R.

Simango, S.R. Learning English or learning in English: Some thoughts on the language question in the Malawian classroom. *Language Policy Symposium in Malawi*. Sun and Sand Hotel, Mangochi. Malawi. July 2014.

Simango, S.R. "Yitaal yethu...esiyibuildileyo leyo": Language contact, lexical innovation and the construction of a language in the Eastern Cape. *Sociolinguistics in South Africa: Past, Present, Future*. University of Cape Town, Cape Town. South Africa. December 2014.

INTRODUCTION

2014 has seen some changes in the Department of Environmental Science with the departure of Professor Fred Ellery and his replacement by **Dr Alta De Vos** in a Lecturer's post in September 2014. The SARChI chair in "Interdisciplinary Science in Land and Natural Resource Use for Sustainable Livelihoods" occupied by **Professor Charlie Shackleton** showed significant growth in 2014 as it entered its second year, with one (1) Postdoctoral Fellow, six (6) PhD, thirteen (13) Masters and seven (7) Honours students registered under the chair in 2014.

The Department was honoured with two Vice-Chancellor Awards in 2014. **Professor Charlie Shackleton** received the Vice-Chancellor's Distinguished Senior Research Award, while a team composed of **Professor Sheona Shackleton**, **Dr Georgina Cundill**, **Mr Nick Hamer**, **Mr Monde Ntshudu** and **Professor Heila Lotz-Sisitka** (from the ELRC) received the Vice-Chancellor's Community Engagement Award for the knowledge exchange and social learning process they conducted as part of a large four year research project funded by the IDRC, Canada.

The Department was once again highly productive during 2014, producing twenty-six (26) peer reviewed papers and book chapters. The majority of these publications were the outcome of Honours, Masters and PhD studies, reflecting the high quality of our Postgraduate research and the wide interests of staff. Publications relate to a diverse set



Ms Nosiseko Mtati (Masters student and now NRF intern in the Department) discussing the problems associated with the invasion of *Lantana camara* into village rangelands as part of an international project on local perceptions of invasive species in four countries (South Africa, Madagascar, India and Australia) Photo: Professor Charlie Shackleton.

of environmental academic areas such as urban greening, natural resource governance, land claims, climate change and natural resources and rural livelihoods. Further, these publications are testimony to the interdisciplinary team approach employed in the Department with co-authors including colleagues from within the Department, South Africa and the international research community; several from complementary academic disciplines.

Conference attendance was again high with thirty (30) papers and posters presented by staff and students over the year at national and international conferences, and with an invited paper given by **Professor Sheona Shackleton**. Two (2) panel sessions (reported below) were organised.

Postgraduates/Graduations

During 2014, the number of senior Postgraduates registered stood at a healthy twenty-four (24) Masters and twenty-five (25) PhD students (double the number of PhD students registered in 2013). At graduation, the Department saw eighteen (18) Honours students, four (4) Masters students (Mr Craig Weideman, Ms Judith Alistoun, Ms Keitometsi Ncube, and Ms Nancy Job) and one (1) PhD student (Dr Makame Omar Makame) graduate.

Dr Makame was the first PhD in climate change related research to graduate from the Department. His thesis was entitled "Vulnerability and adaptation of Zanzibar east coast communities to climate variability and change and other interacting stressors" and was supervised by Professor Sheona Shackleton and Dr Tim Andrew (Western Indian Ocean Marine Science Association).

Furthermore, Jaime Aburto, co-supervised by Dr Georgina Cundill, obtained a PhD from the Universidad Catolica Del Norte in Chile,



Planting trees at Nsika High School on Arbour Day, 2014. The Department over the last few years has planted more than 80 trees at this school
Photo: Professor Sheona Shackleton

while Jenna Bowker, co-supervised by Dr Alta de Vos, obtained her MSc from University of Cape Town.

Distinguished Visitors/International Visits

The Department had a number of visitors during 2014, some the consequence of long-term collaborations. Visitors included:

- **Professor Paul Hebinck from Wageningen University in the Netherlands** made several visits to the Department as part of a long-term partnership and is co-supervising a new Masters student with Professor Sheona Shackleton.
- **Professor Marty Luckert, a research collaborator from the University of Alberta, Canada** visited in June 2014 to work on publications with Professor Sheona Shackleton.
- **Ms Gisele Sinasson Sani from Benin** has spent several months in the Department working with Professor Charlie Shackleton.
- **Dr Erica Smithwick from Penn State University in the USA** presented a guest lecture on "Shifting geographies of resilience: fire, climate, and vegetation interactions in Yellowstone National Park" in April 2014.
- **Mr Siviwe Shwababa, Deputy Director of Environment and Disaster Management, Department of Rural Development and Land Reform, East London** paid several visits to the Department to work with Professor Sheona Shackleton on land reform and climate change issues.
- **Ms Stephanie Mendelsohn from the NGO Living Lands based in Baviaanskloof** had several meetings with

Professor Sheona Shackleton around future research collaboration.

Several staff members received invitations to participate in international workshops and meetings or to serve on expert committees and panels:

- **Dr G Cundill** was an invited expert at the Climate Change and Social Learning workshop held in London, hosted by the IIED and CGIAR. She was also nominated as a member of ecoSERVICES (FutureEarth). EcoSERVICES is a core project of FutureEarth, tasked with supporting research in the area of ecosystem services and human well-being, and with setting global research priorities in this area. Dr Cundill attended the DIVERSITAS meeting in Seville, Spain, as a member of the ecoSERVICES science committee. The purpose was to set the agenda for this committee as it migrates from the auspices of DIVERSITAS to FutureEarth, and to identify key areas for future research on the topics of ecosystem services and human well-being. A paper was published as an outcome of this meeting in *Current Opinion on Sustainability*.
- **Professor S Shackleton** was invited as an expert reviewer for the NRF/Belmont Forum proposals on 'Scenarios of Biodiversity and Ecosystem Services'. The meeting took place in Bonn, Germany in September 2014.
- **Dr A de Vos** was invited and sponsored by Google to attend the 'Geo for Good user' conference in Mountain View, California, as part of the Google Earth Outreach trainer network, by Google in October 2014.
- **Professor C Shackleton**, as part of the DFID-NERC-ELRC ESPA (Ecosystem Services and Poverty Alleviation) project he is involved in, attended a collaborator meeting in the Peruvian Amazon in August 2014.

Most staff in the Department are actively involved in the SAPECS (Southern African Program on Ecosystem Change and Society) research group, which includes membership of different working groups and shared writing of publications. SAPECS is an international, transdisciplinary research programme that aims to advance stewardship of social-ecological systems and ecosystem services in southern Africa.

Significant Research Aligned Events

- **Dr G Cundill** with Dr M Schoon organised a panel on 'Collaborative governance and management in support of transformation and equity in access to ecosystem services: Revisiting theory through reflections on global practice in the developed and developing world' at the Resilience2014: Mobilising for Development and Transformation Conference in 4-6 May 2014 in Montpellier, France. A successful seed grant proposal to the ISSC was compiled as an outcome of this panel.
- **Professor S Shackleton** with Dr Gina Ziervogel organised a panel on 'Reflections on adaptation to climate change processes' at the Society of South African Geographers'

10th Conference, Fort Hare University, East London, 22-27 June.

- **Professor S Shackleton** presented her inaugural address entitled 'Linking livelihoods and ecosystem services in a context of heightened vulnerability and accelerated change' in August 2014.
- **Dr A de Vos** was awarded an NRF KIC grant to participate in the World Parks Congress.
- **Professor C Shackleton**, through the SARChI chair, initiated an interdisciplinary round table across departments within Rhodes University for researchers interested in and working on the relationships between land and people. The 'Land and People Group' meets

2-3 times per year and draws participants from several departments including Anthropology, Botany, English, Environmental Science, Law and Sociology. This forum seeks to promote communication and inter-disciplinary interactions and researcher collaboration between disparate researchers at Rhodes working on common interests around land and people.

Professor Sheona Shackleton

Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Cundill, G. and Shackleton, S.E.

Cundill, G. and Shackleton, S.E. (2014) *Social learning for adaptation: A descriptive handbook for practitioners and action researchers*. Grahamstown: Rhodes University/IDRC/Ruliv. ISBN: 9780868104805.

Gambiza, J.

Romero, C., Dovie, D.B.K., **Gambiza, J.**, Luoga, E., Schmitt, S. and Grundy, I. (2014) Effects of Commercial Bark Harvesting on *Adansonia digitata* (Baobab) in the Save-Odzi Valley, Zimbabwe, with considerations for its Management. In: Cunningham, A.B., Campbell, B.M. and Luckert, M.K. (eds.). *Bark: Use, Management and Commerce in Africa (Advances in Economic Botany)*. United States of America: New York Botanical Garden Press. p.95-114. ISBN: 9780893274931.

Shackleton, S.E.

Luckert, M., Nemarundwe, N., Gibbs, L., Grundy, I., Hauer, G.K., Maruzane, D., **Shackleton, S.E.** and Sithole, J. (2014) Contribution of Baobab Production Activities to Household Livelihoods: A Case Study in Zimbabwe. In: Cunningham, A.B., Campbell, B.M. and Luckert, M.K. (eds.). *Bark: Use, Management and Commerce in Africa (Advances in Economic Botany)*. United States of America: New York Botanical Garden Press. p.255-270. ISBN: 9780893274931.

Shackleton, S.E. (2014) Impacts of Climate Change on Food Availability: Non-Timber Forest Products. In: Freedman, B. (ed.). *Handbook of Global Environmental Pollution: Global Environmental Change*. New York: Springer. p.695-700. ISBN: 9789400757837.

Other Publications

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in the Eastern Cape. In: Gwedla, N. (ed.). *Environmental Management*. South Africa: Environmental Management.

Hamer, N.G. and Shackleton, S.E.

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Ntshudu, M.E.

Lotz-Sisitka, H., Burt, J.C., Berold, R., Rivers, N., Ntshudu, M.E. and Jenkin, T.K. (2014) 'Changing Practice': Designing and Testing a Professional Development Course for Water Knowledge Mediators Who Support Community Learning and Practice. In: Standford, M. and Berold, R. (eds.). *The Role of Knowledge in a Democratic Society: Investigations into Mediation and Change-Oriented Learning in Water Management Practices*. South Africa: Water Research Commission.

Burt, J.C., Berold, R., Rivers, N., Lotz-Sisitka, H., Ntshudu, M.E. and Phiri, C. (2014) Learning Resources for Changing Practice: The Importance of Understanding the Socio-Cultural Context in Designing Learning Resources. In: Berold, R. and Standford, M. (eds.). *The Role of Knowledge in a Democratic Society: Investigations into Mediation and Change-Oriented Learning in Water Management Practices*. South Africa: Water Research Commission.

Shackleton, C.M., Kaoma, H., Davenport, N.A., Ward, C.D. and Evans, M.L.

Shackleton, C.M., Kaoma, H., Davenport, N.A., Ward, C.D. and Evans, M.L. (2014) Natural resource products contribute to poverty mitigation amongst urbanising communities in sub-Saharan Africa. In: Shackleton, C. (ed.). *DES Policy Brief 11*. Grahamstown: Department of Environmental Science.

Shackleton, S.E.

Shackleton, S.E. (2014) How can social grants be made to work better for households in rural Eastern Cape? In: Ndlovu, P. (ed.). *DES Policy Brief No 9*. Grahamstown: Department of Environmental Science.

Thondhlana, G.

Thondhlana, G. (2014) The local livelihood implications of biofuel development and land acquisitions in Zimbabwe. In: *Africa Initiative discussion Paper No 11*. Zimbabwe: Center for International Governance Initiative.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Kota, Z. and Shackleton, S.E.

Kota, Z. and Shackleton, S.E. (2014) Harnessing local ecological knowledge to identify priority plant species for restoration of the Albany Thicket, South Africa. *Forests, Trees and Livelihoods*. 2014 (2014). p.1-15.

Peer Reviewed Subsidy-Earning Journal Research Publications

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Cowden, C., Kotze, D., Ellery, W.N. and Sieben, E.J.J. (2014) Assessment of the long-term response to rehabilitation of the two wetlands in KwaZulu-Natal, South Africa. *African Journal of Aquatic Science*. 39 (3). p.237-247.

Cundill, G.

Aburto, J.A., Stotz, W.B. and Cundill, G. (2014) Social-Ecological Collapse: TURF Governance in the Context of Highly Variable Resources in Chile. *Ecology and Society*. 19 (1). p.1-11.

Cundill, G. and Fabricius, C. (2014) Learning in Adaptive Management: Insights from Published Practice. *Ecology and Society*. 19 (1). p.1-8.

Trefry, A., Parkins, J.R. and Cundill, G. (2014) Culture and food security: a case study of homestead food production in South Africa. *Food Security*. 6 (2014). p.555-565.

Cundill, G. and Shackleton, S.E.

Cundill, G., Lotz-Sisitka, H., Mukute, M., Belay, M., Shackleton, S.E. and Kulundu, I. (2014) A reflection on the use of case studies as a methodology for social learning research in sub Saharan Africa. *Njas - Wageningen Journal of Life Sciences*. 69 (2014). p.39-47.

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De Lacy, P. and Shackleton, C.M. (2014) The comparative growth rates of indigenous street and garden trees in Grahamstown, South Africa. *South African Journal of Botany*. 92 (2014). p.94-96.

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Grenfell, S.E., Grenfell, M.C., Rowntree, K.M. and Ellery, W.N. (2014) Fluvial connectivity and climate: A comparison of channel pattern and process in two climatically contrasting fluvial sedimentary systems in South Africa. *Geomorphology*. 205 (2014). p.142-154.

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Puttick, J.R., Hoffman, M.T. and Gambiza, J. (2014) The influence of South Africa's post-apartheid land reform policies on bush encroachment and range condition: a case study of Fort Beaufort's municipal commonage. *African Journal of Range & Forage Science*. 31 (2). p.135-145.

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Masubelele, M.L., Hoffman, M.T., Bond, W.J. and Gambiza, J. (2014) A 50 year study shows grass cover has increased in shrublands of semi-arid South Africa. *Journal of Arid Environments*. 104 (2014). p.43-51.

Gambiza, J. and Shackleton, C.M.

Moncrieff, G.R., Lehmann, C.E.R., Schnitzler, J., Gambiza, J., Hiernaux, P., Ryan, C.M., Shackleton, C.M., Williams, R.J. and Higgins, S.I. (2014) Contrasting architecture of key African and Australian savanna tree taxa drives intercontinental structural divergence. *Global Ecology and Biogeography*. 23 (2014). p.1235-1244.

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Hoossein, S., Whittington-Jones, K. and Tandlich, R. (2014) Sanitation Policy and Prevention of Environmental Contamination in South Africa. *Environmental Engineering and Management Journal*. 13 (6). p.1335-1340.

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Kannaan, R., Shackleton, C.M. and Shaanker, R.U. (2014) Invasive alien species as drivers in socio-ecological systems: local adaptations towards use of *Lantana* in Southern India. *Environment, development and sustainability*. 16 (2014). p.649-669.

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Muller, C. and Shackleton, S.E.

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Richardson, E. and Shackleton, C.M.

Richardson, E. and Shackleton, C.M. (2014) The extent and perceptions of vandalism as a cause of street tree damage in small towns in the Eastern Cape, South Africa. *Urban Forestry & Urban Greening*. 13 (2014). p.425-432.

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Stickler, M.M. and Shackleton, C.M. **Stickler, M.M. and Shackleton, C.M.** (2014) Local Wood Demand, Land Cover Change and the State of Albany Thicket on an Urban Commonage in the Eastern Cape, South Africa. *Environmental Management*. 2014 (2014). p.1-12.

Thondhlana, G. **Thondhlana, G. and Belluigi, D.Z.** (2014) Group work as 'terrains of learning' for students in South African higher education. *Perspectives in education*. 32 (4). p.40-55.

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Shackleton, S., Luckert, M., Cundill, G. Cobban, L., Clarke, C. Shackleton, R. and Ndlovu, P. **Shackleton, S., Luckert, M., Cundill, G., Cobban, L., Clarke, C., Shackleton, R. and Ndlovu, P.** (2014). Transformation and barriers in the context of multiple stressors:

Understandings from two rural sites in the Eastern Cape, South Africa. *Proceedings of Transformation in a Changing Climate*. 19-21 June 2013, Oslo, Norway. University of Oslo, Trykktet. ISBN: 978-82-570-2000-2.

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Chadzingwa, K.L. and Cundill, G. **Chadzingwa, K.L. and Cundill, G.** Access to land, water and ecosystem services: Identifying sources of innovation for social-ecological transformation in South Africa. *Resilience 2014: Mobilizing for Development and Transformation*. Montpellier. France. May 2014.

Cundill, G. **Chadzingwa, K.L. and Cundill, G.** Access to land, water and ecosystem services: Identifying sources of innovation for social-ecological transformation in South Africa. *Resilience 2014: Mobilizing for Development & Transformation*. Montpellier. France. May 2014.

Cundill, G. Breaking points at the margin: Community mobilization and the continued failure of co-management of protected areas in South Africa. *Resilience 2014: Mobilizing for Development & Transformation*. Montpellier. France. May 2014.

Cundill, G. Collaborative forms of management for transformation and equity in access to ecosystem services: Lessons from land reform processes in South Africa. *Resilience 2014: Mobilizing for Development & Transformation*. Montpellier. France. May 2014.

Cundill, G. Collaborative governance and management in support of transformation and equity in access to ecosystem services: Revisiting theory through reflections on global practice in the developed and developing world. *Resilience 2014: Mobilizing for Development & Transformation*. Montpellier. France. May 2014.

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Gwedla, N. **Gwedla, N.** Municipal parks managers' development visions and attitudes towards urban forestry in South African towns. *Urban Tree Diversity*. Alnarp. Sweden. June 2014.

Gwedla, N. and Shackleton, C.M. **Gwedla, N. and Shackleton, C.M.** Urban forestry in the Eastern Cape: Limitations and a way forward. *Annual Forest Science Symposium*. Hilton. South Africa. July 2014.

Hamer, N.G. **Hamer, N.G.** The key results of the South African, Ecohealth project 'Vulnerability, coping and adaptation in the context

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Hamer, N.G., Cundill, G. and Shackleton, S.E.

Hamer, N.G., Cundill, G. and Shackleton, S.E. Community led social learning innovation model for adaptation to climate change. *Ecohealth symposium*. Johannesburg. South Africa. March 2014.

Mtati, N. and Shackleton, C.M.

Mtati, N. and Shackleton, C.M. Importance of NTFP's in livelihoods in Guquka and Koloni: Household use. *Annual Forest Science Symposium*. Hilton. South Africa. July 2014.

Ntshudu, M.E.

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Powell, R.

Powell, R., Rowntree, K. and Ellery, W.N. Recent changes in hydrogeomorphic connectivity in the Baviaans Catchment, Eastern Cape: impacts on river behaviour and restoration planning. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.

Powell, R., Rowntree, K. and Ellery, W.N. Recent changes in river-floodplain connectivity in the Baviaans catchment, Eastern Cape: Implications for floodplain restoration. *International Association of Sediment and Water Scientists*. Rhodes University, Grahamstown. South Africa. July 2014.

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Ruwanza, S. and Shackleton, C.M. Density and regrowth of a forest restio *Ischyrolepis eleocharis* under harvest and non-harvest treatments in dune forests of the Eastern Cape Province, South Africa. *Arid Zone Ecology/Thicket Fusion Forum*. Rhodes University, Grahamstown. South Africa. September 2014.

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Tata-Ngome, P., **Shackleton, C.M.**, Degrande, A. and Tieguhong, J.C. Hunger and undernourishment in forested areas: Positioning wild edible plants in food security and nutrition debates in sub-Saharan Africa. *World Congress on Agroforestry*. Delhi. India. February 2014.

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Spires, M.

Spires, M. Understanding and implementing climate change adaptation at the local level: Uniformity and/or flexibility in South African municipalities. *Society of South African Geographers' 10th Conference*. Fort Hare University, East London. South Africa. June 2014.

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DEPARTMENT OF FINE ART

INTRODUCTION

The Department of Fine Art experienced a productive year in terms of research with outputs that included academic publications and conference papers, as well as practice as research in the form of visual art exhibitions.

Two (2) peer reviewed and five (5) additional journal articles were published, and thirteen (13) conference papers were presented. There was active participation in thirty-six (36) exhibitions; seven (7) were international and eleven (11) were solo presentations. Staff contributed to numerous exhibition lectures, artist talks and workshops both locally and abroad, and assisted with the curation of five (5) exhibitions and performances.

The Andrew W. Mellon Foundation funded Focus Area, *Visual and Performing Arts of Africa*, initiated and convened the national symposium *Blind Spots* and *Ways of Not Seeing*.

Distinguished Visitors/International Visits

The Department hosted eight (8) distinguished visitors including Professor RG Gbadamosi and Mr MK Khosa from the University of Witwatersrand, Professor BMR Martinez-Ruiz and Professor MG Godby from the University of Cape Town, and Ms H van Aswegen from Stellenbosch University.

Significant Research Aligned Events

Ms Christine Dixie exhibited the installation *To Be King* on the Main Program of the



Christine Dixie - *Interior*, shown on the exhibition *Deconstructing Dogma* at University of Johannesburg Art Gallery

National Arts Festival and had work curated onto the prestigious exhibition *Earth Matters: Land as Material and Metaphor in the arts of Africa* at the Fowler Museum, UCLA, California, USA. In addition she exhibited internationally at The Smithsonian National Museum of African Art in Washington D.C. and the Savannah College of Art in Georgia, USA.

Mr Brent Mestre exhibited photographic work at the Thessaloniki Photo Biennale in Greece. He was also the producer and curator of *ANALOGUE EYE: Video Art Africa* - an innovative initiative that showcased video art and integrated a mobile drive-in and pop-up cinema.

Ms Rat Western directed and performed in *Machine for Living* on the National Arts Festival fringe.

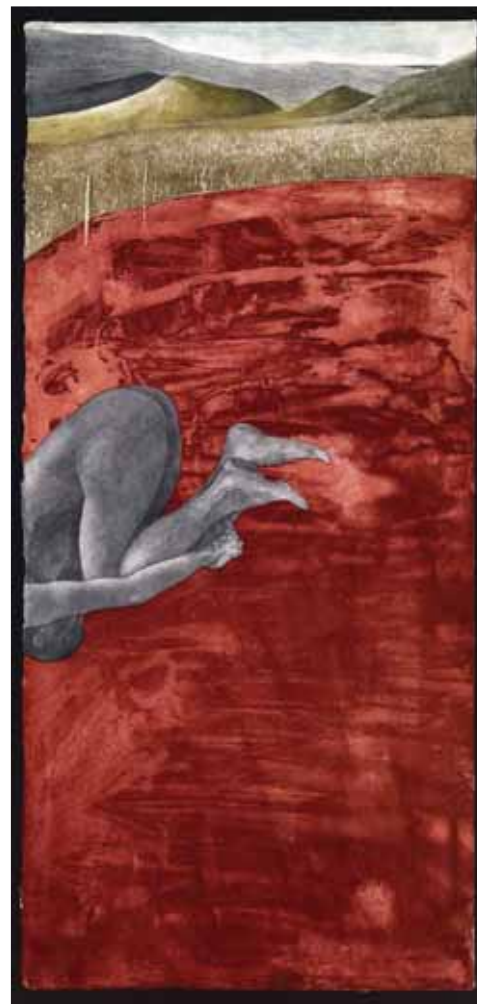
Professor Maureen De Jager presented the exhibition *Maria's Story* at the Oliewenhuis Art Museum in Bloemfontein.

Ms Tanya Poole exhibited the solo exhibition *The Becoming Child* in Cape Town and Port Elizabeth.

Professor Dominic Thorburn exhibited on *Blood, Sweat and*



Christine Dixie - *Animation Still* from the exhibition *To Be King*, exhibited in Vienna as part of the Wiener Festwochen exhibition *U/Tropia* - Curator: Brent Meistre



Christine Dixie - *Long Descent II*, from the exhibition *Earthmatters* at the Fowler Museum, University of California, Los Angeles

Tears, ABSA Atelier Award Winners, at the ABSA Gallery in Johannesburg.

Visual and Performing Arts of Africa, led by **Professor Ruth Simbao**, convened the stimulating symposium *Blind Spots and Ways of Not Seeing*. This event included presentations by six (6) Postgraduate Fine Art students in addition to invited speakers. **Professor Ruth Simbao** also initiated the *Residencies for Artists and Writers - Eastern Cape Project (RAW_EC)* a mentoring program that was also linked to the symposium.

Ms Rachel Baasch and **Professor Ruth Simbao** presented papers at the ACASA Conference in New York. **Dr Phindi Mnyaka** presented *The profane and the prophetic*, in *Ambivalent: Photography and Visibility in African History at the University of the Western Cape*.

Professor Dominic Thorburn
Head of Department

PUBLICATIONS

Concerts, Exhibitions, Performances, Workshops, Events

De Jager, M.S.

De Jager, M.S. Artist/workshop leader. 'Maria's Story' walkabout and workshop. *Public walkabout of solo exhibition and workshop of techniques*. Reservoir, Oliewenhuis Art Museum, Bloemfontein. South Africa. 9 May - 20 June 2014.

De Jager, M.S. Artist. 'Nelson Mandela Metropolitan Art Museum Biennial Exhibition 2014'. *Group exhibition of top EC artists (peer-nominated)*. Nelson Mandela Metropolitan Art Museum, Port Elizabeth. South Africa. 29 October - 22 February 2014.

De Jager, M.S. Artist. 'Maria's Story'. *Solo exhibition*. Reservoir, Oliewenhuis Art Museum, Bloemfontein. South Africa. 8 May - 22 June 2014.

De Jager, M.S. Artist. 'Site: Photography and national trauma in South Africa'. *Group exhibition curated by Hentie van der Merwe*. Gallery University Stellenbosch, Stellenbosch. South Africa. 8 October - 1 November 2014.

Dixie, C.B.

Dixie, C.B. Artist. *Group Exhibition*. Earth Matters: Land as Material and Metaphor in the arts of Africa. *Even in the Long Descent I-V*. Fowler Museum, UCLA, California. United States of America. 22 April - 31 August 2014.

Dixie, C.B. Artist. *Group Exhibition*. Heaven, Hell, Purgatory - the Divine Comedy from the Perspective of Contemporary African artists. *The Binding*. Savannah College of Art and Design, Georgia. United States of America. 16 October - 31 December 2014.

Dixie, C.B. Artist. *Group Exhibition*. Conversations: African and African American Artworks in Dialogue. *Unravel*. The Smithsonian National Museum of African Art, Washington D.C. United States of America. 8 November - 31 December 2014.

Dixie, C.B. Artist. *Group Exhibition*. 'Nelson Mandela Metropolitan Art Museum Biennial Exhibition 2014'. *Group exhibition of top EC artists (peer-nominated)*. Nelson Mandela Metropolitan Art Museum, Port Elizabeth. South Africa. 29 October - 22 February 2014.

Dixie, C.B. Artist. *Solo Exhibition*. To Be King. *Installation*. Alumni Gallery, History Museum, Grahamstown. South Africa. 3 - 13 July 2014.

Dixie, C.B. Artist talk. Unravelling Depictions of the Eastern Cape Frontier Landscape. *Artist's talk*. The Smithsonian National Museum of African Art, Washington D.C. United States of America. 17 November 2014.

Dixie, C.B. Workshop. Printing 'The Binding'. Concoran School of Art and Design, Washington D.C. United States of America. 18 November 2014.

Dixie, C.B. Artist. *Group Exhibition*. Deconstructing Dogma: an exhibition of Transgressive Christian iconography in South African Art. *The Interior; Parturition I-III*. UJ Gallery, Johannesburg. South Africa. 6 - 29 May 2014.

Fletcher, L.J.

Fletcher, L.J. Artist. 'Immaterial'. *MFA Solo exhibition*. Albany History Museum, Grahamstown. South Africa. 21 November 2014.

King, T.

King, T. Artist. 'Obscura'. *MFA Solo exhibition*. Observatory Museum, Grahamstown. South Africa. 22 November 2014.

Meistre, B.A.

Meistre, B.A. Artist. *Solo Exhibition*. SOJOURN for Thessaloniki Photo Biennale LOGOS. *8 Photographs*. Thessaloniki Museum of Photography, Warehouse A, Thessaloniki. Greece. 8 May - 8 September 2014.

Meistre, B.A. Artist. *Solo Exhibition*. Class for Thessaloniki Photo Biennale. *8 Photographs*. Thessaloniki Museum of Photography, Warehouse A, Thessaloniki. Greece. 8 May - 8 September 2014.

Meistre, B.A. Artist. *Solo Exhibition*. SOJOURN: Landscapes from Southern Africa. *28 Photographs*. Athenaeum Gallery, Port Elizabeth. South Africa. 22 May - 17 June 2014.

Meistre, B.A. Curator/Producer. ANALOGUE EYE: Video Art Africa, Mobile Drive-in & Pop-up Cinema. *PROGRAM 1 - Terra Firma/Terra Nova: Origins, Place & Space PROGRAM 2 - Eye on I: Seeing Self PROGRAM 3 - View Askew: History, Power & Identity*. Monument Parking Lot, Fine Art Department, St. Andrews, Grahamstown. South Africa. 3 - 13 July 2014.

Munro, S.F.

Munro, S.F. Artist. Ineffaceable. *MFA Solo Exhibition*. Makana City Hall, Grahamstown. South Africa. 7 - 8 May 2014.

Munro, S.F. Artist. Machine for Living. *National Arts Festival Fringe*. Grahamstown. South Africa. 8 - 12 July 2014.

Pelser, M.M.

Pelser, M.M. Artist. 'Nelson Mandela Metropolitan Art Museum Biennial Exhibition 2014'. *Group exhibition of top EC artists (peer-nominated)*. Port Elizabeth. South Africa. 29 October - 22 February 2014.

Pelser, M.M. Artist. *Solo Exhibition*. Four channel video installation - untitled interviews with the NYPD. *School of Visual Arts Alumni Exhibition*. School of Visual Arts, New York. United States of America. 14 - 26 September 2014.

Pelser, M.M. Curator and artist. 'Temion'. *Harare International Festival of Arts (HIFA)*. HIFA, Harare. Zimbabwe. 19 May - 31 October 2014.

Pelser, M.M. Artist. 'Dylan's Circus and I'. *Analogue Eye Film Festival, National Arts Festival*. Grahamstown. South Africa. 3 - 13 July 2014.

Pelser, M.M. Artist. 'Ons Land / Our Land'. *Joint exhibition with Carl Bekker*. Durban Art Gallery, Durban. South Africa. 18 September - 26 October 2014.

Pelser, M.M. Artist. 'Ons Land / Our Land'. *Joint exhibition with Carl Bekker*. Ann Bryant Gallery, East London. South Africa. 15 April - 15 July 2014.

Poole, T.K.

Poole, T.K. Artist. *Group Exhibition*. Blank Space. Galerie M

Bochum, Essen. Germany. 29 August - 29 November 2014.

Poole, T.K. Artist. *Group Exhibition*. Here There be Dragons. Underculture Contemporary Gallery, Port Elizabeth. South Africa. 10 - 31 December 2014.

Poole, T.K. Artist. *Group Exhibition*. Naak. ArtB Gallery, Cape Town. South Africa. 31 January - 30 August 2014.

Poole, T.K. Artist. *Group Exhibition*. Collection. IS Art, Franschhoek. South Africa. 1 August - 1 September 2014.

Poole, T.K. Artist. *Group Exhibition*. Birds. Dorp Street Gallery, Stellenbosch. South Africa. 1 August - 30 September 2014.

Poole, T.K. Artist. *Group Exhibition*. Group Show. Dorp Street Gallery, Stellenbosch. South Africa. 1 July - 31 August 2014.

Poole, T.K. Artist. *Solo Exhibition*. The Becoming Child. Liebrecht Gallery, Somerset West. South Africa. 7 August - 20 September 2014.

Poole, T.K. Artist. *Solo Exhibition*. The Becoming Child. Underculture Contemporary Gallery, Port Elizabeth. South Africa. 28 May - 27 June 2014.

Poole, T.K. Artist. 'Nelson Mandela Metropolitan Art Museum Biennial Exhibition 2014'. *Group exhibition of top EC artists (peer-nominated)*. Nelson Mandela Metropolitan Art Museum, Port Elizabeth. South Africa. 29 October - 22 February 2014.

Simbao, R.

Simbao, R. Workshop/Symposium/Residencies organiser. Organiser of Residencies for Artists and Writers-Eastern Cape Project (RAW-EC), consisting of two artists' residencies and a program of mentoring for four post-graduate writers. *The RAW--EC mentoring program was linked to the symposium Blind Spots and Ways of Not Seeing*. Rhodes University, Grahamstown. South Africa. 1 April - 31 December 2014.

Simbao, R. Curator. *SLIP: Mbali Khosa and Igshaan Adams (Curator of Exhibition)*. Alumni Gallery, Albany History Museum, Grahamstown. South Africa. 16 - 24 October 2014.

Simbao, R. Curator. Blind Spot (Curator of Performance Art Programme consisting of four performances). 1) *Barongwa* 2) *Bismillah* 3) *What difference does it make who is speaking?* 4) *Everse*. Fingo Square; 1820 Settlers National Monument; Eastern Star Press Museum; Victoria Primary, Grahamstown. South Africa. 6 - 11 July 2014.

Thorburn, D.

Thorburn, D. Artist. *Group Exhibition*. *Blood, Sweat and Tears*. Absa Atelier Winners. Absa Art Gallery, Johannesburg. South Africa. 8 - 27 June 2014.

Thorburn, D. Artist and collaborator. Art of Human Rights. *AFH - Art for Humanity*. Durban University of Technology, Durban. South Africa. 1 January - 31 December 2014.

Thorburn, D. Exhibition lecture. Impressions of Rorke's Drift. *National Arts Festival exhibition lecture and gallery walkabout*. Ntsikana Gallery, Settlers Monument, Grahamstown. South Africa. 3 - 13 July 2014.

Thorburn, D. Exhibition lecture. Hasan and Husain Essop - Standard Bank Young Artist Award for Visual Art 2014. *National Arts Festival exhibition lecture and gallery walkabout*. Settlers Monument Gallery, Grahamstown. South Africa. 2 - 12 July 2014.

Wasserman, M.

Wasserman, M. Artist. 'Becoming(s)'. *MFA Solo exhibition*. 1820 Settlers Monument, Grahamstown. South Africa. 19 September 2014.

Western, N.A.

Western, N.A. Artist. 'Nelson Mandela Metropolitan Art Museum Biennial Exhibition 2014'. *Group exhibition of top EC artists (peer-nominated)*. Nelson Mandela Metropolitan Art Museum, Port Elizabeth. South Africa. 29 October - 22 February 2014.

Western, N.A. Artist/Performer/Director. Machine for Living. *National Arts Festival Fringe*. Grahamstown. South Africa. 8 - 12 July 2014.

Distinguished Visitors

Adams, I.A.

Mr IA Adams. Blank Gallery, Cape Town, Johannesburg. *Artist's Residency (NLDTF project Residencies for Writers and Artists-Eastern Cape)*. April 2014.

Dodd, A.D.

Dr AD Dodd. Independent Writer, Cape Town, South Africa. *Presenter and participant in mentoring program (NLDTF project Residencies for Writers and Artists-Eastern Cape)*. October 2014.

Gattrix, G.

Ms G Gattrix. Professional Artist, Cape Town, South Africa. *Visiting artist and lecturer*. May 2014.

Gbadamosi, R.G.

Professor RG Gbadamosi. University of the Witwatersrand, Johannesburg, South Africa. *Presenter and participant in mentoring program (NLDTF project Residencies for Writers and Artists-Eastern Cape)*. October 2014.

Godby, M.G.

Professor MG Godby. University of Cape Town, Cape Town, South Africa. *Presenter and participant in mentoring program (NLDTF project Residencies for Writers and Artists-Eastern Cape)*. October 2014.

Khosa, M.K.

Ms MK Khosa. University of the Witwatersrand, Johannesburg, South Africa. *Artist's Residency (NLDTF project Residencies for Writers and Artists-Eastern Cape)*. June 2014.

Martinez-Ruiz, B.M.R.

Professor BMR Martinez-Ruiz. University of Cape Town, Cape Town, South Africa. *Presenter and participant in mentoring program (NLDTF project Residencies for Writers and Artists--Eastern Cape)*. October 2014.

van Aswegen, H.

Ms H van Aswegen. Stellenbosch University, Stellenbosch, South Africa. *Art Studio Practice project and bookbinding workshop*. October 2014.

International Visits

Baasch, R.M.

Baasch, R.M. Al Hoash: Palestinian Art Court, Ramallah,

Israel and the Occupied Palestinian West Bank Territory. *Doctoral fieldwork research in Art History and Visual Culture on art and architecture in the Occupied Palestinian West Bank Territory*. 3 January - 9 June 2014.

Other Publications

Pelser, M.M.

Pelser, M.M. (2014) In: Elmaleh, L. and Pelser, M. (eds.). *The Tierney Fellowship - A Reflection of Photographic Practices*. New York: The Tierney Family Foundation.

Pelser, M.M. (2014) Workshops In: Njami, S. (ed.). *Just Ask!* Germany: Kerber.

Simbao, R.

Simbao, R. (2014) Performing Stillness in Order to move: Mohau Modisakeng's Becoming. In: Brundyn, +. (ed.). *Mohau Modisakeng: Ditaola (Brundyn+ Exhibition Catalogue)*. Cape Town: Brundyn Gallery.

Simbao, R. (2014) In: Simbao, R. (ed.). *Blind Spot: Performance Art Program (Catalogue/Booklet)*. Grahamstown: Visual and Performing Arts of Africa.

Simbao, R. (2014) When Backs are Turned: Process... aftermath. In: Campbell, K. (ed.). *Night Fighter. Time to Time, Text to Text: The divergence of Andrew Jephtha's booklet in the exhibition Night Fighter*. Cape Town: Michaelis School of Fine Art.

Peer Reviewed Subsidy-Earning Journal Research Publications

Simbao, R.

Simbao, R. (2014) Cosmological Efficacy and the Politics of Sacred Place: Soli Rainmaking in Contemporary Zambia. *African Arts*. 47 (3). p.40-57.

Thomas, K.

Thomas, K. (2014) Photography and the Future in Jansje Wissema's Images of District Six. *Safundi: Journal of South African and American studies*. 15 (2-3). p.283-305.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Baasch, R.M.

Baasch, R.M. Walls and Divisions in South African and Palestinian Aesthetics. *Arts Council of the African Studies Association (ACASA)*. Brooklyn Museum of Fine Art, New York. USA. April 2014.

Baasch, R.M. Sights of Division: Political Tourism and Site-Specific Seeing in the Occupied Palestinian West Bank Territory. *Blind Spots and Ways of Not Seeing (Rhodes University Fine Art Department and Visual and Performing Arts of Africa symposium)*. Rhodes University, Grahamstown. South Africa. October 2014.

Ball, J.A.

Ball, J.A. Rethreading Inkblots and their Indices. *Blind Spots and Ways of Not Seeing (Rhodes University Department of Fine Art and Visual and Performing Arts of Africa symposium)*. Rhodes University, Grahamstown. South Africa. October 2014.

Kulundu, I.L.

Kulundu, I.L. Language and Indifference: 'Sticks and stones will break my bones but names will never hurt me'. *Blind Spots and Ways of Not Seeing (Rhodes University Department of Fine Art and Visual and Performing Arts of Africa symposium)*. Rhodes University, Grahamstown. South Africa. October 2014.

Madikida, C.

Madikida, C. Standing at the Crossroads: Towards an Inclusive South African History of Art. *Blind Spots and Ways of Not Seeing (Rhodes University Fine Art Department and Visual and Performing Arts of Africa symposium)*. Rhodes University, Grahamstown. South Africa. October 2014.

Mnyaka, P.E.

Mnyaka, P.E. The profane and the prophetic. *Ambivalent: Photography and Visibility in African History*. University of Western Cape, Cape Town. South Africa. February 2014.

Ng'Ok, I.B.C.

Ng'Ok, I.B.C. Searching for Memory as a Form of 'Seeing' in Kemang wa Lehulere's Work. *Blind Spots and Ways of Not Seeing (Rhodes University Department of Fine Art and Visual and Performing Arts of Africa symposium)*. Rhodes University, Grahamstown. South Africa. October 2014.

Ntombela, N.

Ntombela, N. African Art, What For? *Blind Spots and Ways of Not Seeing (Rhodes University Department of Fine Art and Visual and Performing Arts of Africa symposium)*. Rhodes University, Grahamstown. South Africa. October 2014.

Poole, T.K.

Poole, T.K. Panelist and interviewer of Mbali Khoza. *Blind Spots and Ways of Not Seeing*. Rhodes University, Grahamstown. South Africa. October 2014.

Poole, T.K. Agon: Conflict and Catharsis in Boxing and Performance. *SAHUDA Lineages of Freedom Project*. Rhodes University, Grahamstown. South Africa. May 2014.

Simbao, R.

Simbao, R. Site-Situational Performances in Cosmolocal Spaces: Athi-Patra Ruga and Anthea Moys. *Arts Council of the African Studies Association (ACASA)*. Brooklyn Museum of Fine Art, New York. United States of America. April 2014.

Simbao, R. Blanks, Failures and Ways of Not Seeing: Athi-Patra Ruga and Anthea Moys. *Blind Spots and Ways of Not Seeing (Rhodes University Fine Art Department and the Visual and Performing Arts of Africa symposium)*. Rhodes University, Grahamstown. South Africa. October 2014.

Simbao, R. Africa-China: Contemporary Art (paper presented), and co-chair of the Africa-China roundtable with Gemma Rodrigues. *Arts Council of the African Studies Association (ACASA)*. Brooklyn Museum of Fine Art, New York. United States of America. April 2014.

DEPARTMENT OF GEOGRAPHY

INTRODUCTION

Staff and students from the Department of Geography, as is the nature of the discipline, are spatially and topically divergent. Our projects cover areas from near to the Arctic to the cold wastes of Antarctica. We cover the social changes associated with the dynamics in present-day South Africa, to investigating the Honeybush industry, to wetlands, river systems, the landscape and the fundamental causes of, and consequences of, climate change.

Postgraduates/Graduations

Students from the Department of Geography again excelled themselves, with **Christel Hansen** winning the Society of South African Geographers Bronze Medal for the best Geography Masters Dissertation in the country. This is the second such award in three years for the Department and the fourth time a Rhodes student has won. In addition, Honours students, **Naufiku Hamunime** and **Michelle Kayton** won best speaker prizes at the Society's Geography Students' Conference in June. **Benjamin van der Waal** successfully read for his PhD, while **Rosemary Dwight**, **Philippa Kleyn**, **Daniel Schroder**, **David Scott** and **Conrad Swart** all successfully completed their MSc degrees.

Christel Hansen and **Rosemary Dwight** attended the Scientific Committee on Antarctic Research Open Science Meeting in Auckland, New Zealand. In addition, six (6) Masters and PhD students presented at an Antarctic Research Symposium in Grahamstown. **Jordan Millar** undertook



Professor Fred Ellery and Philippa Schlegel discussing sedimentary processes in the Sand River of the Oyster Bay headland bypass dunefield near St Francis Bay, Eastern Cape, as they try to understand the fluvial dynamics of this unusual stream within a sandy mobile dunefield.

collaborator work in Jenna, Germany as part of her MSc, which investigates sediment transfer in the Kruger National Park. **Natalie Ellis** and **Luveshni Odayar** were selected for a student exchange to Linköping University in Sweden.

Distinguished Visitors/International Visits

The Department of Geography hosted several international guests during 2014. **Professor Thembela Kepe** (Toronto) was generously funded by the Andrew W. Mellon Foundation for a six-week visit investigating small town tourism and rural development issues in the Eastern Cape in May and June. Several existing collaborations continued. **Professors Åsa Danielson** and **Per Assmo** visited in February as part of a Linnaeus-Palme Programme project and **Professor Ian Foster** (Northampton) visited to conduct research into sediment transfer. **Emeritus Professor Kate Rowntree**, **Professor Roddy Fox** and **Professor Fred Ellery** visited Linköping University in Sweden as part of a long-term collaboration funded by the Linnaeus-Palme Programme.

Significant Research Aligned Events

Professor Roddy Fox was one of two Rhodes staff members to receive a Vice-Chancellor's Internationalisation Award in its inaugural year, 2014. **Professor Ian Meiklejohn** was appointed as Chief Scientist for the 2014/15 Summer Relief Voyage to SANAE IV Station, Antarctica. He was accompanied by one PhD (**Christel Hansen**) and four MSc students (**Liesel Rudolph**, **Camilla Kotze**, **Gaby Ayres** and **Jessica Rosenfels**). This is the highest number of women ever in a single South African Antarctic



Camilla Kotze, Christel Hansen, Liezel Rudolph, Jessica Rosenfels and Gabrielle Ayres near Jutelhogget, Droning Maud Land, Antarctica.

research team. They were conducting research that is part of a project "Landscape Processes in Antarctic Ecosystems", which has been renewed for a further three years by the South African National Antarctic Programme.

The Department of Geography hosted South African National Antarctic Programme (with the Department of Microbiology and Biochemistry) and International Association for Sediment Water Science (IASWS) symposiums in June and July respectively, where several staff and students presented papers.

Professor Ian Meiklejohn

Head of Department

PUBLICATIONS

Peer Reviewed Subsidy-Earning Journal Research Publications

Boelhouwers, J.

Nel, W. and **Boelhouwers, J.** (2014) Short Note: First observations on needle ice formation in the sub-Antarctic. *Antarctic Science*. 26 (3). p.327-328.

Cobbing, B.

Mugido, W., Blignaut, J., Joubert, M., De Wet, J., Knipe, A., Joubert, S., **Cobbing, B.**, Jansen, J., La Maitre, D. and van der Vyfer, M. (2014) Determining the feasibility of harvesting invasive alien plant species for energy. *South African Journal of Science*. 110 (11/12). p.1-6.

Ellery, W.N.

Cowden, C., Kotze, D., **Ellery, W.N.** and Sieben, E.J.J. (2014) Assessment of the long-term response to rehabilitation of the two wetlands in KwaZulu-Natal, South Africa. *African Journal of Aquatic Science*. 39 (3). p.237-247.

Foster, I.D.L.

Kuttner, A., Mighall, T.M., De Vleeschouwer, F., Mauquoy, D., Martinez Cortizas, A., **Foster, I.D.L.** and Krupp, E. (2014) A 3300-year atmospheric metal contamination record from Raeburn Flow raised bog, south west Scotland. *Journal of Archaeological Science*. 44 (2014). p.1-11.

Mighall, T., Martinez Cortizas, A., Sanchez, N.S., **Foster, I.D.L.**, Singh, S., Bateman, M. and Pickin, J. (2014) Identifying evidence for past mining and metallurgy from a record of metal contamination preserved in an ombrotrophic mire near Leadhills, SW Scotland, United Kingdom. *Holocene*. 24 (12). p.1719-1730.

Hooke, J.M.

Smith, M.W., Carrivick, J.L., **Hooke, J.M.** and Kirkby, M.J. (2014) Reconstructing flash flood magnitudes using 'Structures-from-Motion': A rapid assessment tool. *Journal of Hydrology*. 519 (2014). p.1914-1927.

Schillereff, D.N., Chiverrell, R.C., Macdonald, N. and **Hooke, J.M.** (2014) Flood stratigraphies in lake sediments: A review. *Earth-Science Reviews*. 135 (2014). p.17-37.

Kepe, T.

Forbes, B. and **Kepe, T.** (2014) Smallholder farmers' attitudes toward the provision of drinking water for dairy cows in Kagera, Tanzania. *Tropical Animal Health and Production*. 2014 (2014). p.1-7.

Kepe, T. and Tessaro, D. (2014) Trading-off: Rural food security and land rights in South Africa. *Land and Use Policy*. 36 (2014). p.267-274.

Tessaro, D. and **Kepe, T.** (2014) 'Development' at the crossroads: biodiversity and land-use tensions on South

Africa's Wild Coast. *International Journal of Sustainable Development and World Ecology*. 21 (5). p.471-479.

Bersaglio, B. and **Kepe, T.** (2014) Farmers at the Edge: Property Formalisation and Urban Agriculture in Dar es Salaam, Tanzania. *Urban forum*. 25 (2014). p.389-405.

Kepe, T. (2014) Globalization, science, and the making of an environmental discourse on the Wild Coast, South Africa. *Environment and Planning A*. 46 (2014). p.2143-2159.

Enns, C., Bersaglio, B. and **Kepe, T.** (2014) Indigenous voices and the making of the post-2015 development agenda: the recurring tyranny of participation. *Third World Quarterly*. 35 (3). p.358-375.

Masefield, V. and McGregor, G.K.

Masefield, V., McGregor, G.K. and Whitfield, A. (2014) Does estuarine health relate to catchment land-cover in the East Kleinemonde system, South Africa? *African Journal of Aquatic Science*. 39 (4). p.395-402.

McGregor, G.K.

Clark, V.R., Dold, A.P., McMaster, C., McGregor, G.K., Bredenkamp, C. and Barker, N.P. (2014) Rich sister, poor cousin: Plant diversity and endemism in the Great Winterberg-Amatholes (Great Escarpment, Eastern Cape, South Africa). *South African Journal of Botany*. 92 (2014). p.159-174.

McGregor, G.K. and Dwight, R.

Danckwerts, D.K., McQuaid, C.D., Jaeger, A., McGregor, G.K., Dwight, R., Le Corre, M. and Jaquemet, S. (2014) Biomass consumption by breeding seabirds in the western Indian Ocean: indirect interactions with fisheries and implications for management. *ICES Journal of Marine Science*. 2014 (2014). p.1-10.

Meiklejohn, C.

Coetzee, M., Waldeck, L., le Roux, A., **Meiklejohn, C.**, van Niekerk, W. and Leuta, T. (2014) Spatial policy, planning and infrastructure investment: Lessons from urban simulations in three South African cities. *Town and Regional Planning*. 64 (2014). p.1-8.

Coetzee, M., Goss, H., **Meiklejohn, C.** and Mlangeni, P. (2014) A living laboratory approach in the design of the user requirements of a spatial information platform. *Town and Regional Planning*. 64 (2014). p.9-16.

Rowntree, K.M.

Grenfell, S.E., Grenfell, M.C., **Rowntree, K.M.** and **Ellery, W.N.** (2014) Fluvial connectivity and climate: A comparison of channel pattern and process in two climatically contrasting fluvial sedimentary systems in South Africa. *Geomorphology*. 205 (2014). p.142-154.

Peer Reviewed Proceedings

Hooke, J.M.

Lennard, A.T., Macdonald, N. and **Hooke, J.M.** Analysis of drought characteristics for improved understanding of a water resource system. *Proceedings of ICWRS2014*. Bologna. Italy. June 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Borg, C.

Borg, C. A refined model for sediment transport by diurnal frost processes in periglacial environments. *NRF-SANAP PI Symposium*. Rhodes University, Grahamstown. South Africa. June 2014.

Dwight, R. and Meiklejohn, K.I.

Dwight, R. and Meiklejohn, K.I. Geomorphic and climatic influences on lichen distribution in Western Dronning Maud Land, Antarctica. *NRF-SANAP PI Symposium*. Rhodes University, Grahamstown. South Africa. June 2014.

Dwight, R., Meiklejohn, K.I. and Hansen, C.D.

Dwight, R., Meiklejohn, K.I., Lee, J., Hansen, C.D. and Matcher, G.F. Geomorphic biological interactions in the Ahlmannryggen and Jutelsessen areas of Western Dronning Maud Land, Antarctica. *SCAR : 2014 Open Science Conference*. Auckland. New Zealand. August 2014.

Ellery, W.N., Elkington, L.B., Schroeder, D.H. and McGregor, G.K.

Ellery, W.N., Elkington, L.B., Schroeder, D.H., McGregor, G.K., Cowling, R., Cowling, S., Grenfell, M.C. and Grenfell, S.E. Fluvial mediation of an Aeolian landscape: complex interactions between fast and slow processes in the Oyster Bay headland bypass system. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.

Ellis, N. and Rowntree, K.

Ellis, N. and Rowntree, K. Creating a seasonal inventory of habitat changes for a semi-arid stream system in the Karoo, Eastern Cape. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.

Foster, I.D.L.

Proffitt, H., **Foster, I.D.L.** and Mighall, T. Cyclic variations in conductivity and chloride concentrations in coastal freshwater lagoons, Southwest England. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.

Foster, I.D.L. and Rowntree, K.

Foster, I.D.L., Rowntree, K., Boardman, J., Mighall, T., Kuhn, N. and Greenwood, P. The impact of changing landscape connectivity on sedimentation in Karoo farm dams, South Africa: the case of breached dams. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.

Hansen, C.D.

Hansen, C.D. An evaluation of high-altitude and - latitude diurnal frost environments. *SCAR: 2014 Open Science Conference*. Auckland. New Zealand. August 2014.

Hansen, C.D. and Meiklejohn, K.I.

Rudolph, L., **Hansen, C.D., Meiklejohn, K.I.** and Bumby, A. The Geomorphology of a rock glacier, near Troll Station in the Jutulsessen, Antarctica. *SCAR: 2014 Open Science Conference*. Auckland. New Zealand. August 2014.

Hansen, C.D. and Meiklejohn, K.I. The characterisation of an openwork block deposit, Northern Buttress, Vesleskarvet, Dronning Maud Land, Antarctica. *NRF-SANAP PI Symposium*. Rhodes University, Grahamstown. South Africa. June 2014.

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- Matcher, G.F. and **Meiklejohn, K.I.** Bacterial diversity profiles associated with patterned ground features on inland nunataks in Dronning Maud Land, Antarctica. *NRF-SANAP PI Symposium*. Rhodes University, Grahamstown. South Africa. June 2014.
- Rudolph, L., **Meiklejohn, K.I.** and Bumby, A. A study of rock glacier, Grjotoyra, near Troll Station in the Jutulssessen, Antarctica. *Society of South African Geographers': 10th Conference*. University of Fort Hare, East London. South Africa. June 2014.
- Meiklejohn, K.I.** Landscape processes in Antarctic ecosystems. *NRF-SANAP PI Symposium*. Rhodes University, Grahamstown. South Africa. June 2014.
- Scott, D. and **Meiklejohn, K.I.** Active layer dynamics of Western Dronning Maud Land, Antarctica. *SCAR: 2014 Open Science Conference*. Auckland. New Zealand. August 2014.
- Meiklejohn, K.I., Dwight, R., Hansen, C.D. and Scott, D.A.**
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- Meiklejohn, K.I., Dwight, R., Hansen, C.D., Kotze, C. and Scott, D.A.**
- Meiklejohn, K.I., Nel, W., Davis, J., Dwight, R., Hansen, C.D., Hedding, D., Kotze, C., Lee, J., le Roux, J., Loubser, M., Matcher, G.F., Rudolph, L., Scott, D.A. and van der Merwe, B.** Landscape processes and the active layer environment in Western Dronning Land. *SCAR: 2014 Open Science Conference*. Auckland. New Zealand. August 2014.
- Miller, J. and Rowntree, K.**
- Miller, J. and Rowntree, K.** Identification of sediment sources using sediment fingerprinting in reservoir catchments in the Kruger National Park. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.
- Pulley, S.J. and Foster, I.D.L.**
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- Rowntree, K.**
- Bryson, L.K., Hughes, D.A. and Rowntree, K.** An erosion and sediment delivery model for semi-arid catchments. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.
- Mzobe, P. and **Rowntree, K.** Application of environmental magnetism in Mount Fletcher, Eastern Cape, South Africa. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.
- Rowntree, K. and Ellery, W.N.**
- Powell, R., Rowntree, K. and Ellery, W.N.** Recent changes in hydrogeomorphic connectivity in the Baviaans Catchment, Eastern Cape: impacts on river behaviour and restoration planning. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.
- Powell, R., Rowntree, K. and Ellery, W.N.** Recent changes in river-floodplain connectivity in the Baviaans catchment, Eastern Cape: Implications for floodplain restoration. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.
- Rowntree, K. and Foster, I.D.L.**
- Manjoro, M., **Rowntree, K., Kakembo, V. and Foster, I.D.L.** Tracing the source and spatial provenance of fine floodplain sediment using a quantitative composite fingerprinting approach in a catchment in the Eastern Cape, South Africa. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.
- Scott, D.A. and Meiklejohn, K.I.**
- Scott, D.A. and Meiklejohn, K.I.** Active layer dynamics of Western Dronning Maud Land, Antarctica. *SCAR: 2014 Open Science Conference*. Auckland, Auckland. New Zealand. August 2014.
- Scott, D.A. and Meiklejohn, K.I.** Using UAV's to model landscape features in Western Dronning Maud Land, Antarctica. *NRF-SANAP PI Symposium*. Rhodes University, Grahamstown. South Africa. June 2014.
- Smith-Adao, L.B. and Rowntree, K.**
- Smith-Adao, L.B., Rowntree, K. and Nel, J.** Valley floor changes along the Baviaanskloof River, South Africa: testing confinement. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.
- Van Der Waal, B.W. and Rowntree, K.**
- Van Der Waal, B.W. and Rowntree, K.** Landscape connectivity and sediment dynamics in the upper Thina catchment. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.

DEPARTMENT OF GEOLOGY

INTRODUCTION

2014 turned out to be another transitional year for the Department of Geology, rather unexpectedly, in two different aspects. Firstly, Geology experienced a significant and unanticipated growth in undergraduate student numbers in 2014, manifested as a 30% increase in both second and third year class sizes. At the same time, as a consequence of retirements and vacancies at larger universities elsewhere, we also experienced a (largely) unanticipated turnover in academic and technical staff in 2014, such that the Departmental staff rebuilding process, which was perceived to be largely complete as of 2013, had to be restarted in 2014. This combination presented the Department with many challenges in 2014, in the face of which the Department has nonetheless maintained stable research outputs whilst continuing to grow in terms of Postgraduate research student development, undergraduate training, and research breadth.

Postgraduates/Graduations

At the 2014 graduation ceremony, the Department graduated four (4) research MSc students and eleven (11) MSc graduates from the Department's prestigious Exploration Geology MSc programme (including Mr Corus Naudé who achieved a distinction). This represents our largest ever Postgraduate graduating class. In addition, the Department graduated twelve (12) Honours and seventeen (17) BSc students. The graduates from the Exploration MSc Programme also incorporated a significant increase in industry-oriented research-related activity into their



Professor S. Prevec cutting research samples from outcrops of platinum-rich rocks in northern Ontario, Canada.

dissertations, a noteworthy development.

Distinguished Visitors/International Visits

Professor Tsikos and **Dr S. Prevec** both undertook half-sabbaticals in the second half of 2014, both undertaking International visits in order to facilitate new research. Professor Tsikos spent time in the United Kingdom, the Netherlands and Greece over six months, while Dr Prevec spent two weeks in Canada undertaking field work. Both gave public lectures during their visits. **Professor Büttner** spent time in Potsdam in July conducting B isotope analysis in tourmalines using SIMS at the Geoforschungszentrum, and **Professor Götz** spent time in Germany developing research connections with industry collaborators.

The Department hosted four international visitors who came for prolonged periods for research collaborations (Drs Mason and Lyons to work with Professor Tsikos, Dr Labandeira to work with Dr R. Prevec, and Dr Prestianni to work with Dr Gess). In addition Dr Lyons undertook to provide a Postgraduate (Honours) course as part of our Honours curriculum during his stay as a Hugh Kelly Fellowship recipient.

Significant Research Aligned Events

Professor 'Hari' Tsikos's newly formed research unit, PRIMOR, matured into a fully-fledged research entity featuring five (5) MSc students and one (1) PhD student, benefitting from funding from Assmang Ltd, BHP-Billiton, and Kumba Iron Ore, with a strong research emphasis on the origins of iron and manganese ores from the Kalahari Manganese Field and related banded iron formations of the Northern Cape. **Professor Büttner's** research on gold mineralization in the Democratic Republic of Congo continued to develop, facilitated in part by application of the now revitalized fluid-inclusion facility in the Department.

Dr S. Prevec initiated a series of projects on controls on platinum group metals and oxide (chromite and vanadium-rich magnetite) ores in the Bushveld Complex of northeastern South Africa with the support of Glencore Operations South Africa (Pty) Ltd and the NRF, supporting three (3) MSc and one (1) Honours project in 2014.

Professor Götz was instrumental in the facilitation of academic efforts relating to shale-gas exploration planned for South Africa, acting as national coordinator of research

for Shell South Africa's exploration drilling programme. A consequence of this research growth specifically attributable to the three 'senior' academic staff members was that the Department has the largest Postgraduate group in its 110-year history, with expectations for further growth in future as new academic programmes continue to become established over the next few years with the arrival of new staff.

Professor Steve Prevec

Head of Department

Postgraduate Research in Iron and Manganese Ore Resources (PRIMOR)

The year 2014 witnessed the launch of a new research unit called PRIMOR, under the leadership of Professor Hari Tsikos from the Geology Department. PRIMOR stands for Postgraduate Research in Iron and Manganese Ore Resources, and as the acronym suggests, it is a formal research entity dedicated to the study of iron and manganese ore deposits and their origins. South Africa is particularly well-endowed with commercial deposits of both commodities, hence the primary mandate of PRIMOR is to facilitate research in these deposits at all levels of study (Honours to PhD). The main sponsor of PRIMOR for the first five-year cycle of its activities is the mining company ASSMANG Ltd, who have been operating mines for both iron- and manganese-ore in South Africa for almost a century. Selected research projects under the umbrella of PRIMOR also receive funding through other industry sources (Kumba Iron Ore), the government (NRF) and Rhodes University.

One of the elements of key scientific importance of iron and manganese deposits alike is the fact that they are typically associated with ancient rocks that formed during a time of major transition in early Earth history, from an oxygen-free to an oxygen-rich atmosphere and oceans. This transition is variously termed the "Great Oxidation Event", and is intrinsically linked to the earliest evolution of oxygenic photosynthesis. The South African deposits of iron and manganese constitute an unrivalled archive of all these processes and events; for that reason, researchers at PRIMOR have the opportunity to study these rocks not only from a strictly commercial point of view, but also as invaluable windows into the surface environment of the early Earth and

its chemical and biological evolution. As part of their activities, the student members of PRIMOR have the opportunity to collaborate and interact with a significant number of overseas academics and researchers from all continents, such as the new NASA-sponsored Astrobiology initiative "Alternative Earths". The latter begun its activities also in 2014 at the University of California, Riverside, under the leadership of Professor Timothy Lyons, himself a Hugh Kelly Visiting Fellow of Rhodes University for 2014.



The Primor Crew, as of March 2014 (Clockwise from left to right): Paul Oonk (PhD); Professor Hari Tsikos; Ian Weir (Hons); Xolani Mhlanga (MSc); David Cousins (MSc); William Moloto (MSc); and Sinhle Rafuza (MSc).
Absent: V. Papadopoulos (MSc)

PUBLICATIONS

Distinguished Visitors

Dr Cyrille Prestianni. Royal Museum of Natural History, Brussels, Belgium. Visiting Dr Gess for research collaboration. February 2014.

Dr C. Labandeira. Smithsonian Institute, Washington, D.C., United States of America. Visiting Dr R. Prevec for research collaboration. July 2014.

Professor P. Mason. Utrecht University, Netherlands, Utrecht, Netherlands. *Research.* July 2014.

Professor T. Lyons. University of California, Riverside, Riverside, United States of America. July 2014.

International Visits

Prevec, S.A. Laurentian University, Sudbury, Ontario. *Collaborative research planning, field sampling, presentation of results.* 6 - 12 October 2014.

Tsikos, C. National & Kapodistrian University of Athens, Athens, Greece. *Sabbatical (research and teaching).* 8 September - 29 December 2014.

Tsikos, C. Professor P. Vroon: Vrije University, Amsterdam, Netherlands. *Research.* 21 - 22 August 2014.

Tsikos, C. Professor P. Mason: Utrecht University, Utrecht, Netherlands. *Research.* 28 - 29 August 2014.

Tsikos, C. Professor H. Jenkyns: Oxford University, Oxford, United Kingdom. *Research.* 11 - 15 August 2014.

Other Publications

Prevec, R.

Barber-James, H., De moor, F.C., Prevec, R., Dold, A.P. and de Klerk, W.J. (2014) The Albany Museum Natural Science Collections and Research. In: Kearney, T. and Nakin, V. (eds.). *Aardvark (Newsletter of the Zoological Society of South Africa).* South Africa: Zoological Society of South Africa.

Prevec, S.A.

Prevec, S.A. (2014) Foreward. In: *The Bushveld Complex: An introduction to the geology and setting of the Bushveld Complex.* By H.V. Eales. Pretoria, South Africa: Council for Geoscience.

Peer Reviewed Subsidy-Earning Journal Research Publications

Costin, G.

Cioaca, M.E., Munteanu, M.M., Qi, L. and **Costin, G.** (2014) Trace elements concentrations in porphyry copper deposits from Metaliferi Mountains, Romania: A reconnaissance study. *Ore Geology Reviews.* 63 (2014). p.22-39.

Gess, R.W.

Prestianni, C. and **Gess, R.W.** (2014) The rooting system of *Leptophloeum* Dawson: New material from the Upper Devonian, Famennian Witpoort Formation of South Africa. *Review of Palaeobotany and Palynology.* 209 (2014). p.35-40.

Gotz, A.E.

Colombie, C., Badenas, B., Aurell, M., **Gotz, A.E.**, Bertholon, S. and Boussaha, M. (2014) Feature and duration of metre-scale sequences in a storm-dominated carbonate ramp setting (Kimmeridgian, northeastern Spain). *Sedimentary Geology.* 312 (2014). p.94-108.

Ruckwied, K., **Gotz, A.E.** and Jones, P. (2014) Palynological records of the Permian Eccia Group (South Africa): Utilizing climatic icehouse--greenhouse signals for cross basin correlations. *Palaeogeography Palaeoclimatology Palaeoecology.* 413 (2014). p.167-172.

Gotz, A.E. and Silantiev, V.V. (2014) Palynology of the Kazanian stratotype section (Permian, Russia): palaeoenvironmental and palaeoclimatic implications. *Palaeobiodiversity and*

Palaeoenvironments. 2014 (2014). p.1-10.

Hancox, J. and **Gotz, A.E.** (2014) South Africa's coalfields - A 2014 perspective. *International Journal of Coal Geology.* 132 (2014). p.170-254.

Gotz, A.E. and Ruckwied, K. (2014) Palynological records of the Early Permian postglacial climate amelioration (Karoo Basin, South Africa). *Palaeobiodiversity and Palaeoenvironments.* 91 (2014). p.229-235.

Colombie, C., Giraud, F., Schnyder, J., **Gotz, A.E.**, Boussaha, M., Aurell, M. and Badenas, B. (2014) Timing of sea level, tectonics and climate events during the uppermost Oxfordian (Planula zone) on the Iberian ramp (northeast Spain). *Palaeogeography Palaeoclimatology Palaeoecology.* 412 (2014). p.17-31.

Horvath, P.

Horvath, P., Reinhardt, J. and Hofmann, A. (2014) High-grade metamorphism of ironstones in the Mesoarchean of southwest Swaziland. *Mineralogy and Petrology.* 108 (2014). p.589-605.

Labandeira, C.C. and Prevec, R.

Labandeira, C.C. and Prevec, R. (2014) Plant paleopathology and the roles of pathogens and insects. *International Journal of Paleopathology.* 4 (2014). p.1-16.

Moore, A.E.

Moore, A.E. (2014) The Origins of Large Irregular Gem-Quality Type II Diamonds and the Rarity of Blue Type IIB Varieties. *South African Journal of Geology.* 117 (2). p.219-236.

Scoon, R.

Scoon, R. and Mitchell, A.A. (2014) Discussion of "The Bushveld Complex, South Africa: formation of platinum-palladium, chrome- and vanadium-rich layers via hydrodynamic sorting of a mobilized cumulate slurry in a large, relatively slowly cooling, subsiding magma chamber" by Maier et al. (2013) *Miner Deposita* 48: 1-56. *Mineralium Deposita.* 49 (2014). p.399-404.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Buttner, S.H.

Buttner, S.H. The structural evolution of syn-tectonic granites during and after solidification: Implications for the regional tectonic setting? *2nd Conference on Synmagmatic Granite Deformation 2014.* Hotel Klostermannova, Modrava. Czech Republic. June 2014.

Costin, G., Faurey, B.J. and Tsikos, C.

Costin, G., Faurey, B.J. and Tsikos, C. Tokyoite and As-rich tokyoite: new occurrence in manganese ore of the Postmasburg Manganese Field, South Africa. *IMA 2014: 21st General Meeting of the International Mineralogical Association.* Sandton Convention Centre, Gauteng. South Africa. September 2014.

Cousins, D.P. and Buttner, S.H.

Cousins, D.P. and Buttner, S.H. Investigations of the Monazite chemical dating technique with application on the central Namaqua Metamorphic complex, South Africa. *IMSG 2014. Grahamstown.* South Africa. January 2014.

Gess, R.W.

Gess, R.W. New specimens of *Africanaspis*, an arthrodire placoderm genus from the Devonian, Famennian, Witpoort

Formation Waterloo Farm lagertätte allow for the definition and full reconstruction of two species. *18th Biennial Conference of the Palaeontological Society of Southern Africa (PSSA)*. University of the Witwatersrand, Johannesburg. South Africa. July 2014.

Gess, R.W. A high latitude Late Devonian (Famennian) lagerstätten from South Africa: a window into marginal marine and terrestrial Gondwanan ecosystems. *4th International Palaeontological Congress*. Centro Científico Tecnológico CONICET Mendoza, Mendoza. Argentina. September 2014.

Gotz, A.E.

Silantiev, V.V., Golubev, V.K. and **Gotz, A.E.** Depositional model of the East European Platform during Kazanian (Roadian) times. *Kazan Golovinsky Stratigraphic Meeting 2014*. KFU Institute of Geology and Petroleum Technologies, Kazan. Russia. October 2014.

Gotz, A.E. and Hancox, J. Palynology of the Eastern Tete Province (Mozambique): stratigraphic and climatic implications. *9th European Palaeobotany & Palynology Conference*. University of Padova, Padova. Italy. August 2014.

Gotz, A.E., Ruckwied, K. and Hancox, J. Gondwanan nonmarine-marine cross-basin correlations utilizing palaeoclimate signatures recorded in Permian palynomorph assemblages. *Kazan Golovinsky Stratigraphic Meeting 2014*. KFU Institute of Geology and Petroleum Technologies, Kazan. Russia. October 2014.

Gotz, A.E. Sub-Saharan nonmarine cross-basin correlations based on climate signatures recorded in Permian palynomorph assemblages. *Wissenschaftliche Mitteilungen*. Freiberg University, Freiberg. Germany. June 2014.

Gotz, A.E. Permian climate change recorded in Gondwanan coal and black shale deposits: a South African perspective. *19th International Sedimentological Conference*. University of Geneva, Geneva. Switzerland. August 2014.

Gotz, A.E. and Ruckwied, K. Palynology of Sub-Saharan Karoo Basins: Key to decipher Gondwana's Permian climate history. *4th International Palaeontological Congress*. Centro Científico Tecnológico CONICET Mendoza, Mendoza. Argentina. September 2014.

Gotz, A.E. Palynology of Sub-Saharan Karoo Basins: Key to Early Mesozoic palaeoclimate reconstruction. *European Geosciences Union General Assembly 2014*. IAKW-AG -Austria Center Vienna, Vienna. Austria. April 2014.

Gotz, A.E. and Gast, S. Reservoir characterization and sequence stratigraphy of the Anisian carbonates of the northeastern part of the Peri-Tethys Basin. *GeoFrankfurt 2014*. Goethe University, Frankfurt. Germany. September 2014.

Gotz, A.E. The Permian Whitehill Formation (Karoo Basin, South Africa): deciphering the complexity and potential of an unconventional gas resource. *European Geosciences Union General Assembly 2014*. IAKW-AG - Austria Center Vienna, Vienna. Austria. April 2014.

Prevec, R.

Muir, R., Bordy, E. and **Prevec, R.** Sedimentology and palaeobotany of an Early Cretaceous locality in the Kirkwood Formation, Algoa Basin, Eastern Cape. *18th Biennial*

Conference of the Palaeontological Society of Southern Africa. University of the Witwatersrand, Johannesburg. South Africa. July 2014.

Neveling, J., Gastaldo, R.A., **Prevec, R.**, Looy, C., Kamo, S., Geissman, J.W. and Bamford, M. Early Triassic Glossopteris: An examination of stratigraphic evidence. *18th Biennial Conference of the Palaeontological Society of Southern Africa (PSSA)*. University of the Witwatersrand, Johannesburg. South Africa. July 2014.

Lavin, J. and **Prevec, R.** The coal floras of South Africa: to PIA or not to PIA. *18th Biennial Conference of the Palaeontological Society of Southern Africa (PSSA)*. University of the Witwatersrand, Johannesburg. South Africa. July 2014.

Bamford, M.K. and **Prevec, R.** Charcoal analysis provides new insights into the plant diversity of the Lower Cretaceous Kirkwood Formation. *18th Biennial Conference of the Palaeontological Society of Southern Africa (PSSA)*. University of the Witwatersrand, Johannesburg. South Africa. July 2014.

Prevec, S.A.

Prevec, S.A. Emplacement mechanisms for horizontal reefs: Magmatic fluid effects. *6th Annual Igneous and Metamorphic Studies Group Conference (IMSG)*. Department of Geology, Grahamstown. South Africa. January 2014.

Reid, W.K. and Buttner, S.H.

Reid, W.K. and **Buttner, S.H.** Compositional variations in synkinematic fluids in the Witteberg Group of the Cape Supergroup. *IMSG 2014*. Grahamstown. South Africa. January 2014.

Royi, M.D. and Buttner, S.H.

Royi, M.D. and **Buttner, S.H.** Deformation-enhanced cation diffusion in orthopyroxene. *IMSG 2014*. Grahamstown. South Africa. January 2014.

Tsikos, C.

Blignaut, L.C., Viljoen, K.S. and **Tsikos, C.** A geochemical and geometallurgical analysis of the Kalahari Manganese Deposit, Northern Cape. *IMA 2014: 21st General Meeting of the International Mineralogical Association*. Sandton Convention Centre, Gauteng. South Africa. September 2014.

Schilling, K., Basu, A., Johnson, T.M., Mason, P.R.D., **Tsikos, C.** and Mondal, S.K. Se isotope signature of Paleoarchean and Paleoproterozoic banded iron formations. *2014 Goldschmidt Conference*. Sacramento Convention Center Complex, Sacramento. United States of America. June 2014.

Van Breugel, Y. and Tsikos, C.

Van Breugel, Y., **Cowan, A.K.**, **Edeki, O.G.**, Sokhohola, L. and **Tsikos, C.** A geochemical study of weathered coal from the Witbank coal mine, South Africa, and its use in the rehabilitation of mine dumps. *Conference on Coastal Landscapes, Mining Activities & preservation of Cultural Heritage*. Milos Island, Cyclades. Greece. September 2014.

INTRODUCTION

The Department of History's profile has been further bolstered by the productivity of staff members and Postgraduates. If measured in terms of peer reviewed research outputs alone 2014 might not have been a "bumper" year, but there has been an exponential growth in the number and type of publications.

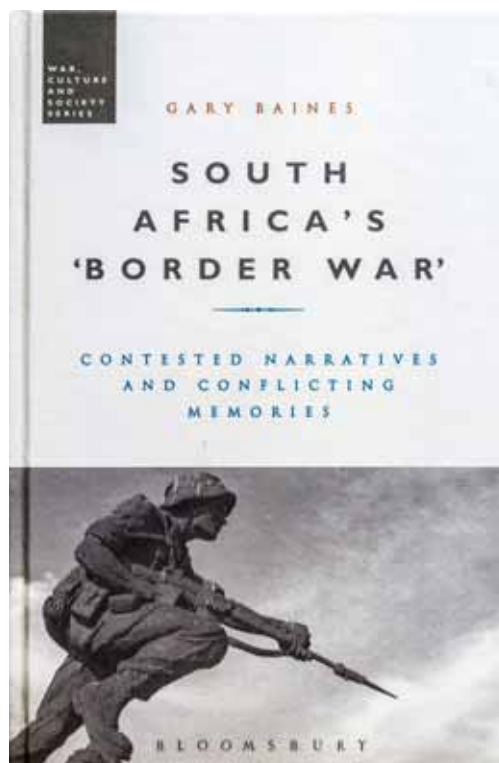
Professor Gary Baines delivered his inaugural lecture titled 'Commemorating War: A Time to Remember, A Season to Forget' in July 2014. His monograph on the 'Border War' was published in Bloomsbury's 'War & Society' series.

Postgraduates/Graduations

The Department's Postgraduate students work assiduously under the supervision of staff members. Their capacity to produce original and high quality research is aptly demonstrated by Masters student Ms Sarah Bruchausen's achievement of publishing an article and book review in peer reviewed journals.

Distinguished Visitors/International Visits

Professor Jonathan Hyslop of the Department of Sociology and Anthropology, Colgate University, Hamilton, New York, was hosted by the Department during June 2014. He presented a Humanities Faculty Seminar titled 'Eugene O'Neill and other undesirables of Durban Harbour: Policing the Global Maritime Labour Force in Colonial Natal'.



Professor Gary Baines' monograph *South Africa's 'Border War': Contested Narratives and Conflicting Memories*
Photo: Paul Greenway

He also presented a seminar to history Postgraduates and staff on the writing of biographies.

Professor Baines visited the United Kingdom where he conducted research at the National Archives in Kew, London and presented a paper at the 'War and Travel Writing' Conference at the University of East Anglia in Norwich. The Department's Postdoctoral Fellow, **Dr Nicole Ulrich**, made a trip to Kolkata, India where she presented a paper on her project on maritime and transnational history.

Significant Research Aligned Events

Two staff members, namely **Professor Raymond Suttner** and **Dr Vashna Jagarnath**, contributed chapters to an edited volume on 'Intellectual Traditions of South Africa'. The well-attended launch of the book in the Humanities Faculty Seminar was hosted by the Department in July 2014.

Professor Gary Baines
Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Baines, G.F.

Baines, G.F. (2014) *South Africa's 'Border War': Contested Narratives and Conflicting Memories*. London: Bloomsbury. ISBN: 9781472509710.

Jagarnath, V.

Jagarnath, V. (2014) Reformers, Swamis and Devotees: Hindu Intellectual Traditions in South Africa. In: Vale, P., Lawrence, H. and Prinsloo, E.H. (eds.). *Intellectual Traditions in South Africa: Ideas, Individuals and Institutions*. Durban: UKZN Press. p.268-290. ISBN: 9781869142582.

Suttner, R.S.

Suttner, R.S. (2014) African Nationalism. In: Vale, P., Lawrence, H. and Prinsloo, E.H. (eds.). *Intellectual Traditions in South Africa: Ideas, Individuals and Institutions*. Durban: UKZN Press. p.121-145. ISBN: 9781869142582.

Concerts, Exhibitions, Performances, Workshops, Events

Baines, G.F.

Baines, G.F. Speaker. Commemorating War: A Time to Remember, A Season to Forget. *Inaugural Lecture*. Rhodes University, Grahamstown. South Africa. 30 July 2014.

Creative Writing

Mkhize, N.

Mkhize, N. (2014) Vanguard/DiBookeng Summerx500 Digital Anthology. In: *Lapho amanzi ake ema khona*. South Africa: Vanguard/Dibookeng http://issuu.com/vanguardxdibookeng/docs/summerx500_vanguardxdibookeng.

Other Publications

Baines, G.F.

Baines, G.F. (2014) Book Review of Masculinities, Militarisation and the End Conscription Campaign: War Resistance in Apartheid South Africa by Daniel Conway (Manchester University Press, 2012). In: *Journal of Contemporary African Studies*. New York: Routledge: Taylor and Francis.

Bruchhausen, S. (2014) Book Review of Gibbs, T. 2014.

Mandela's Kinsmen: Nationalist Elites & Apartheid's First Bantustan. Johannesburg. Jacana Media. *Journal of Asian and African studies*. 2014 (2014). p.1-2.

Edlmann, T.M.

Edlmann, T.M. (2014) Acknowledging the human legacies of the apartheid era wars. In: *The Toposcope*. Grahamstown: Lower Albany Historical Society.

Msindo, E.

Msindo, E. (2014) Book Review of Musembu, M. & Chiumbu, S. (eds). Crisis! What Crisis? The Multiple Dimensions of the Zimbabwean Crisis. In: *South African Historical Journal*. 66, 2: 409-14.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Jagarnath, V.

Jagarnath, V. (2014) Book Review of Perry Anderson (2012). India Trilogy: Gandhi centre stage. Why partition? After Nehru, London Review of Books. *Agrarian South: Journal of Political Economy*. 2 (3). p.1-7.

Maylam, P.R.

Maylam, P.R. (2014) Jawaharlal Nehru and Nelson Mandela: Parallel Lives Compared. *Journal of Historical Biography*. 15 (2014). p.1-33.

Suttner, R.S.

Suttner, R.S. (2014) Twenty Years of Democracy and the Question of Popular Participation. *Grace and Truth*. 39 (1). p.6-18.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bruchhausen, S.

Bruchhausen, S. (2014) Understanding Marikana Through The Mpondo Revolts. *Journal of Asian and African studies*. 2014 (2014). p.1-15.

Mkhize, N.

Mkhize, N. (2014) Game farm conversions and the land question: unpacking present contradictions and historical continuities in farm dwellers' tenure insecurity in Cradock. *Journal of contemporary African studies*. 32 (2). p.207-219.

Mvenene, J.

Mvenene, J. (2014) A social and economic history of the African people of Gcalekaland, 1830-1913. *Historia: Journal of the Historical Association of South Africa*. 59 (1). p.35-58.

Suttner, R.S.

Suttner, R.S. (2014) 'I Was Not Born with a Hunger to be Free.' Nelson Mandela's Early Journeys towards Political Awareness. *Journal of Asian and African studies*. 2014 (2014). p.1-15.

Suttner, R.S. (2014) Popular Power, Constitutional Democracy and Crisis: South Africa 1994-2014. *Strategic review for Southern Africa/Strategie oorsig vir Suider-Afrika*. 36 (2). p.7-30.

Suttner, R.S. (2014) Nelson Mandela's masculinities. *African identities*. 12 (3-4). p.342-356.

Tsampiras, C.Z.

Tsampiras, C.Z. (2014) Two Tales about Illness, Ideologies, and Intimate Identities: Sexuality Politics and AIDS in South Africa, 1980-95. *Medical History*. 58 (2). p.230-256.

Ulrich, N.

Ulrich, N. (2014) The Golden Fleece of the Cape: Capitalist expansion and labour relations in the periphery of transnational wool production c.1860-1950. (Studia Historia Upsaliensia, 247) Uppsala Universitet, Uppsala 2013. 225pp. (by L. Fredrik).

International Review of Social History. 59 (1). p.139-140.

Ulrich, N. (2014) Popular Community in 18th-Century Southern Africa: Family, Fellowship, Alternative Networks, and Mutual Aid at the Cape of Good Hope, 1652-1795. *Journal of Southern African Studies*. 40 (6). p.1139-1157.

Wells, J.C.

Wells, J.C. (2014) In the Shadow of the Butcher: The Limits to Remembering in Post-apartheid South Africa. *Public Historian*. 36 (2). p.51-74.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Baines, G.F.

Baines, G.F. SADF Soldiers' Silences: Institutional, Consensual and Strategic. *Silence after Violence Colloquium*. University of the Free State, Bloemfontein. South Africa. May 2014.

Baines, G.F. Revisiting Cuito Cuanavale: The Travel Writings of South African Military Veterans. *War, Travel & Travel Writing Conference*. University of East Anglia, Norwich. England. November 2014.

Edlmann, T.M.

Edlmann, T.M. Personal and Social Constructions of Silences in Narrating the Legacies of the Apartheid Wars. *Silence After Violence Conference*. University of Free State, Bloemfontein. South Africa. May 2014.

Mkhize, N.

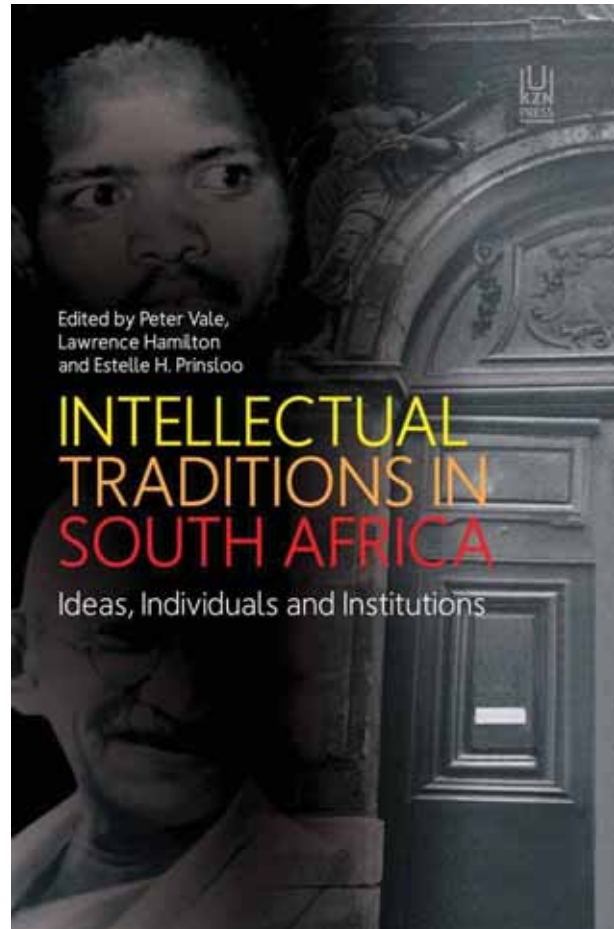
Mkhize, N. Fusing disciplines and Hybridising Epistemologies: The Challenge for Africa in the 21st Century. *PLAAS Green School*. La Provençe, Stellenbosch. South Africa. September 2014.

Mkhize, N. and Ntsekhe, M.V.K. When Amalungelo are not Enough: In Search Of An African Feminist Idiom. *International Conference of the Southern African Folklore Society and Annual General Meeting (AGM)*. Rhodes University, Grahamstown. South Africa. September 2014.

Ulrich, N.

Ulrich, N. An American Naval Deserter in Africa: Joshua Penny, the Royal Navy and the Rebels in the Cape Colony (1795- 1803). Maritime Networks and the Construction of Trans-national spaces: Comparative approaches and connected histories. *Organized by the Centre for Studies in Social Sciences, Calcutta and Glasgow University and supported by the Indian Council of Social Science Research and the British Academy*. Centre for Studies in Social Sciences, Kolkata. India. December 2014.

Van Der Walt, L.J.W. and Ulrich, N. Workerism/Syndicalism and Nationalism. *The Unresolved National Question in Left Thinking: Hidden Voices, Unpublished Works 1950s to 1990*. COSATU House, Johannesburg. South Africa. June 2014.



In the book *Intellectual Traditions in South Africa: Ideas, Individuals, and Institutions*, Dr Vashna Jagarnath contributed the chapter *Reformers, Swamis and Devotees: Hindu Intellectual Traditions in South Africa* and Professor Raymond Suttner contributed the chapter *African Nationalism*

DEPARTMENT OF HUMAN KINETICS AND ERGONOMICS

INTRODUCTION

With the recipient of the 2014 Vice Chancellor's Distinguished Teaching Award, an inaugural lecture and a PhD graduate, five (5) journal publications including two (2) in high impact journals, eight (8) successful Masters graduates and attendance at seven (7) local and international conferences, we can safely say that 2014 was an excellent year for us at the Department of Human Kinetics and Ergonomics.

Distinguished Visitors/International Visits

We had the pleasure of hosting **Professor Frank Marino** from Charles Sturt University in Bathurst, New South Wales, Australia. Stimulating and thought provoking, Professor Marino covered topics such as "What is Science?" cooling strategies for exercise in the heat and the central governor theory of fatigue. We also welcomed two external examiners to the Department; **Professor Andrew Thatcher** from University of Witwatersrand and **Professor Andrew McKune** from the University of KwaZulu-Natal.

Significant Research Aligned Events

In April 2014 the Department celebrated the graduation of **Dr Janet Viljoen** who received her PhD - the first in the Department since 2007. Additionally, eight (8) Masters students graduated and we had fourteen (14) Honours graduates. **Mr Andrew Todd** was awarded the 2014 Vice-Chancellor's Distinguished Teaching Award, a proud moment for the



Zandile Hoyi's research project looking into seat proportions for the South African population

Photos: Students and staff at HKE

Department. Further celebrations were held on the occasion of **Professor Matthias Göbel's** Inaugural Lecture later in the year.

Perhaps the most important publication of 2014 was **Dr Candice Christie's** involvement in the publication of the 'Results from South Africa's 2014 Report Card on Physical Activity for Children and Youth' in the *Journal of Physical Activity and Health* together with stakeholders from around South Africa. **Mr Jonathan Davy's** publication in *Ergonomics South Africa* entitled 'Good sleep, good health and good performance. It's obvious. Or is it? The importance of education programmes in general fatigue management' also merits mention.

From a conference and travel perspective 2014 was an exceptionally busy year for staff and students alike, both locally and internationally. **Mr Andrew Todd** participated in the *2eme Congres National d'Ergonomie* in Yasmin-Hammamet in Tunisia in May 2014, shortly thereafter joining colleagues **Professor Matthias Göbel** and **Mr Jonathan Davy** in Kraków, Poland for the *5th International Conference on Applied Human Factors and Ergonomics*, which took place in June 2014. In July 2014, **Dr Janet Viljoen** attended the *European Congress of Sport Science* in Amsterdam, The Netherlands.

On the national scene, **Dr Candice Christie** and her Postdoctoral Fellow, **Dr Janet Viljoen**, accompanied a group of thirteen (13) Postgraduates to the Biokinetics Association of South Africa's conference, *Life Through Movement*, which was held in Stellenbosch in September 2014.

Rhodes was well represented on this occasion with no fewer than three (3) staff presentations, six (6) Masters presentations and seven (7) excellent offerings from Honours students. **Mr Jonathan Davy** and his Honours student, Travis Steenekamp, were awarded the 'Best Presentation' award



in the Honours student category, in which **Dr Candice Christie** and Honours student Ethan Berndt received a 'Top 10' acknowledgement. Their papers were selected for publication in the *Journal of Community Health*.

Rhodes and HKE were again well represented in South Africa, this time at the *South African Sports and Recreation Conference* held in Potchefstroom in November 2014. Seven (7) delegates attended from the Department, with presentations by **Mr Andrew Todd** together with Ben Ryan (MSc) and Robert

Jones (PhD). Another accolade was achieved by **Dr Swantje Zschoernack** and Tendayi Tichiwanhuyi who received best MSc paper at the *Rhodes University Interdisciplinary Postgraduate Conference* held in Grahamstown. **Ms Miriam Mattison's** MSc scholars Elizabeth Bassey-Duke and Natalie Ross also presented at this forum.

Dr Candice Christie
Head of Department

Elizabeth Bassey-Duke conducting research for her MSc, investigating the effects of three citrus harvesting bag designs on productivity, physical and perceptual responses

PUBLICATIONS

Peer Reviewed Subsidy-Earning Journal Research Publications

Christie, C.J. and Pote, L.

Christie, C.J. and Pote, L. (2014) Physiological and Perceptual Demands of High Intensity Sprinting Between the Wickets in Cricket. *International Journal of Sports Science & Coaching*. 9 (6). p.1375-1382.

Christie, C.J.

Draper, C., Basset, S., de Villiers, A., Lambert, E.V., Uys, M., Bartels, C., Blomkamp, Y., Micklesfield, L., **Dugmore, H., Christie, C.J.** et al. (2014) Results From South Africa's 2014 Report Card on Physical Activity for Children and Youth. *Journal of Physical Activity & Health*. 11 (1). p.98-104.

Davy, J.P.

Davy, J.P. (2014) Good sleep, good health, good performance. It's obvious, or is it? The importance of education programmes in general fatigue management. *Ergonomics SA*. 26 (1). p.64-73.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Davy, J.P.

Steenekamp, T. and Davy, J.P. (2014). The effects of partial sleep restriction on biomechanical, physiological, and perceptual responses during an early morning treadmill run. *Journal for Community Health Sciences*. 9; 1, 21-33.

Christie C.J.

Berndt E.J. and **Christie C.J.** (2014). The efficacy of interventions aimed at reducing the incidence of upper respiratory tract infections (URTI) in athletes following the performance

of strenuous, intense prolonged exercise - a Systematic Review. *Journal for Community Health Sciences*. 9; 1, 34-44.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Bassey-Duke, E.M. and Mattison, M.C.

Bassey-Duke, E.M. and Mattison, M.C. A Comparison of the Standard Citrus Harvesting Bag to Two Newly Designed Harvesting Bags: Productivity, RPE and Worker Acceptance. *6th Interdisciplinary Postgraduate Conference*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. October 2014.

Berndt, E.J. and Christie C.J.

Berndt, E.J. and Christie C.J. Upper Respiratory Tract Infections and Overtraining: A Systematic Review. *Life Through Movement International Conference (LTMIC2014)*. Cape Town, South Africa, 10-13 September 2014. University of Cape Town, Cape Town. South Africa. September 2014.

Christie, C.J., Viljoen, J.E. and Crymble, T.

Christie, C.J., Viljoen, J.E. and Crymble, T. Hypertension and overweight/obesity in pre-menopausal female Africans: is walking the solution? *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.

Davy, J.P. and Gobel, M.

Davy, J.P. and Gobel, M. Innovative shift ergonomics interventions to reduce the performance decrements associated with night shift work; a laboratory-based investigation. *The Applied Human Factors and Ergonomics Conference*. Krakow Poland. Jagiellonian University, Krakow. Poland. July 2014.

- Davy, J.P. and Gobel, M.** Napping and a staggered, "tag-team" shift system design as a means of combating the difficulties associated with working the night shift. *The First South African Symposium on Human Factors and Aviation*. Birchwood Hotel, Johannesburg. South Africa. January 2014.
- Davy, J.P. and Gobel, M.** An overview of the circadian and shift work-related research in the Department of Human Kinetics and Ergonomics at Rhodes University. *The AIRWAVES conference, which was the meeting of the Sleep Society of Southern Africa*. Gateway Hotel, Durban. South Africa. June 2014.
- Findlay, M.J.**
- Findlay, M.J.** Ergonomics in South Africa. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Goodenough, L.B.**
- Goodenough, L.B.** The cardiac load on Indian underground coal miners. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Hoyi, Z., Gobel, M., Zschoernack, S., Mattison, M.C., Berndt, E.J., Goodenough, L.B., Findlay, M.J., Schmidtke, N.J., Parsons, S.L., Steenekamp, T. and Remsing, S.C.**
- Hoyi, Z., Gobel, M., Zschoernack, S., Mattison, M.C., Berndt, E.J., Goodenough, L.B., Findlay, M.J., Schmidtke, N.J., Parsons, S.L., Steenekamp, T. and Remsing, S.C.** Ergonomics Waainek Plant and Insect laboratory in Grahamstown. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Jager, C.R.L. and Todd, A.I.**
- Jager, C.R.L. and Todd, A.I.** Running research: The way forward. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Nellemann, S.A., Davy, J.P. and Zschoernack, S.**
- Nellemann, S.A., Davy, J.P. and Zschoernack, S.** The effects of cycling at a submaximal speed on selected cognitive performance variables. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Parsons, S.L. and Mattison, M.C.**
- Parsons, S.L. and Mattison, M.C.** A comparative study assessing the anthropometric and physiological profiles of senior male Eastern Cape rowers (sub-elite) and the South African senior male rowers (elite). *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Proud, L.L., Christie, C.J. and Viljoen, J.E.**
- Proud, L.L., Christie, C.J. and Viljoen, J.E.** Pilates and its impact on balance and core control - how much do we really know? A review. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Rader, G.S.V., Viljoen, J.E. and Christie, C.J.**
- Rader, G.S.V., Viljoen, J.E. and Christie, C.J.** Adherence of Black African women to a 12 week established, progressive and unsupervised walking programme. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Ross, N.A. and Mattison, M.C.**
- Ross, N.A. and Mattison, M.C.** An investigation into the interaction effects of concurrent physical and cognitive task execution on physical, physiological, perceptual and performance responses. *6th Interdisciplinary Postgraduate Conference*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. October 2014.
- Schmidtke, N.J., Viljoen, J.E. and Gobel, M.**
- Schmidtke, N.J., Viljoen, J.E. and Gobel, M.** What is ergonomics, preconceptions of Ergonomics and the link between Ergonomics and Sports Science. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Steenekamp, T. and Davy, J.P.**
- Steenekamp, T. and Davy, J.P.** The effects of sleep restriction on various physiological, biomechanical and perceptual characteristics during running. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.
- Todd, A.I.**
- Todd, A.I.** Ergonomics Certification in South Africa Ensuring successful implementation. *Applied Human Factors and Ergonomics Conference*. Jagiellonian University, Krakow. Poland. July 2014.
- Todd, A.I.** Ergonomics guidelines applicability within IDCs: A South African example. *Applied Human Factors and Ergonomics Conference*. Jagiellonian University, Krakow. Poland. July 2014.
- Todd, A.I.** Perspectives in ergonomics education: A South African example. *2eme Congress National d'Ergonomi*. Hotel Diar Lemdina, Yasmin-Hammamet. Tunisia. May 2014.
- Viljoen, J.E. and Christie, C.J.**
- Viljoen, J.E. and Christie, C.J.** Strength training positively impacts diastolic blood pressure in females' post-menses: findings from a controlled trial. *Life Through Movement International Conference*. University of Cape Town, Cape Town. South Africa. September 2014.
- Viljoen, J.E. and Christie, C.J.** Waist circumference decline and a link to HDL-C following strength training post-menses. *18th Annual Congress of the European College of Sport Science*. Amsterdam. The Netherlands. July 2014.
- Viljoen, J.E. and Christie, C.J.** Adherence and retention to a 12 week progressive resistance training intervention: key findings in a post-menopausal sample. *Life Through Movement International Conference*. University of Cape Town, Cape Town. South Africa. September 2014.
- Zeisberger, D.S. and Todd, A.I.**
- Zeisberger, D.S. and Todd, A.I.** The relevance of the VO₂max test in rowing: A review. *Life Through Movement International Conference (LTMIC2014)*. University of Cape Town, Cape Town. South Africa. September 2014.

DEPARTMENT OF ICHTHYOLOGY AND FISHERIES SCIENCE

INTRODUCTION

2014 has been an excellent year for the Department of Ichthyology and Fisheries Science (DIFS), with twenty-five (25) MSc and eighteen (18) PhD students registered, and forty-eight (48) peer reviewed publications in accredited journals. In addition, the Department continued to extend its research and outreach in Africa. The renovation of both offices and laboratories are also underway.

Professor Tony Booth continued with his research on the impacts of alien fishes, producing a number of publications.

Professor Kevern Cochrane continued in the position of Professor Extraordinaire in the DIFS. He is the Lead Project Investigator for the project 'Global learning for local solutions: Reducing vulnerability of marine-dependent coastal communities' (GULLS) within the Belmont Forum and G8 Research Councils Initiative on Multilateral Research Funding. This project is now in its second year and progressing well. Professor Cochrane is working with **Dr Kelly Ortega Cisneros**, a Postdoctoral Fellow with GULLS on models of the small pelagic stocks and fisheries in the southern Benguela.

Professor Cochrane continued to work in cooperation with WWF South Africa on three projects: 'Valuing the Kleinmond small-scale fishery'; 'Progress in implementation of ecosystem approach to fisheries in South Africa: principles and practice' and 'Informing effective policies for responsible fisheries in South Africa' (funded by the Responsible



A pyjama shark (*Poroderma africanum*) investigates the stereo-BRUVs' bait canister in the Tsitsikamma National Park Marine Protected Area.
Photo: Steve Benjamin.

Fisheries Allianz). Two Masters students are undertaking the research for their theses on the first two of those topics. Professor Cochrane was also one of the three members of a Panel commissioned by the Northeast Atlantic Fisheries Commission (NEAFC) to undertake a performance review of the Commission. The review was completed and the Panel reported back to NEAFC in November 2014.

Dr Cliff Jones continued his work on the Water Research Commission funded project (supported also by SAB and in collaboration with EBRU) that aims to better understand the processes involved in nutrient removal from high rate algal ponds used to treat industrial effluent. He also supervised the investigation process into the possibility of using filter-feeding fish to "harvest" unicellular algae from these ponds. In addition to this, he collaborated with other staff members on a number of abalone physiology, behavior and nutrition projects that are aimed at supporting the growth and development of the local abalone and marine finfish farming industries in South Africa. He continued his collaboration with Newcastle University (UK) on the development of farming technologies for sea cucumber. He also represents Rhodes University in a partnership with Lilongwe University of Agriculture and Natural Resources (Malawi), the University of Eldoret (Kenya) and Makerere University (Uganda) where they are jointly developing curricula for PhD research in aquaculture and fisheries science.

Professor Horst Kaiser continued with his collaboration in research and development with the South African abalone farming industry. He assisted in the design of the Fish Health Management course which was presented to southern African state veterinarians.

Professor Peter Britz led a Water Research Commission study on the potential for developing inland fisheries in South Africa which will inform



DIFS MSc student Warren Witte recording data while surveying abalone at Cape Recife, Port Elizabeth, as part of the Abalone Reseeding Project

the development of a national policy. He participated in the Presidency's 6-week Operation Phakisa Lab to plan the development of the aquaculture sector as part of the Ocean Economy. Professor Britz played a facilitatory role in establishing TroutSA as a recognised agricultural commodity group association. A project to restore abalone populations by reseedling hatchery reared seed in the Eastern Cape is an innovative THRIP-Industry partnership which is yielding promising results. He continued research on abalone and dusky kob diet development for aquaculture in partnership with industry and the Department of Agriculture, Forestry and Fisheries.

Dr Warren Potts, Dr Amber Childs and Professor Sauer continued with their long-term fisheries and climate research program in Angola and implemented an ambitious acoustic telemetry project in collaboration with the Ocean Tracking Network. Four (4) PhD students and two (2) MSc students are currently working on this project. Dr Potts and Dr Childs attended and presented their recreational fisheries research at the *7th World Recreational Fisheries Conference* in Brazil in September 2014. Their recreational fisheries research portfolio grew substantially and beside a community engaged research project with the *Rock and Surf Super Pro League (RASSPL)* that aims to minimise the environmental impact of the league. Dr Potts has also established several other recreational fisheries research projects. These include a two year project that aims to assess the economic impact of South Africa's recreational fisheries in partnership with the University of the North West, University of Cape Town, SAIAB and the Oceanographic Research Institute, and a WWF



Multiple stereo-BRUV systems can be deployed simultaneously to maximise sampling efficiency. Here, Denham Parker gets ready to deploy the next stereo-BRUV off the research vessel Honckenii in the Tsitsikamma National Park Marine Protected Area

Photo: Nick Riddin

funded citizen science project called "Fishtory" which aims to create an online platform to digitise historical angling photographs and generate historical data from fishermen throughout the country. Dr Potts is also the lead researcher on two fisheries and climate change research projects funded by the Rhodes Sandisa Imbewu Fund and the South Africa Research and Technology Fund. These projects are partnerships with the South African Institute for Aquatic Biodiversity and make use of the newly developed National Research Foundation aquatic ecophysiology research laboratories.

Dr Amber Childs joined the DIFS on the Accelerated Development Programme in January. Her research interests include fish movement behaviour and habitat connectivity, biology and ecology of coastal fishery species, estuarine and fisheries ecology and recreational fisheries. She is currently a collaborator on four research programmes, three in South Africa and one in Angola. Two of the South African projects commenced in 2014. The large South African SANCOOP (SA/Norway) project, entitled 'Migration ecology of important fishery species', is the third phase of this long-term project on the movement behavior of estuarine fishery species. The principal investigators are Dr Paul Cowley (South African Institute for Aquatic Biodiversity, SAIAB) and Dr Tor Naesje (NINA, Norway) and collaborators include Dr Rhett Bennett (SAIAB). Two (2) MSc students and one (1) PhD student are currently working on the project. The SANCOOP project uses the South African Ocean Tracking Network (OTN) and ATAP platform at SAIAB. Dr Childs presented their project at the launching conference in Cape Town in May

2014 and continued with the project, participating in workshops and fieldtrips throughout 2014. She is also a collaborator on the long-term Angolan SAFER project entitled 'Southern Angolan Fisheries and Ecological Research', and went to Angola with several students for five weeks in June/July 2014. The Principal Investigator is Dr Warren Potts (DIFS), and collaborators include Professor Warwick Sauer (DIFS) and an Angolan and Norwegian partner. Two (2) PhD students are working on the movement aspect of the project. **Dr Childs** is also a collaborator on a new project that was awarded in September 2014 - Rhodes Internal Sandisa Imbewu funding. The project is entitled 'From pattern to process and prediction - understanding the impacts of climate change on South Africa's coastal and estuarine ecosystems', and makes use of SAIAB's newly established platform, the 'Ecophysiology laboratory' housed at, and in collaboration with, the DIFS. The Principle Investigator is Dr Warren Potts and her other collaborator includes Dr Nikki James (SAIAB). Together they have a student on the project. **Dr Childs** and **Dr James** also continued with their research on the recruitment of early juveniles into estuarine nursery habitats and currently have an MSc student on the project. Dr Childs and **Dr Potts** (DIFS) attended the *7th World Recreational Fishery conference* held in Brazil in September 2014 and presented research from the SANCOOP project, entitled 'Behavioural dynamics of estuarine-dependent fishery species may explain their vulnerability to exploitation'. **Dr Childs'** collaborators presented research on the SA/Norway programme at the *South African Marine Science Symposium (SAMSS)* held in Stellenbosch in July.

Distinguished Visitors/International Visits

- DIFS and Rhodes University hosted the 1st GULLS international workshop in April 2014, with participants

from six of the partner countries in addition to participants from Rhodes and University of Cape Town.

- Professor Cochrane attended the 31st Session of the FAO Committee of Fisheries and chaired a side event on the Global Sustainable Seafood Initiative (GSSI). He also attended the 33rd Annual Meeting of NEAFC in London, UK.
- Professor Britz and Professor Sauer visited Zhejiang Ocean University in China to develop an MOU with the DIFS around research and teaching.
- Professor Sauer was invited to give a key note address at the opening of the Faculty of Ocean Science at the University of Mauritius.

Significant Research Aligned Events

- The Department of Ichthyology and Fisheries presented a one-week intensive training course in fish health management for State Veterinarians from several African countries. The course was held in Grahamstown and attended by 30 delegates. It was funded jointly by the FAO through its headquarters in Rome and the South African Department of Agriculture, Forestry and Fisheries. It was presented by Dr David Huchzermeyer, who is associated with Rhodes University and practices as a veterinarian specialising in fish health, and Professor Horst Kaiser from the Department of Ichthyology and Fisheries Science.
- In conjunction with the South African Institute for Aquatic Biodiversity, the building of an Eco physiology laboratory commenced in 2014.

Professor Warwick Sauer

Head of Department

PUBLICATIONS

Reports

Britz, P.J.

Britz, P.J. (2014) Market and policy analysis of the public understanding of aquaculture in South Africa. In: Britz, P.J. (ed.). *Final Report. Food and Agriculture Organisation of the United Nations, South Africa (FAOZA)*. FAOZA-DAFF Technical Cooperation Programme TCP/SAF/3401/2. South Africa: FAOZA.

Cochrane, K.L.

Cochrane, K.L., Murawski, S. and Tahindro, A. 2014. *Report of the Performance Review Panel*. Northeast Atlantic Fisheries Commission (NEAFC). October, 2014. NEAFC, London. 136pp. Available at http://www.neafc.org/system/files/Final_Report_2014_NEAFC_Review.pdf

Cochrane, K.L., Joyner, J., **Sauer, W.** and Swan, J. Informing effective policies for responsible marine fisheries in South Africa. *A report submitted to WWF and the Responsible Fisheries Alliance*. WWF, Cape Town. 50pp.

Peer Reviewed Subsidy-Earning Journal Research Publications

Booth, A.J.

Strydom, N.A., **Booth, A.J.** and McLachlan, A. (2014) Occurrence of larval fish in a rocky shore-associated nursery area in temperate South Africa, with emphasis on temperature-related growth in dominant Sparidae. *African Journal of Marine Science*. 36 (1). p.125-135.

Hodgson, A.N., **Booth, A.J.**, **David-Engelbrecht, V.** and **Henninger, T.O.** (2014) Some life-history parameters of the non-native amphipod *Platorchestia platensis* (Talitridae) in a warm temperature South African estuary. *Transactions of the Royal Society of South Africa*. 69 (2). p.97-106.

Britz, P.J.

Kinghorn, J.W., **Snowball, J.**, **Britz, P.J.** and **Weyl, O.** (2014) A Cross-Model Comparison of Travel Time Inclusion



Rig split: A Baited Remote Underwater Stereo Video system (stereo-BRUVs) is retrieved after being left on the seabed to film for an hour. These systems sample fish abundance, size and species composition and are the primary sampling method used in SAEON's long-term monitoring programme in the Tsitsikamma National Park Marine Protected Area. Photo: Steve Benjamin.

Techniques in Recreational Fishing Demand Analysis. *Journal for Studies in Economics and Econometrics/Tydskrif vir Studies in Ekonomie en Ekonometrie*. 38 (2). p.47-63.

Chalmers, R., Götz, A. and Sauer, W.H.H.

Chalmers, R., Oosthuizen, A., Götz, A., Paterson, A. and Sauer, W.H.H. (2014) Assessing the suitability of commercial fisheries data for local-scale marine spatial planning in South Africa. *African Journal of Marine Science*. 36 (4). p.467-480.

Cochrane, K.L., Oliver, B. and Sauer, W.H.H.

Cochrane, K.L., Oliver, B. and Sauer, W.H.H. (2014) An assessment of the current status of the chokka squid fishery in South Africa and an evaluation of alternative allocation strategies. *Marine Policy*. 43 (2014). p.149-163.

Ellender, B.R.

Ellender, B.R. and Weyl, O. (2014) A review of current knowledge, risk and ecological impacts associated with non-native freshwater fish introductions in South Africa. *Aquatic Invasions*. 9 (2). p.117-132.

Ellender, B.R., Woodford, D.J. and Weyl, O. (2014) The invasibility of small headwater streams by an emerging invader, *Clarias gariepinus*. *Biological Invasions*. 17 (1). p.1-5.

Götz, A.

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Dr Amber Childs carrying out otolith microchemistry at the University of Montpellier, France. The research formed part of her PhD, and the outputs from the data analysed with French collaborator, Dr Audrey Darnaude, allow for ongoing research. The project PI's are Dr Cowley (SAIAB) and Dr Naesje (Norwegian Institute of Nature Research, Norway).



Steentjie (*Spondyllosoma emarginatum*), fransmadam (*Boopsoidea inornata*) and blue hottentot (*Pachymetopon aeneum*) are regularly attracted to the bait when sampling using stereo-BRUVs in the Tsitsikamma National Park Marine Protected Area. These small sparid species are highly abundant in this 'no take' sanctuary. Photo: Steve Benjamin.

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Magellan, K.

Magellan, K., Pinchuck, S.C. and Swartz, E.R. Short and Long-Term Strategies to Facilitate Aerial Exposure in a Galaxid. *Microscopy Society of Southern Africa Proceedings*. Protea Hotel, Stellenbosch. South Africa. December 2014.

2013 Publications Submitted to DHET in 2014

Books/Chapters/Monographs

Sauer, W.H.H.

Pierce, G.J., **Sauer, W.H.H.**, Allcock, A.L., Smith, J.M., Wangvoralak, S., Jereb, P., Hastie, L.C. and Lefkaditou, E. (2013) *Loligo forbesii*, Veined Squid. In: Rosa, R., O'Dor, R. and Pierce, G.J. (eds.). *Advances in Squid Biology, Ecology and Fisheries: Myopsid Squids*. New York: Nova Science Publishers. p.73-108. ISBN: 9781628083361.

Sauer, W.H.H., Downey, N.J., Lipinski, M., Roberts, M.J., and Shaw, P.

Sauer, W.H.H., Downey, N.J., Lipinski, M., Roberts, M.J., Smale, M.J., Shaw, P., Glazer, J. and Melo, Y. (2013) *Loligo reynaudii*, Chokka Squid. In: Rosa, R., O'Dor, R. and Pierce, G.J. (eds.). *Advances in Squid Biology, Ecology and Fisheries: Myopsid Squids*. New York: Nova Science Publishers. p.33-71. ISBN: 9781628083361.

DEPARTMENT OF INFORMATION SYSTEMS

INTRODUCTION

2014 saw the establishment of a new research group in Health Informatics led by **Professor Greg Foster**, which has attracted a number of Postgraduate students working in the fields of mobile e-health security, the use of ICTs in healthcare, and behavioural change applications.

A visit from **Professor Anthony Maeder**, Professor in Health Informatics at the University of Western Sydney, strengthened collaborative ties between our two departments.

The ICT for Development (ICT4D) research group led by **Dr Caroline Khene** and **Dr Kirstin Krauss** had an especially productive year, generating six (6) publications and a further five (5) conference presentations. Other research areas within the Department include cloud computing adoption, ICTs in education, e-government and strategy development, virtual collaboration, and the use of social media in business. Staff from the Department attended a number of local conferences held in Port Elizabeth, Cape Town and Pretoria, as well as international conferences in Belgium, Senegal and New Zealand.

A collaborative initiative between the Departments of Information Systems and Management at Rhodes University led to the introduction of a new Masters and Doctoral Research Methodology course in 2014.

Distinguished visiting academics **Professor Ojelanki Ngwenyama**, Professor and



Visiting Professor Sue Conger addressing learners at Alexandria High School, which is the site of an ongoing ICT for Education research project

Director of the Institute for Innovation and Technology Management at the Ted Rogers School of Management, Ryerson University, and **Professor Marlien Herselman**, Chief Researcher at the CSIR's Meraka Institute, contributed to the various research workshops. As a result of this initiative, the CSIR and Meraka Institute awarded bursaries worth R160,000.00 for three (3) Postgraduate students supervised by **Dr Caroline Khene** and **Dr Kirstin Krauss** to do ICT4D community engagement research at Cofimvaba in the Eastern Cape. In addition, a new community engagement project which involves the training of CAT teachers at Alexandria High School allowed a research team from the Department of Information Systems to explore the impact of different teaching methods on marginalised high school learners.

Postgraduates/Graduations

Postgraduate registrations in Information Systems showed substantial growth in 2014, with a total of six (6) PhD candidates, fourteen (14) Masters candidates, and a class of thirty-one (31) Honours students. In April 2014 we celebrated the graduation of three (3) Masters and twenty-nine (29) Honours students.

Distinguished Visitors/International Visits

Distinguished visitors to the Department included **Professor Ojelanki Ngwenyama** from Ryerson University, **Professor Marlien Herselman** from the Meraka Institute, **Professor Anthony Maeder** from the University of Western Sydney, **Professor Sue Conger** from the University of Dallas, and previous Head of Department **Professor Malcolm Sainsbury**. Research Associate **Ms Brenda Mallinson** continued to contribute to the research efforts of the Department, with a number of conference presentations in the field of eLearning.

Significant Research Aligned Events

In March 2014, students and staff from the Department participated in the Research Rumble, an annual event which showcases research initiatives



Local performers added colour to the ICIS 2014 conference in Auckland NZ, which was attended by Dr Kirstin Krauss

being undertaken by members of the IT, CS and IS Departments of Rhodes University, Nelson Mandela Metropolitan University, Water Sisulu University and the University of Fort Hare. Five (5) of our Masters and PhD students were subsequently invited to present research posters at the 2014 SAICSIT conference in Pretoria, where **Dr Kirstin Krauss** was one of the review panellists. **Dr**

DEPARTMENT OF INFORMATION SYSTEMS



Professor Greg Foster and Ms Jane Nash attended an HOD colloquium held during the SACLA 2014 conference

Caroline Khene joined distinguished researcher Professor Geoff Walsham from Cambridge University as a panellist at an international workshop hosted by the University of South Africa.

Ms Jane Nash
Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Conger, S.

Conger, S. and Probst, J. (2014) Knowledge management in ITSM: Applying the DIKW model. In: Mora, M., Gomez, J. and Perez, F.C. (eds.). *Engineering and Management of IT-based Service Systems: An Intelligent Decision-Making Support Systems Approach*. London: Springer-Verlag. p.1-18. ISBN: 9783642399282.

Conger, S. (2014) Knowledge management for programs on Information and Communications Technologies for Development (ICT4D) in South Africa. In: Osei-Bryson, K.M., Mansingh, G. and Rao, L. (eds.). *Knowledge Management for Development: Domains, Strategies and Technologies for Developing Countries*. New York: Springer. p.223-258. ISBN: 9781489973917.

Conger, S. (2014) Management of IT services. *Wiley Encyclopedia of Management: Volume 7*. 3rd Ed. America: John Wiley & Sons. ISBN: 9781119972518.

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Concerts, Exhibitions, Performances, Workshops, Events

Conger, S.

Conger, S. Presentation. Perfecting the service desk. *AIS*

SIGSVC Workshop. Auckland. New Zealand. 14 December 2014.

Khene, C.J., Mthoko, H.T.W. and Osah, U.J.

Khene, C.J., Mthoko, H.T.W. and Osah, U.J. Workshop presentation. The comprehensive nature of evaluation in ICT4D research and practice. *8th International Development Informatics Association Conference*. Boardwalk Conference Centre, Port Elizabeth. South Africa. 4 November 2014.

Mallinson, B.

Mallinson, B. Pre-conference workshop. Learning development in the open: Moving from course design to development using FOSS. *eLearning Africa 9th Annual International Conference*. Munyonyo, Kampala. Uganda. 28 May 2014.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Conger, S.

Conger, S. and Miller, R. (2014) Problem-based learning applied to student consulting in a lean production course. *Journal of Higher Education Theory and Practice*. 14 (1). p.81-94.

Khene, C.J.

Khene, C.J. (2014) Supporting a humanizing pedagogy in the supervision relationship and process: A reflection in a developing country. *The International Journal of Doctoral Studies*. 9 (0). p.73-83.

Peer Reviewed Subsidy-Earning Journal Research Publications

Krauss, K.E.M.

Van Der Schyff, K.I. and Krauss, K.E.M. (2014) Higher education cloud computing in South Africa: Towards understanding trust and adoption issues. *South African Computer Journal*. 55 (2014). p.40-55.

Osah, U.J., Khene, C.J. and Foster, G.G.

Osah, U.J., Khene, C.J. and Foster, G.G. (2014) Critical themes of process assessment in rural ICT4D projects: An analysis of assessment approaches. *Electronic Journal of Information Systems in Developing Countries*. 60 (4). p.1-22.

Peer Reviewed Proceedings

Alistoun, G. and Upfold, C.T.

Alistoun, G. and Upfold, C.T. Towards a culture of engagement: Leveraging the enterprise social network. *Proceedings of the 8th European Conference on IS Management and Evaluation*. University of Antwerp, Ghent. Belgium. September 2014.

Foster, G.G.

Foster, G.G. Students' response to the use of QR codes to encourage participation in an introductory programming module. *2014 Proceedings of the 43rd Conference of the Southern African Lecturers' Association (SACLA): ICT Education in the Cyber World*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. June 2014.

Gebregziabher, S. and Krauss, K.E.M.

Gebregziabher, S. and Krauss, K.E.M. The bi-directional influence of technology and society: How M-PESA is shaping and is being shaped by business in Kenya. *Proceedings of 4th International Conference on M4D Mobile Communication for Development*. University Cheikh Anta Diop, Dakar. Senegal. April 2014.

Khene, C.J.

Khene, C.J. Supporting a humanizing pedagogy in the supervision relationship and process: A reflection in a developing country. *Proceedings of the 2014 e-Skills for Knowledge Production and Innovation Conference*. University of Cape Town, Cape Town. South Africa. November 2014.

Nash, J.M.

Nash, J.M. Using blended learning to increase student engagement in a large undergraduate class. *2014 Proceedings of the 43rd Conference of the Southern African Lecturers' Association (SACLA): ICT Education in the Cyber World*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. June 2014.

Nkula, K.Z. and Krauss, K.E.M.

Nkula, K.Z. and Krauss, K.E.M. The integration of ICTs in marginalized schools in South Africa: Considerations for understanding the perceptions of in-service teachers and the role of training. *Proceedings of the 8th International Development Informatics Association Conference*. Boardwalk Conference Centre, Port Elizabeth. South Africa. November 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Baduza, G.O. and Khene, C.J.

Baduza, G.O. and Khene, C.J. A comprehensive approach to scalability assessment of ICTD projects in South Africa. *SAICSIT 2014 (M&D Symposium)*. Leriba Lodge, Centurion, Gauteng. South Africa. September 2014.

Dube, T.S.S., Nash, J.M. and Foster, G.G.

Dube, T.S.S., Nash, J.M. and Foster, G.G. Factors influencing the acceptance and adoption of e-health technologies by nursing staff at Eastern Cape clinics. *SAICSIT 2014 (M&D Symposium)*. Leriba Lodge, Centurion, Gauteng. South Africa. September 2014.

Khene, C.J. and Osah, U.J.

Khene, C.J. and Osah, U.J. A systems-thinking approach to designing an e-government strategy for water service delivery in developing countries: A case of the Sundays River Valley Municipality. *SAICSIT 2014 (M&D Symposium)*. Leriba Lodge, Centurion, Gauteng. South Africa. September 2014.

Krauss, K.E.M.

Krauss, K.E.M. A confessional account of the community entry phases of a critical ethnography: Doing emancipatory ICT4D work in a deep rural community in South Africa. *Annual Workshop of the AIS Special Interest Group for ICT in Global Development*. University of Auckland, Auckland. New Zealand. December 2014.

Mallinson, B.

Mallinson, B. and Krull, G. The rise of openness in higher education. *eLearning Update Conference*. Emperor's Palace, Gauteng. South Africa. July 2014.

Mallinson, B. Exploring the design science research process as an approach to addressing digital fluency for academic staff at Open University of Tanzania. *NADEOSA 2014*. University of Pretoria, Pretoria. South Africa. June 2014.

Mallinson, B. and Mays, T. Collating and modelling OERs to train teacher educators in quality ODeL on the African continent: The BERTA project. *4th ACDE Conference and General Assembly*. Elephant Hills Hotel, Victoria Falls. Zimbabwe. June 2014.

Mallinson, B. Using off-line solutions for online and blended learning. *eLearning Africa 9th Annual International Conference*. Munyonyo, Kampala. Uganda. May 2014.

Ncube, L.B.S. and Khene, C.J.

Ncube, L.B.S. and Khene, C.J. E-governance for local government: A case of the Sundays River Valley Municipality. *SAICSIT 2014 (M&D Symposium)*. Leriba Lodge, Centurion, Gauteng. South Africa. September 2014.

Thomson, C.D., Foster, G.G. and Nash, J.M.

Thomson, C.D., Foster, G.G. and Nash, J.M. User interface guidelines for enhancing the user experience of electronic medical records in the practice of optometry. *SAICSIT 2014 (M&D Symposium)*. Leriba Lodge, Centurion, Gauteng. South Africa. September 2014.

SCHOOL OF JOURNALISM AND MEDIA STUDIES

INTRODUCTION

A pleasing number of higher degrees were completed and during the 2014 graduation ceremonies, a number of Postgraduate students graduated from the School of Journalism and Media Studies.

Distinguished Visitors

In 2014 the School embarked on a campaign to grapple seriously with the challenges of reworking the journalism practice curriculum to engage with digital and social media. As a result we invited two experts in the field to spend a considerable amount of time with both staff and students upgrading skills and thinking through curriculum changes.

Professor Mindy McAdams, a digital journalism professor from the University of Florida, visited the School for three months to lecture students on online journalism and the changing ways journalists and audiences use technologies for communication.

McAdams' research entails keeping up to date with what newsrooms are doing in digital fields.

Just as McAdams was leaving, Professor Janet Kolodzy, a Professor at Emerson College in Boston, joined us to educate staff and students on convergence journalism. She started her three-month visit as the online editor for *Cue* newspaper during the National Arts Festival and ended off by running workshops for African journalists and educators at the Highway Africa conference.

Significant Research Aligned Events

The School and the Centre for AIDS



Professor Harry Dugmore, Ms Priscilla Boshoff and PhD candidate Mvuzo Ponono.

Photo: Ettioné Ferreira

Development, Research and Evaluation (CADRE) organised and hosted the Entertainment Education Colloquium which aimed to interrogate the impact and challenges of Entertainment Education (EE) in South Africa. The event was organised by **Professor Harry Dugmore** and **Priscilla Boshoff**. Boshoff and PhD student Mvuzo Ponono presented their research on the South African TV series *Intersexions*. Ponono discussed the show within the township home, while Boshoff looked at gendered narratives in the sexual network. Dugmore managed the overview and summary of the conference which highlighted key themes from the colloquium, and useful insights for future practice. Although the colloquium was limited in number it was a very useful interchange between theorists of education television and practitioners.

Postdoctoral Fellow, **Dr Vanessa Malila**, as well as two Postgraduate students (Mvuzo Ponono and Azwi Mufamadi), presented papers at the South African Communication Association's annual conference, which was held in Potchefstroom at the University of the North West. Malila's co-authored paper, *Binary opposites - Can South African journalists be both watchdogs and developmental journalists?* was selected as one of the five best papers presented at the conference. The paper will be published in the *Journal of African Media Studies*.

Other conferences attended during the year were: the International Association for Media and Communication Researchers in Hyderabad, the 20 Years of SA Democracy conference in Oxford, Critical Philosophies of Race in Johannesburg and the International Conference on Media Diversity.

JMS staff continued the practice of studying, theorising and commenting on major political and social events by attending the National Youth Summit hosted by the Electoral Commission of South Africa (**Associate Professor Lorenzo Dalvit** and Dr Vanessa Malila) and the 2nd European Conference on Health Journalism (Professor Harry Dugmore). **Professor Jeanne**



Shepi Mati in the radio department
Photo: Ettioné Ferreira

Prinsloo produced a research report titled '*Nkandlagate*' - a critical textual analysis of the press coverage. The report involved a critical discourse analysis of the press coverage of the Nkandla story by the *City Press* and the *Mail & Guardian* between September 2012 and September 2013. The report was publicly debated and reported on in the press. It was also presented at a colloquium for a review of the Media and Democracy Project in October 2014 at the Women's Gaol in Johannesburg. **Professor Lynette Steenveld** investigated the "politics of cultural belonging" in the furore around the painting "The Spear" for the international journal *Journalism*.

The Media and Citizenship research project, funded by the Andrew W. Mellon Foundation, received additional NRF funding and added three (3) MA students and two (2) PhDs to the project in 2014.

The 2014 Highway Africa conference was held in September under the theme "Social Media from the Margins to the Mainstream". The programme featured four streams of events and talks for journalists, media owners, researchers, educators and journalism students. In addition to talks and panel debates from across the continent there were workshops every afternoon in a range of critical skills for media survival.

The School produced its 34th edition of *Rhodes Journalism Review* which featured articles reflecting on 20 years of democracy and media freedom in South Africa.



Researchers with the Eastern Cape Communication Forum (from left to right) Lisa Heimer, Chengetai Chikadaya and Mfundo Ntshwaxa
Photo: Ettioné Ferreira

Creative Outputs

Gillian Rennie's short story, *Retrieval*, was selected for the 2014 Short.Sharp.Stories Award anthology which is curated by the National Arts Festival and published by Two Dogs/Mercury. The 2014 edition, *Adults Only*, called for entries about sensuality but received one from Rennie about an imaginary friend and a cat. Ms Rennie also was a facilitator on the Creative Writing course run by the Institute for the Study of English in Africa during 2014. Rennie and **Anthea Garman** each had a poem selected for the latest anthology from African Sun Press, *Heart of Africa Poems of love, loss and longing* edited by Patricia Schonstein. The journalism practice teachers produced the multifaceted Cue project for the National Arts Festival. Led by Brian Garman in its 30th year, this project featured photography, television and radio programmes, a newspaper and an online version.

Professor Larry Strelitz

Head of School



The Andrew W. Mellon Foundation Focus Area Research Team.
Photo: Ettioné Ferreira

PUBLICATIONS

Books/Chapters/Monographs

Collins, A.

Collins, A. (2014) Faceless bureaucracy?: The challenges of gender-based violence and practices of care in higher education. In: Reddy, V., Meyer, S., Shefer, T. and Meyiwa, T. (eds.). *Care in Context: Transnational Gender Perspectives*. Cape Town: HSRC Press. p.282-303. ISBN: 9780796924193.

Dugmore, H.

Dugmore, H. and Ligaga, D. (2014) Citizen Journalism in South Africa and Kenya: The Quandary of Quality and the Prospects for Growth. In: Anderson, P.J., Ogola, G. and Williams, M. (eds.). *The Future of Quality News Journalism: A Cross-Continental Analysis*. London: Routledge. p.248-263. ISBN: 9780415532860.

Garman, A.C.

Garman, A.C. (2014) Running with the jackals: Antjie Krog the journalist. In: Lutge Coullie, J. and Visagie, A. (eds.). *Antjie Krog: An Ethics of Body and Otherness*. Durban: UKZN Press. p.184-214. ISBN: 9781869142537.

Garman, A.C. (2014) Antjie Krog and the accumulation of 'media meta-capital'. In: Lutge Coullie, J. and Visagie, A. (eds.). *Antjie Krog: An Ethics of Body and Otherness*. Durban: UKZN Press. p.73-97. ISBN: 9781869142537.

Mavhungu, J.M.

Mavhungu, J.M. and Mabweazara, H.M. (2014) The South African Mainstream Press in the Online Environment: Successes, Opportunities and Challenges. In: Mabweazara, H.M. and Mudhai, O.F. (eds.). *Online Journalism in Africa: Trends, Practices and Emerging Cultures*. New York: Routledge: Taylor and Francis. p.34-48. ISBN: 9780415503747.

Prinsloo, J.R.J.

Prinsloo, J.R.J. (2014) Sexualisation and children's relationship

with the media. In: von Feilitzen, C. and Stenersen, J. (eds.). *Young people, media and health. Risks and rights*. Gothenburg: NORDICOM (University of Gothenburg). p.71-84. ISBN: 9789186523893.

Concerts, Exhibitions, Performances, Workshops, Events

Dalvit, L.

Dalvit, L., Gunzo, F.T. and Gumbo, S. Seminar presentation. Issues of design and co-creation of services in a South African rural area. *Social Informatics Group*. University of Trento, Trento. Italy. 3 - 4 July 2014.

Dalvit, L. and Sam, M.S. Participant. HLT Ledger Workshop. *HLT Ledger Workshop*. CSIR Pretoria, Knowledge Commons, Pretoria. South Africa. 29 January 2014.

Dalvit, L., Gumbo, S., Gunzo, F.T., Ciaghi, A., Molini, P. and Villafiorita, A. Seminar presentation. Developing the future. *Centre for International Co-operation*. Centre for International co-operation, Trento. Italy. 10 - 11 December 2014.

Dalvit, L., Gunzo, F.T. and Gumbo, S. Seminar presentation. Steps towards making ICT installations in rural areas sustainable: lessons learnt from the Siyakhula Living Lab in South Africa. *Bruno Kessler Foundation*. Bruno Kessler Foundation, Trento. Italy. 20 - 21 June 2014.

Garman, A.C.

Garman, A.C. Convenor of the programme. *Think!Fest 2014*. Eden Grove Blue, Rhodes University, Grahamstown. South Africa. 4 - 13 July 2014.

Schoon, A.

Schoon, A. Trainer. Filmmaking Workshop. *Training workshop for ICT4G group*. Fondazione Bruno Kessler, Trento. Italy. 8 - 9 October 2014.

Schoon, A. Presentation. Designing for the South African Mobile Prepaid Internet Generation. *FBK staff seminar*. Fondazione Bruno Kessler, Trento. Italy. 18 September 2014.

Creative Writing

Garman, A.C.

Garman, A.C. (2014) In the neck. In: Schonstein, P. (ed.). *Heart of Africa! poems of love, loss and longing*. Cape Town: African Sun Press.

Other Publications

Dalvit, L.

Dalvit, L. (2014) Why care about sharing? Shared phones and shared networks in rural areas: African trends. In: Garman, A. (ed.). *Rhodes Journalism Review*. Grahamstown: Rhodes University School of Journalism and Media Studies.

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Dugmore, H. (2014) Fit not fat: finding a new approach to health journalism about obesity. In: *Rhodes Journalism Review*.

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Garman, A.C. (2014) Ordinary People and the Media: the demotic turn by Graeme Turner. Review. In: *Ecquid Novi, African Journalism Studies*. United Kingdom: Taylor and Francis.

Garman, A.C. (2014) What a night, what a sound. In: Grocott's Mail.

Malila, V.

Malila, V. (2014) Tracing the ANC's criticism of SA media. In: Garman, a. (ed.). *Rhodes Journalism Review*. Grahamstown: Rhodes School of Journalism and Media Studies.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Schoon, A.

Schoon, A. (2014) Digital hustling: ICT practices of hip hop artists in Grahamstown. *Technoetic Arts*. 12 (2/3). p.207-217.

Peer Reviewed Subsidy-Earning Journal Research Publications

Boshoff, P.A. and Prinsloo, J.R.J.

Boshoff, P.A. and Prinsloo, J.R.J. (2014) Expurgating the Monstrous: An analysis of the South African Daily Sun's coverage of gang rape. *Feminist media studies*. 2014 (2014). p.1-14.

Dugmore, H.

Draper, C., Basset, S., de Villiers, A., Lambert, E.V., Uys, M., Bartels, C., Blomkamp, Y., Micklesfield, L., Kruger, S., Monyeki, A., Puoane, T., Naidoo, R., **Dugmore, H.**, Waters, C., Naidoo, N., Bacon, J., McQuaide, K., Josephs, L. and **Christie, C.J.** (2014) Results From South Africa's 2014 Report Card on Physical Activity for Children and Youth. *Journal of Physical Activity & Health*. 11 (1). p.98-104.

Duncan, J.

Duncan, J. (2014) A political economy of press self-regulation: the case of South Africa. *Media Culture & Society*. 36 (2). p.167-182.

Howlett, S.L. and Collins, A.

Howlett, S.L. and Collins, A. (2014) Vicarious traumatisation: risk and resilience among crisis support volunteers in a community organisation. *South African Journal of Psychology*. 44 (2). p.180-190.

Malila, V.

Malila, V. (2014) The voiceless generation - (non-) representations of young citizens in the coverage of education stories by South African newspapers. *Communicare: Journal for Communication Sciences in Southern Africa*. 33 (1). p.21-34.

Prinsloo, J.R.J.

Jjuuko, M. and **Prinsloo, J.R.J.** (2014) The representation of the environmental crises on Lake Victoria in Uganda's media: A critical discourse analysis of the Victoria Voice radio documentaries. *Journal of African Media Studies*. 6 (2). p.213-229.

Prinsloo, J.R.J. (2014) Examining the relationship between the news media and the ANC: A case study of Nkandla coverage. *Ecquid Novi-African Journalism Studies*. 35 (2). p.23-39.

Rennie, G.

Rennie, G. (2014) Making a prison narrative personal: Jonny Steinberg, the gangster and the reader. *Journalism*. 15 (5).

p.605-614.

Schoon, A. and Strelitz, L.

Schoon, A. and Strelitz, L. (2014) (Im)mobile phones: "Stuckness" and mobile phones in a neighbourhood in a small town in South Africa. *Communicare: Journal for Communication Sciences in Southern Africa*. 33 (2). p.25-39.

Steenveld, L.N.

Steenveld, L.N. (2014) Journalism across cultures: An introduction. *Ecquid Novi-African Journalism Studies*. 35 (3). p.125-127.

Steenveld, L.N. (2014) South African newspaper ethics and the politics of cultural belonging: Reflections on *The Spear. Journalism*. 2014 (2014). p.1-19.

Strelitz, L.

Young, C. and Strelitz, L. (2014) Exploring patterns of Facebook usage, social capital, loneliness and well-being amongst a diverse South African student sample. *Communicare: Journal for Communication Sciences in Southern Africa*. 33 (1). p.57-72.

Tsarwe, S.Z.

Tsarwe, S.Z. (2014) Voice, alienation and the struggle to be heard: a case study of community radio programming in South Africa. *Critical Arts-South-North Cultural and Media Studies*. 28 (2). p.287-310.

Wasserman, H.J.

Wasserman, H.J. and Maweu, J.M. (2014) The freedom to be silent? Market pressures on journalistic normative ideals at the Nation Media Group in Kenya. *Review of African Political Economy*. 41 (142). p.623-633.

Wasserman, H.J. and Garman, A.C.

Wasserman, H.J. and Garman, A.C. (2014) The meanings of citizenship: media use and democracy in South Africa. *Social Dynamics - A Journal of the Centre for African Studies University of Cape Town*. 40 (2). p.392-407.

Peer Reviewed Proceedings

Dalvit, L.

Dalvit, L. and Gunzo, F.T. One year on: A longitudinal case study of computer and mobile phone use among rural South African youth. *Proceedings of the 8th International Development Informatics Association Conference*. Boardwalk Conference Centre, Port Elizabeth. South Africa. November 2014.

Gunzo, F.T. and Dalvit, L. In-service Teachers' Experiences of Teaching with Computers in Rural South African Classrooms. *EDULEARN14 Conference Proceedings*. Princess Sofia Hotel. Barcelona. Spain. July 2014.

Ciaghi, A., Villafiorita, A. and **Dalvit, L.** Understanding Best Practices for ICTD Projects: towards a Maturity Model. *Proceedings of the 8th International Development Informatics Association Conference*. Boardwalk, Port Elizabeth. South Africa. November 2014.

Dalvit, L. and Roux, K.

Dalvit, L. and Roux, K. Mobile Women: Investigating the Digital Gender Divide in Cellphone Use in a South African Rural Area. *Proceedings of the 2014 e-Skills for Knowledge*

Production and Innovation Conference. University of Cape Town, Cape Town. South Africa. November 2014.

Dalvit, L., Kromberg, S.G. and Miya, M.G.R.

Dalvit, L., Kromberg, S.G. and Miya, M.G.R. The Data Divide in a South African Rural Community: A Survey of Mobile Phone Use in Keiskammahoek. *Proceedings of the 2014 e-Skills for Knowledge Production and Innovation Conference*. University of Cape Town, Cape Town. South Africa. November 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Dalvit, L.

Dalvit, L. Strategies for communication, mobilization and advocacy: what the digital age has to offer. Keynote address. *National Youth Summit hosted by the Electoral Commission of South Africa*. The Lakes Hotel and Conference Centre, Johannesburg. South Africa. September 2014.

Dalvit, L. Tech Stories: A pedagogical innovation for new media and mobile communication courses. *International Association for Media and Communication Research (IAMCR)*. Hyderabad International Convention Centre, Hyderabad. India. November 2014.

Dalvit, L. Knowledge and external influence in journalism education: reflections on a Master course in New Media at a South African University. *International Association for Media and Communication Research (IAMCR)*. Hyderabad International Convention Centre, Hyderabad. India. November 2014.

Dugmore, H.

Dugmore, H. Why health journalism matters - and why it matters more in Africa. *2nd European Conference on Health Journalism*. Coventry University, Coventry. United Kingdom. May 2014.

Garman, A.C.

Garman, A.C. Acquiring new political identities: a task for state and media. *International Association of Media Communication Researchers*. Hyderabad University, Hyderabad. India. July 2014.

Garman, A.C. Simply surviving or just doing small things: South African youth 20 years into democracy. *20 Years of South African Democracy*. St Antony's College, Oxford. United Kingdom. April 2014.

Garman, A.C. Talking without listening: the 'white debate' and the necessity of interlocution across race in South Africa. *Critical Philosophies of Race*. University of the Witwatersrand, Johannesburg. South Africa. January 2014.

Garman, A.C. and Malila, V.

Garman, A.C. and Malila, V. Listening to the 'born frees': politics and disillusionment in South Africa. *International Association of Media Communication Researchers*. Hyderabad University, Hyderabad. India. July 2014.

Malila, V.

Malila, V. Youth, elections, and electoral participation: the South African case in relation to the world. *Keynote Address. Electoral Commission National Youth Summit*. The Lakes Hotel and Conference Centre, Johannesburg. South Africa. September 2014.

Malila, V. and Reid, J. The importance of context: Towards a media diversity measurement model for South Africa. *International Conference on Media Diversity: Concept, Analysis, Policy*. Jamia Millia Islamia University, New Delhi. India. November 2014.

Malila, V. Listening to the Born Frees: politics and disillusionment in South Africa. *International Association of Media and Communications Research (IAMCR) Annual Conference*. Hyderabad International Convention Centre, Hyderabad. India. July 2014.

Schoon, A.

Schoon, A. Digital hustling: ICT practices of hip-hop artists in Grahamstown. *Fakugesi Digital Africa Festival Conference*. University of the Witwatersrand, Johannesburg. South Africa. December 2014.

Schoon, A. Hip-hop artists and agency in the age of social media in a small town in South Africa. *African Studies Association UK Biennial Conference 2014*. University of Sussex, Brighton. United Kingdom. September 2014.

2013 Publications Submitted to DHET in 2014

Peer Reviewed Subsidy-Earning Journal Research Publications

Collins, A.

Gordon, S.F. and **Collins, A.** (2013) "We face rape. We face all things": Understandings of gender-based violence amongst female students at a South African university. *African Safety Promotion - A Journal of Injury and violence Prevention*. 11 (2). p.93-106.

Plug, S.N. and Collins, A.

Plug, S.N. and Collins, A. (2013) 'Just do it': The Functionality over Form Discourse in the Construction of Ideal Masculine Body-image. *Journal of Constructive Theology: Gender, Religion and Theology in Africa (Journal of Gender and Religion in Africa)*. 19 (2). p.141-157.

Tofts, M.S. and Collins, A.

Tofts, M.S. and Collins, A. (2013) Love as a Risk: A Discourse of Romantic Love in the Context of Consumer Culture. *Journal of Constructive Theology: Gender, Religion and Theology in Africa (Journal of Gender and Religion in Africa)*. 19 (2). p.11-28.

FACULTY OF LAW

INTRODUCTION

The members of the Faculty of Law continued their steady and varied research involvement in 2014. The activities and outputs included supervision of Postgraduate students, participation in conferences and research discussions, conducting reviews and investigations, and publications. Staff delivered twenty-three (23) papers at national and international conferences. Members and students of the Faculty published twelve (12) peer reviewed journal articles or conference proceedings. This year also saw the publication of a book by **Associate Professor Graham Glover**, the fruit of long hours of work, and additionally he also published a chapter in a book.

Distinguished Visitors/ International Visits

Professor Sandra Liebenberg visited the Faculty as Distinguished Visiting Professor in 2014. She is the third incumbent of the HF Oppenheimer Chair in Human Rights Law and is also Co-Director of the Socio-Economic Rights and Administrative Justice Research Project (SERAJ) at Stellenbosch University. She is widely regarded as a highly competent researcher and has published widely on the right to equality, the right to dignity, the application of the Bill of Rights and specifically on socio-economic rights. Her books (as author and co-editor respectively) include *Socio-Economic Rights - Adjudication under a Transformative Constitution and Law and Poverty - Perspectives from South Africa and Beyond*.



Associate Professor Graham Glover

Photo: Paul Greenway

Professor Liebenberg actively participated in the Faculty during her visit and delivered lectures to the Constitutional Litigation class, and a well-received public lecture. She also had meetings with the Legal Resources Centre and the Public Service Accountability Monitor during her visit.

Significant Research Aligned Events

Members of the Faculty were involved in various other research activities. For example;

- **Professor Laurence Juma** was the joint recipient of the VC's Distinguished Senior Research Award for 2014 for his significant research achievements;
- **Associate Professor Jobst Bodenstein** and **Ms Jaylynne Hillier** coordinated a quantitative research project on behalf of the South African University Law Clinic Association (SAULCA);
- **Dr Gustav Muller** proofread, commented on and edited two policy documents for the Gauteng Department of Local Government and Human Settlements entitled "Strategic Framework for Alternative Approaches to Eviction in Gauteng" and the "Framework for Managing Unlawful Occupation of Land and Buildings in Gauteng". He also presented research on "Free and bound co-ownership", Property and Housing Series of ENSAfrica in Mitchell's Plain;
- **Professor Enyinna Nwauche** continues to work as a tutor WIPO Worldwide Academy, and has been appointed a Visiting Professor at Madonna University in Nigeria.
- **Associate Professor Graham Glover** and **Ms Helen Kruuse** continue their roles as respectively the Managing Editor and an editor of the *South African Law Journal*.
- Several members of staff participated in the weekly research seminars of the Faculty.

Dr Rosaan Kruger
Dean Faculty of Law

PUBLICATIONS

Books/Chapters/Monographs

Glover, G.B.

Glover, G.B. (2014) *Kerr's Law of Sale and Lease*. 4th Ed. Durban: LexisNexis (Pty) Ltd. ISBN: 9780409049374.

Glover, G.B. (2014) Improperly obtained consensus in the law of contract and the value of institutional doctrine. In: Visser, C. and Pretorius, J.T. (eds.). *Essays in Honour of Frans Malan*. Durban: LexisNexis (Pty) Ltd. p.133-145. ISBN: 9780409120882.

Concerts, Exhibitions, Performances, Workshops, Events

Bodenstein, J.

Bodenstein, J. Presentation. Funding of and fundraising of law clinics. *South African University Law Clinic Association workshop*. Heya Safari Lodge, Magliesberg. South Africa. 8 - 11 July 2014.

Bodenstein, J. Presentation. What should we teach in a clinical law course? *South African University Law Clinic Association workshop*. Heya Safari Lodge, Magaliesburg. South African. 8 - 11 July 2014.

Haller-Barker, A.H.A.

Haller-Barker, A.H.A. Participant. Planning of a joint module in Forensic Law. *Forensic Science and Law*. University of Cape Town Law School, Cape Town. South Africa. 24 October 2014.

Haller-Barker, A.H.A. Participant. Strategic litigation in Environmental Law. *Environmental Law Association Workshop*. Valverde, Muldersdrift, Johannesburg. South Africa. 18 October 2014.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Juma, L.O.

Juma, L.O. (2014) Unclogging the wheels: How the shift from politics to law affects Africa's relations with the international system. *Transnational Law & Contemporary Problems*. 23 (2). p.305-453.

Nwauche, E.S.

Nwauche, E.S. (2014) The Swakopmund Protocol and the Communal Ownership and Control of Expressions of Folklore in Africa. *The Journal of World Intellectual Property*. 17 (5-6). p.191-201.

Peer Reviewed Subsidy-Earning Journal Research Publications

Campbell, J.

Campbell, J. (2014) The Role of Law Faculties and Law Academics: Academic Education or Qualification for Practice? *Stellenbosch Law Review*. 25 (1). p.15-34.

Juma, L.O.

Juma, L.O. and Okpaluba, C. (2014) Apprehension of Bias and the Spectacle of the Fair-Minded Observer: A Survey of

Recent Commonwealth and South African Decisions on Prejudgement. *Speculum Juris*. 28 (2). p.19-40.

Khayundi, F.M.B.

Khayundi, F.M.B. (2014) The South African Human Rights Commission's Role in the Promotion, Protection and Monitoring the Right to Education in South Africa. *Speculum Juris*. 28 (2). p.227-239.

Kruger, R.

Kruger, R. (2014) The (In)Significance of the Common Law? Constitutional Interpretation and the Mansingh judgments. *South African law journal*. 131 (2014). p.233-244.

Kruuse, H.J.

Kruuse, H.J. (2014) Conscientious Objection to Performing Same-Sex Marriage in South Africa. *International journal of law, policy, and the family*. 28 (2). p.1-27.

Kruuse, H.J. and Sloth-Nielsen, J. (2014) Sailing between Scylla and Charybdis: *Mayelane v Ngwenyama*. *Potchefstroomse elektroniese regsblad/Potchefstroom electronic law journal*. 17 (4). p.1710-1738.

Muller, G.

Muller, G. (2014) On Considering Alternative Accommodation and the Rights and Needs of Vulnerable People. *South African Journal on Human Rights*. 30 (1). p.41-62.

Nwauche, E.S.

Nwauche, E.S. (2014) The Nigerian police force and the enforcement of religious criminal law. *African human rights law journal*. 14 (2014). p.203-216.

Oyugi, P.

Oyugi, P. (2014) Cooperation Disputes Between African States Parties To The Rome Statute And The International Criminal Court: Is The End Anywhere Near? *Speculum Juris*. 2. (2014). p.123-142.

Peer Reviewed Proceedings

Van Coller, E.H.

Van Coller, E.H. Church Polity and 'Constitutionalism'. Protestant Church Polity in Changing Contexts II. Case Studies. *Proceedings of the International Conference*. Utrecht. Netherlands. November 2011.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Bodenstein, J.

Bodenstein, J. Clinical Law Programmes in South African: between a Rock and a hard Place. *South African Law Teachers' Conference*. University of the Witwatersrand, Johannesburg. South Africa. January 2014.

Campbell, J.

Campbell, J. Consumer credit law at the interface between justice education and consumer rights. *International Consumer Conference*. University of Pretoria, Pretoria. South Africa. September 2014.

Campbell, J. The role of law faculties and law academics: academic education or qualification for practice. *South African law teachers' conference*. University of the Witwatersrand, Johannesburg. South Africa. January 2014.

Glover, G.B.

Glover, G.B. Exemptions, unjustified enrichment, and remedies in respect of the warranty against eviction in sale. *6th Private Law and Social Justice Conference*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. August 2014.

Juma, L.O.

Juma, L.O. Beneath the Anti-ICC Rhetoric: Invoking the Support of Domestic Institutions to Promote International Criminal Justice Processes in Africa. *13th International Conference of Africanists*. Institute of African Studies of the Russian Academy of Sciences, Moscow. Russia. May 2014.

Juma, L.O. Protection of the rights of urban refugees in Kenya: Revisiting *Abebe Daddi Tullu & Others v Attorney General*. *IASFM 15*. Pontificia Univerisdad Javeriana, Bogota. Colombia. July 2014.

Juma, L.O. "In the Interest of Justice": Mediating the justice and peace Roles of the International Criminal Court in Africa. *Transitional Justice Conference*. Catholic University, Nairobi. Kenya. October 2014.

Kruger, R.

Kruger, R. Combating racism and restoring dignity? A review of work of the Durban Equality Court 2003-2013. *Workshop on Twenty Years of South African Constitutionalism: Constitutional Rights, Judicial Independence and the Transition to Democracy*. New York Law School, New York. United States of America. November 2014.

Kruger, R. Finding balance between freedom of expression and the prohibition of hate speech: a view from South Africa. *Glasgow Human Rights Network Conference*. University of Glasgow, Glasgow. Scotland. May 2014.

Kruger, R. The ebb and flow of the separation of powers in South African Constitutional Law - the Glenister litigation campaign. *International Academic Conference on Law and Politics (ICALP 2014)*. Elite World Hotel, Istanbul. Turkey. April 2014.

Kruuse, H.J.

Kruuse, H.J. and Mwambene, L. Unfulfilled promises? The Implementation of the Recognition of Customary Marriages Act in South Africa. *XVth International Society of Family Law World Conference*. Regional Federal Tribunal, Recife. Brazil. August 2014.

Kruuse, H.J. Travelgate yesterday, waterboarding tomorrow? Government legal advisors and the duty of loyalty in South Africa. *International Legal Ethics Conference*. City University, London. South Africa. July 2014.

Kruuse, H.J. Life after Mayelane: customary marriages and their recognition. *Annual Miller Du Toit Family Law Conference*. Clock Tower, V&A Waterfront, Cape Town. South Africa. April 2014.

Kruuse, H.J. and Robertson, M.P. The why, what and how of legal ethics education today. *The Law Society of South Africa's Ethics Summit*. Hilton Hotel, Durban. South Africa. February 2014.

Kruuse, H.J. Conscientious objection to performing same-sex marriage in South Africa. *XVth International Society of Family Law World Conference*. Regional Federal Tribunal, Recife. Brazil. August 2014.

Marumo, T.

Marumo, T. Delictual class actions: tenable claims? *6th Private Law and Social Justice Conference*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. August 2014.

Muller, G.

Muller, G. Evicting unlawful occupiers for health and safety reasons in post-apartheid South Africa. *South African Research Chair in Property Law Alumni Week*. CL Marais Library, Stellenbosch. South Africa. August 2014.

Muller, G. Developing the substantive content of the right of access to adequate housing: An alternative to the minimum core and the normative vacuum. *Land and housing: Prospects and challenges*. Burgers Park Hotel, Pretoria. South Africa. September 2014.

Muller, G. Evicting unlawful occupiers for health and safety reasons in post-apartheid South Africa. *Modern Studies in Property Law*. Maritime Museum, Albert Dock, Liverpool. United Kingdom. April 2014.

Muller, G. Neighbour law and the reasonableness principle. *South African Research Chair in Property Law Alumni Week*. CL Marais Library, Stellenbosch. South Africa. August 2014.

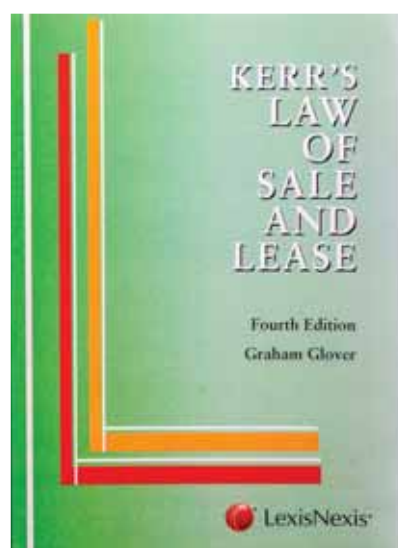
Nwauche, E.S.

Nwauche, E.S. Appropriating a new customary law in post-apartheid South Africa. *6th Private Law and Social Justice Conference*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. August 2014.

Van Coller, E.H.

Van Coller, E.H. Good Governance in the Church: Treating Employees Fairly. *Good Governance in Church and Society Today*. Theology Faculty, Pretoria. South Africa. March 2014.

Van Coller, E.H. The Role and Duty of Religious Institutions in Civil Society. *Law and Religion in Africa: The Quest for the Common Good in Pluralistic Societies*. Stellenbosch. South Africa. May 2014.



Associate Professor Graham Glover's book, *Kerr's Law of Sale and Lease* (4th Edition)
Photo: Paul Greenway

DEPARTMENT OF MANAGEMENT

INTRODUCTION

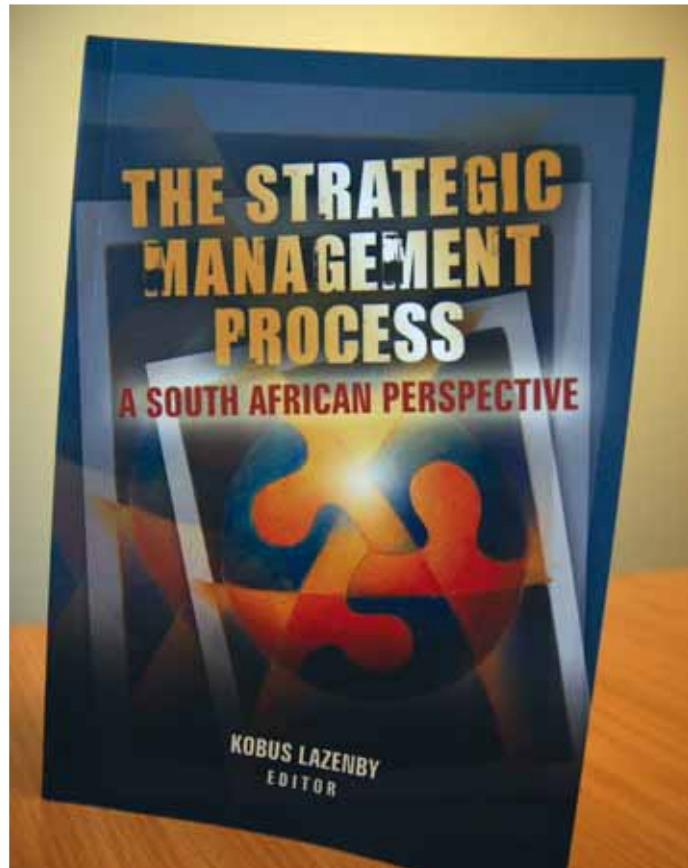
The Department of Management continued to integrate the development of research skills into its teaching, particularly at the fourth-year level where students are exposed to a research methodology module. The Department also offers a structured research component on the Masters programme.

During 2014, thirteen (13) Masters students and six (6) PhD students were registered in the department. Five (5) Masters students and one (1) PhD student graduated in 2014.

Significant Research Aligned Events

Staff of the Department contributed chapters to textbooks in the areas of Financial Management, Operations Management and Strategic Management. They also presented their research at local and international conferences in countries such as Italy and Botswana. Staff also published their research work in journals.

Professor Lynette Louw is pleased to share that in the *Sandisa Imbewu* project, entitled "Chinese organizations in Sub-Saharan Africa: New dynamics, new synergies" data has been gathered from Chinese organisations in South Africa, Uganda, Tanzania, Cameroon and Kenya. The dissemination of the information obtained at conferences and publishing in accredited journals will follow. Furthermore, three (3) PhDs, five (5) Masters students and two (2) groups of Honours students are registered under the auspices of this project.



Shafeek Sha contributed the chapter *Recovery Strategies* to the book *The Strategic Management Process: A South African Perspective* (3rd Edition)

Mr Chris Boness, a Research Associate on the China in Africa project, facilitated a two day workshop in August 2014 on how to analyse qualitative data. This workshop was offered to the Postgraduate students in the Department of Management.

Distinguished Visitors/International Visits

International visits by staff members of the Department took place during the year. These included **Mr Theus Louw** and **Professor Lynette Louw** who lectured at the Shanghai University of International Business and Economics (SUIBE) in Shanghai, China. At the celebration of the 10th year of the International Event Management Programme at SUIBE in Shanghai, **Mr Theus Louw** and **Professor Lynette Louw** were invited to co-present a paper entitled "Chinese students, German students: difference and similarities - A South African approach".

Messrs Theus Louw and **Hans-Peter Bakker** also lectured in the Summer School programme at the University of Utrecht, Netherlands.

Mr Trevor Amos
Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Hefer, J.

Hefer, J. (2014) Practical issues of Capital Budgeting. In: Fouche, J. and Barnard, J. (eds.). *Financial Management: Turning Theory into Practice*. Cape Town: Oxford University Press. p.449-492. ISBN: 9780199048168.

Hefer, J. (2014) Capital Budgeting. In: Fouche, J. and Barnard, J. (eds.). *Financial Management: Turning Theory into Practice*. Cape Town: Oxford University Press. p.392-448. ISBN: 9780199048168.

Maritz, M.

Maritz, M. (2014) Project Management. In: Kruger, D., Ramphal, R. and Maritz, M. (eds.). *Operations Management. 3rd Ed.* Cape Town: Oxford University Press. p.403-430. ISBN: 9780199049561.

Maritz, M. (2014) Supply Chain Management. In: Kruger, D., Ramphal, R. and Maritz, M. (eds.). *Operations Management. 3rd Ed.* Cape Town: Oxford University Press. p.40-62. ISBN: 9780199049561.

Maritz, M. (2014) Design of Goods and Services. In: Kruger, D., Ramphal, R. and Maritz, M. (eds.). *Operations Management. 3rd Ed.* Cape Town: Oxford University Press. p.63-86. ISBN: 9780199049561.

Sha, S.

Sha, S. (2014) Recovery Strategies. In: Lazenby, K. (ed.). *The Strategic Management Process: A South African Perspective*. Pretoria: Van Schaik Publishers. p.198-220. ISBN: 9780627031250.

Peer Reviewed Subsidy-Earning Journal Research Publications

Louw, L. and Louw, M.J.

Louw, L., Louw, M.J. and Lategan, F.S. (2014) Towards Assessing Managerial Competencies and Leadership Styles Required for Successful Game Ranch Management in the Eastern Cape, South Africa. *South African Journal of Agricultural Extension*. 42 (2). p.127-140.

Louw, L. and Mayer, C.H.

Louw, L. and Mayer, C.H. (2014) Salutogenesis and Sense of Coherence: their promotion in a South African organisation. *Journal of Contemporary Management*. 11 (2014). p.185-205.

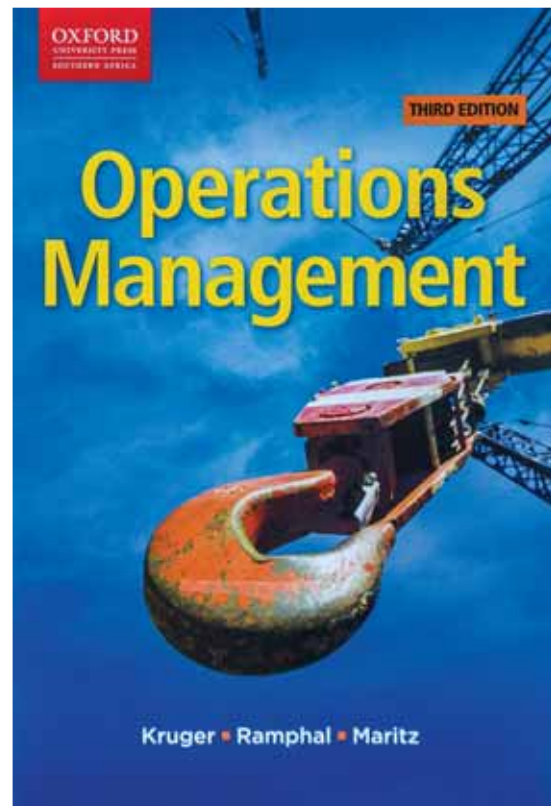
Peer Reviewed Proceedings

Louw, L. and Mayer, C.H.

Louw, L., Mayer, C.H. and Surtee, S. Sense Of Coherence And Mindfulness Of Women In Leadership In Higher Education Institutions. *Best Paper Proceedings 2nd Biennial Conference - Africa Academy of Management*. University of Botswana, Gaborone. Botswana. January 2014.

Mabuza, L.T. and Louw, M.J.

Mabuza, L.T. and Louw, M.J. Organisational Culture in Chinese Organisations in South Africa: Towards New Management Synergies and Dynamics. *Proceedings of the*



Mark Maritz contributed three chapters - *Project Management, Supply Chain Management and Design of Goods and Services* - to the book *Operations Management*
Photo: Paul Greenway

26th Annual SAIMS Conference: Contemporary Management in Theory and Practice. Riverside Sun Resort, Vanderbijl Park. South Africa. September 2014.

Paterson, S.J. and Louw, L.

Paterson, S.J. and Louw, L. Perceptions of Organisational Commitment Within a Selected Chinese Organisation in South Africa. *Proceedings of the 26th Annual SAIMS Conference: Contemporary Management in Theory and Practice*. Riverside Sun Resort, Vanderbijl Park. South Africa. September 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Chigwendere, F.B., Louw, L. and Jackson, T.

Chigwendere, F.B., Louw, L. and Jackson, T. Perceptions of intercultural effectiveness in Chinese-owned organisations in South Africa. *26th Annual SAIMS Conference*. Riverside Sun Resort, Vanderbijl Park. South Africa. September 2014.

Maritz, M. and Waddington, A.J.

Maritz, M., Waddington, A.J. and Tait, M. The impact of brand reputation on brand architecture strategies. *13th International Marketing Trends Conference*. Università Ca Foscari Venezia, Venice. Italy. January 2014.

Ndoro, T.T. and Louw, L.

Ndoro, T.T., Kanyangale, M. and Louw, L. Chinese entrepreneurship in the small retail businesses in South Africa. *26th Annual SAIMS Conference*. Riverside Sun Resort, Vanderbijl Park. South Africa. September 2014.

DEPARTMENT OF MATHEMATICS

INTRODUCTION

The areas of active research in the Department are:

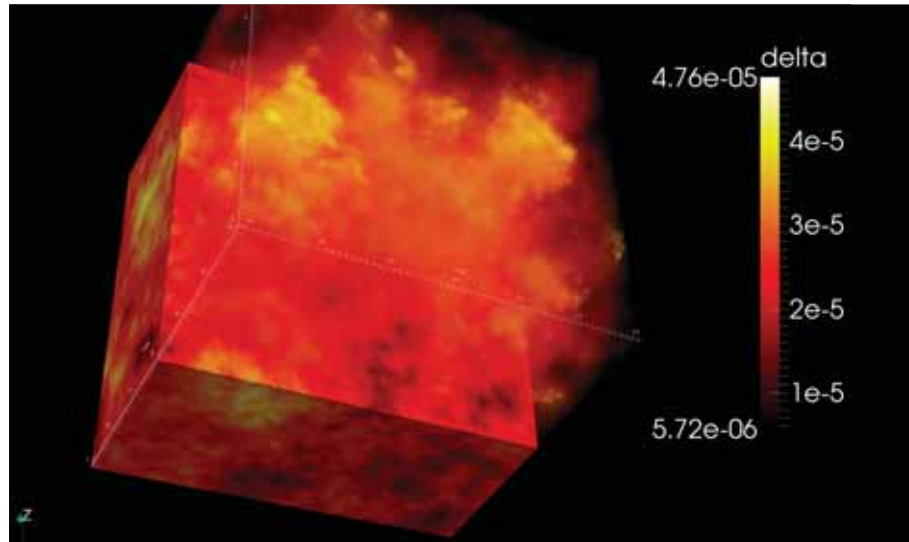
- Fuzzy set theory;
- Functional analysis including measure theory and martingales;
- Geometric control, particularly invariant optimal control problems on matrix Lie groups (of low dimension), primarily in aspects regarding controllability, geometry of extremals, stability and integrability;
- Computational relativity, and in particular, calculation of gravitational waves from black hole interactions;
- Cosmology: general relativistic models, structure formation and alternative models of gravity.

Postgraduates/Graduations

During 2014, the Department supervised four (4) Masters and eight (8) PhD students. Two (2) MSc students, Dennis Barret and Neo Mohapi, and one (1) PhD student, Rekha Panicker, graduated in 2014. Aurelien Hees joined our Department for a Postdoctoral Fellowship from his previous position at the Jet Propulsion Lab in California.

Distinguished Visitors/International Visits

Our academic staff undertook research visits to Germany, Hungary, Romania, Slovenia, Spain, Sweden and the UK. We also received guests from collaborators in Hungary, Germany and the US who participated in our local seminar series for staff and students.



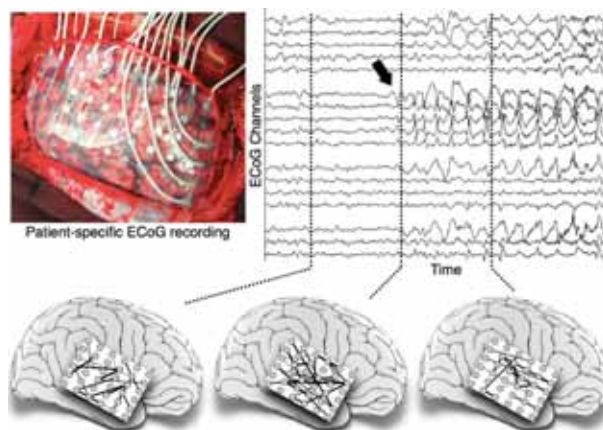
A model of structure formation from the early universe until today, showing the matter density within a 200 million light-years size. This simulation was developed by Professors Larena and Pollney of the Maths Department, and run on the new maths computer cluster, "Getafix", commissioned in 2014 with the support of Rhodes and the NRF.

Significant Research Aligned Events

- The Department procured and installed a new computer cluster for use by our staff, graduate students and senior undergraduates for their various research projects.
- Dr Andriantiana received a Y rating from the National Research Foundation, bringing our number of rated researchers on staff to four (4).
- In December 2014 we welcomed new staff members **Dr Manjunath Gandhi** and **Mr Edward Matabane**.

Professor Denis Pollney

Head of Department



Mathematical theorization of an epileptic surgery: snapshots from an evolving network of dynamic systems.
Photo: Dr Manjunath Gandhi

PUBLICATIONS

Concerts, Exhibitions, Performances, Workshops, Events

Larena, J.

Larena, J. Talk. Back reaction and the fitting problem in cosmology. *George Ellis at 75: Workshop in honour of Prof G. Ellis's 75th Birthday*. University of Cape Town, Cape Town. South Africa. 24 - 25 November 2014.

Larena, J. Talk. Cosmological signatures of multiplicative couplings to electrodynamics. *Dark Energy Interactions*. NORDITA, Stockholm. Sweden. 1 - 3 October 2014.

International Visits

Bishop, N.T.

Bishop, N.T. Goethe University of Frankfurt, Frankfurt, Germany. *Collaboration with L Rezzolla*. 7 - 13 April 2014.

Bishop, N.T. Max-Planck Institute for Gravitational Physics, Berlin, Germany. *Collaboration with L Rezzolla*. 25 June - 1 July 2014.

Hees, A.

Hees, A. Paris observatory, Paris, France. Use of Gaia observations to improve asteroids trajectory and test. *General Relativity*. 5 - 31 December 2014.

Larena, J.

Larena, J. Institut d'Astrophysique de Paris and Institut Henri Poincare, Paris, France. *Stochastic Gravitational Lensing*. 3 - 25 October 2014.

Remsing, C.C.

Remsing, C.C. University of Reading, Reading, United Kingdom. *Research collaboration*. 30 April 2014.

Remsing, C.C. West University of Timisoara, Timisoara, Romania. *Research collaboration*. 9 - 10 June 2014.

Remsing, C.C. University of Ostrava, Ostrava, Czech Republic. *Invariant control systems on Lie groups: equivalence and classification*. 5 - 17 May 2014.

Remsing, C.C. University of Ostrava, Ostrava, Czech Republic. *Research collaboration*. 5 - 17 May 2014.

Remsing, C.C. University of Debrecen, Debrecen, Hungary. *Cartan's method of equivalence*. 19 - 31 May 2014.

Remsing, C.C. Institute of Applied Mathematics, Obuda University, Budapest, Hungary. *Research collaboration*. 1 - 2 June 2014.

Remsing, C.C. University of Palermo, Palermo, Italy. *Research collaboration*. 30 June - 11 July 2014.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Barrett, D.I., Biggs, R. and Remsing, C.C.

Barrett, D.I., Biggs, R. and Remsing, C.C. (2014) Affine subspaces of the Lie algebra $se(1,1)$. *European Journal of Pure and Applied Mathematics*. 7 (2). p.140-155.

Peer Reviewed Subsidy-Earning Journal Research Publications

Andriantiana, E.O.D.

Zhu, Z., Yuan, C., **Andriantiana, E.O.D.** and Wagner, S. (2014) Graphs with maximal Hosoya index and minimal Merrifield-Simmons index. *Discrete Mathematics*. 329 (2014). p.77-87.

Barrett, D.I., Biggs, R. and Remsing, C.C.

Barrett, D.I., Biggs, R. and Remsing, C.C. (2014) Quadratic Hamilton - Poisson systems on $se(1,1)^*$: The homogeneous case. *International Journal of Geometric Methods in Modern Physics*. 2014 (2014). p.1-17.

Bester, H.L., Larena, J., Van Der Walt, P.J. and Bishop, N.T.

Bester, H.L., Larena, J., Van Der Walt, P.J. and Bishop, N.T. (2014) What's inside the cone? Numerically reconstructing the metric from observations. *Journal of Cosmology and Astroparticle Physics*. 009 (2014). p.1-29.

Biggs, R. and Remsing, C.C.

Biggs, R. and Remsing, C.C. (2014) Cost-Extended Control Systems on Lie Groups. *Mediterranean Journal of Mathematics*. 11 (2014). p.193-215.

Biggs, R. and Remsing, C.C. (2014) Control Systems on Three-Dimensional Lie Groups: Equivalence and Controllability. *Journal of Dynamical and Control Systems*. 20 (2014). p.307-339.

Biggs, R. and Remsing, C.C. (2014) Some remarks on the oscillator group. *Differential Geometry and Its Applications*. 35 (2014). p.199-299.

Bishop, N.T.

Bishop, N.T. and Reisswig, C. (2014) The gravitational wave strain in the characteristic formalism of numerical relativity. *General Relativity and Gravitation*. 46 (2014). p.1-13.

Hees, A.

Hees, A., Bertone, S. and Le Poncin-Lafitte, C. (2014) Relativistic formulation of coordinate light time, Doppler, and astrometric observables up to the second post-Minkowskian order. *Physical Review D*. 89 (2014). p.1-18.

Olivier, O. and **Hees, A.** (2014) Late-time cosmology of scalar-tensor theories with universal multiplicative coupling between the scalar field and the matter Lagrangian. *Physical Review D*. 90 (2014). p.1-17.

Hees, A., Bertone, S. and Le Poncin-Lafitte, C. (2014) Light propagation in the field of a moving axisymmetric body: Theory and applications to the Juno mission. *Physical Review D*. 90 (2014). p.1-15.

Hees, A. and Larena, J.

Hees, A., Minazzoli, A. and Larena, J. (2014) Breaking of the equivalence principle in the electromagnetic sector and its cosmological signatures. *Physical Review D*. 90 (2014). p.1-14.

Larena, J.

Sussman, R. and **Larena, J.** (2014) Gravitational entropies in LTB dust models. *Classical and Quantum Gravity*. 31 (2014). p.1-38.

Larena, J. and Pollney, D.

February, S., **Larena, J.**, Clarkson, C. and **Pollney, D.** (2014) Evolution of linear perturbations in spherically symmetric dust space times. *Classical and Quantum Gravity*. 31 (2014). p.1-25.

Pollney, D.

Hinder, I., Buonanno, A., Boyle, M., Etienne, Z.B., Healy, J., Johnson-McDaniel, N.K., Nagar, A., Nakano, H., Pan, Y., **Pollney, D.**, et al. (2014) Error-analysis and comparison to analytical models of numerical waveforms produced by the NRAR Collaboration. *Classical and Quantum Gravity*. 31 (2014). p.1-47.

Stofile, S.

Mishra, S.N., Pant, R. and **Stofile, S.** (2014) Coincidence and Common Fixed Point Theorems in Normed Boolean Vector Spaces. *Journal of Nonlinear and Convex Analysis*. 15 (6). p.1215-1220.

Peer reviewed Proceedings

Barrett, D.I., Biggs, R. and Remsing, C.C.

Barrett, D.I., Biggs, R. and Remsing, C.C. Optimal control of drift-free invariant control systems on the group of motions of the Minkowski plane. *Proceedings of the 13th European Control Conference (ECC 2014)*. Strasbourg Convention & Exhibition Centre, Strasbourg. France. June 2014.

Biggs, R. and Remsing, C.C.

Biggs, R. and Remsing, C.C. Control systems on three-dimensional Lie groups. *Proceedings of the 13th European Control Conference (ECC 2014)*. Strasbourg Convention & Exhibition Centre, Strasbourg. France. June 2014.

Larena, J.

Larena, J. The Fitting Problem in a Lattice Universe. *Relativity and Gravitation, 100 Years After Einstein in Prague, Springer Proceedings in Physics Vol. 157*. Charles University, Prague. Czech Republic. June 2013.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Biggs, R. and Remsing, C.C.

Biggs, R. and Remsing, C.C. Invariant control systems on Lie groups. *2nd International Conference on Lie Groups, Differential Equations and Geometry*. University of Palermo, Palermo. Italy. June 2014.

Bishop, N.T.

Bishop, N.T. Applications of analytic methods in the characteristic formalism: Initial data, QNMs and GWs from EMRIs. *Gravitational wave astronomy workshop*. University of Jena, Jena. Germany. December 2014.

Bishop, N.T. The characteristic formalism of numerical relativity in cosmology. *South African Mathematical Society Annual Congress*. UNISA, Johannesburg. South Africa. October 2014.

Bishop, N.T. Observations on past null cones, numerical relativity, and cosmology. *South African Gravity Society meeting*. University of Cape Town, Cape Town. South Africa. November 2014.

Bishop, N.T. and Rezzolla, L. Extraction of GWs from a numerical simulation. *Sant Cugat Forum on Astrophysics*. Sant Cugat, Barcelona. Spain. April 2014.

Hees, A.

Hestroffer, D., David, P., **Hees, A.** and Le Poncin-Lafitte, C. Gaia Local test of general relativity with Gaia and Solar system objects. *Journées des Systèmes de Référence Spatio-Temporels: "Recent developments and prospects in ground-based and space astrometry"*. Pulkovo Observatory, St Petersburg. Russia. September 2014.

Hees, A., Le Poncin-Lafitte, C., Bertone, S. and Teyssandier, P. The Time Transfer Function as a tool to compute range, Doppler and astrometric observables. *Journées 2014 Systèmes de Référence Spatio-Temporels: "Recent developments and prospects in ground-based and space astrometry"*. Pulkovo Observatory, St Petersburg. Russia. September 2014.

Hees, A. Cosmological signatures of a breaking of the equivalence principle. *Dark Side of the Universe*. University of Cape Town, Cape Town. South Africa. November 2014.

DEPARTMENT OF MUSIC AND MUSICOLOGY

INTRODUCTION

Staff members and students successfully maintained the high standard of performance in the Department of Music and Musicology, and in publications and conferences. Staff members teaching instrumental studies assisted in adjudicating competitions and served as external examiners for various tertiary institutions.

Staff members and many of the Postgraduate students participated in a range of activities relating to research as well as their respective disciplines. As performers and instrumental teachers it is not always possible to work on publications. Instead, performances, or what is accepted as creative outputs, are the dominant means of establishing a career in the discipline of music. In this regard, staff members do not hesitate to offer their services, or to pursue opportunities where they are judged or assessed in the moment of performance. However, all staff members either published articles or presented at conferences, and one staff member, **Associate Professor Catherine Foxcroft**, obtained a DMus in music performance. Associate Professor Foxcroft also produced a mini-thesis on music cognition and emotions.

There is a healthy cohort of Postgraduate students working on areas from composition, through ethnomusicology, to jazz studies.

Dr Lee Watkins

Head of Department



Ethnomusicology students performing at an ILAM concert

PUBLICATIONS

Concerts, Exhibitions, Performances, Workshops, Events

Foxcroft, C.J.

Foxcroft, C.J. Solo performance. *Musaion Hall University of Pretoria (DMus exam)*. University of Pretoria, Pretoria. South Africa. 2 June 2014.

Foxcroft, C.J. Collaboration with international guests Aisling Casey (Netherlands) and Sarah Burnett (England). *Chamber music tour of Eastern/Western Cape with Chameleon Trio*. Mossel Bay Concert Society Whale Museum, Mossel Bay. South Africa. 25 April 2014.

Foxcroft, C.J. Collaboration with international guests Aisling Casey (Netherlands) and Sarah Burnett (England). *Chamber music tour of Eastern/Western Cape with Chameleon Trio*. Humansdorp Concert Society (Moederkerk), Humansdorp. South Africa. 23 April 2014.

Foxcroft, C.J. Collaboration with international guests Aisling Casey (Netherlands) and Sarah Burnett (England). *Chamber music tour of Eastern/Western Cape with Chameleon Trio*. Nelson Mandela Metropolitan University Concert Hall, Port Elizabeth. South Africa. 23 April 2014.

Foxcroft, C.J. Collaboration with international guests Aisling Casey (Netherlands) and Sarah Burnett (England). *Chamber music tour of Eastern/Western Cape with Chameleon Trio*. Rhodes University Concert Series Beethoven Room, Grahamstown. South Africa. 24 April 2014.

Foxcroft, C.J. Collaboration with international guests Aisling Casey (Netherlands) and Sarah Burnett (England). *Chamber music tour of Eastern/Western Cape with Chameleon Trio*. Cape Town Hugo Lambrechts Concert Series, Cape Town. South Africa. 26 April 2014.

Foxcroft, C.J. Solo performance. Rachmaninoff Piano Sonata. *2014 Stellenbosch International Piano Symposium*. Stellenbosch. South Africa. 25 - 30 March 2014.

Foxcroft, C.J. Faculty concert collaboration. 5 Pianos: with Professor Marina Lomazov (University of South Carolina), Dr Erika Bothma (Nelson



Ethnomusicology student Thabo Sesheko recording a performance in Keiskammahoek

Mandela Metropolitan University), Dana Cilliers (Free State University), Dr Pieter Grobblers (University of Stellenbosch). *2014 Stellenbosch International Piano Symposium*. Stellenbosch, Stellenbosch. South Africa. 25 - 30 March 2014.

Foxcroft, C.J. Faculty concert collaboration. 4 Pianos: collaboration with Professor Nina Schumann, Professor Luis Magaleaz (University of Stellenbosch) and Professor Albie van Schalkwyk (University of Cape Town). *2014 Stellenbosch International Piano Symposium*. Stellenbosch. South Africa. 25 - 30 March 2014.

Foxcroft, C.J. Collaboration with international guests Aisling Casey (Netherlands) and Sarah Burnett (England). *Chamber music tour of Eastern/Western Cape with Chameleon Trio*. Addo Sun Valley, Addo. South Africa. 22 April 2014.

Ramanna, N.

Ramanna, N. Performance. Plettenberg Bay Music Festival. *Programme of standards and originals with Rick van Heerden, Kingsley Buitendag, Emmanuel Pitsiladis*. Plettenberg Bay. South Africa. 16 February 2014.

Ramanna, N. Performance. Jazz at the Vic. *Programme of standards and originals with Rick van Heerden, Kingsley Buitendag, Steve Ellis*. Victoria Hotel, Grahamstown. South Africa. 2 March 2014.

Ramanna, N. Performance. Jazz at the Vic. *Programme of standards and originals with Troy Rist and Emmanuel Pitsiladis*. Victoria Hotel, Grahamstown. South Africa. 13 April 2014.

Ramanna, N. Performance. Jazz at the Vic. *Programme of standards and originals with Rick van Heerden, Kingsley Buitendag and Lloyd Martin*. Victoria Hotel, Grahamstown. South Africa. 7 September 2014.

Ramanna, N. Performance. *Programme of standards with Troy Rist and Emmanuel Pitsiladis*. Acoustic Café, Victoria Hotel, Grahamstown. South Africa. 13 November 2014.

Stolp, M.

Stolp, M. Performance. *Hannes Taljaard (saxophone and piano); Paule Maurice (Tableaux de Provence for saxophone and piano); Mike Mower: (Sonata Latina for saxophone (flute) and piano) and Paul Richard (saxophone)*. Beethoven Room, Rhodes University, Grahamstown. South Africa. 30 September 2014.

Stolp, M. Performance. Voyeur Piano (composer Clare Loveday). *Infecting the City Festival*. Cape Town. South Africa. 13 March 2014.

Distinguished Visitors

Brukman, J.J.

JJ Brukman. ATKV, Pretoria, South Africa. *Chief Adjudicator and Convenor of the adjudication panel, Muziq 2014*. National music competition, ATKV. September 2014.

JJ Brukman. University of South Africa, Stellenbosch, South Africa. *External examination of graded and Licentiate-level examinations for the University of South Africa*. August 2014.

Foxcroft, C.J.

CJ Foxcroft. Stellenbosch University, Stellenbosch, South Africa. *10 masterclasses during symposium (2014 Stellenbosch International Piano Symposium)*. March 2014.

CJ Foxcroft. Stellenbosch University, Stellenbosch, South Africa. *Adjudicator: Hennie Joubert National Piano competition*. March 2014.

CJ Foxcroft. Queens College, Queenstown, South Africa. *Eisteddfod adjudicator*. August 2014.

Stolp, M.

M Stolp. Grahamstown Music Competition, Grahamstown, South Africa. *Adjudicator*. June 2014.

M Stolp. South African Society of Music Teachers Competition, Grahamstown, South Africa. *Adjudicator*. May 2014.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Gimenez Amoros, L.

Gimenez Amoros, L. (2014) Mariem Hassan: The primary involvement of Saharawi women in music Haul. *Qua Dri Vium: Revista Digital De Musicologia*. 5 (2015). p.168-174.

Gimenez Amoros, L. (2014) I Play Wassoulou, Jeli, Songhay and Tuareg Music: Adama Drame in Postcolonial Mali, Bimusical or Multimusical? *El oido pensante* 2 (2). p.1-17.

Peer Reviewed Subsidy-Earning Journal Research Publications

Gimenez Amoros, L.

Gimenez Amoros, L. (2014) Mwenda Ntarangwi, East African Hip Hop: Youth Culture and Globalization. *African Music: Journal of the International Library of African Music*. 9 (4). p.154-157.

Ramanna, N.

Ramanna, N. (2014) Christopher Ballantine (2012) Marabi Nights: jazz, race and society in early apartheid South Africa 2nd ed. Pietermaritzburg: UKZN Press. *Transformation*. 84 (2014). p.157-159.

Watkins, L.W.

Watkins, L.W. (2014) Samuel Charters, A Language of Song: Journeys in the Musical World of the African Diaspora. *African Music: Journal of the International Library of African Music*. 9 (4). p.147-148.

Peer Reviewed Proceedings

Heunis, D.

Heunis, D. Expanding the Musical Knowledge and Skills of Non-Music Students through Narrative. *Proceedings of the*

International Society for Music Education 31st World Conference on Music Education. Pontifical Catholic University of Rio Grande do Sul (PUCRS), Porto Alegre. Brazil. July 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer Reviewed Proceedings)

Brukman, J.J.

Brukman, J.J. European heritage, colonialism and early South African Art Music with specific reference to the music of Cromwell Everson. *The Charisma of Dissonance*. University of Melbourne, Melbourne. Australia. December 2014.

Stolp, M.

Stolp, M. Ethical by Default? The Regulation of Research Ethics as a Mechanism of Power. *Contesting Freedoms: A Colloquium on Music Studies in a Democratic South Africa*. UNISA, Pretoria. South Africa. March 2014.

Stolp, M. On Voyeurs and Walkers: A Performance Experiment. *Orpheus Institute for Artistic Research Conference: The Limits of Control*. Orpheus Institute for Artistic Research, Ghent. Belgium. February 2014.

Stolp, M. Lecture recital: Making Voyer Piano: on Composition and Site-Specific Performance. *South African Society for Research in Music Annual conference*. Johannesburg. South Africa. September 2014.

Stolp, M. The City as Phantasmagoria. *Wits Institute for Social and Economic Research Conference*. New Ethnographies of Johannesburg. University of the Witwatersrand, Johannesburg. South Africa. August 2014.

Watkins, L.W.

Watkins, L.W. Sense-ing the place of underground rap and hip-hop in South Africa. *Urban Popcultures*. Lisbon, Lisbon. Portugal. May 2014.



The Rhodes University Music Library

INTERNATIONAL LIBRARY OF AFRICAN MUSIC (ILAM)

INTRODUCTION

The International Library of African Music is a research institute and heritage archive at Rhodes University that has functioned as such since it was founded in 1954 by Hugh Tracey. It was brought to Rhodes University by his son, Professor Emeritus Andrew Tracey, in 1978. ILAM is known internationally due to Hugh Tracey's ground breaking work in disseminating his field recordings of the music of sub-Saharan Africa and his founding of ILAM's accredited journal entitled *African Music*. To this day *African Music* carries the distinction of being the only academic journal in the world devoted strictly to research on African music.

International Visitors/International Visits

ILAM's Director **Professor Diane Thram** played a significant role in organizing the 2014 annual conference of the International Association of Sound and Audiovisual Archives (IASA) held in Cape Town and produced a concert featuring local Cape Town musicians for the conference attendees, as well as organizing an after-conference tour to South African audiovisual archives including the NAHECS archive at University of Fort Hare and ILAM at Rhodes University. This brought archivists from Sweden, USA, Norway and Austria to ILAM.

Professor Thram presented on ILAM's Pilot Project in Re-Study and Repatriation of the International Library of African Music (ILAM) Hugh Tracey Field Recordings at the Ethnomusicology Symposium at University



Widow of Mosonik Chmatiany listening to the Hugh Tracey "Chemirocha" recording on which her husband sang.

of Dar es Salaam 17-18 July 2014 and Music Education Symposium, Dhow Countries Music Academy (DCMA), Zanzibar 1-2 August 2014.

Professor Thram presented on issues and outcomes of the Pilot Project in a paper entitled "Music heritage archival ethics: issues in repatriation, research, community education and revitalization" at the 2014 Annual IASA Conference in Cape Town on 8 October 2014.

Professor Thram chaired the panel, "Nelson Mandela and the Music of Liberation" and presented a paper entitled "Jazz in service of the struggle: the New Brighton story" on freedom songs discovered through her research in the 'ILAM-Red Location Music History Project' at the Society for Ethnomusicology 59th Annual Meeting, 13-16 November 2014, in Pittsburgh (USA).

Significant Research Aligned Events

Professor Diane Thram launched a Pilot Project in Re-Study and Repatriation of the International Library of African Music (ILAM) Hugh Tracey Field Recordings mid-July to mid-August 2014 by returning (in CD format) recordings made by Tracey in 1950 and 1952 in Chamwino, Tanzania, Zanzibar, and the Rift Valley and Lake Victoria regions of Kenya. The work in Kenya was supported by the Abubillah Music Foundation and done in collaboration with the Singing Wells Project and Ketebul Music. This re-study and repatriation project is unprecedented in its work to determine effective methods for digital return of archival recordings to their communities of origin. The effort to return Hugh Tracey's historical recordings of Gogo and Zanzibari music in Tanzania, and Kipsigi and Luo music in Kenya was immensely appreciated by the communities, descendants of musicians, several Kenyan musicians on the original recordings still living who were located, schools, government agencies and university music programmes. A documentary video and a National Public Radio (NPR) feature broadcast



Returning Hugh Tracey Kipsigi recordings August 2014, Kenya. Cheriot arap Kirui is an 88 year old Kipsigi singer who was 24 when he sang on Hugh Tracey's famous "Chemirocha" (Jimmy Rogers) recording. He is seen with Diane Thram (centre) and research assistant Kiplagat Kwambai.

to 1.5 million listeners in the USA on the return of Tracey's recordings of the Kipsigi's famous "Chemirocha" song about Jimmy Rogers is available from the ILAM website and YouTube.

ILAM was awarded a grant to preserve the Tracey Instrument Collection housed at ILAM from the US Ambassador's Fund for Cultural Preservation (AFCP). The AFCP grant is awarded to only one institution in Africa annually. Preparation of the grant application required significant research and gathering of professional recommendations regarding the infrastructure needs in the ILAM building and the specific needs of the instrument collection for proper conservation and display.

Professor Diane Thram

Director: ILAM

PUBLICATIONS

Books/Chapters/Monographs

Thram, D.J.

Thram, D.J. (2014) The Legacy of Music Archives in Historical Ethnomusicology: A Model of Engaged Ethnomusicology. In: McCollum, J. and Hebert, D.G. (eds.). *Theory and Method in Historical Ethnomusicology*. Plymouth UK: Lexington Books. p.309-335. ISBN: 9780739168264.

Other Publications

Thram, D.J.

Thram, D.J. (2014) Editor of Journal. *African Music - Journal of the International Library of African Music*. Grahamstown: Rhodes University.

Peer Reviewed Subsidy-Earning Journal Research Publications

Thram, D.J.

Thram, D.J. (2014) Understanding music's therapeutic efficacy: Implications for music education. *Journal for Transdisciplinary Research in Southern Africa*. 10 (2). p.208-220.

Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

Thram D.J.

Thram D.J. Archives, Heritage Activism, and Engaged Ethnomusicology: sustaining African musical heritage through outreach and education. *International Council for Traditional Music (ICTM) Applied Ethnomusicology Study Group Symposium*. University of Fort Hare, East London. 30 June 2014.

Thram D.J. Pilot Project in Re-Study and Repatriation of the International Library of African Music (ILAM) Hugh Tracey Field Recordings. *Ethnomusicology Symposium, University of Dar es Salaam*. Music Education Symposium, Dhow Countries Music Academy, Zanzibar. 16 July 2014; 2 August 2014.

Thram D.J. ILAM 2014 Pilot Project in digital return and re-study of Hugh Tracey field recordings: sustaining African musical heritage through research, outreach and education and repatriation. *2014 Annual IASA Conference*. Centre for the Book, Cape Town. 8 October 2014

Thram D.J. Jazz in Service of the Struggle: the New Brighton Story. *59th Annual Conference Society for Ethnomusicology*. Pittsburgh. 15 November 2014.

INTRODUCTION

Research activities in the Faculty of Pharmacy continue to flourish and resulted in research outputs from staff and Postgraduate students that have had an impact both nationally and internationally. Staff and Postgraduate students contributed to 31 journal articles in accredited journals, with several more due to be published in 2015. In addition, other articles were published reflecting a thriving research culture in the Faculty of Pharmacy and a productive 2014. The professional visibility of the Faculty was also evident with the publication of several articles in professional and related journals.

Large numbers of staff and Postgraduate students in the Faculty attended various local conferences including the South African Association of Hospital and Institutional Pharmacists (SAAHIP) and the South African Academy of Pharmaceutical Sciences amongst others. Several staff and Postgraduate students made their mark internationally, presenting papers at international conferences in the USA, Czech Republic, Malawi, Iran, Algiers, Sultanate of Oman and Thailand.

A major highlight of the year included the conferring of a Doctor of Pharmacy (PharmD), two Doctor of Philosophy (PhD) and seven MSc and one MPharm degree at the Graduation ceremony in April of 2014. Professors Walker (1), and Dowse (1) supervised the PhD degrees and **Professors Walker and Srinivas** and **Doctors Beukes, Goosen, Khamanga, Kasongo** and **Tandlich** the Masters degrees. Professor



Professor Ros Dowse (fourth from the left) with colleagues at a conference in the Netherlands

Wilson assisted with the supervision of the PharmD candidate. This number of Postgraduate degrees awarded is something of which the Faculty can be extremely proud.

Distinguished Visitors/International Visits

The Faculty of Pharmacy hosted a number of international visitors including Professor Glass from James Cook University in Australia, Mr Andy Gray, Vice President and Fellow of the International Pharmacy Federation and Professor GT Heikens from University of Groningen. Professor Walker visited the Teheran University of Medical Sciences.

Significant Research Aligned Events

A significant research highlight for the Faculty was that **Professor Dowse**, after her oral presentation at the SAAHIP conference, was invited to present her paper at the Annual Meetings of the Pharmaceutical Society of South Africa and the Academy of Pharmaceutical Sciences Conference. Once again the Faculty of Pharmacy held a successful Annual Research Day at which most of our Masters, Doctoral and Doctor of Pharmacy Postgraduates presented their research data in 23 presentations.

Professor Roderick B Walker
Dean of Faculty

PUBLICATIONS

Books/Chapters/Monographs

Kanfer, I.

Kanfer, I. (2014) Methods for the Assessment of Bioequivalence of Topical Dosage Forms: Correlations, Optimization Strategies and Innovative Approaches. In: Jenner, J., Shah, V.P. and Maibach, H.I. (eds.). *Topical Drug Bioavailability, Bioequivalence and Penetration*. 2nd Ed. New York: Springer. p.113-151. ISBN: 9781493912889.

Distinguished Visitors

Glass, B.

Professor B Glass. James Cook University, Townsville, Australia. *Distinguished Visiting Professor - Lectures, Research, Public Lecture and Collaboration*. August 2014.

Gray, A.

Mr A Gray. University of KwaZulu-Natal, Durban, South Africa. *Visiting Fellow - Lectures*. September 2014.

Heikens, G.T.

Professor GT Heikens. University of Groningen, Groningen, Netherlands. *Lecture, Collaboration*. May 2014.

International Visits

Walker, R.B.

Walker, R.B. Teheran University of Medical Sciences, Teheran, Iran. *Pharmaceutical Analysis*. 23 - 28 February 2014.

Other Publications

Irwin, Y.L.

Irwin, Y.L. (2014) Essential oils - are any suitable as antioxidants and anticancer agents that we can use in Therapeutic Aromatherapy? In: Hart, J.A. and Nye, S. (eds.). *Journal of the Aromatherapy Association of South Africa*.

Irwin, Y.L. (2014) Contact Dermatitis. In: Hart, J.A. and Nye, S. (eds.). *Journal of the Aromatherapy Association of South Africa*.

Tandlich, R.

Tandlich, R. (2014) The "Old-New" Challenges of Water, Sanitation and Bioremediation in Developing Countries. In: Tandlich, R. (ed.). *Journal of Bioremediation and Biodegradation - Editorial*. Foster City, California, United States of America: Omics Publishing.

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Walker, R.B. (2014) Editorial: Salamanders, Zebrafish and CRS. In: Frey, C., Giannos, S., McDowell, A., Michiak-Kohn, B., Perrie, Y. and Walker, R.B. (eds.). *Controlled Release Society Newsletter*. St. Paul, Minnesota: Controlled Release Society.

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Peer Reviewed Non-Subsidy-Earning Journal Research Publications

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Dowse, R.

Dowse, R. (2014) Patient-centred pharmacy: Reflections from the patient-academic pharmacist interface. *SA Pharmaceutical Journal*. 81 (9). p.40-43.

Dukhi, N. and Srinivas, S.C.

Dukhi, N. and Srinivas, S.C. (2014) Combating increasing Chronic Non Communicable Diseases: The need, progress and way forward for Health Promoting Schools in South Africa. *Indian Journal of Pharmacy Practice*. 7 (3). p.2-9.

Katsinde, S.M. and Srinivas, S.C.

Katsinde, S.M., Hornby, D. and Srinivas, S.C. (2014) The Need for Culture Sensitive Participatory Health Promotion Activities to Promote Breastfeeding. *Indian Journal of Pharmacy Practice*. 7 (2). p.2-9.

Moyo, F. and Tandlich, R.

Moyo, F. and Tandlich, R. (2014) Mini-Review on the Use of Liquid Membranes in the Extraction of Platinum Group Metals from Mining and Metal Refinery Wastewaters/Side-Streams. *Journal of Bioremediation & Biodegradation*. 5 (4). p.1-12.

Munsamy, J.I. and Parrish, A.

Munsamy, J.I., Parrish, A. and Steel, G. (2014) Conducting research in a resource-constrained environment: avoiding the pitfalls. *HLS: Healthcare in Low-resource Settings*. 2 (1009). p.14-15.

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Tandlich, R., Luyt, C.D. and Ngqwala, N.P. (2014) A community-based rainwater monitoring and treatment programme in Grahamstown, South Africa. *Journal of Hydrocarbons Mines and Environmental Research*. 5 (1). p.46-51.

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Allan, L.

Surender, R.M., Van Niekerk, R.D., Hannah, B.C., Allan, L. and Shung-King, M. (2014) The drive for universal healthcare in South Africa: views from private general practitioners. *Health Policy and Planning*. 2014 (2014). p.1-9.

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Antimicrobial Activity. *Journal of Inorganic Chemistry*. 2014 (2014). p.1-10.

Dowse, R.

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Dowse, R. and Barford, K.

Dowse, R., Barford, K. and Browne, S.H. (2014) Simple, illustrated medicines information improves ARV knowledge and patient self-efficacy in limited literacy South African HIV patients. *AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV*. 26 (11). p.1400-1406.

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Dukhi, N., Southwood, S. and Srinivas, S.C. (2014) Evaluating students' experience of an integrated assessment: A case study in health promotion. *Indian Journal of Pharmaceutical Education and Research*. 48 (3). p.1-5.

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Tandlich, R.

Natesan, S., Lukacova, V., Peng, M., Subramaniam, R., Lynch, S., Wang, Z., **Tandlich, R.** and Balaz, S. (2014) Structure-Based Prediction of Drug Distribution Across the Headgroup and Core Strata of a Phospholipid Bilayer Using Surrogate Phases. *Molecular Pharmaceutics*. 11 (2014). p.3577-3595.

Hoossein, S., Whittington-Jones, K. and Tandlich, R.

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and Management Journal. 13 (6). p.1335-1340.

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Wunnepuk, K., Mohammed, F., Gawarammana, I., Liu, X., **Verbeeck, R.K.**, Buckley, N.A., Roberts, M.S. and Musuamba, F.T. (2014) Prediction of *paraquat* exposure and toxicity in clinically ill poisoned patients: a model based approach. *British Journal of Clinical Pharmacology*. 78 (4). p.855-866.

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Mohammadi, A., Kazemipour, M., Ranjbar, H., **Walker, R.B.** and Ansari, M. (2014) Amoxicillin Removal from Aqueous Media Using Multi-Walled Carbon Nanotubes. *Fullerenes Nanotubes and Carbon Nanostructures*. 2014 (2014). p.1-5.

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Chemuru, N.R., Hornby, D. and Srinivas, S.C. Using a cultural model to explore factors contributing to teenage pregnancy in rural communities in the Eastern Cape, South Africa. *6th Interdisciplinary Postgraduate conference*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. October 2014.

Chemuru, N.R., Hornby, D. and Srinivas, S.C. Development and implementation of health promotion activities for the prevention of teenage pregnancy. *Critical studies in sexualities and reproduction programme colloquium*. Gavin Relly Postgraduate Village, Rhodes University, Grahamstown. South Africa. September 2014.

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Dube, C.S. and Tandlich, R.

Dube, C.S. and Tandlich, R. The use of fly ash in the treatment of mining effluents and acid mine drainage. *6th Annual Interdisciplinary Postgraduate Conference*. Rhodes University, Grahamstown. South Africa. October 2014.

Irwin, Y.L., Wrench, W.M. and Marzban, S.

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Veerubhotla, H.M.K., Khamanga, S.M. and Walker, R.B. Development and validation of a RP-HPLC method for the quantitation of captopril in tablets. *35th Conference of the Academy of Pharmaceutical Sciences*. Summerstrand Hotel, Port Elizabeth. South Africa. September 2014.

Walker, R.B.

Walker, R.B. Development of SLN and NLC for anti-retroviral drugs to treat AIDS dementia. *The 1st Middle East and 6th Iranian Controlled Release Conference*. Razi International Conference Hall, Teheran. Iran. February 2014.

Walker, R.B. Some challenges of bringing products to market. *Centre for Chemico- and Biomedical Research Symposium*. Rhodes University, Grahamstown. South Africa. November 2014.

Walker, R.B. Challenges confronting pharmacy education and service deliver in the current era of health care reform. *ISER Colloquium on National Health Insurance and the Reform of South African Health Care: Challenges and Opportunities*. Rhodes University, Grahamstown. South Africa. September 2014.

Walker, R.B., Makoni, P.A. and Wa Kasongo, K.

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Development and assessment of efavirenz-loaded SLN(r) for potential delivery to the CNS. *The 41st Annual Meeting and Exposition of the Controlled Release Society*. Hilton Chicago, Chicago. United States of America. July 2014.

Walker, R.B., Mukozhiwa, S.Y. and Khamanga, S.M.

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Development and assessment of gastroretentive sustained release captopril tablets. *The 41st Annual Meeting and Exposition of the Controlled Release Society*. Hilton Chicago, Chicago. United States of America. July 2014.

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Development and assessment of captopril loaded matrix-type pellets. *The 41st Annual Meeting and Exposition of the Controlled Release Society*. Hilton Chicago, Chicago. United States of America. July 2014.

Wrench, W.M.

Wrench, W.M. Managing Patients with Asthma - the Role of the Pharmacist. *Independent Community Pharmacists Association*. ICC, Durban. South Africa. September 2014.

Wrench, W.M. Pharmacy Students Involvement in Health Promotion. *South African Association of Hospital and Institutional Pharmacists (SAAHIP)*. Drakensberg, Winterton. South Africa. March 2014.

Zvidzayi, K.M., Ncube, M., Nondlazi, S. and Tandlich, R.

Zvidzayi, K.M., Ncube, M., Nondlazi, S. and Tandlich, R.

Triclosan quantification in sludge matrices. *6th Annual Interdisciplinary Postgraduate Conference*. Gavin Relly

Postgraduate Village, Rhodes University, Grahamstown. South Africa. October 2014.

DEPARTMENT OF PHILOSOPHY

RHODES UNIVERSITY
RESEARCH REPORT | 2014

INTRODUCTION

In 2014 the Department of Philosophy offered a rich environment for research, apart from its other core functions of teaching and learning, and community engagement. The Department offers a weekly Seminar where staff, senior students and visitors read research papers. On Monday evening there is a Reading Group for senior students, to stimulate interest in topics, fields and philosophers not ordinarily encountered in courses.

Postgraduates/Graduations

Grad Day, the annual Postgraduate Philosophy colloquium at which students read papers on their research interests, was on Friday 3 October 2014. Nine (9) papers were read. Dr. Alex Broadbent, University of Johannesburg, acted as external commentator and gave students valuable feedback on their presentations. He also read a paper on "Causal Selection, Prediction, and Natural Kinds".

Distinguished Visitors/International Visits

Dr **Samantha Vice** attended the invitations-only colloquium, *Modalities of the Good*, in Prague in July 2014. Philosophers from the USA, the UK, Ireland and Europe discussed alternative approaches to ethical theory, influenced by Iris Murdoch, Wittgenstein and Peter Winch.

In July 2014, **Associate Professor Ward Jones** gave a paper, entitled *Understanding*



Associate Professor Ward Jones
Photo: Paul Greenway

the Value of Philosophy, at a conference on progress in philosophy at the Australian National University. He was invited to give the same paper at the University of Fort Hare in September 2014.

Professor Janine Jones, University of North Carolina, at Greensboro, USA, was a visitor to the Department for term 3. During her busy stay, she taught a popular graduate course on the Philosophy of Race, and made contact with academics from many departments at Rhodes.

In November 2014, Associate Professor Ward Jones organized, funded, and participated in a workshop at Rhodes University entitled *The Future of Philosophy in South Africa*. Eight philosophers from all over South Africa participated.

Professor Marius Vermaak
Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Tabensky, P.A.

Tabensky, P.A. (2014) Virtue ethics for skin-bags: an ethics of love for vulnerable creatures. In: Van Hooft, S. (ed.). *The Handbook of Virtue Ethics*. UK: Acumen Publishing Limited. p.461-471. ISBN: 9781844656394.

Other Publications

Kelland, L.A. and Tabensky, P.A.

Barker, K.E., Kelland, L.A. and Tabensky, P.A. (2014) South Africa: The Harm of Rape. In: Robinson, K. (ed.). *Gender Links*. Johannesburg: Gender Links.

Tabensky, P.A.

Tabensky, P.A. (2014) Breaking the Pact of Silence. *Mail & Guardian (print)*. Johannesburg: Mail & Guardian print newspaper.

Tabensky, P.A. and Paphitis, S.A. (2014) Get Out of Your Armchairs, Academics. *Mail & Guardian (print)*. Johannesburg: Mail & Guardian print newspaper.

Tabensky, P.A. (2014) Reflections on Gaza: How Should My People Be? *Mail & Guardian Online*. South Africa: Mail & Guardian Online Newspaper.

Peer Reviewed Subsidy-Earning Journal Research Publications

Tabensky, P.A.

Tabensky, P.A. (2014) Therapeutic African Philosophy. *Quest: An African Journal of Philosophy*. 25 (1-2). p.31-48.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Jones, W.E. Understanding the Value of Philosophy. *Progress in Philosophy*. Australian National University, Canberra. Australia. July 2014.

Jones, W.E. Community Engagement in Philosophy. *Community Engagement*. Rhodes University, Grahamstown. South Africa. June 2014.

Kelland, L.A. and Paphitis, S.A. Community Engagement and the University as a Site for Transformation. *17 Seminario Internacional del Aprendizaje y Servicio Solidario (17th International Seminar on Service Learning)*. School of Economics, University of Buenos Aires, Buenos Aires. Argentina. August 2014.

Kelland, L.A. A Call to Arms: Reviving Feminist Consciousness-Raising Speak-Outs. *The Spring Colloquium*. Kolping Guesthouse, Cape Town. South Africa. September 2014.

Tabensky, P.A. Anti-Perfectionism. *Phenomenology and Naturalism*. University of Johannesburg, Johannesburg. South Africa. May 2014.

Tabensky, P.A. Anti-Perfectionism. *Delivered at seminar series in Adelaide and Perth (Australia)*. University of Adelaide and Notre Dame, Adelaide and Perth. Australia. May 2014.

Tabensky, P.A. The Purpose of Entrepreneurship. *Allan Gray Orbis Foundation talk to Fellows*. Allan Gray offices, Johannesburg. South Africa. May 2014.

Tabensky, P.A. The Self-Disruptive Mind. *Seminar Series at Flinders University*. Flinders University, Adelaide. Australia. May 2014.

Tabensky, P.A. Pajaro de Esperanza. *Murdoch University Seminar Series*. Murdoch University, Perth. Australia. May 2014.

Vice, S.W.

Vice, S.W. 'The Ethics of Pessimism'. *Philosophical Society of Southern Africa*. Bloemfontein Spa Hotel, Bloemfontein. South Africa. January 2014.

Vice, S.W. Pessimism and the Role of Ideals. *Modalities of the Good*. Philosophical Institute of the Czech Academy of Sciences, Prague. Czech Republic. July 2014.

DEPARTMENT OF PHYSICS AND ELECTRONICS

RHODES UNIVERSITY
RESEARCH REPORT | 2014

INTRODUCTION

The following were the main activities of the various research groups in the Department of Physics and Electronics.

Experimental Solid State Physics

Professor Makaiko L. Chithambo went on a research visit to the University of St Andrews, United Kingdom, between 2-22 March 2014. The purpose of the visit was to make radioluminescence and thermally stimulated luminescence spectral measurements on quartz and carbon-doped aluminium oxide, dosimeters of current research interest. Professor Chithambo also attended the 14th International Conference on Luminescence and Electron Spin Resonance Dating in Montréal, Canada, between 7-11 July 2014, and the International Conference on Luminescence and ESR Dosimetry in Ankara, Turkey, between 27 - 29 August 2014, where he presented an invited talk. Lastly, Professor Chithambo successfully bid to host the 2017 International Luminescence conference. This was over bids from Bordeaux, Copenhagen and Jerusalem.

Dr Schadrack Nsengiyumva spent much of 2014 carrying out measurements of phototransferred luminescence of argon-implanted synthetic quartz. A poster on preliminary results was presented at the South African Institute of Physics (SAIP) conference in July 2014 held at the University of Johannesburg. From 29 June - 4 July 2014, he, together with his collaborators from iThemba Labs Cape Town, went on a



Dr Nsengiyumva of the Physics Department (right), Rhodes University with Dr Luc Pichon of the University of Poitiers, France

research visit to the University of Poitiers (France). The main purpose of the visit was to perform various experiments using facilities such as ion implanter, plasma oxidation and to characterise some samples using various techniques including glow discharge optical emission spectroscopy (GDOES) and X-ray diffraction. All experiments performed in Poitiers were related to a joint project focussing on the effect of oxidation on hydrogen absorption properties of Ti and Ti alloy.

Nuclear Physics

In 2014, **Dr David Roux** supervised two (2) MSc students: Mr Sean Oates and Mr Thokozani Kamoto. Mr Oates analyzed gamma-ray coincidence data on ^{114}Sn . He submitted his thesis. Mr Kamoto worked on data from neutron-induced fission obtained from an experiment performed at Yvaskyla. He spent the year analyzing the data and writing. He also attended one nuclear physics experiment at iThemba LABS.

Professor Roux also continued to supervise a former MSc student, Mr Pierre Uwitonze, who had to do extensive corrections to his thesis, submitted in 2013. He returned from Rwanda to work with Professor Roux and do these corrections. His research was to seek chirality in the angular momentum space of ^{196}Tl . To do this he had to analyse gamma-ray coincidence data collected with the Afrodite array in 2005 (experiment PR093).

Professor Roux continued to work on a number of projects including search for chirality in mid-shell thallium nuclei; structure of ^{231}U ; a study of neutron-induced fission-products of natural uranium; wobbling excitations in lutetium isotopes; and investigation of band-crossing systematics and diabolical points in rare-earth nuclei.

General Relativity

Over the last few years, **Associate Professor Joey Medved** and his primary collaborator, Professor Ram Brustein of Ben Gurion University, Israel, have been methodically developing a framework that is meant to

resolve the many paradoxical features of quantum field theory in curved spacetimes (in particular, black holes). The basic idea, which is contrary to the expectations of many in the field, is that these can be resolved by adhering to the standard rules of quantum mechanics and general relativity. However, the quantum nature of the background spacetime must be incorporated in a consistent and rigorous way. This program resulted in three published articles in 2014. The most intense part of the research is carried out when Associate Professor Medved visits Ben Gurion University. In 2014, there were two such trips; each of which was about six weeks long and falling within the winter and summer break periods at Rhodes. Associate Professor Medved gave a seminar on their work to the high-energy group at Ben Gurion during the first of these trips and a similar talk to the applied mathematics/theoretical physics groups at Rhodes. He also attended the annual meeting for NitheP associates in Stellenbosch, which featured several seminars in closely related fields.

2014 also marked substantial progress by two (2) MSc students who are working under his supervision on novel projects in theoretical physics. Ms Kate Bryan is endeavouring to explain how the combination of quantum teleportation and final-state boundary conditions can resolve both the Einstein-Podolsky-Rosen Paradox and the black hole information-loss paradox (from our viewpoint, which is based on observer complementarity, these are two sides of the same coin). Mr Mark Shawa is aiming at showing how the singularity is resolved, quantum mechanically, for a very general class of evaporating black holes in two-dimensional spacetimes.

Professor Makaiko Chithambo

Head of Department

PUBLICATIONS

International Visits

Medved, A.J.M.

Medved, A.J.M. Ben Gurion University, Beer Sheva, Israel. *Research collaboration on theoretical physics*. 27 June - 7 August 2014.

Medved, A.J.M. Ben Gurion, Beer Sheva, Israel. *Research collaboration on theoretical physics*. 25 November - 7 January 2014.

Nsengiyumva, S.

Nsengiyumva, S., Pichon, L. and Mira, T. University of Poitiers, Poitiers, France. *Running an experiment*. 29 June - 4 July 2014.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Bernardi, G.

Kocz, J., Greenhill, L.J., Barsdell, B.R., **Bernardi, G.**, Jameson, A., Clark, M.A., Craig, J., Price, D., Taylor, G.B., Schinzel, F. and Werthimer, D. (2014) A Scalable Hybrid FPGA/GPU FX Correlator. *Journal of Astronomical Instrumentation*. 3 (1). p.1-10.

Peer Reviewed Subsidy-Earning Journal Research Publications

Abdalla, F.B.

Sanchez, C., Kind, M.C., Lin, H., Miquel, R., **Abdalla, F.B.**, Amara, A., Banerji, M., Bonnett, C., Brunner, R., Capozzi, D.,

Carnero, A., et al. (2014) Photometric redshift analysis in the Dark Energy Survey Science Verification data. *Monthly Notices of the Royal Astronomical Society*. 445 (2). p.1482-1506.

Wolz, L., **Abdalla, F.B.**, Blake, C., Shaw, J.R., Chapman, E. and Rawlings, S. (2014) The effect of foreground subtraction on cosmological measurements from intensity mapping. *Monthly Notices of the Royal Astronomical Society*. 441 (4). p.3271-3283.

Agarwal, S., **Abdalla, F.B.**, Feldman, H.A., Lahavo, O. and Thomas, S.A. (2014) pkann - II. A non-linear matter power spectrum interpolator developed using artificial neural networks. *Monthly Notices of the Royal Astronomical Society*. 439 (2). p.2102-2121.

Jouvel, S., **Abdalla, F.B.**, Kirk, D., Lahavo, O., Lin, H., Annis, J., Kron, R. and Frieman, J.A. (2014) Optimizing spectroscopic and photometric galaxy surveys: efficient target selection and survey strategy. *Monthly Notices of the Royal Astronomical Society*. 438 (3). p.2218-2232.

Abdalla, F.B. and Bernardi, G.

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Abdalla, F.B. and Smirnov, O.M.

Patel, P., **Abdalla, F.B.**, Bacon, D.J., Rowe, B., **Smirnov, O.M.** and Beswick, R.J. (2014) Weak lensing measurements

in simulations of radio images. *Monthly Notices of the Royal Astronomical Society*. 444 (3). p.2893-2909.

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Jelic, V., de Bruyn, A.G., Mevius, M., **Abdalla, F.B.**, Asad, K.M.B., **Bernardi, G.**, Brentjens, **Karastergiou, A.**, **Smirnov, O.M.**, **Tasse, C.**, et al. (2014) Initial LOFAR observations of epoch of reionization windows: II. Diffuse polarized emission in the ELAIS-N1 field. *Astronomy & Astrophysics*. 568 (2014). p.1-12.

Bernardi, G.

Bell, M.E., Murphy, T., Kaplan, D.L., Hancock, P., Gaensler, B.M., Banyer, J., Bannister, K., Trott, C., Hurley-Walker, N., **Bernardi, G.**, et al. (2014) A survey for transients and variables with the Murchison Widefield Array 32-tile prototype at 154 MHz. *Monthly Notices of the Royal Astronomical Society*. 438 (2014). p.352-367.

Sun, X.H., Gaensler, B.M., Carretti, E., Purcell, C.R., Staveley-Smith, L., **Bernardi, G.** and Haverkorn, M. (2014) Absolutely calibrated radio polarimetry of the inner Galaxy at 2.3 and 4.8 GHz. *Monthly Notices of the Royal Astronomical Society*. 437 (2014). p.2936-2947.

Iacobelli, M., Burkhart, B., Haverkorn, M., Lazarian, A., Carretti, E., Staveley-Smith, L., Gaensler, B.M., **Bernardi, G.**, Kesteven, M.J. and Poppi, S. (2014) Galactic interstellar turbulence across the southern sky seen through spatial gradients of the polarization vector. *Astronomy & Astrophysics*. 566 (A5). p.1-12.

Dillon, J.S., Liu, A., Williams, C.L., Hewitt, J.N., Tegmark, M., Morgan, E.D., Levine, A.M., Morales, M.F., Tingay, S.J., **Bernardi, G.**, et al. (2014) Overcoming real-world obstacles in 21 cm power spectrum estimation: A method demonstration and results from early Murchison Widefield Array data. *Physical Review D*. 89 (2014). p.1-25.

Hurley-Walker, N., Morgan, J., Wayth, R.B., Hancock, P., Bell, M.E., **Bernardi, G.**, Bhat, R., Briggs, F., Deshpande, A.A., Ewall-Wice, A., et al. (2014) The Murchison Widefield Array Commissioning Survey: A Low-Frequency Catalogue of 14 110 Compact Radio Sources over 6 100 Square Degrees. *Publications of the Astronomical Society of Australia*. 31 (2014). p.1-22.

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Hindson, L., Johnston-Hollitt, M., Hurley-Walker, N., Buckley, K., Morgan, J., Carretti, E., Dwarakanath, K.S., Bell, M., **Bernardi, G.**, Bhat, N.D.R., et al. (2014) The First Murchison Widefield Array low-frequency radio observations of cluster scale non-thermal emission: the case of Abell 3667. *Monthly Notices of the Royal Astronomical Society*. 445 (2014). p.330-346.

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a fast, generic wide-field imager for radio astronomy. *Monthly Notices of the Royal Astronomical Society*. 444 (2014). p.606-619.

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Chithambo, M.L., Pagonis, V. and Ogundare, F.O. (2014) Spectral and kinetic analysis of thermoluminescence from manganiferous carbonatite. *Journal of Luminescence*. 145 (2014). p.180-187.

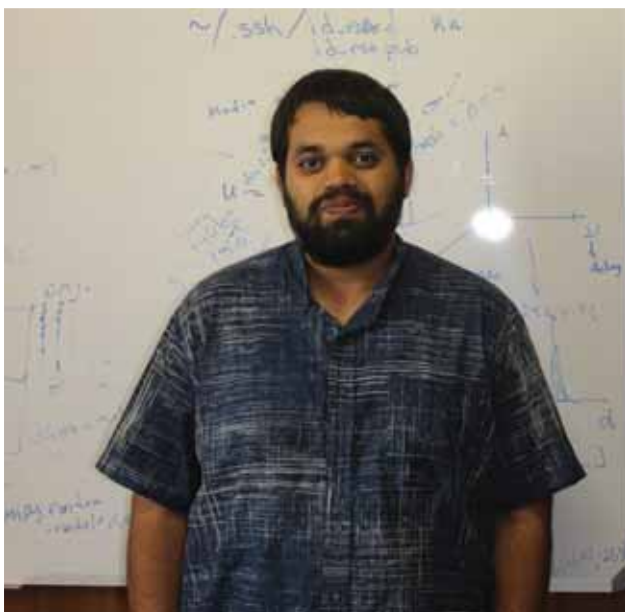
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Dr Kshitij Thorat, Postdoctoral Research Fellow in Radio Astronomy

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Foster, G., Hickish, J., Magro, A., Price, D. and **Adami, K.Z.** (2014) Implementation of a direct-imaging and FX correlator for the BEST-2 array. *Monthly Notices of the Royal Astronomical Society*. 439 (3). p.3180-3188.
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Grobler, T.L., Nunhokee, C.D., Smirnov, O.M., van Zyl, A.J. and de Bruyn, A.G. (2014) Calibration artefacts in radio interferometry - I. Ghost sources in Westerbork Synthesis Radio Telescope data. *Monthly Notices of the Royal Astronomical Society*. 439 (4). p.4030-4047.
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Nsengiyumva, S., Raji, A.T., Riviere, J.P., Britton, D.T.B. and Harting, M. (2014) Stress enhanced diffusion of krypton ions in polycrystalline titanium. *Journal of Applied Physics*. 116 (2014). p.1-8.
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Bark, R.A., Lieder, E.O., Lieder, R.M., Lawrie, E.A., Lawrie, J.J., Bvumbi, S.P., Kheswa, N.Y., Ntshangase, S.S., Madiba, T.E., **Roux, D.G.**, et al (2014) Studies of chirality in the mass 80, 100 and 190 regions. *International Journal of Modern Physics E - Nuclear Physics*. 23 (7). p.1-8.

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Sirothia, S.K.

Gopal-Krishna, G.K., **Sirothia, S.K.**, Mhaskey, M., Ranadive, P., Wiita, P.J., Goyal, A., Kantharia, N.G. and Ishwara-Chandra, C.H. (2014) Extragalactic radio sources with sharply inverted spectrum at metre wavelengths. *Monthly Notices of the Royal Astronomical Society*. 443 (3). p.2824-2829.

Ssessanga, N., Mckinnell, L.A. and Habarulema, J.B.

Ssessanga, N., Mckinnell, L.A. and Habarulema, J.B. (2014) Estimation of foF2 from GPS TEC over the South African region. *Journal of Atmospheric and Solar-Terrestrial Physics*. 112 (2014). p.20-30.

Tasse, C.

Tasse, C. (2014) Nonlinear Kalman filters for calibration in radio interferometry. *Astronomy & Astrophysics*. 566 (2014). p.1-14.

Tasse, C., Bernardi, G. and Smirnov, O.M.

van Weeren, R.J., Williams, W.L., **Tasse, C.**, Röttgering, H.J.A., Rafferty, D., van der Tol, S., Heald, G., **Bernardi, G.**, Breitling, F., **Smirnov, O.M.**, et al. (2014) LOFAR Low-band Antenna Observations of the 3C 295 and BootesFields: Source Counts and Ultra-steep Spectrum Sources. *Astrophysical Journal*. 793 (2). p.1-4.

Peer Reviewed Proceedings

Grobler, T.L., Smirnov, O.M. and Nunhokee, C.D.

Grobler, T.L., Smirnov, O.M. and Nunhokee, C.D. ALS calibration: Analytic expressions for the antenna gains of a two and three element east-west interferometer. *2014 XXXIst URSI General Assembly and Scientific Symposium (URSI GASS 2014)*. National Convention Center, Beijing. China. August 2014.

Grobler, T.L., Smirnov, O.M. and Nunhokee, C.D. Calibration Artefacts in KAT-7 Data. *2014 XXXIst URSI General Assembly and Scientific Symposium (URSI GASS 2014)*. National Convention Center, Beijing. China. August 2014.

Karastergiou, A. and Smirnov, O.M.

Van Heerden, E., **Karastergiou, A.**, Roberts, S.J. and **Smirnov, O.M.** New approaches for the real-time detection of binary pulsars with the Square Kilometre Array (SKA). *2014 XXXIst URSI General Assembly and Scientific Symposium (URSI GASS 2014)*. National Convention Center, Beijing. China. August 2014.

Makhathini, S., Smirnov, O.M. and Abdalla, F.B.

Makhathini, S., Smirnov, O.M., Jarvis, M. and **Abdalla, F.B.** Optimising SKA1-Mid scale-dependent sensitivity. *2014 XXXIst URSI General Assembly and Scientific Symposium (URSI GASS 2014)*. National Convention Center, Beijing. China. August 2014.

Roux, D.G. and Henninger, K.R.

Roux, D.G., Henninger, K.R., Bark, R.A., Bvumbi, S., Gueorguieva-Lawrie, E.A., Mullins, S.M., Murray, S.H.T., Ntshangase, S.S., Masiteng, L.P. and Shirinda, O. A new negative parity band in 72Ge. *57th Annual Conference of the South African Institute of Physics*. University of Pretoria, Pretoria. South Africa. July 2012.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Smirnov, O.M.

Smirnov, O.M. MeqTrees: simulation & calibration of the next generation of radio interferometers. *Exascale Radio Astronomy*. Hyatt Regency, Monterey California. United States of America. April 2014.



Dr John Bosco Habarulema, Ms. Tsige Atilaw and Dr Zama Katamzi at the URSI Atlantic Radio Science Conference in Gran Canaria.

DEPARTMENT OF POLITICAL AND INTERNATIONAL STUDIES

INTRODUCTION

The Department of Political and International Studies saw a considerable increase in its Postgraduate numbers, as well as Postgraduate publications in 2014, a sign of validation in its endeavour to become more focused on Postgraduate study and research. Contributing to the attractiveness of Postgraduate offerings were courses taught by visiting lecturers and weekly seminar presentations given, amongst others, by visiting academics. Adding to the context of study and research were not only the considerable and important publications of staff and visiting academics alike - including eight (8) book publications (published or in process), fifteen (15) book chapters and sixteen (16) peer reviewed articles in journals but also a very successful colloquium on "NGOs and Social Justice" held under the banner of 'Thinking Africa' and a Teach-In on "Elections 2014" which both attracted interested and large audiences.

Postgraduates and Postdoctoral Fellows

Postgraduate students Grace Idahosa and Desire Chiwandire co-published work together with **Professor Louise Vincent** and erstwhile Postdoctoral Fellow, Dr Simon Howell, published a book chapter and journal article in addition to a co-edited article with Professor Louise Vincent. Both MA graduates Danielle Bowler and Katherine Furman published their own chapters in books.



Charmaine Onoyemi Awolaja and Firoze Manji at the fourth annual *Thinking Africa* Colloquium: *NGOs and Social Justice*, held in September 2014

Graduation 2014

Graduation saw fifteen (15) graduands (with four distinctions) obtain Honours degrees, eleven (11) their Diploma in African Diplomacy and Peacekeeping (PDIS) and ten (10) their Master degrees (where four achieved distinctions), as well as the award of two (2) doctorates to Shingai Mutizwa-Mangiza on "Political party institutionalisation: A case study of Kenya" and Richard Pithouse on "In the forbidden quarters: Race, space and the enduring rationality of rebellion in Durban".

Distinguished Visitors/International Visits

Professor Lewis Gordon, the Department's Visiting Nelson Mandela Professor from the University of Connecticut (USA), gave a public lecture, "When did and do we meet?", presented a seminar and taught a Postgraduate course on African Philosophy and the Politics of Race.

A Palestinian scholar, **Dr Irene Calis**, formerly from Cambridge in Britain and Postdoctoral Fellow with the Department, taught a Postgraduate course on the Politics of the Middle East.

Dr Attah-Asamoah from the International Security Studies Institute (ISS) in Pretoria gave of his expertise in teaching to our Diploma programme on African diplomacy.

Professor Stephanie Lawson from Macquarie University, Australia; Dr Bai Zhonghong from Jinan University, China; Professor Lungisile Ntsebeza, University of Cape Town; and Professor Lorenzo Fioramonti, University of Pretoria, gave seminar presentations to the Department and presentations at the colloquium.

Significant Research Aligned Events

Our annual Teach-In saw a number of public speakers, including Ranjeni Munusmay, Nomboniso Gasa, Ebrahim Fakir, Sisonke Msimang and Eusebius McKaiser speak to the topic of the 2014 elections in May.



Postgraduate students in conversation with Ms Magadla (second from the right)

In September 2014, under the banner of our *Thinking Africa* project, **Dr Sally Matthews** hosted the fourth annual Thinking Africa Colloquium on the theme 'NGOs and Social Justice in Africa'. The colloquium brought academics, social movement activists, NGO practitioners and students into conversation with each other about the role of NGOs in Africa. A book publication is in process from the event. Professor Louise Vincent was a recipient of an Andrew W. Mellon Research Focus Area grant in support of her work on higher education institutional cultures, equity and transformation. In collaboration with members of the Department of Journalism and Media Studies and the Community Engagement Directorate. Professor Vincent was also awarded an NRF grant in support of a collaborative project focusing on the idea of 'place'. She continued as a researcher on a SANPAD project focusing on Life Orientation

under both the Critical Studies in Sexualities and Reproduction and the Mellon Equity and Institutional Cultures projects.

The 2013 conference held by the Department on 'African Voices in the New IR Theory' resulted in the acceptance by Routledge in 2014 of a book publication co-edited by **Professor Paul-Henri Bischoff** entitled "Africa in Global International Relations: Emerging Approaches to Theory and Practice." **Professor Leonhard Praeg** published his "A Report on Ubuntu", and co-edited both "Violence in/and the Great Lakes: The Thought of V-Y Mudimbe and Beyond", and, with **Ms Siphokazi Magadla**, "Ubuntu: Curating the Archive."

Both present and former Visiting Professors contributed to the Department's research profile on books (as well as other publications): **Professor Lewis Gordon** published "The Encyclopedia of Political Thought"; **Professor Amitav Acharya** published, "Rethinking Power, Institutions and Ideas in World Politics: Whose IR?" and "Indonesia Matters: Asia's Emerging Democratic Power" while **Professor Kenneth Good** produced "Trust in the Capacities of the People, Distrust in Elites" based on research done whilst at Rhodes.

As part of our ongoing project on 'Africans in China and Chinese in Africa' with the School of International Relations at Jinan University, China, Ms Siphokazi Magadla presented a conference paper on Africans in China based on her field work studies to an international conference held at Jinan University, Guangzhou.

Dr Sally Matthews presented a paper to an international conference in Germany, while **Dr Richard Pithouse** presented papers at two (2) conferences in the USA and one in Britain. Moreover, the Department further continued to offer weekly seminar presentations by Rhodes staff and outside visitors as part of its Critical Seminar series.

Professor Paul-Henri Bischoff
Head of Department

PUBLICATIONS

Distinguished Visitors

Allsobrook, C

Dr C Allsobrook. Centre for Leadership Ethics in Africa, University of Fort Hare, South Africa. *Departmental Friday Seminar Series*. October 2014.

Atta-Asamoah, A

Dr A Atta-Asamoah. Institute for Security Studies, Pretoria, South Africa. *Lecture, Departmental Friday Seminar Series*. August 2014.

Brosig, M

Dr M Brosig. Senior Lecturer in International Relations at Wits University, South Africa. Associate Editor of European Security (Taylor and Francis). Senior Research Fellow at the European Centre for Minority Issues. German Political Science Association. *Departmental Friday Seminar Series*. October 2014.

Fakir, E

E Fakir. Electoral Institute for Sustainable Development. *Teach-In*. May 2014.



Owona Madlingozi and Tshepo Madlingozi at the fourth annual *Thinking Africa* Colloquium: *NGOs and Social Justice*, held in September 2014.

Fioramonti, L

Professor L Fioramonti. University of Pretoria, South Africa. *Seminar*. July 2014.

Gasa, N

N Gasa. Researcher, Analyst and Public Speaker. *Teach-In*. May 2014.

Kulundu, I.

I Kulundu. Creative Practitioner, Researcher, Singer/Songwriter. *Colloquium*. September 2014.

Gordon, L

Professor L Gordon. Nelson Mandela Visiting Professor, Rhodes University, South Africa. *Public Lecture*. October 2014.

Lawson, S

Professor S Lawson. Senior Professor, Macquarie University. Australia. *Departmental Friday Seminar Series*. October 2014.

Madlingozi, T.

T Madlingozi. University of Pretoria, South Africa. *Colloquium*. September 2014.

Mazibuko, J

J Mazibuko. Director, Ntinga Ntaba kaNdoda. *Colloquium*. September 2014.

Manji, F

F Manji. Director, ThoughtWorks. Council for Development of Social Science Research in Africa. *Colloquium*. September 2014.

Moeti, K

K Moeti. Campaigner and blogger. *Colloquium*. September 2014.

Marjorie, J.

J Marjorie. Director, Khulumani Support Group. *Colloquium*. September 2014.

McKaiser, E

E McKaiser. Political Analyst, Broadcaster, Lecturer, Writer and Author. *Teach-In*. May 2014.

Msimang, S

S Msimang. Writer and Activist. *Teach-In*. May 2014.

Munusamy, R

R Munusamy. Associate Editor, Daily Maverick. *Teach-In*. May 2014.

Ntsebeza, L

Professor L Ntsebeza. University of Cape Town, South Africa. *Colloquium*. September 2014.

Nyoka, B

B Nyoka. Doctoral candidate, Sociology, University of South Africa. *Colloquium*. September 2014.

Tselapedi, T

T Tsalapedi. Doctoral candidate, Politics, University of Johannesburg. *Colloquium*. September 2014.

Vale, P

Professor P Vale. Emeritus Professor, University of Johannesburg. *Seminar*. May 2014.

Westaway, A

A Westaway. GADRA Education, Grahamstown, South Africa. *Colloquium*. September 2014.

Zhonghong, B

Dr B Zhonghong. Jinan University, China. *Departmental Friday Seminar Series*. September 2014.

Books/Chapters/Monographs

Acharya, A.

Acharya, A. (2014) *Rethinking Power, Institutions and Ideas in World Politics: Whose IR?* New York: Routledge: Taylor and Francis. ISBN: 9780415706742.

Acharya, A. (2014) *Indonesia Matters: Asia's Emerging Democratic Power*. Singapore: World Scientific Publishing Co. ISBN: 9789814632065.

Acharya, A. (2014) Transnational civil society as agents of norm diffusion. In: Hall, R.B. (ed.). *Reducing Armed Violence with NGO Governance*. New York: Routledge: Taylor and Francis. p.97-113. ISBN: 9780415831338.

Bischoff, P.

Bischoff, P. (2014) How much its own and to what end? SADC and the culture of security and regional organisation in Southern Africa. In: Aris, S. and Wenger, A. (eds.). *Regional Organisations and Security: Conceptions and practices*. London: Routledge. p.59-77. ISBN: 9780415827980.

Bowler, D.A.

Bowler, D.A. (2014) Concluding Reflections: The 'Fierce Urgency of Now'. In: Praeg, L. (ed.). *Ubuntu: Curating the Archive*. Durban: UKZN Press. p.193-212. ISBN: 9781869142650.

Friedman, S.

Friedman, S. (2014) South Africa: Electoral Dominance, Identity Politics and Democracy. In: Doorenspleet, R. and Nijzink, L. (eds.). *Party systems and Democracy in Africa*. UK: Palgrave Macmillan. p.47-58. ISBN: 9781137011701.

Friedman, S. (2014) The Ambiguous Legacy of Liberalism: Less a Theory of Society, More a State of Mind? In: Vale, P., Lawrence, H. and Prinsloo, E.H. (eds.). *Intellectual Traditions in South Africa: Ideas, Individuals and Institutions*. Durban: UKZN Press. p.29-50. ISBN: 9781869142582.

Furman, K.E.

Furman, K.E. (2014) Ubuntu and the Law: Some Lessons for the Practical Application of Ubuntu. In: Praeg, L. (ed.). *Ubuntu: Curating the Archive*. Durban: UKZN Press. p.150-166. ISBN: 9781869142650.

Good, K.

Good, K. (2014) *Trust in the Capacities of the People, Distrust in Elites*. USA: Lexington Books. ISBN: 9781498502436.

Gordon, L.

Gordon, L. (2014) Justice Otherwise: Thoughts on Ubuntu. In: Praeg, L. (ed.). *Ubuntu: Curating the Archive*. Durban: UKZN Press. p.10-26. ISBN: 9781869142650.

Gordon, L. (2014) Der Realität zuliebe: teleologische Suspensionen disziplinarer Dekadenz. In: Gabriel, M. (ed.). *Der Neue Realismus*. Berlin: Berlin: Suhrkamp Verlag. p.244-267. ISBN: 9783518296998.

Gordon, L. (2014) Fanon's Decolonial Aesthetic. In: Kompridis, N. (ed.). *The Aesthetic Turn in Political Thought*. London: Bloomsbury. p.91-112. ISBN: 9781441148346.

Gordon, L. (2014) *The Encyclopedia of Political Thought*. Oxford: Wiley-Blackwell. ISBN: 9781405191296.

Magadla, S.

Magadla, S. and Chitando, E. (2014) The Self Become God: Ubuntu and the 'Scandal of Manhood'. In: Praeg, L. (ed.). *Ubuntu: Curating the Archive*. Durban: UKZN Press. p.176-192. ISBN: 9781869142650.

Pithouse, R.M.

Pithouse, R.M. (2014) Undoing the silencing of the present: the imperative to recognise the shack settlement as a site of politics. In: Haferburg, C. and Huchzermeyer, M. (eds.). *Urban Governance in Post-apartheid Cities: Modes of Engagement in South Africa's Metropolises*. Stuttgart: Borntraeger Science Publishers. p.135-154. ISBN: 9781869142599.

Pithouse, R.M. (2014) Conjunctural Remarks on the Political Significance of 'the Local'. In: Vale, P. and Prinsloo, E.H. (eds.). *The New South Africa at Twenty: Critical Perspectives*. Durban: University of KwaZulu-Natal Press. p.160-183. ISBN: 9781869142896.

Praeg, L.

Praeg, L. (2014) *A Report on Ubuntu*. Durban: UKZN Press. ISBN: 9781869142568.

Praeg, L. (2014) From ubuntu to Ubuntu: Four Historic a Prioris. In: Praeg, L. (ed.). *Ubuntu: Curating the Archive*. Durban: UKZN Press. p.96-121. ISBN: 9781869142650.



Jong-Ling Kuan and Marjorie Jobson at the fourth annual *Thinking Africa* Colloquium: *NGOs and Social Justice*, held in September 2014.

Praeg, L. (2014) Violence and the Sublime. In: Farred, G., Kavwahirehi, K. and Praeg, L. (eds.). *Violence in/and the Great Lakes: The Thought of V-Y Mudimbe and Beyond*. Durban: UKZN Press. p.202-208. ISBN: 9781869142841.

Praeg, L. (2014) Postcards from the Postcolony. In: Farred, G., Kavwahirehi, K. and Praeg, L. (eds.). *Violence in/and the Great Lakes: The Thought of V-Y Mudimbe and Beyond*. Durban: UKZN Press. p.161-187. ISBN: 9781869142841.

Praeg, L. (2014) Rethinking Girardian Reconciliation: South Africa and the Myth of the Exception. In: Redekop, V.N. and Ryba, T. (eds.). *Rene Girard and Creative Reconciliation*. Plymouth UK: Lexington Books. p.215-228. ISBN: 9780739169001.

Praeg, L., Farred, G. and Kavwahirehi, K. (eds.) (2014) *Violence in/and the Great Lakes: The Thought of V-Y Mudimbe and Beyond*. Durban: UKZN Press. ISBN: 9781869142841.

Praeg, L. and Magadla, S.

Praeg, L. and Magadla, S. (eds.) (2014) *Ubuntu: Curating the Archive*. Durban: UKZN Press. ISBN: 9781869142650.

Vincent, L.D.

Vincent, L.D. (2014) New Lives for Old: Modernity, Biomedicine and Circumcision in Lesotho. In: Johnson, M. and O'Branski, M. (eds.). *Circumcision, Public Health, Genital Autonomy and Cultural Rights*. London: Routledge. pp. 90-95. ISBN: 9780415735445.

Macleod, C.I. and Vincent, L.D. (2014) Introducing a Critical Pedagogy of Sexual and Reproductive Citizenship: Extending the 'Framework of Thick Desire'. In: Allen, L., Rasmussen, M.L. and Quinlivan, K. (eds.). *The Politics of Pleasure in Sexuality Education: Pleasure Bound*. New York: Routledge: Taylor and Francis. p.115-135. ISBN: 9780415812269.

Concerts, Exhibitions, Performances, Workshops, Events

Pithouse, R.M.

Pithouse, R.M. Presentation. Taking Subaltern Urbanism Seriously. *Urban Inequality & Poverty Workshop*. Berkeley, California. United States of America. 5 June 2014.

Other Publications

Gordon, L.

Gordon, L. (2014) Is Philosophy Blue? In: *The Johannesburg Salon* South Africa: The Johannesburg Workshop in Theory and Criticism.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Acharya, A.

Acharya, A. (2014) Consociational Security: Avoiding the Struggle for Mastery in Asia. *Harvard Asia Quarterly*. 16 (2). pp.19-25.

Friedman, S.

Friedman, S. (2014) Beyond Leadership: The Progress of Democratic Institutions in Post-1994 South Africa. *Grace and Truth*. 39 (1). pp.19-30.

Pithouse, R.M.

Pithouse, R.M. (2014) Book Review of Keniston, B. (2013). *Choosing to be Free: The Life Story of Rick Turner*. Johannesburg. Jacana Media. *Interface: a journal for and about social movements*. 6 (2). p.388-392.

Pithouse, R.M. (2014) Imperial Debris: On Ruins and Ruination, edited by Ann Laura Stoler. Durham, Duke University Press. *Canadian Journal of History*. 49 (2). p.1-2.

Pithouse, R.M. (2014) The Shack Settlement as a Site of Politics: Reflections from South Africa. *Agrarian South: Journal of Political Economy*. 3 (2). p.179-201.

Praeg, L.

Praeg, L. (2014) Postkarten aus der Postkolonie. *Polylog*. 31 (1). p.43-63.

Peer Reviewed Subsidy-Earning Journal Research Publications

Acharya, A.

Acharya, A. (2014) Bargaining with a rising India: lessons from the Mahabharata. *International Affairs*. 90 (5). p.1495-1496.

Acharya, A. (2014) Global International Relations (IR) and Regional Worlds: A New Agenda for International Studies. *International Studies Quarterly*. 2014 (2014). p.1-13.

Acharya, A. (2014) Remaking Southeast Asian Studies: Doubt, Desire and the Promise of Comparisons. *Pacific Affairs*. 87 (3). p.463-483.

Acharya, A. (2014) Who Are the Norm Makers? The Asian-African Conference in Bandung and the Evolution of Norms. *Global Governance*. 20 (2014). p.405-417.

Acharya, A. (2014) Power Shift or Paradigm Shift? China's Rise and Asia's Emerging Security Order. *International Studies Quarterly*. 58 (2014). p.158-173.

Friedman, S.

Friedman, S. (2014) From Classroom to Class Struggle: Radical Academics and the Rebirth of Trade Unionism in the 1970s. *Journal of Asian and African studies*. 2014 (2014). p.1-18.

Gordon, L.

Gordon, L. (2014) Disciplinary Decadence and the Decolonisation of Knowledge. *Africa development/Afrique et développement*. XXXIX (1). p.81-92.

Howell, S.

Howell, S. (2014) Africa and the war on drugs, by Neil Carrier and Gernot Klantschnig, London, Zed Books, 2012, 176pp, ISBN 9781848139664. *Journal of Contemporary African Studies*. 32 (1). p.148-150.

Howell, S. and Vincent, L.D.

Howell, S. and Vincent, L.D. (2014) 'Licking the Snake' - The I'Khotane and Contemporary Township Youth Identities in South Africa. *South African Review of Sociology*. 45 (2). p.60-77.

Idahosa, G.E. and Vincent, L.D.

Idahosa, G.E. and Vincent, L.D. (2014) Xenophobia, sovereign power and the limits of citizenship. *Africa review: Journal of*

the African Studies Association of India. 6 (2). p.94-104.

Idahosa, G.E. and Vincent, L.D. (2014) Losing, using, refusing and cruising: First-generation South African women academics narrate the complexity of marginality. *Agenda*. 99 (28). p.59-71.

Magadla, S.

Magadla, S. (2014): Community of insecurity: SADC's struggle for peace and security in Southern Africa. *Journal of Contemporary African Studies*. 32 (2). pp.275-277.

Pithouse, R.M.

Pithouse, R.M. (2014) An Urban Commons? Notes from South Africa. *Community Development Journal*. 49 (S1). p.31-43.

Pithouse, R.M. (2014) Remembrance: Nelson Mandela, 1918-2013: The Crossing. *Radical History Review*. 119 (2014). p.247-249.

Vincent, L.D. and Howell, S.

Vincent, L.D. and Howell, S. (2014) 'Unnatural', 'Un-African' 'Ungodly': Homophobic discourse in democratic South Africa. *Sexualities*. 17 (4). p.472-483.

Vincent, L.D. and Howell, S.P.

Vincent, L.D. and Howell, S.P. (2014) Embracing Racial Reasoning: The DASO Poster Controversy and 'Race' Politics in Contemporary South Africa. *Journal of Southern African Studies*. 40 (1). p.75-90.

Vincent, L.D. and Idahosa, G.E.

Vincent, L.D. and Idahosa, G.E. (2014) 'Joining the academic life': South African students who succeed at university despite not meeting standard entry requirements. *South African Journal of Higher Education*. 28 (4). p.1433-1447.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Howell, S. and Vincent, L.D.

Howell, S. and Vincent, L.D. Licking the Snake. The I'khotane and Contemporary Township Youth Identities in South Africa. *Conspicuous Consumption in Africa*. University of Cape Town (HUMA), Cape Town. South Africa. December 2014.

Matthews, S.J.

Matthews, S.J. Shifting White Identities in South Africa: White Africanness and the Achievement of Racial Justice. *The International Society for African Philosophy and Studies 20th Annual Conference*. University of Fort Hare, East London. South Africa. May 2014.

Matthews, S.J. African Alternatives to Development: Ubuntu and the post-development debate. *Alternatives to Development? Analysing Post-Development concepts and practices*. University of Kassel, Kassel. Germany. October 2014.

Pithouse, R.M.

Pithouse, R.M. The Meaning of Communism Today. *Socialism: After the US-China Economic Convergence*. Brown University, Providence. United States of America. April 2014.

Pithouse, R.M. Durban? The Struggle for the City Over the longue durée. *Contested Cities Conference*. Leeds. United Kingdom. November 2014.

Pithouse, R.M. Reflections from Durban. *Exilic Spaces*. Fernand Braudel Center, Binghamton, New York. United States of America. April 2014.

Vincent, L.D.

Macleod, C.I. and Vincent, L.D. Critical Sexual and Reproductive Citizenship Pedagogy: Implications for Practice. *South African Psychology Congress*. University of KwaZulu-Natal, Durban. South Africa. September 2014.

Vincent, L.D. and Chiwandire, D.

Vincent, L.D. and Chiwandire, D. Medical practitioners and conscientious objection to the provision of termination of pregnancy services. *Mentoring for Sustainable Rural Community Resilience and Public Health*. University of Fort Hare, East London. South Africa. November 2014.



Professor Paul Bischoff with Kyla Hazell and Marc Davies

DEPARTMENT OF PSYCHOLOGY

INTRODUCTION

Staff, students and Research Associates of the Department of Psychology produced twenty-six (26) accredited journal articles in 2014, one (1) monograph book, ten (10) book chapters, and presented twenty (20) conference papers at local and international conferences. This research was richly varied across themed sub-disciplinary areas of psychology, and included fourteen (14) accredited publications that were collaborations between Psychology Department staff and their students and/or Research Associates. Strong research themes included:

- Psychological assessment in South Africa, including cross-cultural issues and translation of instruments;
- Sexual citizenship and reproductive justice, including sexuality education and unsupportable pregnancy;
- Critical studies in sexualities and alternate forms of families;
- War trauma in conflict-affected African communities, including post-traumatic stress disorder;
- Living with HIV and mental illness in families and communities;
- Psychotherapeutic modalities and processes, using case study, schema, narrative and psychoanalytic approaches;
- Concussive injury in rugby players;
- Gender-based violence and masculinities;
- University students' wellbeing and social media usage;
- Psychology students' resistances to inclusion of socio-political lenses in curricula.



Psychology Department front façade
Photo: Andrea Mulder, Psychology Department Technical Officer

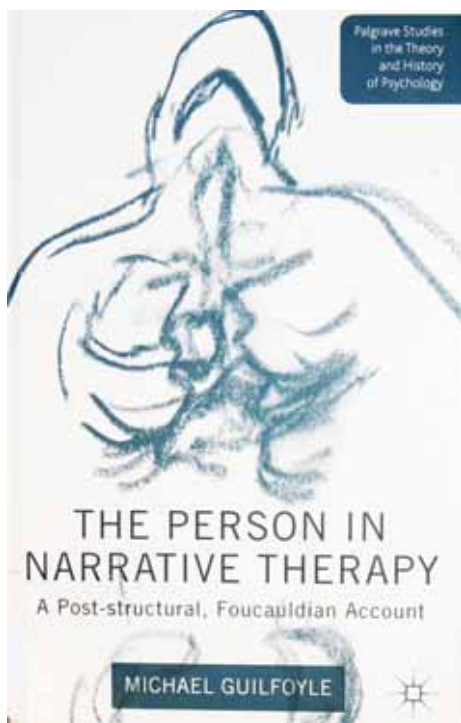
Postgraduates/Graduations

The Psychology Department enjoyed a bumper crop of graduations of Postgraduate students from Honours through to PhD, who completed their degrees. We are still in the enviable position of receiving far more applications for Postgraduate study than we are able to accommodate.

Our two Doctoral graduates, **Dr Honelwa Ngqangeweni** and **Dr Melissa Boulind**, were supervised by **Professor Catriona Macleod** and **Professor Charles Young** respectively. They produced exciting and relevant research studies that were well-received by examiners, entitled *Gender and constructions of spousal mourning among the AmaXhosa in the Eastern Cape (Ngqangeweni)*, and *'I felt that I deserved it' - An investigation into HIV-related PTSD, traumatic life events and the personal experiences of living with HIV: A mixed-method study (Boulind)*. Publications will flow from this important work.

Distinguished Visitors

The Department hosted three distinguished visitors during 2014, who presented public lectures and engaged with staff and students at various levels. **Dr Merran Toerien** from the Department of Sociology at the University of York, United Kingdom, visited to collaborate with **Professor Catriona Macleod** in the *Critical Studies in Sexualities and Reproduction (CSSR) programme* on a project examining communication between nurses and young women seeking abortions of unsupportable pregnancies in health care clinics in the Eastern Cape and in Britain. This research will use conversation analysis, a research methodology that has been used to examine patterns and power relationships in talk in health care settings. A three-day research training workshop was facilitated by Dr Toerien with Postgraduate students from the CSSR and the Politics Department, and staff, on conversation analysis.



Associate Professor Michael Guilfoyle's monograph, *The Person in Narrative Therapy: A post-structural Foucauldian Account*

The following two visitors presented their research praxis within the field of community engagement in South Africa. Since 2008, the Department has made an annual *Social Change Award* to acknowledge the contributions that psychologists make towards social transformation in South Africa, in ways that draw deeply on research and thinking about how to do research differently. In September 2014, this award was presented to **Professor Mohamed Seedat**. Seedat is the Director of the UNISA Institute for Social and Health Sciences, and the UNISA and Medical Research Council's Violence, Injury and Peace Research Institute. He is a leading local and international scholar and activist in community psychology, and drew on this experience to present an incisive retrospective analysis of the shifting relationship between research and social justice, entitled: 'Looking back at three decades of research enactments and change.'

Dr Puleng Segalo visited the Department in October 2014 to deliver the keynote address at our annual *Postgraduate Research Conference*. Segalo is the recipient of numerous research Fellowships and awards, the latest being that she was named as the *2014 Distinguished Young Woman Scientist of the Year* by the National Department of Science and Technology. She is based in the Psychology Department at UNISA, and her research analyses South African women's narratives of survival and resistance pre-, during and post-apartheid, contrasting testimonies offered by women to the *Truth and Reconciliation Commission*, narratives spoken in interviews and focus groups, and embroidered stories that women stitch onto fabric to tell of their resistance and survival.

Drawing from this embroidery research project, Segalo's keynote reflected on evidence that is produced through lived experience and transformatory action. Her presentation was entitled: 'Towards a decolonial theorizing - breaking the 'universality' myth.'

These visits all included undergraduate and/or Postgraduate students, and represent strategic attempts in the Psychology Department to develop active engagements between psychological services and community practices, and between teaching and engaged research - as responsive to a range of pressing social issues and contexts.

Significant Research Aligned Events

The Psychology Department's Professors and senior academics continued to provide inspired research leadership through their productivity in subsidy-earning publications and conference presentations.

Professor Michael Guilfoyle produced a monograph book in 2014, entitled, *The person in narrative therapy - A post-structural Foucauldian account*. This book was published in hardcover by Palgrave, within their *Palgrave Studies in the Theory and History of Psychology* series. Guilfoyle is a registered clinical psychologist, and this book draws on his over 20 years of experience as a therapist, in the light of his scholarly standing in Foucauldian thought. This book critically examines the post-structural principles that underpin narrative therapy practice, which make available powerful conceptual tools for theorizing the person and personhood.

The Psychology Department also invested in development of its younger academics and Postgraduate researchers. Four (4) lecturers took academic leave during 2014, on the PhD track, to begin and/or complete their Doctoral journeys. **Natalie Donaldson, Elron Fouten, Werner Bohmke** and **Gary Steele** used the six months leave to further their research writing. In addition, the *Prabashini Appalsamy Memorial Award* was given to **Elizabeth Chitiki** at the *Postgraduate Research Conference* in October 2014, as the Psychology Honours student who received the highest marks for the research methodology and research project component of the course. The aim of this award is to contribute towards developing research capacity through encouraging recipients to continue to Masters-level research degrees, and to pursue careers in research psychology. Chitiki will register for a Masters in Psychology (by thesis) in 2015.

Professor Lindy Wilbraham

Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Gibson, A.F. and Macleod, C.I.

Gibson, A.F. and Macleod, C.I. (2014) Beyond 'Coming Out': Lesbians' (alternative) stories of sexual identity told in post-apartheid South Africa. In: McKenzie-Mohr, S. and LaFrance, N. (eds.). *Women voicing resistance: Discursive and narrative explorations*. New York: Routledge: Taylor and Francis. p.29-43. ISBN: 9781848721043.

Guilfoyle, M.

Guilfoyle, M. (2014) *The person in narrative therapy: A post-structural Foucauldian account*. UK: Palgrave Macmillan. ISBN: 9781137380548.

Macleod, C.I.

Macleod, C.I. (2014) 'Adolescent pregnancy': A feminist Issue. In: Cherry, A.L. and Dillon, M.E. (eds.). *International handbook of adolescent pregnancy: Medical, psychosocial, and public health responses*. New York: Springer. p.129-145. ISBN: 9781489980250.

Macleod, C.I. and Vincent, L.D. (2014) Introducing a critical pedagogy of sexual and reproductive citizenship: Extending the 'framework of thick desire'. In: Allen, L., Rasmussen, M.L. and Quinlivan, K. (eds.). *The politics of pleasure in sexuality education: Pleasure bound*. New York: Routledge: Taylor and Francis. p.115-135. ISBN: 9780415812269.

Macleod, C.I. (2014) Teenage pregnancy. In: Teo, T. (ed.) *Encyclopedia of critical psychology*. New York: Springer. p.1937-1940. ISBN: 9781461455820.

Macleod, C.I. and Tracey, T.

Macleod, C.I. and Tracey, T. (2014) Pregnancy among young women in South Africa. In: Cherry, A.L. and Dillon, M.E. (eds.). *International handbook of adolescent pregnancy: Medical, psychosocial, and public health responses*. New York: Springer. p.545-561. ISBN: 9781489980250.

Marx, J.G.

Marx, J.G. (2014) Negotiating homosexual in/visibility. In: Matebeni, Z. (ed.). *Reclaiming Afrikan: Queer perspectives on sexual and gender identities*. Athlone: Modjaji books. p.32-35. ISBN: 9781920590499.

Morison, T.

Chitiga-Mabugu, M., Karuaihe, S., Reddy, V., Motala, S., **Morison, T.**, Botsis, H., Ntuli, M. and Tsoananmatsie, N. (2014) *South African women as champions of change: A civil society programme of action for the African women's decade*. Cape Town: HSRC Press. ISBN: 9780796924520.

Saville Young, L.

Saville Young, L. (2014) Becoming Other to oneself: Misreading the researcher through Lacanian discourse analysis. In: Parker, I. and Pavon-Cuellar, D. (eds.). *Lacan, discourse, event: New Psychoanalytic approaches to textual indeterminacy*. New York: Routledge: Taylor and Francis. p.279-290. ISBN: 9780415521635.

Shuttleworth-Edwards, A.B. and Whitefield-Alexander, V.J.

Shuttleworth-Edwards, A.B., Radloff, S.E. and Whitefield-Alexander, V.J. (2014) Vulnerability in speed of visuomotor ability. In: Niranjana, A. and Lunsford, L.D. (eds.). *Concussion. Progress in neurological surgery*. New York: Karger. p.213-225. ISBN: 9783318026481.

Concerts, Exhibitions, Performances, Workshops, Events

Donaldson, N.

Donaldson, N. Presenter. *Heteronormativity*. Workshop for Graeme College School for Boys, Grahamstown. South Africa. 13 August 2014.

Donaldson, N. and Kelland, L. Presenters. Gender dynamics and gender awareness. *Training workshop aimed for Rhodes University residence house-committee members*, Grahamstown. South Africa. 6 February 2014.

Edwards, D.J.A.

Edwards, D.J.A. Presenter. *Working with personality disorders: The schema therapy approach*. Southern Sun Hotel Newlands, Cape Town. South Africa. 8 - 9 November 2014.

Shuttleworth-Edwards, A.B.

Shuttleworth-Edwards, A.B. Presenter. Psychometric assessment in the South African cross-cultural context: Preliminary normative data and their application. *Invited workshop held as an educational initiative of the South African Clinical Neuropsychological Association (SACNA)*. The River Club, Observatory, Cape Town. South Africa. 6 May 2014.

Shuttleworth-Edwards, A.B. Presenter. Psychometric assessment in the South African cross-cultural context: Preliminary normative data and their application. *Invited workshop held as an educational initiative of the South African Clinical Neuropsychological Association (SACNA)*. The Wanderers Club, Johannesburg. South Africa. 15 May 2014.

Shuttleworth-Edwards, A.B. Presenter. Psychometric assessment in the South African cross-cultural context: Preliminary normative data and their application. *Invited workshop held as an educational initiative of the South African clinical Neuropsychological Association (SACNA)*. Ampath Building, East London. South Africa. 18 September 2014.

Shuttleworth-Edwards, A.B. Presenter. Psychometric assessment in the South African cross-cultural context: Preliminary normative data and their application. *Invited workshop held as an educational initiative of the South African clinical Neuropsychological Association (SACNA)*. International Convention Centre (ICC), Durban. South Africa. 20 September 2014.

Whitefield-Alexander, V.J. and Shuttleworth-Edwards, A.B.

Whitefield-Alexander, V.J. and Shuttleworth-Edwards, A.B. Invited Presentation. The pivotal role of neurocognitive testing in safe return-to-play decisions. *Meeting of the Football Association Medical Society*. London Independent Hospital, London. United Kingdom. 20 October 2014.

Distinguished Visitors

Seedat, M.

Professor Mohamed Seedat. Institute for Social and Health Sciences (ISHS), UNISA, Pretoria, South Africa. *To receive the Psychology Department's Social Change Award 2014.* September 2014.

Segalo, P.

Dr Puleng Segalo. Psychology Department, UNISA, Pretoria, South Africa. *To give keynote address at Psychology Department's Postgraduate Conference.* October 2014.

Toerien, M.

Dr Merran Toerien. Department of Sociology, University of York, United Kingdom. *To collaborate on research projects with the Critical Studies in Sexualities and Reproduction programme, and to facilitate research methodology training workshops in Conversation Analysis.* March 2014.

International Visits

Macleod, C.I.

Macleod, C.I. University of Zimbabwe, Harare, Zimbabwe. A critical approach to teenage pregnancy. *Invited presentation.* 16 May 2014.

Other Publications

Barker, K.E.

Barker, K.E., Kelland, L.A. and Tabensky, P.A. (2014) South Africa: The harm of rape. In: Robinson, K. (ed.). *Gender Links.* Johannesburg: Gender Links.

Edwards, D.J.A.

Edwards, D.J.A. (2014) Schemas in clinical practice: What they are and how we can change them. In: Riso, L.P. (ed.). *Independent Practitioner.* USA: American Psychological Association Division 42.

Morison, T.

Morison, T. (2014) Knowledge and knowing in South Africa: Making a case for the social sciences and the humanities. *Pins: Psychology in Society.* 46. p.76-78.

Young, C.

Young, C. Some old problems with the new guidance on counselling people of African ancestry. *Pins: Psychology in Society.* 46. p.82-84.

Zondo, S. and Mulder, A.

Zondo, S. and Mulder, A. Early signs of success in the cognitive rehabilitation of children living with HIV/AIDS in rural South Africa. *Proceedings of Second International Conference in Social Science, Management and Human Behaviour* - <http://www.seekdl.org/nm.php?id=4542>. Zurich, Switzerland. August 2014.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

De Jong, J.T.V.M.

Song, S.J. and **De Jong, J.T.V.M.** (2014) The role of silence in Burundian former child soldiers. *International Journal for the Advancement of Counselling.* 36. p.84-95.

Peer Reviewed Subsidy-Earning Journal Research Publications

Booi, B.N. and Edwards, D.J.A.

Booi, B.N. and Edwards, D.J.A. (2014) Becoming a Xhosa healer: Nomzi's Story. *Indo-Pacific Journal of Phenomenology.* 14 (2). p.1-12.

De Jong, J.T.V.M.

Tol, W.A., Komproe, I.H., Jordans, M.J.D., Ndayisaba, A., Ntamutumba, P., Sipsma, H., Smallegange, E.S., Macy, R.D. and **De Jong, J.T.V.M.** (2014) School-based mental health intervention for children in war-affected Burundi: a cluster randomized trial. *BMC Medicine.* 12 (56). p.1-12.

De Haan, A.M., Boon, A.E., Vermeiren, R.R.J.M., Hoeve, M. and **De Jong, J.T.V.M.** (2015) Ethnic background, socio-economic status, and problem severity as dropout risk factors in psychotherapy with youth. *Child & Youth Care Forum.* 44 (1). p.1-16. (Published online in 2014.)

Hall, B.J., Tol, W.A., Jordans, M.J.D., Bass, J. and **De Jong, J.T.V.M.** (2014) Understanding resilience in armed conflict: Social resources and mental health of children in Burundi. *Social Science & Medicine.* 114. p.121-128.

Hoenders, R.H.J., Bos, E.H., Bartel-Velthuis, A.A., Vollbehr, N.K., van der Ploeg, K., de Jonge, P. and **De Jong, J.T.V.M.** (2014) Pitfalls in the assessment, analysis, and interpretation of Routine Outcome Monitoring (ROM). Data: Results from an outpatient clinic for integrative mental health. *Administration and Policy in Mental Health and Mental Health Services Research.* 41 (5). p.647-659.

De Haan, A.M., Boon, A.E., **De Jong, J.T.V.M.**, Geluk, C.A.M.L. and Vermeiren, R.R.J.M. (2014) Therapeutic relationship and dropout in youth mental health care with ethnic minority children and adolescents. *Clinical Psychologist.* 18 (1). p.1-9.

Ventevogel, P., Komproe, I.H., Jordans, M.J., Feo, P. and **De Jong, J.T.V.M.** (2014) Validation of the Kirundi versions of brief self-rating scales for common mental disorders among children in Burundi. *BMC Psychiatry.* 14 (36). p.1-13.

Edwards, D.J.A.

Padmanabhanunni, A. and **Edwards, D.J.A.** (2014) A Phenomenological case study of the therapeutic impact of imagery: Rescripting of memories of a rape and episodes of childhood abuse and neglect. *Indo-Pacific Journal of Phenomenology.* 14 (1). p.1-16.

Edwards, D.J.A., Hirst, M. and Booi, B.N.

Edwards, D.J.A., Hirst, M. and Booi, B.N. (2014) Interpretative reflections on Nomzi's story. *Indo-Pacific Journal of Phenomenology.* 14 (2). p.1-13.

Fleischack, A. and Meehan, T.

Fleischack, A. and Meehan, T. (2014) Values in children's stories in South Africa: an exploratory discourse analysis. *Journal of Psychology in Africa.* 24 (6). p.509-512.

Guilfoyle, M.

Guilfoyle, M. (2015) Listening in narrative therapy: Double listening and empathic positioning. *South African Journal of Psychology.* 45 (1). p.36-49. (Published online in 2014.)

Kelland, L.A.

Kelland, L.A. (2014) The harm of male-on-female rape: A Response to David Benatar. *Journal of Interpersonal Violence*. 29 (15). p.2775-2791.

Kelland, L.A. and Macleod, C.I.

Kelland, L.A. and Macleod, C.I. (2015) When is it legitimate to use images in moral arguments? The use of foetal imagery in anti-abortion campaigns as an exemplar of an illegitimate instance of a legitimate practice. *Philosophy & Social Criticism*. 41 (2). p.179-195. (Published online in 2014.)

King, B.

King, B. and Thatcher, A. (2014) Attitudes towards software piracy in South Africa: Knowledge of Intellectual Property Laws as a moderator. *Behaviour & Information Technology*. 33 (3). p.209-223.

Lynch, I.

Victor, C.J., Nel, J.A., **Lynch, I.** and Mbatha, K. (2014) The Psychological Society of South Africa sexual and gender diversity position statement: contributing towards a just society. *South African Journal of Psychology*. 44 (3). p.292-302.

Macleod, C.I.

Macleod, C.I., Marecek, J. and Capdevila, R. (2014) Feminism & Psychology going forward. *Feminism & Psychology*. 24 (1). p.3-17.

Macleod, C.I., Seutlwadi, L. and Steele, G.

Macleod, C.I., Seutlwadi, L. and Steele, G. (2014) Cracks in reproductive health rights: Buffalo City learners' knowledge of abortion legislation. *Health SA Gesondheid*. 19 (1). p.1-10.

Meehan, T. and Guilfoyle, M.

Meehan, T. and Guilfoyle, M. (2015) Case Formulation in Poststructural Narrative Therapy. *Journal of Constructivist Psychology*. 28 (1). p.24-39. (Published online in 2014.)

Saville Young, L.

Saville Young, L. (2014) Psychoanalytic training in South Africa: Attending to the marginalia. *Psycho-analytic Psychotherapy in South Africa*. 22 (2). p.53-72.

Shuttleworth-Edwards, A.B.

Shuttleworth-Edwards, A.B. (2014) Four fatal flaws of brain injury assessment in the cross-cultural context. *Journal of Psychology in Africa*. 24 (5). p.464-467.

Shuttleworth-Edwards, A.B. and De Kock, H.

Shuttleworth-Edwards, A.B., De Kock, H. and Radloff, S.E. (2014) Normative indications for Xhosa speaking unskilled workers on the Rey-Osterrieth Complex Figure Test. *Journal of Psychology in Africa*. 24 (6). p.492-498.

Shuttleworth-Edwards, A.B., Whitefield-Alexander, V.J., Smith, I.P. and Horsman, M.

Shuttleworth-Edwards, A.B., Radloff, S.E., Whitefield-Alexander, V.J., Smith, I.P. and Horsman, M. (2014) Practice effects reveal visuomotor vulnerability on school and university rugby players. *Archives of Clinical Neuropsychology*. 29. p.86-99.

Wilbraham, L.A.

Wilbraham, L.A. (2014) Teaching Aids: Struggling

with/through student resistances in psychology curricula in South African universities. *Race Ethnicity and Education*. DOI: 10.1080/136 13324.2014.885424

Wilbraham, L.A. (2014) Reconstructing Harry: A Genealogical Study of a Colonial Family 'Inside' and 'Outside' the Grahamstown Asylum, 1888-1918. *Medical History*. 58 (2). p.166-187.

Young, C.

Young, C. and Strelitz, L. (2014) Exploring patterns of Facebook usage, social capital, loneliness and well-being amongst a diverse South African student sample. *Communicare: Journal for Communication Sciences in Southern Africa*. 33 (1). p.57-72.

Young, C. and Campbell, M.

Young, C. and Campbell, M. (2014) Student wellbeing at a university in post-apartheid South Africa: a comparison with a British university sample using the GP-CORE measure. *British Journal of Guidance & Counselling*. 42 (4). p.359-371.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Donaldson, N.

Donaldson, N. Gendered pasts and towards an ungendered future at Rhodes University. *Paper presented at Women's Academic Solidarity Association Women's Day Event, Grahamstown*. South Africa. 9 August 2014.

Donaldson, N. and Wilbraham, L.

Donaldson, N. and Wilbraham, L. 'You're like a proper hoodrat': Responding to representations of black lesbian women on South African television. *20th Annual PsySSA conference*. Inkosi Albert Luthuli International Convention Centre, Durban. South Africa. September 2014.

Donaldson, N. and Wilbraham, L. 'But, that's exactly how they are!': Responding to representations of black lesbian women in South African media. *African Same-Sex Sexualities and Gender Diversity Conference, Nairobi*. Kenya. April 2014.

Du Toit, R.R. and Macleod, C.I.

Du Toit, R.R. and Macleod, C.I. Pornography and young men's sexual socialisation: a pleasure maintain/hold discourse. *20th Annual PsySSA conference*. Inkosi Albert Luthuli International Convention Centre, Durban. South Africa. September 2014.

Edwards, D.J.A.

Edwards, D.J.A. Exploring the interface between personal healing and spiritual development: An interpretive examination of the rescripting of personal and symbolic imagery in the case of Nina. *International Society of Schema Therapy*. Asker Military Museum, Istanbul. Turkey. January 2014.

Guilfoyle, M.

Guilfoyle, M. Therapy and the aesthetics of the self. *Conference on Healing and Social Transformation*. University of Cape Town, Cape Town. South Africa. July 2014.

Jearey-Graham, N.S. and Macleod, C.I.

Jearey-Graham, N.S. and Macleod, C.I. A discourse of disconnect: Young people's talk about Life Orientation sexuality education and parental communication about sex.

20th Annual PsySSA conference. Inkosi Albert Luthuli International Convention Centre, Durban. South Africa. September 2014.

Lynch, I.

Lynch, I., Victor, C.J., Nel, J. and Mbatha, K. Is transgender health and wellbeing on Psychology's agenda? Introducing the Psychological Society of South Africa's position statement on sexual and gender diversity. *2nd Trans Health and Advocacy Conference*. Cape Town. South Africa. June 2014.

Lynch, I. Documenting LGBTI-related hate crimes in township communities in and around Cape Town: A participatory, capacity-building approach. *20th Annual PsySSA conference*. Inkosi Albert Luthuli International Convention Centre, Durban. South Africa. September 2014.

Lynch, I. Men who have sex with men in township communities in Cape Town: Navigating notions of culture, sexuality and masculinity. *African Same-Sex Sexualities and Gender Diversity Conference*. Nairobi. Kenya. March 2014.

Macleod, C.I.

Macleod, C.I. and Vincent, L.D. Critical sexual and reproductive citizenship pedagogy: Implications for practice. *20th Annual PsySSA conference*. Inkosi Albert Luthuli International Convention Centre, Durban. South Africa. September 2014.

Macleod, C.I. Twenty years of democracy in South Africa: Is there something to celebrate and what has Psychology's contribution been in shaping this young democracy? *Panel debate at the 20th Annual PsySSA conference*. Inkosi Albert Luthuli International Convention Centre, Durban. South Africa. September 2014.

Moodley, D., Macleod, C.I. and Young, L.S.

Moodley, D., Macleod, C.I. and Young, L.S. Sexual socialisation in Life Orientation manuals versus popular music: responsibilisation versus pleasure, tension and complexity. *20th Annual PsySSA conference*. Inkosi Albert Luthuli International Convention Centre, Durban. South Africa. September 2014.

Morison, T. and Lynch, I.

Morison, T. and Lynch, I. Same, different, or deficient? Constructions of same-gendered families in South African mainstream media. *20th Annual PsySSA conference*. Inkosi Albert Luthuli International Convention Centre, Durban. South Africa. September 2014.

Shuttleworth-Edwards, A.B.

Klopper, C.C., Pienaar, I., **Shuttleworth-Edwards, A.B.** and Radloff, S.E. WAIS-IV versus WAIS-III normative indications for Xhosa speaking individuals with disadvantaged Grade 12 education. *14th Biennial Conference of the South African Clinical Neuropsychological Association (SACNA)*. Wanderers Club, Johannesburg. South Africa. January 2014.

Pienaar, I., Klopper, C.C., **Shuttleworth-Edwards, A.B.** and Radloff, S.E. Utility of substitute WAIS-IV subtests on IQ and Index score calculations of educationally disadvantaged Xhosa speaking adults. *14th Biennial Conference of the*

South African Clinical Neuropsychological Association (SACNA). Wanderers Club, Johannesburg. South Africa. August 2014.

Pienaar, I. and **Shuttleworth-Edwards, A.B.** A review of WISC-IV, WAIS-III and WAIS-IV cross-cultural normative data. Invited presentation in Truter, S. (Chair). Symposium entitled 'Cross-cultural neuropsychological assessments and their forensic implications'. *International Congress of Applied Psychology (ICAP)*. Palais de Congress, Paris. France. July 2014.

Truter, S.

Truter, S. Cross-Cultural Neuropsychological Assessments and their Forensic Implications (Symposium). *International Congress of Applied Psychology (ICAP)*. Palais de Congress, Paris. France. July 2014.

Truter, S. Norm Collection in a Diverse Cultural Society.

Presentation in Truter, S. (Chair). Symposium entitled 'Cross-cultural neuropsychological assessments and their forensic implications'. *28th International Congress of Applied Psychology (ICAP 2014)*. Palais de Congress, Paris. France. July 2014.

Zondo, S. and Mulder, A.

Zondo, S. and Mulder, A. Early signs of success in the cognitive rehabilitation of children living with HIV/AIDS in rural South Africa. *Second International Conference in Social Science, Management and Human Behaviour*. Zurich. Switzerland. August 2014.

2013 Publications Submitted to DHET in 2014

Books/Chapters/Monographs

Donaldson, N. and Wilbraham, L.

Donaldson, N. and Wilbraham, L. (2013) 'Two women can't make a baby': South African lesbians' negotiations with heteronormativity around issues of reproduction. In: Lubbe-De Beer, C. and Marnell, J. (eds.) *Home affairs: Rethinking lesbian, gay, bisexual and transgender families in contemporary South Africa*. Johannesburg: Fanele and GALA. p.135-158. ISBN: 9781920196332.

Lynch, I.

Lynch, I. (2013) Erased, elided and made invisible? A critical analysis of research on bisexual parenthood and families. In: Lubbe-De Beer, C. and Marnell, J. (eds.) *Home affairs: Rethinking lesbian, gay, bisexual and transgender families in contemporary South Africa*. Johannesburg: Fanele and GALA. p.68-88. ISBN: 9781920196332.

Morison, T.

Morison, T. and Reddy, V. (2013) Familiar claims: Representations of same-gendered families in South African mainstream news media. In: Lubbe-De Beer, C. and Marnell, J. (eds.) *Home Affairs: Rethinking lesbian, gay, bisexual and transgender families in contemporary South Africa*. Johannesburg: Fanele and GALA. p.21-49. ISBN: 9781920196332.

INTRODUCTION

Following on from the site accreditation visit by the Association of MBAs (AMBA) in 2013, a validation visit was hosted by the School in October 2014. As a consequence of that, it was confirmed that Rhodes Business School's MBA programme offering be accredited by AMBA until 2017. In so doing, we became the 6th business school in South Africa and the 9th in Africa to achieve this accreditation.

Postgraduates/Graduations

We are pleased to have achieved graduation of eighteen (18) MBA and thirty-six (36) PDEM graduates.

Distinguished Visitors/International Visits

Rhodes Business School is grateful to our Distinguished Visitors who visit the school each year and enrich our students.

Professor Noel Pearce has visited Ljubljana University in Slovenia over the past few years. During the year he was formally appointed as a Visiting Scholar in their Faculty of Economics.

Congratulations to two (2) of our MBA graduates, Tinashe Ndoro and Mark Sllimi who had papers presented during the year.



From Left to right: Ms Leticia Greyling, Professor Noel Pearce, Professor Owen Skae

Photo: Ruan Scheepers

Significant Research Aligned Events

Two PhD weeks were run by Rhodes Business School in March and August 2014. These proved to be very beneficial for our PhD candidates.

Professor Owen Skae

Director: Rhodes Business School

PUBLICATIONS

Books/Chapters/Monographs

Greyling, L.M.

Greyling, L.M. (2014) From methane curse to carbon trading at Gold Fields. In: Nhamo, G. (ed.). *Breakthrough: Corporate South Africa in a Green Economy*. South Africa: Africa Institute of South Africa. p.92-111. ISBN: 9780798304566.

Skae, F.O.

Skae, F.O. (ed.) (2014) *Managerial Finance*. 7th Ed. Durban: LexisNexis (Pty) Ltd. ISBN: 9780409120028.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Kanyangale, M. and Pearse, N.J.

Kanyangale, M. and Pearse, N.J. (2014) Developing leadership competencies: Insights from emergent junior talent-in-transitions in South Africa. *International Journal of Organizational Leadership*. 3 (2014). p.56-79.

Other Publications

Greyling, L.M.

Greyling, L.M. (2014) Business unusual - what about business education? *The Corporate Report*. 4 (1), Juta & Co Ltd. p.3-5. ISSN: 2222 - 3894.

Skae, F.O.

Skae, F.O. (2014) The future of management education: Integrated thinking, a 'no-brainer'. *The Corporate Report*. 4 (1), Juta & Co Ltd. p.10-12. ISSN: 2222 - 3894.

Peer Reviewed Proceedings

Kanyangale, M. and Silimi, M.M.

Kanyangale, M. and Silimi, M.M. Managers' Perceptions of Performance Appraisal Implementation at a Mine in Zambia. *8th International Business Conference Proceedings*. The Swakopmund Hotel and Entertainment Centre, Swakopmund. Namibia. August 2014.

Pearse, N.J.

Pearse, N.J. Service as a Required Leadership Competency. *Proceedings of the 10th European Conference on Management Leadership and Governance*. Vern University of Applied Science, Zagreb. Republic of Croatia. November 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Kanyangale, M.

Ndoro, T.T., Kanyangale, M. and Louw, L. Chinese entrepreneurship in the small retail businesses in South Africa. *26th Annual SAIMS Conference*. Riverside Sun Resort, Vanderbijl Park. South Africa. September 2014.

Pearse, N.J.

Dimovski, V., Pearse, N.J. and Peterlin, J. Determining the Framework of Values for Strategic Leadership Decision-Making of Leaders. *3rd Annual Conference of Economic and*

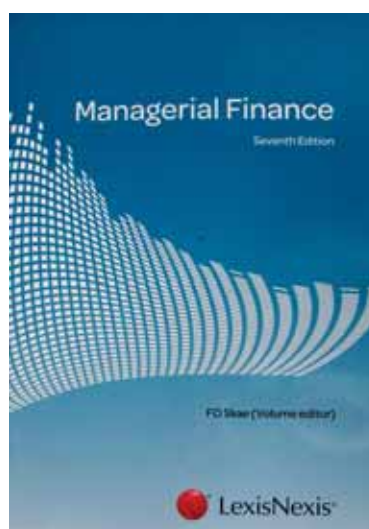
Business Review. Faculty of Economics. Ljubljana. Slovenia. November 2014.

Distinguished Visitors

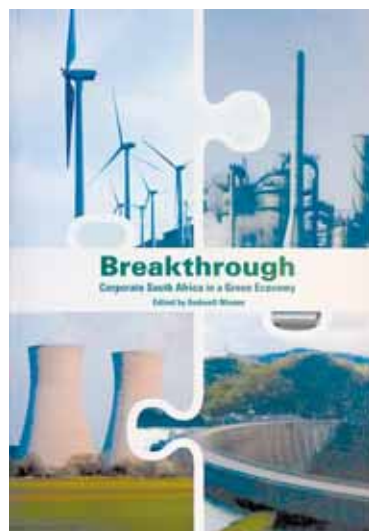
Mashele, PH. Executive Director, CPR, South Africa. *Business forum: Issues that will drive the South African political agenda over the next five years*. May 2014.

Mashaba, H. Founder and Former CEO, Black Like Me Products, South Africa. *Business forum: How to unlock the youth potential in South Africa: the next generation of entrepreneurs*. August 2014.

Davis, D. (Judge) Chairperson, The Davis Tax Committee, South Africa. *Business forum: Balancing South Africa's imperatives and ensuring a sustainable economy*. September 2014.



Professor Owen Skae edited the book *Managerial Finance* (Seventh Edition).



Leticia Greyling contributed the chapter *From methane curse to carbon trading at Gold Fields* to the book *Breakthrough: Corporate South Africa in a Green Economy*.

SCHOOL OF LANGUAGES

INTRODUCTION

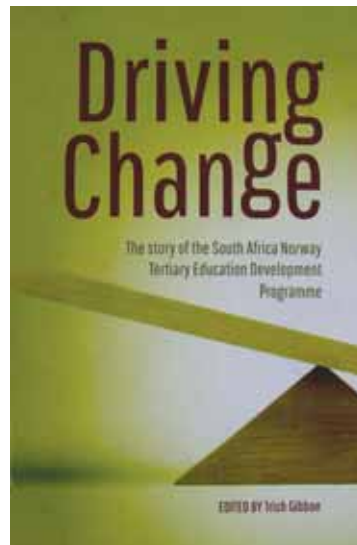
The School of Languages is a large Department made of six Sections: African Languages, Afrikaans and Netherlandic, Chinese, Classical, French and German Studies.

In 2014, staff members were involved in various research activities both locally and internationally. Most of research output produced by the School is based on literary, cultural as well on linguistic aspects of languages offered by the School.

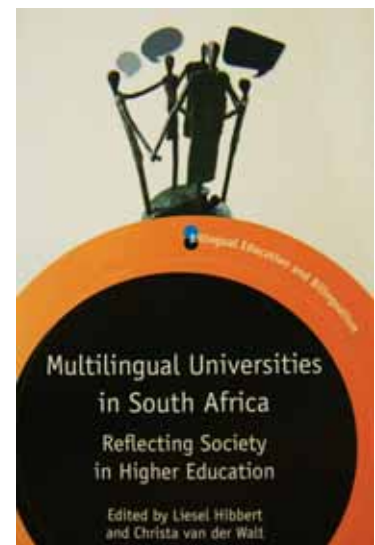
The School has also produced research related to language policy, both locally and internationally. International scholars were hosted by the School during the year 2014.

Distinguished Visitors/International Visits

- **Professor Hans Ester** of Radboud Universiteit, Nijmegen in the Netherlands. Professor Ester delivered a lecture on Ettie Buurman and Holocaust literature.



Dr Pamela Maseko contributed the chapter *Multilingualism for teaching and learning* to the book *Driving Change: The Story of the South Africa Norway Tertiary Education Development Programme*, and the chapter *Multilingualism at Work in South African Higher Education: From Policy to Practice* in *Multilingual Universities in South Africa: Reflecting Society in Higher Education*.



- **Emeritus Professor H. Ekkehard Wolff**, University of Leipzig, Germany and Adama Science & Technology University, Ethiopia, delivered a lecture on Multilingualism in the African continent during the launch of the Rhodes University Language Policy. He also presented a well attended seminar at the Humanities Faculty.
- The School hosted **Professor Jeff Opland** from the UK to co-edit with Dr P Maseko a book on African literature written in isiXhosa during colonial era.
- **Ms Undine Weber** and **Ms Rebecca Domingo** visited the University of Maynooth, Ireland, and presented papers on interculturality.

Professor Patrice Kabeya Mwepu

Head: School of Languages

PUBLICATIONS

African Languages

Books/Chapters/Monographs

Maseko, P.

Maseko, P. (2014) Multilingualism at Work in South African Higher Education: From Policy to Practice. In: Hibbert, L.

and van der Walt, C. (eds.). *Multilingual Universities in South Africa: Reflecting Society in Higher Education*. United Kingdom, United States of America, Canada: Multilingual Matters. p.28-45. ISBN: 9781783091645.

Maseko, P. (2014) Multilingualism for teaching and learning. In: Gibbon, T. (ed.). *Driving Change: The Story of the South*

Africa Norway Tertiary Education Development Programme. Cape Town: African Minds. p.79-101. ISBN: 9781920677435.

Concerts, Exhibitions, Performances, Workshops, Events

Gambushe, W. and Nkomo, D.

Gambushe, W. and Nkomo, D. Guest Interviewee on Radio Grahamstown. International Dictionary Week. *Dictionaries and Technology*. Radio Grahamstown Offices, Grahamstown. South Africa. 15 October 2014.

Kaschula, R.H.

Kaschula, R.H. Keynote Speaker. The state of multilingualism 20 years after democracy. *Keynote speaker at the Steve Biko Centre Ginsberg Easter festival. Topic: The state of multilingualism 20 years after democracy.* Steve Biko Centre, Grahamstown. South Africa. 1 April 2014.

Kaschula, R.H. Interviewed by SABC Television at the launch/public announcement of the 52 new SARCHI Chairs in Pretoria in the presence of Deputy-President Kgalema Motlanthe and Minister Derek Hanekom. Pretoria. South Africa. 7 March 2014.

Kaschula, R.H. Interviewed on SABC Radio Stations in English and isiXhosa on the topic of multilingualism in Higher Education pre and post-1994. South Africa. 2 April 2014.

Nkomo, D.

Cartwright, L.M. and Nkomo, D. Organiser. International Dictionary Week Celebrations. *International Dictionary Week*. Rhodes University Library, Grahamstown. South Africa. 13 - 17 October 2014.

Nkomo, D. Guest Interviewee on Radio Grahamstown. International Dictionary Week. *Celebrating Dictionaries*. Radio Grahamstown Offices, Grahamstown. South Africa. 13 October 2014.

Nkomo, D. and Fobe, M.P.

Nkomo, D. and Fobe, M.P. Guest Interviewee on Radio Grahamstown. International Dictionary Week. *Dictionary use in Schools*. Radio Grahamstown Offices, Grahamstown. South Africa. 17 October 2014.

Sam, M.S.

Dalvit, L. and Sam, M.S. Participant. *HLT Ledger Workshop*. CSIR Pretoria, Knowledge Commons, Pretoria. South Africa. 29 January 2014.

Creative Writing

Kaschula, R.H.

Kaschula, R.H. (2014) Take me to the River ISBN: 9781869285852. In: Kaschula, R.H. (ed.). Take me to the River. 2nd Ed.

Kaschula, R.H. (2014) Emthonjeni ISBN: 9781869285012. In: Kaschula, R.H. (ed.). Emthonjeni. 2nd Ed.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Kaschula, R.H.

Kaschula, R.H. (2014) From linguistic determinism to technological determinism: Lessons from Sapir-Whorf. In

Khosrow-Pour, M.(ed.). *Encyclopedia of Information Science and technology*. Third edition (10 volumes). Hershey, P.A. doi:10.4018/978-1-4666-5888-2.

Peer Reviewed Subsidy-Earning Journal Research Publications

Kaschula, R.H. and Maseko, P.

Kaschula, R.H. and Maseko, P. (2014) The Intellectualisation of African Languages, Multilingualism and Education: A Research-based Approach. *Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa (Formerly International Journal for the Study of Southern African Literature and Languages)*. 13 (2014). p.8-35.

Mawonga, S., Maseko, P. and Nkomo, D.

Mawonga, S., Maseko, P. and Nkomo, D. (2014) The Centrality of Translation in the Development of African Languages for Use in South African Higher Education Institutions: A Case Study of a Political Science English-isiXhosa Glossary in a South African University. *Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa (Formerly International Journal for the Study of Southern African Literature and Languages)*. 13 (2014). p.55-79.

Mazwi, N.R.M.

Mazwi, N.R.M. (2014) A critical analysis of *Umfu uJonathan Tunyiswa noWilliam Cebani Mtoba* as one of the unpublished biographical poems by SEK Mqhayi. *South African journal of African languages/Suid-Afrikaanse tydskrif vir Afrikatale*. 34 (1). p.9-14.

Nkomo, D.

Nkomo, D. (2014) Review of the Oxford Bilingual School Dictionary: IsiXhosa and English. *Lexikos*. 24 (1). p.417-422.

Nkomo, D. (2014) Teaching Lexicography at a South African University. *Per Linguam: A Journal of Language Learning*. 30 (1). p.56-71.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Kaschula, R.H.

Kaschula, R.H. Multilingualism in Higher Education in relation to UJ's Language Policy and draft Implementation Plan. *Colloquium held at University of Johannesburg. Johannesburg*. South Africa. September 2014.

Kaschula, R.H. Multilingualism in Higher Education: Reading the change. *9th Annual Reading Association of South Africa Conference*. Rhodes University, Grahamstown. South Africa. September 2014.

Kaschula, R.H. Technauriture as an education tool in South Africa. *International Society for Oral Literature in Africa (ISOLA)*. University of Cocody, Cocody. Ivory Coast. June 2014.

Kaschula, R.H. Silencing the voiceless: the plight of sign language speakers in South African courtrooms. *18th African Languages Association of Southern Africa Conference*. Walter Sisulu University, Mthatha. South Africa. June 2014.

Kaschula, R.H. Multilingualism in Higher Education.

Multilingualism in Higher Education Indaba. Cape Peninsula University of Technology, Cape Town. South Africa. August 2014.

Kaschula, R.H. The late Nelson Rholihlahla Mandela through the eyes of the poet: 1994-2013. *International Conference of the Southern African Folklore Society.* Rhodes University, Grahamstown. South Africa. September 2014.

Kaschula, R.H. and Maseko, P.

Kaschula, R.H. and Maseko, P. Catalytic project on concept formation in African languages. *Ministerial Special Project on the future of the Humanities and Social Sciences.* University of Johannesburg, Johannesburg. South Africa. September 2014.

Maseko, P.

Maseko, P. The evolving nature of traditional oral performances: Observations made in the isiXhosa-speaking community of Keiskammahoek. *Keiskammahoek Heritage, Custom, Rights & Development Conference.* Sandile Dam, Upper Zingcuka, Keiskammahoek. South Africa. February 2014.

Maseko, P. Translation into African languages in the South African basic education context: does it (de)value African languages? *18th Interim Conference of the African Language Association of Southern Africa.* Walter Sisulu University, Mthatha. South Africa. June 2014.

Maseko, P. Translation activities and development of African languages in the South African basic education context: do they (de)value African languages? *Ninth Symposium on Translation, Terminology and Interpretation Cuba-Quebec-Canada.* Hotel Libre, Havana. Cuba. December 2014.

Maseko, P. Translation as a means to promote multilingualism in basic education: opportunities and challenges for African languages. *DST&HSRC Government Cluster Policy Workshop on Bi-literacy and multilingualism in schools: managing learning and teaching in local and an international language.* HSRC, Pretoria. South Africa. February 2014.

Maseko, P. Folklore in early isiXhosa print: does it have a place in South African education? *International Conference of the Southern African Folklore Society.* Rhodes University, Grahamstown. South Africa. September 2014.

Maseko, P. and Kaschula, R.H.

Maseko, P. and Kaschula, R.H. Ministerial Catalytic Project on Concept Formation in African Languages. *Ministerial Special Project on the Future of the Humanities and Social Science.* Sunnyside Park Hotel, Johannesburg. South Africa. April 2014.

Nkomo, D.

Nkomo, D. Terminology and Language Planning in South Africa: Twenty Years On. *9th Symposium on Translation, Interpretation and Terminology: Promoting Our Professions to Overcome Challenges. Hosted by the Canadian Translators, Terminologists and Interpreters Council.* Libre Havana Hotel, Havana. Cuba. December 2014.

Nkomo, D. The Use of Dictionaries in Examinations: A

Contextual and Theoretical Study at a South African University. *19th International Conference of the African Association for Lexicography.* University of the North-West, Potchefstroom. South Africa. June 2014.

Nkomo, D. Comic Affairs: Multilingualism, Multiculturalism and Social Cohesion in South African Stand-up Comedy with Special Reference to the Works of Trevor Noah. *2014 International Conference of the Southern African Folklore Society.* Rhodes University, Grahamstown. South Africa. September 2014.

Nkomo, D. and Wababa, Z.R.

Nkomo, D. and Wababa, Z.R. What's in a Name? A Case of Dictionary Titles in African Languages. *19th International Conference of the African Association for Lexicography.* University of the North-West, Potchefstroom. South Africa. July 2014.

French Studies

Peer Reviewed Proceedings

Mukenge, A.N.

Mukenge, A.N. L'exil, entre réalité et fiction dans *La villa* belge de Tshisungu wa Tshisungu. *L'Afrique francophone dans le jeu littéraire mondial.* Université de Bourgogne, Bourgogne. France. June 2014.

Mukenge, A.N. Les discours colonial et postcolonial a travers la relecture de quelques uvres francophones. *Retour sur les discours postcoloniaux fondateurs : relectures, ressourcements et palabres.* Université of Porto, Porto. Portugal. November 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Mukenge, A.N.

Mukenge, A.N. (Con) fusion entre la fiction et la réalité - l'autobiographie. *Autobiography, Autofiction and Life Writing.* North-West University, Potchefstroom. South Africa. August 2014.

Mukenge, A.N. Teaching French as a Second / Third Language: A great challenge in the Southern Africa. *Teaching a new Language at tertiary level.* Universidade Eduardo Mondlane (UM), Maputo. Mozambique. June 2014.

Mukenge, A.N. Pays sans chapeau de Dany Laferrière: un réservoir de techniques esthétiques et de valeurs humaines. L'Étude comparée et le dialogue des littératures. L'Académie tunisienne des Sciences, des Lettres et des Arts, Tunis. Tunisia. April 2014.

Mwepu, P.K.

Mwepu, P.K. La traversée de l'Atlantique ou la mort. Une réflexion critique sur la notion d'échange. *Confluences. Rencontres Transocéaniques. AFSSA Summit.* University of Cape Town, Cape Town. South Africa. September 2014.

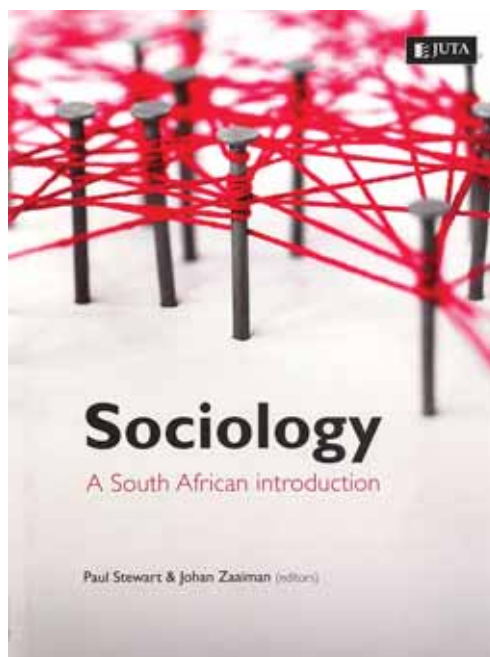
DEPARTMENT OF SOCIOLOGY

PUBLICATIONS

The Department of Sociology continued to have a very large undergraduate programme in 2014, with its first year class being one of the largest at the university (and the second largest in the Humanities Faculty). After first year, students can pursue a major in either General Sociology or Economic Sociology. Likewise, at Postgraduate levels (from Honours to PhD), Sociology continues to have one of the largest programmes at the university.

The Department had two (2) PhD graduates this year. John Reynolds (under the supervision of **Professor Fred Hendricks**) completed his PhD thesis on "Challenging Hegemony: A provincial perspective on the limits of policy challenge in the South African state"; and Precious Tanyanyiwa (under **Professor Michael Drewett's** supervision) completed her PhD on "A sociological analysis of the provision of extended studies as a means of addressing transformation at a historically white university". Besides the two PhD graduates, the Department had fourteen (14) Masters by thesis graduates, including eight (8) supervised by **Professor Kirk Helliker**.

Two exciting new programmes emerged in 2014. First of all, the Department started a Masters coursework/thesis programme in addition to the already-existing Masters by thesis programme. Whereas the latter programme takes place over two years, the new programme is a very intense one-year programme. Ten students enrolled in the programme this year. Secondly, a Unit of



An innovative sociology textbook, published by Juta & Company, titled *Sociology: A South African Introduction*, contained the chapter *Politics and Governance* by Professor Kirk Helliker, and *Environment* by Babalwa Shishuta.

Photo: Paul Greenway

Zimbabwean Studies - to start in 2015 - was approved by the university and will become operational from 2015. This unit formalises a very strong Zimbabwean Studies Postgraduate programme which has grown over the past five years. Professor Helliker, the unit's director, was also granted a two-year Andrew W. Mellon Focus Group Area on Zimbabwean History and Society.

Professor Lucien van der Walt was particularly active during 2014 in a number of ways, all linked to his expertise on Anarchist theory and history. He was invited to give a public lecture at Johann Wolfgang Goethe-Universität Frankfurt am Main, Germany in August 2014, delivering a lecture on "Varieties of Anarchism: Anarchist Projects and the Struggles that Define Them".

Professor van der Walt also played a significant role in the construction and development of archives, including the online Southern African Anarchist & Syndicalist History Archive, which brings together select materials from anarchist and syndicalist movements, and of movements definitely influenced by anarchism or syndicalism, in a digital form. The archive was launched publicly in May 2014 and covers the period from the 1880s to the present, and includes materials from Namibia, South Africa, Zambia and Zimbabwe. Additionally, with Steven J. Hirsch (Washington University, St Louis), he organised three panels on "Anarchists, Marxists, and Nationalists in the Colonial and Postcolonial World, 1870s-1940s: Antagonisms, solidarities, and syntheses" for the European Social Science History Conference 2014, Vienna.

Professor van der Walt also provided more popular education inputs such as co-teaching of the National Union of Metalworkers of South Africa (NUMSA) "Social Theory and Research" programme for office bearers, and elected leadership, specifically the section on "Labour and Political Economy".



Professor Lucien van der Walt's book *Negro E Vermelho: Anarquismo, Sindicalismo Revolucionario e Pessoas de Cor na Africa Meridional nas Decadas de 1880 a 1920* (Black and Red: Anarchism, Revolutionary Syndicalism and People of Colour in South Africa in the decades of 1880-1920).

Two members of the Department, Babalwa Sishuta and Professor Kirk Helliker, contributed chapters to an innovative sociology textbook published by Juta & Company titled "Sociology: A South African Introduction". This textbook is now being used at a number of South African universities for teaching purposes to first year students. **Professor Michael Drewett** presented a number of papers at academic conferences within his area of expertise on popular music, including conferences in Paris, Seattle and Pretoria.

The Department is privileged to have a number of globally-recognised affiliated academics under the Research Office's institutional framework, and these academics were very productive in terms of research outputs in 2014. Of particular importance are **Professor John Holloway** based in Puebla, Mexico and **Professor Sam Moyo** based in Harare, Zimbabwe.

Professor Kirk Helliker

Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Sishuta, B.

Sishuta, B. (2014) Environment. In: Stewart, P. and Zaaiman, J. (eds.). *Sociology: A South African introduction*. Cape Town: Juta & Co. p.509-532. ISBN: 9780702188787.

Helliker, K.

Helliker, K. (2014) Politics and Governance. In: Stewart, P. and Zaaiman, J. (eds.). *Sociology: A South African introduction*. Cape Town: Juta & Co. p.347-366. ISBN: 9780702188787.

Helliker, K. (2014) Imagining Civil Society in Zimbabwe and 'Most of the World'. In: Obadare, E. (ed.). *The Handbook of Civil Society in Africa*. New York: Springer. p.157-173. ISBN: 9781461482611.

Helliker, K. and Vale, P. (2014) South African Marxisms, Past and Present. In: Vale, P. and Prinsloo, E.H. (eds.). *The New South Africa at Twenty: Critical Perspectives*. Durban: University of KwaZulu-Natal Press. p.65-88. ISBN: 9781869142896.

Hendricks, F.T.

Hendricks, F.T. (2014) The Private Affairs of Public Sector Pensions in South Africa: Debt, Development and Corporatization. In: Hujo, K. (ed.). *Reforming pensions in developing and transition countries*. Hampshire, England: Palgrave MacMillan and UNRISD. p.220-247. ISBN: 9781137396105.

Holloway, J.P.

Holloway, J.P. (2014) New Anti-Capitalist Movements: Beyond the Questions of taking Power. In: Savyasaachi, R.K.

(ed.). *Social Movements: Transformative Shifts and Turning Points*. London: Routledge. p.25-32. ISBN: 9780415717366.

Klerck, G.

Klerck, G. (2014) Institutions, Management Strategies and HRM. In: Wilkinson, A., Wood, G. and Deeg, R. (eds.). *The Oxford Handbook of Employment Relations: Comparative Employment Systems*. Oxford: Oxford University Press. p.655-682. ISBN: 9780199695096.

Nardi, C.

Nardi, C. (2014) The Scene of Scenes: Berlin Underground Parties, Neither Movement nor Institution. In: Stahl, G. (ed.). *Poor, but Sexy: Reflections on Berlin Scenes*. Frankfurt: Peter Lang. p.83-101. ISBN: 9783034313391.

Nardi, C. (2014) Mediating Fictional Crimes: Music, Morality and Liquid Identification in Breaking Bad. In: Pierson, D. (ed.). *Breaking Bad: Critical Essays on the Contexts, Politics, Style, and Reception of the Television Series*. Plymouth UK: Lexington Books. p.173-189. ISBN: 9780739179246.

Van Der Walt, L.J.W.

Van Der Walt, L. J. W. (2014) *Negro E Vermelho: Anarquismo, Sindicalismo Revolucionario e Pessoas de Cor na Africa Meridional nas Decadas de 1880 a 1920*. Sao Paulo: Faisca. ISBN: 9788568269022.

Van Der Walt, L.J.W. (2014) Revolutionary Syndicalism, Communism and the National Question in South African Socialism, 1886-1928. In: Hirsch, S. and Van der Walt, L.

(eds.). *Anarchism and Syndicalism in the Colonial and Postcolonial World, 1870-1940: The Praxis of National Liberation, Internationalism, and Social Revolution*. 2nd Ed. Leiden: Brill. p.33-94. ISBN: 9789004250550.

Van Der Walt, L.J.W. and Hirsch, S.J. (2014) Rethinking Anarchism and Syndicalism: The Colonial and Postcolonial Experience, 1870-1940. In: Hirsch, S. and Van der Walt, L. (eds.). *Anarchism and Syndicalism in the Colonial and Postcolonial World, 1870-1940: The Praxis of National Liberation, Internationalism, and Social Revolution*. 2nd Ed. Leiden: Brill. p.31-73. ISBN: 9789004250550.

Van Der Walt, L.J.W. and Hirsch, S.J. (eds.) (2014) *Anarchism and Syndicalism in the Colonial and Postcolonial World, 1870-1940: The Praxis of National Liberation, Internationalism, and Social Revolution*. New Ed. Leiden: Brill. ISBN: 9789004250550.

Concerts, Exhibitions, Performances, Workshops, Events

Moyo, S.

Moyo, S. Paper Presentation. Improving Land Utilisation for Economic Transformation and Food Security. *ZimASSET Awareness Seminar, HICC*. Parliament of Zimbabwe, Harare. Parliament of Zimbabwe. 13 March 2014.

International Visits

Van Der Walt, L.J.W.

LJW Van Der Walt. International Dissidence research group / Cluster of Excellence: Normative Orders, Johann Wolfgang Goethe-Universität Frankfurt am Main, Frankfurt, Germany. *Public lecture: Lucien van der Walt, 2014, Varieties of Anarchism: Anarchist Projects and the Struggles that Define Them*. August 2014.

Other Publications

Holloway, J.P.

Bonefeld, W. and **Holloway, J.P.** (2014) Special Issue Editors. In: Bonefeld, W. and Holloway, J. (eds.). *South Atlantic Quarterly: Austerity and Revolt (Special Issue)*. United States of America: Duke University Press.

Holloway, J.P. (2014) Tsunami of Small Rebellions: John Holloway interviewed by Yves Vanderhaeghen. In: *Padkos Digest*. Pietermaritzburg: Church Land Programme.

Holloway, J.P. (2014) Parlando di Rivoluzione, in conversazione con Jerome Roos. In: Vaccaro, S. (ed.). *Agire altrimenti. Anarchismo e movimenti radicali nel XXI secolo*. Palermo: Eleuthera.

Holloway, J.P. (2014) Roundtable Discussion. In: *Disobedient Objects*. United Kingdom: Victoria & Albert Museum.

Holloway, J.P. (2014) Lineages of Freedom. In: *Padkos Digest*. Pietermaritzburg: Church Land Programme.

Holloway, J.P. (2014) . In: *Kapitalaren aurka eta haratago. Eztabaida ireki bati buruzko gogoetak (Against the capital and beyond. Reflections on an open discussion)*.

Holloway, J.P. (2014) The Politics of Dignity and the Politics

of Poverty. In: *Padkos Digest*. Pietermaritzburg: Church Land Programme.

Holloway, J.P. (2014) Twelve theses on Changing the World without taking Power. In: *Padkos Digest*. Pietermaritzburg: Church Land Programme.

Holloway, J.P. (2014) Against and Beyond the State! In: *Padkos Digest*. Pietermaritzburg: Church Land Programme.

Moyo, S.

Moyo, S. and Maguranyanga, B. (2014) Assessment of Zimbabwe's Land Administration System and Options for the Future. In: *Land Studies commissioned by the World Bank through the Agriculture Sector Technical Group (ASTG) funded by the Analytical Multi-Trust Donor Fund (A-MTDF)*. Zimbabwe: World Bank.

Moyo, S., Chambati, W. and Siziba, S. (2014) In: *Agricultural Subsidies Policies in Zimbabwe: a review*. Zimbabwe: African Institute for Agrarian Studies.

Moyo, S., Chambati, W., Mazwi, F. and Muchetu, R. (2014). In: *Land Use, Agricultural Production and Food Security Survey: Trends and Tendencies, 2013/14*. Zimbabwe: African Institute for Agrarian Studies.

Moyo, S. (2014) State of Family Farming in Sub-Saharan Africa: Its contribution to rural development, food security and nutrition. In: *A paper commissioned by Food and Agriculture Organization (FAO)*. Rome: Food and Agriculture Organization (FAO).

Van Der Walt, L.J.W.

Van Der Walt, L.J.W. (2014) Bernard Sigamoney, Durban Indian Revolutionary syndicalist. In: *Tokologo*. Johannesburg., No. 4, p.11.

Van Der Walt, L.J.W. (2014) T.W. Thibedi and the Industrial Workers of Africa, April-July 1919. In: *Tokologo*. Johannesburg., No. 3, p. 10.

Van Der Walt, L.J.W. (2014) Speech to South African Movements on Politics at a Distance from the State. In: Bekken, J. (ed.). *ASR Philadelphia: Anarcho-syndicalist Review*. No. 62, p. 21-23.

Van Der Walt, L.J.W. (2014) Speech to Metalworkers: Anarcho-syndicalism for South African Unions Today? In: Bekken, J. (ed.). *ASR Philadelphia: Anarcho-syndicalist Review*. No. 61 p. 11-20.

Van Der Walt, L.J.W. (2014) Repensando la protección social: una crítica radical. In: *Diagonal Periódico newspaper*, online at <https://www.diagonalperiodico.net/blogs/economia-para-todos/repensando-la-proteccion-social-critica-radical.html>. Spain: Diagonal Periódico.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Agbedahin, K.

Agbedahin, K. (2014) Interrogating the Togolese historical sex strike. *International Journal on World Peace*. 31 (1). p.7-25.

Chiweshe, M.

Mutopo, P., Manjengwa, J. and **Chiweshe, M.** (2014) Shifting

Gender Dimensions and Rural Livelihoods after Zimbabwe's Fast-Track Land Reform Programme. *Agrarian South: Journal of Political Economy*. 3 (1). p.45-61.

Hendricks, F.T.

Hendricks, F.T. (2014) Class and Nation in the Agrarian Questions of the South: Notes in Response to Moyo, Jha and Yeros. *Agrarian South: Journal of Political Economy*. 3 (2). p.275-293.

Holloway, J.P.

Holloway, J.P. (2014) Das Kapital? lesen: der erste Satz. *Grundrisse: Zeitschrift für linke Theorie & Debatte*. 50 (2014). p.4-15.

Moyo, S.

Moyo, S., Jha, P. and Yeros, P. (2014) In Defense of Intellectual Autonomy: A Response to Hendricks. *Agrarian South: Journal of Political Economy*. 3 (2). p.295-302.

Nardi, C.

Nardi, C. (2014) DJ Culture in the Mix: Power, Technology, and Social Change in Electronic Dance Music Bernardo Alexander Attias, Anna Gavanias and Hillegonda C. Rietveld (eds.) ISBN: 9781623566906. *Dancecult: Journal of Electronic Dance Music Culture*. 6 (1). p.123-126.

Nardi, C. (2014) Una teoria del formato audio per la musica dance elettronica (A theory of the audio format for electronic dance music). *Philomusica on-line*. 13 (2). p.135-155.

Nardi, C. (2014) Gateway of Sound: Reassessing the Role of Audio Mastering in the Art of Record Production. *Dancecult: Journal of Electronic Dance Music Culture*. 6 (1). p.8-25.

Echard, W., **Nardi, C.** and Rietveld, H.C. (2014) Introduction: Popular Music Performance. *IASPM - Journal of the International Association for the Study of Popular Music*. 4 (1). p.1-4.

Park, Y.J.

Park, Y.J. (2014) Review of China's Rise in Africa. Perspectives on a Developing Connection? *Journal of International and Global Economic Studies*. 5 (2). p.129-131.

Park, Y.J. (2014) Nelson Rolihlahla Mandela: Lessons for My Daughter. *CUNY Forum, Asian American/Asian Studies*. 2 (1). p.99-104.

Park, Y.J. (2014) The Chinese in Africa/Africans in China Research Network: The role of a virtual network on increasing Africa's East Asia literacy? *Africa East-Asian Affairs* 3 (2014). p.70-84.

Van Der Walt, L.J.W. and Schmidt, M. (2014) "Proudhon, Marx in anarhistična dručbena analiza", casopis za kritiko znanosti, casopis za kritiko znanosti (Casopis za kritiko znanosti), volume XLII, No. 257.

Peer Reviewed Subsidy-Earning Journal Research Publications

Agbedahin, K.

Agbedahin, K. (2014) From control to parasitism: Interrogating the roles of border control agencies on the Ghana-Togo border. *African Security Review*. 23 (4). p.370-380.

Bhatasara, S.

Nyamwanza, A.M. and **Bhatasara, S.** (2014) The utility of postmodern thinking in climate adaptation research. *Environment, development and sustainability*. 2014 (2014). p.1-15.

Chiweshe, M., Chakona, L. and Helliker, K.

Chiweshe, M., Chakona, L. and Helliker, K. (2014) Patriarchy, Women, Land and Livelihoods on A I farms in Zimbabwe. *Journal of Asian and African studies*. 2014 (2014). p.1-16.

Drewett, M.

Drewett, M. (2014) Exploring 'Space' in Censorship Battles: The Case of Popular Musician in 1980s South Africa. *South African Review of Sociology*. 45 (1). p.3-26.

Helliker, K.

Helliker, K. (2014) Liberation movements in power: party and state in southern Africa. *South African Review of Sociology (Society in Transition)*. 45 (3). p.118-121.

Helliker, K. (2014) Zimbabwe takes back its land. *Journal of contemporary African studies*. 32 (4). p.510-512.

Holloway, J.P.

Holloway, J.P. (2014) A Note on Hope and Crisis. *Sociology - The Journal of the British Sociological Association*. 48 (5). p.1070-1072.

Bonefeld, W. and **Holloway, J.P.** (2014) Commune, Movement, Negation. Notes from Tomorrow. *South Atlantic Quarterly*. 113 (2). p.213-215.

Nardi, C.

Rau, A., Radloff, S.E., Coetzee, J.K., **Nardi, C.**, Smit, R. and Matesbesi, S.Z. (2014) Students perceiving risk: a quantitative assessment on three South African university campuses. *African sociological review/Revue Africaine de sociologie*. 18 (1). p.65-90.

Van Der Walt, L.J.W.

Ulrich, N. and **Van Der Walt, L.J.W.** Workerism/Syndicalism and Nationalism. *The Unresolved National Question in Left Thinking: Hidden Voices, Unpublished Works 1950s to 1990*. Chris Hani Institute, COSATU House, Johannesburg. South Africa. June 2014.

Van Der Walt, L.J.W. (2014) Jared Davidson, Sewing Freedom: Philip Josephs, Transnationalism and Early New Zealand Anarchism, Oakland, CA: AK Press, 2014; 174pp. *Anarchist studies*. 22 (2). p.120-121.

Van Der Walt, L.J.W. (2014) Reclaiming Syndicalism: From Spain to South Africa to global labour today. *Global labour journal*. 5 (2). p.239-252.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Drewett, M.

Drewett, M. (2014) On Being Controversial "The Humanities Reach Out" Academy of Science of South Africa (ASSAf) Conference, Pretoria, South Africa. Participated in the 'Artistic Representation vs Hate Speech' panel.

Drewett, M. (2014) Pop Conference, Seattle, United States. Paper entitled 'All the Hits and More: Transkei's Capital

Radio's Non-Segregationist Play-listing as Anti-Apartheid Music in Motion'.

Drewett, M. (2014) Censorship, Yesterday and Today: History of Censorship in the World from the XVIIIth to the XXIst Century International Symposium in Paris, France. Paper (presented by invitation) entitled 'Popular Music Censorship in Africa'.

Helliker, K.

Helliker, K. NGOs and rural movements in contemporary South Africa. *NGOs and Social Justice in Africa*. Rhodes University, Grahamstown. South Africa. September 2014.

Moyo, S.

Moyo, S. Land Ownership Patterns and Income inequality in Southern Africa. *Pan-African Conference on Inequalities in the Context of Structural Transformation*. Accra, Accra. Ghana. April 2014.

Moyo, S. Zimbabwe's land and agrarian reform (1997-2013): A political, social and economic balance sheet. *Food for Agrarian Studies 10th Anniversary Conference*. Kochi Kerala. India. January 2014.

Park, Y.J.

Park, Y.J. Honorary Whites, (Too) influential Political Partners, or the Non-Threatening Other?: Shifting Constructions of Chineseness in South Africa: Entanglements in Past and Present. *GRM International Conference*. Doshisha University, Kyoto City. Japan. June 2014.

Van Der Walt, L.J.W.

Van Der Walt, L.J.W. The Relevance of Makhan Singh for Labour Today. Paying Living Wages: A Reality or Mirage? *Kenyan Human Rights Commission (KRC) Consortium*. Pan Africa Hotel, Nairobi. Kenya. November 2014.

Van Der Walt, L.J.W. One Great Union of Skilled and Unskilled Workers, South of the Zambezi: Garveyism, liberalism and revolutionary syndicalism in the Industrial and Commercial Workers Union of Africa, 1919-1949. *European Social Science History conference*. University of Vienna, Vienna. Austria. April 2014.

Van Der Walt, L.J.W. Anarchism, Syndicalism and Violent Anti-imperialism in the Colonial and Post-colonial World, 1870-1940. *Fourth Global International Studies Conference*. Johann Wolfgang Goethe-Universität Frankfurt am Main, Frankfurt. Germany. August 2014.

Van Der Walt, L.J.W. Fighting For, but Fighting for More, than a Living Wage. Paying Living Wages: A Reality or Mirage? *Kenyan Human Rights Commission (KRC) Consortium*. Pan Africa Hotel, Nairobi. Kenya. November 2014.

DEPARTMENT OF STATISTICS

INTRODUCTION

Members of the Department of Statistics continued to pursue a wide range of research interests and activities during 2014. Eight (8) publications emanated from both theoretical and applied collaborative research in 2014.

- **Dr Lizanne Raubenheimer's** research in Bayesian Estimation resulted in two peer reviewed journal publications;
- **Professor Sarah Radloff's** research collaborations with the Departments of Entomology (at King Saud University, Saudi Arabia), Sociology (at UFS) and Psychology resulted in five (5) peer reviewed journal articles and a book chapter;
- and one paper, submitted by **Professor Gunther Jäger** when he was at Rhodes University, on uniform contractions on dense subspaces was published.

Nine (9) papers were presented by members of staff at international (4) and national (5) conferences. **Dr Lizanne Raubenheimer** continued her research in Bayesian Statistics and presented two (2) papers at international conferences, one in Washington DC, USA and another in Vienna, Austria; and one (1) paper at the 56th Annual South African Statistical Association (SASA) Conference in Grahamstown.

Dr Isabelle Garisch and **Ms Mutsa Chinyamakobvu** jointly presented a paper in Decision Making at an international conference in San Francisco, USA; and Dr Isabelle Garisch presented a second paper at an international conference in Cancun, Mexico.



Postgraduate and Third-year students who assisted at the 56th Annual SASA Conference hosted at Rhodes University. Left to right: Lonwabo Jay, Ethel Shibe, Dineo Makhata, and Masakheke Mafu
Photo: Alexa Sedgwick

Mr Jeremy Baxter, Ms Mutsa Chinyamakobvu and **Dr Garisch** also presented papers at the *56th Annual SASA Conference* in Grahamstown. Professor Radloff's two collaborative research papers with the Department of Psychology were presented at the *14th Biennial Conference of the SA Clinical Neuropsychological Association* held in Johannesburg.

Ms Thina Maqubela, whose PhD research is in Statistics Education, attended a number of conferences on Teaching Statistics. These included the *International Conference on Teaching Statistics (ICOTS) 9*, Flagstaff, Arizona, USA and the *Higher Education Learning & Teaching Association of Southern Africa (HELTASA)* conference in Bloemfontein.

Distinguished Visitors/International Visits

During 2014, the Department was privileged to have six (6) distinguished visitors:

In February 2014, **Professor Noël Veraverbeke** and **Professor Paul Janssen** from Hasselt University, Belgium, gave a series of lectures on Copulas, covariates and application to survival analysis, and Copula based flexible modelling of associations between clustered event times.

During May-June 2014, **Dr Lizanne Raubenheimer** spent time at the George Washington University in Washington DC, USA on a research collaboration international visit. Her research was in reliability theory focusing on accelerated life testing.

In October 2014, **Professor Ivette Gomes** from the University of Lisbon, Portugal, delivered a keynote address entitled "Penultimate approximations and reliability of large coherent systems: Past, present ... and Future?";



Distinguished invited speakers at the 56th Annual SASA Conference hosted at Rhodes University.

Left to right: Professor Simos Meintanis, Dr Lizanne Raubenheimer, The Statistician General of SA, Mr Pali Lehohla, Professor Ivette Gomes, and Professor Sarah Radloff

Photo: Alexa Sedgwick

Professor Jan Swanepoel from North-West University Potchefstroom campus, presented a plenary lecture entitled “Solving some open problems on Brownian areas by applying a new generalization of Euler’s Theorem”; Professor Simos Meintanis from the National and Kapodistrian University of Athens, Greece, delivered a keynote address entitled “Testing

procedures for integer-valued time series”; The legendary **Professor Michael Greenacre**, a Statistician and Musician from the Universitat Pompeu Fabra, Spain, gave a lecture on “Size and shape of multivariate data”.

Significant Research Aligned Events

The Department of Statistics hosted the *56th Annual South African Statistical Association (SASA) conference* at Rhodes University in October 2014. **Professor Ivette Gomes** from the University of Lisbon and **Professor Simos Meintanis** from the National and Kapodistrian University of Athens were the SASA invited international speakers, and **Professor Jan Swanepoel** from North-West University was an invited national speaker. Two workshops were held, one on “Statistics of Extremes: An introduction” by **Professor Ivette Gomes** and the other on “Inference procedures based on the empirical characteristic function” by Professor Simos Meintanis. At the opening ceremony, **Professor Sarah Radloff** was elected an honorary member of SASA. The Statistician General of South Africa, **Mr Pali Lehohla**, addressed the delegates at the Gala dinner. The conference was attended by two hundred and forty (240) delegates, with one hundred (100) attending the workshops. Three (3) keynote addresses were delivered, one hundred forty-one (141) oral presentations and eighteen (18) poster presentations.

Professor Sarah Radloff

Head of Department

PUBLICATIONS

Books/Chapters/Monographs

Radloff, S.E.

Shuttleworth-Edwards, A.B., Radloff, S.E. and Whitefield-Alexander, V.J. (2014) Vulnerability in Speed of Visuomotor Ability. In: Niranjana, A. and Lunsford, L.D. (eds.). *Concussion. Progress in Neurological Surgery*. New York: Karger. p.213-225. ISBN: 9783318026481.

Distinguished Visitors

Gomes, M.I.

Professor MI Gomes. University of Lisbon, Lisbon, Portugal. *Workshop: Statistics of extremes: An introduction Lecture: Penultimate approximations and reliability of large coherent systems: Past, present ... and future?* October 2014.

Janssen, P.

Professor P Janssen. Hasselt University, Hasselt, Belgium. *Lecture: Copula based flexible modelling of associations between clustered event times.* February 2014.

Meintanis, S.G.

Professor SG Meintanis. National and Kapodistrian University of Athens, Athens, Greece. *Workshop: Inference procedures based on the empirical characteristic function. Lecture: Testing procedures for integer-valued time series.* October 2014.

Swanepoel, J.W.H.

Professor JWH Swanepoel. North-West University (Potchefstroom campus), Potchefstroom, South Africa. *Lecture: Solving some open problems on Brownian areas by applying a new generalization of Euler’s theorem.* October 2014.

Veraverbeke, N.

Professor N Veraverbeke. Hasselt University, Hasselt, Belgium. *Lecture: Copulas, covariates and application to survival analysis.* February 2014.

International Visits

Raubenheimer, L.

Raubenheimer, L. The George Washington University, Washington DC, United States of America. *Research in reliability theory focusing on accelerated life testing*. 16 May - 7 June 2014.

Peer Reviewed Subsidy-Earning Journal Research Publications

Jager, G.

Jager, G. (2014) Extensions of Contractions and Uniform Contractions on Dense Subspaces. *Quaestiones Mathematicae*. 37 (2014). p.111-125.

Radloff, S.E.

Adgaba, N., Shenkute, A.G., Al-Ghamdi, A.A., Assefa, A., Ansari, M.J., Taylor, B. and **Radloff, S.E.** (2014) Crematogaster *chiarinii* ants as a potential biological control agent for protecting honeybee colonies from attack by *Dorylus quadratus* driver ants in Ethiopia (Hymenoptera: Formicidae). *Agricultural and Forest Entomology*. 16 (2014). p.302-313.

Shuttleworth-Edwards, A.B., Radloff, S.E., Whitefield-Alexander, V.J., Smith, I.P. and Horsman, M. (2014) Practice Effects Reveal Visuomotor Vulnerability on School and University Rugby Players. *Archives of Clinical Neuropsychology*. 29 (2014). p.86-99.

Shuttleworth-Edwards, A.B., De Kock, H. and Radloff, S.E. (2014) Normative indications for Xhosa speaking unskilled workers on the Rey-Osterrieth Complex Figure Test. *Journal of Psychology in Africa*. 24 (6). p.492-498.

Rau, A., **Radloff, S.E.**, Coetzee, J.K., **Nardi, C.**, Smit, R. and Matesbesi, S.Z. (2014) Students perceiving risk: a quantitative assessment on three South African university campuses. *African Sociological Review/Revue Africaine de Sociologie*. 18 (1). p.65-90.

Raubenheimer, L.

Raubenheimer, L. and van der Merwe, A.J. (2014) Bayesian Estimation for Linear Functions of Poisson Rates. *Communications in Statistics - Theory and Methods*. 43 (2014). p.4025-4045.

Raubenheimer, L. and van der Merwe, A.J. (2014) Estimation for Binomial Proportions from Pooled Samples Using an Objective Prior. *South African Statistical Journal*. 48 (2014). p.95-110.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Baxter, J.S.

Baxter, J.S. R Convenience functions for service course teachers. *The South African Statistical Association (SASA) Conference*. Rhodes University, Grahamstown. South Africa. October 2014.

Chinyamakobvu, M.C. and Garisch, I.

Chinyamakobvu, M.C. and Garisch, I. Eliciting and combining expert opinion. *The Institute for Operations Research and the Management Sciences (INFORMS)*

Conference. Hilton San Francisco Union Square and the Parc 55 Wyndham San Francisco, San Francisco. United States of America. November 2014.

Chinyamakobvu, M.C. and Garisch, I. Eliciting and combining expert opinion: An overview and comparison of methods. *The South African Statistical Association (SASA) Conference*. Rhodes University, Grahamstown. South Africa. October 2014.

Garisch, I.

Garisch, I. Consensus multiperson decision-making - A measure of proximity. *International Society of Bayesian Analysis (ISBA) World Meeting*. Cancun Convention Center, Cancun. Mexico. July 2014.

Radloff, S.E.

Klopper, C.C., Pienaar, I., **Shuttleworth-Edwards, A.B.** and **Radloff, S.E.** WAIS-IV versus WAIS-III normative indications for Xhosa speaking individuals with disadvantaged Grade 12 education. *14th Biennial Conference of the South African Clinical Neuropsychological Association (SACNA)*. Wanderers Club, Johannesburg. South Africa. January 2014.

Pienaar, I., Klopper, C.C., **Shuttleworth-Edwards, A.B.** and **Radloff, S.E.** Utility of substitute WAIS-IV subtests on IQ and Index score calculations of educationally disadvantaged Xhosa speaking adults. *14th Biennial Conference of the South African Clinical Neuropsychological Association (SACNA)*. Wanderers Club, Johannesburg. South Africa. August 2014.

Raubenheimer, L.

Raubenheimer, L. and van der Merwe, A.J. A Bayesian approach to quality control for the c-chart. *The 2014 ISBA-George Box Research Workshop on Frontiers of Statistics*. George Washington University, Washington DC. United States of America. May 2014.

Raubenheimer, L. and van der Merwe, A.J. Matching priors for linear functions of Poisson parameters. *The South African Statistical Association (SASA) Conference*. Rhodes University, Grahamstown. South Africa. October 2014.

Raubenheimer, L. and van der Merwe, A.J. Bayesian control chart for the fraction of nonconforming units. *Bayesian Young Statisticians Meeting*. Vienna University of Economics and Business, Vienna. Austria. September 2014.

DEPARTMENT OF ZOOLOGY & ENTOMOLOGY

INTRODUCTION

The staff, Research Associates and Postgraduate students within the Department of Zoology and Entomology published a total of ninety-two (92) accredited research articles on a diverse range of topics during 2014, the greater majority of which were published in top international peer reviewed journals. The high research publication output reflects the strong research collaborations established by the staff with research institutes in southern and North Africa, Europe, North and South America and Australasia. In recognition of their high standing within the science community, a number of academic staff within the Department presented keynote lectures at both local and international conferences. Over the corresponding period, a number of staff were invited to review scientific peer reviewed articles and local and international research programmes.

Distinguished Visitors/International Visits

During 2014, the Department hosted **Professor Travis Perry** as a Hugh Kelly Research Fellow. As part of his sabbatical, **Professor Adrian Craig** visited the Berlin Museum and Tring (United Kingdom) which involved research on the population demographics of the Mountain Pipit, a bird which breeds in the high Drakensburg.

Significant Research Aligned Events

During the course of the year, a number of staff within the Department received significant accolades in recognition of their



From left to right: Dr Dan Parker; MSc student Ms Phumuzile Nyoni, Debshan staff member Mr Sean Grant and Research Associate Professor Travis Perry with the very first leopard (DM1) which was captured in January 2014 as part of a long-term leopard project taking place on Debshan Ranch in Shangani, Zimbabwe, in partnership with EO Oppenheimer & Son. Before the anesthesia was reversed, the team fitted DM1 with an iridium satellite collar which allowed them to follow his movements and investigate where he made his kills for the period of a year. After this time, the team were able to remotely (through a web interface) release the collar from DM1's neck without having to re-capture him, which undoubtedly reduced his stress levels. Since DM1's capture, the team have collared a further four leopards on the ranch (with hopefully many more to come) - 3 adult females and another adult male.
Photo: Dr Dan Parker

contribution to research. **Professor Adrian Craig** was the recipient of the Gill Memorial Medal by BirdLife South Africa in recognition of his outstanding contribution to ornithological research. Additionally, the Biological Control Research Group Mass Rearing Programme under the leadership of **Professor Martin Hill** won the Rhodes University Environmental Award. The award is made to an individual/group that raises environmental awareness and promotes environmentally sustainable practices. **Dr Dan Parker** was appointed Editor in Chief for the ISI accredited journal, "African Journal of Wildlife Research" and was elected as a trustee of the Lion Management Forum of South Africa and as a member of the Scientific Advisory Group of the Cape Leopard Trust.

Professor William Froneman
Head of Department

PUBLICATIONS

Concerts, Exhibitions, Performances, Workshops, Events

Pereira Da Conceicao, L.L.

Barber-James, H. and Pereira Da Conceicao, L.L. Talkshop for WaterWorld. *Mayflies: Unravelling the past, conserving the future. SAIAB, SciFest 2014*. Grahamstown. South Africa. 13 - 14 March 2014.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Moore, S.D.

Ratnadass, A. and **Moore, S.D.** (2014) *Citrus spp.* (Rutaceae), cited for the first time as a host plant for *Eurystylus capensis* (Hemiptera, Miridae). *Bulletin de la Societe entomologique de France*. 119 (2). p.197-198.

Parker, D.M., Whittington-Jones, B.M. and Bernard, R.T.F.
Parker, D.M., Whittington-Jones, B.M., Bernard, R.T.F. and Davies-Mostert, H.T. (2014) Attitudes of Rural Communities Toward Dispersing African Wild Dogs in South Africa. *Human Dimensions of Wildlife*. 19 (2014). p.512-522.

Weyl, P.S.R. and Coetzee, J.A.

Weyl, P.S.R. and Coetzee, J.A. (2014) The invasion status of *Myriophyllum spicatum* L. in southern Africa. *Management of Biological Invasions*. 5 (1). p.31-37.

Peer Reviewed Subsidy-Earning Journal Research Publications

Allanson, B.R., Smith, F. and Smith, P.

Allanson, B.R., Smith, F. and Smith, P. (2014) The invertebrate macrobenthos of artificial rocky shores in the Knysna Estuary. *Transactions of the Royal Society of South Africa*. 69 (1). p.19-33.

Antonio, E. and Richoux, N.B.

Antonio, E. and Richoux, N.B. (2014) Trophodynamics of three decapod crustaceans in a temperate estuary using stable isotope and fatty acid analyses. *Marine Ecology Progress Series*. 504 (2014). p.193-205.

Barnes, R.S.K.

Barnes, R.S.K. and Barnes, M.K.S. (2014) Spatial uniformity of biodiversity is inevitable if the available species are distributed independently of each other. *Marine Ecology Progress Series*. 516 (2014). p.263-266.

Barnes, R.S.K. (2014) Is spatial uniformity of soft-sediment biodiversity widespread and, if so, over what scales? *Marine Ecology Progress Series*. 504 (2014). p.147-158.

Barnes, R.S.K. and Barnes, M.K.S. (2014) Biodiversity differentials between the numerically-dominant macrobenthos of seagrass and adjacent unvegetated sediment in the absence of sandflat bioturbation. *Marine Environmental Research*. 99 (2014). p.34-43.

Barnes, R.S.K. (2014) The nature and location of spatial

change in species assemblages: a new approach illustrated by the seagrass macrofauna of the Knysna estuarine bay, South Africa. *Transactions of the Royal Society of South Africa*. 69 (2). p.75-80.

Bergamino, L. and Richoux, N.B.

Bergamino, L. and Richoux, N.B. (2014) Spatial and Temporal Changes in Estuarine Food Web Structure: Differential Contributions of Marsh Grass Detritus. *Estuaries and Coasts*. 2014 (2014). p.1-16.

Bergamino, L., Dalu, T. and Richoux, N.B.

Bergamino, L., Dalu, T. and Richoux, N.B. (2014) Evidence of spatial and temporal changes in sources of organic matter in estuarine sediments: stable isotope and fatty acid analyses. *Hydrobiologia*. 732 (2014). p.133-145.

Bergamino, L., Dalu, T., Carassou, L. and Richoux, N.B.

Bergamino, L., Dalu, T., Whitfield, A., Carassou, L. and Richoux, N.B. (2014) Stable isotope evidence of food web connectivity by a top predatory fish (*Argyrosomus japonicus*: Sciaenidae: Teleostei) in the Kowie Estuary, South Africa. *African Journal of Marine Science*. 36 (2). p.207-213.

Bernard, A. and Heyns, E.

Bernard, A., Götz, A., Parker, D., Heyns, E., Halse, S., Riddin, N., Smith, M.K.S., Paterson, A., Winker, H., Fullwood, L., Langlois, T.J. and Harvey, E.S. (2014) New possibilities for research on reef fish across the continental shelf of South Africa. *South African Journal of Science*. 110 (9/10). p.1-5.

Bonnevie, B.T.

Bonnevie, B.T. (2014) Variations in moult, morphology, movement and survival rates of the Sombre Greenbul *Andropadus importunus* within southern Africa. *Ostrich*. 85 (2) p. 161 - 170

Bonnevie, B.T. and Craig, A.J.F.

Bonnevie, B.T. and Craig, A.J.F. (2014) Primary wing-moult in relation to body-mass, wing-length and latitude in four insectivorous passerines from southern Africa. *EMU*. 114 (4). p.371-378.

Bouwer, N., Midgley, J.M., Timm, A.E. and Villet, M.H.

Bouwer, N., Midgley, J.M., Timm, A.E. and Villet, M.H. (2014) Successful identification of the final instar nymph of *Quintilia carinata* (Thunberg) (Hemiptera: Cicadidae) by DNA extraction from the exuvium. *Journal of Natural History*. 48 (15-16). p.937-943.

Bownes, A., Moore, S.D. and Villet, M.H.

Bownes, A., Moore, S.D. and Villet, M.H. (2014) My enemy's enemies: recruiting hemipteran-tending generalist ants for biological control in citrus orchards by spatial partitioning of foraging webs. *African Entomology*. 22 (3). p.519-529.

Burke, A.M., Coetzee, J.A. and Hill, M.P.

Burke, A.M., Coetzee, J.A. and Hill, M.P. (2014) Effect of nutrient quality and leaf age of water hyacinth, *Eichhornia crassipes*, on the development of its co-evolved herbivore, *Ecritotarsus catarinensis* (Hemiptera: Miridae). *African*

Entomology. 22 (4). p.896-899.

Canavan, K., Coetzee, J.A., Hill, M.P. and Paterson, I.D.
Canavan, K., Coetzee, J.A., Hill, M.P. and Paterson, I.D. (2014) Effect of water trophic level on the impact of the water hyacinth moth *Niphograpta albiguttalis* on *Eichhornia crassipes*. *African Journal of Aquatic Science*. 39 (2). p.203-208.

Canavan, K., Paterson, I.D. and Hill, M.P.

Canavan, K., Paterson, I.D. and Hill, M.P. (2014) The herbivorous arthropods associated with the invasive alien plant, *Arundo donax*, and the native analogous plant, *Phragmites australis*, in the Free State Province, South Africa. *African Entomology*. 22 (2). p.454-459.

Cockburn, J. and Villet, M.H.

Cockburn, J., Khumalo-Seegelken, B. and Villet, M.H. (2014) IziNambuzane: IsiZulu names for insects. *South African Journal of Science*. 110 (9-10). p.43-55.

Coetzee, J.A., Jones, R.W. and Hill, M.P.

Coetzee, J.A., Jones, R.W. and Hill, M.P. (2014) Water hyacinth, *Eichhornia crassipes* (Pontederiaceae), reduces benthic macroinvertebrate diversity in a protected subtropical lake in South Africa. *Biodiversity and Conservation*. 23 (2014). p.1319-1330.

Collinson, W.J., Parker, D.M. and Bernard, R.T.F.

Collinson, W.J., Parker, D.M., Bernard, R.T.F., Reilly, B.K. and Davies-Mostert, H.T. (2014) Wildlife road traffic accidents: a standardized protocol for counting flattened fauna. *Ecology and Evolution*. 4 (15). p.3060-3071.

Compton, S.G.A.

Raja, S., Suleman, N., Quinnell, R.J. and **Compton, S.G.A.** (2014) Interactions between pollinator and non-pollinator fig wasps: correlations between their numbers can be misleading. *Entomological Science*. 2014 (2014). p.1-7.

Raja, S., Suleman, N. and **Compton, S.G.A.** (2014) Foundress Fig Wasps are More Likely to Re-emerge From Older Figs. *Journal of Insect Behavior*. 27 (2014). p.786-790.

Zhang, Y., Peng, Y.Q., **Compton, S.G.A.** and Yang, D. (2014) Premature Attraction of Pollinators to Inaccessible Figs of *Ficus altissima*: A Search for Ecological and Evolutionary Consequences. *PLoS One*. 9 (1). p.1-8.

Wang, R., Matthews, A., Ratcliffe, J., Barwell, L.J., Peng, Y.Q., Chou, L.S., Yu, H., Yang, H.W. and **Compton, S.G.A.** (2014) First record of an apparently rare fig wasp feeding strategy: obligate seed predation. *Ecological Entomology*. 39 (2014). p.492-500.

Pothasin, P., **Compton, S.G.A.** and Wangpakapattanawong, P. (2014) Riparian Ficus Tree Communities: The Distribution and Abundance of Riparian Fig Bees in Northern Thailand. *PLoS One*. 9 (10). p.1-10.

Peng, Y.Q., Zhang, Y., **Compton, S.G.A.** and Yang, D. (2014) Fig wasps from the centre of figs have more chances to mate, more offspring and more female-biased offspring sex ratios. *Animal Behaviour*. 98 (2014). p.19-25.

Zhao, T.T., **Compton, S.G.A.**, Yang, Y.J., Wang, R. and Chen, Y. (2014) Phenological Adaptations in *Ficus tikoua* Exhibit

Convergence with Unrelated Extra-Tropical Fig Trees. *PLoS One*. 9 (12). p.1-17.

Connan, M., McQuaid, C.D. and Bonnevie, B.T.,

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PhD Candidate Leandro Bergamino and MSc student Mandla Magoro inspecting a push net sample for the presence of benthic fish and macro-invertebrates in the Kowie River and Estuary. The data they collected here contributed to their respective degrees, as well as a journal article *Stable isotope evidence of food web connectivity by a top predatory fish (Argyrosomus japonicus: Sciaenidae, Teleostei) in the Kowie estuary, South Africa*, published in 2014 in the peer reviewed *African Journal of Marine Science*. Further articles are also being prepared.
Photo: Dr Nicole Richoux

Peer Reviewed Proceedings

Swartz, E.R.

Magellan, K., Pinchuck, S.C. and Swartz, E.R. Short and Long-Term Strategies to Facilitate Aerial Exposure in a Galaxid. *Microscopy Society of Southern Africa Proceedings - Volume 44 2014*. Protea Hotel, Stellenbosch. South Africa. December 2014.

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Abdulkadir, F., Knox, C.M., Marsberg, T., Hill, M.P. and Moore, S.D. Genetic and biological characterisation of a novel South African *Plutella xylostella* granulovirus, PlxyGV-SA. *47th International Congress on Invertebrate Pathology and Microbial Control*. Mainz. Germany. August 2014.

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litembu, J.A., Miller, T. and Richoux, N.B. Can muscle fatty acid signatures be used to distinguish diets of two sympatric hake species (*Merluccius capensis* and *M. paradoxus*) off Namibia? *Southern African Marine Society Symposium*. Stellenbosch. South Africa. July 2014.

- Ismail, M., Compton, S.G.A. and Hill, M.P.**
Ismail, M., Compton, S.G.A. and Hill, M.P. The impact of temperature on several fitness traits of two populations of *Eccritotarsus catarinensis*, a biological South Africa. *42nd Annual Symposium on the Management of Invasive alien Plants*. Protea Karridene Hotel, KwaZulu-Natal. South Africa. June 2014.
- Joubert, F.D., Hill, M.P. and Moore, S.D.**
Joubert, F.D., Hill, M.P. and Moore, S.D. An audit of the efficacy of the sterile insect technique programme for false codling moth, *Thaumatotibia leucotreta* (Meyrick), in the Sundays River Valley. *8th CRI Citrus Symposium*. Champagne Sports Resort, Winterton, Drakensberg. South Africa. August 2014.
- Jukes, M.D., Moore, S.D. and Hill, M.P.**
Jukes, M.D., Knox, C.M., Moore, S.D. and Hill, M.P. Isolation, genetic characterisation and evaluation of biological activity of a novel South African *Phthorimaea operculella* granulovirus (PhopGV). *47th International Congress on Invertebrate Pathology and Microbial Control*. Mainz. Germany. August 2014.
- Langa, S.F. and Hill, M.P.**
Langa, S.F. and Hill, M.P. Studies on biodiversity recovery following management of the invasive aquatic weed *Pistia stratiotes* L. (Araceae) in pools. *44th Annual Meeting of the Ecological Society of Germany, Austria & Switzerland*. University of Hildesheim, Germany. September 2014.
- Love, C.N., Hill, M.P. and Moore, S.D.**
Love, C.N., Hill, M.P. and Moore, S.D. The biology, behaviour and survival of pupating false codling moth under varying soil environments. *8th CRI Citrus Symposium*. Champagne Sports Resort, Winterton, Drakensberg. South Africa. August 2014.
- Love, C.N., Hill, M.P. and Moore, S.D.** The importance of choice: ovipositional preferences of false codling moth and susceptibility of different Navel orange cultivars. *8th CRI Citrus Symposium*. Champagne Sports Resort, Winterton, Drakensberg. South Africa. August 2014.
- Maseko, Z., Coetzee, J.A. and Hill, M.P.**
Maseko, Z., Coetzee, J.A. and Hill, M.P. Nutrient dynamics of *Salvinia molesta* in shaded and open areas: how does plant quality affect *Cyrtobagous salviniae*. *42nd Annual Symposium on the Management of Invasive Alien Plants*. Protea Karridene Hotel, KwaZulu-Natal. South Africa. June 2014.
- Motitsoe, S.N., Hill, M.P. and Hill, J.M.**
Motitsoe, S.N., Hill, M.P. and Hill, J.M. Mapping nitrogen loading in freshwater systems: using aquatic biota to trace nutrients. *42nd Annual Symposium on the Management of Invasive Alien Plants*. Protea Karridene Hotel, KwaZulu-Natal. South Africa. June 2014.
- Opoku-Debrah, J.K., Hill, M.P. and Moore, S.D.**
Opoku-Debrah, J.K., Opoku-Debrah, J., Hill, M.P., Moore, S.D. and Knox, C.M. Studies on existing and new isolates of *Cryptophlebia leucotreta* granulovirus (CrleGV) on FCM populations from a range of geographic regions in South Africa. *47th International Congress on Invertebrate Pathology and Microbial Control*. Mainz. Germany. August 2014.
- Parker, D.M.**
Parsons, M., Edkins, A.L., Parker, D.M. and Wilhelmi, B.S. A rhinoceros DNA barcode for the use in wildlife forensics. *SASBMB Biennial Conference*. Goudini Spa, Worcester. South Africa. July 2014.
- Paterson, I.D. and Hill, M.P.**
Paterson, I.D., Hill, M.P. and Zachariades, C. Biological control of weeds in South Africa: where are we going from here? *42nd Annual Symposium on the Management of Invasive Alien Plants*. Protea Karridene Hotel, KwaZulu Natal. South Africa. June 2014.
- Paterson, I.D., Hill, M.P., Coetzee, J.A., Downie, D., Mpekula, O. and Mabunda, B.D.X.**
Paterson, I.D., Hill, M.P., Coetzee, J.A., Downie, D., Mpekula, O. and Mabunda, B.D.X. Cryptic species in biological control of weeds. *XIV International Symposium on the Biological Control of Weeds*. Kruger National Park, Skukuza. South Africa. March 2014.
- Richoux, N.B.**
Dawson, J., Pillay, D., Bond, W., Perissinotto, R. and Richoux, N.B. Terrestrial-aquatic trophic transfers: the role of hippopotamus dung in estuarine food webs. *Southern African Marine Society Symposium*. Stellenbosch. South Africa. July 2014.
- Richoux, N.B.** Aspects of benthic-pelagic coupling by rocky shore suspension-feeders explored using fatty acid and stable isotope tracers. *2014 ASLO Ocean Sciences Meeting, Association for the Sciences of Limnology and Oceanography*. Honolulu. Hawaii. February 2014.
- Thackeray, S.R., Hilliar, S.H., Hill, M.P. and Moore, S.D.**
Thackeray, S.R., Hilliar, S.H., Hill, M.P. and Moore, S.D. Molasses as a granulovirus additive: its effect on FCM and thrips. *8th CRI Citrus Symposium*. Champagne Sports Resort, Winterton, Drakensberg. South Africa. August 2014.
- Von Diest, J.I., Hill, M.P. and Moore, S.D.**
Von Diest, J.I., Hill, M.P., Moore, S.D., Addison, P. and Malan, A. Interaction between entomopathogenic nematodes and entomopathogenic fungi for control of false codling moth. *8th CRI Citrus Symposium*. Champagne Sports Resort, Winterton, Drakensberg. South Africa. August 2014.
- Zimba, K., Hill, M.P. and Moore, S.D.**
Zimba, K., Hill, M.P. and Moore, S.D. Using the larval parasitoid, *Agathis bishopi*, for detection of FCM infested fruit. *8th CRI Citrus Symposium*. Champagne Sports Resort, Winterton, Drakensberg. South Africa. August 2014.

ALBANY MUSEUM

INTRODUCTION

In September 2014, the Albany Museum welcomed our new director, **Mr Manzi Vabaza**, who was appointed from Head Office, Department of Sport Recreation Arts and Culture in King Williams Town. He brings a wealth of management experience. **Mr Phumlani Cimi**, one of our botanists, had been acting director for over a year prior to this.

In April 2014, the Department of Freshwater Invertebrates was happy to welcome **Mr Musa Mlambo** in as a junior scientist, while **Dr Helen James** took over as Head of Department from **Dr Ferdy de Moor**, who retired at the end of 2013. The museum was fortunate to have **Mr Paulus Janse** join the Exhibitions Department in April 2014. Mr Janse was transferred from the East London Museum, where he received valuable additional training from the renowned taxidermist **Mr Greg Brett**. He comes with a wealth of new ideas and has energised this part of the museum.

Outreach activities

The Albany Museum engaged in diverse outreach and teaching activities during the year. As usual, Museum Staff had considerable involvement with teaching at Rhodes University, delivering a total of seven weeks of lectures and seven practicals to undergraduate students in the Entomology Department, and one week to students in the Geology Department. **Dr Rose Prevec** was invited to present a talk to Geology students at the University of Cape Town.



Dr Marr and Ms Bahr explaining to local children what they were collecting and why.

All departments continued to provide scientific support to Rhodes University researchers and students as well as South African and international researchers.

Each research department participated in their own focus week, engaging with school groups on their particular areas of specialization. There was also broad participation in Scifest by the various departments, in the form of gallery-based talks, workshops and demonstrations. **Ms Celeste Booth** from the Department of Archaeology presented practical workshops on Prehistoric paint-making and prehistoric jewelry-making, and two focus weeks presented on "South African Heritage" and a general introduction to hunter-gathers and their art. **Dr Helen James** of the Department of Freshwater Invertebrates ran river health accreditation sessions for the Department of Water and Sanitation using a biomonitoring protocol (SASS5 - South African Scoring System version 5). **Drs James, Prevec and Midgley** did a presentation for the Career Lounge Student Guidance Program at Rhodes University in August 2014, giving students an idea of what researchers in a museum do and what qualifications are needed in order to follow those careers. There was also a museum careers day event to which many schools came.

The herbarium continued to provide plant species identifications and botanical information to a wide range of users, including several environmental consultants, schools, traditional healers, journalists, South African National Parks, East Cape Parks and Tourism, Working for Water, Dohne Agricultural Research Station, the State Veterinary Services, private nature reserves, local and district municipalities, local press, societies, clubs, nurseries and gardeners. The herbarium schools education programme continued its collaboration with Rhodes University's *Inkubeko Nendalo* project and welcomed groups of school pupils from four local schools during the year.



Ms Pereira da Conceicoa negotiating a path upriver, avoiding the impenetrable riparian fynbos, Western Cape.

Ms Amy van Wezel, our historian, gave a talk entitled *A Glimpse of Grahamstown in the First World War* to the 1820 Settlers Association.

The Anthropology Department, run by **Ms Phumeza Mntonintshi**, represented the Museum in various Outreach programmes such as "Africa Day" held in Patterson, and the Museum careers day in Somerset East. They also did a presentation for 15 Finnish visitors at the request of Makana Local Tourism.

The History Museum, overseen by **Ms Amy van Wezel**, functions as a lively resource of research and education, giving educational lessons on Heritage and local history as well as welcoming historical enquiries on local history. The Department also incorporates the Bowker Library which is a non-lending Afrikaans Library. The Genealogy caters for enquiries on family history, dealt with by **Ms Fleur Way-Jones**. Ms Amy van Wezel has been busy with research on Grahamstown during the First World War in preparation for a temporary exhibition scheduled for next year.

Postgraduates/Graduations

Dr Rose Prevec co-supervised Honours student Rob Muir, Geology Department, University of Cape Town, on a project looking at Cretaceous charcoal deposits in the Eastern Cape.

Postdoctoral Fellow in the Geology Department at Rhodes University, Dr Robert Gess, was hosted by the Earth Science Department at the Albany Museum.

Dr Helen James continued to supervise PhD student Ms Lyndall Pereira-da-Conceicoa, who is studying the

phylogenetic and historical biogeography of the mayfly family *Teloganodidae*. Dr James also co-supervised Ms Chantal Taylor's MSc project on the freshwater insects of the Great Escarpment with Professor Nigel Barker of Rhodes University. Dr James and Dr Midgley supervised Mr Devon Brits' BSc (Honours) project on riffle beetles (Elmidae), which was completed in November 2014.

Distinguished Visitors

Dr Conrad Labandeira from the Smithsonian Institution in Washington DC visited the Earth Science Department for three weeks in July 2014, to continue work on Permian plant-insect interactions. He donated an impressive Zeiss binocular microscope (worth R130 000), for future use in our ongoing projects.

Dr Mark Graham (GroundTruth consultancies, KwaZulu-Natal) presented a talk on 14 July 2014, titled "Using Citizen Science to evaluate the ecological integrity of South African rivers: various case studies and current research initiatives". This work is giving citizen science in freshwater ecosystems a whole new angle by bringing school groups around the country into the world of biomonitoring their local river systems.

Dr Arnold H. Staniczek from the Natural History Museum, Stuttgart, Germany, visited the Department of Freshwater Invertebrates in November - December 2014 to continue with collaborative research projects on *Ephemeroptera*, an important group of freshwater insects.

The Archaeology Department hosted three researchers from the University of Toronto, Canada, during June/July 2014, who were conducting research on the collections.

The Department of Entomology and Arachnology was visited by Dr Lorenzo Prendini (American Museum of Natural History) who identified and databased scorpions as part of an internationally funded initiative to make biodiversity data available.

The Herbarium had visitors from the South African National Biodiversity Institute, University of Cape Town, Fort Hare University, Fort Cox College and Stockholm University.

International Visits

From 14-21 May 2014, Dr Helen James joined a five person Eastern Cape delegation including representatives from the ministries governing the Eastern Cape's museums and those of the museums of Lower Saxony, Germany, to embark on a long-term, cooperative exchange between the two regions. This development strengthens the existing agreement which has been sport-focused and celebrates 20 years of cooperation in sport between the two regions. Dr James presented a summary of science activities in the Eastern

Cape Museums, and participated in the workshop to discuss future museum exchange programs. A newspaper article featured the trip to Hannover: "New vision for Eastern Cape Museums" (Grocott's Mail, 6 June 2014 p. 24).

During November 2014 **Dr Prevec** visited Dr Barbara Caraglino at the Buenos Aires Museum of Natural History in Argentina, where she was able to study Permian plant fossil collections for comparison with South African floras. She also travelled into the heart of Patagonia on a productive two week fieldtrip that led to the discovery of important new fossil specimens.

Significant Research Aligned Events

Staff in the Department of Freshwater Invertebrates have been involved in several developing projects. Dr James arranged a two week fieldtrip to Limpopo Province and Mpumalanga in December 2014, with German mayfly biologist Dr Arnold Staniczek, Mr Thabo Mohlala from SAEON (Palaborwa), Dr Sean Marr (Limpopo University) and Mr Hendrik Sithole (SANParks). This exploratory research for rare mayflies (*Ephemeroptera*) in the rivers on the Kruger National Park sparked off the beginning of a new multi-disciplinary and multi-institutional collaborative project on the freshwater fauna of the rivers feeding into the Kruger National Park, which will continue for several years.

Dr James was invited by Dr Albert Chakona (SAIAB) to collaborate in a new project in the fauna of the Pungwe River, Zimbabwe. She has been developing an online mayfly atlasing project with the Animal Demography Unit of UCT and a checklist of mayflies of East Africa. She was invited by Vicky Kindemba (Buglife, York, England) to be part of an IUCN Mid Atlantic Island Invertebrates Specialist Group.

Dr de Moor also undertook field trips to Santa Sana with Dr Wolfram Mey (Museum für Naturkunde, Leibniz Institute for Evolution and Biodiversity Science, Berlin, Germany); twice to Barrydale to collect and photograph caddis flies; Nature's Valley and Tsitsikamma Mountains (with Geoff McIlleron from Nature's Valley Trust) and twice to George to assist Dr Nick Rivers-Moore's river temperature project. In November 2014 he visited the Groot Marico District to study rivers and photograph insects with Geoff McIlleron.

Mr Tony Dold, curator of the Selmar Schonland Herbarium, spent two weeks in the remote Lesotho Mountains collecting plants specimens for the herbarium. A new species of *Massonia* was discovered at Klipplaat near Jansenville and is in the process of being described. Several days were spent collecting at Lelieskloof near Jamestown.

Members of the Earth Science Department investigated a fossil report in the Adelaide area during mid May 2014. This fossil was reported by a Rhodes third year Geology student, Mr Gordon Ballantyne. A field trip was arranged to excavate this large skull and upper torso of the big herbivorous therapsid called *Rhachiocephalus* - a tuskless form of

dicynodont. This was excavated and brought back to the museum.

Dr Prevec and her team also continued to work on the collection from the Sutherland plant fossil locality, and have prepared, labelled and accessioned the bulk of the collection (over 500 slabs). Dr Prevec organized multiple fieldtrips during the year to the Nieu Bethesda area (Lootsberg and Wapadsberg Passes) to continue the search for signs of ancient life near the Permian-Triassic Boundary, which resulted in the discovery of multiple new fossil plant sites and conchostracans. This work has important implications for our understanding of the largest extinction event in Earth's history. She also spent a week in the Heidelberg area exploring for fossil charcoal and amber deposits in the Cretaceous Kirkwood Formation.

As our Earth Science Department is a member of the NRF Palaeosciences Centre of Excellence, based at the ESI at Wits University, we had two meetings with Professor Bruce Rubidge and Dr Christine Steininger to report on research matters and research funding proposals (25 May 2014 and 16 February 2015). Our Earth Sciences Department is regarded as a specialist research unit focusing on fossil plants - a specialisation of Dr Rose Prevec and Dr Robert Gess.

Dr de Klerk conducted short fossil exploration field trips to Asante Sana in the Graaff-Reinet district to examine reported fossil finds in the *Cistecephalus* Biozone of the Beaufort Group in the Karoo and to keep an eye on the deteriorating palaeo-trackway that is a feature of this game farm.

Ms Mntonintshi (Anthropology) was requested to do research on ritual killings for the Sowetan News in connection with various incidents that occurred in the country during 2013. She has also provided information on Rites of Passage in Xhosa tradition for a book. Dr James liaised with Ms Mntonintshi to receive a collection of traditional African fishing traps donated by SAIAB (South African Institute for Aquatic Biodiversity).

Mr Vabaza Manzi

Manager: Albany Museum

PUBLICATIONS

Books/Chapters/Monographs

Gess, S. and Gess, F.

Gess, S. and Gess, F. (2014) *Wasps and bees in southern Africa: SANBI Biodiversity Series 24*. South Africa: SANBI. ISBN: 9781919976730.

Concerts, Exhibitions, Performances, Workshops, Events

Barber-James, H.

Barber-James, H. Report Back: *Meeting of Eastern Cape Museums Delegation with Lower Saxony Museums*. Albany Museum, Grahamstown. South Africa. 5 June 2014.

Barber-James, H. Oral presentation. *Freshwater invertebrates as tools for biogeography - unravelling the past and conserving the future*. Rotary Club, Grahamstown. South Africa. 21 August 2014.

Barber-James, H. and Pereira Da Conceicao, L.L. Talkshop for WaterWorld. Mayflies: Unravelling the past, conserving the future. *SAIAB, SciFest 2014*. Grahamstown. South Africa. 13 - 14 March 2014.

Barber-James, H. Lecture. Collections-based research in Eastern Cape Museums, with a focus on the Albany Museum. Lecture for Department of Zoology and Entomology, Rhodes University. Rhodes University, Grahamstown. South Africa. 3 September 2014.

Barber-James, H., Midgley, J.M. and Prevec, R.

Barber-James, H., Midgley, J.M. and Prevec, R. Presentation. Exploring Careers for Biodiversity. *Career Lounge Student Guidance Program*. Rhodes University, Grahamstown. South Africa. 28 August 2014.

de Moor, F.C.

de Moor, F.C. Oral presentation. Insects in Flight: From Jurassic Park to Tsitsikamma. *Presentation to Rhodes University staff and students*. Rhodes University, Grahamstown. South Africa. 20 March 2014.

Prevec, R.

Prevec, R. Oral presentation. South African Ecosystems in Deep Time. *Presentation to Leeds University students*. Shamwari Game Reserve, South Africa. 9 September 2014.

van Wezel, A.H.

van Wezel, A.H. Presentation. A Glimpse of Grahamstown in the First World War. *Presentation for the 1820 Settler Association*. Grahamstown. South Africa. 6 December 2014.

van Wezel, A.H. Oral presentation. Some observations on the representation of the 'other': A comparison of Roman descriptions of Britons, Gauls and Germans, with Sir Harry Smith's portrayal of the Xhosa 1830s-1850s. *Classics Department Seminar Series*. Rhodes University, Grahamstown. South Africa. 20 October 2014.

Other Publications

Barber-James, H., de Moor, F.C. and de Klerk, W.J.



Dr Helen James collecting freshwater insects in a upland stream in Lajuma, Soutpansberg (December 2014).

Photo: Dr Arnold Staniczek (Natural History Museum, Stuttgart)

Barber-James, H., de Moor, F.C., Prevec, R., Dold, A.P. and de Klerk, W.J. (2014) The Albany Museum Natural Science Collections and Research. In: Kearney, T. and Nakin, V. (eds.). *Aardvark (Newsletter of the Zoological Society of South Africa)*. South Africa: Zoological Society of South Africa.

Midgley, J.M.

Midgley, J.M. (2014). Bugs Rule! An Introduction to the World of Insects, W. Cranshaw & R. Redak: Book Review. *African Entomology*. 20, 266-7.

Peer Reviewed Subsidy-Earning Journal Research Publications

Gess, F. and Gess, S.

Gess, F. and Gess, S. (2014) Geographical distributions of *Bembix* (Hymenoptera, Crabronidae, Bembicinae) in southern Africa, with notes on biology. *Journal of Hymenoptera Research*. 36 (2014). p.53-130.

Midgley, J.

Bouwer, N., Midgley, J., Timm, A., and Villet, M. (2014). Successful identification of the final instar nymph of *Quintilia carinata* (Thunberg) (Hemiptera: Cicadidae) by DNA extraction from the exuvium. *Journal of Natural History*. 48, 937-943.

Prevec, R.

Prevec, R. (2014). *Elatra*: A glossopterid fructification with a bipartite, hooded wing from the lower Permian of Madagascar and South Africa. *Review of Palaeobotany and Palynology*. 210:119-139.

Labandeira, C.C. and Prevec, R. (2014). Plant paleopathology and the roles of pathogens and insects. *International Journal of Paleopathology*. 4:1-16.



Dr Helen James with German colleague Dr Arnold Staniczek and collaborator Dr Sean Marr from the University of Limpopo, light trapping insects next to a river before sunrise

Research Papers Presented at Academic/Scientific Conferences (Non-peer-reviewed Proceedings)

Barber-James, H.

Taylor, C.L., Barker, N.P. and Barber-James, H. Investigating cryptic variation in a widespread mayfly, *Afroptilum sudafricanum* (Ephemeroptera: Baetidae), using mitochondrial sequence data. *SASSB XI Conference*. Hogsback. South Africa. April 2014.

Barber-James, H. The Role of Eastern Cape Museums in Science in South Africa. *Lower Saxony meets Eastern Cape: Chances, challenges and expectations of a future cultural cooperation*. Lower Saxony State Museum, Hanover. Germany. May 2014.

Barber-James, H., Bradshaw, B. and Kayster, A. Connections between collections & links between German and the Eastern Cape museums. *78th National South African Museums Association Conference*. East London Golf Club, East London. South Africa. November 2014.

de Klerk, W.J.

McPhee, B.W., Bonnan, M.F., Yates, A.M., **de Klerk, W.J.** and Choiniere, J.N. The non-Massospondtliid fauna of South Africa's Upper Elliot Formation: tracking the evolution of Sauropoda in the pre-Toarcian Jurassic. *Society of Vertebrate Palaeontology 74th Annual Meeting*. November 2014.

Midgley, J.M.

Midgley, J.M. Thieves of knowledge: inadvertent assistance of biodiversity thieves by museum staff. *78th National Conference of the South African Museums Association*. East London Golf Club, East London. South Africa. November 2014.

Prevec, R.

Bamford, M.K. and **Prevec, R.** Charcoal analysis provides new insights into the plant diversity of the Lower Cretaceous Kirkwood Formation. *18th Biennial Conference of the Palaeontological Society of Southern Africa*. Johannesburg. South Africa. July 2014.

Muir, R., Bordy, E. and **Prevec, R.** Sedimentology and palaeobotany of an Early Cretaceous locality in the Kirkwood Formation, Algoa Basin, Eastern Cape. *18th Biennial Conference of the Palaeontological Society of Southern Africa*. Johannesburg. South Africa. July 2014.

Neveling, J., Gastaldo, R.A., **Prevec, R.**, Looy, C., Bamford, M.K., Kamo, S. and Geissman, J. Early Triassic Glossopteris: An examination of stratigraphic evidence. *18th Biennial Conference of the Palaeontological Society of Southern Africa*. Johannesburg. South Africa. July 2014.

Prevec, R. and Lavin, J. The coal floras of South Africa: to PIA or not to PIA? *18th Biennial Conference of the Palaeontological Society of Southern Africa*. Johannesburg. South Africa. July 2014.

van Wezel, A.H.

van Wezel, A.H. Re-Imagining our Human Science Exhibition: A look at the Albany Museum. *78th National Conference of the South African Museums Association*. East London Golf Club, East London. South Africa. November 2014.

ELECTRON MICROSCOPY UNIT (EMU)

INTRODUCTION

The main function of the Electron Microscopy Unit (EMU) is to facilitate research within the university and at other Eastern Cape universities. During 2014, seven (7) academic staff, nine (9) Postdoctoral Fellows and eighty-one (81) Postgraduate students made use of the electron microscope facilities. The greatest number of users of the Transmission Electron Microscope were from the Department of Chemistry, which reflects the strength in nanoscience.

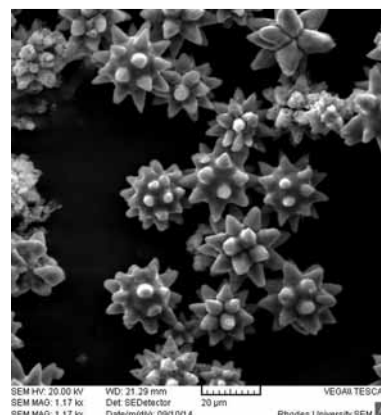
This microscope was also used extensively by microbiologists for their viral research work. By contrast, biologists were the main users of the scanning electron microscope. In addition, the staff of the unit not only assisted researchers from Rhodes University, but also from NMMU and Fort Hare. Results generated for the use of the microscopes within the unit were presented in numerous theses, scientific papers and presentations at local and international conferences.

Professor Alan Hodgson

Head of Unit



SEM (Scanning Electron Microscope) image of praying mantis ear



SEM (Scanning Electron Microscope) image of sponge spicules, the structural elements of a sponge

PUBLICATIONS

Peer Reviewed Subsidy-Earning Journal Research Publications

Pinchuck, S.C.

Magellan, K., Pinchuck, S.C. and Swartz, E.R. (2014) Short and long-term strategies to facilitate aerial exposure in a galaxiid. *Journal of Fish Biology*. 84 (2014). p.748-758.

Randall, M.

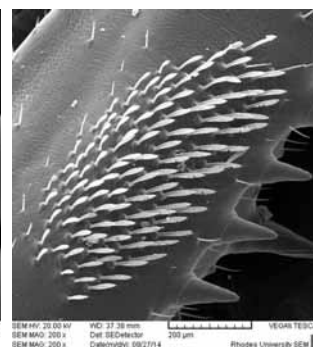
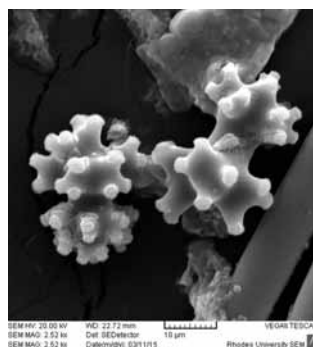
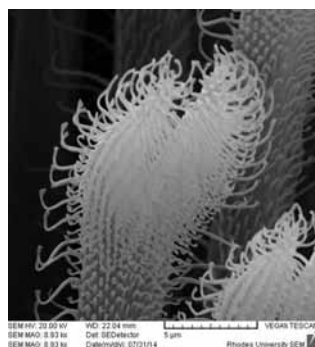
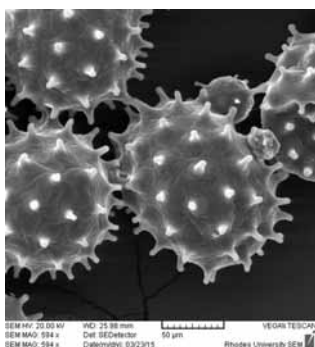
Kruger, S., Ferenz, H.J., Randall, M. and Hodgson, A.N. (2014) Structure of the male reproductive accessory glands of *Pterostichus nigrita* (Coleoptera: Carabidae), their role in spermatophore formation. *Invertebrate Reproduction & Development*. 58 (2). p.75-88.

Peer Reviewed Proceedings

Pinchuck, S.C.

Magellan, K., Pinchuck, S.C. and Swartz, E.R. Short and Long-Term Strategies to Facilitate Aerial Exposure in a Galaxiid. *Microscopy Society of Southern Africa Proceedings - Volume 44 2014*. Protea Hotel, Stellenbosch. South Africa. December 2014.

Left to Right: SEM (Scanning Electron Microscope) image of pollen grains; image of spider tarsal pad; image of sponge spicules; sensory organs on praying mantis foot



INSTITUTE FOR ENVIRONMENTAL BIOTECHNOLOGY (EBRU)

INTRODUCTION

EBRU continued research and development of sustainable remedial biotechnologies for industry supported by grants awarded to **Professor A. Keith Cowan** from Anglo American Thermal Coal and the Water Research Commission.

A provisional patent for the treatment of acid wastewater was filed based on collaborative studies carried out by EBRU.

Research into technologies for the biodegradation of waste coal and the rehabilitation of coal discard dumps continued, and commercial production of the Fungcoal technology is imminent.

Two additional patent applications relating to this technology and for the biodegradation of hydrocarbons have been filed.

Evaluation of the integrated algae pond system (IAPS) for municipal sewage treatment continued and a final report on the outcomes has been submitted to the Water Research Commission for publication. Department of Science and Technology (DST) funding was awarded to EBRU (Professor A.K. Cowan) to manage the design, construction, and implementation of a commercial scale IAPS for the Chris Hani District Municipality. This project is nearing the final design phase and it is expected that construction will commence in the near future.

In another Water Research Commission sponsored project led by **Mr Richard Laubscher**, studies on the anaerobic



Mr Olwethu Baba (Technical assistant EBRU) (left) with MSc candidate Mr Phindile Madikizela (right) conducting sampling of the pit latrine using the Songololo

digestion of faecal sludge for the production of biofertilizers is progressing. Additional projects related to bioremediation of hydrocarbons, biofertilizers, and influence of reactive oxygen species on irrigation water are currently in initiation phase.

Postgraduates/Graduations

Six (6) Postgraduate students were registered for degrees in Environmental Biotechnology at EBRU in 2014 - four (4) PhD and two (2) MSc candidates. Ms Sylvie Tebitendwa joined EBRU as a PhD candidate following the award of a full scholarship from the Organization for Women in Science in the Developing World (OWSD) to study the biotechnology and performance of hybrid constructed wetlands for wastewater treatment. Sylvie participated in courses related to science writing and communication (CSIR) and faecal sludge management (UCT). Lwazikazi Madikiza was awarded a MSc degree for the dissertation "Bacterial degradation of waste coal", as was Patricia Mlambo for her dissertation "Exploring fertilizer potential of biosolids from algae integrated wastewater treatment systems".

Significant Research Aligned Events

EBRU was well represented at several international and national conferences during 2014. **Professor Cowan** was invited to address the BIT 3rd Annual International Symposium of Clean Coal Technology in Tiayuan, China; and presented related talks at the Second Annual LaRSSA Conference on "Land Rehabilitation: Successes and Failures"; and at the "Sustainability in the Resource Industry Post 2015" summit hosted by the Gordon Institute of Business Science, Johannesburg, South Africa.



MSc candidate Mr Phindile Madikizela using biogas recovered from an anaerobic digester to pasteurise digested faecal sludge

In addition, results from collaborative work together with the University of Greenwich and the National Technical University of Athens were presented at the 8th International Conference on Foundations of Computer-Aided Process Design, Washington, U.S.A. EBRU continues to engage both government and industry to further its research and the training of competent environmental biotechnologists.

Professor A. Keith Cowan

Director: EBRU

PUBLICATIONS

Patents

Isaacs, M.L., Render, D.S. and Cowan, A.K.
Isaacs, M.L., Render, D.S., Cowan, A.K. and Persson, U.T. (2014) *The treatment of waste water. South Africa*. 2014. 2014/03438.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Edeki, O.G. and Cowan, A.K.
Edeki, O.G. and Cowan, A.K. (2014) Approaches to bioremediation of fossil fuel contaminated soil: an overview. *African Journal of Biotechnology*. 13 (26). p.2593-2607.

Peer Reviewed Subsidy-Earning Journal Research Publications

Mambo, M.P., Westensee, D.K., Render, D.S. and Cowan, A.K.
Mambo, M.P., Westensee, D.K., Render, D.S. and Cowan, A.K. (2014) Operation of an integrated algae pond system for the treatment of municipal sewage: a South African case study. *Water Science and Technology*. 69 (12). p.2554-2561.
Mambo, M.P., Westensee, D.K., Zuma, B. and Cowan, A.K.
Mambo, M.P., Westensee, D.K., Zuma, B. and Cowan, A.K. (2014) The Belmont Valley integrated algae pond

system in retrospect. *Water SA*. 40 (2). p.385-393.

Sekhohola, L.M., Isaacs, M.L. and Cowan, A.K.
Sekhohola, L.M., Isaacs, M.L. and Cowan, A.K. (2014) Fungal colonisation and enzyme-mediated metabolism of waste coal by *Neosartorya fischeri* strain ECCN 84. *Bioscience Biotechnology and Biochemistry*. 78 (10). p.1797-1802.

Peer Reviewed Proceedings

Cowan, A.K.
Psycha, M., Pyrgakis, K., Harvey, P.J., Ben-Amotz, A., Cowan, A.K. and Kokossis, A. Design Analysis of Integrated Microalgae Biorefineries. *Proceedings of the 8th International Conference on Foundations of Computer-Aided Process Design*. Suncadia, Washington. United States of America. July 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer Reviewed Proceedings)

Cowan, A.K.
Cowan, A.K. Microbiological solubilization of low grade coal: The Biotechnology of rehabilitation. *BIT 3rd Annual International Symposium of Clean Coal Technology*. Wanda Vista Hotel, Tiayuan. China. September 2014.
Cowan, A.K. Microbiological breakdown and solubilization of low grade coal: The Biotechnology of rehabilitation.

Second Annual LaRSSA Conference: Land Rehabilitation: Successes and Failures. Glenburn Lodge, Muldersdrift. South Africa. September 2014.

Cowan, A.K. The biotechnology of rehabilitation: Micro-biological breakdown and solubilisation of low grade coal. *Sustainability in the Resource Industry Post 2015.* GIBS - Gordon Institute of Business Science, Johannesburg. South Africa. October 2014.

Cowan, A.K., Edeki, O.G. and Sekhohola, L.M.

Van Breugel, Y., Cowan, A.K., Edeki, O.G., Sekhohola, L. and Tsikos, C. A geochemical study of weathered coal from the Witbank coal mine, South Africa, and its use in the rehabilitation of mine dumps. *Conference on Coastal Landscapes, Mining Activities & preservation of Cultural Heritage.* Milos Island, Cyclades. Greece. September 2014.

Cowan, A.K. and Render, D.S.

Cowan, A.K. and Render, D.S. Algae ponds and sustainability. *WISA Biennial Conference & Exhibition 2014.* Mbombela Stadium, Mbombela. South Africa. May 2014.

Mambo, M.P., Westensee, D.K., Zuma, B., Laubscher, R.K. and Cowan, A.K.

Mambo, M.P., Westensee, D.K., Zuma, B., Laubscher, R.K., Cowan, A.K., Buckley, C.A., Pietruschka, B., Pillay, S., Bhagwan, J. and Reynaud, N. Wastewater Technological Options for Small Towns and Peri-Urban Areas: South African Pilot Studies. *IWA 1st Specialist Conference on Municipal Wastewater Management and Sanitation in Developing Countries.* Asian Institute of Technology, Bangkok. Thailand. December 2014.



PhD student Jacob Olewale
isolating bacteria

INSTITUTE FOR THE STUDY OF ENGLISH IN AFRICA (ISEA)

INTRODUCTION

There were several highlights in 2014, with many special events and activities arranged specifically to mark the 50th anniversary of the ISEA. The range and richness of these events to celebrate the history of the ISEA, as well as to reflect on future directions, are conveyed below:

- A collaboration between the Shakespeare Society of Southern Africa (SSOSA) and the ISEA to celebrate Shakespeare's 450th birthday. On 28 March 2014, SSOSA spearheaded a Shakespeare 'Play in a Day' *Macbeth*, for local Grahamstown high schoolers, together with the Ubom! Theatre Company. The fifty-one (51) learners and two (2) teachers who participated were invited to design posters in a follow-up competition. The posters were displayed in the Eden Grove foyer outside the annual SSOSA Shakespeare lecture on 23 April 2014.
- An exhibition of fifty (50) years of *New Coin*, presented by the ISEA and NELM, and curated by former *New Coin* editor Alan Finlay, was opened in Eden Grove during the National Arts Festival/Wordfest, and later displayed in the Rhodes Main Library.
- **Professor Esther Ramani** (and Professor Michael Joseph) were awarded a grant from the Vice-Chancellor's Research Fund for a three-year teacher development project at CM Vellem School, which is well under way.
- Several of MACW-organised events were hosted within the Wordfest programme:



The highlight of the MACW-organised events at Wordfest 2014 was a tribute to the great poet of black consciousness, Mafika Gwala, attended by Gwala himself and a highly appreciative audience
Photo: Michael Jaspan

- *Word Down the Line*, a documentary made by Lesego Rampolokeng and Bobby Rodwell; a special 'Tribute to Mafika Gwala' was held in Eden Grove with MACW poet/ teacher Lesego Rampolokeng acting as host; Alan Finlay presented a seminar on the fifty (50) year history of *New Coin*; and poet and novelist Denis Hirson, also a Mellon Writer-in-Residence for 2014, launched the poetry collection he edited titled, *In the Heat of Shadows: South African Poetry 1996-2013*.
- On the 10-12 July 2014, the fourth biennial Networking English Teachers' Conference was jointly hosted by the ISEA and the Eastern Cape English Educators' Association. The theme was 'Creativity and Imagination in Language Teaching'.
- On the 1st-2nd September 2014, the MACW hosted an International Colloquium on 'Teaching Creative Writing'. It was the first gathering in South Africa to examine the methodologies and practices of how to teach creative writing. Each of the twenty (20) invited participants gave short presentations, to be turned into papers, for a special issue of the accredited journal *Current Writing* in 2015.
- For the third consecutive year, the MACW programme has a Mellon Writer-in-Residence nominated for a prestigious literary award. Eben Venter's novel *Wolf, Wolf* was shortlisted for both the Sunday Times Literary Award and the *Rapport-Kyknet* Fiction Award in 2014.

Postgraduates/Graduations

The MACW once again had a successful cohort of twenty-one (21) graduates (nine (9) full time and twelve (12) part time) with eight (8) distinctions among them!

Staff members, **Madeyandile Mbelani** graduated with his PhD, titled 'An investigation into the development of knowledge and strategies for the teaching of visual literacy in under-resourced Eastern Cape schools', while **Carol Leff** graduated cum laude with her MA, titled 'Bosman as *Verbindingssteken*: Hybridities in the Writing of Herman Charles Bosman'.



Left: Lesego Rampolokeng at the Teaching Creative Writing conference hosted by Rhodes University's MA programme in Creative Writing (MACW) in September 1-2, 2014



Right: Zukile Fundakubi at the Rhodes MA in Creative Writing [MACW] launch of the 2014 edition of *Tyhini* on 15th November 2014.

Distinguished Visitors/International Visits

- Ms Deb Avery (British Council)
- Judge Edwin Cameron
- Ms Gail Campbell (CEO Zenex Foundation)
- Ms Caroline Grant (British Council)
- Mr Mafika Gwala
- Mr Sydney Hlimwita (Deputy-Principal, Tujatani Trust School, Zambia)
- Dr Denis Hirson (Mellon Writer-in-Residence)
- Professor Noy Holland (Professor of English Studies, UMass Amherst, USA)
- Mr Michael Jaspan
- Dr Jean McNeil (Co-director, MA in Creative Writing, University of East Anglia, UK)
- Dr Kobus Moolman (Head of Creative Writing, University of Kwazulu-Natal)
- Dr Paul Munden (Director, National Association of Writers in Education, UK)
- Mr Donald Parenzee (Mellon Writer-in-Residence)
- Advocate Vusi Pikoli
- Professor Yvonne Reed (University of the Witwatersrand)

Significant Research Aligned Events

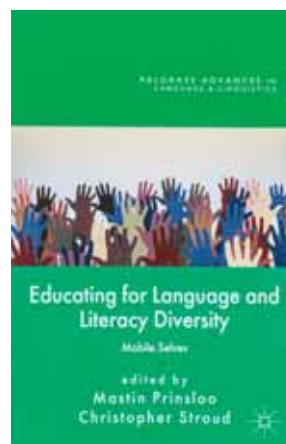
Research Associate, **Vonani Bila**, participated in the Northern Cape Writers' Festival held in March 2014 and hosted by the Department of Sport, Arts and Culture in Kimberley. She also participated in the Cologne Poetry Festival/ Poetic Voices Africa held in May 2014 at the Cologne Literature House in Germany, and the Polokwane Literary Fair in September 2014.

MACW students participated in the following literary events:

- K Hammerton in the McGregor Poetry Festival, October 2014;
- N Masheane in the Northern Cape Writers' Festival, 10-15 March 2014. Department of Sport, Arts and Culture, Kimberley, Northern Cape; the Freedom Park Story Telling Festival 2014, Tshwane; the Poetry Africa 2014, October 2014. Centre for the Creative Arts. University of KwaZulu-Natal, Durban; the 'Modumo'. *Mbokodo (Women in the Arts Awards)*, 24 October 2014. Kyalami Theatre on the Square and ANN7 (Africa News Network 4 - 2014 awards for top South Africans), Johannesburg; and 'From the Village to the City', *Napo Masheane Live @ Joburg Theatre*. 28 and 29 November 2014. Johannesburg. Village Gossip Productions/ AsiFilms;
- M Phepheng, the Northern Cape Writers' Festival. 10-15 March 2014. Department of Sport, Arts and Culture. Kimberley, Northern Cape.

Professor Monica Hendricks

Director: ISEA



Professor Esther Ramani co-authored the chapter *Marginalised knowledges and marginalised languages for epistemic access to Piaget and Vygotsky's theories* with Professor Michael Joseph. The chapter was published in the book *Educating for Language and Literacy Diversity: Mobile Selves*

Photo: Paul Greenway

PUBLICATIONS

Books/Chapters/Monographs

Crampton, H.

Crampton, H. (2014) *The Side of the Sun at Noon: A Quest*. Johannesburg: Jacana Media (Pty) Ltd. ISBN: 9781431409402.

Krueger, A.R.

Krueger, A.R. (2014) 'It's just Changed Color': Clowning with Parodies of Religion, Race and Nation in Woza Albert! and Woza Andries?. In: Holdsworth, N. (ed.). *Theatre and National Identity: Re-Imagining Conceptions of Nation*. New York: Routledge: Taylor and Francis. p.19-40. ISBN: 9780415822992.

Krueger, A.R. (2014) A Heritage of Violence: Paradoxes of Freedom and Memory in Recent South African Play-Texts. In: Diale, I. (ed.). *Syncretic Arenas: Essays on Postcolonial Drama and Theatre for Esiaba Irobi*. Amsterdam - New York: Rodopi. p.237-249. ISBN: 9789042038981.

Ramani, E.

Joseph, M.V. and Ramani, E. (2014) Marginalised knowledges and marginalised languages for epistemic access to Piaget and Vygotsky's theories. In: Prinsloo, M. and Stroud, C. (eds.). *Educating for Language and Literacy Diversity: Mobile Selves*. Basingstoke: Palgrave Macmillan. p.133-147. ISBN: 9781137309839.

Wright, L.S.

Wright, L.S. (2014) 'Most fearful hard work': Gwen Frangcon Davies, Marda Vanne, and the 'Good Companions' in South Africa. In: Kujawinska-Courtney, K., Penier, I. and Kwapisz-Williams, K. (eds.). *"No Other but a Woman's Reason": Women on Shakespeare, Commemorating the 450th Anniversary of Shakespeare's Birth*. Frankfurt: Peter Lang. p.131-146. ISBN: 9783631627631.

Wright, L.S. (2014) Butler's Lear. In: Thurman, C. (ed.). *South African Essays on 'Universal' Shakespeare*. England: Ashgate. p.167-182. ISBN: 9781472415769.

Concerts, Exhibitions, Performances, Workshops, Events

Kruger, A.

Krueger, A. Living in Strange Lands: The Testimony of Dimitri Tsafendas. So Solo Festival, Wits Theatre, Johannesburg. 15-19 October, 2014.

Mann, C.

Mann, C. Performance - Actor: David Butler. The Ballad of Dirk de Bruin. *National Arts Festival*. Oatlands Hall, Grahamstown. South Africa. 3-11 July 2014.

Mann, C. Play-in-Verse. The Ballad of Dirk de Bruin. *National Arts Festival Fringe (Standard Bank Ovation Award for Drama)*. Oatlands Hall, Grahamstown. South Africa. 3-11 July 2014.

Mann, C. Exhibition. A Field in Italy. *Quiet Places*. Durban Art Gallery, Durban. South Africa. 5-7 August 2014.

Mann, C. Poems read during meditations. The River

under the Sand, The Murmuring of the Dove. *Desert Spirituality workshop*. Leader: Julia Skeen. St Wilfrid's Church, Pretoria. South Africa. 6 September 2014.

Mann, C. Poems read during meditations. The Garden of Eden. *The Glimmer in the Moil*. Leader: Julia Skeen. St Francis of Assisi Church, Parkview, Johannesburg. South Africa. 4 September 2014.

Mann, C. Poems read during meditations. The Road to Emmaus. *Cathedral Meditation Group*. Leader: Julia Skeen. Cathedral, Grahamstown. South Africa. 6 August 2014.

Mann, C. Poems read during meditations. The Parliament of the Shades. *Cathedral Meditation Group*. Leader: Julia Skeen. Cathedral, Grahamstown. South Africa. 14 September 2014.

Mann, C. Poems read during meditations. Doubting Thomas. *Cathedral Meditation Group*. Leader: Julia Skeen. Cathedral, Grahamstown. South Africa. 23 July 2014.

Mann, C. Performance/ lecture. Selection of song-poems. *Fine Lines Student Literary Festival*. University of the Witwatersrand, Johannesburg. South Africa. 1 September 2014.

Mann, C. Poems read during meditations. Mushrooms, Weeds, Tomato, Yesterday-Today-and-Tomorrow. *Meditation on the environment*. Leader: Julia Skeen. St Francis, Waterkloof, Pretoria. South Africa. 10 September 2014.

Masheane, N.

Masheane, N. (2014) English as language of poetry among Black women in South Africa Today. In: Xaba, M. (ed.). *Poetically Speaking: Reflections by and on Black South African Women of Words*. Johannesburg: Wits University Press.

Masheane, N. (2014) Four poems ('I am the Spirit of Music'; 'Age Of Hope' (The Gospel); 'Freedom is Hard Work'; 'Identity') in *Freedom Mix Tape Documentary*. Durban International Film Festival. 18-26 July, 2014. National Film and Video Foundation.

Masheane, N. (2014) *Ditshomo: A Story of South African Theatre (in two parts)*. November, 2014. SABC1 documentary. Johannesburg.

Masheane, N. (2014) 'A New Song.' Read at *International Playwrights: Genesis Foundation Project- New Plays from South Africa after 20 years of Democracy*. Royal Court, British Council and ConnectZA. London.

Matshoba, Z.

Matshoba, Z. (2014) 'Amanzi Bobona Bubutyebi' (adaptation and translation of 'Gamal's Treasure', a short story by Barbara Herbert). Broadcast on Radio Grahamstown. 8 September 2014.

Mofokeng, T.

Mofokeng, T. (2014) *Tjhebodiso* (Sesotho playscript). Quizzical Pictures (Pty) Ltd. Johannesburg.

Mofokeng, T. (2014) *Unwanted Time* (playscript). Invincible Entertainment Production. Johannesburg.

Rampolokeng, L.

Rampolokeng, L. (2014) *Word down the Line*. Documentary film. Mehlo-Maya (Eye to the Sun), Johannesburg. Durban International Film Festival. 18-26 July, 2014.

Creative Writing

Bila, V.

Bila, V. (2014) Gegen die macht des kunsthandels. In: Diallo, M. M. (ed.). *Visionare Afrikas: Der Kontinent in ungewöhnlichen Porträts*. Wuppertal, Germany: Peter Hammer Publishers. pp.165-168. ISBN: 9783779504870.

Berold, R.

Berold, R. (2014) 'Absence'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.67.

Berold, R. (2014) 'Beloved'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.66.

Berold, R. (2014) 'A simple love'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.64.

Berold, R. (2014) 'The letter'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.63.

Berold, R. (2014) 'The guest'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.68.

Berold, R. (2014) 'The harbour'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.69.

Berold, R. (2014) 'To my room'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.70.

Berold, R. (2014) 'Angel'. *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.43.

Berold, R. (2014) 'All the days'. *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.37.

Berold, R. (2014) 'Letter to Mary'. *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.39.

Berold, R. (2014) 'The water running'. *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.36.

Berold, R. (2014) 'The rock thrushes'. *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.38.

Berold, R. (2014) 'To my room'. *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.36.

Berold, R. (2014) 'Visit to my mother'. *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.40.

Berold, R. and Wessels, P.

Berold, R. and Wessels, P. (eds) (2014) *Tyhini*. Prose and poetry from MA in Creative Writing students: Jo-Ann Bekker, Ayanda Billie, José Claassen, Brian Dingle, Jana du Plessis, Connie Fick, Zukile Fundakubi, Henali Kuit, Kerry Hammerton, Napo Masheane, Zongezile Matshoba, Jeannie Wallace McKeown, Moses Mtileni, Kabelo Mofokeng, Thabiso Mofokeng, Shelter Musavengana, Chwayita Ngamlana, Simphiwe Nolutshungu, Maruping Phepheng, Louella Sullivan, Tania Terblanche, Laura Watermeyer, Daniel Whitehorn. Grahamstown: ISEA.

Bila, V.

Bila, V. (2014) 'Next year I want to run the comrades marathon'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.71-72.

Bila, V. (2014) 'Overnight accommodation at ex-fiancée's mansion'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.73-74.

Bila, V. (2014) 'Attraction'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.75.

Bila, V. (2014) 'In the name of Amandla.' *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.57-59.

Bila, V. (2014) 'Ancestral Wealth.' *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.60-74.

Bila, V. (2014) 'The Toilet Cleaner at OR Tambo International Airport'. *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.77-78.

Bila, V. (2014) 'Baba Mandela.' *In the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.75-77.

Bila, V. (2014) 'Overnight Accommodation at ex-fiancée's mansion'. *Afro-Disiac (A Collection of South African Erotic Poetry)*. In: D'Abdon, R., Jenkins, M. and Molebatsi, N. (eds.). Cassava Republic, Abuja, Nigeria.

Bila, V. (2014) 'Baloyi's art gallery'. *New Coin*. 50.1. p.94.

Bila, V. (2014) 'What she wore that day'. *New Coin*. 50.1. p.95.

Bila, V. (2014) 'Durbs occasion'. *New Coin*. 50.1. pp. 96-97.

Bila, V. (2014) Banho ou o Aeroporto Internacional Tambo'. Portuguese trans. Golgona Anghel. *ProximoFuturo/ Next Future*. 14. p.30.

Bila, V. (2014) 'The Pig' / 'Le Cochon'. French trans. Elizabeth Brunazzi. *Recours au Poeme online*. September 2014.

Bila, V. (2014) 'Sacred Passage' / 'Passage Sacre'. French trans. Elizabeth Brunazzi. *Recours au Poeme online*. September 2014.

Billie, A.

Billie, A. (2014) 'Touch of Guitarism'. *Jazz Life*. 2. p.9.

Du Plessis, J.

Du Plessis, J. (2014) 'Rooi Bloemfontein'. *Ons Klyntji*. 118. p.58.

- Hammerton, K.**
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- Hammerton, K.** (2014) 'Come rest beneath me'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.232.
- Hammerton, K.** (2014) 'Lovers'. *Heart of Africa! Poems of Love, Loss and Longing*. In: Schonstein, P. (ed.). Cape Town: Africa Sun Press. p.232.
- Hammerton, K.** (2014) 'fasten'. *aerodrome*. 1. p.35.
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- Hammerton, K.** (2014) 'I am ignorant of this geography'. *New Contrast*. 42.3.
- Hammerton, K.** (2014) 'Days like these'. *New Contrast*. 42.3.
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- Hardy, S.**
Hardy, S. (2014) *Because the night: stories*. London: Pocko Books.
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- Krueger, A.** (2014) 'My Sister Sonia'. *Ons Klyntji*. Jaargang 118. p.31-32.
- Kuit, H.**
Kuit, H. (2014) 'Here Jesus ek is klein'. *New Contrast*. Summer.
- Kuit, H.** (2014) 'My giraffe is for my use only'. *Ons Klyntji*.
- Kuit, H.** (2014) 'Dust to dust'. *Imminent Quarterly*. Issue 04.
- Kuit, H.** (2014) 'Wash, rinse, spin'. *Prufrock*. Issue 04.
- Leff, C.W.**
Leff, C.W. (2014) poem. In: King, M. (ed.). *turn left and then*.
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- Leff, C.W.** (2014) poem. In: Schonstein, P. (ed.). *we were*. Cape Town: African Sun Press.
- Mann, C.**
Mann, C. (2014) The Comrades Marathon. In: *Poem in journal: Uhlanga*. Vol. 1.
- Mann, C.** (2014) Fixing a Mower. In: *Poem in journal: Uhlanga*. Vol.1.
- Mann, C.** (2014) The Glimmer in the Moil. In: *Poem in journal: The Spire*. February 2014.
- Mann, C.** (2014) Rudiments of Grace. In: *Book of Poems*. Grahamstown: Cathedral of St Michael and St George.
- Mann, C.** (2014) Eden. In: *Poem in journal: The Spire*. February 2014.
- Mann, C.** (2014) 'Mandela's Cell'. In: *Knowing Mandela*. Carlin, J. (ed.). In: *Poems in books*. London: Atlantic Books.
- Mann, C.** (2014) Carapace 100 (eds) Goldhorn, David and de Lange, Johann. In: *Rural Women*. Cape Town: Snail Press.
- Mann, C.** (2014) Carapace 100 (eds) Goldhorn, David and de Lange, Johann. In: *Pawpaw*. Cape Town: Snail Press.
- Mann, C.** (2014) Heart of Africa! In: *Coalescence*. South Africa: Africa Sun Press.
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- Masheane, N.** (2014) 'Mother Christmas'. *Afro-Disiac* (A Collection of South African Erotic Poetry). In: D'Abdon, R., Jenkins, M. and Molebatsi, N. (eds.). Cassava Republic, Abuja, Nigeria.
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- Nyezwa, M.** (2014) 'Songs from the earth'. In *the Heat of Shadows: South African poetry 1996-2013*. In: Hirson, D. (ed.). Grahamstown: Deep South. p.110.
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Mann, C.

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Mann, C. (2014) Poem in journal: Sunday Drive. *New contrast*. 42 (2). p.21-22.

Mann, C. (2014) Poem in journal: The Bower of Bliss. *New contrast*. 42 (2). p.22-24.

Mann, C. (2014) Poem in journal: Doubting Thomas. *New contrast*. 42 (2). p.18-20.

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Tyhini is an annual journal featuring work produced by students and staff of the Rhodes University MA in creative writing course. This year's bumper, 360-page edition, published by the Institute of the Study of English in Africa, features 170 poetry and prose pieces written in English, isiXhosa, Setswana and Sesotho
Photo: Paul Greenway

INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH (ISER)

INTRODUCTION

The year 2014 was a landmark year in the life of the sixty-year old Institute of Social and Economic Research (ISER), which includes the Neil Aggett Labour Studies Unit (NALSU). Following the conclusion of a formal review of the institute in the previous year, 2014 saw the consolidation of the ISER's academic work around the themes of social policy and labour studies, working within the political economy tradition. The emergence of the labour studies theme was represented tangibly in the formal launch of NALSU in April, including the formal naming of the building in which it is housed as Neil Aggett House.

The year 2014 was also the year in which the ISER started registering students in its own name rather than through other academic departments, and in which a reconstituted ISER Board met for the first time.

The ISER was active in an integrated manner in all three areas of academic work that are recognised by Rhodes University, viz. research, teaching and learning, and community engagement. During 2014, the ISER not only worked on existing research projects - such as health policy, historical and current perspectives on social policy, informal work, the transition of graduates from Rhodes University and the University of Fort Hare into the labour market - but also laid the groundwork for new research initiatives, including exploration of the interface between labour and social policy



(From left to right) Dr Gavin Andersson, Mr Israel Mogoatlhe, and ISER Director Professor Robert van Niekerk at the NALSU Launch in April 2014

(particularly health policy and provisioning), and research on working poverty.

Distinguished Visitors/International Visits

During 2014, **Professors Wale Adebawbi, Edward Webster and Ben Fine** were appointed as Visiting Professors. Professor Adebawbi, who is based at the University of California, Davis, is a Co-Editor of the Journal for Contemporary African Studies, which has been located in the ISER since 1991. Professor Edward Webster is a Professor Emeritus at the University of the Witwatersrand and Director of the Chris Hani Institute, and Professor Ben Fine is a Professor of Economics at the School of Oriental and African Studies (SOAS), University of London.

In April 2014, Professor Webster spoke at the Neil Aggett Colloquium that was held as part of the launch of NALSU. He was joined on that day by Professor Fred Hendricks, Dean of Humanities at Rhodes University, and the following speakers, all of whom are closely associated with the South African labour movement and/or Dr Neil Aggett: Mr Katishi Masemola, General Secretary of the Food and Allied Workers Union; Dr Beverley Naidoo, biographer of Neil Aggett; Mr Jan Theron, Coordinator of the Labour and Enterprise Policy Research Group at the University of Cape Town, and former General Secretary of the Food and Canning Workers Union and the Food and Allied Workers Union; Mr Brian Sandberg, Coordinator of the Neil Aggett Support Group; Dr Gavin Andersson, Managing Director of the Seriti Institute; Ms Jane Barrett, Affiliates Support Coordinator of COSATU; Ma Lydia Kompe, former trade unionist and Member of Parliament, and currently Member of the Limpopo Provincial Legislature; and Mr Siphso Kubeka, former trade unionist and currently Deputy Director in the JMPD. The colloquium followed the first annual Neil Aggett Labour Studies Lecture, which was delivered by Dr Beverley Naidoo.

In October 2014, Professor Webster gave a seminar at Rhodes University on research undertaken in the Eastern Cape by the Chris Hani Institute in partnership with the ISER, entitled *“The old is dying and the new is not yet born”: Reflections on the findings of a household survey in old Transkei*. The seminar drew on the results of a household survey in five villages in the Intsika Yethu Local Municipality in the Chris Hani Municipality of the Eastern Cape. He also gave a public lecture in East London on *Labour after globalisation: old and new sources of workers’ power*. The lecture was held on the East London campus of the University of Fort Hare, and chaired by **Dr John Reynolds** of the ISER.

Professor Fine spent two weeks in Grahamstown in April 2014 editing and further developing and refining the conceptual background for an edited volume of all commissioned papers produced as part of a project on the *Developmental States, Social Policy and Social Compacts: Global Opportunities, National Actors and Effective Institutions*. He also gave public presentations at Rhodes University related to his contribution to that volume.

Professor Robert Van Niekerk of the ISER coordinated a symposium entitled *Social Policy in Post-Mandela South Africa - Challenges for a Resilient Society* at Sheffield University as part of the annual Social Policy Association (SPA) *Social Policy Confronting Change: Resistance, Resilience and Radicalism* conference on 14-16 July 2014. He also presented a paper on The transformation of health care, social democracy and the *African National Congress* at the Seventeenth International Conference, *Socialism for the Twenty-first Century*, which was held at the University of Havana 18 - 21 November 2014. He used the opportunity of being in Havana to meet with academics working in the social sciences at the University of Havana to discuss collaboration on research and teaching on themes related to inequality and cultures of social solidarity.

Significant Research Aligned Events

In addition to the international visits reported above, social policy research consisted mainly of the development of papers conceived within the following multi-year research projects:

- Developmental States, Social Policy and Social Compacts: Global Opportunities, National Actors and Effective Institutions (led by Professor Ben Fine of SOAS and Professor Trudie Knijn of the University of Utrecht);
- Understanding health reform and policy implementation in a democratic South Africa: the medical profession's response to the proposal for a universal system of health care (led by **Professor Rebecca Surender** of the ISER);
- Effecting Social Citizenship through Social Policy: Policies, Contestations and Practices (co-led by Professor Robert Van Niekerk of the ISER and **Professor Yusuf Sayed**,

ISER Research Associate and Director of the Centre for International Teacher Education at the Cape Peninsula University of Technology);

- The South African component of a study on Poverty and Inequality and the Politics of Social Policy in BRICS countries (co-convened by Professor Robert Van Niekerk of the ISER and Professors Steven Friedman and Peter Alexander);
- The Unresolved National Question in Left Thinking: Hidden Voices, Unpublished Works 1950s to 1990 (convened by **Professor Edward Webster**, Director of the Chris Hani Institute and ISER Visiting Professor).

In 2014, NALSU released an additional two fact sheets under the series entitled *The Eastern Cape Labour Market at a Glance: Quarterly Fact Sheets*. These fact sheets, which were produced by **Dr Michael Rogan** of NALSU, give brief and accessible updates on the Eastern Cape labour market, using Quarterly Labour Force Survey (QLFS) data.

NALSU also released the first in its series of annual Eastern Cape labour market reviews, entitled *Annual Eastern Cape Labour Market Review 2014*. This report was co-authored by **Drs Rogan and Reynolds** and was presented by them to the management team of the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) of the Eastern Cape Provincial Government in December 2014.

Other research aligned events included the following:

- Presentation on informal and vulnerable work in the Eastern Cape at Statistics South Africa's *Provincial ISlbalu User Group Symposium* in October 2014 (Dr Rogan);
- Presentation of a critical perspective on the national government's employment tax incentive scheme at a public event in Port Elizabeth jointly hosted by the Nelson Mandela Bay Business Chamber and the Eastern Cape Socio-Economic Consultative Council (ECSECC) in March 2014 (Dr Reynolds);
- Completion of the fieldwork component of a graduate tracer study funded by the Human Sciences Research Council as part of the national Labour Market Intelligence Partnership (Dr Rogan);
- Initiation of a data recovery project in partnership with DataFirst at the University of Cape Town (Dr Reynolds); and
- Diagnostic work and training to strengthen data capturing and analysis by the Department of Labour (Drs Reynolds and Rogan).

Professor Robert Van Niekerk

Director: ISER

PUBLICATIONS

Books/Chapters/Monographs

Møller, V.

Barrientos, A., **Møller, V.**, Saboia, J., Lloyd-Sherlock, P. & Mase, J. (2014). 'Growing' social protection in developing countries: Lessons from Brazil and South Africa. In: Patel, L., Midgley, J. and Ulriksen, M. (eds.). *Social Protection in Southern Africa: New opportunities for social development*. London: Taylor and Francis. pp. 54-69. ISBN: 978-0415727259.

Møller, V. (2014) Happiness, national pride and the 2010 World Cup. In: Sullivan, G.B. (ed.). *Understanding Collective Pride and Group Identity: New directions in emotion theory, research and practice*. New York and London: Routledge. pp.110-123. ISBN: 9780415628952.

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Rogan, M. and **Reynolds, J.**

Rogan, M. and **Reynolds, J.** (2014) Annual Eastern Cape Labour Market Review 2014. *NALSU Research Report 2*. Grahamstown: Neil Aggett Labour Studies Unit, Rhodes University.

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Van Niekerk, R.D.

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Adebanwi, W. (2014) The writer as social thinker. *Journal of Contemporary African Studies*. 32 (4). pp.405-420.

Møller, V.

Møller, V., Roberts, B. and **Zani, D.** (2014) The Personal Wellbeing Index in the South African IsiXhosa Translation: A Qualitative Focus Group Study. *Social Indicators Research*. DOI: 10.1007/s11205-014-0820-6. pp.1-28.

Rogan, M.J.

Posel, D. and **Rogan, M.J.** (2014) Measured as Poor versus Feeling Poor: Comparing Money-metric and Subjective Poverty Rates in South Africa. *Journal of Human Development and Capabilities: A Multi-Disciplinary Journal for People-Centered Development*. pp.1-19. DOI: 10.1080/19452829.2014.985198

Alfers, L. and **Rogan, M.** (2014) Health Risks and Informal Employment in South Africa: Does Formality Protect Health? *International Journal of Occupational and Environmental Health*. DOI: 10.1179/2049396714Y.0000000066.

Sayed, Y.

Rao, N., **Sayed, Y.** and Morris, P. (2014) Editorial: Knowledges, identities and aspirations: implications for learning. *Compare: A Journal of Comparative and International Education*. 44 (6). pp.849-851.

Badat, S. and **Sayed, Y.** (2014) Post-1994 South African Education: The Challenge of Social Justice. *Annals of the American Academy of Political and Social Science*. 652 (2014). pp.127-148.

Surender, R.M., **Van Niekerk, R.D.** and **Hannah, B.C.**

Surender, R.M., **Van Niekerk, R.D.**, **Hannah, B.C.**, Allan, L. and Shung-King, M. (2014) The drive for universal healthcare in South Africa: views from private general practitioners. *Health Policy and Planning*. pp.1-9. DOI:10.1093/heapol/czu053

Van Niekerk, R.D.

Honda, A., Ryan, M., **Van Niekerk, R.D.** and **McIntyre, D.** (2014) Improving the public health sector in South Africa: eliciting public preferences using a discrete choice experiment. *Health Policy and Planning*. pp.1-12. DOI: 10.1093/heapol/czu038

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Wright, G.

Altman, M., Mokomane, Z. and **Wright, G.** (2014) Social security for young people amidst high poverty and unemployment: Some policy options for South Africa. *Development Southern Africa*. 31 (2). pp.347-362.

INSTITUTE FOR WATER RESEARCH (IWR)

INTRODUCTION

The focus of the IWR activities are on fundamental research, Postgraduate student training and the application of science through short-term consultancy projects related to many different aspects of water resources development. The IWR continues to strengthen in the focus area of trans-disciplinarity in water sciences under the leadership of **Professor Tally Palmer** (Director of the Unilever Centre for Environmental Water Quality - UCEWQ).

Postgraduates/Graduations

2014 saw the start of the third phase (2014 to 2016) of the Carnegie Foundation of New York funded SSAWRN (Sub-Saharan Africa Water Resources Network) as part of the RISE (Regional Initiative in Science Education) programme. This funding allowed a further three (3) PhD students to join the Institute, while three (3) of the RISE students from previous phases graduated during 2014 and a further two (2) submitted their theses and were expected to graduate in 2015.

Distinguished Visitors/International Visits

Professor Jill Slinger accepted a three-year appointment as Visiting Professor at IWR. Her substantive appointment is at the Delft University of Technology, in the Netherlands where she works across the Faculty of Technology, Policy and Management, and the Faculty of Civil Engineering and Technical Geosciences at Delft University of Technology (TU Delft), Netherlands.



Visiting Professor Jill Slinger, Professor Denis Hughes, Professor Chris de Wet and Professor Tally Palmer

Professor Tally Palmer was hosted by the Institute for Sustainable Futures, University of Technology, Sydney, where she presented seminars and participated in transdisciplinary Postgraduate research training.

Professor Denis Hughes attended a conference in Dublin, Ireland, and presented a paper on hydrological research in Africa that was published in the proceedings. Later in the year he attended a conference in Dar es Salaam, Tanzania, that represented the end of a collaborative project on the Great Ruaha River basin between a Danish research group, the University of Dar es Salaam and several South African universities. The IWR involvement was through the supervision of one PhD student, who was close to completion at the end of 2014. He also attended a workshop on groundwater and ecological services in Sri Lanka that was hosted by the International Water Management Institute (IWMI).

Significant Research Aligned Events

Dr Nelson Odume was awarded the inaugural "Emerging River Scientist" award at the biennial International River's Symposium, Canberra, Australia.

The WRC hosted a National Water Dialogue, in November 2014 on "Integrated Water Resource Management in South Africa: Towards a New Paradigm", which showcased UCEWQ-IWR research lead by Professor Tally Palmer, while the Rhodes University Transdisciplinary Research Group continued to meet monthly throughout the year, offering researchers and Postgraduate students a forum to address the challenges of engaged transdisciplinary action research.

Professor Denis Hughes

Director: IWR



PhD student Emmanuel Vellemu taking samples at Palmiet River

PUBLICATIONS

Books/Chapters/Monographs

Mensah, P.K., Palmer, C.G. and Muller, W.J.

Mensah, P.K., Palmer, C.G. and Muller, W.J. (2014) Lethal and Sublethal Effects of Pesticides on Aquatic Organisms: The Case of a Freshwater Shrimp Exposure to Roundup(r). In: Larramendy, M.L. and Soloneski, S. (eds.). *Pesticides - Toxic Aspects*. Croatia: InTech. p.163-185. ISBN: 9789535112174.

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McIntyre, N., Ballard, C., Bruen, M., Bulygina, N., Buytaert, W., Cluckie, I., Dunn, S., Ehret, U., Ewen, J., **Hughes, D.A.**, et al. (2014) Modelling the hydrological impacts of rural land use change. *Hydrology Research*. 45 (6). p.737-738.

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large rivers: The Congo River. *Water Resources Research*. 50 (2014). p.1174-1188.

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Hughes, D.A., Gush, M., Tanner, J. and Dye, P. (2014) Using targeted short-term field investigations to calibrate and evaluate the structure of a hydrological model. *Hydrological Processes*. 28 (2014). p.2794-2809.

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Hughes, D.A., Tshimanga, R.M., Tirivarombo, S. and Tanner, J. (2014) Simulating wetland impacts on stream flow in southern Africa using a monthly hydrological model. *Hydrological Processes*. 28 (2014). p.1775-1786.

Odume, O.N., Palmer, C.G. and Mensah, P.K.

Odume, O.N., Palmer, C.G., Arimoro, F.O. and Mensah, P.K. (2014) Patterns of chironomid body-size distribution in an effluent-impacted river in the Eastern Cape, South Africa. *African Journal of Aquatic Science*. 39 (4). p.377-386.

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Hughes, D.A.

Hughes, D.A. Hydrological Research in the Developing World - Constraints on Contributions from Africa. *Dooge Nash International Symposium 2014: Grand Challenges Facing Hydrology in the 21st Century*. College of Dublin, Dublin. Ireland. April 2014.

Slaughter, A.R., Mantel, S.K. and Hughes, D.A.

Slaughter, A.R., Mantel, S.K. and Hughes, D.A. Investigating possible climate change and development effects on water quality within an arid catchment in South Africa: a comparison of two models. *Proceedings of the 7th International Congress on Environmental Modelling and Software (iEMSs)*. San Diego. USA. June 2014.

Research Papers Presented at Academic/Scientific Conferences (Non-peer reviewed Proceedings)

Bryson, L.K. and Hughes, D.A.

Bryson, L.K., Hughes, D.A. and Rowntree, K. An erosion and sediment delivery model for semi-arid catchments. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.

Chadzingwa, K.L.

Chadzingwa, K.L. and Cundill, G. Access to land, water and ecosystem services: Identifying sources of innovation for social-ecological transformation in South Africa. *Resilience 2014: third international science and policy conference*. Le Corum, Montpellier. France. May 2014.

Clifford-Holmes, J.K., Slinger, J.H. and Palmer, C.G.

Clifford-Holmes, J.K., Slinger, J.H. and Palmer, C.G. Using System Dynamics to Explore the Water Supply and Demand Dilemmas of a Small South African Municipality. *32nd International Conference of the System Dynamics Society*. Delft. Netherlands. July 2014.

Griffin, N.J.

Vetter, S., Konje, M.M. and Griffin, N.J. The effects of rainfall, soil nutrients, landform and grazing on composition, richness and primary productivity of annual plants in the Richtersveld National Park. *Arid Zone Ecology - Thicket Fusion*. Rhodes University, Grahamstown. South Africa. September 2014.

Mensah, P.K.

Mensah, P.K. Salinisation research in South Africa: historic and current trends. *First meeting of Society of Environmental Toxicology and Chemistry (SETAC) Advisory Group on Freshwater Salinisation*. Witzenhausen. Germany. March 2014.

Odume, O.N. and Palmer, C.G.

Odume, O.N. and Palmer, C.G. Water quality management in South African Rivers - an integrated approach. *17th International River Symposium*. Canberra. Australia. September 2014.

Odume, O.N. and Palmer, C.G. An integrated, participatory and stakeholder engagement process to managing water quality in a large South African River. *17th International River Symposium*. Canberra. Australia. September 2014.

Odume, O.N., Palmer, C.G., Arimoro, F. and Mensah, P.K.

Odume, O.N., Palmer, C.G., Arimoro, F. and Mensah, P.K. Macroinvertebrates-based biomonitoring in an effluent impacted river - a comparison of approaches. *17th International River Symposium*. Canberra. Australia. September 2014.

Palmer, C.G. and Sahula, A.

Gordon, A., Niedballa, J., Palmer, C.G. and Sahula, A. Sediment as a physical water quality stressor on South African macroinvertebrates: a contribution to the development of a water quality guideline for suspended solids. *IASWS 2014 Symposium*. Rhodes University, Grahamstown. South Africa. July 2014.

Palmer, C.G., Griffin, N.J., Retief, D.C.H., Slaughter, A.R. and Mensah, P.K.

Palmer, C.G., Griffin, N.J., Retief, D.C.H., Slaughter, A.R. and Mensah, P.K. Transdisciplinary research on a guideline-

based, integrated water quality management process, towards improving the social-ecological health of the Crocodile River. *SETAC Asia-Pacific*. Adelaide. Australia. September 2014.

Rugai, D.S., Hughes, D.A. and Mantel, S.K.

Rugai, D.S., Hughes, D.A. and Mantel, S.K. Uncertainty analysis in coupled hydrological and hydrodynamic modelling for flood hazard assessment. *Climate+Water+Adaptation: Bringing Research into Practice Conference*. Dar Es Salaam. Tanzania. September 2014.

Tanner, J. and Hughes, D.A.

Tanner, J. and Hughes, D.A. Identifying and reducing uncertainty in surface and groundwater interaction modelling in data scarce countries. *41st International Association of Hydrogeologists International Congress*. Marrakech. Morocco. September 2014.

Palmer, C.G.

Palmer C.G. (2014) Integrated Water Resource Management: Implementing the National Water Act. *Session Keynote, WISA Biennial National Water Conference*. Mbombela, May 2014.

Palmer, C.G., Slaughter, A. and Mensah, P.

Palmer, C.G., Munnik, V., du Toit, D., Griffin, N., Retief, H., Slaughter, A., and Mensah, P. (2014) Transdisciplinary research on a guideline-based, integrated water quality management process, towards improving the social-ecological health of the Crocodile River. Mpumalanga, South Africa.

Palmer, C.G. and Mantel, S., and Knowles, C.

Palmer C.G., Mantel S., and Knowles, C. (2014). Gendered perspectives on water resource management, service delivery, governance and indigenous knowledge. *Conference: Water Gender and Development*. East London November 2014.

Palmer, C.G. and Clifford-Holmes, J.

Palmer, C.G., Slinger, J.H., Lotz Sisitka, H., Rogers, K.H., de Wet, C., Hamer, N., Pollard, S., du Toit, D., and Clifford-Holmes J. (2014) Transformative water research practice - a response to the multiple stressors of global change. *National Research foundation Global Change conference*. Port Elizabeth, December 2014.

Clifford-Holmes, J., Slinger, J. and Palmer, C.G. (2014)

Engaging the challenges of municipal water service delivery using system dynamics. *2nd Annual Eskom System Dynamics Conference*. 12 November 2014, Johannesburg, South Africa. ISBN 9780620642828.

PUBLIC SERVICE ACCOUNTABILITY MONITOR (PSAM)



An affiliated Institute of the
School of Journalism and Media Studies

INTRODUCTION

During the course of 2014 the PSAM staff engaged in various research and capacity building initiatives that seek to give effect to its strategic plan. The most significant of these are detailed below.

Distinguished Visitors/International Visits

From 16 to 21 March 2014, **Yeukai Mukorombindo** attended the Open Budget Survey (OBS) workshop in Washington, DC. The OBS seeks to promote public access to budget information and the adoption of accountable budget systems. The PSAM will be the lead research participant in the 2015 OBS of South Africa.

PSAM health researcher, **Thokozile Mtsolongo**, participated in the International Conference on Monitoring of SRH and HIV AIDS Service Provision which was held in Maputo, Mozambique from 1-3 April 2014. Thokozile shared some of the experiences and lessons emanating from her research and was also able gain insights and perspectives from other researchers and practitioners working in varied contexts.

Between April and June 2014 **Mr Abongile Sipondo** travelled to Tanzania, Zambia, and Mozambique to gather research data to inform a cross-context case study on the opportunities and challenges of applying social accountability monitoring in varied contexts.



Attendees at the 'Strengthening Civil Society Initiatives with an Emphasis on Organisational Learning' conference organized by PSAM

The PSAM offered a localized social accountability course in Harare, Zimbabwe, during August 2014, which involved members of civil society and government officials within the Ministry of Finance, the Ministry of Health, and the Office of Parliament both as resource persons and as participants throughout the course.

Abongile Sipondo was invited to attend a learning event organized by World Vision Southern Africa in Blantyre, Malawi. This was an opportunity to see what challenges are being faced with the application of social accountability work in Malawi and also where opportunities have enabled such work to prosper. Abongile also participated in the development of World Vision's theory of change for the Citizens' Voice and Action (CVA), which is their social accountability programme.

Abongile Sipondo was the main speaker at a Policy Forum debate on 27 June 2014 in Dar es Salaam. He spoke on challenges facing social accountability work in Tanzania, informed by the preliminary results emanating from a comparative study which is described in more detail below. The discussant was the chairperson of the Finance Committee. The debate was aired by local media, and an article on the debate was published in the Citizen newspaper of Tanzania.

The PSAM organized a conference entitled 'Strengthening Civil Society Initiatives with an Emphasis on Organisational Learning' which was held between 17-19 September 2014 in Grahamstown. A diverse and experienced array of distinguished speakers participated, with the following countries represented: Malawi, Kenya, Zimbabwe, Mozambique, Zambia, United Kingdom, Tanzania and the USA.

At the October 2014 Rhodes University accredited Fundamentals Course presented by PSAM, participants included two members of the Malawian Parliament, namely the new chairperson of the Budget Committee and the chairperson of the Public Accounts Committee.

Mr Abongile Sipondo produced a paper entitled 'Social Accountability and Access to Information: Lessons from South Africa and Zimbabwe' which he delivered at the 2014 International Conference on Governance (ICG2014) hosted by the University of Utara in Malaysia on 29 and 30 November 2014.

During November, **Gertrude Mugizi**, PSAM's head of regional learning, and **Dr Fabio Diaz** met with staff of Concern Universal and MB Consulting in Maputo to discuss a collaborative framework for 2015 in order to further promote social accountability in Mozambique.

Significant Research Aligned Events

During 2014 **Nicholas Scarr** undertook a budget analysis of the Environmental Affairs Directorate. The research output was disseminated to the provincial government, Eastern Cape Legislature, and civil society partners with an interest in environmental governance. **Thokozile Mtsolongo** prepared a budget analysis report on the 2014/15 allocations made

to the Eastern Cape Health Department which was also disseminated to duty bearers and interested members of civil society. Ms Mtsolongo also considered the adequacy of strategic plans prepared by the same department during 2014. **Yeukai Mukorombindo** interrogated the 2014 budgets, plans and expenditure trends of the Eastern Cape Human Settlements Department. **Thabani Mdlongwa** investigated the 2014/15 budget allocated to the Makana Local Municipality, and his research was presented to duty bearers and civil society in order to inform improved levels of governance and accountability.

Mr Jay Kruuse

Director: PSAM

PUBLICATIONS

Books/Chapters/Monographs

Matatu, S. and Miti, L.M.

Matatu, S. and Miti, L.M. (2014) Role of Legislation for Social Accountability: A Comparison of South Africa and Zambia. In: Mudacumura, G.M. and Morcol, G. (eds.). *Challenges to Democratic Governance in Developing Countries*. New York: Springer. p.57-71. ISBN: 9783319031422.

RHODES UNIVERSITY MATHEMATICS EDUCATION PROJECT (RUMEP)

INTRODUCTION

Rhodes University Mathematics Education Project (RUMEP) is the only professional development unit in the Eastern Cape which continues to grow in numbers as far as registered students is concerned. In 2014 it worked with more than a hundred in-service teachers who spend their school vacations upgrading their mathematical content and pedagogical knowledge in Mathematics.

Mr Thomas Haywood, as part of his Masters degree in Mathematics Education, visited the University of Applied Sciences North Western Switzerland (FHNW) from the 8-23 June 2014. His research is linked to a joint funded project called VITAL Mathematics. VITALmaths is a multilingual collaborative research and development project between the above mentioned university and the FRF Mathematics Education Chair at Rhodes. During his stay in Biel he was able to visit schools in the district and learn about the schooling system in Switzerland.

Another grant was awarded in December 2014 by the Sishen Iron Ore Company Community Development Trust (SIOC) to undertake another teacher education development project in the Northern Cape, in partnership with the Institute for the Study of English in Africa (ISEA) and the Centre for Social Development (CSD). This project will commence in February 2015 and will target Intermediate and Senior Phase teachers in the rural areas of Gamagara, Kuruman and Postmasburg.



Ms Delarie Kara-Addison, a BEd (in-service) student's conducting a mathematics workshop on 3 dimensional objects for a group of Grahamstown teachers
Photo: Percy Brooks

Although RUMEP is not a research unit, staff members presented a number of papers at conferences during the year.

Mr Clemence Chikiwa presented two papers on teacher code switching in Mathematics during September and October 2014 at the African Academic Research Forum (AARF) in Pretoria and the ISTE, 2014 International Conference in Phalaborwa.

Messrs Tom Penlington, Thomas Haywood and Clemence Chikiwa attended and presented short papers at the *South African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)* in Port Elizabeth in January 2014. **Mr Tom Penlington** also published an article in 'Learning and Teaching Mathematics: A Journal of AMESA'.

Ms Fezeka Nobongoza-Mkhwane and other staff members were invited to present a workshop at the National Mathematics and Science Week in Port Elizabeth in August, while **Mr Sego Matlala** presented a research paper at the AMESA 20th National Congress in Kimberley in July 2014.

Mr Tom Penlington

Director: RUMEP

PUBLICATIONS

Concerts, Exhibitions, Performances, Workshops, Events

Haywood, T., Chikiwa, C. and Nobongoza-Mkhwane, F.F.
Haywood, T., Chikiwa, C. and Nobongoza-Mkhwane, F.F.
Playing with Pentominoes. *National Mathematics and Science Week*. Teachers Centre, Port Elizabeth. South Africa. 7 August 2014.

Haywood, T.

Haywood, T. Presentation. Senior Phase Mathematics. *How I Teach*. Department of Education office, Port Elizabeth. South Africa. April 2014.

Penlington, T.H.

Penlington, T.H. Presentation. Senior Phase Mathematics Games Workshop. *National Mathematics & Science Week*. Department of Education office, Port Elizabeth. South Africa. 5 August 2014.

Penlington, T.H. Presentation. *The importance of Mental Mathematics*. Department of Education, Queenstown, August 2014.

Distinguished Visitors

Matlala, R. and Monyokolo, M.

Matlala, R. and Monyokolo, M. SIOC Community Development Trust, Doringkloof, South Africa. *Financial and Collaboration meeting*. April 2014.

Peer Reviewed Non-Subsidy Earning Journal Publications

Penlington, T.H.

Penlington, T.H. Developing basic multiplication skills for understanding. *Learning and Teaching Mathematics*. 16(1). A Journal of AMESA, June 2014.

Research Papers Presented at Academic Conferences (Proceedings, Booklets, Attendance)

Chikiwa, C. and Schäfer, M.

Chikiwa, C. and Schäfer, M. Investigating teacher code switching consistency and precision in a multilingual Mathematics classroom. *Rethinking Teaching and Learning in the 21st Century. African Academic Research Forum (AARF). South Africa International Conference on Education (SAICE) Proceedings*. Manhattan Hotel, Pretoria. South Africa. September 2014.

Chikiwa, C. and Schäfer, M. Teacher Code Switching: A Call for Development of Mathematics Register in Indigenous Languages. *ISTE International Conference Mathematics, Science and Technology Education Proceedings: Towards Effective Teaching and Meaningful Learning in Mathematics, Science and Technology Education*. Kruger National Park, Mopani Camp, Phalaborwa. South Africa. October 2014.

Chikiwa, C. and Schäfer, M. Analytical tools for exploring code switching in multilingual mathematics classrooms. *22nd Annual Conference of SAARMSTE: New Avenues to transform*

Mathematics, Science and Technology Education in Africa. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Haywood, T. and Schäfer, M.

Haywood, T. and Schäfer, M. An exploration of learners' learning of Mathematics by using selected (VITAL mathematics) video clips. *New Avenues to transform Mathematics, Science and Technology Education in Africa: 22nd Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

Matlala, S.J.

Matlala, S. J. The perceptions of teachers concerning the teaching of problem solving. *Demystifying mathematics: 20th Annual National Congress of the Association for Mathematics Education of South Africa*. Diamantveld High School, Kimberley. South Africa. July 2014.

Penlington, T.H.

Penlington, T.H. Narrative journeys of mathematics teachers. *New avenues to transform Mathematics, Science and Technology Education in Africa: 22nd Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. January 2014.

INTRODUCTION

The past year was one of consolidating the considerable advances made in the previous year, and SAIAB scientists, students, Postdoctoral Fellows and Honorary Research Associates are to be congratulated on their continued high levels of productivity.

Altogether six (6) BSc Honours, twenty-one (21) MSc and twenty-three (23) PhD projects were undertaken or completed in 2014, a fine achievement by a staff of only nine full-time scientists. In addition, a record number of twenty-eight (28) students received their Postgraduate degrees (for work completed in 2013) during graduation ceremonies in 2014. Out of a total of twenty-seven (27) projects/programmes conducted in 2014, fifteen (15) were linked primarily to the Molecular Biology and Systematics focus and twelve (12) dealt mainly with Conservation Biology and Ecology issues.

In the quest to understand the movement patterns and behavioural ecology of estuarine-associated fishes, **Dr Paul Cowley's** team spent many days in the field catching and acoustically tagging fish. The ongoing work on dusky kob, leervis, white steenbras and spotted grunter, funded by the South African/Norway Research Collaboration Agreement, has yielded some interesting data that will assist with the management of these over-exploited fishery species. A new telemetry study was also initiated on the movement behaviour of Cape stumpnose in the Kowie Estuary. In addition, a new study funded by the Save Our Seas



Postdoctoral Fellow Dr Ryan Wasserman and PhD student Mandla Magoro seine net sampling for estuarine pipefish in eelgrass beds of the Kariega Estuary
Photo: Alan Whitfield

Foundation on threatened stingray species at St Joseph Atoll (Seychelles) was initiated.

Professor Alan Whitfield continued his research collaboration with local and international estuarine scientists, with several important papers and an online review chapter on fishes as indicators of estuarine health appearing during the year. A notable achievement was the publication of a WRC report on the Proceedings of the St Lucia Natural Sciences Workshop entitled *Change, Connectivity and Conservation in a Major Wetland System*. This report is structured around seven major themes and documents the scientific research that is needed if we are to manage this World Heritage Site in a wise manner for future generations.

Dr Francesca Porri, together with students and collaborators, has focused on several research areas. The NRF/ACEP funded project on the biophysical links of dispersal of benthic invertebrate larvae in coastal waters was also expanded to include a study on coastal fronts. The collection of data for the front study has been completed and samples are currently under examination. MSc degrees associated with the programme are also almost finalised.

Dr Paula Patrick's investigation of larval fish and invertebrate assemblages associated with frontal slicks in the shallow coastal nearshore area of the Eastern Cape has been successfully completed. This Algoa Bay project, led by Dr Porri, forms part of the African Coelacanth Ecosystem Programme (ACEP). A new bongo net with a specialized closing mechanism to allow for discrete sampling within the water column was manufactured and has been added to the equipment assets for the SAIAB marine platform for inshore coastal research.

The research effort of two (2) PhD students saw the light of the day when **Dr Tshoanelo Miya** published a paper demonstrating that habitat temperature does affect the level of activity of the antifreeze glycoproteins in Southern Ocean *nototheniid* species, and **Dr Pholoshi Maake** described two new *mormyrid* species from South Africa and another from Mozambique. **Ofer Gon** added two more new species descriptions arising from invited research on fishes in the New Zealand Exclusive Economic Zone.

A noteworthy success for **Dr Gavin Gouws** was the funding by the NRF Competitive Programme for Rated Researchers of a large, multi-institutional, multi-disciplinary, three-year study on the dispersal and connectivity of freshwater crabs. The programme, involving researchers from SAIAB, Rhodes and University of Pretoria, and collaborations with NMMU, will examine fine-scale patterns of genetic connectivity at phylogeographic and catchment scales and investigate its implications for diversity, biogeography, physiology and ecology, as well as human health. Initial field work and genetic marker development for this project was undertaken and two students were recruited to commence MSc studies in 2015. Dr Gouws was also invited to present a seminar and participate in a Workshop on the Biogeography of the Red Sea and Western Indian Ocean, attended by leaders in the fields of marine biogeography and phylogeography, at the King Abdullah University for Science and Technology in Saudi Arabia.

Recent studies have revealed an urgent need for taxonomic revision of almost all South African freshwater fishes and amphibians to get a better understanding and more accurate documentation of the country's biodiversity. Type specimens form the basis of any taxonomic investigation but most types are very old. Many are no longer in good condition and DNA cannot be extracted from these specimens. In 2014, SAIAB launched a collaborative research project, under the leadership of **Dr Albert Chakona**, to undertake comprehensive surveys to collect fresh voucher specimens and DNA tissue. Samples from all type localities of all species (both valid and synonyms) of freshwater fishes and frogs are being collected across South Africa for DNA Barcoding, a novel approach that facilitates a rapid inventory of the country's biodiversity.

This project forms an important basis for ongoing and future taxonomic work on southern African species by facilitating easy access to DNA sequences and vouchers of topotypic material. Some of the major outputs of the project thus far include the collection of topotypic material from all type localities of freshwater fishes described from the Western Cape Province and the publication of the description of a new redfin species, *Pseudobarbus verlorenei*, from the Verlorenvlei River system.

Research in **Dr Olaf Weyl's** group continues to be focused on obtaining a better understanding of the impacts of alien fishes on aquatic ecosystems. During 2014 his group published a review on the current knowledge, risk and ecological impacts associated with non-native freshwater fish introductions in South Africa, which included an evaluation of the invasion status of twenty-seven (27) alien and twenty-eight (28) extralimital introductions. The analysis demonstrated that while there was a general paucity of published literature on the introductions, establishment, spread and impact of non-native fishes, documented impacts of invasions spanned multiple levels of biological organisation.

Ecological research remains a strong focus of Dr Weyl's group and in 2014 they published papers on the impacts of alien largemouth bass invasions in headwater streams, an assessment of the parasite invasion risks associated with the global trade in eels, and contributed to assessing the use of functional responses to evaluate invasiveness. The group continues to use the Rondegat River as a case study of recovery after the removal of alien fishes and a full description of impacts and early recovery of fish and invertebrates after the treatment of the river using the piscicide rotenone was published. They also addressed the human dimensions in a paper on managing conflicts arising from fisheries enhancements based on non-native fishes in southern Africa. This paper focuses on important inland fisheries in the region that are based on non-native species and discusses the trade-off between ecological impacts of fish introductions and the need to address national policy objectives of economic development, food security and poverty eradication.

In conclusion, the productivity of SAIAB research staff, students and Honorary Research Associates continued at a moderate level during 2014, with forty-five (45) refereed scientific papers published. A total of sixty-five (65) conference and symposium papers were delivered at a wide variety of national and international venues, as well as fifteen (15) seminar and workshop presentations.

A number of contract and consultancy projects were also undertaken by our research staff. Some of our projects received international funding. In addition to the above more formal activities, our scientists continue their efforts to communicate information about their research for use by managers, scholars and the wider public. This is evidenced by the twenty-one (21) public presentations delivered and twenty (20) research related popular articles produced by SAIAB staff during 2014.

Professor Alan Whitfield

Chief Scientist: SAIAB

PUBLICATIONS

Books/Chapters/Monographs

Cowley, P. and Paterson, A.
Bornman, T., Atkinson, L., **Bernard, A., Cowley, P.,** Deyzel, S., Goschen, W., **Gotz, A.E.,** Hermes, J., Hugo, W., **Paterson, A. and Von Der Meden, C.** (2014) Long-term Marine Research Platforms of the National Research Foundation. In: Funke, N., Claasen, M., Meissner, R. and Nortje, K. (eds.). *Reflections on the State of Research and Technology in South Africa's Marine and Maritime Sectors*. South Africa: The Council for Scientific and Industrial Research (CSIR). p.66-99. ISBN: 9780798856171.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bills, R.

Peart, C.R., **Bills, R.,** Wilkinson, M. and Day, J.J. (2014) Nocturnal claroteine catfishes reveal dual colonisation but a single radiation in Lake Tanganyika. *Molecular Phylogenetics and Evolution*. 73 (2014). p.119-128.

Chakona, A., Swartz, E.R. and Skelton, P.H.

Chakona, A., Swartz, E.R. and Skelton, P.H. (2014) A new species of redbfin (Teleostei, Cyprinidae, *Pseudobarbus*) from the Verlorenvlei River system, South Africa. *ZooKeys*. 453 (2014). p.121-137.

Coetzer, W.

Coetzer, W., Moodley, D. and Gerbers, M. (2014) A knowledge-based system for discovering ecological interactions in biodiversity data-stores of heterogeneous specimen-records: A case-study of flower-visiting ecology. *Ecological Informatics*. 24 (2014). p.47-59.

Conradie, W.

Conradie, W. (2014) The King of the Dwarves: a new cryptic species of Dainty Frog (Anura: Pyxicephalidae: *Cacosternum*) from the eastern Great Escarpment of South Africa. *Zootaxa*. 3785 (3). p.438-452.

Cowley, P.

Daly, R., Smale, M.J., **Cowley, P. and Froneman, P.W.** (2014) Residency Patterns and Migration Dynamics of Adult Bull Sharks (*Carcharhinus leucas*) on the East Coast of Southern Africa. *PLoS One*. 9 (10). p.1-11.

Ellender, B.R., Woodford, D.J. and Weyl, O.

Ellender, B.R., Woodford, D.J., Weyl, O. and Cowx, I.G. (2014) Managing conflicts arising from fisheries enhancements based on non-native fishes in southern Africa. *Journal of Fish Biology*. 85 (2014). p.1890-1906.

Filmlalter, J.D.

Poisson, F., **Filmlalter, J.D.,** Vernet, A.L. and Dagorn, L. (2014) Mortality rate of silky sharks (*Carcharhinus falciformis*) caught in the tropical tuna purse seine fishery in the Indian Ocean. *Canadian Journal of Fisheries and Aquatic Sciences*. 71 (2014). p.795-798.

Gon, O.

Gon, O. and Stewart, A.L. (2014) Description of a new species of Microstoma (Pisces, Microstomatidae) from the southwestern Pacific Ocean. *Zootaxa*. 3884 (1). p.55-64.

Gon, O. and Stewart, A.L. (2014) A new species of the genus *Bathylagichthys* (Pisces, Bathylagidae) from New Zealand. *Zootaxa*. 3884 (4). p.371-378.

Alpermann, T.J., Plieske, J., Mal, A.O., **Gon, O. and Berumen, M.L.** (2014) Isolation and characterization of polymorphic microsatellite loci for *Siphamia tubifer* Weber (Perciformes: Apogonidae). *Conservation Genetics Resources*. 6 (2014). p.1031-1034.

Gon, O. and Gouws, G.

Gon, O., Allen, G.R., Erdmann, M.V. and Gouws, G. (2014) A new species of the cardinalfish genus *Siphamia* (Perciformes, Apogonidae) from West Papua, Indonesia. *Zootaxa*. 3881 (4). p.328-340.

Gon, O. and Mwale, M.

Miya, T., **Gon, O., Mwale, M. and Cheng, C.H.** (2014) The effect of habitat temperature on serum antifreeze glycoprotein (AFGP) activity in *Notothenia rossii* (Pisces: Nototheniidae) in the Southern Ocean. *Polar Biology*. 37 (2014). p.367-373.

Gon, O. and Swartz, E.R.

Maake, P., Gon, O. and Swartz, E.R. (2014) Descriptions of three new species of *Marcusenius* Gill, 1862 (Teleostei: Mormyridae) from South Africa and Mozambique. *Zootaxa*. 3780 (3). p.455-480.

Gouws, G., Mwale, M. and Cowley, P.

Murray, T.S., Gouws, G., Mwale, M., Mann, B.Q. and Cowley, P. (2014) Unravelling population structure of black musselcracker *Cymatoceps nasutus*: evidence for multiple populations in South African coastal waters. *African Journal of Marine Science*. 36 (4). p.493-503.

Heemstra, P.C.

Ho, H.C., **Heemstra, P.C. and Imamura, H.** (2014) A new species of the sandperch genus *Parapercis* from the western Indian Ocean (Perciformes: Pinguipedidae). *Zootaxa*. 3802 (3). p.335-345.

Mwale, M., Kaiser, H. and Heemstra, P.C. (2014)

Reproductive biology and distribution of *Syngnathus temminckii* and *S. watermayeri* (Pisces: Syngnathidae) in southern Africa. *African Journal of Marine Science*. 36 (2). p.175-184.

Jordaan, M.S. and Weyl, O.

Slabbert, E., **Jordaan, M.S. and Weyl, O.** (2014) Analysis of active rotenone concentration during treatment of the Rondegat River, Cape Floristic Region, South Africa. *African Journal of Aquatic Science*. 39 (4). p.467-472.

Lamberth, S.J.

Mirimin, L., Kerwath, S.E., Macey, B.M., Bester-van der Merwe, A.E., **Lamberth, S.J.,** Bloomer, P. and Roodt-Wilding, R. (2014) Identification of naturally occurring hybrids between

two overexploited sciaenid species along the South Africa coast. *Molecular Phylogenetics and Evolution*. 76 (2014). p.30-33.

Paterson, A.

Chalmers, R., Oosthuizen, A., Götz, A., Paterson, A. and Sauer, W.H.H. (2014) Assessing the suitability of commercial fisheries data for local-scale marine spatial planning in South Africa. *African Journal of Marine Science*. 36 (4). p.467-480.

Plon, S.

Lane, E.P., De Wet, M., Thompson, P., Siebert, U., Wohlsein, P. and **Plon, S.** (2014) A Systematic Health Assessment of Indian Ocean Bottlenose (*Tursiops aduncus*) and Indo-Pacific Humpback (*Sousa plumbea*) Dolphins Incidentally Caught in Shark Nets off the KwaZulu-Natal Coast, South Africa. *PLoS One*. 9 (9). p.1-13.

Moura, A.E., Janse van Rensburg, C., Pilot, M., Tehrani, A., Best, P.B., Thornton, M., **Plon, S.**, Nico de Bruyn, P.J., Worley, K.C., Gibbs, R.A., Dahlheim, M.E. and Hoelzel, A.R. (2014) Killer Whale Nuclear Genome and mtDNA Reveal Widespread Population Bottleneck during the Last Glacial Maximum. *Molecular Biology and Evolution*. 31 (5). p.1121-1131.

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Postdoctoral fellow Alistair Becker setting up the DIDSON sonar equipment to record fish movements in the mouth region of the Birha Estuary | Photo: Alan Whitfield

The Acoustic Tracking Array Platform (ATAP) at SAIAB comprises an expanded network of automated data-logging acoustic receivers that are moored to the ocean's floor around the South African coastline. This photo shows an acoustic receiver and an acoustic release (attached to 2 floats) floating on the surface | Photo: Ryan Daly



UNIT FOR THE HUMANITIES AT RHODES UNIVERSITY (UHURU)

INTRODUCTION

UHURU is an exciting new initiative at Rhodes University which was set up in 2014 as a research unit in the humanities which would engage in innovative research primarily concerned with the core issue of the humanities, namely the idea of human emancipation, while simultaneously providing the basis for an epistemic shift in the critical humanities through showcasing and debating scholarship from the African continent and the Global South more broadly.

A Director, Professor Michael Neocosmos, was appointed and in the second half of 2014 was joined by an Administrator (Ms Zoleka Makabe) and a Senior Research Fellow (Dr Richard Pithouse). Solid foundations were laid through the provision of scholarships to a number of Postgraduate students to begin in 2015. A number of seminars were conducted and one successful colloquium was held:

1. Faculty of Humanities: book launch and debate on *Marxism in the post-Mandela era* with Vishwas Satgar and Mazibuko Jara
2. Book discussion: *The Fall of the ANC* by Prince Mashele and Mzukisi Qobo
3. Professor Boaventura de Sousa-Santos, University of Coimbra, *Epistemologies of the South*
4. Dr Raj Patel, University of Texas, Austin - *The Long Green Revolution*
5. *The Marikana Moment and the Post-apartheid state: migrant-worker subjectivity and state violence*, a one-day

colloquium with Ms Sarah Bruchhausen (Rhodes), Dr Judith Hayem (Université de Lille1), Ms Camalita Naicker (Rhodes), Professor Michael Neocosmos (Rhodes), Professor Suren Pillay (UWC), Dr Paul Stewart (Wits).

6. Professor Premesh Lalu, Director CHR, UWC: *The Humanities after apartheid* followed by a Master class on *Empire and Nation*.
7. Professor Achille Mbembe (WISER, Wits) public lecture: *Non-racialism and the New native Question in South Africa* followed by a master class on *Reading Fanon in the 21st century*
8. Professor Gillian Hart (University of California Berkeley) - *Political Society and Its discontents: South African Reflections on Indian debates and Rethinking the South African Crisis*
9. Professor Lewis Gordon, a Master Class on Frantz Fanon
10. Professor Sharad Chari - Remains of revolution in Durban
11. Professor Aziz Choudry - *Unfree labour in an Era of neoliberal immigration: migrant and immigrant worker organization in Canada*

The foundations were laid for a full programme of research to begin in 2015. Collaborative research was initiated with a number of academic institutions in the region, the country and abroad.

Professor Michael Neocosmos

Director: UHURU

PUBLICATIONS

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Neocosmos, M.J.

Neocosmos, M.J. (2014) What Does Democracy Name in South African Politics? *Grace and Truth* 31(1) p.57-71.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bruchhausen, S.

Bruchhausen, S. (2014) Understanding Marikana Through The Mpondo Revolts. *Journal of Asian and African studies*. p.1-15.

Neocosmos, M.J.

Neocosmos, M.J. (2014) Thinking Political Emancipation and the Social Sciences in Africa: Some Critical Reflections. *Africa development/Afrique et développement*. 39 (1). p.125-158.



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