



2018

RHODES UNIVERSITY

RESEARCH REPORT



RHODES UNIVERSITY
Where leaders learn



RHODES UNIVERSITY RESEARCH REPORT

A publication of the Rhodes University Research Office.

Editorial Team: Jaine Roberts, Jill Macgregor, Thumeka Mantolo and Tarryn Gillitt.

Front and Back Cover: Machubeni, Eastern Cape. Photographer: Chris Marais.

Rhodes University Research Office

Director: Jaine Roberts | j.roberts@ru.ac.za | tel: +27 (46) 603 8756/7572

www.ru.ac.za

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FOREWORD



Credit: Rhodes University Communications and Advancement Division

Dr Sizwe Mabizela
Vice-Chancellor

Overarching our Institutional Transformation Plan are four core operational principles that guide our intellectual community and are intended to permeate every aspect of the life of our University. These are:

1. *Sustainability* - conceptualised and understood in the broadest possible sense, and not just environmental or financial sustainability;
2. Being simultaneously *locally responsive and relevant, as well as globally engaged*, so that we can enter the global knowledge system from our own position of strength and thereby enrich the accumulated stock of knowledge;
3. The advancement of *social justice*; and
4. The *public good* purpose and value of higher education.

These core principles are intended to be embedded into our teaching and learning, research, community engagement, and every aspect of the life of our University.

The pages of this report outline the strong research trajectory that Rhodes University is on, which gives effect to these principles with increasing degrees of engaged research, and partner collaborations on the African continent and beyond. Rhodes University is very fortunate to have outstanding, dedicated and committed academic and support staff who take a deep and keen interest in the growth, development and academic success of each and every one of our students, as well as in the social and natural environment that surrounds us.

The results of the 2018 academic year were celebrated during a bumper graduation weekend in April 2019, in which a total of 2321 graduates were capped at six graduation ceremonies, 46% of whom were Postgraduates, 61% were women, and 19% were international students.

Many of our outstanding scholars attracted external acclaim.

- Our most high profile researcher, Distinguished Professor Tebello Nyokong, was honoured by the award of the degree of Doctor of Science *honoris causa* at University of KwaZulu-Natal (UKZN). This was the third time that Distinguished Professor Nyokong had received an Honorary Doctorate (the previous ones were from Walter Sisulu University and University of South Africa).
- The Vice-Chancellor's Distinguished Research Award (in the age group 40 and below) for 2018 was awarded to Associate Professor Caroline Khene of the Department of Information Systems, while the Vice-Chancellor's Distinguished Senior Research Award for 2018 went to Professor Brett Pletschke of the Department of Biochemistry and Microbiology. The Vice-Chancellor's Distinguished Community Engagement Award went to Professor Jacqui Akhurst of the Department of Psychology for service learning and engaged research in the field of Community Psychology.
- On 13 July 2018, the Deputy President, the Hon David Dabede Mabuza, officially unveiled the 64-dish MeerKAT radio telescope array at Carnarvon, Northern Cape. Professor Justin Jonas, Professor Oleg Smirnov, and other Rhodes University staff, students and graduates of the Centre for Radio Astronomy Techniques and Technologies contributed in no small part to this major national and international scientific accomplishment.
- The Centre for Biological Control received a 5-year R67m follow-on funding grant from the Department of Environmental Affairs under the Working for Water Programme for this critical area of environmental research.
- The African Research Universities Alliance (ARUA) awarded the hosting rights of its ARUA Centre of Excellence for Water to Rhodes University - to be hosted in our Institute for Water Research. The Centre is intended to be a focal point for co-ordinating high quality research from universities across the continent.
- A new SARCHI Chair award was made to Distinguished Professor Martin Hill. Professor Hill had been the acting incumbent of the Chair of Insects in Sustainable Agricultural Ecosystems, since the resignation of Professor Compton, and was awarded the permanent Chair. Rhodes University hosts 14 SARCHI Chairs, with a 15th hosted as a Rhodes Professor in the associated South African Institute of Aquatic Biodiversity

(SAIAB). Three SARCHI Chairs underwent 5-year reviews in 2018 and had their Chairs renewed: Professor Rosemary Dorrington, Professor Charlie Shackleton and Distinguished Professor Catriona Macleod.

- At the South African Women in Science (SAWiSA) gala dinner in Polokwane, Associate Professor Adrienne Edkins was named as the SAWiSA Distinguished Young Scientist in the Natural and Engineering Sciences.
- A press conference was held in the Centre of Excellence on Paleosciences at the University of the Witwatersrand to announce the ground-breaking new tetrapod fossil discovery of Dr Robert Gess, Postdoctoral Research Fellow of Rhodes University. The discovery was published in the high-profile journal *Science*.
- President Cyril Ramaphosa appointed Dr Siphokazi Magadla to serve on the Presidential Independent High-Level Review Panel on Intelligence, based on her significant standing in the field.
- The award of R77m for the second round of the South African Cultural Observatory was made to a consortium comprising Rhodes University, Nelson Mandela University (NMU), University of Fort Hare (UFH), and UKZN, the research component for the consortium being led by Professor Jen Snowball of the Department of Economics and Economic History.
- Rhodes University was successful in the award of two new large pieces of equipment from the National Equipment Programme in 2018: a new Nano Iso-thermal Calorimeter in Biochemistry and Microbiology, where the principal grant holder is Associate Professor Adrienne Edkins, and an extension to the Centre for Nanotechnology Innovation's Time of Flight Ion Mass Spectrometer facility in Chemistry, where the principle grant holder is Dr Philani Mashazi.

Many other individual academics received widespread national and international acknowledgement of their work. Their fine accomplishments are contained within the pages of this report.

We extend our congratulations and thanks to all of our researchers, supervisors, collaborators, funders, donors, and partners who contributed to making 2018 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.

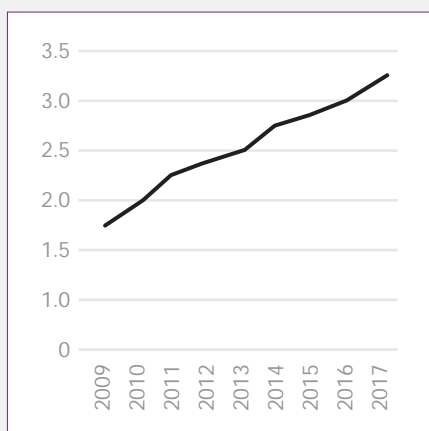
INTRODUCTION



Credit: Rhodes University Communications and Advancement Division

Dr Peter Clayton
Deputy Vice-Chancellor:
Research and Innovation

Rhodes University's Weighted Research Output per Capita (2009-2017) (from the DHET annual national report on audited research outputs)



This report describes the results of fundamental, applied, and engaged research published in 2018.

The compilation of a university Research Report is a substantial and lengthy process, starting with the writing of proposals, and the undertaking of fundamental enquiry and field work, usually dating back well before the year of reporting, then working through synthesis, analysis, critical review, and comparison, to the point where theses and papers are written and edited describing novel outcomes and views, discoveries are reported, and opportunities are sought to exploit innovation for social, commercial, and environmental benefit. Then there is the administrative task of recording all of the work done, compiling and auditing the publications and graduations for reporting to the Department of Higher Education and Training (DHET), and writing narratives on a sample of the outstanding scholars and their work. This substantial administrative part can only get fully underway in the year following the one under review, which explains why the 2018 Report is published in the second semester of 2019.

It is no accident that the 2018 Research Report is the longest ever produced at Rhodes University. The volume and quality of our research outputs have been on a steady growth path, and our intellectual space has benefitted from outstanding role models. The 2018 report represents the biggest effort ever by our researchers, Postgraduate students, and Postdoctoral Research Fellows, the biggest contribution ever by our collaborators, partners and funders, the biggest resource injection ever by our council and board of governors, and the biggest funding support ever from the DHET and other organs of State,

including for substantial infrastructure projects which support the research effort. We are well on the strategic path of our Institutional Development Plan, which positions the university as research led.

Our position as a small research-led and rural based university is relatively unique in the sector, and is something that we continue to build upon. In terms of absolute contribution of research outputs, our institutional capacity means that our contributions often look modest in relation to big urban research-orientated institutions. But in terms of measures which are normalised to our size, we are outstanding. Rhodes University is at the top of the sector in terms of the benchmark measure of weighted research outputs per capita (a measure usually taken to mean research value for money in relation to investment in the institution), at 3.2 units per capita in the most recent DHET audit in relation to a sector average of 1.84. This is something that we as a community of scholars can be proud of. The rate of increase in this measure has been consistent at Rhodes University, and it says much about the creativity, dedication and rigour of our researchers and Postgraduate supervisors.

The external audit of 2018 accredited research outputs is still underway by the DHET at the time of writing. Our internal benchmarking indicates that we can expect the results to show a continued improvement.

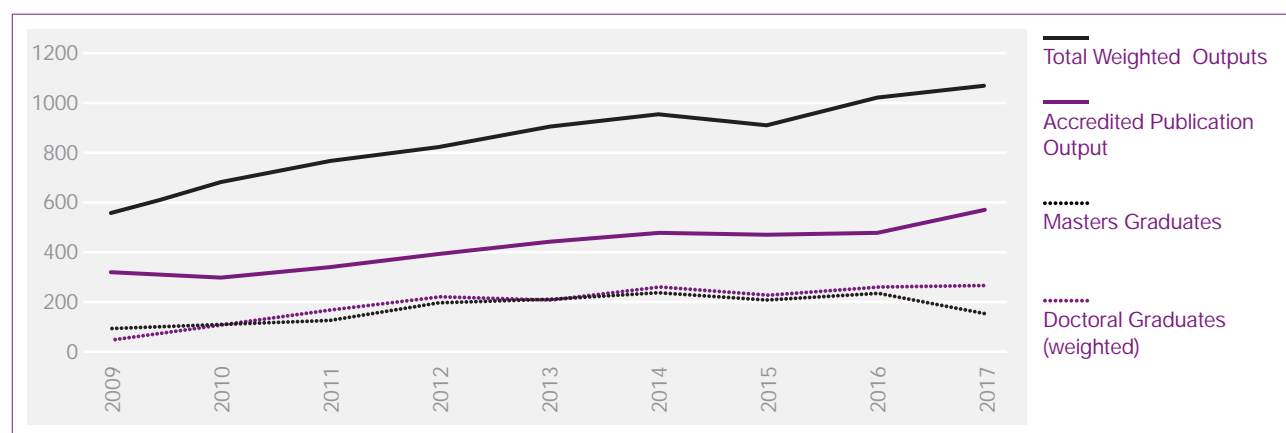
In excess of 84% of our accredited publications are in the form of Journals, and of these Journals 89,6% are in international indices - the highest proportion in the sector. The Web of Science is by far the most prevalent international index that features Rhodes University publications (85% of all Journal publications).

In terms of CESM (Classification of Educational Subject Matter) categorisation of our areas of research strength, our largest publication concentration is in the Life Sciences (29.5%), followed by Physical Sciences (19.7%), Social Sciences (14.5%), Education (10.3%), and Languages, Linguistics and Literature (7.2%). Our other areas of research focus make up the remainder.

As an operational outcome of the development and adoption of an Institutional Development Plan and Institutional Transformation Plan, the university has improved the resourcing of the Centre for Postgraduate Studies with a full-time Director and expanded programmes.

I add my warm thanks and congratulations to all of our researchers, funders, collaborators and partners who contributed to the strong accredited research results of 2018, 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 University. I also thank all the administrators who play a crucial role in preparing the university's meticulous audited submissions, and all who support the research endeavor intellectually, administratively, technically, creatively, and by maintaining our physical space as one that facilitates and encourages our diverse intellectual activity.

Rhodes University's Accredited Research and Postgraduate Graduation output growth 2009 to 2017 (from the DHET annual national report on audited research outputs)



NRF B-RATED RESEARCHERS

The National Research Foundation (NRF) rating system is a key driver in the NRF's aim to build a globally competitive science system in South Africa. It is a valuable tool for benchmarking the quality of our researchers against the best in the world. NRF ratings are allocated based on a researcher's recent research outputs and impact as perceived by international peer reviewers. The rating system encourages researchers to publish high quality outputs in high impact journals/outlets. Rated researchers as supervisors will impart cutting-edge skills to the next generation of researchers.

NRF B-rated researchers enjoy considerable international recognition by their peers for the high quality and impact of their recent research outputs.

NRF B1-Rated Researchers



Credit: Simon Pamphilon

Distinguished Professor Catriona Macleod

Catriona Macleod is a Distinguished Professor of Psychology, SARChI Chair of Critical Studies of Sexualities and Reproduction (CSSR), and editor-in-chief of the international journal *Feminism & Psychology*.

The overarching goal of the CSSR is to conduct critical research, based on feminist, post-structural and post-colonial theory, that addresses the social and human dynamics that enhance or undermine progress towards full sexual and reproductive citizenship for all.



Credit: Photo supplied

Emeritus Professor Valerie Møller

As lifetime member of the International Society for Quality of Life Studies, Valerie Møller has tracked the life satisfaction and happiness of South Africans from the late 1970s to the transition to democracy.

A more recent research focus is on the history of quality of life and human well-being in sub-Saharan Africa and the prospects for the future happiness of people living there.



Credit: Simon Pamphilon

Professor Mike Marais

Professor Marais is interested in the interplay between ethics and aesthetics in modern fiction.



Credit: Simon Pamphilon

Professor Charlie Shackleton

Professor Shackleton currently occupies the SARCHI Chair in Interdisciplinary Science in Land and Natural Resource Use for Sustainable Livelihoods.

The objective is to develop interdisciplinary understandings of and methods to reveal the role, value and importance of natural resources in rural and urban livelihoods for poverty alleviation.



Credit: Simon Pamphilon

Emeritus Professor Nigel Bishop

Professor Bishop's research is concerned mainly with the accurate calculation or computation of gravitational waves from astrophysical sources such as merging black holes.

The issues currently being tackled are improvements to code efficiency, and the effect of dark matter (which has a low but non-zero density) on gravitational wave propagation.

NRF B2-Rated Researchers



Credit: Simon Pamphilon

Dr Nicola McLoughlin

Dr McLoughlin is a geologist and palaeontologist who specialises in microbial traces of life preserved in the rock record.

She combines microscopic and geochemical techniques to decipher the earliest fossil record and the rise of photosynthetic microorganisms. She also studies exceptional cellular preservation, targeting key evolutionary events in the history of life.



Credit: Simon Pamphilon

Distinguished Professor Heila Lotz-Sisitka

Professor Lotz-Sisitka's research focus is transformative social learning and green skills learning pathways in areas of biodiversity, the water food nexus, climate change, social and environmental justice, and just sustainability transitions.

Further research interests include critical research methodologies, transformative social learning, and education system transformation.



Credit: Simon Pamphilon

Professor Makaiko Chithambo

The main theme of Professor Chithambo's research is the study of point-defects in solids using luminescence methods.

He specialises in use of stimulated luminescence techniques particularly time-resolved spectroscopy to understand the dynamics of irradiation-induced charge transport in insulators.

His work spans experimental techniques, development of theory and mathematical modelling.



Credit: Simon Pamphilon

Dr John Mack

Since taking up his post in the Centre for Nanotechnology Innovation at Rhodes University in April 2012, Dr Mack's research has focused on the biomedical, electrochemical and nonlinear optical properties, and applications of porphyrin related dyes, such as boron dipyrromethenes (BODIPYs), phthalocyanines and corroles, in close collaboration with Distinguished Professor Tebello Nyokong and researchers in China, Japan, Kenya, Russia, Germany and the United Kingdom.



Credit: Simon Pamphilon

Professor Denis Pollney

Professor Pollney's research is focused on the study of gravitational waves, and in particular, how they are generated during black hole mergers. This research involves large-scale supercomputer simulations of dynamical space-time geometries in general relativity.

Along with collaborators and graduate students, they have developed one of the principle black hole simulation codes informing the data analysts in the LIGO and Virgo gravitational wave detector communities.



Credit: Simon Pamphilon

Professor Warwick Sauer

Professor Sauer's research interests includes a fascination with cephalopods (cuttlefish, squid and octopus) but broadly he looks at the Ecosystem Approach to Fisheries, concentrating on all aspects involved in fisheries governance, and the influence of climate change on global fisheries.



Credit: Simon Pamphilon

Professor Shankar Aswani

Professor Aswani works at the interface between anthropology and marine science. His general expertise is in the human dimensions of coastal and marine resource use, conservation, development, and policy, with particular attention to the intersection between human ecology, marine science, and conservation biology.



Credit: Photo supplied

Professor Stephen Compton

Professor Compton's research area is the interaction between plants and animals. Within this broad theme specific areas of interest include biological control of weeds, the conservation of plant-feeding insects and tritropic interactions involving plants, herbivores and their parasitoids.

In addition, the pollination of fig trees by fig wasps has been a long-running interest, with an emphasis on what fig wasps can tell us about the long-distance dispersal of small insects and theories of optimal offspring sex ratios. The research is mainly carried out in Africa and South East Asia.



Credit: Simon Pamphilon

Emeritus Professor Denis Hughes

Professor Hughes' main research field is the development and application of hydrological and water resource models with a focus on large river basins in sub-Saharan Africa. This includes assessments of water availability for various types of development (irrigation, hydropower, etc.) as well as quantifying the water needs of the environment.



Credit: Photo supplied

Professor Kevern Cochrane

Professor Cochrane is a fisheries scientist with particular interests in progress and challenges being encountered in the implementation of fisheries management as an integrated process in the Benguela Current countries and globally, and in the impacts of climate change on fisheries and means to adapt to climate-driven ecological and social changes.

NRF B3-Rated Researchers



Credit: Simon Pamphilon

Professor Ruth Simbao

Professor Simbao conducts research on forms of epistemological resistance in Fine Art and Visual Culture, particularly in relation to the arts of Africa. She repositions the northern-driven discourse of "African Art" in relation to "strategic southernness", arguing that artists, curators and scholars of Africa are at the forefront of knowledge creation about Africa.

Current research focuses on the ways artists and other creatives based in China and various African contexts reflect historical and contemporary resistances and solidarities, thereby challenging the dominant Africa-China discourse.



Credit: Simon Pamphilon

Professor Martin Villet

Professor Villet's rating recognized his academic outputs in forensic entomology over the last two decades.

The South African Police Service (SAPS) and the International Criminal Court (ICC), among others, have approached him for his practical expertise in murder and poaching cases.



Credit: Simon Pamphilon

Professor Brad Ripley

Professor Ripley's research focuses on the impact of global climate change, and particularly altered atmospheric CO² concentration, on the performance of natural ecosystems and crops.

Much of this work includes experimental manipulations of climate within growth chambers of the Rhodes University Elevated CO² Facility, but includes work in systems ranging from subtropical savanna to sub-Antarctic Marion Island.



Credit: Photo supplied

Professor Gianni Bernardi

Professor Bernardi's research mostly focuses on observational cosmology and, in particular, observations of the redshifted 21cm line in order to understand how the first stars and galaxies formed in our Universe.

Over the last decade, he has been working with his colleagues to construct radio instrumentation dedicated to 21cm observations, in particular the Hydrogen Epoch of Reionization Array, currently under construction in South Africa, in the Karoo region.

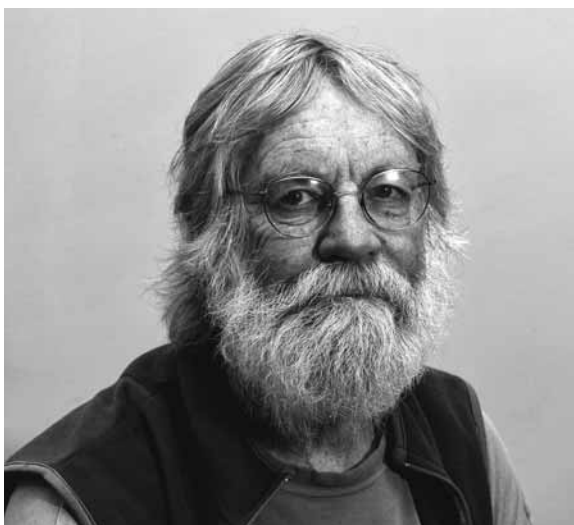


Credit: Simon Pamphilon

Professor Ward Jones

Professor Jones has published in a wide range of fields: epistemology, philosophy of mind, philosophy of science, early Modern thought, narratives and ethics, moral psychology, higher education, and death.

In the past few years, he has concentrated more on questions in (i) metaphilosophy - the nature and value of philosophy as a discipline - and (ii) social injustice.



Credit: Simon Pamphilon

Professor JS 'Goonie' Marsh

Professor Marsh's research is in igneous petrology and concerned with the origin of rocks formed by the crystallization of molten magma.

In particular his focus is on the chemical composition and origin of the very large-volume basalt lava flows known as continental flood basalts (CFB), with particular reference to the Karoo CFB of southern Africa and the Etendeka CFB of Namibia.



Credit: Photo supplied

Professor CEJ 'Ted' Botha

Professor Botha's research interests include functional plant anatomy, microscopy and plant insect inter-relationships - especially the Russian wheat aphid.

TOP 30 RESEARCHERS

Rhodes University acknowledges and congratulates the following for their accredited research outputs (Journal Publications, Books & Book Chapters, Conference Proceedings, and Masters/Doctoral students graduated) in 2018:

1. **Distinguished Professor Tebello Nyokong**
Department of Chemistry, RU/DST Centre for Nanotechnology Innovation
2. **Professor Charlie Shackleton**
Department of Environmental Science
3. **Distinguished Professor Heila Lotz-Sisitka**
Faculty of Education, Environmental Learning Research Centre (ELRC)
4. **Professor Kirk Helliker**
Department of Sociology and Industrial Sociology
5. **Emeritus Professor Dan Wylie**
Department of Literary Studies in English
6. **Professor Barry Irwin**
Department of Computer Science
7. **Professor Rui Krause**
Department of Chemistry
8. **Professor Makaiko Chithambo**
Department of Physics and Electronics
9. **Distinguished Professor Catriona Macleod**
Department of Psychology, Critical Studies in Sexualities and Reproduction Research Unit (CSSR)
10. **Professor Oleg Smirnov**
Department of Physics and Electronics, Rhodes Centre for Radio Astronomy Techniques and Technologies (RATT)
11. **Professor Emmanuel Mgwashu**
Department of Education
12. **Distinguished Professor Martin Hill**
Department of Zoology and Entomology, Centre for Biological Control (CBC)
13. **Associate Professor Adrienne Edkins**
Department of Biochemistry and Microbiology, Biomedical Biotechnology Research Unit (BioBRU)
14. **Professor Marc Schafer**
Department of Education, Mathematics Education
15. **Professor Sioux McKenna**
Centre for Higher Education Research, Teaching and Learning (CHERTL)
- Dr John Reynolds**
Institute of Social and Economics Research (ISER), Neil Aggett Labour Studies Unit (NALSU)
16. **Associate Professor Warren Potts**
Department of Ichthyology and Fisheries Studies
17. **Associate Professor Ozlem Tastan Bishop**
Department of Biochemistry and Microbiology, Research Unit in Bioinformatics (RUBI)
18. **Emeritus Professor Chrissie Boughey**
Centre for Higher Education Research, Teaching and Learning (CHERTL)
19. **Dr John Mack**
Department of Chemistry, RU/DST Centre for Nanotechnology Innovation
20. **Professor Lynette Louw**
Department of Management
21. **Distinguished Professor Christopher McQuaid**
Department of Zoology and Entomology, Coastal Research Group
22. **Professor Enocent Msindo**
Department of History
23. **Associate Professor Michael Drewett**
Department of Sociology and Industrial Sociology
- Professor Monty J. Roodt**
Department of Sociology and Industrial Sociology
24. **Dr Lynda Spencer**
Department of Literary Studies in English
25. **Associate Professor Karen Bradshaw**
Department of Computer Science
26. **Professor William Froneman**
Department of Zoology and Entomology, Southern Ocean Group (SOG)
27. **Professor Paul-Henri Bischoff**
Department of Political and International Studies
28. **Professor Louise Vincent**
Department of Political and International Studies
29. **Associate Professor Sam Naidu**
Department of Literary Studies in English
30. **Associate Professor Kenneth Ngcoza**
Department of Education

PhD GRADUATIONS

PhD Graduates at the April 2019 Graduation Ceremonies

FACULTY OF COMMERCE (3 PhDs)

DEGREE OF DOCTOR OF PHILOSOPHY

ASAH, Francis Tangwo, BSc (Buea), BComHons, MCom (Fort Hare), in Management, in the Department of Management. Degree by thesis. Thesis: *An analysis of the availability of and access to credit from the formal financial sector and the performance of SMEs.*

Supervisor: Professor L Louw.

Co-supervisor: Professor JM Williams.

CHODOKUFA, Kudakwashe, MCom (Fort Hare), in Management, in the Department of Management. Degree by thesis. Thesis: *Stakeholder relationship management of a Chinese mining organisation in Zimbabwe.*

Supervisor: Professor L Louw.

TSHUMA, Nompilo, BBA (Andrews University), MSc (NUST), PGDHE (Rhodes), in Information Systems, in the Department of Information Systems. Degree by thesis. Thesis: *A critical realist exploration of the culture of resistance in educational technology integration practices at a South African university.*

Supervisor: Professor KEM Krauss.

FACULTY OF EDUCATION (16 PhDs)

DEGREE OF DOCTOR OF PHILOSOPHY

ARMSTRONG, Meredith Tamar Alexandra, MA (Rhodes), in Education, in the Centre for Higher Education Research, Teaching and Learning. Degree by thesis. Thesis: *Learning to learn: a critical realist exploration into the home established learning practices of a marginalised community in Port Elizabeth.*

Supervisor: Dr CM Boughey.

BELL, Caroline Margaret, BScHons (UKZN), MSc (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *Understanding the learning that occurs through up-skilling opportunities and practices in the marine sector of South Africa.*

Supervisor: Distinguished Professor H Lotz-Sisitka.

CHINGANGA, Percy, MA (Zimbabwe), MEd (Rhodes), in Education, in the Department of Education. Degree by thesis.

Thesis: *Expanding learning in clergy leadership formation in an Anglican Church province in Southern Africa: a critical realist study.*

Supervisor: Professor Emeritus H van der Mescht.

DONGWI, Beata Lididimikeni, MEd (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *Examining mathematical reasoning through enacted visualisation.*

Supervisor: Professor M Schäfer.

HLATSHWAYO, Mlamuli Nkosingphile, MSocSci (Rhodes), in Education, in the Centre for Higher Education Research, Teaching and Learning. Degree by thesis. Thesis: *'I want them to be confident, to build an argument': an exploration of knowledge and knower structures in Political Studies.*

Supervisor: Professor SM McKenna.

Co-supervisor: Dr AI Hlengwa.

JALASI, Experencia Madalitso, MA (Malawi), in Education, in the Department of Education. Degree by thesis. Thesis: *Investigating and expanding learning across activity system boundaries in improved cook stove innovation, diffusion and adoption in Malawi.*

Supervisor: Distinguished Professor H Lotz-Sisitka.

Co-supervisor: Professor RB O'Donoghue.

MASUKU, Lynette Sibongile, MEd (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *A post-colonial exploration of socio-cultural intergenerational learning through cattle as a medium of cultural expression in Mpembeni, KwaZulu-Natal.*

Supervisor: Distinguished Professor H Lotz-Sisitka.

MATAKA, Tawanda Wallace, Dip (Education), BA (Zimbabwe), BEdHons, MEd (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *Reading to learn for secondary schooling: an interventionist action research study within a South African under-privileged setting.*

Supervisor: Professor EM Mgqwashu.

MURPHY, Mary, BA (Ulster), MA (Wits), in Education, in the Department of Education. Degree by thesis. Thesis: *Responding to iconic images of risk through reflexive and narrative enquiry represented in a stratified text for Environmental Education readers.*

Supervisor: Distinguished Professor H Lotz-Sisitka.

MUTHAMA, Evelyn Loko, MEd (UCT), in Education, in the Centre for Higher Education Research, Teaching and Learning.

Degree by thesis. Thesis: *Conditions constraining and enabling research production in Historically Black Universities in South Africa*.

Supervisor: Professor SM McKenna.

MYERS, Lyndrienne Peta, PGDHE, MEd (Rhodes), in Education, in the Centre for Higher Education Research, Teaching and Learning. Degree by thesis. Thesis: *A social realist account of constraints and enablements navigated by South African students during the four year professional accounting programme at Rhodes University, South Africa*.

Supervisor: Professor JE Vorster.

Co-supervisor: Ms J Reynolds.

NDJENDJA, Elizabeth, BSc, PG Dip (Education) (Namibia), MEd (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *Investigating mathematical proficiency testing in Namibian school high stakes Mathematics examinations: an exploratory study*.

Supervisor: Professor B Brown.

NGHIKEFELWA, Josephine Mwasheka, MA (Namibia), in Education, in the Department of Education. Degree by thesis. Thesis: *An investigation into the mediation of the representation of gender roles in God of women: a critical discourse analysis of pedagogic practices in selected Namibian schools*.

Supervisor: Professor EM Mgqwashu.

NZWALA, Kenneth Jakobo, MEd (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *Examination of teacher mediation and its impact on foundational reading skills in Grade-R classrooms in Namibia*.

Supervisor: Dr GD Harrison.

Co-supervisor: Professor EM Mgqwashu.

PESANAYI, Victor Tichaona, MEd (Rhodes), in Education, in the Department of Education. Degree by thesis. Thesis: *Boundary-crossing expansive learning across agricultural learning systems and networks in Southern Africa*.

Supervisor: Distinguished Professor H Lotz-Sisitka.

Co-supervisors: Professor RB O'Donoghue and Professor A Wals (Wageningen University).

REID, Gillian Janet, MEd (UKZN), in Education, in the Centre for Higher Education Research, Teaching and Learning. Degree by Thesis. Thesis: *Shifting contexts, shifting identities: a realist exploration of transnational mobility, change and identity construction in South African higher education expatriates in Abu Dhabi, UAE*.

Supervisor: Dr CM Boughey.

FACULTY OF HUMANITIES (28 PhDs)

DEGREE OF DOCTOR OF PHILOSOPHY

ADETIBA, Adedamola Seun, BAHons (Nigeria), MA (Lagos), in History, in the Department of History. Degree by thesis. Thesis: *The Tropical Environment and Malaria in South-Western Nigeria, 1861-1960*.

Supervisor: Professor E Msindo.

DANIELSEN, James William, BAHons (Rhodes), in Political & International Studies, in the Department of Political and International Studies. Degree by thesis. Thesis: *Pyramidal deliberative democracy*.

Supervisor: Dr AP Fluxman.

DE JONG, Michelle Shirley, MSocSci (UKZN), in Journalism & Media Studies, in the School of Journalism and Media Studies. Degree by thesis. Thesis: *From 'cleanliness is next to Godliness' to 'without perfect health, there is nothing': discourses of healthy lifestyle in the construction of young adult identities in urban South Africa*.

Supervisor: Professor AJL Collins.

DU PLESSIS, Ulandi, MA (Rhodes), in Political & International Studies, in the Institute of Social and Economic Research. Degree by thesis. Thesis: *Governing pregnancy in South Africa: political and health debate, policy and procedures*.

Supervisor: Distinguished Professor CI Macleod.

DU PREEZ, Jenny Bozena, MA (NMMU), in English, in the Department of Literary Studies in English. Degree by thesis. Thesis: *Intersectionality and complexity in the representation of 'queer' sexualities and genders in African women's short fiction*.

Supervisor: Dr L Spencer.

ISSA, Iyad Ali Mohammad, MSc (Clinical Linguistics) (Potsdam), in Linguistics & Applied Language Studies, in the Department of English Language and Linguistics. Degree by thesis. Thesis: *The morphological complexity of L1 Arabic-speaking children*.

Supervisor: Professor R Simango.

JOSEPH, Joy Ifeanyichukwu, MPhil (Obafemi Awolowo), in French, in the School of Languages & Literatures. Degree by thesis. Thesis: *La masculinité dans quelques œuvres des romanciers francophones africains*.

Supervisor: Professor PK Mwepu.

Co-supervisor: Professor RH Kaschula.

KAYUMBA, Viviane Ngoie, MA (UCT), in French, in the School of Languages & Literatures. Degree by thesis. Thesis: *L'entre-deux identitaire dans quelques œuvres d'écrivains francophones immigrants. Cas de Dany Laferrière, Alain Mabanckou, Calixthe Beyala et Lottin Wekape*.

Supervisor: Professor PK Mwepu.

Co-supervisor: Professor DK Wa Kabwe-Segati (UJ).

KUSENA, Bernard, Dip (Education), MA (Zimbabwe), in History, in the Department of History. Degree by thesis. Thesis: *Rural food security in Mutare District, Zimbabwe, 1947-2010*.

Supervisor: Professor E Msindo.

KWET, Michael Fred, MA (Southern Connecticut), in Sociology, in the Department of Sociology. Degree by thesis. Thesis: *Digital colonialism: South Africa's education transformation in the shadow of Silicon Valley*.

Supervisor: Professor MD Drewett.

LEFF, Carol Willa, BA (Wits), MA (Rhodes), in English, in the Department of Literary Studies in English. Degree by thesis. Thesis: *The Afropolitan Flâneur: literary representations of the city and contemporary urban identities in selected African and transnational texts*.

Supervisor: Professor S Naidu.

MAFUKIDZE, Jonathan, MSc (Sociology and Social Anthropology) (Zimbabwe), in Sociology, in the Department of Sociology. Degree by thesis. Thesis: *Perspectives on land and water politics at Mushandike irrigation scheme, Masvingo, Zimbabwe*.

Supervisor: Professor KD Helliker.

MUNYUKI, Chipo Lidia, MA (Rhodes), in Political & International Studies, in the Department of Political and International Studies. Degree by thesis. Thesis: *'It's something you kind of get used to': female academics at South African universities narrate their experiences of contrapower harassment*.

Supervisor: Professor LD Vincent.

MUPARAMOTO, Nelson, BScHons (Sociology) (Zimbabwe), MSc (Sociology and Social Anthropology) (Zimbabwe), in Sociology, in the Department of Sociology. Degree by thesis. Thesis: *Understanding defiant identities: an ethnography of gays and lesbians in Harare, Zimbabwe*.

Supervisor: Professor MD Drewett.

NEDZIWE, Cecilia Lwiindi, Dip (Foreign Economic Activity) (DSTU), MIS (Queensland), in Political & International Studies, in the Department of Political and International Studies. Degree by thesis. Thesis: *Regional thickening as game-changing: examining transnational activities of gender and women-focused civil society actors for region-building in Southern Africa*.

Supervisor: Professor PH Bischoff.

NJOVANE, Thandokazi, MA (Rhodes), in English, in the Department of Literary Studies in English. Degree by thesis. Thesis: *The trope of the child: re-reading trauma, subjectivity and embodiment in contemporary child-centred African narratives by Ahmadou Kourouma, Chris Abani, K. Sello Duiker and Yvonne Vera*.

Supervisor: Dr S Marais.

NOMSENGE, Sinazo Onela, BSocSciHons (Rhodes), in Sociology, in the Department of Sociology. Degree by thesis.

Thesis: *Aiding the education agenda? The role of non-governmental organisations in learner performance and retention in Joza, Grahamstown, South Africa*.

Supervisor: Professor JJ Roodt.

PATERSON, Craig John, MA (Rhodes), in History, in the Department of History. Degree by thesis. Thesis: *The chase: historical and ethnographic observations of 'traditional horse racing' in the Eastern Cape, c. 1850 to the present*.

Supervisor: Professor A Kirkaldy.

PLÜG, Simone Nikki, MSocSci (UKZN), in Journalism & Media Studies, in the School of Journalism and Media Studies. Degree by thesis. Thesis: *#KeepItReal: discursive constructions of authenticity in South African consumer culture*.

Supervisor: Professor AJL Collins.

PONONO, Mvuzo, MA (Rhodes), in Journalism & Media Studies, in the Department of Journalism and Media Studies. Degree by thesis. Thesis: *Centralising a counter public. An ethnographic study of the interpretation of mainstream news media by young adults in Joza*.

Supervisor: Professor AC Garman.

Co-supervisor: Dr VC Malila.

QAMBELA, Gcobani, BSocSciHons (Rhodes), in Anthropology, in the Department of Anthropology. Degree by thesis. Thesis: *Xhosa boyhoods, desires and masculinities in Peddie, Eastern Cape*.

Supervisor: Professor J Owen (UFS).

ROBERTS, Benjamin James, BSc (Town and Regional Planning) (Wits), MSc (Development Studies) (Natal), in Social Policy and Labour Studies, in the Institute of Social and Economic Research. Degree by thesis. Thesis: *Charting freedom: inequality beliefs, preferences for redistribution and distributive social policy in contemporary South Africa*.

Supervisor: Professor M Noble.

Co-supervisor: Professor R van Niekerk.

SIEBÖRGER, Ian, MA (Rhodes), in Linguistics & Applied Language Studies, in the Department of English Language and Linguistics. Degree by thesis. Thesis: *Political constellations: an analysis of the use of language in positioning South African political parties in the Daily Sun*.

Supervisor: Professor RD Adendorff.

Co-supervisor: Professor K Maton (University of Sydney).

SIVALO, Delta Mbonisi, BAHons, MSc (Development Studies) (Zimbabwe), in Sociology, in the Department of Sociology. Degree by thesis. Thesis: *A sociological understanding of urban governance and social accountability: the case of Bulawayo, Zimbabwe*.

Supervisor: Professor KD Helliker.

SMITH, Jade, MA (Rhodes), in Linguistics & Applied Language Studies, in the Department of English Language and Linguistics. Degree by thesis. Thesis: *Truth and*

reconciliation and other stories: a critical multimodal investigation of representations of post-apartheid South Africa in children's picturebooks.

Supervisor: Professor RD Adendorff.

THOMAS, Samantha Leigh, MSocSci (UKZN), in Psychology, in the Department of Psychology. Degree by thesis. Thesis: *Training intervention for volunteers supporting victims of intimate partner violence in South Africa.*

Supervisor: Professor AJL Collins.

TSIETSI, Teboho Priscilla, BSW (Lesotho), MSocSci (Rhodes), in Anthropology, in the Department of Anthropology. Degree by thesis. Thesis: *The impact of policies on development-induced resettlement processes and outcomes: a Lesotho-Indian comparative study.*

Supervisor: Professor CJ de Wet.

Co-supervisor: Professor R van Niekerk.

XABA, Mzingaye Brilliant, BSocSci (Fort Hare), MSocSci (Rhodes), in Sociology, in the Department of Sociology. Degree by thesis. Thesis: *The impact of land restitution and resettlement in the Eastern Cape, South Africa: restoring dignity without strengthening livelihoods?*

Supervisor: Professor JJ Roodt.

FACULTY OF PHARMACY (2 PharmD)

DEGREE OF DOCTOR OF PHARMACY

FOUCHE, Nolene

MDAZUKA-DLANI, Nocawe

FACULTY OF SCIENCE (35 PhDs)

DEGREE OF DOCTOR OF PHILOSOPHY

BOËL, Natasha Marie-Eraïne, MSc (Rhodes), in Biochemistry, in the Department of Biochemistry and Microbiology. Degree by thesis. Thesis: *The novobiocin-induced turnover of fibronectin via low density lipoprotein receptor-related protein 1 alters matrix morphology with physiological consequences on cell growth and migration.*

Supervisor: Professor AL Edkins.

BOVA, Christopher Scott, MCom (UCT), in Fisheries Science, in the Department of Ichthyology and Fisheries Science. Degree by thesis. Thesis: *Towards a norm of compliance in recreational fisheries.*

Supervisor: Professor WM Potts.

Co-supervisor: Professor S Aswani.

CAPUTO, Michelle Anne, BScHons (Carleton), MSc (Newfoundland), in Marine Biology, in the Department of

Zoology and Entomology. Degree by thesis. Thesis: *Occurrence, feeding ecology and population structure of two dolphin species, Tursiops aduncus and Delphinus delphis, off the Wild Coast of South Africa.*

Supervisor: Professor PW Froneman.

CHARTIER FITZGERALD, Veronique, MSc (Rhodes), in Microbiology, in the Department of Biochemistry and Microbiology. Degree by thesis. Thesis: *Ectomycorrhizal fungal assessment of South African Pinus patula seedlings and their biological control potential to enhance seedling growth.*

Supervisor: Professor JF Dames.

Co-supervisor: Dr G Hawley (CES).

DENISON, Jonathan Anthony Noel, MScEng (UCT), in Geography, in the Department of Geography. Degree by thesis. Thesis: *An investigation into the performance of smallholder irrigation schemes in the Limpopo province, South Africa: success factors, typologies and implications for development.*

Supervisor: Professor KM Rowntree.

Co-supervisor: Professor W van Averbek (TUT).

DIBLEY, James, MSc (Rhodes), in Computer Science, in the Department of Computer Science. Degree by thesis. Thesis: *A development method for deriving reusable concurrent programs from verified CSP models.*

Supervisor: Professor KL Bradshaw.

DUBE, Edith, BScHons (Midlands), MSc (UKZN), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Physicochemical properties and photodynamic therapy activities of indium and zinc phthalocyanine-nanoparticle conjugates.*

Supervisor: Distinguished Professor T Nyokong.

DUNCAN, Murray Ian, MSc (Rhodes), in Ichthyology, in the Department of Ichthyology and Fisheries Science. Degree by thesis. Thesis: *A physiological study of a commercial reef fish to quantify the relationship between exploitation and climate change resilience.*

Supervisor: Professor WM Potts.

Co-supervisors: Dr NC James (SAIAB) and Dr A Bates (Southampton).

EGBON, Ikponmwosa Nathaniel, BScHons (Nigeria), MPhil (Ghana), in Entomology, in the Department of Zoology and Entomology. Degree by thesis. Thesis: *The performance and preference of a specialist herbivore, Catorhintha schaffneri (Coreidae), on its polytypic host plant, Pereskia aculeata (Cactaceae).*

Supervisor: Dr ID Paterson.

Co-supervisor: Professor S Compton (Leeds).

ELSTON, Chantel, BScHons (UCT), MSc (Rhodes), in Ichthyology, in the Department of Ichthyology and Fisheries Science. Degree by thesis. Thesis: *The trophic and spatial ecology of a sympatric dasyatid community at a remote*

atoll, Seychelles.

Supervisor: Professor PD Cowley (SAIAB).

Co-supervisor: Dr RG von Brandis (SOSF).

FERNANDEZ MUNIZ, Carlota, BSc (Spain), in Marine Biology, in the Department of Zoology and Entomology. Degree by thesis. Thesis: *Large scale spatio-temporal forcing of pelagic-coastal coupling: Disentangling the effects of environmental change on intertidal invertebrate recruitment.*

Supervisor: Distinguished Professor CD McQuaid.

Co-supervisor: Dr N Weidberg (Arctic University, Norway).

FRIESLAAR, Ibraheem, MSc (UWC), in Computer Science, in the Department of Computer Science. Degree by thesis. Thesis: *A multi-threading software counter-measure to mitigate side channel analysis in the time domain.*

Supervisor: Professor BVW Irwin.

GUSHA, Bukho, MScAgric (Fort Hare), in Environmental Science, in the Department of Environmental Science. Degree by thesis. Thesis: *Livestock water productivity: towards improving rural livelihoods from livestock in semi-arid rangelands.*

Supervisor: Dr AR Palmer.

Co-supervisor: Dr E Mwendera (ARC).

HERBERT, Alan, MSc (Rhodes), in Computer Science, in the Department of Computer Science. Degree by thesis. Thesis: *Bolvedere: a scalable network flow threat analysis system.*

Supervisor: Professor BVW Irwin.

KANKUZI, Charles Frienderson, BEd, MSc (Malawi), MSc (Rhodes), in Geology, in the Department of Geology. Degree by thesis. Thesis: *Gem-bearing granitic pegmatites in Malawi: their mineralogy, geochemistry, age and fluid compositional variations.*

Supervisor: Professor SH Büttner.

Co-supervisor: Professor Y Yao (IRL).

KENYON, Jonathan Simon, MSc (Rhodes), in Physics, in the Department of Physics and Electronics. Degree by thesis. Thesis: *CubiCal: a fast radio interferometric calibration suite exploiting complex optimisation.*

Supervisor: Professor OM Smirnov.

Co-supervisor: Dr T Grobler (Stellenbosch).

LIBALA, Notiswa, MScAgric (Fort Hare), in Water Resource Science, in the Institute for Water Research. Degree by thesis. Thesis: *Using a social-ecological systems approach to investigate hillslope seep wetlands ecosystem structure and functionality in the Tsitsa river catchment, Eastern Cape, South Africa.*

Supervisor: Dr ON Odume.

Co-supervisor: Professor CG Palmer.

MAFA, Mpho Stephen, MSc (UFS), in Biochemistry, in the Department of Biochemistry and Microbiology. Degree by

thesis. Thesis: *Characterization of termite *Trinervitermes trinervoides* metagenome-derived glycoside hydrolases, the formulation of synergistic core enzyme sets for effective sweet sorghum and corncob saccharification, and their potential industrial applications.*

Supervisor: Professor BI Pletschke.

Co-supervisor: Dr K Rashamuse (CSIR).

MANAGA, Muthumuni Elizabeth, MSc (Rhodes), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Photophysical properties and photodynamic therapy activities of symmetrical and asymmetrical porphyrins embedded into Pluronic polymer micelles and non-linear optical properties of an asymmetrical phthalocyanine.*

Supervisor: Distinguished Professor T Nyokong.

MSANE, Gugu Florence, BSc, PGCE (Swaziland), MSc (UJ), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Design and fabrication of components of dye sensitised solar cells.*

Supervisor: Professor RWM Krause.

MTAMBANENGWE, Kudzai Tapiwanashe Esau, MSc (Rhodes), in Microbiology, in the Department of Biochemistry and Microbiology. Degree by thesis. Thesis: *Genetic characterisation of a range of geographically distinct *Helicoverpa armigera* nucleopolyhedrovirus (HearNPV) isolates and evaluation of biological activity against South African populations of the African bollworm, *Helicoverpa armigera* (Hübner) (Lepidoptera: Noctuidae).*

Supervisor: Professor C Knox.

Co-supervisors: Distinguished Professor MP Hill and Dr S Moore (CRI).

NGOEPE, Mpho Phehello, MSc (Med) (Wits), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Synthesis of pH responsive carriers for pulmonary drug delivery of anti-tuberculosis therapeutics: mesoporous silica nanoparticles and gelatin nanoparticles.*

Supervisor: Professor RWM Krause.

NKANGA ISALOMBOTO, Christian, BPharm (Kinshasa), MSc (Rhodes), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *pH-responsive liposomal systems for site-specific pulmonary delivery of anti-tubercular drugs.*

Supervisor: Professor RWM Krause.

NWAJI, Njemuwa Njoku, BTech (Nigeria), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Nonlinear optical responses of targeted phthalocyanines when conjugated with nanomaterials or fabricated into polymer thin films.*

Supervisor: Distinguished Professor T Nyokong.

Co-supervisor: Dr J Britton.

ODERINLO, Ogunyemi Olajide, MSc (Ibadan), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Synthesis, characterisation and biological evaluation of novel anti-infective compounds bearing ferrocene, arylpyrrole,*

thiazolidinedione, quinoline and triazole moieties.

Supervisor: Dr SD Khanye.

Co-supervisor: Dr M Tukulula (UKZN).

PENKLER, David Lawrence, MSc (Rhodes), in Bioinformatics, in the Department of Biochemistry and Microbiology. Degree by thesis. Thesis: *A dynamics based analysis of allosteric modulation in heat shock proteins.*

Supervisor: Professor O Tastan Bishop.

ROSS, Caroline Jane, MSc (Rhodes), in Bioinformatics, in the Department of Biochemistry and Microbiology. Degree by thesis. Thesis: *A computational analysis to decipher the pathways of stability, uncoating and antigenicity of human enterovirus capsids.*

Supervisor: Professor O Tastan Bishop.

Co-supervisors: Professor C Atilgan (Sabanci) and Professor C Knox.

SIGAUKE, Lester Takunda, MSc (Rhodes), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Enumeration, conformation sampling and population of libraries of peptide macrocycles for the search of chemotherapeutic cardio-protection agents.*

Supervisor: Professor KA Lobb.

Co-supervisor Dr SD Khanye.

SWART, Carin, MSc (Rhodes), in Botany, in the Department of Botany. Degree by thesis. Thesis: *The conservation, ecology and distribution of the critically endangered Encephalartos latifrons Lehm.*

Supervisor: Professor S Vetter.

Co-supervisors: Professor NP Barker (Pretoria) and Professor J Donaldson (SANBI).

THORNTON, Roxanne, MSc (Med) (Wits), in Biochemistry, in the Department of Biochemistry and Microbiology. Degree by thesis. Thesis: *Towards a biological profile for South African perinatal remains: Osteological and Genetic perspectives.*

Supervisor: Professor AL Edkins.

Co-supervisor: Dr E Hutchinson (Wits).

TSHIWAWA, Tendamudzimu, MSc (Venda), in Chemistry, in the Department of Chemistry. Degree by thesis. Thesis: *Application of computational methods in elucidating the isomerization step in the biosynthesis of coumarins.*

Supervisor: Professor KA Lobb.

Co-supervisor: Professor PT Kaye.

UWAMAHORO, Jean Claude, BScHons (UCT), MSc (Rhodes), in Physics, in the Department of Physics and Electronics. Degree by thesis. Thesis: *Modelling storm-time TEC changes using linear and non-linear techniques.*

Supervisor: Dr JB Habarulema (SANSA).

VAN WIJK, Yvette Ethne, BFA (Rhodes), in Botany, in the Department of Botany. Degree by thesis. Thesis: *Plants, people and place: complex, mutualistic and co-evolving global patterns through time.*

Supervisor: Professor NP Barker (Pretoria).

Co-supervisor: Professor M Cocks.

WEAVER, Matthew James Thanduxolo, BSc (Stell), in Water Resource Science, in the Institute for Water Research. Degree by thesis. Thesis: *Civil society engagement with water governance at a local government scale in South Africa.*

Supervisor: Professor CG Palmer.

Co-supervisor: Professor J O'Keeffe.

WINKLER, Alexander Claus, MSc (Rhodes), in Fisheries Science, in the Department of Ichthyology and Fisheries Science. Degree by thesis. Thesis: *Using a multi-method approach to understand the movement patterns and the associated environmental correlates of an iconic West African recreational fish.*

Supervisor: Professor WM Potts.

Co-supervisor: Dr A Childs.

POSTGRADUATE FUNDING

The Rhodes University Research Office is committed to increasing both the number of Postgraduate students at Rhodes University and the available Scholarships and Bursaries to support these Postgraduate students.



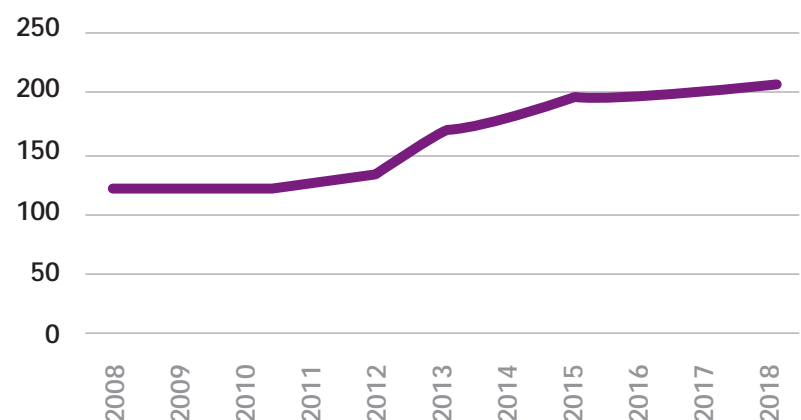
David Ryan Scholarship



Ruth First Scholarship

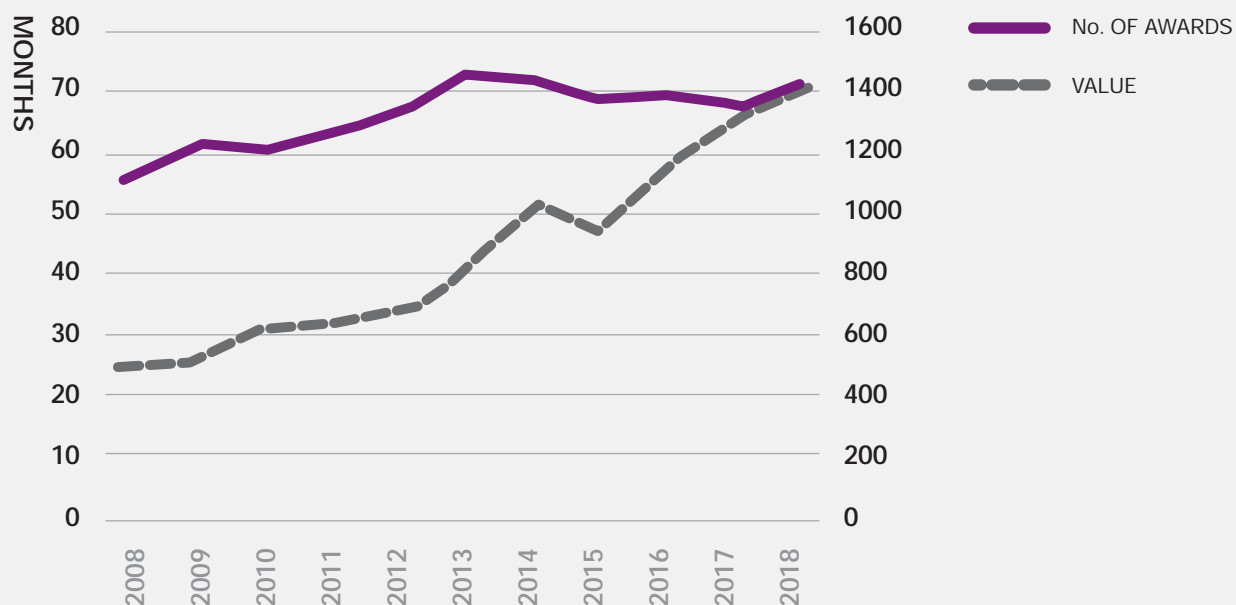
We are dedicated to ongoing fundraising, to managing these funding streamss, and to administering all individual Postgraduate Scholarship and Bursary awards. Currently there are two hundred and seventeen (217) Postgraduate scholarship and bursary programmes; including internal university funded programmes and externally funded programmes. There has been good growth from one hundred and twenty-five (125) programmes in 2008 to two hundred and seventeen (217) programmes in 2018. Funding supports Honours, Masters and Doctoral students across all Faculties.

Postgraduate Funding Number of Programmes

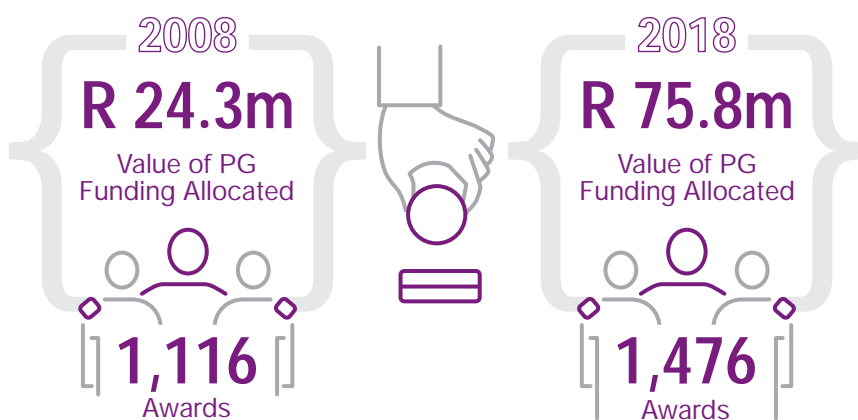


Some of the donor funded programmes include the Flanagan Scholarship for international study, Atlantic Philanthropies scholarships for Doctoral Study, Andrew W. Mellon Foundation Scholarships, Allan Gray Senior Scholarships, the Ada & Bertie Levenstein Bursaries, the David Ryan Scholarship, the Ruth First Scholarship and the Pearson Young Scholarships. The Ada & Bertie Levenstein Bursary programme funds approximately twenty-five (25) Postgraduate students annually. Substantial further funding for Postgraduate study is provided through the National Research Foundation (NRF), the Medical Research Council (MRC) and the Water Research Commission (WRC).

Total Funding & Number of Awards | 2008 - 2018



PG Funding 2008 - 2018



In 2008 the range of funding programmes supported **1 116 students with a total value of R24.3 million**. In 2018, a total of **1 476 Postgraduate students were funded with a total value of R75.8 million**, a 211% increase in total funding over the decade.

Over this period there has been growth in the number of awards to black and female students, some of this due to targeted funding such as Allan Gray, Mellon, Sasol and Atlantic Philanthropies. Of those funded in 2008, 78.5% were from designated groups, whilst 61% were female and 87% were RSA citizens. In 2018, the percentage of students from designated groups had risen to 88.5%, with 65% being female and 89% being South African.

DISTINGUISHED SENIOR RESEARCH AWARD



Credit: Chris Marais

VICE-CHANCELLOR'S DISTINGUISHED SENIOR RESEARCH AWARD

Professor Brett Pletschke
Department of Biochemistry
and Microbiology

Planet Microbe

Microorganisms can be deployed to treat some of the world's most vexing health problems. Their enzymes are useful for everything from brewing beer to cleaning water. Professor Brett Pletschke of Rhodes University's Department of Biochemistry and Microbiology is also convinced they could revive the economies of biodiversity-rich countries like ours.

Our long and interesting relationship with bacteria begins on the day we are born. As we pass through the birth canal, we are seeded with our own unique combinations of these microbes.

No matter how fierce our commitment to hygiene, there will always be at least 1 000 species of bacteria living in and on us. In sheer volume, they completely outnumber us. For every one cell of ours, there are ten cells of theirs.

This is mostly a good thing. If it were not so, we would hardly survive a single day.

Bacteria help us extract nutrition from food. They turn the nitrogen we inhale into the amino acids critical for life. They gang up on other harmful microbes we might breathe in or swallow. But they can also be our worst enemies.

Their effects on our lives range from helpful to benign to downright deadly.

The Power of Tiny

But as author Bill Bryson notes in his popular science book *A Short History of Nearly Everything*, "This is their planet and we are on it only because they allow us to be." He adds that if every bit of biomass on the globe were added up, microbes would account for more than 80% of it. In a very real sense, we are completely outnumbered and at the mercy of an invisible life-force.

It is the workings of this tiny world that Professor Brett Pletschke stumbled across in his second year of Marine Biology at the University of Port Elizabeth (now Nelson Mandela University). He'd switched to Biochemistry to avoid his least favourite subject at the time, Statistics. (He now thoroughly enjoys it.)

In so doing, he discovered enzymes. It was like chancing upon the command and control console to Life, from single-celled bacteria right up to whales, trees, fungi and everything in between.

Professor Pletschke explains: "Enzymes perform a wide range of very important functions throughout Nature. They play a key role in harvesting energy from the sun via photosynthesis, perform a wide range of metabolic functions throughout every living cell in the bodies of plants and animals, and are in fact the catalysts of all biological processes constituting life on Earth.

"They are highly specific and efficient, guiding the biochemistry of life with great precision and fidelity. This fidelity is essential in the cells of living organisms," he adds.

"The other reason I loved enzymes was because you could do experiments in the test tube and get an immediate reaction. I liked that!"

He was awarded his PhD in Biochemistry from the then UPE in the fields of enzymology and protein chemistry. After doing Postdoctoral research in chemical pathology and molecular biology at the University of Cape Town, he joined Rhodes University in 2000 as a Research Lecturer.

Enzyme Energy

Right from the beginning, what fascinated Professor Pletschke most is that enzymes, which are forms of protein molecules, can be controlled, and their actions directed in all kinds of ways.

Extracted from various microorganisms, they are used to brew beer, make cheese, bleach paper, and add extra cleaning power to detergents. Their transformative energy has endeared them to advertising agencies, who often use taglines like "Now with Added Enzymes" to attract buyers.

Microorganisms and their enzymes are particularly useful in the cleaning up of polluted environments, a process known as bioremediation. They can render sewage sludge and acid mine drainage largely harmless. There is even a radiation-resistant bacterium, *Deinococcus radiodurans*, that is engineered to treat radioactive waste, says Professor Pletschke.

"They constantly surprise us with their remarkable adaptability in extreme conditions. As more recalcitrant chemical toxins enter the environment, microorganisms and the enzymes they possess find new ways to break down harsh chemical pollutants into non-toxic elements for their own survival. This in turn has benefits for us."


Biodiversity and the Rise of the Global South

Historically, it has been the 'Global North' that has accumulated wealth and world domination, largely driven by control over fossil fuels which provide the 'platform chemicals' used for all kinds of modern products, including plastics.

But biotechnology, and more specifically the bio-economy, can switch the balance of power towards the more biodiversity-rich countries of the 'Global South'.

With the help of certain enzymes, says Professor Pletschke, platform chemicals can also be created from agricultural waste or plants. These can then feed into a number of industrial applications, including degradable plastics, biofuels and nutraceuticals.

"A more environmentally benign bio-economy can level out the unequal balance between developed and less developed countries."



Some of the most useful microorganisms, plants and their enzymes are found in very unusual places, making preservation of biomes and continued scientific research all the more important.

“Government is doing its thing in terms of making science more accountable in the short term (three to five years), but very often governments and the community don’t realise what science has to offer over the long term.”

Professor Pletschke mentions the ongoing habitat destruction and runaway fires in the Amazon rainforest and the Indonesian jungle as an example.

“This is where we sometimes fail as scientists. If biodiversity scientists pointed out the value of keeping ecosystems intact instead of - in the case of rainforests - burning them to increase palm oil plantations, soya beans or livestock rangelands, we could protect biodiversity instead of destroying it.

“You start giving value to the natural resources, and also to traditional knowledge.”

Coffee, Aloe, Prebiotics and Animal Feed

“When it comes to microorganisms, there are good guys and bad guys,” Professor Pletschke explains.

Our intestines are home to at least 400 to 1 000 species of bacteria. What we eat determines which ones flourish.

The benign or beneficial ones, referred to as probiotics, help our digestion and general well-being. They thrive on certain types of dietary fibre (roughage) found in fruits, vegetables, nuts and seeds. These are also known as prebiotics.

By contrast, the bad or pathogenic bacteria can cause all kinds of health problems, from cancer to irritable bowels, increased weight to depression. They are stimulated by diets high in simple carbohydrates and trans-fats. Junk foods and sugary drinks send the numbers of these pathogenic bacteria soaring.

One of the three programmes for which Professor Pletschke received the Vice-Chancellor’s Distinguished Senior Research Award for 2018 uses enzymes to address these gut health issues.

“We extract manno-oligosaccharides (MOS) from used coffee grounds and *Aloe arborescens*, a

succulent plant that grows along the eastern rim of South Africa. MOS allows the good bacteria in our guts to flourish and out-compete the bad bacteria,” he explains.

The second programme using enzymes provides direct benefits to emerging farmers who are struggling to find grazing for their livestock.

“Subsistence farmers generally cannot afford animal feeds that are available from agricultural co-ops. Instead they mostly have mealies, wheat stems and soybean byproducts.

“The problem is that this feed is enwrapped or enveloped in a husk and the animals don’t have the enzymes to digest the non-starch polysaccharides properly.

“With funding from the Department of Science and Technology, and the Technology Innovation Agency, we have developed and patented a unique combination of enzymes in exactly the right ratio to punch holes in those husks. The animals get greater access to the nutrients, and studies show that they grow faster.”

Seaweeds vs Cancer, Diabetes, Obesity

Professor Pletschke’s third award-winning programme has enormous potential to combat some of the world’s most vexing health issues.

“It involves seaweed, which brings me back to my original love of marine biology. Certain kinds of seaweeds, the brown ones growing in inter-tidal zones, have compounds called fucoidans that protect them against harmful ultraviolet rays from sunlight. They also prevent the seaweeds, which are basically macro-algae, from drying out when exposed.

“Those fucoidans have very useful properties for human health. They powerfully inhibit enzymes that have harmful effects. In essence they are anti-cancer (we have specifically tested them against the breast cancer cell line HCC70), anti-diabetic, anti-obesity and anti-viral.”

This has global implications, considering there are more than 2.1 billion people in the world considered obese, says Professor Pletschke. There are 422 million people living with diabetes, 100 million with cancer and nearly 37 million with HIV/AIDS.



Front row (left to right): Ms Happyness Nosabatha Mzimkulu-Ncoyi, Professor Brett Pletschke, Ms Tariro Sithole, Ms Priyashini Dhaver
Back row (left to right): Dr Samkelo Malgas, Mr Blessing Mabate, Mr Mihle Magengelele, Ms Chantal Daub. *Credit: Chris Marais*

All could benefit from these fucoidans, harvested from *Macrocystis pyrifera* and *Ecklonia maxima* off South Africa's coastline.

"The idea is to create a range of bio-products, including the MOS from the aloe and the spent coffee grounds, the seaweed enzyme inhibitor and the animal feed enhancer, to spur on the bio-economy and create jobs within a sustainable, environmentally-friendly production space."

Right Time, Right Place

Professor Pletschke considers himself blessed.

"I've taken my love for enzymes and I've managed to show their relevance. What I like about enzyme biotechnology is that it's immediate. I can see the seaweed emerging as an anti-obesity agent very soon.

"I like the fact that we're working on something you can discuss at a dinner table."

He mentions that his wife, Professor Carminita Frost, also works in the field of Biochemistry. She is involved in equally exciting projects at NMU, including the use of medicinal plants and cannabinoids for treating metabolic diseases.

While there are some "dodgy characters out there", Professor Pletschke says there is growing interest from Government and funders wanting to invest in biotechnology that can make a real difference.

"It's essential we establish a value pipeline between academia and industry."

He also counts himself lucky in the quality of the Postgraduate students who are working with him on various aspects of the three programmes.

"I've currently got five PhDs, five Masters', two Postdocs and an Honours students. I'm very proud of them and the vast majority of my past students who have not only performed well at research institutions and in academia, but who have also made a significant impact in governmental and research funding agencies.

"These include the Department of Science and Technology (DST), the National Research Foundation (NRF) and Sociology and Industrial Sociology. They continue to contribute to policy formulation to establish a more equitable and sustainable, environmentally-friendly and better world."

Julienne du Toit

DISTINGUISHED RESEARCH AWARD



Credit: Chris Marais

VICE-CHANCELLOR'S DISTINGUISHED RESEARCH AWARD

Associate Professor
Caroline Khene
Department of Information Systems

Engaged Citizens, Responsive Government

Associate Professor Caroline Khene of Rhodes University's Information Systems Department is plugged into the potential benefits that mobile technology can offer connected communities. She has received the 2018 Vice-Chancellor's Distinguished Research Award for her studies examining the opportunities and complexities that arise in bringing citizens and government together via digital platforms.

In the Hamilton Building at the Rhodes campus, the walls of Professor Caroline Khene's office are devoted in equal parts to academic books, year planners and the art of her three young children.

Khene was born in Uganda, but spent almost all her school years in Harare, Zimbabwe, matriculating with A-Levels before heading to Rhodes University for her undergraduate degree.

Technology and Poverty

It was a tech-besotted older brother who convinced her she should get into the Information and Communication Technology (ICT) field. But an altogether more human condition had touched her long before, as a child - the sight of beggars in some of the streets of Harare.

"I remember asking my parents: What can we do about them?"

That was followed much later by the shock of seeing hundreds of shacks on entering Grahamstown, now Makhanda, by Greyhound bus when she came to start her undergraduate studies at Rhodes.

"I had never seen so much poverty. I wondered what could be done to help. What dots could be connected to address the problem?"

It was this burning question that led to Professor Khene basing her Postgraduate work on issues around ICT for Development (ICT4D).

Her PhD studies focussed on an evaluation framework for rural information and communication technology centred around the Siyakhula Living Lab project near Dwesa, along the Eastern Cape's Wild Coast.

Siyakhula, launched in 2006 and involving Fort Hare and Rhodes Universities, provided connectivity and communication-based services to 20 000 children and adults in a very impoverished area.

'The Smoke that Calls'

Later, her focus on ICT for Development led to Professor Khene's involvement with MobiSAM, a Mobile Social Accountability Monitoring platform.

First, some background:

"In many rural areas, up to 80% of the population own a mobile phone. Studies in South Africa show that access to smartphone technology has nearly doubled between 2016 and 2018," says Professor Khene.

This has coincided with another, more negative dynamic. In June 2019, South Africa's Auditor-General Kimi Makwetu reported that only 18 municipalities out of 257 had received clean audits in the 2017-2018 financial year. This financial mismanagement has resulted in wholesale weakening of government service delivery - specifically water and electricity supply, road repairs and waste removal.

Since 2004, service delivery protests have increased dramatically across the country, along with the destruction of infrastructure.

"I heard of a report that referred to this as 'the smoke that calls'."

In her study titled: *Building Foundations before Technology: An Operation Model for Digital Citizen Engagement in Resource Constrained Contexts*, Professor Khene and co-authors Dr Hannah Thinyane and Mwazvita Machiri point out:

"South African citizens do not have a voice that is heard, nor taken seriously, especially at local government level... Citizens have now become despondent, living in conditions that infringe on their human and civic rights.... with the existence of corruption and political influence, there is a sense of helplessness."

Smartphones and Accountability

It was service delivery, or the lack of it in Grahamstown, that led to the creation of MobiSAM.

In 2012, Professor Khene's colleague Dr Hannah Thinyane (now at United Nations University in Macao) and her friend Debbie Coulson were about to bathe their children one evening. When Coulson opened the taps, the water that emerged was brown and filthy.

Professor Khene recounts that Thinyane and Coulson, of the Public Service Accountability Monitor (PSAM), immediately began discussing how their knowledge could be used to help government address issues like this. Was there a tool that could alert authorities and monitor response?

Out of this discussion emerged the first version of the smartphone application called MobiSAM, funded in part by the Ford Foundation.

Citizens of Makana Municipality embraced it, but the local government itself did not.

"They saw it in an adversarial light, as possibly exposing their failings. It was a technical approach to dealing with governance, but there were many social issues surrounding it."

One of those issues was the ownership of MobiSAM.

"If government owned it, they could control access and transparency. If civil society owned it, government might reject it because it was being used against them. Ideally there should be a Switzerland, a neutral referee, to own and run it."

MobiSAM's phase 1.0 (from 2012 to 2015) had revealed a complete lack of responsiveness from local



government. Not coincidentally, Grahamstown began to appear constantly in the national news over this time because of the municipality's financial mismanagement and service delivery collapse.

The entire country heard from the city's despairing residents about sewage, garbage, potholes and donkeys in the streets along with decaying infrastructure, regular water outages and non-payment of debt to Eskom. In 2014, the municipality was placed under administration by the national government.

But precisely because of continuing local government malfunction, the MobiSAM project had great potential. Professor Khene points out similar mobile apps where digital citizens successfully engage with local government: an information-sourcing app in Kenya called *Ushahidi*, and *FixMyStreet* in the United Kingdom, which residents use to report on broken pipes or potholes.

MobiSAM 2.0

Professor Khene became involved as co-director of MobiSAM 2.0 in May 2016, along with Dr Hannah Thinyane. Financial support came from the "Making All Voices Count" global initiative, jointly funded by USAID, SIDA, UKAID and Omidyar.

"Some of the lessons learned from previous implementation made it clear that a more holistic

approach was needed to build citizen engagement and government responsiveness."

One of the successful adaptations was a report-ticketing system. Citizens open a ticket, the problem is directed to the right department, and when the problem is sorted out, the citizen closes the ticket. This can be opened again if the problem re-occurs. The ticketing system helps residents and government track the progress of service delivery complaints. MobiSAM has evolved to become a two-way conversation between residents and the municipality, as noted on its website www.mobisam.net.

The project is finally gaining traction with some parts of the municipality, in particular for fixing water leakage and broken pipes. Champions within the local government have helped it gain a certain degree of acceptance, notes Professor Khene.

"Another advantage is that it is transparent. Its accuracy means information can be used for evidence-based social accountability."

Truth and Evidence

Professor Khene is currently supervising PhD candidate Gugulethu Baduza's study on the scalability of similar projects.

"That is the golden thread - how a project can be scaled up or down and adapted. It is important to be as holistic as possible, to build capacity among all parties and to evaluate constantly."

The lessons from MobiSAM in the Makana Municipality are being used in a Transforming Lives project (launched in 2018) in six Southern African countries.

"Baseline studies are showing that 60% of adolescents and youths are sexually active in sub-Saharan Africa. There's a lot of stigma and cultural issues involved in providing access to HIV information among adolescent youth. Because of their ages, they are told to come with a parent, which complicates things. If they do not want their parents to know, they cannot access condoms or counseling. The problem is that this could reignite the spread of HIV-AIDS and governments would not see it coming."

"Through a mobile app called MobiSAFAIDS, (available on the Android Playstore), youngsters can report anonymously and the truth can emerge."

MobiSAM's successes have attracted attention from national government. Its collaborators have been invited to give technical advice and policy recommendations to *VulekaMali*, a web portal that reveals how Government allocates funding. Amatola Water has also expressed interest in MobiSAM.

The Human Interface

Information and communication technology holds many potential benefits for developing communities, says Professor Khene. "Mobile banking apps like *M-pesa* and *E-wallet* have made a big difference in areas without ATMs. E-learning is another promising application."

"But technology, no matter how beautiful, is only one of many tools. It is not the only solution and sometimes comes with unintended consequences. Technology must always interface with humans, and where there are problems, it's often for that reason."

"Sometimes you encounter technophobia or the opposite, what I call Pilotitis. There's all kinds of excitement about some new technology, but people don't know how to use it. Government might decide all teachers must have laptops and children must have tablets. But if there is no support in integrating it properly - and issues might be as simple as a lack of access to mobile data or even electricity - then it fails, and ends up in a storeroom covered in dust."

Digital citizen engagement can be a game changer where residents can play a more effective role in service delivery decisions in their local government and hold officials accountable. But it needs careful guidance and constant monitoring, Professor Khene points out.

"My vision? An engaged citizenry, and a responsive government."

Julienne du Toit



Credit: Chris Marais

Dr Siphokazi Magadla
Department of Political and
International Studies

Women in War, Women in Peace

For anyone with an interest in South Africa's recent history, knowing about the experiences and challenges of female anti-apartheid liberation fighters at home and abroad during the struggle years and in the current aftermath, is critical.


Dr Siphokazi Magadla's interest in the concept of women, peace and security goes back more than a decade in her accomplished academic career.

A Senior Lecturer in the Political and International Studies department at Rhodes University, Dr Magadla completed her PhD on the lives of a large cross-section of South African woman combatants in post-apartheid South Africa.

She is the recipient of the 2018 Distinguished Teaching Award, for academics with fewer than 10 years' experience of teaching in higher education.

A former research consultant with the Institute for Security Studies (ISS) in Pretoria, Dr Magadla is also a Fulbright Scholar who holds a Masters Degree in International Affairs from Ohio University, USA.

While with the ISS in 2008, her first field trip was to Rwanda to interview women's organisations that had been established after the period of genocide which began in the mid-1990s.



And although she studied the global view of women and their roles in wartime and afterwards, her focus has honed in on Africa and, in particular, South Africa.

In 2018 Dr Magadla was appointed by President Cyril Ramaphosa as the youngest member of a high-level review panel into the workings of the State Security Agency (SSA). The panel's findings were far-reaching and later described in the media as "explosive".

A Father in Uniform

Dr Magadla grew up in her rural home in Ludaka, Ngqeleni, with her paternal grandmother. She moved with her parents to Thabo Mbeki Township (popularly known as Megacom) in Libode in 1990, where her family still lives.

Her father was initially a member of the Transkei Defence Force and then integrated into the South African National Defence Force.

"He took 'early retirement' in 1996, what I now understand as the rationalisation project that was headed by then Minister of Defence, Joe Modise," she says.

"At the time, I was merely 10 years old. His transition to civilian life had a profound impact on our family life, and I have vivid memories of him whistling in the morning while polishing his shoes in full military uniform."

"My curiosity was also compounded by the fact that my mother, who is a psychiatric nurse, used to come home with dramatic stories about the recently retired soldiers in her ward, who were suffering with mental illness following their demobilisation."

"So, while the public image of the soldier is that of control, I grew up with an alternative archive of images of former soldiers who were overwhelmed by the realities of everyday life."

An Under-Studied Field

March 21, 1960, was the date of the infamous Sharpeville Massacre during which sixty-nine (69) Pass Law protestors were shot dead by police. This tragedy and the events that were to unfold heralded the beginning of 30 years' armed struggle against the apartheid regime.

"Those three decades thrust women into the centre of the all-encompassing transnational anti-apartheid battlefield," Dr Magadla says. "The study examines the lives of woman combatants during and in the aftermath of this period."

Previous research has been done on the various guerrilla groups including *Mkhonto we Sizwe* (MK) and Azanian People's Liberation Army (APLA) that were trained outside South Africa - the male soldiers in particular.

"The privileging of the externally trained combatants has overshadowed the contributions of those who fought inside the country, the majority of whom were women," says Dr Magadla in her thesis.

Women at Home

"But in spite of the international posture of the armed struggle, it was a domestic struggle in which women formed the basis of the domestic front in ways that became obscured by the military integration process that operated parallel to the political negotiations between the National Party government and the liberation movements at the end of the war."

In a section of her thesis entitled *Guerrilla Girls, Combative Mothers and the In-Betweeners*, Dr Magadla discusses the differences between the "transnationally trained guerrilla fighter", the older women who remained in South Africa and confronted the state at home and the younger township women who fought in, for example, the various self-defence units during what has come to be known as 'The People's War'.

"The majority of women remained inside South Africa as the armed confrontation with the state reached its limits in the 1980s," she writes.

"The older women, the 'combative mothers', thrust into this battlefield, provided protection for their children, who were being hunted by the state in their homes, schools, churches and at funerals."

No Benefits

"The popular depiction of the revolutionary mother with the gun/spear, and the baby on her back, reveals the empirical reality of the majority of the women who were combatants of the People's War."

“Yet, these women are written out of the dominant narrative of the armed struggle and excluded from the material and symbolic benefits that are afforded other former internationally trained combatants in post-apartheid South Africa.”

Most of the women who left South Africa and joined MK were young and unattached, Dr Magadla reveals.

“In the context of guerrilla war, homes of women became sites of both struggle and retreat as they formed the barrier between the state and their children. These women would not define themselves as combatants, although the ‘young lions’ they protected would describe themselves as combatants of the People’s War.

“Without their participation, it is difficult to imagine that their children would have been successful in confronting the state. In the eyes of their own children, the mothers are seen as fellow combatants.”

Former combatants arriving back in South Africa underwent demobilisation and received various forms of veterans’ compensation. The majority of the internally-based combatants have received no forms of compensation from the state.

“These women have had to reinvent themselves for the post-apartheid reality, economically, socially, politically and psychologically,” says Dr Magadla.

“A section in this thesis also examines the different ways in which women are navigating civilian life, and how they deal with the enduring memories and wounds of the past.”

The Interviews

During the course of her research, Dr Magadla conducted extensive interviews with 38 women, chosen from the ranks of MK (18), APLA (7), the *Amabutho* Self-Defence Unit in Port Elizabeth (11), one Pretoria-based SDU veteran and one person from the Department of Military Veterans.

She has added more interviews to this sample as she is currently revising the thesis into a book. Among the people she has interviewed, in 2018 she interviewed

retired General Siphiwe Nyanda, the former chief of the South African National Defence Force and former minister of communications, and retired Major Jackie Sedibe, who was the highest ranked woman in the defence force after the integration of the SANDF and the head of the Equal Opportunities Chief Directorate; as well Mr Tsepe Motumi, the first Director General of the Department of Military Veterans and current Special Advisor to the Minister of Defence and Military Veterans, Nosiviwe Mapisa-Nqakula.

“In terms of my own personal transformation during this manner of fieldwork, it became a ritual that I would take a shower after each of the interviews I faced,” she says.

“When I think about it now, it was my own attempt at cleansing myself of the heaviness of the lives I was made witness to in these encounters.”

“Even though the content of the interviews was difficult, I felt a profound gratitude as a black woman to sit in the homes and offices of women who told me about their world and the choices that context allowed them to make while under siege.”

Survival Mechanisms

She quotes from a keynote address made by Dr Nthabiseng Motsemme, Academic Director of the National Institute for the Humanities and Social Sciences made at the 2018 African Feminisms conference titled *The Mute Always Speak*:

“For example, gunshots and running footsteps just outside one’s yard would awaken households in the quiet of the night. However, when families woke up in the morning, it was life as usual - porridge to be prepared for breakfast; uniforms to be ironed; baths to be timed; and other last-minute preparations for school and work.

“There might be a vague, or more commonly not a single utterance about what everyone had witnessed and heard during the night. This silence, which women’s narratives echo, is one which attempts to compensate for the loss of innocence for children who lived in a violent everyday in which women had, and continue to have, little power to change.”



Credit: Chris Marais

Panel on State Security

Dr Siphokazi Magadla was appointed to the Security Sector panel (chaired by former Safety and Security Minister Dr Sydney Mufamadi) last year. Although Dr Magadla was discreet in discussing her work on the panel, the group's report was released in the public realm.

On March 11 this year, *The Daily Maverick* said:

"The high-level review panel report on the State Security Agency's (SSA) illicit activities during the Zuma years is awash with examples of politically-motivated operations, corruption and the spy agency's general disregard for the rule of law. The report could serve as a useful manual to help rescue the SSA from the swamp of abuse and malfeasance it had been dragged into by Zuma and Co.

"But this document should by no means be the final say on this grave matter, and President Cyril Ramaphosa's inevitable battle with the spooks is bound to get nasty."

Media 24 reported the next day:

"According to explosive findings by the high-level review panel into the SSA, Zuma breached the Constitution, irregularly made changes to the previous intelligence structures and was directly responsible for executive interference in the workings of the agency.

"He is also responsible for the 'extremely serious politicisation and factionalisation' of the SSA, while the agency's neglect to act on warnings about the Guptas and state capture 'has cost the country dearly'."

Dr Magadla sums up her work on the panel:

"It was the most intense six-month period of my career."

Chris Marais

The Teacher

A sampling of the many students Dr Siphokazi Magadla has taught would include:

- **Sindi Ngaba** is the 2019 - 2020 recipient of the Social Science Research Council's Next Generation Social Sciences in Africa Fellows.

Her PhD study will shed light on Ruth Mompati as a leader and her ideas. She was one of the first members of the ANC to be trained in the Soviet Union in 1962, a long standing member of ANC National Executive Council, and one of the principal organisers of the 1956 Women's March.

- **Simamkele Dlakavu** is currently developing a proposal on the One in Nine Campaign: Feminist Organising Against Sexual Violence in Democratic South Africa. The One in Nine Campaign was founded in support of Fezeka Kuzwayo (known as Kwezi), who accused Jacob Zuma of rape in 2006.

Dlakavu is a known feminist activist and Fallist, who did her undergraduate and Masters degrees at the University of the Witwatersrand (Wits). She was one of the four women who staged a protest in front of Zuma during the announcement of the 2016 municipal election results, to mark 10 years of the Zuma rape trial.

- **Sisassenkosi Mataruse** hopes to finish her Masters thesis on Joice Mujuru (the first woman Deputy President in Zimbabwe) and women in political parties in independent Zimbabwe.

- **Londiwe Mntambo** is looking at transitions of Zulu girlhood to woman through the ritual, Umemulo. She is examining the assumed tensions between women's access to and participation in cultural rituals that are meant to shape the behaviour of girls and would-be women, and women's individual autonomy in a democratic order.

- **Lihle Ngcobozi** has written and commented about her 2017 thesis study on Methodist Manyano women, womanhood and motherhood in democratic South Africa.

- **Christopher Morris** is preparing to do fieldwork for his Masters thesis research on the Violence Work of Gangs in Westbury, Johannesburg. Much of gang discourse in South Africa is focused on gang violence in Cape Town. The killing of Heather Peterson last year gave rise to some of the biggest and most sustained protests against gang violence in Johannesburg. Morris examines the impact of gangs in Westbury as work of violence that shapes gendered personhood that makes and ruptures social life in Westbury.

- **Gcotyelwa Jimlongo** is looking at the citizenship of Xhosa widows after the mourning period. Jimlongo is the 2018 recipient of the South African Association of Political Studies 'Best Honours Essay' Award for her paper titled: "When women have reached the end of their politics: Nakedness as Resistance".



Mr Chad Keates and Dr Shelley Edwards.

Credit: Chris Marais

Dr Shelley Edwards
and Chad Keates
Department of Zoology and
Entomology

Reptile Detectives

At the top of Rhodes University's Life Sciences Building is a laboratory that would have completely astounded the father of modern taxonomy, Carolus Linnaeus.

When Swedish naturalist Linnaeus began bringing systems and order to the classification of animals and plants roughly 280 years ago, there was only one tool available: careful observation and description of species.


By the time he died in 1778 his great book *Systema Naturae* was 2 300 pages long, spread over three volumes, giving succinctly descriptive Latin names to over 13 000 organisms.

Taxonomy has variously been described as a science, an art, and a battleground. Disagreements over classifications among scientists are legendary and bitter. They can and have raged for years.

Complicating things immeasurably is the fact that members of identical species can look quite different. The domestic dog is perhaps the most vivid example, ranging in size and appearance from the tiny Yorkshire Terrier to the gigantic Irish Wolfhound.

The converse is also true. Members of completely different species can look exactly the same.

"There are thirty different species of lizards around the world, from seven different families, that all have black and yellow striped bodies



with blue tails,” points out Dr Shelley Edwards, Senior Lecturer of Evolutionary and Molecular Biology at the University’s Department of Zoology and Entomology.

Taxonomy and Taxidermy

Adjoining her office is the laboratory that Linnaeus would so have envied - where this kind of conundrum can be sorted out through genetic analysis of DNA.

Most of the work here is being done on reptiles. Back in the days of Linnaeus, this would have entailed studying actual samples of these animals, usually stuffed to preserve their appearance.

And that in turn relied on explorers such as Francois Levaillant, William John Burchell and Joseph Banks who would go on expeditions around the world to bring back samples. These collections had immense value to natural history museums.

When Francois Levaillant set off on his expeditions around South Africa in 1781, he was considered one of the best taxidermists in the world, thanks in part to his secret recipe of arsenic soap that made a dramatic difference in preserving specimens for longer, including their sheen and colouration. Some of his stuffed birds are still in the archives of French museums today.

Later on, natural history museum curators would set out and acquire specimens themselves. For centuries, the job entailed a certain handiness with rifles, an unflinching devotion to stuffing and mounting animals, and a gift for arranging these in helpful dioramas that gave visitors an idea of their habitat and behaviour.

It was those highly prized specimens that helped taxonomists define the often-disputed boundaries between species.

The Species Sleuths

These days Dr Edwards and Doctoral candidate Chad Keates analyse genetic samples in the Zoology and Entomology Molecular Laboratory (ZEML) from a tiny piece of tail - the lizard or snake escapes with its life - or a liver sample harvested from an animal caught for science.

They both had unlikely beginnings as reptile species sleuths. When Dr Edwards began her BSc at Stellenbosch University her ambition was to become

a conservation veterinarian. It was only while doing her PhD on the genetics of Lacertid lizards that her direction changed irrevocably.

“I fell in love with reptiles, anything scaly and awesome - they’ve become the highlight of my career thus far. I realise that every biologist feels their study species is top notch, but the fact that these lizards seem to be so good at adapting to their environments truly fascinates me.”

It was when Dr Edwards began supervising Chad Keates’ doctoral studies on *Psammophiinae* (grass, sand and whip snakes) that the world of serpents began to intrigue her too. This sub-family of snakes is mildly venomous and as Keates describes them, “slender, gorgeous and lightning quick”.

Keates never envisaged a career path in science. While at school, he was an average learner.

“I remember very clearly the day the deputy headmaster told me I lacked the academic capabilities to pass high school science.”

He stubbornly persisted though, studied journalism at Rhodes for his undergraduate degree and then switched to Zoology for his Honours. He excelled, graduating with distinction.

“That’s when I became really mad about snakes.”

Keates began his Masters by studying the phylogenetics of the spotted skaapsteker snake (*Psammophylax*). Halfway through, his studies were upgraded to PhD, expanding to include the *Psammophiinae*.

Evolution and Speciation

“This country’s snakes are very under-studied,” says Keates. “Just last year we found a new snake species. There might even be a new family of frogs coming out of this lab. South Africa is the most sampled place in Africa. Southern Africa is home to around 660 species of reptiles, with approximately 165 species of snakes. Yet we’re still finding new ones.”



Brown house snake (*Boaedon capensis*).

Credit: Chris Marais

"We are all working on genetics, because there is no point in studying an animal if you don't know what it is yet. Taxonomy first, then ecology."

Dr Edwards explains: "We're interested in how something became a species, the driving factors or speciation events that led to one group becoming different enough to be a new species. A speciation event, although it sounds like quite a sudden thing, is usually millions of years in the making. These are environmental or habitat changes, some kind of geological event, a mountain being pushed up, the course of a river changing, something that splits populations so that they stop interbreeding and evolve separately."

"Africa is a fantastic continent to be studying this simply because evolution was not interrupted by any glaciation processes during the last Ice Age. It has just undergone changes in rainfall and elevation. Over millions of years, half of Africa was pushed up by the magma in the mantle underneath the Earth and this uprising led to a change in the rainfall patterns and the reason why we have savannah."

"The rising of the Drakensberg range now intercepts the rain-bearing clouds that used to bring moisture to the Karoo, once an inland sea. Since the mountains have contributed to the drying out of the whole Karoo basin, species have responded in various ways."

"If we look back five million years ago and see what has happened, we can possibly predict which species will survive climate change. Perhaps a population will contract, or expand."

Hadedea ibises, once limited to forests and wetlands, are now widespread throughout South Africa, Dr Edwards points out. Vervet monkeys have also expanded their populations along dry and wet rivercourses through the Karoo. Another area of Dr Edwards' studies includes the spread of the house gecko (*Hemidactylus mabouia*) in the Eastern Cape province.

"What we find could help conservation efforts, giving baseline information that safeguards vulnerable species."

Pressure and Change

"We're trying to see signals of changes in the genetics of various reptile species. So we do single species genetics and look at their evolution and the times that they split and then do another species, another and another - we use multiple lines of evidence to look into the past and we can then start to try to predict how species are going to possibly survive climate change in the future."

If conditions are constant, a species could remain the same for millions of years, adds Keates.

"But if there is pressure, the rapidity of the change depends on its generation times - how many times a year it reproduces. So if you've got something like an insect that can reproduce in a week, with 52 generations in a year, it can evolve quickly.

"But if you have a tortoise, say, that lives for 150 years, and produces an egg every two years, it will take some time for that species to change. Those with mutations that give an advantage for survival are the ones that will carry on."

In reptiles, habitat change has forced speciation, which often begins with morphology (appearance).

Dr Edwards brings up two images of South African chameleons on her computer screen.

"Genetically, these are very nearly identical. But this one lives in forested areas, has that bony crest on its head, and is brightly coloured. It's much bigger than this one that lives in open fynbos areas, has dull colours and a small head with no crest. They've adapted to the habitat they're in, which is why there are these morphological differences. Theoretically, if they become physically separated, they would stop interbreeding and become completely separate species one day."

Snakes and Lizards

In fact, Dr Edwards points out, snakes evolved from lizards millions of years ago. They began to burrow because something must have changed in their habitat. Limbs became a hindrance, and eyes were superfluous in the dark.

"These resulted in the primitive blind snakes."

Even so, the ancient snakes retain the vestiges of limbs, including the pelvic girdle. Keates picks out a specimen from a box he brought in. It looks like a giant millipede without the feet.

"You can barely tell the back from the end. But the tail does have a sharp spine it uses for self-defence."

The more recently evolved snakes, he explains, include the boomslang, which has huge eyes and dangerous venom.

"So snakes are just glorified lizards."

Threats, Pets and Roads

One of the biggest threats to reptile populations is the pet trade. Lizards and snakes are in huge demand, especially the rare, charismatic and endemic ones with tiny distribution ranges like the Albany Adder, the Plain Mountain Adder, the Sungazer lizard and many kinds of tortoises.

Keates says he is contacted by people all the time, wanting to know where he found this or that species.

"Collectors have offered me money. They'll follow people like me on *Facebook* or *Instagram*, and try to find out where the photos were taken. I take the geo-tags off my photographs before I post them on my website www.nextgenherpetologist.co.za.

"If you look at *YouTube* videos on the pet trade, you'll see warehouses of people with tortoises in boxes so small they can't move.

"But the problem generally isn't with the reptiles you see, it's the ones you don't. It's the rare, illegal to trade ones that sell for a fortune on the black market. They end up far from home, kept in secret enclosures, their valuable genes lost to nature.

"But habitat destruction and roads are even more of a threat. Hundreds die on the roads of South Africa every day."

Horny Devils and Technicolour Warfare

Both Edwards and Keates marvel at the ingenuity and variety among reptiles.

There are swimming lizards (iguanas) in the Galapagos, an Australian lizard called the *Horny Devil* that can shoot blood from its eyes, and South Africa's own flat

lizards that fight with competitors by flashing their technicolour stomachs at one another. Koggelmanders meanwhile, show their fitness to mate by turning their heads bright blue and doing press ups.

It's not always habitat that determines changes in species. Dr Edwards explains:

"Those 30 different lizard species that all have striped bodies and blue tails have all found the same solution to an ecological problem - in this case predation.

"In nature, blue is a strange colour, but seems to be quite attractive to certain birds and mammals. So if you have a lizard with the ability to break off its tail and leave it wiggling behind it, then the predator is distracted and that will give the lizard an advantage. The stripes are also a way to confuse the predator. It is disruptive colouration. While the lizard is running, the predator cannot focus properly on it. Zebras use the same trick."

Keates shares his passion for reptiles in outreach, taking snakes and lizards to schoolchildren and interested groups. He also offers demonstrations and 'critter walks' as well as a snake removal service.

When not working on his thesis, side projects or environmental awareness, he roams the country "in search of weird and wonderful reptiles and amphibians. I've photographed all the species I've encountered and uploaded them to my website so that others can enjoy Southern Africa's amazing diversity."

But he also loves being in the laboratory.

For Keates, the dusty traditions of taxonomy have acquired a whole new glamour through the research coming from the Zoology and Entomology Molecular Laboratory.

"Dr Edwards has elevated five new slug-eating snakes to species level. We've got two new grass snakes from Tanzania. A new pygmy toad from Angola. A whole new gecko genus from Angola too, plus a new skink from Mozambique. There are lots of cool things happening in this lab," says Keates.

"It's like CSI, except with reptiles."



Mr Chad Keates with a Rock Monitor.
Credit: Javier Lobon Riviera

Julienne du Toit



Left to right: Dr Setshaba David Khanye and Mr Mziyanda Mbaba.

Credit: Chris Marais

Dr Setshaba David Khanye
and Mziyanda Mbaba
Faculty of Pharmacy

Long Walk to the Lab

Farm-raised Dr Setshaba David Khanye, Head of Pharmaceutical Chemistry at Rhodes University's Faculty of Pharmacy, grew up poor, tough and focussed. His protégé, Mziyanda Mbaba, shares his values, his love of books and a life of adventure in the laboratory.

Setshaba David Khanye's first day of school was at the ripe old age of eleven - but there was a very good reason for his academic late-coming.

His grandfather worked for a farmer near Memel, a small town in the eastern Free State. His mother was a live-in housekeeper in town and so David and his younger brother Yatiso grew up on the farm with his grandparents.

The nearest available school was on another farm more than eight kilometres away, a long walk for a little barefoot boy.

The Farm School Years

"So I was kept at home until the age of 11, to be strong enough to walk 16 kilometres to school and back every day," he says.

Yatiso, three years younger, was supposed to be held back for the same reasons, but he kicked up such a fuss that he was allowed to start school in the same year as his elder brother.

The 30-odd children took their lessons from one teacher in a two-room barn, from Grade One (Sub A) to Grade Four. And although the treks to school and back were often daunting, the brothers saw them as social occasions to bond with the other youngsters on neighbouring farms.

Then life turned. Their grandfather died and the farmer made them an offer: the family was allowed to stay on the farm with regular salary and food rations on condition that the older boy laboured for him.

"Before his passing, my grandfather had bought a site at Zamani township in Memel and my late grandmother preferred to take us there instead," says David. "She chose our education above all the farmer's benefits."

Brothers in a Shack

After two years their mother, who was now employed in Newcastle, called for the boys to join her. She was still 'live-in', but had bought a tiny plot in Blaauwbosch near Osizweni township in Newcastle, and this was where 17-year-old Setshaba and 14-year-old Yatiso made a dwelling for themselves.

"Yatiso and I built a three-metre-square shack out of leaky corrugated iron and timber," he says. It was roughly half the size of his present office.

"We set up a little kitchen with a pump-up primus stove for cooking, two single beds in opposite corners and an *imbawula*, (a metal drum or konka) of live coals in the middle for heating. We fetched water from a well one kilometre away and dug a pit latrine outside. That shack was our home for four years. Our Mom visited us once a month."

Conflict in the Classroom

School life was "interesting", he says. Because he was a bright scholar of the right age, Yatiso easily gained entry to the disciplined, highly-regarded local St Lewis Bertrand Secondary School, a Roman Catholic institution. David, on the other hand, was seen as too old and was refused admission to the same school as his brother. His first high school was six kilometres from home and there was no culture of learning.

"It was the late 1990s, and there were still pockets of fighting between ANC and IFP supporters. There were

fighting at school, and learners were coming with weapons," he says. "I remember an older boy in our class. One day, he turned around to us during a lesson and asked if he could borrow a ruler. We did not have one for him."

"That's OK," he said. Then he took out his pistol and used it to draw a straight line."

New School, New Possibilities

After a year, David realised his brother was outstripping him academically.

"Although we were in the same grade, his Maths was far ahead of mine. So I convinced my mother to find me another school and she did. It was also not of the highest standard, but it had a new headmaster intent on changing things."

"When I arrived in Grade 11 at Dedangifunde Senior Secondary School, they were weeding out the problem students and sorting out the discipline issues. The headmaster and his deputy told the school they did not want to see graduates walking the streets and blaming their teachers for their bad education and life choices."

Setshaba Khanye and a cluster of like-minded students heeded the call and hit the books. They would do the regular morning classes, take a 30-minute lunch break and return to their schoolwork until 4.30pm.

"I had to do some serious catch-up, because of my advanced age and the bad education I had received up to that point," he says.

Hard Teenage Lessons

But all of it, the challenges they faced at school and in their leaky little township shack, served to toughen the Khanye brothers. They used to lie on their beds at night and talk of how they were going to bring relief to their family one day.

"We had no pocket money, so on Saturdays while other kids were playing, we would go to town and offer our services as gardeners. We lived on porridge, potatoes and sugar beans month after month. Through that we learnt that you don't have to feel sorry for yourself - you just work your way out of a hard situation."



Dr Setshaba David Khanye.

Credit: Chris Marais

When they matriculated in 2000, Yatiso received a Career Wise bursary linked to Sasol. The company sponsored his university studies and has employed him ever since as a Chemical Engineer.

His older brother's road was a little tougher.

Braving a New World

"First, I had to deal with the opinions of locals who believed that university was for 'certain people', not for those from poor backgrounds.

"I would look at the brochures and see people who did not look like me. It wasn't a case of colour - by then they were also images of black students - but their confidence and their brand name clothes made me wonder if I would fit in. And what about moving from a black township school to a multi-cultural institution? Would that even be possible?"

He applied to the University of the Witwatersrand to do a BSc degree, majoring in Geology. At first, there were no funds for him, but Wits saw something in the

young man. He was offered a Council bursary which, along with the Government NSFAS support, covered his basic needs.

"In my second year, I discovered medicinal chemistry," he says. "I found out about various disease-fighting drugs and that became my passion."

Search for the 'Gold Drugs'

Khanye was wondering how to fund his Postgraduate studies, when he heard that Mintek was backing research into finding industrial and medical applications for gold.

This precious metal has many biological benefits, including anti-inflammatory, anti-bacterial and anti-parasitic properties. Khanye devoted himself to studying gold and its medicinal applications, and his main task involved finding good structures (ligands) to support gold in its different oxidation forms. The ligands have to be stable enough to survive administration into the human body.

“It has applications that can prevent or treat cancer, leukaemia, rheumatoid arthritis and malaria. But there are no quick fixes. One of the big issues is to establish how gold is eliminated from the body. In its metallic form, it is inert. But at various oxidation states - gold(I), gold(II) and gold(III) - things are different.”

Dr Khanye specialised in bio-inorganic and bio-organometallic chemistry of gold through his Masters and PhD studies via Mintek, went on to work for pharma giant GlaxoSmithKline in Spain, then iThemba Pharmaceuticals in Gauteng for most of 2011. Within a year, however, he realised that the corporate life was not his calling.

Love for Academia

“Industry wasn’t for me. I wanted to teach and do my own research. Now I am quite happy here in the chemistry lab at Rhodes, spending hours with young Mzi assembling molecules in different forms to generate new compounds with biomedical applications.”

Dr Setshaba David Khanye first met Mziyanda ‘Mzi’ Mbaba in the second semester of 2012. Khanye was a new Chemistry lecturer at Rhodes and Mbaba was a second year student.

“Lecturing to a class scared the hell out of me at first,” admits Khanye. “I remember Mzi sitting quietly in the middle row.”

In his third year Mbaba came to see Khanye about further study projects and shared his fears of “not being good enough”. This resonated with his lecturer, who assured him:

“I will supervise your Honours, set the bars for you and tell you when you have met them.”

The Solitary Student

Mbaba, now 27, grew up in a village near Lady Frere in the Eastern Cape.

“I had the blessing of being raised by both parents until I was 15, when my mom passed on. My dad was on the platinum mines in Rustenburg so my five brothers, two sisters and I didn’t see a lot of him.

“After my mom’s death in 2007, my siblings were sent off to live with different parts of our family and I was

left to look after the home on my own. I was at high school and it actually benefitted me - I had no distractions.”

Finding his Focus

But his high school environment was another story. Mbaba tells of his Grade 10 class, where 200 learners sat in one room in front of a split blackboard being given Geography and Physics lessons by two teachers - at the same time.

“The Geography teacher was easy-going and fun and would be making jokes all the time. Our Physics teacher would get really unhappy with the level of distraction coming from his counterpart.”

Mbaba, however, was dead-set on studying Physical Science. His Matric results were the best in his district, which gave him access to a university scholarship from the Premier of the Eastern Cape.

“This allowed me to apply to Rhodes,” he says. “I did my BSc and graduated in 2014 with distinctions in both my double major subjects, Chemistry and Biochemistry. Dr Khanye is the person who inspired me to go further. I could relate to his life story, and from his experience I saw that even if you come from an impoverished background, you can dream. And with resilience and effort you can get where you want to be.”

World of Books

They both say that reading sustained them.

“Books take you into another world,” says Dr Khanye.

His protégé agrees:

“While I was still at school, books helped me.”

His favourite book from that time was *Letshona Liphume*, by Ncumisa Vapi.

“It’s about orphaned siblings who, through persistence, managed to make something of themselves,” he says. “I could relate to it.”

Mbaba’s doctoral research has focused, like that of his mentor and supervisor, on organometallic chemistry in pharmaceutical applications.

But instead of gold, he is concentrating on iron, which

occurs naturally in the body. His research could be useful in fighting cancer, malaria, tuberculosis and even Alzheimer's Disease.

Mbaba's research involves the crafting of organometallic anti-microbial compounds that can overcome the problem of clinical drug resistance. Explaining the motivation for his PhD research, he says that the development of resistance to current clinical drugs is a major concern in modern drug discovery and medicine.

"As medicinal chemists, it is our moral responsibility to devise innovative solutions to address this threat which could render current clinical drugs obsolete in the near future."

Dr Khanye agrees Mbaba's work has huge potential.

They talk of a 'scaffold' that combines the iron-containing compounds with a dual mode of drug action or mechanistic duality. This means that a drug can target the same disease in different ways.

Mbaba notes: "Iron has remarkable biomedical attributes including the ability to interfere with different pathways and generation of reactive oxygen species.

It is effective against the pathogenic microorganisms causing diseases such as malaria and TB.

"As a relatively new branch in medicinal chemistry, organometallic complexes provide a real glimmer of hope. The resulting compounds could serve as alternative medicaments to avert or delay the development of resistance."

Through collaborations with the laboratories of Associate Professor Adrienne Edkins, a co-supervisor to Mbaba's doctoral dissertation, and Associate Professor Heinrich Hoppe from the Department of Biochemistry & Microbiology, Dr Khanye's group has published a number of peer reviewed research papers in reputable international journals.

So far, Mbaba's work has culminated into two publications including one in which he is also a corresponding author.

When you ask Mzi Mbaba what his life goals are, he is clear:

"I want to teach like Dr Khanye and inspire other young University students - just like he inspired me."

Chris Marais



Mr Mziyanda Mbaba.

Credit: Chris Marais



Credit: Chris Marais

**Emeritus Professor
Chrissie Boughey**
Centre for Higher Education
Research, Teaching and Learning
(CHERTL)


A Woman in Search of a Theory

Transformation is a topic at the top of the agenda at universities across the country. For Emeritus Professor Chrissie Boughey, former Deputy Vice-Chancellor, Academic & Student Affairs and her colleagues in the Centre for Higher Education Research, Teaching & Learning (CHERTL), it is something that has long been central to their work.

“Academic Support was introduced to the historically white liberal universities in the early 1980s as a response to the decision, on the part of the apartheid government, to allow small numbers of students to study outside the historically black institutions”, explains Boughey.

“By the mid 1980s, the idea that it was black students that needed to be developed was beginning to be challenged. Rather, it was argued, it was the universities themselves that were in need of transformation to meet a new political dispensation and a changed student body. All my research on student learning since then has tried to explore what this could mean.”

Boughey's early career involved teaching English as a foreign language in places as diverse as Spain and the Middle East. Throughout her years in the Middle East, Boughey says she was ‘a woman in search of a theory’.



"I had been trained in the so called 'best methods' in language teaching at British universities but in all the places I taught - one of the first girls' schools in the state of Qatar, a medical faculty in the University in Sana'a, Yemen - they simply didn't work and I couldn't work out why! I now know that all my training had been based on the assumption that education was neutral and fair - when it is far from this."

Her search for a theory was resolved when, in the late 1980s, she encountered critical social theory while working at the University of the Western Cape.

"In those days, UWC was at the forefront of the struggle against apartheid and people like the late Wally Morrow and others were using critical theory not only to look at the damage done by apartheid but also to look to the future. I had been trained to use 'mainstream' linguistic theory and suddenly my eyes were opened and all my experiences began to make sense as I realized that dominant one-size-fits all approaches do not do justice to the multiplicity of ways of knowing and the way power plays out in privileging some over others".

This led to Boughey writing a doctoral thesis that her supervisor claimed 'bit the hand that had fed her' for so long given its critique of dominant understandings of the so-called 'language problem' and the approaches they gave rise to.

"The problem with academic research", says Boughey, 'is that it doesn't seem to impact on belief systems and what people do as a result of these beliefs in any significant way. For example, most people think that the difficulties students experience as a result of having to use English as a language of learning and teaching would be solved if we shifted to using the indigenous languages. Using indigenous languages in higher education would be enormously affirming for students and would address a number of issues related to identity. However, the move to using them would not mean students would automatically understand the complex abstract thinking that accompanies academic work or, indeed, would understand the 'rules' of that thinking".

Boughey's research on academic language and literacy has taken her into the field of practice in order to try to explain those 'rules'.

In 2012, she wrote a guide for Rhodes University students called 'RULearning' which tried to unpack the 'mysteries' of what it means to learn in the university.

"Academics aren't interested in students simply repeating what they hear in lectures or read in books and journal articles. At an institution like Rhodes University, they expect something more. They expect students to make sense of what they have heard and read in order to make a series of 'knowledge claims' - things they believe are true. Each claim has to be supported by evidence, either by data which could be the result of a prac session in a lab or from the literature. This is where referencing comes in. Referencing isn't simply a matter of avoiding plagiarism. It's related to the value of the evidence has to be provided for knowledge claims. We often draw on the literature to provide this evidence."

RULearning was followed by an attempt to make academic belief and value systems, and the practices they give rise to, even more overt, in the form of a drama production.

"Academic literacy isn't a set of neutral skills", says Boughey. "It's a set of practices - things people do, not only reading and writing - that emerge from value systems in particular contexts. In academic contexts, value systems relate to what can count as knowledge and how it can be known. Think of what scientists do. Students are often told they need to use the passive when they write in science. Why is this so? Saying '5mls of the solution were titrated' rather than 'I titrated 5mls of the solution' relates to the values of objectivity and accuracy. If students don't get the disciplinary values, the practices simply don't make sense to them".

Boughey's thinking was that if literacy is a set of practices, then it should be possible to demonstrate those practices in action and to voice the values that underpin them in a theatre piece.

"CHERTL colleagues and I worked with Ubom!, a theatre company based in Drama here at Rhodes University to develop a production scheduled for O Week. All first-year students were invited to the production though, as word got around, crowd control was needed to stop more senior students entering the theatre and taking up all the seats."

In spite of all her research, Boughey is adamant that, at most universities in the country, attempts to develop students' understandings of what they need to do as learners are misleading.

"Students are usually taught in courses designed to 'develop' them by people who themselves don't understand the nature of the academic project. I only worked out what academic knowledge was and learned how to produce it by doing my own research. It was this that then led me to understand academic literacy. I don't know how you can expect minimally qualified academic support staff to teach students what they need to do if they themselves don't understand what's involved!"

This sort of thinking led Boughey to appreciate the need to develop academic staff as teachers, something CHERTL is renowned for across the country and beyond.

"Student development has to be embedded in mainstream learning. This is the approach we have taken at Rhodes University for the past twenty years - and it's paid off although we need more to be done as the student body changes."

And what of the curriculum - a concept that has received a great deal of criticism since the protests of 2015 and 2016?

"The curriculum is a structure that distributes access to knowledge and knowledge making", says Boughey. "It's not simply a list of subjects to be taught but also involves how teaching and assessment take place and thinking about the 'who' of teaching and being taught".

The curriculum review process, begun at Rhodes University in 2017, has been an attempt to get departments to do exactly that. It begins by asking departments to look at one course and explain the patterns they see in student performance - to explore how access to knowledge and knowledge making is being distributed.

"It's unacceptable", says Boughey, "that a majority of black students should cluster around the 50%

mark. We need to work out why this is so and this means looking hard at what we do as educators."

Having provided strategic direction for teaching and learning at Rhodes for the last twenty years, first as Director in CHERTL and then as Dean, Teaching and Learning and then as DVC: Academic and Student Affairs, what's next for Boughey?

"I can't imagine ever not researching and supervising", she says. "Supervising doctoral students is one of the best bits of being an academic". It was this that kept her supervising and researching during her time in the DVC's Office. The 2019 graduation ceremonies saw two of her students receiving their doctorates. In 2018, she also produced two journal articles and a book chapter.

A recent award of R5m for a project intended to allow ten members of staff at South African universities to complete doctorates focused on teaching and learning led by Boughey will ensure that supervision remains very much on the agenda. So too will her involvement, with long-standing colleague Sioux McKenna, in a European Union funded project to the value of EUR 1m intended to develop supervisory capacity in East Africa. The latest EU money follows on two other projects, one funded by NUFFIC and the other by the EU which have involved the development of an enormously successful course on postgraduate supervision (<http://postgradsupervision.com>) and a website (<http://postgradenvironments.com>) intended to support postgraduate supervisors and their students across the continent.

Apart from this, Boughey has plans for two big research projects focusing on student learning. One, entitled 'Going home', aims to look at how 'calls' from home impact on the development of students' academic sense of self.

"This was something I became aware of in my time as DVC", says Boughey. "Students are split between home and campus and, when home is characterized by very different belief systems about what can count as knowledge and what it is appropriate to do as a learner, it can cause huge conflicts for young people."

A second project with colleagues from the Allan Gray Centre for Leadership Ethics and the Department of Political and International Studies aims to explore why students make the choices they make about



Emeritus Professor Chrissie Boughey delivering the keynote address at the Centre for Educational Testing for Access and Placement (CETAP) 10-year celebration of the National Benchmark Tests (NBTs).

Credit: Naziema Jappie

what to do every day. Do they go to lectures or do they miss them? Do they do the set reading or not? Ultimately, and in line with much of her earlier thinking, the project aims to get at the values and beliefs students bring to their studies and how they impinge on what they do as academic learners.

"I've never had time to devote to research", says Boughey. "I've never even taken study leave in all my years at Rhodes University. I now have time to do exactly that - what a luxury!"



Credit: Chris Marais

Professor James Gambiza
Department of
Environmental Science

Bring Back the Land

Rhodes University is part of a UNDP-funded project that aims to find ways of restoring South Africa's ecological functions and increasing the productivity of the land through three projects. Goals include enhancing people's livelihoods in ways that are gender-sensitive, climate-smart, simple, inexpensive and sustainable.

The planet faces three huge interlocking environmental problems: land degradation, biodiversity loss and climate change.

When it comes to the first of these, what are the solutions for South Africa? Is there a way to reverse damage and restore the vitality and ecosystem functions of rangelands? If so, can it be done using climate-smart principles that also ensure resident communities have sustainable livelihoods? Could overgrazing, topsoil loss and erosion gullies be halted and reversed in the long term, using simple and inexpensive methods?

There are more questions. How can women be more involved? What about opportunities for the youth? Can land stewardship principles be taught to young children? How can government provide support at various levels?

Finally, where does one start, and how does one scale up the lessons learnt?

The Mission

In the large common room on the top floor of the Environmental Science building at Rhodes University, Department Head Professor James Gambiza and a handful of Doctoral scholars gather every week to share their progress on finding solutions to these exact challenges.

In 2017, Rhodes University became one of three responsible parties in an ambitious sustainable land management project funded by the Global Environmental Facility (GEF) over five years, administered by the United Nations Development Programme (UNDP) and South Africa's Department of Environment, Forestry and Fisheries.

The other responsible parties are the Endangered Wildlife Trust (EWT), which is working on degraded rangelands in the central Karoo around Loxton, and the Council for Scientific and Industrial Research (CSIR), focused on the Olifants River Catchment in Limpopo Province.

The UNDP project document encapsulates the country's situation as follows:

- South Africa has a total land area of 1.2 million km² with a population of approximately 59 million;
- Over 80% of South Africa's territory is used for agriculture and approximately six million households depend on farming for their livelihoods and subsistence;
- Despite this, the sector contributes only 2.5% to GDP;
- Livestock herding is the dominant rural land use and grazing occurs on more than 650 000 km² of South Africa's land area;
- Nearly 66% of these rangelands are moderately to seriously degraded;
- South Africa has serious physical soil degradation, including soil crusting and compaction. Sheet and gully erosion cover an area of nearly a million hectares. Water erosion is South Africa's most widespread soil degradation cause, affecting 70% of the land;
- Halting and reversing current levels of land degradation is a labour-intensive exercise with the potential to create jobs, enhance productivity, provide resilience to climate change, and boost local communities' livelihoods.

The Team

Rhodes University's GEF 5 Sustainable Land Management project team includes five PhD scholars, each working on a different aspect or hub, guided by Professor Gambiza.

Monde Duma is looking at community-driven rehabilitation; Charles Chakoma is focused on sustainable grazing management of livestock, Ojong Enokenwa-Baa is examining gender involvement, Menelisi Falayi is tracking government participation, and Buhle Francis is working on how livelihoods can be enhanced among women.

Dr Rebecca Powell is the project manager and Dr Helen Fox heads up the Knowledge and Awareness hub.

In October 2019, Duma, Francis and Falayi received Rhodes University's Best Student Researchers in Community Engagement Awards.

The Place

The remote settlement of Machubeni in the montane grasslands east of Lady Frere was chosen as a testing ground for one of Rhodes University's projects. (The other, in the Baviaanskloof, falls within the thicket biome and is managed by an organisation called Living Lands.)

At Machubeni, all the drivers of land degradation and compromised livelihoods are present.

This area falls within the former Transkei homeland of the Eastern Cape, where people were forcibly settled under Apartheid. These days it is managed through a combination of traditional leaders (chiefs and headmen), as well as democratic structures, including provincial authorities and the local municipality.

Soils here are high in sodium, which makes them amenable to erosion. The lands are gullied by large spreading dongas that channel away the thin topsoil with every rainstorm. Where exposed, the earth is hard and crusted.

Constant overgrazing across the fenceless veld has resulted in the merciless spread of an indigenous, unpalatably bitter shrub called *Euryops floribundus*. Also called *Harpuisbos* in Afrikaans and Lapesi in

isiXhosa, it is resinous, flammable and deters grass growth.

Drought, possibly caused by climate change, is taking its toll on this already impoverished area, where most income is in the form of social grants.

Within Machubeni's communal area are five villages, each with about 100 households. Among these are 200 livestock owners who vie for grazing. The bad access roads result in high transport costs. Education levels are low among the residents. Many men of

working age are away earning money in the cities or on mines.

Any improvement in land productivity could make an immense difference.

In other words, if Professor Gambiza's team can find workable solutions in Machubeni, the positive effects on the country and its people could be profound, multi-layered and long lasting.

Julienne du Toit



Left to right: Mr Charles Chakoma, Professor James Gambiza, Dr Rebecca Powell, Mr Monde Duma and Ms Buhle Francis.
Part of the team: Ms Karen Milne, Ms Enokenwa Ojong, Mr Menelisis Falayi, Mr Mdoda Ngwenya, Ms Sisipho Myoyo, Ms Silindile Sibiya, Ms Georgia-Ann St Quintin.

Credit: Chris Marais



Professor James Gambiza greets the Machubeni Headmen and community liaison officers outside the sheep shearing shed.
Credit: Chris Marais

Hearts, Minds and Hands

The remote rural village of Machubeni in the former Transkei is an incubator of solutions for land restoration and community pride.

The road to Machubeni starts as smooth tar from Lady Frere, but swiftly gives way to potholed dirt as it winds slowly into the foothills of the Stormberg range.

The krantz-crowned mountains are a dramatic and constant backdrop to the grassy hills and valleys. Every few kilometres, there is another small village with widely spaced homesteads painted sea green, marigold yellow, rose pink or brilliant white. Erosion dongas scar the tawny landscape.

Between them roam goats, sheep, cattle and donkeys, always with their heads down, seeking any hint of green. Many are scrawny after the long winter. It's been a long season of slowly intensifying drought. There are no shops and no visible forms of industry.

As the crow flies, Machubeni is only a few dozen kilometres from Lady Frere, but the potholes, washaways and mountain switchbacks mean that any trip by vehicle is long and jolting.



The villages of the former Transkei, including those that make up Machubeni, consist of widely spaced homesteads, some with traditional thatched rondavels, some built with bricks and cement, with corrugated iron or tiled roofs. Water supply comes from standpipes along the side roads.
Credit: Chris Marais

The five Rhodes University Doctoral candidates involved in the GEF 5 Sustainable Land Management project know this road very well. Monde Duma, Charles Chakoma, Buhle Francis, Ojong Enokenwa-Baa and Menelisi Falayi are here every second or third week, working among the five villages of the communal area that is Machubeni for days at a time.

Their supervisor and team leader, Professor James Gambiza of Rhodes University's Environmental Science Department, cannot hide his pride.

"These students are not only critical thinkers, but also critical doers."

The road generally carries little traffic. In early October 2019, however, a small convoy of minibuses and bakkies traversed the landscape, halting finally at a sheep shearing shed that doubles up as a community hall.

It carried a delegation made up of UNDP officials from Pretoria; scientists from the Karoo and Olifants River Basin; officials from the national Departments of Environment and Agriculture; the local mayor and ward councillor.

They were warmly greeted by men and women from Machubeni in full formal Xhosa regalia, with beads, headdresses, embroidered skirts and capes, and old-fashioned country hospitality.

On the Ground


All the outsiders arriving here were supporters, observers and implementers of simple yet elegant plans to rehabilitate the land and ecosystem functions in a degraded landscape while also improving livelihoods.

Projects of this kind are planned far away, at workshops and meetings, with flipcharts, graphs and Powerpoint. Here, in a village like this, they either take root or die.

In this instance, Machubeni and its people are a microcosm of nearly all the ills that beset South Africa's rural rangelands. It offers a testing ground of how these can be remedied. If it does not engage the hearts, minds and hands of the community that live here, the project will wither. On the other hand, this project and this community could become a model that can be adapted and used elsewhere.

As Professor Gambiza says: "If you can fix it here, if you can make a difference, you could probably do it almost anywhere."

The people of Machubeni are no strangers to big interventions coming from afar with aims of improving their lives. Some years back millions were spent, for example, on a project to eradicate the pretty but unpalatable and fast-spreading *Euryops floribundus*.



Livestock owners watched in dismay as the plants came up again, spreading over the veld in even greater numbers than before.

They have also watching expensive gabions being inserted into erosion gullies, only to see them fall apart and fail, the heads of dongas moving higher and higher, sending ever more precious topsoil into distant rivers and dams.

"A lot of projects tend to be transient," explains Professor Gambiza. "When the people who are pushing them leave, the projects die. We are co-constructing and producing solutions together with the community so that they are effective and sustainable long after this project ends in 2022."

Professor Gambiza notes that people's ability to manage their natural resources has diminished.

"The land can no longer support the normal livelihood streams of the past. We are training them to heal their land, to get the vegetation back and manage livestock better. We are also trying to improve their livelihoods through strategic crops and home gardens."

The project is broken up into 'hubs', each one the responsibility of the doctoral students who are simultaneously interacting with the community, transferring knowledge, as well as recording the progress and the results for their PhDs.

Liaison officers and champions from Machubeni then become the knowledge bearers, implementers and teachers of these methods. These include 71 people directly involved with the project - of which 41 are women and 30 are men.

Dealing with Dongas

Monde Duma heads up the hub in charge of land rehabilitation.

"To fill these gullies, you would have to bring in thousands of tons of soil, which is clearly impossible," he explains. "So we are focusing on stopping the damage, and reversing it where we can, using very

simple methods and available natural materials."

These involve low stone walls structures above and around active erosion gullies, and rows of heavy boulders within them. They slow and divert the flow of water across the landscape without causing damming. There are also sturdy brushpacks made from the most plentiful woody plant material around - the ubiquitous *Euryops*.

These simple methods cost nothing but time and labour, and are already working. Community Liaison Officers Bongani Ntsomi and Zwelethemba Madywabe proudly show how these simple devices are acting as seed traps. Sediment that would have been washed away into rivers has been stopped and is collecting behind them. Grass has started to grow in the lee of the structures.

"When we started, we brought in some guys from Matatiele who had been doing this kind of thing for a long time," adds Duma. "They have the technical skill in combating erosion. This peer to peer teaching is an important part of the project. We emphasise the 'learn by doing' principle."

But how to stop the overgrazing that started the process in the first place? Key to that effort would be to control grazing, says Professor Gambiza. But how does one do that in an open access piece of land without fencing?

Regenerative Grazing

Charles Chakoma's PhD deals with the livestock component.

"The key thing is to give these rangelands a rest, for at least one rainfall season, and also to institute high intensity rotational grazing."

This method of veld restoration using livestock is also known as regenerative agriculture, holistic resource management, or simply the Allan Savory planned grazing method.

Savory, a former Zimbabwean game farmer, had seen how the veld deteriorated without animals during the 1960s when wildlife was culled to reduce the numbers of tsetse fly (a futile exercise). Until then, it was often assumed that if veld was left untouched, it would recover to a near-pristine condition.



Machubeni locals are growing food using Conservation Agriculture principles of minimum tillage, mulching, and plant diversity.

Credit: Chris Marais

He realised that plants, soils and animals (including humans) evolved together and all need each other to flourish. Grasses grow moribund and die when not consumed. Many seeds need to be distributed and fertilised by animals.

Savory concluded that ranges were overgrazed, not because there were too many animals, but because they were left in one place for too long. What the veld needed, he said, was to have brief, intense grazing on it, and then be left to recover for many months, preferably a full rainfall season.

“The major challenge here, besides the land being degraded, is to organise the livestock farmers so that they bring the cattle, goats and sheep together,” says Chakoma. “This helps break the crust of the soil, fertilises it and allows other areas to rest.”

But assembling animals together in huge herds brings the risk of disease, which means the State will have to be involved with vaccinations and dipping. Instead of fencing, herders will be needed to keep the massed livestock together, he adds.

Machubeni farmers derive a substantial part of their income from sheared wool, but could also benefit from working as a group selling livestock to Meat Naturally (www.meatnaturallyafrica.com) in Matatiele, which links small-scale African cattle farmers with commercial meat buyers.

Frank Manyonga of Machubeni is in charge of the local livestock.

“We are very supportive of this idea,” he says. “All the headmen and the livestock owners agree with it. The only problem will be making sure that certain areas are left alone for a full season. If the veld is green, you will always have people who want to take their animals there.”

Chakoma says they hope to have all the agreements between livestock owners in place within the next few months.

Growing Livelihoods

Buhle Francis is working on home gardens within the Machubeni community.

“The principles we are using here are allied to Conservation Agriculture. These include minimum tillage, mulching, crop rotation and crop diversity. We’ve experimented with various ways of planting vegetables and the method that seems to work best is what we call the Tower Garden.”

Francis is working with 25 Home Gardening Champions, with six demonstration sites within the five villages of Machubeni. Each one gets a 5 000 litre JoJo water tank, a gardening toolkit (spade, fork, pick and hoe) and seeds.

“We are very pleased that the youth also have a demonstration site,” she adds. All the home garden champions are transferring their knowledge to others.

At Machubeni, community liaison officer Xoliswa Mjuleni showed how the so-called tower gardens work. Four tall stakes are driven into the ground, about a metre apart, in a rough square. Plastic or geotextiles are wound around them to form a container, into which is placed manure and soil. In the centre, as the soil is built up, is a column of small stones that added to as more soil and manure are included. This acts as a channel and filter for the grey water that is added every day.

“We find this very convenient because we can re-use water from bathing or washing dishes. It’s more

convenient in that sense than trench-gardening,” says Mjuleni. The soil is then covered with mulch.

“Another reason we prefer the tower gardens is that they are not as badly affected by frost,” she adds.

Francis and her Home Gardening Champions will also be cultivating nurseries with deep-rooted vetiver grass for soil conservation, as well as oats as forage for sheep and other livestock.

Women and Governance

Ojong Enokenwa-Baa, who is focusing on gender involvement and climate change stressors, has found that women in the community are keen to take part in all aspects of the project and agriculture generally, especially sheep farming.

“In Machubeni, women are in the foreground. They are the warriors when it comes to this programme.

“But land access is a problem generally, especially for female-headed households. They are the drivers of land use within the communities. But they have to seek permission from the men to access the land.”

They are excluded from agriculture, which makes them more vulnerable, says Enokenwa-Baa.



Another method to trap sedimentary soil and seeds from runoff rain is to build these simple barriers, using the most plentiful woody material around – the expansive *Euryops floribundus*.
Credit: Chris Marais



Livestock roam the eroded landscape. Along river-courses like this one, reeds that might slow the flow and trap sediments have been stripped away.
Credit: Chris Marais

"They are most passionate about nutrition. Women find the home gardening aspect of the project the easiest to include in their daily lives, simply because they are then also able to care for children and carry out household tasks."

Menelisi Falayi has been tracking governmental involvement in the project.

"It is crucial. What we have found is that before 1994, there were a lot of top-down directives. Now that is changing. We have support from national departments, specifically Environmental Affairs, Forestry and Fisheries, as well as the Department of Agriculture, Land Reform and Rural Development.

"Land restoration and erosion problems are seen as priorities at the top, but until very recently, they have not been on the radar of local governments. There has been a disconnect. That is why I'm so pleased that the Emalahleni Mayor and the ward councillor are here today, and to see how interested and engaged they are. Everyone has a voice.

"We've just applied to add support of this project to the local municipality's Integrated Development Planning (IDP).

"The people at Machubeni are developing unique green economy skills, but they will need the support of Government to maximise and monetise them."

Youth and the Future

It is clear that the Machubeni community is tremendously proud of this project.

"This project is giving us skills to protect the soil and livestock. After two years we can already see the difference," says the headman of Machubeni, Onke Masi.

Zamukulungisa Mtubu, a headman within the communal area, adds "The knowledge they are giving us is very useful. They have taught us about the kinds of diseases in animals and what do about them. The sheep sometimes suffer from pulpy kidney.

"We have a problem in that the youth are jobless and bored. They go to the shebeens to drink, but now many of them are motivated to take part in the programme."

Professor Gambiza is passionate about this village and the project's vision.

"We cannot let these people down. Failure here is not an option. I'm 60 now, and even after I've retired, I think I'll still keep coming back to Machubeni."

Julienne du Toit



Credit: Chris Marais

Professor Lynette Louw
Department of Management

In Search of the Big Trade Win-Win

A crucial new publication that helps Chinese and African traders and business communities negotiate the often-tricky waters of dealing with each other has been released - and the timing is perfect.

Anyone looking for quick insights into China's commercial dealing with the world at large would be well advised to brew a strong cup of tea, settle down and watch *American Factory* on Netflix.

It is a take-no-sides (or prisoners) documentary, the first to be released by Higher Ground, Barack and Michelle Obama's new production house.

In what has been described as an exposure of "the future of work in a globalised economy", *American Factory* chronicles the re-fitting of a former General Motors assembly plant in Dayton, Ohio, that closed down and left more than 2 000 locals out of work.

It was bought by a Chinese automotive glass company, which promptly hired many of those jobless GM employees as a ground-level workforce, added a raft of managers from their home country and tried to mould a successful American-based business.

Over a period of a few years of adjustment, one sees the confusion, miscommunication, cultural gulf and frustration on both sides of the corporate - workshop landscape.

A Useful Handbook

Those involved in the 'China into Africa' business initiatives that have been growing since the end of European colonialism on this continent could take lessons from the Obama documentary, but a recently-released handbook co-authored by experts in the Rhodes University Department of Management on the subject would be more relevant.

Managing Chinese-African Business Interactions - Growing Intercultural Competence in Organisations was edited and compiled by Claude-Hélène Mayer, Lynette Louw and Christian Martin Boness. Professor Lynette Louw is in the Raymond Ackerman Chair in Management and Deputy Dean of Commerce at Rhodes.

This book responds to the call for practical intercultural insights and ways of dealing in the Chinese-African work space.

"Differences in cognition-such as those expressed in values, norms, beliefs and thoughts-influence negative stereotypes. Further, along the process of intercultural communication, the experience of differences in effect and behaviour can impact negatively on intercultural communication itself. Such experiences include differences in emotional expression, perception and behaviour, involving how language, customs and communication styles are understood, expressed and used."

This book could not have been launched at a more auspicious time.

The 'Going-Out' Strategy

China has become Africa's biggest trading partner, and mega-business between them grows by an estimated 20 percent every year.

A Human Sciences Research Council (HSRC) report released in 2017 titled *Southern Africa - China Economic Relations: Trends and Outcomes* outlined some of the positive and negative aspects of this developing relationship.

Traditionally, China adopts a policy of non-interference in the internal political matters of the African country it has interests in. Its *modus operandi* of entry and operation is one of 'soft power', taking root in many African countries during the anti-Colonial era of the mid-1950s onwards.

What Africa Wants, What China Wants

China has generally supported post-colonial Africa with massive funds, management and infrastructural development plans.

Special Economic Zones, roads, telecommunication, railroads and ports, solar power fields, access to lower-priced Chinese-manufactured goods, bridges and buildings - these are examples of the projects on offer, according to the HSRC document.

Some African countries (including Nigeria, Zimbabwe, South Africa, Ethiopia and Zambia) have stronger ties with China than others. Their giant Far Eastern counterpart has enormous and constant need for what Africa has.

In the SADC region alone, China imports oil and diamonds from Angola; timber, fisheries, cotton and chrome from Mozambique; more than 60 types of minerals and precious stones from Zimbabwe; copper, silver and diamonds from Namibia; phosphates, diamonds, gemstones and coal from Tanzania and cobalt, zinc and copper from Zambia.

From South Africa, China has an interest in a broad spectrum of mineral resources, chemicals, textiles, live animals and agricultural products.

There are Downsides

But the rumblings of discontent have begun, the HSRC report states.

Cheap Chinese goods threaten local industry, and there is perceived to be little transfer of skills. China's desire for raw materials means resource-rich African countries become exporters of prime commodities instead of manufacturers, and the environment around a host of extraction activities (from big-scale tree-felling to alluvial gold mining) is often left damaged and unrehabilitated.

Research in *Managing Chinese-African Business Interactions - Growing Intercultural Competence in*

Organisations reveals that China has invested more than \$136 billion in Africa in less than 20 years. More than 3 000 Chinese companies have established an African footprint.

The new book aims to:

“Provide guidance in understanding and establishing successful Chinese-African business interactions and cooperation in African countries.

One China, Many Africas

One of the most important chapters in *Interactions* is *African Cultural Concepts and Their Influence on Management* by Samukele Hadebe and Dion Nkomo.

“While we can comfortably refer to Chinese culture and, by extension, Chinese cultural concepts, the same cannot be said of African culture without courting controversy,” the authors say.

“Unlike China, Africa is not a country but an expansive continent with complex internal diversity. The cultural landscape of Africa, just like its politics and political economy, has been shaped by colonial conquests whose vestiges remain very strong decades after the hoisting of post-colonial flags.

“Closely associated with political domination of Africa by outsiders is the crucial element of imported religions, mainly Christianity and Islam, having become defining and sacrosanct features of many Africans.

“In terms of languages, Africa is now divided into Maghreb Africa, Francophone Africa, Lusophone Africa and Anglophone Africa. These descriptions define modern Africa in terms of exogenous official languages, which the majority citizens lack proficiency in.

“The current geographical outlook of the continent is an enduring legacy of political, historical and cultural demarcations that would defy any idea of a collective African culture.”

“Globalisation, increased migration and digital technologies have also influenced various aspects of social, cultural, political and economic life.

“It is difficult to say who or what is African.”

‘Small Trade’ in Mozambique

Professor Lynette Louw, who heads up the Chinese Organisation in Sub-Saharan Africa - New Dynamics, New Synergies research group at Rhodes University, has invested a lot of time, study and “simple interest” in the way Chinese and Africans are doing business together. She contributed a chapter to the final Interactions project on how Chinese entrepreneurs are setting up small, medium and micro enterprises in Maputo, Mozambique.

“The push and pull factors that lead Chinese entrepreneur immigrants to operate such SMMEs are explored,” she says. “The chapter also demonstrates the impact of the language barrier between these Chinese entrepreneurs and the Mozambican locals.”

Interestingly, she notes (after a series of interviews with 12 Chinese entrepreneurs who have set up shop in Maputo) that the prime ‘push’ factors for them were high levels of unemployment and air pollution back in China.

“One participant emphasised how much healthier it is to live in Mozambique because of the absence of smog and air pollution,” Professor Louw writes.

A major Chinese cultural principle (important in trade) is the system of *Guanxi* (English pronunciation: Gwan-shee), which basically means being part of a deeply connected group with like-minded interests.

Professor Louw found that the more successful new operators were those who had come from China with an adequate amount of start-up money (also with the possibility of borrowing funds from friends or family), who established good *Guanxi* with the locals, who worked out the retail needs of their communities, got to know the labour laws and picked up a basic grasp of the indigenous language quickly.

Building in Uganda

One of Professor Louw’s Master’s students, Sidney Muhangi, also contributed a chapter which is titled *Transforming Employee Conflicts in a Chinese Construction Firm in Kampala, Uganda*.

“This case study examines the way in which intercultural conflict is being handled in a Chinese

contracting firm which is upgrading roads and drainage in Kampala City," he writes.

The project manager believes that Ugandan employees are not as loyal to their jobs as are Chinese workers. Chinese employees acknowledge that Ugandans have a different work ethic from theirs; they attribute conflicts to cultural misunderstandings, including the language barrier between the two groups.

"From the Ugandan employees' perspective, the Chinese managers are authoritative, use 'colonial' management styles and stereotype the Ugandans.

"To resolve this intercultural conflict, the company needs a structural transformation which includes cultural orientation of employees and use of the English language for improved communication."

In an interview, Sidney Muhangi relates the simple example of how site workers used their hour-long lunch breaks.

"The Chinese managers would eat their meal for 30 minutes, take a nap for 30 minutes and return to work refreshed," he says. "Whereas the Ugandan workers would not take a nap and would then appear to be sluggish in the afternoon. The Chinese would accuse them of being lazy."

Many cultural differences between Chinese newcomers and their African counterparts can be bridged with increased language skills, he believes.

"Right now on-site conflicts are being reduced, because Ugandans are learning how to do the work required, and both sides are getting used to one another. The Chinese are learning to speak English (the second language of Uganda) and they're teaching Mandarin to senior Ugandan staff."

Lessons from Africa

What gives *Interactions* its edge as a potential handbook for both Chinese and African commercial participants is the collection of actual case studies to which Professor Louw, Sidney Muhangi, Quintabella Andangcu and four other Postgraduate students contributed.

A set of solutions accompanies the challenges presented in specific cases:

- One chapter deals with conflict dynamics within a Tanzanian-Chinese water project, in which the local employees suspect their Chinese management's motives. Tanzanians also fear that the water will be sold and not distributed free to the local community;
- In Zambia, a joint venture textile company in Kabwe experiences issues regarding decision-making and participation of local employees, who feel disrespected by their Chinese managers;
- A Chinese manager 'loses face' to his Namibian counterpart in an exchange full of cultural misunderstandings. The authors suggest a variety of long- and short-term solutions to the problem;
- A simple tea ceremony in Kigali, Rwanda, between the Chinese owner of a flower retail shop and a local manager of a tin smelting company begins pleasantly until suspicions based on hearsay begin to creep in. More unfortunate misunderstandings follow;
- In a telecoms company in South Africa, Chinese management structures and cultural differences create "perceptions of command and control, which limit the success of both employee interactions and technological learning, and reinforce the distance and foreignness of Chinese organisations";
- In a Chinese-funded housing development project in Luanda, Angola, the indigenous employees feel they are treated as 'second-class' staff and resent the manager's habit of addressing them in English.

Looking at Cameroon

Another of Professor Louw's Postgraduate scholars, Quintabella Andangcu, is studying foreign direct investment and motives for investing in her home country of Cameroon.

"Cameroon is Africa in miniature," she says. "Almost all of Africa's ecosystems can be found here, from grasslands to deep forests. The Chinese are interested in a lot of resources from Cameroon, but the most recent point of conflict has been accusations around their gold-mining methods."



Left to right: Mr Sidney Muhangi, Professor Lynette Louw and Ms Quintabella Andang.

Credit: Chris Marais

She adds:

“Out of all the Chinese investments in all parts of the world, the one that has raised the most criticism is their investment in Africa.”

Why?

“Because they tend to invest in relatively unstable countries rich in natural resources, and their loans are resource-backed.”

Getting to Know Each Other

“The Chinese presence in Africa is changing things rapidly,” says Professor Louw. “And yet, little research and collective knowledge exists at organisational and community levels.

“Mostly, African governments welcome the Chinese presence. But what happens at management level? How are Chinese organisations run? Do they simply compete with Western firms on costs? Do they compete with African firms on the basis of expertise? What are they bringing to communities? What is their impact on the local job market? How are they working with local firms?”

Professor Louw’s dream is to establish a centre of cross-cultural management at Rhodes University.

“We need to look at the interactions between these different cultures,” she says. “And we all need to understand the nature of these interactions.”

- The Chinese Organisation in Sub-Saharan Africa - New Dynamics, New Synergies research group has already produced three PhDs, three Masters, four Honours graduates and one postdoctoral scholar. The monograph, bearing the same title as a group, is in the pipeline.
- *Managing Chinese-African Business Interactions - Growing Intercultural Competence in Organisations* has been published by Palgrave Macmillan and will be available from www.palgrave.com in print and e-book formats.

Chris Marais



Credit: Chris Marais

Dr Lynda Spencer
Department of Literary
Studies in English

The Honest Truth in Pulp Fiction

African writing tends to take on different forms, from genres such as science fiction to romances to crime fiction, from print to digital. Dr Lynda Spencer, Senior Lecturer of the Department of Literary Studies in English at Rhodes University finds that writers in Africa have appropriated and adapted popular literary forms as a way of reflecting on and interrogating social, economic and political issues.

All book-lovers have their guilty pleasures: bodice-ripper romances, trashy detective novels and lurid science-fiction adventures.

Right through Dr Lynda Gichanda Spencer's life, during three civil wars in Uganda and intense studies at four different South African universities, there was always a Mills & Boon or Harlequin romance storybook at her bedside.

"There used to be a bookstore in Braamfontein, near Wits University where I was studying at the time. It had every single Danielle Steele book ever written, and I'd read all of them."

And don't get her started on Helen Fielding's runaway hit, *Bridget Jones's Diary*.

Happily Ever After

It was while Dr Spencer was doing her Master's in African Literature that she attended a lecture on Romances written by African Women, taught by Professor Stephanie Newell.

"I was fascinated. I began to realise you can actually study these books academically."

At the time, her life was fraught. Dr Spencer was living in Pretoria, teaching at Vista University in Mamelodi, and catching three taxis to and from the University of the Witwatersrand for the coursework component of her Master's studies at the African Literature Department.

She'd often arrive back home at 8.30 in the evening, exhausted. But the romances transported her to another world, one where each human drama would reassuringly end with happiness ever after.

Dr Spencer is certainly not alone. Mills & Boon is one of the world's most successful publishing houses. By the company's centenary in 2008, it was selling 200 million novels a year - in other words, one every 6.6 seconds.

An article in *The Guardian* that year notes: "No one believes they're great literature, nor do they need to be. They're cherished for their simplicity. Sometimes, all we want is a break from wondering what's going to happen next."

Or as legendary romance writer Jilly Cooper more vividly put it: "After all, life's bloody tough. Mills & Boon is much better than binge drinking."

Bridget Jones, Chick Lit and Feminism

Dr Spencer's doctorate at Stellenbosch University was on women's writing from Uganda and South Africa.

"Both countries were emerging from repression. I wanted to examine what opportunities open up for women; when they start to write, what is it that they are concerned with?"

After she came to work as a Senior Lecturer in Rhodes University's Department of Literary Studies in English in 2014, her fascination for women's writing in the field of popular fiction deepened.

"I've been pushing back against the idea that there is something wrong with romance. It can also be seen as a place where woman writers articulate their concerns. That's what hooked me."

A more recent development of the traditional romance novel is 'Chick Lit'. Dr Spencer explains that this is fiction mainly written by women, for women, about women.

"My guilty pleasure has become an academic project. I offer Chick Lit as a course for third years, and it is very popular, because the students think they're just going to read romance. By the time I'm done, I've created feminists - although that's not something they necessarily signed up for."

If you were looking for examples of Chick Lit, they would include *Sex and the City* by Candace Bushnell and *Bridget Jones's Diary*.

"It is all about what it means to be a woman in a neo-liberal society of apparent choices, but one that is still highly patriarchal, expecting particular things of women."

"Bridget Jones is economically active and independent in a modern world, yet she's still tied into these conventional notions of what being a woman means."

"The book starts with a list of what she's going to do this year. A lot of what she's doing is self-surveillance of the body. One of her obsessions is this idea of weight and body image. As a feminist you have to ask: whose standard of beauty is she aspiring to? Ironically, when she finally does reach her goal weight, her friends become convinced she is sick."

Zukiswa Wanner is one of South Africa's first writers of Chick Lit, says Dr Spencer. Wanner's debut book, *The Madams*, was published by Oshun in 2006. In it, according to the sales blurb, protagonist Thandi decides that "being Supermom to her child, Superslut to her husband and Superwoman is all too much, so she hires a white maid".

In an interview with *News24*, Wanner says she saw a gap for writing light-hearted fiction about contemporary South Africa that was not, “preachy, rainbow nation, let’s-hug kind of stuff. It’s addressing issues that affect us, post-1994.”

These include abusive husbands and the ins and outs of black and white friendships.

Penny Dreadfuls, Dime Novels, Nigerian Chapbooks

The origin of popular, mass-produced novels is rooted in the industrial age in Britain and the opening of the Western frontier in the USA nearly 200 years ago. These events coincided with advances in printing technology and a general rise in literacy.

Nicknamed ‘penny dreadfuls’ in the UK and ‘dime novels’ in the USA, the books were cheap, lurid, and often badly written. They were churned out so fast and in such huge numbers that publishing houses were often referred to as ‘fiction factories’.

Like Mills & Boon books, dime novels and penny dreadfuls were formulaic and easily available, or as Dr Spencer puts it, “cheap, nasty and lovely”. Then, as now, they revealed much about society and the prevailing concerns of their times. They were often badly bound and considered ‘disposable literature’, but they are also credited with stimulating a wide-spread culture of reading.

Charles Dickens started off his writing career in this populist vein, publishing his books in serialised form. *The Pickwick Papers* was the first of these, a runaway hit in 1836.

Dr Spencer mentions two African fiction phenomena that took a similar path. The first took place in Nigeria from the 1940s to 1960s. Its books are usually referred to as Onitsha Market Literature. The city of Onitsha, in the Igbo region of the country, has one of the continent’s largest open air markets.

Novellas and books from Onitsha were cheaply produced, often no more substantial than pamphlets. Another name for them was ‘chapbooks’, or simply ‘chaps’.

They were aimed at the common man and woman and reflected social conditions of the time. Written in vivid, non-standard English, many had racy

plotlines, while others provided morality lessons and warned against loose women. Chief preoccupations were love, sex, marriage and money.

This form of literature disappeared in 1968 after the market was badly damaged in the Biafran War, but the region has remained a seat of African story-telling. The Nollywood movie industry, much of it based in Onitsha, has replaced the chapbooks.

Zulu Girl Online

The second, more recent African literary phenomenon that fascinates Dr Spencer is via on digital platforms.

“There’s a common misperception that Africans and students in particular don’t read. They *are* reading, but much of it is online.”

In 2013, Mike Maphoto started a blog called *Diary of a Zulu Girl: From mudhuts, umqomboti and straightbacks to penthouses, expensive weaves and Moët*. It chronicles the fictional life of Thandeka Mkhize, who moves from rural KwaZulu-Natal to study law at the University of the Witwatersrand and falls in with some shady Nigerian men.

The blog, written and read on mobile phones, was wildly popular. It was swiftly followed by *Confessions of a Sugar Baby* and several others on the same website platform.

The issues addressed include changing gender roles, sexuality, xenophobia and cultural norms in a modern world. Unlike normal books, digital media offers readers the opportunity to respond immediately and interact directly with the author - which they do, sometimes by the hundred.

Maphoto, who says he was raised on Harry Potter books, eventually started selling chapters online (R5 for two at a time). He has now self-published the print version of *Diary of a Zulu Girl*, which is also being turned into a television series. His work has spawned several copycat blogs, including *Diary of a Taxi Driver*.

Dr Spencer marvels at the many different forms that African fiction is taking. They sprawl across the

genres of mysteries, short stories and romances. The latest big wave is in African science fiction.

The latter offers opportunities for thought experiments on the consequences of current trends. Themes include dystopian African cities, Chinese involvement on the continent, the climate crisis and Nigerian astronauts.

Popular Imaginaries and African Feminism

The study and stimulation of popular African literature has been boosted by a five year grant from the Andrew W. Mellon Foundation.

Urban Connections in African Popular Imaginaries (UCAPI) was initiated by Dr Spencer and Dr Minesh Dass and includes academics from universities across South Africa and Africa. 'Popular imaginaries' simply refers to popular literature and media, she explains.

UCAPI, which is located at Rhodes University, has resulted in several colloquia and conferences as well as Postgraduate scholarships. Most of the research focuses on new ways of telling stories in Africa. Dr Spencer and her colleagues in the Department supervise these Postgraduate candidates.

UCAPI funding is also fostering creativity and authorship through a Writers-in-Residence programme. A number of writers have been hosted to date, including Ingrid Nayame from Zambia and Mona Liban from Somaliland.

"It's so encouraging to see the new voices and young writers coming through," remarks Dr Spencer.

"One of the things Professor Sharlene Khan and I stumbled upon is African Feminisms. Last year this resulted in a second conference; the theme was 'The Mute Always Speak'. The title came from an article written by Dr Nthabiseng Motsemme about women's silences at the Truth and Reconciliation Commission. These silences can be read as a form of agency that helps us understand women's subjectivities under apartheid.

"I was astonished to find there is probably no other conference on the continent that is looking at African feminisms, or anything that offers this kind of channel to academics, researchers, artists and students."

The Accidental Academic

If you had unveiled this future and mission to the young Lynda Spencer when she was enrolled to study Law and English at the University of Transkei (now Walter Sisulu University) back in 1992, she would not have believed it for a second.

"I had no plan or ambition to become an academic. I've never thought of myself as being the brightest. I just work hard. I don't see myself as a visionary, just a very practical person. One thing simply led to another.

"By the end of my undergrad degree in 1994, I realised that I was not prepared for an LLB, in part because the case studies in the Law Library had been torn out of the books. That was why I carried on with English instead. And I only did my Honours at the University of Pretoria because I had a friend living in the city, so that gave me free accommodation.

"Because I had no money, I looked for a teaching position, which is what led me to tutor at Vista University."

She was later offered a lecturing post which she took while studying for her Masters. After her contract ended, she worked at the University of South Africa, and eventually moved to lecture and to read for her PhD at Stellenbosch University. On completion, Dr Spencer moved to Rhodes University.

"In fact in an application for promotion, I once described myself as an accidental academic."

It has come as a great and wonderful surprise to her that she is now described as promoting research on contemporary writing and feminist engagement in Africa.

"That's just how it turned out. As usual, I don't plan these things."

Happily ever after, in other words.

Julienne du Toit



Left to right: Mr Chrispen Mutanho, Ms Zukiswa Nhase and Associate Professor Ken Ngcoza.

Credit: Chris Marais

Associate Professor Ken Ngcoza
Department of Education

Walk far, Walk together

One of the solutions to South Africa's education crisis is to invite indigenous knowledge into Foundation Phase teaching. That's a belief shared by Professor Ken Ngcoza of the Rhodes University Education Department and three of his protégés.

As a young boy growing up in the 60s in Fingo Village, Grahamstown (now Makhanda), Professor Kenneth Mlungisi Ngcoza had the best view of the Rhodes University campus.

All the way down from the Drostdy Arch, the administration buildings and beyond, the university precinct gleamed in the early morning light.

"That was the Promised Land where, as black students under apartheid, we were not allowed," says Professor Ngcoza.

He lived with his family in a "self-built house of poles and mud" while several of his older siblings looked after cattle and goats at their mother's village near Peddie, far away from schools and higher learning.

Lucky Number Seven

"I'm the last-born and the luckiest one because I got the opportunity to study and ended up being the first person in my family to get a

degree. And even though my parents were not educated people, they made a lot of sacrifices for us."

"One of the joys of growing up in Grahamstown was coming into town to watch school rugby on weekends. We would all have our heroes, so after the matches, we township boys would go on to the field, play our own games and pretend to be them. I remember one day our lower primary school teacher asked us:

'Which positions would you like to play in?'

"Most of the boys wanted to play at flyhalf - Number Ten. But I had a different choice: Number Seven. It's a pity that the teacher never asked me why I wanted to play at Number Seven, the flank-forward. I would have told him it wasn't about the position, but it was all about the number.

"You see, my mother (*umaRadebe* - her clan name) worked for the principal of Victoria Primary School for Girls in Beaufort Street and she stayed at Number Seven, Ayliff Street. Every morning, I would run down from Fingo Village to Number Seven, where my mother gave us her breakfast bread so that we could have something to eat before school. That's why I loved the Number Seven so much".

"We would only eat again when she returned home in the evenings with some leftovers for us. I learned that leftovers can do magic. They can even produce a professor!"

Lessons from the Forest

"When people ask me where I learnt my Maths and Science, I tell them at the place where Graeme College is today. What I mean is that I learnt those subjects in the forest that stood where the school is now.

"My mother and I used to fetch firewood in that forest. She made up a bundle of firewood (*inyanda*) for me and then one for herself. And, like any child would, I complained:

'*Kutheni eyam inyanda incinci kune yakho?* ('Why is my bundle of firewood smaller than yours?')

"Then my mother would say:

'*Zama uphakamise eyam.*' ('Try to lift mine.')

"It would just be too heavy for me - and in this way I learnt about mass and weight. She placed a piece of cloth on my head under the bundle, and that's how I learnt about friction. We'd walk back home and she'd use my firewood first to light up the fire and I would ask her why.

"*Ukuwuphembi umlilo ngeenkuni ezinkulu, uwuphemba ngeentsasa*" 'Because you can't start a fire with logs,' she'd reply. 'You need the smaller sticks or twigs.'

"Concepts like mass, weight, ratio, proportion, friction, fulcrum, surface area, energy and so forth are in that story. But when I started school, teachers did not make any reference to our everyday life experiences such as the one mentioned above. And that's what we're trying to do in our projects: make these subjects relevant and accessible to everyone."

Education Metamorphosis

"When I was growing up, our parents had to pay the school fees and buy our schoolbooks. The advantage of that was always a small bookshelf full of books in every home in the township, no matter what the socio-economic background of the family.


"The child would be curious to read. So that culture of reading was there. These days, there are fewer books in homes. Rich and poor children alike spend most of their times on their cell phones, resulting in social skills being compromised.

"We also learnt through playing games like *upuca*, using small stones. That would be useful now as an analogy to teach chemical equilibrium, a topic most learners and even science teachers find difficult to comprehend."

Teaching the Teachers

As a youngster in the 1980s, Professor Ngcoza dreamt of studying medicine. He started his BSc at the University of Fort Hare, but because of political boycotts and activism, could not complete his studies. For a while he found work with a brickmaking company and later at Settlers Hospital dispensary. While there, a friend suggested he apply for a teachers course at the Cape College of Education in Fort Beaufort.

"I majored in mathematics and science, my favourite subjects. That's how I became a teacher by default."



Professor Ngcoza went on to teach at Nombulelo Secondary School in 1983, the first multi-cultural school in the township in Grahamstown.

“Black and white teachers worked alongside each other - like a true Rainbow Nation. I realised that diversity is actually a strength rather than a disadvantage.”

Deciding to improve his qualifications, Ngcoza took unpaid leave to complete a BSc degree at Rhodes, where the doors were now opening for South Africans of all races.

“It was the first time for me to be in the same classroom with white students. Apartheid had divided us according to race. Our physics Professor Eddie Baart asked us who had done science at school. All the white students’ hands shot up, in contrast with mine which was at half-mast. I knew the reality of the way science was taught in township schools.

“To my surprise and relief, he said ‘I wish you had not done science at school because we are all going to start afresh.’ The lesson I personally learnt from Professor Baart is one of self-esteem. It is very important to make people believe in themselves.”

By the early 1990s, Professor Ngcoza realised his first love was the professional development of teachers - especially in the fields of maths and science.

He started micro-chemistry projects for under-resourced schools with Joyce Sewry from the Chemistry Department at Rhodes.

“This enabled learners to experience and visualise science concepts rather than relying on rote learning.”

In 2000 they started the Khanya Maths and Science Club and the Khula Project respectively to promote these subjects in township schools.

Professor Ngcoza and Sewry have now been collaborating for 21 years and in 2009, their work was honoured with the Distinguished Vice-Chancellor’s Award for Community Engagement. A year later, Professor Ngcoza was awarded the Citizen of the

Year by the Grahamstown Rotary club for his community engagement activities.

The Promised Land - a hybrid space

In 2001, Professor Ngcoza joined the Rhodes Education Department, taking over from his supervisor Dr Jaap Kuiper.

“One of my abiding passions became seeing how indigenous knowledge can be integrated into the teaching of my favourite subjects - which also happen to be the national education weak spots in South Africa.

“Our students’ research projects are informed by a perspective that sees learners’ home language as a resource rather than a barrier. Additionally, we try to tap into the cultural heritage or knowledge of community members, acknowledging them as custodians of cultural heritage. This helps bridge the gap between school and home.

“Our community of practice is underpinned by the principles of Ubuntu. Our research projects contribute to the current debates about transformation and decolonisation or decoloniality in our country, acknowledging that there are other ways of doing and knowing.”

Professor Ngcoza has supervised or co-supervised and graduated 68 Masters students (including his former school science teacher), six of whom graduated with distinctions, as well as a PhD student.

He is currently the President of Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE). This is the biggest research organisation in Southern Africa and has to date externally examined 27 MEd, 5 MSc and 22 PhD theses from other universities, nationally and internationally.

Apart from his many academic roles at Rhodes, Professor Ngcoza is also a chairperson of the Grahamstown District Relief Association (GADRA). In the past, GADRA tried to address poverty by empowering the community through social projects and counseling. But its focus now is on quality education in under-resourced schools.

"In the past, very few students made it to Rhodes from the township schools," he says. "One of GADRA's goals is to help them gain access to the University. I strongly believe that a child's background need not determine his or her future."

Additionally, Professor Ngcoza is involved the Vice-Chancellor's Initiative which focuses on turning Schools of Excellence in the townships.

Raised by Strong Women

One of Professor Ngcoza's current PhD students, Zukiswa Nhase, attributes her energy, ambition and skills to having grown up "as a child between three strong women: my mother, my grandmother and my aunt".

She was raised in Ndwayana Village in the Peddie district of the Eastern Cape in a close family environment that also included a group of supportive uncles who gave her counsel.

"I finished my schooling in Port Elizabeth," she says. "I wanted to study medicine, but there were no funds. Instead, one of my uncles took me off to Dower College (also in PE) to study to be a teacher."

Because of her excellent Matric results, Zukiswa was accepted at the college without having to sit for entrance examinations. After specialising in Maths and Science in her fourth year, she taught at the college for a year and then became a teacher at Ntaba Maria Primary in Grahamstown. And that's where her academic career turned into a whirlwind of opportunities and achievements.

Creative Thinkers, Creative Citizens

"I did my Honours part-time at Rhodes, then my Masters," she says. "I was now in a Head of Department (HoD) position at the school but I was also involved in projects with other schools and the Department of Education."

Today, Nhase is a full-time lecturer at Rhodes and as part of her responsibilities she is coordinating the BEd Foundation Phase Degree.

"This is where I came to understand what it means and how it is to coordinate an academic course. This has come with its own challenges. But not once have I regretted taking up this opportunity."

Her PhD on Science Education focuses on how teachers in Foundation Phase can use an inquiry-based approach in developing the scientific skills of young children. This came as a result of her being a coordinator of the BEd and being interested in understanding science teaching at Foundation level.

Building from the Ground Up

"The good news is that the Department of Education now realises the importance of Foundation Phase and is going back to basics. That's why I feel my research is at the right place at the right time.

"It's about how teachers create opportunities for learners to be hands-on, minds-on, words-on, to observe and think independently.

"I believe that having these challenges of low pass rates in Science at upper level can be addressed at Foundation Phase," she says. "Our aim is to develop creative thinkers and creative citizens through the use of an inquiry-based approach to teaching Science."

Nhase is also the PhD SAARMSTE representative and the Chairperson for the SAARMSTE Eastern Chapter.

"Through this platform and opportunities for research, I have come to see each one as a learning opportunity. I now co-supervise both Masters and PhD scholars with Prof Ngcoza.

"We are collaborating with several universities abroad, specifically in a project on indigenous knowledge systems (IKS) and Lesson Studies with Japan, South Africa, Namibia and Zambia."

With Professor Ngcoza, Nhase has also co-written a book chapter as part of a project on Citizenship Education with Professor Tonio Oeftering of Germany.

"I feel this interaction has extended my research opportunities."

Growing up in the War Years

Chrispen Mutanho, also one of Professor Ngcoza's PhD students, grew up in Zimbabwe and says the main reason why that country used to have such a comparatively fine education system was that emphasis was traditionally placed on primary school teachers.

"If the foundation is strong, what follows will flow naturally," he says.

Chris was raised in a village in the Murewa district of Mashonaland East, at the time when the country was going through a bloody civil war. In an attempt to cut off supplies of basic necessities such as food, clothing and medicines to the freedom fighters, the colonial government closed hospitals, clinics, schools and shops in many rural areas.

This made it very difficult for many to access medical care from government institutions and they had to rely on indigenous knowledge.

For instance, "One day we found that most of the streams and the dams around the village were polluted and had some kind of green algae - we suspected government forces had poisoned the water somehow," he says.

Granny's Herbs

Mutanho's grandmother was a herbalist who went into the bush and picked the roots of certain plants and with these she purified their water.

"She was a well-known person for she would help many people who had different ailments. Yet the school system despised anything to do with indigenous knowledge, especially traditional medicines.

"So, the same schoolmates who came to our homestead to be treated would then turn around and call my grandmother a 'witchdoctor'. This was very confusing for me because I grew up with a burning desire to be a medical doctor.

"So, although I really wanted to become a medical doctor, I never connected my passion with what my granny was doing - and I regret it," he says.

"She would call us youngsters into the forest and say:

'Let me show you these medicines. You will need them when I'm gone.'

She would ask me to dig out a plant and I'd do so, but reluctantly. I did not see the point. Now she's gone and I look back and I wish I had documented everything she told us. Such is the damaging effect that colonial education had on our identity as African people."

Mutanho graduated as a primary school teacher in 1993 and taught at a number of schools in Mashonaland. The highlight of his career as a primary school teacher in Zimbabwe was when he was deployed to an under-performing school that was ranked 61st out of 63.

"In consultation with the school management, I initiated an accelerated literacy program. The result was a resounding success. The school that was once third from the bottom attained Position Two in the District."

Coming to South Africa

By 2007 life as a teacher in Zimbabwe was fraught with low salaries and political instability which often resulted in political harassment of civil servants such as teachers. Mutanho had to make other plans to support his family and came to South Africa.

Once in Johannesburg, he was desperate for work - any work. He approached a construction company in the hope of a job. When Mutanho presented his teaching qualifications, the manager's response was:

"Wow! And do you see any children to teach here on site?"

"No," Mutanho replied. "But I need money for something to eat today. I'll do anything."

"What do you think you can do around here?"

Mutanho looked about him and spotted a collection of paint buckets, brushes and rollers in the corner of the office.

"I think I can paint," he said.

"OK," the manager said. "Here's a brush. Here's a wall. Show me what you can do."

Mutanho retorted, "I am trained as a teacher, which means I can also learn quickly."

And that's how Chrispen Mutanho ended up painting the Ethiopian Embassy in Pretoria.

The Science behind *Umqombothi*

Within six months Mutanho found a teaching job at a high school in Mthatha, Eastern Cape. Later he enrolled for his Honours and then Masters at Rhodes through in-service training.

In 2017 he left his job to do his PhD at the Rhodes Education Department under the supervision of Professor Ngcoza. His study focuses on how to support teachers to develop lessons that integrate indigenous knowledge.

"Using the science behind the brewing of traditional beers (*umqombothi* and *oshikundu*) as an example and a catalyst, I am exploring how to support BEd Natural Sciences in-service teachers to develop model lessons that integrate Indigenous Knowledge (IK).

"*Umqombothi* and *oshikundu* are brewed from cereal grains such as maize, millet and sorghum and are common traditional alcoholic or non-alcoholic drinks among the Xhosa of South Africa and the Oshiwambo of Namibia respectively. The making of the two beverages involves many practices that can be used to teach scientific concepts such as alcoholic fermentation, rates of reactions, osmosis and diffusion."

Mutanho adds: "For me, decolonising education is all about removing the constraints, boundaries and barriers that limit people from fully realising their educational potential, regardless of who they are. Also, it works best when an educational institution embraces knowledge that lies in indigenous traditions."

He adds "When I review my current research, I find a strong female voice running through it and I wish my grandmother were here to see this."

A Troubled School

Xolani Mayana is a school principal currently doing his Master's degree in Education at Rhodes. He first came to Rhodes in 1992 to pursue a BSc degree.

"But I got involved in politics and failed my first year," he says. "Then I moved to Fort Hare, where I dedicated myself to my studies and became a student tutor. I was also involved in outreach work in rural areas where there were no science teachers."

In 1998 Mayana found Kuyasa Combined School in Endlovini Township, Port Alfred, and started work as a volunteer teacher in maths and physical sciences.

"That year, 100% of the Matric learners passed physical sciences. I was thrilled."

Eventually, Xolani was employed at Woodridge College between Port Elizabeth and Jeffreys Bay, working his

way up to Head of the Department for Physical Sciences.

"For me, Woodridge had it all. This is where I saw the work ethic of private schools, their administration excellence, their teaching methods, how you are constantly encouraged to do your best, how teachers and learners develop a relationship. You form a bond with learners and they don't want to disappoint you."

Mayana loved taking the learners for camping, hiking and mountain climbing as part of the school's outdoor programme.

A Comprehensive Rebuild

"I was cruising. But in 2007 I saw an advertisement for the post of principal back at Kuyasa, and I applied. I felt a responsibility to plough back into my own community, to share my knowledge and experience."

Kuyasa Combined was in a state of decline, he says.

"Matric results were sitting at a 26% pass rate. There was a distinct lack of get-up-and-go in both the teacher and learner bodies."

When he was made principal, Mayana went directly to the 'hard subjects'.

"I decided to tackle physics and chemistry separately and allow the teachers to choose their favourite subjects, so they could work to their strengths. I would fill in where there was a gap. We did the same with Maths."

"In one year, the pass rate went from 26% to 56%."

His energetic and successful recovery programme for the embattled township school included a development of learner leadership skills, classroom discipline, parent involvement, motivational talks, an outdoor adventure programme and a campaign against schoolyard litter.

"We got former prison inmates to talk about gangsters, jail and role models," he says. "We planted grass, we painted the school buildings - all of that had a great impact."

For the past five years, successful Matric results at Kuyasa have been at the 80% level. Now, after connecting with Professor Ngcoza and his team, Mayana is doing his Masters on a part-time basis,



Mr Xolani Mayana.
Credit: Chris Marais

focusing on introducing indigenous knowledge into the school education spectrum - wherever it fits in naturally.

"We bring in the community elders to pass on their knowledge, we study the waves down at the beach and next week we'll be meeting Xhosa fishermen and they will tell us about the tides," he says. "The importance of engaging community members lies in the fact that they are more knowledgeable others when it comes to indigenous knowledge and storytelling. They also use the language (isiXhosa) as a tool for meaningful communication, resulting in learners' active participation during the learning process."

The learners of Kuyasa are giving him feedback; Mayana has taught his learners the importance of writing reflections in their journals and sharing with the class.

"This helps me improve my teaching, and reflections are being included in my Masters studies. This is a skill I learned from Professor Ngcoza. He is very passionate about written journals."

And, exactly as with Zukiswa Nhase and Chris Mutanho, it's very hard to keep the excitement out of Mayana's voice.

"We have our community of practice here at Rhodes, where we share and assist one another," says Professor Ngcoza. "We believe in the African proverb that says:

"If you want to walk fast, walk alone. But if you want to walk far, walk together."

Chris Marais



Professor Russell Kaschula and Ms Zakeera Docrat.

Credit: Chris Marais

**Professor Russell Kaschula
and Zakeera Docrat**
School of Languages
and Literatures

The Magic of Many Tongues

From the classroom to the courtroom and beyond, the benefits of a multilingual South Africa are legion. This is part of the vision shared by Professor Russell Kaschula of Rhodes University's School of Languages and Literatures and one of his PhD students, Zakeera Docrat.

The little town of Steytleville in the Eastern Cape Karoo region of South Africa is possibly the only settlement on Earth where residents have their family crests displayed together along the main street.

It's a social phenomenon that speaks of a long-held dream of a united South Africa - perhaps more symbolic than real, granted, but nevertheless the crests are up there for the world to see. Someone had a fine idea and made it happen.

Now imagine if all of Steytleville were fluent in English, Afrikaans and isiXhosa - municipal workers, mohair farmers, stockmen, shopkeepers, motor mechanics, retirees from up-country, caterers and co-op counter staff.

They would, if you follow the thinking of Russell Kaschula and Zakeera Docrat, know a lot more about each other's lives, challenges, hopes and dreams. The town would run more efficiently, its residents would be more mindful and able to step easily into each other's cultural paradigms. The people living in such a place (or a country) would, they say, be better citizens.

One Boy, Two Cultures

Professor Kaschula grew up with one foot in the Xhosa world. Born in Stutterheim, raised in a small village in the former Transkei, the companions of his youth were Xhosa. He spoke English and isiXhosa with equal ease and thought nothing of it.

"I always say I had two sets of parents: one biological, one Xhosa. Time spent with my childhood friends and extended Xhosa family made me fluent in their language."

When he was six, he went to an Afrikaans school in Elliot, where he picked up his third language. Professor Kaschula's parents farmed sheep and potatoes in the area.

"Although I often dream about the farmstead with its beautiful old house, Italian tiles and long passage, I've never been back," he says. "I hear it's been dismantled."

At the age of 12, Russell Kaschula's life changed. He was sent to boarding school at Queen's College in Queenstown and became "socialised into Western society", as he puts it.

"You had to wear shoes."

Growing Up, Growing Apart

But when he returned home for the holidays, he realised that something had shifted in the relationship with his earlier familiars. Not only was young Russell now ensconced in a reasonably colonial English school, but his old friends were entering their initiation phase into manhood.

"We couldn't properly identify with each other anymore," he says. "However, I wouldn't be the person I am today if I didn't speak isiXhosa. Being fluent in the language has also made me more aware of the battles that these rural communities are faced with, linguistic battles as well as social and cultural."

Professor Kaschula's childhood memoir, *Displaced*, was published in 2013.

"It is about finding commonality between two cultures which did not trust the English at that time," he told the Eastern Province Herald.

His Wendisch-Sorb (Slavic sub-group) settler ancestors were part of a buffer zone in the British Cape Colony adjacent to amaXhosa territory. In the 1980s, Professor Kaschula's parents' farm was incorporated into the former Transkei homeland.

"It is this fruit-salad of continual human displacement that the book tries to unravel and explore."

The Future is Multilingual

He believes that if South Africa at large would see the country's 11 official languages in the light of a "multilingual feast", it would lead to much-needed social cohesion and unlock huge employment potential.

"It would create opportunities for language development and greater access to services - from government departments, courts of law, hospitals, banks and so on," he says. "This in turn would provide many new job opportunities for African language speakers. Monolingual students clinging stubbornly to their home language don't realise just how much they are short-changing themselves intellectually."

Professor Kaschula has also become a great proponent of mother tongue teaching, from foundation phase to tertiary levels.

"There's been insufficient buy-in from the South African government about the importance of developing, promoting and using African languages, particularly in education," he wrote in the Cape Argus. "Ordinary South Africans are ill-informed about the advantages of mother tongue being used as the medium of instruction."

A Case for the Mother Tongue

He argues that from Grade R to at least Grade Eight, lessons should be taught in the African mother tongue of the child, with English as a subject.

"It aids cognition and improves learners' ability to transfer concepts from their own languages into English," he says.

Mother Tongue Based Bilingual Education (MTBBE) has been implemented by the Eastern Cape education

authorities and was first used successfully in more than 70 schools in the Cofimvaba district.

The project was launched under the stewardship of language and policy specialist Naledi Mbude, also completing her PhD under the supervision of Professor Kaschula, who says:

Cofimvaba Success Story

"At the Cofimvaba Project, children are taught and examined using isiXhosa in Mathematics alongside English, which is taught as a subject. The result is that in these schools the pass rate for the Mathematics national benchmark tests has gone up from around 30% to 70% in the past two years.

"Although our situation is complex, one of the key reasons for the dropout rate from school - where only one in three learners reaches Matric - is language. Children become disillusioned because they have no idea what is going on in the classroom. Then they drop out.

"English literacy levels in these schools is at 60%, way above the average of other rural schools where English is the medium of instruction. These percentage figures speak for themselves. It is the only project of its kind in South Africa and has been well supported by the provincial government. It should serve as a model for the rest of the country."

isiXhosa on Campus

In 2008, isiXhosa was introduced as a mother tongue language at Rhodes University.

"Initially we began with 50 students," says Professor Kaschula. "Now, on any given day, you have about 700 students learning isiXhosa on this campus. Passing two semesters of isiXhosa has even become compulsory for Journalism students."

Back in 2010, one of those isiXhosa students was Zakeera Docrat, whose childhood days were spent in her mother Glenda's florist shop in central Grahamstown.

Memories of a Florist Shop

"That's where, for me, the isiXhosa really started," she says. "Most of our customers were isiXhosa mother-tongue speakers. They would come to buy

flowers for funerals and weddings. My father, Mohamed Docrat, is a pharmacist with the Department of Health. Both my parents speak isiXhosa.

"Being in the shop with my mom, the customers would always speak to me. Xhosa people are engaging, they're warm and welcoming. They'd strike up a conversation with me and I would respond."

At home, Zakeera's family gardener, Peter Sandi, and his sister Ivy (their housekeeper) kept the isiXhosa flowing with Zakeera, who grew to love the language.

"Obviously, I was still a second-language isiXhosa speaker," she says. "But it's really the people in your life who contribute to who you are today."

Zakeera pays tribute to her Grahamstown schools (St Andrews Preparatory and Diocesan School for Girls) for her academic grounding.

"Love for this language was fostered by my mother, my teachers Brian Mullins and Shelly Roodt and here at Rhodes by Professor Kaschula."

Like Professor Kaschula, she believes fervently that language is the key to bringing South Africans together.

Monolingual Isolation

"If I can speak your language, I can get through to you. It's also about breaking down cultural barriers."

Zakeera Docrat remembers being literally 'speechless' at a language conference she attended with Professor Kaschula in Portugal.

"Hardly anyone spoke English - it was mostly Portuguese. For the first time, I realised what it was like to be monolingual. At a similar conference in Morocco last year, it was the same.

"The taxi driver asked us: 'Do you speak French? Do you speak Arabic? Do you speak Spanish?' We realised how most of our fellow South Africans, the ones who can't speak English, feel every day."

Law Courts and Language

Her PhD is based on the language of record and proceedings used in the South African law courts.



Professor Russell Kaschula.

Credit: Chris Marais

"I'm looking at the relationship between graduating linguistically competent LLB students and the language of record. How can we expect to transform the legal system if we're producing monolingual students?"

Zakeera remembers opening the morning newspaper one day in April 2017 and reading the announcement from the Chief Justice that English would from henceforth be used as the official language of record. Afrikaans would be removed.

"I jumped up and down and said this can't be, what about the African languages? My argument was that if you remove Afrikaans you're going backwards, from a bilingual to a monolingual position. So you're immediately downgrading the African languages even further, because then there's no hope of ever putting them there. And you're elevating English to this super-official language.

Open to Interpretation

"How does English, a language only spoken by 9.6% of the population, foster transformation? And why were no interested parties and regular citizens

consulted? Imagine the stress and the isolation of being in a courtroom situation and having no command of English.

"We also have an unregulated interpreter industry in South Africa. In a courtroom situation, if you cannot speak or understand English you are solely reliant on the interpreter."

Zakeera quotes from an interview she had this year with an Eastern Cape judge, who recounted an instance where she read out her lengthy statement in court near the conclusion of a trial. The interpreter wrapped it up "in two seconds", the judge told Zakeera.

"How can you possibly have translated my statement so quickly?" the judge asked the interpreter.

His answer?

"Oh, I summarised it to save time."

She says opponents to the inclusion of African languages in South African courts state the impracticalities of implementing such a system.



Ms Zakeera Docrat.

Credit: Photo supplied

“It’s been done before. I think the whole issue is whether we want to do it. You would have a system which includes the majority-spoken African language which would vary from province to province - this would add greatly to transformation.

“And just imagine what wonderful legal work would be done if we produced graduates with a degree in translation.”

The Emoji Universe

Another subject she and Professor Kaschula, who both hold LLB degrees, are delving into is that of forensic linguistics, and at an upcoming colloquium the theme is to be New Courtroom Languages.

“Take, for instance, the use of digital emojis. What would our judges do if those emojis formed part of the evidence in a rape trial? It’s actually happening in a High Court matter in the UK right now.

“We’re going to look at the cultural awareness attached to emojis in the South African sense. Someone from

one cultural group might innocently send an emoji to someone from another cultural group who might be insulted by it.”

Back to Professor Russell Kaschula for the final question: What, for white kids, is the advantage of being fluent in the majority-spoken African language of their district?

“It will open up a whole new world,” he says. “They will then be exposed to all those people who have been denied access to the mainstream economy and who live on the fringes of this society because they’re not fluent speakers of English. Bridges would be built, and they would never be the same person again.”

Chris Marais



Credit: Chris Marais

Emeritus Professor Dan Wylie
Department of Literary
Studies in English

Critical Diaries of a Busy Man

He's a poet, a rock climber, an environmentalist, a teacher, adventurer and historian who occasionally ruminates on dystopian futures. He's the recently-retired Professor Dan Wylie of the Rhodes University Department of Literary Studies in English.

If you ever get the chance to go on a long walk around the inside of Dan Wylie's head, best wear serious hiking boots and take the year off.

The veteran author, poet, historian, researcher and Rhodes University Emeritus Professor lists packing pills in a British mental asylum and North Sea oil rig jobbing as part of his work resume. His choice of writing subjects is vast, from the debunking of popular Shaka Zulu myths to how we view elephants to a post-apocalyptic lark around a dystopian Eastern Cape.

"For me as a young boy, it all began at my mother's wildlife sanctuary outside Umtali (now Mutare) in the Eastern Highlands of what was then Rhodesia and is now Zimbabwe," he says. He returns from time to time, and often records the details of home journeys in his blog, called *Critical Diaries*.

An excerpt reads:

"The countryside between the towns is looking dry and tawny, as one would expect this time of year. Though locals complain of the

cold, to me, coming out of Grahamstown's considerably more biting winter, it feels delightfully balmy. Already some of the miombo woodland trees are coming out in hints of spring colour - from lime green to deep maroon - at least a month early. A product of the drought, and/or global heating?

"In Harare, I sit in the garden of a friend's house, and the Grey louries and Arrow-marked babblers creak and flicker through the trees; the dog chases sticks; I discuss the nature of the planets with the six-year-old daughter. It might almost be normal. Or, you might say, Nature and the topography retain their own sanity."

Mentors and Mindfulness

After his army service, Dan Wylie came south to Rhodes University, majoring in English and History. He studied under the legendary Don MacLennan, and they were to become close friends in the years that followed.

"We climbed together and we read poetry together," he says. Wylie could not have had a finer mentor in the late MacLennan, a well-loved teacher and leading poet.

After Rhodes, young Wylie "wandered off" overseas.

"I worked in a mental asylum in Leicester for two months, mostly in the pharmacy," he says. "I cycled around Ireland and took a job at an oil rig design company."

He remembers something.

"I was recently horrified to hear that one of the rigs owned by that company is going to be abandoned up there in the North Sea."

Abandoned oil rigs, one gathers, leak thousands of tonnes of planet-warming methane gas into the North Sea every year. Dan Wylie worries about these things.

"I went on to teach at a summer camp in the USA and cycled around that country as well." After two years, he returned to Zimbabwe and took a teaching post at a Methodist bush school south of Mutare.

The 'Zulu Period'

"I did that for two years as well," he says. "Then I went freelance, wrote a failed novel (that was my practice run) and began to think about a possible

Master's degree on how King Shaka of the Zulu nation has been written about over the decades."

Professor Julian Cobbing of the History Department at Rhodes was, Wylie recalls, an inspiration to the young student from Mashonaland.

"In teaching the 'Zulu Period' of South Africa's history, he was uncovering the historical nonsense and myths that have been propagated about Shaka in Africa and elsewhere for years and years," Dan Wylie says.

"Some portrayed him as a monster, others as a liberation leader."

In 2000, Professor Wylie's first book on the subject, *Savage Delight: White Myths of Shaka*, was published by the University of KwaZulu-Natal (UKZN) Press.

It was followed in 2006 by *Myth of Iron: Shaka in History*. In reviewing his work, Shaun de Waal wrote in the *Mail & Guardian* in May of that year:

Finding Shaka

"What we think we know (about Shaka) is largely dubious, the product of the imaginations of a small handful of colonial-era travellers who almost all had ulterior motives.

"*Myth of Iron*, despite its status as an 'anti-biography', is not only a work of debunking. For all its evisceration of error, supposition and myth, Wylie nonetheless provides an absorbing picture of Shaka's world and times, dealing with the debate around the mfecane (the alleged large-scale migrations of dispossessed Africans during the period, blamed on Shaka and made into an 'alibi' for white conquest) and the related issue of slave-trading on the east coast of southern Africa."

Says Wylie:

"The material for a trustworthy biography of Shaka simply does not exist. There is a great deal that we do not know, and never will know. Maybe two times out of three, we cannot be sure that the anecdotes told about him are true."

These days, the makers of graphic novels and film documentaries are booking Dan Wylie as a consultant and, he says, they're doing their research very well.

Ecological Criticism

His interest in the natural world began to develop into study projects and, ultimately, into an impressive array of books. His mother, Jill Wylie, is also a widely published author.

"During my national service, I spent seven months up at Mana Pools (one of the ultimate southern African 'destinations' for elephant sightings) where we patrolled up and down the Zambezi River, often being chased by the megafauna."

In the late 1990s, Dan Wylie began to study 'elephant literature' written by a vast array of hunters, explorers, conservationists and rangers. He was fascinated by the various literary takes on these beasts.

"Even though there is a huge community of so-called ecological critics around the world, the field was almost unheard-of in South Africa.

"Elephants really get people's emotional heat up very quickly," he says. "They are at the heart of many aspects of animal identity, animal sentience, animal families, land use problems between animals and local communities and other conservation issues."

His landmark book on elephant writing and the historical portrayal of them in general was a long time coming, however. *Death and Compassion - The Elephant in Southern African Literature* was published in 2018 by the Wits University Press.

"It's the story of a developing contestation between death and compassion, between those who kill and those who love and protect," he says in the synopsis on the back of the book.

Along the way, Dan Wylie also wrote *Elephant and Crocodile* for the Reaktion Books series on animals, and to research these two subjects he travelled the world from Florida USA to the Amazon and to Australia.

Future Fantasies

His deep interest in all things ecological has led him into the grey, smoky world of post-apocalyptic dystopian fiction - in other words, *Mad Max Country*.

"Look what's going on up in Alaska," he says, referring to media reports about the critical snowmelt in the Bering Strait region. Warmer oceans have resulted in

the end of salmon spawning in the area, mass die-offs of whale and walrus populations and a deadly algal bloom.

"It's all happening faster than anyone could have predicted," says Dan Wylie. "Then I look at Zimbabwe, which is also full of elements right now that I could build into a dystopian novel."

In fact, one of his most popular books is a slim volume in that genre called *The Wisdom of Adders*. Set in the year 2170, *Adders* has a young San-like woman as the central character. Her mission is to trek across the blighted landscape of a ruined Eastern Cape from her broken village to find her father, who is rumoured to be living somewhere in the Cockscomb range of mountains near a place he calls 'Nummers' - AKA Nelson Mandela Bay.

As a work of 'fun but frightening' future fantasy, *The Wisdom of Adders* is such a rattling good read that fellow writers have urged Dan Wylie to spend his retirement years writing Big Fiction on the subject.

The Poet

Then there is his poetry, the field of words he had in common with the late Don MacLennan. Of the South African 2019 Election Day, Wylie writes:

*After three decades of lowering mist, a bright day
of sunlight through pine-needles, and steam off rotting
fungi.*

*The geese are voting one way, the guineafowl another.
Left-wing drongos, dark on the wires, taunt the tabby
electorate*

with their forked tails, their obsidian eyes and promises.

No one believes them any more, or trusts the clouds.

The dogs bark, but the vervets' rhetoric baffles them.

*The bees have compiled their poll, but no one knows
how this day might end for them.*

*What does the wind think, tainted with the smoke
of loitering desires? Or the sea, tasting saltier to itself
than at any time in its leviathan memory?*

Or the noonday sun, burning its hole through the sky?

*Or the river, its bounty irrevocably mingled with toxins
and blood? Or the leaves left behind on the floor
of the broken forest, like the remnants of slaves?*



Death and Compassion

The Elephant in Southern African Literature

DAN WYLIE

Professor Wylie's book "Death and Compassion: The Elephant in Southern African Literature"

*Or the doubloons of light on the shadowed lane,
the pointless riches of overthrown kings?
A nameless man is sweeping dead leaves round
and around the parking circle; his toothless
broom splinted with someone else's rough idea.
Curtained windows and erythrinas observe indifferently.
The night is falling, echoing with uncertainty.
The stars are counting themselves up, the heavens
impassive but for the comets inserting themselves
in the slots in the galaxies. All said and done, the sky
looks much the same. Leaves go on falling through
the wind.*

Another project that was a couple of decades in the making was *Intimate Lightning* (UNISA Press, 2018), his study of Sidney Clouts and his poetry. In his time, the Capetonian man of letters was regarded as the stand-out South African poet of his time. *Intimate Lightning* is an in-depth exploration of Clouts' work,

his methods and his themes. As part of his intensive research, Wylie conducted interviews with Clouts' colleagues, friends and family members and had full access to nearly 2 000 pages of his drafts, notebooks and letters.

"It was the most intellectually challenging book I have attempted, about a difficult but for me endlessly stimulating poet, considered by many to have been the finest of his generation," says Wylie. "Incidentally, he was also Don MacLennan's friend."

View from Stones Hill

For now, however, Professor Dan Wylie will be continuing his pilgrimages up to Zimbabwe and back in his old bakkie, thinking about the world we live in and pondering on the possibility of future fiction.

Most of which will be considered from the vantage point of his cottage at Stones Hill just outside Makhanda, with the forest down below and the Indian Ocean on the horizon.

"There was a porcupine on the back porch last night, and a baboon rumbled across the roof this morning. I just love the place."

Should you ever search for him online, your best bet would be to hire a digital detective. However, for a direct hack into the world of Dan Wylie, visit www.netsoka.co.za

"Netsoka means 'on foot' in Shona," he'll tell you, as if that makes it all OK. But once you navigate via this site to another one called www.danwyliecriticaldiaries.blogspot.com you will find it's well worth the hunt. The man has a superb way with his words.

Chris Marais

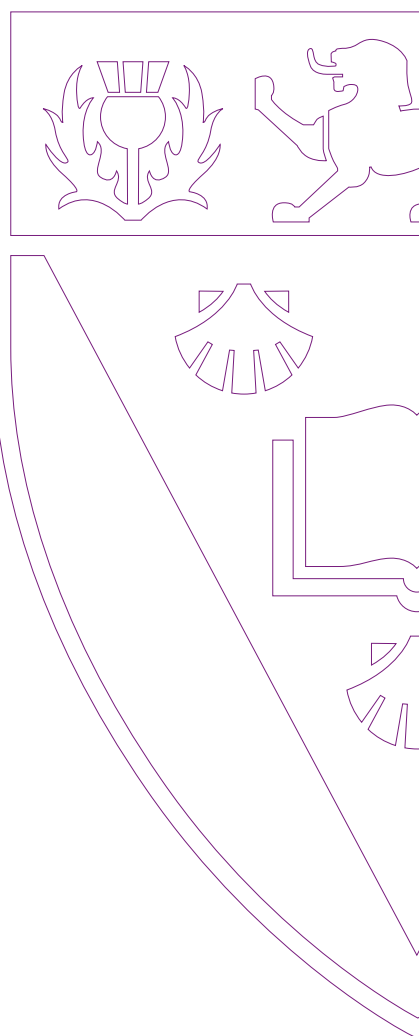
2018 REPORT

Departments & Faculties

*Credit: Rhodes
University
Communications and
Advancement Division*

PUBLICATIONS

from the Vice-
Chancellorate and
Administration



Rhodes University campus.
Credit: Rhodes University Communications
and Advancement Division

Books/Chapters/Monographs

Boughey, C.

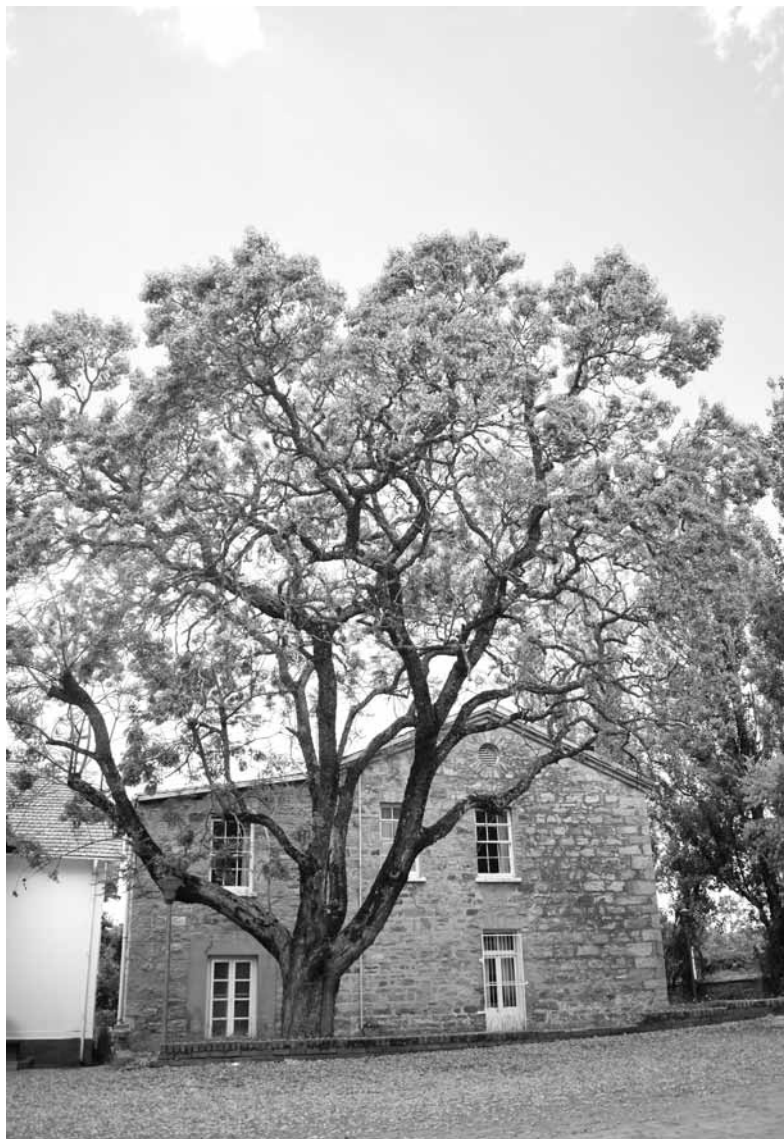
Boughey, C. (2018) Learning to research: A 'social' account. In: du Preez, P. and Simmonds, S. (eds.). *A Scholarship of Doctoral Education*. Stellenbosch: Sun Press. p.171-191. ISBN: 9781928357926.

Peer Reviewed Subsidy-Earning Journal Research Publications

Boughey, C.

Boughey, C. (2018) What kind of people have we formed in our university graduates? Book Title: Going to university: The influence of higher education on the lives of young South Africans ISBN: 9781928331698 (softcover); 9781928331704 (open access ebook). *South African Journal of Science*. 114 (9/10). p.1.

Boughey, C. (2018) Using the curriculum to enhance teaching and learning. *South African Journal of Science*. 114 (9/10). p.1-3.



Centre for Higher Education Research, Teaching and Learning (CHERTL)



Credit: Snow Harris

Professor Jo-Anne Vorster
Head of Department

Centre for Higher Education Research, Teaching and Learning (CHERTL) offers formal courses aimed at building knowledge and expertise in teaching and learning, and contributes to research in the field of higher education studies. The field is especially important in the context of a higher education system that is grappling with the challenge of creating conditions for success for the majority of students.

CHERTL adds to an understanding of contemporary higher education in a rapidly changing world through its various Postgraduate programmes and in accredited publications, conference presentations and the popular press.

Postgraduates / Graduations

PhD graduations

- **Dr Evelyn Muthama:** *Conditions constraining and enabling research production in historically black universities in South Africa.*
- **Dr Gillian Shan Reid:** *A realist exploration of transnational mobility, change and identity construction in South African Higher Education expatriates in Abu Dhabi, the United Arab Emirates (UAE).*
- **Dr Mlamuli Hlatshwayo:** *'I want them to be confident, to build an argument': An exploration of the structure of knowledge and knowers in political studies.*
- **Dr Peta Myers:** *A social realist account of constraints and enablements navigated by South African students during the four-year professional accounting programme at Rhodes University, South Africa.*
- **Dr Meredith Armstrong:** *Learning to Learn: A critical realist exploration into the home established learning practices of a marginalised community in Port Elizabeth.*

Postgraduate Diploma (PGDip) in Higher Education (HE) graduations

The PGDip (HE) offers a broad introduction to the field of higher education, with a particular focus on teaching and learning. At the 2018 graduation ceremony, there were sixteen (16) graduates from this programme, five (5) achieved distinctions.

Distinguished Visitors / International Visits

CHERTL prides itself on working with national and international academics ensuring that our students benefit from such relationships. In 2018, we again, had a number of distinguished visitors.

In March 2018, CHERTL hosted **Professor Karl Maton**. Professor Maton is a Research Associate of CHERTL, and the Director of the Legitimation Code Theory (LCT) Centre for Knowledge-Building at the University of Sydney. Professor Maton gave a series of lectures and offered intensive individual supervision sessions.

In July 2018, CHERTL together with the Centre for Postgraduate Studies (CPGS), hosted Dr Femi Otulaja, from University of Witwatersrand (WITS), and Mr Ndumiso Dladla from University of South Africa (UNISA). They both ran seminars during the July 'Doc Week' prior to taking part in the annual Postgraduate conference.



Professor Karl Maton at CHERTL Doc Week.
Credit: CHERTL

Dr Otulaja gave a presentation entitled: *"To decolonisation or to indigenisation: That's the question"* and Dr Dladla gave a presentation entitled *"Here is a table: The history of race in South Africa"*.

In October 2018, CHERTL co-hosted, with the Education Department, a group of PhD supervisors and scholars from Umeå University in Sweden. During the 'Doc Week', scholars from both Umeå and Rhodes University made presentations and shared experiences.

Significant Research Aligned Events

In March 2018, CHERTL hosted the book launch of *Going to University: The influence of higher education on the lives of young South Africans*. This open access book was co-authored by **Professor Sioux McKenna** with colleagues from University of Cape Town (UCT) and University of Western Cape (UWC), Jenni Case, Disa Mogashana and Delia Marshall.

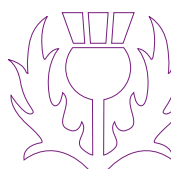
The book traces the lives of seventy-three (73) young people who first registered for a Bachelor of Arts (BA) or Bachelor of Science (BSc) in 2009. The book has garnered much critical praise with a number of positive reviews in *Journal of Student Affairs*, *South African Journal of Science*, and *Critical Studies in Teaching & Learning*.



At the launch of *Going to University: the Influence of Higher Education on the lives of young South Africans*: (from left to right) Dr Peter Clayton (DVC: Research and Innovation), Dr Sizwe Mabizela (VC), Dr Disaapela Mogashana (co-author), Professor Sioux McKenna (co-author), and Emeritus Professor Chrissie Boughey (CHERTL).
Credit: CHERTL

PUBLICATIONS

Centre for Higher
Education Research,
Teaching & Learning
(CHERTL)



Books/Chapters/Monographs

Clarence, S.

Clarence, S. (2018) Understanding student experiences through the lens of academic staff development practice and research. In: Case, J. and Ashwin, P. (eds.). *Higher education pathways: South African Undergraduate Education and the Public Good*. Cape Town: African Minds. p.204-215. ISBN: 9781928331902.

Hlengwa, A. and McKenna, S.

Hlengwa, A., McKenna, S. and Njovane, T. (2018) The lenses we use to research student experience. In: Case, J. and Ashwin, P. (eds.). *Higher education pathways: South African Undergraduate Education and the Public Good*. Cape Town: African Minds. p.149-162. ISBN: 9781928331902.

Maton, K.

Maton, K. (2018) Thinking like Bourdieu: Completing the mental revolution with Legitimation Code Theory. In: Albright, J., Hartman, D. and Widin, J. (eds.). *Bourdieu's Field Theory and the Social Sciences*. Springer Nature Switzerland. p.249-268. ISBN: 9789811053849.

McKenna, S.

Case, J.M., **McKenna, S.**, Mogashana, D. and Marshall, D. (2018) *Going to University: The Influence of Higher Education on the Lives of Young South Africa*. Cape Town: African Minds. ISBN: 9781928331698.

McKenna, S., Walker, M., Carpentier, V., Naidoo, R., Ashwin, P., Schendel, R., Case, J., Marshall, D. and McCowan, T. (2018) Pathways to the Public Good. In: Case, J. and Ashwin, P. (eds.). *Higher education pathways: South African Undergraduate Education and the Public Good*. Cape Town: African Minds. p.291-298. ISBN: 9781928331902.

Other Publications

Maton, K.

Maton, K. and Howard, S.K. (2018) LCT Centre Occasional Paper 1. In: *Taking autonomy tours: A key to integrative knowledge-building*. Australia: LCT Centre for Knowledge-Building, University of Sydney.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Clarence, S.

Clarence, S. (2018) Towards Inclusive, Participatory Peer Tutor Development in Higher Education. *Critical Studies in Teaching and Learning*. 6 (1). p.58-74.

Peer Reviewed Subsidy-Earning Journal Research Publications

Clarence, S.

Munje, P.N., Nanima, R.D. and **Clarence, S.** (2018) The role of questioning in writing tutorials: a critical approach to student-centered learning in peer tutorials in higher education. *Mentoring and Tutoring: Partnership in Learning*. 26 (3). p.336-353.

Ellery, K.

Ellery, K. (2018) Legitimation of knowers for access in science. *Journal of Education*. 71 (2018). p.24-38.

Madondo, N.E.

Madondo, N.E. (2018) Locating the Experiences of Rural Science Students in Higher Education. *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)*. 25 (2). p.210-226.

PUBLICATIONS

Maton, K.

Howard, S.K., Yang, J., Ma, J., **Maton, K.** and Rennie, E. (2018) App clusters: Exploring patterns of multiple app use in primary learning contexts. *Computers & Education*. 127 (2018). p.154-164.

Locke, P. and **Maton, K.** (2018) Serving two masters: how vocational educators experience marketisation reforms. *Journal of Vocational Education and Training*. 2018. p.1-20.

McKenna, S.

Oluwole, D.O., Achadu, O.J., Asfour, F., Chakona, G., Mason, P., Mataruse, P. and **McKenna, S.** (2018) Postgraduate Writing Groups as Spaces of Agency Development. *South African Journal of Higher Education*. 32 (6). p.370-381.

McKenna, S. and Thomson, C.

O'Shea, C., **McKenna, S.** and Thomson, C. (2018) 'We throw away our books': Students' reading practices and identities. *Linguistics and Education*. 2018. p.1-10.

McKenna, S., Quinn, L. and Vorster, J.A.

McKenna, S., Quinn, L. and Vorster, J.A. (2018) Mapping the field of Higher Education Research using PhD examination reports. *Higher Education Research & Development*. 37 (3). p.579-592.

Muthama, E. and McKenna, S.

Muthama, E. and McKenna, S. (2018) The contradictory conceptions of research in Historically Black Universities. *Perspectives in Education*. 35 (1). p.129-142.

Quinn, L. and Vorster, J.A.

Grant, C., **Quinn, L.** and **Vorster, J.A.** (2018) An exploratory study of Heads of Departments' responses to student calls for decolonised higher education. *Journal of Education*. 12. p.73-88.

Vorster, J.A.

Behari-Leak, K., **Vorster, J.A.**, Chitanand, N., Ganas, R., Padayachee, K., Merckel, V. and Masehela, L. (2018) How to be or not to be? A critical dialogue on the limitations and opportunities of academic development in the current higher education context. *South African Journal of Higher Education*. 32 (6). p.401-421.

Wilmot, K. and McKenna, S.

Wilmot, K. and McKenna, S. (2018) Writing groups as transformative spaces. *Higher Education Research & Development*. 37 (4). p. 868-882.

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

Madondo, N.

Madondo, N. Keynote address: Ways of knowing and becoming literate in the disciplines: A case for Extended Curriculum Programmes at South African Universities. *University of Venda Extended Curriculum Programmes Colloquium*. Thohoyandou. 22 - 23 August 2018.

Madondo, N. Dismantling the mysteries of scientific language in higher education: Drawing on students' lived rural home experiences. *Higher Education Close Up*. Vineyard Hotel, Cape Town. November 2018.

McKenna, S.

McKenna, S. Keynote address: Responsiveness in higher education in South Africa. *University of Zululand Teaching and Learning Conference*. Empangeni. South Africa. October 2018.



CHERTL staff, Doctoral and PGDip graduates at the CHERTL graduation celebration.

Credit: CHERTL

Quinn, L. and Vorster, J.A.

Quinn, L., Grant, C. and Vorster, J.A. A structural enablement for heads of departments during complex and uncertain times. *Higher Education Learning and Teaching Association for Southern Africa*. Nelson Mandela University, Port Elizabeth. South Africa. November 2018.

Quinn, L. and Vorster, J.A. Why the focus on curriculum? Why now? The role of academic development? *Higher Education Close Up*. Vineyard Hotel, Cape Town. South Africa. November 2018.

Quinn, L. and Vorster, J.A. Transforming curricula in higher education through making connections. *American Education Research Association*. New York Hotels, New York. United States of America. April 2018.

Tshuma, N.

Tshuma, N. Beyond Barriers and Resistance: The Impact of the Teaching/Research Tension on Educational Technology Practices. *HELTASA 2018: Higher Education Learning and Teaching Association of Southern Africa*. Nelson Mandela University, Port Elizabeth. South Africa. November 2018.

Tshuma, N. Responding to student's misrecognition in higher education through the use of technology. *HECU9: Higher Education Close Up*. Vineyard Hotel, Cape Town. South Africa. November 2018.

Tshuma, N. Motivating academics to move beyond content and administration in their integration of Moodle into teaching and learning. *MoodleMoot*. Cape Town International Convention Centre, Cape Town. South Africa. October 2018.

Research Papers published in the popular press

McKenna, S

McKenna, S. (2018) 'Five signs universities are turning into corporations'. *The Conversation*. 23 March 2018.

McKenna, S. (2018) 'How class and social capital affect university students'. *The Conversation*. 6 March 2018.

Case, J., Marshall, D., **McKenna, S.** and Mogashana, D. (2018) 'Foregrounding the public good benefits of university study. *University World News*. 9 March 2018.

Wilmot, K. and McKenna S.

Wilmot, K. and McKenna, S. 'University writing groups provide an unexpected space for change'. *The Conversation*. 28 May 2018.

Community Engagement Division



Credit: Snow Harris

Ms Diana Hornby
Head of Department

The number of research outputs from the Community Engagement Division has been growing exponentially over the past four (4) years. Our researchers are publishing in high impact international journals and presenting at prestigious international conferences. All of this highlights the growing expertise in the emerging discipline of the Scholarship of Engagement at Rhodes University, which is now recognised as a national leader for engaged research.

The diversity of disciplines impacted through the scholarly outputs produced showcases the possibility for inter-disciplinary work to thrive within the division. Moreover, the transdisciplinary nature of all of the work carried out within the division demonstrates the broader commitment of the Rhodes academic community to higher education for the public good through community-based research.

Postgraduates / Graduations

The Community Engagement Division congratulates two (2) outstanding MSc graduates, Ms Nqowana and Ms Ralekhetla, supervised through the Epistemic Justice and Engaged Research Group. Both students developed innovative participatory approaches to addressing water quality and scarcity challenges in the Makana Municipal area, and will continue to drive social change as they extend their research via Doctoral studies at Rhodes.

International Visits

Doctoral candidate, Ms Bango, was able to expand her research on pedagogies for social change through her participation in the *Teaching at the intersection of language, culture and identity: multilingual pedagogies for social justice* workshop at the Interdisciplinary Centre for Integration and Migration Research, University Duisburg-Essen, Germany.

Postdoctoral Research Fellow, **Dr Carlos Bezerra**, and Senior Lecturer, **Dr Paphitis** attended two (2) international conferences in London and Salzburg, sharing their work on community-based research for conservation in partnership with the Amakhala Foundation.



Director, **Ms Hornby**, travelled to the United States of America, where she shared innovations in theory and practice made by the Division in relation to partnership building and citizenry education at the *8th Annual Service Engagement Summit*.

Significant Research Aligned Events

The Community Engagement Division hosted the annual international *Community Engaged Learning Symposium* at the National English Literary Museum (NELM). Delegates from across South Africa and Europe shared their research alongside Rhodes University community partner organisations, making the symposium a truly transdisciplinary event.

In May 2018, Rhodes hosted the Erasmus+ Funded Common Good First Project consortium meeting, in which the Community Engagement Division is a key partner. The key areas for discussion were updating the group of twelve (12) international universities on the digital storytelling pilots run at Rhodes, and beginning to scope out the digital labs which will launch in 2019.

Dr Sharli Paphitis, Senior Lecturer

Partners from 12 Institutions collaborating on the Erasmus+ funded Common Good First Project met at Rhodes University to take stock of the project progress and plan for the next phase.

Credit: Community Engagement Division

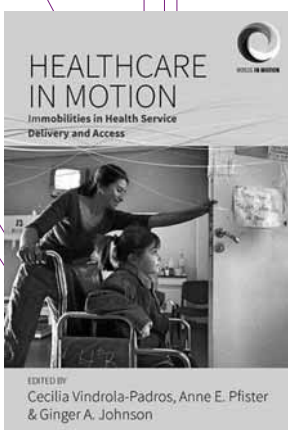


Dr Sharli Paphitis (in photograph) and Dr Joana Carlos Bezerra presented their paper, "Connecting through images: feedback to communities beyond written words," at the Photography & Academic Research: Images In The Post-Truth Era conference London (Birkbeck).

Credit: Community Engagement Division

PUBLICATIONS

Community Engagement Division



Books/Chapters/Monographs

Paphitis, S.

Paphitis, S. and Kelland, L. (2018) In the Red: Between Research, Activism, and Community Development in a Menstruation Public Health Intervention. In: Macleod, C.I., Marx, J., Mnyaka, P. and Trehan, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.195-209. ISBN: 9783319747200.

Paphitis, S. and Srinivas, S. (2018) Service-Learning Research Projects to Enhance the Medicines Information Accompanying Commonly Dispensed Medicines on the Phelophepa Health Care Trains. In: Vindrola-Padros, C., Pfister, E. and Johnson, G. (eds.). *Healthcare in motion: Mobility forms in health service delivery and access*. New York: Berghahn Books. p.164-184. ISBN: 9781785339530.

Concerts, Exhibitions, Performances, Workshops, Events

Bango, Y.

Bango, Y. Participant. *Teaching at the intersection of language, culture and identity: multilingual pedagogies for social justice*. Interdisciplinary Centre for Integration and Migration Research (InZentIM), University Duisburg-Essen. Germany. 30 October 2018.

Duxbury, T.

Duxbury, T. Certified. *African Doctoral Academy Winter School*. Stellenbosch University, Stellenbosch. South Africa. 26 June - 21 July 2018.

Duxbury, T. Participant. Building health resilience: An engaged, systems analysis and epistemically just approach to rural health development. *Southern African Systems Analysis Centre, National Research Foundation Doctoral Scholarship Inception and capacity development program*. University of Cape Town, Cape Town. South Africa. 14 - 27 January 2018.

Peer Reviewed Subsidy-Earning Journal Research Publications

Carlos Bezerra, J.

De Vos, A., Carlos Bezerra, J. and Roux, D. (2018) Relational values about nature in protected area research. *Current Opinion in Environmental Sustainability*. 35 (2018). p.89-99.

Paphitis, S.

Sewry, J.D. and Paphitis, S. (2018) Meeting important educational goals for chemistry through service-learning. *Chemistry Education Research and Practice*. 19 (2018). p.973-982.

Davy, J., Weaver, K.N., Todd, A. and Paphitis, S. (2018) "Ergonomics on the Ground": A Case Study of Service Learning in Ergonomics Education. *Advances in Intelligent Systems and Computing*. 2018. p.1-10.

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

Bango, Y.

Bango, Y. An investigation of transformation policies and practices designed to address institutional culture in four South African universities. *Postgraduate Education is a Public Good: 9th Interdisciplinary Postgraduate Conference*. Rhodes University, Grahamstown. South Africa. July 2018.

Bango, Y. The transformation agenda on higher education in post-apartheid South Africa: An investigation of transformation policies and practices designed to address institutional culture. *Community Engagement and Social Innovation Symposium*. Rhodes University, Grahamstown. South Africa. May 2018.

PUBLICATIONS

Bobo, B.

Bobo, B. "Most importantly the partner takes more interest in us": Using Ubuntu as the cornerstone of Community Engagement at Rhodes University. *Decolonisation and Afrikanisation: A Conversation*. UNISA, Pretoria. South Africa. August 2018.

Bobo, B. The role of community engagement in student development: The Engaged Citizen Programme (ECP) as a case study. *Community Engaged Learning Symposium*. Rhodes University, Grahamstown. South Africa. May 2018.

Bulunga, A.A.L.

Bulunga, A.A.L. Encouraging long-term water conservation through a participatory educational program. *Community Engagement and Social Innovation Symposium*. Rhodes University, Grahamstown. South Africa. May 2018.

Carlos Bezerra, J.

Carlos Bezerra, J. Reaching Service-learning Goals: A case study from South Africa. *Community Engagement and Social Innovation Symposium*. Rhodes University, Grahamstown. South Africa. May 2018.

Carlos Bezerra, J. A response to Paphitis on "relative poverty," and "trauma". *7th Annual Wild Coast Philosophy Symposium*. Crawford's Lodge, Chintsa. South Africa. November 2018.

Carlos Bezerra, J. and Paphitis, S.

Carlos Bezerra, J. and Paphitis, S. Connecting through Images: feedback to communities beyond written words. *Photography and Academic Research*. Birkbeck College, University of London, London. United Kingdom. September 2018.

Duxbury, T. and Paphitis, S.

Duxbury, T., Paphitis, S. and Tandlich, R. Building resilience through rural community health development: A participatory action research and systems analysis approach. *Rhodes University Postgraduate Conference*. Rhodes University, Grahamstown. South Africa. July 2018.

Hornby, D.

Hornby, D. Community University Partnerships: Collaboration to Promote Active Citizenry for Community Development. *8th Annual Service Engagement Summit*. Campus Compact Indiana, Indianapolis. United States of America. February 2018.

Nqowana, T. and Paphitis, S.

Nqowana, T., Paphitis, S. and Tandlich, R. Science engagement with school pupils for microbial quality testing of water in Grahamstown. *Postgraduate Education is a Public Good: 9th Interdisciplinary Postgraduate Conference*. Rhodes University, Grahamstown. South Africa. July 2018.



Ms Thandiswa Nqowana completed her MSc with the Epistemic Justice and Engaged Research Group. She was also awarded the Engaged Student Researcher of the year award at Rhodes University for her work in science engagement and water quality with 90 learners from schools across Makana.

Credit: Community Engagement Division

Nqowana, T., Paphitis, S. and Tandlich, R. Citizen Science workshops with Grade 9 learners for water quality monitoring in Grahamstown, South Africa. *Community Engagement and Social Innovation Symposium*. Rhodes University, Grahamstown. South Africa. May 2018.

Paphitis, S.

Paphitis, S. and Sewry, J.D. Meeting Important Educational Goals for Chemistry through Service-Learning. *Community Engagement and Social Innovation Symposium*. Rhodes University, Grahamstown. South Africa. May 2018.

Paphitis, S. The use and abuse of poverty and trauma? The concept of relative 'poverty,' and 'trauma' in popular discourse. *7th Annual Wild Coast Philosophy Symposium*. Crawford's Beach Lodge, Chintsa. South Africa. November 2018.

Paphitis, S. and Carlos Bezerra, J.

Paphitis, S. and Carlos Bezerra, J. Epistemic Injustice and Land Restitution: A case study from South Africa. *Salzburg Conference in Interdisciplinary Poverty Research*. Universitat Salzburg, Salzburg. Austria. September 2018.

Ralekhetla, M.M.

Ralekhetla, M.M. Investigating the level of epistemic justice during the application of APP as a tool for Integrated Water Resource Management. *Community Engagement and Social Innovation Symposium*. Rhodes University, Grahamstown. South Africa. May 2018.



RUCE staff members engaged in the Digital Storytelling process as part of the Common Good First Project.

Credit: Community Engagement Division



The 2018 Annual Community Engaged Learning Symposium was held at NELM and opened by VC, Dr Mabizela.

Credit: Community Engagement Division



Credit: Snow Harris

Ms Ujala Satgoor
Director

Contributors:

Debbie Martindale,
Larshan Naicker,
Dr Cornelius Thomas and
Wynand van der Walt.

The Rhodes University Library (RUL) embeds research work into its day to day activities from Postgraduate support and training; scholarly communications; digital commons; new acquisitions; and collaborations in support of research, teaching and learning.

During 2018 RUL was guided by the following:

- **Purpose Statement:** RUL is committed to the pursuit of knowledge by connecting people to resources that contribute to the intellectual development of future responsible citizens.
- **Overarching Goal:** To develop and maintain efficient, reliable and responsive library and scholarly communication services that promote, support and enhance the research, teaching and learning endeavours of Rhodes University.
- **Library Culture:** RUL aspires to a shared culture, '*a way of being both in mind and in action*' in support of a positive academic outcome for the Rhodes University community, while also creating a positive work environment for all.

The following strategic focus areas are considered appropriate and relevant to the teaching, learning and research endeavours of the University:

- Positioning the library in the intellectual midst of the University community.
- Dynamic user services.
- Staff development.
- Technology and innovation.
- Transformation.
- Risk management.

Physical Library and Usage

- 4 Libraries - Main, Law, Sound and Cory Library.
- Supports the South African Institute for Aquatic Biodiversity (SAIAB) and the International Library of African Music (ILAM).
- 1 200 study spaces.
- 213 computers for students.

- 57 computers for staff.
- 10 000 m² space.
- Certifying of documents - 2 954 transactions.
- Information Resources:
 - Books and Monographs: R500 000.
 - Journals: R2 107 000.
 - Databases: R17 700 000.
- Library visits:
 - Gate count: 523 375

Collections

- Monographs in stock: 284 300 including 1 773 new books.
- e-Books: 13 326.
- Journals - Individual titles: 231.
- Journals via Databases: 38 000.
- Repository (including ILAM and Cory digital collections): 17 526 items.

Usage

- Circulation: 60 488 Loans (books and other materials).
- Inter-library loans:
 - 621 applied to other institutions.
 - 877 items received.
- Database usage:
 - 10 420 762 total database use.
 - 690 416 full-text articles downloads.

Teaching and Learning Contribution

- 75 LibGuides.
- 1211 first-year student attendance at Library orientation during O-Week.
- 934 undergraduate participants in Information Literacy/User Education sessions.
- 7417 Reference transactions.

Social Media/Web 2.0

- www.facebook.com/RhodesUniversityLibrary (2810 followers).
- twitter.com/RhodesResearch (1232 followers).
- twitter.com/RhodesLibrary (1345 followers).

Champion Open Access (OA), open publishing and scholarly communication

International Open Access Week was observed.



Figure 1. Open Access Week 2018 Poster

Unlike previous years wherein the Library scheduled a full programme during Open Access Week, we opted to observe the 2018 OA Week (3-7 September 2018) through an awareness campaign. This decision was taken in lieu of poor attendance during previous OA Weeks due to September and October being the busiest times of the annual academic calendar. The awareness campaign encompassed the distribution of informative OA bookmarks, giveaways to researchers and students in the Research Commons and Postgraduate Commons, and OA displays on each of the Faculty hubs' advertising screens.

Investigate tools and initiatives to enhance access to information resources and the visibility of Rhodes University research

Research Week



Figure 2. Research Week 2018 Poster

The RUL lead and hosted the second Research Week programme during 7-11 May 2018. The 2017 theme of *'In support of Emerging African Academics and Researchers'* continued through the 2018 events.

The aim of the research week is to raise awareness of how the library supports research and research visibility, and to strengthen partnerships with researchers and Postgraduate students, the Research Office, Centre for Postgraduate Studies, the International Office and the SRC.

The sessions enabled attendees to actively participate with presenters who shared their vast and diverse experiences and knowledge of the research landscape and journey. Although the event was widely marketed, it was extremely disappointing to see sessions were poorly attended this year.

Scholarly Communication Tools: raise researcher and institutional visibility

ORCID

(Open Researcher and Contributor ID)

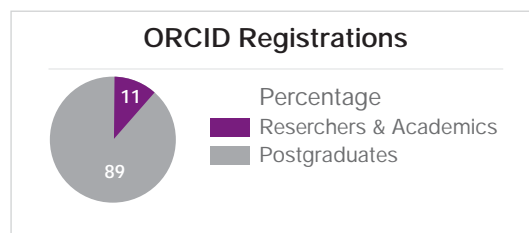


Figure 3. ORCID registrations 2018

ORCID is a National Research Foundation (NRF) requirement. The RUL continues to advocate for the registration and optimal use of ORCID (Open Researcher and Contributor Identifier) among researchers and Postgraduate students.

The RUL Librarian: Scholarly Communications has been kept busy with supporting ORCID registrations and researcher profile construction.

The RUL leads awareness campaigns within the research community to showcase how ORCID can be used to promote and enhance researcher and institutional visibility:

- ORCID workshops/presentations with departments (throughout the year).
- New Academic Orientation programme (24 January 2018).
- Postgraduate Orientation programme (16 January 2018; 11 April 2018).
- National Institute for the Humanities and Social Sciences (NIHSS): Professor Paul Maylam (3 May 2018).
- RU Research Office/National Research Foundation (NRF) students (23 May 2018).
- Nuffic Postgraduate Supervision programme (16 August 2018).

Collaborations between RUL, Rhodes ICT, ORCID, TENET and SAFIRE began during 2018. It is anticipated the logistics to complete the integration of ORCID within the institutional IT systems and

strengthen Rhodes University as an ORCID Organisation Member will happen in 2019.

Rhodes Digital Commons

The Rhodes Library's primary function is to aid in fulfilling the scholarly values and objectives of Rhodes University through its rich collection of information resources, both print and electronic, its information portal, and institutional repository.

It is imperative that the Library is able to meet the information needs of the university's students and staff, to support and enhance the high standards of teaching, research and scholarship. The Rhodes Digital Commons is a collective responsibility of the institution, library, Research Office, and academics.

In 2018, as part of the strategic imperative to ensure that Rhodes research is made optimally visible, the Library staff focused on ensuring that research outputs, especially articles, were made accessible on the Rhodes Digital Commons.

Rhodes Research Outputs added 2018

Articles	276
Books & Book Chapters	77
Conference Papers	4
Theses	
Masters	298
Doctorals	121

Rhodes Digital Commons Items hosted 2018

RU Main	9 425
RU Cory	6 686
RU ILAM	1 256
RU SAIAB	159
Total	17 526

Rhodes Digital Commons Visits and Downloads 2018

Site	Visitors	Hits
RU Main	4 649	115 215
RU Cory	2 130	10 071
RU ILAM	1 328	3 027
RU SAIAB	1 450	5 476
Total	9 557	133 789

The depositing of Rhodes University research outputs into the **Rhodes Digital Commons** continues to be a priority project. This project is aligned with the **Rhodes University Open Access Policy** and the **NRF Open Access Statement (2015)** and **ORCID Mandate (2017)**.

Rhodes Digital Commons: Deposits (Annual)



Figure 4. The number of articles and conference papers deposited into Rhodes Digital Commons in 2018

The Rhodes Researchers

List of Collections is retrievable via:

- A-Z List of Rhodes Researchers.
- Distinguished Professors.
- SARChI Chairs.
- Top 30 Rhodes Researchers (2016).

The depositing of research output project is a collaborative activity:

- Driven by the Librarian: Scholarly Communications and Librarian: Metadata and Repository.
- Uploaded by Faculty Librarians.
- Enabled by researchers who permit the upload of their research output (articles, conference papers, books, book chapters, images).
- Supported by the RUL Technical Services and the SEALS Consortium.

The challenge of copyright compliancy rests on either open access, publisher version and/or pre-print version of articles.

Open Journal Systems

Rhodes Library hosts the institutional Open Journal System. There are currently two (2) journals hosted on the open access online platform. Discussions have taken place with various stakeholders for the possibility to add the *South African Journal of Environmental Education* and the *Journal of the Ergonomic Society* to the platform.

Postgraduate and Research Support and Training

Several support and training activities are encompassed in the awareness sessions/workshops/presentations held throughout campus. Notably, these sessions are included in the annual Postgraduate Orientation, new Academic staff orientation and the NIHSS group.

Similar sessions have been part of the Psychology Clinic, Fine Art SARCHI and Research Office research groups.

The sessions include the use of the following tools:

- Reference Management Software (e.g. Zotero, Mendeley).
- Researcher identities (e.g. ORCID, ResearcherID, Scopus AuthorID, Google Scholar).
- Citation analysis (e.g. InCites, ResearcherID, Scopus, Dimensions, Microsoft Analytics).
- Research Media (e.g. ResearchGate, Academia.edu).
- Rhodes Digital Commons.
- Research Workshops (e.g. Clarivate Analytics, Elsevier).

Cory Library

The Cory Library is one of the premier research facilities in South Africa, with its focus on Eastern Cape history and society, it primarily serves Rhodes University's students and staff. The Cory Library is especially well suited for primary research and as such it serves academic staff and Masters and PhD students best.

Started in 1931, its operations take place in four (4) divisions: Library, Archives, Publishing, and Licensing. Operations at Cory Library proceeded at an accelerated pace in 2018. For the first time, history students from all years of study did research projects in the library. It was especially encouraging that all first-year history students did their research projects in Cory Library.

The staff routinely served international, national and local scholars and researchers across a range of disciplines. The Cory Library also fielded electronic research inquiries relating to a number of disciplines,

including literature, genealogy, architecture and photography.

The Library is continually strengthening its holding in Eastern Cape material, judiciously accepting relevant deposits and buying "local" titles.

Publishing and Books

- Cory Library remained engaged in scholarship and publishing activities.
- Cory Library managed the publication of the following book: Minsie Menzi Duka, *Matthew Goniwe on a South African Frontier: A Community History of an African Revolutionary* (2018);
- The Reverend Dr Eric Kelly launched his book, *Faithful to the Vision: A History of the Grahamstown Training College 1894-1975*, in Cory Library on 25 October 2018. All the research for this book was done in Cory Library;
- Senior Research Associate in Cory Library, Dr Sandra Rowoldt-Shell published the following book, *Children of Hope: The Odyssey of the Oromo Slaves from Ethiopia to South Africa*, Ohio University Press, 2018, illustrated, xvii + 334pp.

Cory Library is continually giving substance to its brief to transform from a library orientation to an archive orientation with a focus on Eastern Cape history and society. For reasons of easy retrieval, preservation and serving scholars world-wide, Cory Library continues to work towards a digital future.

Conference / Workshop Presentations

Martindale, D. Scholarly Communication: *"The Library's strategic plan to support raising the visibility of institutional research"* Nelson Mandela University (NMU) Open Access Seminar, 31 October 2018

Naicker, L. *RUL Open Access Policy*. NMU Open Access Seminar, 31 October 2018.

Maholo, L., Louw, M., and Amos, T. *Understanding key retention factors in selected municipalities*. 30th Annual Conference of the Southern African Institute of Management Scientists, 16-19 September 2018.

Stoltz, B. Innovative Users Group Southern Africa (UG-SA). Kempton Park, 23-25 November 2018.

Thomas, C. Presented the following lectures on the 'use of the archive':

- To History I students: *"From Mystery to Magic" - The Inner Workings of the Archive"*;
- To Honours, MA and PhD students: *"An analysis of archives as instruments of power, agency, and therapy in the writing of South African history"*.

In September-October 2018, Dr Thomas visited Brigham Young University in Provo, Utah and presented the following two (2) lectures:

- *"Marxists on the March: The Faces Social Justice in South Africa"*.
- *"Up a Rickety Staircase: An Historians Negotiates the New South Africa"*.

Clarke, R. and Saunders, S. 2018. *SEALS Digital Commons: Experiences with Vital*. 2018 Annual IUG Conference, 23-26 April 2018. Orlando, Florida, United States of America.

Radebe, K. 2018. Rhodes Digital Commons. Presentation to Fort Hare staff. 23 May 2018. Fort-Hare.

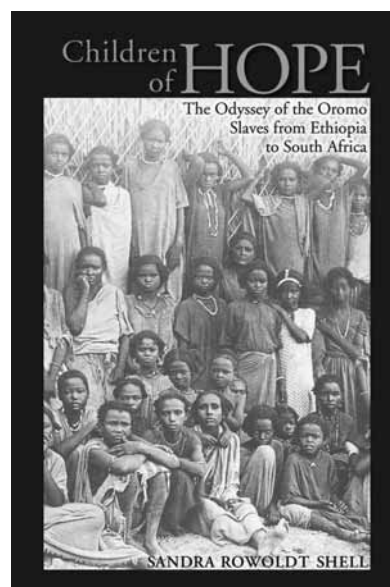
Stoltz, B. 2018. *ERM and III KB: the practical workflow to ensure full discoverability of electronic resources*. IUG-SA 16th Annual Conference, 7-8 November 2018, Kempton Park.

Van der Walt, W. 2018. *MODS Linked Data Records: defining standards and policies for metadata creation on institutional repositories*. 14th International SAOIM Conference, 21 June 2018, Johannesburg.

Van der Walt, W. 2018. *Exploring and implementing Open Linked Data record creation on the Rhodes Digital Commons*. NeDICC Meeting, 4 July 2018, Pretoria.

Van der Walt, W. 2018. *Beyond OA: Additional methods for enhanced exposure*. Nelson Mandela University (NMU) Open Access Seminar, 30 October 2018. NMU.

Van der Walt, W. 2018. *Linked Data: an introduction and implementation within Vital at Rhodes University Library*. IUG-SA 16th Annual Conference, 7-8 November 2018, Kempton Park.



Human Resources

Total Staff complement - 43 staff members.

Appointments

M Chikafa (Librarian: Humanities); L Maholo (Assistant Librarian: Circulation); VT Ntamo (Assistant Librarian).

Resignations

Ms F S Drewett, Ms N Mkhatahali and Ms U Satgoor.

Formal studies (in process)

D Martindale (M.IT, UP); F Still-Drewett (MLIS, UCT); I Kretzmann (PGDipLIS, UNISA); K Yona & T Mamani (B.Inf, UNISA); K Radebe (MLIS, UCT); B Stoltz (MLIS, UKZN); N Mahleka (B.Inf. Hon. UNISA).

Sector Engagement and Professional Involvement

RUL staff are involved in various leadership roles in the acknowledged professional bodies, namely, CHELSA; IUG-SA; SANLiC; SEALS, IFLA-Africa; AFLIA, LIASA

U Satgoor

- Deputy Chair SANLiC Board, 2015-2018.
- Chair-Elect CHELSA, 2016-2018.
- Chair: LIASA Professional Body Advisory Board, 2015-2019.



Rhodes University Library.
Credit: Rhodes University Communications
and Advancement Division

- AfLIA Governing Board Member & Treasurer, 2016-2018.
- Chairperson Academic & Special Libraries Sections, AfLIA, 2016-2018.
- Member: IFLA Africa Section, 2012-2017.

L Naicker

- Sabinet Board Member 2015 - to date.
- LIASA National Secretary 2016-2018.
- Rhodes Middle Management Steering Committee 2016-2018.

W van der Walt

- SEALS Trust member.
- LIASA ICTIG Convener 2018-2020.
- NeDICC Secretary 2018-2020.

C Clack

- IGBIS Standing Committee Additional Member 2018-2020 .

A Mente

- LIASA Eastern Cape Treasurer 2016 - 2018.

M Chikafa

- Additional member (LIASA HELIG 2018-2020).

T Dyantyi

- Chair -Elect (LIASA Eastern Cape Branch 2018-2020.

L Verwey

- Secretary - (LIASA Eastern Cape Branch 2018-2020.



Credit: Snow Harris

**Associate Professor
Jackie Arendse**
Head of Department

Research activity in the department continued at a modest pace due to the focus on the delivery of the South African Institute of Chartered Accountants (SAICA) accredited professional program.

Associate Professor Arendse continued her work in the tax field with another annual edition of the seminal work, 'Silke on Tax Administration', of which she is the managing author, and two (2) other publications. She continued to share her expertise by presenting numerous tax seminars and webinars throughout the year, to several hundred tax professionals and corporates around the country.

Dr Myers and **Professor Bunting** each presented a paper at a conference in their respective research fields; Dr Myers in the area of accounting education and Professor Bunting in the area of finance.

Postgraduates / Graduations

Professor Lilla Stack continued her success in supervising Postgraduate students, with nine (9) Masters students and two (2) PhD candidates graduating from the Department in 2018.

Associate Professor Arendse graduated with a PhD in Accountancy in the field of Taxation and her thesis entitled '*An Investigation into the Introduction of a New Wealth Tax in South Africa*' was later awarded first prize in the 2018 South African Institute of Professional Accountants (SAIPA) Tax Thesis Competition for the Doctoral degree category.

Distinguished Visitors / International Visits

The Department arranged a visit with the Coventry University (United Kingdom), which initiated a collaboration in the subject of Auditing, whereby third-year Auditing students in the Department worked on an assignment with their peers at the University of Sussex. This provided an opportunity for our students to share their knowledge with their Coventry University counterparts, with the experience of working in an international tax made possible by the use of technology.

In December 2018, the Department ran a research seminar hosted by two (2) international academics, Professor Joan Ballantine

(University of Ulster, Belfast, Northern Ireland) and Professor Greg Stoner (University of Glasgow, Scotland). Both are researchers in the field of Accounting Education, and they are respectively the Chair and Vice-Chair of the British Accounting and Finance Association (BAFA) Accounting Education special interest group. During the seminar they shared useful guidance on research opportunities and practical advice on how academics could build their research capabilities.

Significant Research Aligned Events

Mr Edward Horn and **Mr Sazi Mabaso**, both Senior Lecturers in the Department who completed their Master of Commerce in Taxation degrees during 2018, presented their research at the Rhodes University's Interdisciplinary Postgraduate Conference in July 2018.

The title of Mr Horn's paper was '*A comparative study of tax incentives for small business and investors in South Africa, Australia, New Zealand, Singapore and Ireland*' and the title of Mr Mabaso's paper was '*An analysis of the possible success of a tax on sugar-sweetened beverages in South Africa*'.



Associate Professor Jackie Arendse was awarded first prize at the 2018 SAIPA Tax Thesis Competition for the Doctoral degree category.

Credit: Department of Accounting

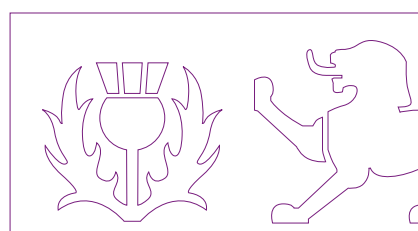


Auditing 3 students collaborating on an assignment with students at Coventry University, UK.

Credit: Department of Accounting

PUBLICATIONS

Department of Accounting



Books/Chapters/Monographs

Arendse, J.

Arendse, J. and Williams, R.J. (2018) Chapter 4: Registration, returns, assessments and records. Chapter 5: Dispute resolution. Chapter 6: Advance rulings. Chapter 7: Administrative penalties, additional tax and interest. Chapter 8: Audit, investigation, search, seizure and access to information. Chapter 9: Payment of taxes, refunds and SARS collection powers. Chapter 10: Offences, unprofessional conduct and registration of practitioners. Chapter 11: Miscellaneous provisions. In: Campbell-Smith, W. (ed.). *Silke on Tax Administration*. 10th Ed. South Africa: Lexis Nexis (Pty) Ltd. p.4-12. ISBN: 9780409115155.

Other Publication

Arendse, J.

Arendse, J. (2018) Section 7C's reach spreads ever wider. In: Vanderstraeten, M. (ed.). *Without Prejudice Vol 18 No. 7: Tax Law feature*. South Africa: Gleason Publications (Pty) Ltd.

Peer Reviewed Subsidy-Earning Journal Research Publications

Arendse, J. and Stack, L.

Arendse, J. and **Stack, L.** (2018) Investigating a new wealth tax in South Africa: Lessons from international experience. *Journal of Economic and Financial Sciences*. 11 (1). p.1-12.

Peer-reviewed Proceedings

Myers, L.P.

Myers, L.P. Memorising, Understanding and Metacognition: An Analysis of the Acquisition of Metacognition in a Group of Students in an Introductory Accounting Class? *2018 SAAA Regional and Teaching & Learning Conference*. Nelson Mandela University, Port Elizabeth. South Africa. December 2018.

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

Bunting, M.B.

Bunting, M.B. South African universities 2006 - 2017: Dimensions and indicators of financial condition. *IAAER 13th World Congress of Accounting Educators and Researchers*. University of Sydney, Sydney. Australia. November 2018.

Department of Anthropology



Credit: Snow Harris

**Associate Professor
Michelle Cocks**
Head of Department

The Anthropology Department continued to engage in exciting research activities across their core nodes of research including marine and ecological issues, urbanisation and nature, anthropology of performance, and biological and cultural anthropology.

The core geographical areas include coastal communities living along the South African coast, Tanzania, and the Pacific Islands as well as small to medium sized towns in the Eastern Cape. Through newly funded research the Department's geographical range has been extended to include the Canary Island, El Hierro. The range of topics and geographic regions covered reflects the richness of expertise held in the department.

Professor Shankar Aswani, through his collaborative networks with the Leibniz Centre for Tropical Marine Ecology at Bremen University, Germany, and SOLCISTE, has continued to carry out research in East and South coasts of Africa and Oceania.

Research carried out amongst coastal communities in South Africa aims to improve compliance amongst recreational fishers. This forms part of government's long-term plans for improving the livelihoods and sustainability of coastal communities. This research has been funded by the National Research Foundation (NRF).

Professor Aswani's *Sandisa Imbewu* grant (Rhodes University-South Africa) has been extended to 2020 and is being used to carry out a comparative analysis of coastal communities' responses to climate and environmental changes in Africa and Oceania.

Professor Aswani has also extended his research interests to include documenting communities' social responses to catastrophe and environmental shock of volcanic eruptions, and how these are mediated by various factual and institutional components. This project focusses on documenting how various local and governmental institutions are capable of meeting the needs created by an environmental shock. The research includes a comparative study on the seismic-volcanic crises that occurred on the Canary Island of El Hierro in 2011 and in Kilauea volcano in the Hawaiian Islands in 2018.



Professor Aswani discussing the names of fish with Baraulu Village fisherman in the Solomon Islands.
Credit: Department of Anthropology

Associate Professor Michelle Cocks and Professor Charlie Shackleton continued to lead their multidisciplinary research project entitled *A Place to Belong* that aims to unpack how urban nature(s) can assist and facilitate processes of belonging and well-being. Funding received from the NRF included supporting Postgraduate research. Amanda Manyani and Dennis Radebe both received funding and completed their research for their MA dissertations. Duncan Haynes was awarded NRF funding to carry out his research for his MA dissertation.

Dr Patti Henderson continued her project in applying social theories of futurity and potentiality to a number of South African artists. She began working on Zanele Muholi's photographic images in opening a public space of visibility for African queer identities.

Dr Dominique Santos, a new member of staff, published as editor and contributor in the Suomen Anthropologi Special Issue. *'The Fieldwork Playlist'* drew together a global cohort to explore the place of music in the research process, across the social sciences. Music is evocative of meaning and memories tied to people, places and particular events,

powerfully bringing them into the present, yet its role in the making of research pathways is rarely foregrounded. Evolving from the mix-tape, the playlist is a form of communication through the assemblage of songs. The format was straightforward - one song from each contributor, and the story behind its significance for their research.

Dr Janet Hayward graduated with her Doctorate entitled *"We are white": Oral tradition, documented history and molecular biology of Xhosa clans descended from non-African forebears and their expression of this ancestry through the idiom of ancestor religion*. She is publishing a chapter in an upcoming edited volume to be published by Cambridge University Press viz. *The Transformative Power of Language* and is working on additional journal articles from her PhD research.

Postgraduates / Graduations

Dr Janet Hayward (supervised by Professor Robin Palmer) obtained her PhD degree, alongside five (5) Honours students in anthropology and one (1) joint anthropology/German studies student. Two (2) Honours students graduated with distinctions.

Significant Research Aligned Events

Professor Aswani's research in East and South coasts of Africa and Oceania has contributed to a greater theoretical understanding of dynamics and causal flows in coupled human and natural coastal systems at various spatial, temporal, and organizational scales, as these respond to environmental hazards related to climate change.

A Multiscale Integrated Earth Systems Model has been developed to predict the responses of coastal coupled natural-human systems to endogenous and exogenous transformations including impacts, trade-off of ecosystem services, and estimates of system uncertainty under different climate change scenarios. The model will be used to assist in predicting the social and ecological drivers that lead some communities to be more resilient than others when faced with environmental change such as harmful algal blooms and sea level rise.

Professor Aswani was invited to give presentations at a number of international institutions on his marine related research. These included delivering a paper



Associate Professor Cocks (centre) was invited to be part of a three day workshop on Biocultural Diversity, with a focus on urban regions, in Japan – here visiting Higashibara Satoyama community centre with delegates.

Credit: Department of Anthropology

entitled *“Oceans and People: Approaches in Environmental Social Sciences”* at the University of Queensland. He was also invited to present a paper at the Human and Mollusc Interactions Conference at the French Museum of Natural History in Paris, France. The paper was entitled *“Human Harvesting Impacts on Species Managed Areas”*.

Associate Professor Michelle Cocks was one of fifteen (15) participants invited to participate in a workshop on biocultural diversity focusing on urban regions with an aim to develop a deeper understanding of biocultural diversity and its applications particularly relating to urban planning. The workshop was hosted in Tokyo and Kanazawa, Japan and was organized as part of the one hundred and fifty (150) year anniversary of Sweden-Japan Diplomatic relationships.

Based on the novel research being carried out under the leadership of **Associate Professor Michelle Cocks** and Professor Charlie Shackleton three (3) funded Postgraduate students presented their work at international congresses and conferences. These included being part of a panel entitled *Biocultural Diversity in Cities* at the 16th Congress of the



Professor Aswani discussing climate change with fishermen in Zanzibar.

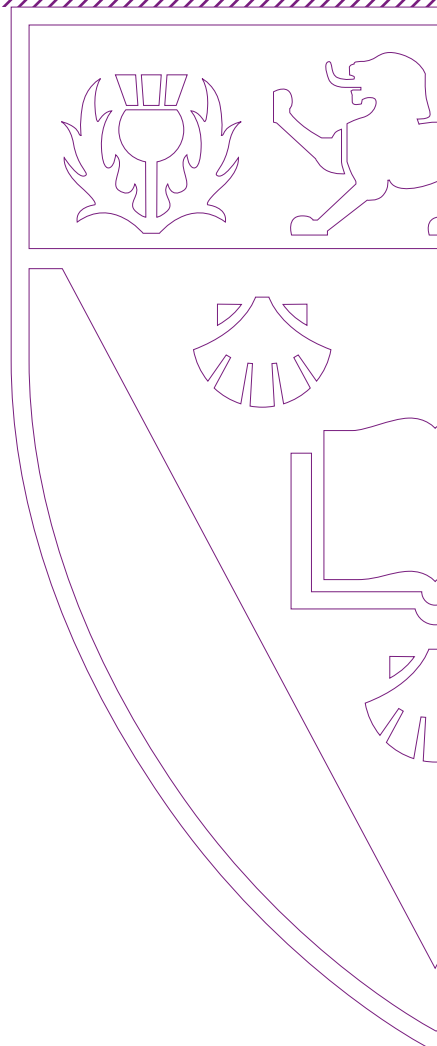
Credit: Department of Anthropology

International Society of Ethnobiology held in Belém, Brazil, and the *World Forum on Urban Forests*, Teatro Sociale di Mantova, Mantova in Italy.

Dr Patti Henderson was invited to the University of KwaZulu-Natal to speak on the work of Gregory Maqoma and Mary Sibande, the two (2) artists about whom she had already published.

PUBLICATIONS

Department of Anthropology



Books/Chapters/Monographs

Laville, R.

Laville, R. (2018) From Ramgoolam to Ramgoolam: An Analysis of the Mauritian Foreign Policy-making Process. In: Adar, K.G. and Ajulu, R. (eds.). *Globalization and Emerging Trends in African States' Foreign Policy-Making Process: A Comparative Perspective of Southern Africa*. Oxon: Routledge. p.91-116. ISBN: 9781138726130.

Pattenden, O.

Pattenden, O. (2018) *Taking Care of the Future: Moral Education and British Humanitarianism in South Africa*. UK: Palgrave Macmillan. ISBN: 9783319698250.

International Visits

Cocks, M.L.

Cocks, M.L. Stockholm University (SRC), University of Tokyo (IR3S), Kanazawa, Japan. Three-day workshop on Biocultural diversity- with a focus on urban regions. Organized as part of the 150-year anniversary of Sweden-Japan Diplomatic relationships. Funders: STINT. 4 - 6 April 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Bodenstab, E.

Govender, K., Sharma, S., Jessee, W., Nagaraju, K., Pearse, N.J., Chhetri, P., Bodenstab, E., Yu, P. and Srinivas, S. (2018) Leadership and Task Shifting to Address the Challenges of Antimicrobial Resistance in South Africa. *Asian Journal of Pharmaceutical Research and Health Care*. 10 (1). p.10-20.

Peer Reviewed Subsidy-Earning Journal Research Publications

Aswani, S.

Bova, C.S., Aswani, S., Farthing, M.W. and Potts, W.M. (2018) Limitations of the random response technique and a call to implement the ballot box method for estimating recreational angler compliance using surveys. *Fisheries Research*. 208 (2018). p.34-41.

Aswani, S., Lemahieu, A. and Sauer, W.H.H. (2018) Global trends of local ecological knowledge and future implications. *PLoS One*. 13 (4). p.1-19.

Aswani, S., Howard, J.A.E., Gasalla, M.A., Jennings, S., Malherbe, W., Martins, I.M., Salim, S.S., Van Putten, I.E., Swathilekshmi, P.S., Narayanakumar, R. and Watmough, G.R. (2018) An integrated framework for assessing coastal community vulnerability across cultures, oceans and scales. *Climate and Development*. 2018. p.1-18.

Ensor, J.E., Abernethy, K.E., Hoddy, E.T., Aswani, S., Albert, S., Vaccaro, I., Benedict, J.J. and Beare, D.J. (2018) Variation in perception of environmental change in nine Solomon Islands communities: implications for securing fairness in community-based adaptation. *Regional Environmental Change*. 18(4), pp.1131-1143.

Henderson, P.C.

Henderson, P.C. (2018) Cloth as a membrane of the imagination in the artwork of Mary Sibande. *Anthropology Southern Africa*. 41 (3). p.175-184.

Lemahieu, A. and Aswani, S.

Lemahieu, A., Scott, L., Malherbe W.S., Mahatante, P.T., Randrianarimanana, J.V., and Aswani, S. (2018) Local perceptions of environmental changes in fishing communities of Southwest Madagascar. *Ocean & Coastal Management* 163: 209-221.

PUBLICATIONS

Lemahieu, A.

Lagabrielle, E., Allibert, A., Kiszka, J.J., Loiseau, N., Kilfoil, J.P. and **Lemahieu, A.** (2018) Environmental and anthropogenic factors affecting the increasing occurrence of shark-human interactions around a fast-developing Indian Ocean island. *Scientific Reports*. 8 (3676). p.1-13.

Palmer, R.

Palmer, R. (2018) Exporting identity: Italians in London during the long 19th century. *International Journal of Business and Globalisation*. 21 (3). p.327-343.

Santos, D.

Santos, D. (2018) Lou Rawls - 'You'll Never Find A Love Like Mine'. *Suomen Antropologi*. 43 (2). p.75-79.

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

Aswani, S.

Aswani, S. Invited panel presentation at the Academy of Science of South Africa (ASSAf) Poverty, Inequality and Global Climate Change: Connecting the Discussions workshop. Protea Hotel OR Tambo, Johannesburg, South Africa, 18 - 19 September 2018.

Aswani, S. Invited paper presented at the University of Queensland entitled "Oceans and People: Approaches in Environmental Social Sciences". Brisbane, Australia, March 29 2018.

Aswani, S. Invited paper presented at the Human and Mollusc Interactions Conference at the French Museum of Natural History entitled "Human Harvesting Impacts on Species Managed Areas". Paris, France. 31 January - 2 February 2018.

Cocks, M.

Manyani, A., Shackleton, C.M. and Cocks, M. How urban dwellers identify with features within urban green spaces in the Eastern Cape. *Green and Social Entrepreneurship for Biodiversity Conservation and Local Development*. KwaZulu-Natal. South Africa. November 2018.

Manyani, A., Shackleton, C.M. and Cocks, M. How urban dwellers identify with natural elements within urban green spaces in the Eastern Cape. *World Forum on Urban Forests*. Mantova. Italy. November 2018.

Shackleton, C.M. and Cocks, M. Gardens and well-being: Biocultural approaches to understanding urban biodiversity in South Africa. *URBIO International Network for Urban Biodiversity & Design Conference*. Cape Town. South Africa. September 2018.

Vetter, S. and Cocks, M. Culture, nature and wellbeing - insights from qualitative and quantitative research in the Eastern Cape. *Thicket Forum*. Addo Elephant National Park, Addo. South Africa. June 2018.

Manyani, A., Shackleton, C.M. and Cocks, M. A closer look at the features within urban green spaces in low-income areas of South Africa. *Research Associate Symposium*. Nelson Mandela University, Port Elizabeth. South Africa. August 2018.

Cocks, M. and Shackleton, C.M. Decolonization of nature in towns and cities of South Africa: Incorporation of biocultural values. *XVI Congress of the International Society of Ethnobiology*. HANGAR Convention Center, Belem. Brazil. August 2018.



Professor Aswani working with academic staff of the University of Dar es Salaam, Tanzania.

Credit: Department of Anthropology

Haynes, D.R. and Cocks, M.

Haynes, D.R., Cocks, M.L. and Shackleton, C.M. Using biocultural diversity for urban place-making among amaXhosa in South Africa. *XVI Congress of the International Society of Ethnobiology*. HANGAR Convention Center, Belem. Brazil. August 2018.

Haynes, D.R., Cocks, M. and Shackleton, C.M. Indigenous wellbeing in urban gardens: intersections of traditional medicines, cosmologies and biodiversity in South Africa. *XVI Congress of the International Society of Ethnobiology*. HANGAR Convention Center, Belem. Brazil. August 2018.

Walsh, L.S. and Cocks, M.

Walsh, L.S., Cocks, M. and Shackleton, C.M. Urban Wellness: Local Urban South Africans Cultural Connections to Nature and Their Well-Being Implications. *Rhodes University Postgraduate Conference (RUPGC)*. Rhodes University, Grahamstown. South Africa. July 2018.

Walsh, L.S., Cocks, M. and Shackleton, C.M. Urban Wellness: Local Urban South Africans Cultural Connections to Nature and Their Well-Being Implications. *XVI Congress of the International Society of Ethnobiology*. HANGAR Convention Center, Belem. Brazil. August 2018.

Walsh, L.S., Cocks, M. and Shackleton, C.M. Post-colonial green spaces: can they contribute to notions of improved well-being and belonging in South Africa? *African Centre for Cities Conference*. University of Cape Town, Cape Town. South Africa. February 2018.

Department of Biochemistry & Microbiology



Credit: Snow Harris

Dr Brendan Wilhelmi
Head of Department

The Department of Biochemistry and Microbiology has had a challenging 2018.

The renovations to the Biological Sciences Building started in earnest mid-year. The efforts of all staff and Postgraduate students who managed to continue with their research, despite the noise and dust, are highly commendable. Our research groups, notwithstanding the inconveniences of working in a building site, continued with their research and have produced significant outputs in student graduations and research publications.

Significant Research Achievements

The Dorrington Research group is involved in a \$1.4 million project funded by the Gordon and Betty Moore Foundation (“How Microbes Use Chemistry to Form Ecosystems in Layered Living Rocks”) to study the molecular ecology of living South African stromatolites. Modern stromatolites provide a glimpse into the first cellular life to emerge from the oceans more than 3.5 billion years ago and were responsible for the great oxygenation events.

The Moore Foundation project aims to develop a fundamental understanding of the microbial community structure, specialised metabolisms and molecular signalling that enables these complex microbial communities to survive in extreme environments.

A research team including four (4) scientists from Oregon State University (Professor Kerry McPhail), the University of California at San Diego (Drs Daniel Petras, Emily Gentry and Allegra Aron) and the Rhodes team (Professor Dorrington, Dr Xavier Siwe-Noundou and PhD candidates Mr Eric Isemonger, Ms Ross-Lynn Weston and Ms Mart-Mari de Bruyn) were involved in field studies on the Cape Recife coast, near Port Elizabeth. The team collected samples for chemical and genetic analysis of the stromatolites and their surrounding environment and also conducted primary productivity field studies to measure the ability of stromatolite communities to fix CO₂.

The Research Unit in Bioinformatics (RUBi) second year PhD candidate, Mr Allan Sanyanga, was invited to give an oral presentation at the 6th International Bahçeşehir University (BAU) Drug Design Congress, in Istanbul, December 2018.



Members of the “Living Fossils” Research team who conducted field work on the stromatolite fields on the Port Elizabeth coast.

Back row (left to right); Professor Rosie Dorrington (RU); Dr Xavier Siwe-Noundou (RU); Mr Eric Iseomonger (RU); Dr Allegra Aron (UCSD); Dr Emily Gentry (UCSD); Dr Daniel Petras (UCSD); Front row (left to right) Professor Kerry McPhail (OSU) and Ms Mart-Mari de Bruyn (RU).

Credit: Department of Biochemistry and Microbiology

Six (6) RUBi MSc students and PhD candidates attended the 12th CHPC National Conference in Cape Town in December 2018 to present their work, and Ms Chiamaka Jessica Okeke received 3rd best poster presentation award.

Ms Rita Boateng, RUBi first year PhD candidate attended the 1st Congress of the African Association for Research and Control of Antimicrobial Resistance (AAAMR) Bamako, Mali (26-28 February 2018) and received the best oral presentation award.

RUBi MSc student, Bertha Baye, was selected as Secretary of the Student Society of South African Society for Bioinformatics (SASBi) during the national SAGS/SASBi 2018 Symposium (16-18 October 2018).

Associate Professor Özlem Tastan Bishop spent three (3) months (January - March 2018) at Sabanci University, Istanbul, Turkey, during her sabbatical leave. Her sabbatical outputs included three (3) research articles in high impact factor journals (Bioinformatics-IF:5.481; Journal of chemical information and modeling-IF:3.760; Biophysical Journal-IF:3.495).

During her visit to Sabanci University, **Associate Professor Tastan Bishop** also gave a research seminar, one (1) popular science seminar (FUTURE series; <https://gazetesu.sabanciuniv.edu/en/2018-02/future-seminar-series>) and a workshop on homology modeling and PRIMO, a web server established by RUBi PhD candidates. The workshop included thirty-



PhD candidate, Ms Ross-Lynn Weston collecting samples before dark. *Credit: Department of Biochemistry and Microbiology*



Collecting samples at Schoenmakerskop. *Credit: Department of Biochemistry and Microbiology*

five (35) attendees from various universities located in Istanbul.

Associate Professor Tastan Bishop was also invited to attend two (2) PhD committee meetings for project proposal/progress reports of Sabanci University students, and she was invited to give oral presentations at two (2) international conferences - 43rd FEBS Congress, Prague and 6th International Bahçeşehir University (BAU) Drug Design Congress, Istanbul, as well as a national conference - 12th CHPC National Conference.

PhD candidate, Ms Caroline Ross, developed a novel coarse-grained approach to analyse viral capsid behaviour and applied to Enterovirus 71 which can be a severe pathogen in small children and immunocompromised adults. Ms Ross' publication received a video highlight in Biophysical Journal. ([http://www.cell.com/biophysj/fulltext/S0006-3495\(17\)35101-9](http://www.cell.com/biophysj/fulltext/S0006-3495(17)35101-9)).



Left to right: Dr Peter Clayton (DVC Research and Innovation, Rhodes University), Professor Greg Blatch (Pro-Vice Chancellor Notre-Dame University, Australia), Professor Addmore Shonhai (Head of Biochemistry, University of Limpopo) and Associate Professor Adrienne Edkins (Department of Biochemistry, SARCHI Chair and BioBRU Director, Rhodes University) at the celebration to mark the ten year anniversary of the establishment Biomedical Biotechnology Research Unit (BioBRU) within the Department of Biochemistry and Microbiology. Professor Shonhai is a Rhodes alumnus and gave an plenary talk on his research as part of the event.

Credit: Department of Biochemistry and Microbiology

PhD candidates, Natasha Boël and Michaelone Vaaltyn, were accepted to present their research at a leading international conference on the Hsp90 chaperone machine in Switzerland.

PhD candidates, Laura Dingle and Abantika Chakraborty conducted international research visits to the laboratories of Robin Reed (Harvard University) and Rick Morimoto (Northwestern University) funded through travel grants from the National Research Foundation (NRF). During these visits, they both attended the Cell Stress Society International (CSSI) conference in Virginia, United States of America (USA), where Ms Chakraborty's abstract was selected for an oral presentation.

MSc student, Ms Kelly Schwarz, was awarded a prestigious South African Women in Science (SAWiSA) Department of Science and Technology (DST) Albertina Sisulu Fellowship.

This year marked the 10th Anniversary of the establishment of the Biomedical Biotechnology Research Unit (BioBRU). BioBRU has made a major contribution to student training and research in the area of molecular biology of cell stress in the department and country. The event was marked with a public lecture by BioBRU alumnus and current Head of Department (HoD) of Biochemistry at University of Venda, Professor Addmore Shonhai.

Associate Professor Adrienne Edkins was awarded a prestigious Newton Advanced Fellowship to start



Ms Kelly Schwarz (MSc student, Biochemistry) at the 2018 DST/NRF South African Women in Science (SAWiSA) award. Ms Schwarz was awarded a prestigious SAWISA DST-Albertina Sisulu Master's Fellowship in the Natural (Physical and Life) and Engineering Sciences category.

Credit: South African Women in Science (SAWiSA)

a new research focus in HIV-related cancers. Associate Professor Edkins was also the winner of the DST South African Women in Science (SAWiSA) Award for Distinguished Young Scientist in the Natural/Engineering Sciences.

Professor Pletschke and Associate Professor Edkins were nominated as Fellow of the African Academy of Sciences (AAS).

Finally, congratulations to Professor Brett Pletschke for being awarded the Vice-Chancellor's Distinguished Senior Research Award for 2018.

PUBLICATIONS

Department of Biochemistry and Microbiology



Books/Chapters/Monographs

Dames, J.F.

Kleinert, A., Benedito, V.A., Morcillo, R.J.L., Dames, J.F., Cornejo-Revas, P., Zungia-Feest, A., Delgado, M. and Muñoz, G. (2018) Morphological and Symbiotic Root Modifications for Mineral Acquisition from Nutrient-Poor Soils. In: Giri B., Prasad R., Varma A. (eds) *Root Biology. Soil Biology, Volume 52*. Springer, Cham. p.85-142. ISBN: 9783319759098

Edkins, A.L. and Boel, N.

Edkins, A.L. and Boel, N. (2018) Regulation of the Extracellular Matrix by Heat Shock Proteins and Molecular Chaperones. In: Srivastava, P. and Binder, R.J. (eds.). *Heat Shock Proteins in the Immune System*. Online: Springer, Cham. p.97-121. ISBN: 9783319690407.

Distinguished Visitors

Sithole, B.

Professor B Sithole. CSIR Principal Researcher and Director of the CSIR Forestry and Forest Products Research Centre, Grahamstown, South Africa. *Collaborative Visit and Lecture*. November 2018.

Blatch G.L.

Professor GL Blatch. Pro Vice-Chancellor Research at the University of Notre Dame Australia and Visiting Professor, Rhodes University, Grahamstown, South Africa. *Collaborative Visit*. November 2018.

Shonhai A

Professor A Shonhai. Professor and Head of Department of Biochemistry, University of Venda, South Africa. *Research visit and BioBRU 10th Anniversary Lecture*. November 2018.

International Visits

Pletschke, B.I.

Pletschke, B.I. Umeå University, Umeå, Sweden. *Sabbatical visit to collaborator Professor Leif Jönsson. Ph.D. opponent for Dr Zhao Wang*. 15 - 20 March 2018.

Pletschke, B.I. Tampere University of Technology, Tampere, Finland. *Visit to collaborator Professor Matti Karp as part of sabbatical*. 20 - 24 March 2018.

Dorrington, R.A. Memorial University, St Johns, Newfoundland, Canada. *Visit to collaborator, Professor Rachel E. Sipler as part of an South Africa-Canada Research Chair's collaborative initiative*.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Isaacs, M. and Hoppe, H.C.

Christopher, R., Magni, Q.A., Nyandoro, S.S., Rousseau, A.L., van Vuuren, S.F., Isaacs, M. and Hoppe, H.C. (2018) Antitrypanosomal, antiplasmodial, and antibacterial activities of extracts from selected *Diospyros* and *Annonaceae* species. *Journal of Complementary Medicine Research*. 7 (1). p.161-170.

Afiero, O.E., Siwe Noundou, X., Krause, R.W.M., Isaacs, M., Olley, L., Hoppe, H.C. and Abo, K.A. (2018) An Antiplasmodial Depside from a Nigerian Lichen *Dirinaria Picta*, Epiphytic on the Oil Palm *Elaeis Guineensis*. *Bolivian Journal of Chemistry (Revista Boliviana de Química)*. 35 (1). p.31-39.

Rafael, C.N. and Tastan Bishop, O.

Rafael, C.N., Ambler, J., Niehaus, A., Ross, J. and Tastan Bishop, O. (2018) Establishment of "The South African Bioinformatics Student Council" and Activity Highlights. *EMBnet journal*. 24 (e903). p.1-5.

Peer Reviewed Subsidy-Earning Journal Research Publications

- Adeoyo, O.R., Pletschke, B.I. and Dames, J.F.
Adeoyo, O.R., Pletschke, B.I. and Dames, J.F. (2018) Purification and characterization of an amyloglucosidase from an ericoid mycorrhizal fungus (*Leohumicola incrustata*). *AMB Express*. 8 (154). p.1-10.
- Blatch, G.L.
Nemazannikova, N., Mikkleson, K., Stojanovska, L., Blatch, G.L. and Apostolopoulos, V. (2018) Is there a Link between Vitamin B and Multiple Sclerosis? *Medicinal Chemistry*. 14 (2). p.170-180.
- Boel, N., Hunter, M.C. and Edkins, A.L.
Boel, N., Hunter, M.C. and Edkins, A.L. (2018) LRP1 is required for novobiocin-mediated fibronectin turnover. *Scientific Reports*. 8 (11438). p.1-14.
- Brooks, M.
Ismail, M. and Brooks, M. (2018) Male mating preference of two cryptic species of the herbivorous insect *Ecritotarsus catarinensis*. *Biocontrol Science and Technology*. 28 (6). p.529-543.
- Gu, C., Chen, F., Mohamed, I., Brooks, M. and Li, Z. (2018) Effect of bio-char application combined with straw residue mulching on soil soluble nutrient loss in sloping arable land. *Carbon Letters*. 26 (2018). p.66-73.
- Dames, J.F.
Vivas, M., Crous, C.J., Dames, J.F., van der Linde, J.A., Coetzee, M.P.A. and Roux, J. (2018) Arbuscular mycorrhizal fungi persist in dying *Euphorbia ingens* trees. *South African Journal of Botany*. 115 (2018). p.2-17.
- Taylor, R.P., Jones, C.L.W., Laing, M. and Dames, J.F. (2018) The potential use of treated brewery effluent as a water and nutrient source in irrigated crop production. *Water Resources and Industry*. 19 (2018). p.47-60.
- De Almeida, L.K.S. and Pletschke, B.I.
De Almeida, L.K.S., Pletschke, B.I. and Frost, C.L. (2018) Moderate levels of glyphosate and its formulations vary in their cytotoxicity and genotoxicity in a whole blood model and in human cell lines with different estrogen receptor status. *3 Biotech*. 8 (438). p.1-15.
- De La Mare, J.A. and Edkins, A.L.
Mandal, G., Biswas, S., Chowdhury, S.R., Chatterjee, A., Purohit, S., Khamaru, P., Chakraborty, S., Mandal, P.K., Gupta, A., De La Mare, J.A., Edkins, A.L. and Bhattacharyya, A. (2018) Heterodimer formation by Oct4 and Smad3 differentially regulates epithelial-to-mesenchymal transition-associated factors in breast cancer progression. *Biochimica et Biophysica Acta - Molecular Basis of Disease*. 1864 (2018). p.2053-2066.
- De La Mare, J.A., Sterrenberg, J.N., Kajewole, D.I., Maharaj, S., Edkins, A.L., Isaacs, M. and Hoppe, H.C.
Mbaba, M., De La Mare, J.A., Sterrenberg, J.N., Kajewole, D.I., Maharaj, S., Edkins, A.L., Isaacs, M., Hoppe, H.C. and Khanye, S.D. (2018) Novobiocin-ferrocene conjugates possessing anticancer and antiparasitic activity independent of HSP90 inhibition. *Journal of Biological Inorganic Chemistry*. 2018. p.1-11.
- Dorrington, R.A., Matcher, G.F. and Parker-Nance, S.
Dorrington, R.A., Lombard, A.T., Bornman, T.G., Adams, J.B., Cawthra, H.C., Deyzel, S., Goschen, W.S., Liu, K., Mahler-Coetzee, J., Matcher, G.F., McQuaid, C.D., Parker-Nance, S., Paterson, A.W., Perissinotto, R., Porri, F., Roberts, M., Snow, B. and Vrancken, P. (2018) Working together for our oceans: A Marine Spatial Plan for Algoa Bay, South Africa. *South African Journal of Science*. 114 (3/4). p.18-23.
- Hoppe, H.C.
Tlhabi, D.B., Ramaite, I.D.I., Van Ree, T., Anokwuru, C.P., Orazio, T.S. and Hoppe, H.C. (2018) Isolation, Chemical Profile and Antimalarial Activities of Bioactive Compounds from *Rauvolfia caffra* Sond. *Molecules*. 2018. p.1-10.
- Chizema, M., Mabasa, T.F., Hoppe, H.C. and Kinfe, H.H. (2018) Design, synthesis and antiparasitic evaluation of a series of novel sulfoximine analogues of carbohydrate-based thiochromans. *Chemical Biology & Drug Design*. 2018. p.1-8.
- Veal, C.G.L. and Hoppe, H.C. (2018) Screening of the Pathogen Box reveals new starting points for anti-trypanosomal drug discovery. *MedChemComm*. 9 (2018). p.2037-2044.
- Hoppe, H.C. and Jiwaji, M.
Frith, K.A., Fogel, R., Goldring, J.P.D., Krause, R.G.E., Khati, M., Hoppe, H.C., Cromhout, M., Jiwaji, M. and Limson, J. (2018) Towards development of aptamers that specifically bind to lactate dehydrogenase of *Plasmodium falciparum* through epitopic targeting. *Malaria Journal*. 17 (191). p.1-16.
- Hoppe, H.C., Isaacs, M. and Laming, D.
Gumbo, M., Beteck, R.M., Mandizvo, T., Seldon, R., Warner, D.T., Hoppe, H.C., Isaacs, M., Laming, D., Tam, C.C., Cheng, L.W., Liu, N., Land, K.M. and Khanye, S.D. (2018) Cinnamoyl-Oxaborole Amides: Synthesis and Their in Vitro Biological Activity. *Molecules*. 23 (2018). p.1-13.
- Isaacs, M. and Hoppe, H.C.
Oderinlo, O., Tukulula, M., Isaacs, M., Hoppe, H.C., Taylor, D., Smith, V.J. and Khanye, S.D. (2018) New thiazolidine-2,4-dione derivatives combined with organometallic ferrocene: Synthesis, structure and antiparasitic activity. *Applied Organometallic Chemistry*. 32 (2018). p.1-12.
- Teinkela, J.E.M., Siwe Noundou, X., Nguemfo, E.L., Meyer, F., Wintjens, R., Isaacs, M., Mpondo Mpondo, E.M., Hoppe, H.C., Krause, R.W.M. and Azebaze, A.G.B. (2018) Biological activities of plant extracts from *Ficus elastica* and *Selaginella vogellii*: An antimalarial, antitrypanosomal and cytotoxicity evaluation. *Saudi Journal of Biological Sciences*. 25 (2018). p.117-122.
- Olawode, E.O., Tandlich, R., Prinsloo, E., Isaacs, M., Hoppe, H.C., Sheldon, R., Warner, D.T., Steenkamp, V. and Kaye, P.T. (2018) Synthesis and biological screening of diethyl [N-(thiazol-2-yl)carbamoyl]methylphosphonates. *Arkivoc*. 7 (2018). p.110-118.
- Faridoun, H., Mnkandhla, D., Isaacs, M., Hoppe, H.C. and Kaye, P.T. (2018) Synthesis and evaluation of substituted 4-arylimino-3-hydroxybutanoic acids as potential HIV-1 integrase inhibitors. *Bioorganic & Medicinal Chemistry Letters*. 28 (2018). p.1067-1070.
- Odame, F., Betz, R., Hosten, E.C., Krause, J., Isaacs, M., Hoppe, H.C., Khanye, S.D., Sayed, Y., Frost, C.L., Lobb, K.A. and Tshentu, Z.R. (2018) A New Synthetic Method for Tetraazatricyclic Derivatives and Evaluation of Their Biological Properties. *ChemistrySelect*. 3 (2018). p.13613-13618.
- Beteck, R.M., Isaacs, M., Hoppe, H.C. and Khanye, S.D. (2018) Synthesis, in vitro Cytotoxicity and Trypanosomal Evaluation of Novel 1,3,6-Substituted Non-fluoroquinolones. *South African Journal of Chemistry - Suid-Afrikaanse Tydskrif Vir Chemie*. 71 (2018). p.188-195.

- Isaacs, M., Edkins, A.L. and Hoppe, H.C.
Lunga, M.J., Chisango, R.L., Weyers, C., Isaacs, M., Taylor, D., Edkins, A.L., Khanye, S.D., Hoppe, H.C. and Veale, C.G.L. (2018) Expanding the SAR of Nontoxic Antiplasmodial Indolyl-3-ethanone Ethers and Thioethers. *ChemMedChem*. 13 (2018). p.1-11.
- Isaacs, M., Laming, D. and Hoppe, H.C.
Darrell, O.T., Hulushe, S.T., Mtshare, T.E., Beteck, R.M., Isaacs, M., Laming, D., Hoppe, H.C., Krause, R.W.M. and Khanye, S.D. (2018) Synthesis, Antiplasmodial and Antitrypanosomal Evaluation of a Series of Novel 2-Oxoquinoline-based Thiosemicarbazone Derivatives. *South African Journal of Chemistry - Suid-Afrikaanse Tydskrif Vir Chemie*. 71 (2018). p.174-181.
- Jukes, M.D. and Knox, C.M.
Marsberg, T., Jukes, M.D., Krejmer-Rabalska, M., Rabalski, L., Knox, C.M., Moore, S.D., Hill, M.P. and Szewczyk, B. (2018) Morphological, genetic and biological characterisation of a novel *alphabaculovirus* isolated from *Cryptophlebia peltastica* (Lepidoptera: Tortricidae). *Journal of Invertebrate Pathology*. 157 (2018). p.90-99.
- Kimuda, M.P. and Tastan Bishop, O.
Kimuda, M.P., Noyes, H., Mulindwa, J., Enyaru, J.C., Alibu, V.A., Sidibe, I., Ngoyi, D.M., Hertz-Fowler, C.H.F., Macleod, A., Tastan Bishop, O., Matovu, E. and TrypanoGEN Research Group, (2018) No evidence for association between APOL1 kidney disease risk alleles and Human African Trypanosomiasis in two Ugandan populations. *PLoS Neglected Tropical Diseases*. 12 (2). p.1-10.
- Kituyi, S.N. and Edkins, A.L.
Kituyi, S.N. and Edkins, A.L. (2018) Hop/STIP1 depletion alters nuclear structure via depletion of nuclear structural protein emerlin. *Biochemical and Biophysical Research Communications*. 507 (2018). p.503-509.
- Kituyi, S.N., Isaacs, M., Hoppe, H.C. and Edkins, A.L.
Veale, C.G.L., Chen, W., Chaudhary, S., Kituyi, S.N., Isaacs, M., Hoppe, H.C., Edkins, A.L., Combrinck, S., Mehari, B. and Viljoen, A. (2018) NMR structural elucidation of channaine, an unusual alkaloid from *Sceletium tortuosum*. *Phytochemistry Letters*. 23 (2018). p.189-193.
- Knott, M.G., De La Mare, J.A. and Edkins, A.L.
Knott, M.G., De La Mare, J.A., Edkins, A.L., Zhang, A., Stillman, M.J., Bolton, J.J., Antunes, E.M. and Beukes, D.R. (2018) Plaxenone A and B: Cytotoxic halogenated monoterpenes from the South African red seaweed *Plocamium maxillosum*. *Phytochemistry Letters*. 2018. p.1-4.
- Knox, C.M. and Pletschke, B.I.
Dubey, K.K., Luke, G.A., Knox, C.M., Kumar, P., Pletschke, B.I., Singh, P.K. and Shukla, P. (2018) Vaccine and antibody production in plants: developments and computational tools. *Briefings in Functional Genomics*. 2018. p.1-14.
- Matcher, G.F. and Dorrington, R.A.
Matcher, G.F., Froneman, P.W., Meiklejohn, I. and Dorrington, R.A. (2018) Distinct responses of bacterial communities to agricultural and urban impacts in temperate southern African estuaries. *Estuarine Coastal and Shelf Science*. 200 (2018). p.224-233.
- Mnkandhla, D., Van Marwijk, J., Hoppe, H.C., Wilhelmi, B. and Whiteley, C.G.
Mnkandhla, D., Van Marwijk, J., Hoppe, H.C., Wilhelmi, B. and Whiteley, C.G. (2018) In Vivo; In Vitro Interaction of Silver Nanoparticles with Leucine Aminopeptidase from Human and *Plasmodium falciparum*. *Journal of Nanoscience and Nanotechnology*. 18 (2). p.865-871.
- Musyoka, T.M., Tastan Bishop, O. and Moses, V.
Musyoka, T.M., Tastan Bishop, O., Lobb, K.A. and Moses, V. (2018) The determination of CHARMM force field parameters for the Mg2+ containing HIV-1 integrase. *Chemical Physics Letters*. 711 (2018). p.1-7.
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Abrahams, G.L.

Prinsloo, E. and Abrahams, G.L. AG3D: A Low cost 3D printable electrophoresis toolkit. *SASBMB-FASBMB 2018*. North West University, Potchefstroom. South Africa. July 2018.

Chartier Fitzgerald, V.C. and Dames, J.F.

Chartier Fitzgerald, V.C., Hawley, G. and Dames, J.F. Screening of ectomycorrhizal and other associated fungi in South African forestry nurseries. *Joint SANBI Biodiversity Information Management & Foundational Biodiversity Information Programme Forum*. Cape St Francis Resort, Cape St Francis. South Africa. August 2018.

Dames, J.F.

Dames, J.F. Demystifying Orchid Mycorrhizal Interactions. *3rd Conference - Wild Orchids Southern Africa (WOSA3)*. Dunkeld Country Estate, Dullstroom. South Africa. January 2018.

Dames, J.F. Mycorrhizal Connections. *Colloquium on Research in Sustainability*. Eden Grove, Rhodes University, Grahamstown. South Africa. January 2018.

Dames, J.F. Mycorrhiza - Born to be friends. *Fertilizer Association of Southern Africa (FERTASA). Soil Fertility and Plant Nutrition Symposium*. CSIR International Convention Centre, Pretoria. South Africa. August 2018.

Dorrington, R.A.

Dorrington, R.A., Bornman, T.G., de Vos, D., Matcher, G.F., Venkatachalam, S., Weston, R.L. Microbial community dynamics: a sensitive tool for assessing marine ecosystem health and the response to environmental change. *International Marine Conservation Congress (IMCC5)*. Kuching, Borneo, June 2018.

Lombard, A., Dorrington, R.A., Penr, G., Pichergu, L., Reed, J., Smit, K., Vermeulen, E., Ortega-Cisneros, K. Advancements in ecosystem-based approaches to Marine Spatial Planning in South Africa. *International Marine Conservation Congress (IMCC5)*. Kuching, Borneo, June 2018.

Forrer, H.J., Bornman, T.G., Waterworth, S.C., Dorrington, R.A., Knapp, A.N. Fawcett, S.E. Phytoplankton group-specific contributions to the Subantarctic biological pump. *Polar 2018*. Davos, Switzerland. June 2018.

Jukes, M.D. and Knox, C.M.

Marsberg, T., Jukes, M.D., Hill, M.P., Knox, C.M., Moore, S.D., Szweczyk, B., Rabalski, L. and Jehle, J.A. The potential use of a novel alphabaculovirus as a microbial control agent against three economically important tortricid pests. *2018 International Congress of Invertebrate Pathology and Microbial Control and the 51st Annual Meeting of the Society for Invertebrate Pathology*. QT Gold Coast hotel, Gold Coast. Australia. August 2018.

Jukes, M.D., Knox, C.M., Hill, M.P., Moore, S.D., Rabalski, L. and Szweczyk, B. The development of genetically modified (GM) baculoviruses for improved control of false codling moth in South Africa. *The 10th Citrus Research Symposium*. Champagne Sports Resort, Central Drakensberg. South Africa. August 2018.

Jukes, M.D., Knox, C.M., Hill, M.P., Moore, S.D., Rabalski, L. and Szweczyk, B. The development of genetically modified baculoviruses for improved control of the false codling moth, *Thaumetotibia leucotreta* in South Africa. *2018 International Congress of Invertebrate Pathology and Microbial Control and the 51st Annual Meeting of the Society for Invertebrate Pathology*. QT Gold Coast Hotel, Gold Coast. Australia. August 2018.

Khambule, N.V. and Dames, J.F.

Khambule, N.V., Dames, J.F. and Peter, C.I. Root fungal diversity associated with three *Disa* species. *Joint SANBI Biodiversity Information Management & Foundational Biodiversity Information Programme Forum*. Cape St Francis Resort, Cape St Francis. South Africa. August 2018.

Laming, D. and Hoppe, H.C.

Beteck, R.M., Jordaan, A., Warner, D.T., Seldon, R., Laming, D., Hoppe, H.C. and Khanye, S.D. Quinolone-hydrazone/thiosemicarbazones: Synthesis and anti-TB evaluation. *9th Annual Interdisciplinary Postgraduate Conference*. Education Department, Grahamstown. South Africa. July 2018.

Beteck, R.M., Jordaan, A., Warner, D.T., Seldon, R., Laming, D., Hoppe, H.C. and Khanye, S.D. Quinolone-hydrazone/thiosemicarbazones: Synthesis and anti-TB evaluation. *1st Postdoctoral Conference of Southern Africa*. Stellenbosch University, Stellenbosch. South Africa. October 2018.

PUBLICATIONS

Pletschke, B.I.

Pletschke, B.I. Enzyme synergism: Cellulases, expansins and degradation of the cellulose microfibril network. *South Africa - Germany bilateral research projects workshop*. CPUT Hotel School, Granger Bay Campus, Cape Town. South Africa. February 2018.

Thabede, J.T., Pienaar, R.D., Matcher, G.F., Dames, J.F. and Dorrington, R.A.

Thabede, J.T., Pienaar, R.D., Matcher, G.F., Dames, J.F. and Dorrington, R.A. Marion Island vegetation and root associated fungal diversity. *Joint SANBI Biodiversity Information Management & Foundational Biodiversity Information Programme Forum*. Cape St Francis Resort, Cape St Francis. South Africa. August 2018.

Usman, A., Pletschke, B.I., Wilhelmi, B. and Whiteley, C.G.

Usman, A., Lobb, K.A., Pletschke, B.I., Wilhelmi, B. and Whiteley, C.G. Nanomedical implications for Parkinson's Disease: Silver nanoparticles inhibits catechol o-methyltransferase. *NanoMedicine International Conference 2018*. Venice International University, Venice. Italy. January 2018.

Van Der Merwe, M. and Knox, C.M.

Van Der Merwe, M., Knox, C.M., Hill, M.P. and Moore, S.D. Yeast-baculovirus synergism: Investigating mixed infections for improved management of the false codling moth, *Thaumetobia leucotreta*. *2018 International Congress of Invertebrate Pathology and Microbial Control and the 51st Annual Meeting of the Society for Invertebrate Pathology*. QT Gold Coast hotel, Gold Coast. Australia. August 2018.

Van Der Merwe, M., Knox, C.M., Hill, M.P. and Moore, S.D. Yeast-baculovirus synergism: Investigating mixed infections for improved management of the false codling moth. *The 10th Citrus Research Symposium*. Champagne Sports Resort, Central Drakensberg. South Africa. August 2018.

Usman, A., Lobb, K.A., Pletschke, B.I., Wilhelmi, B. and Whiteley, C.G. Nanomedical implications for Parkinson's Disease: Silver nanoparticles inhibits catechol o-methyltransferase. *NanoMedicine International Conference 2018*. Venice International University, Venice. Italy. January 2018.



Ms Abantika Chakraborty (first left), PhD candidate Biochemistry in BioBRU, was selected for an oral presentation at the Old Town meeting of the Cell Stress Society International (CSSI) held in Alexandria, Virginia, USA in November 2018. Abantika is pictured with Professor Larry Hightower (second left), Founder of Cell Stress Society International and Founding Editor-in-Chief of Cell Stress and Chaperone, and other students selected for presentations.

Credit: CSSI

Department of Biotechnology and the Biotechnology Innovation Centre (RUBIC)



Credit: Snow Harris

Dr Earl Prinsloo
Head of Department



Credit: Snow Harris

Professor Janice Limson
Director

Internal and external collaborations once again positioned the Rhodes University Biotechnology Innovation Centre (RUBIC) as a cutting-edge entity for multidisciplinary Postgraduate training and translation of innovative research in South Africa and Africa.

Postgraduates / Graduations

RUBIC hosted thirty-two (32) Honours, Masters and PhD students in 2018. The Centre graduated ten (10) honours (including four (4) distinctions), five (5) Masters (including one (1) distinction) and four (4) Doctoral (Rose Kadye, Stephen Bentley, Shane Flanagan and Lance Ho) candidates at the graduation ceremony.

Distinguished Visitors / International Visits

RUBIC hosted Ms Tanya Accone, Senior Advisor on Innovation at United Nations Children's Fund (UNICEF) who visited the facility as part of the second year of the UNICEF funded Innovation Laboratory, led by **Professor Janice Limson** (SARChI Chair in Biotechnology Innovation and Engagement) and **Dr Ronen Fogel**.

Old Rhodian, Dr Henry Roman, and Director: Environmental Services and Technologies at the Department of Science and Technology (DST), presented the 9th Annual PD Rose Biotechnology Lecture titled *"Sustainable Development: almost...not quite?"*

Professor Pedro Estrela (Bath University) and **Professor Limson** collaborated with the Donald Woods Foundation in Hobeni to conduct site visits to clinics and hospitals in the former Transkei region. This forms part of their research collaboration in developing appropriate diagnostic tests to support early disease detection in remote areas.

Staff recognition

In recognition for her contribution to research and teaching and learning at Rhodes, **Dr Aileen Boshoff** was promoted to the academic level of Associate Professor.

Ms Lwazikazi Madikiza joined RUBIC as a DST/NRF Intern, managing science engagement events and research.



RUBIC Department.
Credit: Ethan Langson

Mr Aphiwe Mfuku, a researcher in RUBIC, continued his work towards developing portable water treatment filters using nanomaterials.

Significant Research Aligned Events

The Prinsloo Lab represented RUBIC at the combined meeting of the South African Society for Biochemistry and Molecular Biology, and the Federation of African Societies of Biochemistry and Molecular Biology (FASBMB) at the North-West University in Potchefstroom where they presented work on cellular differentiation and tissue engineering.

The BioSens Research group led by Professor Limson and Dr Fogel presented their work at the 69th Annual Meeting of the International Society of Electrochemistry in Bologna, Italy. Dr Lance Ho presented his work on electrochemical sensors treatment while Dr Shane Flanagan presented his work on aptamer based biosensors.

Professor Limson presented her work alongside Dr Michael Gastrow, Professor Anne Dijkstra and Dr

Lars Guenther at the 15th International Public Communication of Science and Technology Conference in Dunedin, New Zealand, 3-6 April, 2018. Their presentation explored the science-society interface in South Africa.

Professor Limson was also an invited speaker at the SciCOM 100 Conference in Stellenbosch University, 5-7 November 2018. There she presented her findings on *“Co-creation of technology and innovation with communities: models and benefits in higher education”*.

Workshops

Professor Limson enjoyed a successful collaboration with Rachel Rayner of the South African Agency for Science and Technology Advancement (SAASTA), and Penny Haworth of the National Research Foundation (NRF) South African Institute for Aquatic Biodiversity (SAIAB). The team ran two (2) successful workshops at both Scifest Africa and at the National Arts Festival. As part of the Film and Ideas Festival at the National Arts Festival, the team explored the



Ms Khanyisile Buthelezi, Biotechnology Honours student.

Credit: © Simon Nazer/UNICEF

role of the arts in mediating communication between the public and scientists in Science and Society: Can Art close the gap? A workshop at Scifest Africa encouraged science communicators to explore new roles in science engagement, in particular in Responsible Research and Innovation frameworks.

Media

Research in the BioSens group continued to garner attention with articles in Forbes Magazine: *"How African Scientists Are Testing Cheaper, Faster Ways To Test For Malaria, Pregnancy, HIV Success"* by Toby Shapshak, as well as at the UNICEF website *"UNICEF: Jump-starting innovative new tests for HIV, pregnancy and malaria"* by UNICEF's Simon Nazer.

Awards

Charles Faul, a Masters Biotechnology student, was selected as one of the Mail and Guardian's 200 Young South Africans in the Science category. He was also profiled in Destiny Man's Science,

Technology and Healthcare category for 2018. The recognition is for his entrepreneurial activities, most notably development of Fieldlab, a lab-in-a-box capable of field based disease detection.

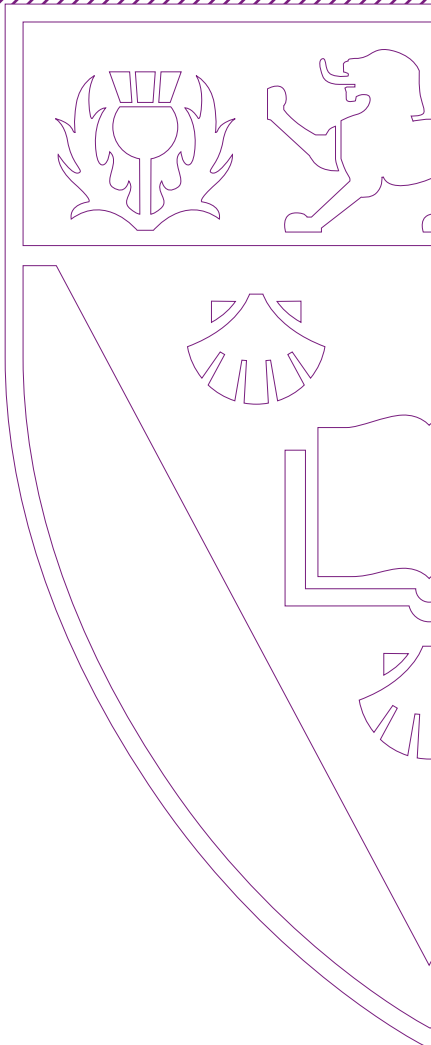
Charles Faul was also selected as a Mandela Washington Fellow as part of the 2018 Mandela Washington Fellowship for Young African Leaders, held in the United States of America (USA) in 2018. This included a six (6) week academic residency.

Patents

ARIPO patents granted include the development of aptamers for newer forms of diagnostic sensors for malaria by K.A Frith, M Cromhout, R. Fogel, D. Goldring and J. Limson.

PUBLICATIONS

Department of
Biotechnology and the
Biotechnology
Innovation Centre
(RUBIC)



Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Boshoff, A.

Tandlich, R., Ngqwala, N.P., Boshoff, A., Madikizela, P., Srinivas, S., Pyle, D. and Oosthuizen, R. (2018) Challenges and curriculum transformation in the Higher Education sector in South Africa: a case study in WASH to improve the training of pharmacists. *Acta Educationis Generalis*. 8 (1). p.1-24.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bentley, S.J., Jamabo, M. and Boshoff, A.

Bentley, S.J., Jamabo, M. and Boshoff, A. (2018) The Hsp70/J-protein machinery of the African trypanosome, *Trypanosoma brucei*. *Cell Stress & Chaperones*. 2018. p.1-24.

Frith, K.A., Fogel, R., Cromhout, M. and Limson, J.

Frith, K.A., Fogel, R., Goldring, J.P.D., Krause, R.G.E., Khati, M., Hoppe, H.C., Cromhout, M., Jiwaji, M. and Limson, J. (2018) Towards development of aptamers that specifically bind to lactate dehydrogenase of *Plasmodium falciparum* through epitopic targeting. *Malaria Journal*. 17 (191). p.1-16.

Jordaan, J.

Perez, E., Sanchez-Murcia, P.A., Jordaan, J., Blanco, M.D., Mancheno, J.M., Gago, F. and Fernandez-Lucas, J. (2018) Enzymatic Synthesis of Therapeutic Nucleosides using a Highly Versatile Purine Nucleoside 2'-Deoxyribosyl Transferase from *Trypanosoma brucei*. *ChemCatChem*. 10 (2018). p.4406-4416.

del Arco, J., Martinez-Pascual, S., Clemente-Suarez, V.J., Corral, O.J., Jordaan, J., Hormigo, D., Perona, A. and Fernandez-Lucas, J. (2018) One-Pot, One-Step Production of Dietary Nucleotides by Magnetic Biocatalysts. *Catalysts*. 8 (184). p.1-13.

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

Kruid, J., Fogel, R. and Limson, J. (2018) Unsubstituted metallophthalocyanine catalysts for the removal of endocrine disrupting compounds using H₂O₂ as oxidant. *Environmental Science and Pollution Research*. 25 (2018). p.32346-32357.

Limson, J.

Nambati, E.A., Kiarie, W.C., Kimani, F., Kimotho, J.H., Otinga, M.S., Too, E., Kaniaru, S., Limson, J. and Bulimo, W. (2018) Unclear association between levels of *Plasmodium falciparum* lactate dehydrogenase (PfLDH) in saliva of malaria patients and blood parasitaemia: Diagnostic implications? *Malaria Journal*. 17 (9). p.1-5.

Limson, J. (2018) Putting responsible research and innovation into practice: a case study for biotechnology research, exploring impacts and RRI learning outcomes of public engagement for science students. *Synthese*. 2018. p.1-26.

Prinsloo, E.

Matshitse, R., Nwaji, N., Managa, M., Prinsloo, E. and Nyokong, T. (2018) Effect of number of positive charges on the photophysical and photodynamic therapy activities of quaternary benzothiazole substituted zinc phthalocyanine. *Journal of Photochemistry and Photobiology A - Chemistry*. 367 (2018). p.253-260.

Oluwale, D.O., Sari, F.A., Prinsloo, E., Dube, E., Yuzer, A., Nyokong, T. and Ince, M. (2018) Photophysicochemical properties and photodynamic therapy activity of highly water-soluble Zn(II) phthalocyanines. *Spectrochimica Acta Part A - Molecular and Biomolecular Spectroscopy*. 203 (2018). p.236-243.

Molupe, N., Babu, B., Oluwale, D.O., Prinsloo, E., Mack, J. and Nyokong, T. (2018)

The investigation of in vitro dark cytotoxicity and photodynamic therapy effect of a 2,6-dibromo-3,5- distyryl BODIPY dye encapsulated in Pluronic(r) F-127 micelles. *Journal of Coordination Chemistry*. 71 (21). p.3444-3457.

PUBLICATIONS

Managa, M., Britton, J., Prinsloo, E. and Nyokong, T. (2018) Effects of Pluronic F127 micelles as delivering agents on the *in vitro* dark toxicity and photodynamic therapy activity of carboxy and pyrene substituted porphyrins. *Polyhedron*. 152 (2018). p.102-107.

Matlou, G.G., Oluwole, D.O., Prinsloo, E. and Nyokong, T. (2018) Photodynamic therapy activity of zinc phthalocyanine linked to folic acid and magnetic nanoparticles. *Journal of Photochemistry and Photobiology B - Biology*. 186 (2018). p.216-224.

Dube, E., Oluwole, D.O., Prinsloo, E. and Nyokong, T. (2018) A gold-chitosan composite with low symmetry zinc phthalocyanine for enhanced singlet oxygen generation and improved photodynamic therapy activity. *New Journal of Chemistry*. 42 (2018). p.10214-10225.

Olawode, E.O., Tandlich, R., Prinsloo, E., Isaacs, M., Hoppe, H.C., Sheldon, R., Warner, D.T., Steenkamp, V. and Kaye, P.T. (2018) Synthesis and biological screening of diethyl [N-(thiazol-2-yl)carbamoyl]methylphosphonates. *Arkivoc*. 7 (2018). p.110-118.

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

Fanucci, S. and Prinsloo, E.
Fanucci, S. and Prinsloo, E. A comparison of alginate based hydrogels as scaffold material in additive manufacturing. *SASBMB-FASBMB 2018*. North West University, Potchefstroom. South Africa. July 2018.

Flanagan, S., Fogel, R. and Limson, J.
Flanagan, S., Fogel, R. and Limson, J. Oligonucleotide aptamer recognition of protein markers in whole cells: Problems and prospects for biosensors. *69th Annual Meeting of the International Society of Electrochemistry*. Bologna, Italy. September 2018.

Ho, L., Limson, J. and Fogel, R.
Ho, L., Limson, J. and Fogel, R. Physico-chemical Characteristics Influencing Impedimetric Aptasensor Variation are Impacted by

Electrode Pretreatment. *69th Annual Meeting of the International Society of Electrochemistry*. Bologna, Italy. September 2018.

Kadye, R. and Prinsloo, E.
Kadye, R. and Prinsloo, E. Mitochondrial adaptations to adipogenesis. *SASBMB-FASBMB 2018*. North West University, Potchefstroom. South Africa. July 2018.

Limson, J.
Gastrow, M., Limson, J., Dijkstra, A. and Guenther, L. Exploring the science-society interface in South Africa. *15th International Public Communication of Science and Technology Conference*. Dunedin, New Zealand. April, 2018.

Limson, J. Towards co-creation of technology and innovation with communities: models and benefits in higher education. *SciCOM 100 Conference*. Stellenbosch University. South Africa. November 2018.

Prinsloo, E.
Prinsloo, E. and Abrahams, G.L. AG3D: A Low cost 3D printable electrophoresis toolkit. *SASBMB-FASBMB 2018*. North West University, Potchefstroom. South Africa. July 2018.

Stoffels, M., Kramer, A.H., Houseman, P.S., Kadye, R. and Prinsloo, E.
Stoffels, M., Kramer, A.H., Houseman, P.S., Kadye, R., Pepper, M.S. and Prinsloo, E. Does STAT3 serine 727 phosphorylation contribute to lipid accumulation during adipogenesis: Preliminary evidence. *SASBMB-FASBMB 2018*. North West University, Potchefstroom. South Africa. July 2018.

Patents

Frith, K.A., Cromhout, M., Fogel, R., and Limson, J.
Diagnosis of Malaria, Frith, K.A., Cromhout, M., Fogel, R., D. Goldring, and J. Limson, Rhodes University, Patent Number: AP/P/2014/007847. Status: Granted, 18 April 2018, ARIPO.

Credit: © Simon Nazer/UNICEF



Ms Dupe Ojo (left), Biotechnology Honours student and Dr Lance Ho (right), Postdoctoral Research Fellow.

Department of Botany



Credit: Snow Harris

Professor Susi Vetter
Head of Department

The Botany Department continued to consolidate its research focus on evolution, ecology and global change.

The Department welcomed **Mr Douglas McMurtry**, a well-known horticulturalist and expert on orchids, as a Research Associate.

The flagship Rhodes University Elevated CO₂ Facility (RUECF) was a hub of research activity and collaboration on the effects of elevated CO₂ on crop plants and indigenous vegetation. **Professor Brad Ripley** was on sabbatical and focused on ensuring the sustainability of this research facility.

A visit from the Director-General of the Department of Science and Technology (DST) proved a turning point in securing core funding from the National Research Foundation (NRF) that will allow the appointments of instrument scientists and partially cover the running costs of the facility. Professor Ripley also secured funding of several million rand via the Applied Centre for Climate and Earth Systems Science (ACCESS), Grain-SA and Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASCCAL) grants.

Professor Susi Vetter continued research on bush encroachments and its feedbacks on the herbaceous layer and herbivory. She initiated an ACCESS-funded project to investigate the ecology of thicket pioneer species, which are hypothesized to play a crucial role in the functional shift from savanna to closed-canopy woody vegetation. She developed collaborative links with Julieta Rosell Garcia and Mark Olson from the Universidad Autónoma de Mexico to work on the bark, hydraulic and photosynthetic functional traits of thicket pioneer and savanna species.

Dr Tracey Nowell continued to establish her research programme on the evolutionary relationships within the genus *Cotyledon*. She and her PhD student, Alex de Gouveia, did field work throughout the Eastern and Western Cape provinces to collect material for molecular analyses, conduct pollination experiments, and digitised herbarium specimens throughout the country. She continues to serve on the scientific committee of the Thicket Forum.

Professor Craig Peter's research on pollination saw him travel to the Lowveld for research on orchid pollination. His interest in orchids



Aerial views of the Rhodes University Elevated CO₂ Facility (RUECF) used to study the impact of climate change on crop and invasive plants, and indigenous vegetation. *Credit: Professor Michael Cramer*

led to diverse research activities that included work on the conservation status of orchids in South Africa, and a new collaboration with Professor Joanna Dames (Department of Microbiology) on the mycorrhizal associations of terrestrial orchids. He attended the Wild Orchid South Africa conference in Dullstroom.

Professor Julie Coetzee continued research into the biological control of aquatic plants. She was seconded to work full-time for three (3) years in the Centre for Biological Control as a Senior Researcher on a prestigious multi-million Rand national biological control project. She remains a member of the Botany Department.

Tony Dold continued his collaboration with researchers from the University of Alicante studying South African Hyacinthaceae, resulting in the description of the new genus *Austronea* and seven (7) new species. Together with herbarium volunteer, Jean Kelly, he compiled and edited the historical archives of Mary Pocock and published the material in a book entitled *"Bushmen, Botany and Baking Bread"*.

Postgraduates / Graduations

In 2018 the Botany Department was home to six (6) Honours, ten (10) MSc and six (6) PhD students. Three (3) PhD candidates graduated in 2018.

Once again our Postgraduate students have made us proud by scooping awards and recognition. PhD candidate, Aviwe Matiwane was included in the Mail

& Guardian's 200 Young People list and MSc student, Nompumelelo Baso won the award for Best Speed Talk at the 45th Annual Research Symposium on the Management of Biological Invasions in Southern Africa.

Two (2) exciting new funding opportunities for Postgraduate students were launched in 2018 and awarded for the first time. The Craib Family Scholarship has been made possible by a generous bequest by the family of the late Charles Louis Craib (1954 - 2012), who was a dedicated and passionate amateur botanist. The first two (2) recipients are Damian Lourens (MSc) and Christopher Johnston (Honours).

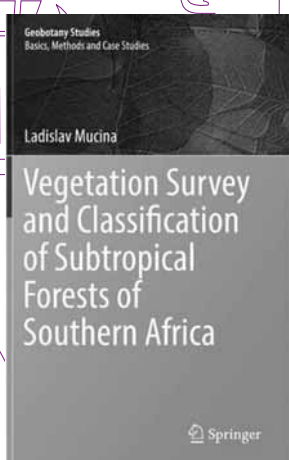
The Rhodes University Student Travel Award to attend international conferences and field excursions in plant ecology was also launched and awarded to Katherine James (MSc, Department of Computer Science). She will attend the Savanna Science Network Meeting in early 2019.

Distinguished Visitors / International Visits

Professor Vetter visited the Stockholm Resilience Centre in January. She was hosted by a group of researchers to co-write a paper on the reciprocal relationship between ecosystem services and wellbeing.

PUBLICATIONS

Department of Botany



Books/Chapters/Monographs

Coetzee, J.A.

Coetzee, J.A., Hill, M.P., Hussner, A., Nunes, A.L. and Weyl, O.L.F. (2018) Chapter 16: Invasive aquatic species. In: Hughes, J. (ed.). *Freshwater Ecology and Conservation*. United Kingdom: Jocelyne Hughes. p.1-464. ISBN: 9780198766421.

Dold, A.P.

Dold, A.P., Mucina, L., Tichy, L. and Van Niekerk, A. (2018) Classification of the Albany Coastal Forests. In: *Vegetation Survey and Classification of Subtropical Forests of Southern Africa*. Geobotany Studies (Basics, Methods and Case Studies). Springer, Cham p.59-90. ISBN: 9783319678306.

Dold, A.P. and Kelly, J. (2018) *Bushmen, Botany and Baking Bread*. Mary Pocock's record of a journey with Dorothea Bleek across Angola in 1925. NISC, Grahamstown.

Peer Reviewed Subsidy-Earning Journal Research Publications

Barker, N.P.

Gouws, G., Daniels, S.R., MacDonald, A.H., Chakona, A. and Barker, N.P. (2018) Development and characterization of a microsatellite library for the freshwater crab *Potamonautes danielsi* Peer, Gouws, Lazo-Wasem, Perissinotto & Miranda, 2017 (Brachyura: Potamonautidae) and its transferability across three congeneric species. *Journal of Crustacean Biology*. 38 (6). p.765-771.

Bentley, L. and Barker, N.P.

Bentley, L., Robertson, M.P. and Barker, N.P. (2018) Range contraction to a higher elevation: the likely future of the montane vegetation in South Africa and Lesotho. *Biodiversity and Conservation*. 2018. p.1-23.

Coetzee, J.A.

Martin, G.D., Coetzee, J.A., Lloyd, M., Nombewu, S.E., Ndlovu, M.S. and Kwong, R.M. (2018) Invaded habitat incompatibility affects the suitability of the potential biological control agent *Listronotus sordidus* for *Sagittaria platyphylla* in South Africa. *Biocontrol Science and Technology*. 28 (5). p.468-485.

Jones, R.W., Hill, J.M., Coetzee, J.A. and Hill, M.P. (2018) The contributions of biological control to reduced plant size and biomass of water hyacinth populations. *Hydrobiologia* 807 (2018). p.377-388.

Martin, G.D., Coetzee, J.A., Weyl, P.S.R., Parkinson, M.C. and Hill, M.P. (2018) Biological control of *Salvinia molesta* in South Africa revisited. *Biological Control*. 125 (2018). p.74-80.

Owen, C.A., Van Noort, S., Compton, S.G. and Coetzee, J.A. (2018) Nest site choice by the intertidal spider *Desis formidabilis* (Araneae: Desidae) and nest utilisation by its hymenopteran egg parasitoid. *Ecological Entomology*. 2018. p.1-9.

Maseko, Z., Coetzee, J.A. and Hill, M.P. (2018) Effect of shade and eutrophication on the biological control of *Salvinia molesta* (Salviniaceae) by the weevil *Cyrtobagous salviniae* (Coleoptera: Eirrhinidae). *Austral Entomology*. 2018. p.1-7.

Strange, E.F., Hill, J.M. and Coetzee, J.A. (2018) Evidence for a new regime shift between floating and submerged invasive plant dominance in South Africa. *Hydrobiologia*. 817 (2018). p.349-362.

Mvandaba, S.F., Owen, C.A., Hill, M.P. and Coetzee, J.A. (2018) The thermal physiology of *Stenopelmus rufinus* and *Neohydronomus affinis* (Coleoptera: Curculionidae), two biological control agents for the invasive alien aquatic weeds, *Azolla filiculoides* and *Pistia stratiotes* in South Africa. *Biocontrol Science and Technology*. 2018. p.1-15.

Hussner, A., Smith, R., Mettler-Altmann, T., Hill, M.P. and Coetzee, J.A. (2018) Simulated global increases in atmospheric CO₂ alter the tissue composition, but not the growth of some submerged aquatic plant biocarbonate users growing in DIC rich waters. *Aquatic Botany*. 2018. p.1-7.



PhD candidate, Mr Alex de Gouveia visiting the collection of Cotyledon specimens at the Compton herbarium, Kirstenbosch Gardens.
Credit: Department of Botany

Dold, A.P.

Martínez-Azorín, M.B., Crespo, M.B., Alonso-Vargas, M.A., Dold, A.P., Pinter, M. and Wetschnig, W. (2018) *Austronea* (Asparagaceae, Scilloideae), a new genus from southern Africa, including the description of seven new species. *Phytotaxa*. 365 (2). p.101-129.

McKenzie, R.

McKenzie, R. (2018) (2634) Proposal to reject the name *Arctotis ludwigii* (Asteraceae: Arctotideae). *Taxon*. 67 (4). p.815-816.

McKenzie, R. and Bergh, N.G. (2018) (2633) Proposal to conserve the name *Arctotis calendula* (Arctotheca calendula) against *Arctotis tristis* (Arctotheca tristis) (Asteraceae: Arctotideae). *Taxon*. 67 (4). p.813-814.

McKenzie, R. (2018) Nomenclatural changes and typifications of *Arctotis* species (Asteraceae, Arctotideae) from the Western Cape and Eastern Cape provinces of South Africa. *Willdenowia*. 48 (1). p.29-49.

Ripley, B.S.

Archibald, S., Lehmann, C.E.R., Belcher, C.M., Bond, W.J., Bradstock, R.A., Daniau, A.L., Dexter, K.G., Forrester, E.J., Greve, M., Ripley, B.S. and *et al.* (2018) Biological and geophysical feedbacks with fire in the Earth system. *Environmental Research Letters*. 13 (033003). p.1-18.

Ripley, B.S. and Adams, C.

Lundgren, M.R., Dunning, L.T., Olofsson, J.K., Moreno-Villena, J.J., Bouvier, J.W., Sage, T.L., Khoshhravesh, R., Sultmanis, S., Ripley, B.S., Adams, C. and *et al.* (2018) C4 anatomy can evolve via a single developmental change. *Ecology Letters*. 2018. p.1-11.

Skowno, A.

Nackley, L.L., West, A.G., Skowno, A. and Bond, W.J. (2018) Letter: Questioning the Alienation of Native Species from Invasion Ecology:

A Reply to Tong *et al.* *Trends in Ecology & Evolution*. 33 (4). p.235-236.

Skowno, A. and Ripley, B.S.

Nackley, L.L., Betzelberger, A., Skowno, A., West, A.G., Ripley, B.S., Bond, W.J. and Midgley, G.F. (2018) CO₂ enrichment does not entirely ameliorate *Vachellia karroo* drought inhibition: A missing mechanism explaining savanna bush encroachment. *Environmental and Experimental Botany*. 155 (2018). p.98-106.

Swart, C. and Barker, N.P.

Swart, C., Donaldson, J. and Barker, N.P. (2018) Predicting the distribution of *Encephalartos latifrons*, a critically endangered cycad in South Africa. *Biodiversity and Conservation*. 27 (2018). p.1961-1980.

Van Wijk, Y.

Novello, A., Bamford, M.K., Van Wijk, Y. and Wurz, S. (2018) Phytoliths in modern plants and soils from Klasies River, Cape Region (South Africa). *Quaternary International*. 464 (2018). p.440-459.

Vetter, S.

Cocks, M.L., Vetter, S. and Wiersum, K.F. (2018) From universal to local: perspectives on cultural landscape heritage in South Africa. *International Journal of Heritage Studies*. 24: 35-52

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

Chiloane, V.D. and Vetter, S.

Chiloane, V.D. and Vetter, S. Effects of bush density on the herbaceous layer and utilization by herbivores. *Savanna Science network Meeting*. Nombolo Mdluli Conference Centre, Skukuza. South Africa. March 2018.

Coetzee, J.A.

Stiers, I., Minuti, G., Nxande, S. and Coetzee, J.A. Initiating biological control of *Iris pseudacorus*: a north-south collaboration. *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.

Griffith, T.C., Paterson, I.D., Owen, C.A. and Coetzee, J.A. Some like it hot, some like it cold: thermal plasticity of biological control agents enhances establishment. *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.

Maseko, Z., Coetzee, J.A., Hill, M.P. and Paterson, I.D. The distribution and impact of two *Eccritotarsus* species, biological control agents of water hyacinth in South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.

Baso, N.C., Coetzee, J.A. and Hill, M.P. The effects of elevated CO₂ on the biological control of four invasive macrophytes that are currently under control in South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.

Miller, B.E., Coetzee, J.A. and Hill, M.P. Evaluating the establishment of *Megamelus scutellaris* (Hemiptera: Delphacidae) on water hyacinth in South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.



Austronea patersoniae, a new species in a new genus in the family Hyacinthaceae described by Tony Dold and collaborators from Spain.

Credit: Department of Botany

Maseko, Z., Coetzee, J.A., Hill, M.P. and Paterson, I.D. The distribution and impacts of two species of *Eccritotarsus*, on *Eichhornia crassipes* in South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou, Thohoyandou. South Africa. July 2018.

Owen, C.A., Hill, M.P. and Coetzee, J.A. Insect thermal tolerance trait plasticity and links to biocontrol agent efficacy. *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.

Paterson, I.D., Hill, M.P. and Coetzee, J.A. Cryptic species in biological control: a biocontrol agent that we didn't know we had. *1st International Congress on Biological Control: Biological Control for a Healthy Planet*. Beijing. China. May 2018.

Martin, G.D. and Coetzee, J.A. Managing Delta arrowhead in South Africa. *15th International Symposium of Aquatic Plants*. Queenstown. New Zealand. February 2018.

Martin, G.D., Coetzee, J.A., Hill, M.P. and Weyl, P.S.R. 10 years of post-release evaluation on *Myriophyllum aquaticum*, what have we learnt? *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.

Coetzee, J.A. and Smith, R. Effects of global change CO₂ scenarios on the growth and physiology of submerged aquatic plants. *15th International Symposium of Aquatic Plants*. Queenstown. New Zealand. February 2018.

Motitsoe, S.N., Hill, M.P. and Coetzee, J.A. Quantifying the ecological benefits of the biological control of invasive aquatic weeds in southern Africa. *15th International Symposium of Aquatic Plants*. Queenstown. New Zealand. February 2018.

Smith, R. and Coetzee, J.A. The biocontrol of *Egeria densa* Planchon (Hydrocharitaceae) in South Africa and the effect of climate change on the success of the programme. *15th International Symposium of Aquatic Plants*. Queenstown. New Zealand. February 2018.

Coetzee, J.A. and Hill, M.P. Past, present and future - aquatic plant invasions in South Africa. *15th International Symposium of Aquatic Plants*. Queenstown. New Zealand. February 2018.

Smith, R. and Coetzee, J.A. *Hydrellia Robineau-Desvoidy* (Ephydriidae) - the good, the bad and the unknown. *9th International Congress of Dipterology*. Windhoek. Namibia. December 2018.

Smith, R. and Coetzee, J.A. *Egeria densa* and its a biological control in South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.

Reid, M.K., Coetzee, J.A. and Hill, M.P. Surveys and host specificity testing of potential biological control agents for *Nymphaea mexicana* Zuccarini. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.

Naidu, P., Naidu, P., Coetzee, J.A. and Paterson, I.D. The invasion ecology of *Nymphaea mexicana* (Mexican waterlily) in South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.

Wansell, S.N.L. and Coetzee, J.A. Invasion ecology of *Pontederia cordata* L. in South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.

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: Effects of land-use and topography. *Thicket Forum*. Addo Elephant National Park, Addo. South Africa. June 2018.

Peter, C.I.

Peter, C.I., Hankey, A., Wodrich, K., Mincher, B. and Venter, N. What the pollination biology can tell us about the rarity of the Albertina Sisulu Orchid, *Brachycorythis conica* subsp. *transvaalensis*. *Third Wild Orchids South Africa conference*. Dunkeld Estate, Dullstroom. South Africa. January 2018.

Khambule, N.V., Dames, J.F. and Peter, C.I. Root fungal diversity associated with three *Disa* species. *Joint SANBI Biodiversity Information Management & Foundational Biodiversity Information Programme Forum*. Cape St Francis Resort, Cape St Francis. South Africa. August 2018.

Prevec, R.

Cawood, R., Moyo, S., Prevec, R. and Nel, A. Palaeoenvironmental reconstruction of middle Permian ecosystems, inferred from insect fossils of ice crawlers (Grylloblattodea) from the Onder Karoo, South Africa. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Kirkaldy, B.P., Prevec, R., Barber-James, H.M. and Holland, A.J. The past meets the present: exploring the phylogenetics of extant Plecoptera of South Africa with reference to ancient middle Permian fossil forms from the Onder Karoo locality near Sutherland. *20th Conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Kirkaldy, B.P., Prevec, R., Barber-James, H.M., Holland, A.J. and Nel, A. Exploring the biogeography and ecology of extant Plecoptera of South Africa with reference to ancient middle Permian fossil forms from the Onder Karoo locality. *Joint XV International Conference on Ephemeroptera, XIX International Symposium on Plecoptera*. Aracruz. Brazil. June 2018.

Moyo, S., Prevec, R., Kirkaldy, B.P. and Nel, A. Preliminary report on the first mid-Permian ecosystem from South Africa, as revealed

PUBLICATIONS

by a new Lagerstätte near Sutherland, Northern Cape. *The Fossil Week: the 5th International Palaeontological Congress*. Paris. France. July 2018.

McKay, I., Mudau, M., Prevec, R., Gess, R.W. and Harris, C. Collaborative palaeosciences engagement: Grahamstown Science Festival as a case study. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Zozo, E., Nel, A., Garrouste, R., Moyo, S., Bellingan, T.A., Villet, M.H. and Prevec, R. Phylogenetic relationships of the Permian 'cicada-like' family *Pereboriidae* (Insecta: Hemiptera: Pereborioidea). *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Prevec, R., and Matiwane, A.

Davids, L., Prevec, R., Matiwane, A. and Nel, A. Insect fauna and associated plant-insect interactions at the Ouberg Pass and Onder Karoo locality: implications for the evolution of insect utilization of plants in the middle Permian of the Karoo Basin of South Africa. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Matiwane, A. and Prevec, R. A new approach to *Glossopteris* leaf taxonomy embracing morphometric analyses. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Matiwane, A. and Prevec, R. A new approach to *Glossopteris* leaf taxonomy embracing morphometric analyses. *The Fossil Week: the 5th International Palaeontological Congress*. Paris. France. July 2018.

Moyo, S., Prevec, R., Matiwane, A., Nel, A., Garrouste, R. and Day, M.O. Preliminary report on the first mid-Permian ecosystem from South Africa, as revealed by a new Lagerstätte near Sutherland, Northern Cape. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Prevec, R. and Matiwane, A. A missing link in *Glossopteris* evolution: new species of *Lidgettonia* from a middle Permian Lagerstätte in South Africa. *The Fossil Week: the 5th International Palaeontological Congress*. Paris. France. July 2018.

Prevec, R. and Matiwane, A. A missing link in *Glossopteris* evolution: new species of *Lidgettonia* from a middle Permian Lagerstätte in South Africa. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Vetter, S.

Vetter, S. and Cocks, M. Culture, nature and wellbeing - insights from qualitative and quantitative research in the Eastern Cape. *Thicket Forum*. Addo Elephant National Park, Addo. South Africa. June 2018.

Concerts, Exhibitions, Performances, Workshops, Events

Prevec, R., Matiwane, A., Mnqeta, Z. and Mbunge, M.

Poole, T. 'The Whispering Spring', solo fine art exhibition, Galerie M, Bochum, Germany. Collaborators: Holland, A.J., Prevec, R., James, H.J., Matiwane, A., Camagu, K., Mnqeta, Z., Mbunge, M.

Other Publications

Matiwane, A. and Prevec, R.

Matiwane, A. and Prevec, R. Plant fossils have a lot to teach us about Earth's history. *The Conversation*, March 08. <https://theconversation.com>.



PhD candidate, Mr Alex de Gouveia setting up a pollinator exclusion experiment in Calitzdorp.

Credit: Department of Botany

Department of Chemistry



Credit: Snow Harris

Professor Rui Krause
Head of Department

This year (2018) was a year of promotions for our Department, with the announcement coming out on Mole day. Mole Day (23 October) commemorates Avogadro's Number (6.02×10^{23}), which is a basic measuring unit in chemistry. Mole Day was created as a way to foster interest in Chemistry. This is a significant achievement, and each of these staff members, Associate Professor Khene, Associate Professor Klein and Associate Professor Lobb, hold up the name of our Department in everything they do, and deserve our congratulations.

Associate Professor Khene got the year off to a great start with a Research Development Grant for Y-rated researchers from the National Research Foundation (NRF). He also celebrated being selected as one of the newest members of the South African Young Academy of Science (SAYAS).

Associate Professor Klein completed a successful three (3) year term as the Chair of the Green-Chemistry Division of the South African Chemical Institute (SACI) in December 2018 with an invited talk at the National Convention. Green Chemistry is the newest division of SACI, but is highlighted in the recent "Green Economy" strategy, and has grown tremendously both at Rhodes and nationally during her term.

Associate Professor Lobb co-authored no fewer than eleven (11) publications this year, including one (1) that featured on the cover of Tetrahedron Letters, one of the premier journals in Organic and Physical Chemistry. Professor Lobb's collaborations with colleagues in Chemistry, other researchers at Rhodes, and people abroad is evident in his publications.

Distinguished Professor Nyokong also deserves our congratulations, not least for receiving her third Honorary Doctorate (Doctor of Science Honoris Causa) on the 18 April 2018 from the University of KwaZulu-Natal (UKZN) with the previous two (2) being awarded by Walter Sisulu University (WSU) and the University of South Africa (UNISA) in 2010. The number of publications listed below, and student graduations also attest to the phenomenal impact and influence that this outstanding A-rated scientist has in South Africa.

Distinguished Professor Nyokong is the Director of the DST/Mintek Nanotechnology Innovation Centre (NIC), which in 2018 was awarded



Ms Vuyiseka Makabe (right) briefing Chemistry 1 students on preparation for a titration experiment. *Credit: Department of Chemistry*

an Institute status by Senate. The Institute continues to excel in many respects, including an NRF B2 rating for Dr Mack (this was a first-time B2 rating, which underlines the considerable international recognition that Dr Mack has developed for his research).

Dr Mashazi (who was appointed Deputy Director of the NIC in 2018) was awarded an NRF Research Development Grant for Y-Rated Researchers. More importantly, in recognition of his research leadership as a Principal Investigator, he was also awarded a R3 million grant from the NRF-National Equipment Program (NEP) to upgrade the TOF-SIMS instrument, which is one of only two of its kind in South Africa.

This equipment and the other infrastructure means that the NIC is a draw-card for many visitors from advanced research institutes all around the world. The state-of-the-art facilities and expert supervision also means that the Postgraduate students are regular award winners at conferences and in national and international competitions. This method of instilling an ethos of excellence in her students is often seen in the achievements of Professor Nyokong's graduates.

An example of this, is PhD student, Ms Muthumuni Managa (who graduates in April 2019) was announced as one of the Mail and Guardian's Top 200 young South Africans in Science and Technology category at a gala dinner on the 28 June.

These young scientists and all the others from our Department often go on to take up important



Distinguished Professor Nyokong celebrating her Honorary Doctorate with her research group. *Credit: Department of Chemistry*

positions around the world. Mr Zweli Hlatshwayo (MSc graduate from 2018), is only the second scholar from Chemistry to be awarded a Fulbright Fellowship to study overseas. Dr Edward Sekhosana was appointed as a Senior Lecturer at the University of South Africa (UNISA). Dr Christian Nkanga (PhD graduate from 2018) was awarded a Novartis Next Generation Scholarship and spent three (3) months in Basel, Switzerland. Christian is the first Rhodes student to be selected for this.

I need to acknowledge our alumni and collaborators, who continue to help us become a Department that changes lives across the world. Former Head of Department (HoD), and now Dean of Natural Sciences at University of the Western Cape (UWC), Professor Michael Davies-Coleman is a new Academy of Science of South Africa (ASSAf) member. Former student, Dr Sunny Sunassee was a United Nations Educational, Scientific and Cultural Organization

(UNESCO)-Merck Best Young African Researcher Awardee, and our 2018 administration intern Ms Alyssa Williams was selected as one of the Top 100 Future Leaders by the South Africa Graduate Employers Association (SAGEA).

I would also like to thank Professor Dudley Shallcross and Mr Tim Harrison from the University of Bristol, whom we hosted as our 2018 Barker Lecturer visitors. These two (2) visitors have helped us establish programs such as the “Pollutants Tale” outreach demonstration, and provided many ideas for future joint projects.

Finally, to all our researchers, students, graduates, collaborators, technical and administrative support staff, I would say a big thank you for helping us remain one of the most productive and successful departments at Rhodes.

Postgraduates / Graduations

As our Department continues to grow and become more successful, so too does the list of outstanding students and Postgraduates. It's therefore very hard to single out individuals, but apart from those mentioned elsewhere in the report, I would like to congratulate Nasiphi Mpiti (Honours graduate) and Lisa Shwempe for their first places in the annual South African Chemical Institute (SACI) regional seminars. Also, Nobuhle Ndebele, Refilwe Matshitse and Aviwe Magadla for best presentations at the DST/Mintek Nanotechnology Workshop.

Of our 2018 PhD graduates, Dr Oluwafemi and Dr Nwaji received Rhodes Postdoctoral Research Fellowships, and former Postdoctoral Fellow, Dr Richard Beteck published an article in *Nature*.

Congratulations to all our graduates, especially those whose degrees were awarded with distinction.

Distinguished Visitors / International Visits

Professor Dudley Shallcross and Mr Tim Harrison were SciFest visitors from Bristol and hosted by the Department for the Barker Lecturer series. They gave two (2) very different research seminars on the “Impacts of public engagement”, and on “The problems of indoor and outdoor air pollution”. They also gave a public talk, “The Biosphere is Cool”.

The NIC also hosted a number of research visitors who spent time working on the amazing instruments. This included a delegation from Mintek who have been a long-term supporter of NIC, and also Mr Krzysztof Jankowski and Mr Szymon Caluch from the Jacob of Paradies Academy in Gorzow, Poland.

The Vice-Chancellor, Dr Siwze Mabizela, hosted a celebratory dinner (28 November 2018), where several current and former students spoke of the enormous positive influence that Distinguished Professor Nyokong has been to them personally, and to science.

Congratulations to all who contributed in any way to our work, and as we welcome 2019 as the International Year of the Periodic Table, let me wish you success for the future.

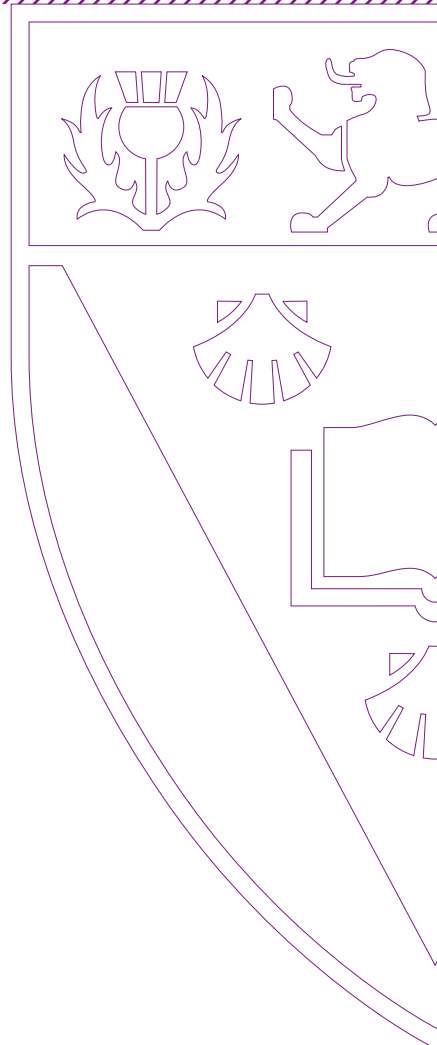


Mr Jesse-Clint Stander (centre) stirring up wonder in a group of learners.

Credit: Department of Chemistry

PUBLICATIONS

Department of Chemistry



Concerts, Exhibitions, Performances, Workshops, Events

Hulushe, S.T.

Hulushe, S.T. Learner Participant. *5th European Crystallographic School*. Stellenbosch University, Stellenbosch. South Africa, 8 - 14 July 2018.

Louzada, M.S. and Khene, S.

Louzada, M.S. and Khene, S. Oral Presentation. Investigation of Self Phase Modulation of Tetra Substituted Phthalocyanine Isomers as Optical Sensors. *DST/Mintek NIC 10th Annual Workshop*. Mintek, Johannesburg. South Africa. 26 - 28 March 2018.

Mafukidze, D.M. and Nyokong, T.

Mafukidze, D.M. and Nyokong, T. Poster Presentation. Graphene quantum dots-phthalocyanine polystyrene conjugate embedded in asymmetric polymer membranes for photocatalytic oxidation of 4-chlorophenol. *DST/CSIR NIC 10 Year Anniversary Workshop*. CSIR International Convention Centre, Pretoria. South Africa. 14 - 16 October 2018.

Magadla, A., Britton, J., Oluwole, D.O. and Nyokong, T.

Magadla, A., Britton, J., Oluwole, D.O. and Nyokong, T. Poster Presentation. Development of phthalocyanine-metallic nanoparticles conjugates for possible application in water purification and as antimicrobial agents. *DST/Mintek NIC 10th Annual Workshop*. Mintek, Johannesburg. South Africa. 26 - 28 March 2018.

Mapukata, S. and Nyokong, T.

Mapukata, S., Hainer, A.S., Lanterna, A.E., Scaiano, J.C. and Nyokong, T. Oral Presentation. Nanoparticle decorated titania fibers for sacrificial electron donor assisted hydrogen generation. *DST/CSIR NIC 10 Year Anniversary Workshop*. CSIR International Convention Centre, Pretoria. South Africa. 14 - 16 October 2018.

Matshitse, R. and Nyokong, T.

Matshitse, R. and Nyokong, T. Oral Presentation. Singlet oxygen generating properties of different sizes of positively charged graphene quantum dot nanoconjugate systems. *DST/Mintek NIC 10th Annual Workshop*. Mintek, Johannesburg. South Africa. 26 - 28 March 2018.

Matshitse, R. and Nyokong, T. Poster Presentation. Photophysical and nonlinear optical characteristics of pyridyl substituted phthalocyanine - detonated nanodiamond conjugated systems in solution. *DST/CSIR NIC 10 Year Anniversary Workshop*. CSIR International Convention Centre, Pretoria. South Africa. 14 - 16 October 2018.

Mgidlana, S., Oluwole, D.O. and Nyokong, T.

Mgidlana, S., Oluwole, D.O. and Nyokong, T. Poster Presentation. Development of Nonlinear Optical Sensors using Asymmetrical Zn(II) Phthalocyanine-Quantum Dots Conjugates. *DST/Mintek NIC 10th Annual Workshop*. Mintek, Johannesburg. South Africa. 26 - 28 March 2018.

Ndebele, N., Mack, J. and Nyokong, T.

Ndebele, N., Mack, J. and Nyokong, T. Oral Presentation. Synthesis of Fluorescent Boron Dipyrromethene (BODIPY) dyes functionalized with Boronic Acid for Sensing. *DST/Mintek NIC 10th Annual Workshop*. Mintek, Johannesburg. South Africa. 26 - 28 March 2018.

Distinguished Visitors

Haynes, D.A.

Professor DA Haynes. Department of Chemistry & Polymer Science, Stellenbosch, South Africa. *Lecture towards functional materials from multi component crystals*. April 2018.

Jankowski, K. and Caluch, S.

Mr K Jankowski and Mr S Caluch. Jacob of Paradies Academy in Gorzow Wielkopolski, Poland, Gorzow Wielkopolski, Poland. *Made use of the Centre's facilities and did some research on the results of physical parameters of nanoparticles of metals and semiconductors*. April 2018.

PUBLICATIONS



Distinguished Professor Tebello Nyokong receiving her Honorary Doctorate from the University of KwaZulu-Natal.
Credit: Department of Chemistry

Mjwara, P.

Dr P Mjwara. Department of Science and Technology, Pretoria, South Africa. *Tour with students/staff - Chemistry Building and Rhodes/DST Centre for Nanotechnology Innovation and meeting with Dr Clayton and Distinguished Professor Nyokong.* November 2018.

Murage, M.

Ms M Murage. United States International University, Nairobi, Kenya. *Exchange Student - NRF South Africa - Canada Research Chairs Trilateral Partnerships Initiative.* September 2018.

Shallcross, D.E.

DE Shallcross. Bristol University, United Kingdom. *Lecture: Climate change Workshops: Science Outreach.* March 2018.

International Visits

Kubheka, G.

Kubheka, G. BA Material Forschung Berlin, Germany. *DAAD-NRF Joint Scholarship Programme.* 15 October - 14 December 2018.

Mack, J.

Mack, J. United States International University, Nairobi, Kenya. *NRF South Africa/Kenya Research Collaboration.* 13 - 16 August 2018.

Mapukata, S.

Mapukata, S. University of Ottawa, Ottawa, Canada. *Exchange Student: NRF South Africa/Canada Research Collaboration.* 24 May - 24 August 2018.

Molupe, N.

Molupe, N. Queen's University, Belfast, Northern Ireland. *Cancer Research: Part of Pearson-Young Memorial Trust Funding.* 18 September - 4 October 2018.

Ndebele, N.

Ndebele, N. United States International University, Nairobi, Kenya. *Exchange Student: NRF South Africa/Kenya Research Collaboration.* 13 - 29 August 2018.

Nene, L.C.

Nene, L.C. Ecole Nationale Supérieure de Chimie de Paris, Paris, France. *MSc Exchange Student (Research Collaboration).* 1 February - 31 July 2018.

Nxele, S.R.

Nxele, S.R. Ecole Nationale Supérieure de Chimie de Paris, Paris, France. *Joint PhD Degree.* 1 September - 28 February 2018.

Nyokong, T.

Nyokong, T. United States International University, Nairobi, Kenya.

NRF South Africa - Canada Research Chairs Trilateral Partnerships Initiative. 25 - 28 February 2018.

Nyokong, T. L'Oreal UNESCO, Paris, France. *L'Oreal UNESCO for Women in Science - 20th Anniversary.* 19 - 23 March 2018.

Nyokong, T. L'Oreal UNESCO, Paris, France. *Jury Deliberation Meeting for 2019 Women in Science Awards.* 26 - 28 September 2018.

Shabangu, S.M.

Shabangu, S.M. United States International University, Nairobi, Kenya. *Exchange Student - NRF South Africa - Canada Research Chairs Trilateral Partnerships Initiative.* 1 - 29 August 2018.

Soy, R.

Soy, R. United States International University, Nairobi, Kenya. *Exchange Student: NRF South Africa - Canada Research Chairs Trilateral Partnerships Initiative.* 26 November - 10 December 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Ayeni, A.O. and Watkins, G.M.

Ayeni, A.O. and Watkins, G.M. (2018) Impact of thiocyanate on the Catecholase activity of Cu(II) and Fe(III) complexes of 2-((4-(2-hydroxy-4-methylbenzyl)piperazin-1-yl)methyl)-5-methylphenol (a Mannich base). *Acta Chemica IASI.* 26 (1). p.59-73.

George, R., Nyoni, S., Shumba, M. and Nyokong, T.

George, R., Nyoni, S., Shumba, M. and Nyokong, T. (2018) Porphyrin nanorods modified glassy carbon electrode surface for oxygen reduction reaction catalysis. *Journal of Chemical Society of Nigeria (JCSN).* 43 (1). p.147-157.

Hulushe, S.T. and Watkins, G.M.

Hulushe, S.T. and Watkins, G.M. (2018) Guest inclusion of methanol and ethanol in zirconium metal-organic frameworks (Zr-MOFs). *Materials Today: Proceedings.* 5 (2018). p.10415-10423.

Sen, P.

Sen, P., Yildiz, S.Z., Dege, N., Atmaca, G.Y., Erdogmus, A. and Dege, M. (2018) Synthesis of a Novel Benzimidazole Moiety-Appended Schiff Base Derivative: Fluorescence and Chemosensor Study. *Journal of the Turkish Chemical Society, Section A: Chemistry (JOTCSA).* 5 (3). p.1375-1386.

Siwe Noundou, X. and Krause, R.W.M.

Afieroho, O.E., Siwe Noundou, X., Krause, R.W.M., Isaacs, M., Olley, L., Hoppe, H.C. and Abo, K.A. (2018) An Antiplasmodial Depside from a Nigerian Lichen *Dirinaria Picta*, Epiphytic on the Oil Palm *Elaeis Guineense*. *Bolivian Journal of Chemistry (Revista Boliviana de Química).* 35 (1). p.31-39.

Kenneth, E.M., Siwe Noundou, X., John, M.C., Patience, O.O.

and Krause, R.W.M. (2018) Evaluation of Accelerated Stability Testing of a Mirtazapine-loaded Nanoemulsion as per International Conference on Harmonization (ICH) Protocols. *American Journal of Nanoscience and Nanotechnology Research.* 6 (1). p.1-10.

Sobola, A.O. and Watkins, G.M.

Sobola, A.O. and Watkins, G.M. (2018) Spectroscopic Study of Keto-Enol Tautomerism in N-Arylsalicylaldehyde Derivatives-Hydrogen Bonding and Electronic Effects of P-Substituents. *FUW Trends in Science and Technology Journal.* 3 (1). p.92-95.

Peer Reviewed Subsidy-Earning Journal Research Publications

- Achadu, O.J. and Nyokong, T.
 Achadu, O.J. and Nyokong, T. (2018) Fluorescence "turn-ON" nanosensor for cyanide ion using supramolecular hybrid of graphene quantum dots and cobalt pyrene-derivatized phthalocyanine. *Dyes and Pigments*. 2018. p.1-8.
- Ayeni, A.O. and Watkins, G.M.
 Ayeni, A.O., Watkins, G.M. and Hosten, E.C. (2018) Polymorphism of a new Mannich base-[4-methyl-2-((4-(4-nitrophenyl) piperazin-1-yl) methyl) phenol]. *Journal of Molecular Structure*. 1160 (2018). p.38-45.
- Ayeni, A.O. and Watkins, G.M. (2018) Synthesis and evaluation of catecholase activities of metal complexes of 1, 4-substituted piperazine Mannich Base of 4-acetamidophenol. *Turkish Journal of Chemistry*. 42 (2018). p.1275-1284.
- Ayeni, A.O. and Watkins, G.M. (2018) Biomimetics of mononuclear and dinuclear Cu(II) and Fe(III) complexes of a newly synthesized piperazyl Mannich base with or without thiocyanate towards catechol. *Monatshefte Fur Chemie*. 149 (2018). p.2175-2182.
- Ayeni, A.O., Watkins, G.M. and Hosten, E.C. (2018) Molecular and Crystal structure of a novel Mannich quaternary salt: 3-(dimethylamino)-1-p-tolylpropan-1-one hydrochloride. *Journal of Structural Chemistry*. 59 (7). p.1688-1690.
- Beteck, R.M.
 Beteck, R.M., Isaacs, M., Hoppe, H.C. and Khanye, S.D. (2018) Synthesis, in vitro Cytotoxicity and Trypanosomal Evaluation of Novel 1,3,6-Substituted Non-fluoroquinolones. *South African Journal of Chemistry - Suid-Afrikaanse Tydskrif Vir Chemie*. 71 (2018). p.188-195.
- Bromley, C.
 Bromley, C., Raab, A., Parker-Nance, S., Beukes, D.R., Jaspars, M. and Davies-Coleman, M.T. (2018) Hyphenated LC-ICP-MS/ESI-MS Identification of Halogenated Metabolites in South African Marine Ascidian Extracts. *South African Journal of Chemistry - Suid-Afrikaanse Tydskrif Vir Chemie*. 71 (2018). p.111-117.
- Centane, S., Sekhosana, K.E., Matshitse, R. and Nyokong, T.
 Centane, S., Sekhosana, K.E., Matshitse, R. and Nyokong, T. (2018) Electrocatalytic activity of a push-pull phthalocyanine in the presence of reduced and amino functionalized graphene quantum dots towards the electrooxidation of hydrazine. *Journal of Electroanalytical Chemistry*. 820 (2018). p.146-160.
- Chani, F.M. and Sewry, J.D.
 Chani, F.M., Ngcoza, K.M., Chikunda, C. and Sewry, J.D. (2018) Exploring the Mediation of Learning of Chemical Equilibrium to High-achieving Students in a Selected Senior Secondary School in Namibia. *African Journal of Research in Mathematics, Science and Technology Education*. 22 (3). p.287-296.
- Chindeka, F., Mashazi, P., Britton, J., Fomo, G., Oluwale, D.O., Sindelo, A. and Nyokong, T.
 Chindeka, F., Mashazi, P., Britton, J., Fomo, G., Oluwale, D.O., Sindelo, A. and Nyokong, T. (2018) Optimizing phthalocyanine based dye-sensitized solar cells: The role of reduced graphene oxide. *Synthetic Metals*. 246 (2018). p.236-245.
- Darrell, O.T., Hulushe, S.T., Mtshare, T.E., Beteck, R.M. and Krause, R.W.M.
 Darrell, O.T., Hulushe, S.T., Mtshare, T.E., Beteck, R.M., Isaacs, M., Laming, D., Hoppe, H.C., Krause, R.W.M. and Khanye, S.D. (2018) Synthesis, Antiplasmodial and Antitrypanosomal Evaluation of a Series of Novel 2-Oxoquinoline-based Thiosemicarbazone Derivatives. *South African Journal of Chemistry - Suid-Afrikaanse Tydskrif Vir Chemie*. 71 (2018). p.174-181.
- Davies-Coleman, M.T.
 Milanowski, D.J., Oku, N., Cartner, L.K., Bokesch, H.R., Williamson, R.T., Sauri, J., Liu, Y., Blinov, K.A., Ding, Y., Li, X.C., Ferreira, D., Walker, L.A., Khan, S., Davies-Coleman, M.T., Kelley, J.A., McMahon, J.B., Martin, G.E., and Gustafson, K.R. (2018) Unequivocal determination of caulamidines A and B: application and validation of new tools in the structure elucidation tool box. *Chemical Science*. 9 (2018). p.307-314.
- Dube, E. and Nyokong, T.
 Dube, E. and Nyokong, T. (2018) Effect of gold nanoparticles shape and size on the photophysical/chemical behaviour of symmetric and asymmetric zinc phthalocyanines. *Journal of Luminescence*. 2018. p.1-8.
- Dube, E., Nwaji, N., Mack, J. and Nyokong, T.
 Dube, E., Nwaji, N., Mack, J. and Nyokong, T. (2018) The photophysical/chemical behavior of symmetric and asymmetric zinc phthalocyanines, surface assembled onto gold nanotriangles. *New Journal of Chemistry*. 42 (2018). p.14290-14299.
- Dube, E., Oluwale, D.O. and Nyokong, T.
 Dube, E., Oluwale, D.O. and Nyokong, T. (2018) Improved Photophysical and Photochemical Properties of Thiopheneethoxy Substituted Metallophthalocyanines on Immobilization onto Gold-speckled Silica Nanoparticles. *Photochemistry and Photobiology*. 94 (2018). p.521-531.
- Dube, E., Oluwale, D.O., Prinsloo, E. and Nyokong, T. (2018) A gold-chitosan composite with low symmetry zinc phthalocyanine for enhanced singlet oxygen generation and improved photodynamic therapy activity. *New Journal of Chemistry*. 42 (2018). p.10214-10225.
- Dube, E., Oluwale, D.O., Nwaji, N. and Nyokong, T.
 Dube, E., Oluwale, D.O., Nwaji, N. and Nyokong, T. (2018) Glycosylated zinc phthalocyanine-gold nanoparticle conjugates for photodynamic therapy: Effect of nanoparticle shape. *Spectrochimica Acta Part A - Molecular and Biomolecular Spectroscopy*. 203 (2018). p.85-95.
- Faridoon, H., Mnkandhla, D. and Kaye, P.T.
 Faridoon, H., Mnkandhla, D., Isaacs, M., Hoppe, H.C. and Kaye, P.T. (2018) Synthesis and evaluation of substituted 4-arylimino-3-hydroxybutanoic acids as potential HIV-1 integrase inhibitors. *Bioorganic & Medicinal Chemistry Letters*. 28 (2018). p.1067-1070.
- Fomo, G., Achadu, O.J. and Nyokong, T.
 Fomo, G., Achadu, O.J. and Nyokong, T. (2018) One-pot synthesis of graphene quantum dots phthalocyanines supramolecular hybrid and the investigation of their photophysical properties. *Journal of Materials Science*. 53 (2018). p.538-548.
- Fomo, G., Nwaji, N. and Nyokong, T.
 Fomo, G., Nwaji, N. and Nyokong, T. (2018) Low symmetric metallophthalocyanine modified electrode via click chemistry for simultaneous detection of heavy metals. *Journal of Electroanalytical Chemistry*. 813 (2018). p.58-66.

PUBLICATIONS



Professor Watkins (centre back) overseeing Scifest exploration in the Chemistry lab.
Credit: Department of Chemistry

Gumbo, M., Beteck, R.M., Mandizvo, T. and Khanye, S.D.

Gumbo, M., Beteck, R.M., Mandizvo, T., Seldon, R., Warner, D.T., Hoppe, H.C., Isaacs, M., Laming, D., Tam, C.C., Cheng, L.W., Liu, N., Land, K.M. and Khanye, S.D. (2018) Cinnamoyl-Oxaborole Amides: Synthesis and Their in Vitro Biological Activity. *Molecules*. 23 (2018). p.1-13.

Idowu, M.A., Xego, S., Arslanoglu, Y., Mack, J., Antunes, E. and Nyokong, T.

Idowu, M.A., Xego, S., Arslanoglu, Y., Mack, J., Antunes, E. and Nyokong, T. (2018) Photophysicochemical behaviour and antimicrobial properties of monocarboxy Mg (II) and Al (III) phthalocyanine-magnetite conjugates. *Spectrochimica Acta Part A - Molecular and Biomolecular Spectroscopy*. 193 (2018). p.407-414.

Isalomboto Nkanga, C. and Krause, R.W.M.

Isalomboto Nkanga, C. and Krause, R.W.M. (2018) Abstract: Formulation and characterization of pH-/light-responsive liposomes for macrophage targeted delivery of isoniazid. *Chemical Papers*. 10 (2018). p.24-25.

Isalomboto Nkanga, C. and Krause, R.W.M. (2018) Conjugation of isoniazid to a zinc phthalocyanine via hydrazone linkage for pH-dependent liposomal controlled release. *Applied Nanoscience*. 8 (2018). p.1313-1323.

Isalomboto Nkanga, C., Walker, R.B. and Krause, R.W.M. (2018) pH-Dependant release of isoniazid from isonicotinic acid (4-hydroxy-benzylidene)-hydrazide loaded liposomes. *Journal of Drug Delivery Science and Technology*. 45 (2018). p.264-271.

Kaye, P.T.

Olawode, E.O., Tandlich, R., Prinsloo, E., Isaacs, M., Hoppe, H.C., Sheldon, R., Warner, D.T., Steenkamp, V. and Kaye, P.T. (2018) Synthesis and biological screening of diethyl [N-(thiazol-2-yl)carbamoyl]methylphosphonates. *Arkivoc*. 7 (2018). p.110-118.

Khan, F.I.

Kumar, A., Khan, F.I. and Olaniran, A.O. (2018) Chloroacetaldehyde dehydrogenase from *Ancylobacter aquaticus* UV5: Cloning,

expression, characterization and molecular modeling. *International Journal of Biological Macromolecules*. 114 (2018). p.1117-1126.

Ali, S., Khan, F.I., Chen, W., Rahaman, A. and Wang, Y. (2018) Open and closed states of Mrlip1 DAG lipase revealed by molecular dynamics simulation. *Molecular Simulation*. 44 (18). p.1520-1528.

Gulzar, M., Syed, S.B., Khan, F.I., Khan, P., Ali, S., Hasan, G.M., Taneja, P. and Hassan, M.I. (2018) Elucidation of interaction mechanism of ellagic acid to the integrin linked kinase. *International Journal of Biological Macromolecules*. 2018. p.1-8.

Khan, F.I. and Lobb, K.A.

Beg, A., Khan, F.I., Lobb, K.A., Islam, A., Ahmad, F. and Hassan, M.I. (2018) High throughput screening, docking, and molecular dynamics studies to identify potential inhibitors of human calcium/calmodulin-dependent protein kinase IV. *Journal of Biomolecular Structure & Dynamic*. 2018. p.1-14.

Husain, F.M., Ahmad, I., Khan, F.I., Al-Shabib, N.A., Baig, M.H., Hussain, A., Rehman, M.T., Alajmi, M.F. and Lobb, K.A. (2018) Seed Extract of *Psoralea corylifolia* and Its Constituent Bakuchiol Impairs AHL-Based Quorum Sensing and Biofilm Formation in Food- and Human-Related Pathogens. *Frontiers in Cellular and Infection Microbiology*. 8 (351). p.1-16.

Syed, S.B., Khan, F.I., Khan, S.H., Srivastava, S., Hasan, G.M., Lobb, K.A., Islam, A., Ahmad, F. and Hassan, M.I. (2018) Mechanistic insights into the urea-induced denaturation of kinase domain of human integrin linked kinase. *International Journal of Biological Macromolecules*. 111 (2018). p.208-218.

Mohammad, T., Khan, F.I., Lobb, K.A., Islam, A., Ahmad, F. and Hassan, M.I. (2018) Identification and evaluation of bioactive natural products as potential inhibitors of human microtubule affinity-regulating kinase 4 (MARK4). *Journal of Biomolecular Structure & Dynamics*. 2018. p.1-17.

Syed, S.B., Khan, F.I., Khan, S.H., Srivastava, S., Hasan, G.M., Lobb, K.A., Islam, A., Hassan, M.I. and Ahmad, F. (2018) Unravelling the unfolding mechanism of human integrin linked kinase by

GdmCl-induced denaturation. *International Journal of Biological Macromolecules*. 117 (2018). p.1252-1263.

Khan, S., Khan, F.I., Mohammad, T., Khan, P., Hasan, G.M., Lobb, K.A., Islam, A., Ahmad, F. and Hassan, M.I. (2018) Exploring molecular insights into the interaction mechanism of cholesterol derivatives with the Mce4A: A combined spectroscopic and molecular dynamic simulation studies. *International Journal of Biological Macromolecules*. 111 (2018). p.548-560.

Khanye, S.D. and Lobb, K.A.

Odame, F., Betz, R., Hosten, E.C., Krause, J., Isaacs, M., Hoppe, H.C., Khanye, S.D., Sayed, Y., Frost, C.L., Lobb, K.A. and Tshentu, Z.R. (2018) A New Synthetic Method for Tetraazatricyclic Derivatives and Evaluation of Their Biological Properties. *ChemistrySelect*. 3 (2018). p.13613-13618.

Khene, S.

Gounden, D., Khene, S. and Nombona, N. (2018) Electroanalytical detection of heavy metals using metallophthalocyanine and silica-coated iron oxide composites. *Chemical Papers*. 72 (2018). p.3043-3056.

Krause, R.W.M.

Namondo, B.V., Foba-Tendo, J., Etape, E.P. and Krause, R.W.M. (2018) Potential of blended biomass feedstock from some species of raffia palm (*Raffia farinifera*, *Raffia hookeri* and *Raffia vinifera*) and Oil Palm Empty Fruit Bunch (OPEFB) from Cameroon. *African Journal of Pure and Applied Chemistry*. 12 (4). p.25-33.

Kubheka, G., Sanusi, K., Mack, J. and Nyokong, T.

Kubheka, G., Sanusi, K., Mack, J. and Nyokong, T. (2018) Optical limiting properties of 3,5-dipyrrenylvinylene BODIPY dyes at 532 nm. *Spectrochimica Acta Part A - Molecular and Biomolecular Spectroscopy*. 191 (2018). p.357-364.

Lebechi, A.K., Nyokong, T. and Mack, J.

Lebechi, A.K., Gai, L., Shen, Z., Nyokong, T. and Mack, J. (2018) Electrospun 3,5-dithienylvinyleneBODIPY embedded polystyrene nanofibers for the photocatalytic degradation of azo dyes in industrial wastewaters. *Journal of Porphyrins and Phthalocyanines*. 22 (2018). p.501-508.

Lobb, K.A.

Musyoka, T.M., Tastan Bishop, O., Lobb, K.A. and Moses, V. (2018) The determination of CHARMM force field parameters for the Mg²⁺ containing HIV-1 integrase. *Chemical Physics Letters*. 711 (2018). p.1-7.

Odame, F., Krause, J., Hosten, E.C., Betz, R., Lobb, K.A., Tshentu, Z.R. and Frost, C.L. (2018) Synthesis, Characterization and DPPH Scavenging Activity of some Benzimidazole Derivatives. *Bulletin of the Chemical Society of Ethiopia*. 32 (2). p.271-284.

Odame, F., Hosten, E.C., Betz, R., Lobb, K.A. and Tshentu, Z.R. (2018) Characterization and Computational Studies of a Co-Crystal of 2-Aminobenzimidazole and 2-[(Benzolycarbamothioyl) Amino]Propanoic Acid. *Journal of Structural Chemistry*. 59 (5). p.1200-1204.

Mack, J. and Lobb, K.A.

Liang, X., Li, M., Mack, J., Lobb, K.A. and Zhu, W. (2018) Iron(III)porphyrin electrocatalyzed enantioselective carbon-chloride bond cleavage of hexachlorocyclohexanes (HCHs): combined experimental investigation and theoretical calculations. *Dalton Transactions*. 47 (2018). p.11470-11476.

Mack, J. and Nyokong, T.

Bomanda, B.T., Waudu, W., Ngoy, B.P., Muya, J.T., Mpiana, P.T., Mbala, M., Openda, I., Mack, J. and Nyokong, T. (2018) Photophysical and in vitro Antibacterial Studies of 2,6-Dibromo-BODIPY Dye Substituted with Dithienylenevinylene at 3,5-Positions. *Macrocyclic*. 11 (4). p.429-437.

Abdurrahmanoglu, S., Canlica, M., Mack, J. and Nyokong, T.

(2018) Pyridone substituted phthalocyanines: Photophysical-chemical properties and TD-DFT calculations. *Journal of Porphyrins and Phthalocyanines*. 22 (2018). p.25-31.

Mack, J., Hlatshwayo, Z. and Nyokong, T.

Liang, X., Luo, H., Lan, Y., Zhu, W., Mack, J., Hlatshwayo, Z., Nyokong, T. and Chen, Q. (2018) n - Extended BODIPY Analogues: Synthesis, Electronic Structure, Potential Utility for in vivo Imaging Applications and Cytotoxicity. *Macrocyclic*. 11 (4). p.421-428.

Mack, J., Ndebele, N. and Nyokong, T.

Liang, X., Qin, M., Zhou, L., Liu, T., Li, M., Mack, J., Ndebele, N., Nyokong, T. and Zhu, W. (2018) Porphyrin dimers with a bridging chiral amide-bonded benzo-moiety: Influence of positional isomerism on the molecular chirality. *Dyes and Pigments*. 154 (2018). p.229-233.

Mack, J., Soy, R. and Nyokong, T.

Yuan, X., Li, M., Meng, T., Mack, J., Soy, R., Nyokong, T., Zhu, W., Xu, H. and Liang, X. (2018) Core-modified rubryns with phenanthrene-fused pyrrole rings: Highly selective and tunable response to Hg²⁺ ions. *Dyes and Pigments*. 158 (2018). p.188-194.

Mafukidze, D.M. and Nyokong, T.

Mafukidze, D.M. and Nyokong, T. (2018) A comparative study of the singlet oxygen generation capability of a zinc phthalocyanine linked to graphene quantum dots through π-π stacking and covalent conjugation when embedded in asymmetric polymer members. *Journal of Molecular Structure*. 1180 (2018). p.307-317.

Magadla, A., Oluwole, D.O., Britton, J. and Nyokong, T.

Magadla, A., Oluwole, D.O., Britton, J. and Nyokong, T. (2018) Effect of nature of nanoparticles on the photophysical-chemical properties of asymmetrically substituted Zn phthalocyanines. *Inorganica Chimica Acta*. 482 (2018). p.438-446.

Makinde, Z.O., Louzada, M.S., Britton, J., Nyokong, T. and Khene, S.

Makinde, Z.O., Louzada, M.S., Britton, J., Nyokong, T. and Khene, S. (2018) Spectroscopic and nonlinear optical properties of alkyl thio substituted binuclear phthalocyanines. *Dye and Pigments*. 2018. p.1-8.

Managa, M., Achadu, O.J. and Nyokong, T.

Managa, M., Achadu, O.J. and Nyokong, T. (2018) Photophysical studies of graphene quantum dots - Pyrene-derivatized porphyrins conjugates when encapsulated within Pluronic F127 micelles. *Dyes and Pigments*. 148 (2018). p.405-416.

Managa, M., Britton, J. and Nyokong, T.

Managa, M., Britton, J., Prinsloo, E. and Nyokong, T. (2018) Effects of Pluronic F127 micelles as delivering agents on the *in vitro* dark toxicity and photodynamic therapy activity of carboxy and pyrene substituted porphyrins. *Polyhedron*. 152 (2018). p.102-107.

Managa, M., Khene, S., Britton, J. and Nyokong, T.

Managa, M., Khene, S., Britton, J., Martynov, A.G., Gorbunova, Y.G., Tsivadze, A.Y. and Nyokong, T. (2018) Photophysics and

- NLO properties of Ga(III) and In(III) phthalocyanines bearing diethyleneglycol chains. *Journal of Porphyrins and Phthalocyanines*. 22 (2018). p.137-148.
- Managa, M., Ngoy, B.P., Mafukidze, D.M. and Nyokong, T. Managa, M., Ngoy, B.P., Mafukidze, D.M. and Nyokong, T. (2018) Incorporation of metal free and Ga 5,10,15,20-tetrakis(4-bromophenyl) porphyrin into Pluronic F127-folic acid micelles. *Journal of Luminescence*. 194 (2018). p.739-746.
- Matlou, G.G. and Nyokong, T. Matlou, G.G., Kobayashi, N., Kimura, M. and Nyokong, T. (2018) Physicochemical properties of water-soluble unsymmetrical phthalocyanine-folic acid conjugates. *Dyes and Pigments*. 149 (2018). p.393-398.
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The lecture-demonstration, "A Pollutant's Tale", a Honours Service-learning module at a local school. The students talk to the learners about gases in the air. Seen here, they are blowing up a balloon with either hydrogen or helium, and based on either a pop (helium) or an big explosion (hydrogen) the learners are asked to identify which gas was in the balloon. Credit: Department of Chemistry

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Adeniyi, O.K. and Mashazi, P.

Adeniyi, O.K. and Mashazi, P. Design and evaluation of electrochemical immunosensor for detection of tumour-associated autoantibodies. *28th World Congress on Biosensors 2018*. Hyatt Regency Miami, Miami. United States of America. June 2018.

Beteck, R.M.

Beteck, R.M., Jordaan, A., Warner, D.T., Seldon, R., Laming, D., Hoppe, H.C. and Khanye, S.D. Quinolone-hydrazone/thiosemicarbazones: Synthesis and anti-TB evaluation. *1st Postdoctoral Conference of Southern Africa*. Stellenbosch University, Stellenbosch. South Africa. October 2018.

Beteck, R.M., Jordaan, A., Warner, D.T., Seldon, R., Laming, D., Hoppe, H.C. and Khanye, S.D. Quinolone-hydrazone/thiosemicarbazones: Synthesis and anti-TB evaluation. *9th Annual Interdisciplinary Postgraduate Conference*. Education Department, Grahamstown. South Africa. July 2018.

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Mtshare, T.E., Beteck, R.M. and Khanye, S.D. Design and Synthesis of Quinoliny-thiazolidinedione hybrids as Potential Anti-tubercular Agents. *Invitation 43rd National Convention of the South African Chemical Institute*. CSIR-ICC, Pretoria. South Africa. December 2018.

Ndagano, U.N.

Ndagano, U.N. Lewis acid catalysts from abundant first row elements. *SACI Conference 2018*. Pretoria, South Africa. December 2018.

Nnaji, N.J., Nwaji, N., Fomo, G. and Nyokong, T.

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Nwahara, N., Achadu, O.J. and Nyokong, T.

Nwahara, N., Achadu, O.J. and Nyokong, T. In-situ Synthesis of Gold Nanoparticles on Graphene Quantum Dots-Phthalocyanine Nanoplateforms: First Description of the Photophysical and Surface Enhanced Raman Scattering Behaviour. *International Conference on Surfaces, Coatings and Nanostructured Materials (NANOSMAT-Africa Conference)*. Lord Charles Hotel, Cape Town. South Africa. November 2018.

Nwaji, N., Mack, J. and Nyokong, T.

Nwaji, N., Mack, J. and Nyokong, T. Enhanced Nonlinear Optical responses in benzothiazole substituted ball-type phthalocyanines in the presence of metallic nanoparticles. *10th International Conference On Porphyrins And Phthalocyanines (ICPP-10)*. Westin Grand Munich Hotel, Munich. Germany. July 2018.

Nyokong, T.

Nyokong, T. Design of Phthalocyanines for Photoinactivation of Bacteria and Photodegradation of Pollutants (Invited Speaker). *10th International Conference On Porphyrins And Phthalocyanines (ICPP-10)*. Westin Grand Munich Hotel, Munich. Germany. July 2018.

Nyokong, T. The role of nanostructured materials in enhancing the photophysical behaviour of phthalocyanines (Invited Speaker).

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Oluwole, D.O. and Nyokong, T.

Oluwole, D.O., Manoto, S.L., Mthunzi-Kufa, P. and Nyokong, T. Evaluation of the Photophysicochemical Properties and Photodynamic Therapy Effect of Zinc Phthalocyanine-Metallic Nanoparticles Conjugates. *10th International Conference On Porphyrins And Phthalocyanines (ICPP-10)*. Westin Grand Munich Hotel, Munich. Germany. July 2018.

PUBLICATIONS

Sarron, A., Sewry, J.D. and Lobb, K.A.

Sarron, A., Sewry, J.D. and Lobb, K.A. Activity of Diverse Chalcones Against Targets Known to be Susceptible to the Chemical Functionality: A High-Throughput Virtual Screening Study of an In-House Library of Chalcones Together with Statistical Observations. *GCC 2018, 14th German conference on Chemoinformatics*. Atrium Hotel, Mainz. Germany. November 2018.

Sekhosana, K.E. and Nyokong, T.

Sekhosana, K.E. and Nyokong, T. The optical limiting applicability of blue lanthanide double-decker phthalocyanines at 532 nm. *10th International Conference On Porphyrins And Phthalocyanines (ICPP-10)*. Westin Grand Munich Hotel, Munich. Germany. January 2018.

Sen, P. and Nyokong, T.

Sen, P. and Nyokong, T. Synthesis of Benzimidazole Substituted Zinc Phthalocyanine for Potential use as Photodynamic Therapy Photosensitizer. *43rd SACI National Convention 'Chemistry for a Sustainable African Economy'*. CSIR International Convention Centre, Pretoria. South Africa. December 2018.

Sewry, J.D.

Paphitis, S. and Sewry, J.D. Meeting Important Educational Goals for Chemistry through Service-Learning. *Community Engagement*

and Social Innovation Symposium. Rhodes University, Grahamstown. South Africa. May 2018.

Sindelo, A. and Nyokong, T.

Sindelo, A. and Nyokong, T. Development of Magnetic Nanoparticles-Phthalocyanine Conjugates for Inactivation of Bacteria. *International Conference on Surfaces, Coatings and Nanostructured Materials (NANOSMAT-Africa Conference)*. Lord Charles Hotel, Cape Town. South Africa. November 2018.

Tshiwawa, T., Kaye, P.T. and Lobb, K.A.

Tshiwawa, T., Kaye, P.T. and Lobb, K.A. In Silico Study of the Bioorganic Transformation of o-Coumaric Acid to Coumarins with Chalcone Isomerase Enzymes. *GCC 2018, 14th German Conference on Chemoinformatics*. Atrium Hotel, Mainz. Germany. November 2018.

Watkins, G.M.

Shaibu, O.R. and Watkins, G.M. Synthesis, characterization and biological studies of cobalt(II) Schiff bases derived from o-vanillin with series of aromatic amines. *255th National Meeting of the American Chemical Society*. New Orleans Convention Center, New Orleans, Louisiana. United States of America. March 2018.



Scifest titration workshop with Ms Vuyiseka Makabe (second left).

Credit: Department of Chemistry

Department of Computer Science



Credit: Snow Harris

Professor Alfredo Terzoli
Head of Department

In 2018, the research activities in the Computer Science department were organized around mutually supporting the research groups listed below.

With the exception of BioInformatics, all groups are integrated in the Telkom Centre of Excellence in Distributed Multimedia, a *triple helix* initiative that brings together industry, government and academia to foster innovation to every participant's gain. The longevity of the Centre, as an external funded project, has been remarkable, having started in 1997.

Convergence

(Dr Mosiuoa Tsietsi and Professor Alfredo Terzoli)

This group carries the core activity of the Telkom Centre of Excellence, focusing on the rich intersection of legacy telecommunication systems & organizations and the Internet. The theme for 2018 was '*Software Defined Networks, Network Function Virtualization, Cloud and Fog computing for 5G networks*'.

Security and Networks

(Professor Barry Irwin and Associate Professor Karen Bradshaw)

The Security and Networks Research Group (SNRG) concentrates in the areas of Information Security and Computer Networks, both crucial in modern computing and telecommunications.

ICT for Development

(Professor Alfredo Terzoli and Dr Mosioua Tsietsi)

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

(Associate Professor 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, Microbiology and Biotechnology and focuses on collaborative research to produce computational outcomes of biological significance.

Postgraduates / Graduations

During 2018 the following students were in training:

- Nineteen (19) Honours.
- Nineteen (19) MSc by coursework and research (engaged in the research portion of their studies).
- Eighteen (18) MSc by research.
- Eight (8) PhD.

The following 2018 students graduated:

- Sixteen (16) Honours.
- Ten (10) MSc by coursework and research.
- Three (3) PhD.
- Three (3) extra MSc students by research had their theses successfully examined.

Distinguished Visitors / International Visits

Representatives of the industry partners of the Computer Science department, within the Telkom Centre of Excellence and outside, visited the department during 2018. Staff and students routinely attend overseas conferences. The attendance is often complemented by a visit to an academic institution in the country where the conference takes place.

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 and Coriant (now Infinera).

In January 2018, **Dr Mosiuoa Tsietsi** visited Cape Town for a collaborative meeting with partners from the Department of Future Technologies at the University of Turku (Finland), and a Cape Town based NGO (contextualize.co.za) specializing in ICT4D/participatory design. The purpose was to workshop ideas that would feed into a research proposal under the Southern Africa Innovation Support (SAIS) Programme (<http://www.saisprogramme.org>) focusing on a multi-disciplinary approach toward the development of agricultural solutions for Sub-Saharan Africa employing the Internet of Things (IoT) paradigm.

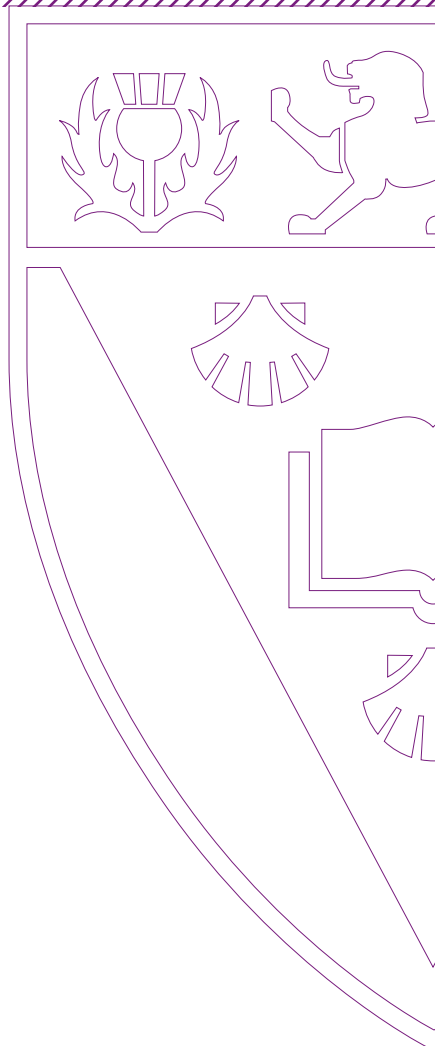
The two (2) day meeting yielded a detailed work plan and identified key technologies that would be employed for this unique context, but also outlined a comprehensive skills-sharing plan that would support mobility between the two (2) partner countries (South Africa and Finland) including opportunities for Postgraduate student exchange.

At the end of February 2018, **Associate Professor Karen Bradshaw** presented, with her German research partners, a short course on Ecological Modelling at the University of the Witwatersrand (WITS) Rural Facility near Hoedspruit. At the beginning of March 2018, she attended the Savanna Network meeting at Skukuza, where research conducted in national parks and other conservation areas was presented. At the end of March she attended the GPU Technology Conference (GTC) in San Jose, California. There she was granted the NVIDIA DLI (Deep Learning Institute) University Ambassadorship. DLI Ambassadors are a select group of DLI Certified Instructors committed to teach DLI workshops and host DLI lab meetups at universities, academic conferences, and events using cloud-based training materials from Nvidia.

The Siyakhula Living Lab (SLL) continued sitting in the Eastern Cape ICT Working Group, which oversees the public ICT activity in the Province, contributing the result of its research in the diffusion of ICT in poor communities. The focus of the Working Group was the implementation of "SA Connect", the national broadband initiative. Two (2) computer labs, of thirty (30) seats, arrived at the end of 2018 from Saab Grintek, as an in-kind contribution to the activities of the Siyakhula Living Lab.

PUBLICATIONS

Department of Computer Science



Concerts, Exhibitions, Performances, Workshops, Events

Machanick, P.

Machanick, P. Presented paper and panel discussion. Project CrayOn: Back to the future for a more General-Purpose GPU? *Second Workshop on Pioneering Processor Paradigms*. Austria Trend Event Hotel Pyramide, Vienna. Austria. 25 February 2018.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bradshaw, K.

Srinivas, S., Mtolo, L.T., Duxbury, T. and Bradshaw, K. (2018) Synergizing Technology and Health Promotion for the Prevention of Tuberculosis. *Journal for New Generation Sciences*. 16 (2). p.127-141.

Mhlongo, M.P., Marara, P., Bradshaw, K. and Srinivas, S. (2018) Health education on diabetes at a South African National Science Festival. *African Journal of Health Professions Education*. 10 (1). p.26-30.

Foss, R. and Devonport, S.

Foss, R. and Devonport, S. (2018) An Immersive Audio Control System Using Mobile Devices and Ethernet AVB-Capable Speakers. *Journal of the Audio Engineering Society*. 66 (9). p.724-733.

Frieslaar, I. and Irwin, B.

Frieslaar, I. and Irwin, B. (2018) Developing an Electromagnetic Noise Generator to Protect a Raspberry Pi from Side Channel Analysis. *SAIEE Africa Research Journal (Transactions of the South African Institute of Electrical Engineers)*. 109 (2). p.85-101.

Kibet, C.K.

Kuria, N., Reid, A., Owiti, P., Tweya, H., Kibet, C.K., Mbau, L., Manzi, M., Murunga, V., Namusonge, T. and Kibachio, J. (2018) Compliance with follow-up and adherence to medication in hypertensive patients in an urban informal settlement in Kenya: comparison of three models of care. *Tropical Medicine & International Health*. 23 (7). p.785-894.

Machanick, P.

Machanick, P. (2018) Editorial: Transitions. *South African Computer Journal*. 30 (2). p.1-2.

Machanick, P. (2018) Editorial: Fit for Review. *South African Computer Journal*. 30 (1). p.1-4.

Terzoli, A., Sieborger, I. and Tsietsi, M.

Terzoli, A., Sieborger, I., Tsietsi, M. and Gumbo, S. (2018) Digital Inclusion: A Model for e-Infrastructure and e-Services in Developing Countries. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering*. 250 (2018). p.85-98.

Peer-reviewed Proceedings

Aschman, M.

Leenen, L., Aschman, M., Grobler, M. and van Heerden, A. Facing the Culture Gap in Operationalising Cyber Within a Military Context. *13th International Conference on Cyber Warfare and Security (ICCWS 2018)*. National Defense University, Washington DC. United States of America. March 2018.

Bradshaw, K.L.

Nhlaphoa, B., Nhokodi, T., Dwani, S., Tandlich, R., Khamanga, S.M., Bradshaw, K.L. and Srinivas, S. Case study on disaster risk reduction and public health implications management in South Africa. *25th TIEMS Anniversary (1993-2018) Conference: Disaster Risk Reduction and Climate Change Mitigation - Plans, Preparation, & Collaborative Strategies*. University of Santo Tomas, Manila. Philippines. November 2018.

Brown, D.L. and Bradshaw, K.

Brown, D.L. and Bradshaw, K. Efficient Biometric Access Control for Larger Scale

PUBLICATIONS

Populations. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Chindipha, S.D., Irwin, B. and Herbert, A.

Chindipha, S.D., Irwin, B. and Herbert, A. Effectiveness of Sampling a Small Sized Network Telescope in Internet Background Radiation Data Collection. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Connan, J.

Wu, Q., Ghaziasgar, M., Dodds, R. and **Connan, J.** Robust Audio-Based Digit Recognition. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Devonport, S. and Foss, R.

Devonport, S. and Foss, R. An Investigation into the Application of Distributed Endpoint Processing to 3D Immersive Audio Reproduction. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Herbert, A.

Burke, I.D., **Herbert, A.** and Mooi, R. Using network flow data to analyse Distributed Reflection Denial of Service (DRDoS) attacks, as observed on the South African National Research and Education Network (SANReN). *SAICSIT 2018 Technology for Change*. Nelson Mandela University, Port Elizabeth. South Africa. September 2018.

Herbert, A. and Irwin, B.

Herbert, A. and Irwin, B. Towards Enhanced Threat Intelligence Through NetFlow Distillation. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

James, K.M.F. and Bradshaw, K.

James, K.M.F. and Bradshaw, K. Combining Machine Learning with Drone Technology for Field Inspections. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Lehata, M. and Connan, J.

Lehata, M. and Connan, J. Predicting Network Traffic Country of Origin Using Generalised Random Decision Forest Classifiers. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Linklater, G., Herbert, A. and Irwin, B.

Linklater, G., Marais, C., Herbert, A. and Irwin, B. Offline-First Design for Fault Tolerant Applications. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Linklater, G., Smith, C., Herbert, A. and Irwin, B. Toward Distributed Key Management for Offline Authentication. *SAICSIT 2018 Technology for Change*. Nelson Mandela University, Port Elizabeth. South Africa. September 2018.

Machanick, P.

Machanick, P. A Preliminary Study of Minimal-Contention Locks. *SAICSIT 2018 Technology for Change*. Nelson Mandela University, Port Elizabeth. South Africa. September 2018.

Magwenzi, T., Tsietsi, M. and Terzoli, A.

Magwenzi, T., Tsietsi, M. and Terzoli, A. Towards a Low-cost



MSc student (Ms Katherine James) collecting image data using the Mavic drone for an environmental bush classification project. Credit: Department of Computer Science



Mavic drone used in image processing and machine learning research projects. Credit: Department of Computer Science

Software-Defined Ethernet Switch Using Open-Source Components. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Marais, K. and Foss, R.

Marais, K. and Foss, R. The Creation of an Immersive Multi-Speaker Audio Capability for VR and Gaming Applications. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Motara, Y.M.

Motara, Y.M. Development of an LCT-Based MOOC Taxonomy. *7th Computer Science Education Research Conference (CSERC 2018)*. St Petersburg. Russia. October 2018.

Motara, Y.M. and Van Der Schyff, K. A functional ontology. *SAICSIT 2018 Technology for Change*. Nelson Mandela University, Port Elizabeth. South Africa. September 2018.

Pennefather, S., Bradshaw, K. and Irwin, B.

Pennefather, S., Bradshaw, K. and Irwin, B. Real-Time Geotagging and Filtering of Network Data using a Heterogeneous NPU-CPU Architecture. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Pennefather, S., Bradshaw, K. and Irwin, B. Exploration and Design of a Synchronous Message Passing Framework for a CPU-



PhD candidate, Mr Sean Pennefather, delivering a presentation on his research on network flow processors at the annual SATNAC conference.
Credit: Department of Computer Science

NPU Heterogeneous Architecture. *2018 IEEE International Parallel and Distributed Processing Symposium Workshops IPDPSW 2018*. Vancouver, British Columbia. Canada. May 2018.

Pennefather, S., Bradshaw, K. and Irwin, B. Extending the NComms Framework for Bulk Data Transfers. *SAICSIT 2018 Technology for Change*. Nelson Mandela University, Port Elizabeth. South Africa. September 2018.

Shaw, B. and Irwin, B.

Shaw, B. and Irwin, B. Hybrid Sensor Simulation within an ICS Testbed. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Vorster, J.

van Heerden, R., Von Solms, S. and **Vorster, J.** Major Security Incidents since 2014: an African Perspective. *2018 IST - Africa Week Conference (IST-Africa 2018)*. Gaborone International Conference Centre, Gaborone. Botswana. May 2018.

Vorster, J. and Irwin, B.

Vorster, J., Irwin, B. and van Heerden, R. Violations of Good Security Practices in Graphical Passwords Schemes: Enterprise Constraints on Scheme-Design. *13th International Conference on Cyber Warfare and Security*. National Defense University, Washington DC. United States of America. March 2018.

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

Pipile, Y.Y., Tsietsi, M. and Terzoli, A.

Pipile, Y.Y., Tsietsi, M. and Terzoli, A. Controlling Irrigation with Soil Moisture Sensors for Efficient Water Usage. *SATNAC 2018: The Data Tsunami - Enabled through Software Defined Transformation*. Arabella, Hermanus, Western Cape. South Africa. September 2018.

Department of Drama



Credit: Snow Harris

Dr Heike Gehring
Head of Department

In 2018, through a combination of performing arts creative practice and the presentation and publication of articles, the department encouraged a dialogical connection between practice and research. This approach consolidated and extended the theatre knowledge-base within the academic programme. The department gives central place to the question of how theatre and performance relates to audiences and the broader society and therefore conducts research *for, through and into* theatre.

Such research requires diverse and applied approaches, allowing space for performers, choreographers, writers, designers and directors to prepare for and create productions. The same industrious effort is required whether one is preparing to work within an applied-theatre context, in a classroom, or in any other learning context. The department regards content and form as equally important, thus requiring that theatrical form is investigated with the same intensity as theatrical content.

The department's synergistic amalgamation of research and practice has led to participation in international conferences, events and workshops. The department was represented nationally and also internationally (Cambodia, Serbia, Japan, Greece, the United Kingdom, the United States of America and Hong Kong).

Dr Gehring and **Mr Parker** delivered papers at a conference in Serbia, while **Ms Mohoto** and **Professor Krueger** participated in creative projects in the United States of America (USA). Professor Krueger, with Professor Megan Lewis, received the 2017 Hiddingh-Curie award for his book *Magnet Theatre: Three Decades of Making Space* (2016). The department hosted a number of distinguished visitors with Ms Selloane Mokuku instrumental in inviting guests and in co-facilitating workshops.

The creative outputs of staff and students were showcased at the National Arts Festival in Grahamstown (now Makhanda); the Klein Karoo National Arts Festival; the Cape Town Fringe Festival; the Drama for Life International Festival in Johannesburg; the Dance Umbrella Festival; the Institute for Creative Arts Live Art Festival;



Applied Theatre - Playback Theatre training.
Credit: Department of Drama

and the Kuwamba Women's Festival. The year ended on a high note when the student production, *Seeing Red*, was invited to perform at the Stockholm Youth Theatre in Sweden.

Professor Buckland performed at the Baxter Theatre and Theatre on the Bay in the production *The Inconvenience of Wings* and he was assistant director of *See You Yesterday* for the Global Arts Corps in Cambodia.

The inspirational work of Research Associate, **Athina Vahla**, culminated in a production for the First Physical Theatre Company, called *DNA*.

Postgraduates / Graduations

Postgraduate students made a strong contribution to creative outputs. Most notably, after winning the National Arts Festival 'Best Ensemble' award, the production, *Seeing Red*, directed by Masters student Mmatumisang Motsisi, received invitations to collaborate and perform nationally and internationally.

Distinguished Visitors / International Visits

Professor Ketu Katrak, researcher, guest lecturer and PhD co-supervisor, brought a wealth of experience in Drama and Dance/Choreography. Her books on current Indian contemporary choreography and postcolonial politics of the female body are relevant to discussion about decolonising curricula.

Ms Mammatti Thakhuli-Nzuza conducted workshops in playback theatre. She is a lecturer at the University of the Witwatersrand (WITS) where she teaches Theatre for Human Rights in the School of Arts, Drama for Life division. She holds a Bachelor of Arts in Dramatic Arts with an Honours degree in Drama in Education and Theatre as Activism. She is the founder of the Mankokosana Playback Theatre Collective and is an accredited Community Capacity Enhancement facilitator.

Mr Selaelo Maredi is a playwright, director and actor who offered lectures on South African protest theatre. In 1971, Maredi was a founder of the



Ukunuka Forum Theatre Project play.
Credit: Kyle Prinsloo

internationally renowned Workshop 71 Experimental Theatre, a unique space where artists could meet beyond race boundaries. Among the plays he has written are: *Prosecution*, *Mboni*, *Bound by Love*, *The sun will soon rise*, *Boobsy Cooksy Doopsy*, *Not gender*, *Hell we can*, *Devine will*, *Breaking the cocoon of ignorance*, *S'kotiphola*, and *Alexandra Child*.

Mr Théogène Niwenshuti conducted workshops on healing through movement. Born in Rwanda, he is a PhD candidate in Anthropology at the University of Cape Town (UCT), and has an MA (*cum laude*) from WITS School of Arts in Johannesburg. He is passionate about using arts-based methods to facilitate interventions focusing on social transformation, community building, human rights, education, conflict/genocide resolution.



Ukunuka Forum Theatre Project play.
Credit: Kyle Prinsloo

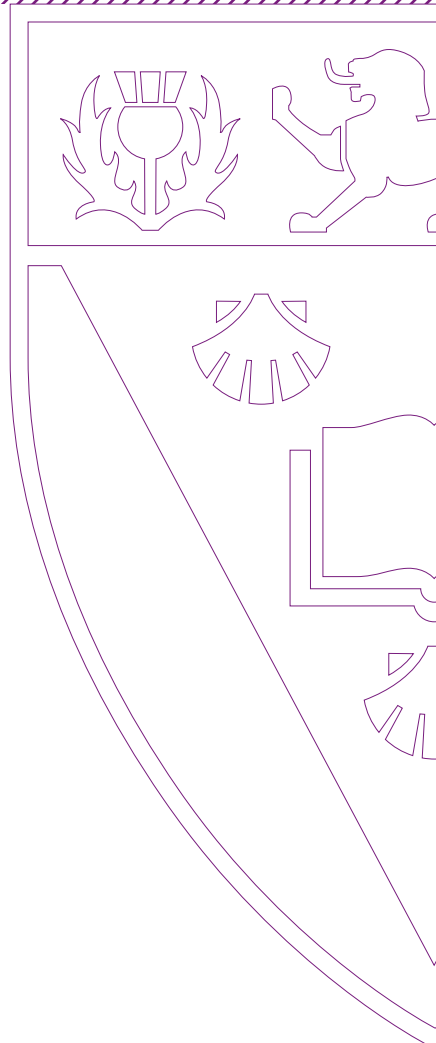
Research-Aligned Events

First Physical - an associate project of the department - offered extensive interaction with the larger Grahamstown community. The BodyForms programme offered somatic training in dance and movement forms and produced four (4) productions: **Athina Vahla's** *DNA*, (Rhodes University Drama department), **Gavin Krastin's** *Yet to be determined*, (National Arts Festival and Institute for Creative Arts Live Art Festival), **Alan Parker's** *Sometimes I have to lean in* (Dance Umbrella Festival and Institute for Creative Arts Live Art Festival), and a production created by **Professor Gary Gordon** for a National Pam Golding Awards Ceremony.

In 2018 Ubom! - another associated project of the Drama department - built the capacity of local unemployed practitioners, scholars, prisoners and others through theatre skills courses. The *Vuka Drama Workshop Programme* offered drama-focused activities for schools; Performing Change Workshops were run at the Grahamstown Correctional Facility for juvenile offenders; and *Fundisa's Fabulous Adventures* was a dynamic event intended to ignite a love of theatre in children. The Makana Drama Development Festival was held during November 2018 in the Rhodes University Theatre.

PUBLICATIONS

Department of Drama



Concerts, Exhibitions, Performances, Workshops, Events

Buckland, A.F.

Buckland, A.F. Assistant Director. Trainer on See You Yesterday. *Global Arts Corps and Phare Ponleu Selpak*. Siem Riep, Battambang and Phnom Peng. Cambodia. 19 March - 4 April 2018.

Buckland, A.F. Performance. *The Inconvenience of Wings*. Baxter Theatre and Theatre on the Bay, Cape Town. South Africa. 29 January - 3 March 2018.

Buckland, A.F. Coordinator, Workshop leader and Director. Workshops. *The Market Theatre Laboratory*. Market Theatre, Johannesburg. South Africa. 2 May - 17 June 2018.

Gehring, H.

Gehring, H. Conceptualiser and Curator. *Open House*. Rhodes Theatre Complex. Makhanda/Grahamstown. 18 - 19 May 2018.

Gehring, H. Presenter. Post-production talks. *Klein Karoo National Arts Festival*. Oudtshoorn. South Africa. 29 March - 4 April 2018.

Krastin, G.

Krastin, G. Creator/Performer. Yet to be determined. *First Physical Theatre Company*. National Arts Festival. Makhanda/Grahamstown. 5 - 7 July 2018.

Krastin, G. Creator/Performer. Yet to be determined. *First Physical Theatre Company*. Rhodes Box Theatre. Makhanda/Grahamstown. South Africa. 7 September 2018.

Krastin, G. Creator/Performer. Yet to be determined. *First Physical Theatre Company*. Rhodes Box Theatre. *ICA Live Art Festival*. Institute for Creative Arts, Cape Town. South Africa. 14 September 2018.

Krueger, A.

Krueger, A. Writer/Performer. Death on The Orange River. *Scifest Murder Mystery*. NELM, Makhanda. South Africa. 10 March 2018.

Mokuku, S.

Mokuku, S. Co-facilitator. Playback Theatre Workshop. Rhodes Box Theatre. Makhanda/Grahamstown. South Africa. 12 - 15 April 2018.

Mokuku, S. Co-facilitator. Theatre for healing with. Rhodes Box Theatre. Makhanda/Grahamstown. South Africa. 18 May 2018.

Parker, A.C.

Parker, A.C. Choreographer/Performer. Sometimes I have to lean in. *ICA Live Art Festival*. Institute for Creative Arts, Cape Town. South Africa. 14 September 2018.

Parker, A.C. Choreographer/Performer. Sometimes I have to lean in. *Dance Umbrella*. The Wits School of Arts, Johannesburg. South Africa. 9 - 10 March 2018.

Vahla, A.

Vahla, A. Choreographer. Ethics. *Edge London Contemporary Dance School*. London. United Kingdom. 8 January - 8 February 2018.

Vahla, A. Choreographer. DNA. *First Physical Theatre Company*. Rhodes Box Theatre. *in the theatre* the Drama department at Rhodes. Makhanda/Grahamstown. South Africa. 7 September 2018.

Vahla, A. Workshop facilitator. Integrated Dance Company, Kyo and the Japanese theatre of the Deaf. *Totto Foundation*. Tokyo. Japan. October 2018.

Other Publications

Krueger, A.

Krueger, A. (2018) Review. *Syncretism? Arts fest says no to all that 1990s nonsense*. South Africa: Sunday Times.

Krueger, A. (2018) *Fringe stalwarts go to great lengths to deliver cutting-edge theatre*. Business Day, 29 June 2018. Johannesburg.

Krueger, A. (2018) *Easter Island [Radio Drama]*. Johannesburg: SAFM.

Krueger, A. (2018) *Art, tech and creativity converge in a new world*. Business Day, 3 July 2018. Johannesburg.

PUBLICATIONS

Krueger, A. (2018) *Word and visual artists fly together*. Business Day, 3 July 2018. Johannesburg.

Krueger, A. (2018) *The lasting value of a literary contributor*. Business Day, 4 July 2018. Johannesburg.

Krueger, A. (2018) *Outrageous reflections of the vulnerability of letting yourself fail*. Business Day, 5 July 2018. Johannesburg.

Krueger, A. (2018) *Fringe Festival's soul-filling and skeleton-shaking sounds*. Business Day, 6 July 2018 Johannesburg.

Krueger, A. (2018) *Working with young children in performance art earns recognition*. Business Day, 9 July 2018. Johannesburg.

Krueger, A. (2018) *Best New African Poets Anthology 2017*. In: Mwanaka, T. (ed.). *Three poems*. Zimbabwe: Mwanaka Media and Publishing.

Krueger, A. (2018) *Normalcy [Poem]*. Johannesburg: Business Day.

Mokuku, S.

Mokuku, S. (2018) *Case Study: The Child I Curry*. In: McAvinchey et al. (ed.). *Phakama: Making Participatory Performance*. p. 46-51. Bloomsbury. United Kingdom.

Peer Reviewed Subsidy-Earning Journal Research Publications

Krueger, A.

Krueger, A. (2018) Revolutionary Trends at the National Arts Festival 2017. *South African Theatre Journal*. 31 (2-3). p.202-210.

Smit, S.

Smit, S. (2018) 'There is nothing to hold onto here': complicity and vulnerability in Gavin Krastin's *On Seeing Red* and *Other Fantasies* (2015). *South African Theatre Journal*. 2018. p.1-15.

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

Gehring, H.

Gehring, H. *Third space as meeting point: beyond first space/second space dualisms*. *International Federation of Theatre Research*. Faculty of Dramatic Arts, University of Arts, Belgrade. Serbia. July 2018.

Krueger, A.

Krueger, A. "All Wounds Speak" - Performing Trauma/Witnessing Trauma. *Drama for Life*. University of Witwatersrand, Johannesburg. South Africa. November 2018.

Parker, A.C.

Parker, A.C. Effigy in the archive: Ritualising performance and the dead in contemporary South African Live Art. *Live Art Network Africa*. Hiddingh Hall, Cape Town. South Africa. February 2018.

Parker, A.C. Conceptualising the role of archival detritus as a 'line of flight' for embodied research practices. *International Federation of Theatre Research*. Faculty of Dramatic Arts, University of Arts, Belgrade. Serbia. July 2018.



Theatre Making for Actors.

Credit: Kyle Prinsloo

Department of Economics and Economic History



Credit: Simon Pamphilon

Professor Hugo Nel
Head of Department

In 2018 the Department of Economics further strengthened its dual Postgraduate research focus in Financial Markets and Environmental and Resource Economics (ENREFA). The former is managed through the Masters in Financial Markets (by coursework and thesis) and subsequent publications from theses, while the latter is housed within the ENREFA special focus research programme.

A total of eleven (11) peer reviewed subsidy-earning publications were produced by staff and Postgraduate students. A variety of topics featured, including some from the above themes. Other publications were on Economic Theory and Policy, Trade Policy and Economics curriculum issues, while Cultural Economics, particularly under the auspices of the South African Cultural Observatory (co-hosted by Rhodes University) also resulted in several research outputs.

Postgraduates / Graduations

Thirteen (13) Masters students completed their degrees. Five (5) of these were by full thesis on a variety of topics, while eight (8) of the students who graduated were registered for a Masters in Financial Markets degree.

Significant Research Aligned Events

Professor Alejandro Nadal of the Centre for Economic Studies of El Colegio de México was a Visiting Professor jointly in the Department of Economics and the Neil Aggett Labour Studies Unit (NALSU) in September 2018. Professor Nadal's publications cover a wide variety of subjects, from technical change and resource management, to macroeconomics and general equilibrium theory. He is the author of *Rethinking Macroeconomics for Sustainability* (Zed Books 2011), a book designed to link the most pressing issues in macroeconomics with the key components of the debate on global sustainability. Professor Nadal delivered a lecture to the second year Microeconomics class and a university seminar hosted by the Economics Department and NALSU, as well as holding wide-ranging discussions with Departmental staff.



Left to right: Mr Raymond Ndhlovu (MCom Economics), Professor Jen Snowball and Ms Fiona Drummond (MCom Economics) attended the international conference of the Association for Cultural Economics (June 2018) in Melbourne, Australia.

Credit: Department of Economics and Economic History

Professor Jen Snowball participated in an international workshop on the roles of intellectual property and diversity in the creative industries: Networking South Africa and the United Kingdom (UK); funded by Arts and Humanities Research Council (AHRC), UK. The workshop was held on 21 September 2018, London. Partners included: University of Fort Hare and Coventry University.

Professor Snowball also delivered the keynote address at the international conference of the Association for Cultural Economics in June 2018, Melbourne, titled: *"Bread or Circuses? Cultural Policy and the Cultural and Creative Industries in Developing Countries: A case study of South Africa"*. Professor Snowball continued to manage the Rhodes component of the South African Cultural Observatory.

South Africa hosted the Summit of the BRICS grouping (Brazil, Russia, India, China and South Africa) in 2018, along with a wide range of high level side events. **Ms Niki Cattaneo** was a South African delegate at the 2018 BRICS Academic Forum held

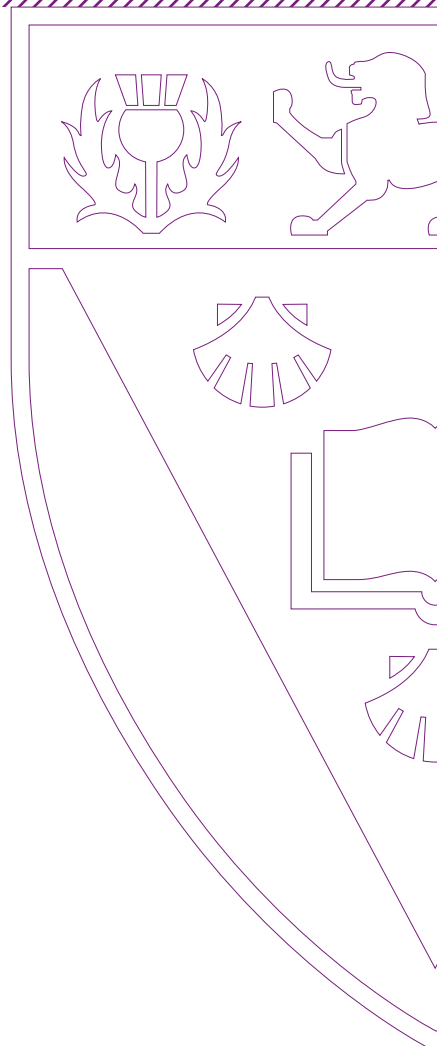
in May, hosted by the South African BRICS Think Tank in Johannesburg. The theme of the Academic Forum was Envisioning Inclusive Development through a Socially Responsive Economy.

Ms Cattaneo was also a Rhodes University delegate at the BRICS Network University Conference in July 2018 in Stellenbosch, hosted by the Department of Higher Education and Training, together with the BRICS Network University. The theme of the conference was *Unlocking BRICS Universities Partnerships: Postgraduate Opportunities and Challenges*.

Professor Gavin Keeton completed his term as President of the Economic Society of South Africa.

PUBLICATIONS

Department of Economics and Economic History



Other Publications

- Cattaneo, N. and Snowball, J.D.**
Cattaneo, N. and Snowball, J.D. (2018) South Africa's trade in cultural goods and services with a focus on cultural trade with BRICS partners. In: *South African Cultural Observatory Report*. Port Elizabeth: South African Cultural Observatory.
- Cattaneo, N. and Snowball, J.D.** (2018) South Africa's cultural goods trade with Africa: policies and trade potentials in the context of the African Continental Free Trade Area Agreement. In: *South African Cultural Observatory Report*. Port Elizabeth: South African Cultural Observatory.

Peer Reviewed Subsidy-Earning Journal Research Publications

- Browne, M., Fraser, G. and Snowball, J.D.**
Browne, M., Fraser, G. and Snowball, J.D. (2018) Economic evaluation of wetland restoration: a systematic review of the literature. *Restoration Ecology*. 26 (6). p.1120-1126.
- Collins, A.**
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Students walking through Rhodes University campus.

Credit: Rhodes University Communications and Advancement Division

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

Fraser, G. and Humprey, L.

Fraser, G., Martin, G.D. and Humprey, L. The Economic Implications of *Robinia pseudoacacia* L. (black locust) on Agricultural Production in South Africa. *56th Annual Conference of the Agricultural Economics Association of South Africa*. The Lord Charles Hotel, Somerset West. South Africa. September 2018.



Credit: Snow Harris

**Professor Emmanuel
Mfanafuthi Mqwashu**
Head of Department

The Faculty of Education's continued commitment to research teaching, research activities and engagement, remain a defining character of every member of staff. From the newer, younger and first generation academics, to seasoned professorate, including permanent and contract academic members of staff, researching our practices has become the *modus operandi* in the Faculty of Education.

Leading by example, the Head of Department (HoD), **Professor Emmanuel Mqwashu**, received his first National Research Foundation (NRF) Rating and was awarded a C3. This is a symbolic gesture recognising the research trajectory and productivity the Education Department continues to maintain.

As the record of our research involvements below shows, our commitment to new knowledge generation cuts across such areas as schooling in all its facets, teaching and learning in higher education and civil society, and community learning via expansive learning research. Most of our work is focused firmly in the service of our town, province, country, continent, and the international community.

Postgraduates / Graduations

In 2018, the Department of Education celebrated the award of a Doctoral degree to one of its academic members of staff, **Dr Farhana Amod Kajee**. Under the supervision of fellow colleagues in the Department, **Professors Hennie van der Mescht** and **Callie Grant**, Dr Kajee's work responds to national and international concerns around the perceived weaknesses in the field of Educational Leadership and Management.

Using Legitimation Code Theory to surface serious discrepancies in terms of both knowledge and knowers across Master's programmes offered by six (6) South African universities, **Dr Kajee** concludes that weak programmes' most significant challenges lay in envisaging students as knowers who were professionally proficient but critically weak, thereby perpetuating the legacy of an impoverished and socially unjust education system. **Dr Kajee's** work makes a major original contribution into the fast growing Educational Leadership and Management field.

We also witnessed the total number of sixty-one (61) BEd Honours, twenty-four (24) MEd and eighteen (18) PhD students graduating.

At the Rhodes University's Annual Vice-Chancellors' Graduation Lunch, to which all PhD and Master's theses supervisors get invited, **Distinguished Professor Heila Lotz-Sisitka** and **Professor Emmanuel Mggwashu** were named among the Top Three (3) most productive academics in terms of postgraduate students' throughput, in positions two (2) and three (3), respectively.

At the same event, the Educational Leadership and Management specialisation was acknowledged for having graduated a record number of eleven (11) full-time MEd students. **Professors Callie Grant** and **Hennie van der Mescht**, and **Dr Farhana Amod Kaje** collectively received acknowledgement for this high throughput rate.

Distinguished Visitors / International Visits

Professor Mggwashu and **Dr Wallace Mataka** (as PhD Scholar at the time) gave a paper at a symposium during 19-21 July 2018 *International Functional Linguistics Congress: re-imagining the future - expanding resources and making connections* which was held at Boston College, United States of America (USA). The title of their presentation was: *Democratising the classroom for epistemological access: the role of Rtl pedagogy in an Eastern Cape Secondary School, South Africa*. From this Congress, **Professor Mggwashu** visited the Lynch School of Education and Human Development, Boston College, Chestnut Hill, USA from 22-26 July 2018. The purpose of this Visitorship at Boston College was to spend time with Professor Stanton Wortham, the Dean of the School.

Professor Wortham's background in linguistic anthropology, with a particular expertise in how identities develop in human interactions and the difference this brings to the process of educating younger learners (pedagogy) and adult university students (andragogy), were the focus of the engagements.

Professor Mggwashu's second Visitorship as Researcher was on 8-14 December 2018 at the University of Bristol in the United Kingdom (UK). The research visit was part of the ESRC-NRF funded

Southern African Rurality in Higher Education (SARiHE) in which the University of Johannesburg, University of Bristol, University of Fort Hare, the University of Brighton and Rhodes University are collaborating. The project is investigating how students negotiate the transition from school and home in rural contexts to 'university learning'. This visit culminated into a Seminar presented in the School of Education entitled: *Knowledge generation and Northern hegemony*.

Professor Schäfer was an invited Guest Professor at the Goethe University in Germany, where he taught Visualization modules to student teachers and consulted on two (2) PhD projects. He also visited Switzerland where a new collaboration project was conceptualized. He was the Plenary Speaker at the 6th International Conference: *Enhancing quality education through innovative pedagogy* hosted by the Federal University of Technology in Minna, Nigeria.

Professor Schäfer also led various Research Methodology workshops during the Visitorship. He was subsequently appointed as Co-Chair for the Visualization Topic Study Group for the *ICME-14 International Congress on Mathematics Education* to be held in China in 2020. He was also appointed as an Associate Editor of the *Eurasia Journal of Mathematics Science and Technology Education*.

During 2018, **Distinguished Professor Lotz-Sisitka** was invited to present thirteen (13) keynote papers in eight (8) countries, including Germany, Hungary (at the *Balaton Group Systems Science Conference*), Norway (at the *International Association of Critical*



Professor Eureka Rosenberg at the OECD Headquarters in Paris, December 2018.

Credit: Faculty of Education

Realism Conference), Colombia (at the *T-learning Colloquium*), Senegal (at the *African Food Sovereignty Alliance Conference*), Ireland (at the *Public Pedagogy and Sustainability Conference*) and in Japan (with Dr McGarry and Injairu Kulundu) in the *Transformations to Sustainability* meeting, and in South Africa where she presented a plenary contribution in the *Department of Science and Technology Global Change Research Conference*.

Dr Dylan McGarry and Ms Injairu Kulundu presented for the Chair's International Science Council T-learning Programme in the World Social Science Conference in Japan in November 2018.

Distinguished Professor Lotz-Sisitka also presented a keynote paper at the *Future Earth Seedbeds of Transformation Conference* hosted in Port Elizabeth to deliberate the Sustainable Development Goals in Africa. Here a twelve (12) point framework for guiding transformations oriented research for Africa was developed.

Scholars and associates of the SARChI Chair in Global Change and Social Learning Systems made various contributions in plenary sessions, workshops, and in coordinating and co-hosting the arts-theme in the conference, as well as the early careers network. The conference was co-organised by Postdoctoral Research Fellow **Dr Dylan McGarry**.

Ms Priya Vallabh, Ms Morakane Madiba and Ms Sheraine van Wyk were successful in attracting an international T-LAB grant focussing on citizen science and sustainability, which they were invited to present at the *Future Earth Seedbeds Conference*, and develop further.

Distinguished Professor Lotz-Sisitka was also invited to serve as a Visiting Professor at Leuphana University in Luneburg, Germany (December 2018), working with colleagues at this university to contribute to the SDG 4.7 working group of the International Association of Universities. The Chair offered two (2) lectures at Leuphana University during this visit.

Distinguished Professor Lotz-Sisitka was nominated to serve on the Council of the International Association of Critical Realism, and also presented a keynote paper at the *IACR Conference* in Norway in August 2018. Here the Chair, together with Research Associate Dr Leigh Price, presented a lecture on the Routledge

publication 'Critical Realism, Environmental Learning and Social-Ecological Change', which earlier won the Cheryl Frank Memorial Prize.

Dr Chikiwa, the researcher on the NRF Mathematics Education Chair held by **Professor Marc Schäfer**, presented at numerous conferences and is leading the new and exciting *Visualization and Language* research agenda. A number of students in collaboration with **Professor Schäfer** and **Dr Chikiwa** presented at conferences in South Africa, Botswana and abroad.

The NRF Mathematics Education Chair's international collaborators in Germany, Switzerland and Namibia continue to thrive, and new collaborations are being established in Zimbabwe and Italy.

Dr Debbie Stott gave three (3) talks at the *Namibia 13th National Mathematics Congress* in Swakopmund in May 2018. The event was attended by approximately three hundred (300) Namibian educators (<https://www.namibian.com.na/177680/archive-read/National-maths-congress-a-success-organiser>).

Professor Mellony Graven presented a workshop for teachers on 'mathematics story time' at the *Queensland Association of Mathematics Teachers annual conference* held in Brisbane, Australia.

Significant Research Aligned Events

The Faculty's Research Chairs continue to make significant contributions to educational knowledge generation and educational development that impact at regional, national, continental and global level. 2018 saw the continuation of the Environmental Learning Research Centre's (ELRC) strong research contribution that impacts our communities.

In 2018 **Distinguished Professor Heila Lotz-Sisitka** in her role as SARChI Chair in Global Change and Social Learning Systems, continued to focus on the key themes of transformative learning and green skills learning pathways research with the Chair being involved in six (6) publications as author or co-author, with Postgraduate scholars associated with the Chair producing a further seven (7) publications. The Chair graduated three (3) PhDs in 2018.

Besides the international and national conference presentations included above, the Chair also offered



Citizen monitor, Rhodes student and Water Affairs official at the Tsitsa River in the Eastern Cape - Ms Hanli Human (centre), with water monitor, Ms Noluthando Grace Saunder (left), and DEA colleague, Ms Dudu Soginga (right).

Credit: Nosiseko Mtati

the Vice Chancellor's Senior Research Award Public Lecture at Rhodes University in May 2018, entitled *'#Transgressive Learning in times of [Climate] Change'*.

An early career research school named the 'Living Aula's', was partly organised by the Chair's T-learning in Times of Climate Change research programme scholars, Colombian T-learning researchers, and the International Science Council (ISC). The early career research school was held in Quindea, Colombia, involving over twenty (25) early career researchers working on transformations research. This overlapped with the final Research School of the ISC T-learning project. **Dr Dylan McGarry** and Research Associate, **Dr Mutizwa Mukute**, both provided strong leading contributions to this international research programme. This ISC funded programme will conclude in 2019, and a special issue journal focussing on transgressive learning in times of climate change is being co-edited by **Distinguished Professor Lotz-Sisitka** and Dr Bengtsson from Uppsala University in Sweden.

Through ongoing work with UNESCO and the Southern African Regional Universities Association, the Chair successfully leveraged 31 million rand (21 Million SEK) from the Swedish International Development Agency (Sida) for a joint project to be implemented by UNESCO's Regional Office for Southern Africa and the SARChI Chair in Global Change and Social Learning Systems.

This programme, titled 'Sustainability Starts with Teachers' will support research and professional development for teacher education in southern Africa, including Early Childhood Education, Primary and

Secondary Education, and Technical Vocational and Training. It builds on a pilot programme implemented by UNESCO, the Chair, SARUA and SWEDES in 2017/18 which worked with ninety (90) secondary teacher education institutions in southern African countries. The focus of this project will be to continue to advance Education for Sustainable Development in eleven (11) southern African countries, working with over one hundred (100) teacher education institutions in the region between 2019-2022. It will also develop M&E indicators for Target 4.7 for Sustainable Development Goal 4, focussing on quality lifelong education and learning.

In 2018, the SARChI Chair also concluded research to inform Chapter 5 of South Africa's Third National Communication (national report) to the United Nations Framework Convention on Climate Change. In this research the Chair reviewed South Africa's educational response to climate change, noting the need for a more systemic, inter-sectoral approach to climate change education, training and public awareness. The Chair, working with Dr Ramsarup at University of the Witwatersrand (Wits) the Centre for Researching Education and Labour (REAL), completed research and drafting of the South African Environmental Education and Training Strategy and Action Plan, which was presented to Working Group 3 of the Department of Environmental Affairs, and is now being ratified at provincial levels before final national approval.

Locally, the Chair's Amanzi for Food research programme continued to strengthen knowledge of new models of vocational education and training, leading to a new research programme which was signed up at the end of 2018 (with Wits REAL and Nottingham University) that will investigate VET 4.0 pedagogy and methodology in Africa.

The Green Skills research programme is coordinated jointly by **Professor Eureka Rosenberg**, Chair of Environment and Sustainability Education in the ELRC, with the Centre for Researching Education and Labour at Wits University, where Rhodes graduate Dr Presha Ramsarup took up the directorship in 2018.

Professor Rosenberg, Dr Ramsarup and Distinguished Professor Lotz-Sisitka received a joint book contract by *Taylor and Francis* to publish

this research. Related publications include a paper on implications for higher education (Rosenberg, E., Lotz-Sisitka, H. and Ramsarup, P. 2018. The green economy learning assessment South Africa. Higher Education, Skills and Work-Based Learning. *In Higher Education, Skills and Work-Based Learning*, 8(3), 243-258, <https://doi.org/10.1108/HESWBL-03-2018-0041>) and a book chapter focussing on the skills dimensions of just social transitions to green economies (Ramsarup, P., Rosenberg, E., Lotz-Sisitka, H. and Jenkin, N. 2018. Green Skills: Transformative Niches for Greening Work. Chapter 8 in: Mohamed, N. (Ed). *Sustainability Transitions in South Africa*, pp. 145-165. Routledge, London).

This programme also produced several proposals that fed into the build-up to the Presidential Job Summit (including Rosenberg, E. 2018. Building system capacity to create jobs: A social action learning model for all job creation initiatives. NEDLAC Jobs Summit Colloquium, 10 July 2018, DBSA). **Professor Rosenberg** also presented this work at the *Green Economy Learning Forum* in Paris. This meeting at the OECD was combined with several *Green Economy Knowledge Forum* events.

The Evaluation Research Programme involved collaboration between the Chair in Environment and Sustainability Education, **Professor Rosenberg**, and Environmental Science at Rhodes University in the development of a research-based Participatory Monitoring, Evaluation, Reflection and Learning framework for a landscape restoration and citizen engagement programme in the Tsitsa basin in the north-eastern Eastern Cape.

Professor Rosenberg presented on the Tsitsa research at the international *Adaptation Futures Conference* in Cape Town (Rosenberg, E. with Biggs, H., Palmer, T. and Cockburn, J. 2018. NLEIP Ecological Infrastructure Programme: The Learning Journey. In a session on Collaborative thinking and collective intelligence on nature based solutions for climate change adaptation and disaster risk reduction. *Adaptation Futures Conference*, 19 June 2018, Cape Town). A paper capturing lessons learnt, led by postdoctoral research fellow, Dr Jessica Cockburn (hosted by the Chair) was published in the journal *Land* (Cockburn, J., Palmer, C.G., Biggs, H. and Rosenberg, E. 2018. Navigating multiple tensions for engaged praxis in a complex social-ecological



MEd student, Ms Nosiseko Mtati (left) and Ms Margaret Wolff (right) share their theory on how to improve collective governance of natural resources, as part of the development of evaluation tools for the Tsitsa Project.


Credit: Department of Education

system. *Land*, 7, 129. <https://www.mdpi.com/2073-445X/7/4/129> The Tsitsa Project provides research opportunities for students and staff.

Building on her Evaluation Research Programme, **Professor Rosenberg** was awarded a second Research Chair funded by BANKSETA and ServiceSETA to the value of R4,5 million. Its aim is to produce an overarching monitoring and evaluation framework for SETAs, with methods, guidelines and capacity development processes. These will eventually be incorporated in a Capstone Course and Short Course modules to be offered by Rhodes in partnership with the Centre for Learning, Evaluation and Research for Anglophone Africa, CLEAR-AA at Wits.

The Environmental Learning Research Centre is making efforts to communicate their research through the Rhodes website as well as social media, with active Twitter accounts in place for @EuretaRose, @RU_elrc2, @GreenSkills_za and @SAJEE_EEJournal.

The NRF Mathematics Education Chair held by **Professor Marc Schäfer** continues to be busy and productive in its endeavors to research and generate new insights and knowledge about visualization processes in Mathematics Education. The research is very multilayered and themed around five major areas: Visualization and cognition; Visualization and pedagogy; Visualization and mathematising; Visualisation and technology; and Visualization and language.



Scholars linked with the Chair are located across South Africa, Namibia and Zambia, mostly framing their research projects within a school context, and centred on an intervention programme that involves either learners or teachers, or a combination of both. Each of the eight (8) PhD scholars' research projects is intricately intertwined with a community development initiative to such an extent that the community development site doubles up as the empirical field of the individual project. The rationale behind this model is that this research work has community impact and benefit and the lessons learned from the community involvement contributes to a wider understanding of teacher development and best practice in the Southern African Region.

Through this PhD network of communities of practice, the Chair reaches out to approximately fifty (50) mathematics teachers and one thousand five hundred (1500) learners. A similar model with the current thirteen (13) MEd student applies. One (1) PhD scholar and five (5) MEd students completed in 2018.

The South African Numeracy Chair led by **Professor Mellony Graven** continued with and completed the Early Numeracy Inquiry Community of Leader Educators (eNICLE) programme started in 2017. In 2017, the Chair designed and began a ten (10) session, research informed early numeracy development programme for local Grade 1 and 2 teachers based around a research informed 'early number resource kit'.

This kit has been provided to all participating teachers for use in their Grade 1 and 2 classrooms. The materials have since been made freely available to DoE District staff and other NGOs who wish to run the programme with non-participant schools and teachers and beyond. In 2018 the remaining six (6) sessions with fifty (50) teachers from fourteen (14) schools were carried out.

The Chair's Family Math Story Time project ran several math story time professional development sessions in a remote rural Aboriginal Australian school, with Foundation Phase teacher aids and teachers/some parents, collaborating with Professor Robyn Jorgensen from the University of Canberra. In addition to these, twelve (12) Maths Clubs, which are part of the work with the Vestas Empowerment Trust, were started in 2018. All had new learners,

totalling one hundred and twenty-seven (127) learners. This is a big increase in numbers of clubs and learners that were involved in the previous year (six (6) clubs and fifty-eight (58) learners in 2017).

The Chair also introduced Maths Club website in collaboration with other organisations around South Africa. Organisations such as Olico, Axiom Education, Wits Maths Connect and Kelello, SANC (through **Debbie Stott**) played a leading role in the conceptualisation and creation of these new Maths Clubs website. The idea behind the website is that resources and activities used by all organisations that run clubs for Grade 1 to 6 learners can be shared freely.

As a result of the extensive collaboration between **Professor Graven** and Postdoctoral Research Fellow **Pam Vale** and **Jana Visnovska** (UQ Australia) and Jose Cortine (Mexico), the Chair has developed a Measurement Story Book (research informed and carefully structured based on established research and teaching sequence) for use with Intermediate Phase learners and teachers. This will form the basis of further research and development work.

In December 2018 Professor Graven and Dr Visnovska trialled the storybook with a group of Australian learners and their facilitators. In 2019 the book will be trialled with Eastern Cape learners and teachers.

Professor Graven was invited to Chair the International Congress on Mathematical Education (ICME) plenary panel for the ICME congress to be held in Shanghai in 2020. The Plenary is on *Math in global education reform: Conversations that need to happen*. ICME is the largest gathering of mathematics educators in the world and attracts more than four thousand (4000) delegates, and is held only every four (4) years.

As members of an international partnership of Education for Sustainable Development teacher educators (ESD Innovate), **Associate Professor Ingrid Schudel** and **Ms Zintle Songqwaru** were part of the organising committee of the bi-annual *International Network of Teacher Education Institutions (INTEI) conference*. This was an online conference held from 13-15 November, 2018.

Starting in 2000, the UNESCO Chair in Reorienting Education towards Sustainability, has facilitated biennial meetings in Canada, South Africa, Sweden, Finland, Turkey, Paris, Canada, Japan, and Sweden. Over the years, INTEL grew from about thirty-five (35) TEIs in thirty-four (34) countries to approximately three hundred (300) TEIs and affiliated organizations in more than seventy (70) countries.

The 2018 conference was ground-breaking as the first online *INTEL conference*, a meeting illustrating that it is possible to curb the ecological footprint of international events while still facilitating lively international dialogue and collaboration.

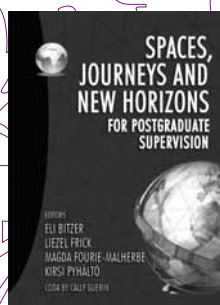
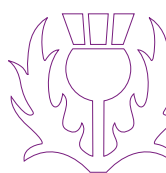
In April 2018, the Environmental Learning Research Centre, hosted the leader of the CYLCES Research Project - Professor Bronwyn Hayward from the University of Canterbury, Christ Church, New Zealand. CYCLES is an international comparative study of the lifestyles and embedded experience of young people aged twelve (12) to twenty-four (24) in urban

communities. Makhanda is one of seven (7) cities represented in this studies, with comparative studies being conducted in the New Zealand, United Kingdom, India, Bangladesh, Japan and Brazil.

In July 2018, Masters student **Ms Lona Musiyiwa** participated in a CYCES research planning meeting at the Centre for Understanding of Sustainable Prosperity (CUSP) in Surrey, UK. In November, 2018, **Associate Professor Ingrid Schudel** and Masters student, **Ms Live Matiwane** travelled to Surrey, UK to participate in the finalisation of Stage 1 of this same project. During this visit they attended the opening of an exhibition of photographs curated by the project in London (The Foundry): https://www.cusp.ac.uk/themes/s1/cycles_london-nov-jan/. This exhibition included photographs taken by Makhanda youth representing their lives in our small city.



eNICLE Session 9, September 2018. Semi structured number lines in the Botanical Gardens.
Credit: Department of Education



Books/Chapters/Monographs

Brown, B.

Brown, B. (2018). Cognition in the world of action. In I. Eloff & E. Swart (Eds.) *Understanding educational psychology 1e*. Pretoria: Juta. p.117-125. ISBN: 9781485102472.

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Grant, C. (2018) Success and failure in two postgraduate research learning spaces: An activity theoretical analysis. In: Bitzer, E., Frick, L., Fourie-Malherbe, M. and Pyhalto, K. (eds.). *Spaces, journeys and new horizons for postgraduate supervision*. Stellenbosch: SUN PRESS. p.29-43. ISBN: 9781928357803.

Grant, C., Naicker, I. and Pillay, S. (2018) Expansive teacher leadership in deprived school contexts. In: *Leadership that works in deprived school contexts of South Africa*. New York: Nova science publishers. p.11-35. ISBN: 9781536130614.

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O'Donoghue, R.

Juan Carlos, A., Rivera, S., Zuany, G.M. and **O'Donoghue, R.** (2018) Mediating Traditional Ecological Knowledge Through Participatory Documentary: Emerging Educational Strategies for Sustainability in Southern Mexico. In: Filho, W.L., Noyola-Cherpit, R., Medellín-Milán, P. and Vargas, V.R. (eds.). *Sustainable Development Research and Practice in Mexico and Selected Latin American Countries*. New York London: Springer. p.315-326. ISBN: 9783319705590.

O'Donoghue, R., Taylor, J. and Venter, V. (2018) How are learning and training environments transforming with ESD. In: Leicht, A., Heiss, J. and Byun, W.J. (eds.). *Issues and trends in Education for Sustainable Development*. France: UNESCO Publishing. p.111-132. ISBN: 9789231002441.

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Pesanayi, V.T. and Lupele, C. (2018) Accelerating sustainable solutions at the local level. In: Leicht, A., Heiss, J. and Byun, W.J. (eds.). *Issues and trends in Education for Sustainable Development*. France: UNESCO Publishing. p.177-196. ISBN: 9789231002441.

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PUBLICATIONS

Ramsarup, P., Ward, M., Jenkin, N. and Lotz-Sisitka, H.
Ramsarup, P., Ward, M., Jenkin, N. and Lotz-Sisitka, H. (2018)
Enabling Green Skills: Pathways to Sustainable Development. A Source Book to Support Skills Planning for Green Economies.
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Concerts, Exhibitions, Performances, Workshops, Events

Knoetze, S., Van Der Mescht, C. and Gush, C.C.
Knoetze, S., Van Der Mescht, C., Gush, C.C., Probert, T.,
 Scheckle, E., Domingo, J., Childs, M. and Donaldson, R. Conference Organisation Committee Member. *Literacy Association of South Africa Annual Conference 2018.* Nelson Mandela University, Uitenhage. South Africa. 4 - 7 October 2018.

Schafer, M.

Schafer, M. Workshop Leader. Interesting and strong research topics and questions. *Invited research methodology workshop at the 6th International Conference of School of Science and Technology Education (SSTE).* Federal University of Technology, Minna. Nigeria. 1 October - 5 January 2018.

Schafer, M. Leader. Writing successful grant proposals. Invited research methodology workshop. *The 6th International Conference of School of Science and Technology Education (SSTE).* Federal University of Technology, Minna. Nigeria. 1 October - 5 January 2018.

Schafer, M. Keynote Address. Visualisation in the teaching and learning of mathematics and science. *6th International Conference of School of Science and Technology Education (SSTE), with theme 'Enhancing Quality Education through Innovative Pedagogy'.* Federal University of Technology, Minna. Nigeria. 1 October - 5 January 2018.

Distinguished Visitors

Charalampopoulou, N.

Dr N Charalampopoulou. Managing Director at Feedback Environmental, *Food For Us July Collaborative Project Workshop Meeting.* July 2018.

Martija, A.

Professor-Dr Andoni Arenus Martija. Profesor Laboratorio Geografía y Educación, Instituto de Geografía, Pontificia Universidad Católica de Valparaíso, Chile. *Geography Education and Research.* August 2018.

Mendoza-Zuany, R.

Professor R Guadalupe Mendoza-Zuany. Universidad Veracruzana, Mexico, *Collaborative Environmental Education Research.* November 2018.

Professor Marilyn Goos

Professor M Goos. University of Limerick. *Editor: Educational Studies in Mathematics.* January 2018.

Gustafson, M.

Associate Professor M Gustafson. Jönköping University, Sweden. *The Linnaes Palmer Project Lecturer Exchange.* February 2018.

Holmberg, J.

Professor J Holmberg. UNESCO Chair and Physics and Sustainability Professor. Chalmers University, Sweden, *Challenge Lab Master Class to Limpopo Basin Curriculum innovation Network December Partner Meeting in Polokwane.* December 2018.

Rousell, C.

Ms C Rousell. African Centre for Biodiversity, *Seed Sovereignty and Activism.* August 2018.

Sandoval Rivera, J.C.A.

Dr JCA Sandoval Rivera. Universidad Veracruzana, Mexico, *Collaborative Environmental Education Research. Photo Exhibition: Challenges and paradoxes of the SDG's in indigenous contexts.* November 2018.

Sporre, K.

Professor K Sporre. Applied Educational Science. Umea University, Sweden, *PhD Teaching Block.* October 2018.

Swanepoel, S.

Dr S Swanepoel. Director of African Earth Rights and a facilitator of the Diploma in Sustainable Development programme at the Sustainability Institute (SI), *UNEP Food for Us Project Workshop.* May 2018.

Taylor, J.

Dr J Taylor. WESSA, *Citizen Sciences Collaboration Project Workshop.* October 2018.

Vermeylen, S.

Dr S Vermeylen. Chancellor's Fellow, Centre for Environmental Law and Governance, University of Strathclyde, United Kingdom. *Uncanny Lore Research Meeting with the Khoi San Council.* June 2018.

Westermarck, A.

Dr A Westermarck. University of Sweden, *The Linnaes Palmer Project Lecturer Exchange.* September 2018.

International Visits

Mgqwashu, E.M.

Mgqwashu, E.M. School of Education, Boston College, Chestnut Hill, MA, USA. Visiting Scholar. 22 - 26 July, 2018.

Mgqwashu, E.M. University of Bristol, UK, Visiting Researcher. 8 - 14 December 2018.

PUBLICATIONS



SANC (South African Numeracy Chair) is in Grahamstown, Eastern Cape. ***
Published by Debbie Stott [?] · 16 August ·

We had a fabulous session with the Grade 1 and 2 teachers on Tuesday. We are starting work with number lines, beginning with structured number lines. We did a lot of work with number lines drawn outside using strong tape or pavement chalk.

One of our participating schools sent some pics of their learners doing number line work outside on Thursday - how wonderful to see the ideas being taken up - making maths come alive for the children!
#SANCeNICLE #SANC



Facebook post about eNICLE Session, August 2018, showing showing the reach and engagements.

Credit: Department of Education

Schafer, M.

Schafer, M. Goethe University, Frankfurt, Germany. Visiting Professor. 6 - 31 March 2018.

Schudel, I.

Schudel, I., Matiwane, L. Surrey, UK, London (The Foundry): https://www.cusp.ac.uk/themes/s1/cycles_london-nov-jan/.

Hayward, B.

Hayward, B. University of Canterbury, Christ Church, New Zealand. July 2018.

Musiyiwa, L.

Musiyiwa, L. CYCES research meeting. Centre for Understanding of Sustainable Prosperity (CUSP). Surrey, UK. November, 2018.

Vale, P

Vale, P. Facilitating conceptual engagement with fractions through engagement in measurement activities: Reflections on a South African case study. University of Queensland School of Education Seminar. Brisbane, Australia. 12 February 2018.

Other Publications

Lotz-Sisitka, H.

Vogel, C., Lotz-Sisitka, H. and McClure, A. (2018) The Geographer: The newsletter of the Royal Scottish Geographical Society (Spring 2018). In: *Narratives of transformations in Africa*. UK: Royal Scottish Geographical Society.

Lotz-Sisitka, H. and Gumede, M.

Lotz-Sisitka, H. and Gumede, M. (2018) Chapter 5.3 and 5.4. In:

South African Third National Communication: Under the United Nations Framework Convention on Climate Change. South Africa: Department of Environmental Affairs.

Matoone, K.

Matoone, K. (2018) The Oppidan Press. In: *ELRC Garden Project. "Is a vegetable Garden a Solution?"* Grahamstown: Rhodes University.

McGarry, D.

McGarry, D. (2018) The Oppidan Press. In: *There is no "away" for e-waste*. Grahamstown: Rhodes University.

McGarry, D. (2018) The Geographer: The Newsletter of the Royal Scottish Geographical Society. In: *Mapping for change in Ethiopia*. UK: Royal Scottish Geographical Society.

Murray, S.R.

Probert, T., Murray, S.R., Pretorius, E., Katz, J.L. and Rees, S.A. (2018) National Framework for the Teaching of Reading in African Languages in the Foundation Phase: DRAFT.

Schudel, I.

Kahn, A., Braid, S., Lodenkemper, L., Conde, L., and Schudel, I. (2018). *Teaching water: Social Sciences Grades 7-9*. Environmental Learning Research Centre, Fundisa for Change.

Schudel, I.

Schudel, I., Songqwaru, Z., and Gustaffson, M. (2018). Realistic Evaluation of Ecological Footprinting Workshop conducted with Jönköping "Global Challenges" students. Report prepared for the Linnaeus Palmer Institute after teaching exchange at Jönköping University. Jönköping, Sweden, 16 April - 7 May, 2018.

Ward, M., Jenkin, N., Lotz-Sisitka, H., Tantsi, T. and Durr, S.

Ward, M., Jenkin, N., Lotz-Sisitka, H., Tantsi, T. and Durr, S. (2018) *Food for Us: reducing food waste, supporting social learning, creating value*. South Africa.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

O'Donoghue, R.

Eames, C., Sund, P., Higuchi, M.I.G., Torres de Oliveira, H. and O'Donoghue, R. (2018) Exploring the Constitution of Environmental Education as Situated, Critical Processes of Learning and Change: A Collaborative Synthesis Across Diverse Regional Contexts. *Pesquisa em Educação Ambiental*. 13 (2018). p.42-60.

O'Donoghue, R. (2018) Critical Theory in Environmental Education: A Situated Review of Emerging Critical Processes for Mediating Learning-Led Change. *Pesquisa em Educação Ambiental*. 13 (2018). p.23-41.

Sandoval Rivera, J.C.A., O'Donoghue, R. and Shava, S. (2018) De sur a sur Tejiendo colaboraciones entre Mexico y Sudáfrica sobre educación y sustentabilidad en contextos culturalmente diversos. *Decisio: Saberes Para La Accion en Educacion de Adultos*. 47 (2018). p.32-37.

Olvitt, L.L. and Lotz-Sisitka, H.

Olvitt, L.L., Lotz-Sisitka, H., Laessoe, J. and Jorgensen, N. (2018) Editorial: Understanding Collective Learning and Human Agency in Diverse Social, Cultural and Material Settings. *Southern African Journal of Environmental Education*. 34 (2018). p.5-13.

Sibanda, J.

Sibanda, J. (2018) Efficacy of written corrective feedback on

university students' writing. *Journal of social sciences*. 45 (2). p.84-95.

Peer Reviewed Subsidy-Earning Journal Research Publications

Botha, L.J. and Baxen, J.

Botha, L.J. and Baxen, J. (2018) Insights from South African students preparing for early childhood teaching: contexts neglected in teacher preparation. *Journal of Education for Teaching*. 44 (4). p.446-460.

Burt, J., James, A. and Price, L.

Burt, J., James, A. and Price, L. (2018) A peaceful revenge: achieving structural and agential transformation in a South African context using cognitive justice and emancipatory social learning. *Journal of Critical Realism*. 17 (5). p.492-513.

Chikiwa, C. and Schafer, M.

Chikiwa, C. and Schafer, M. (2018) Promoting Critical Thinking in Multilingual Mathematics Classes through Questioning. *Eurasia Journal of Mathematics Science and Technology Education*. 14 (8). p.1-15.

Cockburn, J. and Rosenberg, E.

Cockburn, J., Palmer, C.G., Biggs, H. and Rosenberg, E. (2018) Navigating Multiple Tensions for Engaged Praxis in a Complex Social-Ecological System. *Land*. 7 (129). p.1-24.

Dalvit, L. and Miya, M.

Dalvit, L. and Miya, M. (2018) Becoming a Mobile Internet User in a South African Rural Area: The Case of Women in Dwesa. *Smart Innovation, Systems and Technologies*. 80 (2018). p.101-111.

Grant, C.

Grant, C., Quinn, L. and Vorster, J.A. (2018) An exploratory study of Heads of Departments' responses to student calls for decolonised higher education. *Journal of Education*. 72 (2018). p.73-88.

Moorosi, P. and Grant, C. (2018) The socialisation and leader identity development of school leaders in Southern African countries. *Journal of Educational Administration*. 56 (6). p.643-658.

Kulundu, I.

Kulundu, I. (2018) Think Piece Intersectional Resonance and the Multiplicity of Being in a Polarised World. *Southern African Journal of Environmental Education*. 34 (2018). p.91-100.

Lotz-Sisitka, H.

Macintyre, T., **Lotz-Sisitka, H.**, Wals, A., Vogel, C. and Tassone, V. (2018) Towards transformative social learning on the path to 1.5 degrees. *Current Opinion in Environmental Sustainability*. 31 (2018). p.80-87.

Mickelsson, M., Kronlid, D. and **Lotz-Sisitka, H.** (2018) Consider the unexpected: scaling ESD as a matter of learning. *Environmental Education Research*. 2018. p.1-16.

Lotz-Sisitka, H. (2018) Think Piece: Pioneers as Relational Subjects? Probing Relationality as Phenomenon Shaping Collective Learning and Change Agency Formation. *Southern African Journal of Environmental Education*. 34 (2018). p.61-73.

Mavani, D., Mavani, B. and Schafer, M.

Mavani, D., Mavani, B. and Schafer, M. (2018) A Case Study of Two Selected Teachers as they Integrated Dynamic Geometry Software as a Visualisation Tool in Teaching Geometry. *African*

Journal of Research in Mathematics, Science and Technology Education. 22 (3). p.297-307.

Mukute, M. and Mudokwani, K.

Mukute, M., Mudokwani, K., McAllister, G. and Nyikahadzoi, K. (2018) Exploring the Potential of Developmental Work Research and Change Laboratory to Support Sustainability Transformations: A Case Study of Organic Agriculture in Zimbabwe. *Mind Culture and Activity*. 25 (3). p.229-246.

Ngcoza, K.M. and Chikunda, C.

Chani, F.M., Ngcoza, K.M., Chikunda, C. and Sewry, J.D. (2018) Exploring the Mediation of Learning of Chemical Equilibrium to High-achieving Students in a Selected Senior Secondary School in Namibia. *African Journal of Research in Mathematics, Science and Technology Education*. 22 (3). p.287-296.

O'Donoghue, R.

O'Donoghue, R. (2018) Think Piece on Amanzi for Food: Working with Critical Realism to Inform a Situated Learning Framework for Climate Change Education. *Southern African Journal of Environmental Education*. 34 (2018). p.108-120.

O'Keeffe, J.H.

O'Keeffe, J.H. (2018) A Perspective on Training Methods Aimed at Building Local Capacity for the Assessment and Implementation of Environmental Flows in Rivers. *Frontiers in Environmental Science*. 6 (125). p.1-7.

Price, L.

Price, L. and Martin, L. (2018) Editorial: Introduction to the special issue: applied critical realism in the social sciences. *Journal of Critical Realism*. 17 (2). p.89-96.

Ramasike, L.F. and Ngcoza, K.M.

Mukwambo, M., **Ramasike, L.F. and Ngcoza, K.M.** (2018) An Analysis of Language Use in Analogical Indigenous Knowledge Presented in Science Texts. *International Journal of Innovation in Science and Mathematics Education*. 26 (2). p.57-73.

Robertson, S.A. and Graven, M.

Robertson, S.A. and Graven, M. (2018) Exploratory mathematics talk in a second language: a sociolinguistic perspective. *Educational Studies in Mathematics*. 2018. p.1-18.

Robertson, S.A. and Graven, M. (2018) Using a transdisciplinary framework to examine mathematics classroom talk taking place in and through a second language. *ZDM: Mathematics Education*. 50 (2018). p.1013-1027.

Rosenberg, E., Lotz-Sisitka, H. and Ramsarup, P.

Rosenberg, E., Lotz-Sisitka, H. and Ramsarup, P. (2018) The green economy learning assessment South Africa: Lessons for higher education, skills and work-based learning. *Higher Education, Skills and Work-based Learning*. 8 (3). p.243-258.

Sibanda, L. and Graven, M.

Sibanda, L. and Graven, M. (2018) Can mathematics assessments be considered valid if learners fail to access what is asked of them? *South African journal of childhood education*. 8 (1). p.1-12.

Stott, D.

Stott, D. (2018) Observing Aesthetic Experiences and Poesis in Young Students. *For the Learning of Mathematics*. 38 (1). p.7-11.

Stott, D. (2018) Responding to a "new look at the ZPD". For the *Learning of Mathematics*. 38 (1). p.21-23.

Westaway, L. and Graven, M.

Westaway, L. and Graven, M. (2018) Exploring grade 3 teachers' resistance to 'take up' progressive mathematics teaching roles. *Mathematics Education Research Journal*. 2018. p.1-20.

Peer-reviewed Proceedings

Chikiwa, C.

Chikiwa, C. Role of Visualisation in the Teaching and Learning of Mathematics: A Case of Solving Non-Routine Problems. *AMESA 2018: Culture meets culture, mathematics in and around us*. University of Free State, Bloemfontein. South Africa. June 2018.

Chikiwa, C. and Munetsi, M. Incorporating visual strategies for Conceptual Teaching and Learning of Fractions in Grade 9. *AMESA 2018: Culture meets culture, mathematics in and around us*. University of Free State, Bloemfontein. South Africa. June 2018.

Chikiwa, C. and Schafer, M.

Chikiwa, C. and Schafer, M. Multilingual Mathematics Teachers' Use of Verbal Language to Evoke Visual Representations. *Towards Effective Teaching and Meaningful Learning in Mathematics, Science and Technology Education*. Skukuza Camp, Kruger National Park, Mpumalanga. South Africa. October 2018.

Chikiwa, C. and Schafer, M. Code Switching as a Teaching Strategy: What are the Implications for Mathematics Teaching in Multilingual Classrooms? *Pushing sustainable and inclusive quality education through research informed practice in Mathematics, Science and Technology*. University of Botswana, Gaborone. Botswana. January 2018.

Graven, M.

Graven, M. and Jorgensen, R. Unexpected Outcomes of a Family Mathematics Story-Time Program. *MERGA 41: Making Waves, Opening Spaces*. Massey University, Auckland. New Zealand. July 2018.

Jawahar, K.

Jawahar, K. and Pop, C. A legitimization code theory perspective on work- integrated learning in South African school physical science curriculum policy. *3rd International Research Symposium on Cooperative and Work-Integrated Education*. Haus der Wirtschaft, Stuttgart, Baden-Wurtemberg. Germany. June 2018.

Nghifimule, S.N. and Schafer, M.

Nghifimule, S.N. and Schafer, M. Analysing the Role and Use of Visualization Objects in Textbooks in Namibia. *Pursuing sustainable and inclusive quality education through research informed practice in Mathematics, Science and Technology*. University of Botswana, Gaborone. Botswana. January 2018.

Ramasike, L.F. and Ngozo, K.M.

Ramasike, L.F. and Ngozo, K.M. A Diagnostic Assessment of Learners' Prior Electricity Knowledge Before Learning OHM's Law. *Pursuing sustainable and inclusive education through research informed practice in Mathematics, Science and Technology*. University of Botswana, Gaborone. Botswana. January 2018.

Robertson, S.A. and Graven, M.

Robertson, S.A. and Graven, M. Abstract: A Teacher's Challenge in Developing Mathematics Talk for Sense-Making in and Through a Second Language. *MERGA 41: Making Waves, Opening Spaces*. Massey University, Auckland. New Zealand. July 2018.

Sibanda, L.

Sibanda, L. The Linguistic Component in Mathematics Assessment and Attendant Tensions and Dilemmas: The Teachers' Experiences.

Pursuing sustainable and inclusive quality education through research informed practice in Mathematics, Science and Technology. University of Botswana, Gaborone. Botswana. January 2018.

Stevenson-Milln, C.

Stevenson-Milln, C. Contribution to the Development of Self-Regulated Learning Through Merging Music and Mathematics. *MERGA 41: Making Waves, Opening Spaces*. Massey University, Auckland. New Zealand. July 2018.

Stott, D.

Stott, D. Abstract: Can Zone Theory Open Space to Observe Student Agency in Learning? *MERGA 41: Making Waves, Opening Spaces*. Massey University, Auckland. New Zealand. July 2018.

Vale, P.

Vale, P. Linguistic Complexity and Related Student Errors in Mathematical Literacy Examinations: Improving Inclusive Assessment Practices for English Language Learners. *Pursuing sustainable and inclusive quality education through research informed practice in Mathematics, Science and Technology*. University of Botswana, Gaborone. Botswana. January 2018.

Vale, P. and Graven, M.

Visnovska, J., Cortina, J.L., Vale, P. and Graven, M. The Role of the Story in Enabling Meaningful Mathematical Engagement in the Classroom. *MERGA 41: Making Waves, Opening Spaces*. Massey University, Auckland. New Zealand. July 2018.

Vale, P. and Graven, M. Facilitating Conceptual Engagement with Fractions through Suspending the Use of Mathematical Terminology. *The International Group for the Psychology of Mathematics Education (PME)*. Umeå University, Umeå. Sweden. July 2018.

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

Brown, B.

Brown, B., McAuliffe, S. & Lampen, E. (2018). Mathematical thinking and preservice teacher education in South Africa. *WERA world congress 2018: Reimagining worldwide education research* - August 2018, Cape Town, South Africa.

Chikiwa, C.

Chikiwa, C. Understanding teacher language and visualization processes in advancing mathematical thinking in multilingual classes. *The 6th International Conference of School of Science and Technology Education (SSTE)*. Federal University of Technology, Minna. Nigeria. October 2018.

Chikiwa, C. Teaching mathematics using visual models (grades 6 to 9): The case of fractions in South Africa and Namibia. *South Africa International Conference on Education, SAICEd*. Manhattan Hotel, Pretoria. South Africa. September 2018.

Chikiwa, C. and Schafer, M.

Chikiwa, C. and Schafer, M. Multilingual mathematics teachers' use of verbal language to evoke visual representations. *9th Annual UNISA ISTE Conference on Mathematics, Science and Technology Education*. Kruger National Park, Mpumalanga. South Africa. October 2018.

Chikiwa, S.

Chikiwa, S. The role of video analysis in developing the Foundation Phase pre-service teachers' reflective practice and mathematical

PUBLICATIONS

knowledge for teaching. *The 26th Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. University of Botswana, Francistown. Botswana. January 2018.

Cockburn, J.

Cockburn, J. Towards multi-stakeholder collaboration for sustainable landscapes: Lessons from the Langkloof in the Eastern Cape, South Africa. *Rhodes University Environmental Colloquium*. Rhodes University, Grahamstown. South Africa. March 2018.

Cockburn, J. Integrated landscape management for sustainability: Insights from diverse initiatives across South Africa. *Fountainhill Estate Research Symposium*. Wartburg, South Africa. October 2018.

Cockburn, J. and Human, H.

Cockburn, J. and Human, H. PMERL, learning and reflection for strategic adaptive management. *Tsitsa Project Science Management Meeting*. Nahoon, East London. South Africa. November 2018.

Cockburn, J. and Rosenberg, E.

Cockburn, J., Palmer, C.G., Biggs, H. and Rosenberg, E. Learning through reflexive praxis in social-ecological systems: Insights from the Tsitsa Project, Eastern Cape. *4th National Global Change Conference*. Bolivia Lodge, Polokwane. South Africa. December 2018.

Cockburn, J., Cundill, G., Shackleton, S.E. and Rosenberg, E.

Fostering multi-stakeholder collaboration for sustainable landscapes: Insights from the Langkloof in the Eastern Cape, South Africa. *Thicket Forum*. Addo Elephant National Park, Eastern Cape. South Africa. June 2018.

Dongwi, B.L. and Schafer, M.

Dongwi, B.L. and Schafer, M. Visualisation and mathematical reasoning in geometry word problem solving. *Southern African Association for Research in Mathematics, Science & Technology Education (SAARMSTE)*. University of Botswana, Francistown. Botswana. January 2018.

Durr, S.

Durr, S. Exploring how mobile application projects, in small scale farming communities, can enable social learning and boundary crossing in a multi-stakeholder landscape of practice. *Environmental Education Association of Southern Africa (EEASA) Conference*. Livingstone. Zambia. September 2018.

Grant, C.

Quinn, L., Grant, C. and Vorster, J.A. A structural enablement for heads of departments during complex and uncertain times. *Higher Education Learning and Teaching Association for Southern Africa*. Nelson Mandela University, Port Elizabeth. South Africa. November 2018.

Graven, M.

Graven, M. and Venkatakrishnan, H. Promoting teaching and learning of strategic calculation and thinking through diagnostic assessments. *Integrated Education for the Real World 5th International STEM in Education Conference*. Queensland University of Technology, Brisbane. Australia. July 2018.

Human, H.

Human, H. Developing social indicators for the evaluation of natural resource management programmes using a capabilities approach in the Eastern Cape, South Africa. *Tsitsa Project Science Management Meeting*. Nahoon, East London. South Africa. November 2018.

Human, H. and Rosenberg, E.

Human, H. and Rosenberg, E. Evaluating EE and ESD: A workshop

to develop your programme's Theory of Change. *Environmental Education Association of Southern Africa (EEASA) Conference*. Livingstone. Zambia. September 2018.

Ijabadeniyi, A.

Ijabadeniyi, A. Land Acquisition, Resettlement and Social Sustainability. *The University of Groningen, Netherlands Winter/Summer School*. Maputo. Mozambique. August 2018.

Ijabadeniyi, A. and Lotz-Sisitka, H.

Ijabadeniyi, A., Vanclay, F. and Lotz-Sisitka, H. Strengthening Inclusive Value Creation in the Sugar Industry through Social Impact Assessment. *9th Annual Interdisciplinary Postgraduate Conference*. Rhodes University, Grahamstown. South Africa. July 2018.

Kajee, F.A.

Kajee, F.A. Towards Criticality: A socially-just approach in Educational leadership and management, An overview of the literature. *Educational Management Association of South Africa*. East London, South Africa. September, 2018.

Kajee, F.A. Knowledge Practices in MED (ELM) Programmes: Do they foster social and Educational justice. *South African Educational Research Association*. Pretoria, South Africa. October, 2018.

Jawahar, K.

Jawahar, K. and Pop, C. Knowledge-building through WIL contextualisation in the South African School's Chemistry Curriculum. *3rd WIL-AFRICA Cooperative & Work Integrated Education Conference*. Coastlands Umhlanga Convention Centre, Durban, Kwa-Zulu Natal. South Africa. July 2018.

Long, R.

Long, R. Grade R teacher identity in policy. *The 26th Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. University of Botswana, Francistown. Botswana. January 2018.

Lotz-Sisitka, H.

Lotz-Sisitka, H. Invited Keynote: The first thing to find is Justice: Education in times of failure, risk and uncertainty. *Balaton Group Meeting*. Balatonszemes. Hungary. September 2018.

Lotz-Sisitka, H. T-learning in times of climate change. *South Africa-Sweden University Forum (SASUF) Research and Innovation Week*. University of Pretoria, Pretoria. South Africa. May 2018.

Lotz-Sisitka, H. Global Climate Change: Disruption. Stewardship and Re-imagining. Transgression @ the interface of the local/global. *International Education Association of South Africa Conference 2018*. Royal Elephant Conference Venues, Pretoria. South Africa. August 2018.

Lotz-Sisitka, H. Keynote Panel Presentation: Critical Realism and the Sustainable Development Goals. *International Association for Critical Realism (IACR) Conference*. Lillehammer. Norway. August 2018.

Lotz-Sisitka, H. Co-engaged Depth Inquiry and Expansive Learning in/as Critical Realist Research. *International Association for Critical Realism (IACR) Conference*. Lillehammer. Norway. August 2018.

Lotz-Sisitka, H. Keynote address: The SDGs in Africa: Turning and contradictions into learning and research opportunities. *Future Earth Seedbeds Conference*. Port Elizabeth. South Africa. May 2018.

Lotz-Sisitka, H. Plenary Presentation: Review of the T-learning Programme. *Transgressive Learning in Times of Climate Change*. University of Quindio, Armenia. Columbia. June 2018.

Lotz-Sisitka, H. Opening Plenary Address: Sustainability Starts with Teachers. Programme Implementation Framework. *Final*

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UNESCO Sustainability Starts with Teachers Workshop. Johannesburg. South Africa. March 2018.

Lotz-Sisitka, H. Invited keynote presentation: Inclusive sustainable development in times of persistent inequality, climate change and dwindling natural resources. *Eastern Cape Research Conference.* Mpekeni, Eastern Cape. South Africa. July 2018.

Lotz-Sisitka, H. Guest public lecture: University responses to climate change and ESD in southern Africa. Leuphana University, Luneberg. Germany. December 2018.

Lotz-Sisitka, H. Invited Plenary Presentation: SARChI Chair: Global Change and Social Learning Systems. *4th Global Change National Research Conference.* Polokwane. South Africa. December 2018.

Lotz-Sisitka, H. Invited plenary paper: Environment and Sustainability Education Research in South Africa. Some introductory perspectives and links to the theme of (post)humanism and ESE research. *14th International Invitational Seminar on Environment and Sustainability Education Research.* Sustainability Institute, Stellenbosch. South Africa. March 2018.

Lotz-Sisitka, H. #Transgressive Learning in times of [Climate] Change. *Vice Chancellor's Senior Research Award Public Lecture.* Rhodes University, Grahamstown. South Africa. May 2018.

Lotz-Sisitka, H. Climate Change Education and Ethics. UNESCO Panel Discussion on Climate Change Ethics Education. *6th International Conference on Ethics Education (6IAEE).* Spier Conference Centre, Stellenbosch. South Africa. October 2018.

Lotz-Sisitka, H. Keynote address: 'Amplify X 6': Policy Change and why we might need to think beyond policy. *African Food Sovereignty Alliance International Conference 'African Food Systems and the SDGs'.* Dakar. Senegal. November 2018.

Lotz-Sisitka, H. Invited keynote presentation: Public pedagogy & the stinking ontology of sh#t in the water. *Public Pedagogy and Sustainability Challenges Network Meeting.* Maynooth University, Social Science Institute, Dublin. Ireland. November 2018.

Lotz-Sisitka, H. and Jeffrey, T.

Lotz-Sisitka, H. and Jeffrey, T. Opening Address: HumaNature. *SA Museums Conference 2018.* NELM Museum, Grahamstown. South Africa. October 2018.

Lotz-Sisitka, H. and Mandikonza, C.

Lotz-Sisitka, H. and Mandikonza, C. Sustainability Starts with Teachers? Scaling reflexive praxis and agency for mainstreaming Education for Sustainable Development through mediated change-

oriented professional learning. *European Conference on Educational Research 2018 (ECER) Inclusion and Exclusion, Resources for Educational Research?* Bolzano. Italy. September 2018.

Lotz-Sisitka, H. and Pesanayi, V.T.

Lotz-Sisitka, H. and Pesanayi, V.T. Scaling as a Generative Process of Collective Concept Formation. *European Conference on Educational Research 2018 (ECER) Inclusion and Exclusion, Resources for Educational Research?* Bolzano. Italy. September 2018.

Lotz-Sisitka, H. and Price, L.

Lotz-Sisitka, H. and Price, L. Critical Realism, Environmental Learning and Social-Ecological Change. Applied Critical Realism in the field of environmental education. Cheryl Frank Memorial Book Prize Lecture. *International Association for Critical Realism (IACR) Conference.* Lillehammer. Norway. August 2018.

Lotz-Sisitka, H., Kulundu, I. and McGarry, D.

Lotz-Sisitka, H., Kulundu, I. and McGarry, D. Transgressive Learning Research. *Transformations to Sustainability Programme Meeting.* Fukuoka. Japan. September 2018.

Lotz-Sisitka, H., Mukute, M., McGarry, D., Pesanayi, V.T., Mphepo, G., Belay, M. and Mudokwani, K.

Lotz-Sisitka, H., Mukute, M., McGarry, D., Pesanayi, V.T., Mphepo, G., Belay, M., Mudokwani, K., Kassaye, A. and Chiotha, S. Innovations in transgressive social learning for social ecological sustainability in times of climate change (TLearning). *Future Earth Seedbeds Conference.* Port Elizabeth. South Africa. May 2018.

Mashakeni, A.

Mashakeni, A. Enhancing critical thinking through gardening for wildlife. *SAASTEC Conference.* Venda, Limpopo. South Africa. November 2018.

Mashakeni, A. Enhancing critical thinking through gardening for wildlife presentation. *9th Annual NZG Research Symposium.* National Zoological Garden, Pretoria. South Africa. November 2018.

Masuku, L.S.

Masuku, L.S. In-betweenness: An example of socio-cultural intergenerational learning from South Africa. *International Janusz Korczak Association Seminar on Children's Human Rights and Children as Human Rights Defenders according to the UN Convention on the Rights of the Child.* Permanent Mission of the Republic of Poland to the United Nations, Geneva. September 2018.

Mavani, D., Mavani, B. and Schafer, M.

Mavani, D., Mavani, B. and Schafer, M. The use of DGS as a visualisation tool in teaching of Geometry. *Southern African Association for Research in Mathematics, Science & Technology Education (SAARMSTE).* University of Botswana, Francistown. Botswana. January 2018.

Mavani, D., Mavani, B. and Schafer, M. Dynamic Geometry Software as a visualisation tool to enhance the learning of Geometry. *Southern African Association for Research in Mathematics, Science & Technology Education (SAARMSTE).* University of Botswana, Francistown. Botswana. January 2018.

Mellony, G.

Mellony, G. and Robertson, S.A. Addressing and exploring the challenges of numeracy teaching and learning in and through a second language. *Institute for the Learning Sciences and Teacher Education (ILSTE).* Australian Catholic University (ACU). 19 July 2018.

Mellony, G. and Jana Visnovska. *Stories and mathematical learning.* University of Queensland. 2 November 2018.



SANC Project Community Practice Forum Team, October 2018.
Credit: Department of Education

PUBLICATIONS



CYCLES Research team visit to London.

Credit: Department of Education

Mgqwashu, E.M.

Mgqwashu, E.M. Rural-University Transition in Southern Africa: preliminary research findings. *Society for Research in Higher Education (SRHE) International Conference on Research into Higher Education 2018. The changing shape of higher education: Can excellence and inclusion cohabit?* Celtic Manor, Newport, Wales, United Kingdom: 5-7 December 2018.

Mgqwashu, E.M.

Mgqwashu, E.M. Reading to Learn pedagogy: just another fad? *International Functional Linguistics Congress: re-imagining the future - 13 expanding resources and making connections.* Boston College, Chestnut Hill, MA, USA: 19 - 21 July, 2018.

Mgqwashu, E.M.

Mgqwashu, E.M. Rural-University Transition: What Do Students Tell Us? *4th Annual South African National Resource Centre: First Year Experience and Students in Transition Conference.* Garden Court Marine Parade, Durban: 23-24 May 2018.

Mtati, N., Rosenberg, E. and Cockburn, J.

Mtati, N., Rosenberg, E., Biggs, H. and Cockburn, J. Environmental monitoring as a form of Citizen Science in the Natural Resource Management Programmes (NRMPs) in South Africa. *Environmental Education Association of Southern Africa (EEASA) Conference.* Livingstone. Zambia. September 2018.

Mukute, M. and Lotz-Sisitka, H.

Mukute, M., Lotz-Sisitka, H., Odhiambo, B., Mavume, A., Monjane, A., Chingombe, W. and Glasson, A. Higher Education Curriculum Innovation for Climate Change Resilience. Limpopo Basin Curriculum Innovation Network. *4th Global Change National Research Conference.* Polokwane. South Africa. December 2018.

O'Donoghue, R.

O'Donoghue, R. Internet presentation to the North American Network: Emerging CARE rationale and tools for the SPCA_CARE work. *Sustainability Curriculum Consortium.* International Webinar. May 2018.

Olvitt, L.L.

Olvitt, L.L. Values, Ethical Discourses and the Development of Ethico-Moral Agency: An Exploratory Case Study of a Campus Food Gardening Project. *International Association for Critical Realism (IACR) 21st Annual Conference.* Lillehammer. Norway. August 2018.

Olvitt, L.L. and McGarry, D.

Olvitt, L.L. and McGarry, D. Ethical framing of the Sustainable Development Goals in nexus work within the ELRC. *Rhodes*

University Colloquium on Research in Sustainability. Rhodes University, Grahamstown. South Africa. March 2018.

Pesanayi, V.T.

Pesanayi, V.T. Science, Environment and Sustainable Development of Indigenous Education in southern Africa. *Symposium of Indigenous Knowledge and Quality Education: Reaching UNESCO SDGs and Education 2030.* Republic of China. October 2018.

Pesanayi, V.T. and Matiwane, L.M.

Pesanayi, V.T., Shava, S., Ketihloile, M., Moonga, M., Nkusi, M. and Matiwane, L.M. Indigenous Knowledges and ESD - sharing experiences from Southern Africa, an invitation to contribute to the shaping of project on Reorienting Education Systems to Improve the Lives of Indigenous and Marginalized Youth? *Environmental Education Association of Southern Africa (EEASA).* Livingstone. Zambia. September 2018.

Price, L.

Price, L. Keynote Address: Under labouring ecosystem management: the advantages of a stratified ontology for ecology. *International Association for Critical Realism (IACR).* Lillehammer. Norway. September 2018.

Robertson, S.A. and Graven, M.

Robertson, S.A. and Graven, M. A teacher's challenge in developing mathematics talk for sense-making in and through a second language. *41st Annual Conference of the Mathematics Education Research Group of Australasia (MERGA).* Massey University Albany, Auckland. New Zealand. July 2018.

Rosenberg, E.

Rosenberg, E. Keynote address: Africa's Future - In Whose Hands? *36th Annual Conference of EEASA, the Environmental Education Association of Southern Africa, Rethinking Education for Sustainable Development: A Key to Our Future.* Livingstone. Zambia. September 2018.

Rosenberg, E. Building system capacity to create jobs: A social action-learning model for all job creation initiatives. *NEDLAC Jobs Summit Colloquium.* Development Bank of Southern Africa, Midrand. South Africa. July 2018.

Rosenberg, E. Beyond individual training: Four key challenges in transforming the way current and future policy-makers learn. *UNITAR PAGE 2nd Global Forum on Green Economy Learning, held in conjunction with the Sixth GGKP Annual Conference and the 2018 OECD Green Growth and Sustainable Development (GGSD) Forum.* Paris. France. November 2018.

Rosenberg, E. and Cockburn, J.

Rosenberg, E., Biggs, H., Palmer, T. and Cockburn, J. NLEIP Ecological Infrastructure Programme: The Learning Journey. Presented in a session on Collaborative thinking and collective intelligence on nature-based solutions for climate change adaptation and disaster risk reduction: Reflection on actionable science. *Adaptation Futures Conference.* Cape Town. South Africa. June 2018.

Rosenberg, E. and Ramsarup, P.

Rosenberg, E. and Ramsarup, P. The value chain of the plastic water bottle - A new educational activity and launch of the Green Skills Enabling Workbook. *Department of Environmental Affairs Green Skills Roundtable.* Aviator Hotel, Johannesburg. South Africa. March 2018.

Schafer, M.

Schafer, M. From Data to Narrative. *9th Annual UNISA ISTE*

PUBLICATIONS

Conference on Mathematics, Science and Technology Education. Kruger National Park, Mpumalanga. South Africa. October 2018.

Schudel, I.

Schudel, I. Workshop conducted with Jonkoping "Global Challenges" students. *Realistic Evaluation of Ecological Footprinting.* Linnaeus Palmer Institute after teaching exchange at Jonkoping University, Jonkoping. Sweden. May 2018.

Schudel, I. (2018). Transformative learning: Dialectics in learning about nutrition in rural primary school classrooms. Panellist invited to speak at the online conference of the International Network of Teacher Education Institutions (INTEI) associated with the UNESCO Chair on Reorienting Education to Address Sustainability. 13 -15 November 2018.

Schudel, I. Rigour and Validity in Educational Research: Conversations with a constellation of Critical Realists. *International Association for Critical Realism (IACR) Conference.* Lillehammer. Norway. August 2018.

Schudel, I. and Matiwane, L.M.

Schudel, I. and Matiwane, L.M. CYCLES Research Meeting and 'Young lives in seven cities' Exhibition. Centre for the Understanding of Sustainable Prosperity, University of Surrey, London. United Kingdom. November 2018.

Stevenson-Milln, C.

Stevenson-Milln, C. Designing an intervention programme merging music and mathematics in foundation phase. *The 26th Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE).* University of Botswana, Francistown. Botswana. January 2018.

Stott, D.

Stott, D. Can Zone Theory open space to observe student agency in learning? *The 41st Annual Conference of the Mathematics Education Research Group of Australasia (MERGA).* Massey University, Auckland. New Zealand. July 2018.

Stott, D. and Baart, N.

Stott, D. and Baart, N. Visualising grade 6 after-school mathematics club learners shifting mathematical proficiency along a spectrum of progression. *26th Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE).* University of Botswana, Francistown. Botswana. January 2018.

Thifhulufhelwi, R.

Thifhulufhelwi, R., Mponwana, W.O. and Pollard, S. The emergence of systemic adaptive governance practices for global change: From theory to practice in a trans-boundary catchment in Southern Africa. *4th National Conference on Global Change.* Polokwane. South Africa. December 2018.

Thifhulufhelwi, R. and Chikunda, C.

Thifhulufhelwi, R., Graf, J., Mtshali, C. and Chikunda, C. Towards collective learning approaches for natural resource management practices in complex socio-ecological systems: the case of invasive alien plant management in the blyde catchment. *Symposium of Contemporary Conservation Practice.* KwaZulu-Natal Midlands. South Africa. November 2018.

Vale, P. and Graven, M.

Vale, P. and Graven, M. Using fractions as measures for reasoning about fractions: A design experiment. *The 26th Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE).* University of

Botswana, Francistown. Botswana. January 2018.

Visnovska, J., Cortina, J.L., Vale, P. and Graven, M. The Role of the Story in Enabling Meaningful Mathematical Engagement in the Classroom. *The 41st annual conference of the Mathematics Education Research Group of Australasia (MERGA).* Massey University, Auckland. New Zealand. July 2018.

Vallabh, P.

Vallabh, P. Enhancing Postgraduate Environments Colloquium. *Royal Netherlands Embassy Meeting.* Pretoria. South Africa. July 2018.

Vallabh, P. Citizen Science panel presentation - Seeing Science beyond the classroom and institutional convention towards communal and collaborative ownership: Opportunities and threats. *3rd Sayas Science and Society Symposium.* Port Elizabeth. South Africa. March 2018.

Vallabh, P. Preliminary presentation: Social Innovation Lab. *Seedbeds of Transformation Conference.* Port Elizabeth. South Africa. May 2018.

Ward, M.

Ward, M. Water: From Risk to Value Creation. *Sinayo Securities Investors Conference.* Cape Town. South Africa. May 2018.

Ward, M., Jenkin, N., Rosenberg, E. and Mclean, D.

Ward, M., Jenkin, N., Rosenberg, E. and Mclean, D. Protecting and Unlocking Green Jobs through Value Adding Industries and Water Stewardship for SANParks, DEA and Jobs Fund. *Department of Environmental Affairs Green Skills Roundtable.* Aviator Hotel, Johannesburg. South Africa. March 2018.

Westaway, L.

Westaway, L. The role of reflexivity in the expression of teachers' identities in teaching mathematics. *International Group for the Psychology of Mathematics Education (42).* Umea University, Umea. Sweden. January 2018.

Westaway, L. and Chikiwa, S.

Westaway, L., Davis, Z., Mathews, C., Chikiwa, S. and Taylor, N. A research and development project for the development of prospective primary school teachers' competence in understanding and developing number sense. *The 26th Conference of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE).* University of Botswana, Francistown. Botswana. January 2018.



Makhanda Youth photographs displayed at the Foundry in London, United Kingdom. This exhibition includes photographs taken by Makhanda youth representing their lives in Grahamstown.

Credit: Live Matiwane

Department of English Language and Linguistics



Credit: Snow Harris

**Professor Silvester Ronald
Simango**
Head of Department

Staff were active in their research endeavours and had their works presented at international and local conferences and symposia, as well as getting some of their papers published.

Professor Simango gave two (2) keynote addresses at the University of Zimbabwe International Linguistics Conference, and at the 7th International Conference on Bantu Languages in Cape Town. He also had his works presented at the 20th International Congress of Linguists and the 19th Interim Conference of the African Languages Association of Southern Africa (ALASA).

Professor Hunt and **Professor de Vos** presented their work at the 20th International Congress of Linguists in Cape Town. In addition, **Professor de Vos** presented his work on Transforming and Decolonizing Linguistics at workshops at the University of Free State in Bloemfontein and at Nelson Mandela University in Port Elizabeth. He also presented a research paper at the 7th South African Microlinguistic workshop at the University of Venda.

Mr Siebörger presented his work at the 20th International Congress of Linguists in Cape Town, while **Ms Probert** presented her works at Nelson Mandela University and the University of the Witwatersrand (WITS).

Dr Bennett, a Senior Research Associate, presented his work at the 49th Annual Conference on African Linguistics at Michigan State University in the United States of America (USA).

Professor Adendorff continued serving 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** continued to serve as members of the Academy of Science of South Africa. **Professor de Vos** and **Professor Hunt** served as co-presidents of the newly formed Southern African Linguistics and Applied Linguistics Society. **Professor Simango** continued to serve as a non-executive director for the Molteno Institute for Language and Literacy.



The 2017 joint recipients of the Branford Prize - Ms Isabelle Mohr and Ms Bianca Taylor (with envelopes) - pose with Linguistics staff and fellow graduands at the 2018 graduation.

From left: Ms L Buthelezi, Professor RD Adendorff, Professor SA Hunt, Ms E Barron-Le Roux, Ms S Shafli, Mr T Hussey, Ms I Mohr, Professor MA de Vos, Ms B Taylor, Mr I Sieborger, Ms T Probert and Professor SR Simango.

Credit: Professor SR Simango

Postgraduates / Graduations

One (1) student submitted her MA thesis on an aspect of the phonological description of isiXhosa. A number of Postgraduate students presented their works at the annual mini-linguistics conference held at the beginning of September.

Distinguished Visitors / International Visits

The department, at different points in the year, hosted four (4) African Humanities Program Fellows from universities in West Africa - one (1) from Ghana and three (3) from Nigeria. The scholars spent between six (6) and eight (8) weeks in the department and presented their works at research seminars and also interacted with staff and Postgraduate students.

Significant Research Aligned Events

The workshop Transforming and Decolonizing the Linguistics curriculum, convened by **Professor de Vos** and hosted by Nelson Mandela University offered linguists and language practitioners from universities around the country the opportunity to reflect on new directions, curriculum issues as well as research in linguistics and access to the discipline in South Africa.

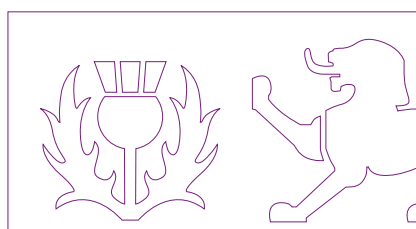


Professor Ron Simango, speaking at the Department's Graduation Reception.

Credit: Rhodes University Communications and Advancement Division

PUBLICATIONS

Department of English Language and Linguistics



Concerts, Exhibitions, Performances, Workshops, Events

De Vos, M.

De Vos, M. Organizer and Presenter. Transformation in linguistics. *Second workshop on Linguistics in a transforming South Africa: perspectives on curriculum, research and disciplinary practice. A joint initiative of LSSA & SAALA.* Free State University, Bloemfontein. South Africa. 18 - 19 January 2018.

Probert, T.

Knoetze, S., Van Der Mescht, C., Gush, C.C., Probert, T., Sheckle, E., Domingo, J., Childs, M. and Donaldson, R. Conference Organisation Committee Member. *Literacy Association of South Africa Annual Conference 2018.* Nelson Mandela University, Port Elizabeth. South Africa. 4 - 7 October 2018.

Distinguished Visitors

Probert, T.

T Probert. University of Georgia, Athens, United States of America. *Public Lecture.* October 2018.

Other Publications

Probert, T., Katz, J.L. and Rees, S.A.

Probert, T., Murray, S.R., Pretorius, E., Katz, J.L. and Rees, S.A. (2018) National Framework for the Teaching of Reading in African Languages in the Foundation Phase: DRAFT.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Bennett, W.G.

Bennett, W.G. (2018) Subject-Auxiliary inversion in interrogative complex NPs. *Snippets.* 32 (2018). p.1-2.

Bloom Strom, E.M.

Bloom Strom, E.M. (2018) Linguistic and Sociolinguistic Aspects of Variation in the Eastern Cape: Complexities of Xhosa Language Use. *Studia Orientalia Electronica.* 6 (2018). p.90-120.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bennett, W.G.

Bennett, W.G. and DelBusso, N. (2018) The typological effects of ABC constraint definitions. *Phonology.* 35 (2018). p.1-37.

Bennett, W.G. and Pulleyblank, D. (2018) Directionality in Nkore-Kiga Sibilant Harmony: Arbitrary or Emergent? *Linguistic Inquiry.* 49 (1). p.1-22.

De Vos, M.

Riedel, K. and De Vos, M. (2018) Editors' Preface - special volume from SAMWOP5 (5th Southern African Microlinguistics Workshop). *Spil: Stellenbosch Papers in Linguistics.* 54 (2018). p.1-3.

Peer-reviewed Proceedings

Bennett, W.G.

Bennett, W.G., Hracs, L. and Storoshenk, D.R. (ed.) (2018) *Proceedings of the 35th West Coast Conference on Formal Linguistics.* Somerville, MA: USA: Cascadia Press. ISBN: 9781574734720.

PUBLICATIONS

De Vos, M. and Hunt, S.

Mesthrie, R., **De Vos, M.**, **Hunt, S.** and Motinyane, M. Language studies in times of transformation: multiple perspectives. *ICL20: International Congress of Linguists: The Dynamics of Language*. Cape Town International Convention Centre, Cape Town. South Africa. July 2018.

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

Bennett, W.G.

Bennett, W.G. Surviving traces of Southern Khoekhoe in South Africa. *49th Annual Conference on African Linguistics (ACAL 49)*. Michigan State University, East Lansing, Michigan. United States of America. March 2018.

De Vos, M.

De Vos, M. and Riedel, K. Transforming and Decolonizing the Linguistics curriculum: responses and challenges. *Language and (de)colonization*. Nelson Mandela University, Port Elizabeth. South Africa. October 2018.

De Vos, M. Transformation in linguistics. *Second workshop on Linguistics in a transforming South Africa: perspectives on curriculum, research and disciplinary practice*. A joint initiative of LSSA & SAALA. Free State University, Bloemfontein. South Africa. January 2018.

De Vos, M. and **Ma, X.** On the absence of VP-ellipsis in isiXhosa and Mandarin. *SAMWOP 7: Southern African Microlinguistics Workshop 7*. University of Venda, Thohoyandou. South Africa. December 2018.

Hunt, S. and De Vos, M.

Hunt, S., **De Vos, M.**, Mesthrie, R. and Motinyane, M. Language Studies In Times Of Transformation: Multiple Perspectives. *International Congress of Linguists*. Cape Town International Convention Centre, Cape Town. South Africa. July 2018.

Probert, T.

Probert, T. Translanguaging for epistemological access in a multilingual pre-Grade-R classroom. *Literacy Association of Southern Africa Annual Conference 2018*. Nelson Mandela University, South Africa. October 2018.

Probert, T. Molo, Goeie môre, Good morning: Exploring translanguaging practices in a multilingual pre-Grade R classroom. *5th International Conference on Language and Literacy Education*. University of the Witwatersrand, Johannesburg. South Africa. August 2018.

Sieborger, I.

Sieborger, I. Political positioning in financial news: the case of South Africa's Business Day. *International Congress of Linguists 20*. Cape Town International Convention Centre, Cape Town. South Africa. July 2018.

Simango, S.R.

Simango, S.R. Spatial Deixis in ciNsenga. *20th International Congress of Linguists*. Cape Town International Conventional Centre, Cape Town. South Africa. July 2018.

Simango, S.R. Multilingual practices and the changing structure of African languages. *University of Zimbabwe Internal Conference on Linguistics*. University of Zimbabwe, Harare. Zimbabwe. February 2018.

Simango, S.R. An analysis of spatial deixis in Bantu. *7th International Conference on Bantu Languages*. University of Cape Town, Cape Town. South Africa. July 2018.

Simango, S.R. Breaching the grammatical fortress of African languages: The case of isiXhosa. *19th Interim Conference of the African Language Association of Southern Africa*. University of Cape Town, Cape Town. South Africa. July 2018.



Professor Ralph Adendorff (left) and Dr Ian Sieborger (right) at the Department's Graduation Reception.

Credit: Rhodes University Communications and Advancement Division

Department of Environmental Science



Credit: Snow Harris

Professor James Gambiza
Head of Department

We have grown the number of our senior Postgraduate students. The number of MSc students is the highest since 2015. The number of registered PhD students was higher than in 2017. All these positive changes are in line with our Departmental vision of growing the number of our postgraduate students (including Honours students). However, we need to increase the throughput rate of our MSc and PhD students.

Our publications in subsidy-earning journals were thirty-six (36). This was slightly lower than in the previous year by five (5) articles. However, conference presentations (thirty-seven (37) versus thirty-three (33)) and book chapters (three (3) versus two (2)) were higher than in the previous year. Furthermore, eight (8) other reports were also published in 2018.

Postgraduates / Graduations

At the end of 2018, there were a total of twenty-three (23) PhD candidates, twenty-eight (28) Masters and fifteen (15) Honours students. Of these, one (1) PhD candidate and seven (7) Masters students graduated.

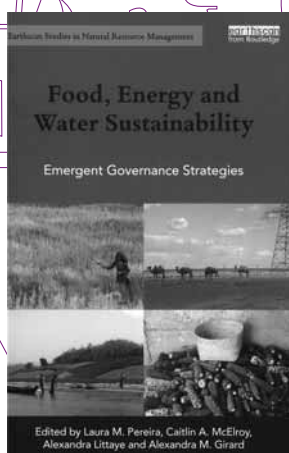
Significant Research Aligned Events

Professor James Gambiza was invited to address the South African Parliament's Environmental Committee on 06 June 2018. He gave an overview of Rhodes University's Department of Environmental Science research programme. He highlighted how the Department's research programmes supported natural resource management and land degradation initiatives in the country.

Professor Gambiza also led the development of South Africa's national land degradation neutrality targets in line with the United Nations Sustainable Development Goal 15 and Target 15.3. The Minister of Environment endorsed the targets in 2018. The targets will guide South Africa's efforts towards achieving land degradation neutrality by 2030.

PUBLICATIONS

Department of Environmental Science



Books/Chapters/Monographs

Cockburn, J.

Cockburn, J., Pereira, L.M., van Niekerk, J. and Koopman, V. (2018) Institutional bricolage to address sustainability challenges in the South African sugarcane industry: A case study of the SUSFARMS initiative in the Midlands area of KwaZulu-Natal, South Africa. In: Pereira, L., McElroy, C.A., Littaye, A. and Girard, A.M. (eds.). *Food, Energy and Water Sustainability*. London: Routledge. p. 133-151. ISBN: 9781138904095.

Cundill, G.

Cockburn, J. and Cundill, G. (2018) Ethics in transdisciplinary research: Reflections on the implications of 'Science with Society'. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p. 81-97. ISBN: 9783319747200.

Pullanikkatil, D.

Pullanikkatil, D., Kaneka, B., Mkanthama, C., Pemba, D. and Chiotha, S. (2018) Public health and population: linkages with climate variability. In: Chiotha, S., Jamu, D., Nagoli, J. and Likongwe, P. (eds.). *Socio-ecological resilience to climate change in a fragile ecosystem: The case of Lake Chilwa Basin, Malawi*. USA: CRC Press. p. 194-208. ISBN: 9781138482678.

Other Publications

Cockburn, J.

Cockburn, J. (2018) Building collaborative stewardship practice in South African landscapes. In: Cockburn, J., Cundill, G. and Shackleton, S. (eds.). *Policy Brief series*. Grahamstown: Department of Environmental Science.

Gambiza, J.

Gambiza, J. (2018) *Final Land Degradation Neutrality Targets for South Africa*. Department of Environmental Affairs.

Gambiza, J. (2018) *Final Report of the Land Degradation Neutrality Target Setting Programme in South Africa*. Department of Environmental Affairs.

Shackleton, C.M.

Shackleton, C.M. (2018) Informal urban firewood markets persist despite large-scale socioeconomic development. *Science Trends*. USA: Science Trends.

Shackleton, C.M. (2018) City green spaces: A necessity rather than a luxury. *African Leadership*. South Africa: African Leadership.

Haynes, D.R., Cocks, M.L. and Shackleton, C.M. (2018) Biocultural features of urban gardens and yards enhance place-making and belonging in South African townships. *Landscape*. Salt Spring Island, Canada: Terralingua publication.

Shackleton, C.M. and Jarrett, M.

Shackleton, C.M. and Jarrett, M. (2018) Urban courses benefit biodiversity. In: *Golf Digest*. South Africa: Golf Digest.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Chakona, G. and Shackleton, C.M.

Chakona, G. and Shackleton, C.M. (2018) Household food insecurity along an agro-ecological gradient influences children's nutritional status in South Africa. *Frontiers in Nutrition*. 4 (72). p.1-13.

Peer Reviewed Subsidy-Earning Journal Research Publications

Biggs, H.

Cockburn, J., Palmer, C.G., Biggs, H. and Rosenberg, E. (2018) Navigating multiple

PUBLICATIONS



PhD candidate, Ms Soumy Kori Veeranna (left) interviewing the gum-resin harvesters while conducting field trips with harvesters in Billigiri Rangaswamy Temple Tiger Reserve, Western Ghats, India.

Credit: Department of Environmental Science

tensions for engaged praxis in a complex social-ecological system. *Land*. 7 (129). p.1-24.

Blair, D., Shackleton, C.M. and Mograbi, P.J.

Blair, D., Shackleton, C.M. and Mograbi, P.J. (2018) Cropland abandonment in South African smallholder communal lands: Land cover change (1950-2010) and farmer perceptions of contributing factors. *Land*. 7 (121). p.1-20.

Bulunga, A.A.L. and Thondhlana, G.

Bulunga, A.A.L. and Thondhlana, G. (2018) Action for increasing energy-saving behaviour in student residents at Rhodes University, South Africa. *International Journal of Sustainability in Higher Education*. 19 (4). p.773-789.

Carlos Bezerra, J.

Carlos Bezerra, J., Sindt, J. and Giessen, L. (2018) The rational design of regional regimes: contrasting Amazonian, Central African and Pan-European Forest Governance. *International Environmental Agreements-Politics Law and Economics*. 18 (2018) p.635-656.

Chakona, G.

Oluwole, D.O., Achadu, O.J., Asfour, F., Chakona, G., Mason, P., Mataruse, P. and McKenna, S. (2018) Postgraduate writing groups as spaces of agency development. *South African Journal of Higher Education*. 32 (6). p.370-381.

Cockburn, J., Cundill, G. and Shackleton, S.E.

Cockburn, J., Cundill, G., Shackleton, S.E. and Rouget, M. (2018) Towards place-based research to support social-ecological stewardship. *Sustainability*. 10 (1434). p.1-21.

Cundill, G.

Cochrane, L. and Cundill, G. (2018) Enabling collaborative synthesis in multi-partner programmes. *Development in Practice*. 28 (7). p.922-931.

Dalu, M.T.B. and Shackleton, C.M.

Dalu, M.T.B. and Shackleton, C.M. (2018) The potential use of natural resources in urban informal settlements as substitutes for financial capital during flooding emergencies. *Physics and Chemistry of the Earth*. 104 (2018). p.18-27.

Dalu, M.T.B., Shackleton, C.M. and Dalu, T. (2018) Influence of land cover, proximity to streams and household topographical location on flooding impact in the Eastern Cape, South Africa.

International Journal of Disaster Risk Reduction. 28 (2018). p.481-490.

De Vos, A.

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- Cundill, G. and Shackleton, S.E.
Cockburn, J., Cundill, G., Shackleton, S.E. and Rosenberg, E. Fostering multi-stakeholder collaboration for sustainable landscapes: Insights from the Langkloof in the Eastern Cape, South Africa.

PUBLICATIONS

Thicket Forum. Addo Elephant National Park, Eastern Cape. South Africa. June 2018.

Enokenwa, O.

Enokenwa, O. Transforming African food systems *vis-a-vis* the Seedbeds of Transformation Conference. *Seedbeds of Transformation Conference*. Port Elizabeth. South Africa. May 2018.

Enokenwa, O. Harnessing the demographic dividend for enhanced food security and disaster risk reduction. *Seedbeds of Transformation Conference*. Port Elizabeth. South Africa. May 2018.

Enokenwa, O., Shackleton, C.M. and Hanack, K.L.

Enokenwa, O., Shackleton, C.M. and Hanack, K.L. How gender and culture affect natural-resource based livelihoods: The case of the Baka community in Cameroon. *5th International Climate Change Adaptation Conference*. Cape Town. South Africa. June 2018.

Francis, B.N., Thondhlana, G. and Shackleton, C.M.

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Gambiza, J.

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Gambiza, J. What are the literacy and learning experiences of honours students in Environmental Science? *South Africa/Sweden Research & Innovation Week*. Pretoria. South Africa. May 2018.

Garekae, H.

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Gwedla, N. and Shackleton, C.M. The barriers to, and enablers of, tree planting in South African low-cost housing areas. *First World Forum on Urban Forests*. Mantova. Italy. November 2018.

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Harvesters harvesting gum-resin from dead *Boswellia serrata* tree in Cauvery Wildlife Sanctuary, Western Ghats, India.

Credit: Department of Environmental Science

PUBLICATIONS

Ledwaba, R.

Ledwaba, R. A time series analysis of Kowie river valley thicket transformation. *Thicket Forum*. Addo Elephant Park, Addo. South Africa. June 2018.

Manyani, A. and Shackleton, C.M.

Manyani, A., Shackleton, C.M. and Cocks, M. How urban dwellers identify with features within urban green spaces in the Eastern Cape. *Green and Social Entrepreneurship for Biodiversity Conservation and Local Development*. KwaZulu-Natal. South Africa. November 2018.

Manyani, A., Shackleton, C.M. and Cocks, M. A closer look at the features within urban green spaces in low-income areas of South Africa. *Research Associate Symposium*. Nelson Mandela University (NMU), Port Elizabeth. South Africa. August 2018.

Manyani, A., Shackleton, C.M. and Cocks, M.L. How urban dwellers identify with natural elements within urban green spaces in the Eastern Cape? *World Forum on Urban Forests*. Teatro Sociale di Mantova, Mantova. Italy. November 2018.

Norman, Y.M.

Norman, Y.M. Modifying the current protocol to improve survivorship of *Portulacaria afra* in Albany thicket of the Baviaanskloof, Eastern Cape. *Thicket Forum*. Addo Elephant Park, Addo. South Africa. June 2018.

Powell, M. and Lunderstedt, K.E.

Powell, M. and Lunderstedt, K.E. Development of a thicket research framework. *Thicket Forum*. Greater Addo Elephant National Park, Addo. South Africa. June 2018.

Powell, M. and Milne, K.

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Shackleton, C.M.

Cocks, M.L. and Shackleton, C.M. Decolonization of nature in towns and cities of South Africa: Incorporation of biocultural values. *XVI Congress of the International Society of Ethnobiology*. HANGAR Convention Center, Belem. Brazil. August 2018.

Walsh, L.S., Cocks, M.L. and Shackleton, C.M. Post-colonial green spaces: can they contribute to notions of improved well-being and belonging in South Africa? *African Centre for Cities Conference*. University of Cape Town, Cape Town. South Africa. February 2018.

Walsh, L.S., Cocks, M.L. and Shackleton, C.M. Urban Wellness: Local urban South African's cultural connections to nature and the well-being implications. *Rhodes University Post-graduate conference (RUPGC)*. Rhodes University, Grahamstown. South Africa. July 2018.

Haynes, D.R., Cocks, M.L. and Shackleton, C.M. Using biocultural diversity for urban place-making among amaXhosa in South Africa. *XVI Congress of the International Society of Ethnobiology*. HANGAR Convention Center, Belem. Brazil. August 2018.

Haynes, D.R., Cocks, M.L. and Shackleton, C.M. Indigenous wellbeing in urban gardens: intersections of traditional medicines, cosmologies and biodiversity in South Africa. *XVI Congress of the International Society of Ethnobiology*. HANGAR Convention Center, Belem. Brazil. August 2018.

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Anderson, P., Cilliers, S., Elmqvist, T., Lwasa, S., O'Farrell, P. and Shackleton, C.M. Why advanced socioecological theory needs Africa: A response to McHale *et al.*, 2013. *African Centre for Cities International Urban Conference*. Cape Town. South Africa. February 2018.

Shackleton, C.M. and Cocks, M. Gardens and well-being: Biocultural approaches to understanding urban biodiversity in South Africa. *URBIO International Network for Urban Biodiversity & Design Conference*. Cape Town. South Africa. September 2018.

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Shackleton, C.M. Favoured and disfavoured trees by urban residents in Zimbabwe and South Africa. *World Forum on Urban Forestry*. Mantova. Italy. December 2018.

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Thondhlana, G.

Thondhlana, G. Not just numbers: The qualitative costs of human-wildlife conflicts. *South Africa/Sweden Research & Innovation Week*. Pretoria. South Africa. May 2018.

Thondhlana, G. Not just numbers: The qualitative costs of human-wildlife conflicts. *International Symposium on Peace Parks*. Cape Town. South Africa. February 2018.

Thondhlana, G. Not just numbers: The qualitative costs of human-wildlife conflicts. *Pathways Africa*. Windhoek. Namibia. January 2018.

Thondhlana, G. Land acquisition for and local livelihood implications of biofuel development in Zimbabwe. *International Symposium on Society and Resource Management*. Utah. United States of America. June 2018.

Thondhlana, G. Insights into the lived experiences of so-called future leaders of historically white institutional evaluation processes. *2nd Annual International Symposium on Higher Education in a Global World*. Athens. Greece. July 2018.

Tricam, S. and Shackleton, C.M.

Tricam, S. and Shackleton, C.M. Avian community patterns in urban domestic gardens of small towns in the Eastern Cape. *URBIO International Network for Urban Biodiversity & Design Conference*. Cape Town. South Africa. September 2018.



Credit: Snow Harris

Professor Maureen de Jager
Head of Department

The Fine Art Department has enjoyed a prolific and rewarding year, engaging in a diversity of research projects and engagements with notable outputs - many at an international level. These include academic publications, conference research papers, and symposia presentations.

Department staff and students have engaged in practice-as-research creative outputs including exhibitions, curation, performances, workshops, residencies, and artists' dialogues. Additionally, contribution to arts community engagement and activism is noted.

A large number of distinguished academics and artists visited and contributed to the department through participation in events and initiatives.

Postgraduates / Graduations

In 2018, the Department graduated three (3) MFA students, Ms Gladys Kalichini and Mr Luthando Mama with distinctions, and Ms Ivy Ng'ok. The students also presented solo exhibitions as part of their practice as-research submissions.

In addition, our Postgraduates participated in numerous exhibitions locally and abroad as contributing and solo artists.

Notably Ms Natasha Bezuidenhout exhibited in three (3) exhibitions and was a finalist in the Sasol New Signatures competition. Mr Brunn Kramer exhibited in three (3) exhibitions including the RMB Turbine Art Fair. Mr Wallen Mapondera exhibited in three (3) exhibitions including a solo exhibition at the Tyburn Gallery in London and one (1) at the SMAC Gallery in Johannesburg. Ms Philiswa Lila exhibited her Gerald Sokoto ABSA L'Atelier Art Award exhibition at the ABSA Gallery in Johannesburg.

Distinguished Visitors / International Visits

A number of staff members and Postgraduate students embarked on research visits abroad. These included **Professor de Jager** who travelled to Birkbeck University of London, United Kingdom, to present at the Violence and Society International Conference.



Arts of Africa Team 2018.

Credit: Department of Fine Art

Ms Christine Dixie attended the Kaunas Art Festival in Lithuania to present her exhibition *To Be King*. She also delivered a public address at the Vilnius Academy of Art contextualising the installation.

Dr Sharlene Khan visited the University of Sussex where she presented a paper at the Decolonial Transformations Conference. Dr Khan also took up the African Humanities Postdoctoral Research Fellowship Residency at the University of Ibadan, Nigeria.

Professor Ruth Simbao presented a keynote address at the International Bandung School Workshop, Nanshan Campus of the China Academy of Art, in Hangzhou, China. She also attended the RAW Material Company Condition Report 3 Symposium on “Art History in Africa” at the Musée des Civilisations Noires, in Dakar, Senegal. Professor Simbao was invited as a guest by the Center for African Studies at Peking University in Beijing, China, and additionally travelled to Accra, Ghana for contemporary research on the Chale Wote Street Art Festival.

Professor Dominic Thorburn attended the IMPACT 10 International Multidisciplinary Printmaking Conference in Santander, Spain where he presented an exhibition and a paper at The Social and Cultural Action Center of Caja Cantabria (CASYS). He was also an invited artist and keynote speaker at the 2nd International Academic Printmaking Alliance (IAPA)

Conference, Taoxichuan Art Museum, Jiangdezhen, China.

Two (2) Postgraduate students embarked on international visits. Ms Nancy Dantas presented a paper at the Association for Art History Annual Conference, at the prestigious Courtauld Institute of Art in London, United Kingdom. Ms Gladys Kalichini travelled to Lagos, Nigeria to present a conference paper at the Centre for Contemporary Art.

The Fine Art Department hosted many distinguished visiting academics and artists. Included were Mr Mphapho Hlasane who convened a Zine Workshop, Ms Helene van Aswegen ran a book-arts workshop, Mr Jonathan Silverman conducted a painting workshop, and Mr Abri de Swart delivered Studio Practice lectures. Dr Thembinkosi Goniwe was an art history and visual culture guest lecturer.

Two (2) projects initiated by the Arts of Africa and Global Souths Research Programme attracted a number of international visitors.

The Artists-and-Writers-in-Residence program (RAW) hosted Professor Adepeju Layiwola and Dr Patrick Oloko both from the University of Lagos, Nigeria. Mr Moffat Takadiwa from Harare, Zimbabwe and Dr Nadine Siegert from the University of Bayreuth, Germany also participated.

The PROSPA Publishing Workshop hosted Ghana participants, Dr Dorothy Akpene Amenuke, Dr kaçri'kachä seid'ou, Dr Edwin Kwesi Bodjawah, Mr George Ampratwum, Mr Kwaku Boafo Kissiedu, Mr Ibrahim Mohammed Mahama. Professor Adepeju Layiwola and Postdoctoral Research Fellow Dr Stephen Folaranmi from Nigeria also attended.

The department was also honoured to host visiting artists Dr Bernard Akoi-Jackson and Mr Bright Ackwerh from Ghana, Dr Angelo Kakande (African Humanities Program Fellow) from Uganda and Dr Eytayo Ijisakin from Nigeria.

Significant Research Aligned Events

The exhibition *Converge* at the National Arts Festival was an international collaborative project run by students and staff of the National Research Foundation (NRF) SARCHI programme Geopolitics and the Arts of Africa, and it included artists from South Africa, Zimbabwe, Tanzania, Zambia and Ghana. A number of Rhodes Fine Art postgraduate and undergraduate students participated. The Arts Lounge Africa programme invited Mr Bernard Akoi-Jackson from Kumasi, Ghana, as the guest artist and performer.

The SARCHI programme opened its new space and RAW Spot Gallery in June 2018 with the inaugural exhibition *Return* by Professor Peju Layiwola from the University of Lagos. Professor Layiwola spent two (2) months at Rhodes as an Artist-in-Residence, and Dr Patrick Oloko was the Writer-in-Residence who wrote about her work.

Mr Moffat Takadiwa, a Harare-based artist, also spent two (2) months in the Department as an Artist-in-Residence, and he involved a number of undergraduate Fine Art students in preparation for his exhibition.

Internationally renowned Ghanaian artist Mr Bright Ackwerh held his first solo exhibition at Rhodes University. "Where de cho dey?" was curated by **Professor Ruth Simbao** at the RAW Spot Gallery and formed part of a Postgraduate seminar on Southern Epistemologies organized in collaboration with the School of Journalism and Media Studies.

The Rhodes Fine Art Department and SARCHI programme played a significant role in the *2018 African Arts* journal, which featured a painting by former student Ms Chemu Ng'Ok on the front cover. The journal issue was edited by **Professor Ruth Simbao** and Research Associate **Dr Amanda Tumusiime** from Makerere University, and it included articles by Postdoctoral Research Fellow **Dr Stephen Folaranmi**, Dr Rachel Baasch and Research Associate **Dr Ying Cheng** from Peking University. The core goal of Rhodes University participation in the African Arts Editorial Consortium is to increase the number of Africa-based scholars and artists.

As part of the Andrew W. Mellon Foundation funded programme *Publishing and Research of the South: Positioning Africa (PROSPA)*, **Professor Ruth Simbao** and **Dr Stephen Folaranmi** hosted a publishing workshop at Rhodes University. Guest writers and artists were from the Kwame Nkrumah University of Science and Technology in Kumasi, Ghana, and included the internationally renowned artist Mr Ibrahim Mahama.

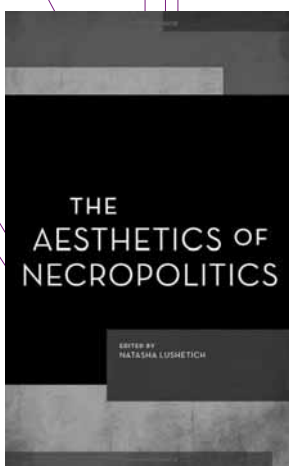


Arts Lounge Poster.

Credit: Department of Fine Art

PUBLICATIONS

Department of Fine Art



Books/Chapters/Monographs

De Jager, M.S.

De Jager, M.S. (2018) Sightlines: A Google Earth Inspired Essay. In: Boyer, J. (ed.). *THEOREM. Doctoral research in the visual arts and design: Theory as practice and practice as theory*. Cambridge: Ruskin Arts+. p.84-101. ISBN: 9780993146152.

Khan, S. and Asfour, F.

Khan, S. and Asfour, F. (2018) Whitespeak: How Race Works in South African Art Criticism Texts to Maintain the Arts as the Property of Whiteness. In: Kraehe, A.M., Gaztambide-Fernandez, R. and Carpenter II, B.S. (eds.). *Palgrave Handbook of Race and the Arts in Education*. UK: Palgrave Macmillan. p.187-204. ISBN: 9783319652559.

Mnyaka, P.

Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (2018) *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. ISBN: 9783319747200.

Siebert, N.I.

Siebert, N.I. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). (2018). "Sozialistische, Monumentalkunst und globale Bildtransfers". In: Kohring, A. and Ruthers, M. (eds.). *Asthetiken des Sozialismus/ Socialist Aesthetics: Populäre Bildmedien im späten Sozialismus / Visual cultures of Late Socialism*. Vienna: Böhlau Verlag Cologne. p.19-25. ISBN: 9783412505745.

Tello, V.

Tello, V. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). (2018) Aesthetic Autonomy at the Border: Notes on Necro-Art. In: Lushetich, N. (ed.). *The Aesthetics of Necropolitics*. www.rowmaninternational.com: Rowman and Littlefield. p.1. ISBN: 9781786606853.

Concerts, Exhibitions, Performances, Workshops, Events

Baasch, R.M., Mulenga, A.S. and Mwaba, S.M.

Baasch, R.M., McGarry, D., Mulenga, A.S. and Mwaba, S.M. Installation and Procession. E-waste Funeral by the African Social Sculpture Cooperative, Converge Exhibition. *Converge*, curated by Brunn Kramer and Ruth Simbao for the National Arts Festival. Arts of Africa and Global Souths, Makhanda. South Africa. 1 July 2018.

Baasch, R.M., McGarry, D., Mulenga, A.S. and Mwaba, S.M. Conversations. In Conversation with the African Social Sculpture Cooperative. Arts of Africa and Global Souths "Arts Lounge Africa" seminar series for the National Arts Festival. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 1 July 2018.

Beukman, A.E.

Beukman, A.E. Performance. Speaking sound, Converge Exhibition. *Converge, curated by Brunn Kramer and Ruth Simbao for the National Arts Festival*. Arts of Africa and Global Souths, Makhanda. South Africa. 4 July 2018.

Bezuidenhout, N.B.

Bezuidenhout, N.B. Exhibition. Our Space. *Group Exhibition*. Floradale Fine Art Gallery, East London. South Africa. 28 April 2018.

Bezuidenhout, N.B. Exhibition. To Break bread with 293 kms. *Sasol New Signatures Competition (Top 100)*. Pretoria Art Museum, Pretoria. South Africa. 30 August - 7 October 2018.

Bezuidenhout, N.B. Exhibition. Ring-oortjie en spaar sleutels (Bread Tabs) and Tok-tiekie. *Converge exhibition curated by Brunn Kramer and Ruth Simbao for the National Arts Festival*. RAW Spot Gallery, Makhanda. South Africa. 28 June - 8 July 2018.

Bezuidenhout, N.B. Participant. Thesis Writing Retreat. *Funded by the Rhodes University Capacity Development Grant and organised and run by Professor Pamela Nichols and Professor Liz Brenner*. Assegai Trails, Makhanda. South Africa. 12 - 15 July 2018.

Dixie, C.

Dixie, C. Exhibition. Motherhood. *The Birthing Tray series*. Nelson Mandela Museum of metropolitan Art, Port Elizabeth. South Africa. 1 June - 19 November 2018.

PUBLICATIONS



Ghana Publishing Workshop participants, with (second from right) Professor Ruth Simbao.

Credit: Department of Fine Art

Dixie, C. Public lecture/Walkabout. Outside the Seminar Room: Contextualizing the To be King Installation. *Outside the Seminar Room*. Vilnius Academy of Art, Vilnius. Lithuania. 8 November 2018.

Dixie, C. Public lecture/Walkabout. Kaunas in Art. *Contextualizing To Be King*. M. Zilinkas Art Museum, Kaunas. Lithuania. 8 November 2018.

Dixie, C. Exhibition. The Santiago Cross: Invisible Trade. *Cape Town Art Fair*. Cape Town International Convention Centre, Cape Town. South Africa. 16 - 18 February 2018.

Dixie, C. Installation. To Be King. *Kaunas in Art Festival*. Meno Parkas Gallery, Kaunas. Lithuania. 17 October - 25 November 2018.

Dixie, C. Exhibition. Below the Sediments. *Watershed: Art, Science and Elemental Politics*. The Origins Centre, Johannesburg. South Africa. 10 - 21 September 2018.

Dixie, C. Public lecture/Walkabout. Below the Sediments: From Water Divining to Fracking in the Karroo. *Watershed: Art, Science and Elemental Politics*. Origins Centre, Johannesburg. South Africa. 10 - 21 September 2018.

Dixie, C. Exhibition. Albany Gold. *Print Promises*. Iziko South African National Museum, Cape Town. South Africa. 8 June - 30 September 2018.

Dixie, C. Exhibition. The History of Art I-IV. *Boundless objects*. The Toffee Gallery, Cape Town. South Africa. 4 August - 31 October 2018.

Dixie, C. Public lecture/Walkabout. The Caesarean Scar in 'The Interior'. *Scar Tissue Campaign*. Rhodes Fine Art Gallery, Grahamstown. South Africa. 24 May 2018.

Folaranmi, S.A.

Folaranmi, S.A. Presenter. That the house may stand again. *Mellon Series of Humanities Seminars, "Southern Epistemologies: Thinking Beyond the Abyss for a Transformative Curriculum" organized by the School of Journalism and Media Studies in collaboration with Fine Art*. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 25 - 26 October 2018.

Ijisakin, E.T.

Ijisakin, E.T. Presenter. Making Meaning of Prints: A critical Analysis of the Works of Selected Printmakers in Nigeria. *Seminar talk hosted by Arts of Africa and Global Souths research programme*. Fine Art Department Seminar Room, Makhanda. South Africa. 22 March 2018.

Kakande, A.

Kakande, A. Presenter of research paper. Imagining a Polluted City, Expressing Dissent: Art and the Neoliberal State in Uganda (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa, and ACLS African Humanities Program

Postdoctoral Fellow). *Seminar talk hosted by Arts of Africa and Global Souths research programme*. Fine Art Department Seminar Room, Makhanda. South Africa. 15 March 2018.

Kalichini, G.M.

Kalichini, G.M. Installation. UnTitled: UnCaptured. *Converge exhibition curated by Brunn Kramer and Ruth Simbao for the National Arts Festival*. Arts of Africa and Global Souths, Makhanda. South Africa. 28 June - 8 July 2018.

Kalichini, G.M. Presenter. Analysing (in)visibilities using an analysis of gender in the portrayals of freedom fighters in Zambia and Zimbabwe. *Mellon Series of Humanities Seminars, "Southern Epistemologies: Thinking Beyond the Abyss for a Transformative Curriculum" organized by the School of Journalism and Media Studies in collaboration with Fine Art*. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 25 - 26 October 2018.

Khan, S.

Khan, S. and Spencer, L.G. Event coordinator. The Mute Always Speaks. *African Feminisms (Afems) 2018 Conference*. Rhodes University, Grahamstown. South Africa. 27 - 29 September 2018.

Khan, S. Event coordinator. Decolonial Aesthetics Creative Lab 2018. *Decolonial Aesthetics Creative Lab 2018*. Rhodes University, Grahamstown. South Africa. 7 - 14 July 2018.

Khan, S. Visual Artist. When the moon waxes red. *Visual Arts Exhibition*. Rhodes University Fine Art Department, Grahamstown. South Africa. 27 - 29 September 2018.

Khan, S., Ellapen, J. and Chhiba, R. Visual Artist. When the moon waxes red. *Re-membering: Memory, Intimacy, Archive*. Michaelis Gallery, University of Cape Town, Cape Town. South Africa. 22 June - 25 July 2018.

Khan, S. and Ellapen, J. Visual Artist. When the moon waxes red. *Re-membering: Memory, Intimacy, Archive*. Point of Order Gallery, University of the Witwatersrand, Johannesburg. South Africa. 5 - 18 April 2018.

Khan, S. and Chhiba, R. Artist Talk. Re-membering: Memory, Intimacy, Archive. *Re-membering: Memory, Intimacy, Archive*. Michaelis Galleries, Cape Town. South Africa. 25 July 2018.

Khan, S. Visual Artist. Artist Talk: Re-membering: Memory, Intimacy, Archive. *Re-membering: Memory, Intimacy, Archive*. The Point of Order, Johannesburg. South Africa. 12 April 2018.

Khan, S., Mugo, K., Ojwang, D. and Mugo, T. Panellist. When the moon waxes red - performance presentation. *Re-membering: Memory, Intimacy, Archive panel*. The Point of Order, Johannesburg. South Africa. 18 April 2018.

Khan, S., Hendricks, F.T., Raga, K. and Maylam, P. Co-facilitator. Article writing. *National Institute for Humanities and Social Sciences Article Writing Workshop*. My Pond Hotel, Port Alfred. South Africa. 4 - 5 December 2018.

Khan, S. and Tutani, Z.

Khan, S. and Tutani, Z. Co-curator. The Mute Always Speak: A Performative Response. *Group exhibition*. Rhodes University Fine Art Department, Grahamstown. South Africa. 27 - 29 September 2018.

Kramer, B.D.

Kramer, B.D. Exhibition. Signs of the Times. *Group Exhibition*. Galerie Noko, Port Elizabeth. South Africa. 28 February 2018.

Kramer, B.D. Exhibition. Collective. *Group Exhibition*. RK Contemporary, Riebeeck Kasteel. South Africa. 4 March 2018.

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Converge Poster.

Credit: Department of Fine Art

Kramer, B.D. Exhibition. RMB Turbine Art Fair. *Group Exhibition*. Galerie Noko, Port Elizabeth. South Africa. 12 July 2018.

Kramer, B.D. Participant. Where the wild things are. *Khulanathi Psychosocial Rehabilitation Centre*. Makhanda. South Africa. 25 July 2018.

Kramer, B.D. and Simbao, R.

Kramer, B.D. and Simbao, R. Curators. Converge exhibition (Artists: Aaron Samuel Mulenga, Akissi Beukman, Bernard Akoi-Jackson, Dylan McGarry, Gillian Stacey Abe, Gladys Kalichini, Jelili Atiku, Masimba Hwati, Moffat Takadiwa, Natasha Bezuidenhout, Rachel Baasch, Rehema Chachage, Samkela Stamper, Sonwabiso Ngcai, Stary Mwaba and Wallen Mapondera). *National Arts Festival*. RAW Spot Gallery, Makhanda. South Africa. 28 June - 8 July 2018.

Layiwola, A.A.

Layiwola, A.A. Exhibition. Return. *Arts of Africa and Global Souths solo exhibition*. RAW Spot Gallery, Makhanda. South Africa. 13 June 2018.

Layiwola, A.A. and Oloko, P.

Layiwola, A.A. and Oloko, P. Presenters. Reclaiming Memories: Towards the Visual Recording of Layered African Histories. (Special Africa Day Collaborative Seminar featuring the work of two RAW Fellows). *Arts Lounge seminar series organised by the Arts of Africa and Global Souths research programme*. Fine Art Department, Makhanda. South Africa. 25 May 2018.

Lila, P.

Lila, P. Exhibition and Award. Self-Titled (won the Gerald Sokoto

Award). *Absa L'Atelier Art Awards*. ABSA Gallery, Johannesburg. South Africa. 27 April - 30 September 2018.

Mama, L.V.J.

Mama, L.V.J. Exhibition. Forgetting Ntaba Ka Ndoda. *MFA Exhibition*. Albany Museum, Makhanda. South Africa. 9 February 2018.

Mapondera, W.

Mapondera, W. Participation in group exhibition. Deedizerwa (2018). *Five Bhobh: Painting at the End of an Era*. Zeitz Museum of Contemporary Art Africa, Cape Town. South Africa. 12 September - 31 December 2018.

Mapondera, W. Exhibition. Samusha Weiri Dongo. *Solo Exhibition*. SMAC Gallery, Johannesburg. South Africa. 1 - 24 February 2018.

Mapondera, W. Exhibition. Emergency Exit. *International solo Exhibition*. Tyburn Gallery, London. United Kingdom. 18 May - 4 July 2018.

Mapondera, W. and Mwaba, S.M.

Mapondera, W. and Mwaba, S.M. Exhibition. PAHUKAMA. *Converge exhibition curated by Brunn Kramer and Ruth Simbao for the National Arts Festival*. RAW Spot Gallery, Makhanda. South Africa. 28 June - 8 July 2018.

Mulenga, A.M.

Mulenga, A.M. Presenter. How can an analysis of artistic portrayals of the future portrayed in the works of select contemporary Zambian artists be used to break down the dichotomy between the tradition and the future? *Mellon Series of Humanities Seminars - Southern Epistemologies: Thinking Beyond the Abyss for a Transformative Curriculum*. School of Journalism and Media Studies in collaboration with Fine Art. Arts Lounge, Makhanda. South Africa. 25 - 26 October 2018.

Mulenga, A.M. Chair and presenter. In Conversation with Igshaan Adams (Standard Bank Young Artist Award Winner). *Arts Lounge Africa talks series organized by the Arts of Africa and Global Souths research programme for the National Arts Festival*. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 30 June 2018.

Mulenga, A.S.

Mulenga, A.S. Exhibition. Ubukata bwakwa Lesa. *Converge exhibition curated by Brunn Kramer and Ruth Simbao for the National Arts Festival*. RAW Spot Gallery, Makhanda. South Africa. 28 June - 8 July 2018.

Muvhuti, T.B. and Zhang, Z.L.F.

Muvhuti, T.B. and Zhang, Z.L.F. Co-Chairs and presenters. In Conversation with Moffat Takadiwa and Wallen Mapondera. *Arts Lounge Africa talks series organized by the Arts of Africa and Global Souths research programme for the National Arts Festival*. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 3 July 2018.

Mwaba, S.M.

Mwaba, S.M. Presenter. Petit Recits: Creative perspectives on Chinese encounters in Zambia. *Mellon Series of Humanities Seminars, "Southern Epistemologies: Thinking Beyond the Abyss for a Transformative Curriculum" organized by the School of Journalism and Media Studies in collaboration with Fine Art*. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 25 - 26 October 2018.

Siebert, N.I.

Siebert, N.I. Presenter. (Re)Mapping Luanda: Nostalgia & Utopia in Aesthetic Practice in Angola (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). *Arts Lounge seminar series organised by the Arts of Africa and Global Souths*

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research programme. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 19 October 2018.

Simbao, R.

Simbao, R. Chair and presenter. In Conversation with Bernard Akoi-Jackson. *Arts Lounge Africa talks series organized by the Arts of Africa and Global Souths research programme for the National Arts Festival*. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 4 July 2018.

Simbao, R. Organizer and Chair. Publishing and Research of the South: Positioning Africa (PROSPA) annual workshop (invited participants: Ibrahim Mohammed Mahama, Dr Dorothy Akpene Amenuke, Dr Karikacha Seidou, Dr Edwin Kwesi Bodjawah, George Ampratwum, Kwaku Boafo Kissiedu, Prof Peju Layiwola and Dr Stephen Folaranmi). *Arts of Africa and Global Souths research programme and Publishing and Research of the South: Positioning Africa (PROSPA)*. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 19 - 25 November 2018.

Simbao, R. Curator. "Bright Ackwerh: Where de cho dey?" *Solo exhibition at the RAW Spot Gallery curated by Ruth Simbao*. RAW Spot Gallery, Makhanda. South Africa. 26 October 2018.

Takadiwa, M.

Takadiwa, M. Exhibition. Framed in colonial times. *Arts of Africa and Global Souths solo exhibition*. RAW Spot Gallery, Makhanda. South Africa. 17 August 2018.

Takadiwa, M. Exhibition. Understandable Language. *Converge exhibition curated by Brunn Kramer and Ruth Simbao for the National Arts Festival*. RAW Spot Gallery, Makhanda. South Africa. 28 June - 8 July 2018.

Thorburn, D.

Thorburn, D. Exhibiting artist. *5th Silk Road International Art Exhibition*. Shaanxi Province Art Museum, Xi'an. China. 7 September - 7 October 2018.

Thorburn, D. Exhibiting artist and curator. *D6-50th Anniversary Commemoration Print Portfolio*. The Museum of Prehistory and Archaeology (MUPAC), Santander. Spain. 1 - 9 September 2018.

Thorburn, D. Exhibiting artist. *2nd International Academic Printmaking Alliance Exhibition*. Taovichuan Art Museum, Jiangdezheng. China. 23 - 30 September 2018.

Zhang, Z.L.F.

Zhang, Z.L.F. Presenter. Representations of China's Presence in Southern Africa: An analysis of contemporary Visual Art of Zambia and Zimbabwe. *Mellon Series of Humanities Seminars, "Southern Epistemologies: Thinking Beyond the Abyss for a Transformative Curriculum" organized by the School of Journalism and Media Studies in collaboration with Fine Art*. Arts Lounge (Arts of Africa and Global Souths research programme), Makhanda. South Africa. 25 - 26 October 2018.

Other Publications

Bezuidenhout, N.B.

Bezuidenhout, N.B. (2018) Online Publication. *Review of Lucas Sithole's Manzitoti (1985) and Mother and Child (1963), as part of the De Beers Centenary collection at the Ann Bryant Main Gallery*. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/reviewoflucassitholesmanzitoti/>.

Folaranmi, S.A.

Folaranmi, S.A. (2018) Online Publication. In: Review: *Yoruba*

Studies Review. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/yorubastudiesreview/#d.en.198947>.

Folaranmi, S.A. (2018) Online publication. *Conversations around the Fort Hare Artistic Collection and the Umtiza Arts Festival, 2018*. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/conversationsaroundtheforthareartisticcollection/>.

Kakande, A.

Kakande, A. (2018) In 25 Years of Bruno Sserunkuuma's Ceramic Philosophy: A Retrospective Exhibition at Makerere Art Gallery/IHCR. In: *Sserunkuuma's twenty-Five Years Exhibition 2018: Is Ceramics in a Socio-Political Context*.

Kalichini, G.M.

Kalichini, G.M. (2018) Online Publication. *The Complexity of Erasure: Omogbai's Absence*. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/thecomplexityoferasureomogbaisabsence/>.

Kramer, B.D.

Kramer, B.D. (2018) The Herald, 7 September 2018 (Online publication). In: Simbao, R. (ed.). *Artworks speak where words fail*. Port Elizabeth: The Herald.

Mulenga, A.M.

Mulenga, A.M. (2018) Wayi Wayi Art Studio & Gallery. ISBN 9789982705455. In: Mulenga, A. (ed.). *Eponymous short essay in Yombwe Agness Buya "Nimuzilo (It is a taboo): Zambian social beliefs and customs, a view from the inside"*. Zambia: Livingstone.

Mulenga, A.M. (2018) Online Publication. In: Mulenga, A. (ed.). *Publications, art criticism, research may help ascribe value as demand for contemporary African art increases. Exhibition review of Signs of The Times group exhibition, Galerie NOKO, Port Elizabeth, 28 February 2018*. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces>.

Mulenga, A.M. (2018) Online publication. *Does overexposure of the black female body draw it closer to a sell-by date?* Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/doesoverexposureoftheblackfemalebodydrawitclosetoasell-bydate/>.

Mulenga, A.M. (2018) Online publication. *Black Privilege*. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/blackprivilege/>.

Mulenga, A.M. (2018) Online publication. *Gathering Strands*. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/gatheringstrands/>.

Mulenga, A.M. (2018) Online Publication. *Of existential angst and F-bombs*. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/ofexistentialangstandf-bombs/>.

Mulenga, A.M. (2018) Online publication. *ICA launches Live Art Network*. Makhanda: <https://www.ru.ac.za/artsof africa/latestnews/icalaunchesliveartnetworkafrica.html>.

Mulenga, A.M. (2018) Online publication. *Pemba's prodigal sons: Exegeses of forgiveness*. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/pembasprodigalsonsexegesesofforgiveness/>.

Mulenga, A.S.

Mulenga, A.S. (2018) Online publication. *My Experience of the National Arts Festival 2018*. Makhanda: <https://www.ru.ac.za/artsof africa/writingandoutputs/writingreviewstinkpieces/myexperienceofthenationalartsfestival2018/>.

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Muvhuti, T.B.

Muvhuti, T.B. (2018) Malta Artpaper, Issue No. 2, February - April 2018, pp.29-30. In: Muvhuti, T. (ed.). *Interview with Zimbabwean artist Richard Mudariki*. Johannesburg: Malta Artpaper.

Muvhuti, T.B. (2018) Online publication. Business Day, 4 - 5 October 2018. In: Muvhuti, B.T. (ed.). *African Sculpture. Takadiwa's mission is to change the world through unique art: The Zimbabwean artist uses remnants of consumables such as perfume containers and bottle for his trademark sculptures*. Johannesburg.

Muvhuti, T.B. (2018) Online publication. *Art Auction Houses: the National Arts festival's sore thumb!* Makhanda: <https://www.ru.ac.za/arts/afrika/writingandoutputs/writingreviewstinkpieces/artauctionhousesthenationalartsfestivalssorethumb/>.

Muvhuti, T.B. (2018) Online publication. *Black modern art exhibited outside the De Beers Centenary Art Gallery for the first time*. Makhanda: <https://www.ru.ac.za/arts/afrika/writingandoutputs/writingreviewsstinkpieces/blackmodernartexhibited/>.

Muvhuti, T.B. (2018) Online publication. *Exhibition Review. Framed in Colonial Lenses* by Moffat Takadiwa. Makhanda: <https://www.ru.ac.za/arts/afrika/exhibitionsperformances/framedincoloniallenses/>.

Simbao, R.

Simbao, R. (2018) The Conversation Africa. *Capturing the Soweto Uprising: South Africa's most iconic photograph lives on*. South Africa: <https://theconversation.com/capturing-the-soweto-uprising-south-africas-most-iconic-photograph-lives-on-98318>.

Simbao, R. (2018) Contemporary & (online arts publication). *Chale Wote Festival 2018 (The 8th Chale Wote street art festival took place in James Town, Accra in Ghana from 20 -26 August 2018)*. South Africa: <https://www.contemporaryand.com/magazines/chale-wote-festival-accra-2018/>.

Simbao, R. (2018) The Conversation Africa. *Igniting public space at the Chale Wote street art festival in Accra*. South Africa: <https://theconversation.com/igniting-public-space-at-the-chale-wote-street-art-festival-in-accra-102783>.

Zhang, Z.L.F.

Zhang, Z.L.F. (2018) Online publication. *Opening of the exhibition DeBeers Centenary Art Collection Revisited in East London*. Makhanda: <https://www.ru.ac.za/arts/afrika/writingandoutputs/writingreviewstinkpieces/openingoftheexhibitiondebeerscentenaryartcollectionrevisitedineastlondon/>.

Zhang, Z.L.F. (2018) Li Anshan and Jiang Hui eds., Zhongguo feizhou yanjiu pinglun (wenxue zhuanke). Annual Review of African Studies in China (special issue on African literature). In: Zhang, L. (ed.). *Research Article: "Ekphrasis and the Historical Construction in Zake Mda's The Madonna of Excelsior"*. China: Annual Review of African Studies in China.

Zhang, Z.L.F. (2018) The Paper News/Pengpai Xinwen, 25 July 2018 (Online publication). In: Zhang, L. (ed.). *South African National Arts Festival 2018: A Search for Ubuntu: The Echo of Decolonization, Identity and Gender*. China: https://www.thepaper.cn/newsDetail_forward_2274848.

Distinguished Visitors

Akoi-Jackson, B.

Dr B Akoi-Jackson. Kwame Nkrumah University of Science and Technology (KNUST) Fine Art Department and Blaxtarlines collective, Kumasi, Ghana. *Distinguished visiting artist and performer for the Converge exhibition curated by Brunn Kramer and Ruth Simbao*.

Participant in the Arts Lounge Africa festival series of seminars organised by the Arts of Africa and Global Souths research programme (National Arts Festival). June 2018.

Amenuke, D.A.

Dr DA Amenuke. Kwame Nkrumah University of Science and Technology (KNUST) Fine Art Department and Blaxtarlines collective, Kumasi, Ghana. *Collaborator and participant in PROSPA Publishing Workshop hosted by Ruth Simbao and the Arts of Africa and Global Souths research programme*. November 2018.

Ampratwum, G.

Dr G Ampratwum. Kwame Nkrumah University of Science and Technology (KNUST) Fine Art Department and Blaxtarlines collective, Kumasi, Ghana. *Collaborator and participant in PROSPA Publishing Workshop hosted by Ruth Simbao and the Arts of Africa and Global Souths research programme*. November 2018.

Bodjawah, E.K.

Dr EK Bodjawah. Kwame Nkrumah University of Science and Technology (KNUST) Fine Art Department and Blaxtarlines collective, Kumasi, Ghana. *Collaborator and participant in PROSPA Publishing Workshop hosted by Ruth Simbao and the Arts of Africa and Global Souths research programme*. November 2018.

Khan, S.

S Khan, S Magadla and LG Spencer. Rhodes University, Grahamstown, South Africa. *African Feminisms (Afems) 2018 Keynote*. September 2018.

Khan, S. and Alpert, J.

S Khan and J Alpert. Independent filmmaker and CEO of Downtown Community Television Centre, New York, United States of America. *Decolonial Aesthesis Creative Lab 2018*. July 2018.

Khan, S. and Andel, L.

S Khan and L Andel. City University New York, New York, United States of America. *Decolonial Aesthesis Creative Lab 2018*. July 2018.

Khan, S. and Baderoon, G.

S Khan, G Baderoon and LG Spencer. Pennsylvania State University, Pennsylvania, United States of America. *African Feminisms (Afems) 2018 Keynote*. January 2018.

Khan, S. and Barry, S.

S Khan and S Barry. University of Johannesburg, Johannesburg, South Africa. *Art on our Mind Public Dialogue*. September 2018.

Khan, S. and Galhotra, V.

S Khan and V Galhotra. Independent visual artist and CEO of non-profit organisation Soul Foundation, Delhi, India. *Decolonial Aesthesis Creative Lab 2018*. July 2018.

Khan, S. and Mabaso, N.

S Khan and N Mabaso. Michaelis Galleries, University of Cape Town, Cape Town, South Africa. *Art on our Mind Public dialogue*. September 2018.

Khan, S. and Makhubu, N.

S Khan and N Makhubu. Michaelis, University of Cape Town, Cape Town, South Africa. *Art on our Mind Public dialogue*. September 2018.

Khan, S. and Marasela, S.

S Khan and S Marasela. Independent visual artist, Johannesburg, South Africa. *Art on our Mind Public dialogue*. April 2018.

Khan, S. and Mdluli, S.

S Khan and S Mdluli. Standard Bank Gallery, Johannesburg, South Africa. *Art on our Mind Public dialogue*. September 2018.

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Khan, S. and Motsemme, N.

S Khan, N Motsemme and LG Spencer. National Institute for Humanities and Social Sciences, Johannesburg, South Africa. *African Feminisms (Afems) 2018 Keynote.* September 2018.

Khan, S. and Ntombela, N.

S Khan and N Ntombela. Wits University, Johannesburg, South Africa. *Art on our Mind Public dialogue.* September 2018.

Khan, S. and Peterson, B.

S Khan and B Peterson. Wits University, Johannesburg, South Africa. *Decolonial Aesthetics Creative Lab 2018.* July 2018.

Khan, S., Asfour, F. and Hlatsane, R.

S Khan, F Asfour and R Hlatsane. Wits University, Johannesburg, South Africa. *Teaching and Workshop.* April 2018.

Kissiedu, K.B.

Dr KB Kissiedu. Kwame Nkrumah University of Science and Technology (KNUST) Fine Art Department and Blaxtarlines collective, Kumasi, Ghana. *Collaborator and participant in PROSPA Publishing Workshop hosted by Ruth Simbao and the Arts of Africa and Global Souths research programme.* November 2018.

Layiwola, A.

Professor A Layiwola. University of Lagos, Department of Creative Arts, Lagos, Nigeria. *Collaborator and participant in PROSPA Publishing Workshop hosted by Ruth Simbao and the Arts of Africa and Global Souths research programme.* November 2018.

Layiwola, A.A.

AA Layiwola. Department of Creative Arts (Head of Department), University of Lagos, Lagos, Nigeria. *Artist's Residency hosted by Residencies for Artists and Writers (RAW) - Arts of Africa and Global Souths research programme.* April 2018.

Mahama, I.M.

Mr IM Mahama. Kwame Nkrumah University of Science and Technology (KNUST) Fine Art Department and Blaxtarlines collective, Kumasi, Ghana. *Collaborator and participant in PROSPA Publishing Workshop hosted by Ruth Simbao and the Arts of Africa and Global Souths research programme.* November 2018.

Ngcai, S.

Mr S Ngcai. Walter Sisulu University, East London, South Africa. *Exhibiting artist. "Emweka" as part of the Converge exhibition curated by Ruth Simbao and Brunn Kramer for the National Arts Festival, Arts of Africa and Global Souths research programme.* June 2018.

Nichols, P.

Dr P Nichols. University of Witwatersrand, Johannesburg, South Africa. *Facilitator (two days) at the PROSPA Publishing Workshop hosted by Ruth Simbao and the Arts of Africa and Global Souths research programme.* November 2018.

Oloko, P.

P Oloko. Department of English, University of Lagos, Lagos, Nigeria. *Writer's Residency hosted by Residencies for Artists and Writers (RAW) - Arts of Africa and Global Souths research programme.* April 2018.

Seidou, K.

Dr K Seidou. Kwame Nkrumah University of Science and Technology (KNUST) Fine Art Department and Blaxtarlines collective, Kumasi, Ghana. *Collaborator and participant in PROSPA Publishing Workshop hosted by Ruth Simbao and the Arts of Africa and Global Souths research programme.* November 2018.

Siebert, N.I.

NI Siebert. Iwalewaha (Deputy Director) at the University of Bayreuth, Bayreuth, Germany. *Writer's Residency hosted by Residencies for Artists and Writers (RAW) - Arts of Africa and Global Souths research programme.* August 2018.

Takadiwa, M.

M Takadiwa. Artist represented by Tyburn Gallery in London, Harare, Zimbabwe. *Artist's Residency hosted by Residencies for Artists and Writers (RAW) - Arts of Africa and Global Souths research programme.* June 2018.

International Visits

Khan, S.

Khan, S. University of Ibadan, Ibadan, Nigeria. *African Humanities Postdoctoral Research Fellowship Residency.* 28 January - 3 March 2018.

Mapondera, W.

Mapondera, W. Atelier Mondial, Basel, Switzerland. *Pro Helvetia Studio Residency, which resulted in the solo exhibition "Shungu Madanha".* 1 November - 31 December 2018.

Simbao, R.

Simbao, R. The Institute of Asian, African and Latin American Culture and Art at the China Academy of Art in Hangzhou, and the Center for African Studies at Peking University in Beijing, Hangzhou and Beijing, China. *Research in China (Beijing and Hangzhou) on artistic representations of Africa-China encounters, and collaboration with Research Associate Dr Cheng Ying.* 31 May - 8 June 2018.

Simbao, R. Accra[dot]alt, Brazil House, Jamestown; Gallery 1957, Bright Ackwerh studio; Serge Attukwei Clottey studio, and Artists' Alliance Gallery. Accra, Ghana. *Research on the Chale Wote Street Art Festival ("Para-Other"). Research on contemporary art in Accra, Ghana.* 18 - 29 August 2018.



Mr Moffat Takadiwa's exhibition.
Credit: Department of Fine Art

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Folaranmi, S.A.

Folaranmi, S.A. and Ademuleya, B.A. (2018) Palace Courtyards in Ilesa: A Melting Pot of Traditional Yoruba Architecture. *Yoruba Studies Review*. 2 (2018). p.51-76.

Folaranmi, S.A., Umoru-Oke, N.A. and Adeyanju, I.F. (2018) Painting Our Stories and Legacies: Historical Evidences through Nigerian Paintings. *International Journal of Humanities and Cultural Studies*. 5 (2). p.76-98.

Ajiboye, O., **Folaranmi, S.A.** and Umoru-Oke, N. (2018) Ori (Head) as an Expression of Yoruba Aesthetic Philosophy. *Mediterranean Journal of Social Sciences*. 9 (4). p.59-70.

Khan, S.

Khan, S. (2018) Postcolonial Modernism: Art and Decolonization in Twentieth-Century Nigeria, Chika Okeke-Agulu, Durham, Duke University Press, 2015, 376 pp., ISBN 978-0-8223-5732-2; US\$29.95 (paperback), ISBN 978-0-8223-5746-9. *Eastern African Literary and Cultural Studies*. 4 (1). p.76-81.

Siebert, N.I.

Siebert, N.I. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). (2018). Art Topples Monuments: Artistic Practice and Colonial/Postcolonial Relations in the Public Space of Luanda. *Portuguese Literary & Cultural Studies*. 30 (2018). p.150-173.

Siebert, N.I. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). (2018) Aesthetic Autopsy. Collective Memory and Trauma in Contemporary Art from Angola *Art@s Bulletin*. 7 (1). p.53-64.

Stanley-Niaah, S.

Hendrickson, M. and **Stanley-Niaah, S.** (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). (2018). A study on the creative industry as a pillar of sustained growth and diversification. The film and music sectors in Jamaica: lessons from case studies of successful firms and ventures. *UNECLAC Studies and Perspectives Series 72*. 2018 (2018). p.1-75.

Stanley-Niaah, S. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). (2018) Commentary: Can Jamaica Put Music First? A Comment. *Caribbean Quarterly*. 64 (2018). p.330-347.

Stanley-Niaah, S. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). (2018) "'Prime Time Geographies: Dancehall Performance, Visual Communication and the Philosophy of 'Boundarylessness'" (Research Associate, SARCHI programme Geopolitics and the Arts of Africa). *Caribbean Quarterly*. 5 (1). p.5-26.

Peer Reviewed Subsidy-Earning Journal Research Publications

Baasch, R.

Baasch, R. (2018) Bodies, Buildings, and Borders: Navigating the Divided Nation through Contemporary South African and Palestinian Art Practice. *African Arts*. 51 (2). p.32-43. Edited by Ruth Simbao.

Cheng, Y.

Cheng, Y. (2018) "The bag Is My Home": Recycling "China Bags" in Contemporary African Art. *African Arts*. 51 (2). p.18-31. Edited by Ruth Simbao.

Folaranmi, S.A.

Folaranmi, S.A. (2018) This is Our Story: Iconography of Carved Doors and Panels in Oyo Palace. *African Arts*. 51 (2). p.44-57. Edited by Ruth Simbao.

Ijisakin, E.T.

Ijisakin, E.T. (2018) The Art of Life in South Africa by Daniel Magaziner, Ohio University Press, Athens, Ohio. New African Histories series, 2016. 377 pp. *African Arts*. 51 (3). p.95-96.

Khan, S.

Khan, S. (2018) "Thinking Through, Talking Back: Creative Theorisation as Sites of Praxis-Theory" - A creative dialogue between Sharlene Khan, Pumla Dineo Gqola, Yvette Abrahams, Neelika Jayawardane and Betty Govinden. *Agenda*. 32 (3). p.109-118.

Siebert, N.I.

Siebert, N.I. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). (2018) Jesus, Che, Luaty: On the Relationship between a Digital Picture and an Iconic Image in Political Iconography in Angola. *Africa Today*. 65 (1). p.43-62.

Simbao, R.

Simbao, R., Chikukwa, R., Ogonga, J., Bickle, B., Pereira, M.H., Abrahams Altass, D. and Fall, N.G. (2018) Dialogue - Zimbabwe Mobilizes: ICAC's shift from Coup de Grace to cultural coup. *African Arts*. 51 (2). p.4-17.

Tumusiime, A.

Tumusiime, A. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). (2018) "Our Voice of Africa": It Is Less Than Our Voice Without a Woman's Voice. *African Arts*. 51 (2). p.1-2. Edited by Ruth Simbao.

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

Dantas, N.I.

Dantas, N.I. Unsettled and Unsettling: The Colonial and Indian Exhibition as part of the repressed and disavowed in curatorial pedagogy. *SAVAH Annual Conference*. University of Stellenbosch, Stellenbosch. South Africa. July 2018.

Dantas, N.I. Shifting the Balance of Power: From Procurer to Originator. *Association for Art History Annual Conference*. Courtauld Institute of Art, London. United Kingdom. April 2018.

De Jager, M.S.

De Jager, M.S. PROOF. *Violence and Society International Conference*. Birkbeck University of London, London. United Kingdom. June 2018.

De Jager, M.S. IN PARENTHESIS. *Curatorial Care, Humanising Practices: Past Presences as Present Encounters*. University of Johannesburg, Johannesburg. South Africa. April 2018.

PUBLICATIONS

Jimoh, G.A.

Jimoh, G.A. We No Go 'Gree': The Social Medial and Political Power Contestation in Nigeria. *The 18th Annual Africa Conference in the Department of History*. University of Texas, Austin. United States of America. March 2018.

Kakande, A.

Kakande, A. Schneider's Collection in Germany: Overlapping interests, shared experiences, visually productive negotiations. *Mining Collections Symposium*. Iwalewahaus, Bayreuth. Germany. July 2018.

Kakande, A. and Tumusiime, A.

Kakande, A. and Tumusiime, A. Implementing MDW techniques in home departments. *AHP Consultative Regional Assembly*. Accra. Ghana. June 2018.

Kalichini, G.M.

Kalichini, G.M. FyaMoneka. *Search and Research: Looking for Collete Omogbai -- Women on Aeroplanes, 2nd Edition*. Centre for Contemporary Art, Lagos. Nigeria. April 2018.

Khan, S.

Khan, S. Plenary talk: Negotiating inside-outsider / outside-insider positionality through an African feminist research methodology. *National Institute for Humanities and Social Sciences Doctoral Conference*. Carmel Guest Lodge, George. South Africa. August 2018.

Khan, S. Curating as World-Making public dialogue with Zedwa Skeyi-Tutani, Nontobeko Ntombela, Same Mdluli, Nomusa Makhubu and Nkule Mabaso. *African Feminisms (Afems) Conference*. Rhodes University, Grahamstown. South Africa. January 2018.

Khan, S. Art on our Mind dialogue with Senzeni Marasela. *Art on our Mind*. Rhodes University, Grahamstown. South Africa. September 2018.

Khan, S. Vital Statistics of a Citizen. *Narrative Enquiry for Social Transformations*. University of Witwatersrand, Johannesburg. South Africa. March 2018.

Khan, S. and Asfour, F.

Khan, S. and Asfour, F. Decolonial Aesthetics: A Parcour. *Decolonial Transformations*. University of Sussex, Brighton. United Kingdom. October 2018.

Mulenga, A.M.

Mulenga, A.M. For the record: Documenting Zambian Performance Art, where do we start? *Live Art Network Africa (LANA) - Launch*. Institute for Creative Arts, University of Cape Town, Cape Town. South Africa. February 2018.

Simbao, R.

Simbao, R. Keynote address - "Strategic Southernness, Reciprocal Epistemologies: Re-situating Africa-China through the Arts". *Symposium at Wits University to discuss the establishment of an African Centre for Chinese Studies*. University of the Witwatersrand, Johannesburg. South Africa. April 2018.

Simbao, R. Invited Guest Speaker: Unlearning, Unscripting: Visualizing the Future of China-Africa. Invited by the Center for African Studies at Peking University in Beijing, China. 6 June 2018. Sponsored by the Center for African Studies; the School of Foreign Languages and the Institute of Area Studies at Peking University. *Center for African Studies*. Peking University, Beijing. China. June 2018.

Simbao, R. Invited presentation: Geopolitics and the Arts of Africa: A Walk with Ngugi wa Thiong'o and Chair of the panel, Localizing Art Histories. *RAW Material Company Condition Report 3 symposium*

on "Art History in Africa". Musée des Civilisations Noires (Museum of Black Civilizations), Dakar. Senegal. September 2018.

Simbao, R. Keynote address: When African Art meets China-Africa: Space-Time Imaginaries and a Pursuit for New Scripts. *The International Bandung School Workshop: Thinking the Third World Today: Art, Translation and the Media, organised by the Institute for Asian, African and Latin American Culture and Art*. Nanshan Campus of the China Academy of Art, Hangzhou. China. June 2018.

Stanley-Niaah, S.

Stanley-Niaah, S. Representing 'Incarcerated' Desires and Organised Crime: Tupac Shakur and Vybz Kartel in the Shadow of Social Transformation. *UK Arts and Humanities Research Council Research Network funded project 'Dons, Yardies and Posses: Representations of Jamaican Organised Crime' Workshop 2 under the theme 'Spatial Imaginaries of Jamaican Organised Crime'*. University of Amsterdam, Amsterdam. Netherlands. June 2018.

Stanley-Niaah, S. Of Memory, Prisons, Profit and Crimes of the Jamaican State. *British Academy Research Network's Crime and its Representation in the Anglophone Caribbean, 1834-2018? Workshop 3*. St Augustine Campus, University of the West Indies (UWI). Trinidad & Tobago. April 2018.

Stanley-Niaah, S. Africa on Stage: Black Atlantic Expressive Culture Beyond Slavery. *Plenary presentation at the UNESCO Slave Route Project/US-ICOMOS-sponsored international conference under the theme - New Approaches in Interpreting and Representing Slavery in Museums and Sites*. University of Virginia, Charlottesville. United States of America. March 2018.

Stanley-Niaah, S. Between Incarcerated Desires and Social Transformation: Tupac Shakur and Vybz Kartel. *International Crossroads in Cultural Studies Conference*. Shanghai University. Shanghai, China. August 2018.

Tello, V.

Tello, V. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). On the Margins of Global Art History. *Art Association of Australia and New Zealand*. RMIT, Melbourne. Australia. December 2018.

Tello, V. (Research Associate, NRF/DST SARCHI programme Geopolitics and the Arts of Africa). Counter-Memory and Migratory Aesthetics: Staying with the Many Times of Global Contemporaneity. *Counter Monuments: Remembrance practices in public space*. University of Munster, Munster. Germany. April 2018.

Thorburn, D.

Thorburn, D. The Mnemonic Power of Print - Encountering identity and diversity through memory and forgetting. *IMPACT 10 International Multidisciplinary Printmaking Conference*. The Social and Cultural Action Center of Caja Cantabria (CASYC), Santander. Spain. September 2018.

Thorburn, D. Keynote: Contemporary Printmaking, impressions from the margins. 2nd International Academic Printmaking Alliance (IAPA). Taoxichuan Art Museum, Jiangdezhen. China. September 2018.

Zhang, Z.L.F.

Zhang, Z.L.F. Representations of China in visual arts of Zambia and Zimbabwe. *Selected participant in the Theory from Africa Workshop organised by the Centre for Indian Studies in Africa*. Centre for Indian Studies in Africa, University of Witwatersrand, Johannesburg. South Africa. August 2018.



Credit: Snow Harris

Professor Ian Meiklejohn
Head of Department

Research in the Department reflects the diversity of the discipline of Geography. Activities include: the wild honeybush industry; land and agrarian reform; human mobility; the role of tertiary institutions in Grahamstown; the social dynamics of small towns; spatial dynamics related to heritage conservation; the impacts of dams on societies and river systems; soil erosion and sediment transfer; wetlands and their importance to society and the natural environment; applications of Geographical Information Systems (GIS) and Remote Sensing; Antarctic Geomorphology and Biogeomorphology; and climate change.

Not only is our research academically diverse, but spatially extensive, with projects extending from the Nordic Arctic to Antarctica.

An aspect the Department is extremely proud of is our training of Postgraduate students and exposing them to the international research community. All those who have been involved in such interactions have shown that Rhodes University, and the Department of Geography, are conducting research that is internationally relevant and of an international standard.

Postgraduates / Graduations

At the Graduation ceremonies nine (9) Masters students graduated and Christel Hansen received her PhD. Dr Hansen was the first South African woman to lead a field based Antarctic research team and is now tenured Faculty at the University of Pretoria.

Distinguished Visitors / International Visits

Dr Bennie van der Waal received a Universities UK International (UUKi) Rutherford Fund Strategic Partner Grant to visit the Department of Geography and Earth Sciences at Aberystwyth University between July and September 2018.

Visiting Professor Thembela Kepe, Chair of Geography in Toronto University, visited the Department during May and August 2018.



Visiting Professor Ian Foster (Northampton University) assisting PhD candidate, Ms Laura Bannatyne (right) to take disturbance samples in the Pot River as part of the Tsitsa Project sediment monitoring project.

Credit: Department of Geography

Visiting Professor Ian Foster (Northampton University) continued his supervisory role and research in the Tsitsa Catchment during October 2018.

Significant Research Aligned Events

Professor Ian Meiklejohn was the South African and International Geographical Union (IGU) delegate at the Scientific Committee for Antarctic Research (SCAR) Open Science Conference and Delegates Meeting from 12-26 June 2018. This was his third meeting as a South African and second as an IGU delegate. He was also part of the council of the Antarctic Permafrost and Soils working group (ANTPAS) of SCAR and the International Permafrost Association. Much of their work was summarised in a Nature Communications article to be published in 2019.

Ms Gillian McGregor continued her work with students on wild honeybush (*Cyclopia intermedia*) resource utilisation, and was responsible for resource utilisation guidelines published by the Western Cape government. The crop grows in the mountainous regions of the Langkloof in the Eastern Cape, as well as in the mountains of Western Cape.

Dr Bennie van der Waal chairs the sediment community of practice (COP) which advises on erosion and sediment related issues in a multidisciplinary/multi-institutional Ntabelanga and

Laleni Ecological Infrastructure Project (NLIEP) funded by the Department of Environmental Affairs (DEA). Researchers from the Geography Department are playing a key role in landcover, burning practices, and river sediment sources and loads.

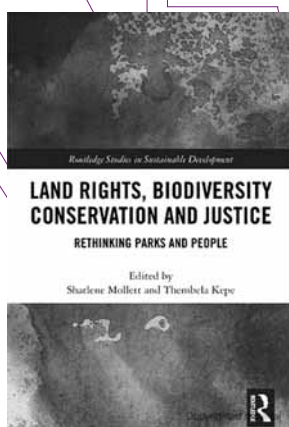
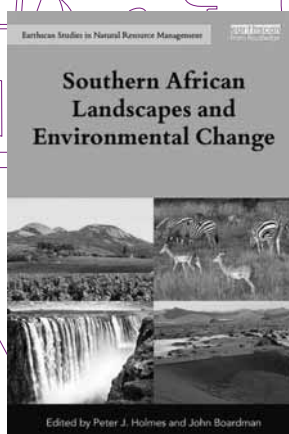
Emeritus Professor Kate Rowntree continues her leadership of a team that is addressing community engagement in catchment restoration through a Water Research Commission (WRC) project.

The Landscape Processes in Antarctic Ecosystems group led by Professor Ian Meiklejohn completed their field work during the 2017/18 Austral Summer in Antarctica. The project has contributed to over twenty (20) peer-reviewed articles, and eleven (11) Rhodes' Masters and PhD degrees since 2012. In addition, three (3) students involved in the project completed their degrees at other universities.

The Department of Geography was well represented at the Annual Geography Students Conference, hosted by the University of the Free State. Natasha Moore (MSc student) won the prize for the best Masters Presentation in GIS and Remote Sensing.

PUBLICATIONS

Department of Geography



Books/Chapters/Monographs

Foster, I.

Foster, I. and Boardman, J. (2018) Monitoring and assessing land degradation: New approaches. In: Holmes, P.J. and Boardman, J. (eds.). *Earthscan Studies in Natural Resource Management: Southern African Landscapes and Environmental Change*. London: Routledge. p.249-274. ISBN: 9781138688957.

Kepe, T.

Kepe, T. (2018) Meanings, alliances and the state in tensions over land rights and conservation in South Africa. In: Mollett, S. and Kepe, T. (eds.). *Routledge Studies in Sustainable Development: Land Rights, Biodiversity and Conservation and Justice: Rethinking Parks and People*. London: Routledge. p.17-30. ISBN: 9781138217720.

Mollett, S. and Kepe, T. (2018) Introduction: land rights, biodiversity conservation and justice - rethinking parks and people. In: Mollett, S. and Kepe, T. (eds.). *Routledge Studies in Sustainable Development: Land Rights, Biodiversity and Conservation and Justice: Rethinking Parks and People*. London: Routledge. p.1-13. ISBN: 9781138217720.

Lewis, C.A.

Lewis, C.A. (2018) *Full Cry! Hunting in Britain, Ireland, France and South Africa: Essays by a hunting correspondent*. Machynlleth: Coch-y-Bonddu Books. ISBN: 9781904784852.

Rowntree, K. and Van Der Waal, B.

Rowntree, K., Van Der Waal, B. and Smith-Adao, L.B. (2018) Fluvial system response to environmental change. In: Holmes, P.J. and Boardman, J. (eds.). *Earthscan Studies in Natural Resource Management: Southern African Landscapes and Environmental Change*. London: Routledge. p.112-135. ISBN: 9781138688957.

Other Publications

Lewis, C.A.

Lewis, C.A. (2018) The Brecon Boys' Grammar School Bell-Ringing Society and an introduction to the history of ringing in the School's catchment area. Part 2 - The Brecon Boys' Society. *The Ringing World*. 5605 (2018), 929-930.

Lewis, C.A. (2018): The Brecon Boys' Grammar School Bell-Ringing Society and an introduction to the history of ringing in the School's catchment area, Part 1 - Early ringing in the Brecon area. *The Ringing World*. 5604 (2018), 906-907.

International Visits

Meiklejohn, I.

Meiklejohn, I. SCAR (Scientific Committee for Antarctic Research), Davos, Switzerland. *South African Delegate to the SCAR (Scientific Committee for Antarctic Research) Delegates Meeting*. 24 - 26 June 2018.

van der Waal, B.W.

van der Waal, B.W. Research fellowship with Professor Stephen Tooth and Professor Andrew Thomas of the Department of Geography and Earth Sciences at Aberystwyth University. Funded by Universities. *UK International (UUKi) Rutherford Fund Strategic Partner Grant*. July to September 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Denison, J.

Murata, C., Perry, A. and Denison, J. (2018) Dynamics of Water Access and Allocation Among Competing Needs within the Homestead: Quantifying multiple water uses in Rural Eastern Cape. *Africanus: Journal of Development Studies*. 57 (2). p.1-29.



The research project on Landscape Processes in Antarctic Ecosystems relied heavily on helicopter logistics for their work in Antarctica.
Credit: Department of Geography



Left to right: Masters students Ms Jenna Knox and Ms Nicola Wilmot, who graduated in April 2018, and Ms Tebogo Masebe who will graduate in April 2019, at a logging station in Droning Maude Land Antarctica. The station has been recording ground and air temperatures for more than a decade.
Credit: Department of Geography

Peer Reviewed Subsidy-Earning Journal Research Publications

Ellery, W.N.

Grenfell, M.C., Aalto, R., Grenfell, S.E. and **Ellery, W.N.** (2018) Ecosystem engineering by hummock-building earthworms in seasonal wetlands of eastern South Africa: Insights into the mechanics of biomorphodynamic feedbacks in wetland ecosystems. *Earth Surface Processes and Landforms*. 2018. p.1-13.

Foster, I.

Pulley, S., **Foster, I.**, Collins, A.L., Zhang, Y. and Evans, J. (2018) An analysis of potential controls on long-term ¹³⁷Cs accumulation in the sediments of UK lakes. *Journal of Paleolimnology*. 60 (2018). p.1-30.

Mokwe-Ozonzeadi, N., **Foster, I.**, Valsami-Jones, E. and McEldowney, S. (2018) Trace metal distribution in the bed, bank and suspended sediment of the Ravensbourne River and its

implication for sediment monitoring in an urban river. *Journal of Soils and Sediments*. 2018. p.1-18.

Favis-Mortlock, D., Boardman, J., **Foster, I.** and Greenwood, P. (2018) 'Local gradient' and between-site variability of erosion rate on badlands in the Karoo, South Africa. *Earth Surface Processes and Landforms*. 43 (2018). p.871-883.

Kepe, T.

Kepe, T. and Hall, R. (2018) Land Redistribution in South Africa: Towards Decolonisation or Recolonisation? *Politikon*. 45 (1). p.128-137.

Mahlatsi, M.L.S.

Mahlatsi, M.L.S. (2018) The peasants revolt: analysing the role of the democratic state in the struggle for land and environmental justice in Xolobeni, Eastern Cape, South Africa. *Journal of Public Administration*. 53 (2.1). p.615-631.

Meiklejohn, I.

Matcher, G.F., Froneman, P.W., Meiklejohn, I. and **Dorrington, R.A.** (2018) Distinct responses of bacterial communities to agricultural and urban impacts in temperate southern African estuaries. *Estuarine Coastal and Shelf Science*. 200 (2018). p.224-233.

Hrbacek, F., Vieira, G., Oliva, M., Balks, M., Guglielmin, M., de Pablo, M.A., Molina, A., Ramos, M., Goyanes, G., **Meiklejohn, I.** and *et al.* (2018) Active Layer Monitoring in Antarctica: An Overview of Results from 2006 to 2015. *Polar Geography*. 2018. p.1-15.

Meiklejohn, I. and Hansen, C.D.

Rudolph, E.M., **Meiklejohn, I.**, **Hansen, C.D.**, Hedding, D.W. and Nel, W. (2018) Rock glaciers in the Jutulssessen, Dronning Maud Land, East Antarctica. *Polish Polar Research*. 39 (1). p.1-17.

Melly, B. and McGregor, G.

Bouveroux, T., **Melly, B.**, **McGregor, G.** and Plon, S. (2018) Another dolphin in peril? Photo-identification, occurrence, and distribution of the endangered Indian Ocean humpback dolphin (*Sousa plumbea*) in Algoa Bay. *Aquatic Conservation - Marine and Freshwater Ecosystems*. 28 (2018). p.723-732.

Melly, B., McGregor, G., Hofmeyr, G.J.G. and **Plon, S.** (2018) Spatio-temporal distribution and habitat preferences of cetaceans



St Bartholomew Church in Sunnyside, Makhanda - one of the historical buildings being investigated by Ms Zandile Dlongolo, lecturer and MSc student in the Department.

Credit: Emeritus Professor Roddy Fox

in Algoa Bay, South Africa. *Journal of the Marine Biological Association of the United Kingdom*. 98 (5). p.1065-1079.

Memela, S.

Memela, S. and Maharaj, B. (2018) Refugees, Violence and Gender: the Case of Women in the Albert Park Area in Durban, South Africa. *Urban Forum*. 29 (2018). p.429-443.

Pulley, S. and Van Der Waal, B.

Pulley, S., Collins, A.L. and **Van Der Waal, B.** (2018) Variability in the mineral magnetic properties of soils and sediments within a single field in the Cape Fold mountains, South Africa: Implications for sediment source tracing. *Catena*. 163 (2018). p.172-183.

Pulley, S., Ellery, W.N., Lagesse, J., Schlegel, P.K. and McNamara, S.J.

Pulley, S., Ellery, W.N., Lagesse, J., Schlegel, P.K. and McNamara, S.J. (2018) Gully erosion as a mechanism for wetland formation: An examination of two contrasting landscapes. *Land Degradation & Development*. 29 (2018). p.1756-1767.

Pulley, S., Van Der Waal, B. and Rowntree, K.

Pulley, S., Van Der Waal, B., Rowntree, K. and Collins, A.L. (2018) Colour as reliable tracer to identify the sources of historically deposited flood bench sediment in the Transkei, South Africa: A comparison with mineral magnetic tracers before and after hydrogen peroxide pre-treatment. *Catena*. 160 (2018). p.242-251.

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

Ellery, S.G.

Ellery, S.G. The origin of bedrock depression wetlands in the southern Cape of South Africa: A changing perspective. *Society of Wetland Scientists Annual Meeting*. Hilton Hotel and Conference Centre, Denver. United States of America. May 2018.

Ellery, W.N.

Ellery, W.N. Controls on wetland distribution in southern Africa: Understanding the role of geomorphology. *Society of Wetland Scientists Annual Meeting*. Hilton Hotel and Conference Centre, Denver. United States of America. May 2018.

Ellery, W.N. Controls on wetland distribution in southern Africa: The case of the Krom River wetland. *National Wetlands Indaba*

2018. Mittah Seperepere International Convention Centre, Kimberley. South Africa. October 2018.

Hansen, C.D.

Hansen, C.D. A Comparison of the Frost Environment of Three Disparate Climatic Locations. *Polar 2018*. Congress Centre Davos, Davos. Switzerland. June 2018.

Hansen, C.D. and Meiklejohn, I.

Hansen, C.D. and Meiklejohn, I. The Active Layer and Permafrost Environment of Flårjuven (Antarctica): 2008 - 2017. *Polar 2018*. Congress Centre Davos, Davos. Switzerland. June 2018.

Meiklejohn, I.

Meiklejohn, I. Geomorphology and Antarctic Ecosystems in Dronning Maud Land. *Polar 2018*. Congress Centre Davos, Davos. Switzerland. June 2018.

Monsanto, D., Emami-Khoyi, A., Teske, P.R., **Meiklejohn, I.** and van Vuuren, B. Genetic Patterns at Fine Spatial Scales: Complex Findings in a Complex Landscape. *Polar 2018, Open Science Conference*. Congress Centre Davos, Davos. Switzerland. June 2018.

Meiklejohn, I. Active layer and permafrost monitoring in Western Dronning Maud Land, Antarctica. *NRF SANAP Symposium 2018*. SANSA, Hermanus. South Africa. August 2018.

Meiklejohn, I. SCAR Report. *NRF SANAP Symposium*. SANSA, Hermanus. South Africa. August 2018.

Shlegel, P.K., Huchzermeyer, N.H. and van der Waal, B.W.

Shlegel, P.K., Huchzermeyer, N.H. and van der Waal, B.W. Wetland prioritisation for livelihoods: avoiding further degradation. *National Wetlands Indaba 2018*. Mittah Seperepere International Convention Centre, Kimberley. South Africa. October 2018.

van der Waal, B.W. and Ellery, W.N.

van der Waal, B.W., Tooth, S., Ellery, W.N. and Lisenby, P. Degraded riverine wetlands in the Tsitsa River catchment: a geomorphological approach for assessing rehabilitation options. *National Wetlands Indaba 2018*. Mittah Seperepere International Convention Centre, Kimberley. South Africa. October 2018.

van der Waal, B.W., Tooth, S., Lisenby, P. and Ellery, W.N. A geomorphological approach to the prioritisation of wetlands for sediment trapping: Tsitsa River catchment, South Africa. *British Society for Geomorphology*. Aberystwyth University, Wales, United Kingdom. September 2018.



The "Old Provost" building on Rhodes University Campus - a historical buildings being investigated by Ms Zandile Dlongolo, lecturer and MSc student in the Department.

Credit: Emeritus Professor Roddy Fox



Credit: Simon Pamphilon

Professor Tony Booth
Acting Head of Department

The Department has moved into a consolidation phase after peaking in 2016 with its highest ever undergraduate numbers. The classes have shrunk a little and are not at the same size as the mid-2000s. Postgraduate numbers have stayed constant over the past five (5) years.

Academic and senior administrative staff numbers have now settled down with the Department having a full staff complement.

Overall, the Department has maintained its research profile with all staff together with its Research Associates contributing peer-reviewed papers, books and conference presentations.

Postgraduates / Graduations

At the 2018 graduation ceremony, the Department graduated two (2) research MSc students, and three (3) and two (2) MSc graduates from the department's prestigious Economic and Exploration Geology MSc programmes, respectively. In addition, the Department graduated nine (9) Honours students.

Distinguished Visitors / International Visits

- **Dr Eugene Grosch** hosted Professor Guilio Viola, the Chair of Structural Geology at University of Bologna, Italy and Dr David Wacey from the University of Western Australia.
- **Dr Rob Gess** hosted Professor Ahlberg of Uppsala University, Sweden, to work on remains of a four (4) metre predatory tristichopterid fish, *Hyneria*, of a genus only known from one other species from North America. Dr Alice Clement of Flinders University is collaborating with Dr Gess on a new genus and species of lungfish.
- **Ms Thapelo Moloto** travelled to the German Geo-Research Centre (GFZ) in Potsdam where she carried out her isotope analysis, using GFZ's SIMS facility. The work was funded by a UJ-based CoE (CIMERA).



Artist's reconstruction by Maggie Newman showing two new species, *Umzantsia Amazana* (left) and *Tutusius Umlambo* (right).
Credit: Department of Geology

Significant Research Aligned Events

Ms Thapelo Moloto, the first black female South African graduate with a Research MSc in Geology, used sulphur isotope systematics in pyrite from the Twangiza-Namoya Gold Belt in eastern Democratic Republic of the Congo (DRC) with the objective of trying to identify possible gold sources.

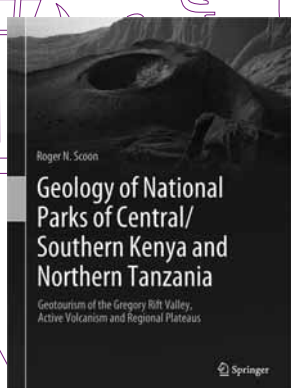
Professor Hari Tsikos' research unit PRIMOR began its next five (5) year cycle with renewed formal funding from ASSMANG. The unit is progressing strongly with the recruitment of further MSc and PhD students, and has a new industry collaboration with the company Giyani Metals in the field of battery-grade manganese exploration and mining.

Dr Grosch presented a seminar titled "Early Earth Crustal Evolution Recorded in the Barberton Greenstone Belt, South Africa" at the Geology Department, University of Cape Town (UCT).

A big departmental highlight was **Dr Gess'** publication in the prestigious journal *Science*. Apart from describing two (2) new species *Umzantsia amazana* and *Tutusius umlambo*, the latter in honour of Archbishop Emeritus Desmond Tutu, provides evidence that not all ancient tetrapod remains are from rocks originally laid down in tropical waters, chiefly from Laurussia (a continent then formed from what is now Europe, North America and Greenland).

PUBLICATIONS

Department of Geology



Books/Chapters/Monographs

Scoon, R.N.

Scoon, R.N. (2018) *Geology of National Parks of Central/Southern Kenya and Northern Tanzania: Geotourism of the Gregory Rift Valley, Active Volcanism and Regional Plateaus*. Switzerland: Springer International Publishing. ISBN: 9783319737843.

Distinguished Visitors

Grosch, E.G.

EG Grosch. University of Western Australia, Perth, Australia. *Associate Professor. David Wacey, research collaboration.* November 2018.

EG Grosch. University of Bologna, Chair of Structural Geology, Bologna, Italy. *Professor Giulio Viola, research collaboration, NRF Thuthuka visitor.* October 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Marsh, J.S.

Marsh, J.S., Phillips, D. and Lock, B.E. (2018) 40Ar/39Ar dating of the Klinghardt and Stalhart Phonolites, Namibia, and Comments on the Evolution of the Klinghardt Volcanic Field. *Communications of the Geological Survey of Namibia*. 2018 (2018). p.1-8.

Peer Reviewed Subsidy-Earning Journal Research Publications

Buttner, S.H.

Howarth, G.H. and **Buttner, S.H.** (2018) New constraints on archetypal South African kimberlite petrogenesis from quenched glass-rich melt inclusions in olivine megacrysts. *Gondwana Research*. 2018. p.1-11.

Gess, R

Gess, R. and Ahlberg, P.E. (2018) A tetrapod fauna from within the Devonian Antarctic Circle. *Science*. 360 (6393): p1120-1124.

Grosch, E.G.

Abu-Alam, T., El Monsef, M.A. and **Grosch, E.G.** (2018) Shear-zone hosted gold mineralization of the Arabian-Nubian Shield: devolatilization processes across the greenschist-amphibolite-facies transition. *Geological Society Special Publication*. 478 (2018). p.1-27.

Grosch, E.G. (2018) Metamorphic processes preserved in early Archean supracrustal rocks of the Barberton Greenstone Belt, South Africa. *Geological Society Special Publication*. 478 (2018). p.1-15.

Harmer, R.E.

Tanner, D., McDonald, I., **Harmer, R.E.**, Muir, D.D. and Hughes, H.S.R. (2018) A record of assimilation preserved by exotic minerals in the lowermost platinum-group element deposit of the Bushveld Complex: The Volspruit Sphide Zone. *Lithos*. 2018. p.1-25.

Land, J.S., Tsikos, H. and Cousins, D.

Land, J.S., Tsikos, H., Cousins, D., Luvizotto, G.L. and Zack, T.Z. (2018) Origin of red beds and paleosols in the Palaeoproterozoic Transvaal and Olifansthoek Supergroups of South Africa: provenance *versus* metasomatic controls. *Geological Journal*. 53 (2018). p.191-202.

Marsh, J.S.

Jay, A.E., **Marsh, J.S.**, Fluteau, F. and Courtillot, V. (2018) Emplacement of inflated Pahoehoe flows in the Naude's Nek Pass, Lesotho remnant, Karoo continental flood basalt province: use of flow-lobe tumuli in understanding flood basalt emplacement. *Bulletin of Volcanology*. 80 (17). p.1-16.

Marsh, J.S. and Swart, R. (2018) The Bero Volcanic Complex: Extension of the Parana-Etendeka Igneous Province into SW Angola. *Journal of Volcanology and Geothermal Research*. 355 (2018). p.21-31.

McLoughlin, N.

Qu, Y., Zhu, S., Whitehouse, M., Engdahl, A. and **McLoughlin, N.** (2018) Carbonaceous biosignatures of the earliest putative macroscopic multicellular eukaryotes from 1630 Ma Tuanshanzi Formation, north China. *Precambrian Research*. 304 (2018). p.99-109.

Moore, A.E.

Nestola, F., Korolev, N., Kopylova, M., Rotiroti, N., Pearson, D.G., Pamato, M.G., Alvaro, M., Peruzzo, L., Gurney, J.J., **Moore, A.E.** and Davidson, J. (2018) CaSiO₃ perovskite in diamond indicates the recycling of oceanic crust into the lower mantle. *Nature*. 555 (2018). p.237-241.

Korolev, N., Kopylova, M., Gurney, J.J., **Moore, A.E.** and Davidson, J. (2018) The origin of Type II diamonds as inferred from Cullinan mineral inclusions. *Mineralogy and Petrology*. 112 (Suppl 1). p.275-289.

Moore, J.M. and Tsikos, H.

Bordy, E.M., Bowen, D.A., **Moore, J.M.**, Garnett, M.H. and **Tsikos, H.** (2018) A Holocene "Frozen Accident": Sediments of Extreme Paleofloods and Fires in the Bedrock-Confined Upper Huis River, Western Cape, South Africa. *Journal of Sedimentary Research*. 88 (2018). p.696-716.

Oonk, P.B.H. and Tsikos, H.

Lantink, M.L., **Oonk, P.B.H.**, Floor, G.H., **Tsikos, H.** and Mason, P.R.D. (2018) Fe isotopes of a 2.4 Ga hematite-rich IF constrain marine redox conditions around the GOE. *Precambrian Research*. 305 (2018). p.218-235.

Oonk, P.B.H., Mason, P.R.D., **Tsikos, H.** and Bau, M. (2018)

Fraction-specific rare earth elements enable the reconstruction of primary seawater signatures from iron formations. *Geochimica et Cosmochimica Acta*. 238 (2018). p.102-122.

Prevec, S.A. and Buttner, S.H.

Prevec, S.A. and **Buttner, S.H.** (2018) Multi-phase emplacement of impact melt sheet into footwall: Offset dykes of the Sudbury Igneous Complex, Canada. *Meteoritics & Planetary Science*. 53 (7). p.1301-1322.

Scoon, R.N.

Scoon, R.N. and Mitchell, A.A. (2018) Discussion of "Arguments against Syn-magmatic Sills in the Bushveld Complex, South Africa" by R. Latypov, S. Chistyakova and J. Kramers. *South African Journal of Geology*. 121 (2). p.201-210.

Scoon, R.N. and Costin, G.

Scoon, R.N. and **Costin, G.** (2018) Chemistry, Morphology and Origin of Magmatic-Reaction Chromite Stringers Associated with Anorthosite in the Upper Critical Zone at Winnaarshoek, Eastern Limb of the Bushveld Complex. *Journal of Petrology*. 59 (8). p.1551-1578.

Tsikos, H.

Gale, A.S., Jenkyns, H.C., **Tsikos, H.**, van Breugel, Y., Damste, J.S.S., Bottini, C., Erba, E., Russo, F., Falzoni, F., Petrizzo, M.R., Dickson, A.J. and Wray, D.S. (2018) High-resolution bio- and chemostratigraphy of an expanded record of Oceanic Anoxic Event 2 (Late Cenomanian-Early Turonian) at Clot Chevalier, near Barremer, SE France (Vocontian Basin). *Newsletters on Stratigraphy*. 2018. p.1-33.

Wang, X., Planavsky, N.J., Hofmann, A., Saupe, E.E., De Corte, B.P., Philippot, P., LaLonde, S.V., Jemison, N.E., Zou, H., Ossa, F., Rybacki, K., Alfimova, N., Larson, M.J., **Tsikos, H.**, Fralick, P.W., Johnson, T.M., Knudsen, A.C., Reinhard, C.T. and Konhauser, K.O. (2018) A Mesoarchean shift in uranium isotope systematics.

Geochimica et Cosmochimica Acta. 238 (2018). p.438-452.

Thibon, F., Blichert-Toft, J., **Tsikos, H.**, Foden, J., Albalat, E. and Albarede, F. (2018) Dynamics of oceanic iron prior to the Great Oxygenation Event. *Earth and Planetary Science Letters*. 2018. p.1-11.

Van Niekerk, D.

Hayes, B., Bybee, G.M., Mawela, M., Nex, P.A.M. and **Van Niekerk, D.** (2018) Residual Melt Extraction and Out-of-sequence Differentiation in the Bushveld Complex, South Africa. *Journal of Petrology*. 59 (12). p.2413-2434.

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

Buttner, S.H.

Buttner, S.H. and Howarth, G.H. The evolution of Kimberlitic melt inclusions in olivine megacrysts from the Monastery kimberlite. *10th Igneous and Metamorphic Studies Group Conference: IMSG 2018, Book of Abstracts, Cape Town, South Africa*. University of Western Cape, Cape Town. South Africa. January 2018.

Maleki, L., Omran, N.R., Hooshmandzadeh, A., **Buttner, S.H.** and Cattel, J. Retrogressed eclogites and eclogitic metagabbros in the Boneh Shuraw Complex, Central Iran. *EUG General Assembly 2018*. Conference Center, Vienna. Austria. May 2018.

De Bruyn, J.A. and Prevec, S.A.

De Bruyn, J.A. and **Prevec, S.A.** Polyphase zircon growth in the thermal aureole of the Sudbury Impact Structure, Canada. *Igneous and Metamorphic Studies Group 10th Annual Conference (IMSG), South Africa*. University of the Western Cape, Belleville. South Africa. January 2018.

Mhlanga, X.R. and Tsikos, H.

Mhlanga, X.R., **Tsikos, H.**, Lee, B.K., Lyons, T.W. and Boyce, A. Trace Element Evidence from the 2.4 Ga Hotazel Fe-Mn Formation, South Africa, Constrains Marine Redox Conditions at the Onset of the Great Oxidation Event. *AGU 100 Fall Meeting*. Walter E. Washington Convention Center, Washington, D.C. United States of America. December 2018.

Mhlanga, X.R., **Tsikos, H.** and **Oonk, P.B.H.**

Mhlanga, X.R., **Tsikos, H.**, **Oonk, P.B.H.**, Mason, P.R.D., Lee, B. and Lyons, T.W. Marine redox evolution and Co-Mn signals of the Great Oxidation Event. *Goldschmidt 2018*. John B. Hynes Veterans Memorial Convention Center, Boston. United States of America. August 2018.

Tsikos, H.

Thibon, F., Blichert-Toft, J., **Tsikos, H.**, Foden, J., Albalat, E. and Albarede, F. The Fe homeostasis of the pre-GOE ocean. *Goldschmidt 2018*. John B. Hynes Veterans Memorial Convention Center, Boston. United States of America. August 2018.

Blignaut, L.C., Viljoen, K.S., Elburg, M. and **Tsikos, H.** Boron isotope and REE signature and their sources in manganese ores of the Kalahari Manganese Field. *Goldschmidt 2018*. John B. Hynes Veterans Memorial Convention Center, Boston. United States of America. August 2018.

Tzifas, I., Misaelides, P., Glasmacher, U.A., Godelitsas, A., Kantiranis, N., **Tsikos, H.**, Karydas, A.G. and Noli, F. Distribution of uranium in sedimentary and synthetic carbonate apatites using radiochemical and atomic analytical techniques. *European Geosciences Union (EGU) General Assembly 2018*. Vienna. Austria. April 2018.



Credit: Simon Pamphilon

Professor Alan Kirkaldy
Head of Department

During the course of 2018, the Department was involved in a process of re-structuring and re-staffing. This meant that teaching loads were heavier than usual and a more limited range of activities were undertaken than in other years.

The situation was considerably improved by the appointment of **Professor Helena Pohlandt-McCormick** and **Dr Janeke Thumbbran**.

The successful changes implemented and projects adopted in the Department bode well for next year's report.

Postgraduates / Graduations

The Department graduated three (3) PhDs, three (3) MAs, seven (7) Honours and one hundred and eleven (111) undergraduate students during the year.

Distinguished Visitors / International Visits

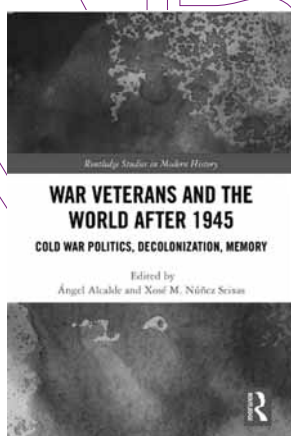
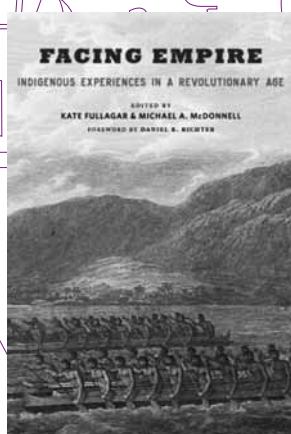
Staff members presented papers at overseas conferences held at the University of Padua and Queen's University, Belfast, Northern Ireland.

Significant Research Aligned Events

In conjunction with the SARCHI Chair in Social Change at the University of Fort Hare, the Department hosted the first Rhodes/Fort Hare collaboration of Eastern Cape Historians. Follow-up arrangements were made for future activities.

PUBLICATIONS

Department of History



Books/Chapters/Monographs

Baines, G.F.

Baines, G.F. (2018) Retracing Memories of War: South African Military Veterans as Tourists in Angola. In: Alcalde, A. and Núñez Seixas, X.M. (ed.). *War Veterans and the World after 1945: Cold War Politics, Decolonization, Memory*. London: Routledge. p.235-249. ISBN: 9780815359715.

Bruchhausen, S.

Bruchhausen, S. and **Naicker, C.** (2018) Broadening Conceptions of Democracy and Citizenship: The Subaltern Histories of Rural Resistance in Mpondoland and Marikana. In: Helliker, K. and van der Walt, L. (eds.). *Politics at a Distance from the State: Radical and African Perspectives*. London: Routledge. p.80-95. ISBN: 9780815346920.

Byrne, S. and Ulrich, N.

Byrne, S. and **Ulrich, N.** (2018) Prefiguring democratic revolution 'Workers' control' and 'workerist' traditions of radical South African labour, 1970-1985. In: Helliker, K. and van der Walt, L. (eds.). *Politics at a Distance from the State: Radical and African Perspectives*. London: Routledge. p.1-10. ISBN: 9780815346920.

Mnyaka, P.

Treharne, G.J., **Mnyaka, P.**, **Marx, J.** and **Macleod, C.I.** (2018) Traversing Ethical Imperatives: Learning from Stories from the Field. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.429-453. ISBN: 9783319747200.

Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (2018) Ethics in Critical Research: Stories from the Field. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.1-13. ISBN: 9783319747200.

Mnyaka, P. and **Macleod, C.I.** (2018) Introduction: Blurring Boundaries. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.133-143. ISBN: 9783319747200.

Msindo, E.

Msindo, E. (2018) Postcolonial Africa and the West. In: Shanguhyia, M.S. and Falola, T. (eds.). *The Palgrave Handbook of African Colonial and Postcolonial History*. USA: Palgrave Macmillan. p.759-784. ISBN: 9781137594259.

Msindo, E. (2018) Colonial Africana and the West. In: Shanguhyia, M.S. and Falola, T. (eds.). *The Palgrave Handbook of African Colonial and Postcolonial History*. USA: Palgrave Macmillan. p.535-550. ISBN: 9781137594259.

Ulrich, N.

Ulrich, N. (2018) Between Reform and Revolution: Class Formation and British Colonial Rule at the Cape of Good Hope. In: Fullagar, K. and McDonnell, M.A. (eds.). *Facing Empire: Indigenous Experiences in a Revolutionary Age*. USA: John Hopkins University Press. p.163-191. ISBN: 9781421426563.

Concerts, Exhibitions, Performances, Workshops, Events

Maylam, P.

Khan, S., Hendricks, F.T., Raga, K. and **Maylam, P.** Co-facilitator. Article writing. *National Institute for Humanities and Social Sciences Article Writing Workshop*. My Pond Hotel, Port Alfred. South Africa. 4 - 5 December 2018.

Stamper, S.A.Y.

Stamper, S.A.Y. Performer. Becoming the archive, Converge Exhibition. *National Arts Festival*. Arts of Africa and Global Souths, Grahamstown. South Africa. 3 July 2018.

Ulrich, N. *Visit to UK National Archives in Kew*, London, United Kingdom. April 2018.

Peer Reviewed Subsidy-Earning Journal Research Publications

Baines, G.F.

Baines, G.F. (2018) An African Volk: The Apartheid Regime and the Search for Survival by Jamie Miller. *Cold War History*. 18 (3). p.381-384.

Baines, G.F. and Barkhuizen, G.L.

Baines, G.F. and Barkhuizen, G.L. (2018) South African Defence Force veterans' modes of remembering and the ethics of post-apartheid nostalgia. *Memory Studies*. 13 (6). p.1-15.

Catsam, D.

Catsam, D. (2018) Note: The Wizard of Williamstown? How John Wooden almost became an Eph instead of a Bruin. *Journal of the West*. 57 (2). p.3-6.

Catsam, D. (2018) On race, sport, and politics in South Africa's past and present. *Safundi: Journal of South African and American studies*. 19 (2). p.246-251.

Madimu, T. and Msindo, E.

Madimu, T., Msindo, E. and Swart, S. (2018) Farmer-Miner Contestations and the British South Africa Company in Colonial Zimbabwe, 1895-1923. *Journal of Southern African Studies*. 44 (5). p.793-814.

Mkhize, N.

Mkhize, N. (2018) In Search of Native Dissidence: RT Kawa's *Mfecane* Historiography in *Ibali lamaMfengu* (1929). *International Journal of African Renaissance Studies*. 13 (2). p.92-111.

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

Baines, G.F.

Baines, G.F. Lilliesleaf Museum and the Memorialisation of the Armed Struggle in Post-Apartheid South Africa. *4th Regional History Conference*. North-West University, Vereeniging. South Africa. November 2018.

Baines, G.F. Disavowed by History: Military Veterans, Victimhood and the Politics of Memory in Post-Apartheid South Africa. *Making Peace: Transitions after War from Antiquity to the Present*. University of Padua, Padua (aka Padova). Italy. November 2018.

Baines, G.F. Common Cause, Incompatible Interests? Revisiting the Apartheid Regime's Relations with and Military Support for Rhodesia, c.1976-80. *Rhodesia to Zimbabwe: The Diplomacy of Isolation and Liberation*. University of Pretoria, Pretoria. South Africa. June 2018.

Chinembiri, C.

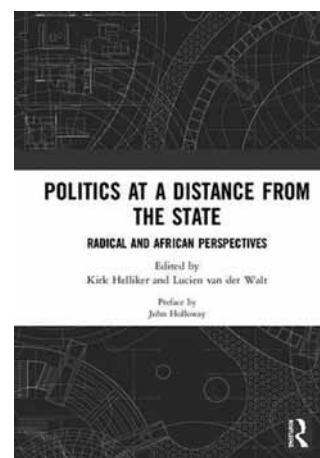
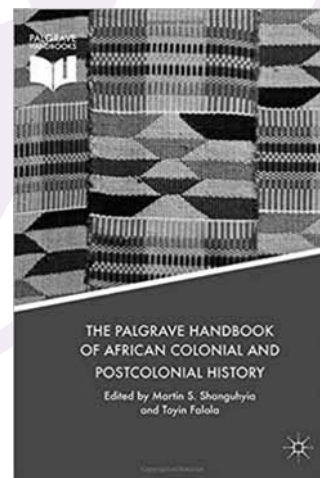
Chinembiri, C. Contestations in Conceptions of Quality in the History of the National Council for Higher Education, (NCHE) of Zimbabwe, 1990 to 2006. *Postgraduate Conference, Education is a Public Good*. Rhodes, Grahamstown. South Africa. July 2018.

Dixon, H.M.C.

Dixon, H.M.C. "Constructing Community: How has a South African identity been constructed through the portrayal of 'foreign' nationals in the Daily Sun and how has this changed from 2002- 2008?" *Historical Association of South Africa (HASA) Biennial Conference: Miracles and Mirages: The fall of the oldest and rise of the newest South Africa ... and beyond*. Black Mountain Leisure & Conference Hotel, Thaba Nchu. South Africa. January 2018.

Ulrich, N.

Ulrich, N. Labour, Freedom and the Making of Modern Imperialism at the British Cape of Good Hope during the Age of Revolutions, c. 1795-1803. *European Social Science History Conference*. Queen's University, Belfast. Northern Island. April 2018.



Department of Human Kinetics and Ergonomics (HKE)



Credit: Simon Pamphilon

Dr Swantjie Zschoernack
Head of Department

The department had a very successful year in the research sphere with a number of publications which include student co-authors and national and international collaborators.

Postgraduates / Graduations

In 2018 the department graduated one (1) PhD candidate, five (5) MSc students and seventeen (17) Honours students.

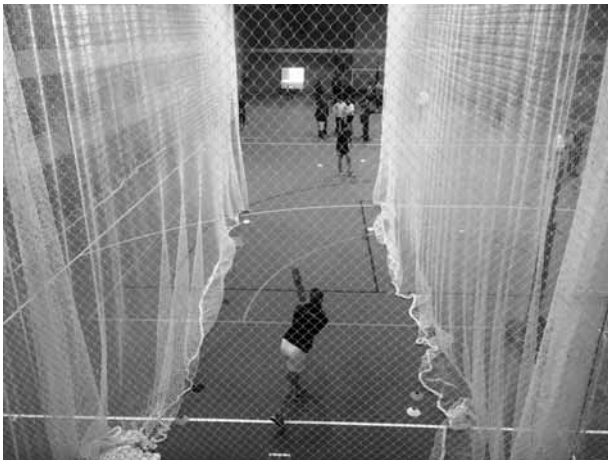
Distinguished Visitors / International Visits

The department welcomed a number of international visitors; Professor Jose Orlando Gomes presented a seminar series on cognitive ergonomics related to emergency response and disaster management.

Professor Samuele Marcora visited the department together with his wife Dr TingTing Peng. Their visit to Grahamstown was linked with collaborative research with **Professor Christie**. While he was here, Professor Marcora did several seminars with the honours class on the psychobiology of physical activity behavior and the psychobiology of endurance performance. He also presented a public lecture. Professors Christie and Marcora also spent the time working on joint research initiatives for long term collaboration.

Dr Will Vickery visited from Northumbria University to work on a collaborative research project on the constraints-led coaching strategy in cricket, with **Professor Christie**. He held various lectures on the constraints led approach as well as a practical session on this coaching method which was open to all cricket coaches in the Makana region. He is currently co-supervisor of a PhD thesis with Professor Christie registered with Rhodes University.

Professor Sylvain Leduc, President of the Federation of European Ergonomics Societies (FEES) from Aix-Marseille University in France presented a workshop on the Francophone approach to human factors and ergonomics, particularly focussing on Activity Analysis.



Dr Will Vickery (La Trobe University, Australia) conducting a constraints-led coaching workshop with Rhodes HKE students and researchers as well as local coaches.

Credit: HKE

Andrew Todd has continued his international work as a member of the International Ergonomics Association (IEA) committee. He, again, travelled extensively around the world for conferences and meetings to promote Human Factors and Ergonomics.

Significant Research Aligned Events

Postgraduate students and staff presented at the South African Sleep Health Symposium hosted by the Sport Science Institute of South Africa where **Dr Jonathan Davy** presented a keynote address.

The department was also well represented at the Triannual Conference of the International Ergonomics Association in Florence, Italy.

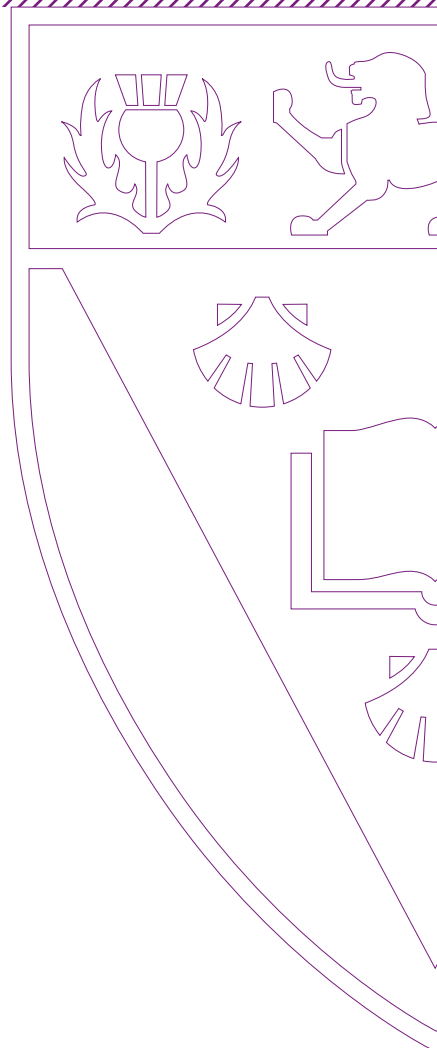


The staff of the Centre for Biological Control (CBC) participated in an ergonomics workshop. This was part of a collaborative service-learning arrangement between the HKE Department and the CBC.

Credit: HKE

PUBLICATIONS

Department of Human Kinetics and Ergonomics (HKE)



Books/Chapters/Monographs

Egwuonwu, A.V. and Goebel, M.

Egwuonwu, A.V., Goebel, M. and Obi, P.C. (2018) Field Evaluation of Task Requirements of Mining Jobs in Nigerian Quarry Mines: A Pilot Study. In: Karwowski, W. and Goonetilleke, R.S. (eds.). *Advances in Physical Ergonomics & Human Factors*. Switzerland: Springer International Publishing. p.120-131. ISBN: 9783319944845.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Olagbegi, O.M.

Ogunlana, M.O., Odole, A.C., Adejumo, A., Olagbegi, O.M. and Williams, O.O. (2018) Augmenting conventional treatment of non-specific low back pain with progressive goal attainment programme. *Physical Therapy Reviews*. 23 (4). p.133-143.

Peer Reviewed Subsidy-Earning Journal Research Publications

Christie, C.J.

Draper, C.E., Tomaz, S.A., Bassett, S.H., Burnett, C., Christie, C.J., Cozett, C., de Milander, M., Krog, S., Monyeke, A., Naidoo, N. and et al. (2018) Results from South Africa's 2018 Report Card on Physical Activity for Children and Youth. *Journal of Physical Activity & Health*. 15 (S2). p.406-408.

Christie, C.J., Sheppard, B., Goble, D. and Pote, L.

Christie, C.J., Sheppard, B., Goble, D., Pote, L. and Noakes, T.D. (2018) Strength and Sprint Time Changes in Response to Repeated Shuttles Between the Wickets During Batting in Cricket. *Journal of Strength and Conditioning Research*. 2018. p.1-9.

Clark, M.E., Mcewan, K. and Christie, C.J.

Clark, M.E., Mcewan, K. and Christie, C.J. (2018) The effectiveness of constraint-led training on skill development in interceptive sports: A systematic review. *International Journal of Sports Science & Coaching*. 2018. p.1-12.

Davy, J. and Todd, A.

Davy, J., Weaver, K.N., Todd, A. and Paphitis, S. (2018) "Ergonomics on the Ground": A Case Study of Service Learning in Ergonomics Education. *Advances in Intelligent Systems and Computing*. 2018. p.1-10.

Davy, J., Rasetsoke, D. and Todd, A.

Davy, J., Rasetsoke, D., Todd, A., Quazi, T., Ndlovu, P., Dobson, R. and Alfors, L. (2018) Analyses of Time in Informal Economy Workers Reveals Long Work Hours, Inadequate Rest and Time Poverty. *Advances in Intelligent Systems and Computing*. 2018. p.1-10.

Egwuonwu, A.V. and Goebel, M.

Egwuonwu, A.V., Goebel, M. and Obi, P.C. (2018) Field Evaluation of Task Requirements of Mining Jobs in Nigerian Quarry Mines: A Pilot Study. *Advances in Intelligent Systems and Computing*. 789 (2018). p.120-131.

Goodenough, L.B. and Zschoernack, S.

Goodenough, L.B. and Zschoernack, S. (2018) Quantifying the Impact of Submersion in Water and Breathing Type on Cognitive Resource Utilization. *Advances in Intelligent Systems and Computing*. 2018 (2018). p.1-6.

Munro, C.E. and Christie, C.J.

Munro, C.E. and Christie, C.J. (2018) Research directions for the enhancement of women's cricket. *International Journal of Sports Science & Coaching*. 13 (5). p.708-712.

PUBLICATIONS

Olagbegi, O.M.

Jaiyesinmi, A.O., Areoye, O.J., **Olagbegi, O.M.**, Bolarinde, S.O. and Uduonu, E.M. (2018) Work-related musculoskeletal disorders and predisposing factors among commercial motorcyclists in Ibadan North Local Government Area, Nigeria. *Occupational Health Southern Africa*. 24 (3). p.73-78.

Pote, L. and Christie, C.J.

Pote, L. and Christie, C.J. (2018) A novel intervention program (CricFit) for the strength and conditioning of adolescent cricket players. *Human Movement*. 19 (1). p.34-43.

Pote, L. and Christie, C.J. (2018) Injury Prevention Strategies in Cricket. *Strength and Conditioning Journal*. 40 (5). p.34-43.

Zschoernack, S. and Bennett, C.K.

Zschoernack, S. and Bennett, C.K. (2018) The Effects of Food Packaging on Driving Performance When Eating While Driving. *Advances in Intelligent Systems and Computing*. 2018. p.1-11.

Zschoernack, S., Goebel, M. and Hoyi, Z.

Zschoernack, S., Goebel, M. and Hoyi, Z. (2018) The Effects of the Type of Rest Breaks on Return-to-Task Performance in Semi-automated Tasks with Varying Complexities. *Advances in Intelligent Systems and Computing*. 2018. p.1-9.

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

Campbell, B.C., Davy, J. and Christie, C.J.

Campbell, B.C., Davy, J. and Christie, C.J. Time of Day Effects on Perceptual, Physical and Performance Indicators of Adolescent Fast Bowlers. *South African Sleep Health Symposium*. Cape Town, South Africa, 10-11 September. University of Cape Town, Cape Town. South Africa. September 2018.

Christie, C.J.

Draper, C., Tomaz, S.A., Bassett, S., Burnett, C., **Christie, C.J.**, Cozett, C., de Milander, M., Krog, S., Monyeki, A., Naidoo, N., Naidoo, R., Pioreschi, A., Walter, C., Watson, E. and Lambert, E.V. Results from South Africa's 2018 Report Card on Physical Activity for Children and Youth. *The Movement to more: Global insights to get our kids moving*. Adelaide, Australia. November 2018.

Davy, J.

Davy, J. Managing fatigue in aviation: it's about the system. *South African Sleep Health Symposium 2018*. Sports Science Institute of South Africa, Cape Town. South Africa. September 2018.

Davy, J. and Todd, A.

Davy, J. and Todd, A. On inhloko, imphepho and carboard- examples of everyday resilience in the informal economy at Warwick Junction in Durban. *Community Engagement and Social Innovation Symposium*. Rhodes University, Grahamstown. South Africa. August 2018.

Mandondo, N.L., Davy, J. and Zschoernack, S.

Mandondo, N.L., Davy, J. and Zschoernack, S. Understanding sleep patterns and exploring the individual factors that mediate the reported sleep quality in a sample of Rhodes University students. *South African Sleep Health Symposium 2018*. Sports Science Institute of South Africa, Cape Town. South Africa. September 2018.

Mcewan, K., Sholto-Douglas, R. and Christie, C.J.

Mcewan, K., Wilkie, M., Cook, R.L., Sholto-Douglas, R. and Christie, C.J. The effect of psychometric status on training and match workloads of professional TWENTY20 cricketers. *South African Sleep Health Symposium*. Cape Town, South Africa, 10-11 September. University of Cape Town, Cape Town. South Africa. September 2018.

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On Sunday 15 April 2018, 30 third year and Postgraduate students from the Department of HKE participated in the volunteer programme for the Ironman 70.3 event hosted in Port Elizabeth. They were involved in the massage programme, providing relief to the aching muscles of 1850 competitors. Ironman athletes have to complete 1.9km of swimming, 90km cycling and 21.1km of running.

Credit: Rhodes University Communications and Advancement Division

Department of Ichthyology and Fisheries Studies (DIFS)



Credit: Simon Pamphilon

Associate Professor Clifford Jones
Head of Department

The Department of Ichthyology and Fisheries Studies (DIFS) had a very successful year, with more than eighty (80) research projects underway, and with an increase in our research outputs and in third stream income.

Postgraduates / Graduations

The DIFS continues to play a significant role in Postgraduate training with numerous Honours, MSc and PhD students graduating in 2018.

Dr Charles Teta, a Postdoctoral Research Fellow, is researching aquatic health. His research encompasses aquatic toxicology, emerging organic contaminants and their fate in the environment, endocrine disrupting chemicals and the development of non-invasive methods for assessing aquatic health. Some of his research involved evaluation of anaesthetic chemicals, by assessing fish stress responses. Dr Teta carried out his research in collaboration with **Professor Horst Kaiser** and Dr Edmond Sanyanyado (Shantou University, China).

Dr Kelly Ortega's, Postdoctoral Research Fellow, research includes the use of ecosystem models as tools to explore fisheries management and environmental change scenarios. Kelly's research using an Atlantis model for the west and south coast of South Africa has been conducted in collaboration with **Professor Kevern Cochrane**, Dr Lynne Shannon (University of Cape Town) and Dr Elizabeth Fulton (CSIRO, Australia). Her work also investigates model uncertainty and the use of different ecosystem models to explore scenarios. Her research evaluates future impacts of environmental change on the small pelagics fishery using models of intermediate complexity for ecosystems in collaboration with Dr Carryn de Moor (University of Cape Town) and Professor Cochrane.

Distinguished Visitors / International Visits

Professor Warwick Sauer travelled to America to visit local universities and attend a conference, London to attend a research meeting; various countries in Africa and London for ongoing research projects; and the University of Mauritius to act as external examiner.



Trout sea cages in Saldana Bay.
Credit: DIFS



Trout cages in Stellenbosch.
Credit: DIFS

Associate Professor Cliff Jones represented the DIFS and Rhodes University at the following international events:

- He traveled to Kenya as the external examiner for Department Fisheries and Aquatic Sciences, Eldoret University. He has been appointed by the Council of the Eldoret University (Kenya) as the external examiner for this department for a period of three (3) years.
- Aqua-Vitae project proposal-writing workshop: Cliff Jones travelled to Copenhagen (Denmark) to develop a collaborative research network with various researchers from sixteen (16) different countries. At the meeting, he was nominated leader for one of the proposed research project's three (3) innovation work packages. The project has subsequently been funded by the European Commission.
- Traveled to Xiamen (China) and presented a paper at International Abalone Symposium.

Professor Peter Britz attend the Abalone Symposium in China and represented the DIFS at a workshop to discuss MSc curriculum development in France.

Professor Warren Potts worked extensively with colleagues on his climate change work in Angola.

Dr Kelly Ortega travelled to America to attend the International Symposium on the Effects of Climate Change on the World's Oceans, Washington, and to the Far East where she also delivered an oral presentation at the International Marine Conservation Congress, Kuching, Malaysia.

Significant Research Aligned Events

Professor Peter Britz

Professor Britz's Postgraduate team's abalone (perlemoen) sea ranching project at Port Elizabeth, is restoring the heavily poached abalone population by reseedling hatchery reared juvenile abalone. The pilot project, which is a partnership between government, the aquaculture industry and Rhodes University, has demonstrated that the poached population is recovering through a combination of reseedling of farmed and reducing poaching fishing effort. The model potentially provides a solution for the abalone poaching problem and a foundation for a sustainable fishery with job creation for local communities. Professor Britz received an International Abalone Society (IAS) Academy Award at the IAS conference in Xiamen, China in recognition of his career contributions to abalone aquaculture and biology.

Professor Warwick Sauer

Professor Sauer was involved in a number of new and ongoing research initiatives; SOLSTICE - Sustainable Oceans, livelihoods and food security, through increased capacity in ecosystem research in the Indian Ocean is a project involving South Africa, Tanzania and Kenya, with a host of research activities.

A second international project involves the Benguela Current Convention (BCC), which includes South Africa, Namibia and Angola, investigating how climate change is effecting some of the key fisheries in the region, and how they can adapt to the changes.

A number of Postgraduate students were busy with their projects around Africa and further abroad, including Namibia, Mauritius, the Falkland Islands and Mozambique.

A visit to America, with a conference presentation in Florida and discussions with various University senior administrators around future collaboration took place toward the end of the year. A trip was made to Mauritius to act as an external examiner and to Zanzibar, Dar es Salaam, Mombasa and London to discuss various projects. Six (6) manuscripts were published in rated peer reviewed international scientific journals.

Professor Sauer was awarded the Rhodes University Internationalization award for 2018.

Field research involving SCUBA was carried out in November over a two (2) week period in St Francis Bay, investigating spawning concentrations of the South African chokka squid (calamari).

Associate Professor Horst Kaiser

Associate Professor Horst Kaiser continued with various research projects aimed at improving abalone farm technologies (i.e. larval settlement of South African abalone and abalone physiology).

Together with Associate Professor Cliff Jones, the department published a first study on the effect of dietary soya levels and crystalline isoflavones on growth, gonad development and gonad histology of farmed abalone, *Haliotis midae*.

Associate Professor Kaiser also continued his collaboration with the South African Institute for

Aquatic Biodiversity (SAIAB) researchers on invasive species behaviour and their functional responses. For this research we used the greenhouse tunnel belonging to DIFS for the fourth year in a row.

He continued collaborating with a new Rhodes University postdoctoral fellow, Dr Charles Teta, on research topics related to fish physiology and anaesthetics, and published results on the use of crystal menthol as an anaesthetic in fish.

The collaboration with researchers from the University of Uganda resulted in a paper on sperm morphology and ultrastructure in Nile perch. He joined a newly formed Research Group in 2018 on estuarine pipefish conservation, which includes researchers from the University of Johannesburg, SAIAB, and the Knysna Basin Project.


Associate Professor Kaiser was invited in 2018 to become an Associate Editor of the journal *Aquaculture Research* and continues as Section Editor for the *Journal of Applied Ichthyology*. He continued as the departmental chairperson of RUEEC-AE, the Rhodes University Ethical Standards Committee.

Associate Professor Warren Potts

Associate Professor Potts is the leader along with **Dr Childs** of the Southern African Fisheries Ecology Research Lab (SAFER lab, see <https://www.safisheriesecologyresearchlab.com/>), which maintains a broad focus on the study of coastal and estuarine fish and fisheries. Research interests include fish life history, physiology and movement, with an emphasis on how these are influenced by environmental change (at a range of timescales) and exploitation.



Abalone farm - Aquanion Pty Ltd, Roman Bay.
Credit: DIFS



The African Coelacanth Ecosystem Project, which aims to examine the impact of exploitation on the physiology of fishes is well underway. We completed a successful field spawning of red roman in the field and managed to rear the larvae for twenty (20) days post hatch. We also completed the validation of field metabolic rate of red roman in the laboratory using a swim tunnel and have deployed acoustic arrays and tagged fish (with acoustic tags that record swimming speed) in comparable habitats inside and outside a marine protected area. This sub-project will compare the metabolic activity of exploited and unexploited fish at a range of temperature in the wild.

The Angola research program has continued with two (2) PhD candidates completing or in the process of completing their theses on the movement behaviour of important coastal fishery species. We continue to collaborate with the Ocean Tracking Network (Canada), the Agostinho Neto University and the Ministry of Fisheries on this project.

Our physiology and climate change research has expanded into Namibia. We obtained funding and have initiated a project examining the impact of a climate-driven distributional shift and hybridisation of a coastal fishery species. This project includes a life history, morphology and physiology component and aims to make a holistic assessment, including a prediction of the outcome of the first climate-driven hybridization event documented for a marine fish.

The human dimensions research on recreational fisheries has continued. This has included the completion of an assessment and drivers of the compliance of South African marine shore based anglers and a global evaluation on the role of recreational angling guides on the catch and release behaviour of recreational anglers. These research projects form the basis of two (2) PhD projects.

The lab has also continued with fish life history and fisheries research. Several students are involved in these components and these are distributed across southern Africa, including South Africa, the Seychelles and Namibia.

The community engagement component of the SAFER lab, which partners with a community of recreational fishers to improve their environmental

behaviour, has continued with the Honours class participating in an engaged research experiment during the National competition in Mosselbay. We published a paper which documented the role of a pro-environmental approach to improve the catch and release behaviour of recreational anglers. This was a global first and has attracted a great deal of interest.

The lab continues to grow. Two (2) Postdoctoral Research Fellows joined at the end of 2018 and the lab supported the research of twenty-one (21) Postgraduate students, all of which are supervised by Associate Professor Potts.

Associate Professor Clifford Jones

Cliff Jones represented Rhodes University in the *Collaborative Training in Fisheries and Aquaculture in East, Central and Southern Africa (COTRA)* program in 2018. This is a multi-institutional and multi-national (eight (8) countries) project that aims to mobilise researchers (staff and MSc/PhD students) working on fisheries and aquaculture related research project within Eastern, Central and Southern Africa. The project will develop collaborative research and teaching relationships and a mutual exchange of ideas, expertise and access to research facilities that promotes improved quality of research, teaching and learning in the higher education of aquaculture and fisheries science, in the region. The project is funded by the Inter-Africa Academic Mobility Scheme (Call for proposals EACEA/05/2017), an initiative of the European Commission in partnership with the African Union.

He also initiated the DIFS involvement in the *Aqua-Vitae* research program, and travelled to Belgium in 2018 to participate in the research-proposal writing-phase of this project. The consortium, which consisted of thirty-six (36) members from sixteen (16) countries, won the European Commission Horizon 2020 research funding bid to the value of \$8-million (R130-million). This will see the DIFS participating in numerous Postgraduate research projects aimed at improving environmental sustainability in aquaculture development over the next four (4) years.

He also continued his research projects on integrating aquaculture with other water users, with a focus on water reuse and nutrient recycling. Here he continued

to work with **Dr Tom Shipton**, Professor Keith Cowan and Mr Richard Laubscher from the Institute for Environmental Biotechnology, Rhodes University (EBRU) and collaborating with Professor Mark Laing (University of KwaZulu-Natal) and South African Breweries.

He also continued his work in developing abalone feeds with Professor Peter Britz and abalone farm development technologies with Associate Professor Horst Kaiser, working closely with industry partners Marifeed Pty Ltd and HIK Abalone Pty Ltd and Aquinion Pty Ltd.

Dr Amber Childs

Dr Amber-Robyn Childs is continuing her research on the biology, ecology, physiology and movement behaviour of estuarine and coastal fishes, with implications for fisheries and climate change. Her research also involves the biological and social aspects of recreational fisheries.

She is currently involved in several ongoing research programmes using laboratory (ecophysiology) and field-based research and supervising several Post-graduate students with her collaborators. She is part of Associate Professor Potts' research lab (<https://www.safisheriesecologyresearchlab.com/>) and is involved in several SAFER lab projects including:

- i) assessing the physiological and behavioural plasticity of linefish species - specifically the effects of fisheries-induced evolution and climate change through using acoustic telemetry and physiology as part of an ACEP program (one (1) MSc, two (2) PhD students),
- ii) assessing the physical and physiological impacts of catch and release angling, evaluating the use of pro-environmental behavioural interventions to improve the health and survival of fishery species and understanding a West African recreational fishery as a socio-ecological system (two (2) MSc, two (2) PhD students, collaborators: Dr J Mann (ORI), Professor A Danylchuk (US), Dr J Brownscombe (Canada), and
- iii) investigating the links between movement behaviour and climate change in Angola via the Ocean Tracking Network (OTN) (two (2) PhD candidates of which one (1) completed this year).

Other ongoing programmes involve assessing the nursery function of estuaries and nearshore marine habitats, with emphasis on the recruitment mechanisms of estuarine and coastal fish species using beam trawl surveys, and choice chamber experiments (one (1) PhD candidate, collaborators: Dr N James (SAIAB), Dr P Patrick (SAEON)), and understanding the migration ecology and habitat connectivity of coastal fishery species in South Africa using acoustic telemetry (she is in the process of writing manuscripts with her national and international collaborators using data collected during the last decade of research in this field via the SA-Norway bilateral) (Collaborators: Professor P Cowley (SAIAB), Dr T Murray (SAIAB), Dr T Naesje (Norway)).

Dr Wilbert Kadye

Dr Wilbert Kadye conducted research on freshwater ecology, covering aspects that include trophic ecology and food web dynamics. He worked in collaboration with Dr Albert Chakona (SAIAB) and Dr Emmanuel Vreven (RMCA, Belgium) in the field of freshwater systematics and taxonomy.



Above: Integrated aquaculture - SAB tunnel in Port Elizabeth.
Credit: DIFS

Left: Abalone.
Credit: DIFS

PUBLICATIONS

Department of Ichthyology and Fisheries Studies (DIFS)



Books/Chapters/Monographs

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Other Publications

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Edworthy, C., Erasmus, B., Kemp, J.O.G., Kaiser, H. and Potts, W.M.

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Sanganyado, E., **Teta, C.** and Masiri, B. (2018) Impact of African Traditional Worldviews on Climate Change Adaptation. *Integrated Environmental Assessment and Management*. 14 (2). p.189-193.

Teta, C. and Naik, Y.S. (2018) Endosulfan reduces fertilization success and causes abnormal embryo development to zebrafish. *Toxicological and Environmental Chemistry*. 100 (4). p.452-464.

Teta, C., Holbech, B.F., Norrgren, L. and Naik, Y.S. (2018) Occurrence of oestrogenic pollutants and widespread feminisation of male tilapia in peri-urban dams in Bulawayo, Zimbabwe. *African Journal of Aquatic Science*. 43 (1). p.17-26.

Winkler, A.C., Potts, W.M., Sauer, W.H.H. and Shaw, P.W.

Gwilliam, M., **Winkler, A.C., Potts, W.M., Santos, C.V., Sauer, W.H.H., Shaw, P.W.** and McKeown, N. (2018) Integrated genetic and morphological data support eco-evolutionary divergence of Angolan and South African populations of *Diplodus hottentotus*. *Journal of Fish Biology*. 2018. p.1-14.

Wu, Y., Kaiser, H. and Jones, C.L.W.

Wu, Y., Kaiser, H. and Jones, C.L.W. (2018) A first study on the effect of dietary soya levels and crystalline isoflavones on growth, gonad development and gonad histology of farmed abalone, *Haliotis midae*. *Aquaculture International* 2018. p.1-27.

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

Dunser, S.J., Kaiser, H. and Jones, C.L.W.

Dunser, S.J., Kaiser, H., Jones, C.L.W. and Naylor, M.A. (2018) The influence of stocking density on the behaviour of cultured South African Abalone *Haliotis midae*. *10th International Abalone Symposium*. Xiamen, China. May 2018. p. 33.

Jones, C.L.W.

Jones, C.L.W. (2018) Coming to grips with the gut microbiome of the South African abalone. *10th International Abalone Symposium*. Xiamen, China. May 2018. p. 24.

Akoll, P., Achieng, A.O., **Jones, C.L.W.,** Singini, W., Mulongaibalu and M., Raburu, P.T.O. (2018) Harnessing African capacity for improved training on fisheries and aquaculture in Africa. *International Association for Great Lakes Research (IAGLR) 2018*. Toronto, United States of America. June 2018.

Venter, N.

Venter, N., Cowie, B., Paterson, I.D., Witkowski, E.T.F. and Byrne, M.J. How atmospheric CO₂ levels influence the past and future invasiveness of the weedy cactus *Pereskia aculeata*. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.

Wright, J., Kaiser, H. and Jones, C.L.W.

Wright, J., Kaiser, H. and Jones, C.L.W. (2018) Distribution and behaviour of juvenile abalone (*Haliotis midae*) in tanks in the weaning section of HIK Abalone Hatchery. *10th International Abalone Symposium*. Xiamen, China. May 2018.

Department of Information Systems



Credit: Snow Harris

Professor Stephen Flowerday
Head of Department

The Department of Information Systems is particularly interested in the generation of knowledge in the areas of ICT4D, eGovernment, eLearning, IT Project Management, Social Networks, Information Security, Behavioural Cybersecurity, and User Experience.

Research in these areas have produced two (2) book chapters, eight (8) journal articles, and eleven (11) conference papers, with aspects of this research being presented locally as well as internationally in the United Kingdom, Netherlands, Iceland, and United States of America.

In addition to producing research outputs, staff in the Department of Information Systems contribute to their discipline as journal editors and reviewers, conference reviewers and panel members, and external examiners of theses for other academic institutions.

Postgraduates / Graduations

Postgraduate numbers in the Department include twelve (12) PhD candidates, thirteen (13) Masters students, and a class of thirty five (35) Honours students. In April 2018, we celebrated the graduation of five (5) Masters students.

Distinguished Visitors / International Visits

Distinguished visitors to the Department included Dr Lynette Drevin and Professor Hennie Kruger from North-West University who participated in research workshops.

Professor Christos Kalloniatis, an Erasmus+ professor (Erasmus+ is the European Union's programme to support education, training, youth and sport in Europe) from University of the Aegean participated in research workshops and gave a guest lecture to Postgraduate students on Privacy by Design.



Mr Karl van der Schyff presenting during a research workshop to Visiting Professors.
Credit: Department of Information Systems

Professor Sue Conger, a Visiting Professor from the Satish and Yasmin Gupta College of Business at the University of Dallas, continues to make a valuable contribution to the research efforts, with a number of publications of IT in developing countries.

Professor Graham Wright, a Visiting Professor of the Department, continues to make a valuable contribution to the research efforts, with a number of publications in the field of Health Information Systems.

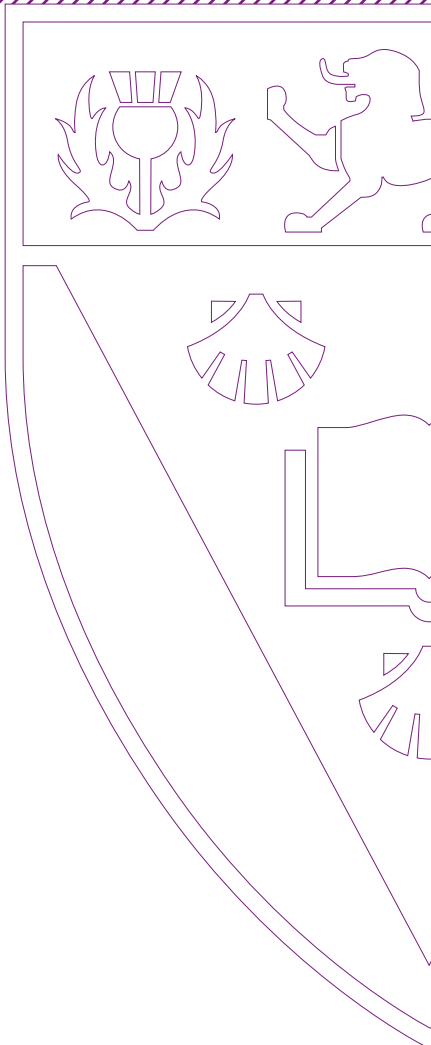
Ms Brenda Mallinson, a Research Associate of the Department, continues to make a valuable contribution to the research efforts, with a number of publications in the field of eLearning.



Professor Stephen Flowerday presents IBM Award for Best Information Systems Honours Research Project to Ms Dina Nathoo.
Credit: Department of Information Systems

PUBLICATIONS

Department of Information Systems



Books/Chapters/Monographs

Conger, S.

Conger, S. (2018) Challenges and Benefits of Multi-Cultural Teaching. In: Maheshkar, C. and Sharma, V. (eds.). *Handbook of Research on Cross-Cultural Business Education*. USA: IGI Global. p.340-358. ISBN: 9781522537762.

Sieböcker, I.

Terzoli A., Sieböcker I., Tsietzi M., and Gumbo S. (2018) Digital Inclusion: A Model for e-Infrastructure and e-Services in Developing Countries. In: Odumuyiwa V., Adegboyega O., Uwadia C. (eds) *e-Infrastructure and e-Services for Developing Countries*. AFRICOMM 2017. *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*, vol 250. Springer, Cham.

Concerts, Exhibitions, Performances, Workshops, Events

Flowerday, S.

Flowerday, S. Co-chair for "The 2018 Dewald Roode Information Systems Security Research" IFIP (WG) 8.11/11.13 - held in Cape Town, South Africa, 14 - 15 June. This is an International working group.

Flowerday, S. Guest editor of the South African Institute of Electrical Engineers: African Research Journal (annual Information Security issue). The special issue each year is based on the Information Security South Africa conference. *SAIEE Africa Research Journal* (Volume: 109, Issue: 2, June 2018). DOI: 10.23919/SAIEE.2018.8531949.

Mallinson, B.J.

Mallinson, B.J. Participant. Enhancing Online Courses: a practical approach. *Invited workshop at Unit for Distance Education (UDE)*. University of Pretoria, Pretoria. South Africa. 18 October 2018.

Mallinson, B.J. and Mbogela, S. Participant. Exploring the Digital Fluency course for academic staff professional development. *Workshop at e/merge 2018 - Festival of eLearning in Africa (Online conference)*. University of Cape Town, Cape Town. South Africa. 9 - 20 July 2018.

Mallinson, B.J. Invited pre-conference Workshop. Professional Development in a Digital Age. *Eighth Annual Teaching and Learning Conference, Centre for Teaching and Learning (CTL)*. North-West University (NWU), Potchefstroom. South Africa. 29 - 31 May 2018.

Mallinson, B.J. Participant. Exploring Blended Modes of Education Provision. *Invited workshop at Academic Professional Development (APD)*. North-West University (NWU), Potchefstroom. South Africa. 19 September 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Wright, G.

Wright, G. (2018) Some Thoughts about Health Informatics in Africa. *European Journal for Biomedical Informatics*. 14 (1). p.75-76.

Caceres, J.L.H. and **Wright, G.** (2018) Zika Virus Viewed Through the Resonant Recognition Model. Unraveling New Avenues for Understanding and Managing a Serious Threat. *European Journal for Biomedical Informatics*. 14 (1111). p.22-28.

Flowerday, S.

Renaud, R. and **Flowerday, S.** (2018) Why Governments Should Treat Cybersecurity the Way They Do Infectious Diseases. *Behavioral Scientist*, Keller Creative Co.

Peer Reviewed Subsidy-Earning Journal Research Publications

Benyon, R.

Mitchell, A. and **Benyon, R.** (2018) Teaching Tip: Adding Intercultural Communication to an IS Curriculum. *Journal of Information Systems Education*. 29 (1). p.1-10.

Conger, S.

Asare, E. and **Conger, S.** (2018) Analyzing the impact of strategic performance management systems and role ambiguity on performance: A qualitative approach. *Studies in Computational Intelligence*. 718 (2018). p.15-27.

Flowerday, S.

Renaud, K., **Flowerday, S.**, Warkentin, M., Cockshott, P. and Orgeron, C. (2018) Is the responsabilization of the cyber security risk reasonable and judicious? *Computers & Security*. 78 (2018). p.198-211.

Osah, J. and Pade-Khene, C.

Osah, J. and Pade-Khene, C. (2018) Group structural elements in e-Government strategy formulation at local municipal level in South Africa. *Transforming Government: People, Process and Policy*. 12 (1). p.2-15.

Pade-Khene, C.

Pade-Khene, C. (2018) Embedding knowledge transfer in digital citizen engagement in South Africa: Developing digital literacy. *Reading and Writing*. 9 (1). p.1-9.

Peer-reviewed Proceedings

Flowerday, S.

Piderit, R., **Flowerday, S.** and Ngono, M. A model on how physical security informs cybersecurity. *ACIST 2018: Improving African Livelihoods with Digital Information & Technology*. University of Cape Town, Cape Town. South Africa. July 2018.

Mthoko, H. and Pade-Khene, C.

Mthoko, H. and Pade-Khene, C. Abstract: Rethinking ICT4D Impact Assessments: Reflections from the Siyakhula Living Lab in South Africa. *IDIA 2018: Making ICT Research Locally Relevant*. Hennopsriver Valley, Tshwane. South Africa. August 2018.

Musarurwa, A. and Flowerday, S.

Musarurwa, A. and Flowerday, S. The BYOD Information Security Challenge for CIOs. *Human Aspects of Information Security & Assurance (HAISA 2018)*. Dundee, Scotland. August 2018.

Thinyane, H.

Thinyane, H., Bhat, K., Junio, D., Ju, B. and Craven-Matthews, C. Migrant Workers' Use of ICTs in Unacceptable Forms of Work. *IDIA 2018: Making ICT Research Locally Relevant*. Hennopsriver Valley, Tshwane. South Africa. August 2018.

Van Der Schyff, K.

Van Der Schyff, K., Krauss, K.E.M. and Kroeze, J.H. Facebook and Dataveillance: Demonstrating a Multimodal Discourse Analysis. *AMCIS 2018 Digital Disruption*. Hyatt Regency, New Orleans. United States of America. August 2018.

Motara, Y.M. and Van Der Schyff, K. A functional ontology.

SAICSIT 2018 Technology for Change. Nelson Mandela University, Port Elizabeth. South Africa. September 2018.

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

Conger, S.

Morrow, D. and **Conger, S.** Job Crafting, Mindfulness, Meaningfulness, and Work Engagement. *3rd International Symposium on Meaningful Work*. Amsterdam. The Netherlands. June 2018.

Morrow, D. and **Conger, S.** Conceptualizing job crafting: Deconstructing two streams of job crafting research. *Euram2018*. University of Iceland, Reykjavik. Iceland. June 2018.

Rogers, D. and **Conger, S.** Managerial cognitive ambidexterity as an antecedent to organizational knowledge acquisition and assimilation. *Euram2018*. University of Iceland, Reykjavik. Iceland. June 2018.

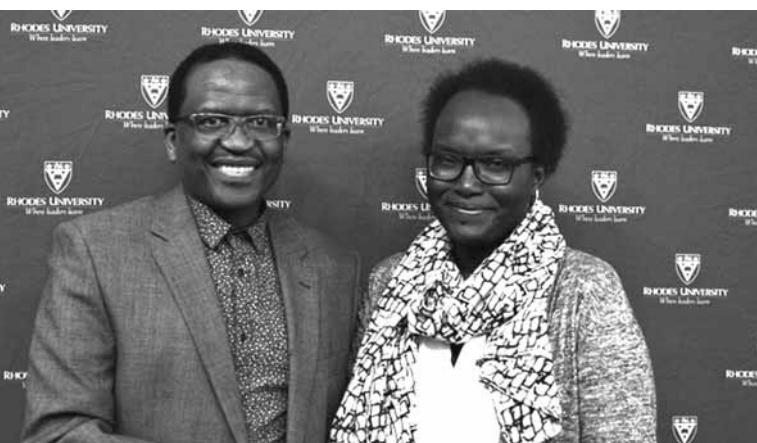
Pade-Khene, C. and Mthoko, H.

Pade-Khene, C., Maisiri, L.J. and **Mthoko, H.** Participation Inequality in Digital Citizen Engagement: Building Civic and Responsiveness Digital Literacy. *Development Studies Association (DSA2018) Conference: Global Inequalities*. University of Manchester, Manchester. United Kingdom. June 2018.

Van der Schyff, K., and Flowerday, S.

Van der Schyff, K., and **Flowerday, S.** The development of a personality-driven social media dataveillance behaviour model for South Africa. *The 2018 IFIP 8.11/11.13 Dewald Roode Information Security Research Workshop*. Cape Town. South Africa. June 2018.

Left to right: Vice-Chancellor, Dr Sizwe Mabizela with Associate Professor Caroline Khene. Caroline received the 2018 Vice-Chancellor's Distinguished Research Award for her research examining the opportunities and complexities that arise in bringing citizens and government together via digital platforms.



Credit: Rhodes University Communications and Advancement Division

School of Journalism and Media Studies



Credit: Snow Harris

Professor Larry Strelitz
Head of School

Professor Anthea Garman
Deputy Head of School

One hundred and thirty (130) graduates from the School of Journalism and Media Studies (JMS) celebrated the successful completion of their degrees at the 2018 graduation ceremonies. They received Bachelor's degrees in Journalism and Media Studies, Postgraduate Diplomas in Journalism and Media Studies, Media Management and Economics Journalism as well as Masters' degrees in Journalism and Media Studies.

Distinguished Visitors / International Visits

During 2018 a rich variety of academics, researchers, journalists and multimedia specialists came to share their experiences, research and findings with JMS staff and Postgraduate students.

Dr Julian Matthews from the University of Leicester talked about the experience and application of his ethnographic research to the production of news.

During the National Arts Festival, American documentary filmmaker Jon Alpert shared his experiences about making documentaries in the war zones of Vietnam and Afghanistan and the difficulties he encountered with lack of resources, danger and the highly regulated environment.

Howard University Assistant Professor Jennifer Thomas held a discussion with the staff about reporting on elections and issue of 'fake news', asking the question, "How do you do your job when everyone is vilifying your profession?"

Dr Marcia Lyner-Cleophas, head of the Disability Unit at Stellenbosch University, was invited by **Professor Lorenzo Dalvit** to discuss "Disability inclusion in the curriculum".

Dr Tinashe Mushakanvanhu, writer and scholar, 2018 Writer-in-Residence in Creative Writing (funded by the Andrew W. Mellon Foundation) discussed his work as a journalist with Vice Media and the Knight Foundation.

Mr Toby Shapshak, a digital journalist spoke to students and staff about "The future of journalism" and Deirdre Uren, regional editor of SABC Radio and TV News in Port Elizabeth, presented her research on regional news.



2018 Students of the Andrew W. Mellon Foundation funded programme 'Media and Sociality', from left: Ms Xiletelo Mabasa (Hons), Ms Thingo Mthombeni (MA), Ms Sive Jacobs (MA), Ms Tsholofelo Sepotokele (Hons), Mr Tskakane Maluleke (Hons), Ms Binwe Adebayo (MA) and Ms Hayley Axford (Hons). Missing is Ms Athini Majali (MA).
Credit: School of Journalism and Media Studies

Acclaimed, award-winning South African photographer Jodie Bieber hosted workshops and seminars with the second and third year students and presented to staff and students her current work, *#i*, a project in posters that showcases the perspective of what it's like to be a young person in contemporary South Africa.

With support from the Geothe Institute, Jide Akinleminu a filmmaker from the Berlin Film School, was able to share with JMS, stories of the different documentaries he has made that draw on his own life experience. Akinleminu followed this up with a field trip with the JMS4 TV students focused on the different styles and techniques of documentary filmmaking.

Professor Harry Dugmore spent his sabbatical with the Digital Media Research Centre at the Queensland University of Technology in Australia, and **Dr Alette Schoon** attended their summer school in Digital Media Research Methods. These visits forged a relationship with the Centre which resulted in plans to raise money to run a winter school in digital media methods at Rhodes University in 2019.

Significant Research Aligned Events

The Andrew W. Mellon Foundation awarded **Professor Lynette Steenveld** a grant for the project (which includes a teaching programme) called *Media and Sociality: Probing Coloniality and Decoloniality through the Media-Social Belonging Nexus in Contemporary South Africa*. The programme focuses on the complicated relationships between the South African media environment and the country's changing political environment. The aims are to probe the ways in which digital and social forms of communication, knowledge-making, and archiving are being used in this new iteration of an ongoing struggle for full personhood, recognition and inclusion.

The teaching programme which started in 2018 explores the ways in which the digital and social media are being taken up by the 'wretched' of South Africa in their processes of forging new socialites, new social relationships, new knowledges, and new forms of political association as ways of challenging and transforming coloniality: of being, knowledge and power. The foundation supported five (5) Honours and four (4) Masters' bursaries, as well as a Postdoctoral Research Fellowship, in 2018.

Professor Steenveld was also awarded \$50 000 by the Andrew W. Mellon Foundation for their 30th anniversary seminar series. Professor Steenveld has titled the series: *Southern Epistemologies: Thinking beyond the abyss for a transformative curriculum*. The series probes how 'southern epistemologies' can be used across disciplines to transform aspects of the curriculum in South African higher education. The theoretical foundation of the series is Boaventura de Sousa Santos' work on southern epistemologies, and the development of an ecology of knowledges based on 'thinking beyond the abyss'. The seminars offer an approach to knowledge production that is transdisciplinary, so art, creative writing, ecology, the environment, urbanism and policy, while appearing to be different, are all thought through the same epistemological problematic.

Professor Anthea Garman was awarded a grant by the National Research Foundation (NRF) under the Human and Social Dynamics in Development programme to embark on a research project called "Licence to Talk" which seeks to ascertain the shifts and ruptures in what is said and what is sayable in the South African public sphere at this present moment in our post-apartheid history and to assess whether listening theory offers new practices for those conducting public debates, discussions and engagements, whether they be face to face encounters, via the media or on social media.

The Open Society Foundation provided **Professor Harry Dugmore** with funds to pursue research on the sustainability of journalism in South Africa as companies struggle to survive the digital transformation and a context of political uncertainty. Professor Dugmore's work culminated in the publication: *Paying the Piper: The Sustainability of the News Industry and Journalism in South Africa in a Time of Digital Transformation and Political Uncertainty*.

The Open Society Foundation for South Africa, in celebration of their 25th year in South Africa, launched a special programme for the next generation of investigative journalists. In partnership with Rhodes University and the University of the Witwatersrand (Wits) five (5) fellowships will be offered to young journalists, giving them the opportunity to spend eighteen (18) months learning cutting-edge investigative, digital, multimedia and storytelling skills

at both Wits and Rhodes. While at Rhodes they will work in the *Grocott's Mail* newsroom producing local investigations.

The Sol Plaatje Institute (SPI) for Media Management was chosen by the World Media Economics and Management Conference to be the organiser and host of the first-ever summit in Africa. The two hundred and fifty (250) delegates gathered to present papers on the promises and perils of media convergence on media firms and seek solutions that strengthen an industry that is facing hyper-competition from the 'platform economy' of technological giants such as Google, Facebook, Apple and Twitter.

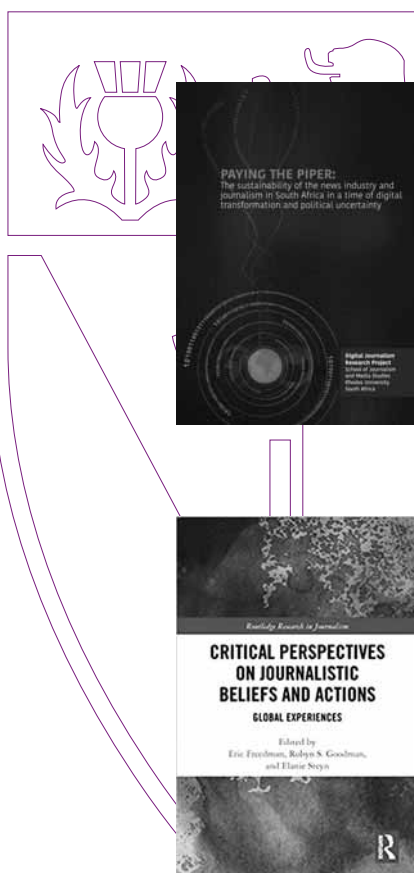
Francis Mdlongwa, the director of SPI, also edited the book *Entrepreneurial Journalism in Africa: Opportunities, challenges and risks for media in the digital age*, published by the Konrad Adenauer Stiftung which arose from papers presented at a conference in Ghana in 2018.

The Menell Media Exchange, a Duke University conference held annually in South Africa for journalists took place in June 2018. Senior writing and editing students from Rhodes joined other students from universities across the country and professionals to explore stories missed by large mainstream media, as well as critiquing the media and the operations of journalists in the 21st century. Many of the students, some of whom also worked in the conference newsroom producing news for social media platforms, felt that they had expanded their views on digital age journalism and felt better equipped to enter this fluid world.

The School was saddened by the news that the founder of the School and first head, Emeritus Professor Anthony Giffard, passed away on 20 April 2018. Giffard led a long and interesting career as a reporter, translator, editor and author as well as belonging to many boards and councils such as the IPS (Inter Press Service).

PUBLICATIONS

School of Journalism and Media Studies



Books/Chapters/Monographs

Dalvit, L.

Dalvit, L. (2018) The 5 Stars Movement and the promise of eDemocracy in Italy. In: Dee, J. (ed.). *From Tahrir Square to Ferguson: Social Networks as Facilitators of Social Movements*. New York: Peter Lang. p.231-249. ISBN: 9781433129407.

Dalvit, L. (2018) The language metaphor: an epistemological approach to the digital divide. In: Ragnedda, M. and Muschert, G. (eds.). *Theorising digital divides*. London: Routledge. p.75-87. ISBN: 9781315455310.

Dalvit, L. (2018) From access to proficiency: reconfiguring digital inclusion in a rural area in South Africa. In: Ragnedda, M. and Mutsaers, B. (eds.). *Digital Inclusion: an international comparative analysis*. Plymouth UK: Lexington Books. p.57-74. ISBN: 9781498562133.

Dalvit, L. and Schoon, A.

Dalvit, L. and Schoon, A. (2018) Siyashuta: capturing police brutality on mobile phones in South Africa. In: Berry, M. and Schleser, M. (eds.). *Mobile media making in an age of smartphones*. 2nd Ed. UK: Palgrave Macmillan. p.129-137. ISBN: 9783319767949.

Garman, A.

Garman, A. (2018) Happy, funny and humane: South African childhood narratives which challenge the single story of apartheid. In: Avieson, B., Giles, F. and Joseph, S. (eds.). *Mediating memory: Tracing the limits of memoir*. New York: Routledge. p.269-283. ISBN: 9781138092723.

Garman, A. and Malila, V. (2018) When an editor listens to a city: South Africa's Heather Robertson, The Herald, and Nelson Mandela Bay. In: Freedman, E., Goodman, R. and Steyn, E. (eds.). *Critical Perspectives on Journalists' Beliefs and Actions: Global Experiences*. London: Routledge. p.162-172. ISBN: 9781138063372.

Garman, A. (2018) When the students are revolting: the (im)possibilities of listening in academic contexts that overly value critique as a mode of engagement. In: Dreher, T. and Mondal, A. (eds.). *Ethical Responsiveness and the Politics of Difference*. UK: Palgrave Macmillan. p.93-115. ISBN: 9783319939575.

Prinsloo, J.

Prinsloo, J. (2018) (Con)textual gymnastics: critical discourse analysis. In: Tomaselli, K.G. (ed.). *Making sense of Research*. Pretoria: van Schaik. p.239-248. ISBN: 9780627036019.

Concerts, Exhibitions, Performances, Workshops, Events

Schoon, A.

Schoon, A. Workshop Facilitator. Filmmaking with your mobile phone: How to shoot and edit fabulous demonstration videos with your phone. *Colloquium on Multimodal Pedagogies*. University of the Western Cape, Belville. South Africa. 13 August 2018.

Schoon, A. and Brintjies, R. Workshop Facilitator. Afrofuturist Animation Workshop. *Creativate: National Arts Festival*. Rhodes University, Makhanda (Grahamstown). South Africa. 29 - 30 June 2018.

Other Publications

Bombi, T. and Garman, A.

Bombi, T., Garman, A. and Malila, V. (2018) Young, black women storytellers and the reshaping of the media space. In: Kanengoni, A.D. (ed.). *Young, black women storytellers and the reshaping of the media space*. 8th Ed. Johannesburg: OSISA.

Dugmore, H.

Dugmore, H. (2018). In: Dugmore, H. (ed.). *Paying The Piper: The sustainability of the news industry and journalism in South Africa in a time of digital transformation and political uncertainty*. Grahamstown: Rhodes JMS.

Garman, A.

Garman, A. (2018) South African journalism's problems are bigger than ethics: they're about ethos. In: *South African journalism's problems are bigger than ethics: they're about ethos*. South Africa: The Conversation.

PUBLICATIONS

Garman, A. and Amner, R.

Garman, A. and Amner, R. (2018) Journalists as Democratic Communication Professionals. In: Lee, P. (ed.). *Journalists as Democratic Communication Professionals*. USA: WACC Global.

International Visits

Dugmore, H.

Dugmore, H. Queensland University of Technology, Brisbane, Australia. *Philanthropically funded journalism and the future of public interest journalism in developing countries: a case study of three South African media organisations*. 1 January - 31 December 2018.

Peer Reviewed Subsidy-Earning Journal Research Publications

Dugmore, H.

Okop, K.J., Lambert, E.V., Alaba, O., Levitt, N.S., Luke, A., Dugas, L., Dover, R.V.H., Kroff, J., Micklesfield, L.K., Dugmore, H. and et al. (2018) Sugar-sweetened beverage intake and relative weight gain among South African adults living in resource-poor communities longitudinal data from the STOP-SA study. *International Journal of Obesity*. 2018. p.1-12.

Prinsloo, J.

Prinsloo, J. (2018) Editorial: Issue theme - Land, Violence and Women's Bodies. *Agenda*. 32 (4). p.1-2.

Santos, P.

Santos, P. (2018) Agonistic Dysfunction on Facebook in Zimbabwe: A Discourse Ethics Perspective. *African Journalism Studies*. 2018 (2018). p.1-19.

Sepotokele, T.

Sepotokele, T. (2018) Interview: Women's struggle for land rights in the former homelands: Aninka Claassens speaks to Tsholofelo Sepotokele. *Agenda*. 32 (4). p.96-102.

Peer-reviewed Proceedings

Dalvit, L.

Dalvit, L. Abstract: The Red and the Blue: Narratives and Experiences of ICT Integration in South African Marginalised Schools. *12th International Technology, Education and Development Conference - Rethinking Learning in a Connected Age*. Valencia. Spain. March 2018.

Dalvit, L. Abstract: Critical Pedagogy 2.0: Reflection on Teaching Digital Media and Education at a South African University. *12th International Technology, Education and Development Conference - Rethinking Learning in a Connected Age*. Valencia. Spain. March 2018.

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

Boshoff, P.

Boshoff, P. Platforms at a Crossroad: Letter Writers to the Daily Sun and the Challenges of Facebook. *SACOMM (South African*

Communications Association). University of Johannesburg, Johannesburg. South Africa. September 2018.

Boshoff, P. Mothers of shame: abortion, baby-dumping and infanticide in the Daily Sun. *Abortion and Reproductive Justice Conference*. Rhodes University, Grahamstown. South Africa. July 2018.

Dalvit, L.

Dalvit, L. Co-creation or creolisation? The politics of digital participation in a South African Living Lab. *STS Italia Conference: Technoscience from below*. University of Padua, Padua. Italy. June 2018.

Dugmore, H.

Dugmore, H. Philanthropically Funded, Syndicated, Explainer Journalism and the Future of Public Interest Journalism in Developing Countries. *World Media Economics and Management Conference*. Cape Town. South Africa. April 2018.

Prinsloo, J.

Prinsloo, J. Learning from our teaching: reflections on an environmental justice school for activists in South Africa. *Popular Education Network 2018*. Goedgeacht, Cape Town. South Africa. June 2018.

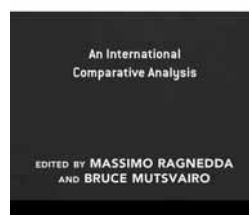
Schoon, A.

Schoon, A. Film making and the art of seeing. *Colloquium on Multimodal Pedagogies in Higher Education*. University of the Western Cape, Belville. South Africa. August 2018.

Schoon, A. Digital media practices of the less-connected in South Africa - from backyard rooms to global BRICS networks. *BRICS Media in the Digital Age Symposium*. University of Cape Town, Cape Town. South Africa. September 2018.



DIGITAL INCLUSION





Credit: Snow Harris

Professor Rosaan Krüger
Dean of Faculty

The 2018 academic year saw members of the Faculty involved in a number of research activities, ranging from conference presentations to publication of accredited journal articles. The Faculty continuously works to strengthen the research capacity of its staff and students through in-house research seminars and scholarly discussions around topical legal issues.

Postgraduates / Graduations

Two (2) Postgraduate students, one (1) LLM and the other a PhD were awarded their degrees at the graduation ceremony in 2018. The theses addressed regulation of multilateral trade in Malawi and the role of the Kenya Human Rights Commission in relation to the protection of socio-economic rights, respectively.

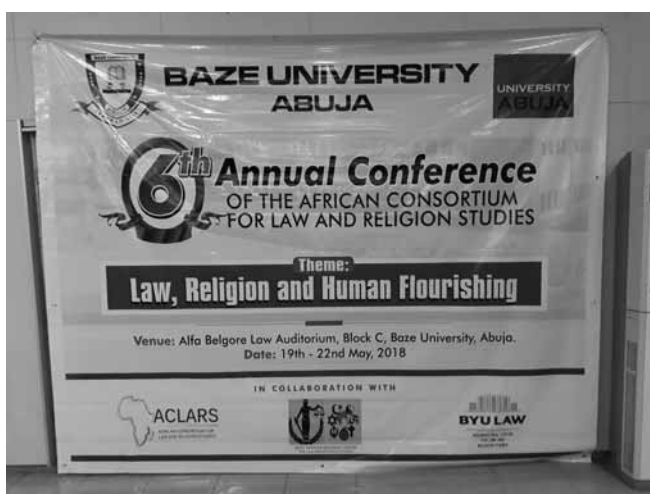
Distinguished Visitors / International Visits

The Faculty of Law hosted a number of its associates during the course of the year. These experts contribute significantly to the intellectual life of the Faculty:

- Visiting Fellow, **Mr Max Boqwana** delivered a thought-provoking public lecture in February 2018 entitled 'Illicit Financial Flows from Africa: What African Lawyers can do about it?'
- **Advocate Chris McConnachie**, a Research Associate of the Faculty, presented lectures to the Constitutional Law class and the Life Partnerships class respectively on matters in which he had acted as counsel: *Economic Freedom Fighters v Speaker of the National Assembly and Others*; *Democratic Alliance v Speaker of the National Assembly and Others* on the requirement for parliamentary rules providing for impeachment procedures and accountability measures, and on *Women's Legal Centre v President of South Africa*, and others addressing the need to recognise Muslim Marriages through legislative enactment.



2018 ACLARS (the African Consortium for Law and Religion Studies), Conference-Law, Religion, and Human Flourishing, was held 20-22 May 2018 at Baze University in Abuja, Nigeria.
Credit: Faculty of Law



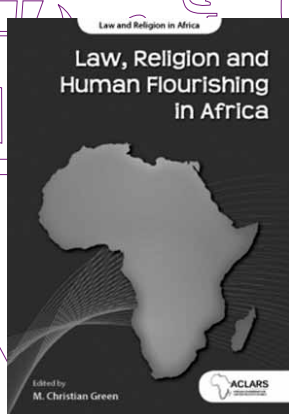
- Visiting Professor, **Judge of Appeal Nambitha Dambuza** delivered a well-attended public lecture in April 2018 entitled, *Women's parental rights in ulwaluko: A paradox*. Judge Dambuza also gave lectures in procedural law courses for LLB students.
- **Advocate Wim Trengove** delivered a public lecture in September 2018 on 'The Good, the Bad and the Ugly in the NDPP'.
- **Judge Clive Plasket** delivered a public lecture in October 2018 entitled 'Procedural fairness, executive decision-making and the rule of law'.



Associate Professor Helena van Coller and PhD candidate, Mr Idowu Akinloye.
Credit: Faculty of Law

PUBLICATIONS

Faculty of Law



Books/Chapters/Monographs

Khamala, C.A.

Khamala, C.A. (2018) *Crimes against Humanity in Kenya's Post-2007 Election Violence*. Netherlands: Wolf Legal Publishers. ISBN: 9789462403628.

Concerts, Exhibitions, Performances, Workshops, Events

Kruuse, H.

Kruuse, H. Panel discussion with Jean Sonnekus and Elsje Bonthuys. W v H 2017(1) SA 196 (WCC) & ST v CT [2018] ZASCA 73. *Annual Family Law Teachers' Colloquium*. Nelson Mandela University, Port Elizabeth. South Africa. 20 - 21 September 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Chigowe, L. and Juma, L.

Chigowe, L. and Juma, L. (2018) The principle of complementarity and hybrid courts: the case of the Special Criminal Court for the Central African Republic. *Lesotho Law Journal*. 26 (1). p.41-78.

Kruuse, H.

Kruuse, H. and Genty, P. (2018) The State's Role in the Regulation and Provision of Legal Services in South Africa and the United States: Supporting, Nudging, or Interfering. *Fordham International Law Journal*. 42 (2). p.373-405.

Peer Reviewed Subsidy-Earning Journal Research Publications

Akinloye, I.A.

Akinloye, I.A. (2018) An examination of the legal status, powers and roles of the Justices of the Peace in the Nigerian legal system. *Journal for Juridical Science*. 43 (1). p.26-38.

Akinloye, I.A. (2018) Towards the implementation of sustainable goals in Nigeria: Maximizing the influence of religious leaders. *Stellenbosch Theological Journal*. 4 (1). p.39-60.

Juma, L.

Juma, L. (2018) Protection of Rights of Urban Refugees in Kenya: *Revisiting Kituo Cha Sheria v The Attorney General*. *Southern African Public Law (SA Public Law)*. 33 (2). p.1-24.

Juma, L. (2018) Protection of Internally Displaced Persons in Kenya under the Prevention, Protection and Assistance to Internally Displaced Persons and Affected Communities Act of 2012: An Appraisal. *Comparative and International Law Journal of Southern Africa*. 51 (1). p.44-65.

Kruuse, H.

Mwambene, L. and Kruuse, H. (2018) Marital Rape and the Cultural Defence in South Africa. *Stellenbosch Law Review*. 29 (1). p.25-47.

Kruuse, H. (2018) Ex Parte Mdyogolo: Character and carelessness. *South African Law Journal*. 135 (2). p.249-261.

Plasket, C.

Plasket, C. (2018) Judicial Review, Administrative Power and Deference: A View from the Bench. *South African Law Journal*. 135 (3). p.502-523.

Tsele, M.

Tsele, M. (2018) Rights and religion; bias and beliefs: Can a judge speak God? *Journal for Juridical Science*. 43 (1). p.1-25.

PUBLICATIONS

Van Coller, H.

Van Coller, H. (2018) Administrative Law. *Annual Survey of South African Law*. 2016 (1). p.49-91.

Van Coller, H. (2018) Laat die klokke lui ...! Is die lui van klokke 'n geraasoorlas of bloot die billike uiting van geloofsoortuigings? *LitNet Akademies*. 15 (3). p.769-787.

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

Akinloye, I.A.

Akinloye, I.A. Threats of the increase in church disputes on human flourishing: The Nigerian Experience. *ACLARS (African Consortium for Law and Religion Studies) Conference - Law, Religion and Human Flourishing*. Faculty of Law, Abuja University. Nigeria. May 2018.

Bergover, S.N.

Bergover, S.N. Law Clinics driving impact and impact litigation. *Considering Contemporary Challenges Facing South African University Law Clinics*. Stellenbosch University, Stellenbosch. South Africa. July 2018.

Campbell, J.

Campbell, J. Decolonising clinical legal education: what can this mean? *Considering Some Contemporary Challenges Facing South African University Law Clinics*. Stellenbosch University, Stellenbosch. South Africa. July 2018.

Glover, G.

Glover, G. Breach in haste: Repent at Leisure? *The Private Law and Social Justice Conference*. Nelson Mandela University, Port Elizabeth. South Africa. August 2018.

Juma, L.

Juma, L. Closure of refugee reception centres in South Africa: Erosion of rights and a creeping policy of encampment. *IASFM 17 Conference*. University of Macedonia, Thessaloniki. Greece. July 2018.

Juma, L. Collective withdrawal Agenda in AU's relationship with the ICC: Debating possibilities and challenges. *The doctoral students' workshop*. Utrecht University, Utrecht. The Netherlands. January 2018.

Kruuse, H.

Kruuse, H. The role of the legal practitioner in South Africa's transformative constitutional democracy: Reconceptualising the contract of mandate through Ubuntu. *International Legal Ethics Conference V111*. Melbourne Law School, Melbourne. Australia. December 2018.

Kruuse, H. Reforming the public through the private: the legal practitioner's role and the contract of mandate. *Private Law and Social Justice Conference*. Nelson Mandela University, Port Elizabeth. South Africa. August 2018.

Mashinini, T.N.

Mashinini, T.N. Can screenshot technology be circumvention software? *8th Annual Internet Law Works-in-Progress Conference*. New York School of Law, New York. United States of America. March 2018.

Mashinini, T.N. Can image rights prevail over copyright entitlements? *5th WIPO-WTO Colloquium for Teachers of Intellectual Property*. WIPO Conference Room 0.107, Geneva. Switzerland. June 2018.

Mzolo, N.

Mzolo, N. Sex Work and Substance Abuse in South Africa: Law Enforcement vs Harm Reduction? *15th Annual International Human Trafficking and Social Justice Conference*. Toledo University, Ohio. United States of America. September 2018.

Rahim, S.

Rahim, S. Evaluation of the Value of Good Governance within the South African Corporate Sector. *SASUF Research Seminar on research and Innovation*. University of Pretoria, Pretoria. South Africa. May 2018.

Van Coller, H.

Van Coller, H. Ritual slaughter and Religious Freedom: The Impact on the Flourishing of Religious Communities in South Africa. *ACLARS (African Consortium for Law and Religion) Conference - Law, Religion and Human Flourishing*. Faculty of Law, Abuja University. Nigeria. May 2018.



Ms Nomalanga Mashinini (first left) at the South Africa Sweden Forum 2018.

Credit: Faculty of Law

Department of Literary Studies in English



Credit: Snow Harris

Dr Sue Marais
Head of Department

Staff and student research interests in the Department range widely, and include areas such as postcolonial, transnational and diasporic literature; popular African culture, Afrofuturism and fan fiction; queer theory and writings; ecocriticism, paleontology and literature; South African crime and detective fiction; literature and the Internet; and ethics, vulnerability and implication in contemporary fiction.

In 2018, **Dr Lynda Gichanda Spencer's** and Dr Minesh Dass's (now with University of Johannesburg) "Urban Connections in African Imaginaries" (UCAPI) project, funded by the Andrew W. Mellon Foundation, went from strength to strength, and saw the co-hosting of the hugely successful second African Feminisms (AFEMS) conference on our campus, and the publication of two (2) special issues of the journals *Agenda: Empowering Women for Gender Equity* and *English in Africa*.

Dr Spencer and Professor Ashleigh Harris (Uppsala University, Sweden) also began collaborating on a Swedish Foundation for International Cooperation in Research and Higher Education (STINT)/National Research Foundation (NRF)-funded research project entitled "Contemporary African Texts and Contexts: Decolonising the Archive, Genre and Method".

Professor Sam Naidu's collaborative research project, "Intersecting Diasporas" (ID), meant that she took up her second residency at San Francisco State University in December 2018, and extended her involvement in Professor Teresa Carrillo's "Gendered Borders: Latinas and Globalization" seminars, whilst continuing to work on a monograph on "Border Crossing and Agency" and "Agency in the Diaspora Space" which she hopes to complete in 2020.

In addition, **Dr Aretha Phiri**, as part of her Iso Lomso Fellowship at the University of Stellenbosch's Institute for Advanced Study, spent the fourth term as a Research Fellow at the National Humanities Center (NHC) at the University of North Carolina, United States of America (USA).

Both UCAPi and ID continue to fund Postdoctoral Research Fellowships, visiting scholars and writers-in-residence in the Department, together with postgraduate students from Honours to Doctoral level. This means that we continue to enjoy a very healthy and diverse research culture!

Postgraduates / Graduations

PhD: One (1) PhD in English was awarded in 2018, to Douglas Kaze, whose thesis was entitled "The Environmental Imagination in Arthur Nortje's Poetry". Supervisor: Professor Dirk Kloppe.

MA: A single MA was awarded, to Shirley Erasmus, for a dissertation entitled "Challenging Biblical Boundaries: Jeanette Winterson's Postmodern Feminist Subversion of Biblical Discourse in *Oranges are Not the Only Fruit* (1985) and *Boating for Beginners* (1985)". Supervisor: Professor Sam Naidu.

Honours: Of a class of seven (7) students, five (5) received distinctions.



Distinguished Visitors / International Visits

Five (5) international scholars visited the Department in 2018:

- Professor Teresa Carrillo, from the College of Ethnic Studies at San Francisco State University.
- Dr Lizzy Attree, Director of Short Story Day Africa.
- Dr Ranka Primorac, from the University of Southampton, United Kingdom.

- Dr Nicklaus Hällén, from Uppsala University, Sweden.
- Mr Ayodabo Sunday, from Elizade University, Nigeria.

In addition, UCAPi hosted Ms Ingrid Nayame, author of *The Last Laugh* (2017) and *The Coloured Vine* (2018), as a Writer-in-Residence in the Department.

Significant Research Aligned Events

Dr Spencer co-hosted, with Dr Sharlene Khan of the Fine Arts Department, the second AFEMS Conference, "The Mute Always Speak: (Re)Imagining and Re-Imaging Feminist Futures", at Rhodes in September 2018. She also began a three (3) year collaborative project on "Contemporary African Texts and Contexts: Decolonizing the Archive, Genre and Method" with Professor Ashleigh Harris at Uppsala University, Sweden. The latter means that students and Postdoctoral Research Fellows from both Rhodes and Uppsala will be visiting each other's campuses, a process that began last year with Mr Patrick Chesi Lumasia, currently registered for a PhD at Rhodes, and Dr Hällén, a Postdoctoral Research Fellow from Uppsala.



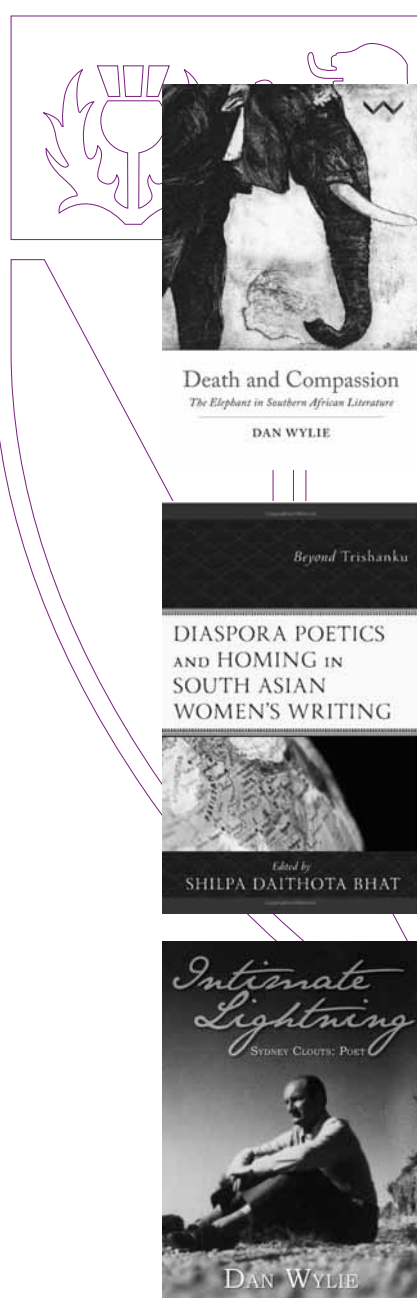
Above left: Members of Urban Connection In African popular Imaginaries (UCAPi) and Arts on Our Mind (AOOM) at the Second Afems Conference.

Above: UCAPi Squad with Ms Ingrid Nayame (Writer-in-Residence) and Dr Nicklas Hällén (Visiting Researcher from Uppsala University).

Credit: Department of Literary Studies in English

PUBLICATIONS

Department of Literary Studies in English



Books/Chapters/Monographs

Attree, L.

Attree, L. (2018) Reading for Ruptures: HIV & AIDS, Sexuality & Silencing in Zoë Wicomb's 'In Search of Tommie'. In: Emenyonu, E.N. (ed.). *Queer Theory in Film & Fiction: African Literature Today* 36. UK: James Currey. p.135-150. ISBN: 9781847011848.

McGregor, J.A.

McGregor, J.A. (2018) The Ring, The Waves and the Wake: Eternal Recurrence in Wagner, Woolf and Joyce. In: O'Callaghan, K. (ed.). *Routledge Studies in Twentieth-Century Literature: Essays on Music and Language in Modernist Literature: Musical Modernism*. New York: Routledge. p.48-61. ISBN: 9781138285651.

Naidu, S.

Naidu, S. (2018) Teaching Postcolonial Crime Fiction. In: Beyer, C. (ed.). *Teaching Crime Fiction*. UK: Palgrave Macmillan. p.83-98. ISBN: 9783319906072.

Naidu, S. (2018) Negotiating Home and Homeland through Women's Life-Writing. In: Bhat, S.D. (ed.). *Diaspora Poetics and Homing in South Asian Women's Writing: Beyond Trishanku*. USA: Lexington Books. p.107-118. ISBN: 9781498577625.

Njovane, T.

Hlengwa, A., McKenna, S. and **Njovane, T.** (2018) The lenses we use to research student experience. In: Case, J. and Ashwin, P. (eds.). *Higher education pathways: South African Undergraduate Education and the Public Good*. Cape Town: African Minds. p.149-162. ISBN: 9781928331902.

Phillips, W.D.

Phillips, W.D. (2018) Margaret Atwood's MaddAddam Trilogy. In: Goodbody, A. (ed.). *Cli-Fi: A Companion*. Oxford: Peter Lang. p.49-54. ISBN: 9781788740722.

Wylie, D.

Wylie, D. (2018) *Death and Compassion: The Elephant in Southern African Literature*. Johannesburg: Wits University Press. ISBN: 9781776142187.

Wylie, D. (2018) *Intimate Lightning: Sydney Clouts: Poet*. Pretoria: UNISA Press. ISBN: 9781868889778.

Concerts, Exhibitions, Performances, Workshops, Events

Spencer, L.G.

Khan, S. and **Spencer, L.G.** Event coordinator. The Mute Always Speaks. *African Feminisms (Afems) 2018 Conference*. Rhodes University, Grahamstown. South Africa. 27 - 29 September 2018.

Other Publications

Attree, L.

Attree, L. (2018) Unbound. In: *To be on not to be: #DeletingFacebook* (online - <https://unbound.com/boundless/2018/05/10/to-be-or-not-to-be-deletingfacebook/>).

Attree, L. (2018) Los Angeles Review of Books. In: *Reclaiming Africa's Stolen Histories Through Fiction*. (online - <https://lareviewofbooks.org/article/reclaiming-africas-stolen-histories-through-fiction/#!>).

Attree, L. (2018) The Johannesburg Review of Books (JRB). In: *Two Koos Prinsloo short stories translated into English for the first time among the first fictional texts about HIV/AIDS in South Africa* (online - <https://johannesburgreviewofbooks.com/2018/12/01/the-jrb-daily-world-aids-day-two-koos-prinsloo-short-stories-translated-into-english-for-the-first-time-among-the-first-fictional-texts-about-hiv-aids-in-south-africa/>).

Attree, L. (2018) Enkare Review. In: *A Funeral in Kumasi* (online - <https://enkare.org/2018/05/30/a-funeral-in-kumasi/>).

Distinguished Visitors

Spencer, L.G.

S Khan, S Magadla and LG Spencer. Rhodes University, Grahamstown, South Africa. *African Feminisms (Afems) 2018 Keynote*. September 2018.

S Khan, G Baderoon and LG Spencer. Pennsylvania State University, Pennsylvania, United States of America. *African Feminisms (Afems) 2018 Keynote*. January 2018.

S Khan, N Motsemme and LG Spencer. National Institute for Humanities and Social Sciences, Johannesburg, South Africa. *African Feminisms (Afems) 2018 Keynote*. September 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Kenqu, A.Y.

Kenqu, A.Y. (2018) Fraught Starts, Fragmented Twists, and Forged Endings: (Re)Imagining and (Re)Imaging Black Womanhood in Zulu Love Letter and Yesterday. *Black Camera*. 9 (2). p.277-294.

Leff, C.W.

Leff, C.W. (2018) Flâneusing the City: Cape Town through the Eyes of an Unnamed Female Narrator in Patricia Schonstein-Pinnock's Skyline. *de genere*. 4 (2018). p.101-111.

Peer Reviewed Subsidy-Earning Journal Research Publications

Cornwell, D.G.N.

Cornwell, D.G.N. (2018) William Plomer's *Turbott Wolfe*: An Anatomy. *English in Africa*. 45 (1). p.83-134.

Cornwell, D.G.N. (2018) "Reckless People": Negotiations of identity in Richard Ford's *Rock Springs*. *Critique-Studies in Contemporary Fiction*. 2018. p.1-11.

Klopper, D.

Klopper, D. (2018) Between man, woman and dog: Olive Schreiner's *The Story of an African Farm*. *Safundi: Journal of South African and American Studies*. 19 (4). p.416-437.

Laue, K.A.

Laue, K.A. (2018) "An Ontological Crisis": Sartre's Gaze and Being-for-Others in Zoë Wicomb's *Playing in the Light*. *Journal of Literary Studies*. 34 (1). p.118-132.

Marais, M.

Marais, M. (2018) Literary cynics: Borges, Beckett, Coetzee, by Arthur Rose, London and New York, Bloomsbury, 2017, xi + 244 pp., ISBN 13: 978-1474258647. *Safundi: Journal of South African and American Studies*. 19 (2). p.252-253.

Mason, P.

Oluwole, D.O., Achadu, O.J., Asfour, F., Chakona, G., Mason, P., Mataruse, P. and McKenna, S. (2018) Postgraduate Writing Groups as Spaces of Agency Development. *South African Journal of Higher Education*. 32 (6). p.370-381.

Naidu, S.

Naidu, S. (2018) De Kock, Leon. *Losing the Plot: Crime, Reality and Fiction in Post-apartheid Writing*. Johannesburg: University of the Witwatersrand Press, 2016. 277 p. ISBN 978-1-86814-964-3.

Jacobs, J.U. *Diaspora and Identity in South African Fiction*.

Pietermaritzburg: University of KwaZulu-Natal Press, 2016. 354 p. ISBN 978-1-86914-301-5. English in Africa. 45 (2). p.133-139.

Naidu, S. and Thorpe, A.

Naidu, S. and Thorpe, A. (2018) 'I don't belong nowhere really': The Figure of the London Migrant in Dan Jacobson's 'A Long Way from London' and Jean Rhys's 'Let Them Call It Jazz'. *English Academy Review*. 35 (1). p.27-37.

Phillips, W.D.

Phillips, W.D. (2018) Nature as Noir: Kem Nunn's California, "Where the Sewage Meets the Sea". *English Studies*. 99 (4). p.412-425.

Phiri, A.

Phiri, A. (2018) Interview: Black, White and Everything in-between: Unravelling the Times with Zoe Wicomb. *English in Africa*. 45 (2). p.117-128.

Primorac, R.

Primorac, R. (2018) Zimbabwe's Fictions and Rebellious Entextualisation: "All the Xenophobia, Hippopotomonstroses Quippedalophobia and Yugoslavia". *Interventions-International Journal of Postcolonial Studies*. 20 (4). p.529-548.

Spencer, L.G.

Spencer, L.G., Ligaga, D. and Musila, G.A. (2018) Gender and Popular Imaginaries in Africa. *Agenda*. 32 (3). p.3-9.

Spencer, L.G. and Dass, M. (2018) Introduction: Urban Popular Imaginaries: Exploring the politics of 'the everyday'. *English in Africa*. 45 (3). p.11-16.

Spencer, L.G. (2018) "Having it all"? : (Re) examining Conspicuous Consumption and Pernicious Masculinities in South African Chick-Lit. *English in Africa*. 45 (3). p.79-97.

Stier, J.D.

Stier, J.D. (2018) How Do I Write in This Strange Place?: The Treatment of Shame and Whiteness in Contemporary White South African Post Apartheid Literature. *Journal of Literary Studies*. 34 (3). p.57-73.

Thorpe, A.

Thorpe, A. (2018) The "Pleasure Streets" of Exile: Queer Subjectivities and the Body in Arthur Nortje's London Poems. *Journal of Literary Studies*. 34 (1). p.1-20.

Thorpe, A. (2018) "Telling Freedom" or "Telling the Spades Back Home How to Behave" Re-examining Peter Abrahams's writing in London. *English in Africa*. 45 (1). p.59-82.

Thorpe, A. (2018) "I slipped into the pages of a book": intertextuality and literary solidarities in South African writing about London. *Safundi: Journal of South African and American Studies*. 19 (3). p.306-320.

Wyllie, D.

Wyllie, D. (2018) Under Glass. Claire Robertson. Cape Town: Umuzi, 2018. 300pp. ISBN 978-1-4152-0970-7. DOI: dx.doi.org/10.17159/2309-9070/tvl.v.55i2.4856. *Tydskrif vir Letterkunde*. 55 (2). p.170-172.

Wyllie, D. and Barendse, J.M. (2018) Editorial - Introduction: Dogs in every corner. *Tydskrif vir Letterkunde*. 55 (3). p.1-5.

Wyrill, B.

Wyrill, B. (2018) Guy Butler and NELM's Literary Project: A Contested History. *English Academy Review*. 35 (2). p.24-36.



Credit: Snow Harris

Mr Trevor Amos
Head of Department

During 2018, the Department of Management continued to promote and develop research capability by integrating the development of research thinking and skills into its teaching, particularly at the fourth-year level where students are exposed to a research methodology module and produce a research report. The Department also offers a structured research component on the Masters and PhD programme.

Postgraduates / Graduations

During 2018, ten (10) Masters students and four (4) PhD candidates were registered in the Department. Two (2) candidates graduated with their PhD degrees at the 2019 graduation ceremony.

Distinguished Visitors / International Visits

Mr T Temme from the Hochschule Osnabrueck University of Applied Sciences, Osnabrueck, Germany presented a simulation business game to the Management Honours students.

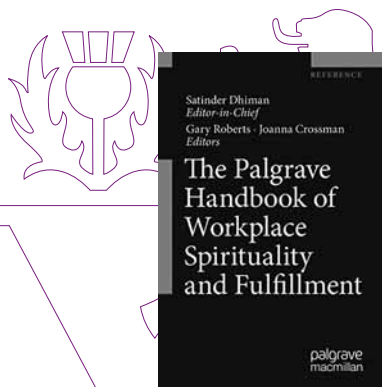
Professor Lynette Louw and **Mr Mattheus Louw** lectured at the Shanghai University of Business and Economics, Shanghai, China and at the School of Economics, Utrecht University, Utrecht, Netherlands.

Significant Research Aligned Events

Staff and students of the Department presented their research at conferences and published their research work in various journals and conference proceedings. Staff in the Department were also involved in editing and authoring textbooks, chapters for textbooks as well as other research or academic work for publication.

PUBLICATIONS

Department of Management



Books/Chapters/Monographs

Mayer, C.H.

Mayer, C.H. and Walach, H. (2018) Workplace Spirituality in Contemporary South Africa. In: Dhiman, S., Roberts, G. and Crossman, J. (eds.). *The Palgrave Handbook of Workplace Spirituality and Fulfillment*. UK: Palgrave Macmillan. p.1-17. ISBN: 9783319621623.

Distinguished Visitors

Temme, T.

Mr T Temme. Hochschule Osnabrueck University of Applied Sciences, Osnabrueck, Germany. *Presented a simulation business game to the Management Honours students.* March 2018.

International Visits

Louw, L.

Louw, L. Shanghai University of Business and Economics, Shanghai, China. *Lecture on the International Event Management Studies programme.* 22 March - 13 April 2018.

Louw, L. School of Economics, Utrecht University, Utrecht, Netherlands. *Invited to co-lecture on "Personal leadership development in a globalised world" at the Summer School.* 2 - 6 July 2018.

Louw, M.

Louw, M. Shanghai University of Business and Economics, Shanghai, China. *Lecture on the International Event Management Studies programme.* 22 March - 6 April 2018.

Louw, M. School of Economics, Utrecht University, Utrecht, Netherlands. *Invited to co-lecture on "Personal leadership development in a globalised world" at the Summer School.* 2 - 6 July 2018.

Peer Reviewed Subsidy-Earning Journal Research Publications

Chigwendere, F.B. and Louw, L.

Chigwendere, F.B. and **Louw, L.** (2018) Towards intercultural communication effectiveness (congruence) in Sino-African interactions: A theoretical perspective. *Communicare: Journal for Communication Sciences in Southern Africa.* 37 (2). p.48-65.

Louw, L.

Ndoro, T., Louw, L. and **Kanyangale, M.** (2018) Communication channels in the host community market adopted by Chinese immigrant entrepreneurs. *Acta Commercii.* 18 (1). p.1-9.

Mayer, C.H.

Mayer, C.H. and **Oosthuizen, R.M.** (2018) Developing Value-Orientations in Family Therapy Trainees: A Three-Year Investigation. *Europe's Journal of Psychology.* 14 (3). p.644-664.

Mayer, C.H., Oosthuizen, R., Tonelli, L. and **Surtee, S.** (2018) Women Leaders as Containers: Systems Psychodynamic Insights into their Unconscious Roles. *GENEROS. Multidisciplinary Journal of Gender Studies.* 7 (2). p.1606-1633.

Mayer, C.H., Tonelli, L., Oosthuizen, R.M. and **Surtee, S.** (2018) 'You have to keep your head on your shoulders': A systems psychodynamic perspective on women leaders. *South African Journal of Industrial Psychology (SAJIP).* 44 (2018). p.1-15.

Mayer, C.H. and **May, M.** (2018) Of being a container through role definitions: Voices from women leaders in organisational autoethnography. *Journal of Organizational Ethnography.* 7 (3). p.373-387.

PUBLICATIONS



Ms Lisa Maholo presenting at the SAIMS Conference on key staff retention factors in municipalities.
Credit: Department of Management



Left to Right: Mr Mattheus Louw, Ms Lisa Maholo, Ms Quinta Andangnui and Professor Lynette Louw attending the SAIMS Conference at the University of Stellenbosch.
Credit: Department of Management

Mayer, C.H., Surtee, S. and Mahadevan, J. (2018) South African women leaders, transformation and diversity conflict intersections. *Journal of Organizational Change Management*. 31 (4). p.877-894.

Muriithi, S.M. and Louw, L.

Muriithi, S.M., Louw, L. and Radloff, S.E. (2018) The relationship between strategic thinking and leadership effectiveness in Kenyan indigenous banks. *South African Journal of Economic and Management Sciences*. 21 (1). p.1-11.

Preston, I.R. and Louw, L.

Preston, I.R., Le Maitre, D.C., Blignaut, J.N., Louw, L. and Palmer, C.G. (2018) Impact of invasive alien plants on water provision in selected catchments. *Water SA*. 44 (4). p.719-729.

Peer-reviewed Proceedings

Andangnui, Q., Louw, L. and Grobler, C.

Andangnui, Q., Louw, L. and Grobler, C. Abstract: Macro-locational determinants and motives of Chinese foreign direct investment in Cameroon. *2018 SAIMS Conference: Celebrating 30 Years*. Stellenbosch University, Stellenbosch. South Africa. September 2018.

Chigwendere, F.B. and Louw, L.

Chigwendere, F.B. and Louw, L. Intercultural communication awareness in Sino-African organisational contexts: Perspectives on African culture. *2018 SAIMS Conference: Celebrating 30 Years*. Stellenbosch University, Stellenbosch. South Africa. September 2018.

Louw, L.

Ndoro, T., Louw, L. and Kanyangale, M. Differentiated engagement for opportunity identification in the market: A consumer-centric perspective. *2018 SAIMS Conference: Celebrating 30 Years*. Stellenbosch University, Stellenbosch. South Africa. September 2018.

Maholo, L., Louw, M. and Amos, T.

Maholo, L., Louw, M. and Amos, T. Understanding key retention factors in municipalities. *2018 SAIMS Conference: Celebrating 30 Years*. Stellenbosch University, Stellenbosch. South Africa. September 2018.

Mlotshwa, M.P., Louw, M. and Louw, L.

Mlotshwa, M.P., Louw, M. and Louw, L. Abstract: Employee views on organisational effectiveness of a Chinese organisation operating in Kenya. *2019 SAIMS Conference: Celebrating 30 Years*. Stellenbosch University, Stellenbosch. South Africa. September 2018.

Department of Mathematics (Pure and Applied)



Credit: Snow Harris

Professor Denis Pollney
Head of Department

The department is engaged in a number of active areas of research in mathematics and applied mathematics.

Particular focus areas include:

- Functional analysis including measure theory and martingales;
- Algebraic graph theory;
- 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 and analytical relativity, and in particular calculation of gravitational waves from black hole interactions and the study of fluid solutions to the Einstein equations.

Postgraduates / Graduations

The department supervised two (2) Masters students and five (5) PhD candidates across both the Mathematics and Applied Maths divisions.

Distinguished Visitors / International Visits

Our academic staff made research visits to India, Germany, Hungary, Romania, Slovenia, Australia, and the United Kingdom.

Significant Research Aligned Events

The department was proud to host the 61st Congress of the South African Mathematical Society (SAMS) from December 03-05 2018. More than one hundred and thirty (130) researchers and students from across the country and around the world visited Grahamstown for three (3) days of fascinating seminars and discussion around all areas of Mathematics and Applied Maths. This event was jointly funded by SAMS, the Centre of Excellence for Mathematics and Statistical Sciences (CoE-MASS), and a generous contribution from the Rhodes University Capacity Development Programme.



Department of Mathematics (Pure and Applied).

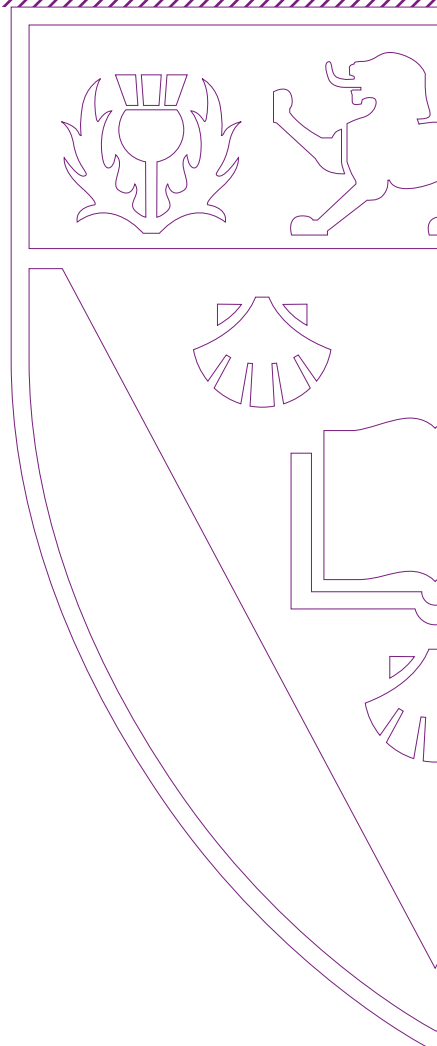
Credit: Rhodes University Communications and Advancement Division

In 2018, we were also pleased to formalize our participation in the CoE-MASS by becoming a partner institute.

The department continues its participation in the National Astrophysics and Space Sciences Program (NASSP) as an associate member of the Cape Town node. Our participation provides opportunities to offer graduate projects as part of the program, as well as opportunities to offer graduate courses in astrophysics. We continue to actively use its local computer cluster and has become one of the most active users at the Centre for High Performance Computing (CHPC) in Cape Town.

PUBLICATIONS

Department of
Mathematics (Pure
and Applied)



Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Bishop, N.T.

Bishop, N.T. (2018) Current status of gravitational wave observations. *PoS - Proceedings of Science*. 2018. p.1-12.

Pollney, D.

Barack, Leor *et. al* (2018) Black holes, gravitational waves and fundamental physics: A roadmap. *White paper for the COST action "Gravitational waves, black holes and fundamental physics."* 272 pages.

Peer Reviewed Subsidy-Earning Journal Research Publications

Barrett, D.I. and Remsing, C.C.

Barrett, D.I., Biggs, R. and Remsing, C.C. (2018) Quadratic Hamilton-Poisson Systems on $se(1, 1)^*$ —: The Inhomogeneous Case. *Acta Applicandae Mathematicae*. 154 (2018). p.189-230.

Barrett, D.I., Mclean, C.E. and Remsing, C.C.

Barrett, D.I., Mclean, C.E. and Remsing, C.C. (2018) Control Systems on the Engel Group. *Journal of Dynamical and Control Systems*. 2018. p.1-26.

Bishop, N.T.

Sheik Amamuddy, O., Bishop, N.T. and Tastan Bishop, O. (2018) Characterizing early drug resistance-related events using geometric ensembles from HIV protease dynamics. *Scientific Reports*. 8 (17938). p.1-11.

Ganguly, A.

Ganguly, A., Gannouji, R., Gonzalez-Espinoza, M. and Pizarro-Moya, C. (2018) Black hole stability under odd-parity perturbations in Horndeski gravity. *Classical and Quantum Gravity*. 35 (145008). p.1-18.

Peer-reviewed Proceedings

Bester, H., Larena, J. and Bishop, N.T.

Bester, H., Larena, J. and Bishop, N.T. Numerically reconstructing the geometry of the Universe from data. *The Fourteenth Marcel Grossman Meeting: On Recent Developments in Theoretical and Experimental General Relativity, Astrophysics and Relativistic Field Theories*. University of Rome "La Sapienza", Rome. Italy. July 2015.

Bishop, N.T., Bester, H. and Larena, J.

Bishop, N.T., Bester, H. and Larena, J. The characteristic formalism: Cosmology constructed from observational data. *The Fourteenth Marcel Grossman Meeting: On Recent Developments in Theoretical and Experimental General Relativity, Astrophysics and Relativistic Field Theories*. University of Rome "La Sapienza", Rome. Italy. July 2015.

John, A.

Acquaviva, G., **John, A.** and Penin, A. Structure formation with causal bulk viscosity. *62nd Annual Conference of the South African Institute of Physics*. Department of Physics, Stellenbosch University, Stellenbosch. South Africa. July 2017.

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

Andriantiana, E.O.D.

Wagner, S., Wang, H. and **Andriantiana, E.O.D.** Extremal unicyclic graphs with short segments. *61st Annual Congress of the South African Mathematical Society*. Rhodes University, Grahamstown. South Africa. December 2018.



Rhodes University Main Administration Building.

Credit: Rhodes University Communications and Advancement Division

Andriantiana, E.O.D., Wagner, S. and Razanajatovo Misanantenaina, V. Extremal Trees with Fixed Degree Sequence. *2018 Spring South-eastern sectional meeting of AMS (American Mathematical Society).* Vanderbilt University, Nashville, Tennessee. United States of America. April 2018.

Barrett, D.I. and Remsing, C.C.

Barrett, D.I. and Remsing, C.C. Geometric Control on the Engel Group. *12th ICMAT International Summer School on Geometry, Mechanics and Control.* Universidade de Santiago de Compostela, Santiago de Compostela. Spain. July 2018.

Remsing, C.C.

Remsing, C.C. Symmetries in geometry. *First Mini-Symposium on Geometry, Groups, and Control.* Rhodes University, Grahamstown. South Africa. December 2018.

Department of Music and Musicology



Credit: Snow Harris

**Associate Professor
Catherine Foxcroft**
Head of Department

The Department of Music and Musicology produces an array of research that traverses traditional and non-traditional outputs, and these are delivered in addition to supplying an onerous teaching and learning programme.

Accredited traditional research produced by **Associate Professor Jeffrey Brukman** and **Dr Boudina McConnachie** is located in an African context, and this feeds into decolonising the undergraduate teaching programme as well as providing the basis for (South) African-centred Postgraduate music studies.

Jazz composer, pianist and educator, **Dr Nishlyn Ramanna**, has added to this African focus through enriching his compositional oeuvre with works in the African jazz idiom. These form the basis for the repertoire contained in his latest CD, *Piano Passions* (2018).

During 2018 **Associate Professor Catherine Foxcroft** and **Ms Jo-Nette LeKay** performed repertoire drawn from the Western art music canon at various South African concert locales.

Postgraduates / Graduations

PhD candidate, Bongani Ndodana-Breen (supervised by Associate Professor Brukman), graduated in April 2018 with a composition portfolio situated in South Africa's political and historical climate. Topics explored were African migration, the Freedom Charter and political icon, Winnie Madikizela-Mandela.

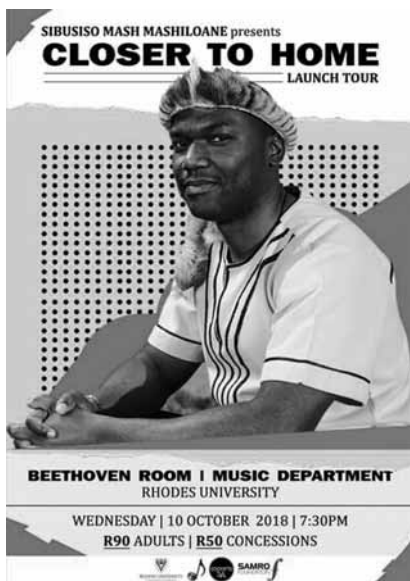
Distinguished Visitors / International Visits

Associate Professor Brukman read a paper in Perth, Australia as part of the 41st Musicological Society of Australia Conference. He was also a panellist in a National Research Foundation (NRF) Research Project that is exploring aspects of Todd Matshikiza's artistic profile (University of KwaZulu-Natal (UKZN): South African Society for Research in Music).

Dr McConnachie presented research at two (2) Ghanaian institutions: University of the Cape Coast and the School for the Performing Arts, Accra.

Associate Professor Foxcroft presented two (2) papers at a music perception and cognition conference held in Graz, Austria. She also participated as a faculty member for the 6th University of Stellenbosch International Piano Symposium.

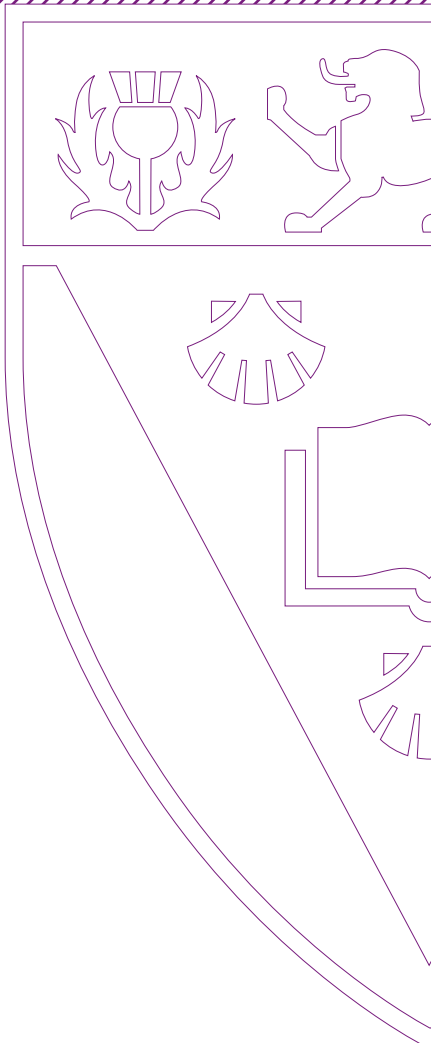
Dr Ramanna performed a programme of his original compositions at the Howard College Theatre, UKZN, Durban.



Credit: Department of Music and Musicology

PUBLICATIONS

Department of Music and Musicology



Concerts, Exhibitions, Performances, Workshops, Events

Foxcroft, C.

Foxcroft, C. Soloist. FSSO Symphony Concert series. *Beethoven Piano Concerto No 3*. Odeion Concert Hall UFS, Bloemfontein. South Africa. 19 May 2018.

Foxcroft, C. Piano ensemble member. US 6th International Piano Symposium. *Glinka Russian and Ludmilla Overture: 4 hands collaboration with Malcolm Nay, Grethe Neethling and Francois du Toit*. Endler Hall, Stellenbosch. South Africa. 14 - 20 March 2018.

Foxcroft, C. Piano ensemble member. Tchaikovsky 1812 Overture Extravaganza for 10 pianos. *6th US International Piano Symposium*. Endler Hall, Stellenbosch. South Africa. 14 - 20 March 2018.

LeKay, J.

LeKay, J. Soloist. From Opera to Brahms. *Soloist for the Eastern Cape Philharmonic Symphony concert conducted by David Scarr*. Feather Market Theatre, Port Elizabeth. South Africa. 21 October 2018.

LeKay, J. Soloist and Musical Director. Enjoy a Night in Vienna. *Viennese Concert program with RU Vocalist, accompanied by Kobus Buys*. Beethoven Room, Grahamstown. South Africa. 23 August 2018.

LeKay, J. Stage Manager. A Feather on the breath of God. *A Grahamstown National Art Festival Arena program featuring Emma Farquharson (Soprano), Caleb Vaughn Williams (Cello) & Nina van Schoor (Piano)*. Nun's Chapel, Grahamstown. South Africa. 28 June - 2 July 2018.

LeKay, J. Musical Director. Go for Baroque. *Baroque music concert with RU Vocalists Accompanied by Garreth Robertson (Piano & Harpsichord)*. Nun's Chapel, Grahamstown. South Africa. 3 May 2018.

LeKay, J. Voice Coordinator. RU Symphony Concert conducted by David Scarr. *Coordinator of coaches and wardrobe to RU Soloists for performance of Opera Excerpts*. Guy Butler theatre, Settlers Monument; Nelson Mandela University South Campus theatre, Grahamstown. South Africa. 22 - 23 September 2018.

LeKay, J.

Lekay, J. Soloist. Master's Recital. *Classical Concert incorporating various styles and composers including Obradors, Rachmaninof, Mozart, Handel, Donizetti, Puccini, Gounod & Kalman - Collaborative Pianist - Paul Ferrelira*. Beethoven Room, Grahamstown. South Africa. 11 October 2018.

McConnachie, B.

McConnachie, B. Curator and convenor. International Library of African Music student exhibition 2018. *International Library of African Music student exhibition 2018*. ILAM, Grahamstown. South Africa. 18 - 20 September 2018.

McConnachie, B. Performer (first flute). RU Symphony Concert 2018. *RU Symphony Concert 2018*. Guy Butler Theatre, Grahamstown. South Africa. 27 - 28 September 2018.

Ramanna, N.

Ramanna, N. Performer/composer. Piano Passions CD Recording. *Piano Passions Project*. CD Refording, Durban. South Africa. 6 April 2018.

Ramanna, N. Performer/composer. Nishlyn Ramanna set. *Piano Passions*. Howard College Theatre, UKZN, Durban. South Africa. 6 April 2018.

Ramanna, N. and Thorpe, C.J.

Ramanna, N. and Thorpe, C.J. Performer/composer. Jazz Quartet Concert. *Olivia Fields, Nishlyn Ramanna, Chris Thorpe and Hadley Grecia in concert*. Beethoven Room, Rhodes University, Makhanda. South Africa. 7 November 2018.

Distinguished Visitors

Foxcroft, C.

C Foxcroft. Stellenbosch University, Stellenbosch, South Africa. *Faculty member 6th US International Piano Symposium*. March 2018.

PUBLICATIONS

LeKay, J.

J LeKay. University of Cape Town, Grahamstown, South Africa. *Voice Workshop / Masterclass with Mr Patrick Tikolo*. September 2018.

International Visits

McConnachie, B.

McConnachie, B. The University of the Cape Coast, Cape Coast, Ghana. *Development of African Music curricula*. 12 - 14 August 2018.

Peer Reviewed Subsidy-Earning Journal Research Publications

Brukman, J.

Brukman, J. (2018) 'Less a New African Music than an African New Music': A Close Musical Analysis of Bongani Ndodana-Breen's Emhlabeni. *Musicology Australia*. 40 (1). p.1-25.

McConnachie, B.

McConnachie, B. (2018) Bruinders, S. 2017. Parading Respectability: The cultural and moral aesthetics of the Christmas Bands Movement in the Western Cape, South Africa. Grahamstown: African Humanities Program and NISC. 17 figures, glossary, bibliography, index, 205pp. *African Music: Journal of the International Library of African Music*. 10 (4). p.197-198.

Peer-reviewed Proceedings

McConnachie, B.

Mcconnachie, B. Reshaping South African Musical Values. *South African Society for Research in Music*. North West University, Potchefstroom. South Africa. August 2017.

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

Brukman, J.

Brukman, J. Black South African experiences of dispossession, migration, and translocation expressed through the lens of Safika, a Piano Quintet by Bongani Ndodana-Breen. "Through the Looking Glass", 41st Musicological Society of Australia National Conference. Edith Cowan University, Perth. Australia. December 2018.

Brukman, J. Panellist: How does Todd Matshikiza's life and work encourage us to think differently about South African music studies in the current juncture? 12th annual conference for the South African Society for Research in Music. University of KwaZulu-Natal, Durban. South Africa. September 2018.

Foxcroft, C.

Foxcroft, C. Exploring Musical Flow in Ensemble performance. 15th International Conference for Music Perception and Cognition (ICMPC). University of Graz, Graz. Austria. July 2018.

Foxcroft, C. Emotions and Flow in Performance: the performer's perspective. 15th International Conference for Music Perception and Cognition (ICMPC). University of Graz, Graz. Austria. July 2018.

McConnachie, B.

McConnachie, B. Change is frightening: Shaping the musical future of South Africa now. *International Council for Traditional music*. School of Performing Arts, Accra. Ghana. August 2018.

McConnachie, B. Arts and Cultural Education: The collaborative path towards an African music education canon. *South African Cultural Observatory International Conference 2018: Beyond the Creative Economy? Nelson Mandela Bay Stadium, Port Elizabeth*. South Africa. March 2018.

McConnachie, B. The collaborative path towards a tertiary African music undergraduate curriculum in South Africa. *SAHUDA 2018 Conference*. Nelson Mandela University, Port Elizabeth. South Africa. October 2018.

McConnachie, B. Through the eyes of the student: A field-work collaboration project on amaXhosa culture in the Keiskammahoek region of the Eastern Cape, South Africa. *SAHUDA 2018 Conference*. Nelson Mandela University, Port Elizabeth. South Africa. October 2018.



Credit: Department of Music and Musicology



Credit: Department of Music and Musicology

International Library of African Music (ILAM)



Credit: Snow Harris

Dr Lee Watkins
Head of Department

In as far as the International Library of African Music (ILAM) has its origins in African Studies and is motivated by the same, it is committed to a platform upon which a renewed vision of the music archive is taking shape. This vision includes the dual role of ILAM serving as an archive and as a centre of excellence for the study of African music performance.

In the medium term, ILAM will retain its core services but also develop into a Centre for the Study of African Music Performance, with the understanding that such a Centre is already in the making and that voices from abroad and the continent are looking at ILAM to provide the lead for the formation of such a Centre. Research will be performance based, linked with conservation, teaching, development, community engagement and the expansion of core services.

Current activities at ILAM include the mentoring of young African authors to circumvent the dominance of non-African authors of African music (the past few editions of African Music bears testimony to the idea of developmental editing where an inexperienced author is mentored from the first draft to publication).

In the extent of its partnerships with community based organisations, ILAM has been working with two (2) arts based community projects in Grahamstown/Makhanda since the early 2000s. Since 2011 we have been engaged in a participatory research project with a developmental organisation who uses the data for a heritage route and education; its residencies of world renowned musicians from countries such as Mozambique (Venancio Mbande Junior), Uganda (Bisaso Ssempeke) and Ghana (numerous) in the past three (3) years.

Its appeal to scholars, composers and Postgraduate students from many parts of the globe, allows ILAM to enjoy its status as the most advanced music archive on the continent. While the archive is concerned with African music, it is also a nexus of relationships from our doorstep to the furthest corners of the globe. The archive is not only about sound but also about the development of relationships such that it is at the vanguard of how a new South Africa may be imagined.



Dr Lee Watkins with the instrument display
Credit: ILAM

A particular interest at ILAM is the means by which musical performance and music studies may bring about a new awareness influenced by economic development and social cohesion. We ask how may the music archive be imagined in a context of vociferous demands for the decolonization of knowledge production and in the academic sector? And argue that it is through the study of sound, rather than music, with “music” being a western construct, that sound studies connect profoundly with other disciplines, to the past, the present and to the future.

At ILAM, words such as the “decolonial” is not mere rhetoric but a part of its lived experience from one day to the next. ILAM has not been able to achieve this on its own. Indeed, a critical step is the development of partnerships through which resources are developed and shared.

Today ILAM is proof of the connectivity among peoples, and its future as a place where Africa is reimagined through sound should hopefully engage all of us.

Postgraduates / Graduations

1. ILAM’s sound engineer, **Elijah Madiba** graduated with a MMus degree in Ethnomusicology. His topic dealt with the digital return of music to local musicians in the Eastern Cape.
2. The Postgraduate student who has performed excellently is Obianuju Njoku. She is a Doctoral candidate in her second year of enrolment. Her achievements are as follows:
 - An article titled, “An Assessment of Soundtracks and Viewers’ Interest in Nigerian Home Videos”, in *Fulafia Journal of Humanities of Social Sciences*.
 - A presentation at the International Library of African Music seminar titled “Chronicling Fieldwork Experience in Ethnomusicology: The Nupe Paradigm”.
 - Taught several groups of IMS students and presented them for performances drawing on various music cultures from Africa.

- Participated in the interdisciplinary postgraduate conference of Rhodes University, where she presented a paper titled, "Dynamics of Ethnicity and Nationhood in Nigeria: The Nupe Paradigm".
- Awarded a student grant to attend a writing workshop and Conference in Durban in organised by the South African Society for Research in Music (SASRIM) in collaboration with the National Institute for the Humanities and Social Sciences. She presented a paper titled, "Still We March On: Sounds of Resistance and Nationalism in the Nigerian Biafra War". The conference was from 29 August to 1 September.
- Gave a joint presentation with Dr. Stephen Ogundipe; an African Humanities Postdoctoral Research Fellow from Nigeria. The title of the presentation was "Neither Here nor There: Alterity and Mimesis in Ilorin Women Music Forms". This presentation took place at the International Library of African Music (ILAM), Rhodes University.

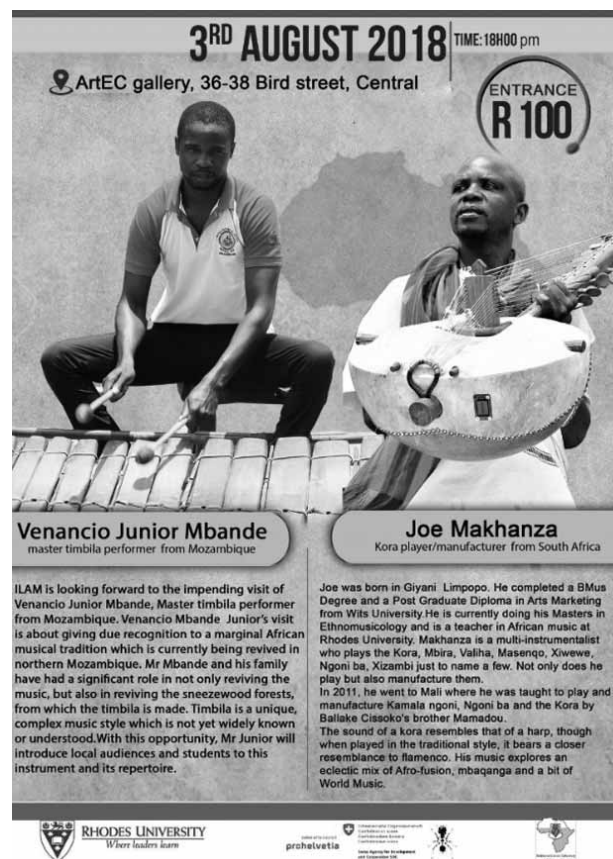
Distinguished Visitors / International Visits

ILAM successfully hosted Venancio Bande Junior from 15 July to 11 August 2018. He taught at ILAM and Nelson Mandela University (NMU) and performed in Port Elizabeth. Unfortunately the concert for RU was cancelled due to the death of a student.

One of our distinguished visitors was the esteemed anthropologist of music, Veit Erlmann who ILAM co-hosted with the music department. Erlmann gave a talk entitled "Lion's share: Remaking South African Copyright". He gave two (2) seminars in the music department and the anthropology department.

Another guest was John-Doe Dordzro, an African Humanities Programme (AHP) fellow who visited ILAM from January to March 2018. During his time he made a valuable contribution to the IMS African Music Ensemble classes. He also co-ordinated two (2) traditional dance performances with students in a performance called "Atsiagbekor Dance".

Another guest was Jia Sui Ling who is enrolled for a PhD at the prestigious Shanghai Conservatory of Music. She departed in early May 2018 after spending



Poster for Venancio concert held in August.
Credit: ILAM

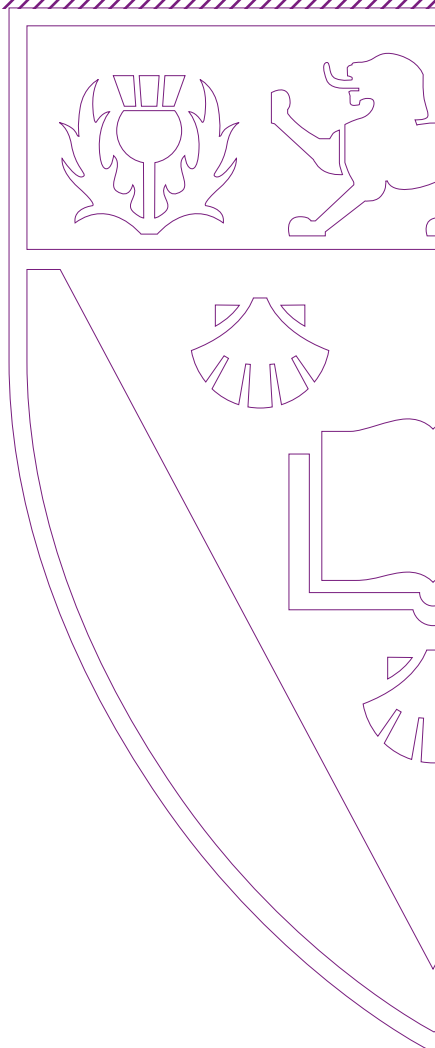
six (6) weeks at ILAM as part of her research into archival practices.

Significant Research Aligned Events

In August 2018 a colloquium was held by Dr Stephen Ogundipe, an African Humanities Postdoctoral Research Fellow from Nigeria. The title of the presentation was "Neither Here nor There: Alterity and Mimesis in Ilorin Women Music Forms." This presentation took place at the International Library of African Music (ILAM) and was shared with another paper entitled, "Neither Here nor There: Alterity and Mimesis in Ilorin Women Music Forms" by Obianuju Njoku.

PUBLICATIONS

International Library of African Music (ILAM)



Books/Chapters/Monographs

Thram, D.

Thram, D. (2018) Cultural Heritage, Audiovisual Archives and Digital Return: the 21st century mandate. In: Salvatore, C.L. (ed.). *Cultural Heritage Care and Management: Theory and Practice*. UK: Rowman & Littlefield Publishers. p.141-152. ISBN: 9781442272170.

Concerts, Exhibitions, Performances, Workshops, Events

Thram, D.

Thram, D. Invited Lecture. Postcolonial issues for colonial audio-visual archives: the Hugh Tracey Collection and 21st century archival ethics. *Lunch Hour Lecture Series*. Smithsonian Center for Folklife and Cultural Heritage, Washington DC. United States of America. 4 September 2018.

Other Publications

Dargie, D.

Dargie, D. (2018) Brother Clement Sithole OSB: Zulu Liturgical Compositions: A Handbook accompanying the Recordings of works of the renowned Benedictine and Zulu Music Master Musician on the CD of the same Title, with an Introduction to the Music, recording Notes, and Score Transcriptions of many of his Liturgical Songs, for Study or Performing.

Dargie, D. (2018) The Music of Ngqoko: A handbook designed to accompany all the recordings of the musicians of Ngqoko Village, and the Ngqoko area in the *Dave Dargie Collection*.

Dargie, D. (2018) Zulu Bow Songs: The Rich Heritage of Bow Songs of Maphophoma and Nongoma - A Booklet to accompany the set of three CDs called Zulu Bow Songs I, II and III, containing recordings of songs with the ugubhu, umakhweyane isiqomqomana & umqangala musical bows, made at Maphophoma, near Nongoma, and also at Nongoma in KwaZulu-Natal, South Africa, by Dave Dargie in 1981 & 1982, with six religious bow songs by Brother Clement Sithole, OSB.

Dargie, D. (2018) Handbook Accompany the CDs. *Selection of Traditional Music and Selection of African Church Music*.

Dargie, D. (2018) Ntsikana Music Collection 2000: A Handbook accompanying the CD Ntsikana Music Collection 2000 and the *DVD Versions of the Song(s) of Ntsikana the Prophet*.

International Visits

Watkins, L.W.

Watkins, L.W. University of Virginia, Charlotte, United States of America. *Afro-future collaborations*. 18 - 23 April 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Thram, D.

Thram, D. (2018) Pilot Project in Re-study and Repatriation (digital return) of the International Library of African Music's Hugh Tracey Field Recordings. *Journal of the International Association of Sound and Audiovisual Archives (IASA)*. 48 (2018). p.47-52.

Watkins, L.W.

Watkins, L.W. (2018) Review of Elijah Wald's. Talking 'Bout Your Mama: The Dozens, Snaps, and the Deep Roots of Rap. (2015). *Journal of World Popular Music*. 5 (2). p.127-130.

PUBLICATIONS

The International Library of African Music at Rhodes University hereby announces its first seminar for 2019. Venue: International Library of African Music.

Date: Monday, 4 March 2019. Time: 17:00



John-Doe Yao Dordzo

Abstract
Brass band music in Ghana: The indigenisation of European military music and popular culture from 1750-2018 by John-Doe Dordzo, AHP Fellow at ILAM.

The remains of European brass bands are widely distributed throughout Africa, India, Indonesia, Latin America, and the Caribbean. These bands are of both military and missionary origin which were an important component of nineteenth and early twentieth century colonial expressive culture. The introduction of brass bands to Ghana and the subsequent "re-interpretation" of the brass band style by the indigenous musicians is a phenomenon worth academic interest. Despite its uniqueness and wide spread presence across the world, brass bands have received limited attention in Ghana. This research aims to redress this by offering a comprehensive historical, and ethnomusicological account of the contemporary situation of a musical world that, to the best of my knowledge, has never been presented before. This research focuses on the history and development of brass band music in Ghana from 1750 to 2018. I document this old popular music culture by taking a critical look at the traditional performance practice, resources of reality, modes of transmission, styles, types of instruments and the current scene. Detailed interviews and field recordings of musical items clearly and support the interplay of tradition, creativity, improvisation and the place of oral-aural modes of learning; performance, and stylistic traits in historical perspectives.

Place his biography below in a block.

John-Doe Yao Dordzo is a fellow of the African Humanities Programme of the American Council of Learned Societies, and a lecturer in Music Education at the Department of Music and Dance, University of Cape Coast, Ghana. He is the instructor for applied music (brass and woodwind) the director of the wind ensemble of the Department of Music and Dance, University of Cape Coast and also in charge of many wind bands and choral groups across Ghana. His research interests are in instrumental music pedagogy (wind instruments), instrumental music participation of children, school band activities in Ghana, community music, gender issues in music, and general issues in music education. His publications include: The impact of Ghanaian school band instructors' rehearsal strategies on students' performance; influences on basic school band pupils' instrument choices; informal music education in Ghana; brass band music in Ghana; basic perceptions on the role of school

Abstract
Chronicling Fieldwork Experience in Ethnomusicology: The Nape People, by Obianuju Akunna Njoku

Fieldwork as a mode of inquiry is employed in diverse disciplines which require ethnography and is arguably the most employed mode of data collection in ethnomusicological research. This presentation reports on my 5 month fieldwork experience with the Nape people, an ethnic group in Bida, Niger state and Pate, Kwara state, both found in Northern Nigeria. Within a broader framework of the study, I examine how questions of identity, gender and power are constructed and expressed among the Nape people through their musical traditions. However, the focus of this presentation brings to attention my experience as a fieldworker among the Nape people which serves as a fulcrum to interrogate long standing notions of fieldwork in ethnomusicology and its application and importance in ethnomusicological research. The fieldwork opens stages of pre-field negotiations, actual fieldwork, post-fieldwork and other subtleties like insider-outsider ambivalences which exist. I propose a description of these processes will advance an understanding of the dynamics of fieldwork in ethnomusicology and its requirements which include time, flexibility and support.

Biography
Obianuju Akunna Njoku is currently a doctoral candidate in Ethnomusicology at Rhodes University. Her research interests are in music of diverse cultures, music and gender, and music media. She is currently exploring musical genres of diverse Nigerian cultures that are yet to receive significant attention with her most recent project being the music of the Nape people in Northern Nigeria. She holds a Bachelor of Arts degree in Music and a Masters in Performing Arts. Obianuju is also a recipient of the Andrew Mellon Intersecting Diaspora Scholarship and a member of the Association of Nigerian Musicologists (ANM) and the South African Society for Research in Music (SASRM).



Obianuju Akunna Njoku

ILAM Seminar poster.

Credit: ILAM

Peer Reviewed Subsidy-Earning Journal Research Publications

Thram, D.

Thram, D. (2018) Jazz in Service of the Struggle: The New Brighton Story. *African Music: Journal of the International Library of African Music*. 10 (4). p.67-102.

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

Thram, D.

Thram, D. Youth directed music heritage outreach and digital return of ILAM's Hugh Tracey Collection of historic field recordings. *Connecting Childhood and Culture Symposium*. York University, Toronto. Canada. June 2018.

Thram, D. Accessibility to music heritage audiovisual collections: rights of communities of origin? 2018 ICTM (International Council for Traditional Music). *Audiovisual Ethnomusicology Symposium*. New University of Lisbon, Lisbon. Portugal. June 2018.

Thram, D. Accessibility to music heritage audiovisual collections: rights of communities of origin? 2018 IASA (International Association

The Department of Music and Musicology and the International Library of African Music (ILAM) are proud to announce a lecture by **Veit Erlmann**, an eminent scholar on the neotraditional music of southern Africa.

Venue: International Library of African Music.

Date: Monday, 11 March 2019. Time: 17:00

Lion's Share: Remaking South African Copyright

Abstract In this lecture, Erlmann talks about his forthcoming book "Lion's Share. Remaking South African Copyright." The book is an ethnography of the current effort at reforming South African copyright in key areas such as copyright legislation, protection of traditional knowledge/traditional cultural expressions, regulation of collection societies, and criminal enforcement of copyright.

Biography Veit Erlmann holds the Endowed Chair of Music History. He studied musicology, sociology, anthropology and philosophy in Berlin and Cologne, where he obtained a Ph.D. in 1978 and did a Habilitation in musicology in 1989 and in anthropology in 1994. He has done fieldwork in Ecuador and in several African countries such as Cameroon, Niger, Ghana, South Africa and Lesotho.

Dr. Erlmann has been on the faculties of the University of Natal, the University of Chicago, the University of the Witwatersrand in Johannesburg, and the Free University of Berlin. Among his publications are *African Stars, Studies in Black South African Performance and Nightsong*, and *Performance, Power and Practice in South Africa*, both published by the University of Chicago Press. A recent book, *Music, Modernity and the Global Imagination*, published by Oxford University Press won the Alan P. Merriam Prize for the best English-language monograph in ethnomusicology.

All are welcome



Veit Erlmann Lecture Poster.

Credit: ILAM

of Sound and Audiovisual Archives). *Annual conference*. University of Ghana Legon, Accra. Ghana. October 2018.

Thram, D. Postcolonial issues for colonial audiovisual archives: the Hugh Tracey Collection, decolonization and 21st century archival ethics. *SAHUDA Conference*. Nelson Mandela University, Port Elizabeth. South Africa. October 2018.

Thram, D. Postcolonial issues for colonial audiovisual archives: the Hugh Tracey Collection, decolonization and 21st century archival ethics. *2018 SEM (Society for Ethnomusicology) Annual Conference*. University of New Mexico, Albuquerque. New Mexico. November 2018.

Watkins, L.W.

Watkins, L.W. The role of a music archive in the sustainable development of rural communities based in the Eastern Cape, SA. *Heritage 2018*. University of Granada, Granada. Spain. June 2018.

Watkins, L.W. The heritage of traditional southern African music and the quest for rural economic and social development. *ICTM Study Group on African Musics: Second International Symposium on African Musics*. Department of Music, University of Accra, Accra. Ghana. August 2018.

Watkins, L.W. Decolonising the music archive in the Humanities. *SAHUDA-NIHSS 2018*. Nelson Mandela University Business School, Port Elizabeth. South Africa. October 2018.



Credit: Simon Pamphilon

**Associate Professor
SM Khamanga**
Dean of Faculty

The year 2018 was a great year for the Faculty of Pharmacy. We emphasised the relevance and engagement with real world problems in our research themes within the different research groups in the Faculty. Creativity and innovation is the cornerstone of our vision for our research focus to ensure we position ourselves as the destination of choice for postgraduate studies in pharmacy in South Africa.

The Faculty of Pharmacy has undoubtedly grown in terms of size, scope and stature. We had challenges, which we learned from, and we have had our own significant achievements.

In 2018 a total of eleven (11) PhD candidates were registered which reflected a continued upward trend of about ten percent (10%) and in the MSc/MPharm programme there was no change in the total number of registered students (32), which was the number registered in 2017.

A total of ten (10) PharmD candidates were registered and the number will be reduced as the programme in its current form is being phased out. The total number of students in the Faculty has stabilised over the past five (5) year period. A high demand for postgraduate spaces was evident with all researchers indicating that they could not take on more students because of limited research space and funding.

Only a few students received internal and external funding opportunities at the MSc/MPharm and Doctoral level. We hope to implement a plan for all students to attend workshops to help them prepare research proposals and submit applications for scholarships. We continued to encourage supervisors and students to respond to funding calls - including the National Research Foundation (NRF) Innovation Scholarships for Master and Doctoral studies, which are also open to non-South African candidates.

We have concluded that we are on the right path in terms of the attitude and focus towards research as the number of supervisors in the Faculty serve to increase capacity. In 2018, the number of research-active, full-time academic staff increased marginally to eleven (11) (or 65%) in 2018, up from ten (10) (59%) in 2017.



Dr Leonie Goosen (right) was invited by Professor Yu Pei, current Executive Dean of the International School at Jinan University, Guangzhou, Guangdong, People's Republic of China, to give lectures over a period of four weeks in Medicinal Chemistry and Pharmaceutical English to the third year Pharmacy Students.

Credit: Faculty of Pharmacy

This increase is partly the consequence of a more liberal approach that we are seeing in the Research Office, which continues to provide support to new academic staff through the Research Committee, and partly due to the increase and establishment of a research culture amongst all staff.

Professor Sunitha Srinivas was appointed a Visiting Professor. The recruitment strategy has had an impact that has enabled new staff members to be accommodated in a Faculty that seeks to create a supportive environment and platform across the divisions of Pharmacy Practice, Pharmacology, Pharmaceutical Chemistry and Pharmaceutics.

There were two (2) NRF-rated researchers in the Faculty in 2018 and we hope in the next year the number will increase. We pride ourselves in having two (2) Professors in the Faculty who are in the top thirty (30) list of researchers at Rhodes University. They contribute to excellence in research and this is evident by the increase in research output and throughput of their students. This is a new phenomenon in Health Sciences at Rhodes University. Furthermore, we hope that they will continue to



Professor Dowse (right) was invited to be a plenary speaker at a combined Australian conference of the International Society for Maxillofacial Rehabilitation (ISMR) and the Australian and New Zealand Head and Neck Cancer Society (ANZHNCS).

Credit: Faculty of Pharmacy

contribute to development of staff through mentoring and enhance postgraduate research skills through facilitation of workshops on dissertation writing, project and experimental designs amongst others.

Postgraduates / Graduations

Dr Chiluba Mwila graduated with a PhD in Pharmaceutics under the tutelage of Professor Roderick Walker and was appointed as the new Head of the Department of Pharmacy at the University of Zambia. Ms Clarris Magadza successfully completed the Critical Discourse Analysis Course run by the Linguistics Department between July and November 2018.

Distinguished Visitors / International Visits

The four (4) divisions of the Faculty of Pharmacy are very different in their orientation and focus regarding research and scholarly activities.

Professor Roderick Walker presented an oral paper at the 78th Pharmacy World Congress (FIP) Glasgow, Scotland, United Kingdom on lipid-based carriers as drug delivery vehicles that target the brain.

Professor Ros Dowse was an invited plenary speaker at a combined conference of the International Society

for Maxillofacial Rehabilitation (ISMR) and the Australian and New Zealand Head and Neck Cancer Society (ANZHNCS). She was also a panel member in a plenary session in which an expert clinical team debated the issue “Treatment Decision Making”.

Dr Carmen Oltmann is on the international organising committee of the Life Long Learning in Pharmacy conference that was held in Brisbane, Australia (July 2018). She presented a paper: “Developing South African Health Professions Educators for the 21st Century”.

Visiting Professor Beverley Glass was at Rhodes University in March 2018 and she gave lectures and explained her research to staff and students. Her work focuses on stability of pharmaceutical drugs.

Dr Leonie Goosen was invited by Professor Yu Pei, current Executive Dean of the International School at Jinan University, Guangzhou, Guangdong, People's Republic of China, to give lectures over a period of four (4) weeks in Medicinal Chemistry and Pharmaceutical English to third year Pharmacy Students. She also conducted discussions on teaching and learning and curriculum with a number of colleagues at the College of Pharmacy of Jinan University.

Dr Richard Beteck, a Postdoctoral Research Fellow in Dr Khanye's research group, attended the 4th International Conference on Antimicrobials, Multiple Drug Resistance & Antibiotics Resistance (Antibiotics Resistance 2018) in April 2018, in Las Vegas, United States of America (USA). This was a platform to widen the imminent discoveries in the field of antibiotics and antibiotic resistance.

Professor Roman Tandlich was invited to the University of Zilina in Slovakia where he gave lectures and presented his research on Disaster Management. In November 2018, he also attended The International Emergency Management Society (TIEMS) Annual Conference, which was held at the University of Santo Tomas, Philippines, where he was elected the Director for Africa for TIEMS.

Dr Nosiphiwe Ngqwala attended the African National Young Academics of Science meeting which was held at the Académie Nationale des Sciences, Arts et Lettres du Bénin (ANSALB) in Cotonou, Benin, in November 2018.



Dr Richard Beteck, a Postdoctoral Research Fellow in Dr Khanye's research group (Medicinal Chemistry and Drug Design) attended the 4th International Conference on Antimicrobials, Multiple Drug Resistance & Antibiotics Resistance in Las Vegas, USA.
Credit: Faculty of Pharmacy

PUBLICATIONS

Faculty of Pharmacy



Books/Chapters/Monographs

Srinivas, S.

Paphitis, S. and Srinivas, S. (2018) Service-Learning Research Projects to Enhance the Medicines Information Accompanying Commonly Dispensed Medicines on the Phelophepa Health Care Trains. In: Vindrola-Padros, C., Pfister, E. and Johnson, G. (eds.). *Healthcare in motion: Mobility forms in health service delivery and access*. New York: Berghahn Books. p.164-184. ISBN: 9781785339530.

Concerts, Exhibitions, Performances, Workshops, Events

Kanfer, I.

Kanfer, I. Invited Speaker. Bioequivalence Methods and Waiver Options: Topical Products For Local Action. *Scientists Advancing Affordable Medicines (SAAMnow)*. Baltimore, Maryland. United States of America. 18 - 19 October 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Govender, K., Sharma, S. and Srinivas, S.

Govender, K., Sharma, S., Jessee, W., Nagaraju, K., Pearse, N.J., Chhetri, P., Bodenstab, E., Yu, P. and Srinivas, S. (2018) Leadership and Task Shifting to Address the Challenges of Antimicrobial Resistance in South Africa. *Asian Journal of Pharmaceutical Research and Health Care*. 10 (1). p.10-20.

Hill, P.W.

Hill, P.W. (2018) mHealth: A cost-effective solution to chronic problems? *Journal of Medicine and Therapeutics*. 2 (2). p.1-4.

Tandlich, R., Angala, A.N., Vhiriri, E.P., Ngqwala, N.P. and Srinivas, S.

Tandlich, R., Angala, A.N., Vhiriri, E.P., Ngqwala, N.P. and Srinivas, S. (2018) Disaster and health vulnerability assessment for the population of the Kingdom of Bhutan. *Journal for Studies for Humanities and Social Sciences*. 7 (1). p.62-86.

Tandlich, R., Ngqwala, N.P., Madikizela, P., Srinivas, S. and Oosthuizen, R.

Tandlich, R., Ngqwala, N.P., Boshoff, A., Madikizela, P., Srinivas, S., Pyle, D. and Oosthuizen, R. (2018) Challenges and curriculum transformation in the Higher Education sector in South Africa: a case study in WASH to improve the training of pharmacists. *Acta Educationis Generalis*. 8 (1). p.1-24.

Peer Reviewed Subsidy-Earning Journal Research Publications

Barford, K., Ramela, T. and Dowse, R.

Browne, S.H., Barford, K., Ramela, T. and Dowse, R. (2018) The impact of illustrated side effect information on understanding and sustained retention of antiretroviral side effect knowledge. *Research in Social & Administrative Pharmacy*. 2018. p.1-5.

Chigumete, T.G. and Srinivas, S.

Chigumete, T.G., Townsend, N. and Srinivas, S. (2018) Facilitating and limiting factors of workplace health promotion at Rhodes University, South Africa. *WORK-A Journal of Prevention Assessment & Rehabilitation*. 59 (4). p.599-606.

Dowse, R.

Hodes, R., Vale, B., Toska, E., Cluver, L., Dowse, R. and Ashorn, M. (2018) 'Yummy or crummy?' The multisensory components of medicines-taking among HIV-positive youth. *Global Public Health*. 2018 (2018). p.1-16.

Dube, C. and Tandlich, R.

Dube, C., Tandlich, R. and Wilhelmi, B. (2018) Adsorptive removal of ciprofloxacin and isoniazid from aqueous solution. *Nova Biotechnologica et Chimica*. 17 (1). p.16-28.

Irwin, Y.L.

Johnston, D.M.G., Truter, I., **Irwin, Y.L.**, Naidoo, P., Coetzee, B.C. and Basson, W. (2018) Pharmacy students' opinions and experiences working on board the Transnet-Phelophepa Health Care Trains. *International Journal of Pharmacy Practice*. 2018. p.1-7.

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Khanye, S.D.

Darrell, O.T., Hulushe, S.T., Mtshare, T.E., Beteck, R.M., Isaacs, M., Laming, D., Hoppe, H.C., Krause, R.W.M. and **Khanye, S.D.** (2018) Synthesis, Antiplasmodial and Antitrypanosomal Evaluation of a Series of Novel 2-Oxoquinoline-based Thiosemicarbazone Derivatives. *South African Journal of Chemistry - Suid-Afrikaanse Tydskrif Vir Chemie*. 71 (2018). p.174-181.

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Beteck, R.M., Isaacs, M., Hoppe, H.C. and Khanye, S.D. (2018) Synthesis, *in vitro* Cytotoxicity and Trypanosomal Evaluation of Novel 1,3,6-Substituted Non-fluoroquinolones. *South African Journal of Chemistry - Suid-Afrikaanse Tydskrif Vir Chemie*. 71 (2018). p.188-195.

Lunga, M.J., Chisango, R.L., Weyers, C., Khanye, S.D. and Veale, C.G.L.

Lunga, M.J., Chisango, R.L., Weyers, C., Isaacs, M., Taylor, D., Edkins, A.L., Khanye, S.D., Hoppe, H.C. and Veale, C.G.L. (2018) Expanding the SAR of Nontoxic Antiplasmodial Indolyl-3-ethanone Ethers and Thioethers. *ChemMedChem*. 13 (2018). p.1-11.

Makoni, P.A., Khamanga, S.M., Wa Kasongo, K. and Walker, R.B.

Makoni, P.A., Khamanga, S.M., Wa Kasongo, K. and Walker, R.B. (2018) The use of experimental design for the development and validation of an HPLC-ECD method for the quantitation of efavirenz. *Pharmazie*. 73 (10). p.570-578.

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Masilamoney, M. and Dowse, R. (2018) Knowledge and practice of healthcare professionals relating to oral medicine use in swallowing-impaired patients: a scoping review. *International Journal of Pharmacy Practice*. 26 (2018). p.199-209.

Matyaba, T.B., Keche, P. and Tandlich, R.

Matyaba, T.B., Keche, P. and Tandlich, R. (2018) Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions: Proceedings of Euro-Mediterranean Conference for Environmental Integration (EMCEI-1), Tunisia 2017 - Radioactive waste management in South Africa. *Advances in Science, Technology & Innovation*. I & II (2018). p.1009-1012.

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Mhlongo, M.P., Marara, P., Bradshaw, K. and Srinivas, S. (2018) Health education on diabetes at a South African National Science Festival. *African Journal of Health Professions Education*. 10 (1). p.26-30.

Muller, A.C. and Kanfer, I.

Muller, A.C., Ducharme, M. and Kanfer, I. (2018) Identification of Mechanism and Pathway of the Interaction between the African Traditional Medicine, *Sutherlandia Frutescens*, and the Antiretroviral Protease Inhibitor, Atazanavir, in Human Subjects Using Population Pharmacokinetic (PK) Analysis. *Journal of Pharmacy and Pharmaceutical Sciences*. 21 (1s). p.215-221.

Okeyo, I.L.A. and Dowse, R.

Okeyo, I.L.A. and Dowse, R. (2018) An illustrated booklet for reinforcing community health worker knowledge of tuberculosis and facilitating patient counselling. *African Journal of Primary Health Care and Family Medicine (PHCFM)*. 10 (1). p.1-7.

Olawode, E.O. and Tandlich, R.

Olawode, E.O., Tandlich, R. and Cambray, G. (2018) 1H-NMR Profiling and Chemometric Analysis of Selected Honeys from South Africa, Zambia, and Slovakia. *Molecules*. 23 (578). p.1-19.

Olawode, E.O., Tandlich, R., Prinsloo, E., Isaacs, M., Hoppe, H.C., Sheldon, R., Warner, D.T., Steenkamp, V. and Kaye, P.T. (2018) Synthesis and biological screening of diethyl [N-(thiazol-2-yl)carbamoyl]methylphosphonates. *Arkivoc*. 7 (2018). p.110-118.

Oltmann, C.

Oltmann, C. (2018) Sports pharmacy in South Africa - need or nonsense? *SA Pharmaceutical Journal*. 85 (3). p.50.

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Rath, S. and Srinivas, S.

Rath, S., Yu, P. and Srinivas, S. (2018) Challenges of non-communicable diseases and sustainable development of China and India. *Acta Ecologica Sinica*. 38 (2018). p.117-125.

Sharma, S., Marara, P. and Srinivas, S.

Sharma, S., Marara, P., Townsend, N. and Srinivas, S. (2018) Developing and testing a culturally sensitive health information leaflet on the consequences of alcohol abuse: Rhodes University support staff with limited literacy in focus. *Ethiopian Journal of Health Development*. 32 (1). p.46-53.

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Srinivas, S., Mtolo, L.T. and Duxbury, T.

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Tandlich, R. and Zuma, B.

Malema, M.S., Abia, A.L.K., **Tandlich, R., Zuma, B.**, Khinda, J.M.M. and Uboma-Jaswa, E. (2018) Antibiotic-Resistant Pathogenic *Escherichia Coli* Isolated from Rooftop Rainwater-Harvesting Tanks in the Eastern Cape, South Africa. *International Journal of Environmental Research and Public Health*. 15 (892). p.1-14.

Veale, C.G.L.

Veale, C.G.L., Chen, W., Chaudhary, S., **Kituyi, S.N., Isaacs, M., Hoppe, H.C., Edkins, A.L.**, Combrinck, S., Mehari, B. and Viljoen, A. (2018) NMR structural elucidation of channaine, an unusual alkaloid from *Sceletium tortuosum*. *Phytochemistry Letters*. 23 (2018). p.189-193.

Lerotholi, L.J., Chaudhary, S.K., Chen, W., **Veale, C.G.L.**, Combrinck, S. and Viljoen, A.M. (2018) Identification, Isolation and Determination of Biomarkers for Quality Control of Bush Tea (*Athrixia phyllioides*). *Planta Medica*. 84 (2018). p.902-912.

Walker, R.B.

Yaripour, S., Mohammadi, A., Esfanjani, I., **Walker, R.B.** and Nojavan, S. (2018) Quantitation of zolpidem in biological fluids by electro-driven microextraction combined with HPLC-UV analysis. *EXCLI Journal*. 17 (2018). p.349-361.

Isalomboto Nkanga, C., Walker, R.B. and Krause, R.W.M. (2018) pH-Dependant release of isoniazid from isonicotinic acid (4-hydroxybenzylidene)-hydrazide loaded liposomes. *Journal of Drug Delivery Science and Technology*. 45 (2018). p.264-271.

Peer-reviewed Proceedings

Nhlaphoa, B., Nhokodi, T., Dwani, S., Tandlich, R., Khamanga, S.M. and Srinivas, S.

Nhlaphoa, B., Nhokodi, T., Dwani, S., Tandlich, R., Khamanga, S.M., Bradshaw, K.L. and Srinivas, S. Case study on disaster risk reduction and public health implications management in South Africa. *25th TIEMS Anniversary (1993-2018) Conference: Disaster Risk Reduction and Climate Change Mitigation - Plans, Preparation, & Collaborative Strategies*. University of Santo Tomas, Manila. Philippines. November 2018.

Srinivas, S.

Pearse, N.J. and Srinivas, S. External Leadership for Sustainability: Service-Learning for Pharmacy Education at SciFest South Africa. *6th International Conference on Management, Leadership and Governance (ICMLG 2018)*. University of Bangkok, Bangkok. Thailand. May 2018.

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

Dowse, R.

Dowse, R. The gap between functional outcomes as measured by quality of life measures and lived reality: A patient's exploration. *20th Annual Meeting Australian and New Zealand Head and Neck Cancer Society and 15th Meeting International Society for Maxillofacial Rehabilitation*. Melbourne. Australia. July 2018.

Irwin, Y.L.

Truter, I., Johnston, D., **Irwin, Y.L.**, Basson, W., Naidoo, P. and Coetzee, C. Pharmacy Dispensing Patterns on the Transnet Phelophepa Health Care Trains. *CoBNest 2018*. Spier, Stellenbosch. South Africa. October 2018.

Irwin, Y.L., Truter, I., Johnson, D., Coetzee, C., Naidoo, P. and Basson, W. Pharmacy students' opinions and experiences working on-board the Transnet-Phelophepa health care trains. *South African Association for Health Educationalists*. Gateway Hotel, Umhlanga. South Africa. June 2018.

Kanfer, I.

Tiffner, K.I., **Kanfer, I.**, Augustin, T., Raml, R., Raney, S.G. and Sinner, F. In Vitro Release Test (IVRT) of Six Acyclovir Cream, 5% Products to Evaluate the Impact of Compositional Differences on Product Performance. *AAPS Annual Meeting and Exposition*. Washington DC. United States of America. November 2018.

Khanye, S.D.

Beteck, R.M., Jordaan, A., Warner, D.T., Seldon, R., Laming, D., Hoppe, H.C. and Khanye, S.D. Quinolone-hydrazone/thiosemicarbazones: Synthesis and anti-TB evaluation. *1st Postdoctoral Conference of Southern Africa*. Stellenbosch University, Stellenbosch. South Africa. October 2018.

Mtshare, T.E., Beteck, R.M. and Khanye, S.D. Design and Synthesis of Quinolonyl-thiazolidinedione hybrids as Potential Antitubercular Agents. *Invitation 43rd National Convention of the South African Chemical Institute*. CSIR-ICC, Pretoria. South Africa. December 2018.

Beteck, R.M., Jordaan, A., Warner, D.T., Seldon, R., Laming, D., Hoppe, H.C. and Khanye, S.D. Quinolone-hydrazone/thiosemicarbazones: Synthesis and anti-TB evaluation. *9th Annual Interdisciplinary Postgraduate Conference*. Education Department, Grahamstown. South Africa. July 2018.

Beteck, R.M., Khanye, S.D. and Land, K.M. Metronidazole Schiff base hybrids: Synthesis and *in vitro* antitrichomonocidal evaluation. *4th International Conference on Antimicrobials, Multiple Drug Resistance & Antibiotics Resistance*. Las Vegas, Nevada. United States of America. April 2018.

Ntemi, P.V., Khamanga, S.M. and Walker, R.B.

Ntemi, P.V., Khamanga, S.M. and Walker, R.B. The use of response surface methodology in the formulation and optimization of clarithromycin resins. *First Conference of Biomedical and Natural Sciences and Therapeutics (CoBNeST)*. Spier Estate, Stellenbosch. South Africa. October 2018.

Ranchhod, J. and Walker, R.B.

Ranchhod, J. and Walker, R.B. Solid-lipid nanoparticles as a novel technology for delivering minocycline to the ischaemic brain. *International Pharmaceutical Federation 78th World Congress of Pharmacy and Pharmaceutical Sciences*. SEC, Glasgow. Scotland. September 2018.

Tandlich, R.

Kirkman, W., Kirkman, W., Moore, S.D., Hill, M.P., Krause, R.W.M., Tandlich, R. and Gibson, T.D. Postharvest detection of false codling moth in citrus fruit by volatile emissions. *The 10th Citrus Research Symposium*. The Champagne Sport Resort, Drakensberg. South Africa. August 2018.

Duxbury, T., Paphitis, S. and Tandlich, R. Building resilience through rural community health development: A participatory action research and systems analysis approach. *Rhodes University*

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Postgraduate Conference. Rhodes University, Grahamstown. South Africa. July 2018.

Nqowana, T., Paphitis, S. and Tandlich, R. Science engagement with school pupils for microbial quality testing of water in Grahamstown. *Postgraduate Education is a public good 9th Interdisciplinary Postgraduate Conference*. Rhodes University, Grahamstown. South Africa. July 2018.

Nqowana, T., Paphitis, S. and Tandlich, R. Citizen science workshops with Grade 9 learners for water quality monitoring in Grahamstown, South Africa. *Community Engagement and Social Innovation Symposium*. Rhodes University, Grahamstown. South Africa. May 2018.

Walker, R.B.

Masiza, H.N., Masango, A. and **Walker, R.B.** Vocational training of pharmacy technicians in South Africa. *International Pharmaceutical Federation 78th World Congress of Pharmacy and Pharmaceutical Sciences*. SEC, Glasgow. Scotland. September 2018.

Witika, B.A. and Walker, R.B.

Witika, B.A. and Walker, R.B. The manufacture of lamivudine-zidovudine nano-cocrystals. *First Conference of Biomedical and Natural Sciences and Therapeutics (CoBNeST)*. Spier Estate, Stellenbosch. South Africa. October 2018.



Ms Samantha Mukozhiwa achieved her Master's degree in Pharmaceutics.

Credit: Faculty of Pharmacy

Department of Philosophy



Credit: Snow Harris

Professor Marius Vermaak
Head of Department

I would like to highlight the visit to the Department by Professor Derek Matravers, and the research activities of **Professor Uchenna Okeja**. In addition, **Dr Laurence Bloom** had a monograph published in Ancient Greek Philosophy, and Professor Okeja edited an important collection of essays on African Philosophy and global justice.

Distinguished Visitors / International Visits

Derek Matravers, Professor of Philosophy, The Open University, United Kingdom (UK), visited the Department as the Hugh le May Fellow from February to June 2018. During this time, he worked on the philosophy of cultural heritage - including teaching an MA course. He presented his work to the Department, and also gave papers at Fort Hare, University of Cape Town (UCT), University of the Witwatersrand (Wits), and the University of Johannesburg (UJ). His visit to Rhodes has already resulted in one (1) published paper 'The Reconstruction of Damaged or Destroyed Heritage' in *Philosophical Perspectives on Ruins, Monuments, and Memorials: Artifact and Memory* (eds.) Jeanette Bicknell, Jennifer Judkins, and Carolyn Korsmeyer (New York: Routledge). Two (2) more papers, eventually a monograph co-written with Helen Frowe, are also due to be published.

Professor Chris Megone, Inter-Disciplinary Applied Ethics, University of Leeds, UK, (National Teaching Fellow), and former Hugh Le May Fellow (1996-1997), visited the Department from August 2017 to August 2018. During this time, he worked on a book: *Rational Desires: a neo-Aristotelian approach*. The Department proved to be (in the opinion of Chris Megone) "a highly conducive environment for conducting serious philosophical research -- both staff and graduate students helped contribute to an excellent community for productive philosophical reflection". In addition to working towards completing the book, his visit to Rhodes has already resulted in two (2) published papers: 'Character and Leadership: Ancient Wisdom for the 21st Century' in *Journal of Character and Leadership Development*, February 2019; and "Aristotelian Lessons After the Global Financial Crisis Banking, Responsibility, Culture and

Professional Bodies", published in C. Cowton, J Dempsey, T Sorrell (eds.) *Business Ethics after the Global Financial Crisis*.

Significant Research Aligned Events

During the academic year of 2018, **Professor Uchenna Okeja** held fellowship appointments at Forschungskolleg Humanwissenschaften in Bad Homburg, Germany, the University of Chicago, Harvard University and the University of British Columbia, Vancouver. He gave the 2018 "Director's Lecture" at the Center for African Studies at Harvard University and two (2) public lectures at the University of British Columbia. These lectures were on aspects of his current book project in political philosophy.

The Department hosted a workshop, entitled 'What-Is Questions and Philosophy', and organized by **Professor Ward Jones** (11-13 May 2018). Thirteen (13) papers were presented, three (3) of the speakers were from overseas and the rest from all over South Africa. Professor Jones commented that "The workshop was exciting, with the broadest range of interests and topics that I have ever seen at conference with no parallel sessions. The venue was often packed with philosophy Postgraduate students, as well as members of the university at large."



Professor Pedro Tabensky at the Allan Gray Orbis Foundation's 'Connect Camp' for their Scholars in April 2018.
Credit: Allan Gray Orbis Foundation

PUBLICATIONS

Department of Philosophy



Books/Chapters/Monographs

Bloom, L.J.

Bloom, L.J. (2018) *The Principle of Non-contradiction in Plato's Republic: An Argument for Form*. USA: Lexington Books. ISBN: 9780739190234.

Kelland, L.

Paphitis, S. and Kelland, L. (2018) In the Red: Between Research, Activism, and Community Development in a Menstruation Public Health Intervention. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.195-209. ISBN: 9783319747200.

Okeja, U.

Okeja, U. (ed.) (2018) *African philosophy and Global Justice: Critical Essays*. London: Routledge. ISBN: 9780367086695.

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Okeja, U. (2018) Spaces Contestations and the Teaching of African Philosophy in African Universities. In: Etieyibo, E. (ed.). *Decolonisation, Africanisation and the Philosophy Curriculum*. New York: Routledge: Taylor and Francis. p.103-114. ISBN: 9781138570368.

Pityana, N.B.

Pityana, N.B. (2018) Introduction. In: Pityana, B.B. (ed.). *Building Blocks Towards and African Century*. Johannesburg: Thabo Mbeki Foundation. p.17-53. ISBN: 9781928341468.

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Tabensky, P.

Tabensky, P. (2018) Pitfalls of Negritude: Solace-driven tertiary sector reform. In: Etieyibo, E. (ed.). *Decolonisation, Africanisation and the Philosophy Curriculum*. New York: Routledge: Taylor and Francis. p.211-229. ISBN: 9781138570368.

Tabensky, P. (2018) liNtetho zoBomi: Fostering Effective Ethical Agency. In: Abedian, I., Mosala, I. and Sehume, J. (eds.). *Seeking the Ethical Foundations of the South African Nation*. Johannesburg: MISTRA. p.130-151. ISBN: 9781928341505.

Tabensky, P. (2018) Issues in Contemporary South Africa to Ponder or Towards Healing for a Wounded Society. In: Pityana, B.B. (ed.). *Building Blocks Towards and African Century*. Johannesburg: Thabo Mbeki Foundation. p.101-114. ISBN: 9781928341468.

Distinguished Visitors

Mitova, V.A.

Professor VA Mitova. University of Johannesburg, Johannesburg, South Africa. *Research Seminar plus moderation of postgraduate presentations*. October 2018.

Peer Reviewed Subsidy-Earning Journal Research Publications

Pityana, N.B.

Pityana, N.B. and Pityana, N.B. (2018) The truth and reconciliation commission in South Africa: perspectives and prospects. *Journal of Global Ethics*. 14 (2). p.194-207.

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

Kelland, L.

Kelland, L. Rape: A lived experience. *7th Annual Wild Coast Symposium of the Phenomenological Society of Southern Africa*. Theme: Trauma. Crawfords Hotel, Chintsa. South Africa. January 2018.

PUBLICATIONS

Okeja, U. Panelist: 'Race, Decolonization and Global Citizenship', *African Studies Association Conference, Atlanta*. November/December 2018.

Okeja, U. Invited Paper: Concept Formation and the Notion of Being Human. *African Studies Association Conference*. Atlanta. November/December 2018.

Okeja, U. Public lecture: "Decolonization: Myth and Reality". Center for Identity, Culture and Education, University of British Columbia, November 2018.

Okeja, U. Invited Seminar Presentation: "Africanists, African Social Theorists and African Political Experience", Department of Political Science, University of British Columbia, November 2018.

Okeja, U. Alumni Public Lecture: "African Political Philosophy", Peter Wall Institute for Advanced Studies, University of British Columbia, November 2018.

Okeja, U. Invited Discussant: "Launch of Storybook Canada". November 2018.

Okeja, U. Public lecture - "2018 Director's Lecture: African Arena for Deliberation: Foundation of a Modern African Political Philosophy". Harvard University, September 2018.

Okeja, U. "Choosing our Immigrants: Justice and the Problem of Preference in Immigration", Forschungskolleg Humanwissenschaften, Bad Homburg. April 2018.

Tabensky, P.

Tabensky, P. Plenary Talk on Teaching Ethics. *Expert Workshop for University Lecturers: 'Enhancing Capacity to Teach Integrity and Ethics'*. Universidad del Rosario, Bogota. Colombia. October 2018.

Tabensky, P. Module 6 Validation. *Education for Justice (E4J) Expert Group Meeting Integrity and Ethics Tertiary level educational material*. EPLO: European Public Law Organisation, Sounion. Greece. April 2018.

Tabensky, P. Fixating on Trauma. *7th Annual Wild Coast Philosophy Symposium Theme: Trauma*. Crawford's Lodge, Cintsu. South Africa. November 2018.



Department of Physics and Electronics



Credit: Snow Harris

Professor Makaiko Chithambo
Head of Department

One of the top stories for 2018 was the publication of the clearest image yet of the super massive black hole at the centre of the Milky Way galaxy as imaged by the MeerKAT radio telescope in Carnarvon, Northern Cape. The Department of Physics and Electronics through its Square Kilometre Array (SKA) team is proud to be associated with this achievement.

Postgraduates / Graduations

We were pleased to congratulate three (3) students who graduated with a BSc, three (3) with a BSc (Honours), six (6) with a MSc and one (1) with a PhD. At Honours level, the department awards a meritorious prize, the Basil Schönland prize, to the best student in the Physics Honours class provided the student obtains a first class pass in their final examination. The prize for 2017 was awarded in 2018 to Ms. Shannon Beahan.

Distinguished Visitors / International Visits

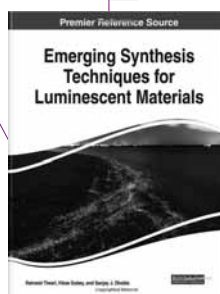
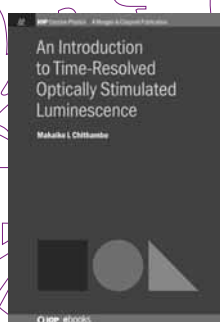
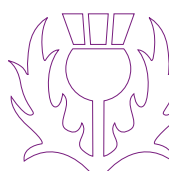
The department welcomed Professor Russ Taylor in August 2018. Professor Taylor gave a talk on MeerKAT telescope, the precursor of the Square Kilometre Array mid-frequency dish array which will be commissioned in this decade in Africa. The talk looked at MIGHTEE, one of the MeerKAT large survey projects designed to pave way for SKA research in cosmology and galaxy evolution. Professor Taylor is currently Professor and SKA Research Chair, University of Cape Town and University of the Western Cape and Director, Inter-University Institute for Data Intensive Astronomy.

Significant Research Aligned Events

The Luminescence Research Laboratory, headed by **Professor ML Chithambo**, ran the National Workshop on Kinetic Analysis in Thermoluminescence between 29-31 May 2018 in Pretoria, South Africa. The aim of the workshop was to offer students and other interested participants a detailed and hands-on workshop on kinetic analysis of thermoluminescence and related techniques.

PUBLICATIONS

Department of Physics and Electronics



Books/Chapters/Monographs

Chithambo, M.L.

Chithambo, M.L. (2018) *An Introduction to Time-Resolved Optically Stimulated Luminescence*. USA: Morgan & Claypool Publishers. ISBN: 9781643271958.

Pandey, A.

Pandey, A., Tiwari, S.P., Dutta, V. and Kumar, V. (2018) Photon Upconversion in Lanthanide-Activated Inorganic Luminescent Materials. In: Tiwari, R., Dubey, V. and Dhoble, S.J. (eds.). *Emerging Synthesis Techniques for Luminescent Materials*. USA: IGI Global. p.86-117. ISBN: 9781522551706.

Concerts, Exhibitions, Performances, Workshops, Events

Chithambo, M.L.

Chithambo, M.L. Hosted and Organised Workshop. *National Workshop on Kinetic Analysis of Thermoluminescence*. CSIR International Convention Centre, Pretoria. South Africa. 29 - 31 May 2018.

International Visits

Chithambo, M.L. and Folley, D.E.

Chithambo, M.L. and Folley, D.E. RISØ National Laboratory, Denmark Technical University, Roskilde, Denmark. *Research Visit*. 10 - 24 March 2018.

Medved, A.J.M.

Medved, A.J.M. Ben-Gurion University, Beer Sheva, Israel. *Collaboration in Theoretical Physics*. 11 June - 26 July 2018.

Medved, A.J.M. Ben-Gurion University, Beer Sheva, Israel. *Collaboration in Theoretical Physics*. 12 November - 21 December 2018.

Peer Reviewed Subsidy-Earning Journal Research Publications

Abdalla, F.B.

Troxel, M.A., MacCrann, N., Zuntz, J., Eifler, T.F., Krause, E., Dodelson, S., Gruen, D., Blazek, J., Friedrich, O., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey Year 1 results: Cosmological constraints from cosmic shear. *Physical Review D*. 98 (2018). p.1-33.

Avila, S., Crocce, M., Ross, A.J., Garcia-Bellido, J., Percival, W.J., Banik, N., Camacho, H., Kokron, N., Chan, K.C., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey Year-1 results: galaxy mock catalogues for BAO. *Monthly Notices of the Royal Astronomical Society*. 479 (2018). p.94-110.

Chang, C., Baxter, E., Jain, B., Sanchez, C., Adhikari, S., Varga, T.N., Fang, Y., Roza, E., Rykoff, E.S., **Abdalla, F.B.** and *et al.* (2018) The Splashback Feature around des Galaxy Clusters: Galaxy Density and Weak Lensing Profiles. *Astrophysical Journal*. 864 (1). p.1-25.

Abbott, T.M.C., **Abdalla, F.B.**, Allam, S., Amara, A., Annis, J., Asorey, J., Avila, S., Ballester, O., Banerji, M., Barkhouse, M. and *et al.* (2018) The Dark Energy Survey: Data Release 1. *Astrophysical Journal Supplement Series*. 239 (2). p.1-30.

Prat, J., Sanchez, C., Fang, Y., Gruen, D., Elvin-Poole, J., Kokron, N., Secco, L.F., Jain, B., Miquel, R., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey year 1 results: Galaxy-galaxy lensing. *Physical Review D*. 98 (2018). p.1-27.

Garcia-Fernandez, M., Sanchez, E., Sevilla-Noarbe, I., Suchyta, E., Huff, E.M., Gaztanaga, E., Aleksic, J., Ponce, R., Castander, F.J., **Abdalla, F.B.** and *et al.* (2018) Weak lensing magnification in the Dark Energy Survey Science Verification data. *Monthly Notices of the Royal Astronomical Society*. 476 (2018). p.1071-1085.

Samuroff, S., Bridle, S.L., Zuntz, J., Troxel, M.A., Gruen, D., Rollins, R.P., Bernstein, G.M., Eifler, T.F., Huff, E.M., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey Year

1 results: the impact of galaxy neighbours on weak lensing cosmology with IM3SHAPE. *Monthly Notices of the Royal Astronomical Society*. 475 (2018). p.4524-4543.

Elvin-Poole, J., Crocce, M., Ross, A.J., Giannantonio, T., Rozo, E., Rykoff, E.S., Avila, S., Banik, N., Blazek, J., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey year 1 results: Galaxy clustering for combined probes. *Physical Review D*. 98 (2018). p.1-20.

Zuntz, J., Sheldon, E., Samuroff, S., Troxel, M.A., Jarvis, M., MacCrann, N., Gruen, D., Prat, J., Sanchez, C., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey Year 1 results: weak lensing shape catalogues. *Monthly Notices of the Royal Astronomical Society*. 481 (2018). p.1149-1182.

Khain, T., Becker, J.C., Adams, F.C., Gerdes, D.W., Hamilton, S.J., Franson, K., Zullo, L., Sako, M., Napier, K., **Abdalla, F.B.** and *et al.* (2018) Dynamical Analysis of Three Distant Trans-Neptunian Objects with Similar Orbits. *Astronomical Journal*. 156 (6). p.1-18.

Nagasawa, D.Q., Marshall, J.L., Li, T.S., Hansen, T.T., Simon, J.D., Bernstein, R.A., Balbinot, E., Drlica-Wagner, A., Pace, A.B., **Abdalla, F.B.** and *et al.* (2018) Chemical Abundance Analysis of Three a-poor, Metal-poor Stars in the Ultrafaint Dwarf Galaxy Horologium I. *Astrophysical Journal*. 852 (99). p.1-16.

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Scolnic, D., Kessler, R., Brout, D., Cowperthwaite, P.S., Soares-Santos, M., Annis, J., Herner, K., Chen, H.Y., Sako, M., **Abdalla, F.B.** and *et al.* (2018) How Many Kilonovae Can Be Found in Past, Present, and Future Survey Data Sets? *Astrophysical Journal Letters*. 852 (L3). p.1-7.

Chan, K.C., Crocce, M., Ross, A.J., Avila, S., Elvin-Poole, J., Manera, M., Percival, W.J., Rosenfeld, R., Abbott, T.M.C., **Abdalla, F.B.** and *et al.* (2018) BAO from angular clustering: optimization and mitigation of theoretical systematics. *Monthly Notices of the Royal Astronomical Society*. 480 (2018). p.3031-3051.

MacCrann, N., DeRose, J., Wechsler, R.H., Blazek, J., Gaztanaga, E., Crocce, M., Rykoff, E.S., Becker, M.R., Jain, B., **Abdalla, F.B.** and *et al.* (2018) DES Y1 Results: validating cosmological parameter estimation using simulated Dark Energy Surveys. *Monthly Notices of the Royal Astronomical Society*. 480 (2018). p.4614-4635.

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Crocce, M., Ross, A.J., Sevilla-Noarbe, I., Gaztanaga, E., Elvin-Poole, J., Avila, S., Alarcon, A., Chan, K.C., Banik, N., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey year 1 results: galaxy sample for BAO measurement. *Monthly Notices of the Royal Astronomical Society*. 482 (2018). p.2807-2822.

Smith, M., Sullivan, M., Nichol, R.C., Galbany, L., D'Andrea, C.B., Inserra, C., Lidman, C., Rest, A., Schirmer, M., **Abdalla, F.B.** and *et*

al. (2018) Studying the ultraviolet spectrum of the first spectroscopically confirmed supernova at redshift two. *Astrophysical Journal*. 854 (1). p.1-19.

Rumbaugh, N., Shen, Y., Morganson, E., Liu, X., Banerji, M., McMahon, R.G., **Abdalla, F.B.**, Benoit-Levy, A., Bertin, E., Brooks, D. and *et al.* (2018) Extreme Variability Quasars from the Sloan Digital Sky Survey and the Dark Energy Survey. *Astrophysical Journal*. 854 (2). p.1-14.

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Hoyle, B., Gruen, D., Bernstein, G.M., Rau, M.M., De Vicente, J., Hartley, W.G., Gaztanaga, E., DeRose, J., Troxel, M.A., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey Year 1 Results: redshift distributions of the weak-lensing source galaxies. *Monthly Notices of the Royal Astronomical Society*. 478 (2018). p.592-610.

Sevilla-Noarbe, I., Hoyle, B., Marcha, M.J., Soumagnac, M.T., Bechtol, K., Drlica-Wagner, A., **Abdalla, F.B.**, Aleksic, J., Avestruz, C., Balbinot, E. and *et al.* (2018) Star-galaxy classification in the Dark Energy Survey Y1 data set. *Monthly Notices of the Royal Astronomical Society*. 481 (2018). p.5451-5469.

Chiu, I., Mohr, J.J., McDonald, M., Bocquet, S., Desai, S., Klein, R., Israel, H., Ashby, M.L.N., Stanford, A., **Abdalla, F.B.** and *et al.* (2018) Baryon content in a sample of 91 galaxy clusters selected by the South Pole Telescope at $0.2 < z < 1.25$. *Monthly Notices of the Royal Astronomical Society*. 478 (2018). p.3072-3099.

Luque, E., Santiago, B., Pieres, A., Marshall, J.L., Pace, A.B., Kron, R., Drlica-Wagner, A., Queiroz, A., Balbinot, E., **Abdalla, F.B.** and *et al.* (2018) Deep SOAR follow-up photometry of two Milky Way outer-halo companions discovered with Dark Energy Survey. *Monthly Notices of the Royal Astronomical Society*. 478 (2018). p.2006-2018.

Becker, J.C., Khain, T., Hamilton, S.J., Adams, F.C., Gerdes, D.W., Zullo, L., Franson, K., Millholland, S., Bernstein, G.M., **Abdalla, F.B.** and *et al.* (2018) Discovery and Dynamical Analysis of an Extreme Trans-Neptunian Object with a High Orbital Inclination. *Astronomical Journal*. 156 (2). p.1-23.

Mudd, D., Martini, P., Zu, Y., Kochanek, C., Peterson, B.M., Kessler, R., Davis, T.M., Hoormann, J.K., King, A., **Abdalla, F.B.** and *et al.* (2018) Quasar Accretion Disk Sizes from Continuum Reverberation Mapping from the Dark Energy Survey. *Astrophysical Journal*. 862 (2). p.1-16.

Cawthon, R., Davis, C., Gatti, M., Vielzeuf, P., Elvin-Poole, J., Rozo, E., Frieman, J., Rykoff, E.S., Alarcon, A., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey Year 1 Results: calibration of redMaGiC redshift distributions in DES and SDSS from cross-correlations. *Monthly Notices of the Royal Astronomical Society*. 481 (2018). p.2427-2443.

Shipp, N., Drlica-Wagner, A., Balbinot, E., Ferguson, P., Erkal, D., Li, T., Bechtol, K., Belokurov, V., Buncher, B., **Abdalla, F.B.** and *et*

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Staff and students during a special lunch for Women in Physics organised by the Physics Department and funded by the South African Institute of Physics.
Credit: Department of Physics and Electronics

al. (2018) Stellar Streams Discovered in the Dark Energy Survey. *Astrophysical Journal*. 862 (2). p.1-32.

Friedrich, O., Gruen, D., DeRose, J., Kirk, D., Krause, E., McClintock, T., Rykoff, E.S., Seitz, S., Wechsler, R.H., **Abdalla, F.B.** and *et al.* (2018) Density split statistics: Joint model of counts and lensing in cells. *Physical Review D*. 98 (2018). p.1-34.

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Gruen, D., Friedrich, O., Krause, E., DeRose, J., Cawthon, R., Davis, C., Elvin-Poole, J., Rykoff, E.S., Wechsler, R.H. and **Abdalla, F.B.** (2018) Density split statistics: Cosmological constraints from counts and lensing in cells in DES Y1 and SDSS data. *Physical Review D*. 98 (023507). p.1-35.

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Krause, F., Thomas, R.M., Zaroubi, S. and **Abdalla, F.B.** (2018) An Epoch of Reionization simulation pipeline based on BEARS. *New Astronomy*. 64 (2018). p.9-30.

Rivera, J.D., Moraes, B., Merson, A.I., Jovel, S., Abdalla, F.B. and Abdalla, M.C.B. (2018) Degradation analysis in the estimation of photometric redshifts from non-representative training sets. *Monthly Notices of the Royal Astronomical Society*. 477 (2018). p.4330-4347.

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of candidates selected by two techniques. *Monthly Notices of the Royal Astronomical Society*. 481 (2018). p.1041-1054.

Erkal, D., Li, T.S., Koposov, S.E., Belokurov, V., Balbinot, E., Bechtol, K., Bunker, B., Drlica-Wagner, A., Kuehn, K., **Abdalla, F.B.** and *et al.* (2018) Modelling the Tucana III stream - a close passage with the LMC. *Monthly Notices of the Royal Astronomical Society*. 481 (2018). p.3148-3159.

McClintock, T., Varga, T.N., Gruen, D., Roza, E., Rykoff, E.S., Shin, T., Melchior, P., DeRose, J., Seitz, S., **Abdalla, F.B.** and *et al.* (2018) Dark Energy Survey Year 1 results: weak lensing mass calibration of redMaPPer galaxy clusters. *Monthly Notices of the Royal Astronomical Society*. 2018. p.1-27.

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Aniyan, A.K.

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Asad, K.M.B.

Gehlot, B.K., Koopmans, L.V.E., de Bruyn, A.G., Zaroubi, S., Brentjens, M.A., **Asad, K.M.B.**, Hatef, M., Jelic, V., Mevius, M., Offringa, A.R., Pandey, V.N. and Yatawatta, S. (2018) Wide-field LOFAR-LBA power-spectra analyses: impact of calibration, polarization leakage, and ionosphere. *Monthly Notices of the Royal Astronomical Society*. 478 (2018). p.1484-1501.

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Dr Jitumani Kalita, Postdoctoral Research Fellow in the Department of Physics and Electronics.

Credit: Department of Physics and Electronics

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Credit: Department of Physics and Electronics



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Tshisaphungo, M., Habarulema, J.B. and Mckinnell, L.A.

Tshisaphungo, M., Habarulema, J.B. and Mckinnell, L.A. (2018) Modeling ionospheric f_oF_2 response during geomagnetic storms using neural network and linear regression techniques. *Advances in Space*. 61 (2018). p.2891-2903.

Uwamahoro, J.C. and Habarulema, J.B.

Uwamahoro, J.C., Habarulema, J.B. and Okouma, P.M. (2018) Storm Time Total Electron Content Modeling Over African Low-

Latitude and Midlatitude Regions. *Journal of Geophysical Research - Space Physics*. 123 (2018). p.7889-7905.

Uwamahoro, J.C., Giday, N.M., Habarulema, J.B. and Katamzi-Joseph, Z.T.

Uwamahoro, J.C., Giday, N.M., Habarulema, J.B., Katamzi-Joseph, Z.T. and Seemala, G.K. (2018) Reconstruction of Storm-Time Total Electron Content Using Ionospheric Tomography and Artificial Neural Networks: A Comparative Study Over the African Region. *Radio Science*. 53 (2018). p.1-18.

Peer-reviewed Proceedings

Deane, R.

Goddi, C., Falcke, H., Kramer, M., Rezzolla, L., Brinkerink, C., Bronzwaer, T., Davelaar, J.R.J., **Deane, R.**, De Laurentis, M., Desvignes, G. and *et al.* BlackHoleCam: Fundamental physics of the galactic center. *The Fourteenth Marcel Grossman Meeting: On Recent Developments in Theoretical and Experimental General Relativity, Astrophysics and Relativistic Field Theories*. University of Rome "La Sapienza", Rome. Italy. July 2015.

Karastergiou, A.

Chennamangalam, J., **Karastergiou, A.**, MacMahon, D., Armour, W., Cobb, J., Lorimer, D., Rajwade, K., Siemion, A., Werthimer, D. and Williams, C. ALFABURST: A realtime fast radio burst monitor for the Arecibo telescope. *The Fourteenth Marcel Grossman Meeting: On Recent Developments in Theoretical and Experimental General Relativity, Astrophysics and Relativistic Field Theories*. University of Rome "La Sapienza", Rome. Italy. June 2015.

Smirnov, O.M., Asad, K.M.B., Iheanetu, K., Ansah-Narh, T.,

Makhathini, S., Hugo, B., Kenyon, J.S. and Tasse, C.

Smirnov, O.M., Asad, K.M.B., Girard, J.N., de Villiers, M., **Iheanetu, K., Ansah-Narh, T., Makhathini, S., Hugo, B., Santos, M.G., Kenyon, J.S., Perkins, S.J. and Tasse, C.** MeerKAT Primary Beam Models: Derivation and Application in Calibration and Imaging. *2018 International Conference on Electromagnetics in Advanced Applications (ICEAA)*. Cartagena de Indias. Colombia. September 2018.

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

Bryan, K.L.H.

Bryan, K.L.H. No time for isolated clocks in the timeless Universe. *DICE2018*. Castello Pasquini, Castiglioncello (Tuscany). Italy. September 2018.

Department of Political and International Studies



Credit: Snow Harris

Associate Professor Sally Matthews
Head of Department

The Department of Political and International Studies aims to be a place of vigorous scholarly enquiry and robust intellectual debate.

Some of the ways in which we achieved this during 2018 were as follows:

- Our weekly Friday seminar series at which visiting scholars as well as our own colleagues and Postgraduate students present papers.
- Quarterly public dialogues where invited guests deliberate on topics of pressing intellectual and more general public concern.
- Our annual week long Teach In which in 2018 focused on a very topical issue: the land question.
- Regular Visiting Professors and lecturers who teach on our Postgraduate programme.

We are also very happy with our 2018 research output which includes one (1) book, seven (7) book chapters, ten (10) subsidy-earning journal articles and many other contributions to intellectual enquiry through popular publications and conference presentations.

Distinguished Visitors / International Visits

In 2018, we were very happy to welcome several visitors to the department. Every year, we host three (3) visiting lecturers who teach on our Postgraduate course 'African Peace and Security'. In 2018, the visitors were Dr Andrews Atta-Asamoah (Institute of Security Studies), Dr Naila Salihu (Kofi Annan Institute) and Dr Paul-Simon Handy (United Nations Security Council Panel of Experts on the Central African Republic).

In July 2018, we welcomed Professor Ahmed Salem from Zayed University in the United Arab Emirates. Professor Salem came to teach a course on Critical and Non-Western International Relations Theory to our Postgraduate students.

Another visitor who taught on our Postgraduate programme was Dr Muhammed Haron from the University of Botswana who taught a course on Religion and International Relations.



Postgraduate students with Visiting Lecturer Dr Paul-Simon Handy (centre back row).
Credit: Department of Political and International Studies

The department was also very pleased to host Dr Issaka Souaré (United Nations Standby Team of Senior Mediation Advisors) who gave a seminar to Postgraduate students.

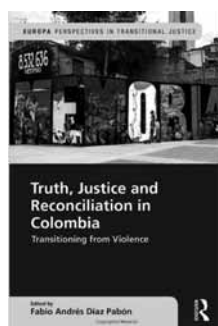
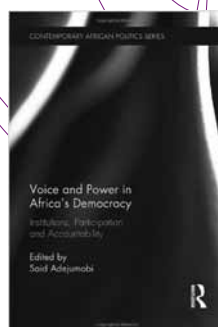
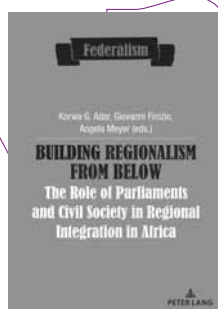
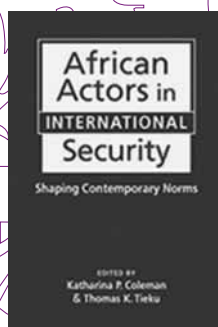
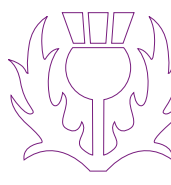
Significant Research Aligned Events

The biennial conference held by the South African Association of Political Studies (SAAPS) in Pretoria (September 2018) was a valuable event for the department. Two (2) colleagues from the department, **Associate Professor Matthews** and **Ms Phyllis**, attended this conference along with Honours student, Ms Gcotyelwa Jimlongo. Ms Jimlongo was awarded the SAAPS national 'Best Honours Student' prize for an essay she wrote for a course on African feminism presented by Ms Shingi Mtero. At the conference, our department was elected to run the next SAAPS conference to be held in 2020.

Another important event was our hosting of a dialogue with the Kenyan Ambassador to South Africa, HE High Commissioner Jean Kamau, who was co-hosted by the East African Society (EASoc). The dialogue was chaired by Politics Lecturer, Shingi Mtero, with its theme centred around Kenya's democracy and its prominent role in the African region.

PUBLICATIONS

Department of Political and International Studies



Books/Chapters/Monographs

Bischoff, P.H.

Bischoff, P.H. (2018) Models, Norms and Self-Interest towards Regional Integration. South African Parliamentary Diplomacy and the Conduct of Parliamentary International Relations. In: Adar, K.G., Finizio, G. and Meyer, A. (eds.). *Building Regionalism from Below: The Role of Parliaments and Civil Society in Regional Integration in Africa (Federalism)*. Oxford: Peter Lang. p.193-218. ISBN: 9782807605480.

Diaz, F.A.

Diaz, F.A. (ed.) (2018) *Truth, Justice and Reconciliation in Colombia: Transitioning from Violence*. London: Routledge. ISBN: 9781857438659.

Matthews, S.

Matthews, S. (2018) Alternatives to Development in Africa. In: Iniguez de Herdia, M. and Wai, Z. (eds.). *Recentering Africa in International Relations: Beyond Lack, Peripherality, and Failure*. UK: Palgrave Macmillan. p.167-186. ISBN: 9783319675091.

Naicker, C.

Bruchhausen, S. and Naicker, C. (2018) Broadening Conceptions of Democracy and Citizenship: The Subaltern Histories of Rural Resistance in Mpondoland and Marikana. In: Helliker, K. and van der Walt, L. (eds.). *Politics at a Distance from the State: Radical and African Perspectives*. London: Routledge. p.80-95. ISBN: 9780815346920.

Souare, I.

Souare, I. (2018) The Anti-Coup Norm. In: Coleman, K.P. and Tieku, T.K. (eds.). *African Actors in International Security: Shaping Contemporary Norms*. Boulder: Lynne Rienner. p.117-136. ISBN: 9781626376960.

Souare, I. (2018) Explaining the mixed fortunes of Africa's opposition parties in the quest for state power: an institutional and strategic analysis. In: Adejumobi, S. (ed.). *Voice and Power in Africa's Democracy: Institutions, Participation and Accountability*. London: Routledge. p.77-96. ISBN: 9781472478931.

Souare, I. (2018) The Anti-Coup Norm. In: Coleman, K.P. and Tieku, T.K. (eds.). *African Actors in International Security: Shaping Contemporary Norms*. Boulder: Lynne Rienner. p.117-136. ISBN: 9781626376960.

Souare, I. (2018) Explaining the mixed fortunes of Africa's opposition parties in the quest for state power: an institutional and strategic analysis. In: Adejumobi, S. (ed.). *Voice and Power in Africa's Democracy: Institutions, Participation and Accountability*. London: Routledge. p.77-96. ISBN: 9781472478931.

Other Publications

Diaz, F.A.

Diaz, F.A. (2018) The Conversation. In: *Colombian guerrilla leader ends controversial presidential bid, giving peace a chance* (<https://theconversation.com/colombian-guerrilla-leader-ends-controversial-presidential-bid-giving-peace-a-chance-93200>). Colombia: The Conversation.

Diaz, F.A. (2018) The Conversation. In: *Colombia's murder rate is at an all-time low but its activists keep getting killed* (<https://theconversation.com/colombias-murder-rate-is-at-an-all-time-low-but-its-activists-keep-getting-killed-91602>). Colombia: The Conversation.

Diaz, F.A. (2018) The Conversation. In: *Colombia's presidential runoff will be a yet another referendum on peace* (<https://theconversation.com/colombias-presidential-runoff-will-be-a-yet-another-referendum-on-peace-91603>). Colombia: The Conversation.

Diaz, F.A. (2018) The Conversation. In: *Colombia elects a conservative who promises to 'correct' its peace accord* (<https://theconversation.com/colombia-elects-a-conservative-who-promises-to-correct-its-peace-accord-98273>). Colombia: The Conversation.

Diaz, F.A. (2018) Fragile States. In: *Democracy and political transitions: The risks of elections for the implementation of peace agreements* (<https://www.fragilestates.org/2018/08/13/democracy-political-transitions-risks-elections-implementation-peace-agreements/>). Fragile States Forum.

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Diaz, F.A. (2018) The ISS Blog on Global Development and Social Justice (blISS). In: *Enacting transitional justice in Colombia and South Africa* (<https://issblog.nl/2018/10/08/how-to-enact-the-transitional-justice-we-see-by-fabio-andres-diaz-pabon/>). Erasmus University, Rotterdam: International Institute of Social Studies (ISS).

Jordaan, E.C.

Jordaan, E.C. (2018) African States at the UN Human Rights Council in 2017. In: *African States at the UN Human Rights Council in 2017*. South Africa: Department of Political and International Studies, Rhodes University.

Tselapedi, T.

Tselapedi, T. (2018) The Conversation. In: *Ramaphosa takes on ANC leadership role with alacrity: and clarity of intent* (<https://theconversation.com/ramaphosa-takes-on-anc-leadership-role-with-alacrity-and-clarity-of-intent-90095>). South Africa: The Conversation.

Distinguished Visitors

Atta-Asamoah, A.

Dr A Atta-Asamoah. Institute for Security Studies, Pretoria, South Africa. *Taught on our postgraduate programme*. August 2018.

Handy, P.

Dr P Handy. United Nations Security Council Panel of Experts on the CAR, Pretoria, South Africa. *Taught on our postgraduate programme*. September 2018.

Haron, M.

Professor M Haron. University of Botswana, Gaborone, Botswana. *Taught on our postgraduate programme*. March 2018.

Salem, A.

Professor A Salem. Zayed University, Dubai, United Arab Emirates. *Taught on our postgraduate programme*. July 2018.

Salihu, N.

Dr N Salihu. Kofi Annan Institute, Accra, Ghana. *Taught on our postgraduate programme*. October 2018.

Souare, I.

Dr I Souare. United Nations Standby Team of Senior Mediation Advisors, Montreal, Canada. *Gave a seminar to staff and postgraduate students in the department*. March 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Matthews, S.

Matthews, S. (2018) Afrikanische Entwicklungsalternativen: Ubuntu und die Post-Development-Debatte [African Alternatives to Development: Ubuntu and the post-development debate]. *Peripherie: Politik, Ökonomie, Kultur*. 2018-2 (150/151). p.178-197.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bischoff, P.H.

Chipaike, R. and **Bischoff, P.H.** (2018) A Challenge to Conventional Wisdom: Locating Agency in Angola's and Ghana's Economic Engagements with China. *Journal of Asian and African Studies*. 53 (7). p.1002-1017.



Ms Gcotyelwa Jimlango (centre) is awarded the national Best Honours Student Prize, Ms Yvonne Phyllis (left) and Associate Professor Sally Matthews (right).

Credit: Department of Political and International Studies

Mataruse, P.

Oluwole, D.O., Achadu, O.J., Asfour, F., Chakona, G., Mason, P., Mataruse, P. and McKenna, S. (2018) Postgraduate Writing Groups as Spaces of Agency Development. *South African Journal of Higher Education*. 32 (6). p.370-381.

Matthews, S.

Matthews, S. (2018) On Their Own: Women, Urbanization, and the Right to the City in South Africa, by Allison Goebel, Montreal, McGill-Queen's University Press, 2015, 256 pp., ISBN 978-0-7735-4590-8. *International Feminist Journal of Politics*. 20 (1). p.105-106.

Matthews, S. (2018) Confronting the Colonial Library: Teaching Political Studies Amidst Calls for a Decolonised Curriculum. *Politikon*. 45 (1). p.48-65.

Munyuki, C. and Vincent, L.

Munyuki, C. and Vincent, L. (2018) Strangers "at Home": Gay, Lesbian and Bisexual Students' Strategies for Resisting Heteronormativity in University Residence Life. *South African Journal of Higher Education*. 32 (3). p.64-80.

Onokwai, J.C.

Onokwai, J.C. (2018) Readings in the international relations of Africa, edited by Tom Young. Series: Readings in African Studies, Bloomington and Indianapolis, Indiana University Press, 2015, viii plus 372 pp., including maps, notes, bibliography and index, paper ISBN 9780253018885. *Journal of contemporary African studies*. 36 (3). p.414-416.

Vincent, L.

Idahosa, G. and Vincent, L. (2018) "The Scales Were Peeled from My Eyes" -- South African Academics Coming to Consciousness to Become Agents of Change. *International Journal of Critical Cultural Studies*. 15 (4). p.13-28.

Idahosa, G.E.O. and Vincent, L. (2018) Strategic competence and agency: individuals overcoming barriers to change in South African higher education. *Third World Quarterly*. 2018. p.1-16.

PUBLICATIONS

Mayeza, E. and Vincent, L. (2018) Learners' perspectives on Life Orientation sexuality education in South Africa. *Sex Education-Sexuality Society and Learning*. 2018. p.1-14.

Vincent, L. and Hlatshwayo, M.

Vincent, L. and Hlatshwayo, M. (2018) Ties That Bind: The Ambiguous Role Played By Social Capital In Black Working Class First-Generation South African Students' Negotiation of University Life. *South African Journal of Higher Education*. 32 (3). p.118-138.

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

Diaz, F.A.

Diaz, F.A. The Transitional Justice Framework agreed between the Colombian Government and the FARC-EP. *Latin American Studies Association (LASA) conference*. Barcelona. Spain. May 2018.

Jordaan, E.C.

Jordaan, E.C. Populism and the Liberal International Order. *Populism and International Relations*. University of Stellenbosch, Stellenbosch. South Africa. September 2018.

Jordaan, E.C. Duterte's Philippines on the UN Human Rights Council: Implications for International Human Rights. *Academic Council on the UN System (ACUNS) Annual Meeting, "Human Rights, Migration, and Global Governance"*. LUISS Guido Carli, Rome. Italy. July 2018.

Magadla, S.

Magadla, S. From *umzabalazo* to *ukutabalaza* (from the struggle to hustling): silence and super strength in the lives of women ex-combatants after apartheid. *African Feminisms Conference 2018: The Mute Always Speaks: (Re) imagining and re-imaging feminist futures*. Departments of Fine Art and Literary Studies in English, Rhodes University, Grahamstown/Makhanda. South Africa. September 2018.

Matthews, S.

Matthews, S. Decolonising the Political Studies Curriculum: An Exploration of the South African Political Studies Curriculum. *South African Association of Political Studies (SAAPS)*. University of Pretoria, Pretoria. South Africa. October 2018.

Phyllis, Y.

Phyllis, Y. The reform of world order? BRICS in an Interpolar world. *14th Biennial Conference of the South African Association of Political Studies*. University of Pretoria, Pretoria. South Africa. October 2018.

Below: Dialogue with Kenyan Ambassador, Jean Njeri Kamau (right).

Bottom: Professor Bischoff (centre) presenting a seminar at Jinan University, China.

Credit: Department of Political and International Studies





Credit: Snow Harris

Professor Charles Young
Head of Department

The year 2018 was another productive one for the Psychology Department. Scholarly works include a variety of books, chapters, workshops, peer-reviewed articles, reports and presentations. Academic staff, Research Associates and students presented their research in South Africa, the United States of America, Chile, Germany, the Netherlands and Australia.

Research themes continue to be diverse and prominent, which include: Research methods and ethics; community-based learning and community engagement; sexualities; pregnancy, mothering and abortion, and reproductive justice; psychoanalysis in research; counselling psychology; neuropsychology; neurocognitive test norms; higher education; psychotherapy and counselling; environmental behaviour; decoloniality; autism; alcohol use disorders; and workplace relations.

The Critical Studies in Sexualities and Reproduction Unit (CSSR), led by **Distinguished Professor Catriona Macleod**, continues to be a very active multidisciplinary research unit that attracts many Postgraduate students.

Postgraduates / Graduations

Dr Samantha Thomas, supervised by **Professor Anthony Collins** (a Research Associate of the Psychology Department), graduates with a PhD at the graduation ceremony in April 2019. Dr Ulandi du Plessis also graduated with her PhD. Though she was supervised by **Distinguished Professor Catriona Macleod** of the Psychology Department, she was registered in the Institute of Social and Economic Research (ISER) at Rhodes University. These two (2) Doctoral graduates will receive their degrees along with twenty-two (22) Masters and forty-five (45) Honours graduates.

Pumla Gobodo-Madikizela, an author, Professor and Clinical Psychologist who trained at Rhodes University and who holds the Research Chair in Studies in Historical Trauma and Transformation in the Faculty of Arts and Social Sciences at Stellenbosch University, was nominated for an Honorary Doctoral degree, which she will receive at the graduation ceremony in April 2019.



Right to left: Professor Jacqui Akhurst (Rhodes University) with her former PhD student, Dr Anna Zoli (University of Brighton, United Kingdom) at the opening of the 7th International Community Psychology Congress (7thCIPC), in Santiago, Chile.

Credit: Department of Psychology



The team that presented a symposium about Community Psychology competencies at the 7th International Community Psychology Congress (7thCIPC), in Santiago, Chile.

Left to right: Dr Anna Zoli (United Kingdom), Professor Donata Francescata and Professor Caterina Arcidiacono (Italy), Professor Toshi Sasao (Japan), Professor Jacqui Akhurst (Rhodes University, South Africa), Dr Judah Viola (United States of America) and Dr Heather Gridley (Australia).

Credit: Department of Psychology

Significant Research Aligned Events

The CSSR Unit, Rhodes University, the Sexual and Reproductive Justice Coalition (South Africa), and the International Campaign for Women's Right to Safe Abortion, in partnership with the Department of Social Development (South African government) and a range of international partners co-hosted the international Abortion and Reproductive Justice conference.

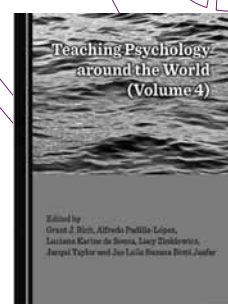
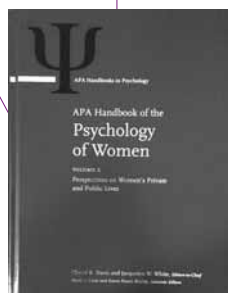
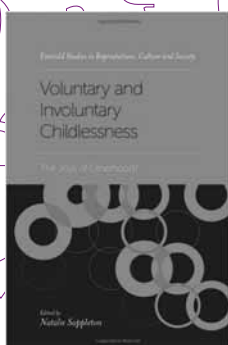
The conference built on two (2) previous conferences with the same name held in Canada in August 2014, and in Northern Ireland in July 2016. The aim of this third iteration was to bring the conversation, scholarship, and exploration of issues and activism to those living in jurisdictions where abortion access is highly restricted, while at the same time hearing from scholars, activists and service providers from across the globe. The hosting of the conference in Africa was thus highly pertinent. The organising committee consisted of representatives from a range of southern African countries, each with varying challenges regarding access to abortion.

The conference was attended by two hundred and eighty (280) delegates from thirty (30) countries across the globe, including many delegates from African countries. Delegates came from universities, research institutes, national NGOs, international NGOs and activist groups. The conference, thus, provided the opportunity for Southern African organisations to learn from African and international counterparts and vice versa. There were also many networking opportunities.

Finally, in recognition of her outstanding scholarly achievements and intellectual leadership, Catriona Macleod was awarded the title of Distinguished Professor by Rhodes University.

PUBLICATIONS

Department of Psychology



Books/Chapters/Monographs

Akhurst, J.

Lovell, J. and Akhurst, J. (2018) Whose PARty Was This? The Dilemmas of a Participatory Action Research Process of Evaluating a Social Enterprise. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.371-384. ISBN: 9783319747200.

Akhurst, J., Van Der Riet, M. and Sofika, D. (2018) Living in a Rural Community and Researching HIV and AIDS: Positionality and Ethics. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.211-224. ISBN: 9783319747200.

Akhurst, J., Olvitt, L.L. and Ward-Smith, C. (2018) Decolonising nature-based pedagogy: the importance of history, socio-cultural and socio-material context in mediating connectedness-with-nature. In: Cutter-Mackenzie, A., Malone, K. and Barratt Hacking, E. (eds.). *Research Handbook of Childhoodnature*. New York: Springer. p.1-27. ISBN: 9783319672878.

Akhurst, J. and Odendaal, D. (2018) Drawing from Vygotsky's ideas: Mediation and collaboration by Counselling Psychology Masters trainees during Community-based Service Learning. In: *Teaching Psychology around the World, volume 4*. Newcastle on Tyne: Cambridge Scholars Publishing. p.248-264. ISBN: 9781527514119.

Barker, K. and Macleod, C.I.

Barker, K. and Macleod, C.I. (2018) Bearing Witness to 'Irreparable Harm': Incorporating Affective Activity as Practice into Ethics. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.179-194. ISBN: 9783319747200.

Bomela, Y. and Macleod, C.I.

Feltham-King, T., Bomela, Y. and Macleod, C.I. (2018) Contesting the Nature of Young Pregnant and Mothering Women: Critical Healthcare Nexus Research, Ethics Committees, and Healthcare Institutions. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.63-79. ISBN: 9783319747200.

Feltham-King, T.J. and Macleod, C.I.

Feltham-King, T.J. and Macleod, C.I. (2018) Teenage pregnancy or early reproduction. In: Eloff, I. and Swart, E. (eds.). *Understanding Educational Psychology*. Cape Town: Juta & Co. p.323-329. ISBN: 9781485102472.

Jearey-Graham, N. and Macleod, C.I.

Jearey-Graham, N. & Macleod, C.I. (2018). Sexuality education. In I. Eloff & E. Swart (Eds.), *Understanding Educational Psychology* (pp. 316-322). Cape Town, South Africa: Juta. [translated into Afrikaans]

Lynch, I., Morison, T. and Macleod, C.I.

Lynch, I., Morison, T., Macleod, C.I. and Mijas, M. (2018) Voluntary and Involuntary Childlessness: The joys of otherhood. In: Stapleton, N. (ed.). *From Deviant Choice to Feminist Issue; An Historical Analysis of Scholarship on Voluntary Childlessness*. UK: Emerald Publishing Limited. p.11-48. ISBN: 9781787543621.

Macleod, C.I.

Mnyaka, P. and Macleod, C.I. (2018) Introduction: Blurring Boundaries. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.133-143. ISBN: 9783319747200.

Macleod, C.I. and Marx, J.

Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (2018) Ethics in Critical Research: Stories from the Field. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.1-13. ISBN: 9783319747200.

Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (2018) *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. ISBN: 9783319747200.

Macleod, C.I. and Mnyaka, P.

Macleod, C.I. and Mnyaka, P. (2018) Introduction: The Politics of Anonymity and

PUBLICATIONS



Symposium held in May 2018.
Credit: Department of Psychology

Confidentiality. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.227-240. ISBN: 9783319747200.

Marx, J.

Marx, J. and Treharne, G.J. (2018) Introduction: Researching 'Down', 'Up', and 'Alongside'. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.327-338. ISBN: 9783319747200.

Treharne, G.J. and **Marx, J.** (2018) Introduction: Encounters with Systems Within Which Critical Research Is Conducted. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.17-28. ISBN: 9783319747200.

Marx, J. and Macleod, C.I.

Treharne, G.J., **Mnyaka, P.**, **Marx, J.** and Macleod, C.I. (2018) Traversing Ethical Imperatives: Learning from Stories from the Field. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.429-453. ISBN: 9783319747200.

Marx, J. and Macleod, C.I. (2018) Erasure: A Challenge to Feminist and Queer Research. In: Macleod, C.I., Marx, J., Mnyaka, P. and Treharne, G.J. (eds.). *The Palgrave Handbook of Ethics in Critical Research*. UK: Palgrave Macmillan. p.307-323. ISBN: 9783319747200.

Morison, T.

Nentwich, J. and **Morison, T.** (2018) Performing the Self: Performativity and Discursive Psychology. In: Travis, C.B. and White, J.B. (eds.). *APA Handbook of the Psychology of Women*. Washington D.C., USA: American Psychological Association (APA). p.209-228. ISBN: 9781433827921.

Olvitt, L.L. and Akhurst, J.

Ward-Smith, C., **Olvitt, L.L.** and **Akhurst, J.** (2018) Toward Decolonizing Nature-Based Pedagogies: The Importance of Sociocultural History and Socio-materiality in Mediating Children's Connectedness-with-Nature. In: Cutter-Mackenzie-Knowles, A., Malone, K. and Barratt Hacking, E. (eds.). *Research Handbook on Childhoodnature*. Switzerland: Springer International Publishing. p.1-27. ISBN: 9783319672854.

Saville Young, L.

Saville Young, L. and Frosh, S. (2018) Psychoanalysis in narrative research. In: Stamenova, K. and Hinshelwood, R.D. (eds.). *Methods of research into the unconscious*. New York: Routledge: Taylor and Francis. p.197-210. ISBN: 9781138326613.

Young, C.

Goodyear, R., Lichtenberg, J., Hutman, H., Overland, E., Bedi, R., Christiani, K., Di Mattia, M., du Preez, E., Farrell, B., Feather, J., Grant, J., Han, Y.J., Ju, Y., Lee, D., Lee, H., Nicholas, H., Jones Nielsen, J., Sinacore, A., Tu, S., and **Young, C.** (2018) A global portrait of counselling psychologists? Characteristics, perspectives, and professional behavior. In: Goodyear, R.K. and Lichtenberg, J.W. (eds.). *A Global Portrait of Counselling Psychology*. London: Routledge. p.1-22. ISBN: 9781138722071.

Bantjes, J., Kagee, A. and **Young, C.** (2018) Counselling psychology in South Africa. In: Goodyear, R.K. and Lichtenberg, J.W. (eds.). *A Global Portrait of Counselling Psychology*. London: Routledge. p.55-67. ISBN: 9781138722071.

Concerts, Exhibitions, Performances, Workshops, Events

Truter, S.

Truter, S. Presenter. Malingering: Are your patients deceiving you? *Workshop*. Durban, Cape Town and Pretoria. South Africa. 1 - 30 June 2018.

Truter, S. Lecture. Visuospatial assessment solutions for fairness in a multi-lingual and multi-cultural South Africa. *Lecture given at the Brain and Behaviour Society*. Cape Town. South Africa. 1 August 2018.

Truter, S. and **Shuttleworth-Edwards, A.B.** Presentation. Usefulness of the Rey Auditory Verbal Learning Test with disadvantaged non-English first-language-speaking South African adults. *Presentation at the Psychological Society of South Africa (PsySSA)*. Emperor's Palace, Johannesburg. South Africa. 1 September 2018.

Distinguished Visitors

Bannigan, K. and Akhurst, J.

K Bannigan and **J Akhurst**. University of Plymouth, Plymouth, United Kingdom. *4-day series of workshops on Systematic Reviews*. May 2018.

Inman, J. and Akhurst, J.

J Inman and **J Akhurst**. Edgehill University, Liverpool, United Kingdom. *Seminar on Systematic Reviewing*. May 2018.

Other Publications

Shuttleworth-Edwards, A.B.

Shuttleworth-Edwards, A.B. (2018) Brief Screening Techniques versus Comprehensive Neurocognitive Testing. In: *Brainwaves - Newsletter of the South African Clinical Neuropsychological Association (SACNA)*. South Africa: South African Clinical Neuropsychological Association (SACNA).

Mavuso, J.M.M., Du Toit, R., and Macleod, C.I.

Mavuso, J.M.M., **Du Toit, R.**, **Macleod, C.I.**, Stevens, M. (2018). Abortion counselling in South Africa: A step-by-step guide for providers. *Makanda: Rhodes University/Sexual and Reproductive Justice Coalition*. [https://www.ru.ac.za/media/rhodesuniversity/content/criticalstudiesinsexualitiesandreproduction/documents/Abortion%20Counselling%20Guide%20\(Vers%201\).pdf](https://www.ru.ac.za/media/rhodesuniversity/content/criticalstudiesinsexualitiesandreproduction/documents/Abortion%20Counselling%20Guide%20(Vers%201).pdf).

PUBLICATIONS



Professor Jacqui Akhurst (far right), Professor Katrina Bannigan (University of Plymouth, United Kingdom) and Dr Joanne Inman (Edgehill University, United Kingdom) in front of their co-authored paper presented at the World Federation of Occupational Therapy conference, in Cape Town, May 2018.

Credit: Department of Psychology

Lynch, I., Morison, T., and Macleod

Lynch, I., Morison, T., Essop, R., Tolla, T., Gomfa, & Macleod, C. (2018). *An impact evaluation of "Kwanele! Communities ensuring safe learning environments for girls" in Khayelitsha, Cape Town: Part of the Sexual Violence in Schools in South Africa (SeVISSA) initiative*. Human Science Research Council and Critical Studies in Sexualities and Reproduction, Rhodes University.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Bazana, S., McLaren, L. and Kabungaidze, T.

Bazana, S., McLaren, L. and Kabungaidze, T. (2018) Transforming while transferring: An exploratory study of how transferability of skills is key in the transformation of higher education. *Transformation in Higher Education*. 3 (a35). p.1-14.

Peer Reviewed Subsidy-Earning Journal Research Publications

Akhurst, J.

Lambert, S.J., Zoli, A. and Akhurst, J. (2018) A narrative analysis of four UK community project founders: a generativity perspective. *Community, Work and Family*. 2018. p.1-18.

Van Der Riet, M., Sofika, D., Akhurst, J. and Daniels, H. (2018) Young people's investments in sexual relationships: A different prioritization of self in the negotiation of safe sex practices in South Africa. *Sexualities*. 2018. p.1-18.

Bohmke, W.

Campbell, M.M., Fresan, A., Addinal, R.M., Bohmke, W., Grobler, G.P., Marais, A., Wilson, D., Stein, D.J., Reed, G. and Robles, R. (2018) Experiences of gender incongruence and the relationship between social exclusion, psychological distress and dysfunction among South African transgender adults. A field-study for ICD-11. *Annals of Clinical Psychiatry*. 30 (3). p.168-174.

Botha, D.

Botha, D. (2018) 'Anorexic' Adolescents: Negative and Positive Resistances in Narrative Therapy. *Journal of Constructivist Psychology*. 2018. p.1-18.

Chiweshe, M.

Chiweshe, M. (2018) African men and feminism: Reflections on using African feminism in research. *Agenda*. 32 (2). p.76-82.

Chiweshe, M. and Macleod, C.I.

Chiweshe, M. and Macleod, C.I. (2018) Cultural De-colonization versus Liberal Approaches to Abortion in Africa: The Politics of Representation and Voice. *African Journal of Reproductive Health*. 22 (2). p.49-59.

Hlatshwayo, M.

Thondhlana, G. and Hlatshwayo, M. (2018) Pro-Environmental Behaviour in Student Residences at Rhodes University, South Africa. *Sustainability*. 10 (2746). p.1-19.

Jacobs, L.

Jacobs, L. (2018) Women's spiritually mediated stories about recovery from Alcohol Use Disorder: A brief report. *Journal of Psychology in Africa*. 28 (5). p.416-419.

Lynch, I.

Essop, R., Tolla, T., Lynch, I. and Makoe, M. (2018) 'They tell you about the risks': Exploring sources of sexuality education among very young adolescents in rural Mpumalanga. *South African Journal of Child Health (SAJCH)*. 12 (Special). p.36-39.

Mahali, A., Lynch, I., Fadji, A.W., Tolla, T., Khumalo, S. and Naicker, S. (2018) Networks of Well-being in the Global South: A Critical Review of Current Scholarship. *Journal of Developing Societies*. 34 (4). p.373-400.

Macleod, C.I.

Macleod, C.I. (2018) Expanding reproductive justice through a supportability reparative justice framework: the case of abortion in South Africa. *Culture Health & Sexuality*. 2018. p.1-18.

Macleod, C.I. (2018) The case for collation to inform debate and transform practice in decolonising Psychology. *South African Journal of Psychology*. 48 (3). p.372-378.

Macleod, C.I., Bohmke, W., Mavuso, J., Barker, K. and Chiweshe, M.

Macleod, C.I., Bohmke, W., Mavuso, J., Barker, K. and Chiweshe, M. (2018) Contesting sexual violence policies in higher education: the case of Rhodes University. *Journal of Aggression, Conflict and Peace Research*. 10 (2). p.83-92.

Macleod, C., Chiweshe, M., and Mavuso, J.

Macleod, C., Chiweshe, M., and Mavuso, J. (2018). A critical review of sanctioned knowledge production concerning abortion in Africa: Implications for feminist health psychology. *Journal of Health Psychology*. 23(8), 1096-1109.

Malataliana, M. and Zondo, S.

Kenyon, C.R., Wolfs, K., Osbak, K., Malataliana, M., Van Hal, G., Zondo, S. and van Lankveld, J. (2018) Could differences in implicit attitudes to sexual concurrency play a role in generalized HIV epidemics. *F1000Research*. 7 (608). p.1-21.

Moodley, D.

Moodley, D. (2018) The politics of female adolescent sexuality in music: a social semiotic analysis of Liz Phair's "Glory". *Social Semiotics*. 2018. p.1-15.

Morison, T.

Khuzwayo, Z. and **Morison, T.** (2018) Resisting Erasure: Bisexual Female Identity in South Africa. *South African Review of Sociology*. 48 (4). p.19-37.

Morison, T.

Morison, T. and Herbert, S. (2018) Rethinking 'Risk' in Sexual and Reproductive Health Policy: the Value of the Reproductive Justice Framework. *Sexuality Research and Social Policy*. 2018. p.1-11.

Nhamo-Murire, M. and Macleod, C. I.

Nhamo-Murire, M., and Macleod, C. I. (2018). Lesbian, gay, and bisexual (LGB) people's experiences of nursing health care: An emancipatory nursing practice integrative review. *International Journal of Nursing Practice*. 24(1), e12606.

Saville Young, L., Moodley, D. and Macleod, C.I.

Saville Young, L., Moodley, D. and Macleod, C.I. (2018) Feminine sexual desire and shame in the classroom: an educator's constructions of and investments in sexuality education. *Sex Education-Sexuality Society and Learning*. 2018. p.1-15.

Toerien, M.

Chappell, P., **Toerien, M.**, Jackson, C.A. and Reuber, M. (2018) Following the patient's orders? Recommending vs. offering choice in neurology outpatient consultations. *Social Science & Medicine*. 205 (2018). p.8-16.

Wannenburg, N.

Wannenburg, N. and Van Niekerk, R. (2018) Early diagnosis and intervention for autism spectrum disorder in Africa: insights from a case study. *African Health Sciences*. 18 (1). p.137-146.

Wannenburg, N. and Van Niekerk, R. (2018) Re-witnessing the autistic imagination. *RIDE-The Journal of Applied Theatre and Performance*. 2018. p.1-8.

Young, C.

Maphisa Maphisa, J. and **Young, C.** (2018) Risk of alcohol use disorder among South African university students: The role of drinking motives. *Addictive Behaviors*. 82 (2018). p.44-49.

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

Akhurst, J.

Akhurst, J., Shachat, M., Lin, Y.J. and Hong, F. Moral Disengagement, Moral Engagement, and the War on Terror: Views from Three Nations. *126th American Psychological Association (APA) Annual Congress*. Moscone Center, San Francisco. United States of America. August 2018.

Akhurst, J., Bannigan, K. and Inman, J. Occupational Therapy & participation in activities of everyday life of people with a diagnosis of psychosis. *World Federation of Occupational Therapists Congress*. ICC, Cape Town. South Africa. May 2018.

Akhurst, J. Community-based service learning during South African psychologists' training: enhancing critical reflection. *7th International Congress of Community Psychology*. University of Chile, Santiago. Chile. October 2018.

Akhurst, J. A South African perspective on Community Psychology Practice Competencies. *7th International Congress of Community Psychology*. University of Chile, Santiago. Chile. October 2018.

Akhurst, J. Discussant of new proposed book: New ideas for new times: A handbook of innovative community and clinical psychologies. *7th International Congress of Community Psychology*. University of Chile, Santiago. Chile. October 2018.

Akhurst, J. Community-based service learning during psychologists' training: drawing from theory and working at the critically reflective interface. *Community Engagement Symposium*. NELM, Grahamstown. South Africa. May 2018.

Akhurst, J. The challenges of community-based service learning in a Master's community psychology module: moving from a mental health model towards social action. *Community Engagement Symposium*. NELM, Grahamstown. South Africa. May 2018.

Bazana, S.

Bazana, S. "Healing the wounds of the past": The role of Positive Psychology in the post-apartheid South African workplace. *First African Positive Psychology Conference*. Potchefstroom. South Africa. April 2018.

Bobo, A.B.D.

Bobo, A.B.D. A reflective multiple case study approach to understanding partner relationships within the context of community engagement at Rhodes University. *Community Engagement Symposium*. NELM, Grahamstown. South Africa. August 2018.

Bobo, A.B.D. 'Most importantly, it's like the partner takes more interest in us': using Ubuntu as a fundamental ethic of Community Engagement partnerships at Rhodes University. *De-colonisation and Re-Afrikanisation: A Conversation*. UNISA, Pretoria. South Africa. August 2018.

Chiweshe, M. and Macleod, C.I.

Chiweshe, M. and Macleod, C. (2018). *Cultural de-colonisation versus liberal approaches to abortion in Africa: the politics of representation and voice*. Paper presented at the Abortion and Reproductive Justice conference, Rhodes University, 8 - 12 July 2018.

Du Toit, R. and Macleod, C.I.

Du Toit, R. and Macleod, C.I. (2018). *"Become the mother that god has planned": an exploration of religious and pronatalist discourse in pre-abortion counselling*. Paper presented at the Abortion and Reproductive Justice conference, Rhodes University, 8 - 12 July 2018.

Edwards, D.J.A.

Edwards, D.J.A. How schema therapists work with parts of the self to bring about corrective experiences in the deep structure of personality - Invited keynote. *3rd Teile Therapie Tagung (3rd Parts Therapy Congress)*. Stadthalle, Heidelberg. Germany. November 2018.

Edwards, D.J.A. The corrective emotional experience: Its central place within schema therapy - Invited keynote. *International Society of Schema Therapy INSPIRE 2018*. Beurs van Berlage, Amsterdam. Netherlands. May 2018.

Edwards, D.J.A. Schema Therapy 2018: The state of the science and the state of the art - Invited Keynote. *Australian Psychological Association College of Clinical Psychologists Conference*. Hilton Hotel, Adelaide. Australia. April 2018.

Feltham-King T. and Macleod, C.

Feltham-King T. and Macleod, C. (2018). *Young pregnant women and public health: introducing a reparative justice approach*. Paper presented at the Abortion and Reproductive Justice conference, Rhodes University, 8 - 12 July 2018.

Lewis, C.

Lewis, C. The relevance of career counselling in the current context of higher education. *SA Association for Counselling and Development*

PUBLICATIONS

in Higher Education. Tshwane University of Technology, Pretoria. South Africa. September 2018.

Macleod, C.I.

Macleod, C.I. (2018). *Reconceptualising comprehensive sexuality education in South Africa*. Presentation made at the National Inter-departmental Adolescent Sexuality and Reproductive Health and Rights Strategy Framework workshop, hosted by Department of Social Development, Pretoria, May 2018.

Macleod, C. Chiweshe, M. and Mavuso, J.

Macleod, C., Chiweshe, M. and Mavuso, J. (2018). *The history of psychological knowledge production about abortion: the politics of location and representation*. Paper presented at the Abortion and Reproductive Justice conference, Rhodes University, 8 - 12 July 2018.

Magqamfana, S. and Bazana, S.

Magqamfana, S. and Bazana, S. Absent father and psychological well-being of children: A Positive Psychology view into fatherhood in South Africa. *First African Positive Psychology Conference*. Potchefstroom. South Africa. April 2018.

Mayson, T.A., Young, C. and Shuttleworth-Edwards, A.B.

Mayson, T.A., Young, C., Shuttleworth-Edwards, A.B. and Radloff, S.E. The relationship between alcohol use patterns and cognitive and symptomatic functioning of university students. *24th Annual South African Psychology Congress*. Emperor's Palace, Johannesburg. South Africa. September 2018.

Mthembu, T. and Bazana, S.

Mthembu, T. and Bazana, S. Rural 'black' people and psychotherapy: An exploratory study towards Positive Psychology in mainstream psychology. *First African Positive Psychology Conference*. Potchefstroom. South Africa. April 2018.

Qangule, L.S.

Qangule, L.S. Listen to the voices of black psychologists. *24th Annual South African Psychology Congress*. Emperor's Palace, Johannesburg. South Africa. September 2018.

Shuttleworth-Edwards, A.B.

Shuttleworth-Edwards, A.B. Round Table Discussion - A critical review of IQ test norming practices for culturally diverse populations. Invited paper presented in De Rooster, L. (In)justice amid social justice: the use of cognitive assessments in the diverse South African context. *24th Annual South African Psychology Congress*. Emperor's Palace, Johannesburg. South Africa. September 2018.

Truter, S. and Shuttleworth-Edwards, A.B.

Truter, S. and Shuttleworth-Edwards, A.B. Eleven neuropsychological tests in the public domain: Normative data for educationally disadvantaged South African adults. *24th Annual South African Psychology Congress*. Emperor's Palace, Johannesburg. South Africa. September 2018.

Truter, S. and Shuttleworth-Edwards, A.B. Alternate form to the Rey-Osterrieth Complex Figure Test (ROCFT) for South African disadvantaged adults. *24th Annual South African Psychology Congress*. Emperor's Palace, Johannesburg. South Africa. September 2018.



Ms Carol Dineo Diale (left), Rhodes University Department of Psychology and Professor Panos Vostanis (University of Leicester. Department of Neuroscience, Psychology and Behaviour). Ms Carol Dineo Diale recently participated in the Erasmus+ staff exchange programme and visited the University of Leicester in the United Kingdom.

The Erasmus+ programme is aimed at enabling staff members to go abroad for teaching or training purposes as well as learning more about the culture of the host University. With the support she received from the Psychology Department and International relations office, Ms Diale perceives this process as contributing to job satisfaction, professional development, and expansion on professional network as well as strengthening the cooperation between two universities (sending and receiving institution).

Credit: Department of Psychology



Credit: Snow Harris

Professor Owen Skae
Director

What was particularly pleasing about 2018 was the increase in the number of joint staff/student publications and conference papers. A special congratulations to **Professor Noel Pearce**, who with Professor Lilla Stack, was the joint recipient of the 2017 Commerce Faculty Researcher of the Year Award, announced in 2018.

The 4th Archbishop Thabo Makgoba Development Trust (ATMDT) Annual Lecture on Values Based Leadership, fully lived up to expectations with Dr Makhosi Khoza delivering a powerful, at times witty, yet insightful, sobering and honest assessment of the country's leadership needs. She reminded the audience that the Constitution is our "collective moral signature". The highlight of the evening was without doubt the reminiscing of her interaction with former President Nelson Mandela.

During the course of 2018, we ran fourteen (14) Rhodes University accredited certificate short course programmes, with three hundred and seven (307) Certificates of Competence being issued. This in addition to a number of training workshops that we run for various organizations.

Postgraduates / Graduations

Fourteen (14) MBA and fifty-five (55) (twenty-three (23) were part-time) Postgraduates Diploma in Enterprise Management students graduated, of whom three (3), Kirsten Drake, Candice Jacobs and Abongile Sipondo obtained the diploma with distinction. The MBA Fellowship Award recipients as voted by their peers, was jointly shared by Carol Cuthbert and Shaun Wyngaard, the ATMDT Prize recipient for the Responsible Leadership essay was Erica Da Silva Mbatha and the FNB Economics Prize recipient was Cornelia Blignaut.

Distinguished Visitors

Khoza , M.

Dr M Khoza. OUTA, Johannesburg, South Africa. *4th Archbishop Thabo Makgoba Development Trust Annual lecture.* October 2018.



Left to right (back row): Professor Owen Skae, Dr Tshidi Mohapeloa, Geraldene Arnold, Ronelle Eygelaar, Professor Noel Pearse, Carmen Henning, Anthony Greyling, Nadia Czeredrecki-Schmidt, Michael Pretorius, Professor Emmanuel Mgwashu.
Left to right (front row): Eleanor Christian, Tracy Kenyon.

Credit: Timothy Hacksley

Wainer, M.

Mr M Wainer. Redefine Properties, Johannesburg, South Africa. *Business Forum: Towards sustainable leadership - What SA needs and how mentorship can address this.* May 2018.

International Visits

International visits by Rhodes Business School staff and students in 2018 were:

Greyling, L.

- "Ecology & Business": Lecture MBA Class, Maastricht School of Management, Netherlands, 15 March 2018.
- "South Africa & Sustainability": Lecture for School of Business and Economics (guest lecture arranged between the Emerging Markets programme and Oikos), Maastricht University, Netherlands, 15 March 2018.
- "Sustainability in South Africa": Postgraduate and faculty facilitation session, Martti Ahtisaari Institute of Global Business and Economics, Oulu Business School, Finland, 20 March 2018.

Rafferty, K.

- Leadership Development: Role Transition from Functional/Technical to Manager. Two 5-day seminars for Mercedes Benz, Australia.

Skae, F.O.

- Association of MBAs (AMBA), Global Conference, Stockholm, Sweden, 13-15 May, 2018.

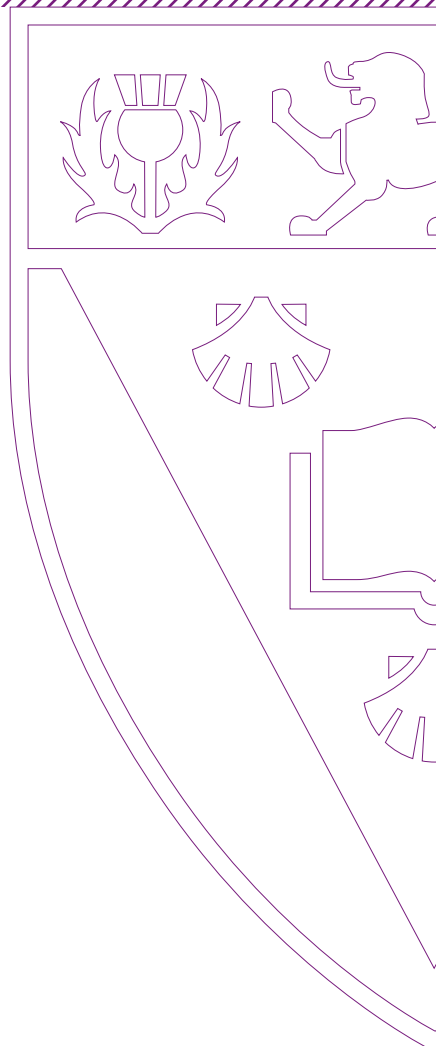
- Association of African Business Schools (AABS), University of Dar es Salaam Business School, Tanzania. 20-22 May, 2018.
- Regional workshop on the WTO instruments in the interest of agribusiness, FAO. Odessa, Ukraine, 11-13 September 2018. Moderated session on "Building capacity for developing successful agri-food exports".
- 12th World Trade Promotion Organizations Conference, 25 - 26 October, Paris, France. Trade and Investment Ecosystems: Delivering for Growth. Moderated session on "Alliances for Action (A4A)", which bridges the knowledge, sustainability and inclusiveness "gaps" faced by value chain operators at local, national and international level.

MBA Students

Linda Fleming and Aphiwe Nkosimbini participated in a Strategy and Marketing for Emerging Countries programme at Universidade Paulista (UNIP) - International Business Schools Americas (IBS), Sao Paulo, Brazil; Lusanda Mngqeta and Vuyokazi Zozi in Design Thinking; Managing Diversity; Digital Business Models, Montpellier Business School, France; and Tinashe Nyamujara in Business Process Management & IT, Utrecht University, The Netherlands.

PUBLICATIONS

Rhodes Business
School



Concerts, Exhibitions, Performances, Workshops, Events

Pearse, N.J.

Pearse, N.J. Workshop. A Stakeholder Approach to Strategic Planning. *4th Annual Community Engaged Learning Symposium*. Rhodes University, Grahamstown. South Africa. 9 May - 11 January 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Pearse, N.J.

Govender, K., Sharma, S., Jessee, W., Nagaraju, K., Pearse, N.J., Chhetri, P., Bodenstab, E., Yu, P. and Srinivas, S. (2018) Leadership and Task Shifting to Address the Challenges of Antimicrobial Resistance in South Africa. *Asian Journal of Pharmaceutical Research and Health Care*. 10 (1). p.10-20.

Peer Reviewed Subsidy-Earning Journal Research Publications

Simataa, G. and Pearse, N.J.

Simataa, G. and Pearse, N.J. (2018) Talent Management: A Case Study of Namibia's Directorate of Civil Aviation (DCA) in Securing Talent for Aviation Safety. *Ergonomics SA*. 30 (1). p.1-13.

Peer-reviewed Proceedings

Cuthbert, C. and Skae, F.O.

Cuthbert, C. and Skae, F.O. Perceived Quality Matters: Increased returns to University education. *The Changing Shape of Higher Education: Can excellence and inclusion cohabit?* Celtic Manor, Newport, South Wales. United Kingdom. December 2018.

Pearse, N.J.

Pearse, N.J. and Srinivas, S. External Leadership for Sustainability: Service-Learning for Pharmacy Education at SciFest South Africa. *6th International Conference on Management, Leadership and Governance (ICMLG 2018)*. University of Bangkok, Bangkok. Thailand. May 2018.

Pearse, N.J., Dimovski, V. and Peterlin, J. Multiple Intelligences of Artistic Creative Social Entrepreneurs: A Case Study. *37th International Conference on Organizational Science Development: Organization and Uncertainty in the Digital Age*. Hotel Slovenija, Portoro. Slovenia . March 2018.

Ternel, M. and Greyling, L.

Ternel, M. and Greyling, L. An Assessment of Sustainable Tourism and its Opportunities in Mauritius. *International Conference on Tourism Research ICTR 2018*. JAMK University of Applied Sciences, Jyväskylä. Finland. March 2018.

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

Cuthbert, C. and Skae, F.O.

Cuthbert, C. and Skae, F.O. Perceived Quality Matters; Increased Returns to University education. *Society for Research Into Higher Education*. Celtic Manor, New Port. United Kingdom. December 2018.

Pearse, N.J.

Pearse, N.J. Decolonising the curriculum, language and leadership: power and powerlessness. *Education Management Association of South Africa (EMASA) 19th Annual International Conference*. ICC, East London. South Africa. September 2018.

PUBLICATIONS



Professor Noel Pearce.
Credit: Rhodes Business School

Pearse, N.J. Designing School Leadership Development Programmes with Impact. *Education Management Association of South Africa (EMASA) 19th Annual International Conference*. ICC, East London. South Africa. September 2018.

Pearse, N.J. and Gavaza, M.A.

Pearse, N.J. and Gavaza, M.A. Assessing the Organizational Maturity Level of a Community Radio Station with the Introduction of Social Media. *World Media Economics & Management Conference*. Lagoon Beach Hotel, Cape Town. South Africa. April 2018.

Pearse, N.J. and Greyling, L.

Pearse, N.J. and Greyling, L. The Development of "Leadership for Sustainability" as the Essence of the Rhodes Business School. *Rhodes University Colloquium on Research in Sustainability*. Rhodes University, Grahamstown. South Africa. March 2018.

Pearse, N.J. and Mohapeloa, M.M.E.

Pearse, N.J. and Mohapeloa, M.M.E. The Formation of a University Consortium on Holistic Wellness. *Rhodes University Colloquium on Research in Sustainability*. Rhodes University, Grahamstown. South Africa. March 2018.



Dr Makhosi Busisiwe Khoza, guest speaker at the 4th Archbishop Thabo Makgoba Development (ATMDT) Annual Lecture.
Credit: Rhodes University Communications and Advancement Division

School of Languages and Literatures



Credit: Snow Harris

Professor Patrice Kabeya Mwepu
Head of the School of Languages and Literatures

The School of Languages and Literatures is a large academic department made of six (6) sections: African Languages, Afrikaans and Netherlandic, Chinese, Classical, French and German Studies.

The year 2018 was rich in research activities for staff and students in the School of Languages and Literatures. At both national and international levels, academic staff took part in various activities across the disciplines. Staff in the School of Languages and Literatures published papers, book chapters, journal articles, and conference proceedings.

French Studies Section hosted in September the 25th Summit of the Association for French Studies in Southern Africa. The main theme of this conference was "Dialogue, Différences et Transgression". This was an international event that took place at Rhodes University only for the second time, the first time having been in 2006. This conference was attended by scholars from various universities in South Africa, and from various countries such as France, Algeria, Zimbabwe, Lesotho, Australia, Mauritius, Ivory Coast, Mali, Cameroon, Democratic Republic of Congo, Nigeria, Mozambique.

Postgraduates / Graduations

In terms of student activities, the School of Languages and Literatures has succeeded to graduate several MA and PhD students in different disciplines. Three (3) very important MAs were produced in African Language Studies, all of them with distinction! The theses' titles are:

- Docrat, Zakeera, *The role of African languages in the South African legal system: Towards a transformative agenda* (in African Language Studies);
- Collins, Morgan Gwyneth, *Action Research: Developing ICC skills in German studies at Rhodes University* (in German Studies);
- Masombuka, Elizabeth Lucy, *A critique of multilingualism in South Africa's post-democratic parliament with particular reference to the use of selected minority languages* (in African Language Studies).



David van Schoor, attending a conference in Athens.

Credit: School of Languages and Literatures

Furthermore, the School of Languages and Literatures produced five (5) PhDs, four (4) in African Languages and one (1) in French Studies. The theses titles are:

- Maahlamela, Tebogo David, *Sepedi Oral Poetry with reference to Kiba traditional dance of South Africa* (in African Language Studies);
- Marawu, Sithembele, *Code-switching as a pedagogical strategy in classroom settings: the case of township schools in a South African metropolitan municipality* (in African Language Studies);
- Mavela, Xolani, *An investigation of Further Education and Training (FET) students' written responses to isiXhosa literature* (in African Language Studies);
- Somlata, Zakhile, *A critique of Language Planning and Implementation strategies used in selected institutions of Higher Learning in South Africa* (in African Language Studies);
- Dami, Naancin Emmanuel, *Aspects allocentristes de l'humanisme dans l'univers romanesque de Williams Sassine* (in French Studies).

Distinguished Visitors / International Visits

Professor PK Mwepu was invited to give a keynote speech in November at Université d'Angers (France)

for his research production on the prominent writer and Julien Kilanga Musinde, who received the Emeritus Professorship title at that institution.

Professor Mwepu also gave a keynote speech on foreign language teaching methods at the University of Zimbabwe during the ORBOR Conference in August.

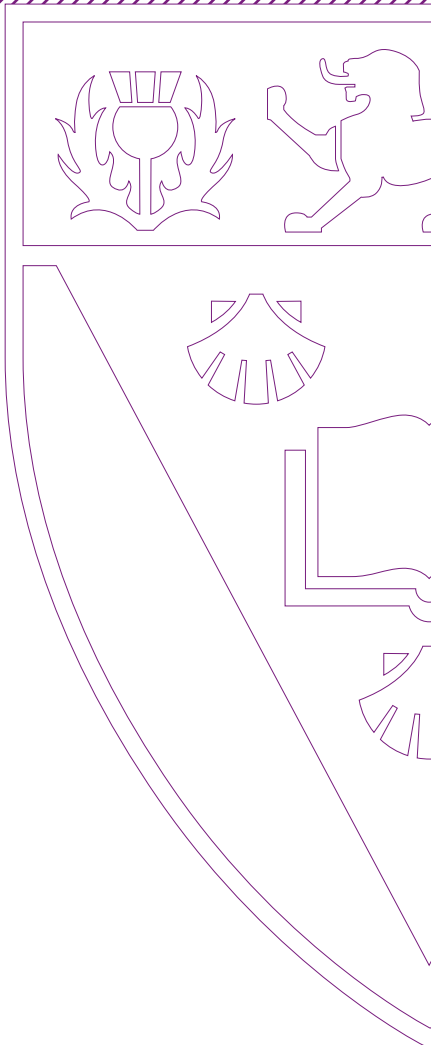
Significant Research Aligned Events

The School of Languages and Literatures hosted **Emeritus Professor Ekkerhard Wolff**, Chair: African Linguistics; University of Leipzig, as part of Hugh le May Fellowship. Professor Wolff gave several lectures on African languages and cultures, including: "Linguistic Plurality and Diversity - Why the 'North' cannot understand the 'South': When European experience clashes with African reality".

Professor Wolff continued his visit at the School of Languages and Literatures from October 2017 to March 2018. He also took part in the evaluation of research projects for staff and Postgraduate students in the School.

PUBLICATIONS

School of Languages and Literatures



Books/Chapters/Monographs

Kretzer, M.M.A.

Kretzer, M.M.A. (2018) Language attitude for the use of indigenous languages at primary schools in South Africa: A case study in Gauteng and North West Province. In: Kretzer, M. (ed.). *The Arts and Indigenous Knowledge Systems in a Modernized Africa*. Newcastle on Tyne: Cambridge Scholars Publishing. p.245-261. ISBN: 9781527507678.

Maahlamela, T.D.

Maahlamela, T.D. (2018) *Kiba poetry: Identity, Language, Culture and Spirituality in South Africa*. Germany: LAP LAMBERT Academic Publishing. ISBN: 9786139874699.

Opland, J.

Opland, J. (ed.) (2018) *Xhosa Literature: Spoken and Printed Words (Volume 6): Publications of the Opland Collection of Xhosa Literature*. Durban: University of KwaZulu-Natal Press. ISBN: 9781869143862.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Kaschula, R.H.

Kaschula, R.H. (2018) *Redemption*. New contrast. 182 (46). p.78-85.

Mukenge, A.N. and Kayumba, V.N.

Mukenge, A.N. and Kayumba, V.N. (2018) Le style de Dany Laferrière dans la construction d'une identité pérégrine Cas de: Le cri des oiseaux fous et Le goût des jeunes filles (The style of Dany Laferrière in the construction of a peregrine identity. Case of: *The cry of wild birds and The taste of girls*). Les Cahiers du Grelcef. 10 (2018). p.125-142.

Peer Reviewed Subsidy-Earning Journal Research Publications

Kaschula, R.H.

Kaschula, R.H. (2018) Remembering the Late Nelson Rolihlahla Mandela Through the Eyes of the Poet. *Current Writing*. 30 (1). p.12-24.

Lambert, M.

Lambert, M. (2018) Mapping Women's Bodies and the Male 'Gaze': Reconciliation in *Aristophanes' Lysistrata*. *Akroterion: Journal for the Classics in South Africa*. 63 (2018). p.35-56.

Mfaba, P.W.

Mfaba, P.W. (2018) IsiXhosa sakudala kunye nendlela esichaphazela ngayo abantu abasisibenzisayo kule mihla (Old orthography of isiXhosa and how it influences current users). *South African journal of African languages/Suid-Afrikaanse tydskrif vir Afrikatale*. 38 (3). p.311-315.

Mkhize, T.

Mkhize, T. (2018) Iziganeko zesizwe: Occasional Poems (1900-1943). S. E. K. Mqhayi. Eds. and trans. Jeff Opland and Peter T. Mtuze. Pietermaritzburg: University of KwaZulu Natal Press, 2017. 469 pp. ISBN: 9781869143343; e-ISBN: 9781869143350. DOI: dx.doi.org/10.17159/2309-9070/tvl.v.55i1.4273. *Tydskrif vir letterkunde*. 55 (1). p.192-193.

Mona, G.V.

Mona, G.V. (2018) IsiXhosa Written Poetry and the "Glasnost" Epoch: 1990-1994. *Journal of Literary Studies*. 34 (1). p.79-103.

Mona, G.V. and Kaschula, R.H.

Mona, G.V. and Kaschula, R.H. (2018) South African national reconciliation discourse and isiXhosa written poetry: 1994-2004. *South African journal of African languages/Suid-Afrikaanse tydskrif vir Afrikatale*. 38 (1). p.115-123.

PUBLICATIONS

Mona, G.V. and Kaschula, R.H. (2018) Mbeki's African Renaissance Vision as Reflected in isiXhosa Written Poetry: 2005-2011. *International journal of African renaissance studies*. 13 (1). p.113-128.

Mose, P.

Mose, P. (2018) Libraries and user culture: literacy and development implications. *Library Management*. 39 (8-9). p.506-517.

Mukenge, A.N.

Mukenge, A.N. (2018) Sooriamoorthy, Ramanujam. 2018. Pas à reculons: actes et discours mêlés. Paris: L'Harmattan. ISBN 9782343139470. 115 p. *French Studies in Southern Africa*. 48 (2018). p.276-278.

Mukenge, A.N. and Nkaongami, J.B.

Mukenge, A.N. and Nkaongami, J.B. (2018) L'héroïsme de la femme dans l'épopée africaine: un regard critique de Soundjata ou l'épopée mandingue, Emperor Shaka The Great: A Zulu Epic et Nsongo'a Lianja: l'épopée nationale des Nkundo. *Literator: Journal of Literary Criticism, Comparative Linguistics and Literary Studies*. 39 (1). p.1-9.

Mwepu, P.K.

Mwepu, P.K. (2018) Editor of Journal. *French Studies in Southern Africa*. 1 (48). p.1-279.

Mwepu, P.K. (2018) La traversée de l'Atlantique ou la mort? Une réflexion critique sur la notion d'échange (Crossing the Atlantic or dying? Critical reflection on the concept of exchange). *Tydskrif vir letterkunde*. 55 (1). p.81-89.

Ortner, G.J. and Weber, U.S.

Ortner, G.J. and Weber, U.S. (2018) Using Corpora to Inform Teaching Practice in German Studies. *Per Linguam: A Journal of Language Learning*. 34 (2). p.69-83.

Sithole, E.

Sithole, E. (2018) Identity consciousness among the Ndaue people in Zimbabwe: unravelling mysteries, misconceptions and justifications. *African identities*. 2018 (2018). p.1-17.

Van Schoor, D.J.

Van Schoor, D.J. (2018) Partly Folksy, Sometimes Smirking: A New Translation of Augustine's Confessions. *Akroterion: Journal for the Classics in South Africa*. 63 (2018). p.95-119.

Van Schoor, D.J. (2018) Eti Zosa Phlox: Inferring Divine Presence in Euripides' Bacchae. *Acta Classica*. 61 (2018). p.158-189.

Weber, U.S.

Weber, U.S. (2018) Co-Editor of this journal. *Acta Germanica, German Studies in Africa*. 46 (1). p.1-190.

Wolff, H.E.

Wolff, H.E. (2018) Multilingualism, translanguaging, and linguistic superdiversity: An Africanist's perspective on 'language'. *Nordic journal of African studies*. 27 (2). p.1-21.

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

Cordell, C.J.

Cordell, C.J. Le thème du viol dans "La petite à la burqa rouge" et "Barbe-Bleue" de Tahar Ben Jelloun. *Association for French Studies in Southern Africa conference 2018*. Rhodes University, Grahamstown. South Africa. August 2018.

Cordell, C.J. and Naumann, T. Le thème de l'évasion dans

"Lanzarote et autres textes" de Michel Houellebecq. *Association for French Studies in Southern Africa conference 2018*. Rhodes University, Grahamstown. South Africa. August 2018.

Ma, X.

De Vos, M. and Ma, X. On the absence of VP-ellipsis in isiXhosa and Mandarin. *SAMWOP 7: Southern African Microlinguistics Workshop 7*. University of Venda, Thohoyandou. South Africa. December 2018.

Mukenge, A.N.

Mukenge, A.N. Giambattista Vico de Georges Ngali: une théorie d'exclusion, de révolte ou clandestine du champ littéraire africain. *Association for French Studies in Southern Africa Conference 2018*. Rhodes University, Grahamstown. South Africa. August 2018.

Mukenge, A.N. Fiction et réalité dans Pays sans chapeau de Dany Laferrière entre autobiographie, autofiction et au-delà. *International Conference: La sociologie de la littérature (africaine)*. Textes, théories et socialité actuels. Université d'Abidjan. Côte d'Ivoire. September 2018.

Mukenge, A.N. and Kayumba, V.N.

Mukenge, A.N. and Kayumba, V.N. L'érotisme et la sexualité dans Le Pauvre Christ de Bomba de Mongo Béti. *Congrès annuel des Sciences humaines*. University of Regina, Saskatchewan. Canada. May 2018.

Mwepu, P.K.

Mwepu, P.K. Teaching foreign languages in Africa: discussing methodologies. *One Belt One Road Conference*. University of Zimbabwe, Harare. Zimbabwe. August 2018.

Mwepu, P.K. How to counter challenges of teaching and learning foreign languages. *Teaching and learning workshop for CI Africa Summit at University Eduardo Mondlane*. University Eduardo Mondlane, Maputo. Mozambique. May 2018.

Mwepu, P.K. Un monologue qui n'en est pas un. Hommage à Julien Kilanga Musinde, enseignant et auteur. *Journée d'hommage à Julien Kilanga Musinde*. University of Angers, Angers. France. November 2018.

Mwepu, P.K. La quête de soi entre le vide et le plein. Une projection de soi dans l'imaginaire. *Association for French Studies in Southern Africa Conference 2018*. Rhodes University, Grahamstown. South Africa. August 2018.

Nkaongami, J.B.

Nkaongami, J.B. Analyse de quelques éléments surnaturels aux traits transculturels dans Soundjata ou l'épopée mandingue, Emperor Shaka The Great: A Zulu Epic et l'Iliade. *Association for French Studies in Southern Africa Conference 2018*. Rhodes University, Grahamstown. South Africa. August 2018.

Van Schoor, D.J.

Van Schoor, D.J. 'Who seemed wilder than Polyphemus': from African Bacchantes to African Basileis. *Metamorphosis: classical reflections on a changing South Africa*. Corpus Christi College, Oxford. United Kingdom. June 2018.

Van Schoor, D.J. Out of Thin Air, Some Voice: Greek Drama as Pre-Socratic Science Fiction. *Humboldt Kolleg (Manipulation of Discourse in Antiquity)*. Lanzerac, University of Stellenbosch, Stellenbosch. South Africa. November 2018.

Department of Sociology and Industrial Sociology



Credit: Snow Harris

Professor Gilton Klerck
Head of Department

The Department has had another exceptionally successful year in terms of research output and postgraduate throughput.

While all staff members and Associates contributed to this success, special mention must be made of the outstanding contributions to the Department's publication record by **Professor Kirk Helliker** and **Professor Lucien van der Walt**.

Professor Helliker and **Professor van der Walt** co-edited two (2) books, both of which were published by Routledge. Professor Helliker also authored six (6) chapters and one (1) journal article, while Professor Van der Walt authored five (5) chapters and two (2) journal articles, and presented five (5) conference papers.

In addition, the academic staff in the Department continued their extraordinary higher degree supervision record with sixty (60) Postgraduate students graduating in April 2019.

Postgraduates / Graduations

Thirty-nine (39) Honours, one (1) Master's by thesis, fourteen (14) Master's by coursework/dissertation, and six (6) PhD candidates graduated in April 2019.

Associate Professor Michael Drewett, **Professor Kirk Helliker**, and **Professor Monty Roodt** continued their exceptional higher degree supervision record with six (6) of their PhD candidates graduating. The six (6) Doctoral theses focused on different regions and included topics on South Africa's education transformation, land and water politics in Zimbabwe, an ethnography of gays and lesbians in Harare, non-governmental organisations in learner performance and retention in Joza, urban governance and social accountability in Bulawayo, and land restitution and resettlement in the Eastern Cape.

Significant Research Aligned Events

Members of staff and Postgraduate students published short papers in the media and presented papers at numerous conferences, both national and international, throughout the year, including the South African Sociological Association (SASA) Annual Conference in July 2018.



Ms Claudia Martinez-Mullen takes the INS 3 Sociology of Work students each year, to the VW factory for a fieldtrip.

Credit: Department of Sociology and Industrial Sociology

Professor Lucien van der Walt delivered the keynote address, titled “What are we fighting for? Possibilities for decent work, unions and rights in Africa”, at the Conference on Trade Union Transformation in Sub-Saharan Africa, Ledger Plaza Bahari Beach Hotel, Kunduchi, Dar es Salaam, Tanzania, Friedrich Ebert Stiftung (FES), 29 October-2 November 2018.

Professor van der Walt also piloted the new Sociology/NALSU short course programme “Policy, Theory and Research for Labour Movements” with a two (2) day workshop with the Uitenhage Local of the National Union of Metalworkers of South Africa (NUMSA), 24-25 November 2018, on the topic of “The South African Political Economy and the Global Crisis”.

Mr Leroy Maisiri (PhD candidate in Sociology),

Professor Lucien van der Walt, and Ayanda Kota of the Unemployed People’s Movement (UPM) in the Eastern Cape, co-designed and co-facilitated a three (3) day workshop and political school with the UPM on 7-9 November 2018, on the topic “Autonomy, Land, Self-Management: Alternatives and the Russian and Spanish Revolutions”. The workshop was held in the Bantu Stephen Biko Student Union Building, at Rhodes University and attended by forty-five (45) people from the UPM in Grahamstown/ Makhanda and Peddie as well as members of the local waste-pickers collective.

Professor Gilton Klerck received the British Academy of Management’s *Best Reviewer of 2018* award. Professor Klerck was also re-appointed to serve on the editorial board of the British Journal of Management and the review panels of the South African Journal of Labour Relations and the South African Journal of Human Resource Management.



Ms Claudia Martinez-Mullen and the INS 3 Sociology of Work students during one of her lectures.

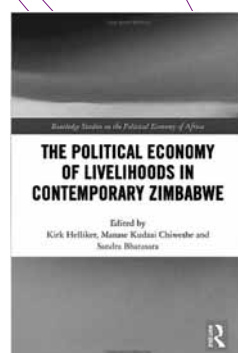
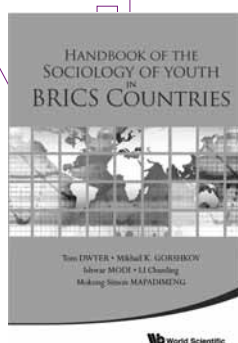
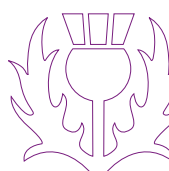
Credit: Department of Sociology and Industrial Sociology

Professor Gilton Klerck and **Professor Lucien van der Walt** as well as Mr Kanyiso Ntकिनca are part of the steering committee of the Labour Studies Seminar Series, an interdisciplinary programme between the Neil Aggett Labour Studies Unit (NALSU) and the departments of Economics & Economic History, History, and Sociology.

In 2018, the Labour Studies Seminar Series ran fifteen (15) public events, including seven (7) book launches partnered by the relevant publishers (Routledge, Wits University Press, UKZN Press, and Zed Books). The Series has grown into the largest and best attended seminar series in the economic and social sciences on campus, with a notable turnout of students.

PUBLICATIONS

Department of Sociology and Industrial Sociology



Books/Chapters/Monographs

Basnet, J.B.

Basnet, J.B., Dhakal, S. and Uprety, L.P. (2018) Editorial Preface. In: Basnet, J., Dhakal, S. and Uprety, L.P. (eds.). *Peasant Studies in Nepal*. Kathmandu, Nepal: Vajra Publications. p.9-20. ISBN: 9781643160894.

Basnet, J.B. (2018) Marginalization of Tenants in Nepal: A Political-Economic Analysis. In: Basnet, J., Dhakal, S. and Uprety, L.P. (eds.). *Peasant Studies in Nepal*. Kathmandu, Nepal: Vajra Publications. p.131-138. ISBN: 9781643160894.

Bhatasara, S.

Bhatasara, S. (2018) Climate variability in local scales: narratives and ambivalences from Mutoko District. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.139-153. ISBN: 9781138574717.

Bhatasara, S., Chiweshe, M.K. and Helliker, K.

Bhatasara, S., Chiweshe, M.K. and Helliker, K. (2018) Introduction: theorising the political economy of livelihoods in contemporary Zimbabwe. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.1-25. ISBN: 9781138574717.

Chabata, T.

Chabata, T. (2018) Insecure land tenure and natural resource use in a post-fast track area of Zimbabwe. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.198-212. ISBN: 9781138574717.

Chevo, T.

Chevo, T. (2018) Livelihood strategies in Harare: the case of low-income households in Budiro. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.42-56. ISBN: 9781138574717.

Chirau, T.J.

Chirau, T.J. (2018) Livelihood strategies of urban women: emerging evidence from Magaba, Harare. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.26-41. ISBN: 9781138574717.

Drewett, M.

Drewett, M. (2018) Exploring transitions in popular music: Censorship from apartheid to post-apartheid South Africa. In: Hall, P. (ed.) *Oxford Handbook on Music Censorship*. New York: Oxford University Press.

Gimenez Amoros, L.

Gimenez Amoros, L. (2018) *Repatriation of the Mbira Sound Archive in Zimbabwe*. London: Routledge. ISBN: 9781138585102.

Gimenez Amoros, L. (ed.) (2018) *Performing Zimbabwe: A Transdisciplinary Study of Zimbabwean Music*. Durban: UKZN Press. ISBN: 9781869143961.

Gondo, V.N.

Gondo, V.N. (2018) A critical analysis of community participation at the primary level of the health system in Goromonzi District. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.124-138. ISBN: 9781138574717.

Helliker, K.

Helliker, K., Bhatasara, S. and Chiweshe, M.K. (ed.) (2018) *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. ISBN: 9781138574717.

Helliker, K. and Alexander, T.

Helliker, K. and Alexander, T. (2018) A feminist perspective on autonomism and commoning, with reference to Zimbabwe. In: Helliker, K. and van der Walt, L. (eds.). *Politics at a Distance from the State: Radical and African Perspectives*. London: Routledge. p.96-110. ISBN: 9780815346920.

Helliker, K. and Chakona, L.

Helliker, K. and Chakona, L. (2018) Fast track land reform programme and women in Goromonzi District. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.198-212. ISBN: 9781138574717.

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Helliker, K. and Takawira, W.M. (2018) Sex work as a livelihood strategy in the border town of Beitbridge. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.57-73. ISBN: 9781138574717.

Holloway, J.P.

Holloway, J.P. (2018) The Asymmetry of Revolution. In: Sen, J. (ed.). *The Movement of Movements: Part 2: Rethinking our Dance*. 2nd Ed. Oakland, USA: PM Press. p.385-392. ISBN: 9781629633800.

Holloway, J.P. (2018) Think Hope, Think Crisis. In: Asimakopoulou, J. and Gilman-Opalsky, R. (eds.). *Against Capital in the Twenty-First Century*. Philadelphia: Temple University Press. p.31-38. ISBN: 9781439913574.

Knight, K.C.

Knight, K.C. (2018) Development NGOs: understanding participatory methods, accountability and effectiveness of World Vision in Umzingwane District. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.107-123. ISBN: 9781138574717.

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Bvochora, K. and Kusena, B. (2018) The political economy of land and urban development: The case of Epworth, Zimbabwe, 1980-2012. In: Mugambwa, J. and Katusiimeh, M.W. (eds.). *Handbook of Research on Urban Governance and Management in the Developing World*. USA: IGI Global. p.343-359. ISBN: 9781522541653.

Mafukidze, J.

Mafukidze, J. (2018) 'Let them starve so that they "hear" us': differing perspectives on unresolved land occupations and livelihoods at Mushandike smallholder irrigation scheme, Masvingo District. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.170-183. ISBN: 9781138574717.

Mahiya, I.T.

Mahiya, I.T. (2018) Agricultural production systems of small-scale farmers in Hwedza in the context of innovation platforms. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.91-106. ISBN: 9781138574717.

Maisiri, L.J.

Maisiri, L.J. (2018) Warren McGregor: Anarchist-Communism - Building Black Working Class Counter Power against State, Capital and National Oppression. In: Helliker, K. and van der Walt, L. (eds.). *Politics at a Distance from the State: Radical and African Perspectives*. London: Routledge. p.156-161. ISBN: 9780815346920.

Makonese, L.

Makonese, L. (2018) 'Other people inherit property, but I inherit people and their problems': the role of kinship and social capital in providing care and support for the HIV infected and AIDS affected, Chivanhu informal settlement, Masvingo Province. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.184-197. ISBN: 9781138574717.

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Park, Y.J.

Park, Y.J. (2018) Liminal Spaces: Ethnic Chinese in the Borderlands of Southern Africa. In: Carnelissen, S. and Mine, Y. (eds.). *Migration and Agency in a Globalizing World: Afro-Asian Encounters*. UK: Palgrave Macmillan. p.91-113. ISBN: 9781137602046.

Tombindo, F.

Tombindo, F. (2018) Livelihoods vulnerability among riverbed farmers in Negande, NyamiNyami District. In: Helliker, K., Chiweshe, M.K. and Bhatasara, S. (eds.). *The Political Economy of Livelihoods in Contemporary Zimbabwe*. London: Routledge. p.154-169. ISBN: 9781138574717.

Van Der Walt, L.

Van Der Walt, L. (2018) Syndicalism. In: Levy, C. and Adams, M. (eds.). *The Palgrave Handbook of Anarchism*. UK: Palgrave Macmillan. p.249-263. ISBN: 9783319756202.

Van Der Walt, L. (2018) Préface. In: Rey, G. (ed.). *Afriques Anarchistes: Introduction à l'Histoire des Anarchismes Africains*. Paris-France: L'Harmattan. p.1-244. ISBN: 9782343129181.

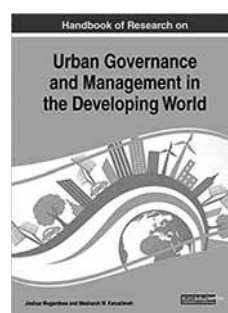
Van Der Walt, L. (2018) Back to the Future: Revival, Relevance and Route of an Anarchist/Syndicalist Approach to 21st Century Left, Labour and National Liberation Movements. In: Helliker, K. and van der Walt, L. (eds.). *Politics at a Distance from the State: Radical and African Perspectives*. London: Routledge. p.40-59. ISBN: 9780815346920.

Van Der Walt, L. (2018) From Below: An Overview of South African Politics at a Distance from the State, 1917-2015, with Dossier of Texts. In: Helliker, K. and van der Walt, L. (eds.). *Politics at a Distance from the State: Radical and African Perspectives*. London: Routledge. p.111-163. ISBN: 9780815346920.

Van Der Walt, L. and Helliker, K.

Van Der Walt, L. and Helliker, K. (2018) Politics at a Distance from the State: Radical, South African and Zimbabwean Praxis Today. In: Helliker, K. and van der Walt, L. (eds.). *Politics at a Distance from the State: Radical and African Perspectives*. London: Routledge. p.4-23. ISBN: 9780815346920.

Van Der Walt, L. and Helliker, K. (ed.) (2018) *Politics at a Distance from the State: Radical and African Perspectives*. London: Routledge. ISBN: 9780815346920.



Concerts, Exhibitions, Performances, Workshops, Events

Maisiri, L.J.

Maisiri, L.J. Presentation. Anarchism and a Class Analysis of the Environmental Crisis. *The Climate Conversation: Rise for Climate (workshop)*. Rhodes University, Grahamstown/Makhanda. South Africa. 8 September 2018.

Maisiri, L.J. and Van Der Walt, L.

Maisiri, L.J., Van Der Walt, L. and Kota, A. Design, facilitation, presentation. Autonomy, Land, Self-Management: Alternatives and the Russian and Spanish Revolutions. *Unemployed People's Movement Annual School*. Rhodes University, Grahamstown/Makhanda. South Africa. 7 - 9 November 2018.

Van Der Walt, L.

Van Der Walt, L. Design, facilitation, presentation. South African Political Economy and the Global Crisis. *Neil Aggett Labour Studies Unit/ National Union of Metalworkers of South Africa (NUMSA) (Uitenhage Local) workshop*. Nelson Mandela University, Port Elizabeth. South Africa. 24 - 25 November 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Mathekga, J.M.

Mathekga, J.M. and Maciko, L. (2018) Retail Sector Growth, Expansion, Employment and Income Inequality: A Case Study of Shoprite and Pick 'n Pay in South Africa and Namibia. *Journal for Studies for Humanities and Social Sciences*. 7 (1). p.37-61.

Moyo, S.

Moyo, S. (2018) Debating the African land question with Archie Mafeje. *Agrarian South: Journal of Political Economy*. 7 (2). p.211-233.

Roodt, J.J. and Xaba, M.B.

Roodt, J.J. and Xaba, M.B. (2018) Populist Rhetoric around Land Acquisition in South Africa Obscures a Number of Significant Factors on Land Reform. *The Thinker: A Pan-African Quarterly for Thought Leaders*. 2018 (78). p.32-34.

Van Der Walt, L.

Van Der Walt, L. (2018) From Union Renewal to a Self-Managed Society: Towards an anarcho-syndicalist project. *South African Labour Bulletin*. 42 (1). p.27-30.

Van Der Walt, L. (2018) Renewing and Reforming Labor: The Case for Anarcho-Syndicalism. *Anarcho-Syndicalist Review*. 75 (2018). p.10-15.

Peer Reviewed Subsidy-Earning Journal Research Publications

Alfers, L.

Davy, J., Rasetsoke, D., Todd, A., Quazi, T., Ndlovu, P., Dobson, R. and Alfers, L. (2018) Analyses of Time in Informal Economy Workers Reveals Long Work Hours, Inadequate Rest and Time Poverty. *Advances in Intelligent Systems and Computing*. 2018. p.1-10.

Drewett, M.

Drewett, M. (2018) Stand up and be a real man: Patriarchal patriotism in songs about the USA's war in Vietnam and South Africa's apartheid border war. *Ethnomusicology Journal/ Etnomüzikoloji Dergisi*. 1 (2). pp. 137-162.

Gimenez Amoros, L.

Gimenez Amoros, L. and Gimenez, L.G. (2018) La bimusicalidad a traves de la musica transcultural: Adaptacion de los modos musicales del Haul en la musica saharaui (Bi-Musicality through Transcultural Music: The Adaptation of the Haul Modal System in Saharawi Music). *Acta Musicologica*. 90 (2). p.201-219.

Helliker, K. and Bhatasara, S.

Helliker, K. and Bhatasara, S. (2018) Inside the Land Occupations in Bindura District, Zimbabwe. *African Studies Quarterly*. 18 (1). p.1-17.

Park, Y.J.

Huynh, T.T. and Park, Y.J. (2018) "Chineseness" through unexplored lenses: Identity-making in China-Africa engagements in the 21st century. *Asian and Pacific Migration Journal*. 27 (1). p.3-8.

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

Maisiri, L.J.

Maisiri, L.J. Recovering Alternative Emancipatory Trajectories in South Africa: The Independent Left, the New Unity Movement and the 1980's 'People's Power' Movement. *Postgraduate Interdisciplinary Conference*. Rhodes University, Grahamstown/ Makhanda. South Africa. July 2018.

Pade-Khene, C., Maisiri, L.J. and Mthoko, H. Participation

Inequality in Digital Citizen Engagement: Building Civic and Responsiveness Digital Literacy. *Development Studies Association (DSA2018) Conference: Global Inequalities*. University of Manchester, Manchester. United Kingdom. June 2018.

Maisiri, L.J. Recovering Alternative Emancipatory Trajectories in

South Africa: The Independent Left, the Marxist Workers Tendency and the 1980's 'People's Power' Movement. *South African Sociological Association (SASA) conference*. University of the Western Cape, Cape Town. South Africa. July 2018.

Maisiri, L.J. The Marxist Workers' Tendency in the 1980s: Race, Class and the State. *National Institute for the Humanities and Social Sciences (NIHSS) PhD workshop*. My Pond Hotel, Port Alfred. South Africa. September 2018.

Mathekga, J.M.

Mathekga, J.M. Globalisation, Labour and Development in Africa: A reflection and an Analysis of the Nature of Employment in the Local Government Sphere in South Africa "Africa and the Crisis of Globalisation" - 15th Council for the Development of Social Science Research in Africa (CODESRIA) General Assembly. Dakar. Senegal. December 2018.

Mathekga, J.M. The Power of Trade Union Federations in a

Democratic Context: Reflection and Analysis of the Congress of South African Trade Union (COSATU) in South Africa, and National Union of Namibian Workers (NUNW) in Namibia. *18th Annual Africa conference*. University of Texas, Texas. United States of America. March 2018.

PUBLICATIONS

Sibuyi, L.N.

Sibuyi, L.N. Taking Stakeholder Relations to the Next Level. *MACE (Marketing, Advancement and Communication in Education) National Workshop*. North-West University, Potchefstroom. South Africa. May 2018.

Van Der Walt, L.

Van Der Walt, L. Rebuilding Links between Trade Unions and Co-operatives for Counter-Power. *Trade Union Transformation in Sub-Saharan Africa*. Ledger Plaza Bahari Beach Hotel, Kunduchi, Dar es Salaam. Tanzania. October 2018.

Van Der Walt, L. Keynote: What are we Fighting For? Possibilities for Decent Work, Unions and Rights in Africa. *Trade Union Transformation in Sub-Saharan Africa*. Ledger Plaza Bahari Beach Hotel, Kunduchi, Dar es Salaam. Tanzania. October 2018.

Van Der Walt, L. Fragmented Labour Movement, Fragmented Labour Studies: New Directions for Research and Theory. *Taking Democracy Seriously: Reflecting on Trade Unions in the Last 20 Years and the Future of the Labour Movement in South Africa*. University of the Witwatersrand, Johannesburg. South Africa. September 2018.

Wilson, J.K.

Wilson, J.K. Striking from the Margins: Anti-Violence Black Lesbians in the Townships of Cape Town. *Women of the Global South and its Diasporas: Rights, Representation, Activism*. University of Leeds, Leeds. Britain. June 2018.

Xaba, M.B.

Xaba, M.B. The 'Community,' Family, Children and the State after Land Restitution: The Case of 'Native Nostalgia' amongst Macleantown Restitution Beneficiaries in the Eastern Cape. *Children, Families and the State: Collaboration and Contestation*. University of the Witwatersrand, Johannesburg. South Africa. November 2018.

Xaba, M.B. South African Land Restitution and Development: The Capabilities Approach to an Understanding of the Macleantown and Salem Restitution Projects in the Eastern Cape. *Postgraduate Interdisciplinary Conference*. Rhodes University, Grahamstown/Makhanda. South Africa. July 2018.



Graduation tea for graduates and their parents. The HoD gives a short speech and then the staff, students and parents have a chance to chat with each other before going to the graduation ceremony.

Credit: Department of Sociology and Industrial Sociology



Credit: Snow Harris

Mr Jeremy Baxter
Head of Department

The Department of Statistics continued pursuing a broad range of research interests and activities during 2018.

Professor Radloff's research collaborations with the Departments of Entomology and Psychology resulted in two (2) peer-reviewed journal articles and two (2) conference presentations.

Dr Chinomona presented a paper on the paradigm shift from surveys to big data in financial research at the BigSurv18 conference, held at the Research and Expertise Centre for Survey Methodology in Barcelona, Spain. Subsequently he has submitted a paper on estimating the risk factors of HIV in Zimbabwe using hierarchical modelling with survey data to the BMC Infectious Diseases journal.

Ms Maqubela presented a novel paper on *peer teaching in the first year undergraduate statistics class and how indigenous language mediates the learning experience* at the 10th International Conference on Teaching Statistics (ICOTS 10) in Kyoto, Japan.

In collaboration with Dr Ngqwala, Ms Maqubela organised a Black Women in Science event aimed at facilitating conversation among black women at Rhodes University about the challenges this community face as a minority in the Sciences and how best to support each other.

Ms Maqubela received a TOP Women Standard Bank award (2018) and was a top ten (10) finalist for McKinsey's Next Generation Women Leaders in SA (2018).

Postgraduates / Graduations

Mr Sitha Mtwa graduated with a Masters of Science in the Department of Statistics. Four (4) students graduated with a Bachelor of Science Honours, one (1) with a Bachelor of Commerce Honours and one (1) with a Bachelor of Business Science in the Department of Statistics.

Ms Amy Langston, Ms Hannah Maclean and Mr Grant Tarr attained distinctions. Ms Langston has been awarded the Patrick and Margaret Flanagan Scholarship to continue her studies at the School of Mathematics and Statistics, University of Glasgow.

Seven (7) students attained distinctions in Mathematical Statistics 3.

Below and right: Allison Seminar at Nelson Mandela University (NMU).
Credit: Department of Statistics



Amy Langston (right) and Professor Sarah Radloff (left).
Credit: Department of Statistics

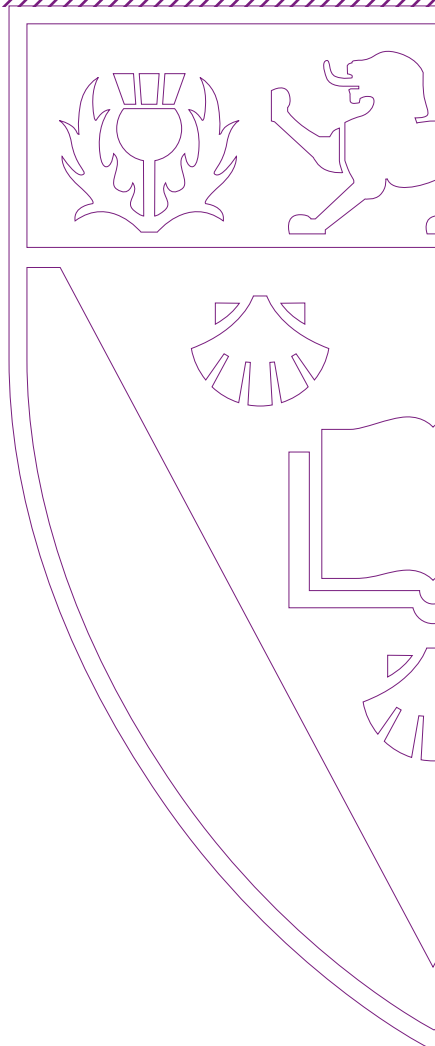
Distinguished Visitors and Significant Research Aligned Events

Professor James Allison from North West University presented three (3) highly informative and interesting seminars to the staff and Postgraduate students of the Departments of Statistics at Rhodes, Fort Hare and Nelson Mandela Universities.

The first two (2) seminars were presented at Nelson Mandela University. In the first seminar Professor Allison discussed the development of two (2) new tests for symmetry. In the second he discussed a particular differential equation and how this could be utilized in a goodness-of-fit test for the Rayleigh distribution. The third seminar, presented at Rhodes University, discussed testing the adequacy of semi-parametric transformation models using the empirical characteristic function.

PUBLICATIONS

Department of
Statistics



Peer Reviewed Subsidy-Earning Journal Research Publications

Radloff, S.E.

Muriithi, S.M., Louw, L. and Radloff, S.E. (2018) The relationship between strategic thinking and leadership effectiveness in Kenyan indigenous banks. *South African Journal of Economic and Management Sciences*. 21 (1). p.1-11.

Neumann, P., Spiwok, S., Pettis, J., Radloff, S.E., Spooner-Hart, R. and Hepburn, R. (2018) Differences in absconding between African and European honeybee subspecies facilitate invasion success of small hive beetles. *Apidologie*. 49 (2018). p.527-537.

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

Chinomona, A.

Chinomona, A. A Paradigm Shift from Surveys to Big Data in Financial Research. *BigSurv18*. Research and Expertise Centre for Survey Methodology (RECSM), Barcelona. Spain. October 2018.

Maqubela, T.Z.

Maqubela, T.Z. Peer teaching in a first year undergraduate class: indigenous language mediating the learning experience. *10th International Conference on Teaching Statistics, ICOTS 10*. Kyoto Citizen's Amenity Plaza, Kyoto. Japan. July 2018.

Radloff, S.E.

Raubenheimer, L., Southey, R. and **Radloff, S.E.** Bayesian disease mapping with application to acute pericarditis. *ISBA 2018, International Society for Bayesian Analysis Conference*. The University of Edinburgh, Edinburgh. Scotland. June 2018.

Mayson, T.A., Young, C., Shuttleworth-Edwards, A.B. and Radloff, S.E. The relationship between alcohol use patterns and cognitive and symptomatic functioning of university students. *24th Annual South African Psychology Congress*. Emperor's Palace, Johannesburg. South Africa. September 2018.

Department of Zoology and Entomology



Credit: Snow Harris

Professor PW Froneman
Head of Department

The staff, Research Associates and Postgraduate students within the Department of Zoology and Entomology published a total of eight-five (85) subsidy-earning research articles on a diverse range of topics during 2018, the greater majority of which were published in top local and international ISI accredited peer reviewed journals. Over the corresponding period, staff within the department also contributed to two (2) book chapters and a conference proceeding.

The high research publication output reflects the strong research collaborations established by the academic and research staff with research institutes and universities in southern and North Africa, Europe, North and South America, Asia and Australasia.

In recognition of their high standing within the science community, a number of academic staff within the department were successful in their applications for research funds and presented keynote lectures at both local and international conferences. Staff within the department were also hosted by a number of local and international universities and were invited to review scientific peer review articles and research programmes both locally and internationally.

Postgraduates / Graduations

The department continued to have a highly vibrant Postgraduate school with no less than eleven (11) Honours students, twenty-eight (28) MSc students and twenty-one (21) PhD candidates registered within the department. A total of twenty-one (21) MSc students and PhD candidates graduated from the department. Several Postgraduate students attended both local and international conferences where their papers were well received.

Distinguished Visitors / International Visits

During 2018, the department hosted Professor Mark Brigham from the University of Regina, Canada. During his sabbatical, Professor Brigham in collaboration with **Dr Ben Smit**, conducted research on the biology of bats and nightjars and presented a number of departmental and public lectures.



Distinguished Professor Martin Hill, Director of the Centre for Biological Control (CBC) conducting field work in Madagascar.
Credit: Department of Zoology and Entomology

Associate Professor Andrew Cameron also from the University of Regina, visited the department and initiated a research project to characterize the bacteria fauna of three (3) species of bats found in the Eastern Cape.

Dr Andrew McConnachie from the Department of Primary Industry, Australia, visited the department in October and conducted research on the biocontrol of invasive cactus and contributed to the Annual Weeds Short Course run by the Centre for Biological Control (CBC) under the Directorship of **Professor Martin Hill**. The CBC also hosted three (3) scientists from the University of Gdansk in December as part of a Poland-South Africa bilateral agreement on citrus research.

Finally, the department played host to Drs Gerado Zardi and Katy Nicastro from the University of Algarve (Portugal) and Dr Laurent Seuront from the CNRS (France) during which time they conducted studies on the effects of plastic leachates on animal behaviour. This research was conducted in collaboration with **Distinguished Professor Christopher McQuaid**, Director of the SARChI Chair in Marine Ecology.

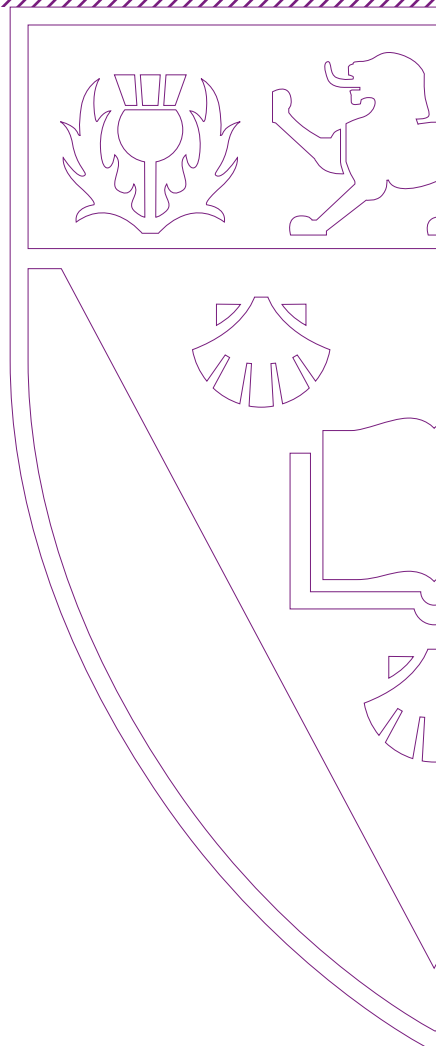
Significant Research Aligned Events

During the course of the year, the CBC successfully released a biological control agent, a fly, against a submerged water weed - *Egeria densa*. Additionally the unit also identified a number of other potentially important biological control agents for invasive weeds/plant, initiated the Highlands Weeds Research Programme and embarked on a research project focusing on the honey bush tea industry.

Finally, **Professor Martin Villet's** forensic entomology expertise was employed in rhinoceros poaching investigations.

PUBLICATIONS

Department of Zoology and Entomology



Books/Chapters/Monographs

Hill, M.P., Hussner, A., Nunes, A.L. and Weyl, O.L.F.

Coetzee, J.A., Hill, M.P., Hussner, A., Nunes, A.L. and Weyl, O.L.F. (2018) Chapter 16: Invasive aquatic species. In: Hughes, J. (ed.). *Freshwater Ecology and Conservation*. United Kingdom: Jocelyne Hughes. p.1-464. ISBN: 9780198766421.

Hodgson, A.N.

Hodgson, A.N. (2018) Volume 6: Spermatogenesis and spermiogenesis in the Mollusca. In: Skinner, M. (ed.). *Encyclopedia of Reproduction: 2nd Edition*. Oxford: Academic Press. p.336-343. ISBN: 9780128118993.

Peer Reviewed Subsidy-Earning Journal Research Publications

Aigbedion-Atalor, P.O.

Aigbedion-Atalor, P.O., Idemudia, I., Adom, M. and Day, M. (2018) First record of a specialist folivore of *Chromolaena odorata* (Asteraceae) in Togo, and indices of its range expansion in Nigeria: implications for biological control. *Biocontrol Science and Technology*. 28 (8). p.805-810.

Aigbedion-Atalor, P.O. and Paterson, I.D.

Aigbedion-Atalor, P.O., Day, M.D., Idemudia, I., Wilson, D.D. and Paterson, I.D. (2018) With or without you: stem-galling of a tephritid fly reduces the vegetative and reproductive performance of the invasive plant *Chromolaena odorata* (Asteraceae) both alone and in combination with another agent. *Biocontrol*. 2018. p.1-12.

Aigbedion-Atalor, P.O., Wilson, D.D., Eziah, V.Y., Day, M.D. and Paterson, I.D. (2018) The distribution and abundance of the stem-galling fly, *Cecidochares connexa* (Macquart) (Diptera: Tephritidae), a biological control agent of *Chromolaena odorata* (L.) (Asteraceae), in Ghana. *African Entomology*. 26 (2). p.471-480.

Barnes, R.S.K.

Barnes, R.S.K. (2018) Context dependency in the effect of Ulva-induced loss of seagrass cover on estuarine macrobenthic abundance and biodiversity. *Aquatic Conservation - Marine and Freshwater Ecosystems*. 2018. p.1-12.

Hamylton, S. and Barnes, R.S.K. (2018) The effect of sampling effort on spatial autocorrelation in macrobenthic intertidal invertebrates. *Hydrobiologia*. 811 (2018). p.239-250.

Bissett, C.

Horwitz, L.K., Bissett, C. and Brink, J. (2018) Recent cheetah (*acinonyx jubatus*) kills as carnivore "feeding hubs": a taphonomic study of prey size and age differences. *Quaternaire*. 29 (1). p.5-12.

Bonnevie, B.T. and Craig, A.J.F.K.

Bonnevie, B.T. and Craig, A.J.F.K. (2018) A song for the South also: defining birdsong in global terms. *Ibis*. 160 (2018). p.926-928.

Booth, J.M. and McQuaid, C.D.

Booth, J.M., Steinfurth, A., Fusi, M., Cuthbert, R.J. and McQuaid, C.D. (2018) Foraging plasticity of breeding Northern Rockhopper Penguins, *Eudyptes moseleyi*, in response to changing energy requirements. *Polar Biology*. 41 (2018). p.1815-1826.

Canavan, K.

Canavan, S., Meyerson, L.A., Packer, J.G., Pysek, P., Maurel, N., Lozano, V., Richardson, D.M., Brundu, G., Canavan, K., Cicatelli, A., Cuda, J., Dawson, W., Essl, F., Guarino, F., Guo, W.-Y., Van Kleunen, M., Kreft, H., Lambertini, C., Pergl, J., Skalova, H., Soreng, R.J., Visser, V., Vorontsova, M.S., Weigelt, P., Winter, M. and Wilson, J.R.U. (2018) Tall-statured grasses: a useful functional group for invasion science. *Biological Invasions*. 2018. p.1-22.

Canavan, K., Paterson, I.D. and Hill, M.P.

Canavan, K., Paterson, I.D., Lambertini, C. and Hill, M.P. (2018) Expansive reed populations - alien invasion or disturbed wetlands? *AoB Plants* 10 (ply014). p.1-11.

Canavan, K., Paterson, I.D., Hill, M.P. and Dudley, T.L. (2018) Testing the Enemy Release Hypothesis on tall-statured grasses in South Africa, using *Arundo donax*, *Phragmites australis*, and *Phragmites mauritianus* as models. *Bulletin of Entomological Research*. 2018. p.1-14.

Caputo, M. and Froneman, P.W.

Bouveroux, T., **Caputo, M., Froneman, P.W.** and Plon, S. (2018) Largest reported groups for the Indo-Pacific bottlenose dolphin (*Tursiops aduncus*) found in Algoa Bay, South Africa: Trends and potential drivers. *Marine Mammal Science*. 34 (3). p.645-665.

Claassens, L. and Hodgson, A.N.

Claassens, L., Booth, A.J. and Hodgson, A.N. (2018) An endangered seahorse selectively chooses an artificial structure. *Environmental Biology of Fishes*. 101 (2018). p.723-733.

Claassens, L. and Hodgson, A.N. (2018) Monthly population density and structure patterns of an endangered seahorse *Hippocampus capensis*: a comparison between natural and artificial habitats. *Journal of Fish Biology*. 92 (2018). p.2000-2015.

Cole, M.L. and Villet, M.H.

Cole, M.L., Raheem, D.C. and Villet, M.H. (2018) Molecular phylogeny of Chondrocyclus (*Gastropoda: Cyclophoridae*), a widespread genus of sedentary, restricted-range snails. *Molecular Phylogenetics and Evolution*. 2018. p.1-18.

Comley, J., Bissett, C., Welch, R.J. and Parker, D.M.

Comley, J., Bissett, C., Tambling, C.J., Welch, R.J. and Parker, D.M. (2018) Diet of recently established brown hyenas in the Eastern Cape, South Africa. *African Journal of Wildlife Research*. 48 (1). p.1-7.

Compton, S.G.

Compton, S.G., Chen, X.Y., Chen, Y., Hatcher, M.J., Peng, Y.Q., Quinell, R.J., Rodriguez, L.J., Yu, H., Ouyang, A., Wei, F.L., Cai, Z.T. and Wang, R. (2018) Host-parasitoid relationships within figs

of an invasive fig tree: a fig wasp community structured by gall size. *Insect Conservation and Diversity*. 11 (2018). p.341-351.

Yu, H., Compton, S.G. and Wu, L. (2018) Spatial variation in pollinator gall failure within figs of the *gynodioecious Ficus hirta*. *Acta Oecologica - International Journal of Ecology*. 90 (2018). p.75-80.

Connan, M. and McQuaid, C.D.

Connan, M., Bonnevie, B.T. and McQuaid, C.D. (2018) Ontogeny, tissue, and species but not sex influence stable isotopic values of three albatross species. *Polar Biology*. 41 (2018). p.1175-1186.

Craig, A.J.F.K.

Chiawo, D.O., Kombe, W.N. and **Craig, A.J.F.K.** (2018) Bird responses to land use change: guild diversity in a Kenyan coastal forest and adjoining habitats. *EMU*. 2018 (2018). p.1-12.

Dalu, T. and Froneman, P.W.

Dalu, T., Adams, J.B., Taylor, J.C., Bate, G.C., Nunes, M., Froneman, P.W. and Wasserman, R.J. (2018) Overview and status of estuarine microphytobenthos ecological research in South Africa. *African Journal of Marine Science*. 40 (1). p.1-12.

Edwards, S.

Conradie, W., Busschau, T. and **Edwards, S.** (2018) Two new species of *Acontias* (Acontinae, Scincidae) from the Mpumalanga Highveld escarpment of South Africa. *Zootaxa*. 4429 (1). p.89-106.

Finn, K.T. and Parker, D.M.

Finn, K.T., Parker, D.M., Bennett, N. and Zotll, M. (2018) Contrasts in body size and growth suggest that high population density results in higher pace-of-life in Damaraland mole-rats (*Fukomys damarensis*). *Canadian Journal of Zoology*. 96 (8). p.920-927.

Froneman, P.W.

Matcher, G.F., Froneman, P.W., Meiklejohn, I. and Dorrington, R.A. (2018) Distinct responses of bacterial communities to agricultural and urban impacts in temperate southern African estuaries. *Estuarine Coastal and Shelf Science*. 200 (2018). p.224-233.

Cuthbert, R.N., Dalu, T., Wasserman, R.J., Weyl, O.L.F.,

Callaghan, A., Froneman, P.W. and Dick, J.T.A. (2018) Sex-skewed trophic impacts in ephemeral wetlands. *Freshwater Biology*. 2018. p.1-8.

Gusha, M.N.C. and McQuaid, C.D.

Gusha, M.N.C., Dalu, T., Wasserman, R.J. and McQuaid, C.D. (2018) Zooplankton grazing pressure is insufficient for primary producer control under elevated warming and nutrient levels. *Science of the Total Environment*. 2018. p.1-9.

Heshula, L.U.P. and Hill, M.P.

Uyi, O., Zachariades, C., Heshula, L.U.P. and Hill, M.P. (2018) Developmental and reproductive performance of a specialist herbivore depend on seasonality of, and light conditions experienced by, the host plant. *PLoS One*. 13 (1). p.1-19.

Hill, J.M.

Zhu, W., Wang, C., Hill, J.M., He, Y., Tao, B., Mao, Z. and Wu, W. (2018) A missing link in the estuarine nitrogen cycle?: Coupled nitrification-denitrification mediated by suspended particulate matter. *Scientific Reports*. 8 (2282). p.1-10.

Hodgson, A.N.

Pinchuck, S.C. and Hodgson, A.N. (2018) Retinal ultrastructure of patellogastropods revisited. *Journal of Molluscan Studies*. 84 (2018). p.494-497.



Field work to collect frogs by Mr Chad Keates, PhD candidate in the Department of Zoology and Entomology.
Credit: Department of Zoology and Entomology

- Hodgson, A.N., Claassens, L. and Kankondi, S.
Hodgson, A.N., Claassens, L. and Kankondi, S. (2018) Shell morphometrics and growth rate of the invasive bivalve mollusc *Mytilus galloprovincialis* in the Knysna estuarine embayment, South Africa. *African Journal of Aquatic Science*. 43 (4). p.367-374.
- Hussner, A., Smith, R. and Hill, M.P.
Hussner, A., Smith, R., Mettler-Altmann, T., Hill, M.P. and Coetzee, J.A. (2018) Simulated global increases in atmospheric CO₂ alter the tissue composition, but not the growth of some submerged aquatic plant biocarbonate users growing in DIC rich waters. *Aquatic Botany*. 2018. p.1-7.
- Ismail, M.
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Owen, C.A., Hill, M.P. and Coetzee, J.A. Insect thermal tolerance trait plasticity and links to biocontrol agent efficacy. *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.

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Machimane, Z.H., Paterson, I.D., Witt, A., Byrne, M.J., Cowie, B. and Venter, N. Evaluating the different lineages of *Dactylopius opuntiae* (cochineal) for biological control of the invasive cactus *Opuntia engelmannii* in Kenya and South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.

Byrne, M.J., Machimane, Z.H., Paterson, I.D., Witt, A., Cowie, B. and Venter, N. Cochineal and cactus: are new associations biocontrol winners? *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.

Mayonde, S.G., Paterson, I.D. and Byrne, M.J. Molecular investigations into the association of cactus biotypes and cochineal lineages: implications for biocontrol. *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.

Paterson, I.D. and Hill, M.P.

Paterson, I.D., Hill, M.P. and Coetzee, J.A. Cryptic species in biological control: a biocontrol agent that we didn't know we had. *1st International Congress on Biological Control: Biological Control for a Healthy Planet*. Beijing. China. May 2018.

Paterson, I.D., Muskett, P.C., Mannheimer, C.A. and Mcconnachie, A.J.

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Richoux, N.B. and Moyo, S.

Richoux, N.B. and Moyo, S. Nutrient transfers from river to land via emerging invertebrates. *Association for the Sciences of Limnology and Oceanography (ASLO) 2018 Summer Meeting*. Water Connect, Victoria. Canada. June 2018.

Smith, R.

Coetzee, J.A. and Smith, R. Effects of global change CO² scenarios on the growth and physiology of submerged aquatic plants. *15th International Symposium of Aquatic Plants*. Queenstown. New Zealand. February 2018.

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Smith, R. and Coetzee, J.A. *Hydrellia Robineau-Desvoidy*

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Upfold, J.K., Hill, M.P., Coombes, C.A. and Moore, S.D.

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Villet, M.H.

Zozo, E., Nel, A., Garrouste, R., Moyo, S., Bellingan, T.A., Villet, M.H. and Prevec, R. Phylogenetic relationships of the Permian 'cicada-like' family *Pereboriidae* (Insecta: Hemiptera: Pereborioidea). *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Wansell, S.N.L.

Wansell, S.N.L. and Coetzee, J.A. Invasion ecology of *Pontederia cordata* L. in South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. Thohoyandou. South Africa. July 2018.

Weaver, K.N. and Ivey, P.J.

Weaver, K.N. and Ivey, P.J. Taking biological control to our communities. *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.



Left to right: Dr Adam Wyness (Postdoctoral Research Fellow), and Ms Cassandra Barker (MSc student) on Port Edward beach about to install equipment for chlorophyll measurements.

Credit: Department of Zoology and Entomology

Weyl, P.S.R., Martin, G.D. and Hill, M.P.

Weyl, P.S.R., Martin, G.D. and Hill, M.P. Socio-economic impact of water hyacinth on riparian communities of the Wouri River Basin (Douala, Cameroon). *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.

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communities of the Wouri River Basin (Douala, Cameroon). *XV International Symposium on the Biological Control of Weeds*. Hotel Bellevue, Engelberg. Switzerland. August 2018.

Zozo, E. and Paterson, I.D.

Zozo, E., Paterson, I.D. and Jama, K. A new invasive cactus in South Africa. *45th Annual Research Symposium on the Management of Biological Invasions*. University of Venda, Thohoyandou. South Africa. July 2018.

2018 REPORT

Affiliates, Institutes & Units

Credit: Rhodes University Communications and Advancement Division



Credit: Snow Harris

Dr Rose Prevec
Albany Museum: Curator and Head
Department of Earth Sciences

Research Associates

Dr Helen James
Department of Zoology and Entomology

Dr Terence Bellingan
Department of Zoology and Entomology

Mr Musa Mlambo
Department of Zoology and Entomology

Dr Robert Gess
Department of Geology

Dr W.J. de Klerk
Department of Geology

Dr Ferdy de Moor
Department of Zoology and Entomology

Staff at the Albany Museum continue to contribute actively to research outputs at Rhodes University, in addition to supervision of third year and Postgraduate student projects and undergraduate teaching.

Postgraduates / Graduations

Two (2) PhD candidates were supervised during 2018 by the Department of Freshwater Invertebrates and Palaeontology respectively. One (1) MSc student is being jointly supervised between the Palaeontology and Freshwater Invertebrates departments. Two (2) Honours students were supervised in the Departments of Zoology and Entomology (both graduated). Two (2) Postdoctoral Research Fellows were also based at the Museum, in the Department of Freshwater Invertebrates and in Palaeontology.

A highlight for the Palaeontology students as a group, was their joint award of the 'Bob and Laura Brain Trophy' for enthusiasm in the palaeosciences, at the Palaeontological Society of Southern Africa Congress held in July 2018, in Bloemfontein. We managed to obtain funding for all five (5) Postgraduate students and one (1) Postdoctoral Research Fellow, two (2) research staff at the Albany Museum, to attend and present seven (7) papers at the conference.

Distinguished Visitors / International Visits

Ms Efe Ogidiaka from Delta State University, Nigeria, visited the Department of Freshwater Invertebrates for three (3) months from the end of February to the end of May 2018. She learned about collecting and identifying aquatic insects and museum curation skills.

Professor Per Ahlberg of Uppsala University (Sweden) visited the Department of Earth Sciences between the 11-21 April 2018, to work on remains of a four (4) metre long predatory tristichopterid fish, *Hyneria* with Dr Rob Gess.

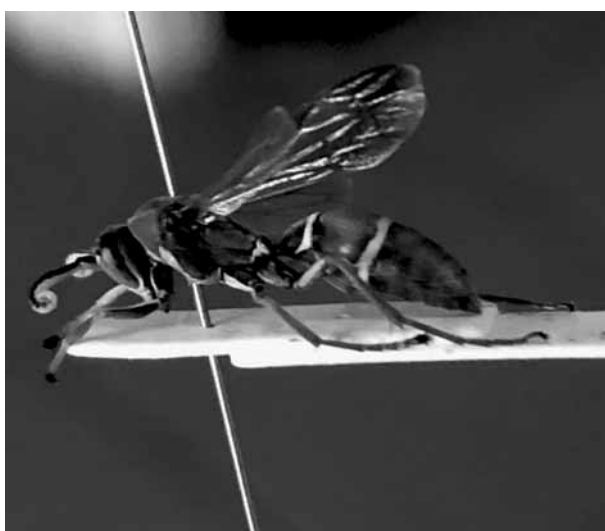
Dr Alice Clement of Flinders University visited between the 23 May - 06 April to work on a new genus and species of lungfish with Dr Rob Gess of the Department of Earth Sciences.

Significant Research Aligned Events

The Department of Freshwater Invertebrates, represented by **Dr Helen James** and **Dr Ferdy de Moor**, took part in the National Geographic Okavango Wilderness Expedition Project (NGOWP) in Angola in April 2018, surveying the freshwater invertebrates occurring in the upper Lungué-Bungo River and tributaries.

The Lungué-Bungo River catchment is an important source of water for the Zambezi River system, providing a continual water supply to rivers flowing into the Zambezi River long after the rainy season is over. This was done in order to compare the diversity to adjacent catchments, which feed the Okavango Delta.

Dr James was awarded National Research Foundation (NRF) Knowledge, Interchange and Collaboration (KIC) funding to attend the conference, Joint XV International Conference on Ephemeroptera, XIX International Symposium on Plecoptera in Aracruz, Brazil in June 2018. She was given additional funding for this by Rhodes University to take PhD student, Ina Ferreira, to the conference, and subsequently visit a colleague at the Laboratório de Sistemática e Ecologia de Insetos, Departamento de Ciências Agrárias e Biológicas, Universidade Federal do Espírito Santo, Brazil, where she could interact with other students doing related projects on Brazilian mayflies.



Polistes species of wasp collected near Cata village.
Credit: Albany Museum

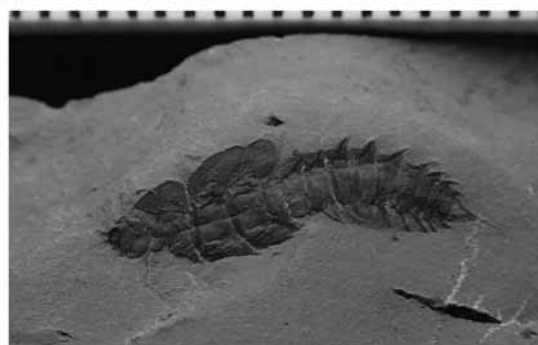
Mr Musa Mlambo was awarded funding by National Geographic to carry out research in Gorongosa National Park in Mozambique, and by Rhodes University to attend the 9th International Congress of Dipterology in Windhoek, Namibia, 25-30 November 2018, followed by a week's fieldwork.

Dr James spent three (3) weeks in the Natural History Museum, London in December, examining species and developing future collaborative projects. She also gave an invited lecture about the research being done in Angola as part of an "African Refugia and Biodiversity Hotspots" symposium.

A new curator of the Department of Entomology and Arachnology, **Dr Terence Bellingan**, was appointed in February after some nine (9) months of stagnation. He has taken over curatorship and stewardship of the entomological and arachnological collections. Research within the department has focussed primarily on the true flies (Diptera), with the highlight of the 2018 year seeing Dr Bellingan visit what is arguably the best fly collection in South Africa, housed at the KwaZulu-Natal Museum in Pietermaritzburg, to examine the hoverfly (Diptera: Syrphidae) collection. A single peer-reviewed publication was produced by Dr Bellingan, and a poster was presented at a local conference. Field based research was undertaken as well, with successful collecting trips around the Eastern Cape and further afield producing valuable specimens towards collaborative research projects.

The Department of Earth Sciences was strongly represented at the biennial congress of the Palaeontological Society of Southern Africa, held in July 2018, in Bloemfontein, with two (2) researchers, one (1) research assistant, two (2) Postdoctoral Research Fellows and five (5) Rhodes Postgraduate students attending and presenting talks and posters (funded by the DST-NRF CoE in Palaeosciences, Palaeontological Scientific Trust, the NRF African Origins Platform and the Millenium Trust).

Aviwe Matiwane (Botany PhD candidate), **Chris Harris** (research assistant), **Sydney Moyo** (Post-doctoral Research Fellow) and **Rose Prevec** (HoD) also attended the International Palaeontology Congress in Paris, France, in July. Another phenomenal fieldtrip to the Onder Karoo Lagerstätte near Sutherland was conducted in May by Rose Prevec and her team, and



The Palaeo team collecting plants and insect fossils near Sutherland in the Northern Cape; (below left) 278 million year-old *Glossopteris* leaves; (below right) a new Palaeodictyopteran fossil nymph.
Credit: Albany Museum

several hundred new insect fossils and many plant fossils were added to the growing collection. The fieldtrip provided the team of students, postdocs and volunteers the opportunity to learn palaeontological field techniques. Several publications describing some of the plants and insect fossils are in preparation.

The research highlight of the year for **Dr Robert Gess** was the publication in *Science* of, "A tetrapod fauna from within the Devonian Antarctic Circle". It describes Africa's earliest (by eighty (80) million years), four-legged animals, the three hundred and sixty (360) million year-old *Umzantsia amazana* and *Tutusius umlambo* from Waterloo Farm outside Makhanda.

A very successful press release was held on the 08 June 2018 at the Origins Centre at the University of the Witwatersrand (Wits) (hub of the CoE in Palaeosciences), addressed by amongst others **Dr Robert Gess** and Ms Mmamoloko Kubayi-Ngubane, the Minister of Science and Technology. The Museum

was represented by museum manager Mr Manzi Vabaza and Rev Linda Dyani.

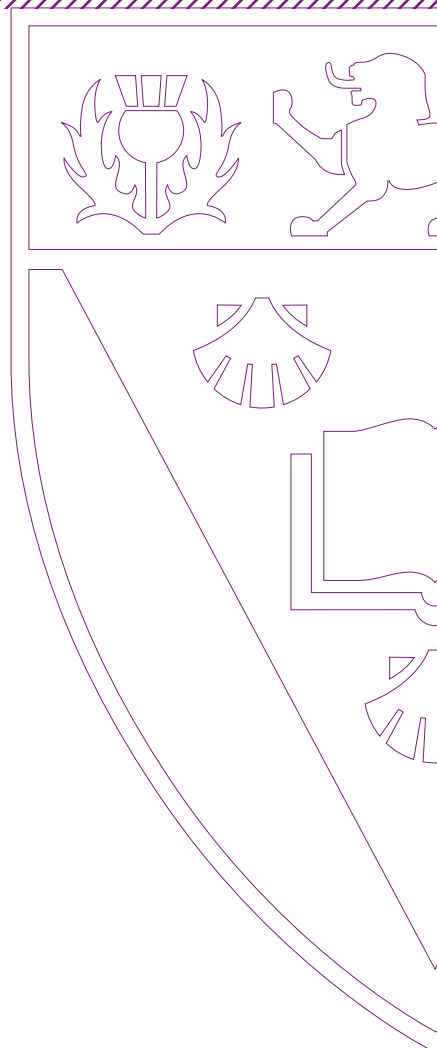
Dr Gess also published a description of the first known sphenophyte (horsetail) plant from a Devonian high latitude setting, and one of only four (4) Devonian sphenophytes known with associated vegetative and fertile structures.

Emeritus curator, **Dr Billy de Klerk** continued various research and outreach activities, with the submission of two (2) publications, and engagement with the Kitching Fossil Exploration Centre in Nieu Bethesda, and conservation efforts of a spectacular trackway site on the Karoo farm 'Asante Sana'.

The Selmar Schonland Herbarium, staffed by **Mr Tony Dold** (Rhodes University) and **Mr Phumlani Cimi**, continues to provide an essential research and plant identification service to Rhodes University students and the public at large (see the Rhodes University Department of Botany report for details).

PUBLICATIONS

Albany Museum



Concerts, Exhibitions, Performances, Workshops, Events

Barber-James, H.M. and Holland, A.J.

Tedder, D., **Barber-James, H.M. and Holland, A.J.** Training. *SASS5 Aquatic Biomonitoring Training Course*. Albany Museum Rennie Hall, Grahamstown. South Africa. 1 - 5 October 2018.

Bellingan, T.A., Holland, A., Barber-James, H., Mlambo, M. and Prevec, R.

Bellingan, T.A., Holland, A., Barber-James, H., Mlambo, M. and Prevec, R. 2018. Foundational Biodiversity in Entomology and the Albany Museum - Collecting dust? *Joint SANBI BIM & FBIP Forum*. Cape st Francis Resort, 13-16 August 2018.

Gess, R.W.

Gess, R.W. 8th June 2018: Press release for "A tetrapod fauna from within the Devonian Antarctic Circle. Science: 360 (6393)" in conjunction with CoE Palaeosciences at Wits University. Addressed by Professor Tawane Kupe (Vice Principle of Wits), Prof. B.S. Rubidge (Director of CoE Palaeosciences), Minister of Science and Technology, Mmamoloko Kubayi-Ngubane and Dr Robert W. Gess (principle author).

Holland, A.J., Prevec, R., James, H.J., Matiwane, A., Camagu, K.

Poole, T. 'The Whispering Spring', solo fine art exhibition, Galerie M, Bochum, Germany. Collaborators: **Holland, A.J., Prevec, R., James, H.J., Matiwane, A., Camagu, K., Zezethu Mnqeta, Mbunge Mbunge**

Books/Chapters/Monographs

Dold, A.P.

Mucina, L., **Dold, A.P.**, Tichy, L. and Van Niekerk, A. (2018) Classification of the Albany Coastal Forests. In: Mucina, L. (ed.). *Vegetation Survey and Classification of Subtropical Forests of Southern Africa*. Springer International Publishing. p.59-90. ISBN: 9783319678306.

Other Publications

Barber-James, H.M., Ferreira, I.S., de moor, F.C. and Mlambo, M.C.

Barber-James, H.M., Ferreira, I.S., de moor, F.C. and Mlambo, M.C. (2018) Freshwater invertebrate fauna of the upper Cubango River, Angola: preliminary findings from the May 2017 Expedition. In: *National Geographic Okavango Wilderness project, Wild Bird Trust, South Africa*. South Africa: Okavango Wilderness Project.

de Moor, F.C.

Rivers-Moore, N.A., Dallas, H.F., **de moor, F.C.** and Barendse, J. (2018) Towards assessing impacts of alien plant infestations on river systems in the southern cape using cost-benefit analyses. In: *Water Research Commission Report No. 2264/1/15*. South Africa: WRC.

Ferreira, I.S., Barber-James, H.M. and de moor, F.C.

Ferreira, I.S., Barber-James, H.M. and de moor, F.C. (2018) Species lists of Mayflies (*Ephemeroptera*), Caddisflies (*Trichoptera*) and Blackflies (*Diptera: Simuliidae*) from the source lakes and upper reaches of various rivers in the Eastern Angola, Moxico province (with 24 colour images). In: *National Geographic Okavango Wilderness project, Wild Bird Trust, South Africa*. South Africa: Okavango Wilderness Project.

Gess, R.W.

Gess, R.W. (2018). First tetrapods of Africa lived within the Devonian Antarctic. *Geobulletin*: 61:3. 28-31. <http://anyflip.com/cipj/zmof/>

Gess, R.W. (2018). Fossil find offers first evidence of four-legged aquatic ancestors in Africa. *The Conversation*. June 8, 2018.

Matiwane, A. and Prevec, R.

Matiwane, A. and Prevec, R. Plant fossils have a lot to teach us about Earth's history. *The Conversation*. March 08. <https://theconversation.com>.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bellingan, T.A.

Avidon, S., Shelton, J.M., Marr, S.M., Bellingan, T.A., Esler, K.J. and Weyl, O.L.F. (2018) Preliminary evaluation of non-native rainbow trout (*Oncorhynchus mykiss*) impact on the Cederberg ghost frog (*Heleophryne depressa*) in South Africa's Cape Fold Ecoregion. *African Journal of Aquatic Science*. 43 (3). p.313-318.

Cimi, P.V.

Cimi, P.V. and Campbell, E.E. (2017) An Investigation of Medicinal and Cultural Use of Plants by Grahamstown Community Members in the Eastern Cape Province South Africa. *South African Museums Association Bulletin (SAMAB)*. 39 (2017). p.1-9.

de Moor, F.C.

Rivers-Moore, N.A., Dallas, H.F., de moor, F.C. and Barendse, J. (2018) Relationships of water temperature and aquatic macroinvertebrate community structure with non-native riparian plant densities in the southern Cape, South Africa. *African Journal of Aquatic Science*. 43 (3). p.215-227.

Dold, A.P.

Martinez-Azorin, M.B., Crespo, M.B., Alonso-Vargas, M.A., Dold, A.P., Pinter, M. and Wetschnig, W. (2018) Austronea (*Asparagaceae*, *Scilloideae*), a new genus from southern Africa, including the description of seven new species. *Phytotaxa*. 365 (2). p.101-129.

Gess, R.W.

Prestianni, C. and Gess, R.W. (2018) *Rinistachya hilleri* gen. et sp. nov. (Sphenophyllales), from the upper Devonian of South Africa. *Organisms Diversity & Evolution*. 2018. p.1-11.

Gess, R.W. and Ahlberg, P.E. (2018) A tetrapod fauna from within the Devonian Antarctic Circle. *Science*. 360 (2018). p.1120-1124.

Gess, R.W. and Prestianni, C. (2018) *Kowieria alveoformis* gen. nov. sp. nov., a new heterosporous lycophyte from the Latest Devonian of Southern Africa. *Review of Palaeobotany and Palynology*. 249 (2018). p.1-8.

Mlambo, M.C.

Datry, T., Foulquier, A., Corti, R., von Schiller, D., Tockner, K., Mendoza-Lera, C., Clement, J.C., Gessner, M.O., Moleon, M., Mlambo, M.C. and et al. (2018) A global analysis of terrestrial plant litter dynamics in non-perennial waterways. *Nature Geoscience*. 11 (2018). p.497-503.

Mlambo, M.C., Holland, A.J. and Barber-James, H.M.

Bird, M.S., Mlambo, M.C., Wasserman, R.J., Dalu, T., Holland, A.J., Day, J.A., Villet, M.H., Bilton, D.T., Barber-James, H.M. and Brendonck, L. (2018) Deeper knowledge of shallow waters: reviewing the invertebrate fauna of southern African temporary wetlands. *Hydrobiologia*. 2018. p.1-33.

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

Barber-James, H.M.

Barber-James, H.M., Hamer, M. and Ribeiro, S. The role of the Natural Science Collections Facility (NSCF) in supporting museum collections in South Africa. *2018 SAMA National Conference*



Left to right: Professor Bruce Rubidge (Wits), Dr Robert Gess, Minister Kubayi-Ngubane, Mr Manzi Vabaza and Rev Linda Dyani, holding the silhouette of the tetrapods *Umzantsia* and *Tutusius* at a press release for Dr Gess's *Science* paper. Credit: Albany Museum

'Hyperconnected Museums: New Approaches, New Publics'. National English Literary Museum, Makhanda (Grahamstown). South Africa. October 2018.

Barber-James, H.M., de moor, F.C. and Ferreira, I.S.

Barber-James, H.M., de moor, F.C. and Ferreira, I.S. Mayflies and caddisflies in the mists of time - a glimpse into patterns and processes revealed by studies of mayflies and caddisflies in headwater streams in Angola. *Refugia and Biodiversity Hotspots: Is the Past Key to the Present? A Symposium at the Natural History Museum*. Natural History Museum, Neil Chalmers Lecture Theatre, London. United Kingdom. December 2018.

Barber-James, H.M., Holland, A.J. and Sithole, H.

Barber-James, H.M., Holland, A.J. and Sithole, H. The use of *Ephemeroptera* in assessing ecological changes in the rivers of the Kruger National Park, South Africa. *Joint XV International Conference on Ephemeroptera, XIX International Symposium on Plecoptera*. Aracruz. Brazil. June 2018.

Barber-James, H.M., Holland, A.J. and Sithole, H. A synthesis of spatial and temporal changes in aquatic macroinvertebrate species diversity in the Kruger National Park Rivers, relating to biomonitoring and river management. *16th Savanna Science Network Meeting*. Mdluli Conference Centre, Skukuza. South Africa. March 2018.

Bellingan, T.A., Holland, A.J., Barber-James, H.M., Mlambo, M.C. and Prevec, R.

Bellingan, T.A., Holland, A.J., Barber-James, H.M., Mlambo, M.C. and Prevec, R. Foundational biodiversity in Entomology at the Albany Museum - collecting dust? *Joint Biodiversity Information Management Forum (BIMF) and Foundational Biodiversity Information Programme (FBIP) Forum*. Cape St Francis Resort, Eastern Cape. South Africa. August 2018.

Cawood, R., Moyo, S., Prevec, R.

Cawood, R., Moyo, S., Prevec, R. and Nel, A. Palaeoenvironmental reconstruction of middle Permian ecosystems, inferred from insect fossils of ice crawlers (*Grylloblattodea*) from the Onder Karoo, South Africa. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Cimi, P.V.

Cimi, P.V. The role of Ethnobotany in integrating Indigenous Knowledge in the science education discipline. *South African*

PUBLICATIONS

Association of Botanists (SAAB) 44th Annual Conference. University of Pretoria, Pretoria. South Africa. January 2018.

Davids, L., Prevec, R., Matiwane, A.

Davids, L., Prevec, R., Matiwane, A. and Nel, A. Insect fauna and associated plant-insect interactions at the Ouberg Pass and Onder Karoo locality: implications for the evolution of insect utilization of plants in the middle Permian of the Karoo Basin of South Africa. *20th Biennial conference of the Palaeontological Society of Southern Africa.* Bloemfontein. South Africa. July 2018.

de moor, F.C.

McIlleron, W.G. and **de Moor, F.C.** Development of new techniques for improving resolution and visual information on flight activity in *Trichoptera*. *16th International Symposium on Trichoptera.* Prince of Songkla University, Surat Thani Campus, Surat Thani. Thailand. June 2018.

de moor, F.C. and Ferreira, I.S.

de moor, F.C. and Ferreira, I.S. Preliminary report on *Trichoptera* from the headwaters of the Cuanavale, Quembo and Cuando Rivers in Angola. *16th International Symposium on Trichoptera.* Prince of Songkla University, Surat Thani Campus, Surat Thani. Thailand. June 2018.

Ferreira, I.S. and Barber-James, H.M.

Ferreira, I.S. and Barber-James, H.M. The *Ephemeroptera* of Angola - a glimpse into uncharted waters. *Joint XV International Conference on Ephemeroptera, XIX International Symposium on Plecoptera.* Aracruz. Brazil. June 2018.

Ferreira, I.S. and Barber-James, H.M. Status of southern African *Leptophlebiidae* (Ephemeroptera) systematics and current research developments. *Joint XV International Conference on Ephemeroptera, XIX International Symposium on Plecoptera.* Aracruz. Brazil. June 2018.

Ferreira, I.S., Barber-James, H.M., de moor, F.C. and Mlambo, M.C.

Ferreira, I.S., Barber-James, H.M., de moor, F.C. and Mlambo, M.C. Freshwater invertebrate fauna of south-eastern Angolan source-lakes and upland rivers, with mayflies, caddisflies and blackflies as the focus. *Okavango Wilderness Symposium.* Cape Town. South Africa. January 2018.

Gess, R.W.

Harris, C. and **Gess, R.W.** *Archaeopteris*, the earliest tree in South Africa. *5th International Palaeontology Conference.* Paris. France. July 2018.

Harris, C. and **Gess, R.W.** New information on *Archaeopteris notosaria* - southern Africa's earliest known tree from the Upper Devonian (Famennian). *20th Biennial Conference of the Palaeontological Society of Southern Africa.* Bloemfontein. South Africa. July 2018.

Gess, R.W. New clues to the origin of tetrapods from the South African Upper Devonian. *20th Biennial Conference of the Palaeontological Society of Southern Africa.* Bloemfontein. South Africa. July 2018.

Gess, R.W. Africa's Earliest Four-Legged Animals by 80 million Years, the World's Only Known High Latitude Devonian Tetrapods: Communicating an Exciting Discovery in the Contemporary Communications Environment. *2018 SAMA National Conference 'Hyperconnected Museums: New Approaches, New Publics'.* National English Literary Museum, Makhanda (Grahamstown). South Africa. October 2018.

Harris, C. and **Gess, R.W.** A monotaxic brachiopod bed provides information on palaeoenvironments in the Upper Devonian Witpoort Formation Witteberg Group, Cape Supergroup, South Africa. *5th International Palaeontology Conference.* Paris. France. July 2018.



Dr Ferdy de Moor (right) shows a local Angolan village leader the aquatic insects living in the stream supplying their village with water.
Credit: Helen James

PUBLICATIONS

Harris, C. and Gess, R.W., Rubidge, B.S. and Penn-Clarke, C. Coombs Hill: A new Devonian fossil bearing locality in the Witpoort Formation, Eastern Cape, South Africa. *20th Biennial Conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Kirkaldy, B.P., Prevec, R., Barber-James, H.M. and Holland, A.J.

Kirkaldy, B.P., Prevec, R., Barber-James, H.M. and Holland, A.J. The past meets the present: exploring the phylogenetics of extant Plecoptera of South Africa with reference to ancient middle Permian fossil forms from the Onder Karoo locality near Sutherland. *20th Conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Kirkaldy, B.P., Prevec, R., Barber-James, H.M., Holland, A.J. Kirkaldy, B.P., Prevec, R., Barber-James, H.M., Holland, A.J. and Nel, A. Exploring the biogeography and ecology of extant Plecoptera of South Africa with reference to ancient middle Permian fossil forms from the Onder Karoo locality. *Joint XV International Conference on Ephemeroptera, XIX International Symposium on Plecoptera*. Aracruz. Brazil. June 2018.

Matiwane, A. and Prevec, R.

Matiwane, A. and Prevec, R. A new approach to *Glossopteris* leaf taxonomy embracing morphometric analyses. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Matiwane, A. and Prevec, R. A new approach to *Glossopteris* leaf taxonomy embracing morphometric analyses. *The Fossil Week: the 5th International Palaeontological Congress*. Paris. France. July 2018.

Moyo, S., Prevec, R., Kirkaldy, B.P.

Moyo, S., Prevec, R., Kirkaldy, B.P. and Nel, A. Preliminary report on the first mid-Permian ecosystem from South Africa, as revealed by a new Lagerstätte near Sutherland, Northern Cape. *The Fossil Week: the 5th International Palaeontological Congress*. Paris. France. July 2018.

Moyo, S., Prevec, R., and Matiwane, A.

Moyo, S., Prevec, R., Matiwane, A., Nel, A., Garrouste, R. and Day, M.O. Preliminary report on the first mid-Permian ecosystem from South Africa, as revealed by a new Lagerstätte near Sutherland, Northern Cape. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Pereira Da Conceicao, L.L. and Barber-James, H.M.

Price, B.W., Pereira Da Conceicao, L.L. and Barber-James, H.M. SAFFMAP. Southern African Forest Fauna Molecular Assessment Programme. *Refugia and Biodiversity Hotspots: Is the Past Key to the Present? A Symposium*. Natural History Museum, Neil Chalmers Lecture Theatre, London. United Kingdom. December 2018.

Price, B.W., Pereira Da Conceicao, L.L. and Barber-James, H.M. SAFFMAP. Southern African Forest Fauna Molecular Assessment Programme. *DNAqua-Net, Working Group 3, CIBIO*. Porto. Portugal. December 2018.

Prevec, R. and Gess, R.W.

McKay, I., Mudau, M., Prevec, R., Gess, R.W. and Harris, C. Collaborative palaeosciences engagement: Grahamstown Science Festival as a case study. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Prevec, R. and Matiwane, A.

Prevec, R. and Matiwane, A. A missing link in *Glossopteris* evolution: new species of Lidgettonia from a middle Permian Lagerstätte in South Africa. *The Fossil Week: the 5th International Palaeontological Congress*. Paris. France. July 2018.

Prevec, R. and Matiwane, A. A missing link in *Glossopteris* evolution: new species of Lidgettonia from a middle Permian Lagerstätte in South Africa. *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Zozo, E., Moyo, S., Bellingan, T.A. and Prevec, R.

Zozo, E., Nel, A., Garrouste, R., Moyo, S., Bellingan, T.A., Villet, M.H. and Prevec, R. Phylogenetic relationships of the Permian 'cicada-like' family *Pereboriidae* (Insecta: Hemiptera: Pereborioidea). *20th Biennial conference of the Palaeontological Society of Southern Africa*. Bloemfontein. South Africa. July 2018.

Institute for Environmental Biotechnology, Rhodes University (EBRU)



Credit: Snow Harris

Professor Ashton Keith Cowan
Director

Institute for Environmental Biotechnology, Rhodes University (EBRU) targets research and development in environmental biotechnology at the interface between the fundamental and applied sciences.

Environmental biotechnology is defined as the branch of biotechnology that addresses environmental problems, such as the removal of pollution, renewable energy generation, biomass production, by exploiting biological processes (Nature.com 2018). As such, environmental biotechnology may be regarded as the cornerstone of a circular economy which, is an economic system aimed at minimising waste and making the most of resources. Rather than the more traditional 'take, make, waste' model of production, environmental biotechnology has a regenerative approach to resources. Focus areas thus include: wastewater treatment and beneficiation, renewable energy derivation and implementation (e.g. biomass-to-biogas), biological systems; land rehabilitation and decontamination technology (e.g. post-mining, hydrocarbon spillages, etc.), natural products, agricultural, and microalgae biotechnology.

Basic activities are supported by a strong emphasis on technology transfer from laboratory to full-scale commercial/industrial process application and implementation. In brief, use of natural products/microbes to perform industrially important tasks in an environmentally sustainable way is the focus of attention.

Potable water is a scarce resource in many parts of the world and there is increasing pressure on food production systems. Also, increasing pressure is being exerted to obtain energy from sources other than fossil fuels. At EBRU, we have been exploring integration of microalgae-based bioprocess technologies to achieve wastewater treatment, water recycle and re-use, energy production, and biomass utilisation. Efforts to establish a fully operational solar-driven microalgae bio-refinery for use not only in wastewater remediation but to transform waste and biomass to energy, fuels, and other useful materials (valorisation), with particular focus on environmental quality and sustainability goals remains challenging.



PhD candidate, Keshy Keshinro harvesting root exudate from maize seedlings.
Credit: EBRU

Postgraduates / Graduations

Six (6) Postgraduate students were registered at EBRU for higher degrees in Environmental Biotechnology in 2018 - two (2) PhD and four (4) MSc.

In addition, **Dr Yinka Titilawo** joined EBRU as a recipient of a prestigious Rhodes University Postdoctoral Research Fellowship (2018-2019). Dr Titilawo brings substantial experience in the area of molecular biology and broader aspects of microbiology and chemistry with training in molecular characterization of bacterial/fungal biocatalysts. More broadly his area of expertise intersects with EBRU's core mandate, including: wastewater treatment, enzymology, multi-drug resistance, natural products, microbial cultivation and beneficiation.

Significant Research Aligned Events

Collaboration between EBRU and the consortium ReNEWal (Recycling Nutrients, Energy & Water via Algae with partners from Sweden: Umeå University,

UmU & Swedish University of Agricultural Science, SLU; and Norway: Norwegian Institute for Water Research, NIVA) continues. The consortium seeks to elaborate a bioprocess for provision of safe and affordable water for all.

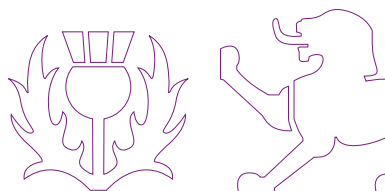


First and second contacting rotators in series for mine water treatment at Middleburg, Mpumalanga - TIA project in collaboration with UBA Biologix.

Credit: EBRU

PUBLICATIONS

Institute for
Environmental
Biotechnology Rhodes
University (EBRU)



Patents

Cowan, A.K., Edeki, O.G., Igbinigie, E.E. and Isaacs, M.

Cowan, A.K., Edeki, O.G., Igbinigie, E.E. and Isaacs, M. (2018) *Treatment of a hydrocarbon component*. South Africa. 2018. RSA 2017/07232.

Cowan, A.K., Edeki, O.G., Madikiza, L., Sekhohola, L.M. and Isaacs, M.

Cowan, A.K., Edeki, O.G., Madikiza, L., Sekhohola, L.M. and Isaacs, M. (2018) *Treatment of a coal component*. South African Patent Number. South Africa. 2018. RSA 2017/07229.

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

Masudi, W.L.

Masudi, W.L. Migration and cultural interactions in Africa; virtues or dangers? Dialogue, Differences and Transgressions. *25th International Congress of the Association of French Studies in Southern Africa*. School of Languages, Rhodes University, Grahamstown. South Africa. July 2018.



PhD candidate, Taobat Jimoh isolating extracellular polymeric from algal strains.

Credit: EBRU

Institute for the Study of the Englishes of Africa (ISEA)



Credit: Snow Harris

Professor Monica Hendricks
Director

The period of January to December 2018 was stand-out year for the Institute for the Study of the Englishes of Africa (ISEA) staff members and Research Associate, Dr Brian Willan.

In an exceptionally productive year, Dr Willan launched his revised monograph, *Sol Plaatje: A Life of Solomon Tshekisho Plaatje 1876-1932*, at various centres in South Africa. He also published a chapter in *Illuminating Lives: biographies of fascinating people from South African history*. The highlight was winning the prestigious 2018 National Institute for the Humanities and Social Sciences Award for Best Non-Fiction Edited Volume, together with co-editors Janet Remington and Bhekizizwe Peterson, for *Sol Plaatje's Native Life in South Africa: Past and Present*.

With regard to undergraduates, a new cohort of BEd in English Language Teaching (ELT) students began their first year in April 2018. Twenty-Eight (28) are from the John Taole Gaetsewe and ZF Mgcawu districts in the Northern Cape, funded by the Sishen Iron Ore Company Community Development Trust. There are also four (4) self-funded students from the Eastern and Western Cape. The postgraduates are seven (7) MEd students and two (2) Doctoral candidates registered for part-time studies in education being supervised and co-supervised by Professor Hendricks, Dr Mawela, Professor Mbelani, and Ms McCarthy. In addition, Dr Mawela is co-supervising three (3) MEd students and one (1) Doctoral candidate with Professor Mgwashu.

Nine (9) full-time and thirteen (13) part-time students registered for the MA in Creative Writing (MACW) in 2018. MACW staff member Stacy Hardy was shortlisted for the 2018 Caine Prize for African Writing, an annual literary award for the best original short story by an African writer. She travelled to London to participate in workshops, readings and meetings with publishers. Demonstrating her creative range, Stacy Hardy's play, *Museum of Lungs*, created in collaboration with musicians and composers Neo Muyanga (South Africa) and Nancy Mounir (Egypt), and director Laila Soliman (Egypt), premiered at the Market Theatre in Johannesburg (September, 2018) before an extensive two (2) month European tour (Switzerland, Belgium, Germany and France), culminating with performances in Egypt.



The executive members of the Eastern Cape English Educators' Association holding the 2018 conference banner.
Credit: ISEA

A musical and poetic biographical performance that explores vulnerability as a core of strength, and illness as a site of resistance and transformation, the play has received excellent responses and very good reviews in the media.

Other MACW colleagues' achievements include **Paul Wessels** receiving a CATALyst Certificate, while **Mxolisi Nyezwa** and **Mangaliso Buzani** organised a successful three (3) day Phulaphulani writing workshop, 04-06 July 2018, for isiXhosa writers in Grahamstown attended by twenty (20) participants. The workshop was conducted under the auspices of the Imbizo Arts programme, with logistical support from the MACW. Three (3) current full-time MACW students also participated in the workshop.

The MACW hosted a record four (4) writers and scholars thanks to the Andrew W. Mellon Foundation-funded programme: the Writers-in-Residence programme welcomed Efemia Chela, Dr Tinashe Mushakavanhu, and Mlindelwa Mralatya, while Professor Alan Ziegler was the Scholar-in-Residence.

Warm congratulations also to **Dr Hleze Kunju** who was the recipient of numerous awards in 2018: the Golden Key International Honour Society, *Mail & Guardian* Top 200 Inspirational Young South Africans, the MEC's 'Excellence Recognition Special Award' at the Eastern Cape Department of Sports, Recreation, Arts and Culture Awards, and the Runner-up in the Golden Shield Heritage Awards for Academic Excellence.

From January 2019, the MACW will be located in the School of Languages and Literatures. While we are sad at the departure of this stellar course, initiated and offered in the ISEA since 2011, we are very pleased that the course leaves with a large, generous grant from the Andrew W. Mellon Foundation which will ensure that it can build on its enviable track record. We wish all concerned the very best in their new location and intellectual home.

Postgraduates / Graduations

The MACW graduated eighteen (18) students in April, nine (9) with distinctions. The BEd in ELT graduated thirty-seven (37) students: twenty-eight (28) were teachers from the John Taole Gaetsewe district in the Northern Cape, funded by the Sishen Iron Ore Company Community Development Trust, and twelve (12) were English teachers and Subject Advisers, funded by the Eastern Cape Provincial Basic Education Department. Six (6) graduated with distinction, three (3) each from the Northern and Eastern Cape.

During this ceremony, **Rejoice Mawela** was awarded her Doctorate titled "Using reading to learn pedagogy to enhance the English first additional language teachers' classroom practice".

Distinguished Visitors / International Visits

- Professor Logan Athiemoolam, Nelson Mandela University.
- Romeo Mafa Bavuma, Umhlobo Wenene.
- Efemia Chela.
- Angela Govender, British Council.
- Kevin McCaughey, Regional English Language Office, U.S. Embassy, Pretoria.
- Heziwell Mhunduru, Rössing Foundation, Windhoek.
- Dr Nhlanhla Mpofu, Sol Plaatje University.
- Mlindelwa Mralatya (popularly known as Nkunj' Emdaka).
- Dr Tinashe Mushakavanhu.
- Ongama Mtimka, Nelson Mandela University.
- Professor Raymond Sangabau, University of Kinshasa.
- Dr Brian Willan.
- Professor Alan Ziegler, Columbia University.

ISEA staff international academic engagements

Professor Monica Hendricks was awarded a ten (10) day study exchange programme by the US State Department to visit schools in the United States of America and attend the International TESOL conference in Chicago, 21-31 March 2018.

Dr Rejoice Mawela presented "The Reading to Learn Pedagogic Approach: A solution to the Literacy Crisis in Rural Classrooms", at the Africa TESOL 3rd International Conference, Dakar, Senegal, 4-6 May 2018.

Significant Research Aligned Events

The ISEA, together with the Eastern Cape English Educators' Association, hosted the 6th biennial Networking teachers' conference, 10-12 July 2018, with the theme of "Teaching literature for understanding to young children and adolescents".

The MACW public reading, performance and discussion on 18-19 July 2018 which brought together three (3) Andrew W. Mellon Foundation-funded scholars and cultural practitioners, Professor

Alan Ziegler, Dr Tinashe Mushakavanhu and Nkunz' Emdaka, was a memorable affair.

Research Associate Dr Brian Willan launched his revised book, *Sol Plaatje: A Life of Solomon Tshekisho Plaatje 1876-1932*, at NELM in Grahamstown, on 9 October 2018 on the anniversary of Plaatje's birthday, with Professor Jeff Peires as discussant.

Carol Leff was awarded an National Research Foundation (NRF) doctoral completion scholarship for six (6) months sabbatical leave, July-December 2018. We gratefully acknowledge Deputy Vice Chancellor (DVC): Research and Development, Dr Clayton and Professor Martin, the Dean of Humanities, for additional financial support.

Volume thirty (30) of the journal *Shakespeare in Southern Africa*, published in print and online in January, was a special volume on the theme of "Decolonising Shakespeare: Contestations and re-imaginings for a post-liberation South Africa". The volume emerged from the *Decolonising Shakespeare conference* held at University of KwaZulu-Natal, Howard Campus in October 2016, and included ten (10) articles/essays and three (3) reviews.

Wednesday, 18 July 11:00-12:30 NELM 25a Worcester Street	Wednesday Lwesithathu, 18 July 18:00 ILAM Rhodes University	Thursday, 19 July 14:00 NELM 25a Worcester Street
TEACHING CREATIVE WRITING WORKSHOP	CREATIVE COMPOSITION	DISCOVERING DAMBUDZO MARECHERA
		
PROF ALAN ZIEGLER Director of Pedagogy Columbia University, New York Current Scholar in Residence	NKUNZ' EMDAKA Masikhandi Music Founding Father Current Writer in Residence	DR TINASHE MUSHAKAVANHU Writer Journalist Scholar Current Writer in Residence
PRESENTED BY THE MA IN CREATIVE WRITING PROGRAMME RHODES UNIVERSITY With thanks to the National English Literary Museum (NELM) & the International Library of African Music (ILAM)		

Poster for MACW's Writers-in-Residence Seminar Series

Credit: Snow Harris

PUBLICATIONS

Institute for the Study
of the Englishes of
Africa (ISEA)



Books/Chapters/Monographs

Hendricks, M.

Kota, Z., Hendricks, M., Matambo, E. and Naidoo, V. (2018) Provincial Governance of Education - The Eastern Cape Experience. In: Levy, B., Cameron, R. and Hoadley, U. (eds.). *The Politics and Governance of Basic Education: A Tale of Two South African Provinces*. New York: Oxford University Press. p.121-148. ISBN: 9780198824053.

Hendricks, M. and Fulani, N.C.

Hendricks, M. and Fulani, N.C. (2018) Challenging the Quiet Violence of a Powerful Language: Translanguaging Towards Transformative Teaching in South African Universities. In: Choi, J. and Ollerhead, S. (eds.). *Plurilingualism in Teaching and Learning: Complexities Across Contexts*. London: Routledge. p.201-219. ISBN: 9781138228474.

Mbelani, M.

Nkomo, S.A. and Mbelani, M. (2018) Transforming educational inequality through a responsive reading programme: Exploring innovative literacy practices in two Grade 3 classes. In: Nomlomo, V., Desai, Z. and September, J. (eds.). *From Words to ideas: The role of literacy in enhancing young children's development*. Cape Town: University of the Western Cape, Faculty of Education and British Council South Africa. p.52-69. ISBN: 9780620809030.

Concerts, Exhibitions, Performances, Workshops, Events

Mann, C.M.

Mann, C.M. Poet, singer songwriter, performer. Gijimani: the spirit of the Comrades Marathon. *poetry and music video on internet*. facebook.com/fafahopkins1/, Grahamstown-Makhanda. South Africa. 1 January 2018.

Mann, C.M. Poet, singer songwriter, performer. Reconciliation Within. *Poetry-based seminar*. Coventry Cathedral, Coventry. United Kingdom. 27 September 2018.

Mann, C.M. Poet, singer songwriter, performer. Walking on Gravity. *Play-in-verse*. Winchester Cathedral educational centre, Winchester. United Kingdom. 1 - 20 October 2018.

Mann, C.M. Poet, singer songwriter, performer. Epiphanies. *Devotional poetry*. St Edmund Hall, Oxford. United Kingdom. 22 October 2018.

Mann, C.M. Poet, singer songwriter, performer. Epiphanies. *Devotional poetry*. St Lawrence Church, Winchester. United Kingdom. 11 October 2018.

Mann, C.M. Poet, singer songwriter, performer. Epiphanies. *Devotional poetry*. Tyndale House, Cambridge. United Kingdom. 1 - 24 September 2018.

Mann, C.M. Poet, singer songwriter, performer. Domestic Canticles. *Poetry performance*. Cathedral, Grahamstown-Makhanda. South Africa. 28 June - 6 July 2018.

Other Publications

Leff, C.

Leff, C. (2018) Ashes. In: Skinner, D.R. and Schonstein, P. (eds.). *Ashes*. 13th Ed. Cape Town: African Sun Press.

Mann, C.M.

Mann, C.M. (2018) Poem for performance and newspapers. In: *Small Town Springtime Berg Wind Blues*.

Mann, C.M. (2018) The Magic of Motse. In: *The Magic of Motse*.

Mann, C.M. (2018) Bedtime Story. In: Chapman, M. (ed.). *Bedtime Story*.

Mann, C.M. (2018) Two Words of Wisdom. In: Chapman, C. (ed.). *Two Words of Wisdom*.

Mann, C.M. (2018) Overseas Visitor. In: Chapman, C. (ed.). *Overseas Visitor*.

Peer Reviewed Subsidy-Earning Journal Research Publications

- Asfour, F.
Oluwole, D.O., Achadu, O.J., Asfour, F., Chakona, G., Mason, P., Mataruse, P. and McKenna, S. (2018) Postgraduate Writing Groups as Spaces of Agency Development. *South African Journal of Higher Education*. 32 (6). p.370-381.
- Berold, R.
Berold, R. (2018) The Sound of Reading. *English in Africa*. 45 (2). p.29-39.
- Buzani, M.W.
Buzani, M.W. (2018) Form and Structure: Using Poems to Teach the Writing of Lyrical Poetry. *English in Africa*. 45 (2). p.41-50.
- Hardy, S.
Hardy, S. (2018) Indecent Exposure - Writing Violence and Resistance Today. *English in Africa*. 45 (2). p.51-65.
- Mann, C.M.
Mann, C.M. (2018) Released: a poem to Christ after an asthma attack. *Literator: Journal of Literary Criticism, Comparative Linguistics and Literary Studies*. 40 (1). p.1.

- Mnyanda, L. and Mbelani, M.
Mnyanda, L. and Mbelani, M. (2018) Are we teaching critical digital literacy? Grade 9 learners' practices of digital communication. *Reading and Writing*. 9 (1). p.1-9.
- Nkomo, S.A.
Nkomo, S.A. (2018) Grade 3 learners' imagined identities as readers revealed through their drawings. *Reading and Writing*. 9 (1). p.1-9.
- Wessels, P.
Wessels, P. (2018) Introduction: On (still) Rediscovering the Ordinary. *English in Africa*. 45 (2). p.13-16.
- Wessels, P. (2018) Finding the Bird in the Bush, or, "the material that appears": Rethinking the 'Creative' in Teaching 'Creative Writing'. *English in Africa*. 45 (2). p.107-115.



Dr Hleze Kunju was the recipient of numerous awards in 2018: the Golden Key International Honour Society, Mail & Guardian Top 200 Inspirational Young South Africans, the MEC's 'Excellence Recognition Special Award' at the Eastern Cape Department of Sports, Recreation, Arts and Culture Awards, and the Runner-up in the Golden Shield Heritage Awards for Academic Excellence.

Credit: Rhodes University Communication and Advancement Division

PUBLICATIONS

Books/Chapters/Monographs

Adebanwi, W.

Adebanwi, W. (2018) Coloring Rainbow Streets: The Struggle for Toponymic Multiracialism in Urban Post-Apartheid South Africa. In: Rose-Redwood, R., Alderman, D. and Azaryahu, M. (eds.). *The Political Life of Urban Streetscapes: Naming, Politics, and Place*. London: Routledge. p.218-239. ISBN: 9781317020707.

Fine, B.

Fine, B. (2018) In and Against Orthodoxy: Teaching Economics in the Neoliberal Era. In: Decker, S., Elsner, W. and Flechtner, S. (eds.). *Advancing Pluralism in Teaching Economics: International Perspectives on a Textbook Science*. London: Routledge. p.78-94. ISBN: 9781138037625.

Fine, B. and Pollen, G. (2018) The Developmental State Paradigm in the age of financialization. In: Fagan, G.H. and Munck, R. (eds.). *Handbook on Development and Social Change*. UK: Edward Elgar Publishing Limited. p.211-227. ISBN: 9781786431547.

Fine, B., Bayliss, K. and Robertson, M. (2018) The Systems of Provision Approach to Understanding Consumption. In: Kravets, O., Maclaran, P., Miles, S. and Venkatesh, A. (eds.). *The SAGE Handbook of Consumer Culture*. UK: SAGE Publications Ltd. p.27-42. ISBN: 9781473929517.

Fine, B. (ed.) (2018) *Material Cultures of Financialisation*. London: Routledge. ISBN: 9781138549777.

Moller, V.

Barrientos, A., Moller, V., Saboia, J., Lloyd-Sherlock, P. and Mase, J. (2018) Ageing, wellbeing and development: Brazil and South Africa. In: Walker, A. (ed.). *The New Dynamics of Ageing: Volume 1. Bristol: The Policy Press*. p.307-324. ISBN: 9781447314721.

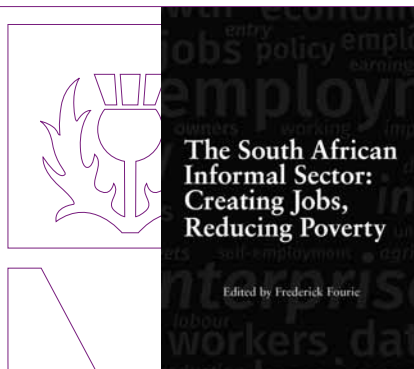
Reynolds, J.

Reynolds, J. (2018) *Development Planning in South Africa: Provincial Policy and State Power in the Eastern Cape*. UK: Zed Books. ISBN: 9781786991645.

Rogan, M.

Rogan, M. and Skinner, C. (2018) The size and structure of the South African informal sector 2008-2014: a labour-force analysis. In: Fourie, F. (ed.). *The South African Informal Sector: Creating Jobs, Reducing Poverty*. Cape Town: HSRC Press. p.77-102. ISBN: 9780796925343.

Cichello, P. and Rogan, M. (2018) Informal sector employment and poverty reduction in South Africa: the contribution of 'informal' sources of income. In: Fourie, F. (ed.). *The South African Informal Sector: Creating Jobs, Reducing Poverty*. Cape Town: HSRC Press. p.226-252. ISBN: 9780796925343.



Other Publications

Fine, B.

Fine, B. (2018) Verdadero Capital Social e Institucionalización del Desarrollo Basado en la Guerra. In: *Desarraigos, Saqueos y Resistencias: Tres Décadas, Otras Miradas*. Bogotá: Universidad de San Buenaventura.

Haynes, D.R. and Cocks, M.L.

Haynes, D.R., Cocks, M.L. and Shackleton, C.M. (2018) Biocultural features of urban gardens and yards enhance place-making and belonging in South African townships. In: Maffi, L. (ed.). *Langscape*. Salt Spring Island, Canada: Terralingua publication.

Moller, V.

Moller, V. and Roberts, B.J. (2018) In: *Online Appendix: The Best and Worst Times of Life for South Africans: Evidence of universal reference standards in evaluations of personal well-being using Bernheim's ACSA* (<http://hdl.handle.net/10962/67024>). Grahamstown, South Africa: ISER, Rhodes University.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Fine, B.

Fine, B. (2018) Marxism and political economy: Reading Marx's Capital. *Theory & Struggle*. 119 (2018). p.6-13.

Peer Reviewed Subsidy-Earning Journal Research Publications

Alfers, L.

Moussie, R. and **Alfers, L.** (2018) Women informal workers demand childcare: Shifting narratives on women's economic empowerment in Africa. *Agenda*. 114 (32.1). p.119-131.

Fine, B.

Fine, B. (2018) Collective Choice and Social Welfare: Economics Imperialism in Action and Inaction. *Ethics & Social Welfare*. 12 (4). p.393-399.

Karwowski, E., **Fine, B.** and Ashman, S. (2018) Introduction to the special section 'Financialization in South Africa'. *Competition and Change*. 22 (4). p.383-387.

Fine, B. and Saad-Filho, A. (2018) Marx 200: The Abiding Relevance of the Labour Theory of Value. *Review of political economy*. 30 (3). p.339-354.

Padayachee, V. and **Fine, B.** (2018) The role and influence of the IMF on economic policy in South Africa's transition to democracy: the 1993 Compensatory and Contingency Financing Facility revisited. *Review of African Political Economy*. 2018. p.1-11.

Hoffmann, N.

Hoffmann, N. (2018) Diagnosing neopatrimonialism: an interview with Thandika Mkandawire. *Journal of contemporary African studies*. 2018. p.1-4.

Moller, V.

Moller, V. (2018) Whatever Happened to Social Indicators in Africa? Whatever Happened Indeed! A Developing World Perspective on the Kenneth C. Land and Alex C. Michalos Report on 'Fifty Years After the Social Indicators Movement'. *Social Indicators Research*. 35 (2018). p.1009-1019.

Otterbach, S., Sousa-Poza, A. and **Moller, V.** (2018) A cohort analysis of subjective wellbeing and ageing: heading towards a midlife crisis? *Longitudinal and Life Course Studies* 29 (4). p.382-411.

Moller, V. and Roberts, B.J. (2018) The Best and Worst Times of Life for South Africans: Evidence of Universal Reference Standards in Evaluations of Personal Well-Being Using Bernheim's ACSA. *Social Indicators Research*. 2018. p.1-29.

Rogan, M.

Otterbach, S. and **Rogan, M.** (2018) Exploring spatial differences in the risk of child stunting: Evidence from a South African national panel survey. *Journal of Rural Studies*. 2018. p.1-14.

Posel, D. and **Rogan, M.** (2018) Inequality, Social Comparisons and Income Aspirations: Evidence from a Highly Unequal Country. *Journal of Human Development and Capabilities*. 2018. p.1-18.

Surender, R.

Zembe-Mkabile, W., **Surender, R.**, Sanders, D., Swart, R., Ramokolo, V., Wright, G. and Doherty, T. (2018) 'To be a woman is to make a plan': a qualitative study exploring mothers' experiences of the Child Support Grant in supporting children's diets and nutrition in South Africa. *BMJ Open*. 8 (e019376). p.1-11.



Credit: Snow Harris

Professor CG (Tally) Palmer
Director

The Institute for Water Research (IWR) has a long-standing national, continental and international reputation. In Africa, our reputation was grown through the Carnegie RISE Programme, (2008-2016), and we are now reaping the benefits and expanding and deepening our reach.

Dr Raphael Tshimanga, University of Kinshasa, is a research partner in the international CRuHM project, a large initiative to model the hydrology of the Congo River. This links to the most important IWR development in 2018: the recognition of the IWR as the African Research Universities' Alliance (ARUA) Water Centre of Excellence (CoE) host (<http://arua.org.za/arua-centre-of-excellence-coe-inwater/>), with **Professor Tally Palmer** as the Director of the CoE, and **Dr Jane Tanner** (IWR) and Professor Zerihun Woldu (University of Addis Ababa) as Co-Directors.

Rhodes University has invested in the Water CoE to support the ARUA initiative, and Professor Ernest Aryeetey has negotiated an ARUA partnership with the United Kingdom's Global Change Research Fund, so the CoE will have the opportunity of more than matching the University investment.

ARUA comprises sixteen (16) African Universities recognised as offering continental research leadership. The Vice Chancellors of the respective Universities founded the Alliance in 2015, and 2017 saw member Universities motivate to host the Centres of Excellence. The Water CoE node partners are: Rhodes University, Addis Ababa University, University of Dar es Salaam, Lagos University, University of Rwanda, Makerere University and University of Cape Town. The ARUA Water CoE has a research agenda related to the Sustainable Development Goals, and will be officially launched in the first half of 2019.

In another nationally publicised achievement, **Dr Mantel's** South African Rivers map was well received, with requests for a high-resolution map for professional use for Business Insider and a book on molluscs coming out next year. The Business Insider article on how the map came about can be read at the following link: <https://www.businessinsider.co.za/survey-to-figure-out-why-map-of-south-african-rivers-captivatespeople-2018-9>.



Rhodes University partners for the launch of the African Research Universities Alliance (ARUA) Centre of Excellence in Water recently awarded to the Institute for Water Research at Rhodes University.

Left to right (back row): Professor Serigne Faye (Cheikh Anta Diop Univ (UCAD), Senegal); Professor Joel Nobert (University of Dar es Salaam, Tanzania); Dr David Mfitumukiza (Makerere University, Uganda); Dr Venuste Nsgengimana (University of Rwanda, Rwanda); Dr Birame Christian Sekomo (University of Rwanda, Rwanda); Dr Kevin Winter (University of Cape Town, South Africa); Dr Deogratias Mulungu (University of Dar Es Salaam, Tanzania); Professor Alioune Kane (UCAD, Senegal); Dr Isa Kabenge (Makerere University, Uganda). Left to right (front row): Professor Noble Banadda (Makerere University, Uganda); Dr Jane Tanner (Centre of Excellence Co-Director, Rhodes University); Professor Ernest Aryeetey (Secretary General of ARUA); Professor Tally Palmer (Centre of Excellence Director, Rhodes University) and Dr Tena Alamirew (Addis Ababa University, Ethiopia).

Credit: IWR

Postgraduates / Graduations

The IWR had three (3) Doctoral, and five (5) Masters graduates in 2018: one (1) PhD and two (2) MSc's in Hydrology, and one (1) PhD and three (3) MSc's in Water Resource Science.

Seven (7) students successfully graduated with an Environmental Water Management Honours degree taking a majority of courses offered with the IWR. This innovative course was initiated with a foundational module on Adaptive Water Resource Management, included new specialist courses in Aquatic Ecology and Hydrology, and retained the long-standing Environmental Water Quality module.

Ms Ntombekhaya Mgaba, a Senior Technical Officer within the Unilever Centre for Environmental Water Quality (UCEWQ), was awarded the Rhodes University Thomas Alty and Vice-Chancellor's Award for 2018. The Thomas Alty Award is made to a member of staff who is awarded a Masters or PhD degree while in the service of the University. Ms Mgaba graduated with her Masters' degree in Water Resource Science.

Distinguished Visitors / International Visits

International partnerships have been deepened with Montpellier, Coventry and Sheffield Universities, and **Professor Jill Slinger** at the Delft University Technology continues to be an active partner.

PhD candidate, Mr Dennis Choruma, was selected to attend and present at the summer school on Sustainability in the Food-Water-Ecosystem Nexus jointly organised by Makerere University and University of Bonn. The summer school was a great opportunity for Mr Choruma to network and meet with fellow PhD candidates, Postdoctoral Research Fellow and senior academics in the field of sustainability research.

Dr Odume and Mr Dennis Choruma visited and spent two (2) weeks at the International Institute for Applied Systems Analysis (IIASA). They used the period to receive training on two (2) IIASA models: The Biogeochemistry BGC-MAN model and the Environmental Policy Integrated (EPIC) model. Mr Choruma is now able to apply these models to his PhD research project.

Dr Tanner was awarded a grant by the University of Montpellier to visit the IRSTEA Centre (National Research Institute of Science and Technology for Environment and Agriculture) in Toulouse, France. Dr Tanner will learn about agent based modelling, and discuss potential future collaboration with the Centre.

The hydrology group has been working with the University of Leeds on a project called CatchX which aimed to translate global hydrological data into easily downloadable information online. The IWR was responsible for testing the hydrological information which yielded some interesting results on commonly used global datasets.

Professor Eilon Adar from Ben Gurion University in Israel visited the IWR to give two (2) talks and assist MSc student, Ms Caitlin Smith, in her modelling work. Ms Smith is using a mixing cell model developed by Professor Adar for her MSc research. Professir Adar holds the Alain POHER Chair in Hydrogeology and Arid Zones and is one of Israel's leading researchers in water sources, use and technology.

PhD candidate Mr Pierre Kabuya presented his work on the Congo River Basin at the 3rd International Conference on African Large River Basin Hydrology



Emeritus Professor Chrissie Boughey (left) presenting the Thomas Alty and Vice-Chancellor Award to IWR MSc graduate, Ms Ntombekhaya Mgaba.

Credit: IWR

(ICALRBH) which was held in Algiers, Algeria from 06-09 May 2018. The conference hosted a special session on the CRuHM project, where Mr Kabuya, presented his work on the use of hydrological indices to constrain a rainfall - runoff model in the data scarce environment of the upper Congo River Basin.

Mr Pierre Kabuya and Mr Goda Bola attended the AGU/Chapman Conference on Hydrological Research in the Congo Basin held in Washington DC, United States of America from 25-27 September 2018. Mr Kabuya presented his work on the parameterisation of the hydrodynamic processes of the Kamalondo wetland systems in the upper Congo Basin, while Mr Bola presented on his research on constraining hydrological model outputs for the upper Kasai in the Congo Basin.

PhD candidate Mr David Gwapedza attended the 9th International Congress on Environmental Modelling and Software (IEMS) at Colorado State University Fort Collins, United States of America. Mr Gwapedza presented a paper titled 'Spatial scale issues associated with the application of the MUSLE'.

Significant Research-Aligned Events

Within Makhanda (Grahamstown), Doctoral candidate Mr Matthew Weaver, together with Ms Notiswa Libala and Ms Mateboho Ralekhetla, supported and provided leadership within the Makana Water Forum, which had increasing traction with the Department of Water and Sanitation and the Makana Local Municipality.

The UCEWQ welcomed **Dr Nnadozie** as a Postdoctoral Research Fellow. Dr Nnadozie is a Microbiologist by training, specialising in metagenomics and computational microbiology. Dr Nnadozie is working closely with Dr Odume to develop a research niche in microbial water quality within the Centre.

The national, DEA-funded, Tsitsa Project remained a strategic entry point for IWR and UCEWQ research to contribute to addressing critical sustainability challenges in South Africa. **Professor Tally Palmer** is the *Land and Water Governance Community of Practice* research leader, with a team of Postgraduate candidates and support staff, while UCEWQ research contributes to bio-physical understandings. The IWR is a thought and practice leader in the Tsitsa Project, and has participated in a number of

workshops and Science-Management meetings where ideas regarding the project are shaped.

Dr Gloria Ezenne joined the Hydrology group as a Postdoctoral Research Fellow from the University of Nigeria in April 2018. Dr Ezenne's expertise on evapotranspiration is assisting us in developing capacity within the IWR in the use of high-level field equipment that measures actual evapotranspiration and carbon fluxes. The high-technology instruments used in this research - a scintillometer and two eddy covariance systems, were secured from National Research Foundation (NRF) funding, by **Dr Tony Palmer** and **Dr Sukhmani Mantel**.

The Royal Society-DFID Africa Capacity Building Initiative CRuHM (Congo River User Hydraulic and Morphology) project continues to move forward. The project is a collaboration between the IWR; the University of Kinshasa in DRC; the University of Dar es Salaam in Tanzania; the University of Bristol and the University of Leeds in the United Kingdom. Annual field trips focusing on carrying out large scale hydraulic and geomorphological science research on the main navigable channels of the Congo River

are undertaken, with the aim of addressing the severe lack of basic scientific knowledge and understanding in these water engineering fields for the world's second largest river.

A sad farewell

It is with great sadness that we record the death of **Emeritus Professor Jay O'Keeffe**, a founding Director of the IWR. Professor O'Keeffe graduated with his PhD from Imperial College London, and joined Rhodes University in 1983 as a Postdoctoral Research Fellow in the then Institute for Freshwater Studies (IFWS), led at the time by Emeritus Professor Brian Allanson.

Professor O'Keeffe went on to become the Director of the IFWS, and in 1991, together with Emeritus Professor Denis Hughes, founded the IWR. Professor O'Keeffe was a charismatic pioneer of Environmental Flows science, and a fine academic with an extensive international reputation. Professor O'Keeffe will be remembered and missed.

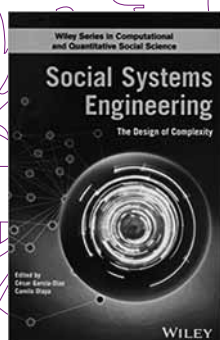
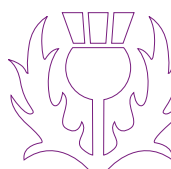


IWR Graduates celebrate with supervisors. From left to right: Dr Sukhmani Mantel (supervisor), Dr Onalena Gwate (PhD graduate), Ms Ntombekhaya Mgaba (MSc graduate), Dr Nelson Odume (supervisor), Mr Mzwanele Mkatali (Honours graduate), Dr Emmanuel Vellemu (PhD graduate) and Dr Paul Mensah (supervisor).

Credit: IWR

PUBLICATIONS

Institute for Water
Research (IWR)



Books/Chapters/Monographs

Clifford-Holmes, J.K., Slinger, J.H., De Wet, C. and Palmer, C.G.
Clifford-Holmes, J.K., Slinger, J.H., De Wet, C. and Palmer, C.G. (2018) Modelling in the 'Muddled Middle': A Case Study of Water Service Delivery in Post-Apartheid South Africa. In: Garcia-Diaz, C. and Olaya, C. (eds.). *Social Systems Engineering: The Design of Complexity*. Delft: Wiley. p.215-231. ISBN: 9781118974452.

Hughes, D.A.

Hughes, D.A. (2018) Environmental Flow Requirements Setting: Desktop Methods. In: Finlayson, C.M., Everard, M., Irvine, K., McInnes, R.J., Middleton, B.A., van Dam, A.A. and Davidson, N.C. (eds.). *The Wetland Book - : Structure and Function, Management, and Methods*. London: Springer. p.1825-1828. ISBN: 9789048134939.

Vellemu, E.

Umejesi, I., Thompson, M., Marcello, M. and Vellemu, E. (2018) Extract of Africa: Towards the Equitable and Ecologically Sound Governance of Mining and Drilling. In: Mensah, P., Katerere, D., Hachigonta, S. and Roodt, A. (eds.). *Systems Analysis Approach for Complex Global Challenges*. Switzerland: Springer International Publishing. p.63-88. ISBN: 9783319714851.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Gwapedza, D., Slaughter, A.R., Hughes, D.A. and Mantel, S.K.

Gwapedza, D., Slaughter, A.R., Hughes, D.A. and Mantel, S.K. (2018) Regionalising MUSLE factors for application to a data-scarce catchment. *Proceedings of the International Association of Hydrological Sciences*. 377 (2018). p.19-24.

Murata, C.

Murata, C., Perry, A. and Denison, J. (2018) Dynamics of Water Access and Allocation Among Competing Needs within the Homestead: Quantifying multiple water uses in Rural Eastern Cape. *Africanus: Journal of Development Studies*. 57 (2). p.1-29.

Mvandaba, V., Hughes, D.A. and Oosthuizen, N.

Mvandaba, V., Hughes, D.A., Kapangaziwiri, E., Kahinda, J.M. and Oosthuizen, N. (2018) Modelling of channel transmission loss processes in semi-arid catchments of southern Africa using the Pitman Model. *Proceedings of the International Association of Hydrological Sciences*. 378 (2018). p.17-22.

Odume, O.N.

Arimoro, F.O., Uku, J.E. and Odume, O.N. (2018) Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions: Proceedings of Euro-Mediterranean Conference for Environmental Integration (EMCEI-1), Tunisia 2017 - *Effects of Petroleum Pollution in Niger Delta Wetlands: Interplay Between the Social and Ecological Systems*. *Advances in Science, Technology & Innovation*. I & II (2018). p.151-152.

Oosthuizen, N., Hughes, D.A. and Mvandaba, V.

Oosthuizen, N., Hughes, D.A., Kapangaziwiri, E., Kahinda, J.M. and Mvandaba, V. (2018) Parameter and input data uncertainty estimation for the assessment of water resources in two sub-basins of the Limpopo River Basin. *Proceedings of the International Association of Hydrological Sciences*. 378 (2018). p.11-16.

Slaughter, A.R. and Mantel, S.K.

Slaughter, A.R. and Mantel, S.K. (2018) Water quality modelling of an impacted semi-arid catchment using flow data from the WEAP model. *Proceedings of the International Association of Hydrological Sciences*. 377 (2018). p.25-33.

Peer Reviewed Subsidy-Earning Journal Research Publications

Edegbene, O.A.

Edegbene, O.A. (2018) Invasive Grass (*Typha domingensis*): A potential menace on the assemblage and abundance of migratory/water related birds in Hadejia-Nguru Wetlands, Yobe State, Nigeria. *Tropical Freshwater Biology*. 27 (2). p.13-30.

Gwapedza, D., Hughes, D.A. and Slaughter, A.R.

Gwapedza, D., Hughes, D.A. and Slaughter, A.R. (2018) Spatial scale dependency issues in the application of the Modified Universal Soil Loss Equation (MUSLE). *Hydrological Sciences Journal - Journal des Sciences Hydrologiques*. 63 (13-14). p.1890-1900.

Gwate, O., Mantel, S.K. and Palmer, A.R.

Gwate, O., Mantel, S.K., Gibson, L.A., Munch, Z. and Palmer, A.R. (2018) Exploring dynamics of evapotranspiration in selected land cover classes in a sub-humid grassland: A case study in quaternary catchment S50E, South Africa. *Journal of Arid Environments*. 157 (2018). p.66-76.

Gwate, O., Mantel, S.K., Palmer, A.R., Gibson, L.A. and Munch, Z. (2018) Measuring and modelling evapotranspiration in a South African grassland: Comparison of two improved Penman-Monteith formulations. *Water SA*. 44 (3). p.482-494.

Gwate, O., Mantel, S.K., Palmer, A.R. and Gibson, L.A. (2018) Biophysical controls of water vapour and energy fluxes: Towards the development of biome scale predictive models of evapotranspiration in the Albany Thicket, South Africa. *Ecophysiology*. 2018 (e2031). p.1-14.

Hamer, N.G., Lipile, M., Nzwana, X., O'Keeffe, J.H., Weaver, M. and Palmer, C.G.

Hamer, N.G., Lipile, M., Molony, L., Nzwana, X., O'Keeffe, J.H., Shackleton, S.E., Weaver, M. and Palmer, C.G. (2018) Coping with water supply interruptions: can citizen voice in trans-disciplinary research make a difference? *Water International*. 43 (5). p.603-619.

Hughes, D.A. and Mazibuko, S.

Hughes, D.A. and Mazibuko, S. (2018) Simulating saturation-excess surface run-off in a semi-distributed hydrological model. *Hydrological Processes*. 32 (2018). p.2685-2694.

Mantel, S.K.

Gibson, L.A., Munch, Z., Palmer, A. and Mantel, S.K. (2018) Future land cover change scenarios in South African grasslands - implications of altered biophysical drivers on land management. *Heliyon*. 4 (2018). p.1-35.

Mvandaba, V., Hughes, D.A. and Oosthuizen, N.

Mvandaba, V., Hughes, D.A., Kapangaziwiri, E., Kahinda, J.M., Hobbs, P., Madonsela, S. and Oosthuizen, N. (2018) The delineation of alluvial aquifers towards a better understanding of channel transmission losses in the Limpopo River Basin. *Physics and Chemistry of the Earth*. 108 (2018). p.60-73.

Ndzabandzaba, C. and Hughes, D.A.

Ndzabandzaba, C. and Hughes, D.A. (2018) Estimating spatial catchment natural hydrological response characteristics in Swaziland. *Physics and Chemistry of the Earth*. 106 (2018). p.29-36.

Odume, O.N.

Arimoro, F.O., Auta, Y.I., Odume, O.N., Keke, U.N. and Mohammed, A.Z. (2018) Mouthpart deformities in Chironomidae (Diptera) as



Emeritus Professor Jay O'Keeffe.

Credit: IWR

bioindicators of heavy metals pollution in Shiroro Lake, Niger State, Nigeria. *Ecotoxicology and Environmental Safety*. 149: 96-100.

Oosthuizen, N., Hughes, D.A. and Mvandaba, V.

Oosthuizen, N., Hughes, D.A., Kapangaziwiri, E., Kahinda, J.M. and Mvandaba, V. (2018) Quantification of water resources uncertainties in the Luvuvhu sub-basin of the Limpopo river basin. *Physics and Chemistry of the Earth*. 105 (2018). p.52-58.

Palmer, C.G.

Hamer, N.G., Lipile L., Lipile M., Molony L., Nzwana X., O'Keeffe J.H., Shackleton S.E., Weaver M.J.T., and Palmer C.G. (2018) Coping with water supply interruptions: can citizen voice in transdisciplinary research make a difference? *Water International*. 43 (5), 603-619.

Preston, I.R., Le Maitre, D.C., Blignaut, J.N., Louw, L. and Palmer, C.G. (2018) Impact of invasive alien plants on water provision in selected catchments. *Water SA*. 44 (4). p.719-729.

Palmer, C.G. (2018) Guest Editorial: SASAQs and water: Law, management, crisis, and scientists as water activists. *African Journal of Aquatic Science*. 43 (1). p.5-6.

Cockburn, J., Palmer, C.G., Biggs, H. and Rosenberg, E. (2018) Navigating Multiple Tensions for Engaged Praxis in a Complex Social-Ecological System. *Land*. 7 (129). p.1-24.

Scorer, C., Mantel, S.K. and Palmer, A.R.

Scorer, C., Mantel, S.K. and Palmer, A.R. (2018) Do abandoned farmlands promote spread of invasive alien plants? Change detection analysis of black wattle in montane grasslands of the Eastern Cape. *South African Geographical Journal*. 2018. p.1-14.

Slinger, J.H.

McEvoy, S., van de Ven, F.H.M., Blind, M.W. and Slinger, J.H. (2018) Planning support tools and their effects in participatory urban adaptation workshops. *Journal of Environmental Management*. 207 (2018). p.319-333.

van Oudenhoven, A.P.E., Aukes, E., Bontje, L.E., Vikolainen, V., van Bodegom, P.M. and **Slinger, J.H.** (2018) 'Mind the Gap' between ecosystem services classification and strategic decision making. *Ecosystem Services*. 33 (2018). p.77-88.

Vellemu, E., Mensah, P., Griffin, N. and Odume, N.O.

Vellemu, E., Mensah, P., Griffin, N. and Odume, N.O. (2018) Derivation of scenario-specific water quality guidelines for acid mine drainage in South Africa, using a risk-based approach. *African Journal of Aquatic Science*. 43 (1). p.51-58.

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

Palmer, C.G.

Cockburn, J., Palmer, C.G., Biggs, H. and Rosenberg, E. Learning through reflexive praxis in social-ecological systems: Insights from the Tsitsa Project, Eastern Cape. *4th National Global Change Conference*. Bolivia Lodge, Polokwane. South Africa. December 2018.

Rosenberg, E., Biggs, H., Palmer, C. and Cockburn, J. NLEIP Ecological Infrastructure Programme: The Learning Journey.

Presented in a session on Collaborative thinking and collective intelligence on nature based solutions for climate change adaptation and disaster risk reduction: Reflection on actionable science.

Adaptation Futures Conference. Cape Town. South Africa. June 2018.



Public Service Accountability Monitor (PSAM)



Credit: Snow Harris

Mr Jay Kruuse
Director

An affiliated institute of the School of Journalism and Media Studies at Rhodes University.

During the course of 2018 the PSAM staff engaged in various research, advocacy and capacity building initiatives that seek to give effect to its 2016 - 2019 Strategic Plan. The most significant of these are detailed below.

Distinguished Visitors / International Visits

On 26 June 2018, **Ms Zukiswa Kota** of the PSAM travelled to Brazil where she co-presented with the Chief Director of South Africa's National Treasury's Budget Office at the launch of the Brazilian government's budget transparency portal. The objectives of the engagement included an international peer-learning exchange organized by the *Global Initiative on Fiscal Transparency (GIFT)*. **Ms Kota** is lead co-ordinator of a civil society coalition called Imali Yethu (www.imaliyethu.org.za) that is promoting open budgeting in South Africa and which is collaborating with National Treasury to develop www.vulekamali.gov.za - South Africa's first online budget portal concerned with supporting more open budgeting and great public participation in government budget processes.

Professor Thuli Madonsela, Chair in Social Justice, Faculty of Law at Stellenbosch University, was the keynote speaker at the PSAM Social Accountability Conference held in September 2018 in Johannesburg.

In September 2018, Gertrude Mugizi and Khazikhe Sakala from the PSAM's Regional Learning Programme participated in a multi-stakeholder social accountability learning conference in Maputo¹ where both presented during panel discussions.

Convened by CESC, Wateraid, and United Purpose



Attendees of the PSAM Social Accountability Conference held in Johannesburg, September 2018.
Credit: PSAM

Between 14 and 19 October 2018 the PSAM director **Jay Kruuse** participated in the annual meeting of the *GIFT* held in Cascais, Portugal. During the meeting three (3) main issues for the network were addressed:

- 1) *analysis of the progress of each country represented regarding global measurements of fiscal transparency;*
- 2) *presentation of the process for the IBP - GIFT pilots of public participation in the budget process and*
- 3) *changes in the Network operating rules and procedures.*

A salient result of the meeting was the support given to changes to the operating rules.

Significant Research Aligned Events

Dr Malila was invited as a keynote presenter at the UNESCO Roundtable on Accountability through Sustainable Development Goals' Monitoring - the Roles of Government and Media. The roundtable was organised by the UNESCO Regional Office for Southern Africa in collaboration with Media Education Monitoring in Southern Africa (MEMOSA) and held on 27 July 2018.

Dr Malila, presented her research on media and accountability at the 13th International Conference of the International Society for Third Sector Research held in July 2018. The paper, 'Tapping into the potential of the media in Social Accountability advocacy - Challenges for NGOs in social accountability reporting in South Africa' examined the way in which civil society and the media can build better relationships for promoting stronger accountability of public officials.

Lindelwa Nxele, presented her research on social accountability information access at the 8th

International Interdisciplinary Conference, held 27-30 June, 2018 in Nairobi, Kenya.

The biennial PSAM Social Accountability Conference took place 11-12 September 2018, in Johannesburg. The conference was attended by more than seventy (70) participants, who engaged in plenary discussions, small breakaway sessions and a marketplace gallery/exhibition. The keynote address was given by Professor Thuli Madonsela, Chair in Social Justice, Faculty of Law at Stellenbosch University. The conference theme was 'Exploring what it takes to enhance social accountability practice'. A post-conference evaluation was conducted and confirmed the value and worth of the conference for attendees. A conference report was drafted and circulated to participants and appears on the PSAM website at: <http://psam.org.za/wp-content/uploads/2019/01/PSAM-2018-conference-report-final.pdf>

Also in September 2018, the PSAM published Strategic Plan Evaluations (SPEs). The Education *SPE* outlined areas of incongruence in departmental plans and it was disseminated to key stakeholders. The Human Settlements *SPE* was geared at providing direct input on research areas sought by the Eastern Cape Department of Human Settlements.

Expenditure Tracking Reports (ETRs) are a critical monitoring and advocacy tool for the PSAM. The *Education ETR* was disseminated in November 2018 and interrogated expenditure within the Early Childhood Development (ECD) programme of the Eastern Cape Department of Education (ECDoE). The research was profiled in a news article in the Daily Dispatch: *ECD underspending is failing our children* on 23 November 2018.

PUBLICATIONS

Public Service Accountability Monitor (PSAM)



Books/Chapters/Monographs

Kota, Z. and Matambo, E.

Kota, Z., Hendricks, M., Matambo, E. and Naidoo, V. (2018) Provincial Governance of Education - The Eastern Cape Experience. In: Levy, B., Cameron, R. and Hoadley, U. (eds.). *The Politics and Governance of Basic Education: A Tale of Two South African Provinces*. New York: Oxford University Press. p.121-148. ISBN: 9780198824053.

Malila, V.

Garman, A. and Malila, V. (2018) When an editor listens to a city: South Africa's Heather Robertson, The Herald, and Nelson Mandela Bay. In: Freedman, E., Goodman, R. and Steyn, E. (eds.). *Critical Perspectives on Journalists' Beliefs and Actions: Global Experiences*. London: Routledge. p.162-172. ISBN: 9781138063372.

Other Publications

Malila, V.

Bombi, T., Garman, A. and Malila, V. (2018) Young, black women storytellers and the reshaping of the media space. In: Kanengoni, A.D. (ed.). *Young, black women storytellers and the reshaping of the media space*. 8th Ed. Johannesburg: OSISA.

Malila, V.

Malila, V. (2018) Beyond Watchdog Journalism: Media and Social Accountability. In: *Beyond Watchdog Journalism: Media and Social Accountability*. Grahamstown: Rhodes University School of Journalism and Media Studies.

Peer Reviewed Subsidy-Earning Journal Research Publications

Nxele, L.L.

Nxele, L.L. (2018) Dynamics Influencing Coalition Formation, Structure and Development: A Case Study of the Eastern Cape Health Crisis Action Coalition (EHCAC) in South Africa. *Ubuntu*. 7 (1). p.7-27.



Professor Thuli Madonsela (right) and Mr Jay Kruse (left) in conversation at the Biennial PSAM Social Accountability Conference that took place in Johannesburg (11-12 September 2018).

Credit: PSAM

Rhodes University Mathematics Education Project (RUMEP)



Credit: Snow Harris

Mr Thomas Penlington
Director

A milestone was reached last year when Rhodes University Mathematics Education Project (RUMEP) celebrated its 25th anniversary as a professional development in-service unit of Rhodes University. Alumni from all over the Eastern Cape gathered at the Gavin Relly Postgraduate Village to reflect on the achievements of the unit since its inception in 1993.

Dr Siwe Mabizela, the Vice Chancellor of Rhodes University welcomed all those who were present as well as one of the funders, the CEO from the Sishen Iron Ore Community Trust, Mr Vusie Malie.

One of the first alumni to graduate from RUMEP, Dr Witness Siyepu from the Cape Peninsula University of Technology was the guest speaker. Other speakers included Professor Ngcoza, a RUMEP Board Member, and various alumni who spoke on the happy times they experienced while studying at RUMEP.

A short publication was produced and dedicated to its long serving founding member and chairperson of the Board, the late Professor Wesley Kotze from the Mathematics Department. It was from its inception in 1993 that he, together with Professor John Stoker and Professor Terry Marsh were the core founders of RUMEP.

RUMEP became a unit of Rhodes University in 1993, which grew out of a series of outreach workshops conducted for primary school teachers. At the beginning of 1994, these workshops were refined in accordance with the vision and mission of a project being run in South Africa by Cambridge University and sponsored by the British Council. RUMEP enjoyed the distinction of having its work accredited by the Cambridge University Local Examinations Syndicate (UCLES) during 1994 and 1995.

Following negotiations with the Faculty of Education in 1996, the focus of RUMEP shifted to the teaching of a Further Diploma in Education (Mathematics Education) accredited by Rhodes University. The Advanced Certificate in Education and later the BEd (in-service) degree have been further developments in the unit. Whilst the BEd programme has remained the core activity of RUMEP, a number of other programmes have developed over the years.

Prominent amongst these has been the Farm School Project which gave rise to the Collegial Cluster and MathsNet Project.

RUMEP works mainly in rural schools in the Eastern, and for the past seven (7) years in the Northern Cape where poor school infrastructure and other challenges such as a lack of furniture, few teaching resources and a lack of library and computer facilities exist.

A distinguishing feature throughout the existence of RUMEP has been its sharp classroom practice focus and reflective practitioner dimension which has enabled a much more grounded approach through which theory has been translated into effective action. The ultimate goal of the project is to assist teachers and learners to improve their mathematical knowledge, thinking and understanding.

Postgraduates / Graduations

A total of thirty seven students (37) graduated with a BEd in-service (Mathematics Education) degree. Three (3) students namely Tania Bothma, Farai Nyamavuvu and Gertrude Phirimana all graduated with distinction.

Distinguished Visitors

- **Ms E Bulawa.** School facilitator, Inclusive Education SA, Cape Town, South Africa. *To discuss inclusive education.* September 2018.
- **Mr V Mali.** CEO, Sishen Iron Ore Community Trust, Kathu, South Africa. Guest speaker: *RUMEP 25th anniversary celebration at the Gavin Relly Postgraduate Village.* 21 April 2018.
- **Mr T Mutsago,** Head of Projects, Sishen Iron Ore Community Trust, Kathu, South Africa To discuss budget and close report, 31 August 2018.
- **Dr SW Siyepu.** Senior Lecturer - Cape Peninsula University of Technology, Western Cape, South Africa. *RUMEP 25th anniversary celebration at the Gavin Relly Postgraduate Village.* 21 April 2018.
- **Mr J Thomas.** Lecturer -Sol Plaatje University, Kimberley, South Africa. *To discuss collaboration on the BEd course.* 17 September 2018.

Significant Research Aligned Events

The BEd '*How I teach*' reflective conference took place from the 3-5 October 2018 where all final year students presented their research findings on a mathematics topic of their choice to fellow colleagues and staff.



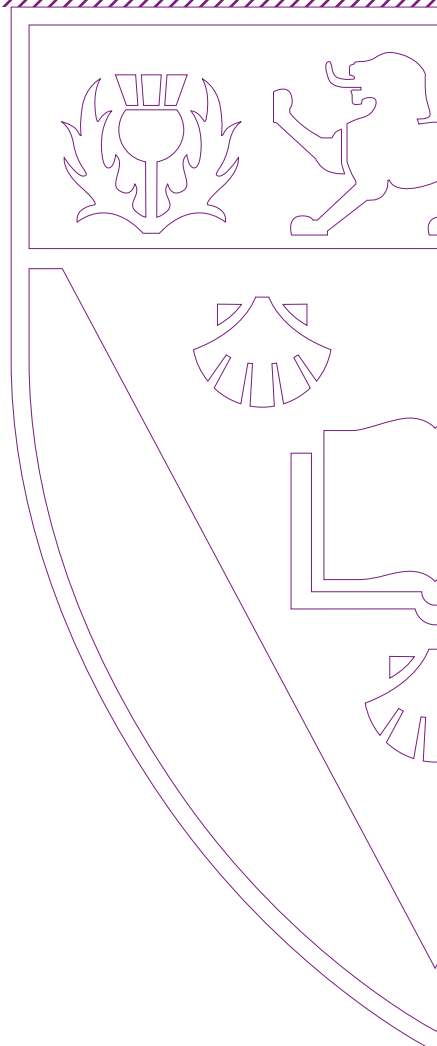
Mr Bazolele Mdungwana delivering his presentation at the *How I Teach* Conference.
Credit: RUMEP



Ms Malene Nyamunetsa gave a well-constructed and convincing presentation at the *How I Teach* Conference.
Credit: RUMEP

PUBLICATIONS

Rhodes University Mathematics Education Project (RUMEP)



Concerts, Exhibitions, Performances, Workshops, Events

Balele, S. and Griqua, R.M.

Balele, S. and Griqua, R.M. Workshop. FET Workshop on Probability, Euclidean Geometry and Trigonometry. *FET Workshop*. Royal Courtyard Hotel, Matatiele. South Africa. 22 - 26 January 2018.

Haywood, T.

Haywood, T. Workshop. FET Workshop on Probability, Euclidean Geometry and Trigonometry. *FET Workshop*. DBE Office, Mbizana. South Africa. 15 - 19 January 2018.

Kangela, N.C.

Kangela, N.C. Forum. Professionals in Science, Engineering & Technology and the ukuQonda Institute. *Forum*. Courtyard Hotel, Johannesburg. South Africa. 4 - 6 August 2018.

Mkhwane, F.F.

Mkhwane, F.F. Seminar. Mathematics Teaching & Learning Framework. *Seminar*. Sterling Institute, East London. South Africa. 8 - 9 November 2018.

Mkhwane, F. F. Workshop. *Strategies in developing properties of quadrilaterals in the Senior Phase*. Sterling Institute, East London. 8 September 2018.

Mkhwane, F. F. and Tokwe, N.H.

Mkhwane, F. F. and Tokwe, N.H. Workshop. Foundation and Senior Phase Maths Workshop for Grade 3 and 9 Teachers. *FP and SP Workshop*. Margate Hotel, Margate. South Africa. 16 - 20 July 2018.

Penlington, T.H.

Penlington, T.H. Workshop. Understanding multiplication using arrays in the Intermediate Phase. *Workshop*. Sterling Institute, East London. South Africa. 8 September 2018.

Penlington, T.H. Event. RUMEP 25th Anniversary Celebration Brochure. *Event*. Gavin Relly Postgraduate Village, Grahamstown. South Africa. 18 April 2018.

Wood, S.

Wood, S. Workshop. Direct Proportion and Financial Mathematics: Mathematics Literacy. *Workshop*. Bensonvale College, Sterkspruit. South Africa. 6 - 10 February 2018.

Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Penlington, T.H.

Penlington, T.H. (2018) Strategies for understanding subtraction. *Learning and Teaching Mathematics*. 25 (2018). p. 11-14.



Ms Lindelwa Cana (left) introducing Mr Enoch Dendere as the next presenter at the *How I Teach Conference* in Grahamstown.

Credit: RUMEP

South African Institute for Aquatic Biodiversity (SAIAB)



Credit: Simon Pamphilon

Professor Olaf Weyl
Chief Scientist

The National Research Foundation (NRF) - South African Institute for Aquatic Biodiversity (SAIAB) Research Division continues to break historic institutional records in terms of postgraduate students supervised and annual research outputs, especially the number of International Scientific Indexing (ISI)-rated publications. Altogether six (6) BSc Honours, twenty-five (25) MSc and thirty (30) PhD projects were undertaken in 2018, a fine achievement by a staff of only eight (8) full-time scientists and a small cohort of Postdoctoral Research Fellows.

In addition, fourteen (14) students received their Postgraduate degrees in 2018 during graduation ceremonies at a variety of South African universities.

The productivity of NRF-SAIAB research staff, students, Postdoctoral Research Fellows and Honorary Research Associates continued at a high level during 2018, with one hundred and one (101) ISI-rated scientific papers. In terms of conference and symposium papers, fifty (50) presentations were delivered at a wide variety of national and international venues.

Professor Alan Whitfield retired in 2018. In addition to publishing several important global and local review papers on fishes, Professor Whitfield completed a monograph on the biology and ecology of fishes in southern African estuaries, a major work that is considered essential reading and an invaluable resource book for estuarine ecologists.

The Acoustic Tracking Array Platform (ATAP), managed by **Professor Paul Cowley**, continues to yield new discoveries about the underwater lives of fishes and sharks equipped with acoustic transmitters. The platform recorded an amazing longshore migration of more one thousand seven hundred (1700) kilometre by a leervis, *Lichia amia*, tagged in the Berg Estuary on the west coast that moved all the way to north of Durban on the KwaZulu-Natal coastline, where this species is known to spawn. The utility of the platform was highlighted by a paper published by ATAP's Data Scientist, **Dr Taryn Murray**, on movements and multiple habitat connectivity by estuary-dependent juvenile leervis.

A new project was initiated by the University of Miami in the De Hoop marine reserve where researchers have tagged a number of sharks. This project compliments NRF-SAIAB's ongoing project on the connectivity of important coastal fishery species between the De Hoop reserve and the nearby Breede Estuary.

In 2018 the hundredth animal to be tagged at Ponta do Oura in Mozambique, which is a key monitoring site from which to record transboundary movements by a host of shark species and the spawning aggregation dynamics of giant kingfish *Caranx ignobilis*.

During 2018, **Dr Nikki James** and her research team focussed on two (2) themes:

- The impact of climate change (extreme events, pH and temperature) on fish communities: PhD candidate Kerry-Ann van der Walt is nearing completion of her work into using thermal tolerance limits and thermal optima to predict how coastal organisms may respond to climate change.
- The relative value of different coastal nursery habitats for marine and estuarine fish species. Three (3) PhD candidates are based in Algoa Bay: Two (2) candidates, Ms Phakama Nodo and Ms Phumza Ndeleni are looking at coastal and estuarine fish and habitat associations and Ms Carla Edworthy is monitoring ocean acidification in the Bay and how life history determines the response of fish species to ocean acidification. A highlight for the year was being awarded funding from the NRF Marine and Coastal funding instrument to further explore the connectivity of coastal and estuarine nursery habitats.

Dr Anthony Bernard and his team were involved in numerous collaborative research projects throughout the South West Indian Ocean (Comoros, Kenya, Madagascar, Mozambique and Tanzania). Using equipment from the marine remote imagery platform (remote operated vehicles and baited remote underwater stereo-video systems), this research aimed to collect vital data on the status of reef fish and elasmobranch populations and gain a better understanding of local and regional distribution patterns of reef fish.



NRF-SAIAB's R/V *uKwabelana* is equipped with a winch that allows for the deployment of various sampling gear.
Credit: SAIAB

A further highlight for 2018 was the success of an application for a Marine and Coastal Research Grant. This grant is a collaboration between researchers from the marine remote imagery platform (**Dr Anthony Bernard**) and the genetics platform (**Dr Gwynneth Matcher** and **Dr Gavin Gouws**) within SAIAB, and aims to test the capabilities of environmental DNA (eDNA) to investigate the spatial ecology of reef fishes and non-invasively collected genetic material from fishes for individual identification.

Research advances in 2018 by the Coastal and Ocean Sciences Team (COST), led by **Dr Francesca Porri**, highlight a re-assessment of South African mangroves, which reviews the literature from the past fifty (50) years and dedicated results from recent surveys.

Additional research output from COST features the establishment of a community of practice consortium to provide transdisciplinary knowledge for the Algoa Bay Project. Thermally-induced metabolic activity of ecologically important estuarine macrobenthos has also been portrayed. Research operations have continued in 2018 investigating the patterns of larval distribution and settlement/recruitment of benthic invertebrates as well as on the role of mangrove microhabitats as nurseries for fish and invertebrate larvae. Work on this last topic has included a research visit by the leader of the team and PhD candidate to a collaborator at the University of Hong Kong, to facilitate a focal workshop as well as to pursue field and laboratory based research.

Organismal research has continued through physiological experiments on metabolism on invertebrate larvae as well as settlers and recruits to highlight possible physiological bottlenecks to population viability in benthic systems.

In 2018 the ACEP Geophysics and Mapping Platform (GeMaP), in collaboration with the Council for Geoscience, completed the first high-resolution bathymetric survey of the deeply dissected Pondoland continental shelf. The survey was carried out under “Canyon Connections”, an ACEP-funded project, which seeks to evaluate the ecological role of submarine canyons on the east coast of South Africa. This portion of the Pondoland continental shelf represents a prehistoric, palaeo-coastal plain exposed during times of low sea level. The aim of the project’s geological component is to understand the geological evolution of the associated submarine canyon systems and determine the type and distribution of benthic habitat around the canyon heads.

Dr Errol Wiles continues to develop GeMaP which, from 2019 onwards, will offer increased support to geological and biological research along the east coast between fifteen (15) and two hundred and fifty (250) metres depth.

Dr Gavin Gouws published nine (9) papers during 2018, with another three (3) accepted and due to appear in early 2019. Among these, was a paper



NRF-SAIAB's R/V *uKwabelana* provides researchers with access to the marine environment, one of the biggest challenges faced by marine researchers in South Africa. The 13m vessel is based in Algoa Bay and is accessed competitively through the ACEP Open Call. *Credit: SAIAB*

detailing only the third high-throughput, highly variable, population genetic marker to be developed for the true freshwater crabs and the first such marker for African freshwater crabs.

One (1) MSc student, Ms Yonela Sithole, graduated, with another, Mr Martinus Scheepers, submitting a thesis which was passed *cum laude* for graduation in April 2019.

Professor Olaf Weyl delivered a keynote presentation at the Pan African Fish and Fisheries Association (PAFFA) Congress in Malawi. A major highlight of his research in 2018 was the outputs from a collaboration with Queen’s University Belfast on disease vector mosquito control. The research elucidated the efficiency of predation by predatory zooplankton on container-breeding mosquitoes; an important step in determining the feasibility of using zooplankton for mosquito control in water tanks.

Professor Weyl also presented a keynote address entitled “One man’s meat is another’s poison: benefits, impacts and conflicts of fisheries based on alien species in South Africa” at the PAFFA Conference.

Professor Weyl’s research group made major contributions to understanding the impacts of climate change on freshwater ecosystems in South Africa. Seminal outputs included a review of the vulnerability of Cape Fold Ecoregion freshwater fishes to climate change and other human impacts, and research on how temperature mediates the impact of non-native rainbow trout on native freshwater fishes in South Africa’s Cape Fold Ecoregion.

A high profile paper from this research group is the announcement of “The Alliance for Freshwater Life: A global call to unite efforts for freshwater biodiversity science and conservation”. The paper, published in *Aquatic Conservation: Marine and Freshwater Ecosystems* with co-authors from twenty-three (23) international organisations, highlights the pressures on freshwater ecosystems and introduces the Alliance for Freshwater Life, a global initiative, uniting specialists in research, data synthesis, conservation, education and outreach, and policy-making. This expert network aims to provide the critical mass required for the effective representation of freshwater biodiversity at policy meetings, to develop solutions balancing the needs of development and



NRF-SAIAB's Marine Platforms include state of the art oceanographic equipment and skilled technical support which are available to universities and research institutes. The Platform places a high priority on training of students in the use of this equipment.
Credit: SAIAB

conservation, and to better convey the important role freshwater ecosystems play in human well-being.

Dr Albert Chakona's research group continued to deliver high impact taxonomic research on freshwater fishes of southern Africa with taxonomic revisions of fishes of the genera *Nannocharax*, *Amatolacypis*, *Amphilius natalensis*, and *Hippopotamyrus ansorgii*.

A major highlight was the publication of a comprehensive paper which documents the existence of hidden diversity and uncovered taxonomic conflicts in stream fishes from the Eastern Zimbabwe Highlands freshwater ecoregion. These findings add to the growing body of evidence that shows that a large proportion of freshwater fishes in southern Africa remain scientifically undocumented, because many river systems in this region are poorly explored. The publication details a classic example where underestimation of taxonomic diversity and poor understanding of the spatial distribution of species can misdirect conservation efforts, because the Eastern Zimbabwe Highlands freshwater ecoregion is currently not listed among the priority freshwater Key Biodiversity Areas within the broader Eastern Afromontane Biodiversity Hotspot. This is unfortunate because the highly sensitive Afromontane streams and rivers in this region have been severely transformed and are experiencing ongoing human impacts, including illegal mining activities, deforestation, increased sedimentation, uncontrolled burning and introduction of non-native invasive species.

Dr Aldi Nel (left), Mr Sandisiwe Mafanya and Mr Olwethu Duna, of the Coastal and Ocean Sciences Team (COST) at NRF-SAIAB, collecting data for research on mussel recruitment on the rocky shores of Algoa Bay.
Credit: SAIAB



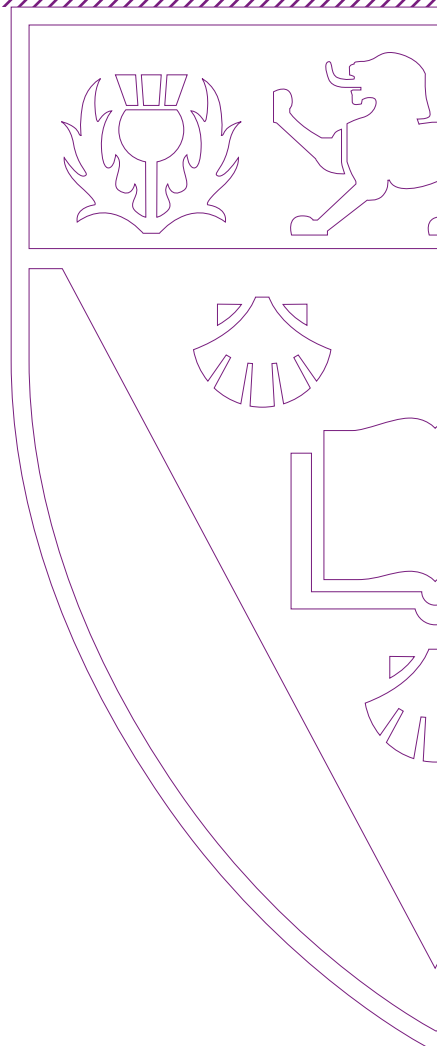
Dr Willem Coetzer and co-author Dr Michelle Hamer published a commentary article in the *South African Journal of Science*, entitled 'Managing South African biodiversity research data: Meeting the challenges of rapidly developing information technology'. The authors offered a perspective on the community of practitioners in natural science museums, observing that while collection managers are increasingly responsible for what is termed research data management, they are not equipped with the skills to use relational database technology.

The subject of data publication or data sharing was also explored. The skills to standardise data, so that the data may be published, are also lacking in the community. Publication of standardised data is important because this is how the integrity and security of data should be preserved (i.e. as an off-site backup). But outdated attitudes to data publication still prevent many datasets from being preserved or shared with other researchers.

A new initiative by SAIAB, termed the Biodiversity Data Curation Platform, seeks to enhance the capacity for biodiversity informatics among South African natural science museums, primarily by encouraging museums to adopt Specify software, the design of which is very suitable for capacity development in biodiversity research data management (e.g. a user can import a large batch of records to speed up data entry).

PUBLICATIONS

South African
Institute for Aquatic
Biodiversity (SAIAB)



Books/Chapters/Monographs

Turpie, J.

Arthington, A.H., Finlayson, C.M., Roux, D.J., Nel, J.L., Rast, W., Froend, R., **Turpie, J.** and van Niekerk, L. (2018) Managing specific freshwater ecosystems. In: Finlayson, C.M., Arthington, A.H. and Pittock, J. (eds.). *Freshwater Ecosystems in Protected Areas: Conservation and Management (Earthscan Studies in Water Resource Management)*. London: Routledge. p.144-176. ISBN: 9780415787147.

Peer Reviewed Subsidy-Earning Journal Research Publications

Bennett, R.H., Cowley, P.D. and Filmlalter, J.D.

Daly, R., Daly, C.A.K., **Bennett, R.H., Cowley, P.D.**, Pereira, M.A.M. and **Filmlalter, J.D.** (2018) Quantifying the largest aggregation of giant trevally *Caranx ignobilis* (Carangidae) on record: implications for management. *African Journal of Marine Science*. 40 (3). p.315-321.

Chakona, A.

Matomela, N., Chakona, A., Bere, T. and **Kadye, W.T.** (2018) Does ecomorphological variation explain trophic resource partitioning between sympatric lineages of Afromontane stream catfishes? *African Journal of Ecology*. 56 (2018). p.1006-1011.

Chakona, A., Kadye, W.T., Bere, T., **Mazungula, D.N.** and Vreven, E. (2018) Evidence of hidden diversity and taxonomic conflicts in five stream fishes from the Eastern Zimbabwe Highlands freshwater ecoregion. *ZooKeys*. 768 (2018). p.69-95.

Cowley, P.D.

Andrews, A.H., Smale, M.J., **Cowley, P.D.** and Chang, N. (2018) Fifty-five-year longevity for the largest number member of the family Sparidae: the endemic red steenbras *Petrus rupestris* from South Africa. *African Journal of Marine Science*. 40 (4). p.343-353.

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Murray, T.S., Cowley, P.D., Bennett, R.H. and **Childs, A.R.** (2018) Fish on the move: connectivity of an estuary-dependent fishery species evaluated using a large-scale acoustic telemetry array. *Canadian Journal of Fisheries and Aquatic Sciences*. 75 (2018). p.2038-2052.

Cowley, P.D. and Whitfield, A.K.

James, N.C., **Cowley, P.D.** and **Whitfield, A.K.** (2018) The marine fish assemblage of the East Kleinemonde Estuary over 20 years: Declining abundance and nursery function? *Estuarine Coastal and Shelf Science*. 214 (2018). p.64-71.

Cuthbert, R.N., Wasserman, R.J. and Weyl, O.L.F.

Cuthbert, R.N., Dalu, T., **Wasserman, R.J.**, Callaghan, A., **Weyl, O.L.F.** and Dick, J.T.A. (2018) Calanoid Copepods: An Overlooked Tool in the Control of Disease Vector Mosquitoes. *Journal of Medical Entomology*. 55 (6). p.1656-1658.

Cuthbert, R.N., Dalu, T., **Wasserman, R.J.**, **Weyl, O.L.F.**, Callaghan, A., **Froneman, P.W.** and Dick, J.T.A. (2018) Sex-skewed trophic impacts in ephemeral wetlands. *Freshwater Biology*. 2018. p.1-8.

Cuthbert, R.N., Dalu, T., **Wasserman, R.J.**, Coughlan, N.E., Callaghan, A., **Weyl, O.L.F.** and Dick, J.T.A. (2018) Muddy waters: Efficacious predation of container-breeding mosquitoes by a newly-described calanoid copepod across differential water clarities. *Biological Control*. 127 (2018). p.25-30.

Cuthbert, R.N., Wasserman, R.J., Mofu, L. and Weyl, O.L.F.

Cuthbert, R.N., Dalu, T., **Wasserman, R.J.**, Dick, J.T.A., **Mofu, L.**, Callaghan, A. and **Weyl, O.L.F.** (2018) Intermediate predator naiveté and sex-skewed vulnerability predict the impact of an invasive higher predator. *Scientific Reports*. 8 (14282). p.1-8.

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Camara, E.M., Caramaschi, E.P., **Di Dario, F.** and Petry, A.C. (2018) Short-Term Changes in Two Tropical Coastal Lagoons: Effects of Sandbar Openings on Fish Assemblages. *Journal of Coastal Research*. 34 (1). p.90-105.

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Salinas-de-Leon, P., Phillips, B., **Ebert, D.A.**, Shivji, M., Cerutti-Pereyra, F., Ruck, C., Fisher, C.R. and Marsh, L. (2018) Deep-sea hydrothermal vents as natural egg-case incubators at the Galapagos Rift. *Scientific Reports*. 8 (1788). p.1-7.

Ebert, D.A. and van Hees, K.E. (2018) *Etmopterus marshallae* sp. nov, a new lanternshark (Squaliformes: Etmopteridae) from the Phillippine Islands, with a revised key to the *Etmopterus lucifer* clade. *Zootaxa*. 4508 (2). p.197-210.

Fahmi, and Ebert, D.A. (2018) *Parmaturus nigripalatum* n. sp., a new species of deep-sea catshark (Chondrichthyes: Caracharhiniformes: Scyliorhinidae) from Indonesia. *Zootaxa*. 4413 (3). p.531-540.

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Maduna, S.N., Van Wyk, J.H., da Silva, C., **Gennari, E.** and Bester van der Merwe, A. (2018) Evidence for sperm storage in common smoothhound shark *Mustelus mustelus* and paternity assessment in a single litter from South Africa. *Journal of Fish Biology*. 92 (2018). p.1183-1191.

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Leslie, R.W., **Gon, O.** and **Gouws, G.** (2018) The taxonomic status of the South Africa straptail *Macruronus capensis* Davies, 1950 (Pisces, Gadiformes, Macruronidae). *Zootaxa*. 4374 (1). p.91-98.

Gouws, G. and Chakona, A.

Gouws, G., Daniels, S.R., MacDonald, A.H., **Chakona, A.** and **Barker, N.P.** (2018) Development and characterization of a microsatellite library for the freshwater crab *Potamonautes danielsi* Peer, Gouws, Lazo-Wasem, Perissinotto & Miranda, 2017 (Brachyura: Potamonautidae) and its transferability across three congeneric species. *Journal of Crustacean Biology*. 38 (6). p.765-771.

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NRF-SAIAB MSc student, Angus van Wyk deploying BRUVS in Lake Malawi.

Credit: SAIAB

conservation and management in the southwest Indian Ocean. *Ecology and Evolution*. 8 (2018). p.2182-2195.

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Scheepers, M.J., Gouws, G. and **Gon, O.** (2018) Evidence of multiple paternity in the bluntnose klipfish *Clinus cottoides* (Blennioidei: Clinidae: Clinini). *Environmental Biology of Fishes*. 101 (2018). p.1669-1675.

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Kajee, M., Griffiths, C.L. and **Lamberth, S.J.** (2018) Long-term physico-chemical and faunal changes in a small, rural South African estuary. *African Zoology*. 53 (4). p.127-137.

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Sara, J.R., **Marr, S.M.**, Chabalala, N.M., Smit, W.J., Erasmus, L.J.C. and Luus-Powell, W.J. (2018) Human health risks of metalloids

PUBLICATIONS



NRF-SAIAB PhD candidate, Lyle Vorsatz doing 3D Scanning of mangrove root systems at the Mlalazi Nature Reserve to assess the generic dissimilarity in complexity among species.

Credit: SAIAB



ATAP Instrument Technician, Matt Parkinson, equipping a duckbill ray with a long-life (~10 years) acoustic transmitter.

Credit: SAIAB

and metals in muscle tissue of silver carp *Hypophthalmichthys molitrix* (Valenciennes, 1844) from Lake Flag Boshelo, South Africa. *African Journal of Aquatic Science*. 43 (4). p.405-411.

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Marr, S.M., Gouws, G. and Weyl, O.L.F.

Marr, S.M., Gouws, G., Avlijas, S., Khosa, D., Impson, N.D., van der Westhuizen, M. and Weyl, O.L.F. (2018) Record of Blue tilapia *Oreochromis aureus* (Steindachner, 1864) in the Eerste River catchment, Western Cape province, South Africa. *African Journal of Aquatic Science*. 43 (2). p.187-193.

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Avidon, S., Shelton, J.M., Marr, S.M., Bellingan, T.A., Esler, K.J. and Weyl, O.L.F. (2018) Preliminary evaluation of non-native rainbow trout (*Oncorhynchus mykiss*) impact on the Cederberg ghost frog (*Heleophryne depressa*) in South Africa's Cape Fold Ecoregion. *African Journal of Aquatic Science*. 43 (3). p.313-318.

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NRF-SAIAB PhD candidate, Casey Broom deploying a temperature logger to assess long-term temperature trends in the Rondegat River, Cederberg, Western Cape.
Credit: SAIAB



NRF-SAIAB PhD candidate, Takudzwa Madzivanzira surveying invasive redclaw crayfish in the Kavango River, Caprivi Strip, Namibia.
Credit: SAIAB



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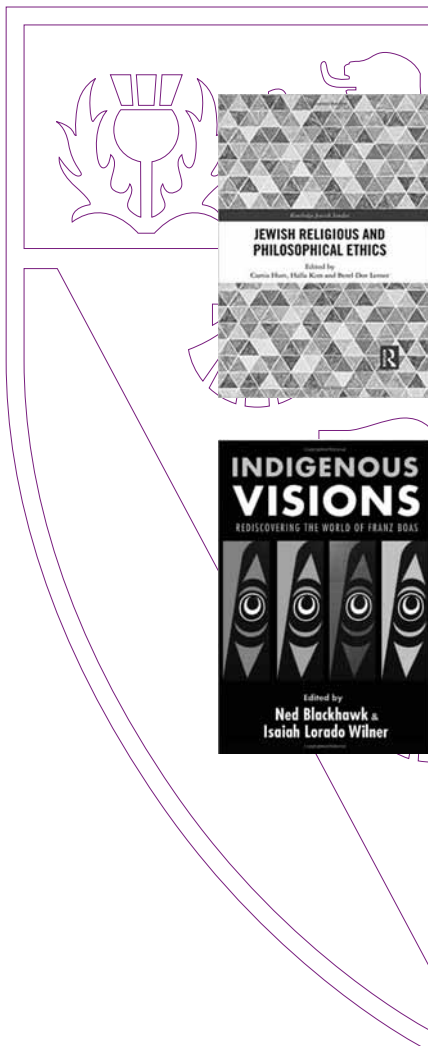
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