



RANKINGS

in Africa 2016

A new ranking launched this year, the **QS Graduate Employability Rankings**, rates universities that produce the **"most world-changing" graduates according to employers.** Wits University has been ranked in the 200-300 band for 2017.

#### **RANKED**

band 200-300

QS Graduate Employability Rankings 2017

"MOST WORLD-CHANGING" GRADUATES
ACCORDING TO EMPLOYERS

176
GLOBALLY

Center for World University Rankings

203
GLOBALLY

Academic Ranking of World Universities Shanghai Ranking Consultancy

150-200

Times Higher Education 2016 World University Rankings

# OMG – the rise of Generation Z



EDITOR'S NOTE

The impact the current generation of student activists is having on our country's higher education system is enormous and unprecedented. While we regularly observe that only a minority are actively engaged in the Fallist movement, there can be little doubt that a new generation of students has arrived on university campuses.

The current generation has been labelled Generation Z (aka Post-Millennials, Generation Me, or the iGeneration) by youth culture experts. They have grown up in the era of smartphones and reality TV. They cannot conceive of a world without the internet and social media. This is the selfie generation, whose lives are filled with acronyms, including FOMO. They've been accused by some of being narcissistic and entitled, but a 2014 study, "Generation Z Goes to College" by Corey Seemiller and Meghan Grace, found that these students self-identify as being loyal, compassionate, thoughtful, open-minded, responsible and determined. Seemiller further observed that "this is a generation deeply connected to social justice and social change. They aim to solve the world's problems and have a we-, not me-, centric view of change."

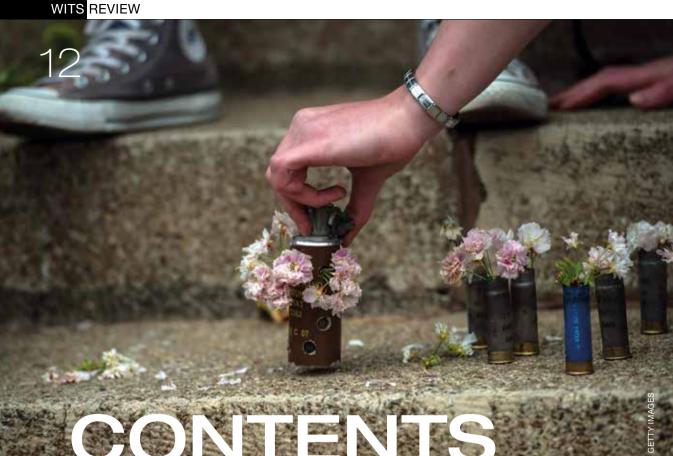
In South Africa, the Gen Z "born free" generation bears witness to the daily reality of profound inequality, abysmal service delivery, entrenched unemployment, pervasive corruption and ongoing racism, which must surely make many wonder what was achieved in 1994. There is surely justified anger that the older generation is not always acting in the best interests of the youth.

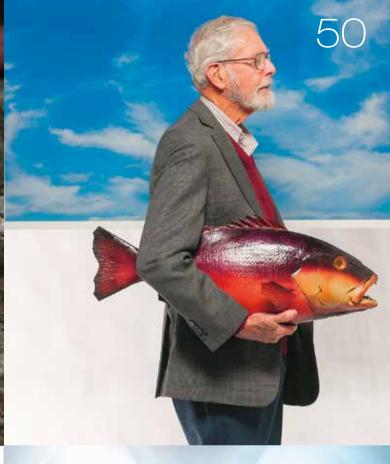
But a one-sided narrative propagated by some youth activists that our society and universities are fundamentally and irredeemably untransformed is also deeply flawed. Commenting on Generation Z to TIME magazine, MTV President Sean Atkins observed, "they have this self-awareness that systems have been broken, but they can't be the generation that says we'll break it even more."

The belief by some Fallists that their generation can and should lead a revolution is hubris. Populist rhetoric that manipulates the truth to intimidate and silence the views of others or which seeks to label others as either victims or perpetrators will not deliver a healthy and free society. Those who romanticise violence and self-righteously believe they have all the solutions will only lead us to a cul-de-sac.

We must work together as a society if we are to improve access to quality education opportunities for all. A number of South African universities are widely regarded as the best on the African continent. This is a legacy that has been built over many generations and should not be squandered.

Peter Maher
Director: Alumni Relations





## December 2016

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#### UPDATE CONTACT DETAILS:

www.wits.ac.za/alumni/updateyourdetails

#### SUBSCRIPTIONS:

International subscribers: R180 per annum Local subscribers: R100 per annum

#### PAYMENT OPTIONS:

Online payment using a Visa, Mastercard, American Express or Diners Club credit card at: www.wits.ac.za/alumni/payment or by electronic transfer or bank deposit to: First National Bank, Account No. 62077141580, Branch Code 255-005, Ref.No.1142 (+ your name) or by cash or credit card payment at the Alumni Office.

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Best External Magazine 2016, 2015, 2012 & 2010 (MACE)

Best External Magazine 2014, 2013, 2012 & 2011 (SA Publication Forum)

Cover: Walter Battiss, *Papeete*, Tahiti 1978, Jack Ginsberg Collection. Story on page 22. Image supplied by Wits Art Museum.







#### Entertainment in old Joburg

Dear Editor.

I was very interested to read in the most recent WITSReview (Vol 35, August 2016) about the closure and demolition of the old Colosseum theatre in Johannesburg. It brought back memories of my childhood, 75 years ago, when the theatre was in its heyday. There was even a dress circle on the upper gallery, where people used to wear evening dress. Every evening we were entertained by Charles Manning ("the Svengali of Music") and his orchestra. I was told that he ran a music shop as his chief source of revenue. He seemed to me to be waving his arms about while the band played on regardless!

What happened to the old Metro? It even had an organist, rising from the bowels of the earth at the keyboard of the mighty Wurlitzer and playing popular songs that we could sing to, helped by scripts on the screen. There was also a 20th Century Fox cinema not far away from the Metro. In one or other of these cinemas I remember sitting through nearly four hours of *Gone with the Wind* (with a useful interval half way through).

Jeppe Street I remember as the site of the New Post Office, with several floors and a selection of Post Office boxes to which one had an individual key in order to access any mail. I was sent up by my father to collect letters from PO Box 8416.

Robert Arridge (BSc 1948) Oxford, United Kingdom

### LETTERS TO THE EDITOR ARE WELCOME AND CAN BE SENT TO PETER.MAHER@WITS.AC.ZA.

#### A grounding in social justice

Dear Editor.

It is with much anticipation that I await the arrival of each issue of WITSReview. It certainly helps me connect with my roots. Your August 2016 issue did not disappoint.

I found especially informative – and warranting a response – the report by Heather Dugmore entitled "Perceptions and realities in a time of elections: Rhythms of South Africa". As an expat in Canada, I was reminded of how formative my experiences were as a Witsie between 1965 and 1971.

I found these two quotes and the evidence upon which they are based very encouraging: "we are so fortunate that there is still so much goodwill and dignity among so many people in South Africa" and "Wits prides itself on producing graduates who enter the working world with a heightened sense of moral and social responsibility".

On the first quote, may the good nature of the vast majority of South Africans persist and prevail!

On the second quote, I reckon that South Africa was the environmental determinant that cultivated in me my sense of social justice, which has been a focus throughout my career as an epidemiologist. A few years ago I felt very proud to recognise my South African roots by posting to my professional website some of my early poetry motivated as a young man by the social injustices of apartheid (see www.colinsoskolne.com/personal\_interest.htm). For those who left South Africa in the 1960s and 1970s, these poems may resonate with you.

My concern for social justice persisted throughout my career. Now in retirement, I have contributed as a volunteer to building an international consortium of epidemiology societies, the International Joint Policy Committee of the Societies of Epidemiology, which works at the nexus of research and policy. Among other things, we work as a counterweight to moneyed influence's corruption of science to serve its own interests rather than those of the public (see www.ijpc-se.org).

Colin L Soskolne (BSc 1970, BSc Hons 1971) Professor emeritus, University of Alberta, Canada

Errata: In the story, "Homecoming Revolution" on page 18 of *WITSReview* Vol 35 (August 2016) we referred to a photograph of Thabo Mbeki in error as Moeletsi Mbeki. In the story, "South Africa – The good news", on page 25 we said there were 40 countries with a population of more than 10-million. In fact there are more than 80 such countries.

# Wits scientists predict the existence of a new boson





Scientists at Wits' Experimental High Energy Physics Group predict the existence of a new boson that might aid in the understanding of Dark Matter in the Universe. Based on an independent study of the public results from the experiments at the Large Hadron Collider, the Wits group, in collaboration with scientists in India and Sweden, formulated the Madala hypothesis. The hypothesis describes the existence of a new boson, similar to the Higgs boson. Prof Bruce Mellado's team calls this hypothetical particle the Madala boson. However, where the Higgs boson in the Standard Model of Physics only interacts with known matter, the Madala boson interacts with Dark Matter, which makes up about 27% of the Universe. Knowing more about different types of particles may help us understand the evolution of the Universe.

# The essence of cleanliness

It's a well-known problem that antibiotics aren't keeping pace with microbial resistance. But some natural essential oils – cinnamon, geranium, palmarosa and sandalwood, to name a few – have been shown to work well against certain skin pathogens, and the effective compounds have been identified. Ane Orchard (BPharm 2012) and others in Wits' Pharmacy Department have been using this work with the goal of developing a synthetic antimicrobial oil.

GETTY IMAGES





Some of the alumni and sponsors who attended the

far and wide. Alumni travelled from New Zealand, the United States, Israel and all over South Africa, The 1986 class in particular arrived in their numbers to reconnect and revisit their alma mater.

The reunion programme included the Faculty Research Day, the AJ Orenstein Memorial Lecture on the topic of access to surgery, tours of the Wits museums and a trip to the Sterkfontein Caves to view the Wits fossil research site. A lively gala dinner concluded the week's activities.

Health Sciences Dean Professor Martin Veller provided an overview of the achievements that have contributed to the Faculty's recent ranking in the top 100 for medicine in the Times Higher Education World University Rankings.

The 2017 Alumni Week will be held from 6 September to 9 September 2017. For any enquiries, please contact the Faculty Development Officer, Lisa Rautenbach, on lisa.rautenbach@wits.ac.za.

Some of the Geophysics Honours students who were able to attend the reunion thanks to a sponsorship by Dylan Morgan, a Wits Geophysics graduate now based in Vancouver, Canada. Left to Right: Ofentse Sebidi, Tochukwu Mwachukwu, Brandon Dias, Michael Westgate, Wesley Harrison, Megan Naidoo, Tamara Makhateng, Nkimo Moleleki, and Sikelela Gomo



### **GEOSCIENCES** REUNION

Geosciences alumni joined Geology students to celebrate the 40th anniversary of RocSoc and the 112th birthday of the School of Geosciences at a gala dinner held at the Houghton Golf Club on 17 September 2016. The event was held partly to raise funds for the Geoscience Alumni Scholarship.

Geosciences School Head Prof Roger Gibson says the event achieved excellent contact between students and alumni. This is "hugely encouraging" in view of the current conditions in the industry, he says, and the conversations that took place have had spinoffs in terms of job opportunities and internships.

Geosciences' Prof Susan Webb says: "It is important for the alumni to see the students as young professionals, and that image was certainly created. The students did a fantastic job organising the event itself and have built lasting links with industry leaders."

The link to the Geoscience Alumni Scholarship Fund can be found on the Wits Foundation web page (www.witsfoundation.co.za/donate.asp).

#### ALUMNI REUNIONS In Texas

Wits medical graduates in the USA held a reunion in San Antonio, Texas from 18–20 October 2016. A gala dinner, held on 19 October, was opened up to all alumni in San Antonio and surrounding areas and was addressed by the Director of Alumni Relations, Peter Maher, who gave an overview of Wits' achievements and challenges in 2016. The medical graduates were also addressed by Faculty of Health Sciences representatives Prof Lionel Green-Thompson, Assistant Dean of Teaching and Learning, and Prof Judith Bruce, Head of the School of Therapeutic Sciences, as well as Nooshin Erfani-Ghadimi, Wits University's US representative.

A reunion dinner was also held in Austin, Texas on 20 October 2016 and an Austin Alumni Chapter was launched. For more information contact purvi.purohit@wits.ac.za.

## Still having their Wits about them in San Antonio:

Front: Judith Bruce (Head of Wits School of Therapeutic Sciences) and Stephen Matseoane (MBBCh 1959) Middle: Michel Rivlin (MBBCh 1957), Gerry Gilchrist (MBBCh 1957), Sheila Swartzman (MBBCh 1966), Joe Blumenthal (MBBCh 1959), David Friedman (MBBCh 1971), Peter Weston (BSc 1955: MBBCh 1958), and Elinor Colman (BSc 1965) Back: Lionel Green-Thompson (Assistant Dean: Wits Faculty of Health Sciences), Indran Naick (BSc 1991), Mark De Kiewiet (BSc Eng 1983; MSc Eng 1990), Alan Kisner (MBBCh 1967), Kenneth Bloom (MBBCh 1965), Melanie Belman-Gross (BA 1967), Eric Furman (MBBCh 1958), Stan Blecher (MBBCh 1958; BSc 1962), lan Gross (BSc 1964; MBBCh 1967), Eddie Melmed (MBBCh 1958), and Martin Colman (MBBCh 1964; MMed 1971).





Sir Sydney Lipworth welcomes Wits alumni and donors at a reception held at his London home. Photo: Link Photographers

## UK ALUMNI CONNECT WITH THEIR AFRICAN ROOTS

In November, Wits Vice-Chancellor Professor Adam Habib and palaeo-anthropologist Professor Lee Berger spoke to a select group of Wits alumni and donors in the UK, hosted at the beautiful home of Sir Sydney and Lady Lipworth. They highlighted the role that Wits has to play in shaping the future of South Africa and the continent, and the fact that academics like Prof Berger contribute to research that matters globally. Sir Sydney Lipworth QC was born in Johannesburg and is a Wits Commerce and Law alumnus. He achieved eminence in law, business and public service in the UK, and was awarded an Honorary Doctor of Laws degree by Wits in 2003. He and his wife, Lady Rosa Lipworth CBE, are philanthropists and generous donors to Wits. Among the guests were also two other Wits donor alumni who have been recognised with honorary degrees from Wits, namely Lord Joel Joffe and Sir Terence English. While in London, Prof Berger also gave a public lecture, hosted by the Department of Anthropology of University College London and attended by several Wits alumni.

### FOUNDERS' TEA

Was it going to be a case of "tea off" or "tee off"? Unfazed by news coverage or by changes in the venue and speaker, a large and determined group of Witsies found their way to the Sturrock Park golf driving range on 17 November 2016 for the annual Founders' Tea.

Vice-Chancellor Adam Habib thanked this loyal group of alumni (those who graduated 40 or more years ago) for attending. He assured them that the values Wits has built and nurtured over the decades will continue to be protected.

Vice-Principal and Deputy Vice-Chancellor Prof Tawana Kupe updated these stalwarts on the issue of higher education funding and how the University has handled a difficult period of student protests.

Dr Imtiaz Sooliman, founder of the disaster relief organisation Gift of the Givers, gave an inspiring talk about what we can achieve when we look past what divides us and constrains us and focus instead on our common humanity. The adventures of his team in taking relief to places like Syria and Haiti make a gripping tale, and they start with a can-do attitude and professional skills.









## Protesting

students and activists have over the past few months demanded the immediate implementation of free, quality, decolonised higher education from the state and have insisted on the shutdown of all universities until their demands are met.

Wits University pledged support for the students' demands and acknowledged the right to demonstrate and protest, but cannot agree to tactics involving intimidation, violence, disruption, or anything that would violate the Constitutional rights of those who want to learn or work.

In order to enforce this, the University has had to rely on private security and the South African Police Service to ensure the safety of students and staff, protect buildings, and allow classes and exams to continue.

The FeesMustFall (FMF) movement emerged in October 2015 and spread across universities nationwide after universities' fee increases were announced at the time. (See WITSReview Vol 33 December 2015.) Crippling protests around the country eventually led to government's decision to freeze increases for 2016. Additional funding was found in the national budget to pay for the resultant shortfall in university budgets. In January 2016 government set up a commission, headed by Judge Jonathan Heher, to look into the feasibility of free higher education.

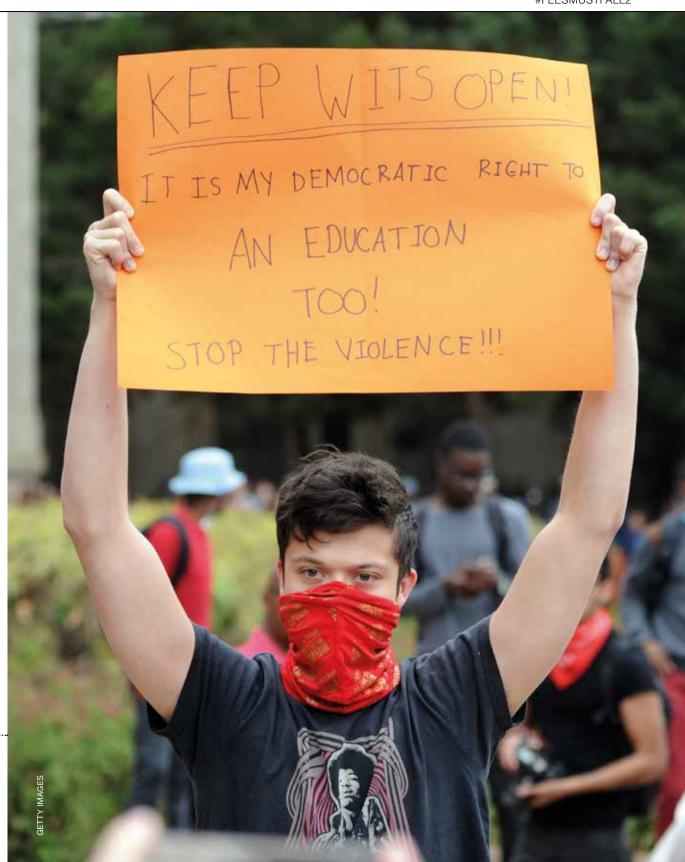
This year, the FMF protest was revived on 19 September when the Minister of Higher Education, Blade Nzimande, announced that universities should determine their own fee increases and recommended that these should not be higher than inflation, which he pegged at 8%.

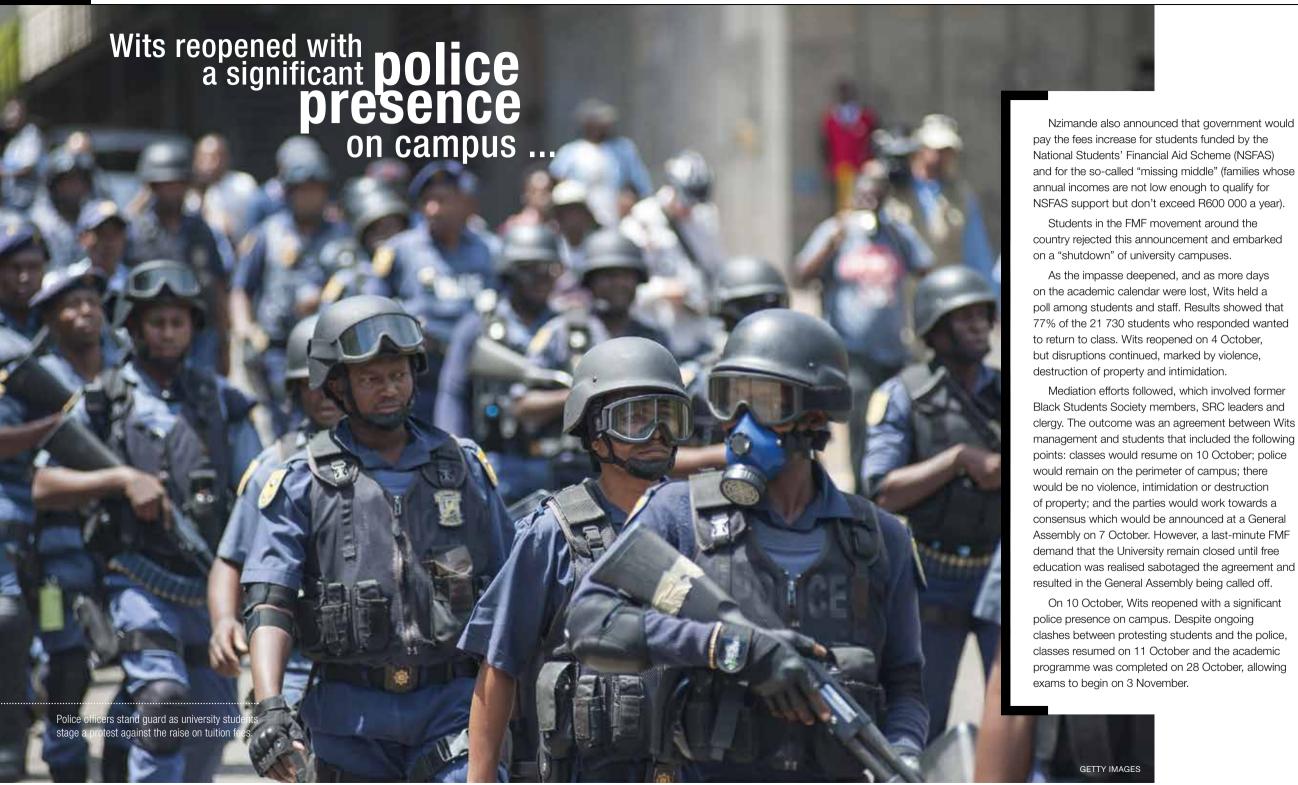
WITS UNIVERSITY PLEDGED SUPPORT FOR THE STUDENTS' DEMANDS AND ACKNOWLEDGED THE RIGHT TO DEMONSTRATE AND PROTEST,

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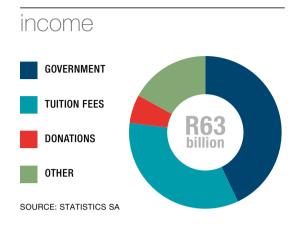
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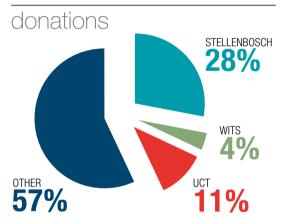
A Wits University student, Stuart Young, holds a placard that expresses his wish to resume classes during the #FeesMustFall protests on 4 October.





## HIGHER EDUCATION INSTITUTIONS 2015





In 2015, Wits got 4% of the **R4-billion** donated to all universities; UCT got 11% and Stellenbosch 28%.

#### **FINANCIAL SUPPORT AT WITS**

More than 20 000 of Wits' 37 000 students receive some form of external financial support, totalling more than R900-million.

In 2015, corporate donors, sponsors and philanthropic foundations gave more than R500-million for bursaries, scholarships and University projects.

Student fees amounted to R1,5-billion in 2016, of which about half was covered by external or University funding.

Source: Wits Development and Fundraising Office

#### A NATIONAL TRAGEDY

The past few months of student protests have cost the country's higher education system dearly, created bitter divides and exposed a higher education funding system with serious flaws and in desperate need of long-term solutions.

Sixteen of South Africa's 26 universities were closed at various stages over the past few months because of protest action. The campuses most affected were: Wits University, University of Cape Town, University of KwaZulu-Natal, Nelson Mandela Metropolitan University, Cape Peninsula University of Technology, Rhodes University, Tshwane University of Technology, University of the Western Cape, University of the Free State, Vaal University of Technology, Walter Sisulu University and University of Fort Hare. Protests also took place at the University of Pretoria, Stellenbosch and Central University of Technology.

#### FINANCING EDUCATION

Government funding as a proportion of universities' income, and the subsidy per capita, have been falling over the years and the resulting burden has been passed on to students as fee increases.

Statistics SA reports that of the R63-billion received as income by higher education institutions in 2015, 43% was sourced from government, 34% from tuition fees, 6% from donations and the remaining 17% from other sources, such as investments. The figures for Wits are about the same. At UCT they are 32% government subsidy, 29% fees and 39% other sources. In 2015, Wits got 4% of the R4-billion donated to all universities; UCT got 11% and Stellenbosch 28%.

In October, Finance Minister Pravin Gordhan announced that universities would receive an extra R17-billion over the next three years and government would pay registration fees for the poorest and "missing middle" students in 2017. Those who have debt will not be prevented from registering to continue their studies, and loans will be converted to bursaries if students pass. In 2016, around 75% of students received loans or bursaries from NSFAS.

Spending on higher education has risen faster than any other item on the national budget, with the exception of servicing debt. At the same time, university enrolment nationally has doubled in the 20 years after 1994, according to the Council on Higher Education. The rate of graduation, however, has been disappointingly low. Only 56% of students who enrol graduate within a five-year period.

The Heher fees commission handed over an interim report to President Zuma on 3 November and is set to deliver its final report by 30 June 2017. The Department of Higher Education and Training has said it will introduce a R900-million university capacity development programme in January 2018.

At the time of writing, Wits had not yet announced its decision on a fee increase for 2017.

#### **ALUMNI INITIATIVES**

Former Wits SRC president James Donald (BA 2003) started a website called www.whyfeesmustfall.org as an "ideas bank" to allow more people to comment on the issue of sustainable funding for quality higher education. The initiative encourages more measured thought and solution-driven input, which Donald believes can "accelerate the shift in public opinion in favour of better access to higher education".

Another initiative to broaden the conversation, with the hope of finding lasting solutions to the complex problems that have been highlighted, comes from the group Parents for Effective, Affordable and Continued Education (PEACE). Wits alumna Tess Young (BCom 1994) started the group and says: "Our goal is to ensure that universities remain open without disruption and to mobilise parents to stand up and encourage their children, and each other, to respect the democratic rights of others, to talk to each other, to solve problems through peaceful means and to use the legal structures in place. We recognise the plight of many students who do not have access to higher education for financial reasons."

She adds that many parents feel they are not heard or seen by universities or government, despite having a huge stake in the outcome of discussions. Young says they are worried about their children's safety and future, and are opposed to disruptive tactics, though they are not necessarily opposed to the demands of FeesMustFall.

Young says parents need to meet face to face and support dialogue and negotiation. "We're in this for the long haul," she adds.

# WITS' DRAFT PLEDGE (EXTRACT):

(EXTRACT):
The University of the Witwatersrand ... pledges our support for the goal of free, fully funded, quality, decolonised higher education. We pledge to approach government with a united voice for the realisation of this goal. We pledge to deploy our intellectual resources towards finding the best solutions. We are also prepared to support peaceful advocacy activities in this regard.

"We recognise the plight of many students who do not have access to higher education for financial reasons."

- Parents' group PEACE



### **September**

Blade Nzimande announces that universities should determine their own fee increases and recommends that these should not be higher than 8%; government will pay the increases for students whose families earn less than R600 000 a year

### September

At Wits, students reject this announcement and start disrupting activities in demand of free education for all; Wits suspends activities for three days

### September

A poll of students shows that 77% of the 21 730 responses are in favour of resuming academic activities: 23% are not in favour

### **October**

After mediation, the University agrees to convene a General Assembly to ratify a pledge on access to higher education.

#### **October**

Protest representatives make a last-minute demand that the University remain closed until free education is realised. The University refuses to accede to this demand and the **General Assembly** is called off

#### **October**

Wits reopens with designated areas for protest, but students and police clash on campus and in Braamfontein

#### **October**

A "peace accord" meeting is held at Holy Trinity Church but students walk out and ask management to leave

## **October**

Wits completes the academic programme

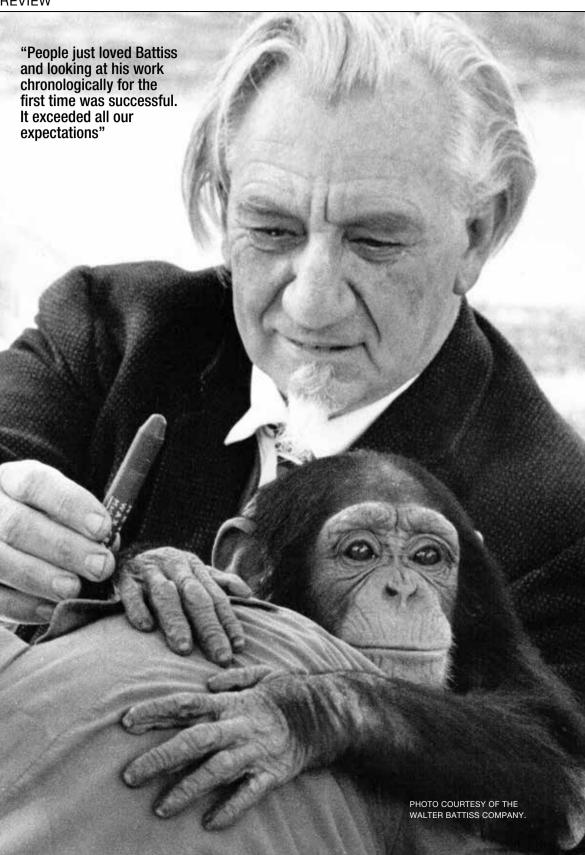
November **Exams** commence

20





5am Waking Dream Watercolour & white gouache on paper Jack Ginsberg Collection



Bare walls are unusual in Jack Ginsberg's Johannesburg home. This, after all, is a man who spent half a century collecting art, including more than 700 pieces by Walter Battiss.

past winter, though,
Ginsberg liberated his
walls of his beloved
Battisses by donating his entire collection
to the Wits Arts Museum (WAM). It was
a bittersweet farewell to the vibrancy, the
cheekiness and the genius on the canvases
and pieces of paper he had called companions
for so long.

But the sadness of goodbyes was soon forgotten as Ginsberg's collection was given an extraordinary airing as the backbone of the exhibition *Walter Battiss: "I Invented Myself"*. The exhibition, curated by Warren Siebrits, opened at the beginning of July and ran until the end of October. It smashed all WAM's previous visitor records and dominated as a Joburg must-see highlight for months.

This WAM show signalled a new campaign for the museum: encouraging owners of private collections to give their personal amassed art gems a public audience. WAM has this year also been able to exhibit works in the personal collection of Linda Givon (of the Goodman Gallery).

Ginsberg, a philanthropist and retired chartered accountant, has worked closely with and supported WAM for years. He says volunteering to kick-start the campaign seemed obvious – he was delighted to share his happy Battiss obsession with the public. He also believes it is a boon to art scholars and researchers to be able to see all the ephemera, books, photographs and artworks.

"I can't take them with me when I go," he adds with a laugh. He will hold on to a few of his favourite works, like the charming *People in Love with Trees*. WAM will just have to wait a little longer to get its hands on those, he says.

It was back in the mid-1960s, when Ginsberg was just a teenager, that he first acquired a Battiss screen-print and his exquisite obsession began. Among his treasures today are a rare gold coin from Battiss's Fook Island currency and a Battiss banknote stamped with the artist's penis.

"I think Battiss was a transgressive character and he was always in the news; that's why I started collecting his works," says Ginsberg of the artist, who defied convention and had a deep impact as an art teacher at Pretoria Boys' High, the Pretoria Art Centre and briefly at Rhodes University.

"Of course a lot of the works I owned were kept away in archival storage and only every few years did I change them around a bit. So when I saw the exhibition for the first time in the way Warren had displayed them, it was something quite special."

Siebrits and Ginsberg met more than two decades ago at an auction where Battiss works were coming under the hammer. Their admiration for Battiss's work and appreciation for building meticulous collections sealed their friendship.

"After we first met, Warren often advised me about pieces, so he was very familiar with my Battiss collection," says Ginsberg. It's a connection that showed in the way the exhibition came together. One element was the merging of two identical books of drawings – one owned by Ginsberg and one owned by Siebrits – to create a unique feature. Ginsberg's book was unbound and each work in it was separated and mounted to make up a dominant wall of works in the central Gertrude Posel Gallery space. Siebrits' book was displayed in its original form in a vitrine.

The sheer size of Ginsberg's collection, added to the few pieces already in Wits' archives, meant the entire gallery space was taken over for the exhibition. Along with paintings and drawings were a large Marguerite Stephens tapestry of one of Battiss's works, a painting of the Wits Great Hall, Fook Island coins, menus and marriage certificates. There was also a Picasso work that was a gift from Picasso to Battiss.





The pair also held joint walkabouts and special lectures, which allowed Siebrits' professional insight to be complemented with Ginsberg's personal reflections and anecdotes about pieces. Together, they plaited together a layered and rich experience for the hundreds who joined these events.

Siebrits chose to present Battiss's work in chronological order, with five distinct phases – the five reinventions of his artistic life. These phases started with Battiss's desire to "just be a good landscape painter" and continued to the man who would create Fook Island and go on to be considered one of South Africa's foremost painters, when he died in 1982 at the age of 76.

It features a bull and has a personalised inscription to the artist, who rose to cult status from the small Karoo town of Somerset East, where he was born.

Some of the works show the magnetism that places like Morocco and Greece had over him (he loathed Highveld winters).

There was also a room in the exhibition for Battiss's erotic works, showing his willingness to explore his every Dionysian whim. Siebrits says Battiss used erotica and sexually graphic work to push back against the censorship laws of the Nationalists.

Top, left: *Red Orgy*, 1977, watercolour & gouache on paper, Jack Ginsberg Collection. **Above**, left: *Sky Blue*,1978, Oil on canvas, Jack Ginsberg Collection. **Above**, right: *Mantis Man*, 1970, Oil & acrylic on canvas, Wits Art Museum collection.

"He also knew that somebody was bound to complain about the explicit works and would write to the papers and that of course would just get him even more attention," says Siebrits of this true eccentric and iconoclast.

Battiss was also about pushing boundaries for his personal artistic evolution, wanting to become more like Picasso, whom he befriended in Europe in the 1950s. He wanted to be able to flit from one style of painting to another in just an afternoon and to become

a master of all of them. His work borrowed from varied styles, from rock art to post-impressionistic styles using distorted perspective, idealised, Utopian themes and free brushstrokes. He later also incorporated pop art and abstract art into his work, always experimenting, always reinventing himself.

Even with such a range, Battiss's work is distinct and has an accessibility that made him a darling.

WAM's Lesley Spiro-Cohen says the show beat all WAM's previous records for visitor numbers – over 700 people at the opening and 600 people for a Saturday afternoon walkabout.

"We had over 5 000 visitors in just the first month."

The exhibition also had an education programme with an interactive workbook and sponsorship to bus school children in. The merchandise for the exhibition also proved to be a hit – it included a catalogue printed with five different covers, limited-edition prints, scarves and textiles as well as postcards and wrapping paper.

"People just loved Battiss and looking at his work chronologically for the first time was successful. It exceeded all our expectations," says Spiro-Cohen.

"I loved that people came into the museum with their own stories to share about Battiss, because he was an art teacher to so many people. "They told stories like how he was known to be lenient with his pupils. While other teachers caned the boys, Battiss chose to remove one strand of thread from their ties as punishment."

Spiro-Cohen says the exhibition had a resonance with children and adults because the works have so many entry points and so many layers that most people can find some direct connection.

The success of the WAM exhibition also had the offshoot of a Battiss exhibition at the Origins Centre, across campus. The Origins of Walter Battiss: Another Curious Palimpsest was devoted to the early development of Battiss as "artistic innovator".

This adjunct exhibition celebrated Battiss's fascination with and study of San rock art. Rock art imprinted on him early on in his career and he wrote two books on the subject. More than 80 works that had never been displayed before were included in that exhibition.

Ginsberg isn't quite finished with the exhibiting or collecting, though. He is still looking for things to fill gaps – like an elusive silver Fook Island coin to complete his set. He's also plotting to show the works that didn't make it into this exhibition and mulling over plans to take Siebrits' exhibition to an overseas audience. It's clear that even though the ownership of the pieces has changed hands, there's no chance Ginsberg will ever stop loving his Battisses.

Above: Jack Ginsberg

BY HEATHER DUGMORE



WITS ALUMNUS ARTHUR GOLDSTUCK (BA 1984), HEAD OF IT RESEARCH COMPANY 'WORLD WIDE WORX' AND EDITOR-IN-CHIEF OF GADGET, IS A JOURNALIST, MEDIA ANALYST AND COMMENTATOR WHO TALKS TO CORPORATE AUDIENCES WORLDWIDE ABOUT TECHNOLOGY TRENDS THAT WILL SHAPE THE NEXT DECADE.

A bloom of pink jellyfish just floated through my world, or I floated through theirs, while I was writing on my virtual desktop. After a while I felt like a diversion, so I attended a virtual Coldplay concert, but I didn't stay long because I don't like crowds. Instead I explored the Wild Coast from a drone's eye view, followed by a hike on Mars. Feeling a little weary, I went for a lie-down. I think this was real; my pillow felt real, but so did the Martian dust on my boots.

This is what time spent with Arthur Goldstuck does to you. His is a world where reality, virtual reality (VR) and augmented reality (AR) are indivisible. From cyber currency to deep immersion VR to robotic waitrons, he is constantly exploring new technologies being conceived, developed or improved in order to create a roadmap of technology trends that will shape our lives.

"This creates the feeling that you are actually in the scene."

## What we can expect in 2017

"Let's start with next year, when VR and AR will go mainstream, and when VR will be the next major platform for social media, as Facebook boss Mark Zuckerberg has already told us," Goldstuck says.

In 2014, Facebook bought Oculus – a company which makes VR headsets – for US\$2-billion, and together they are working on creating the social network VR experience.

VR simulates physical presence in places in the real world, or a computer-simulated reality, or a hybrid of both, giving the user an immersive multimedia experience.

AR, by comparison, is an overlay of content on the real world, such as a virtual desktop projected onto a desk that you can work on, or GPS data on your vehicle's windscreen, or Pokémon Go, the popular free-to-play, location-based AR game. Another example is the table IKEA has developed for its concept kitchen that screens recipes on the tabletop based on the ingredients on the table.

## REALITY, VIRTUAL REALITY AND IMAGINATION CONVERGE

VR and AR are converging, just as reality, virtual reality and imagination are converging. Goldstuck offers the example of the Samsung Galaxy S7 launch in Barcelona earlier this year, where journalists were invited to watch a virtual reality demo, using Samsung's Gear VR headsets. When the time came to remove the headsets, there was the real-life Zuckerberg, standing on the stage, ready to address them. The theme of his talk: that VR would be the next mainstream platform for social media.

This technology has many incredible applications, including those in education. Some mobile phone companies are giving away VR headsets with new phones purchased because they know where technology is heading.

Goldstuck explains that the quality of the VR experience depends on the quality of the headset lenses, which are priced accordingly. You can currently buy the Google Cardboard VR headset online for less than R200, and assemble it yourself, or you can pay anything from R400 to R10 000 for the high-end VR headsets.

#### PARTICIPATE IN VR EXPERIENCES

"Big brands are having branded versions of Google Cardboard VR headsets made for them as a marketing exercise. Last year the *New York Times* gave away one million of them to its readers so that they could participate in VR experiences – from the Olympic Games to the war against ISIS – on the *New York Times*' website."

With the VR headsets you can currently experience and participate in virtual travel, 360-degree videos and movies, and games, all of which combine VR with AR. VR and AR headsets use tiny micro-electromechanical (MEMS) accelerometers and gyroscopes to keep track of the angle the headset is facing. When you move your head the software detects this and moves the scene you are viewing to correspond with your movement. This creates the feeling that you are actually in the scene.

#### **BECOMING BATMAN**

"Some of the most common VR experiences currently available are rollercoaster rides, flying through space or a tour of a city or geographic area where you feel you are physically there, immersed in the environment and the experience," explains Goldstuck. His favourite VR experience is Batman VR "where you find yourself looking into the bat cave through Bruce Wayne's eyes. You put on the Bat suit and are immersed in being Batman." Goldstuck experienced the demo version of Batman VR, which hasn't been released yet.

#### **OBSERVER TO PARTICIPANT**

"There are many VR resources that are already available, such as VR libraries that you can download, but the advance of this will be to experience that you are there – where you feel like a participant rather than an observer."

It's just a matter of months before we will be able to "attend" a real-time sports event or music concert by wearing VR headsets, and feel that we are there. We can already participate in recorded VR concerts – both Coldplay and U2 have done this.



where you find yourself looking into the bat cave through Bruce Wayne's eyes. You put on the Bat suit and are immersed in being Batman."



"I FORESEE A TIME WHEN WE WON'T NEED MOBILE PHONES AT ALL," SAYS GOLDSTUCK. "WE WILL HAVE EVERYTHING WE NEED ON A VOICE-ACTIVATED WRISTBAND OR RING ..."

## What we can expect in 2020/21

"The technology underlying cyber currencies like Bitcoin is called blockchain, and is being explored by banks right now. It will go mainstream by 2020 but is already used as a transactional tool," says Goldstuck.

Also in 2020, self-driving vehicles will become a common sight on the road in many parts of the world. In late October 2016, in Colorado, a truck company called Otto collaborated with the Budweiser beer company to make the first delivery by a self-driving truck. The truck, carrying 51 744 cans of beer, was human-controlled until it got onto the highway, and then the autopilot took over and drove 192km (120 miles), equipped with GPS, sensors and cameras.

"Whether this will happen in South Africa is questionable because our licensing regulations might not be able to accommodate it, but should it ever happen, it would assist with common long-haul problems such as driver fatigue," says Goldstuck.

## What we can expect in 2022/23

By 2022 we won't be relying on a physical desktop or laptop. Instead, the keyboard will project onto any surface you want to work on, and the information will project onto a wall or any surface.

The Sony Xperia Projector, for example, which was also unveiled at Mobile World Congress in February 2016, projects a 21-inch display onto a table or wall and picks up your hand and finger gestures within the display area, making the display interactive, so you don't need a screen. This was followed by the launch in San Francisco in June this year of the Moto Z smartphone, paired with the Insta-Share Projector, which can project up to a 70-inch display – the equivalent of a large-screen TV.

"I foresee a time when we won't need mobile phones at all," says Goldstuck. "We will have everything we need on a voice-activated wristband or ring, where you say 'turn on' and the virtual laptop, movie or video call will display on the surface or environment of your choice. If you want to make a call, you'll just say 'phone Arthur' and it will ask 'which Arthur' and give you a choice or you can type the number in virtually."



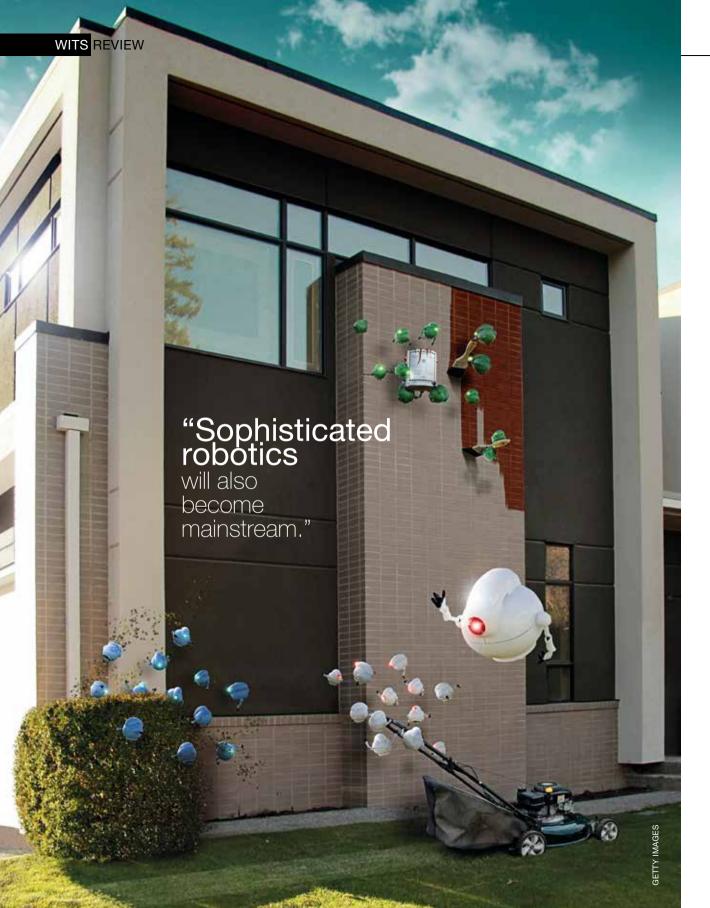
"The skills emerging as essential for the workplace of the future include problem solving, collaboration and **creative** thinking."

## WHAT DOES THIS ALL MEAN FOR EMPLOYMENT IN THE FUTURE?

Goldstuck says employment based on the technology of the future goes hand in hand with education.

"Most educators who research the philosophy and techniques of education accept that our current teaching format was designed to prepare students for the industrial age. Education has to change to meet the demands of the workplace of tomorrow, which is very far removed from the demands of the industrial age. The skills emerging as essential for the workplace of the future include problem solving, collaboration and creative thinking.

"I would like to add negotiation, and I am not just talking about political negotiation, I mean all forms of negotiation. It requires developing the skill to negotiate your position and persuade other people of the benefits of it, because you cannot force your way on people in a world where everyone believes they have an equal voice."



#### STOCK TRADING **ALGORITHMS**

Goldstuck says jobs that don't require these skills will prove to be the jobs that can be replaced by automatons and artificial intelligence. One of these is stock trading. "This is already largely conducted by computer programs with algorithms setting out what kind of trade must happen under which circumstances."

This pattern will be repeated in numerous industries: "The jobs that will be safe are those that require creativity and high-level decision making, such as a choreographer who operates at such a high level of thinking and creativity that it is impossible to replicate at this stage."

#### JOBS IN THE ARTS ARE SAFE FOR NOW

Overall, he says, jobs in the arts are safe for the time being, and jobs in the digital arts will flourish. So Wits' Digital Arts programme, headed by Professor Christo Doherty, is on track.

"Journalism is safe where it requires creative and enterprising thinking to share and uncover stories. However, certain forms of financial reporting, such as reporting on company reports, are under threat and will be artificially executed in the next five to 10 years."

#### ARCHITECTS, ENGINEERS AND COMPUTER EXPERTISE WILL FLOURISH

Other professions and trades he regards as safe are architecture and all forms of engineering – mechanical, software, electrical and computer engineering - which will be at the forefront of designing at all levels and building intelligence into systems and devices. All forms of computer expertise will continue to escalate.

"The Wits initiatives by Professor Barry Dwolatsky at Tshimologong and the Johannesburg Centre for Software Engineering are closely aligned with this future," he says.

Trades that will grow include electricians and plumbers who are skilled for smart homes and offices, where everything from complex technology to renewable energy will require their input.

#### DRONES, ROBOTS AND **AMAZING CHANGES**

Drones will become increasingly prominent – from goods delivery to surveying of everything from construction sites to water sources. Sophisticated robotics will also become mainstream.

"Robot waitrons in the Far East are already mainstream in the fast food industry, with 1000 robots produced every month in Japan for this industry," Goldstuck continues. "You won't find this kind of job replacement happening in South Africa because of our focus on human jobs, but globally robots will perform all sorts of functions, including assisting nurses with the care of the aged in developed countries with a rapidly ageing population.

"We'll also see amazing developments in specialist skills such as robosurgery, where a surgeon can be sitting anywhere in the world and operating on a patient thousands of kilometres away. This is already happening but it is not yet mainstream."

There is so much more to say, but, in short, the world we know will be gone in ten years' time. If we are still around then, it will be wonderful to talk to Goldstuck again and see what has come to pass and what the future holds.

# The Wits Tshimologong Digital Innovation Precinct was officially launched in Braamfontein on 1 September 2016.

Tshimologong (Setswana for "new beginnings") has been three years in the making and is a dynamic development that encourages tech innovation and collaboration between the University's researchers and students and the private, public and civil society sectors in Johannesburg.

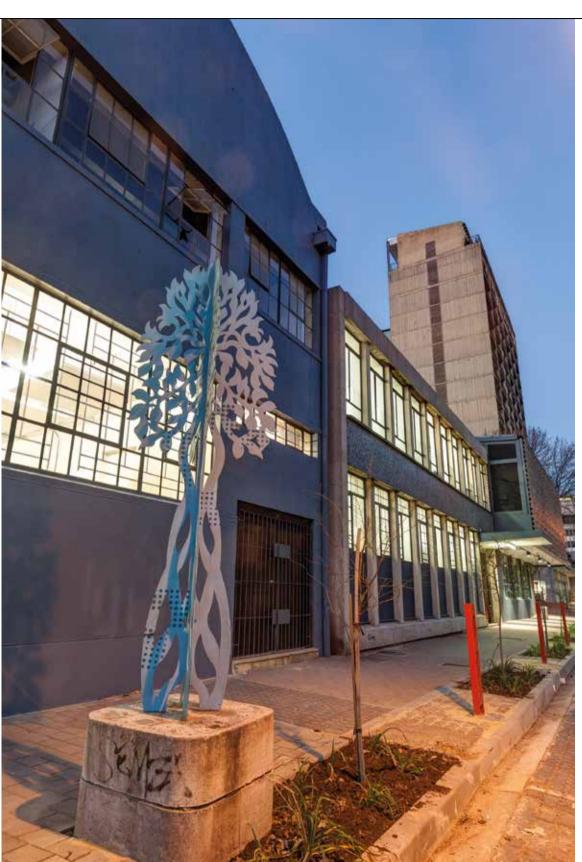
Located two blocks from Wits' main campus in Braamfontein, the hub is "a 24/7 space for anyone wanting to acquire digital skills – from entry level to advanced," says Barry Dwolatzky, the visionary techie and Wits Professor who conceptualised Tshimologong. "Here, you can interact with tech developers, programmers, designers and entrepreneurs to transform ideas

## Wits leads with a digital innovation hub

into businesses." Dwolatzky is Professor of Software Engineering in the Wits School of Electrical and Information Engineering and Director of the Joburg Centre for Software Engineering at Wits, which got the project moving.

Where there were warehouses, shops and a nightclub, there are now spaces for training, creativity, work, conferences and events. Techies can take courses, find tutors and advisors, and access Wi-Fi zones and hot desks. "Coffee, pizzas and bandwidth" is how Dwolatzky has described the basic attractions; but there's much more. Some of the hub is open to the public, some is for members. There are different levels of membership, allowing access to resources along a scale – a bit like a gym.

One of the spaces is a "maker lab", where people can come and use the equipment (such as a 3D printer) to build prototypes and learn from each other. One of the first projects here was a wearable sensor that detects other similar tags, to collect data about how and where disease may be spread.



The first big tenant of
Tshimologong is IBM Research,
the world's largest research
organisation. Its laboratory
will focus on big data, cloud
computing and mobile
technology and is already
working on:

- reducing the time lag in reporting cancer statistics
- predicting disease outbreaks
- understanding resistance to malaria drugs
- analysing data about air pollution
- getting pointsmen to where they are needed in traffic
- assessing and responding to fire risk
- working out how much solar power is needed in individual circumstances
- crunching data for astronomy

PROF BARRY DWOLATZKY (BSC ENG 1975) HAS RECEIVED THE DISTINGUISHED SERVICE IN ICT AWARD FROM THE INSTITUTE OF INFORMATION TECHNOLOGY PROFESSIONALS SA

## Get your head inside virtual reality



A Witsie leading the way in virtual reality applications in South Africa is the entrepreneurial and multi-skilled Ulrico Grech-Cumbo (BSc Eng 2008). He is the MD of brand experience agency Ambrosia and chief executive of a VR content studio, Deep VR, which produces 360-degree video footage for entertainment, advertising and storytelling. The material, filmed using multiple cameras and sometimes drones, can be viewed in two or three dimensions through VR headsets, giving the viewer an immersive experience. Deep VR, set up in 2015, has designed and built its own camera rigs and worked out how to do things that haven't been done locally before. Grech-Cumbo says the technology has many potential uses: just a few examples are tourism, real estate marketing, news reporting, wildlife documentaries, underwater filming, music events and health and safety education.



#### ADLER MUSEUM OF MEDICINE

Wits Medical School, 7 York Road, Parktown. **T** +27 (0) 11 717 2081 **E** adler.museum@wits.ac.za Hours: Monday to Friday 09:00 – 16:00. Saturdays on request. Cost free but venue hire tariffs on request.

#### WITS ART MUSEUM | WAM

www.wits.ac.za/wam.

University Corner, Corner Jorissen & Bertha Streets, Braamfontein. T+27 (0) 11 717 1365/58 E info.wam@wits.ac.za. Hours: Wednesdays to Sundays 10:00 – 16:00. WAM has a café and hosts regular events and exhibitions. Admission free.

Donations encouraged.

#### WITS THEATRE COMPLEX

www.wits.ac.za/witstheatre.

East Campus, Wits University, Performing Arts Administration, 24 Station Street, Braamfontein. **T** +27 (0) 11 717 1376 **E** catherine.pisanti@wits.ac.za Reception hours: Monday to Friday 08:00 – 16:00. Theatre costs vary according to programme. Tickets: www.webtickets.co.za

#### THE WITS CLUB

www.olivesandplates.co.za

Wits Club Complex, West Campus, Wits University. **T** +27 (0) 11 717 9365 **E** info@olivesandplates.co.za Hours: Monday to Friday 07:00 – 17:00 for breakfast and lunch. Booking is essential.

#### **PLANETARIUM**

www.planetarium.co.za

East Campus, Wits University, Yale Road off Empire Road, Entrance 10, Milner Park, Braamfontein. **T** +27 (0) 11 717 1390 **E** planet@planetarium.co.za Hours: Kiddies' show (5 – 8 years), Saturdays 10:30.

#### MAROPENG, THE CRADLE OF HUMANKIND & THE STERKFONTEIN CAVES

www.maropeng.co.za.

Directions: Off R563 Hekpoort Road, Sterkfontein, Gauteng. **T** +27 (0) 14 577 9000 **E** website@maropeng.co.za. Hours: 09:00 – 17:00 daily. Refer to website for rates.

#### THE ORIGINS CENTRE

www.origins.org.za. West Campus, Wits University, Corner Yale Road & Enoch Sontonga Avenue, Braamfontein. **T** +27 (0) 11 717 4700 **E** ask.origins@wits.ac.za. Hours: Daily and public holidays 09:00 – 17:00. Refer to website for rates.

#### WITS RURAL FACILITY

**T** +27 (0) 15 793 7508 **E** olga.hartman@wits.ac.za Refer to website for public rates.

Details accurate at time of publishing. Please contact facilities directly.

# The power of addiction

BY HEATHER DUGMORE

Escalating numbers of people in South Africa and worldwide are addicted to substances and destructive behaviours.

What causes addiction?

Why is it on the increase?

What can be done about it?

# Wanting, seeking

"Addiction is defined as a physical or psychological need for a habit-forming activity or substance."

year-end – a time when most of us feel licensed to let go and indulge. The pact we make with ourselves is that we will commit to restraint and balance in the new year. With addictions, the new year is perpetually deferred.

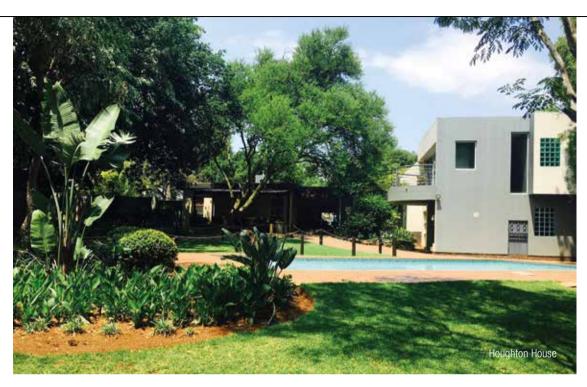
Counsellors talk about how increasing numbers of people across the socio-economic spectrum are engaging in addictive behaviour, from gambling to eating; from porn to sugar; from drugs to shopping. Addiction is defined as a physical or psychological need for a habit-forming activity or substance.

If we look at drugs, the range and availability is staggering. In South Africa, as little as R10 buys a hit of nyaope – a combination of heroin and marijuana. Like all drugs, cheap or expensive, for a few moments it offers a feeling of contentment, happiness, of having no cares in the world. You want to repeat this, but soon you no longer feel contentment or happiness from taking more; now you need the hit just to cope and avoid withdrawal.

It's the same with most addictions, and many addicts convince themselves that they will start phasing out the substance or activity. This approach inevitably fails and, sooner or later, they come crashing down.

If the addict is a child there are other complexities because they don't understand that what they are doing will have negative, long-term effects.

WITSReview spoke to a range of counsellors, doctors, psychiatrists and scientists about the different perspectives on addiction.



#### Houghton House



Wits alumnus Dr Hashendra Ramjee (MBBCh 1997) is an executive member of the South African Addiction Medicine Society. After completing his medical degree at Wits, Dr Ramjee worked and trained for two years in the United Kingdom in the

field of specialised addiction medicine. He returned to South Africa in 2005 and is currently a consultant for the Intensive Inpatient Programme at the Houghton House Group of treatment centres, and at the Akeso Psychiatric Clinic.

The extended inpatient care programme at Houghton House, known as the GAP, was established by two Wits alumni, psychologist Dan Wolf (BA 1995, MEd 2001) and psychiatrist Dr Charles Perkel (MBBCh 1985), together with psychologist Allan Sweiden. Houghton House was founded by Alex Hamlyn, who was a drug addict for 17 years and has been clean for 22 years.

#### The most pervasive addictive substance

Dr Ramjee starts the discussion with South Africa's most pervasive addictive substance: alcohol. "It is legal and available, and we associate it with socialising and celebration. The effect of this is to sanction drinking and mask potential addiction, which is why we do not like the term 'social drinking'."

South Africa is not one of the world's highest-consuming countries. However, South African drinkers do drink very hard, according to the World Health Organisation.

When does drinking become an addiction? Is it only if you are a very hard drinker? "Not at all," says Dr Ramjee. "We quantify a person's alcohol consumption in terms of the units they drink, with 12gm equating to one unit of alcohol. For women we limit alcohol consumption to one or two units a day and men to two units. Anything more can indicate a drinking problem."

#### We need to ask the hard questions

Dr Ramjee explains that addiction is not restricted to the stereotype of someone hitting rock bottom. There is a very important "in-between phase" that people need to be aware of, with red flags lining the way. "We need to ask the hard questions, such as why someone is regularly out drinking, including late at night, when they have a family at home."

While some addictions are obvious, others are difficult to pick up until they are far down the line. An example is the person who is addicted to over-the-counter painkillers or the person whose work revolves around drinking and socialising.

#### Highly defensive reaction

When asked about their behaviour, he says, many people will become highly defensive.

He believes that "a multi-disciplinary approach gives people in recovery the best chance of staying clean". It's important to monitor the physical and the mental progress of patients as they move through treatment, from detoxification and stabilisation to medication management and relapse prevention.

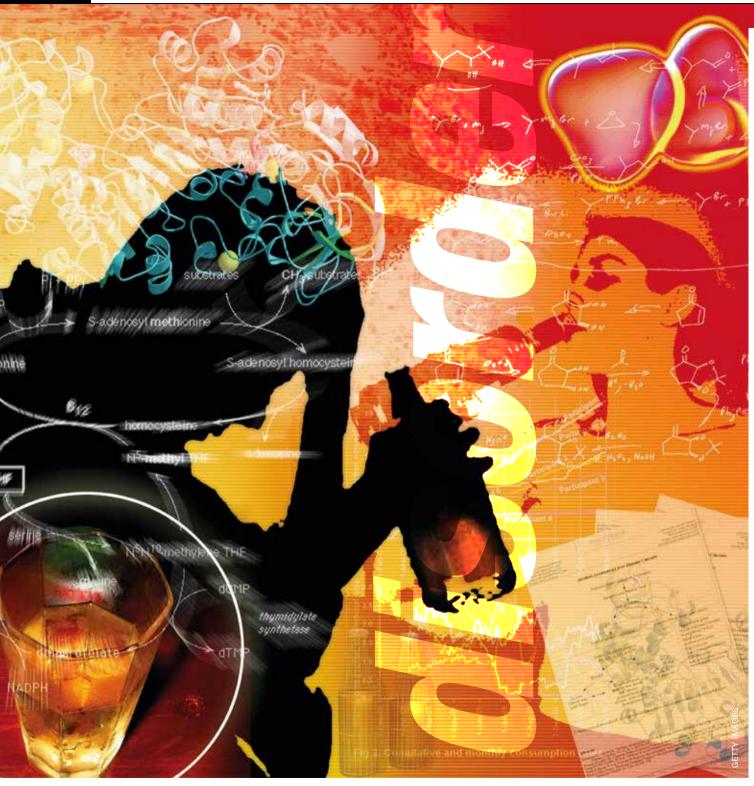
"I work closely with a psychiatrist, neurologist, psychologists and social workers and occupational therapists, as well as the patient's family and the judicial and policing services as they all have an important role to play."

#### A routine problem for GPs

Dr Ramjee says all forms of substance abuse, including stimulants and anabolic steroids used by sports people, have become so prevalent in South Africa that GPs regard it as a routine problem.

"It is therefore extremely important for Health Sciences students and professionals to thoroughly understand substance use disorders and how to identify the various forms, as well as other co-existing mental health disorders and medical disorders, which can lead to significant dysfunction in an individual's social, psychological and physical wellbeing. This includes behaviour that puts the person at life-threatening risk.

"Doctors, medics, pharmacists, paramedics, nurses and community health workers all need more training in addiction. The treatment-providing community in South Africa is small and therefore it is all the more important to expand the awareness and prevention side. People need to be able to go to their clinic or doctor and ask for help, just as if they had diabetes or any other issue."



## Addiction affects everyone

Dan Wolf, the Director of the Houghton House Group of Treatment Centres, has a Master's in Psychology from Wits. In 2000 he pioneered the first intensive outpatient addiction recovery programme, called First Step, and is recognised as a national expert on addiction treatment.

"Addiction, substance abuse, avoiding reality or whatever you want to call it, affects everyone, all ages, all cultures, all socioeconomic groups, and we have seen a significant increase over the past couple of years," he says.

Fuelling this is the accessibility of a wide range of drugs, including cocaine, heroin and methamphetamine, as well as other potentially addictive avenues, such as online porn and online affairs.

Former addict Alex Hamlyn mentions this easy availability as a big factor in getting him hooked on drugs. "Somebody would say 'I can get you some magic mushrooms', and I would say, 'okay, good', and then someone would say 'I can get you some amphetamine'. There wasn't even a hesitation; it was if you can get them, I want them."

#### Getting stuck

Wolf says: "Addiction is not a clinical term; the more clinical term used today is 'substance use disorder'. The term addiction also applies to certain behaviours and can therefore be understood as getting stuck in a place of dependence, or, in some instances, getting stuck in adolescence. This is indicated by behaviours that display resistance to independence. "True independence isn't about being an outsider or backpacking around India, it is a stage of adult life that requires delaying gratification, taking responsibility, facing emotionally challenging situations, making sacrifices to achieve goals and meeting commitments. These are consciously developed qualities that draw on our higher human potential, as opposed to living in a more unconscious, instinctive way."

Part of the problem, he elaborates, is that too many people expect life to be easy and the more our society moves towards technology and convenience, the more people become predisposed to instant gratification and living a life that doesn't require ongoing effort and resilience.

"It is easy to become addicted in our society but it is not easy to decide it's time to leave the party. It requires far-reaching changes in the person's life, and it literally requires re-training neural pathways in a life-affirming direction."



"It is easy to become addicted in our society but it is not easy to decide it's time to leave the party."

"... brain changes do occur as a result of addiction, but "it is a problem of the person".

#### Is addiction genetic?

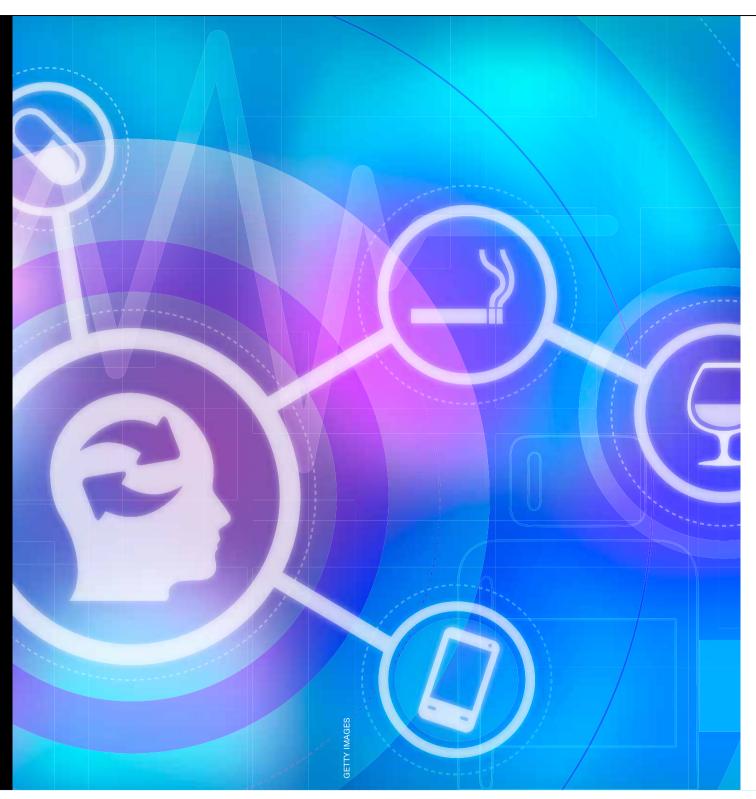
"As a neuroscientist I'm interested in the mechanisms of addiction. What has always fascinated me is why people would do such harm to themselves and commit offences. It reflects how powerful the addictive behaviour must be that it takes over your judgement," says Professor William Daniels, Head of the School of Physiology at Wits.

A key research area in this field for Prof Daniels is the inheritability of addiction. If a child's mother or father is an addict, will the child be predisposed to addiction? And what role does the social context of an individual play in fostering addiction?

To research this he is part of a group of South African and Moroccan neuroscientists who are collaborating with the University of Zurich in Switzerland.

They are observing mice which have access to good food, water, liquid cocaine and alcohol, each offered in an accessible container, respectively situated in the four corners of a cage.

Prof Daniels explains: "It's long-term research and we are not ready to report on the findings, but what we are researching is whether any patterns can be observed over time. For example, do any of the mice start drinking the alcohol and progress to the cocaine, in other words, demonstrate the gateway theory of addiction? Or do they show an addictive preference for either, or do they avoid them altogether and stick to the food and water? We are also looking at whether any of the mice adopt the behaviour of their more experimental or addictive peers."



## Is addiction a brain disease?

This is the question posed by Yale University psychiatry lecturer Dr Sally Satel in an article in The Conversation on 10 May 2016. She says brain changes do occur as a result of addiction, but "it is a problem of the person".

She elaborates that addiction cannot be said to be beyond the control of an addict in the same way as the symptoms of Alzheimer's disease or multiple sclerosis are beyond the control of the afflicted person.

"That is why recovery from addiction is possible.

"Take, for example, the case of physicians and pilots with drug or alcohol addiction. When these individuals are reported to their oversight boards, they are monitored closely for several years. They are suspended for a period of time and return to work on probation and under strict supervision. If they don't comply with set rules, they have a lot to lose (jobs, income, status). It is no coincidence that their recovery rates are high. They choose their job, income and status over the addiction."

Satel says people choose to take addictive substances because "at the start of an episode of addiction, the drug increases in enjoyment value". At the same time, once-rewarding activities such as relationships, job or family recede in enjoyment value.

"The appeal of using inevitably starts to fade as consequences pile up – spending too much money, disappointing loved ones, attracting suspicion at work – but the drug still retains value because it now salves psychic pain, suppresses withdrawal symptoms and douses intense craving."

While the use of medication can help patients in the withdrawal phase, the patient has to exercise choice in turning away from the addiction for recovery to be successful, she says. To imply that they are merely helpless victims of a brain disease takes choice away from them.

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THE POWER OF ADDICTION



## Ancient circuitry, anticipation, addiction

The familiar routes we follow to our bottle store, shopping centre, drug dealer, illicit affair, online porn site ... these are physical or electronic routes but at the same time they create well-trodden mental pathways in our brains with powerful feelings of anticipation.

The nature of well-trodden pathways is that we will follow them again and again. We literally have to re-route our brains to new pathways and redirect our feelings of anticipation.

Johannesburg-based counsellor, life coach and author Stephanie Vermeulen explains this in her latest book, *Personal Intelligence: Future Fit Now (EQ+IQ)*.

"We know the feel-good factor is short-lived and should be avoided, but the wanting circuit overrides all sensible thoughts."

"We have been led to believe that the rational brain rules our lives, but the ancient circuitry of our brains defies this in its constant seeking of a 'feel good' response," she says.

"The ancient circuitry developed when we first roamed the earth and pursued activities that ensured our survival, notably finding food and procreating. As part of the evolutionary process, our brains developed a feel-good circuitry response to these activities, with an associated surge of the neurochemical dopamine, known as the 'reward chemical'."

Dopamine doesn't surge when we achieve the activity: it surges in anticipation of it.

"Our brain is much the same piece of kit as the one our ancestors used all those aeons ago, only it has to deal with far greater complexity today. The anticipation of food or sex has expanded into a wide range of tempting activities with an equally powerful anticipatory response, which can lead to harmful addictions."

The effect of the addictive substance or activity compounds the problem – we might enjoy the effect or we might dislike the dark places to which it takes us, but this is secondary to the wanting, to the anticipation.

"Complicating this response is socially imprinted reinforcement that something will make us feel better," Vermeulen continues. "We know the feel-good factor is short-lived and should be avoided, but the wanting circuit overrides all sensible thoughts.

"It is the same for any addiction; the familiar circuitry dominates," Vermeulen says. "We see this in young boys and girls who grow up with easy access to online content, such as porn. If a young boy or girl takes a look at porn and if it sets off some form of sexual response or fantasy, the wanting circuitry is laid down."

With the help of a therapist who understands addictions, we need to retrain our brains to seek out new, healthy feel-good paths, such as exercise or having fun with our friends and families. Behaviour modification is key, says Vermeulen, who believes that "getting back to basics is far more fulfilling than chasing tinsel".

The instant gratification, consumerist society of "I want it and I deserve it now" has fuelled our addiction circuitry and the result is many people land up in debt, in rehabilitation centres or deeply unfulfilled, anxious and depressed.



#### Addiction at work

Experienced counsellor Carolyn Duamore, whose Wits degrees include a Master's in Occupational Social Work (2014), counsels for ICAS (Independent Counselling and Advisory Services) in South Africa, which focuses on employee wellness and behavioural risk management for corporates. She says dependence on substances, including drugs (illegal or legal), alcohol and sugar or food, is a notable problem in the corporate sector. There has also been a rise in technology-related dependencies, such as internet addiction disorder, internet gaming addiction, cyber relationship addiction and cyber porn addiction.

"In the corporate sector, life is highly pressured at all levels and people are using various avenues in their attempt to manage the pressure, ease anxiety, lift depression and escape from daily worries."

Addictions can lead to disciplinary issues such as absenteeism, late-coming, injuries and accidents, lying, theft and conflict with colleagues.

#### Denial and facts

"When confronted about their addiction, people tend to deny it, minimise the problem, rationalise it or project it onto other people, says Dugmore. "Emotional confrontations often do not work because feelings can be debated. Confronting the person with facts is usually essential. Facts include being arrested for drunk driving, abuse of a spouse while drunk or on drugs, receiving a protection order, and being blacklisted due to debt problems.

"If I am seeing a person with an addiction problem who is defensive about it, I often ask them to write down over a week or two what they are using and how much. I find that this method, if they are honest about their use, helps to bring about the recognition of the impact on their life, and then to make the choice to change their actions.

#### What family and friends can do

"One approach is to ask the person with the problem to meet with a group of two to four people who have influence in his or her life. They each present some facts connected to the person's dependency in a concerned and respectful manner, with the goal of assisting the person to accept reality and, if possible, to make a firm commitment for treatment."

Dugmore says the problem generally needs to be assessed by a social worker, psychologist, psychiatrist or GP. Support groups such as Gamblers Anonymous, Overeaters Anonymous, Alcoholics Anonymous and Narcotics Anonymous are also excellent sources of support.

# **Unusual** addictions

## Video game playing

Eating substances like soil, chalk or clay (this is not always related to a nutritional deficiency)

#### **TATTOOS**

### Chewing ice

(sometimes this indicates an iron deficiency)

Cosmetic surgery

#### **TANNING**

Compulsive exercise

Shopping



#### THANDWA MTHEMBU

Professor Thandwa Mthembu (PhD 1991), a mathematician and former Deputy Vice-Chancellor at Wits, has been appointed Vice-Chancellor and Principal of the Durban University of Technology. He was previously in the same leadership position at the Central University of Technology.

BUHLUNGU

SAKHEL

Professor Sakhela Buhlungu (MA 1996, PhD 2002) has been appointed Vice-Chancellor of the University of Fort Hare. He was previously Dean of Humanities at the University of Cape Town. With a background in trade unions research, he was at one time Head of the Sociology Department at Wits.

THULI MADONSEL



South Africa's former Public Protector, Thuli Madonsela (LLB 1991), has received the Forbes Africa Person of the Year Award for 2016. The award, which was presented in Kenya, is given for "the individual who, for better or worse, has had the most influence on business on the year gone by". Advocate Madonsela was chosen in recognition of "her quest to bring inconsistencies to the fore" and is the first woman to receive this award. She has been widely praised for her courage and integrity in carrying out the duties of her office, ensuring "fair, responsive and accountable public sector decision-making and service delivery".

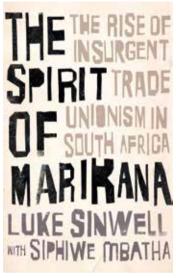
#### NOSIPHO MOLOTO

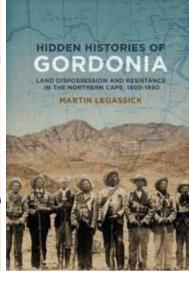
Professor Nosipho Moloto (PhD 2011) has won an NRF Research Excellence Award for Early Career/Emerging Researchers. She was a postdoctoral fellow at MIT and is now a chemistry lecturer at Wits, as well as being active in encouraging young people to take up science. Her research involves various applications of semiconductor nanocrystals. Prof Moloto says that to make science more popular, it is important to reach children at a young age and communicate science in a fun and engaging way. "In my view, it all begins at home. When a child grows up in a science-friendly home, they are bound to be inquisitive, experimental, critical thinkers with good reasoning."

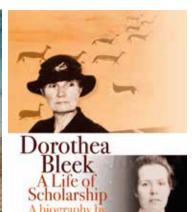


## BY KATHERINE MUNRO, SCHOOL OF ARCHITECTURE AND PLANNING

## BookReviews







The Spirit of Marikana: The Rise of Insurgent Trade Unionism in South Africa

By Luke Sinwell and Siphiwe Mbatha

The Marikana massacre in 2012, when 34 mineworkers were gunned down by police during the bitter and prolonged strike on the platinum mines, is still recent and raw in memory. It is an event that quickly passed into a line-up of state atrocities and led to political repositioning and the Farlam commission of inquiry. A great deal of current writing about it has the feel of immediacy and still expresses outrage, anger and shock. This book falls into that category but digs deep into roots and causes of the platinum strikes.

Two concepts are central to grasp the perspective of this study: "insurgent trade unionism" and "scholar activists". Union leaders in the platinum belt rejected the National Union of Mineworkers and instead formed and promoted their interests through the newer, more militant, insurgent Association of Mineworkers and Construction Union. Scholar activists are academics who study and diligently interview the key union players and report the events in a totally committed way. The writers make it clear from the start of the book that they are on the side of the mineworkers and are sympathetic to the cause. The researcher is a player in the struggle for dignity and a living wage and the engaged interview approach means that the unionists share their perspectives with openness and honesty.

The record is written in English and this means that the interviews give insights that elude many journalists or other commentators on Marikana who remain observant outsiders.

The authors take as a given that a "living wage" of R12 500 and then R16 070 is a just demand. There is no explanation of how these figures were calculated or whether they were affordable to the mining companies, nor is there any examination of the economics of mining or the likely long-term impact on employment or mechanisation. What was happening to the price of platinum or international demand for this strategic metal during this period? The unequal pay gap between CEOs (on average earning R55 000 a day in 2011) and miners (demanding R12 500 a month) was a ready moral rallying cry, but there is no analysis of how many CEOs earn this high salary or indeed trends and employment patterns of mineworkers. There is nothing here about the key companies, Lonmin and Amplats, and their profitability, fortunes or futures.

This volume is unusual in that it starts with a glossary, timelines, acronyms, thumbnails of leaders and maps; normally these items of information follow at the end. It's a useful and substantial tutorial of all you need to know before engaging seriously with the substance of the study. The objective of the interviewers was to collect archives and conduct in-depth interviews, by living with and among the key activists. It is this ethnographic and biographical approach that makes this study so compelling and such a significant document of its time. It gives the reader a privileged insider's view of the lives and struggles of the mineworkers of Marikana at a crucial moment in time. However, one remains uninformed on the subject of the economics of mining and the perspectives of mine management. The book will appeal to an academic audience but the mining industry will also learn from this exploration.

#### Hidden Histories of Gordonia: Land Dispossession and Resistance in the Northern Cape, 1800-1990

By Martin Legassick

Gordonia is a remote, frontier part of South Africa in the Northern Cape province. It is dry, mainly barren, marginal land with a small, linguistically and culturally mixed population (only 2.2% of the country's total population in 2014). Along the Orange (Gariep) River the land is fertile because it is irrigated. It was an area in which the Basters settled in the late 19th century but there are also Xhosa speakers and descendants of other Khoisan people.

This book is a collection of essays about the 19th and 20th century history of the area by the late Martin Legassick. Most of the essays have been published previously in academic journals. However, the value of this book is that it brings together a sizeable body of historical work, is a tribute to the scholarship of Legassick and contributes to the local history of the Northern Cape. It also adds to the development of a new, alternative history of South Africa which challenges the colonial past. Legassick's history is grounded in field trips and personal exploration undertaken in the 1990s; his work builds upon and complements Nigel Penn's *The Forgotten Frontier: Colonist and Khoisan on the Cape's Northern Frontier in the 18th Century* (2005).

Legassick considered himself to be an applied historian and his efforts show that well-grounded historical research and writing is of relevance to the lives of people in the present. He wrote to inform "transformation in the present on the basis of evidence from the past" with the direct objective of addressing past injustices.

The colonial occupation of Gordonia starts with the indigenous history but also illustrates the northward movement and creation of settlements of Basters and whites from the western Cape. It was an area without boundaries other than the Orange River. The British colonial effort to impose law and order is shown in the names Gordonia (named for Sir Gordon Sprigg, four times Prime Minister of the Cape Colony between 1878 and 1902) and Upington (founded in 1884 and named for Sir Thomas Upington, Attorney-General and then Prime Minister of the Cape).

Legassick's interest is in case studies of ordinary people, such as the Baster September family. Abraham Baster had been a slave and was the first person to lead water out of the Orange River for irrigation; it is Legassick's work that has led to recognition of his pioneering efforts. One can't but be shocked by the account of the late 19th century illegal trade in human skeletons dispatched to the Natural History Museum in Vienna for "scientific" research. I was interested in the link between the academic work of the Bleek family and the fact that as late as 1911 Dorothea Bleek participated in the collecting of human remains, as related in the Weintroub biography of Bleek.

A fascinating chapter on the "brown" Afrikaners of Riemvasmaak (which came to prominence in 1974 when a community of 1000 was forcibly moved) shows their origins through migration, colonisation, war and revolt. The Marengo Rebellion of 1903-07 is a well-told tale of resistance, surrender and heroic last stands.

The uniting theme of the essays is that of land occupation, dispossession and resistance. It is important to recover the history of reserves, mission stations, farms and conquest to support modern-day land claimants and subsequent restitution.

There are some obvious gaps.

Absolutely essential to any historical study has to be an investigation of the economic life of the people. How did they make their living? Farming on irrigated land requires capital investment – where and how can capital be found? How did the Orange River wine industry emerge? What mining activities took place? One returns to the low population figures and one wonders whether current demographics and economic circumstances promote migration.

The two map reproductions of 1801 and 1882 are unreadable and add nothing to the book. The figures and small maps of Upington are examples of poor reproduction. The book would have been enriched with more of a photographic record. In contrast the chapter end notes, the comprehensive bibliography and the index pull it back towards acceptable and strong academic standards.

The interest of this collection of essays extends well beyond the Northern Cape. This is a book that matters to South African history. I recommend it for the breadth of coverage of the essays, but also the way in which the study of detail then contributes to an understanding the whole. It stands as a memorial to the author, who was an accomplished, significant historian and compassionate activist. Legassick's historical methods and careful research are an inspiration.

Dorothea Bleek: A Life of Scholarship

By Jill Weintroub

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AND STUDENTS
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Jill Weintroub is a Research Fellow at Wits' Rock Art Research Institute. In 2006 she completed an MPhil at the University of Cape Town on the Bleek and Lloyd archival collection, a set of notebooks and associated papers collected in the 1870s and beyond which was included in UNESCO's Memory of the World Register in 1997. This is a documentary heritage of international significance because of the scholarship of Wilhelm Bleek and Lucy Lloyd relating to the San or |xam Bushmen.

This biography is the culmination of years of work on aspects of the Bleek collection. Weintroub ably moves into the history of ideas in documenting the intellectual life, travels and research of Dorothea Bleek, the daughter of Wilhelm Bleek and niece of Lucy Lloyd, who take the limelight for their 19th century research and novel methods of studying San prisoners who lived with their family in Cape Town. It is Weintroub's contention that loyalty to the family, plus an emotional investment, explain why Dorothea Bleek devoted her life to "Bushman" scholarship.

Dorothea Bleek (1873-1948), who was born and died in Cape Town, was a second-generation linguist, anthropologist, folklorist and philologist. She became a scholar, traveller and creator of anthropological field notebooks in her own right. Weintroub argues that she was a complex character whose life, work and academic contribution deserve greater recognition than previously accorded. This biography fills that void. Bleek held the position of Honorary Reader in Bushman languages at the University of Cape Town from 1923 to close to the time of her death in 1948. She donated the Bleek and Lloyd notebooks to UCT shortly before her death and the world owes this important legacy to her custodianship.

This is not a biography in the traditional sense as the paucity of hard evidence means that there are long periods of Dorothea's life which are glossed over or where surmises are made. There is almost no coverage of the years when the family returned to Europe in 1884 (Wilhelm had died in 1875) and lived between Berlin and Clarens, Switzerland. It was not until 1904 that Dorothea returned to live in South Africa. She was 31 years old, and normally a woman of her era and class would have been married and settled. Weintroub concentrates on the more mature Bleek as revealed in her extant notebooks, correspondence and friendships. This material forms the substance for writing an intellectual life. It is all about scholarship, the development of disciplines in Southern African studies and intellectual interactions.

The most interesting aspects are the details about the fieldwork journeys and the sometimes strange research methods Bleek used between 1905 and 1940. She certainly participated in rather peculiar skeleton-gathering on an expedition with Maria Wilman. There is too ready a sliding over reprehensible practices of dispatching skeletons to Vienna for study and treating remains of "primitive" people as objects divorced from any soul.

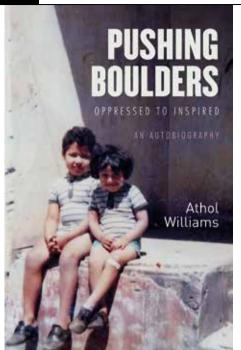
Bleek's journeys by train, ox wagon or early automobile took her through the Kalahari, Bechuanaland (Botswana) South West Africa (Namibia), the Northern and Eastern Cape, the Transvaal, Tanganyika (Tanzania), Angola and Basutoland (Lesotho). These chapters are the core of the book. It is interesting to read of Bleek as a woman of her time but also, as a spinster and scholar, as someone rather unusual and somewhat out of her time. I did not, though, pick up an empathy that normally develops between a biographer and her subject. I find it odd that Bleek turned down an honorary doctorate offered to her by Wits in 1936.

Weintroub revisits Bleek's scholarly life and achievements to assess her contribution to African studies, linguistics, rock art and anthropology in Southern Africa in the early 20th century. The book makes a readable contribution to the study of the evolution of these disciplines.

Though she achieved considerable recognition and status, Bleek was later sidelined for what were considered dated and incorrect views and practices. I found it fascinating that she used notebooks, drawings, artists' copies, tracings, wax phonograph cylinders and photographs to capture and record all she saw. Her methods evolved and she was interested in observation and the latest technology. She published her own study of the Naron (Nharo) and their language. Her contribution also lay in publishing the George Stow rock drawings and paintings. In the 1930s she published nine papers in Bantu Studies of her aunt Lucy's |xam texts. She saw through to publication-ready stage *A Bushman Dictionary*, though publication was delayed until eight years after her

This biography ought to be read in conjunction with Pippa Skotnes' major and very beautiful art book, Claim to the Country: The Archive of Wilhelm Bleek and Lucy Lloyd (2007), a book rich in photographs and manuscript reproductions, which gives a sense of context and the magnitude of the task of documenting an indigenous culture. In turn, this biography adds to one's understanding of the Bleek and Lloyd archive. I should mention that a good read to give context is Neil Bennun's The Broken String: The Last Words of an Extinct People (2004).

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#### **Pushing Boulders**

BY ATHOL WILLIAMS. THEART PRESS

This is the true story of how Athol Williams (BSc Eng 1992), born on the Cape Flats, overcame disadvantage and pursued education – for himself and for all the children who benefit from the proceeds of his books. Williams had a successful business career as a strategy consultant before starting the NGO Read to Rise, which promotes literacy in under-resourced communities. In October he won the Sol Plaatje European Union Poetry Award, for the second time, for his poem *Visit at Tea Time*. His poetry book *Bumper Cars* has been nominated for a South African Literature Award.

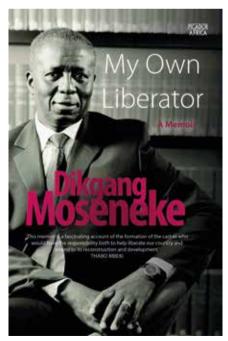
# WITSIES WITH THE WRITING EDGE

#### My Own Liberator

56

BY DIKGANG MOSENEKE, PAN MACMILLAN

This memoir of Wits' Chancellor sets his extraordinary life in the context of family and values as well as South African society, and traces his path from teenage political prisoner on Robben Island to lawyer, businessman and Deputy Chief Justice. The introduction is by Wits Vice-Chancellor Prof Adam Habib and there is a contribution by Tiego Moseneke, who is the author's brother and a former President of the Black Students Society at Wits. Judge Moseneke has said in an interview that he hopes the book will help young people understand the importance of personal development and "individual agency". Collective struggles such as the movement for free education are legitimate but "we have to create good individuals for good collectives". In accordance with South Africa's Constitution, he says, the State has to show that it has a plan to make higher education accessible and available. Judge Moseneke has at least two more books in the pipeline: one about his time at the Constitutional Court and one about training new judges.



#### Not Without a Fight

BY HELEN ZILLE, PENGUIN RANDOM HOUSE

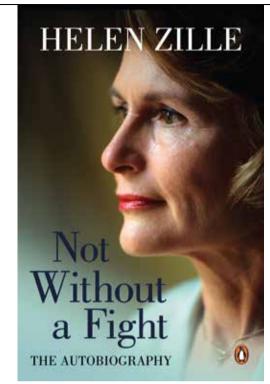
In her autobiography, the Democratic Alliance's Helen Zille (BA 1974, PDE 1974) "tried to blow the lid off the way politics works in South Africa", she says, She started her political career through NGOs in the 1980s, joined the Democratic Party in the mid-1990s, and worked in the provincial legislature, as an MP and as mayor of Cape Town before being elected leader of the DA in 2007 and appointed premier of the Western Cape in 2009. She has said she feels the most powerful chapter is the one describing efforts to establish the DA in townships. Her book also offers insight into the personal life of a high-profile public figure. Approached chronologically, she says, "it wrote itself". Relationships good and bad are aired. "This is a story about political intrigue and treachery, floor-crossing and unlikely coalitions, phone tapping and intimidation, false criminal charges and judicial commissions," say the publishers. One reviewer has described the book as "even-handed and scrupulously fair". Several have remarked that it is highly readable, despite being over 500 pages long.

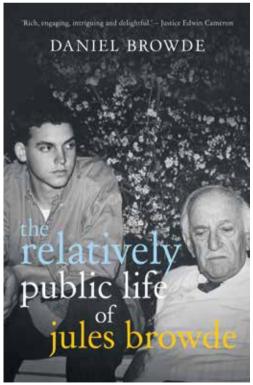
#### The Relatively Public Life of Jules Browde

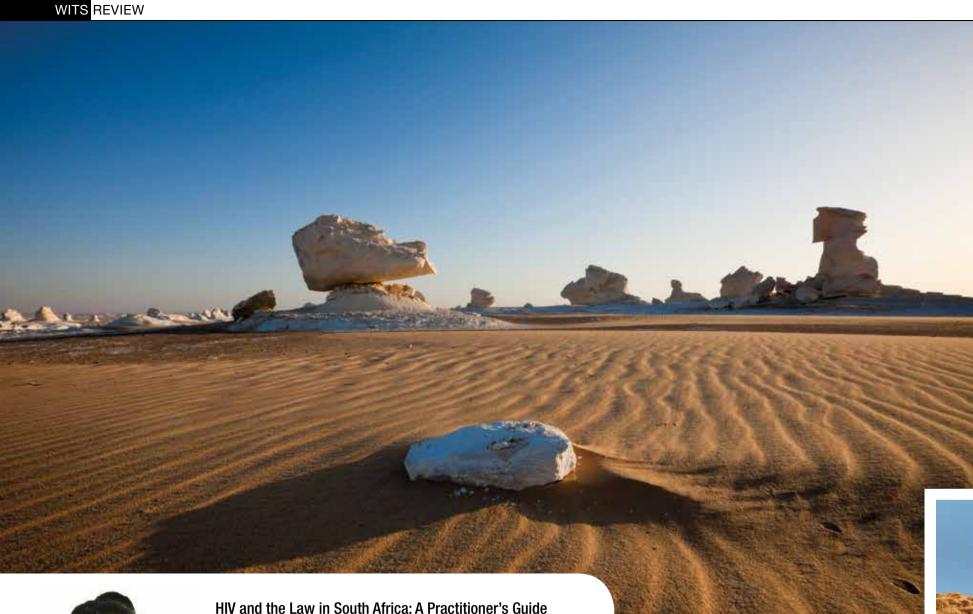
BY DANIEL BROWDE, JONATHAN BALL

Daniel Browde (BA 2000) has written the story – and stories – of his grandfather, the acclaimed advocate, who died on 31 May, aged 97 (See WITSReview August 2016), just before this book was printed. These are stories about family, life in Johannesburg, life in the law, and, from the other side of the kitchen table, about emerging from depression and becoming a storyteller. Chapters of Jules' stories are interspersed with the story of Daniel's efforts to find a way to tell them and to find his own place and voice. Small descriptive details, along with plenty of dialogue, put characters vividly before the reader. The book, illustrated with photos, is packed with people and places many Johannesburgers will recognise and the stories evoke many decades of history – as well as pointing to new ways of living.

It was launched at the Wits Writing Centre in September, an occasion which Daniel says he thinks his grandfather would have appreciated greatly.







EDITED BY AMELIA VUKEYA MOTSEPE. LEXISNEXIS

"HIV as a health issue is extraordinary because it cuts across various areas of law and thus impacts on various rights," writes human rights champion

Amelia Vukeya Motsepe (LLB 2003). "The law cannot remain on paper - it has to be implemented. HIV is a daily reality for over 6-million South Africans,

therefore law professionals can – and must – play an active role in the fight

against the epidemic by advising those who are infected and affected with HIV/AIDS." She has edited a user-friendly guide for legal practitioners, NGOs, charities, healthcare professionals and students of law and medicine.

The foreword is by Constitutional Court Justice Edwin Cameron.

#### Formations in White Desert National Park, Libyan Desert, Egypt

**GETTY IMAGES** 

#### Africa's Top Geological Sites

BY RICHARD VILJOEN, MORRIS VILJOEN AND CARL ANHAEUSSER, STRUIK NATURE

You don't have to be a geologist to enjoy this beautifully produced book, which describes and explains some of the most important landscape features of the African continent. It was compiled with a more general readership in mind, despite being a legacy document for the 35th International Geological Congress - the "World Cup of geology", held in South Africa this year for only the second time.

Co-editor Professor Carl Anhaeusser says "most of the sites are also popular tourist destinations as they have spectacular scenery and other attributes of scientific and cultural significance". The 44 chapters cover Africa's "wonderland of geological superlatives" - from the Ethiopian Highlands to Table Mountain. Maps, diagrams, photos, satellite images and a glossary add to the wealth of information.

Prof Anhaeusser is an emeritus professor who has been a student, teacher and researcher at Wits since 1958. Morris Viljoen is Professor of Mining Geology and Richard Viljoen an Honorary Professor in the School of Geosciences. The book is available from the Geological Society of South Africa (info@gssa.org.za) at a special price.

AFRICA'S **Top Geological** Sites

# Wits University fondly remembers those who have passed away

## **Obituaries**

## FATHER BONAVENTURE HINWOOD OFM (1930 – 2016)

Edward Victor Hinwood (BA 1950. BA Hons 1951) was one of the founding members of the Students' Anglican Society at Wits. He obtained an Honours degree in History and a librarianship qualification. In 1951 he was accepted as a member of the Catholic Church and trained to be a priest in the Franciscan order. In 1960 he was ordained in Rome, where he also obtained his doctorate with a thesis written in Latin. The Church sent him to St John Viannev Seminary in Waterkloof, Pretoria, where he spent 35 years as a lecturer. He retired in 2010. He skilfully translated a great deal of liturgical material into Afrikaans and was involved in the latest translation of the Bible into Afrikaans. His interest in the language had arisen from his role as Catholic student chaplain at the University of Pretoria. He wrote poetry in Afrikaans and facilitated Afrikaans poetry groups, contributing significantly to the literature. He died aged 86 at the Holy Cross Home in Pretoria.

#### MICHAEL COULSON (1938 – 2015)

Financial journalist, arts writer, theatre lover, voracious reader, crossword puzzler and cricket enthusiast Michael Coulson (BA 1960, BCom 1964) died on 29 June 2015 after a short illness. From 1987 to 2003 he was deputy editor of the *Financial Mail*.

#### **DANUTA KIELKOWSKI (1953 – 2016)**

Occupational health epidemiologist Dr Danuta Kielkowski died in Johannesburg on 3 July 2016. She headed the Epidemiology and Surveillance section of the National Institute for Occupational Health (NIOH) and the Cancer Registry until 2014. She came to South Africa from Poland in 1981 and started working at the NIOH in 1983.

Prof Gill Nelson, of the Wits School of Public Health, says: "Danuta accomplished many things during her career. She is the reason that South Africa has a comprehensive death certificate, listing several causes of death. Changing the SA death certificate earned Danuta her PhD from Wits in 1996, for which she worked diligently and persistently - persuading government officials and policy-makers alike that the change was necessary. She was a leading researcher in improving vital registration, including data quality, ICD coding and reporting of mortality in relation to occupational and industrial groups. Her other research interests included asbestosrelated diseases, cancer mortality and reproductive health."

When Kielkowski retired, NIOH head Dr Sophia Kisting paid tribute to the "collegial and inclusive manner in which she shared her skills".

#### BERNARD TABATZNIK (1927 – 2016)



Bernard (Bernie, aka Bunny) Tabatznik (BSc 1946; MBBCh 1949) died as a result of a car accident on August 14. He was 89.

Dr Tabatznik specialised in internal medicine and cardiology and worked at Baragwanath Hospital in

the mid to late 1950s. In 1959 he moved to the USA, where he became Assistant Professor of Medicine at Johns Hopkins University School of Medicine.

As Chief of Cardiology at Sinai Hospital in Baltimore from 1961 to 1972, he put together the team that developed the implantable cardiac defibrillator, one of the top 10 advances in cardiology in the 20th century.

As a benefactor to Wits, he was responsible for the establishment of the Phillip Tobias Chair for Palaeoanthropology. "I will always be grateful to Bernie for driving this initiative," says Evolutionary Studies Institute director Prof Bruce Rubidge, adding: "I was struck by his great integrity, incredibly warm personality and his sincere wish to make a positive contribution in whatever way possible."

His lifelong friend and fellow Witsie Dr Dennis Glauber paid tribute to him at the Wits alumni reunion in San Antonio, Texas, in October, speaking of his compassion, devotion and wit. "When I conceived the idea of a reunion of members of the class of 1949 in Seattle back in 1989, Bunny was the first to sign on and went on to host the next reunion in 1999. He was the only person to attend every single reunion since then and had every intention of being with you all in San Antonio today. Bunny did not only attend; he was integral to the fun and the fellowship. Others will no doubt talk about his devotion, both emotional and financial, to Wits Medical School."

Bernie lived in Monterey, Virginia and is survived by his wife Charline Tabatznik, son Keith Tabatznik and daughter Ilana Brett.

#### **LINDIWE MAKHUNGA (1984 – 2016)**

Lindiwe Makhunga was appointed as a lecturer in the Wits Politics Department in November 2014. In addition to her Wits degrees (BA 2008, BA Hons 2009, PhD 2016) she was awarded a Master's degree in Gender and Development from the Institute of Development Studies at the University of Sussex, where she was the top student in her class. Dr Makhunga was an inspiring teacher and mentor, a generous colleague and friend, a dedicated and exceptional researcher, and a committed and passionate feminist who had a great love for the African continent. She undertook ambitious fieldwork in Rwanda, South Africa and Sierra Leone. researching the relationship between gender and political behaviour. When awarded a doctoral research fellowship, she wrote that for her it meant "accepting a responsibility to ethical knowledge production directed at the development of the continent".

#### **TERENCE OATLEY (1934 – 2016)**

Ornithologist Dr Terence Barry Oatley, who died aged 82, obtained his PhD from Wits University in 1993. During the early years of his career, from the late 1950s, he was one of a group of game rangers working for the Natal Parks Board. They included lan Player, Jim Feely, Tony Pooley, Ken Tinley and David Skead. Under the mentorship of Roddy Ward, the Natal Parks Board's ecologist, they all became good field naturalists and studied further to gain their PhDs. Another mentor was Professor Hugh Paterson (BSc 1950, BSc Hons 1952, PhD 1968), whom Terry met at Ndumu and who supervised his PhD.

Terry published over 50 papers in scientific journals, served as national ringing organiser, edited *Safring News* and *Ostrich* and wrote for magazines and books about birds. He was the author of *Robins of Africa* (1998), illustrated by Graeme Arnott. In 1998 he was awarded the Gill Memorial Medal in recognition of his outstanding contribution to ornithology in the southern African region.

He leaves his wife, Margaret, a son and two daughters.

Wits University fondly remembers those who have passed away

#### **SEYMOUR PAPERT (1928 – 2016)**

Seymour Papert (BA 1950, PhD 1953) has been described as "the father of artificial intelligence", "the world's foremost expert on how technology can provide new ways to learn", a "polymath", a "revolutionary socialist", a "pioneering force", and a "social reformer".

Announcing Papert's death in Maine, aged 88, MIT President L Rafael Reif said: "With a mind of extraordinary range and creativity, Seymour Papert helped revolutionise at least three fields, from the study of how children make sense of the world, to the development of artificial intelligence, to the rich intersection of technology and learning."

Nobel laureate Sydney Brenner (BSc 1945, honorary doctorate 1972), spoke about Papert's Wits days on the website Web of Stories: "A very important person in my South African life is Seymour Papert. Seymour was about my age, a contemporary of mine, and a brilliant mathematician. He was also very interested in politics and philosophy. It was as a medical student that I got to know him very well and he taught me mathematics and I taught him physiology thank God it wasn't the other way around. He is someone who got me interested in the whole idea of mathematical theories and ultimately in computers. ... He was a very good friend and a very important one and it was also because of the fringe leftwing politics that we were associated together."

Papert went on to the University of Geneva, where he worked with the child development pioneer Jean Piaget. Papert's Principle in child psychology states: "Some of the most crucial steps in mental growth are based not simply on acquiring new skills, but on acquiring new administrative ways to use what one already knows."

In 1967 he became professor of applied mathematics at MIT and co-director of the MIT Artificial Intelligence Laboratory. He developed the Logo programming language, which led to the creation of Lego's Mindstorms robotics kits.

Papert was far ahead of his time when he suggested that children could program computers and that all children should have access to computers "as instruments for learning and for enhancing creativity". National Public Radio said: "The great theme of Papert's work and life was the nature of intelligence, or what he called thinking about thinking. ... Like Piaget, Papert believed that children actively construct knowledge based on their experiences. He wanted schools to give children the freedom to fall in love with ideas. And he saw computers as the most important tool to transform education."

He also foresaw how computers would change the nature of work. In a 1982 NPR interview, he said that people would not keep one job for life. "We have to create a condition where people become more adaptable, and learning becomes part of life, all through one's life."

A former colleague, Gary Stager, said: "The world lost an amazing wit, intellect, inventor, bricoleur, scholar, freedom fighter, and friend with the passing of Seymour Papert. He was arguably the most influential educator of the past half century."

Papert leaves his fourth wife, Suzanne Massie; his daughter, Artemis Papert; stepchildren Robert Massie, Susanna Massie Thomas and Elizabeth Massie; brother, Alan Papert; and sister, Joan Papert.

#### SAMUEL WILSON HYND (1924 – 2016)

Dr Samuel Hynd (BSc 1946) wrote to Alumni Relations in November 2015 to say that, at the age of 91, he had now retired.

He was born on 18 December 1924 in Glasgow, Scotland, to David and Kanema Hynd. They moved to Swaziland as medical missionaries when he was a few months old. He rode a donkey to school to begin his formal education in Bremersdorp (Manzini), and later matriculated from St Mark's Secondary School in Mbabane.

He obtained his BSc degree at Wits in preparation for studying medicine in Glasgow and then went on to London for his graduate Diploma in Tropical Medicine. While at Wits, he lived with a family on Louis Botha Avenue and rode a bicycle to University every day. He was active in the Central Baptist youth group. He said, of being taught by Professor Raymond Dart at Wits: "God help you if you did something wrong in the anatomy laboratory and cutting up cadavers!"

He returned from the UK to Swaziland in 1950 and was ordained in 1958. Dr Hynd served the people of Swaziland in many ways throughout his life, as a Nazarene Missionary medical doctor, founder and builder of churches, clinics and schools, chaplain to the city of Manzini, coroner and marriage officer. He was a member of the World Health Organization, an elected Member of Parliament, Minister of Health of the Kingdom of Swaziland, founder of Manzini Medical Centre and, at the age of 85, founder of the ACTS II Clinic, which specialises in the care of AIDS patients. He served as personal physician to King Sobhuza II and delivered the present King, Mswati III.

His daughter, Dr Elizabeth Hynd, says he dealt with every patient holistically, body, mind and spirit.

He received the Order of Eswatini from King Mswati III and an honorary DSc degree from the University of Swaziland. In 1998, he was made a Commander of the Order of the British Empire.

He died in Manzini, Swaziland, on 18 August 2016. His first wife, Rosemarie, died in 1975 and his second, Phyllis, in 2008. He leaves his daughters Elizabeth Hynd, Audrey Emmet and Margaret Timney, his sister Dr Margaret Klein, and the children of the New Hope Centre children's home, who called him "Babe Hynd" (Father Hynd).

#### **DOV BARNEY COHEN (1926 – 2015)**



Dov Barney Cohen immigrated to South Africa with his family in 1935. He was born in Latvia, where until the age of nine he was homeschooled in Yiddish and Hebrew by tutors, yet in Johannesburg

he quickly grasped English and was able to skip several grades at primary school. He graduated from Jeppe High and at the age of 17 was accepted to study medicine at Wits. He was the first person in the family to attend university. On graduating (MBBCh) in 1949 he worked at Coronation Hospital, before moving to Israel in 1951. He qualified in paediatrics and at the age of 31 he opened a children's department in a new hospital in Zefat.

Reluctant to retire from hospital service, he continued to work in primary care, thus enjoying more time for making wine from grapes gathered from the vineyard that he had planted five decades previously. Whatever his activity there was always classical music playing in the background.

Dr Dov Cohen passed away in Jerusalem in February 2015. He is survived by his wife and four children, two of whom are doctors.

#### **AUDREY ANTROBUS (1928 - 2016)**

Audrey Antrobus (BA 1948) died in Johannesburg in August, a few weeks short of her 88th birthday. She majored in English at Wits and became a teacher. Much later, she collected many experiences and anecdotes in a delightful booklet full of wisdom, "Telling Tales About Teaching and Learning". She met Dennis Antrobus (BSc Eng 1949) at Wits and they married in 1950. Dennis died in 1999.

#### STANLEY MANDELSTAM (1928 - 2016)



Stanley Mandelstam got his first degree at Wits in chemical engineering (BSc 1952), but his first love was mathematical physics and he went on to become one of the world's most eminent physicists. Wits has an

institute named after him. Mandelstam was an emeritus professor at Berkeley when he died, aged 87. He was born in Johannesburg, grew up in small-town Natal (as it was then), where his father was a grocer and his mother a teacher, and after Wits went on to Cambridge and Birmingham University. He joined Berkeley as Professor of Physics in 1963. Though described in his Berkeley obituary as "a giant of theoretical physics" who made many "fundamental contributions to the development of quantum field theory and string theory", he was also "known as a brilliant, patient, and humble instructor who found joy in helping his students make physics 'come alive'." One former student said he was "unfailingly polite" and apparently he never used the name "Mandelstam Variables" for the particle coding named after him. He leaves his sister, Gerta Abramson, and her family.

#### JOHN MAREE (1924 - 2016)



Johannes Bernardus (John)
Maree (BCom 1949), former
chairman of Eskom and Nedbank,
died on 27 July 2016. As the
most distinguished graduate in
the Faculty of Commerce in 1949,
Maree received Wits' Alexander
Aiken Medal. He went on to an
outstanding career in business and

public service, retiring in 1997 as Chairman of Eskom.

According to Eskom's heritage website, Maree and chief executive lan McRae introduced a new corporate mission at the electricity utility, and oversaw a shift towards concern with customer satisfaction and employee performance. He was also determined that electricity price increases should be below inflation.

Maree received the country's Order for Meritorious Service and the Star of South Africa. In 1998, he became Chevalier of the French Legion of Honour.

A former Eskom director, Jac Messerschmidt, wrote in a letter to Business Day: "He had a knack for getting to the nub of a problem in a flash. He was a communicator par excellence, listening carefully to arcane technical arguments and then inspiring the problem-staters to become problem-solvers."

Maree leaves his wife Joy, son Jacko, daughter-in-law Sandy, and their family.

#### TIM COUZENS (1944 - 2016)



Renowned scholar, historian and author Tim Couzens (PhD 1980) died on 28 October. Couzens was a pioneer scholar of South African literature in Wits' English Department, at a time when the field barely existed. He taught African literature from the late 1960s and took the lead in establishing the Department of African Literature in the early 1980s. He subsequently joined the African Studies Institute as a researcher and produced a bookshelf of influential biographies and monographs, including *The New African: A Study of the Life and Work of HIE Dhlomo*, the prize-winning *Tramp Royal: The True Story of Trader Horn* and the brilliant historical who-dunnit *Murder at Morija: Faith, Mystery, and Tragedy on an* 

African Mission. He also produced many collections and scholarly editions of South African literary works that have become landmarks in the field. More recently he produced the bestselling Battles of South Africa and The Great Silence: From Mushroom Valley to Delville Wood, South African Forces in World War One, and was the lead writer of Nelson Mandela's book Conversations with Myself. His work was characterised by meticulous research, exceptionally wide learning and an elegant, lucid and often witty style. Couzens was a beloved teacher and inspiring supervisor and shaped a generation of younger scholars working on southern African literary studies.

#### THOMAS BOTHWELL (1926 - 2016)



Thomas Hamilton Bothwell, Emeritus Professor of Medicine and an Honorary Professorial Research Fellow at Wits, died in Bergyliet, Cape Town, on 12 November 2016, aged 90. An internationally acclaimed scientist, outstanding clinician, natural leader and inspiring

teacher, Professor Bothwell was the Head of Department of Internal Medicine from 1967 to 1991. At the same time he was Chief Physician at the Johannesburg Hospital (now Charlotte Maxeke). He was Dean of the Medical Faculty from 1992 to 1993 and a member of Wits' Council.

He obtained his Wits MBBCh in 1948. From 1954 to 1957, he furthered his research career abroad at Oxford and at the University of Washington. Bothwell considered his major research contributions as being the demonstration of certain consequences of iron deficiency, such as disturbances of muscle metabolism, brain function, immunity and temperature regulation, as well as investigating the factors affecting the absorption of dietary iron.

He wrote two books, hundreds of articles and many chapters and reviews on iron metabolism. His outstanding contribution to science earned him an honorary doctorate in medicine from Wits in 1994 and many other honours and awards, including a Gold Award from the SA Medical Research Council, the South Africa Medal (Gold) from the South African Association for the Advancement of Science, the Science-For-Society Gold Medal from the Academy of Science of South Africa and the Royal Society of South Africa's John FW Herschel Medal.

Bothwell was also an activist for social justice. He was instrumental in leading the integration of the Rahima Moosa and Helen Joseph Hospitals and he took a personal interest in the progress of interns. He was a proud Witsie, a generous donor and an active alumnus. Loved and respected by a wide circle of friends and colleagues, he is survived by his wife Alix, three children and grandchildren.

#### WALTER HAIN (1924 - 2016)

Walter and Adelaine Hain did what too few white South Africans did in the 1960s and 1960s: their duty. They stood up against apartheid, as a matter of conscience. Peter Hain wrote about his parents, and how their country drove them into exile, in his 2014 book Ad and Wal: Values, Duty, Sacrifice in Apartheid South Africa. On 14 October, Walter Hain died, aged 91, in Wales. He was born in Durban, moved with his parents to Pretoria, matriculated in 1941 and started work as an architectural assistant while studying at Wits. He joined the army in 1943 and served as a signaller with the Royal Natal Carbineers in Italy – experiences that later found their way into a book illustrated with his own sketches. After the war, he met Adelaine Stocks in Pretoria and they married in 1948. Walter graduated with a BArch in 1952 and the following year the couple joined the Liberal Party. Starting simply with letters to the newspaper objecting to the bad treatment of black people, and going on to help political prisoners, they attracted the attention of the police and in 1961 were arrested themselves. Walter felt that violence only bred more violence, but supported the ANC's resort to underground guerrilla action when there was no alternative. Adelaine was banned in 1963 and Walter in 1964. Because of this, they could not speak at the funeral of their friend John Harris, who was hanged for planting a bomb at Johannesburg Station: their teenage son spoke for them. The banning order even meant Walter had to watch his son play cricket from the other side of the school fence. Walter lost his job at an architecture firm because of the restrictions on him and they reluctantly moved to the UK in 1966, where they continued as anti-apartheid activists. In 1994 Walter published a book on the design of hospital laboratories. He leaves his wife, four children and their families. Peter Hain, himself an activist, politician and author, is a Visiting Adjunct Professor at Wits Business School. At his father's funeral he said: "Dad's life throughout has exhibited integrity, humility and dedication to the values he held dear: morality, justice, liberty, self-discipline, generosity, duty, family and hard work. He shunned materialism. Old-fashioned values perhaps in our shamefully selfcentred age, but invaluable, timeless ones surely?"

BY RICHARD POPLAK

# A bad day in Braamfontein

When Wits said it planned to keep campuses open, I predicted World War VII.



And on Monday 10 October, the university administration and #FeesMustFall protesters delivered.

Fog of war and all that, but through the smoke and the screaming and the bloodshed, it's hard to know what either side achieved.

In the far corner, wearing the Witsie blue shorts. we have the administration — who can point to any number of incidents to prove #FMF protester incitement and provocation, in order to press the echo-chamber argument that... I don't know, the kids are not all right?

In the near corner, wearing the #FMF black shorts, we have the protest leaders and their supporters, hangers on, and street-dwelling adjunct provocateurs - who got smacked around enough, and did some smacking themselves, to encourage a shut-down of the university, while alienating those with whom they will need to negotiate the whole fallen fees thing.

But back to the war.

The day dawned calm-before-the-stormishly, the sylvan concrete campus bustling with its usual morning activity. At first, it was difficult finding the locus of the protests: the university's student body numbers 37 000; the protesters at their strongest numbered 2 000 and change. I located a group of 300 or so on the West Campus near the FNB building, as they were mobilising to occupy its halls.

But the semi-official kick-off occurred following the arrest of two students, for offences that are still unclear. (One was allegedly carrying a sjambok, the other covering her face with a mask.) A gathering followed a chugging Nyala onto the East Campus, and described a long lazy loop south, turning east past the Great Hall, then north, then back to the centre of operations, where protesters made it clear that they planned to enter the house and occupy it.

The foreign nationals stuffed into ersatz riot gear stared down at the mass of students singing struggle songs.

Mexican stand-off.

At about 11:20, student leaders counted down from three, and the stones rained biblically on the Great Hall, booming off the riot shields of the private security kids. Two security guards returned the favour, and soon the lines were broken, protesters hurling rocks from several feet away, wallops off plastic sounding like cannon reports.

By this time, the Nyala on the west side of the square had farted into operation, and the whomp of stun grenades sent the crowd onto the lawns. While the SAPS moved into a kind of armoured laager around the square, the protesters made guerrilla-like rock-throwing nibbles at their exposed flanks. (Two SAPS officers were reportedly injured.)



Then the popopop of rubber bullets, followed by the water cannon making its Wits debut. Streams of tie-dyed rhino piss jetted after those dispersing along the library lawns. The dripping metal phallus swung round to aim at a group of observers, who ran screaming.

"The hell did we do?" asked a student in sweetlooking Jordans. "Isn't there a drought on?" asked another

A line of cops then moved in formation after the remainder of the movement's more gifted lapidists, who had disassembled chunks of the university's foundations for their hard-flung materiel. The police turfed tear gas canisters, choking just about the entire campus as the poison drifted on the prevailing winds.

Word came that protesters were gathering in Braamfontein, outside the gates of the university, and I walked past weeping students, laughing students, stone-faced academics, a pigeon walking tight PTSD circles in the square, and a young woman bleeding from a wound to her face.

Describing what I encountered on Jorissen and Bertha as a "student protest" would only be partly correct. It was more of a protest carnival, with some of the "street youth" (is that still the politically correct term?) that hang out around these parts helping protesters set up a barricade of unidentifiable flaming objects at the intersection. The SAPS formed their own line further west along Jorissen, with only one Nyala and not nearly enough coppers to make a proper go of it. Concrete bins were dumped in the street, and rubbish swirled in sad, Simba chip-packet eddies. One protester had donned a cardboard box as a flak jacket, another used a red Rubber Maid dishwashing glove to protect his rock-pitching hand.

Mexican stand-off.

Around 13:30-ish, the détente was broken, as usual, by a Nyala rousing itself into action. It roared towards the intersection, cops firing rubber bullets out of its shooty-holes. Almost immediately, a young woman was hit in or near the eye, blood streaming onto her chest. An elderly delivery motorcyclist slid and smashed into the curb, S-bending his leg. A photo-journalist took a pellet to the patella.

At the intersection, the performance of protest: young men posing for the cameras, faces covered by bandanas, the Nelson Mandela bridge behind them for additional BBC voice-over poignancy.

This wore on until FMF leaders made their way to the intersection, urging the crowd to converge on campus to take Solomon Mahlangu House. This they did in a disciplined fashion, but the only way in was through the gates of Holy Trinity Catholic Church. There stood Father Graham Pugin, resplendent in white robes that refracted the sunlight back to God in his Heaven, saying quietly, "Be my guest, but it's locked."

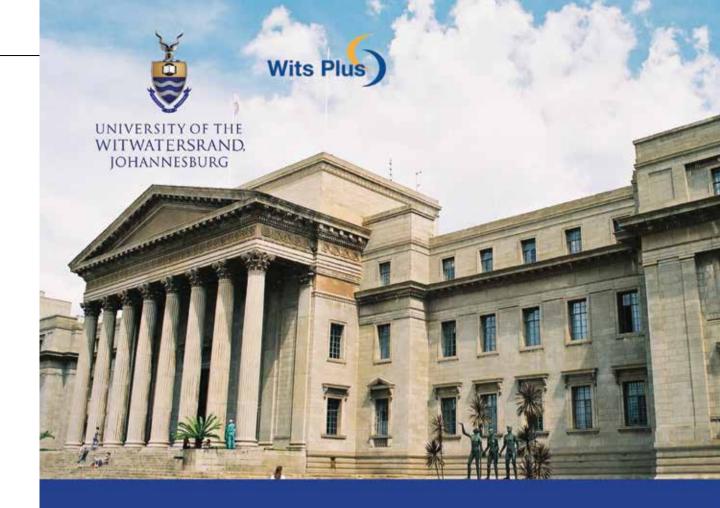
Then came the cops, and another hour of roving street battles. Father Pugin maintained his position at the gates, and would not allow the Nyala into church grounds. Several minutes later, a cop shot a rubber bullet straight at the vicar's face. He took a direct hit, and blood gushed over his white robes. If you were hoping for a starker example of police brutality — and there were many on this day, most of them meted out against young black men — you were out of luck. For an encore, a bus was set on fire. It burned with the requisite photogenic drama.

Father Pugin's capping capped a wretched day, where the Droogs threw in with the Fallists, the Fallists threw about three tons of Wits' stonework at a row of teenaged Malawians, and the cops tried to take out one of God's representatives on Earth, to say nothing of the protesters they shot. It was so genuinely unpleasant that one would hope the people we pay to run this country would come up with a way to fix the situation. But nope. President Jacob Zuma was in Kenya.

The highest form of war is dialogue, goes one Setswana saying. Not here it ain't. All the art has gone out of this situation, and we are caught in the chokehold of the politics of the impossible.

And so, sleep well, children of Free Azania. Tomorrow: World War VIII.

This is an edited version of a piece that first appeared in *Daily Maverick*. Poplak had previously written that "unthinking the market-priced colonial university paradigm, it turns out, is a bit of a trick".



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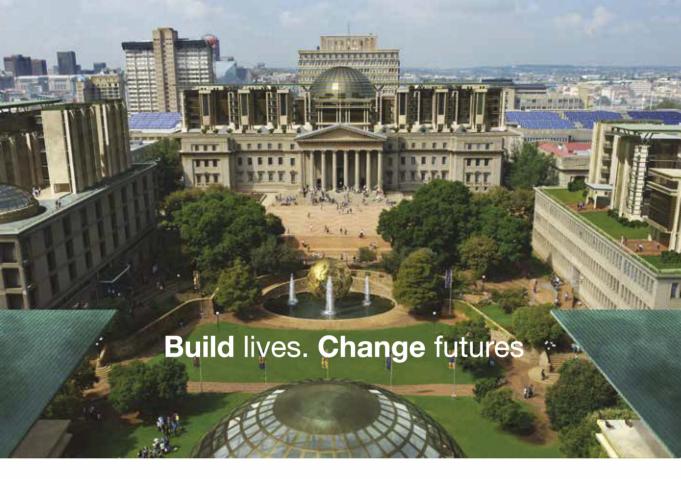
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