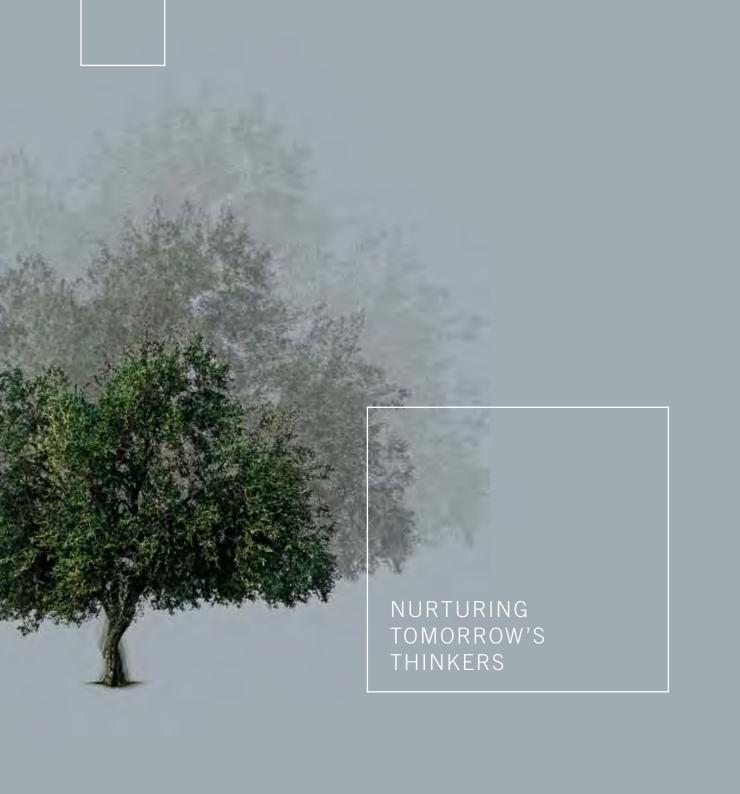
STIAS ANNUAL REPORT 2016

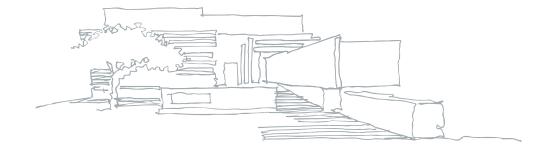


STELLENBOSSE INSTITUUT VIR GEVORDERDE NAVORSING



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CHAIRMAN'S FOREWORD

ORT 2016

The STIAS programme continues to mature in pursuit of its objective to reflect the ethos of an independent institute for advanced study on African soil. This includes an unashamed focus on advancing the cause of science and scholarship at the highest level across all disciplines, maintaining a clear vision of its focus on Africa, its emphasis on approaching real-life problems through inter-disciplinarity, and walking the extra mile to ensure the dissemination of its research results to policy/decision-making environments.

A number of long-planned initiatives came to fruition in 2016, notably the launch of the STIAS Iso Lomso early career support programme for young researchers from Africa, graduation of the first cohort of doctoral students in the STIAS PhD scholarship programme, and the most extensive STIAS-Wallenberg Round Table to date on *Innovation for prosperity*. STIAS was especially delighted to welcome among its participants members of the Wallenberg family. A number of new initiatives related to the longer-term theme projects were also undertaken. Significant among these was the first period of residency at STIAS of core groups of fellows developing collaborative new projects in the Health in transition and

Understanding complexity themes.

Core and ad hoc funding received by STIAS for the past four years reflect a fairly healthy situation. The Marianne and Marcus Wallenberg grant concluded in 2015 but the balance of unspent funds allowed STIAS to continue the programme supported by this grant for 2016. Funding by the Knut and Alice Wallenberg Foundation was received for a five-year period commencing in 2013, with the possibility of renewal for a further five years. The same situation applies to the funding provided by the Stellenbosch University Council via the STIAS Trust. Significant funding has also been received from the Swedish Riksbankens Jubileumsfond for the African focus of the STIAS programme as well as from the Donald Gordon Foundation. My sincere gratitude goes to all the donors. On behalf of STIAS I would like to thank them all for their continued support of and belief in STIAS and its main objectives.

First steps were taken to establish a STIAS endowment fund to ensure a long-term sustainable programme. With the support of members of the Wallenberg family and representatives of the Wallenberg foundations a STIAS Endowment Fund was launched in February 2016 during their visit to STIAS. The Endowment Charter envisages a target of R300 million "to ensure a sufficient annual income to sustain the activities of STIAS".

I must again pay tribute to the many people who have played a significant role in the success of STIAS this year. Apart from all our funders, I wish to extend my heartfelt thanks to the STIAS fellows, Swedish experts, in particular Maud Olofsson, Kåre Bremer and Göran Sandberg, Stellenbosch University management, STIAS staff under the experienced leadership of the STIAS Director, and members of the STIAS Board of Directors, Academic Advisory Board, and Fellowship and Research Programme Committee. Here I must mention that STIAS was greatly saddened by the death on 5 November of André van der Walt, a member of the STIAS Fellowship and Research Programme Committee until 2011 and of the STIAS Academic Advisory Board (2009 - 2014). André played a pivotal role in the life of STIAS, in particular during its formative years.

Desmond Smith

Chairman of the Board

DIRECTOR'S OVERVIEW

A number of milestones for the STIAS programme were achieved in 2016; notable among these were:

- The STIAS *Iso Lomso* programme for early career scholars from Africa was successfully launched. Five candidates were selected from 248 applicants for full support commencing in 2017, while two more were offered assistance to refine their proposals.
- Ties with the African Academy of Sciences (AAS) were further strengthened, in particular during the 10th General Assembly of the AAS in Kasane, Botswana. During the last week of June the AAS and STIAS jointly hosted a workshop at STIAS for young African researchers in the field of cell biology and regenerative medicine.
- Significant progress has been made in establishing links with African scholars who are increasingly participating in the STIAS programme. Of particular note has been the success achieved in attracting prominent members of a new generation of African writers to STIAS.
- The STIAS-Wallenberg Round Table on *Innovation for* prosperity attracted more than 60 participants, among them Peter Wallenberg Jr and Jacob Wallenberg; a comprehensive report and policy brief Realising innovation opportunities in sub-Saharan Africa was subsequently published.
- Two core groups of fellows initiated collaborative projects in the *Understanding complexity* and *Health in transition* longer-term theme projects. A group of five fellows, convened by Roberto Poli, were in residence for two months with a project on Complexity and anticipation while another group of five STIAS fellows and three visiting scholars, led by Abdallah Daar, were at STIAS during September to set an agenda for the project Developmental origins of health and disease and sustainable development goals: moving towards early implementation in Africa.

STIAS had a full 2016 programme with 69 fellows and 11 visiting scholars participating. The fellows' seminar series flourished (with 51 seminars), providing a key platform for discussion and debate. Seven public STIAS lectures were held on the campus of Stellenbosch University. Fellows and visiting scholars also presented and participated in numerous colloquia and lectures at academic departments of universities of the Western Cape and also lectured at the universities of Johannesburg and Pretoria. A number of workshops related to the STIAS programme fed directly into the longer-term theme

projects and proved to be of significant value. Publishing schedules for a number of these have now been agreed on.

From November 2015 to November 2016, 67 applications to the STIAS programme were received via the direct application route: more than half were supported. Thirteen books were published related to work carried out at STIAS and 51 journal publications appeared with the STIAS affiliation.

Five STIAS fellows received significant international prizes and/or other recognition for their work:

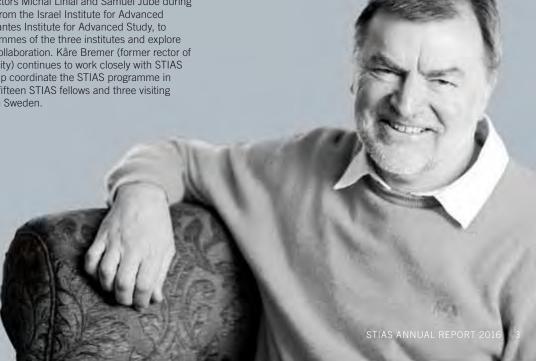
Deborah James received the inaugural Fage & Oliver Prize from the African Studies Association of the UK for her book Money from nothing: indebtedness and aspiration in South Africa. Abdallah Daar was appointed as member of the African Union High Level African Panel on Emerging Technologies. Zakes Mda and Mandla Langa were among three South African authors nominated for the 2016 Dublin Literary Award. John Noyes was awarded the prize of the Modern Languages Association of America for the best book in German studies for 2014/15.

STIAS hosted directors Michal Linial and Samuel Jubé during May, respectively from the Israel Institute for Advanced Studies and the Nantes Institute for Advanced Study, to discuss the programmes of the three institutes and explore opportunities for collaboration. Kåre Bremer (former rector of Stockholm University) continues to work closely with STIAS to promote and help coordinate the STIAS programme in Sweden. In 2016, fifteen STIAS fellows and three visiting scholars were from Sweden.

A last word belongs to one of the STIAS fellows of 2016: "The most memorable advantage of being part of STIAS, and what I regard as the unique strength of the fellowship, has been the diversity of the group. The interaction of academics, scientists and writers from all walks of life facilitated the breaking down of the walls immuring various disciplines. It led, at least in my experience, in demystifying some of the myths surrounding various areas of scholarship. True to its mission STIAS provides a meeting point where minds from the South and the North, from the East and the West can meet in constructive dialogue".

Hendrik Geyer Director of STIAS

Hendrik aeger



2016 AT A GLANCE

STIAS launches its

Iso Lomso ("the eye of
tomorrow") fellowship
programme, a new
programme that will
boost the careers
of some of the
brightest minds in
African academia.



Close to 60 delegates attend the 2016 STIAS-Wallenberg Round Table on *Innovation for* prosperity at STIAS. ☐ The STIAS Academic
 ☐ Advisory Board holds an in-depth discussion about
 ☑ the landscape of South
 ☑ African higher education in a global context.
 ☐ The Board recommends that STIAS initiate a process which could underpin a longer-term research project on the future of South African higher education with due consideration of the

global context.

STIAS hosts 69 fellows and 11 visiting scholars in its 2016 programme for a total of 162 fellowship months. Fifty-one seminars are held in the fellows' seminar series and seven public STIAS lectures are presented on the campus of Stellenbosch University.

Good progress is made with all seven longer-term theme projects.

During 2016, 13 books, 8 chapters in books and 51 journal articles are published based on work which was done partially or wholly at STIAS.

Sixty-seven applications for STIAS fellowships are received via the direct application route. More than half are successful.

FFRRUAR



Marian Horzinek gives a seminar in the STIAS fellows' series and the African Small Companion Animal Network (AFSCAN) initiative supported by Zoetis issues a press release that Horzinek, one of the world's most distinguished veterinarians, will support AFSCAN's rabies control work as part of this STIAS project.

A group of five fellows, convened by Roberto Poli initiate research in the *Understanding complexity* longerterm theme project with a project on *Complexity and anticipation*. Their visit overlaps with researchers making up the core group of the research project on sustainable intensification of agricultural production in southern Africa under the leadership of Richard Sikora who visit STIAS during the third phase of their project within the longer-term theme project *Sustainable agro-ecosystems*.



From left: Aloisius Louie, Roberto Poli, Ilkka Tuomi, Mario Giampietro, John Kineman



STIAS hosts Michal Linial and Samuel Jubé, respectively the directors of the Israel Institute for Advanced Studies and Nantes Institute for Advanced Study to discuss the programmes of the three institutes and to explore opportunities of collaboration.

From left: Morné du Plessis, Samuel Jubé, Michal Linial, Hendrik Geyer, Peter Vale

Forty participants from thirteen countries convene in Stellenbosch to take part in a training workshop on stem cell science and its application in ш Africa. This is the first event to be co-hosted by STIAS and the African Academy of Sciences based in Nairobi.



Five STIAS fellows and three visiting scholars, led by Abdallah Daar (left), set the agenda for the project Developmental origins of health and disease and sustainable development goals: moving towards early implementation in Africa. A three-day workshop is held at STIAS to further inform the scope and content of the project and 29 participants from ten countries attend.



2016 STIAS fellow John Noyes is awarded the Aldo and Jeanne Scaglione Prize for Studies in Germanic 2014/2015 for his book Herder:

aesthetics against imperialism.

Following the recommendation of the STIAS Academic Advisory Board in March, a group chaired by Peter Vale convenes at STIAS to consult on South African higher education in a global context and compiles a draft report to serve as input for the framework for the envisaged project.

> Abdallah Daar accepts a u nomination as permanent visiting fellow of STIAS ioining a select group of fellows who "have Li L an open invitation to they can."

STIAS fellows and STIAS mourn the death of Marian Horzinek, 2014 and 2016 STIAS fellow In the words of Hendrik Geyer: "The spontaneous outpouring of affection and appreciation by STIAS fellows who had the privilege to cross your path says it all - we will sorely miss you!"





STIAS fellows, Grace A Musila (left) and Scarlett Cornelissen (right) spearhead its Iso Lomso programme at institutes of advanced study abroad. They join the cohort of fellows at respectively the National Humanities Center in North Carolina and the Radcliffe Institute for Advanced Study at Harvard University. They are the first STIAS fellows who will spend a part of their fellowship at a sister institute for advanced study.

Five candidates are selected as first STIAS Iso Lomso fellows from 248 eligible applications received for the fellowship programme. They are John Ganle, Malebogo Ngoepe, Uchenna Okeja, Tolu Oni and Aretha Phiri.

Dominic Castell, Anderson Gondwe and Mphathisi Ndlovu, students in the STIAS scholarship programme for doctoral study, graduate as the first three to obtain their doctorates in this programme.

Right: Dominic Castell (South Africa) with his supervisor Gareth Arnott





From left: Gawie Botma (supervisor), Mphathisi Ndlovu (Zimbabwe), Anderson Gondwe (Malawi) and his supervisor Servaas van der Berg

EARLY CAREER SUPPORT FOR AFRICAN RESEARCHERS

The Iso Lomso Programme

In April 2015, STIAS embarked on the pilot phase of its *Iso Lomso* programme ('the eye of tomorrow' in isiXhosa), an early career support programme to boost the careers of some of the brightest young minds in African academia. In this programme, currently funded through a STIAS grant from the Swedish Riksbankens Jubileumsfond, *Iso Lomso* fellowship holders have the opportunity to spend periods of residency at STIAS over the course of three years in which they can focus on their research programme. STIAS endeavours to facilitate an opportunity for *Iso Lomso* fellows to pursue part of their research at another institute for advanced study.

First recipients of the fellowships for one year were two young academics, Scarlett Cornelissen and Grace A Musila, both from Stellenbosch University who spent the first semester of 2016 as STIAS fellows and the second semester respectively at the Harvard Radcliffe Institute for Advanced Study and at the National Humanities Center (NHC) in North Carolina. As such they were the first STIAS fellows who spent a part of their fellowship at a sister institute. This followed an agreement between the directors of STIAS, Radcliffe and the NHC whereby STIAS would be supported to launch a pilot phase of its *Iso Lomso* programme.

Musila and Cornelissen are respectively associate professor of English and professor of political science at Stellenbosch University. Their STIAS residencies commenced in January 2016, and they both spent three months in residence abroad.

Grace A Musila (Stellenbosch University)

Scoring dangerous freedoms

The three novelists at the centre of this book project – Nobel Prize Winner Toni Morrison, Trinidadian Earl Lovelace and Zimbabwean Yvonne Vera – all interrogate structures of black dehumanisation across the histories of the US, Trinidad and Zimbabwe; and often set their novels against the backdrop of key moments in these countries' national histories, but

lay emphasis on ordinary peoples' strategies of refusal to surrender to systems that attempt to diminish their humanity. Similarly, a large range of African popular culture – which forms the second cluster of primary texts for this book – provides a powerful platform for the articulation of ordinary black people's desires for, and claims to, freedom in all its complicated im/possibilities.

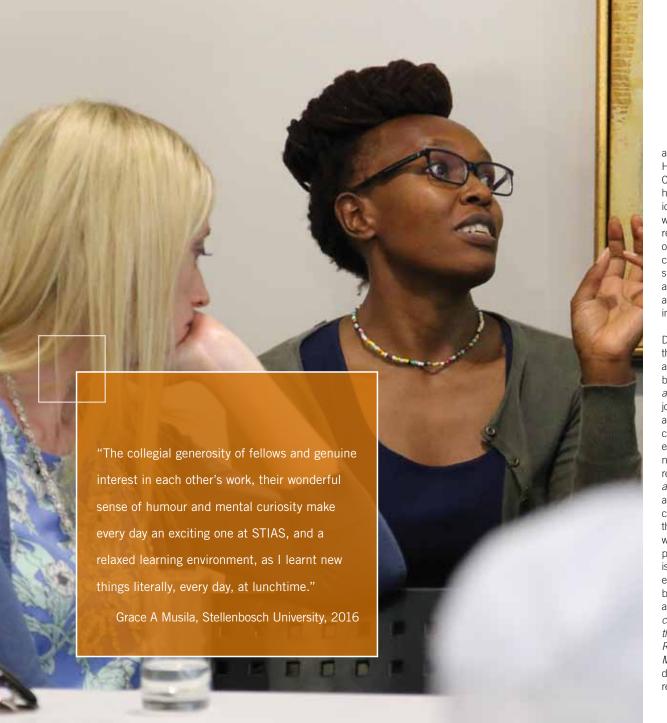
The book takes its title from Toni Morrison's concept of 'dangerous freedom' in her first novel *The Bluest Eye*. Although Morrison uses the concept regarding Cholly Breedlove, a broken man whose brutal acts and brutalised background Morrison considers only comprehensible through the grammars of the jazz musician; Musila builds on the concept both in line with Morrison's thinking, but also against the grain, to reflect on marginalised communities' conceptions of their humanity and their claims to dignity and freedom. An important question at the core of the book is: with what register and conceptual grammar can literary criticism emulate Morrison's jazz musician, in reading these traces of dangerous freedoms, without taming or fetishising them? How do we align our reading and writing practices with the principle of refusal of surrender that these characters embody? This book not only

reflects on these three authors' articulations of marginalised communities' conceptions of freedom and dignity, but also seeks to stretch the limits of conventional literary analytic registers, by metaphorically scoring (to extend the musical metaphor) varied traces of dangerous freedoms in the fiction of Toni Morrison, Earl Lovelace, Yvonne Vera and selected African popular cultural productions. Musila is interested in the possibilities of crafting critical approaches which are less invested in rendering texts transparent than in approximating, embracing and extending the transgressive energies and insights in fictional representations of blackness, without succumbing to the anxiety of transparency or the assumptions of knowability.

The book traces these desires for, and attempts at. transgressive freedom, by marginal communities and characters who find themselves at the intersection of exclusionary racial, patriarchal and capitalist scripts that undermine their claims to humanity. In Morrison, Lovelace and Vera's writing, we encounter seemingly eccentric black men and women who insist on their senses of themselves as political subjects; and who sometimes pay the ultimate price for their refusal to surrender to the systems that frame their lives. Musila's book is interested in these individuals' conceptions of what Lovelace terms 'personhood'; and their respective insistence on their humanity as defined outside the logics of capital, race and patriarchy that frame their lives in Zimbabwe, Trinidad and the US. Across the three writers' work, men and women meditate upon their senses of personhood; and variously wrestle against hegemonic regimes of value that consider them unworthy.

Musila says that she arrived at STIAS with significant anxiety about the viability and relevance of her proposed project, but during her stay, she consolidated her thoughts and clarified the shape her book will take, thanks to the time

SEEING TOWARDS THE FUTURE,



and space to read, think and form her ideas on the book. Her stay at the National Humanities Center (NHC), North Carolina was equally enriching. The NHC's focus on the humanities afforded her a rare opportunity to sound out her ideas on colleagues from different humanities' disciplines, whose work overlaps with hers. It was a privilege to receive recommendations on readings, and other potential ways of working through conceptual questions in her work, from colleagues at the Center. Most importantly, at the NHC she enjoyed access to a country-wide network of libraries as the NHC librarians went out of their way to trace books and articles she needed for her work from a rich network of interlibrary loaning systems with exceptional holdings.

During her fellowship at STIAS and the NHC, Musila completed three journal articles, in which she experimented with different analytic registers in her quest for an appropriate register for her book's purposes. One of these articles, Lot's Wife Syndrome and Double Publics in South Africa has been published in the journal PMLA. The article reflects on the challenges of double addressivity of African writing and its implications for writers concerned with uneven access to books and ideas, often to the exclusion of much of the African populations whose lives are narrated in these books. A second article, currently under peer review, is titled Comic calibrations of Violence in Kenya, Uganda and South Africa. Although not directly related to the book, the article is interested in questions of the degradation of vulnerable communities' humanity. Drawing on Mikhail Bakthin's work on the grotesque and the carnivalesque; and Achille Mbembe's work on satirical laughter as a mode of engaging with state power, and James Scott's notion of public transcripts, she is interested in the possibilities and limits of the critiques embodied by these humorous meditations on incidents of brutality, which interlace death and laughter. In the third article, a research note – under peer review – titled Ethno-cultural citizenship, opacities and the softness of official documents in the Julie Ward Murder, she revisits her earlier book, A Death Retold in Truth and Rumour: Kenya, Britain and the Julie Ward Murder, to explore shifting indices of un/reliability of official documents and the opacities created by uncritical embrace of received knowledge about Africa/ns.

LAYING THE FOUNDATIONS FOR TOMORROW



Scarlett Cornelissen (Stellenbosch University)

Japanese firms, industrial systems and investments in Africa

In a classic piece written in the late 1960s on Asia's presence in Africa, George T Wu famously commented that "studying China in Africa is much like pursuing a dragon in the bush. The dragon is imposing but the bush is dense...the observer quickly learns that the dragon is on unfamiliar terrain". Certainly over the past decade a veritable cottage industry has arisen on the effects of China's engagement with the African continent. This attention to China's evolving role in Africa is important as the Asian power has come to have a significant impact on economic trajectories in sub-Saharan Africa.

However, the focus on China overlooks the fact that there are multiple Asian presences in Africa with distinctive historical features, and that these have diverse political-economy outflows (in terms of the circulation of commodities, the creation of symbolic economies, vernaculars and everyday life, as well as political systems on the continent). This project looks at the history and contemporary features of Japanese industry in Africa, centring on the role of the sogo shosha (or general trading firms) as investors and conduits of capital on the continent. There are key interconnections in the industrialisation processes of Japan and parts of sub-Saharan Africa, driven by the outward expansion of the sogo shosha over different periods in the twentieth century.

These processes had long-term material and political ramifications. In the 1930s, for instance, Japanese textile exports to East Africa and the Congo outstripped that of Britain, provoking a trade war between Japan and Britain centred on these African markets. At the same time Japanese goods fashioned consumer tastes in a few East African coastal cities. influenced local economies there, and helped reshape these African countries' economic relations with the British Empire.

Similarly, the acquiring of a licence from Toyota Tsusho in 1961 by the South African businessman, Albert Wessels, to assemble vehicles locally, had significant impact on the South African automotive industry in that era. It enabled later export capacity in the automobile sector and had ancillary influences on South Africa's steel industry.

These are only two examples of Japanese industry's role in Africa, but there are many others. This is not to suggest the history has not been chequered. With this study Cornelissen wants to interweave macro-level political-economy accounts (diplomacy, state-making, foreign policy, and so on) with other levels of analysis to give fuller account of the making of commodities, the creation and shaping of markets, the impact on African labour economies, as well as the role played by identity and race (particularly in relations with the apartheid regime). Major themes explored include the linked histories between Africa and Japan and the connections forged over time through the circulation of material goods.

The fellowship extended to Cornelissen was in partnership with the Radcliffe Institute for Advanced Study at Harvard University and formed part of STIAS' Iso Lomso early career advancement programme for African scholars. While Cornelissen thus spent the bulk of the 12-month fellowship in residence at STIAS, a semester was spent at the Radcliffe Institute.

At STIAS Cornelissen primarily worked on public and corporate archival material collected in previous years, and developed an outline of a monograph. An article on Japan-South Africa relations was drafted which appeared in the Journal of Commonwealth and Comparative Politics, while a chapter on Japan's development assistance to Africa was included in a major review of post-war Japan's aid programme commissioned by the Japan International Cooperation Agency-Research Institute. The time at STIAS also enabled rounding off of work on an ancillary collection on Afro-Asia migration.

The ensuing period at the Radcliffe Institute had distinct benefits: Harvard's unparalleled library resources and exceptional institutional strength in Japanese studies gave Cornelissen access to research materials not readily available in South Africa, and offered opportunity to link with key epistemic communities. The interdisciplinary environment at the Radcliffe Institute also proved to be highly stimulating, and interactions with other fellows helped to enrich Cornelissen's work

In February 2016, STIAS announced its fully developed Iso Lomso programme and widely distributed its call for applications. Two hundred and forty-eight eligible applications were received representing 30 African countries. Of these 63 applications were from women and 98 were from applicants younger than 40 years. Five candidates were selected to receive this prestigious award. These are John Ganle (University of Ghana), Malebogo Ngoepe (University of Cape Town), Uchenna Okeja (Rhodes University), Tolu Oni (University of Cape Town) and Aretha Phiri (Rhodes University).

Two further shortlisted candidates, Patrick Cobbinah (Kwame Nkrumah University of Science and Technology) and Eunice Githae (Chuka University) were invited to take up residencies at STIAS during 2017 in order to further develop and refine their proposals for reconsideration.

In addition to spending up to three periods of residency at STIAS between 2017 and 2019 to pursue their research projects. Iso Lomso fellows may also receive funding to attend international conferences, convene workshops, and visit sister institutes for advanced study in North America. Europe or elsewhere.

The candidates represent a broad range of disciplines. John Ganle is a specialist in reproductive health at the University of Ghana's School of Public Health. His project will deal with disability and reproduction in Africa and aims to investigate the sexual, reproductive and maternal health-care needs and challenges of women with disability in Ghana. Ganle received his PhD from the University of Oxford in 2014.

Tolu Oni from Nigeria is a public health physician and clinical epidemiologist, based at the University of Cape Town's School of Public Health and Family Medicine. While working towards her research doctorate from Imperial College London, completed in 2012, she developed an interest in urban health. Her proposed project will seek to investigate strategies for healthy housing policies that can contribute to addressing the high burden of infectious and non-communicable diseases.

South African Malebogo Ngoepe is based at the University of Cape Town and completed her PhD in biofluid mechanics at the University of Oxford in 2014. Her project will seek to develop a thrombosis model which can be applied in both cerebral aneurysms and abdominal aortic aneurysms.

Uchenna Okeja is from Nigeria and currently based in South Africa, at Rhodes University's Department of Philosophy. Okeja received his PhD from Goethe University Frankfurt in 2011. His project in African political philosophy will aim to make political ideas and values of traditional Africa relevant for modern times, focusing on two conceptual metaphors for the public sphere, namely, palaver and consensus.

Aretha Phiri is a lecturer in the English Department at Rhodes University and received her PhD in English literature from the University of Edinburgh in 2014. Originally from Zimbabwe, Phiri's proposed project will consider the literary works of African authors Zoë Wicomb, NoViolet Bulawayo, Chimamanda Ngozi Adichie and Taiye Selasi in response to African-American author Toni Morrison's concerns around blackness. In a particularly feminist reading, the aim of her project is to reflect more nuanced and sophisticated versions of African subjectivity, as well as more inclusive and expansive global visions of blackness.

Following Grace A Musila's and Scarlett Cornelissen's successful residencies the NHC and Radcliffe have respectively agreed to host Aretha Phiri and John Ganle during 2018. Dr Tolu Oni will take up residency at Columbia University in New York for six months in 2017 with support from STIAS and the Oppenheimer Memorial Trust, while the Forschungskolleg Humanwissenchaften will host Uchenna Okeja during 2018.

The two additional candidates selected for residencies in 2017 are based in Kenya and Ghana, respectively. Eunice Githae completed her PhD in dryland ecology at the University of Nairobi in 2011 and is a lecturer in biology at Chuka University. Her proposed project is on the social and ecological impact of the invasive prickly pear species *Opuntia stricta* in Kenya. During her planned residency she will work with colleagues at the South African DST-NRF Centre of Excellence for Invasion Biology at Stellenbosch University, among others.

Patrick Cobbinah is a researcher in urban planning at Kwame Nkrumah University of Science and Technology, having received a PhD from Charles Sturt University in Australia in 2014 in the field of human geography. His proposed project will seek to locate the emergence of 3D-printing of houses within the complex of urbanisation in Africa, climate change and resource management. During his residency he will engage with colleagues at the African Centre for Cities at the University of Cape Town and the Centre for Complex Systems in Transition at Stellenbosch University.

With these awards STIAS aims to fill the gap that often exists for African academics between completion of a PhD and becoming an established scholar. While in residence, *Iso Lomso* fellows will find themselves in the company of leading researchers from around the world and from different disciplines. Informal research guidance and networking with other fellows form an integral part of life at STIAS.

Director Hendrik Geyer reiterated this, saying "STIAS recognises that for many younger academics the pressures of teaching, administration and contracted work mean they receive little encouragement and incentive to develop their research strengths. In line with the vision of *Iso Lomso*, STIAS's goal is to provide sustained research support to these young academics, thereby contributing to a future generation of scholars and scientists."

A second call for applications for *Iso Lomso* fellows will be opened in the second half of 2017.







From top: Aretha Phiri, Uchenna Okeja and Malebogo Ngoepe



Left: John Ganle Below: Tolu Oni



STIAS scholarship programme for doctoral study

The five-year programme for PhD scholarship funded by the Alice and Knut Wallenberg Foundation entered its third year in 2016. In this programme scholarships were awarded for full-time PhD study to students nominated by the executive within three faculties at Stellenbosch University, namely the faculties of Arts and Social Sciences, Economic and Management Sciences, and Science, targeting excellent ability, gender parity and a significant number of students from sub-Saharan Africa. The overall target of the programme is to qualify 30 PhDs with leadership qualities over five years, while familiarising them with STIAS through exposure to its aims and activities.

In 2014, nine scholarships were awarded, while in 2015 and 2016 a further ten and 11 were awarded respectively bringing the total to 30. Fourteen scholarships were awarded to women and 16 to men. Seven of the doctoral students were from South Africa, followed by six from Zimbabwe, four from Ghana and three from Uganda. Two doctoral scholarships were awarded to citizens of each Kenya, Malawi and Tanzania and one to citizens of each Cameroon, Madagascar, Mauritius and Rwanda.

Scholarship holders and their supervisors as well as the relevant executive faculty staff were invited to STIAS twice per year, once in the first semester for a welcoming function and once towards the end of the second semester for a progress-reporting function. At these meetings a speaker was invited to address students on a topic of interest to students and their development as research leaders. Where possible such speakers were drawn from amongst the STIAS fellows.

Nine students completed their studies in 2016. Three graduated in December 2016 namely Dominic Castell (South Africa, chemistry), Anderson Gondwe (Malawi, economics) and Mphathisi Ndlovu (Zimbabwe, journalism). The remaining six will graduate in March 2017: Sylvia Nahayo (Uganda, general linguistics), Hellen Venganai (Zimbabwe, sociology), Marciana Were (Kenya, English), David Yenjela (Kenya, English), Christie Swanepoel (South Africa, economics) and Gillian Greene (South Africa, computer science).

"There were several well-considered social engagements arranged, and these helped to establish an ethos of mutual regard and intellectual delight. One of the highlights of the semester was the evening with a visit from the PhD group who are STIAS students from across Africa. This encounter demonstrated a most meaningful aspect of the Institute's engagement in fostering the next generation of scholars."

Jane Taylor, University of Leeds, 2016

STIAS LONGER-TERM THEME PROJECTS

Significant progress was made with all seven longer-term projects which are projected to continue over the next two to three years. These longer-term themes are at various stages of development. In a number of cases individual STIAS fellows worked on projects related to sub-themes identified in concept notes published on the STIAS website. Publishing schedules for some of these projects have now been agreed on. During 2016, STIAS also investigated emerging themes for future longer-term projects.

For most projects listed in this section details can be found in the ensuing section on STIAS fellows and projects.

Being human today

The Effects of race (EoR) group of six fellows and two visiting scholars met for the third time at STIAS in July/August. They will re-convene for a final period of residence and publish a project final statement in 2017. They are currently working on

The group of five led by Peter Gärdenfors and working on the project *How did* Homo sapiens *become* Homo docens? were in residence at STIAS for two months in 2016. During this year the group published four papers.

Other Being human today projects pursued by STIAS fellows

- Transitional justice: accountability for wrongdoing in the
- practices Tanja Schult

- What keeps society together? Societal cohesion, South Africa as a challenging case – Håkan Hydén and Winston Nagan
- Christianity and queer politics in Africa Adriaan van Klinken
- Alienation, protest and the idea of a manifesto –
- Human behaviour through the evolutionary prism: the illusion of rationality - Raphael Melmed
- Sweden Elisabeth Gerle and Göran Gunner
- Biotechnology and legal regulation: personal freedom, risk
- Critical illegibility, blackness and scoring dangerous freedoms – Grace A Musila







Effects of race (convenors Nina Jablonski and Gerhard Maré)

The Effects of race (EoR) core group met at STIAS for two weeks in July 2016. The members of the core group present were George Chaplin, Zimitri Erasmus, Nina Jablonski, Gerhard Maré, Njabulo Ndebele, Barney Pityana, Crain Soudien, and Göran Therborn. Core group members who tendered their apologies were Norman Duncan, Mikael Hjerm, and Chabani Manganyi.

The members of the EoR core group focused most of their attention on discussions of the pre-arranged 2016 theme of *Turning points in the history of race and racism in South Africa*. The discussions of the group covered a wide array of questions, starting with the most obvious, "What is a turning point?" Individual core group members led discussions of 'turning points' that were particularly important to them:

- Gerhard Maré Retrospective utopia: lessons from continuities and discontinuities into post-1994 South Africa
- George Chaplin Colonialism, nationalism, and communism: an overview of race in South Africa in the context of global politics
- Nina Jablonski 1950s South Africa and use of products for physical transformation of the body
- Zimitri Erasmus Writing without 'race': novels as turning point in the use of 'race'
- Barney Pityana Uprooting racism: perspectives on precolonial settler society and the persistence of racism
- Crain Soudien Prejudice, hate and racism in South Africa
- Njabulo Ndebele Imagining 'blackness' in a post-race world
- Goran Therborn From settler to post-colonial: a turningpoint of the South African nation-state
- Christoff Pauw The Kat River Settlement and the Dutch Reformed Synod of 1857

From these wide-ranging discussions, the members of the core group concluded that race, racism, and race-thinking continue to exist, and to be reinvented, in South Africa and elsewhere in the face of legislation and scientific knowledge, and that new creative intellectual tools must be brought to bear on combatting hate, race-thinking, and racism. The group also concluded that consideration of global geopolitics

and global political theory is essential in discussions of the history of race and racism in South Africa, especially in connection with understanding the development and longevity of apartheid.

During the period of EoR core group residence at STIAS, members also heard progress reports from the five EoR project groups. These groups have, mostly, investigated aspects of South African formal education, and how the educational system might be changed to be more socially just, more inviting of discussions of the causes of race-thinking and racism, and more encouraging to all youth.

During 2016, the book-length publication containing chapters reflecting the EoR core group discussions of 2015 on 'racial templates' was prepared for peer-review and anticipated publication in 2017. In addition, plans for subsequent booklength publications containing chapters reflecting the core group's 2016 discussions and the work of the EoR project groups were discussed.

The members of the EoR core group felt strongly that the group needed to work together with fortitude and courage to complete a novel and authoritative body of scholarship on issues of race, racism, and race-thinking that can inform policy in South Africa and elsewhere. The long-term effects of an ambitious and daring venture as the EoR project are hard to predict, but without unstinting effort, race-thinking and racism may persist and grow. Group members recognised that the issues facing them were not unique to South Africa, but were shared by other countries. The advantage of initiating this in-depth discourse in South Africa was that a sense of urgency still surrounded discussions of race and racism in the country because of the relative newness of the South African democracy. The vision of a democratic South Africa in which every human being was valued equally is a cherished aspiration of most South Africans, and was still within reach.

> Charles Fombad presents the first volume of the Stellenbosch Handbooks on African Constitutional Law to Hendrik Geyer

The future of democracy

Charles Fombad convened the fourth Stellenbosch Annual Seminar on Constitutionalism in Africa (SASCA) on the theme Decentralisation and constitutionalism in Africa. Papers delivered at this workshop will appear in the third volume of the Oxford University Press series Stellenbosch Handbooks on African Constitutional Law. The first volume, based on the 2014 SASCA on Separation of Powers in African Constitutionalism was published in 2016, and the second is due for publication in 2017.

Other projects in this longer-term theme which were pursued at STIAS during 2016 were:

- Transitional justice: accountability for wrongdoing in the aftermath of conflict Helen Frowe
- The legitimacy and authority of international criminal law Neha Jain
- Rethinking sex in Uganda's parliament Stella Nyanzi
- Opposition in African politics: the case of Nigeria, Ghana, South Africa and Kenya – Olayemi Akinwumi
- What keeps society together? Societal cohesion: South Africa as a challenging case – Håkan Hydén and Winston Nagan
- The international protection of human rights Marc Bossuyt completed his book International Human Rights (Intersentia, Antwerp) during a two-month residency at STIAS.



African constitutionalism: comparative perspectives (convenor Charles Fombad)

The project African constitutionalism: comparative perspectives started in September 2013 and is due to end in September 2017. Now established and known as the Stellenbosch Annual Seminar on Constitutionalism in Africa (SASCA), the project involves an annual series of seminars jointly organised by STIAS and the Institute for International and Comparative Law in Africa (ICLA) of the Faculty of Law, University of Pretoria. The fourth of the planned series of five seminars took place in September 2016.

The overriding objective of the project was to contribute ideas that could help in the promotion and deepening of constitutionalism in Africa. In doing so, the main focus of the seminars have been to:

- stimulate interest in comparative constitutional law research and studies in Africa, its diverse methodologies and the African context;
- provide in-depth knowledge and understanding of African constitutional regimes and their evolution;
- examine problems that arise and challenges faced in African constitution-making processes and consider best practices;
- review the problems of implementing African constitutions and ways of overcoming this; and
- examine the theory and practice of selected aspects of constitutional law such as separation of powers and judicial independence, identify gaps, consider best practices and develop new standards.

The foundation seminar in 2013 (SASCA 1) and all subsequent seminars have brought together legal practitioners, judges, active constitution-builders, legal scholars and researchers from all the four regions of Africa as well as some from America and Europe. During the 2013 seminar, a number of topical issues were identified for discussion at future seminars. One of these, which formed the theme for SASCA 2 was the *Separation of powers and constitutionalism in Africa: comparative perspectives*. This was because the excessive concentration of powers was considered as one of the greatest impediments to the promotion of constitutionalism, good governance, democracy and the rule of law in Africa. A critical

assessment of the weaknesses and strengths of the operation of separation of powers on the continent provided a platform from which participants were able to identify and examine all the other challenges to entrenching constitutionalism in Africa. The third seminar in September 2015 dealt with the theme Constitutional adjudication in Africa. This was premised on the fact that Africa now provides an excellent example of the interplay of the diverse forms of constitutional review models and the prospects for new developments in constitutional adjudication. By identifying the different models of constitutional review that have been adopted in the last two decades, the seminar investigated the different ways in which these courts were contributing to enhancing constitutionalism and respect for the rule of law on the continent. SASCA 2016 focused on the theme Decentralisation and constitutionalism in Africa. This seminar unlike the two preceding ones was, as usual, jointly organised by STIAS and ICLA but they were joined by two partners namely the South African Research Chair (SARChI) on Multilevel Government, Law and Policy at Dullah Omar Institute, University of the Western Cape and the Konrad Adenauer Stiftung (KAS) Rule of Law Programme for sub-Saharan Africa, based in Kenva. The focus of the seminar was on the implications of the dialectical relationship between decentralisation and constitutionalism in Africa.

A number of significant milestones have been achieved in the SASCA programme so far. Some of the main ones are that:

- It has succeeded in stimulating interest in comparative constitutional law research and studies of the different constitutional traditions operating in Africa by bringing together leading scholars, legal practitioners, judges, and constitution builders during each of the seminars. As a result of the collaboration with the SARChI chair and KAS, doctoral and post-doctoral students have been actively involved in the programmes.
- One of the most important objectives of the series that
 of filling the huge knowledge gap in the existing literature
 on comparative African constitutional law as well as
 identifying directions for future research, has been achieved
 through the start of a new series called Stellenbosch
 Handbooks in African Constitutional Law published by
 Oxford University Press (OUP). The first book in the series,
 Separation of Powers in African Constitutionalism came out
 in early March 2016 and was launched at the University

- of Melbourne in April 2016. It was in recognition of the importance that this series will bring to scholarship that Charles Fombad was invited to launch this book in April 2016 in Australia, by the University of Melbourne and the International Association of Constitutional Law. Manuscripts for the second book of the series, based on the 2015 SASCA papers are already with OUP and are scheduled to be published in September 2017.
- Another goal of the project was to develop a partnership for promoting an intra-African legal dialogue. Not only major law publishers offering to publish the papers each time a seminar is announced but many organisations working on issues of constitutionalism and rule of law have become interested in the project. For example, in 2015, the African Union sent the head of their department on constitutionalism and rule of law to attend. KAS also attended the 2015 seminar before deciding to partner with STIAS in 2016.

The list of urgent issues that need to be prioritised for discussion is long. What is significant and augurs well for the future is threefold:

- The fact that many stakeholders such as the AU, KAS and more recently, International IDEA have taken notice and are anxious to collaborate is a positive development on which to build.
- The launch of the *Stellenbosch Handbooks in African Constitutional Law* marks a very important milestone. It not only announces to the world that comparative constitutional law issues on Africa are important but also lays an important foundation for closing the gaping knowledge gap.
- With the interest generated amongst young and upcoming scholars, established scholars, students and other legal professionals, the prospects for research, discussion and ideas that will ensure that the momentum towards constitutionalism, good governance and democracy in African is sustained, will be maintained.

It is now clear that the series has started an intra-African dialogue between the different constitutional traditions in Africa that will enable them to share ideas, learn from each other and hopefully develop principles and practices that are more adapted to the African environment and its reality.





From left: Daniel Conley; Eugene Terry, Joyce Chitja and Richard Sikora

Sustainable agro-ecosystems

The focus this year of Richard Sikora's core group was on Impact of sustainable intensification of agriculture on food security, the environment and human wellbeing in the ruralurban continuum. Over a period of six weeks the core group and two visiting scholars conducted a series of one-day workshops/discussions.

A book based on these sessions and work conducted during periods of non-residence at STIAS is currently being planned.

Other Sustainable agro-ecosystems projects pursued at STIAS during 2016 include:

- Nutritional security in a profitable and sustainable food system - Alice Pell
- Mobilising for natural resource management at the microlevel in rural Africa - Chris Shisanya
- Assessing the potential impact of agriculture on the biogeochemistry of a pristine wetland, the Okavango Delta -**Daniel Conley**
- Distributed renewable economy for Africa's transformation Desta Mebratu is developing a long-term project in conjunction with members of the Centre for Complex Systems in Transition at Stellenbosch University.

Impact of sustainable intensification of agriculture on food security, the environment and human wellbeing in the rural-urban continuum

Richard Sikora (University of Bonn), Joyce Chitja (University of KwaZulu-Natal), Ingrid **Öborn (Swedish University of Agricultural** Sciences), Eugene Terry (TransFarm Africa) and Paul Vlek (University of Bonn)

The research conducted by the three core fellows in March and April 2016 during the third phase of the longer-term research programme dealt with important factors influencing agricultural intensification and its impact on food security, the environment and human well-being in southern Africa. The topics reviewed were to some extent new ground and included topics not covered in previous deliberations at STIAS in 2014. During this visit in-depth discussions were held between the three core fellows in residence (Sikora, Terry and Vlek) along with Ingrid Öborn, and Joyce Chitja who were available on a short-term basis. The information gained from these discussions was used to further strengthen the group's knowledge base, help them to further focus their research, and to prepare for the final two stages of the research programme in 2017 and 2018.

In total, 17 discussion sessions were held with experts from South Africa, SADC and beyond on topics including: livelihoods of subsistence farmers, soil degradation and soil fertility management, complexity and anticipation, scenario development, agricultural economics and the importance of market chains, land reform and land distribution, links

between food production and food waste, capacity building and IT, plant health management, small farmers and agricultural markets, rural-urban migration, and the impact of climate change on food production.

Sikora, Terry and Vlek made substantial progress in understanding a number of important drivers impacting food security and problems associated with intensification of production. They also used the visit to further strengthen links with the Faculty of Agriculture at Stellenbosch University and potential linkage between the STIAS programme and the faculty's goals to develop a broader African orientated research programme was discussed.

The 2016 phase of the programme was also used to begin structuring the contents of the chapters for the STIAS scientific publication which is planned that will summarise overall findings. The book envisioned will be edited by the three core fellows and written by them and experts from the region. Where appropriate, authors will be selected from those who have been involved in the STIAS fellow consultations as well as STIAS fellows working in areas related to sustainable ecosystems. In addition a select number of scientists and important stakeholder from the region will be asked to contribute as co-authors.

Another output of this programme is a paper on land degradation and the sustainable development goals of the United Nations, the writing of which was spearheaded by Vlek. The paper will be published by CIAT and ICARDA as a special report.

Understanding complexity

Roberto Poli convened a core group of five researchers who were in residence for two months. Their project focused on *Complexity and anticipation* and they are currently preparing a book which is likely to be published in the STIAS series.

Another project in this theme pursued at STIAS during 2016 was Fritz Vollrath's project on *Complexity and emergent* properties in the spider's webs and silks.

Complexity and anticipation

Roberto Poli (University of Trento), Mario Giampietro (Autonomous University of Barcelona), Aloisius Louie (Ottawa), Gerald Midgley (Hull University), John Kineman (University of Colorado, Boulder) Ilkka Tuomi, Oy Meaning Processing Ltd (Espoo)

Complexity is arguably one of the most relevant scientific ideas that emerged during the past decades. A key question addressed in this project is whether complexity unfolds in degrees (when systems or models are more or less complex), or whether it is a type (when a system or a model is either simple or complex). Things become even more interesting when one considers systems including models of themselves and their environment. In so doing, the system can 'foresee' its future and may take decisions in the present moment according to the model's previsions.

The following are some of the questions which the group wanted to address: What is anticipation? Are there different kinds of anticipation? Which acceptance of complexity is most suitable for making anticipation possible? Are there hierarchies of anticipation? How do anticipations relate to emergence? How can anticipation be modelled?

These questions were discussed and analysed during structured plenary sessions and through face-to-face encounters. Discussions also involved colleagues of the Centre for Complex Systems in Transition, directed by Jannie Hofmeyr, and other fellows at STIAS. As a result

the group is preparing a collection of papers to be published as a book in the STIAS series, with the provisional title The metabolism-repair networks of organisms and societies. Essays on complexity and anticipation.

After prolonged discussions, Springer has agreed to publish a new series entitled *Anticipation Science*. Poli is the editor-in-chief of the series, while members of the board include Hofmeyr and Louie. It is anticipated that a series by a well-established academic publishing house will spread the interest in anticipation and related issues.

Work on a handbook of anticipation is well-advanced. The handbook is the first systematic survey of the ways in which different sciences, disciplines and practices look at the future. It will comprise about 100 chapters and about 2 000 pages. Approximately 75 chapters have already been assigned. The handbook will be published by Springer, both online (first chapters published in 2017) and in print (2018).

Poli also completed the book he began during his previous visit at STIAS. This will be published by Springer in the early 2017, entitled *Introduction to anticipation studies*. The following are the first lines of the book's acknowledgments: "I have been lucky enough to write most of this book in enchanting places and surrounded by stimulating colleagues. STIAS offered me two fellowships, respectively in the early months of 2014 and 2016. The scents, beauty and social complexity of South Africa are the best framework one can imagine for working on anticipation and the future."

"We came to STIAS with the general expectation that our collaboration could make a ground-breaking contribution in advancing studies on anticipation and complexity towards a new anticipatory systems paradigm. I believe we made clear progress in achieving this objective.

As some of the ideas that underpin this new paradigm require sophisticated mathematical formalisms rarely known outside mathematics proper, a major challenge has been in communicating the key ideas in ways that make them understandable for wide audiences. The fact that our group consisted of scholars from different backgrounds, each focusing on the same generic area of research from their individual points of view, greatly helped in finding a shared language to discuss and describe this new paradigm. This will have an important impact on communicating the key ideas of the new paradigm for broad audiences. It seems to me that we are now much more able to formulate and communicate the key insights of the new anticipatory paradigm."

Ilkka Tuomi, Oy Meaning Processing Ltd (Espoo), 2016

Health in transition divided into Health prevention and Health care

Work in this longer-term theme project is currently undertaken by various groups (often led by Swedish researchers) so far each with an own focus

Lucie Laflamme and Marie Hasselberg have worked with South African colleagues at Stellenbosch University and the University of Cape Town on Health transition and injury care and prevention for the past four years. This project was concluded in 2016

Susanne Lundin continued work on Future bodies: preventing organ trafficking together with Elmi Muller. In 2016 they were be joined by Marianne Kristiansson. The STIAS series book Global bodies in grey zones: health, hope, biotechnology, eds Susanne Lundin, Charlotte Kroløkke, Elmi Muller and Michael Nebeling Petersen, was published in October 2016.

Abdallah Daar convened a group of five STIAS fellows and three visiting scholars during September 2016 to set an

agenda for the *Health in transition* project: developmental origins of health and disease (DOHaD) and sustainable development goals (SDGs): moving towards early implementation in Africa. They held a three-day workshop to further inform the scope and contents of the project which was attended by 29 participants from ten countries.

Other Health in transition projects pursued at STIAS during 2016 included:

- Making primary health care work for the poor -Eddy van Doorslaer
- Infectious disease prevention in companion animals Marian Horzinek was developing this into a longer-term project, but sadly passed away in August 2016
- Technology for maternal neonatal and child health Guv Dumont
- Brighter futures through health promotion and health -Andrew Macnab

Developmental origins of health and disease (DOHaD) and sustainable development goals: towards early implementation in Africa

Abdallah Daar (University of Toronto). **Dorairaian Balasubramanian (LV Prasad Eve** Institute), Peter Byass (Umeå University), Elizabeth Kimani (African Population and Health Research Center). Andrew Macnab (University of British Columbia). Shane Norris (University of the Witwatersrand), Atul Singhal (University College London), **Chittaranjan Yajnik (King Edward Memorial** Hospital, Pune)

The main activity of the group of fellows and visiting scholars engaged in this longer-term STIAS project was a series of group meetings held initially to define their goals and agenda. then to finalise and coordinate the STIAS-hosted workshop and lastly to plan outputs, deliverables, future directions. individual responsibilities and a provisional programme for the group's 2017 period in residence at STIAS. It was helpful to have the opportunity to present their STIAS fellows' seminar

Lucie Laflamme and co-investigator Lee Wallis during their seminar presentation in December 2016

early during their residence and to have the benefit of the ensuing discussion and suggestions to focus elements of their work. Ongoing dialogue with colleagues who were fellows from non-DOHaD disciplines was formative throughout the groups' stay.

The principal project delivered during the 2016 residence was the consultation/workshop titled *The developmental origins* of health and disease (DOHaD) and sustainable development goals (SDGs): moving towards early implementation in Africa which was held in September. This proved to be a particularly successful event with a fine balance of participants from all parts of Africa, who contributed with great energy to both the formal presentations and the ensuing discussions. The transdisciplinarity of this event was experienced as electric and it is anticipated that this will be reflected in print through a series of peer-reviewed publications based on work presented at the consultation/workshop to be published in a themed issue of The DOHaD journal in 2017. The publication of this series of papers is intended to coincide with the announcement of the African Chapter of the DOHaD Society in October 2017 at the DOHaD summit in Rotterdam. At that summit this group hopes to announce an African DOHaD summit to be held in 2018. and thereafter every second year.

A number of high-value outputs, most with a STIAS imprint, have been identified that will hopefully transform DOHaDrelated scholarly work in Africa, and ultimately improve the health of people in Africa. The group has already written and submitted a paper to Global Health Action. In addition, five papers commissioned from participants of the workshop are being finalised for submission to the DOHaD journal. An application to the International DOHaD Society to create an African chapter has been approved.

A book proposal on Opportunities for DOHaD to improve health in Africa, to be part of the STIAS publication series, has been discussed with Sun Media Publishers.

After consultation with STIAS and the African Academy of Sciences (AAS), the core group finalised arrangements for the establishment a network of young DOHaD scientists to advance the DOHaD agenda in Africa. This network was partly modelled on the already successful STIAS/AAS network established to work on cell biology and regenerative medicine. A summer school for the DOHaD group has been arranged at STIAS to take place from 21 to 23 November 2017.

Workshop on stem cell science and applications

STIAS and the African Academy of Sciences (AAS) hosted a joint workshop for young scientists at STIAS from 27 June to 1 July. The topic of the training workshop was stem cell science and its application in Africa. Forty participants from 13 countries took part in the workshop. This was the first event to be co-hosted by STIAS and the AAS.

Fifteen specialists and scholars in the field of cell biology from India, South Africa, Brazil, Canada, Nigeria and Kenya presented and mentored 20 young scientists from all five regions in Africa. Experts included STIAS fellows Abdallah Daar, Dorairajan Balasubramanian and Berhanu Abegaz as well as other key resource persons, amongst others Susan Kidson (University of Cape Town), Venant Tchokonte-Nana (Stellenbosch University), Iqbal Parker (University of Cape Town), Jose Garcia Abreu (Federal University of Rio de Janeiro) Fabio Almeida Mendes (Federal University of Rio de Janeiro), Anjali Shiras (National Centre for Cell Sciences, Pune), Keolebogile Motaung (Tshwane University of Technology) and Bade Ogundipe (University of Ibadan).

The five-day workshop offered specialists as well as young researchers an opportunity to present their research, to discuss the applications and challenges of cell biology in Africa, and to form mentorships. The event also strengthened the relationship between STIAS and the AAS, which was established when AAS Executive Director, Berhanu Abegaz, accepted an invitation to take up a fellowship at STIAS during 2013.

During the workshop the young scientists established a working committee with members from each region in Africa to strengthen cell biology and regenerative medicine as a key field of research to address Africa's changing health needs. including the increasing prevalence of non-communicable diseases and conditions.

A number of initiatives were agreed upon at the conclusion of the week-long workshop. These included setting up a platform that will raise awareness about the importance of cell biology in Africa, sharing funding and research opportunities as well as new publications in the field, increasing collaboration among stem cell scientists in Africa, comparing and enhancing university syllabi on cell biology in Africa, initiating exchange visits to various cell biology facilities, and stimulating further

mentorship with experienced scholars worldwide. A survey of existing facilities in each of Africa's regions would also be conducted to determine whether some facilities may be identified as regional hubs where researchers from the region may access equipment.

Participants for the workshop were selected based on their participation in previous workshops on cell biology and regenerative medicine that had been hosted by the AAS during 2013 and 2014, as well as through a call for applications on the AAS website and newsletters. Included in the programme was a day of practical demonstrations and hands-on experience in three cell laboratories in the Western Cape, namely the University of Cape Town's Division of Cell Biology, Stellenbosch University's ISLET Research Laboratory at Tygerberg, and the facilities of the International Centre for Genetic Engineering and Biotechnology in Cape Town.

A working committee chaired by Marianne Mureithi (University of Nairobi) was established with five regional members: Zohra Aloui (Institut Pasteur de Tunis, northern Africa). Nkiruka Azubike (University of Nigeria, western Africa), Farisai Chidzwondo (University of Zimbabwe, southern Africa), Mosab Mohammed (Al Neelain University, eastern Africa) and Denis Zofou (University of Buea, central Africa). A report on the workshop prepared by the committee was published on the STIAS website.



Crossing borders

The papers delivered at a 2015 STIAS workshop on Boundaries and legal authority in a global context were published in a 2016 volume of the *Indiana Journal of Global* Legal Studies, considered to be one of the top journals in the field. Hans Lindahl led Skype meetings with project participants in the sub-project he leads (Global Human Rights Law and the Boundaries of Statehood) during the residence of Sofia Näsström, one of the team members participating in this sub-project. Sofia Näsström worked on *The right to have* rights: from migration to integration during a her period of residence at STIAS in 2016. Four of the core group members will again be in residence at STIAS in 2017.

Below, from left: Susan Kidson speaking at the STIAS-AAS stem cell workshop; Oluwaseun Ahmed Mustapha on the day of practical demonstrations at one of the three cell laboratories visited in the Western Cape



STIAS FELLOWS AND PROJECTS

During 2016 an occupancy of 81 per cent was achieved which was the best occupancy at STIAS to date. This occupancy rate was regarded in a positive light given the flexibility with which periods of fellows' residency at STIAS continued to be approached and some inevitable last minute cancellations. An increasing component represented activities within the seven longer-term themes. The first two *Iso Lomso* fellows from the programme's pilot phase completed their fellowship at STIAS and sister organisations abroad. A considerable number of STIAS fellows was identified as a result of the direct application route.







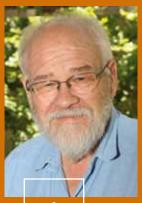














- 1. Göran Therborn
- 2. From left, seated: Chris Shisanya, Charles Fombad, Lucie Laflamme, David Dunér, Tanja Schult, Stella Nyanzi Standing: Grace A Musila, Leila Harris, Gerhard Maré, Scarlett Cornelissen, John Higgins, Neha Jain, Guy Dumont
- 3. Abdallah Daar, Hendrik Geyer, Berhanu Abegaz and Dorairajan Balusubramanian
- 4. Eugene Terry
- 5. Winston Nagan and Håkan Hydén



- 6. Back row, from left: Barney Pityana, George Chaplin, Chris Shisanya, Gerhard Maré and Göran Therborn Front row, from left: Crain Soudien, Leila Harris, Neha Jain, Zimitri Erasmus, Nina Jablonski and Njabulo Ndebele
- 7. From left, seated: Grace A Musila, Zoë Wicomb, Jane Taylor, Alice Pell, Lindiwe Mazibuko Standing: Mandla Langa, Fritz Vollrath, Roger Butlin, Chielozona Eze, Eddy van Doorslaer, Gunnar Wetterberg, Marian Horzinek
- 8. Lars Larsson
- 9. Stella Nyanzi

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- 10. Duncan Brown
- 11. Matthias Herdegen
- 12. Maxi Schoeman
- 13.Elisabeth Gerle
- 14. Zoë Wicomb
- 15. From left to right: Back row: Robert Martin, David Dunèr, Andrew Macnab, Peter Gärdenfors, Maxi Schoeman, Lars Larsson Front row: Susanne Lundin, Leila Harris, Elmi Muller, Marlize Lombard, Marie Hasselberg, Lucie Laflamme, Håkan Hydén, Winston Nagan



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STIAS-WALLENBERG ROUND TABLE









Fourth STIAS-Wallenberg Round Table meeting on *Innovation for prosperity*

Since 2013 the Marianne and Marcus Wallenberg Foundation has provided funding for an annual round table forum where South African and Swedish representatives as well as the broader international community can engage in dialogue and debate around a theme, typically a current global challenge with a focus on its local manifestation. The STIAS-Wallenberg round tables provide a platform for dialogue between academia, policymakers, professionals and practitioners, business and industry, civil society and, where possible, intended beneficiaries. The idea is that research of the highest level should be done not only for its own sake but also for the benefit of humanity, with due emphasis on the continental context in which STIAS finds itself; and, that to foster cross-pollination of ideas the round table should be organised as a multi-sectoral, multi-stakeholder event affording all participants equal status in presenting their views and questioning the views of others.

Close to 60 delegates attended the fourth STIAS-Wallenberg Round Table on *Innovation for prosperity* at the STIAS campus on 22 and 23 February 2016. The Round Table afforded the opportunity for lively discussions and debates with South African, regional and international participants spanning sectors from policy and decision-makers to academics, researchers, business leaders, innovators and entrepreneurs.



Discourse was framed by a background discussion document entitled *Realising innovation opportunities in sub-Saharan Africa* by Sara Grobbelaar (Stellenbosch University) and Sylvia Schwaag Serger (Vinnova, Sweden) as well as a Delphi survey to canvass the opinions of selected participants on innovation policies.

A broad perspective of innovation was adopted, embracing basically all activities in society, and also connecting to the megatrends and the UN Sustainable Development Goals in the global 2030 Agenda. The wide-ranging issues discussed included what constitutes inclusive innovation; the role of government in fostering and facilitating an innovative society; bottom-up and top-down innovation; education for innovation – from schooling and vocational training to the role of the innovative university; the unique challenges facing Africa and the potential for digital leapfrogging into a new future; the developmental state; as well the pros and cons of regional cooperation, collaboration and integration.

In keeping with the goal of the round tables to disseminate information and outputs to the broader community, the core organising committee drafted a round table statement which was enhanced by input from the participants. A revised draft of the discussion document incorporating ideas from the two days of discussions as well as a policy brief were also published and presented at leading conferences after the Round Table.

As with previous round tables, the programme, participation and the eventual outputs were broadened and enhanced with the assistance of Maud Olofsson, former Swedish Minister for Enterprise and Energy (2006 to 2011) and Deputy Prime Minister (2006 to 2010) as well as STIAS staff. This particular Round Table was also honoured to have the direct participation of members of the Wallenberg family including Jacob Wallenberg and Peter Wallenberg Jr.

SELECTED PROJECT PROFILES

Gunnar Wetterberg (Swedish historian and author)

History of Scania

Scania is the southernmost province of Sweden. It was settled in the wake of the last Ice Age, approximately 14 000 BC. For most of its history, it was part of the South Scandinavian cultural sphere, which also comprised Jutland, the Danish Isles and the neighbouring provinces of present-day Sweden. In the Middle Ages, Scania was part of the Danish realm and



became the centre of the Scandinavian churches. During the early modern period, Scania became a battleground in the recurring wars between Denmark/Norway and Sweden/Finland. In the treaty of Roskilde 1658, Denmark ceded Scania to Sweden. Today, it is one of the most populous provinces of Sweden. The link with Denmark was physically restored in 2001 through the construction of the Öresund Bridge between Copenhagen and Malmö.

The aim of the project is to follow the development of the region through the ages. Its focus is on political and economic history, but the project also draws upon archaeology, social anthropology, and other neighbouring disciplines. The results of the project will be presented in three volumes. The first volume, spanning the period from 11 500 BC to 1375 AD, was published in October 2016. At STIAS the main effort went into the second volume, covering the period 1375-1720 AD, scheduled for publication in April 2017. During this time, work was also done on the opening chapters of the last volume, on developments up to the Napoleonic wars. This concluding volume is due for publication in October 2017.



Tanja Schult (Stockholm University)

Commemorating painful pasts through performative practices

The 19th century and the beginning of the 20th century have left a dark legacy behind: world wars, genocides, civil wars, dictatorships and terrorist attacks with millions of people tortured, persecuted, displaced, dead, or disappeared without a trace. What do we later-born generations do with these painful pasts? This project explores how artists, educators and curators make use of performative practices in order to enable later-born generations to deal with the legacies of trauma, to initiate reconciliation and to attempt forgiveness.

After having organised the international conference Performative Commemoration of Painful Pasts, held at Stockholm University in June 2016, Schult dedicated the month at STIAS to extensive reading in order to initiate a volume of articles on the conference topic. The editorial work on this volume, including her introduction, will be concluded by July 2017 and published at the beginning of 2018.

A consequence of valuable contacts made during the time at STIAS was that, amongst others, an invitation was extended to STIAS fellow John Higgins with the support of The Royal Academy of Letters, to give a guest lecture, *Rereading the Canon from South Africa – on the poet William Blake and the Nicholas Roeg film Bad Timing* at Stockholm University.

During Schult's STIAS fellowship, the director of Cape Town's Holocaust and Genocide Centre, Richard Freedman, introduced her to the art of South African performance artist Steven Cohen. She consequently investigated Cohen's work at close range, and this led to a presentation of one of his performances, Cleaning Time (Vienna), at a workshop held by Amelia Jones in December 2016 at Stockholm University.

Far left: Book cover Left: Gunnar Wetterberg

Matthias Herdegen (University of Bonn)

Biotechnology and legal regulation: personal freedom, risk management and human dignity

This project builds on various strings of research (comparative studies on regulatory models, international and constitutional standards governing biomedicine, free trade regimes and GMOs, and patents on biotechnological inventions). The invitation extended by STIAS sparked the decision to tie these different strings together in a comprehensive book on the international law of biotechnology. The regulation of biotechnology is determined by a number of often conflicting legal values and socio-economic interests. Human dignity. freedom of research, the right to family life and the right of health inspire regulatory models in the field of biomedicine and reproduction techniques. Scientifically corroborated risk assessment and interest-free trade competes with socioeconomic considerations in highly risk-averse societies. In the area of patents and other forms of intellectual property. liberties and rights based on innovation meet claims to equal access to genetic resources as encoded information.

The legal approaches to genetic engineering reveal fundamental differences in regulatory philosophies, for example, between the United States and the European Union. Fundamental rights or guarantees under human rights treaties as well as free trade regimes have become the battleground for pre-empting or challenging political process in increasingly heterogeneous societies. The stay at STIAS was dedicated to finalise the overall structure of the book and explore the intricate relation between international legal standards and bio-ethics. The relevant part of the book addresses the tension between global or regional normativity and socio-cultural diversity in many areas including concepts of personhood, the status of the embryo in vitro and risk assessment. It also discusses the emerging deference to socio-economic considerations in international instruments. Work on the book is expected to be completed in 2018.

Sofia Näsström (Uppsala University)

The right to have rights: from migration to integration

Citizenship is essential for living a democratic life. Today, however, many democratic countries witness people in their midst who lack full citizenship status. A growing number of migrants, asylum seekers and refugees live under laws over which they have no democratic say. This condition does not only make them vulnerable to domination and exploitation; their exclusion from the political domain also risks affecting the self-understanding of both citizens and non-citizens in a way that is detrimental to the preservation of a democratic society. The belief in a society of equals is difficult to sustain when practices of citizenship produce civic stratifications in the form of differentiated systems of rights and inclusion.

The purpose of Näsström's project at STIAS was to address this problem by reflecting on the normative and institutional basis of what Hannah Arendt calls "the right to have rights". While at STIAS she worked on two papers, both of which will be included in her forthcoming book *The spirit of democracy: thinking democracy beyond the nation-state*.

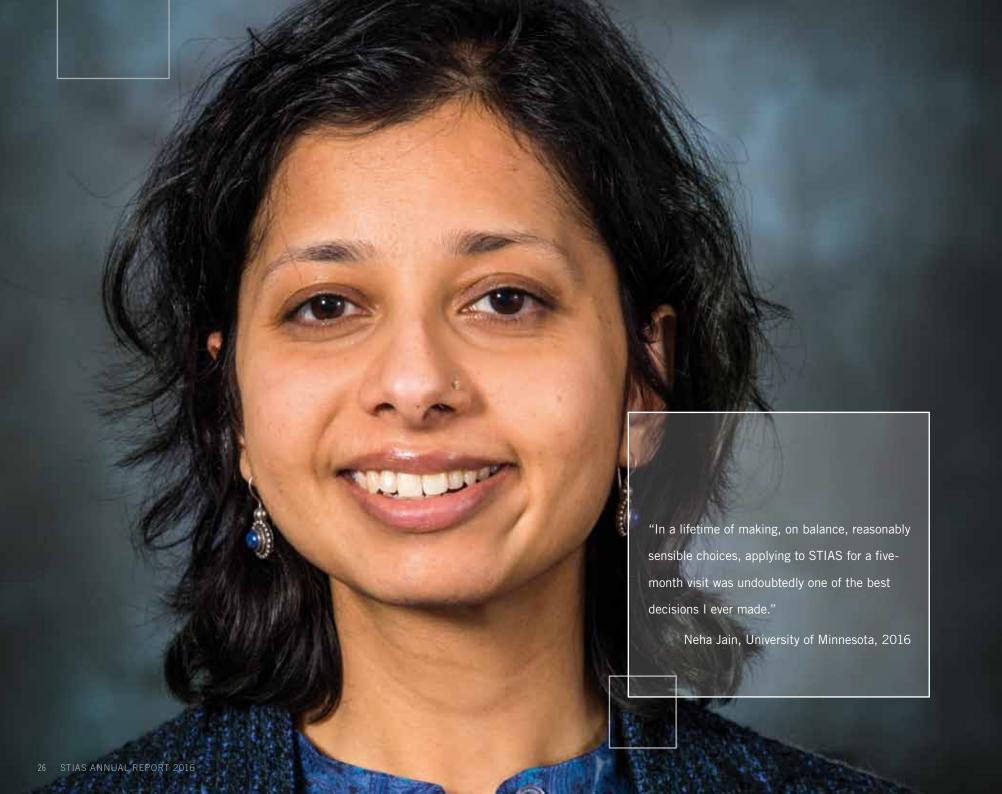
The first paper addressed the right to citizenship. The fact that struggles around border politics are increasing, and many countries are establishing new institutions and administrative procedures by which to cope with pressures from migration on their democracies and welfare systems indicates that appeals to the right to have rights are not going to vanish in any time soon. At the same time, critics contend that this right is insufficient to achieve successful integration. Contrary to the received view, Näsström argues that it offers valuable resources for thinking the shift from migration to integration in a new key. The paper was presented in a video seminar organised by STIAS. The seminar was attended by around 20 colleagues from Stellenbosch University, the University of Cape Town and the University of Tilburg in the Netherlands.

The other paper was the introduction to the book. In common usage, modern democracy falls back on a sovereign people. It refers to a form of government where the people have the ultimate authority to decide the direction and substance of democratic law. In *The spirit of democracy*, it is argued that

this familiar interpretation fails to capture what is radical and promising about the political project set in motion by the revolutions in the late eighteenth century, and how it may be reinvigorated to counter the corruption of democratic practices and ideals. Modern democracy is not based on a sovereign people. It is a classless form of government animated and sustained by a principle of emancipation, and together these two features make up the unique spirit of modern democracy. The book argues that by paying attention to this spirit, it is not only possible to prevent the degeneration of democracy into other political forms; monarchical, republican and despotic. It enhances our understanding of what is distinctively democratic about such familiar political institutions as universal suffrage, human rights and the public sphere, and how the radical spirit that animates them may be revived to meet new political crises.



Sofia Näsström



Neha Jain (University of Minnesota)

The legitimacy and authority of international criminal law

After a wave of initial excitement arising from the establishment of international criminal tribunals, scholars and practitioners increasingly have begun to turn a critical eye on the challenges faced by these courts and on their impact on the societies and polities in which they operate.

The list of accusations against the functioning of the tribunals could scarcely be more damning: arbitrariness, selectivity, inefficiency, neo-colonialism, anti-liberalism, to state just a few. Critics of the enterprise of international criminal law have an even more fundamental complaint – trials for mass atrocity, at least in their current form, appear to satisfy few of the objectives of trials for ordinary crimes. Selective prosecutions and the impossibility of proportional punishment, combined with scepticism about evaluations of desert in the context of mass atrocity, undermine the claim to retributive justice. The prospect of true deterrence is remote given that perpetrators of mass atrocity are rarely susceptible to rational cost-benefit analyses. Supporters of international criminal trials have thus offered an alternative account of the function served by international criminal trials – "their role in norm projection: trials are expressive acts broadcasting the news that mass atrocities are, in fact, heinous crimes and not merely politics by other means".

The project undertaken at STIAS examined the potential of international criminal trials to engage in this communicative enterprise by focusing on a discrete category of legal texts: judicial dissenting opinions. International criminal law, for much of its history, has been a law characterised by dissents. Yet, there has been no systematic study of the influence of dissents in shaping the discourse of international criminal justice, both within and outside the courtroom. The project surveyed dissenting opinions at the international and hybrid criminal tribunals to highlight that not all dissenting opinions are created alike. While dissents are an increasingly accepted and lauded feature of international adjudication more generally, many of the arguments supporting the justificatory function of dissents do not directly apply to a species of dissents that the project categorises as radical dissents. The content and rhetorical style of a radical dissent enables actors invested in the project of international criminal justice to use it as a vital dissentient voice both within and outside the courtroom. Agents who operate within the confines of the legal trial, such as defendants, lawyers, appellate chambers, and future judges, may channel its authority to challenge the idiom in which the majority judgment speaks. Likewise. the radical dissent could provide a legal language through which academics, victims, civil society, and other affected communities continue to grapple with constructing and coming to terms with events that defy human understanding.

The research conducted in connection with the STIAS project resulted in a number of papers. A book chapter on the sources of law at international criminal courts has been accepted for publication in the forthcoming *Oxford Handbook of International Criminal Law* (2017) and an article on radical dissents is currently under peer review. Jain's time at STIAS also coincided with South Africa's declaration of withdrawal from the International Criminal Court, which led her to conceptualise a series of new projects on treaty withdrawal and domestic separation of powers to be pursued during research visits planned at various universities, including through networks built during her stay at STIAS.

Adriaan van Klinken (University of Leeds)

Christianity and queer politics in Africa

In recent years a lot of attention has been paid to socio-political mobilisations against homosexuality and lesbian, gay, bisexual and transgender (LGBT) rights in African contexts. These are sometimes simplistically explained as manifestations of so-called African homophobia fuelled by religion and culture. In this research project the other side of the same reality is foregrounded: emergent forms of LGBT activism and queer politics in Africa, and the ways in which these engage questions of cultural authenticity and religious orthodoxy.

Thus the project seeks to debunk the monolithic narrative of homophobic Africa and its subsequent stories and images of queer African victimage that have dominated the media as well as certain academic discourses. It also, and more specifically, seeks to nuance the widespread idea of religion being a major factor in socio-political homophobia and therefore a hindrance to LGBT emancipation and queer politics in Africa. The project focuses on Kenya and examines four case studies of the ways in which Kenyan LGBT individuals, activists, and communities engage, respond to, negotiate and reclaim religion, specifically Christianity, in the context of African queer politics.

During the three-month fellowship at STIAS, the methodological and conceptual frames utilised in the project were developed and the analysis of the case studies was commenced. Major sections of the monograph emanating from the project were also written. In addition, an article written at STIAS (Culture wars, race, and sexuality: a nascent pan-African LGBT-affirming Christian movement and the future of Christianity) has been accepted for publication in the Journal of Africana Religions. This article examines the work of an African-American organisation, The Fellowship of Affirming Ministries (TFAM), to build a pan-African LGBT-affirming Christian movement. TFAM presents its work as a response to the involvement of American white conservative evangelicals in the spread of homophobia in Africa. Where the latter has been framed as the export of American culture wars, this article discusses TFAM's work as an attempt to counter-balance the culture wars and to define the future of African Christianity in progressive ways. The article proceeds by discussing one of the fruits of TFAM's activities, an LGBT church in Nairobi, Kenya.

Anél du Plessis (North-West University)

Sustainable cities in South Africa: a legal appraisal

For a scholar in the field of local government, environmental law, urban development and cities, the year 2016 has been an exciting and important one: the United Nations adopted its New Urban Agenda while Goal 11 of the 2015 Sustainable Development Goals also started finding its way in policy thinking.

In South Africa specifically, the government published its New Urban Development Framework and Implementation Plan which set the national strategic vision for, inter alia, integrated urban planning and management: integrated transport and mobility; integrated sustainable human settlements; integrated urban infrastructure; efficient land governance and management; and sustainable finance.

Keen interest in the social, environmental, economic and geopolitical dynamics of cities and urban development is not new. Scholars in the fields of economics, anthropology, public and international relations, ecology, humanities as well as urban studies have for decades extensively deliberated urbanisation, the growing rise of cities and other urban localities as well as their short- and long-term effects. The same cannot be said of the legal discipline which is, as is so often the case, rather lagging behind in absorbing new social phenomena. In addition, the need for research on what is needed for sustainable urban development in South Africa and the rest of the continent is great since urbanisation is happening at an unprecedented rate.

It is against the background of the above and as part of an Alexander von Humboldt-funded research project with the Humboldt University in Berlin, that Du Plessis used her time at STIAS to conduct a literature review on the theory and meaning of sustainable cities in the South African and African contexts and to identify and analyse the international and domestic legal frameworks applicable to the pursuit of sustainable cities in South Africa. It was found that the constitutionally entrenched authority of municipalities in South Africa is wide and restrained at the same time and that the developmental local government that was established after 1996 continued to be plagued by governance and financial management related problems.

STIAS, says Du Plessis, provided her critical physical and thinking space on the matter of cities – the spaces in which millions of South Africans live and work. STIAS helped to facilitate enriching conversations with scholars from various fields and jurisdictions on the matters of sustainability. resilience and urban development impacts. The research conducted fed into conference papers subsequently delivered in Berlin, Swakopmund and Oslo as well as in Pietermaritzburg, Potchefstroom, Bloemfontein, Plettenberg Bay and Stellenbosch. Two book chapters for international scholarly volumes on cities were completed and work has been initiated for the forthcoming monograph titled: The impact of globalisation on local environmental governance. The book which is still in progress will be published with Edward Elgar.

Helen Frowe (Stockholm University)

Transitional justice

Frowe's proposed project for her time at STIAS was to explore theoretical issues related to alternative methods of justice, such as the Truth and Reconciliation Commission, and legal amnesties. And, indeed, much of her time was spent learning not only about historical injustices within South Africa, but the ongoing political divisions, helped in no small part by discussions with STIAS fellows.

She hosted a conference at STIAS on the theme of transitional justice that attracted scholars from all over the world, bringing together international researchers with philosophers and legal scholars working in southern Africa. The result was a set of discussions that significantly benefitted from the local context and first-hand experience and expertise of the participants. Topics included the ethics of displacement, the right to truth, reparations, reconciliation and the legitimacy of amnesties. Frowe's fellowship gave her considerable opportunity to engage with local scholars, both through the conference at STIAS and through interaction with academics at Stellenbosch University. This collaboration is ongoing, and Frowe will return to Stellenbosch in 2018 to host a workshop on civil unrest with Vasti Roodt of the Department of Philosophy, Stellenbosch University. The papers from this workshop will be submitted as a journal symposium.

Frowe also spent part of her time at STIAS finishing the *Oxford* Handbook of Ethics of War. co-edited with Seth Lazar. This substantial project involved 30 contributing authors and sets out the state of the art in the ethics of war. Frowe's own chapter argues that we ought to reject the familiar just war framework that distinguishes between jus ad bellum (roughly, the justice of the war as a whole) and jus in bello (roughly, the justice of how the war is fought). This handbook is now available via Oxford Scholarship Online, and will be available in print in early 2018. She also authored a chapter on War in Political Philosophy for Oxford Research Encyclopaedias Online. These online encyclopaedias are intended to become Oxford University Press's flagship online research tools. Her chapter gives an overview of current research in just war theory, and then develops in more detail some of the specific challenges currently being explored in the literature. In particular, she considers the concern that wars of humanitarian intervention are morally indefensible because significantly more lives would be saved if the money spent on interventions were spent on trying to alleviate poverty-related deaths caused by famine and disease. She also reflects on the morality of using and harming human shields in war. This paper is available through Oxford Scholarship Online.

Frowe also used her time at STIAS to begin work on a paper exploring the role of agent-relative prerogatives in permissible harming, including harming in war. Agent-relative prerogatives permit individuals to weight their own interests more heavily than other people's interests. They plausibly explain why. for example, I may save my own life rather than the lives of several strangers, even though saving the strangers would do more good. Frowe's paper explores the scope of these reasons – specifically, whether they can justify harming as well as failing to save - and whether they can be transferred to other people. She presented this paper at the Stellenbosch University's Department of Philosophy; a descendant of this paper is now under review for publication. She also worked on a paper on the nature of lesser-evil justifications for harming, which she presented at the annual conference of the Philosophical Society of Southern Africa. A modification of this paper is also currently under review.

Peter Gärdenfors (Lund University)
Rudie Botha (Utrecht Institute of Linguistics and Stellenbosch University)
Anders Högberg (Linnaeus University)
Lars Larsson (Lund University)
Marlize Lombard (University of Johannesburg)

How did *Homo sapiens* become *Homo docens*? On the evolution of social learning and teaching during the Palaeolithic

Of all living creatures, active teaching has evolved only in the line leading to *Homo sapiens*. This uniquely human trait was explored by combining theoretical models from cognitive science, linguistics, archaeology and anthropology with analyses of archaeological material. The artefacts are primarily associated with the Earlier and Middle Stone Ages of southern Africa, where multiple lines of evidence exist for our evolution into cognitively and behaviourally modern *Homo sapiens*.

In the theoretical part of the work the role of teaching in human evolution was investigated. The research group argued that there are different levels of teaching, the most basic of which modern humans share with other animal species. However, the ability to demonstrate how something should be done seems to be a watershed along the human line. A teacher can demonstrate without using language, and the 2,5-million-year-old Oldowan technology for making stone tools already built on the ability to teach and learn through demonstration.

Of course, the evolution of communicative gestures and spoken language opens up for new forms of teaching. Consequently, different theories about the evolution of language have been analysed. Furthermore, the ability to reason and communicate about causal relations has turned out to be central for more advanced levels of teaching. In the later part of the project, different forms of causal thinking and how they are reflected in the archaeological record were therefore analysed.

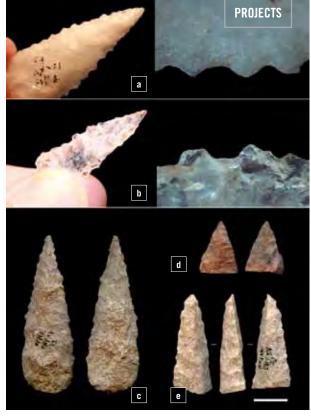
The archaeological component of the project concerned conclusions that can be drawn from material remnants about teaching. The stone tool record reaches back in time to more

than three million years ago. Stone tool-maker performances were investigated to determine what needs to be taught for an individual to master different tool-making strategies. This was accomplished through an in-depth analysis of prehistoric stone knapping technologies, compared to observations about modern experimental stone tool production. From these analyses, hypotheses were developed about how different stone tool technologies can be used to understand aspects of past social learning and teaching from an evolutionary perspective.

A new method was developed to trace the transfer of knowledge systems for the production of finely-made stone points. In a comparative analysis, this approach was applied to stone artefacts from the Middle Stone Age sites of Hollow Rock Shelter in the Western Cape and Umhlatuzana Rock Shelter in KwaZulu-Natal. With this work the existence of inter-regional conventions as well as variability and intra-regional trends was demonstrated in how people were taught to produce Still Bay points. The results reflect previously unknown flexibility and complexity in the organisation of knowledge-transfer systems from as early as 80 000 years ago in southern Africa.

During the project period two international symposia were held at STIAS. The first one in November 2013 had the title How did *Homo sapiens* become *Homo docens*? Six of the presentations at this symposium were subsequently published as a special issue of *Cambridge Archaeological Journal*. The second was the Palaeo-TrACKS symposium that was held in November 2016. This was an inter-disciplinary meeting that brought archaeologists, geneticists, philosophers and cognitive scientists together, all sharing research interests and curiosity about our human origins with a focus on sub-Saharan Africa.

The knowledge dissemination from the project is rich. Apart from the special issue of *Cambridge Archaeological Journal*, articles are published, or being published, in major scientific journals such as *PloS One*, *Current Anthropology*, *Journal of Anthropological Sciences*, *Antiquity*, *Journal of Anthropological Sciences*, *Frontiers in Psychology* and the *South African Archaeological Bulletin*. Botha published the book *Language Evolution: The Windows Approach* with Cambridge University Press 2016.



Right: Umhlatuzana Rock Shelter in KwaZulu-Natal is a c. 80 000 year old site from which some beautifully made points originate. These points have been one of the objects of research in this project, tracing possible knowledge transfer systems in production strategies.

Above: A selection of points from Umhlatuzana Rock Shelter; a) a serrated quartz point with a close-up of the beautiful serrated edge; b) a crystal quartz point with another close-up of the serrated edge; c) a serrated quartzite point; d) a quartzite Still Bay point that broke during production; e) a pressure flaked quartzite point broken during production. The scale bar is 20 mm and applies to c-e.



Eddy van Doorslaer (Erasmus University Rotterdam)

No longer apart, but far from equal: health inequality in post-apartheid South Africa

Health is not equally distributed; all around the world, on average, the better-off can expect to live longer and in better health than the worse-off, and South Africa is not any different in this respect. But some nations manage to keep this inequality at a lower level than others, and the hope of United Nations (UN) organisations like the World Health Organisation (WHO) and the World Bank is that the current striving for universal health coverage through health financing reforms will contribute to achieving the UN sustainable development goals.

In collaboration with colleagues from the Department of Economics, Stellenbosch University, a number of studies were embarked on that aim to address the challenge of reducing

the wide health inequalities that are intertwined with the massive societal disparities in South Africa.

The first study was an empirical investigation of the extent to which questionnaires on self-reported health allowed an examination of health inequalities by income and by race. The question whether self-reports can provide reliable information on health was addressed and to what extent these self-reports were biased by unequal health perceptions and expectations across income and race. Anchoring vignettes for 16 health domains data from the SAGE (Survey on Global Health and Ageing) were used and it was found that – after testing and correcting for reporting tendencies using econometric models – there were no health differences between blacks and other races on high incomes. Instead there was a strong health gradient by income: in all race groups, those on higher incomes experienced far better health. This result highlights the usefulness of vignettes data to correct for

heterogeneous reporting when investigating health inequalities and the resulting article has been submitted to the scientific journal Demography.

In a second study, the free rollout of antiretroviral (ARV) medication in the period 2006-2014 was a natural experiment to examine the impact on the extent of inequality in health and survival by income. This was done by linking longitudinal health and mortality data for 2006-2014 from the National Income Dynamics Study (NIDS) to the ARV rollout data from the District Health Information System (DHIS). It was found that the nationwide programme was not only very successful in improving the health and survival of millions of HIV patients, but that it also had reduced health inequality by disproportionately benefiting the worst off in South Africa. This has not occurred to the same extent in urban and rural areas. It is planned to follow this up with additional work on the subsequent effects on employment, earnings and other economic outcomes.

Finally, a new prospective study was initiated with funding from the World Bank and the Gates Foundation. The goal is to use insights from behavioural economics on nudging individuals into healthier behaviour to improve the effective coverage of health care. The study aims to address two important problems in the treatment of tuberculosis (TB) - the non-initiation of treatment in spite of diagnosis by about 15 to 20 per cent of patients, and the non-adherence to treatment during the six-month antibiotics treatment course. In collaboration with the Research Centre for Socioeconomic Policy at Stellenbosch University and the Desmond Tutu Centre for TB, it is planned to set up a pre-test for a randomised controlled trial to be conducted in 2017 in clinics in the Cape Town metro area that will (i) identify the main reasons for non-initiation of treatment and (ii) test for the effect of various non-financial (nudging) interventions to increase treatment initiation and completion.





Far left: Ikaya Primary School in Kayamandi Left: Eddy van Doorslaer

Maxi Schoeman (University of Pretoria)

Who do we think we are? Promoting peace, security and development in Africa

This project grapples with issues of identity in South Africa's foreign policy, and in particular in its African agenda. South Africa's claim to being an African country lies at the core of its foreign policy since 1994, but is often, paradoxically, overridden by its attempts at playing an emerging big power role on the global stage.

Identity formation and construction, its underlying values and its various manifestations are central to the study and are based, on the one hand, on a thorough literature study exploring scholarship in the field of international relations, foreign policy, sociology and, to some extent, anthropology. On the other hand, it takes into account the changing landscape of national identity within South Africa during a time when the early post-apartheid narrative of the 'rainbow nation' is coming under increasing pressure, being challenged, in particular, by a younger, first generation who often seem to view the 'Kempton Park compromise' as unacceptable and, in practice, a justification for continued white rule in many spheres of the country's socio-economic and political landscape. In addition, the very notion of South Africa's Africanness is being challenged by the perceptions of many African countries that South Africa is a xenophobic country intent only on pursuing its national interest. These perceptions negate the large tangible contributions that South Africa has made, and continues to make, to peacebuilding and development on the continent.

In preparation for the fellowship at STIAS, Schoeman, together with two colleagues, Chris Alden (London School of Economics and Political Science) and Asnake Kafale (Addis Ababa University), conducted wide-ranging interviews with senior African Union officials and other political observers in Addis Ababa on perceptions of South Africa's role on the continent. Alden spent a few days with Schoeman at STIAS in November and they drafted an article, It's time South Africa tuned into Africa's view about its role on the continent, for The Conversation. The authors plan to publish an academic article based on their findings, reflecting on the impact of domestic debates and internal variables on South Africa's state and foreign policy identity conception.

During her time at STIAS, Schoeman also prepared a chapter, South Africa's foreign policy in combating poverty and inequality, accepted for inclusion in the volume, The State of the Nation 2017, to be published in early 2018 by the HSRC. Another outcome of her time at STIAS is the guest-editing of a special issue of the journal Strategic Review for Southern Africa, to be published in May 2017. The articles for this issue result from the Brand South Africa – University of Pretoria Annual Dialogue on the Nation Brand conference of October 2016, organised by Schoeman in collaboration with Brand South Africa. The focus is on issues of identity, challenges to social cohesion and the role of Brand South Africa in promoting the country abroad (a form of public diplomacy) and contributing to nation-building domestically.

The STIAS fellowship allowed Schoeman time and space for serious reflection on South Africa's place and role in international relations and on the impact of domestic factors on foreign policy formulation and implementation, an aspect often neglected in the literature as the state tends to be treated as a single, monolithic entity, playing a role in the international arena without acknowledging the so-called elephant in the room, viz. the extent to which domestic political and socio-economic dynamics impact its international profile and policies. Two aspects in particular received much attention during her residency at STIAS:

1. Developing an understanding of the difference between, but also the interconnectedness of national identity and state identity and how these two broad identity constructions impact each other. An illustration: South Africa claims to be an African country, yet at the domestic level Africanness is seriously contested as is evident from pervasive xenophobia. The question then becomes: Who is an African and how does African relate to 'South African'? A related question is: How does 'South Africanness' relate to pan-Africanism? Is the idea of South Africa as an African country largely a product of an almost artificially constructed state identity as part of how the country perceives itself and its role in international relations, yet somewhat removed from the realities of its national/internal identity?

Identity, though, is reciprocal; it is also about what/who others think we are. When South Africa claims to be an

African country, intent on playing a leadership role on the continent, how does the continent view this role?

2. A second aspect that exercised Schoeman's mind during her stay at STIAS was the changing narrative (and growing debate) on national identity in South Africa, and its impact on state identity. To some extent this changing narrative started evolving (at least in a very public way) as part of the #Rhodesmustfall campaign in 2015. A careful reading of the history of identity construction in post-apartheid South Africa, however, makes it clear that this debate about who we are actually has its roots in former President Thabo Mbeki's now famous formulation of the two nation state thesis in 1998 and the growing impact, especially since the late 1990s of black consciousness ideas (and more recently, ideas on coloniality, decolonisation, Africanisation etc., based on the writings of Fanon et al). Apart from South Africa claiming an African identity post-1994 as state identity, internally a narrative of the rainbow nation was constructed, aligning to some extent with an identity of South Africa as an emerging power, built on diversity and a mission to change the international system to reflect diversity and equality. What is now taking place, is a questioning, and in some quarters a rejection, of the rainbow nation identity construction, a process much evident in intellectual and academic circles across the country.

During Schoeman's stay at STIAS this evolving debate – and apparent reconstruction of South Africa's national identity – was something that she paid serious attention to, not only in relation to her research project (Who do we think we are?), but also in terms of how this debate is playing out in the public sphere, in particular on university campuses and what the possible consequences could/would be for the academic project. In addition, and back to the core focus of the project – how will the changing internal/national identity construction process impact foreign policy, alongside the need to belong to and be recognised by Africa?

Schoeman's fellowship afforded her the opportunity to commence a research project that will continue to engage seriously with the growing debate of national and state identity in South Africa and the future trajectory of the country's foreign relations, not only on and with the African continent, but also within the global arena during a period of rapid change.

Jane Taylor (University of Leeds)

The 'as if' reality of puppet theatre

Taylor has for some decades been exploring the complex relation between subjects and objects. That terrain has anchored substantial interrogations from psychoanalysis, to philosophy, anthropology, aesthetics, medical sciences and economics. While at STIAS she was engaged in a series of considerations arising from the illusionistic art of puppetry, an art form that is strongly aligned with the metaphysics of human societies which have always, it seems, located the person within a world of objects, while striving to maintain and reinforce the distinction between things and persons.

Artistic innovators and historical discourses have always had an eye for the object, and recent aesthetic forms have generated new ways of destabilising the viewer/viewed relation. In the past decade, there has been a significant increase in experimental arts that make their meaning performing with objects, whether through the formal device of the puppet, or other creative and disruptive uses of the stage prop. Our relation to the object, furthermore, is unpredictable. The new generation of hyper-real baby-dolls seems to suggest that desire and play depend on a high degree of mimetic fidelity, yet the recent much-loved tamagotchi (a small electronic pseudo-pet) was always designed in such a way as to emphasise its digital design. The beckoning kitty (the maneki-neko) that has such a high degree of appeal at present does not in any way pretend to the real; yet there is apparently something irresistible in its animated form. The growth in significance too of visual theatre has altered the old hierarchies of the spoken text (generally associated with consciousness and the rational) and the spectacular or physical. Often this has had the rather magical effect of transforming the human body into an object, something to be marvelled at for its physical capacities, as much as for its potential for manifesting thought. The Cartesian dualism, of mind/body as two discontinuous spheres with little point of contact, has given over to increasingly experimental interfaces between material and metaphysical sensoria. These ideas inform some of Taylor's explorations around aesthetics, the object and the self.

The move away from a so-called onto the ological humanism is informing her work as she considers the human and the



non-human in relation to rights and the law. In such terms it becomes important to assert that the embrace of the post-human should not become an alibi for disregarding the condition of millions of 'disposable' or surplus people who exist outside of formal economies. Taylor wants to hold in mind the role of chattel slavery, an idea which was premised on assumptions about race and power, in the processes of the consolidation of the idea of personhood. At the same time, there is an increasing awareness of the engagement with questions of inter-species communications in a worldhistorical moment when many species are at great risk. Taylor says "We may celebrate the Cyborg, but need to leash/reign in our enthusiasm for the post-animal and the post-human while fostering a due regard for the human and the animal devoured by our appetite for the digital. Our understanding of the 'zoo' and its role is increasingly complex/increasingly simple. New modelling of care and regard arise from human-technological interactions: and the arts as well as the ordinary are implicated in immense affective shifts as a result."

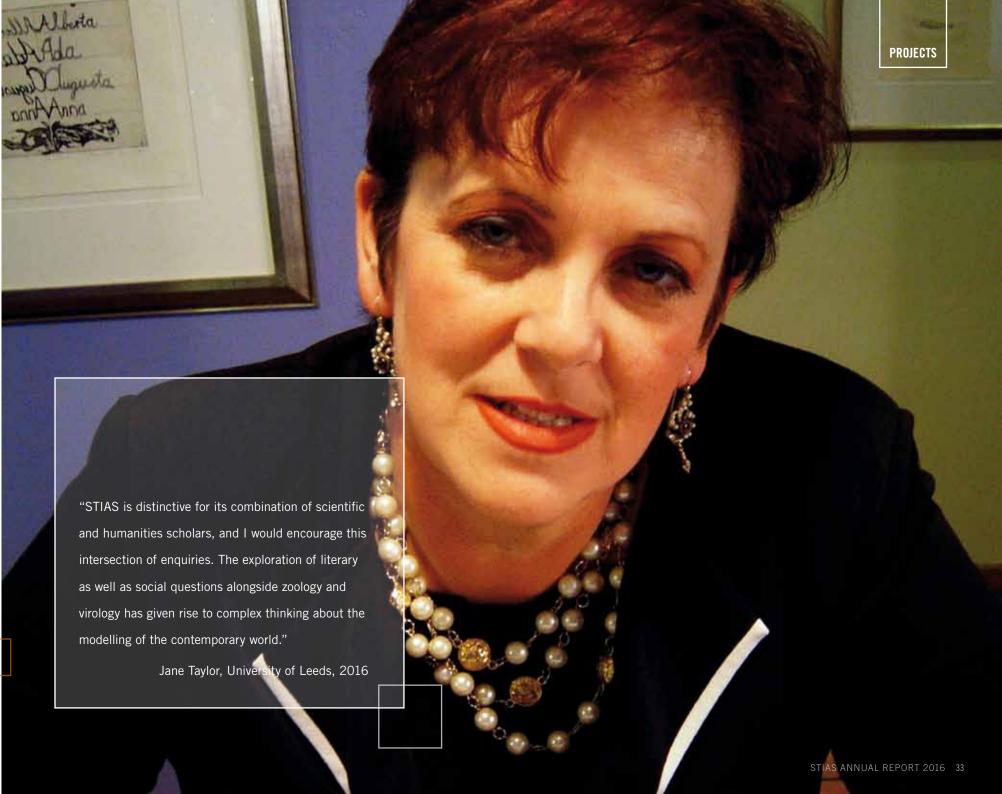
The above ideas have been evolving within her academic and creative work over the past decades, and substantial new ventures were triggered while at STIAS.

During her time at STIAS, Taylor wrote a paper, *Varieties of secular experience*, that she presented at a conference on Imagination at the University of California, Berkeley. She also presented a keynote address on magical thinking, which arose from this research, at the inaugural graduate conference in African Studies at the University of Minnesota. In her final weeks at STIAS she began to work with actress Jemma Kahn, to direct her recent theatre production, *In Bocca Al Lupo*. This is an enigmatic work that is grounded in the traditional Japanese art form of Kamishibai, a performance art that is a combination of live performance and narrated drawings, and is in many ways akin to puppetry. The performance was staged with considerable success at the Grahamstown Festival, and it continues to be staged in venues nationally.



Top left: Jemma Kahn at the Alexander Bar in the gold kimono Above: Picture of the show In Bocca Al Lupo

Another line of enquiry that Taylor developed while at STIAS was related to her work within the medical humanities. The term bio-medical is today an easy formulation, and it masks something of the history of interventions binding organic and inorganic elements into one another. Even the most rudimentary of internet searches demonstrates the sustained human relation to the physical prosthesis. "We have been attaching ourselves to body parts for millennia, it seems," says Taylor. "Traces range from ancient Egyptian tomb remnants and through history into the modern era. I have written a novel about the first human heart transplant, and we are in evercomplex ways imagining the human being as entangled with the non-human. The minimal definition of the prosthesis is that it is an artificial body part – an organ or a limb – generally fashioned for its purpose. This of course implies that the prosthesis helps to sustain the being for whom it has been fashioned. In biological terms, the conception of the prosthesis at its most minimal, is that it is a prop for sustaining the ego and its functions. Such an outline, though, has tremendous resonance for philosophy, theories of the subject, exchange, psychoanalysis, politics and theology."







Above: Littoraria filosa, one of the snail species involved

Left: Roger Butlin and Johan Hollander collecting mangrove snails for a study of reinforcement

Roger Butlin (University of Sheffield)

The role of natural selection in the origin of species

Evolutionary biology has two major aims: to explain the fit of organisms to their environment, their adaptation, and to explain the diversity of living things. Adaptation depends on the process of natural selection, interacting with the other major evolutionary forces of mutation, genetic drift and gene exchange between populations. Diversity has components at different levels, the main ones being variation among species and among individuals within species. The many millions of species that exist now must have been derived by splitting of pre-existing species, the process known as speciation, and this must have outweighed extinction of species overall. Speciation is a very active area of research but much remains to be learned about the processes involved.

The main aim for this project at STIAS was to work on a perspective article concerning the processes known as coupling and reinforcement that contribute to the origin of species. Speciation depends on the evolution of reproductive isolation: the failure of successful reproduction between members of different species. Reproductive isolation in turn depends on traits such as mating signals and responses or incompatibilities that reduce the fitness (either survival or reproductive success) of hybrid offspring. The standard argument is that these traits are most commonly incidental by-products of the divergence of populations for other reasons, such as adaptation to different environments, but that some may be fashioned by natural selection in the process of

reinforcement. Reinforcement is, classically, the evolution of new pre-mating forms of isolation in response to low fitness of hybrids. Under this view, reinforcement is, "The only way in which natural selection acts directly to promote reproductive isolation" (Sobel et al 2010).

Butlin's original intention was to consider the evolution of the reinforcement idea. Attitudes towards its role in speciation have fluctuated markedly in the 80 years since it was proposed. Recently, new theory and data have led to an increasing acceptance of the idea. However, this has also been influenced by changes in definition, broadening the concept to include a range of processes that might be considered distinct. It was planned to provide a categorisation of these component processes.

However, NH Barton and others have promoted a different concept, coupling, that is related to reinforcement. This idea has not been formally defined in the literature. Barton's genetic models show that natural selection can act specifically to bring together existing components of reproductive isolation (in space or in terms of the way in which they define subpopulations in some other dimension). Barton and de Cara (2009) drew distinctions between coupling and reinforcement but did not, in Butlin's view, make the relationships between the two processes clear. In their view, coupling is also a way in which natural selection can promote reproductive isolation, but it does so by combining the effects of different components of isolation, rather than by the evolution of new forms of isolation in response to existing costs of hybridisation.

During his time at STIAS, Butlin worked with Carole Smadja to develop a definition of coupling and a framework that brings together this process with the varied ideas about reinforcement that are present in the literature. They define coupling in a very general way as any process that brings together barrier effects (which can be equated, approximately, with components of reproductive isolation). Coupling seems to be a very common component of speciation processes because almost all completed speciations involve multiple barrier effects that jointly define the new taxa. They show that coupling can occur both as a by-product of other processes (broadly demographic effects or other forms of selection) or as a direct consequence of natural selection. Within the second category (adaptive coupling), they further distinguish coupling of existing barrier effects from coupling processes that also involve enhancement of barriers. This last group of processes is equivalent to an extended view of reinforcement. It contains the classical reinforcement process and also various previous extensions of the idea (to include primary divergence, costs that occur before hybrid formation and so-called one-allele barrier effects that require no divergence between populations). It also potentially includes other variants, some of which have previously been dismissed as implausible. They find this overall framework helpful in thinking about speciation mechanisms and believe that it can be useful in directing both theoretical and empirical research in future and have provided some suggestions for future research based on these ideas. Butlin and Smadja's synthesis has been submitted to American Naturalist, a leading iournal that is devoted to the conceptual unification of the biological sciences and so seems particularly appropriate for this article. They hope that their work will help to provide a strong framework for speciation research.

Butlin was particularly grateful to STIAS for facilitating Carole Smadja's brief visit in February. The opportunity for them to discuss coupling and reinforcement, largely uninterrupted and in very stimulating company was unique and valuable. This visit was critical to the main output of this fellowship.

A paper What explains rare and conspicuous colours in a snail? – A test of time-series data against models of drift, migration or selection has been accepted by Heredity and will be published in 2017. Another paper by Butlin and Smadja, What is coupling and how does it contribute to speciation?, has been submitted to the American Naturalist.

Leila Harris (University of British Columbia)

Differentiated access: water, citizenship and politics

Global water policy highlights the need to extend affordable and safe water to underserved communities, in addition to fostering participatory water governance. The long-term goal of this project is a book focused on experiences of water access and governance in underserved communities of Cape Town, South Africa and Accra, Ghana. The tentative title of the book is Differentiated access: water, citizenship and politics in Accra, Ghana and Cape Town. South Africa.

The book engages a comparative case study design involving both urban sites, and grapples with the intersection of radical democracy theory, environmental citizenship, political ecology, and everyday experiences of water access. It also aims to make methodological contributions to narrative analysis, particularly for nature-society studies; and empirical contributions regarding possibilities for extending water access and promoting participatory governance in both sites. It is estimated that in Accra, Ghana, one third of the urban population does not enjoy access to safe and affordable water. Distinct water-related challenges face those living around Cape Town, where water and sanitation have been central to recent service delivery protests and are important symbolic markers of inclusion in the broader polity of the new South Africa. The analysis offered considers how differentiated water access holds meaning for people's lives, including connections to identity and citizenship, as well as broader processes of state and nation building. In addition, a major contribution of the book is to connect issues of water-related (in)access and (in)equity to broader theorisations of democracy.

While at STIAS, Harris made progress on several elements of the broader book project. These included the submission of two related journal articles on the theorisation of the importance of injustice and inequity for broader principles and theories of democracy, as well as work towards writing book chapters on environmental citizenship and water service delivery as a key focus for examinations of dynamic state-society linkages. In addition, Harris organised and participated in several related workshops and conferences with colleagues in southern Africa, including a STIAS-hosted workshop on water equity and resilience in southern Africa which also benefitted from significant support from the

Peter Wall Institute of Advanced Studies at the University of British Columbia. Following from these workshops, two concept pieces have been submitted for publication (one in print in the journal *Environment and Urbanization*), and a special issue of a journal is also underway. Other writing projects undertaken as a STIAS fellow have since been accepted in journals such as *Environment and Planning D* and *Critical Policy Studies* and are also in print as book chapters forthcoming with Cambridge University Press and Routledge Publishers.

Duncan Brown (University of the Western Cape)

Wildness

In this book-length project Brown explored the concept of wildness, initially in the very problematic ways in which it is often used, but then more substantially in its possibilities for (re)thinking human, plant and animal identities, including ways which decentre the human.

The terms wildness and wilderness are very closely associated, whether in the discourses of conservation and environmental management, or in the tourist literature which promotes leisure destinations like game lodges, nature reserves or fishing camps: the wildness of a place is the guarantor of its status as wilderness, and these are qualities which draw visitors, especially those whose working lives are spent in cities. In these contexts, the term wildness is most often, and problematically, used in ways which resonate with the definition of wilderness set out in the 1964 US Wilderness Act: "an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain". In this conception, wildness exists only where humans are absent, which renders it questionable as a concept in a world in which human influence is omnipresent, in particular through changes we have wrought to weather patterns, and in which human non-engagement in environmental issues is no longer an ethical or environmental option (if it ever was).

Arguments which can only construe human involvement as unnatural, and so in a real sense separate the human from the biological, are particularly unhelpful. Of course, the

commercial operations which advertise the wildness of their carefully managed reserves may be involved in a discursive act of double bluff. As several authors have pointed out, naturalness and wildness are key concepts in wilderness management, and their co-existence is a crucial dilemma or irony for wilderness managers seeking to (re)create natural environments by human intervention (wildness sacrificed for 'naturalness). It is a dilemma, contradiction or paradox (depending on one's assumptions) at the very heart of the signification and practice of managing wilderness, or more broadly of nature conservation.

Despite the problems associated with the concept wildness, it is nevertheless something which is useful to think with, especially in the possibilities it opens up for construing the human in relation to animals, plants, ecosystems, in more complex and multi-directional ways (some of which resonate with that hoary category called post-humanism). Brown uses work by a range of scholars, including amongst many others George Monbiot, Gary Snyder, Holmes Rolston, Wendell Berry and Paul Schullery, to try to think of the 'wild' differently, in particular not as something which can only be defined in the absence of humans, and also as something which may exist in gradations, or as quality rather than absolute value, and which has important ethical dimensions.

Brown's larger question in this book is whether one can find ways of rethinking wildness which are more enabling in understanding the complexities of human interactions with. and responsibilities towards, the biological systems and processes on which all life depends, including in ways which may decentre the human. If the Earth is indeed 4.5 billion years old, as scientists currently say, recognisably human life has only been around since the last ice age (about 12 000 years ago), and as a species humans have single-handedly destroyed their planet's ecosystems in the short space of a few hundred years of industrialisation and rapacious modernity. We therefore urgently need to rethink and redefine our identities and behaviours as a species. Can 'thinking wild' help? Can it provide different ways of seeing, engaging. being? Can it lead us to a 'world view locating humans in a satisfactory residence on this historic and storied Earth', to use Holmes Rolston's suggestive formulation?

Raphael N Melmed (Hebrew University)

The captive's mind: evolution, human nature, and the quest for a virtual world

This historical exploration of human nature from an evolutionary perspective was born out of a long-time involvement with human stress and suffering in Melmed's clinical and academic work, as well as by his interest in evolution. He was motivated to undertake this book project in the belief that the evolutionary history of humans had not been fully explored and learnt. What did emerge clearly was that evolution, having provided the tools for human survival while at the same time defining the unique social status of every individual, was also at the very root of most, if not all, problematic social behaviours.

Early chapters of the book provide background information on human evolution, the basic psychophysiology of stress responses and characteristic cognitive responses to stress, as well as a survey of pervasive hardships limiting human life expectancy to less than thirty years, over many millennia. The emotional impact of these sustained hardships selected for beliefs of spirituality and utopian ideologies expressed as religion and, in more recent centuries, socio-political schemes aimed at perfecting society. The persistence of this theme that had begun in deep human history provides strong evidence to sustain the idea that human cognition, directed at diminishing the intensity of life's existential challenges (in essence a state of chronic stress - a default condition), works through metaphorical representations in the waking state, much as happens in dreams.

This evidence makes plain that it is not religion, secular ideologies, nor memory loss that explains the repetition of human persecution through history. Rather, any utopian belief, (a category of belief like religion often sustained by strong emotion), may lead to a dissociation state where rationality serves to justify inhuman behaviour in the service of the belief while presenting the behaviour as the preferred moral option. The lack of insight or awareness by the perpetrators as reflected in their rationalisations, regardless of intellect or education, appears to be as profound as that encountered in psychotic delusional thought. Chapters dealing with modern day representations of the same processes in liberal democratic societies are expressed in the liberal-progressive versus conservative partition of political thought. This is documented by compelling contemporary evidence.

The book manuscript is currently being edited and it is hoped that a suitable publisher will be found in the second half of 2017.

John Higgins (University of Cape Town)

Alienation, protest and the idea of a manifesto

The principal aim of Higgins' period of writing and research at STIAS was to work towards a chapter from a short book, tentatively entitled Marx@Marikana: reading Marx in South Africa.

The chapter – Alienation, protest and the idea of a manifesto - examines the recent swathe of student protests under the rubric of the protest-manifesto. It argues that while mobilisation through social media has strengthened the reach and immediacy of protest, it has perhaps weakened the capacity for analysis and reflection associated with the manifesto form. It shows how the tensions between action and contemplation (which reach their highest point in the *Theses on Feuerbach*) are resolved in and through the form of the manifesto, and how its active interpellation of social agents is enabled by forms of theoretical analysis and historical narration. In going beyond the idea of protest as simply the expression of alienation. Marx's arguments point to the need to situate student protest in contemporary South Africa in an analysis and understanding of the higher education system as a complex totality.

Work on this project progressed significantly during the month at STIAS, and continued under the auspices of the University of Bergen in Norway.

It resulted in further layers of drafting, extension and revision, and these were worked through in several public lectures and seminars given at Bergen at the Centre for International Co-operation in Education (Protest and higher education in South Africa); the Sociology Department (Student protest and the limits of identity politics) and as a special breakfast forum discussion with Liv Torres, executive director at the Nobel Peace Centre in Oslo (University protests in South Africa); with a range of similar and related presentations at the universities of Stockholm. Amsterdam and The Hague.

An off-shoot from the larger project – refined and revised while at STIAS and working on the *Theses on Feuerbach* – was published at the end of 2016 as 'The first philosophers were astronomers': curiosity and innovation in higher education policy in T Halvorsen and J Nossum (eds) North-South Knowledge Networks (African Minds, Cape Town). Higgins was also able, while at STIAS, to transcribe and amend a lengthy interview with Adam Habib on the topic of student protest and this will shortly be published as Academic freedom, affirmation and violence in the journal of the Council of Higher Education (CHE), Kagisano. The interview will also form a reference point for a colloquium to be held by the CHE and entitled New waves of student protest: issues of governance and institutional autonomy which will take place in March 2017.

Stella Nyanzi (Makerere University)

Rethinking sex in Uganda's parliament

During her fellowship Nyanzi focused on developing diverse components of her current research study entitled Rethinking sex in Uganda's parliament. Specifically, she built a multidisciplinary bibliography of literature about the research questions, study context, current debates in the relevant sub-fields, methodology and analysis framework. Alongside this, she read and analysed the secondary data sources specifically the Hansards of the Parliament of Uganda, bills related to the research themes, their parliamentary reports and subsequent Acts of Parliament. Furthermore, she refined the research methods for data collection, analysis and interpretation; particularly developing the research instruments to be used in individual interviews and focus group discussions upon returning to Uganda.

In order to broaden her comparative analysis frame, she developed the idea of an edited book volume to be published under the tentative name of Queering parliaments in Africa. Working as the editor of the volume, she identified and invited a comprehensive list of doctoral and post-doctoral researchers with several years of research and publication in the broad field of the social-legal study of human sexualities in diverse countries in Africa. Fifteen individuals drawn from twelve countries of East. West and southern Africa submitted chapters from which abstracts Nyanzi developed a book concept proposal submitted to an academic publishing house for consideration. An edited volume is expected to be in print in 2018.

Susanne Lundin (Lund University) Elmi Muller (University of Cape Town) Marianne Kristiansson (Karolinska Institute)

Future bodies: preventing organ trafficking – focusing on consequences and alternatives to organ shortage

Today's society is facing a series of new challenges. With the aging of populations and growth in diabetes, heart and vascular diseases, demand for transplantation is increasing exponentially. One such challenge is how to deal with the shortage of donor organs. Ethical and legal principles around the world indicate that all forms of organ transplants should be altruistic and profit commercialisation prohibited. Another of today's challenges is, thus, that the human body is now a valuable resource and with the increased value of organs comes their potential profitability, fuelling the desire of people to illegally trade and sell. There are documented risks that people, seriously ill in search of health or poor in need of money, will be exploited in these bio-trading systems. Eliminating such risks is a necessary task in order to alleviate global human suffering. There is very limited knowledge in health care or within enforcement authorities globally on how systems are organised.

The overall aim is raising awareness of the trade and improving the non-legislative response by developing indicators for dealing with the shortage of organs in a medical and socially sustainable way. This requires interdisciplinary scientific approaches that give tools to describe the various conditions that make trade with body parts flourish. The project's focus is on specific situations in South Africa, however, with the aim to capture general processes.

The team has approached the issues in three steps. Firstly, trafficking cases in six countries have been reviewed of which some have led to trial while others have not reached court. It was found that, albeit differently, many are linked

to illegal transplants in South Africa. Secondly, interviews in seven countries with actors involved in the trade have been conducted. Analyses of these first steps reveal that trade is not solely due to organ shortages, but also characterised by specific cultural perceptions of the body and human value. Analyses also show that, despite stricter laws and awareness of the problems, flow of people and body parts continue to go through African countries. The extensive data collection has been possible due to the cooperation with the EU-project on combating trafficking in persons for the purpose of organ removal (http://hottproject.com) where Lundin has been one of the principal investigators. Thirdly, the project has worked on recommendations for, amongst others, Interpol, Europol, The Transplantation Society and the Declaration of Istanbul group, as well as for the Pontifical Academy of Sciences

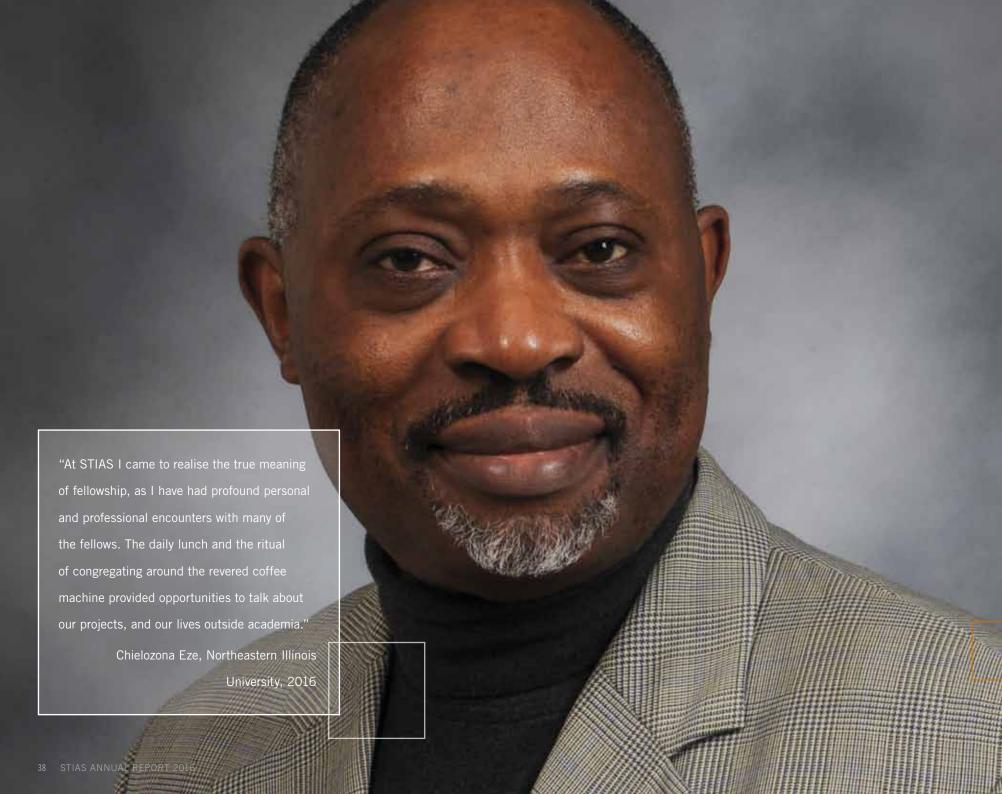


meeting which will be held in February 2017. Here Muller and others will present results from the Declaration of Istanbul group and from the STIAS project (http://www.pas.va/content/accademia/en/events/2017/organ_trafficking.html).

Within the project an international workshop was organised at STIAS. The anthology *Global bodies in grey zones. Health, hope, biotechnology,* eds Lundin, Krolokke, Pedersen and Muller (SUN MeDIA 2016) emerged from the workshop. In addition to this and other contributions to books the group published extensively in international journals.



Organ sellers



Chielozona Eze (Northeastern Illinois University)

Transcultural affinity: cosmopolitan imagination in South Africa

This project studied the notion of cosmopolitan solidarity in South Africa. The peaceful transition to democracy and the accompanying Truth and Reconciliation Commission bequeathed a far-reaching cultural capital to South Africa; it created moral frameworks for the construction of a civil, open society. Through a critical reading of the lives and works of Nelson Mandela and Desmond Tutu, and the works of such leading South African writers and poets as Nadine Gordimer, JM Coetzee, Njabulo Ndebele, Zakes Mda, Antije Krog, and others, the study analysed how post-apartheid South Africa offers insights into ways of being human in a globalised world characterised by neoliberalism. The following related questions were examined:

- To what degree did Nelson Mandela, Desmond Tutu, and South African writers and scholars influence the South African thinking toward global citizenship?
- How might the South African emphasis on ubuntu and other registers of openness such as entanglement, interconnectedness-towards-wholeness, and empathy inform our understanding of ways of being human?
- · Can South Africa's progressive religious atmosphere inform global political and religious cultures?

The study was built on Mandela's profound observation which is that people have raised fractional forces and the tribe into desirable forms of social organisations and thereby setting one national group against the other. Against this development, "cosmopolitan dreams are not only desirable but a bounden duty: dreams that stress the special unity that holds the freedom forces together - [in] a bond that has been forged by common struggles, sacrifices and traditions." Eze argued that in Africa, openness to otherness is not a choice, but a necessity. A manuscript based on this project titled Global Citizenship from the South: Race, History, and Solidarity in South Africa, has been submitted to a University Press for review.

While at STIAS Eze also prepared a book manuscript titled Ethics and human rights in anglophone African women's literature: feminist empathy which was published by Palgrave Macmillan in 2016.

Marc Bossuyt (University of Antwerp)

The international protection of human rights

The first month of Bossuyt's fellowship at STIAS was mostly devoted to finalising his book on international human rights protection. It was published in September 2016 by Intersentia in Antwerp. Two experts in the field wrote a preface to the book, namely, Theo van Boven (Netherlands), former director of the UN Division of Human Rights, and Paul Mahoney (United Kingdom), judge at the European Court of Human Rights. Three experts accepted to write a brief comment namely Bertrand Ramcharan (Guyana), former acting UN High Commissioner for Human Rights. András Saió (Hungary), Vice-President of the European Court of Human Rights, and Dinah Shelton (United States), emeritus Professor of The George Washington University in Washington DC.

The book, addressed to judges, lawyers, diplomats, civil servants, researchers and students, is based on the author's personal research and personal involvement with a wide range of subjects, such as the basic concepts of civil and social rights, discrimination and affirmative action, issues of procedure and jurisdiction and issues such as the death penalty and the protection of refugees, minorities and victims of armed conflicts. At the universal level, the book introduces the reader to the labyrinth of United Nations Charter-based and treaty-based procedures. As well as an overview of the inter-American and African systems, it deals at the regional level, in particular, with the case law of the European Court of Human Rights in Strasbourg, and also looks at the national level at the case law of the US Supreme Court and the South African Constitutional Court

This book adopts a particularly critical approach to the socalled dynamic interpretation of the European Convention on Human Rights by the Court of Strasbourg. It is the author's feeling that judges, in particular those belonging to courts specialising in human rights, have a tendency to systematically support interpretations benefitting the applicants, while overlooking too easily the far-reaching implications of judgments for society as a whole. Bossuyt prefers a more balanced and more realistic approach taking into account the difficulties democratic governments face in coping with the challenges of the present time and with the pressing needs of the realities of today's world.

During the second month of his stay, Bossuyt worked on a number of texts. Three have been already published and a fourth text (Individual Communications under Article 14 of the International Convention on the Elimination of Racial Discrimination) will be published in a festschrift for Mélanges Emmanuel Decaux, Professor at the University of Paris II.

Guy Dumont (University of British Columbia)

Toward reducing infant mortality via smart and lowcost pulse oximetry

Dumont is part of a multidisciplinary research group that wants to put an end to the carnage of infant mortality by developing an easy-to-use and robust mobile health platform for early screening and diagnosis in low-resource settings. Pulse oximetry allows the measurement of blood oxygen saturation (sometimes called the fifth vital sign). The research group has developed a low-cost pulse oximeter by connecting a simple probe to a mobile phone through the universally available audio jack. This technology has now been integrated into two diagnostics mobile apps, one for pre-eclampsia and one for paediatric pneumonia/sepsis. Pneumonia kills over one million children in the developing world every year, many of those die at home and thus it is believed that a distributed. community-based intervention would be most effective in reducing mortality.

During Dumont's stay at STIAS in August 2016, he was involved in planning a Peter Wall Colloquium Abroad to be held in February 2017 at STIAS, entitled Technology for Maternal Neonatal and Child Health (MNCH Tech). The primary objective of this workshop, which will convene a select group of leaders in development and deployment of global health solutions and mobile health technologies together with key stakeholders from both developed and developing countries, is to build a roadmap for technology development to help achieve the UN Sustainable Development Goal 3 in maternal, new-born and child health. He also participated in the planning committee of the STIAS Round Table on Mobile Health to be held just before MNCH Tech. as these two events were very synergistic.



Robin Cowan

Robin Cowan (University of Strasbourg)

Science and development: growth, expansion and role of university systems in emerging economies

The challenge of economic growth for middle income countries includes technological upgrading, which, in turn, demands expansion and improvement of the higher education and science system. Emerging economies are faced with a subsidiary problem: how to make that growth inclusive. Inclusion of excluded groups is in fact a very general problem faced in many societies. Desirable economic, social or political positions have often been occupied by specific subpopulations that do not reflect the composition of the general population. Excluded groups struggle continuously to access these positions and become full members of society.

In this project, that general issue is taken up in the context of the university research system in South Africa. South Africa is perhaps a paramount case of exclusion of people on racial criteria, and an explicit goal of post-apartheid governments has been the transformation of academia so that it better reflects the racial composition of the country. The project examined the science and higher education system in South Africa to understand how it functions, its role in economic growth, and how it expands beyond an elite institution. Of particular interest is the way in which the formerly white system of academic science opens to other population groups.

The process of transformation is essentially one of entry and exit to the academic system, and beginning here permitted the building of a simple model of the racial dynamics of the population of academics. Differences in the racial composition of exits from and entries to academia determine how its overall racial composition evolves. Modelling the racial composition of

exits is relatively simple; modelling entry is more subtle. There are two sides to entry: the supply of potential entrants and the demand for them; and both have racial aspects. Supply is determined to some extent exogenously, as a product of the education system, but is also endogenous, in that people join a profession or not, depending on whether they perceive it as a place where they (or people like themselves) can succeed. This is referred to as perceived occupational opportunity. The demand side involves recruitment, which is subject to a certain amount of homophily (or taste for the own). Simulating the model numerically showed how the speed of transformation, and the variance in how long it might take, depends crucially on both the extent of homophily and perceived occupational opportunity. Even small decreases in the former or increases in the latter can make a very big difference to how long the process takes, and in how predictable it is. It also showed the importance of the supply side, and how that can constrain the process.

The final stage of the project was to calibrate the model to the South African case, using data from the Department of Higher Education and Training, and to re-simulate it under different scenarios. The general conclusion is that if left to its own devices, racial transformation of South African universities will be a very long process. Speeding up the process demands action on both supply and demand sides. Simply eliminating homophily from the hiring process, or increasing perceived occupational opportunity (or even both) is not enough to make the transition a fast one. The analysis suggests that supply and demand sides contribute about equally to determining how long the transition takes.

Cowan's stay at STIAS was coupled with a stay at CREST (The Centre for Research on Evaluation, Science and Technology). an institute of Stellenbosch University which focuses on university science and education in South Africa. This proved to be a productive structure, as the combination of focused and open environments was extremely stimulating, and addressed different aspects of the project. A preliminary version of the project research was presented at a workshop organised under the auspices of CREST and STIAS early in the fellowship period. More advanced versions attracted the interest both of South African policy makers and administrators in other universities. The project resulted in two papers, both under review.

Peter Andrekson (Chalmers University of Technology)

Noiseless optical amplifiers and their applications

Optical amplifiers are essential in optical communication systems that serve as the backbone of the internet. Conventional amplifiers suffer from the addition of noise. thus degrading the signals to be detected. There is only one known exception to this, which is in principle capable of noiseless amplification, so-called phase-sensitive amplifiers (PSA). While relatively complicated to implement, recent experiments have shown a noise performance much better than conventional amplifiers. Their benefit has subsequently been demonstrated in fibre optic transmission systems by, for example, showing a transmission reach extension of a more than a factor of four compared to traditional approaches.

The potential of PSAs, however, goes beyond amplification in optical fibre communication links, for example since they, in principle, are scalable to any operating wavelength. During the STIAS fellowship, Andrekson developed a research plan to extend this work to free-space optical communication applications, which use light propagating in free space to wirelessly transmit data for telecommunication (in contrast to using fibres). These applications range from relatively short links often established for temporary purposes (e.g. outdoor sporting and concert events) to extremely long reaches (e.g. between satellites, to the moon and beyond). In both cases, the sensitivity is fundamentally limited by the divergence of the beam as it travels from the transmitter to the receiver. A PSAbased approach may enable significant reach and capacity increase as well as reduction of size and cost of the system. Together with other approaches to increase the sensitivity of the system further, it may be possible to communicate over vast distances at information bit rates well above what is possible with today's technology.

Through STIAS, Andrekson established a connection with the intent to consider future collaboration with a group at Nelson Mandela Metropolitan University in Port Elizabeth.

Robert Martin (The Field Museum, Chicago)

Dangerous denial: an exploration of major endocrine disruptors

Endocrine disruptors are chemicals that interfere with the body's hormonal system, adversely affecting reproduction, neurology and immunology. Multiple substances identified as disruptors include pharmaceuticals such as diethylstilbestrol (DES), dioxin and related compounds, polychlorinated biphenyls, DDT and other pesticides, and plastics components such as bisphenol A (BPA).

Rachel Carson's 1962 book Silent Spring sparked public awareness of health threats posed by insecticides and effectively launched the environmental movement. In the USA, Carson's testimony before Congress led to establishment of the Environmental Protection Agency (EPA), which banned agricultural use of DDT in 1972. Similar bans in other countries culminated in worldwide interdiction in 2004. DDT is an endocrine disruptor; its metabolite DDE blocks androgen receptors. Both have been implicated in breast cancer and other reproductive cancers, male infertility, miscarriages, low birth weight, and developmental delay. Problems with DDT seemingly belong to the past, but various oestrogen-mimicking endocrine disruptors pose new health risks. In a re-run of the DDT battle, manufacturers are actively opposing limitations on their use. The aim of this inherently interdisciplinary project was to explore the background to the DDT story to illuminate the current public debate surrounding oestrogen mimics.

Although the initial aim was to investigate adverse effects of endocrine disruptors on aspects of human reproduction, it soon became apparent that their role as a cause of cancer, particularly during development in the womb, is even more worrying. Endocrine disruptors have been implicated in

cancers of the womb, breast, testis and prostate gland. Moreover, it also emerged that DES was just as important as DDT. In fact, the two calamities – DDT in agriculture and DES in medical treatment of women – unfolded in parallel across a 30-year period (1940-1970). A key source of information on the DES story was Nancy Langston's 2010 book Toxic Bodies, which does for DES what Silent Spring did for DDT.

The project yielded several crucial findings. One was the key role played by British biochemist Eric Charles Dodds in developing endocrine disruptors. It is widely known that Dodds conducted early work on bisphenols; but it is not generally appreciated that, from 1932 onwards, he systematically searched for organic compounds that acted like oestrogens. He abandoned the bisphenols in 1938 when he discovered that DES had far greater oestrogenic potency. Yet, after general prescription of DES ceased in 1971, BPA was allowed to develop into a major industrial chemical with multiple uses.

The project also highlighted the alarming findings reported by Michael Skinner and colleagues from research on rats: effects of endocrine disruptors persist undiminished over at least four generations. Last but not least, it eventually became apparent that any substance that behaves like an oestrogen in laboratory tests is likely to act as an endocrine disruptor if released into the environment. So oestrogen surrogates widely used in contraceptive pills might also be problematic. Fortunately, synthetic oestrogens in contraceptive pills do not appear to act as endocrine disruptors, perhaps because the main type, ethinyl oestradiol, is chemically remarkably similar to the natural hormone oestradiol. By contrast, the organic compounds with oestrogen-like activity identified by the Dodds team may be dangerous because they are structurally very different from natural oestrogens.

Mandla Langa (Artist-in-residence)

Heartbeat of a storm

After writing five novels, a collection of short stories and a musical which largely drew from South Africa's troubled past, Langa used the period at STIAS to write a semiautobiographical (or novelised) part-reality, part-fiction account of the use of technology or forensic science to make sense of South Africa's past and of its future. The working title, The heartbeat of a storm, features an artist working with installations who goes on a journey to find out if the remains exhumed from an unmarked grave are those of his father who might (or might not) have died in the 1980s. It is written as an extended flashback with the man seeing events through the eyes of his 14-year old self and aiming to make sense of the past and future

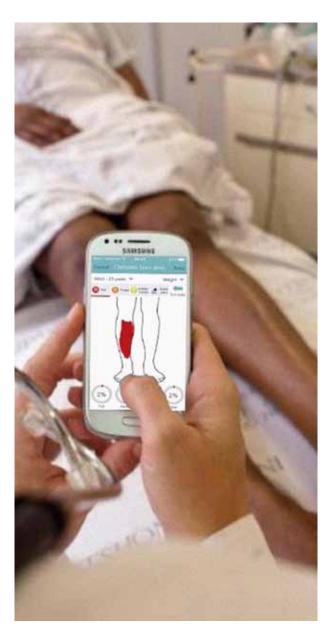
"South Africa is a country where so much waits to be unearthed and put out in the open," said poet and novelist Langa. "There are not enough hours in the day to explore the lives of men and women in their daily struggles with poverty, hunger and disease. So much about the past will remain unknown. We will have to reconstruct and build a reality that may or may not have taken place."

> Mandla Langa after his seminar with Somali novelist and guest Nuruddin Farah



"As I tend to place a high premium on time and how it is used to the service of writing, I have learnt a lot from my interaction with the other fellows at STIAS. Even though we were all allocated individual offices and working spaces, the camaraderie around lunch and on seminar evenings actuated discussions about various strategies for writers and scholars to enhance their effectiveness."

Mandla Langa, Artist-in-residence, 2016



Lucie Laflamme (Karolinska Institute) Marie Hasselberg (Karolinska Institute)

mHealth for burn diagnostic and care in South Africa

Burn injuries are a leading cause of premature death worldwide. and they are largely attributable to poor living conditions. Timely care is of paramount importance to the reduction of burn mortality and morbidity. In resource-poor settings, appropriate and timely care can be safeguarded through mobile information communication technologies (mHealth).

This project was launched in 2012 with the aim to develop and implement an interactive mobile phone-based consultation system to supply first line health-care workers with burn diagnosis and treatment advice. The project was initiated in eight health-care facilities in the Western Cape Province in South Africa and, during that first phase of implementation, a number of South African experts were available 24/7 on a voluntary basis. Since the beginning of 2017 the app is used by all hospitals (over 30) referring burn patients to the burn unit at Tygerberg Hospital catering for adult patients. There are also ongoing discussions regarding the implementation of the app at the burns unit of Edendale Hospital, University of KwaZulu-Natal, and there is an ongoing pilot project on the app usability at four hospitals in Dar es Salaam (Tanzania).



Several evaluations of different aspects of this intervention in health-care services have taken place thus far and others are ongoing that relate to image-based diagnostic accuracy, the development of the app, its introduction to both front line health-care providers and burns specialists, and its implementation in health-care units. The group has published seven scientific articles and, at the time of writing, about as many are under review.

STIAS has made a significant contribution to this work. While here, the research team has had several opportunities to gather and attend important project-related matters. including the write-up of scientific articles, student supervision, the detailed planning of specific research activities, and grant applications. Members of the group have made contact with other researchers who significantly impacted on their work. They were also very involved in the organisation of a round table on mHealth for image-based diagnostic that took place at STIAS in early February 2017. The aim of the round table is to develop a roadmap for the implementation and up-scaling of image-based diagnostic in resource-constrained settings.

The project created the possibility for many students to be introduced to research and research methodology in public health sciences, epidemiology and clinical setting. Thus far eight medical students and three master's students from the Karolinska Institute were supervised, and three doctoral students are currently enrolled in the project. The South African principal investigator, Lee Wallis from Stellenbosch University, has also involved several medical students in various research activities.

Far left: Burn injury diagnostic and care assistance app Left: Khayelitsha

Desta Mebratu (United Nations Environment Programme)

Distributed renewable economy for Africa's transformation

Human history over the millennia has been shaped by major social transformation processes. These transformational processes redefined the key features of socio-economic relationships both within communities and across nations. But they have also fundamentally redefined our relationship with the natural environment. Outcomes of major studies conducted by global research groups, including international panels such as the International Panel on Climate Change and the International Resource Panel, indicate that we have already overshot the global carrying capacity of the natural environment in some key areas while we are approaching the limit in others – the global community is clearly standing at a threshold of a major social transformation at a scale of the agricultural and industrial transformations. At the centre of this change is the development of and transition to economies that are more inclusive, less dependent on non-renewable energy resources and more efficient in their use of natural resources. While Africa is equally, if not more, challenged by the emerging global drivers and pressures, it has a unique opportunity of leapfrogging to a more inclusive, sustainable and resource efficient society that eradicates poverty and ensures an improved wellbeing for its people. This research is aimed at exploring the possible scenarios for such transition across the region.

The project on distributed renewable economy for Africa's transformation (DREAT) was developed during Desta Mebratu's fellowship at STIAS with the purpose of realising Africa's leapfrogging potential towards an inclusive, low carbon and resource efficient society.

The following are the major activities that have been carried out based on the work done during the STIAS fellowship:

- A project document on DREAT was drafted to serve as a basis for developing the required partnership for its implementation.
- A joint working session was held between the Centre for Complex Systems in Transition of Stellenbosch University and the International institute for industrial environmental

- economics (IIIEE) at Lund University. An agreement was reached to jointly work on implementing DREAT.
- STIAS agreed to incorporate the development and implementation of DREAT into its longer-term thematic research project (Sustainable agro-ecosystems).
- Key thematic topics that need to be covered were identified. These will be addressed during STIAS fellowships scheduled for 2018-19.
- As part of the collaboration with IIIEE-Lund University, two research groups will carry out field research on sub-national planning for sustainable economy development in Ethiopia and Kenya.

Chris Shisanva (Kenvatta University)

Mobilising for natural resource management at the micro-level in rural Africa

Natural resource management (NRM) involves efforts by different institutions to formulate and implement laws, policies and legislation to ensure viable use of natural resources. The natural resources, mainly found in rural areas, are not only important as a source of food and other domestic products but also form the basis for social and cultural functions.

This project presents the evidence on micro-level natural resource management in Africa. While the continent of Africa is endowed with more natural resources than any other continent in the world. the threats to the natural resource base in Africa are not well documented. These challenges cannot be ignored but there are efforts at the micro-level, supported by national and international level programmes, to address NRM challenges. There is also an urgent and compelling need to turn Africa's NRM into development opportunities aimed at improving the human condition of a majority of people living in Africa. Communities organise themselves in various groups (chamas, men's and women's groups and youth groups) to reflect on their development challenges and find solutions to these problems. These groups adopt various methods of reflection to formulate solutions, mobilise resources and demand for resources and services from state and private institutions to leverage NRM efforts in their locales. How these community organisations can cooperate to advance the development process, ensure good governance and natural resource management was the focus of this project.

Besides this initial book project focus, a related area of interest emerged while at STIAS under the theme Role of traditional knowledge and indigenous institutions in sustainable land management of the Kakamega forest area, which has been accepted for publication as a book chapter by InTech Publishers under the book title Indigenous People. The chapter is based on a study whose objective is to provide an understanding of the extent to which traditional knowledge and indigenous institutions for natural resource governance remain relevant to solving current land degradation issues and how they are integrated in formal policy process in the Kakamega forest area of Kenya.

Data collection for this study combined qualitative and quantitative methods. A total of 350 individuals from households were interviewed using a structured questionnaire; 50 in-depth interviews and 35 focus group discussions were held. Findings indicate that the community acknowledges that there is traditional knowledge and there are indigenous institutions regarding sustainable land management. However, awareness of the traditional knowledge and practices varied between sub-counties. Rural-based sub-counties were found to be more aware and therefore practiced more traditional knowledge than urban-based districts. Variations in landscape features such as proneness to drought, landslides and soil erosion also attracted variable responses among the communities regarding traditional knowledge and indigenous practices of sustainable land management. In addition, men were found to have more keen interest in conserving the land than women, as well as involvement in other traditional practices of sustainable land management. This is due to the fact that, customarily, it is men who inherit and own land. This, among other factors, could have limited the integration of traditional knowledge and indigenous institutions in village by-laws and overall policy process. The chapter concludes by recommending that policy frameworks that address traditional/ indigenous knowledge and institutions be put in place by the government of Kenya. The presence of at least various sectoral policy statements in support of the role played by indigenous practices provides a rump towards preserving indigenous knowledge.

A book manuscript entitled *Mobilising for natural resource* management at the micro-level in rural Africa has been submitted to Palgrave McMillan for publication consideration.

False colour silkworm with silk-gland super-imposed

Fritz Vollrath (University of Oxford)

Complexity and emergent properties in the spider's webs and silks

Complexity, by its very nature – and indeed by definition – is far from simple. Understanding what makes a system complex requires tunnelling into the related questions of What features make a specific system function? and What structure is necessary for such a system to function? In addition we also have to tackle the question: May systems have evolved to be complex in order to buffer against disturbances, turbulences and potentially lethal disruptions? If so, could a complex system be described as having developed built-in anticipation of such interferences in order to survive and become what it is?

As part of the 2016 STIAS longer-term theme project *Understanding complexity*, Vollrath studied the spider's web and silks as a contained system that (i) has evolved, (ii) displays apparent complexity as a multi-functional structure and (iii) has integrated anticipation. To briefly expand these statements: (i) Over 400 million years spider web diversity has evolved in many specific morphologies and functions that often are highly specific to particular spider taxa; (ii) the web has a stable architectural morphology that is the outcome of transient behaviour patterns, which are largely genetically determined but can also adjust to environmental conditions; (iii) prey abundance, type and behaviour are one set of such external variables, and the spider can fine-tune the web, during construction, to specific prev or climatic conditions. However, given that the web only functions as a trap once construction is finished, it must be built with anticipation of purpose.

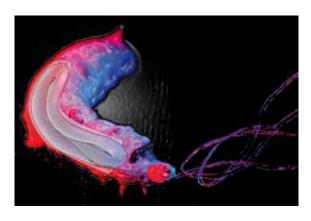
Thus spider and web form a functional unit, evolved over millions of years to allow the spider to extend and enlarge its small body by orders of magnitude into a gossamer expanded manifestation of its inherited, species-specific morphology. Indeed, the web-structure could be called an extended phenotype since the combination of building material and building behaviour allows the spider to become part of a bigger system by extending its silken tentacles far beyond the narrow confines of its body.

Importantly, the building material silk adds to a web's complexity. Some of the web silks (and there are at least five different ones) are mechanically rather simple and chemically comparable to the silk of the commercial silk worm, although they are much stronger mechanically because of the way they are spun. Others, especially the capture silks, are very different, for example, in droplet silks the self-assembling, selfreeling micro-windlasses inside each of the many thousands of drops act as tuned shock-absorbers and information conduits as well as glues and hold-fasts.

While at STIAS. Vollrath focused his research on the silk itself rather than the wider web when it became apparent that silk, as an integral part of the web, could provide the first stepping stone towards understanding the spider cum web as a complex system with two levels of integrated dynamics: the transition of liquid dope to solid silk and the transition of fleeting behaviour to solid web. Both together are required preconditions to create the complexity of the final structure that one can observe, measure and experimentally explore in order to test the concept of evolved anticipation in an animal model system.

Silk is a unique class of materials found only in the spiders, insects and even a shrimp. Silk is the only animal material that is extrusion spun. As such, it has been intriguing polymer engineers for quite some time because, despite being spun at ambient temperature and pressure with water as a solvent, and with extremely low energetic costs, it outshines in toughness all present-day synthetic polymers, which for their extrusion require harsh chemicals, high temperatures, high pressures and have overall costs that are much higher than those of natural silk spinning. Clearly, polymer researchers would love to understand and copy the system dynamics of natural silk production.

Here, again, anticipation could be invoked, according to the conclusions of Vollrath's studies at STIAS. For a protein, the silk molecule is uncommonly large and uncommonly complex. Translated this means that each silk protein molecule (and there are two, rather different proteins that make up the silk filament) is not only a very long molecule but also contains many motifs (which themselves can be rather diverse) making up the long strings of its amino acid building blocks. As yet no-one really understands the relevant role of each motif. But we must assume that they have defined functions, for example to allow cost-efficient storage of the liquid phase in the gland; to ease the phase transition from liquid to solid in the duct;

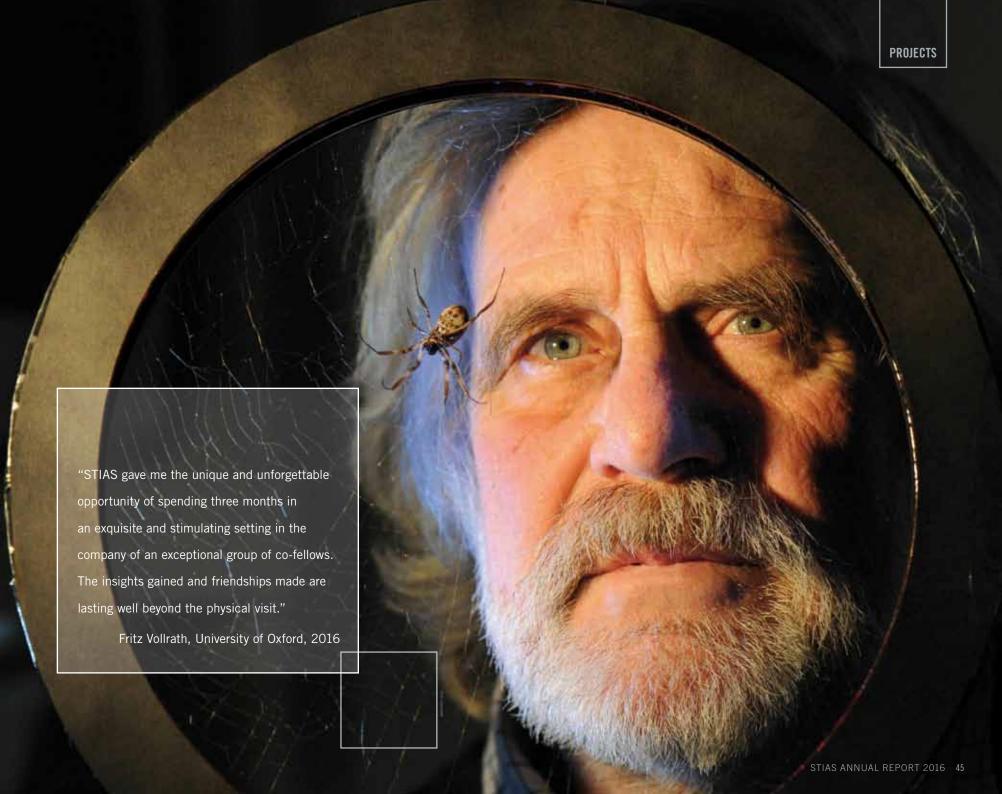


to provide the exceptional strength of the spun fibre and, last but not least, to protect the fibre against premature decay thus giving the web a long life even under strong sunlight and other exacting environmental conditions.

Given all of this, where does anticipation come into the picture or, rather, into the molecule? Indeed, why (other than for scientific curiosity) does it matter whether or not we understand the complexity of a silk molecule? The answer is simple: because understanding silk could lead to novel eco-friendly polymers. If indeed the evolved design of the typical silk molecule incorporates anticipation to deal, cost efficiently, with future requirements, then that might allow us to extract the essence of this design and incorporate it into bio-inspired synthetic polymers to have comparable properties. For example, it would allow us to apply system dynamics methodology derived from complexity theory to focus hypothesis-testing using mathematical modelling and molecular simulations of chain-growth polymerisation processes and polymer physics. Importantly, if such novel silk-inspired polymers were able to replace traditional plastic polymers then that could make a big difference to both the environment and to consumers, especially in the developing world.

To explore this practical and applied aspect of his silk studies further, Vollrath during his residency at STIAS, began a collaboration with researcher Noniabulo Gule at Stellenbosch University's Department of Polymer Science. Silk, both argue, could have a great future in South Africa, both as a research topic and as a commercial product.

More details on the arguments for and against complexity and anticipation in the silk molecule can be found in Vollrath's STIAS publication *The Complexity of silk under the spotlight* of synthetic biology published in 2016 in Biochemical Society Transactions.



Graeme Wynn (University of British Columbia)

Historical geography's contributions to understanding South Africa

Part of a larger study evaluating the contributions of historical geographers to understanding the settler colonies of the British Empire, the project at STIAS focused on historical geography in South Africa, beginning with the work of NC Pollock and S Agnew (1963), and attending, in particular, to the contributions of AJ Christopher, Professor emeritus at Nelson Mandela Metropolitan University, who published a number of atlases, books, and articles on the development of the country and its human geography during the apartheid era.

During the two months at STIAS, Wynn read widely, learnt of important background material that would likely have remained off his radar had he not been at STIAS, and went a long way to conceptualising this chapter of his book. Delivering a regular STIAS seminar toward the end of his stay helped considerably in this regard. 'Found conversations' with other STIAS fellows led him to some outstanding contemporary writing by South Africans that sharpened and accelerated his understanding of background and context in ways that he could not have imagined before arriving here. Further inspiration came from the STIAS-organised trip to see Athol Fugard's play The Painted Rocks at Revolver Creek, from insights gained in following up scholarship alluded to in the STIAS public lecture by Barney Pityana, and from the opportunity to attend the Society of South African Geographers' centenary conference, held at the Wallenberg Centre in late September. Out of this happy coincidence came a paper that helped frame his research to date, even as it reflected on the changing emphases of geography in South Africa. This was published in 2016 as The long and short pasts of South African geography, the opening essay in R Donaldson, G Visser, J Kemp and J de Waal (eds) Celebrate a century of geography: Proceedings of Centenary Conference of the Society of South African Geographers.

Lindiwe Mazibuko (Author-in-residence)

We don't need another hero

While at STIAS, Mazibuko engaged in background research and writing of her first book, *We don't need another hero*, which she is producing on contract with Penguin-Random House South Africa. In a 2008, post-Polokwane missive to ANC president, Jacob Zuma, declaring his refusal to campaign for the African National Congress (ANC) in the upcoming 2009 general election, recently-deposed South African President Thabo Mbeki famously declared: "... I find it strange in the extreme that today cadres of our movement attach the label of a 'cult of personality' to me, and indeed publicly declare a determination 'to kill' to defend your own cause, the personal interests of 'the personality', Jacob Zuma!"

Mazibuko concludes that Mbeki's words were sadly portentous and that in the eight years since the party's Polokwane conference, legions of ANC MPs, cabinet ministers and league representatives have fallen all over themselves – and their swords – in the race to outdo one another in showing loyalty to the party's big man, now South Africa's second-term President

This does not mean, however, that a similar cult did not exist around the personality of President Mbeki himself. Tropes such as that of 'the intellectual', 'the economic saviour'; 'the poet'; and 'the urban sophisticate' thrived in representations of Mbeki throughout his time in office, and his own personality cult has been resurrected in the wake of President Zuma's multiple government failures during what has been a controversial, scandal-riddled two terms in office.

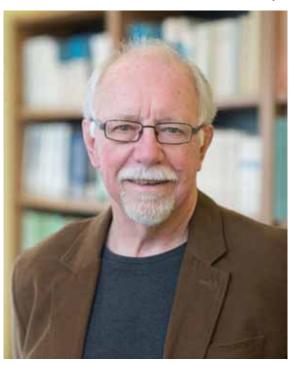
"Eight weeks have flown by, and they stand in retrospect as two of the most simulating, productive, and pleasant months in a scholarly career extending over almost half a century."

Graeme Wynn, University of British Columbia, 2016

As South Africa grows weary of the incumbent head of state, political analysis has focused either on who will succeed him within the governing party ranks, or on which individual from the opposition has the ability to unite disgruntled voters around a political alternative. There is a notable absence, however, of discussion about what South Africans in and outside of politics can and should do to demonstrate leadership and pull their country back from the socioeconomic precipice.

We don't need another hero explores South Africa's preoccupation with dominant, saviour personalities in party politics. Through personal anecdote, research and analysis of the political landscape, Mazibuko argues that we should stop waiting for the next political messiah, because he does not exist.

Graeme Wynn



Olayemi Akinwumi (Nasarawa State University)

Opposition in African politics: the case of Nigeria, Ghana, South Africa and Kenya

This research examines the idea of opposition in African politics against the backdrop of problems inherent in the democratisation process in contemporary Africa with a view to analysing their dimensions and implications for the development of the continent and its people. Issues to be addressed include the credibility of opposition parties in Africa as alternative source of power; the inability of the opposition parties to compete with the ruling classes; the weaknesses of these opposition parties, and their emasculation by the ruling parties in some countries. It also addresses situations in the countries where there are regime changes, and why an opposition party of yesterday is not different from the party it replaced in highhandedness in administration.

The study focused on four countries in the continent. Nigeria. Ghana, South Africa and Kenya. These countries were chosen as a result of abundance of literature on party politics. From the comparative analysis of opposition parties in these countries, suggestions will be made that will help to broaden the debate for democratic transition, ensure democratic consolidation and engender sustainable development in Africa.

The research stay at STIAS provided the opportunity to lay the foundation for the study. Various books on opposition parties were consulted, there were interactions with scholars from Stellenbosch University and interviews with some South Africans on opposition parties in the country. Comments by other STIAS fellows and scholars were also of great benefit.

After the time spent at STIAS, Akinwumi has devoted time to consulting, interviewing and reaching out to other scholars and politicians in the countries of his case study. He has also presented papers on opposition and party politics. The main objective of his presentations was to test some of his assumptions. He was also in Ghana to witness the general election in 2016. The election which resulted in a regime change, was very successful. During this time he also interviewed selected party members in both the ruling and opposition parties.

Akinwumi concluded that the federal elections in Nigeria and Ghana in 2015 and 2016 respectively, have shown that if opposition parties can overcome inherent weaknesses in their parties, they could provide alternative options to the electorate.

Andrew Macnab (University of British Columbia)

Brighter futures through health promotion and health

Malaria is the main reason a school-aged child in Africa will be absent from school and the principal cause of death in school-aged children. A school-based programme, developed at STIAS, now enables teachers in rural schools to test sick pupils and start treatment immediately if they have malaria. Doing this significantly reduces the serious effects of malaria on children's health and their ability to learn. Sixty-eight per cent of sick children tested positive and prompt schoolbased treatment reduced absence from school by more than tenfold. Based on the WHO Health Promoting School model, school-based prevention and early intervention programmes like this also improve health knowledge and behaviours in the broader community. This STIAS programme is being explored for use by other countries and is applicable worldwide where malaria occurs.

This highlights how millions of deaths can be averted and economic losses reduced by billions of dollars if added focus is put on prevention.

There is robust evidence that health promotion in the school setting can increase children's knowledge and change their choice of health-related behaviours for the better. The challenge remains to engage the multiple agencies involved in health and education to define and implement a unified and cohesive approach.

Work at STIAS further evaluated and promoted sub-Saharan health-promoting school programmes addressing prevention and management of malaria. Results indicate that child morbidity and school absenteeism caused by disease can be substantially reduced with modest investment – this is now translating into better academic outcomes for the children involved as well as better health. Importantly, it has been

found that involvement of teachers in such programmes can be achieved where investment is made in initial dialogue and engagement. The health topic addressed must also have relevance and resonance for the community. Peer-topeer learning is evident in settings with the most effective long-term interventions; youth champions are emerging who bring unique elements to health promotion that help to engage youth initially and then sustain school programmes. The invitation of one youth champion to STIAS, Ronald Mukisa, resulted in a novel initiative to explore how health promotion of the Developmental Origins of Health and Disease (DOHaD) agenda can be made to resonate with youth.

Investigations were also done at STIAS on the challenge of translating advances in a novel non-invasive optical technology that prior invitations as a STIAS fellow had shown could be used in Africa as a screening tool for detection of bladder disease, a condition that currently negatively impacts quality of life for millions who will be able to benefit from simple treatment if their condition is diagnosed early. Field trials conducted in rural communities provided data that allowed the design and performance of the device to be matched to the needs and abilities of the rural clinic staff who will be using it. Such trials also provided unique insight into the extent and burden of bladder disease that currently exists in rural Africa.

Macnab also contributed to STIAS longer-term research theme *Health in transition* and the DOHaD long-term agenda and working group conference. The STIAS programme and seminar series provided new perspectives from other scholars that added in many ways to the scope and quality of his work. In addition to forming new, creative ideas to pursue, he wrote a series of papers on current STIAS-related research programmes and new projects that are advancing the basic science and the accuracy of diagnosis in urology. A grant written while in residence has also subsequently been funded: this will enable a new health promotion programme to begin in refugee camps in Afghanistan that will contribute to improve maternal and child health.

Several papers from work at STIAS were published in 2016 and a number are in press or submitted.

John Noves (University of Toronto)

Global citizenship and the practice of being human; South African visions and the legacy of enlightenment

In Enlightenment Europe, humanity was a powerful idea that promised a new regime of justice in opposition to despotism. exploitation, and slavery. But it was also highly problematic, since it tended to obscure cultural difference and impose European values on other cultures, often by force. This contradiction continues to characterise the concept of humanity in South Africa today - not only because of the role ideas of the human played during apartheid and in the two decades of democracy, but because of the way citizenship in the global economy works both with and against cultural difference.

The three months spent at STIAS revealed a wealth of material on this topic far exceeding expectations. There is a rich ongoing debate in a number of circles in South Africa addressing the topic of this research; the following are just some of the debates that contributed to the project:

- Recent years have seen a revival of the great African humanists – Franz Fanon, Aime Cesaire, Steve Biko – in South African debates. This heralds a more practical attempt to think of humanity not as an ideal that negates difference, but as a guiding principle for incorporating difference without racial inequality.
- Discussions with scholars at STIAS, but also at the University of the Western Cape, revealed that the value of enlightenment ideals is still strongly contested in South Africa, and that even the counter-enlightenment with its privileging of cultural difference needs to be re-thought in the South African context.
- There is a much greater interest in so-called global apartheid now than in the 1990s. The phrase global apartheid is intended to shift perspective from national to global inequality, but it raises difficult problems concerning the humanist vision of common humanity as something different from a common place in the global market.

Noves says: "I consider myself immensely privileged to have been able to share this time with writers and poets of the stature of Mandla Langa, Zoë Wicomb, Njabulo Ndebele, and Jane Taylor, but also with colleagues working in the natural

sciences. The insights gained into the problem of humanity in South Africa would not have been possible without this fellowship. The time at STIAS gave me the opportunity to advance my project, which is a book on the human in South Africa after apartheid. I have the initial outline and some draft chapters of the book. My return to STIAS in 2017 should enable me to complete the project."

Håkan Hydén (Lund University) **Winston Nagan (University of Florida)**

What keeps society together? Societal cohesion. South Africa as a challenging case

The project undertaken at STIAS was about social cohesion. in North and South. The underlying idea was to explore how a social science concept will actualise different aspects depending on the context. In North, particularly Europe and Scandinavia, the economic dimension channelled to the people via the market and the welfare state plays a dominant role. It is the systems, with Jurgen Habermas' terminology, which are the mechanisms for social cohesion. This makes social cohesion vulnerable. In South, using South Africa as the example, it is the diversity in different respects which has to be dealt with in order to understand social cohesion.

The project has so far resulted in two articles, Social cohesion and the anticipated fall of the welfare state, by Håkan Hydén and Farai Nyika, PhD candidate in economic history, Stellenbosch University and The sustainability and endurance of a rule of law governed democracy in South Africa challenged by an enlightened approach to socio-cultural ethnic diversity and the embrace of an economic system that provides for a more just distribution of the economic patrimony of the nation, by Winston Nagan.

The first article was submitted to Athens Institute for Education and Research (ATINER) and is still pending for publication. The article has as its point of departure the tendency in the whole of Europe to lean more to the right politically with increasing numbers of far-right political parties having neo-liberal ideologies. These events are merely symptoms of the threats and failings of the welfare state model and social cohesion. The state is the present mechanism

that is and has been holding European society together. This article focuses on the role the welfare state model plays in maintaining the social cohesion of western societies and how this system is under an anticipated threat.

The second article is ready for publication at Cadmus. It builds on the following: the father of modern South Africa declared the ANC's commitment to the consolidation and social cohesion of a 'rainbow nation'. Nelson Mandela was keenly aware of South Africa's past and modern history and its inheritance of a richly complex diversity. This country's diversity is a product of historical experience, ethnographic complexity, racial and economic stratification, forms of value deprivation and stratification that cut across every value institutional situation in South Africa. Diversity extends to language, religion, education, aesthetics and culture. Among the most conspicuous legacies of South Africa's complex history is the endurance of racism as well as complex iterations of racial consciousness.

The guestion which Hydén and Nagan wished to determine as a test case was, inter alia, the place of the Khoikhoi and the Khoisan in this rich tapestry of diversity. These people are an ancient people and there is evidence that they are descendent from the sanguine Stone Age people. In the present form of their demographics they are believed to have settled in South Africa about 2 000 years ago. The Khoikhoi were herders who adopted aspects of the Khoisan culture of hunting and gathering. The Khoi and the San experienced centuries of conflict, mainly with white colonisation. During these years they faced dispossessing their economic patrimony, exploitive sexual targeting of Khoi women, forced labour, slavery and extermination practices. The Khoi have survived, but restoration of rights and claims to social cohesion are unfulfilled. The initial crisis of the Khoikhoi was settler migration.

The article uses law for double purposes; partly as an indicator of how law functioned as a mechanism of social exclusion over time, and partly to see what rights Khoi people are entitled to according to different human rights conventions, declarations and international law practice, such as the UN Declaration on the rights of indigenous people, if and when they are accepted as First Nation people.

David Dunér (Lund University)

Swedish naturalists in South Africa 1771-1951

The South African flora and fauna have been studied by a number of Swedish naturalists during the last 250 years. The first Swedish naturalist that stayed for a longer period and went further inland for studying the flora and fauna was Anders Sparrman in the 1770s, a student of the Swedish botanist Carl Linnaeus. Another Linnaean disciple, Carl Peter Thunberg, also made major investigations of the biodiversity of the Western Cape Province. A less known traveller was the Finnish born Henrik Jacob Wikar. Even though he was neither a disciple of Linnaeus, nor a trained naturalist, he made a major contribution to the European knowledge about the geography of southern Africa. Wikar was employed by the Dutch East India Company, explored the northern Cape and is remembered as the first European to see the Augrabies Falls. In the 19th century we find Charles John Andersson and Axel Eriksson who collected bird skins and plants in Namibia, and the elephant hunter Johan August Wahlberg who travelled extensively in what is now known as Kwazulu-Natal, Gauteng, Namibia and Botswana. In 1950/1951 a team of researchers from Lund University performed extensive research in the country. By mapping these natural history travels, the project at STIAS achieved a first assessment of their contribution to the exploration of the natural history of South Africa.

These travellers did not only encounter never before described animal and plant species; they also came across African people and other ways of living. Comparing Thunberg, Sparrman, and Wikar in this respect was especially rewarding, how they tried to understand the foreign cultures they encountered, the Khoisan people in particular. Thunberg described the foreign cultures not different from other natural objects, while Sparrman had a complete different strategy. To Sparrman the Khoikhoi became individuals with personal names that one could befriend. They became humans not different from himself. Wikar even went a step further, lived with them and became adopted by a tribe, and the sharp difference between we and the other was erased. The project could then be regarded as a contribution to the history of South African cultural encounters seen from the eyes of Swedish travellers.



Above: The old powder magazine from 1872, Otjimbingwe, Namibia. The Swedish explorer and trader Charles John Andersson established his headquarters and a trading post here in 1860.

Right: The Heerenlogement Cave, Western Cape, a popular resting place en route to Namagualand, Numerous travellers from the 17th century and onwards have engraved their names on the walls of the cave. The Swedish naturalist Carl Peter Thunberg rested here in 1774.



"STIAS can be summarised in the words: STIAS is a researcher's paradise. In my academic career, I have never had such excellent research opportunities, with full concentration and focus, a well-equipped office, good computer and printing facilities, an excellent library service (that I as a bookworm and scholar appreciate very much). delicious and nourishing lunches, very friendly and helpful staff and colleagues, and informative and stimulating seminars."

Following these travellers in their footsteps and trying to find the places they mention in their travel journals gave a fuller understanding of how they tried to describe the landscape that they encountered. It was not only a challenge to find words for things and phenomena that they have never seen before, they needed also to convey these impressions to others who had never seen these places. Some places, though more challenging, were easier to find: Sparrman and Thunberg climbed Table Mountain and Lion's Head to study the flora. Sparrman followed the nowadays popular route to the top through the Platteklip Gorge. It is also possible to follow Sparrman and Thunberg's way along the Garden Route to the eastern Cape, with stops in Caledon, Swellendam and Mossel Bay. Thunberg also undertook a trip to the north. On the way he stopped at the Heerenlogenment Cave, which one can still visit after 250 years. The place is remarkable due to its graffiti. Travellers from the 17th century and onwards had written their names on the cave wall. Ten kilometres away there is

another rock formation where one could see the signature of another Swedish traveller, Olof Bergh, who travelled up to Namagualand in 1682 and 1683. In Namibia it is possible to follow Andersson, Eriksson and Wahlberg in their footsteps. The Swedish 19th century trading post in Otjimbingwe is nowadays a very remote and neglected place, but there are ruins from that time still to be seen.

The research has so far been partly published in an article, Poetry of incertitude: Lundian naturalists' accounts from travels in foreign worlds. in the annual of Swedish Linnaean Society. A chapter is in press, *The world: pathways in thought* and geography, in Prepared for Both: Lund University and the Surrounding World, edited by Gunnar Broberg and David Dunér, and will be published by Lund University Press. Another chapter. Near and Far Away, has been submitted.

STIAS FELLOWS AND PROJECTS LIST

STIAS fellows

Akinwumi, Olayemi

Nasarawa State University Opposition in African politics: the case of Nigeria, Ghana, South Africa and Kenya (The future of democracy theme project)

Andrekson, Peter

Chalmers University of Technology Noiseless optical amplifiers and their applications

Balasubramanian, Dorairajan

LV Prasad Eye Institute DOHaD and sustainable development goals: moving towards early implementation (Health in transition theme project)

Bossuvt. Marc

University of Antwerp International protection of human rights (The future of democracy theme project)

Botha, Rudie

Stellenbosch University How did Homo sapiens become Homo docens? On the evolution of social learning and teaching during the Palaeolithic (Being human today theme project)

Brown, Duncan

University of the Western Cape Wildness

Butlin, Roger

University of Sheffield The role of natural selection in the origin of species

Byass, Peter

Umeå University DOHaD and sustainable development goals: moving towards early implementation (Health in transition theme project)

Conley, Daniel

Lund University Assessing the potential impact of agriculture on the biogeochemistry of a pristine wetland, the Okavango Delta (Sustainable agro-ecosystems theme project)

Cornelissen, Scarlett

Iso Lomso fellow Stellenbosch University Japanese firms, industrial systems and investments in Africa

Cowan, Robin

University of Strasbourg Science and development: growth, expansion and role of university systems in emerging economies

Daar, Abdallah

University of Toronto DOHaD and sustainable development goals: moving towards early implementation (Health in transition theme project)

Dumont, Guy

University of British Columbia Technology for maternal and child health (Health in transition theme project)

Duncan, Norman

University of Pretoria The effects of race (Being human today theme project)

Dunér, David

Lund University Swedish naturalists in South Africa 1771-1851

Eze. Chielozona

Northeastern Illinois University Transcultural affinity: cosmopolitan imagination in South Africa

Fombad, Charles

University of Pretoria Constitution-building in Africa: decentralisation and constitutionalism in Africa (The future of democracy theme project)

Frowe, Helen

Stockholm University Transitional justice: accountability for wrongdoing in the aftermath of conflict (Being human today theme project and The future of democracy theme project)

Gärdenfors, Peter

Lund University How did Homo sapiens become Homo docens? On the evolution of social learning and teaching during the Palaeolithic (Being human today theme project)

Gerle, Elisabeth

Lund University Many modernities – religious freedom in South Africa and Sweden (Being human today theme project)

Giampietro, Mario

Autonomous University of Barcelona Complexity and anticipation (Understanding complexity theme project)

Harris, Leila

University of British Columbia Differentiated access: water, citizenship and politics (Being human today theme project)

Herdegen, Matthias

University of Bonn Biotechnology and legal regulation: personal freedom. risk management and human dignity (Being human today theme project)

Higgins, John

University of Cape Town Alienation, protest and the idea of a manifesto (Being human today theme project)

Högberg, Anders

Linneaus University How did Homo sapiens become Homo docens? On the evolution of social learning and teaching during the Palaeolithic (Being human today theme project)

Horzinek, Marian

Utrecht University Infectious disease prevention in companion animals (Health in transition theme project)

Hydén, Håkan

Lund University What keeps society together? Societal cohesion. South Africa as a challenging case (Being human today theme project and The future of democracy theme project)

Jablonski, Nina

Permanent visiting fellow Pennsylvania State University The effects of race (Being human today theme project)

Jain, Neha

University of Minnesota The legitimacy and authority of international criminal law (The future of democracy theme project)

Kineman, John

University of Colorado Complexity and anticipation (Understanding complexity theme project)

Laflamme, Lucie

Karolinska Institute Health transition and injury care and prevention (Health in transition theme project)

Langa, Mandla

South African author - Artistin-residence The heartbeat of a storm

Larsson, Lars

Lund University How did Homo sapiens become Homo docens? On the evolution of social learning and teaching during the Palaeolithic (Being human today theme project)

Lombard, Marlize

University of Johannesburg How did Homo sapiens become Homo docens? On the evolution of social learning and teaching during the Palaeolithic (Being human today theme project)

Louie, Aloisius

Mathematical biologist, Ottawa Complexity and anticipation (Understanding complexity theme project)

Lundin, Susanne

Lund University Future bodies: preventing organ trafficking – focusing on consequences and alternatives to organ shortage (Health in transition theme project)

Macnab, Andrew

University of British Columbia Brighter futures through health promotion and health (Health in transition theme project)

Marè, Gerhard

University of KwaZulu-Natal The effects of race (Being human today theme project)

Martin. Robert

The Field Museum, Chicago Dangerous denial: an exploration of major endocrine disruptors

Mazibuko. Lindiwe

Author-in-residence We don't need another hero

Mebratu, Desta

United Nations Environment Programme Distributed renewable economy for Africa's transformation being (Sustainable agro-ecosystems theme project)

Melmed, Ray

Hadassah-University Hospital Human behaviour through the evolutionary prism: the illusion of rationality (Being human today theme project)

Muller. Elmi

University of Cape Town Future bodies: preventing organ trafficking – focusing on consequences and alternatives to organ shortage (Health in transition theme project)

Musila, Grace A

Iso Lomso fellow Stellenbosch University Critical illegibility, Blackness and scoring dangerous freedoms (Being human today theme project)

Nagan, Winston

University of Florida What keeps society together? Societal cohesion, South Africa as a challenging case (Being human today theme project and The future of democracy theme project)

Näsström, Sofia

Uppsala University The right to have rights: from migration to integration (Global human rights law and the boundaries of statehood within the Crossing borders theme project)

Ndebele, Njabulo

Permanent visiting fellow University of Cape Town The boxing economy of the Eastern Cape, and The effects of race (Being human today theme project)

Norris. Shane

University of the Witwatersrand DOHaD and sustainable development goals: moving towards early implementation (Health in transition theme project)

Noyes, John

University of Toronto Global citizenship and the practice of being human. South African visions and the legacy of enlightenment (Being human today theme project)

Nyanzi, Stella

Makerere University Rethinking sex in Uganda's Parliament (The future of democracy theme project)

Öborn, Ingrid

Swedish University of Agricultural Sciences Impact of sustainable intensification of food production on environment and human well-being (Sustainable agro-ecosystems theme project)

Pell, Alice

Cornell University Nutritional security in a profitable and sustainable food system (Sustainable agroecosystems theme project)

Pitvana, Barnev

College of the Transfiguration The effects of race (Being human today theme project)

Poli, Roberto

University of Trento Complexity and anticipation (Understanding complexity theme project)

Schoeman, Maxi

University of Pretoria Promoting peace, security and development in Africa: challenges, and constraints to South Africa's African agenda

Shisanva, Chris

Kenyatta University Mobilising for natural resource management at the micro-level in rural Africa (Sustainable agro-ecosystems theme project)

Sikora, Richard

University of Bonn Impact of sustainable intensification of food production on environment and human well-being (Sustainable agro-ecosystems theme project)

Soudien, Crain

Human Sciences Research Council The effects of race (Being human today theme project)

Taylor, Jane

University of Leeds Upon acted being, and, being acted upon. Subjects, objects, animals in performance

Terry, Eugene

TransFarm Africa Impact of sustainable intensification of food production on environment and human well-being (Sustainable agro-ecosystems theme project)

Therborn, Göran

University of Cambridge The effects of race (Being human today theme project)

Tuomi, Ilkka

Oy Meaning Processing Ltd (Espoo) Complexity and anticipation (Understanding complexity theme project)

Van Doorslaer, Eddy

Erasmus University Rotterdam Making primary health care work for the poor (Health in transition theme project)

Van Klinken. Adriaan

University of Leeds Christianity and queer politics in Africa (Being human today theme project)

Vlek. Paul

University of Bonn Impact of sustainable intensification of food production on environment and human well-being (Sustainable agro-ecosystems theme project)

Vollrath. Fritz

University of Oxford Complexity and emergent properties in the spider's webs and silks (Understanding complexity theme project)

Wetterberg, Gunnar

Swedish historian and author History of Scania

Wicomb, Zoë

Artist-in-residence University of Strathclyde Fiction writing project (based on the life and works of Thomas Pringle)

Wynn, Graeme

University of British Columbia Historical geography's contributions to understanding South Africa

Visiting scholars

Chaplin, George

Pennsylvania State University The effects of race (Being human today theme project)

Chitja, Joyce

University of KwaZulu-Natal Impact of sustainable intensification of food production on environment and human well-being (Sustainable agro-ecosystems theme project)

Du Plessis, Anél

North-West University Sustainable cities in South Africa: a legal appraisal

Erasmus, Zimitri

University of the Witwatersrand The effects of race (Being human today theme project)

Gunner, Göran

Stockholm School of Theology Many modernities – religious freedom in South Africa and Sweden (Being human today theme project)

Hasselberg, Marie

Karolinska Institute Health transition and injury care and prevention (Health in transition theme project)

Kimani-Murage, Elizabeth

African Population and Health Research Center DOHaD and sustainable development goals: moving towards early implementation (Health in transition theme project)

Kristiansson, Marianne

Karolinska Institute Future bodies: preventing organ trafficking – focusing on consequences and alternatives to organ shortage (Health in transition theme project)

Schult, Tanja

Stockholm University Commemorating painful pasts through performative practices (Being human today theme project)

Singhal, Atul

University College London DOHaD and sustainable development goals: moving towards early implementation (Health in transition theme project)

Yainik. Chittaranian

King Edward Memorial Hospital, Pune DOHaD and sustainable development goals: moving towards early implementation (Health in transition theme project)

STIAS LECTURE SERIES

16 February

Fritz Vollrath (University of Oxford) Unravelling spider webs and silks

8 March

Paul Vlek (University of Bonn) Land degradation: a threat to food security in sub-Saharan Africa

12 April

Zoë Wicomb (University of Strathclyde) Reading Brian Chikwava's novel, Harare North

19 May

Michal Linial (Director: Israel Institute for Advanced Studies) Big data meets human health

13 September

Barney Pityana (College of the Transfiguration) Steve Biko and the Black consciousness philosophy: a contribution to South Africa's system of ideas

18 October

Robert Martin (The Field Museum, Chicago) Darwinian medicine: evolutionary insights into human reproduction

8 November

Winston Nagan (University of Florida) The importance of basic values and human rights standards for the future of higher education





"STIAS, with its superb staff and infrastructure, provided an ideal environment for me to conduct my research, notably by providing me with congenial surroundings and the peace of mind to work my way through a daunting mass of literature. The truly excellent catering deserves a special mention. In a nutshell, my stay at STIAS has been an unforgettable and truly enriching experience."

Robert Martin, The Field Museum, Chicago, 2016

STIAS SEMINARS

21 January

Gunnar Wetterberg Wallenberg – the family that shaped Sweden's economy

28 January

Roger Butlin
On the origin of species

4 February

Lindiwe Mazibuko

How to impeach a president

11 February

Marian Horzinek

Vaccination – its glory,
its decline

18 February

Roberto Poli and Aloisius Louie Complexity and anticipation

25 February

Mandla Langa
Mining the archive

3 March

Eddy van Doorslaer The rise and fall of inequality in income and health

10 March

Alice Pell Elimination of malnutrition in our lifetimes: is the food system up to the task?

17 March

Helen Frowe
The ethics of war (and a bit of peace)

23 March

Marc Bossuyt
The European Union and
the asylum crisis in the
Mediterranean

31 March

Roberto Poli, Mario Giampietro and Illka Tuomi Complexity, anticipation and innovation: basic concepts and challenges

5 April

John Kineman Relational complexity and system sustainability

7 April

Njabulo Ndebele Behind sweaty windows: reflections on boxing in the Eastern Cape

14 April

Richard Sikora and group Impact of sustainable intensification of agriculture in southern Africa on food security, environment and human well-being

21 April

John Noyes Humanity and difference: South African questions and the legacy of enlightenment

28 April

Sofia Näsström
The spirit of the people:
thinking democracy beyond
the nation-state

5 May

Chielozona Eze
Walter Benjamin meets
Desmond Tutu: on the
hermeneutics of memory and
forgiveness in South Africa

12 May

Jane Taylor *The Wittgenstein papers*

17 May

Robin Cowan Including excluded groups: the slow racial transformation of the South African university system

25 May

Adriaan van Klinken Religion and queer politics in Africa





"The weekly STIAS seminars also contributed to my sense of engagement with a broader intellectual community. They are remarkable in pushing scholars to explain their work to a highly able and sharp-minded audience of peers with highly disparate interests."

Graeme Wynn, University of British Columbia, 2016









2 June

Rav Melmed Key human drivers of history and their evolutionary significance

9 June

Duncan Brown Rethinking wildness

21 July

Scarlett Cornelissen South African scholarly imaginaries and the making of Asia/Asian studies

28 July

Nina Jablonski and EoR group The effects of race project: a progress report, overview of 2016 discussions, and an excerpt

2 August

Grace A Musila A death retold in truth and rumour: Kenya, Britain and the Julie Ward murder

4 August

Gerhard Maré reflections on regrettable legacies and avoidable continuities

11 August

Charles Fombad The migration of South Africa's Chapter 9 institutions in Africa: a meaningful exercise in intra-African constitutionalism?

18 August

Guy Dumont Predictive analytics and phone oximetry for maternal and child health

23 August

Tanya Schult Commemorating painful pasts through performative practices

25 August

Chris Shisanya Are women reservoirs of local ethnobotanical knowledge? Empirical evidence from western Kenya

30 August

John Higgins Preliminary notes on 'The protest-manifesto'

1 September

David Dunér Swedish naturalists in South Africa 1771-1951

8 September

Abdallah Daar and the DOHaD group The developmental origins of health and disease (DOHaD) and sustainable development goals: moving towards early implementation in Africa

15 September

Elisabeth Gerle and Göran Gunner Many modernities – religious freedom in different settings

22 September

Matthias Herdegen Managing chances and risks of modern biotechnology: challenges to international law

29 September

Neha Jain Radical dissents

6 October

Andrew Macnab Health in transition: solutions occupying the 'middle ground'

13 October

Leila Harris Revisiting state-society linkages through the human right to water: unequal and differentiated access and governance of water in Accra. Ghana and Cape Town, South Africa

20 October

Graeme Wynn A commonwealth of scholarship: historical geographies of South Africa and the British world

25 October

Desta Mebratu Distributed renewable economy for Africa's transformation

27 October

Peter Andrekson Trends and challenges in optical fibre-based data transmission

1 November

Rudie Botha Neanderthal language: pursuing an intriguing but murky matter

3 November

Olavemi Akinwumi Political parties and opposition parties in Nigeria since independence

10 November

Maxi Schoeman Who do we say we are and why does it matter? South African foreign policy and identity claims

15 November

Stella Nyanzi Rethinking sex in Uganda's parliament

17 November

Peter Gärdenfors, Marlize Lombard and Lars Larsson How did Homo sapiens become Homo docens? On the evolution of teaching

22 November

Susanne Lundin. Elmi Muller and Marianne Kristiansson Future bodies: preventing organ trafficking - focusing on solutions to the organ shortage

24 November

Håkan Hvdén Social cohesion, in North and South

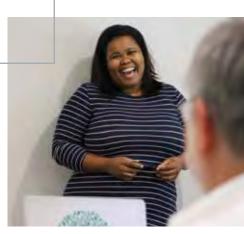
1 December

Lucie Laflamme, Marie Hasselberg and Lee Wallis mHealth for improved access to and equity in health care: a research project, a round table, and a special issue in Global Health Action

6 December

Daniel Conley The Okavango Delta: ecological functioning, biogeochemical cycles and future challenges





STIAS PUBLICATIONS

Books

Baker A. Van den

Schermer T (eds)

Bogaerde B, Pfau R and

The linguistics of sign

Publishing Company,

protection: balanced.

Cambridge-Antwerp-

Portland (2016)

Amsterdam (2016)

Bossuyt M

languages. John Benjamins

International human rights

critical, realistic. Intersentia,

Chabani MN

Eze C

Apartheid and the making

of a black psychologist: a

Press. Johannesburg (2016)

Ethics and human rights in

anglophone African women's

literature: feminist empathy.

Palgrave Macmillan,

Separation of powers in

Klingholz R and Lutz W

Wer überlebt? Bildung

Frankfurt am Main (2016)

Petersen MN and Muller E (eds) Global bodies in grey zones -

health, hope, biotechnology.

entscheidet über die Zukunft der Menschheit.

Lundin S. Kroløkke C.

Stellenbosch (2016)

Campus Verlag,

SUN MeDIA.

African constitutionalism. Oxford University Press.

Cham (2016)

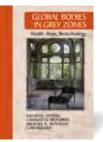
Fombad CM (ed)

Oxford (2016)

memoir. Wits University

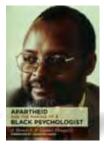
www.stias.ac.za/publications/publications-2016

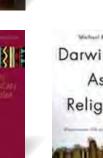


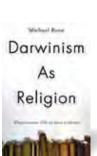


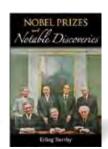














Norrby E Nobel prizes and notable

discoveries World Scientific Publishing, Singapore (2016)

Peterson M and Ruse M

Science, evolution, and religion. Oxford University Press, Oxford (2016)

Ray AJ

Aboriginal rights claims and the making and remaking of history. McGill-Queen's University Press, Montreal (2016)

Richards RJ and Ruse M

Debating Darwin. University of Chicago Press, Chicago (2016)

Ruse M

Darwinism as religion: what literature tells us about evolution. Oxford University Press, Oxford (2016)

Ruse M

Simply Darwin. Simply Charly, New York (2016)

Chapters in books

Adam H

Beyond shame: the decline of the "Rainbow Nation". In C Quist-Adade and W Royal (eds) Re-engaging the African diasporas: Pan-Africanism in the age of globalization 38-43. Cambridge Scholars Publishing, Newcastle (2016)

Barnum H and Wilce A

Post-classical probability theory. In G Chiribella and RW Spekkens (eds) Quantum Theory: Informational Foundations and Foils 181 367-420. Springer Netherlands. Dordrecht (2016)

Bossuyt M

Difficult relations between constitutional courts and supreme courts: the case of Belgium. In Estudos em Homenagem ao Conselheiro Presidente Rui Moura Ramos 2 213-225. Almedina, Coimbra (2016)

Brown D

Indigeneity, alienness and cuisine: are trout South African? In I Banerjee-Dube (ed) Cooking cultures: convergent histories of food and feeling 21-38. Cambridge University Press, Delhi (2016)

Dunér D

Ovisshetens Poesi: Lundensiska Naturalhistorikers Skildringar Från Främmande Världar. In G Broberg and D Dunér (eds) Svenska Linnésällskapets årsskrift 91-106. Svenska Linnésällskapet, Uppsala (2016)





Egoh BN, Bengtsson J, Lindborg R, Bullock JM, Dixon AP and Rouget M

The importance of grasslands in providing ecosystem services: opportunities for poverty alleviation. In M Potschin, R Haines-Young, R Fish and R Kerry Turner (eds) Routledge Handbook of Ecosystem Services 421-441. Routledge, Oxford (2016)

Humbracht M, Insoo H, and Lundin S

Managing hope and spiritual distress: the centrality of the doctor-patient relationship in combatting stem cell travel. In E Malmqvist and K Zeiler (eds) Bodily Exchanges, Bioethics and Border Crossing: Perspectives on Giving, Selling and Sharing Bodies 153-168. Routledge, Cambridge (2016)

Lombard M

Mountaineering or ratcheting? Stone age hunting weapons as proxy for the evolution of human technological, behavioral and cognitive flexibility. In MN Haidle, NJ Conard and M Bolus (eds) The Nature of Culture 135-46. Springer Netherlands, Dordrecht (2016)

Journal articles

Albertazzi L and Louie AH

A mathematical science of qualities: a sequel. Biological Theory (2016) 11(4) 192-206

Augenstein D and Lindahl H

Introduction: global human rights law and the boundaries of statehood.

Indiana Journal of Global Legal Studies (2016) 23(1) art. 1

Abegaz B

Challenges and opportunities for chemistry in Africa. Nature Chemistry (2016) 8(6) 518-22

Beilharz P

'All that is solid'... Maelstrom and modernity in Zygmunt Bauman, Marshall Berman (and the ones in between: Marx, Trotsky, Faust and Spengler)

Revue internationale de philosophie (2016) 3(277) 291-304

Beilharz P and Supski S

Introduction to special section on Ivan Vladislavić: - Ivan Vladislavić – writing sideways. Thesis Eleven (2016) 136(1) 3-4

Beilharz P and Supski S

Finding Ivan Vladislavić – writing the city. Thesis Eleven (2016) **136**(1) 5–19

Beilharz P and Supski S

Ivan Vladislavić – a tale in two cities. Thesis Eleven (2016) 136(1) 20-30

Beilharz P

From Marx to Gramsci to us: laboratory to prison, and back. Thesis Eleven (2016) 132(1) 77-86

Bekker S and Bromberger N

A shift in Western development agency thinking? The case for second best.

Social Dynamics (2016) 42(3) 530-541

Bossuvt M

À propos de « Le juge belge devant le droit international et le droit communautaire » de Michel Waelbroeck (1965-II). Revue Belge de Droit International (2015) 48(1–2) 116–127

Bossuvt M

Categorical rights and vulnerable groups: moving away from the universal human being.

The George Washington International Law Review (2016) **48**(4) 717–42

Brown D

Native, natural, indigenous, indigenised? Trout in the postcolony. Critical African Studies (2016) 8(2) 179-95

Brown D

Oral literature in South Africa: 20 years on. Current Writing: Text and Reception in Southern Africa (2016) **28**(2) 108–18

Brown D

Reimagining the "literary" in South African literary studies. English in Africa (2016) 43(3) 141-166

Byass P

Child mortality is (estimated to be) falling. The Lancet (2016) 388(10063) 2965–2967

Coolidge FL. Haidle MN. Lombard M and Wynn T

Bridging theory and bow hunting: human cognitive evolution and archaeology.

Antiquity (2016) 90(349) 219-28

Cornelissen S

South Africa and Japan: maintaining a difficult friendship. Commonwealth & Comparative Politics (2016) 54(2) 186–202

Daar AS and Al Lawati NM

The world's youngest cadaveric kidney transplant: medical, surgical and ethical issues Transplantation Direct (2016) 2(12) e117

Dahlin S, Nilsson M, Bäckström D, Liljegren Bergman S, Bengtsson E, Bernasek SL and Pettersson LJ

Multivariate analysis of the effect of biodiesel-derived contaminants on V2O5-WO3/TiO2 SCR catalysts. Applied Catalysis B: Environmental (2016) 183 377–85

De Mot L, Gonze D, Bessonnard S, Chazaud C, Goldbeter A and **Dupont G**

Cell fate specification based on tristability in the inner cell mass of mouse blastocysts.

Biophysical Journal (2016) 110(3) 710-22

De Sanctis V, Soliman AT, Elsedfy H, Albu A, Al Jaouni S, Anastasi S, Bisconte MG, Canatan D, Christou S, Daar S, Di Maio S, El Kholy M, Khater D, Elshinawy M, Kilinc Y, Mattei R. Mosli HH. Quota A. Roberti MG. Sobti P. Al Yaarubi S, Canpisi S and Kattamis C

The ICET-A recommendations for the diagnosis and management of disturbances of glucose homeostasis in thalassemia major patients.

Mediterranean Journal of Hematology and Infectious Diseases (2016) 8(1) e2016058

De Sanctis V, Soliman AT, Elsedfy H, Albu A, Al Jaouni S, Anastasi S, Bisconte MG, Canatan D, Christou S, Daar S, Di Maio S, El Kholy M, Khater D, Elshinawy M, Kilinc Y, Mattei R, Mosli HH, Quota A, Roberti MG et al

Review and recommendations on management of adult female thalassemia patients with hypogonadism based on literature review and experience of ICET-A network specialists. Mediterranean Journal of Hematology and Infectious Diseases (2016) **9**(1) e2017001

Fossépré M, Leherte L, Laaksonen A and Vercauteren DP

Multiscale design of coarse-grained elastic network-based potentials for the μ opioid receptor.

Journal of Molecular Modeling (2016) 22(9) art. 227

Gérard C and Goldbeter A

Dynamics of the mammalian cell cycle in physiological and pathological conditions.

Wiley Interdisciplinary Reviews: Systems Biology and Medicine (2016) **8**(2) 140–156

Golets M, Shimpi MR, Wang Y-L, Antzutkin ON, Glavatskih S and Laaksonen A

Understanding the thermal decomposition mechanism of a halogen-free chelated orthoborate-based ionic liquid: a combined computational and experimental study. *Physical Chemistry Chemical Physics* (2016) **18**(32) 22458–22466

Gurevitch J, Fox GA, Fowler NL and Graham CH

Landscape demography: population change and its drivers across spatial scales.

The Quarterly Review of Biology (2016) **91**(4) 459–485

Högberg A and Lombard M

Indications of pressure flaking more than 70 thousand years ago at Umhlatuzana Rock Shelter.

South African Archaeological Bulletin (2016) 71(203) 53–59

Högberg A

Lithic attribute analysis on blades from the middle stone age site, Hollow Rock Shelter, Western Cape Province, South Africa

Lithic Technology (2016) 41(2) 93-113

Högberg A and Lombard M

Still Bay point-production strategies at Hollow Rock Shelter and Umhlatuzana Rock Shelter and knowledge-transfer systems in southern Africa at about 80-70 thousand years ago. *PLOS ONE* (2016) **11**(12) e0168012

Jansen N

Farewell to unjustified enrichment? *Edinburgh Law Review* (2016) **20**(2) 123–48

Jansen N

Gesetzliche Schuldverhältnisse. Eine historische Strukturanalyse.

Archiv fuer die civilistische Praxis (2016) 216(1) 112–233

Kelley EA, Jablonski NG, Chaplin G, Sussman RW and Kamilar JM

Behavioral thermoregulation in Lemur catta: the significance of sunning and huddling behaviors.

American Journal of Primatology (2016) 78(7) 745-54

Lindahl H

One pillar: legal authority and a social license to operate in a global context.

Indiana Journal of Global Legal Studies (2016) 23(1) art. 9

Lundin S, Torkelson E and Petersen M

"With this disease, you take whatever chances there are" – a study on socio-cultural and psychological aspects of experiments regarding Huntington's disease.

Open Journal of Medical Psychology (2016) 5(4) 72–87

Macnab AJ, Mutabazi S, Mukisa R, Eliab AM, Kigozi H and Steed R

The impact on absence from school of rapid diagnostic testing and treatment for malaria by teachers.

International Journal of Learning, Teaching and Educational Research (2016) **15**(7) 20–37

Maré. G

Introduction: Jeff Guy and Norman Etherington. *Transformation: critical perspectives on southern Africa* (2016) **90**(1) 49–50

McGilchrist I

'Selving' and union.

Journal of Consciousness Studies (2016) 23(1-2) 196-213

Nadar S and Gerle E

Mediating the 'sacredness' of religion. Culture and law in contexts of sexual violence.

Agenda (2016) 30(3) 104-114

Ndikumana L

Implications of monetary policy for credit and investment in sub-Saharan African countries.

Journal of African Development (2016) 18(2) 1–18

Nyamnjoh FB

Comment: the decolonizing generation: (race and) theory in anthropology since the eighties.

Current Anthropology (2016) 57(2) 142-43

Oloka-Onyango J

Using courts of law to tackle poverty and social exclusion: the case of post-2010 Kenya.

Law. Democracy & Development (2016) 19(1) 193-210

Rao V and Naniundiah V

Ernst Mayr's interactions with J. B. S. Haldane. *History and Philosophy of the Life Sciences* (2016) **38**(1) 138–50

Rebič M, Laaksonen A, Šponer J, Uličý J and Mocci F

Molecular dynamics simulation study of parallel telomeric DNA quadruplexes at different ionic strengths: evaluation of water and ion models.

The Journal of Physical Chemistry (2016) **120** 7380-7391

Stratton J and Beilharz P

Way out west: mapping Western Australia. *Thesis Eleven* (2016) **135**(1) 3–13

Takacs D

South Africa and the human right to water: equity, ecology, and the public trust doctrine.

Berkeley Journal of International Law (2016) 34(2) 55-108

Tanaka K, Kelly CE, Goh KY, Lim KB and Ibanez CF

Death domain signaling by disulfide-linked dimers of the p75 neurotrophin receptor mediates neuronal death in the CNS. *Journal of Neuroscience* (2016) **36**(20) 5587–95

Vale P

Unlocking social puzzles: colony, crime and chronicle: an interview with Charles van Onselen.

Thesis Eleven (2016) 136(1) 35-48

Van Sluijs R, Van den Berg M and Muysken P

Exploring genealogical blends: the Surinamese Creole cluster and the Virgin Island Dutch Creole cluster.

Lingua (2016) 178 84-103

Vladislavić I

On first looking into Godot. *Thesis Eleven* (2016) **136**(1) 31–34

Vollrath F

The complexity of silk under the spotlight of synthetic biology. *Biochemical Society Transactions* (2016) **44**(4) 1151-1157

Wallis LA, Fleming J, Hasselberg M, Laflamme L and Lundin J

A smartphone app and cloud-based consultation system for burn injury emergency care.

PLOS ONE (2016) 11(2) e0147253

FUNDING AND GOVERNANCE

STIAS, a Section 21 company since May 2007, is governed by a Board of Directors. The STIAS Board of Directors meets biannually (in 2016 it met on 15 April and 4 November).

The Director of STIAS is responsible for the development of the STIAS research programme. He is assisted in this task by an Academic Advisory Board and by an international panel of experts which includes former STIAS fellows. Since 2014 the Academic Advisory Board meets once a year (in the year under review the meeting took place on 17 and 18 March). The STIAS Fellowship and Research Programme Committee meets weekly during STIAS semesters and its members assist the Director in giving structure to the STIAS research programme.

Board of Directors

Desmond Smith Chair (Director of Companies) **Kåre Bremer** (former Rector, Stockholm University) Cheryl de la Rey (Vice-Chancellor and Principal, University of Pretoria)

Wim de Villiers (Rector and Vice-Chancellor, Stellenbosch University)

Hendrik Gever (Director of STIAS)

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Christof Heyns (University of Pretoria and United Nations special rapporteur on extrajudicial, summary or arbitrary executions)

Bernard Lategan (STIAS founding Director)

Mosibudi Mangena (former South African Minister of Science and Technology)

Göran Sandberg (Executive Director, Knut and Alice Wallenberg Foundation)

STIAS Academic Advisory Board

Peter Vale Chair until 18 March (Department of Politics and International Relations, University of Johannesburg)

Morné du Plessis Chair from 18 March (CEO, WWF South Africa) Ahmed Bawa (CEO. Universities South Africa)

Hendrik Geyer (Director of STIAS)

Geoffrey Harpham (Senior Fellow, Kenan Institute for Ethics, Duke University)

Shireen Hassim (Department of Political Studies, University of the Witwatersrand)

Jan-Hendrik Hofmeyr (Centre for Complex Systems in Transition, Stellenbosch University)

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University of Cape Town) Daya Reddy (SA Research Chair in Computational Mechanics, University of Cape Town)

Servaas van der Berg (SA Research Chair in the Economics of Social Policy. Stellenbosch University)

Bert van der Zwaan (Rector Magnificus Utrecht University) Louise Viljoen (Department of Afrikaans and Dutch, Stellenbosch University)

STIAS Fellowship and Research Programme Committee

Hendrik Geyer Chair (Director of STIAS)

Jan-Hendrik Hofmeyr (Centre for Studies in Complexity, Stellenbosch University)

Bernard Lategan (STIAS founding Director)

Francis Nyamnjoh (Department of Social Anthropology, University of Cape Town)

Louise Vilioen (Department of Afrikaans and Dutch. Stellenbosch University)

STIAS Society of Fellows

A STIAS Society of Fellows was established in 2010. Peter Weingart, former director of the Zentrum für interdisziplinäre Forschung (ZiF), Bielefeld, serves as its President. The Society is kept informed about STIAS matters and it also serves as a source for STIAS proposals and for reviewing proposals under consideration.

FINANCIAL REPORT STELLENBOSCH INSTITUTE FOR ADVANCED STUDY (STIAS) (REG NO 2007/014516/08)

Statement of income and expenditure

for the year ended 31 December 2016

	Notes	2016 R	2015 R
Income: Conference facilities		8 248 041	7 845 004
Other income		58 499 343	37 417 931
Donations - Trellis Charitable Trust - Donald Gordon Foundation - Riksbankens Jubileumsfond - Transfer from STIAS Trust		850 000 3 692 833 6 824 075	2 000 000 850 000 6 276 265 6 824 075
 Marianne & Marcus Wallenberg Foundatior Knut & Alice Wallenberg Foundation Rental income Other Income Tax provision written back 	1	46 824 075 223 540 57 090	12 255 008 6 824 075 182 025 49 593 2 151 931
Foreign exchange gain		27 729	4 958
Expenses		32 452 211	26 598 563
Advertising Audit fees		20 805	12 092
 for audit other services Bank charges Books Bursaries: postgraduate Catering: conference facilities Consultation Consumables Courses Depreciation Entertainment Foreign exchange loss General office expenses 		34 614 3 363 2 400	32 655
		3 605 000 6 922 726 95 093 272 102	2 478 2 975 000 6 616 327 273 123 257 258
		139 865 167 147 28 812 16 527	3 600 112 521 125 769 45 844 28 217
Insurance Internet and software Maintenance of equipment		45 966 68 873	22 379 225 754
Municipal services Postage Rental of equipment		23 464	27 074 (1 590)
Security services Services Services Smaller assets Staff remuneration and stipends for fellows Stationery and printing Telephone Travel and accommodation Upgrading of facilities Utility costs Workshops	2	248 344 2 194 950 36 908 8 617 872 339 993	114 593 2 657 892 40 248 6 555 471 232 396
		160 589 6 899 486 1 100 000 956 404 450 908	159 659 5 907 293 - - 172 512
'			
Operating surplus		34 295 173	18 664 372
Finance income		6 283 242	3 871 355
Surplus for the year		40 578 415	<u>22 535 727</u>

Notes to the financial statement of STIAS

for the year ended 31 December 2016

- 1. An amount of R34 120 376,69 was received from the Knut & Alice Wallenberg Foundation during 2013. This amount was donated for utilisation over a five-year period. As a result, the income will be recognised over a period of five years, with the unspent amount recorded as income received in advance under creditors.
- 2. Services include rent paid to Stellenbosch University.



Director of Financial Services, Stellenbosch University

DIRECTOR AND STAFF



- Hendrik Geyer
 Director
- 2 Maria Mouton Coordinator of general logistics and personal assistant to the STIAS Director
- 3 Karin Brown Support staff

- 4 Leonard Katsokore Factotum
- 5 Nel-Mari Loock Programme administrator; IT support and office arrangement
- Makwande Nkathazo Garden assistant

- Yanga Nkathazo Gardener
- Christoff Pauw
 Programme manager
- Maggie Pietersen Building caretaker
- Gwen Slingers
 Support staff

- Goldie van Heerden
 Owner patron of Catering Unlimited
- Elize du Plessis (part-time) Financial officer
- Michelle Galloway (part-time)
 Media officer
- Johann Groenewald (part-time)
 Coordinator: strategic initiatives



15 Gudrun Schirge (part-time) Senior programme administrator

> Bernard Lategan (part-time) (absent) Coordinator: African programme

FACILITIES

"The architecture of STIAS creates a fine balance between solitude and social gathering." The relaxed and silent atmosphere, interrupted only by lunches makes STIAS into a space for creative but also for concentrated work. The beauty of the place added an extra dimension to that. Apart from the Thursday seminars, I have found the lunches very stimulating. Our conversations spanned over the personal, the political and the professional, and we had a lot of fun among the fellows. I learned a lot during these lunches, especially about the situation in South Africa."

Sofia Näsström, Uppsala University, 2016

STIAS is situated on a part of the historic Mostertsdrift, one of the first wine farms in the Stellenbosch area dating back to 1691. The property was bought by Stellenbosch University in 1996 and made available to STIAS by the University in 2001. The old Cape Victorian manor house, wine cellar and outbuildings are situated on 2,6 hectare of parkland. The manor house was restored and rebuilt in 2002 to serve as the STIAS headquarters. Its library is used by researchers and academics for small seminars and workshops. In 2003 the outside of the wine cellar was restored, but the inside was redesigned and refitted to be used as a modern research facility. SACEMA, the South African Centre for Epidemiological Modelling and Analysis, a Centre of Excellence supported by the Department of Science and Technology, is the present occupant of the cellar. The project to refurbish the old stable building was completed in early 2016. The building now accommodates the Stellenbosch University Centre for Complex Systems in Transition.

With the opening of the Wallenberg Research Centre in 2007, STIAS acquired one of the most modern facilities specially designed for advanced research. The centre houses up to 20 researchers at a time in spacious and well-equipped surroundings in a private wing of the building, with adequate seminar facilities and state-of-the-art equipment. It also provides a home to the National Institute for Theoretical Physics (NITheP) in its south wing.

The conference and workshop facilities at the Wallenberg Research Centre are well established as a prime conference/ workshop venue in the Western Cape, associated with quality service. During 2016 (2015) 29 930 (27 850) people used the facility, that is, about 110 (105) per working day on average.

In August 2014, Stellenbosch University and STIAS signed a 99-year lease agreement for the use of the facilities at Mostertsdrift by STIAS.

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