



Urban challenges



As the world's population passes the seven billion mark and levels of poverty and ill health rise, the role of cities in developing sustainable and workable solutions is growing. Across the University of Cape Town, collaborative and multi-disciplinary work is shedding new light on how cities function and providing valuable perspectives on how to tackle important urban issues.



Creating healthy and resilient cities for all

The world's population is steadily rising, but nation states are no longer able to respond convincingly to popular demands for services. Populations are mostly urbanised, but many cities cannot meet the needs of their inhabitants for shelter and sanitation, let alone ensure their involvement in the decision-making that is necessary to regulate life and to distribute resources equitably. Despite the problems, cities are resilient and are often the sites of experiments for new and sustainable ways of living together.

Researchers at UCT know this first-hand and are actively engaged in multi-disciplinary research that brings different bodies of knowledge together to work with cities – Cape Town in particular – to learn from their citizens and craft sustainable solutions to the many challenges they face. As a learning laboratory, Cape Town is a good one: with levels of inequality among the highest in the world; almost 40 percent of households are classified as poor. This brings with it a host of challenges ranging from high levels of disease, mental illness, and inadequate housing to crime and violence.

To facilitate this research focus, the university set up the African Centre for Cities (ACC) in 2007 to develop existing strengths in urban research at the university and advance critical research and policy discussion for the promotion of vibrant, democratic, and sustainable urban development in the global South from an African perspective. One of UCT's six signature themes, the ACC has since produced new pure research, notably on ethics and methods of working in the global South, urban social and economic diversity, natural resource issues, and urban health.

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The hallmark of the ACC is the applied research projects that it has supported that stimulate policy-relevant research and research practitioner engagement on various key challenges facing Cape Town from health to flooding risks. The Cape Town work of the ACC is at the cutting edge of global debates about the co-production of knowledge and the impact of applied research in cities.

Headed by Professor Edgar Pieterse, who holds the DST/NRF SARCHI Chair in Urban Policy, the ACC is a collaborative venture between the faculties of Engineering & the Built Environment (EBE), Science, and Humanities. The centre, which enjoys a number of international partnerships, works closely with colleagues and postgraduates from related areas. Professor Vanessa Watson (School of Architecture, Planning and Geomatics), Associate Professor Harro Blotnitz (Department of Chemical Engineering), Professor Sue Parnell (Department of Environmental and Geographical Science), and Professor Owen Crankshaw (Department of Sociology) are among the senior academics who have large research projects located in the ACC, and whose experience and leadership adds value to the centre.

The ACC also has key partnerships with other research groups, notably the African Climate and Development Initiative, the Energy Research Centre, and the Children's Institute, as well as several scholars in the faculties of Law and Health Sciences. These cross-disciplinary relationships form the basis for a serious engagement with the complex and multi-dimensional problems that cities present.

A recent independent review of the ACC lauds it for becoming “successful and recognised the world over for its leading thinkers, researchers, and their products”. Thanks to its growing global and continental reputation, and its relevant and rigorous research, the ACC has succeeded in attracting high calibre researchers and is making its presence felt, both in Cape Town and further afield.

“It is hard to assess the ACC's external impact precisely at this stage,” says Professor Gordon Pirie, Deputy Director of the ACC, “but suffice to say that the Province, City, private consultancies, NGOs, and current and prospective postgraduate students from abroad and locally, beat a never-ending path to our door. Some of the least visible impacts are concealed in – and endure in – teaching texts, research outputs, and also in policy. An explicit ambition of the ACC has been to foster publications on cities, like Cape Town, that are not at the forefront of international



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research – and in this regard, the publication of special issues of ISI journals, as well as several books, are key indicators of scholarly impact.

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Professor Pirie adds that the ACC works hard to stay relevant “by chipping away at things on our doorstep, reminding and persuading practitioners, citizens, analysts, and scholars about the urban global South, and being a point of reference for concerned and progressive thinkers and policy makers.”

Collaborations and connections

Part of this is about creating a nurturing environment within the centre that enables research to thrive. Professor Pirie highlights the regular academic seminars, special academic support and mentoring for new researchers,

and access to major international collaborative networks. ACC participates in the Mistra programme, which is an international network of cities (Gothenburg, Sweden; Manchester, United Kingdom; Shanghai, China; and Kisumu, Kenya) where efforts are under way to understand and implement urban sustainability through novel knowledge-sharing and generation practices. Funded by the Mistra Foundation, Mistra Urban Futures (MUF), with its principal themes of Green, Fair, and Dense, the programme emphasises collaboration by academics in urban disciplines, urban planners and practitioners, NGOs, and members of civil society.

During 2011, MUF funding was also obtained to support the second South African Cities Conference hosted by ACC, which brought scholars together from around the country to critically discuss their work. More than 70 papers were presented over the three-day conference. The event also cemented and gave additional content to the ACC's co-operation with organisations such as Shack/Slum Dwellers International and the Sustainable Livelihoods Foundation.

Also in 2011, the ACC was prominent at Cape Town's Open Book Festival. *African Cities Reader II*, a collection of essays on the theme of mobility, and the first edition

Signature theme associated with this theme

■ African Centre for Cities

Achieving well-governed and sustainable cities is becoming increasingly important to the future health of the planet. The African Centre for Cities partners closely with African universities and policy-making centres in order to provide an alternative perspective on dealing with critical urban issues. It provides an intellectual base and home for inter-disciplinary, urban-related research at UCT, from which relations can be established with selected international think tanks, scholars, social movements, and funders.

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of the magazine *CityScapes*, which presents insightful commentary on a range of urban issues, were launched during the September festival. This more popular volume sits beside an increasingly impressive list of more conventional academic publications – which, aside from their traditional value, are seen as critical to fostering a body of material from which to ensure the reform of the urban curricula in African universities.

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Reaching into Africa: AAPS workshop participants visit the fishing community of Makoko, Lagos.

On the African canvas, the ACC continues to host the secretariat of the Association of African Planning Schools (AAPS), a network of 47 urban planning schools across 18 African countries that is an important foundation for the ACC's commitment to facilitating the emergence of durable urban studies institutes across the continent. During 2011, the ACC made several visits to other schools to consolidate co-operation and advise on syllabus development. Held in Lagos, Nigeria, an AAPS research workshop on informality, spatial planning, and infrastructure involved planning academics from Nigeria, Malawi, and South Africa. Further African projects include a focus on urban food security and a major initiative on the state of African city reporting. The African work of the ACC is challenging, not least logistically, but is central to forging a new mode of intellectual practice at UCT.

Practice makes perfect

With these fundamentals in place, the ACC's researchers have the capacity to become involved in a host of applied research projects that are able to try out ideas, speak to people on the receiving end of these ideas and co-produce new knowledge directed at solving entrenched urban problems. The CityLab initiative, which focuses on specific urban challenges in Cape Town and seeks to mobilise research around these, epitomises this approach. To date, CityLab projects have been launched on alcohol consumption, poverty and development, densification of the central city, climate change, health, urban children, public culture, and urban ecology.

Good houses make good people

The information yielded by these projects is rich. The Healthy Cities CityLab, for example, which is examining the relationship between the physical urban environment and health and well-being in Cape Town, is currently conducting research to determine the perceptions of health and well-being of residents in different neighbourhoods in Khayelitsha, Cape Town. Co-ordinated by Warren Smit of the ACC and Professor

DST/NRF SARCHI Chairs associated with this theme

■ Urban Policy



Professor Edgar Pieterse holds a PhD from the London School of Economics, a master's degree in Development Studies from the Institute of Social Studies (The Hague) and BA (Hons) from the University of the Western Cape. He is the holder of the SARCHI Chair in Urban Policy and directs the African Centre for Cities at the University of Cape Town. His research is wide-ranging, covering themes such as African urbanism, cultural planning, regional

development, governance, and macro development issues. He is a founder member of the Isandla Institute, serves on the boards of Magnet Theatre, the Sustainability Institute, and the Cape Town Partnership. He regularly provides advisory services to international development agencies such as: UN-Habitat, the African Development Bank, the Development Bank of SA, the Organisation for Economic Co-operation, the Development Territorial Division, and the UN Environment Programme, among others. Recently, Professor Pieterse was asked to serve on an international advisory committee for Cooper-Hewitt, the National Design Museum curating an international exhibition, Critical Mass: Design and Urbanisation.

Vanessa Watson of the School of Architecture, Planning and Geomatics, the Healthy Cities CityLab's preliminary findings confirm that there is a strong, but complex relationship between neighbourhood environments and the health and well-being of residents.

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For instance, the use of space in Khayelitsha is strongly determined by fear of crime. A typical comment made by one of the participants in the study was, “I prefer to stay in my house at all times, with the doors and burglar gate locked. I trust no one”.

Other participants, who did not live in proper houses or have adequate access to services, highlighted the importance of providing these, through participatory upgrading processes that minimise the need for relocation.

“Good houses make good people,” says one, indicating that a change in the physical environment could help to effect a change in the social environment.

“The main implication of this complexity is that social issues need to be central in processes to guide the physical creation and management of the urban environment”, says Professor Watson. “Participatory processes are essential, so that people’s real needs can be adequately met.”

It is crucial to ensure that policy makers are aware of key health issues such as health inequity levels and how the physical urban environment contributes to this, and how

interventions that would not necessarily involve more expenditure – just a different distribution of expenditure – can contribute to improving health and well-being for all.

So, explains Professor Watson, the comments of respondents suggest that attempts to make streets and public spaces safer for walking, playing and other outdoor activity in the physical urban environment will be beneficial. Possible interventions identified by the study include upgrading pavements and public spaces, improving street lighting (and ensuring that criminals cannot disconnect street lighting, as currently seems to be the case), and ensuring that there is a range of appropriate and accessible public spaces for recreation.

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Reducing the risk of violent crime through street patterns and urban designs would facilitate the creation of defensible spaces, and address high levels of fear of violent crime. Reducing traffic injuries through appropriate traffic calming measures and the provision of more appropriate pedestrian routes is also needed.

Keeping things moving

Much of this overlaps with the concerns of another multi-disciplinary research and postgraduate teaching body based in the Faculty of Engineering & the Built

Environment: the Centre for Transport Studies (CfTS). Through this centre, the university is tackling the urban crisis from the point of view of how to integrate practical and sustainable transport into the mix.

According to Herrie Schalekamp, Research Officer at the CfTS, one of the centre's key initiatives is an on-going project on paratransit operations and regulation; exploring regulatory frameworks for a hybrid public transport system in which formal and informal services (such as the minibus-taxi operators) co-exist. The researchers contend that policies recognising paratransit operators (services that supplement larger public transit systems), and seeking contextually appropriate complementarity with formalised planned services, will produce greater benefits than policies ignoring their continued existence.

Another CfTS project seeks to examine changes in travel behaviour, and specifically the possibility of increasing the use of public and non-motorised forms of transport, and kerbing the number of kilometres travelled in private vehicles. This project adopted Cape Town and

Dar es Salaam as case cities. During 2011, research activities included a review of behaviour change theories; analysing the before-and-after data of rail-based park-and-ride facilities in Cape Town; and the analysis of qualitative mobility biography survey data collected in Dar es Salaam.

Cape Town and Dar es Salaam were also the subjects of a project on city restructuring. This project, which also included Nairobi as a case city, aimed to investigate the impacts of reduced commute distance travelled by workers. The goal of this research was to assess the impact of restricted private and even public motorised travel. Research on reducing motorised commuter travel and its effects on employers was initiated in 2011.

A micro-simulation model was developed and secondary road data analysed during 2011 as part of a project on non-motorised travel and infrastructure in Cape Town. This project is focused on the safety of users of other modes of transport, and their interaction with other road users and infrastructure measures associated with 'traffic calming'.



The Centre for Transport Studies (CfTS), a multi-disciplinary research and postgraduate teaching body based in the Faculty of Engineering & the Built Environment, is tackling the urban crisis from the point of view of how to integrate practical and sustainable transport into the mix.



The ACC's CityLab initiative, which focuses on specific urban challenges in Cape Town and seeks to mobilise research around these, has contributed to urban upgrades in Khayelitsha.

Over and above current and completed research, the CFTS was also involved with external research projects. Associate Professor Marianne Vanderschuren and Rahul Jobanputra, for instance, offered research support for a road safety initiative of the Provincial Government of the Western Cape (PGWC), titled *Safely Home*. In 2011, they conducted a study of international best practices in road safety improvement and monitoring, and from these, made recommendations for improvements in the way data is collected and managed.

Towards a more sustainable future for all

From understanding the urban child, to understanding how transport systems can make or break a city, having a systemic understanding of how things fit together will make the difference in shoring up cities for the future.

The ACC's Anton Cartwright, who co-ordinated the Climate Change CityLab until recently, believes that the

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time has arrived for cities to step forward. Speaking at a Cambridge Programme for Sustainability Leadership Forum in Cape Town after the Rio+20 summit on climate change, he says that one of the big winners coming out of the summit was cities. As people realise that nation states are not going to deliver the goods on climate change, it is to cities that they are turning for solutions.

“There is a realisation that there can be no progress (on climate change mitigation) without progress in cities. That is important,” he says.

UCT researchers are at the vanguard of this movement and will continue to work to promote healthy and resilient cities that cater for all citizens.