



Proceedings from Project Workshop

“Turning Livelihoods to Rubbish?: Assessing the impacts of formalisation and technologisation of waste management on the urban poor”

Supported by the Economic and Social Research Council

17 February 2017
University of Cape Town

Prepared by Nate Millington and Kathleen Stokes

African Centre for Cities
Environmental and Geographical Science Building
University of Cape Town
Rondebosch, 7701, South Africa
nate.millington@uct.ac.za

School of Environment, Education, and Development
The University of Manchester
Oxford Rd
Manchester, UK
kathleen.stokes@postgrad.manchester.ac.uk

Introduction

This report has been developed from the proceedings of the 17 February workshop organized by the ‘Turning Livelihoods to Rubbish?’ research team and hosted by the African Centre for Cities at the University of Cape Town. The purpose of this meeting was to create connections between researchers and learn from local activists and experts. During a wide-ranging conversation that moved from the specific dynamics of research to broader questions about the nature of politics, TLR researchers explained their interests and were given suggestions about how best to conduct their projects.

Participants in the workshop included Dr. Derick Blaauw (North-Western University), Musa Chamane (groundWork), Rico Euripidou (groundWork), Dr. Linda Godfrey (Council for Scientific and Industrial Research), Dr. Melanie Samson (University of the Witwatersrand), Dr. Andreas Scheba (Human Sciences Research Council), Dr. Catherina Schenck (University of the Western Cape), Caitlin Tonkin (Sustainable Livelihoods Foundation), Dr. Kotie Viljoen (University of Johannesburg), Dr. Harro von Blottnitz (University of Cape Town), and Quinton Williams (Green Cape), alongside the TLR research team. The TLR research team consists of Dr. Henrik Ernstson (University of Cape Town / KTH Royal Institute of Technology), Dr. Mary Lawhon (Florida State University), Anesu Makina (Florida State University), Dr. Nate Millington (University of Cape Town), Kathleen Stokes (University of Manchester), and Dr. Erik Swyngedouw (University of Manchester).

Proceedings

The meeting began with a welcome and introduction by Dr. Henrik Ernstson. Prof Ernstson introduced the project and described the history of the project’s development. The TLR project is trying to understand waste in a commodity-based market economy, and understand the pressures of changing recycling on informal recyclers. He quoted the work of waste scholar Vinay Gidwani, who is concerned with the development of private recycling initiatives for, “Urban commoners who have fabricated intricate and ingenious circuits of waste recycling for income.” Prof Ernstson described the project as attempting to mediate between the already rich literature on informal livelihoods in the South African waste sector and the international trade in recycled goods. He noted that we are interested in the livelihood implications of specific state schemes and programmes.

He further noted that the project is oriented around four ongoing themes in waste management at the global level:

1. Technologisation of waste management: the use of technology and the replacement of manual labour)
2. Institutionalization of waste management (‘formalisation’; changing rules, property regimes etc. around waste; including the criminalization of reclaimers as in ‘world city syndrome’)
3. Internationalisation of waste finance (Clean Development Mechanism, CDM, etc.).
4. Community responsibility for waste management (‘cooperative governance’; e.g., enrolling residents in sorting, recycling; nurturing co-operatives with reclaimers; community-led projects, etc.)

The outputs for this project that Dr. Ernstson mentioned included:

- Policy Briefings
- Pedagogical Case Studies
 - Designed for the African Association of Planning School (AAPS), a network across over 40 African universities
- Two Stakeholder Workshops (2017, 2018)
- Regional Workshop
 - Based on Uganda & Ghana desktop studies and connected with the ongoing HICCUP Project in collaboration with Prof. Shuaib Lwasa and the Makerere University in Uganda (PI H Ernstson)
- Storytelling Exhibition
 - Linked with film-based research grant into the Visual Humanities at KTH Stockholm by Dr. J. von Heland & Dr. H Ernstson
- Peer-reviewed articles & Conference presentations

The goals for the workshop, as articulated by Dr. Ernstson, included:

- Exchange of information and networking
- Input on research direction & feedback on case studies
- Coordination across our different research projects (Wits, UoJ, NWU, UWC, UCT, etc.)
- Identify synergies and try to avoid overlap and duplication in our research with other groups
- Identify on-going policy processes and how to contribute
- Discuss how to do policy-relevant research (including outputs)

Dr. Ernstson discussed the different processes through which waste is converted into value, and gave an overview of the project's specific case studies.

Key points arising in the Discussion:

- Participants expressed excitement that the project is finally happening and bringing people together at this workshop
- Is there an underlying assumption that we want to be creating wealth and value for the urban poor? The South African government has not made an explicit statement supporting the informal sector.
 - Response: Our research funds are from the UK development agency, so our goal is to contribute research that could in the longer-term improve the livelihoods of the urban poor
- Caution that research undertaken in Cape Town and Johannesburg could struggle to be transferred to other areas of the global south, where the informal sector works in a vacuum. For instance it was mentioned that the municipal funds/resources of Cape Town would be many times bigger than in many other similarly sized African cities. This means that transferability might be difficult to argue for.

- Response: We suggest that focusing on SA—with its larger (but yet small) middle class/high consumerist class within an otherwise highly unequal society, prefigures what is likely to occur in the next decades in other Southern African countries. By studying SA, it might help us to understand forthcoming dynamics in other circumstances. We are also not trying to separate South African context from the rest of the continent, as there are lots of linkages. Having said that, it is important to recognize the problems of translation, which must be done in the context of knowledgeable stakeholders.
- Suggestion that there is a big different in the form and scale of South African waste management, and that the internationalisation of waste management is not the case (more of an internalisation/nationalisation). Propose that the trend can be seen more as an internalisation of externalities through mechanisms like Extended Producer Responsibility, driven by state and producers on a voluntary basis.
- Note that the promotion of the ‘3 R’s’ and waste hierarchy covered in the 2008 Waste Act (cleanse, collect, dispose) is different from the Municipal Systems Act. This has had a bit impact on municipalities, and what they are expected to do. For instance, municipalities are not explicitly responsibility for recycling, so there becomes an overlap in public/private obligations and activities
 - Discrepancies between different pieces of key legislation and policy need to be addressed
 - Different waste management strategies (e.g. gasification, recycling) could come into conflict, or be driven by contradictory economic and environmental logics
- Note that the formal/informal distinction is difficult to separate, but helpful for understanding how the state tries to organise the sector.
 - Suggested that institutionalisation may be a better term to use.
 - Furthermore, the tendency towards corporate specialisation risks leaving informal reclaimers completely out
 - Important to distinguish between formalisation, incorporation, and integration into the system. These processes work in different ways, and are subject to contradictory forces, when different arms of government are simultaneously trying to respond to the ‘informal’
- The project title is appreciated, as it appears to be taking a hard stance: we are concerned that changes to recycling will put people out of work.
- Athlone Waste-to-Energy project mentions: This project seems to be adhering to the waste management hierarchy, but question whether the need for materials will affect reclamation in the future. Need to look at the business case, as it involves buying waste and taking it away from landfill (and possibly recycling), so it could collapse when the market changes.
- Note that landfilling is not the cheapest option for the municipality, hence why many are looking into the 3 R’s. Economic and cost-based drivers are primary justification for considering alternatives. High technical specifications for new landfills and gate fees make recycling and diversion better option for municipalities.
 - Likewise, it is more cost effective for municipalities to take waste to a point and then sell the materials off to the private sector
 - Note that such decisions need to be approved through provincial and national treasuries, for sake of transparency.

- This plant realization was driven not by CO2 financial capital, nor ‘green’ subsidies, but based on market logic, companies that believe they can make a profit on turning waste into value. (More on this below.)
- Suggest that it would be important for the project to have a case study that shows good practice and potential, not just the messiness of what is presently happening.
 - The project could potentially consider hybrid case studies where we incorporate elements of what is possible.
 - Prof Swyngedouw noted that activism is trying to make the impossible possible, within the configuration of the existing – it is about carving out a space/discourse for the impossible
- A longstanding tension between the 3 R’s and livelihoods - potential for waste minimisation to undermine job creation efforts is a major concern.
- Note there is a battle of the formal grabbing opportunities from existing informal sector
- Curious to verify claims that Extender Producer Responsibility (EPR) schemes are creating jobs
- Suggestion that one way to see the political could be to focus on ongoing changes to which party is in control in Johannesburg.
- The potential disturbance of the fourth industrial revolution on waste (e.g. drone waste collection and 3D printing) should be considered: what sorts of high-tech solutions are really changing the nature of the recycling industry. There are opportunities for further ruptures in how we think about current practices.

Presentation by Kathleen Stokes

Kathleen Stokes discussed ongoing efforts to promote responsible citizenry and active citizenship in the South African waste sector. She discussed how these projects affect formal waste management work in the industry (amongst them, front-line workers, some organized in unions etc.). She put forth a two-pronged approach to research, which involved the understanding of the prevailing discourses of waste management at the state level alongside relationship between waste workers and their jobs/livelihoods. In order to deepen her understanding of the socio-spatial conditions of workers’ experiences, she proposed focus groups with waste workers, who will also have the opportunity to take part in a one-week photo diary exercise. This will be followed up with individual interviews, where we’ll review photos and discuss what’s been represented.

Key Points Arising in the Discussion

- Mooi River area as a potential case study for the project: A lot happening that optimizes both material recovery and the livelihoods of informal recyclers. Project was developed by local waste pickers, with aid from groundWork (who acted as a small catalyst).
- Rural areas: Nobody knows what should be done with the landfill site, and there is not really an organization that can become a facilitator or who sees themselves as a catalyst. There is a big gap in the rural areas.
- “I think it really depends on what you want to find out for your PhD and as part of the broader project.” Mooi River would be a fantastic case study for ongoing

development of waste picker integration into recycling (to be compared with ongoing programmes, one of which is top-down (Johannesburg) and the other is developed by SAWPA, Sasselberg). A third case study would be helpful, especially since we already know a lot about top-down approaches. Importance of Cape Town also highlighted: we don't know enough about Cape Town.

- Is Cape Town the site for the project? Where is the geographic focus?
- Can you do two studies? It is hard to create relationships and takes time.
 - Response by Kathleen S: Mooi River sounds fascinating, but urban questions about metabolism and contestation are important to the broader goals of the project. Does this case study help with understanding the conversation of waste into value?
- Mooi River is a good case study of the potential successes: what can we learn from SAWPA-led programmes in order to understand a potential third way approach to recycling and integration of waste pickers?
- Kathleen: Is there work or case studies that have focused on labour or the relationship between different kinds of labourers?
 - Henrik: The livelihoods of formal labourers in the waste management system are also not very secure. So what we are saying is that there has been a lot of work of those not on the payroll, but there are also many on the payroll. How does automation impact these workers? Are community response initiatives lowering the salaries of formal workers?
 - Cape Town is a good place for this research. Jozi@Work: what we haven't looked at are the ways in which all these programmes are defined under the rhetoric of empowerment as cost-cutting measures. It actually could be quite exciting to look at these spaces (that were looked at a decade ago) and focus on municipal workers and the histories. Who used to clean here? It is very much about reducing the size of the municipal workforce. Is that what you are asking? No one has actually really studied this. Important to add the formal municipal workers because they get lost.
 - A couple examples in Western Cape: Haut Bay Recycling, a coop, has taken over a formal role for the city of Cape Town in their buyback centre. Haut Bay is basically running it as a coop. In Stellenbosch, you have a large informal sector picking from a landfill, but they have put in interventions where half of these people have formal employment at a separating plant. Its very rudimentary, but there you could get an understanding of why some prefer to stay on the landfill and why some prefer more formal work. Why do some choose to be more independent? It gets at some of the social aspects. One more project: Petco is currently creating SMMEs, training people to buy waste from the informal sector. Standard buyback operation but direct engagement with informal sector. At some point they have to juggle: do we support this sort of project once we get EPR funding or do we aim for something more mechanical? Crucial to engage with institutions like Petco.
 - Unintended consequences are important, because often decisions are made without consultation with the waste pickers. The consequences can be amazing. Stellenbosch is a good example: the people decided that only 40 people should be on the landfill each day. So what happens at the moment:

some wake up at 3:00 in the morning to be there at 4:00 in the morning so they can get into the landfill site. Because it's a first come first serve business. So 40 of them will be there when the gate opens at 7:30. This is what happens when you make those decisions. Workers only have from 11 until 3, when the city starts to cover it. A lot of the waste is still there, and workers do not have time to pick certain materials that is less valuable (ie. Cardboard). We have to think of the unintended consequences.

Presentation by Nate Millington

Nate Millington focused on two aspects of ongoing institutionalisation of recycling in South Africa. He focused first on the development of curbside recycling initiatives, which he argued are a window into ongoing developments in the private recycling sector as well as a way to think about the politics at the urban landscape level. Second, he discussed plans for extended producer responsibility being implemented at the national level. In both case studies, he discussed his interest in how for-profit recycling is being developed and made profitable and what its labour configurations are. Additionally, he discussed his interest in recycling at the level of the local urban landscape, and discussed his plans to focus on the relationships between the local recycling economy, the global trade in recycled goods, and legislation at both the national and local scale.

Key points arising in the Discussion:

- Cape Town has trialled the roll out of composting bins. Over 5k bins snapped up in a week. Project is bypassing reclaimers, municipal workers, and other institutional hands.
- Two issues likely to see: only true EPR is REDISA, with PETCO coming close. This is an advanced policy instrument that advanced economies engage in, so takes a very different format/landscape in South Africa. Essentially a product tax. Would be curious to know what EPR looks like in a developing economy context, and how one integrated EPR into a developing country without infringing on livelihoods.
- Cheap labour in South Africa has been an incentive to drive the labour approach to waste management (e.g. MERFs) so there's still an opportunity to have labour upfront and then move to automation.
 - Don't be afraid of technology: this is not an either/or choice.
 - Importance of considering waste within the wider value chain (not as a silo)
 - Very little data available on employment numbers - some work done on potential jobs
- Interested in scenario around company like New Horizons Energy, who are operating without an enabling policy environment. Interesting to consider the politics that would drive that, as there isn't an enabling policy environment for building a multi-million Rand waste to energy plant
 - (Discussion among participants) Is an enabling policy environment even needed if the business model is viable? Should there be more legislation if current legislation is often contradictory? South Africa has a policy environment but it's not being enforced. If there technology exists are there other ways of driving change, than legislation? More important to consider

behaviour change and considering costs of different approaches (e.g. landfilling)

- Question about politics: once a big company has invested funding, what pressures will be inserted on municipality to shape waste management streams?
- South Africa is standing on the brink of technology solutions, but the economics don't make sense yet. The waste sector will change quite significantly in the near future, so there's an opportunity to leapfrog the mistakes of others, like the EU.
- Big problem is manufacturing no longer in South Africa. Resources of waste value change can't connect local markets, so they export to China (although even China is clamping down)
- EPR is about creating new markets and subsidising them - e.g. case of two new bottle to bottle plans being planned in each province, but this is not possible without subsidy by PETCO
 - EPR can be a force for creating new markets, but if the fee becomes so large the sector will shut down or go offshore. Then we won't have money to create induced markets
- Mentioned REDISA process evaluation: understood their contract with Minister was meant to be a job creation contract, but didn't deliver on number of jobs, so failed. Also, technology was meant to underpin job creation.

Presentation by Henrik Ernstson, Erik Swyngedouw, Mary Lawhon

Professor Swyngedouw (with assistance from Dr. Henrik Ernstson) focused on the ongoing internationalization of the waste sector in South Africa through a consideration of the relationship between clean development mechanisms and ongoing waste-to-energy initiatives. They discussed the Chloorpok Landfill in Johannesburg as one model of a potential case study, and highlighted the complex financial landscape of waste management through a focus on the relationship between Chloorpok and the Japan Climate Fun. Anesu Makina and Dr. Mary Lawhon (represented by Erik Swyngedouw) considered the development of a waste-to-energy project in Athlone, Cape Town, in order to consider the localized dynamics of converting waste into value. This case study is designed to complement the project's focus on internationalizing waste finance through a focus on the localized dynamics of waste-to-energy at the urban scale, with particular attention paid to the implications for informal recyclers.

Key points arising in the Discussion

- Not sure climate finance was a big factor for the building of the Athlone plant. Instead priority was economic and financial - schemes are seen as business opportunities, although some may benefit the environment.
 - Mention of Athlone plant in Cape Town - may have environmental benefits from carbon diversion, and considered a more sustainable approach. Some of their funding may have come from international funds too.
 - Response: About the depoliticised terrain of environmental sustainability and climate. In the past, corporate project corporate projects heavily criticised,

- difficult to have politicised argument about the environmental agenda. Who will argue with making Cape Town sustainable? (Swyngedouw)
- There isn't a need to whitewash project as sustainable right now. Also, question why CDM is the instrument we're looking at. Suggest looking into internationalisation and offshore material flows
 - H2020 project looked into keeping resources in South African economy as long as possible, until they need to be exported. Could be worth considering further.
 - Also, the informal sector is not looking at organic waste. Another interesting point.
 - Response: Wider context and political argument, with desperate attempts to keep global machinery going in a way the private sector can no longer do. Public capital value is being mobilised into a deepening process of corporatisation and internationalisation. CDM mechanism is a symbolic element that is doing this. While it might have a "down turn" now with the collapse of the CO2 market, the EU (which is an institution with huge wealth) does not want to see it fail. Thus, something is going on and what they are eyeing is a possibility to circulate capital/money to make more money through the CO2 market. The coming 5 years or so will tell and in that sense there is still a case to be made to explore this further. Nevertheless, the point that international connections to SA recycling materials is an interesting line of research. (Swyngedouw)
 - Electronic waste would be a good link between Henrik/Erik and Nate's projects. Can't compete with corporatisation in other countries
 - Response: a lot of work has already been done on e-waste (e.g. Dr. Mary Lawhon's previous work for instance)
 - Bisasar Road Landfill in Durban, used to have lots of informal workers on the site. With the introduction of CDM, workers were marginalised. A highly contested space, as workers come from informal settlement and are highly marginalised.
 - Interesting thing about Bisasar Road is the World Bank has relatively good policy regarding worker livelihoods, and stood up against what happened there.
 - Do the Japanese have any policies around what happened in their own CDM cases?
 - Important to not only follow the money, but also who benefits and is recognised.
 - Mention waste activists in Greece who struggle to be recognised, as they can only operate if articulated through the state. However, it's extremely difficult for informal groups to get through complex bureaucratic structures, so would be interesting to think about different modes of organizing for environmentally sensitive initiatives and activism (Erik)

Broader discussion:

- Question: what would we like in terms of policy? Are we focusing on municipal levels? Also, how much weight should be given to legislation?
 - Have to realise that Waste Act of 2008 wasn't a singular event. Wider norms, standards and reactions have since occurred, each interpreting the act and

negotiating who's at the table. It has been a rich 8 years of public engagement and participation.

- Waste policy and legislation created a safe space for waste businesses, by providing clarity. As such, we've seen a growth in the waste sector. However, legislation and resulting policies have become constraining in implementing the waste hierarchy - e.g. small businesses either don't grow beyond the threshold or set up several small businesses under the threshold. Suggest the government has gone overboard with policy, creating amendments to amendments...
- Land-use regulations have a cohort of different policies that don't speak to each other. Many contradict and complicate, and don't reflect the reality on the ground. Seems to be something fundamentally problematic about the way policy is being created.
- "Recycling in South Africa has grown in spite of policy, not because of it."
- Encountering this reality while developing national guidelines towards waste picker integration. Given policies put in place don't seem to affect the reality on the ground, how do devise guidelines that can actually be helpful?
- Projects implicitly assumed to speak to the contradictory terrain of policy. We presume the policy field matters in some way, but what if it doesn't? We should question the unexamined fact that policy making makes things change, and argue that other socio/political/economic changes don't exist in the field of policymaking.
- Wouldn't discount policy entirely. Also interesting to consider global shifts. For instance, a driver for this sector is the price of resources. Since 2005/6 prices have started to shift globally. Interestingly, Indonesia and South Africa's waste acts are remarkably similar.
- Idea of over-regulation and mismatch of policy and practice is common in South Africa. Many best practice policies, which are said to follow principles of equality and sustainability, but cannot be enforced on the ground. Important to consider how policies are interpreted at a local level, what mechanisms you use policies for, and what instruments are used to implement them. This can be contradictory depending where you look.
- National government wanted to create two large recycling facilities per province but had to clarify what this meant. They saw it as an opportunity to create jobs, but actually were missing the mandate of health and environmental protection.
- Believe CDM credits expired in 2012, so not sure they are still in existence today
 - Further commitment to CDM was outcome of Paris meeting. International view that climate agenda must be pushed forward, and conform to international/global market-led mechanisms. A very uncertain landscape, although the number of registered projects is growing.
 - Suggest that CDM in South Africa has gone flat since 2012. Also, haven't heard of a revival of interest since Paris, which was more about national targets. Also believe it's harder to publically claim you've reduced emissions by purchasing credits now. Don't believe international climate finance is hitting waste sector in South Africa, but energy sector.
 - Started by looking at international finance in South Africa's waste sector, have appreciated its a form of national capital. However, have found at least

a dozen CDM waste projects in South Africa. If considered in relation to active citizenship, the state is supporting these approaches. How they tap into money and what the policy framework permits are important to consider, as it can further exclude the poor. (Erik)

- This is the very reason groundWork is contesting Bisasar Road.
- Remember there is an ongoing policy process that is likely to result in significant legislative changes over the next two years, along with industry plans.
 - However, industry plans have had a number of false starts. Tyres (REDISA) have completed their plan, but the contract is coming to an end (expires in 5 years). Worth questioning whether they will let REDISA lapse or undertake another process. Expect the next call from government to be a consultation followed by a separate call for plans. Two years have been wasted already in this process.
 - Implications of industry plans: believe government will legislate a number of jobs. However, there are potentially a number of unintended consequences, and there is no ring fencing for funding. If companies won't continue to pay into associations, we could see the collapse of South Africa's recycling industry.
 - We have seen that material associations are pushing back, but this is largely shouting against thunder. Also note the money will flow through the treasury.
- For policy recommendations, the academic community often struggles to create tangible recommendations for the public and private sector. It can be difficult to translate into government.
 - Suggest trying to influence how bylaws are made and implemented. Currently a sector dominated by municipal government. However, local governments won't develop their own work, and rely on consulting firms (therefore another important audience).
 - Challenge only targeting elites, who may seek to retain the status quo. Important to know whose side we're on.
 - Media contacts important for getting waste into national dialogue. Timing for media is right, as there is a lot of attention on waste at the moment.
 - Suggest creating a collective academic voice for waste in South Africa.
 - Question what our theory of change is. The way waste pickers were recognised was through mobilisation by groundWork and SAWPA. This has resulted in deeper structures of organisation, across provinces and regions. Need to engage all stakeholders and recognise different ways of communicating with actors.
- Current standing with waste picker political organisations: different depending on location. Initially reluctant to talk, but approached groundWork after initial contact when help was needed to address situations. National meetings in 2009, 2013, 2015, and this year. Have struggled with registration for the movement, but started in 2015. Worth noting that waste pickers chose this term (as opposed to reclaimers, etc.) to identify with.
 - Only Tshwane (Pretoria) has organised at a regional level with four sites, which started before SAWPA. Have played a leading role in organising.
 - MRFs in three places in South Africa. A possible demonstration for government, to show what can be done if waste pickers can manage.

- Haven't interacted with unions formally, as still organising and fighting for recognition with government. Remember its municipal workers (SAMWU members) who are rushing to cover up waste on landfill sites. In Melanie's initial work on privatisation, SAMWU members horrified to think they had anything in common with waste pickers. Huge divisions.
 - Note that SAMWU/COSATU corruption has resulted in new split off union. Hasn't yet been registered but changes on the ground.
- Remember that groundWork/SAWPA aren't suggesting waste pickers should stay on landfill sites, but need initial place to organise and gain recognition, before moving up the value chain to MRFs and buy back centres.
- Remember we are agents of social change. Not just researching, but also engaging with different actors in waste system. Talk with people if injustice is present, and if you can help improve circumstances.
- Suggest research needed on perceptions of different actors in waste management, from users to municipal workers to waste pickers. What meaning do they ascribe to landfills, waste, and their work. What terminology and references do they employ? Guessing it is not strictly aligned with policy.
 - Also need to look into the closure of landfills - e.g. Tshwane is closing a few right now.
- Timing of the project works well with DEA consultation by Melanie, who must finish by 2019. Relying on the experiences of stakeholders, so will be holding three working groups each year. Also interested in creating an academic forum.

Conclusion

Thanks to the insights offered by workshop participants, members of the TLR team were left with a series of concrete next steps. These include:

- Continuing existing dialogues with workshop participants about specific possibilities for involvement with ongoing policy processes related to the incorporation of informal recyclers into waste management programmes at the national level, and broader shaping of waste management policies at the national level.
- Working with groundWork and the South African Waste Pickers Association to build connections with waste pickers and understand their organisational structures and political desires.
- Organising a second workshop in early 2018 to continue the conversation initiated through this project and further possibilities for collaboration.
- Developing connections with ongoing research activities across the various universities represented focused on waste.
- Continuing conversations at the academic level through further collaboration between all universities present at the workshop.

As the first workshop in what is a long-term, collaborative project in South Africa, this workshop demonstrated the importance of situating research projects and developing them in conversation. We are grateful to all the workshop participants for taking the time to come to Cape Town and share their insight with us. We hope that this workshop will be the start

of a sustained conversation, and look forward to future collaborations as our research goes forward.