Understanding urban governance: entry points for climate science to inform development decisions in Southern Africa

Dianne Scott

FRACTAL Concept Note #1
August 2017
Produced by the Decision-Making Cluster

FUTURE CLIMATE FOR AFRICA

FRACTAL
FUTURE RESILIENCE FOR AFRICAN CITIES AND LANDS

FRACTAL

FUTURE RESILIENCE FOR AFRICAN CITIES AND LANDS

FRACTAL

The Future Resilience for African Cities and Lands (FRACTAL) project aims to address the challenge of providing accessible, timely, applicable and defensible climate information that is needed by decision makers operating at the city-region scale in southern Africa. FRACTAL has been running since June 2015. It is part of the Future Climate for Africa (FCFA) multi-consortia programme. FCFA's major objective is to generate fundamentally new climate science focused on Africa, and to ensure that this science has an impact on human development across the continent. FCFA is funded by the Department for International Development (DFID) and the Natural Environment Research Council (NERC).

These knowledge products have been developed to share findings from the research in the hope of fostering dialogue and eliciting feedback to strengthen the research. The opinions expressed are therefore the author(s) and are not necessarily shared by DFID, NERC or other programme partners.

About the author

Dianne Scott — Senior Researcher: Climways and Fractal Research Programmes
African Centre for Cities

Contact details

Dianne Scott: diannescott.dbn@gmail.com

To learn more about Dianne please visit ***www.fractal.org.za****.*

AFRICAN CENTRE FOR CITIES
urbanism from an african perspective

UKaid
from the British people

NERC
SCIENCE OF THE ENVIRONMENT

Table of Contents

1. Introduction

FRACTAL is one of five large international research projects under the umbrella of FCFA that aims to explore the use of medium to long term climate information to inform development decision making in Africa. FRACTAL is the only project in the FCFA that seeks to understand the entry points for climate information in an urban context in southern Africa. In doing so it seeks to contribute to addressing the 'burning development issues' in these cities related to water and energy by both reducing disruption and damage from climate change, as well as increasing equitable access and sustainable usage of these resources in light of climate change[1]. Determining these appropriate and locally relevant potential 'entry points' for climate information requires an understanding of the urban governance arrangements in the partner cities. There are several tasks in the 'Decision-Making' research cluster that have been defined to undertake empirical research to feed into an understanding of urban governance in the FRACTAL team. The urban governance research will take place in the city regions of Lusaka, Maputo and Windhoek - Tier 1 cities.

There are many ways in which governance has been defined and theoretically framed. Since the reality of urban governance is complex and constantly changing, it is necessary to provide a theory of governance to provide a "cognitive map" or conceptual framework to understand this complexity (Castree, 2010). This concept note aims to provide an overview of the theory of governance used in the FRACTAL project, namely, the concept of the urban governance configuration which is being used to frame the FRACTAL governance research that will take place in the cities. As argued by Harvey (1989, cited in Castree, 2010, 1735) theorists try to "represent social reality in terms of a conceptual map that highlights the key topographical features, their relative positioning and their relationships". This concept note first discusses urban governance in the Anthropocene, followed by answering the question 'What is urban governance?', and then providing an understanding of the theoretical concept of an 'urban governance configuration' drawing on references in the academic literature.

2. Urban governance in the Anthropocene

It is important that the research into urban governance in the FRACTAL project is explicitly framed within the context of the Anthropocene. It is now broadly accepted that human impacts are greatly 'exacerbating and accelerating' natural environmental changes (Simon and Leck, 2015, 613). In the academic and popular literature, the Anthropocene is presented as an "unpredictable and dangerous time as humanity undermines planetary life-support systems" (Lövbrand, 2015, 214). The current literature casts the Anthropocene as a 'social' rather than natural problem placing human agency at the centre of attention (Latour, 2014a). An important and widely recognised assumption about the Anthropocene in the transition and sustainability discourses is that society and the environment can no longer be conceptualised as a society-nature binary, but rather need to be thought of as a 'socio-natural system' (Lövbrand, et al, 2015, 211).

Over the last decade and more, city governments in both in the north and south, are responding experimentally in different ways with governance mechanisms and technologies to the

1 For example, in Lusaka, water security in the informal areas of the city and within the larger system, was identified as a burning issue at the first Learning Lab in November 2016.

simultaneous social, political and environmental threats facing them (Bulkeley, 2010; Bulkeley and Castan Broto, 2013). Academics and practitioners too are responding, as the Anthropocene ushers in the issues of 'responsibility' and 'the need to be doing something' (Latour, 2014a, 4) to contribute to governing and managing cities as they propose and adopt pathways to the future through sustainable urban transformations (Hordijk et al, 2014).

FRACTAL is one of these responses, and has partnered with the Universities and the Municipal Authorities in the Tier 1 cities to work co-productively to develop the appropriate climate information to insert into relevant urban decision-making arenas and processes in order that these cities can make 'climate resilient development decisions'. However, to do this, some understanding of the governance arrangements of the cities is necessary. Since the partner cities in the FRACTAL project are in southern Africa, it is necessary to draw on another body of literature to better understand the context, dynamics and governance of African cities.

There is a growing body of literature from the field of urban studies on 'southern urbanism' which highlights the importance of understanding the 'historical, cultural, political and economic' differences between cities in the global north and the global south (Parnell and Oldfield, 2014; Simon and Leck, 2015). While many northern theories claim to explain southern cities, "urban theory must also explain political and policy dynamics at the city level, and in our view this entails building locally legible accounts that give due weight to the diversity of drivers of urban change relevant to specific urban contexts" (Parnell and Robinson, 2012, 597). Cities have also become the focus of research on urban governance as an avenue for climate change adaptation. The new urban Sustainable Development Goals (SDGs) and the New Urban Agenda, debated at Habitat III, indicate that cities will be the nexus for the achievement of all the other SDGs (Parnell, 2016). It is argued here that reference to the theory of southern urbanism, can be used in FRACTAL to inform the understanding of urban governance in southern African cities. This proposes therefore that cities are not just 'decision-making spaces' existing in a vacuum but there is a considerable weight of theory to assist us in understanding the urban governance configurations in the southern FRACTAL cities.

Throughout the urban governance literature is "the pervasive imagining of cities as integrated socio-ecological networks" (Wakefield and Braun, 2014, 4), intimately connected to global networks in which cities are both agents of change and 'vulnerable subjects' of global processes – playing out differently in different contexts[2]. The problem that has been highlighted in the literature is how to govern these urban socio-ecological systems in a purposeful way?

3. What is urban governance?

There are many definitions and theories of urban governance. Urban governance can be understood as the 'multiple ways through which city governments, business, residents, and civil society organisations interact in managing their urban space and life, nested within the context of government at other levels of government and non-state actors who are managing their space' (Gupta et al, 2016, 4).

Broto et al (2015, 572) alternatively refer to governance as 'the multiple [ways] through which

2 Background documents have been compiled from secondary and grey literature to provide a background or context for each of the Tier 1 and Tier 2 cities in FRACTAL.

diverse actors intervene in controlling and managing the city'. Essentially then, urban governance is about 'controlling and managing the city', as well as transforming the city.

In the FRACTAL project, it is specifically the governance of water, energy and climate change in relation to development that is of interest. Each city, in its own unique context, with a different set of influential actors and burning issues will display a different institutional and decision-making landscape. The concept that will be used to understand urban governance in the Fractal project is the notion of the urban governance configuration[3].

4. What is a governance configuration?

Simply put, an urban governance configuration can be understood as the governance or institutional arrangements in cities. To understand governance arrangements, we need to look at the complex arrangements of multi-scalar[4] actors and entanglements of socio-economic, political, and environmental processes shaping urban development and how they come together at a particular time and place in any city. Thus, Lusaka, Maputo and Windhoek will all have different governance configurations at any moment which is dependent on their geographical and historical contexts up to that point. The concept of the *urban governance configuration* provides a relational understanding of governance and as such is one way of understanding governance as there are other theories of governance. However, all theories of governance assume that governance depends on the multi-scalar actors involved (including their discourses and resources), their relationships and mandates, the platforms they use for engaging, and the policies and legislation and the decision-making processes that take place in the urban governance arena. More recently, theorists are beginning to include the material elements, such as technologies, in governance arrangements.

The literature shows that a *shift from government to governance* has taken place. Since the 1980s there has been a shift from top-down state decision-making to the inclusion of non-state actors in decision-making. As actors engage in decision-making arenas, it has become apparent that "a new range of political practices has emerged between the institutional layers of the state and between state institutions and societal organisations" (Hajer and Wagenaar, 2003: 1). Multiple actors, from global to local, thus interact to shape the 'rules' and processes that are needed to manage and transform cities, and not only the state actors.

Governance could therefore be defined as the many ways civil society, and public and private institutions manage and transform the space within which they live (Peyroux et al, 2014; 2017). Some authors write about a 'network' or 'map' of actors (Sørensen and Torfing, 2016) as a way of conceptualising the relations between actors. Richey and Ponte (2016) add that new actors and alliances can be observed in the range of actors engaged in city governance.

In understanding these relations between actors, it is necessary to examine the complex ensemble of power relations which are part of a governance arrangement. All actors aim to influence decisions and policy-making to fulfil their formal and informal mandates to achieve their interests (or the interests of their constituencies) and in doing so they attempt to exert power

3 This concept was originally developed and applied in the EU funded Chance 2 Sustain project (Peyroux, et al, 2014).
4 Multi-scalar governance is when international, national, regional and local actors together form part of the institutional arrangements in a city.

over other actors to shape decisions, actions and outcomes (Castells, 2000; 2011; Allen, 2011, 24). Each actor, with their own perception and understanding of the issues at hand, will argue for their interests via a specific discourse (language or vocabulary), often resulting in conflictual engagements and debates with other actors, although they may originally have come together to solve a problem (Hajer and Versteeg, 2005). Governance is therefore a very political process.

Governance configurations assemble or form in a contingent manner. However, it is argued they are to an extent purposeful in that they are formed to address specific issues in the urban context (Wakefield and Braun, 2014). Since every city has a unique historical, economic, social and environmental context, the set of multi-scalar actors that come together in decision-making processes to address specific issues within this context will differ from city to city.

The concept of an urban governance configuration is located within a social constructionist paradigm and draws from both assemblage theory and political economy (McFarlane, 2011; Brenner et al, 2011). It adopts a *relational approach* while accepting the relative 'stability' of the existing political economy, which provides a structural frame in relation to which the configuration can assemble (Buchanan, 2015; Brenner et al, 2011; Jameson and Baud, 2016). The concept of a governance configuration can be used as a heuristic device for understanding urban governance in a context, or as a framework for comparison across cities, or as a means for understanding decision-making in the city.

A governance configuration is made up of a set of elements or dimensions which can be considered separately for analytical purposes. The concept proposes that an ensemble of multi-scalar actors (institutions) and their discourses and power relations, policies and practices, resources, platforms, material technologies and infrastructure, in addition to decision-making processes come together in relation to govern urban life in different ways spatially and temporally (Wakefield and Braun, 2014, 5; Peyroux, et al 2014), and together in relation produce certain outcomes (Sutherland et al, 2015). The elements of the governance configuration are as follows.

4.1 Discourses

The discourses or language used to frame urban issues, e.g. framings of issues in the domain of economic development, water or energy and the knowledge held by actors are critical elements of a governance configuration. Discourses[5] are used by actors to argue for their interests, persuade other actors of their cause and to influence decisions taken. These discourses serve to structure the negotiations and political engagement in decision-making processes (Hajer, 2005). There may be multiple discourses that interpret a policy problem and cause 'paralysis' in the decision-making process (Laws and Rein, 2003). Laws and Rein (2003) used the concept of a 'frame', which complements that of a discourse, to refer to "a way of representing knowledge" and as an "interpretive schema that bounds and orders a chaotic situation, facilitates interpretation and provides a guide for doing and acting" (Laws and Rein, 2003, 173). The dominant discourses will be powerful in structuring the decision-making processes and the policy outcomes. For example, Sutherland et al. (2014) identify the water discourses prevalent in decision-making processes and policies in Durban, namely: 'water as an economic good';

5 This theory of discourse is drawn from the field of 'interpretive policy analysis' where qualitative methods are used to analyse policy making and implementation (Hajer and Wagenaar, 2003; Yanow, 2014). In the field of policy making, discourses are used to argue for an actor's interests, hence the term 'argumentative discourse analysis' as the method for analysing discourses in a policy context (Hajer, 1995).

'water as a social good'; and more latterly, 'water as a scarce resource'.

4.2 Actors, actor coalitions and their power relations

The *actors, actor coalitions and their power relations* are equally critical to an understanding of governance and decision-making. Governance is carried out by a diversity of actors and networks, or coalitions of actors, who act together to govern. These are assumed to be multi-sectoral, multi-scalar, and include state and non-state actors who work collaboratively to address urban issues. Of significant importance are the different forms of engagement and power relations between them (Allen, 2011; Leck and Simon 2013; Castells, 2011; Hordijk et al. 2014). Discourse coalitions are groups of actors who are aligned in that they have the same interests regarding an issue and hence 'argue' together using the same discourse. Figure 1 shows an example of the representation of actors in water governance in the eThekwini Municipality.

National and local, state and non-state actors at the Lusaka Learning Lab in September 2016, debating the city's 'burning issues'

The shift from government to governance has led to increased influence of non-state actors (business, civil society, NGOs, social movements) in decision-making. Therefore, decision-making power becomes more 'dispersed', and a range of 'knowledge claims' are presented in the deliberation over urban issues. Scientists no longer hold a privileged position for producing knowledge for policy making as the array of other actors involved in governance provide other types of knowledge which compete for inclusion, e.g. experiential and embedded technical knowledge. For this reason, the negotiation of urban outcomes is often accompanied by tension and conflict (Hajer, 1995; Hajer, 2005). It is clear that the political character of urban decision-making in the governance configuration is critical in understanding decision pathways.

4.3 Policies and institutional mandates

Policies and institutional mandates provide the architecture of a city's institutional arrangements by providing the guidelines, norms and standards embedded in policy for decision-making, and which actors have mandates to act in different domains. However, cities may lack capacity to implement policies and mandates may not be fulfilled. Policies can be thought of as institutionalised discourses.

In the southern African context where devolution of powers and responsibilities to the local city level has not been fully accomplished, many national policies provide policy frameworks

for implementation of outcomes at the city level. Thus, national actors here are very much part of local city level decision-making processes (Jordhus-Lier, n.d.). Turok (2013, 7) notes that devolution of responsibility and regulatory power to local governments is a global process that has been taking place since the 1980s. The reasons for this are to "facilitate stronger horizontal relationships and improved policy coordination across different sectoral functions of government. ...and ...external organizations in civil society". Furthermore, decentralisation brings "policy-making closer to local communities and gives citizens more influence over the process" ...and "may improve the relevance and responsiveness of public services to conditions on the ground" (Turok, 2013, 7). Thirdly, "...decentralization may help to strengthen city economies by giving urban authorities greater discretion to address their distinctive needs and opportunities through the provision of tailored infrastructure, skills and partnerships with private investors" (Turok, 2013, 7).

4.4 Materialities

The *materialities*, consisting of the *technologies and platforms* (GIS-ITC software and their products), and infrastructure (dams, pipelines, storm water drains), are increasingly important elements of the governance configuration. Actors engage through various platforms (e.g. e-governance), use a range of technologies, such as GIS software, to produce knowledge of the city which can be used in decision-making, or implement regulating technologies such as Water Management Devices (in Cape Town) or dams (in the Kafue River Catchment) to regulate the flow of water per the stipulations of a specific policy. Materiality can also be understood as specific material attributes of the city and city-region, e.g. the hydrology, climate and geography, which in themselves act as agents (Boelens et al, 2016).

4.5 Governance processes

The main governance *processes* occurring within the city or within a specific domain (e.g. in relation to water management) are those through which *decision-making* takes place: the actual ways of working. To engage for decision-making purposes, actors may meet through a platform, to engage and deliberate both 'inside the state' (e.g. monthly Council meetings, or public participation processes) and 'outside the state' (e.g. civil society meetings or protests) where the state is challenged, or in shadow spaces. These could be termed respectively 'invited spaces' and 'claimed spaces' often revealing the relationship between the state and its citizens (Hordijk et al, 2015). It is here through these processes that processes that influence is exerted on decision-making processes.

The governance literature is rich with concepts related to decision-making processes. Laws and Rein (2003) propose the concept of 'reframing'. They argue that a critical moment occurs in policy making when there is controversy about the actual problem being debated, or its solution. At this moment 'doubt' arises, "when accepted stories are challenged or events upset conventional accounts and an indeterminate situation arises which requires interpretation" (Laws and Rein, 2003, 7) and resolution. These critical moments in decision-making, when there is a 'rush for control', can result in shifts in understanding and *reframing* of the problem (Laws and Rein, 2003). It opens opportunities for ways of seeing things differently, opportunities for reframing policy options which are different to the 'authoritative narrative', and the formation of new actor coalitions.

Leck and Roberts (2015) also point to the many 'shadow spaces' in which decision-making takes place and power is exerted by actors in sites that are informal and 'invisible'. These spaces, which lie outside of formal platforms of engagement of actors, are spaces where knowledge is shared and new ideas are introduced and sustained. Informal networks are often most powerful in influencing decision-making related to policies and implementation.

While policies and institutional mandates form the architecture for urban governance, it is the *decision-making processes* that reveal the actual decision making pathways in cities – and these are not always rational or solution-oriented. These processes are driven by the competing interests, power and resources[6] of a range of multi-scalar, multi-sector actors, both state and non-state, through negotiation in multilevel policy processes. Decisions are made across the spectrum of sectors in the the municipality which relate to the social, environmental and economic development goals of the city. All actors aim to exert power through a variety of discourses to influence the decisions and policies to achieve their interests and fulfil their mandates. John Allen (2011, 24) proposes the term 'power geometries' to capture the workings of power in urban governance. The relational concept of space has been increasingly used in the governance literature to understand the multiple, multi-scalar processes that intersect in cities and the power relations between actors driving these spaces (Harvey, 1969; Soja, 1989; 1996; Massey, 2005).

The notion of a governance configuration attempts to capture these specific dimensions, which *in relation* produce a set of *outcomes* at a moment in time. What these outcomes are and what gets implemented, where and for whom, are critical questions related to vulnerability, inclusiveness and social justice (Massey, 2005; McFarlane, 2008; Sutherland et al, 2014; Sutherland et al, 2015). Governance configurations are very complex, and produce detailed understandings of how the ensemble of elements are arranged to produce an *outcome or intervention*. The actors, their discourses and knowledge and the policies they work within may be thought of as the architecture of governance. The decision-making pathways of actors can be traced via the platforms and processes of the configuration. The materialities and products are the outcomes of decision-making and are a result of the implementation of decisions made. Materialities are also the local geography and physical context of the city. If any of these changes then the governance configuration will change. This process can be understood by exploring the dynamics of these governance configurations in different domains, such as water, sanitation and housing.

The application of the governance configuration concept in FRACTAL provides the potential for an understanding of *alternative governance arrangements* that could facilitate the entry of climate science information into decision making and lead to more resilient cities and city-regions.

6 Resources include access to knowledge, human capacity to implement policies, and the control of budgets.

5. Conclusion

This concept note presents an overview of governance through the notion of a governance configuration. This concept proposes a set of elements which when considered together and *in relation to each other* provide an understanding of governance arrangements in cities. The concept is based on relational rather than causal thinking. These elements are:

1. ***The actors,*** multiple, multi-scalar actors – both state and non-state, formal and informal, and the resources and the power relations between them.
2. ***The discourses*** (language) used by actors to frame their interests in any policy arena. There may be multiple discourses that are used to argue by actors for their interests in any decision-making process. Dominant discourses will become institutionalised into policy.
3. ***Policies and institutional mandates*** which give mandates and power to actors to implement policies.
4. ***Materialities***, consisting of the ***technologies and platforms*** (GIS-ITC software and their products), and ***infrastructure*** (dams, pipelines, storm water drains) are increasingly important elements of the governance configuration.
5. ***Decision-making processes*** – the actual work done by actors through their discourses, in deliberating and debating issues and formulating policies

Together, these elements lead to the implementation of policies and outcomes, for example, the building of roads, the provision of water pipelines to carry water, and the increase of quality of life as residents receive electricity in their homes. Thus, outcomes can be material, which can then lead to social outcomes.

What next?

We can now ask what power and use does this approach have for understanding the institutional arrangements in FRACTAL?

- It is argued here that the application of the governance configuration concept has the potential to reveal the ***sticking points and moments of opportunity in decision-making pathways*** for the provision of relevant and appropriate climate information - leading to more context relevant climate and development decision-making.
- The notion of the governance configuration will demonstrate that ***southern African cities are not generic 'decision-making spaces' but display very different urban processes and realities than do cities elsewhere***, based on Southern experiences of urbanization and urban living (Barnett and Parnell, 2016, 11). It allows for an understanding of governance arrangements in specific contexts.
- And lastly, the concept ***provides a framework for exploring the city-region as a 'critical zone'*** (Latour, 2014b). According to Latour (2014b), the 'critical zone' in the Anthropocene can be any spot or area 'on the envelope of the earth's biosphere' 'which extends vertically from the top of the lower atmosphere down to the so-called sterile rocks and horizontally - which generally means across catchments'. These critical zones are conceived as areas under stress requiring a diverse array of scientists to understand, measure and monitor them in order to influence policy making and shift cities onto climate resilient pathways of development.

The bigger question is why do we want to understand governance configurations? Is it in order to make cities more climate-resilience, to shift them onto pathways of resilience or sustainability? This is the overall challenge that still needs to be mapped out - how to produce knowledge about urban governance that will promote change in southern African city-regions, and how do we measure this?

The theoretical concept of governance configurations provides the theoretical tool for answering research question 6 in FRACTAL: "What is the current urban policy and socio-institutional governance landscape in the three T1 cities, with specific relevance to the climate change, water and energy sectors?" In so doing, it can help reveal to what extent climate change knowledge forms part of the configuration and what potential there is for including it as a governance resource.

References

Allen, J. 2011. Topological twists: Power's shifting geographies. *Dialogues in Human Geography*, 1, 3, 283-298.

Barnett, C. and Parnell, S., 2016. Ideas, implementation and indicators: epistemologies of the post-2015 urban agenda. *Environment and Urbanization*, 28, 1, 87-98.

Boelens, R. Hoogesleger, J., Swyngedouw, Vos, J., and Wester, P. 2016. Hydrosocial territories, a political economy perspective. *Water International*, 41, 1, 1-14.

Brenner, N., Madden, D.J., and Wachsmuth, D. 2011. Assemblage urbanism and the challenges of critical urban theory, analysis of urban trends, culture, theory, policy, action. *City*, 15, 2, 225-240.

Buchanan, I. 2015. Assemblage theory and its discontents. *Deleuze Studies*, 9, 3, 382-92.

Bulkeley, H. 2010. Cities and the governing of climate change. *Annual Review of Environment and Natural Resources*, 35, 229-253.

Bulkeley H., and Castan Broto, V. 2013. Government by experiment? Global cities and the governing of climate change. *Transactions of the Institute of British Geographers*, 38, 3, 361-375.

Castan Broto, V.C., Macucule, D.A., Boyd, E., Ensor, J. and Allen, C., 2015. Building collaborative partnerships for climate change action in Maputo, Mozambique. *Environment and Planning* A, 47, 3, 571-587.

Castells, M. 2000. *The Rise of the Network Society*. 2d ed. Oxford, Blackwell.

Castells, M. 2011. A network theory of power. *International Journal of Communication*, 5, 773–787.

Castree, N., 2010. Neoliberalism and the biophysical environment 2: Theorising the neoliberalisation of nature. *Geography Compass*, 4, 12, 1734-1746.

Hajer, M.A., 1995. *The politics of environmental discourse: ecological modernization and the policy process*. Oxford: Clarendon Press.

Hajer, M.A., 2005. Rebuilding ground zero. The politics of performance. *Planning theory and Practice*, 6, 4, 445-464.

Hajer, M. and Versteeg, W., 2005. Performing governance through networks. *European Political Science*, 4, 3, 340-347.

Hajer, M.A. and Wagenaar, H., 2003. *Deliberative policy analysis: understanding governance in the network society*. Cambridge, Cambridge University Press.

Harvey, D., 1969. *Explanations in Geography*. London, Edward Arnold.

Harvey, D., 1989. *The condition of postmodernity: An enquiry into the origins of social change*. Malden, MA, Blackwell.

Hordijk, M., Sara, L.M. and Sutherland, C., 2014. Resilience, transition or transformation? A comparative analysis of changing water governance systems in four southern cities. *Environment and Urbanization*, 26, 1, 130-146.

Hordijk, M., Sara, L.M., Sutherland, C. and Scott, D., 2015. Participatory instruments and practices in urban governance. In Gupta, J., Pfeffer, K. Verrest, H., and Ros-Tonen, M. (Eds.) *Geographies of Urban Governance*, Springer International Publishing. 127-146.

Jameson, S. and Baud, I.S.A., 2016. Varieties of knowledge for assembling an urban flood management governance configuration in Chennai, India. *Habitat International*, 54, 112-

123.

Jordhus-Lier, D., Saaghus, A., Scott, D. and Ziervogel, G.(n.d.). Gravel platforms as 'wasteful expenditure' or pathway to housing: adaptive practices in a flood-prone informal settlement in Cape Town. Submitted to Geoforum.

Latour, B. 2014a. Anthropology at the time of the Anthropocene: a personal view of what is to be studied. Distinguished Lecture. Conference of the Association of American Anthropologists, 2014.

Latour, B., 2014b. Some advantage of the notion of 'critical zone' for geopolitics. *Procedia Earth and Planetary Science*,10, 3-6.

Laws, D. and Rein, M., 2003. Reframing practice. In, (Eds) Hajer, M.A. and Wagenaar, *Deliberative Policy Analysis: Understanding Governance in the Network Society*, Cambridge, Cambridge University Press, 172-206.

Leck, H. and Roberts, D. 2015. What lies beneath: understanding the invisible aspect of municipal climate change? *Current Opinion in Environmental Sustainability*, 13, 61-67.

Leck, H. and Simon, D., 2013. Fostering multiscalar collaboration and co-operation for effective governance of climate change adaptation. *Urban Studies*, 50, 6, 1221-1238.

Lövbrand, E. et al, 2014. Taking the human sciences seriously: Realising the critical potential of the Anthropocene, Paper presented at the ECPR General Conference, Glasgow, 6th September 2014.

Massey, D. 2005. *For space*. Los Angeles, Sage.

McFarlane, C., 2008. Urban shadows: materiality, the 'Southern city' and urban theory. *Geography Compass*, 2, 2, 340-358.

McFarlane, C. 2011. The city as assemblage: dwelling and urban space. *Environment and Planning D: Society and Space*, 29, 4, 649-671.

Parnell, S., 2016. Defining a global urban development agenda. *World Development*, 78, 529-540.

Parnell, S. and Oldfield, S. (Eds.) 2014. *The Routledge Handbook on Cities of the Global South*. New York, Routledge

Parnell, S. and Robinson, J., 2012. (Re) theorizing cities from the global South: Looking beyond neoliberalism. *Urban Geography*, 33, 4, 593-617.

Peyroux, E., Scott, D., Baud, I. S. A., and Jameson, S. 2014. Spatial knowledge management and participatory governance: Rethinking the trajectories of urban, socioeconomic and environmental change and the politics of 'sustainability' in southern cities. Final analytical framework, Chance2Sustain, EADI.

Peyroux, E., Baud, I. S. A., Scott, D and Jameson, S. 2017. Draft paper on Governance Configurations for Sustainable Cities. (Unpublished)

Richey, L.A. and Ponte, S., 2014. New actors and alliances in development. Third World Quarterly, 35, 1, 1-21.

Simon, D. and Leck, H. 2015. Urban dynamics and the challenge of global environmental change in the south, in, (Eds). Parnell, S. and Oldfield, S. *The Routledge Handbook on Cities of the Global South, London and New York*, Routledge. 613-628.

Soja, E. W. 1989. *Postmodern Geographies: The Reassertion of Space in Critical Social Theory*. London, Verso.

Soja, E. W. 1996. *Third space: Journeys to Lost Angeles and Other Real-And-Imagined Places*. Oxford, Blackwell.

Sørensen, E. and Torfing, J. (eds.) 2007. *Theories of Democratic Network Governance*. London, Palgrave MacMillan.

Sutherland, C., Hordijk, M., Lewis, B., Meyer, C. and Buthelezi, S., 2014. Water and sanitation provision in eThekwini Municipality: a spatially differentiated approach. *Environment and Urbanization*, 26, 469-488.

Sutherland, C., Scott, D. and Hordijk, M., 2015. Urban water governance for more inclusive development: A reflection on the 'waterscapes' of Durban, South Africa. *The European Journal of Development Research*, 27, 4, 488-504.

Turok, I., 2013. People-based versus place-based policies: The 2009 World Development Report. *Local Economy*, 28, 1, 3-8.

Wakefield, S. and Braun, B., 2014. Governing the resilient city. *Environment and Planning D: Society and Space*, 32, 1, 4-11.

Yanow, D., 2014. Interpretive analysis and comparative research. In, I. Engeli and C. Rothmayr, (Eds.), *Comparative Policy Studies: Conceptual and Methodological Challenges*. Palgrave Macmillan UK. 131-159.