

Social infrastructuring in Windhoek

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Note: This is the first version of the paper. The narrative is still somewhat disjointed and I did not have sufficient time to incorporate nearly all excerpts from my empirical material that I wanted, but I suppose the main points will come through.

Introduction

African cities were long seen as less well-functioning versions of their Euro-American counterparts, either evolving towards these ostensibly more developed models or having failed at getting there. In contrast, some recent work has suggested that in some ways, African cities might rather be at the forefront, displaying conditions that northern cities might increasingly face in the future (Comaroff and Comaroff 2012; Mbembe and Nuttall 2008). Such conditions include high levels of cultural diversity, growing inequality and associated securitization of urban space, securing livelihoods in a context of structural unemployment, infrastructural challenges and constant adaptation to various shortages. Despite facing many problems, African cities have generally not collapsed but somehow managed to provide a degree, if modest, of essential provision of basic needs for most of their residents (Guyer 2015). While such binary comparisons are easy to grasp and stir the imagination, they also retain the somewhat simplistic and problematic notion of modernity as something that can be positioned on an evolutionary scale (Ferguson 1999). Obviously, each city is unique, arising out of multi-factored trajectories over time. However, informed comparisons of particular aspects and phenomena do serve an important purpose, as they enrich our understanding of both particular cities and urbanity in general.

In this spirit, this paper studies social infrastructuring at the fringes of the Namibian capital, Windhoek. During South African rule in Namibia, migration within the country was strictly controlled. Namibian independence in 1990 brought freedom of movement, leading into rapid increase in rural-urban migration. Namibian cities and towns, including Windhoek, have grown rapidly and become increasingly populated by people who are unable to access formal housing due to unemployment, low incomes and lack of efficient systems of subsidized public housing. Windhoek grew from 142 000 inhabitants in 1991 to 322 000 in 2011 (Weber and Mendelsohn 2017: 15) and has been estimated to be at well over 400 000 residents by now. Shacks made up 32% of all homes in 2011, up from 3 % in 1991 (Weber and Mendelsohn 2017: 73), and the proportion has been steadily on the rise.

By social infrastructuring, I refer to the interconnectedness of particular forms of sociality and different kinds of technical infrastructures. Furthermore, the paper is informed by the conviction

that infrastructural provision is not just about the material and social conditions of meeting daily needs but also an arena where convictions about decency, authority and membership in society and the political community are played out. I argue that the need to ensure provision in situations of insufficient material and administrative infrastructures brings people together in particular ways and that the ensuing social forms in turn have effects on the reshaping of technical infrastructures and everyday governance. In the paper, I will advance this argument by exploring how people appropriate, bypass, complement and innovate infrastructural solutions and what kinds of social networks are involved. However, I will also consider how the residents interact with various authorities, such as city officials and local politicians, over infrastructural provision and what kinds of institutional consequences such efforts and interactions engender. Finally, I wish to situate the case of social infrastructuring in Windhoek in broader discussions of the characteristics of the formation of political communities and subjectivities in the southern African region over time (Guyer 1995; Ferguson 2015; Englund 2015).

The paper is based on fieldwork I carried out in 2016 and 2019, complemented by materials accumulated during numerous fieldwork periods in Namibia since the 1990s.

What is social infrastructuring?

Conventionally, infrastructure refers to the physico-technological structures and associated organizational arrangements that are essential for the functioning of societies. The concept of social infrastructures has more specifically referred to the administrative and technical solutions that provide welfare and social connectedness, such as public services (Klinenberg 2018). A contrasting and more recent conceptualization has focused on how social networks and human activity themselves serve as infrastructure, often in contexts where official infrastructure in the material and technical sense might be lacking (Simone 2004 and 2010; De Boeck 2012 and 2015; Mains and Kinfu 2017). In an effort to go beyond this dichotomy between material or technological infrastructures as 'things' and social ones as relationships and networks, I am referring to social infrastructuring as the process where the two constantly flow into each other – the interconnectedness of particular forms of sociality and different kinds of technical infrastructures.

A number of studies have examined such connections in African and other southern cities. These studies tend to focus either on the conditions that existing infrastructures set for conditions of life and access, social organization, political dynamics, structures of power, and citizenship (Anand 2017, Lemanski 2020, Hammar 2017), or on how the latter, in turn, contribute to infrastructural provision (Millington and Scheba 2020). I seek to move beyond this one-directionality (often connected with limited temporal scope) to examine processes of mutual constitution where existing infrastructural forms with their constraining tendencies, deficits and opportunities contribute to socialities and the latter in turn produce ways of using, modifying and innovating material infrastructures. To give an example, the common view of the interactions between planned urban structures and people's creative strategies of getting by is that the former precede the latter and that the latter emerge to fill the gaps and shortcomings of the former. However, also the converse can happen. In many cities around the world, whole neighbourhoods have emerged from

completely organic and informal origins that have been gradually improved by the residents and later on formalized into conventional neighbourhoods within the municipal regulatory grid.

Another entrenched dichotomy that identifies a profound aspect of African urban economies but also easily confounds the linkages highlighted above is that between formal and informal (Hart 1973; Koster and Nuijten 2016). In African cities, these actually tend to penetrate and imply each other in myriad ways. Formal institutions – such as the police (Metsola 2020a) – often operate with sets of informal norms and practices and formal infrastructures are appropriated and bent for originally unintended purposes. Likewise, ‘informal’ is not just forgotten or ostracized but there are often constant efforts towards its formalization. Originally informal structures, for example in trade, residence or transport may get official approval and become a part of planning, and resident-driven networks around provision may influence, even become a part of, the everyday governance of urban fringes. Furthermore, the concept of informality does not perform well in recognizing the systematic character of such social, cultural, political and economic arrangements that occur beyond official institutions – their patterns, norms, and rules (Blundo 2006). That being said, ‘formal’ and ‘informal’ have become a powerful social fact on the ground, used by planners, officials and residents alike in making sense of their urban environments.

While the idea of social infrastructuring is in principle applicable to all urban residents, it is much more pronounced in the lives of those who live in the precarious urban fringes. For them, provision and arrangements of infrastructure and services are a central part of their daily navigations, struggles and relations. Meanwhile, I will argue, for the propertied classes, access to infrastructure and services tends to follow much more unproblematically as it gets bundled with property ownership (Metsola 2020b). Because of this, the precarious urban fringes are prime sites for exploring social infrastructuring.

Social infrastructuring, everyday governance and political communities

Most of the studies noted above advance one or more of the following arguments: that official infrastructure provision has effects on urban residents’ inclusion and exclusion as citizens; that the lack or shortages of such provision reflect and entrench social inequalities; or, further, that the latter conditions provide a breeding ground for efforts towards autonomy and resistance (Harvey 2008; Davis 2006: 201-2; see also Sassen 2010; for critiques, see Metsola 2018; McGregor and Chatiza 2020). Clearly, access to resources and services does make divisions and inequalities within communities visible. Infrastructural neglect or lack of access are forms of inequality that have become manifest in material form (Latour 1990; Larkin 2013). However, I argue that such lacks also become interstices where forms of sociality and creative solutions grow. Infrastructural lack is never just a shortcoming or a void, because it is creatively filled in or complemented with something – DIY and coproduced solutions, bypassing of regulatory denials of access, and claims over provision. Such interstitial space is thus a breeding ground simultaneously for infrastructural innovations, for political visions and relations, and for emerging socialities.

From this perspective, I suggest that the mutually constitutive, incremental characteristics of social infrastructuring between official provision and DIY efforts stem from and further contribute to

specific understandings of political community and attendant relations between citizens and authorities. Such coproduction of infrastructures is a space that reveals the ways in which ordinary residents have political agency even without open resistance or. It can take multiple and sometimes ambivalent forms of struggles and negotiations over infrastructures between residents, governmental agencies, other organizations and authorities (Holston 2008; Bayat 2010; Metsola 2018). These, in turn, play a part in forming both everyday governance as an assemblage of interactions, provisions, regulations, authorizations and routines (Blundo and Le Meur 2008; Cornea, Véron and Zimmer 2017). At the same time, social infrastructuring contributes to urban citizenship, understood not as a legal provision but as realization of rights, belonging and access (Das 2011). Indeed, infrastructural citizenship has recently emerged as a concept closely related to what I mean by social infrastructuring. It focuses on the ways in which access to and struggles and negotiations over infrastructure reflect and in turn contribute to citizenship (Lemanski 2020; Watt 2020; see also Anand 2017; Fredericks 2018). While I feel close affinity with this idea, I also contend that not everything infrastructural is equally about citizenship. Relations involved in infrastructuring are not merely about the relationship between citizens and the state (or more specifically, national, regional and local governmental authorities) and associated rights and obligations, they are also about local, non-state configurations of sociality and power. These are obviously connected to statehood but they are not subsumed in it. Conversely, realization of citizenship depends on many other issues besides infrastructure provision; it is also about non-infrastructural political perceptions and relations that produce inclusions and exclusions. Hence, while I agree that people's relationships with infrastructure are intimately connected with citizenship, I prefer to speak about social infrastructuring as a way of acknowledging the multiple socio-political dynamics involved.

Examples of social infrastructuring in Windhoek

The situation in Windhoek is particularly well-suited for exploring social infrastructuring, as it faces the infrastructural challenges familiar from literature on African urbanities, yet is not makeshift, unpredictable and improvised to the extent stressed by some of this literature (see e.g. Simone 2004; De Boeck 2012 and 2015). Structuration and fragmentation, construction and deterioration, order and disorder, the durable and the provisional constantly mingle in these contexts.

I will give and discuss examples of social infrastructuring in its various forms, to provide glimpses into the many ways it occurs and the transactional or relational logics involved. Out of the broad array of practices of social infrastructuring, I will focus on the following: the use of social networks to access land and housing, illegal tapping of electricity, and systems of water provisioning. However, there is an additional aspect to be taken into account and that I will address to some extent. In the context of Windhoek, the people who live precariously in the urban fringes are not abandoned to carry on with their lives the best they can by the official powers. Rather, their situation is commonly seen through the lenses of one or another problem, whether of security and crime, of human dignity or of untapped economic resources. While such foci are in many ways problematic and reductionist, they also do open avenues for continuous interactions between informal residents and various authorities. Hence, the situation in Windhoek is characterized simultaneously by, first, relatively capable and ambitious legal, administrative and infrastructural authorities and, second,

acute lacks or failures of the formal infrastructural grid. The residents devise their strategies accordingly; socially networked provision of basic necessities combines with persistent demands on the municipality or 'the government' for better provision of basic services and for officially recognized tenure rights. The result is a coproduced field of infrastructure and everyday governance where official and unofficial efforts meet in numerous ways.

On the basis of my materials, it seems clear that the expansion of informal settlements is not a direct result of rural-urban migration. Rather, when people first come to the city, they usually live with relatives or friends, and later move to the informal settlements due to wanting to 'move on' in life in terms of independence, establishing a family, or trying to stake a claim to a piece of land. Theo is a case in point.¹ I first got to know him in 2003 when I was conducting research on ex-combatants and repatriated exiles. Born to exiled parents in Angola, Theo was at that time living with his aunt in a small town in northern Namibia, close to the Angolan border, doing odd jobs and farming. He travelled to Windhoek with me to stay with relatives and look for better opportunities but went back to the north after some time. As he did not find work there either, he went to stay with his grandmother in a remote area and help her with farming. After his grandmother passed, he moved back to his maternal relatives but his strained relationship with his mother led him to move again, now to his paternal relatives nearby. He had three children with different women but, as he explained, one cannot really start a family without work and a place of one's own. At the time that we reconnected in 2019, he had recently again come to Windhoek with hopes to be able to move abroad in search of better life.

So I...came to Windhoek and so and I [thought]...where should I live. And in my opinion if I go to stay with my families maybe things will be...okay at first...because you are new and they will welcome you [but then]...maybe problems will come...So I decided, no, let me ask if here there is a place I can...stay...So I ask them, they say, no, it's okay, it's fine...They are my neighbors there at north, there near the border because they are staying in Angola and you're staying you know at the border...It is open...you can move...So I told them, okay...I will come but I'll not stay for long because...I'm going out of the country.

However, these plans had not materialized over the ensuing half a year and Theo was now working as a guard on a temporary basis. He was still staying with the family who were his neighbours in the north and was referring to them as his mother and father. However, his brother (in an extended sense as their mothers are sisters) had invited Theo to build a room of his own adjacent to his house in another informal area, and he explained that this would be more proper than staying in someone else's house.

One of my brothers told me, if I want he has a place for me, if I could manage to have money...even just for six house zincs²...and I say of course I want...Our mothers, they're sisters...My mom she's after...his mother...He likes me very much...In 1995 when he heard that I arrived [from exile]...he came to visit me...And we came with a lot of...cloth[es] and...I gave him a lot of cloth[es]ing, shoes. So so that's why he likes me. So he's living with his wife, with kids, but he said, yeah...if I want I can have a space...And he is not happy because I'm far from him and [here where I am staying] they are not my family but...I feel that [they are] part of my family...If they have we share what they have, small or big, we share at home...They are nice, they are they are just like my parents, they are just like my young brother, they are 100% good...But he wants me to move...He said 'you are old now and you are just staying with [others]...It doesn't sound good. You have to move out, you have to have your own [place]'. And I said the problem is only the money...Okay I'm happy for

¹ All names of the residents are pseudonyms.

² Corrugated iron sheets that are the most common building material in the informal settlements.

that because...whenever I go out or I go back to north, I'm free to come to my to my own place...To have your own, it's better.

In the context of a pressing housing shortage, reliance on relatives for housing arrangements is common also among those who grew up in the city. Furthermore, the question of affordable housing does not merely affect those at the lowest rungs of the income ladder. Many people who would be characterized as 'middle-class' in the Namibian context also find themselves in this predicament. John grew up in the family of an entrepreneur in a relatively big house in a formal township and had graduated from university and found permanent employment. Yet he had found himself living in crowded conditions. His story also illustrates quite nicely two common phenomena: first, the way in which houses are gradually extended over time as resources permit and second, what many of my respondents referred to as 'family houses' that serve as anchors in multi-sited economies of extended families.

We had a modern house which was quite big and spacious. But...many of my father's employees were extended family members [who] also lived with us. So many of the kids stayed in one small...room because all the other rooms were occupied by family members who came from the northern part of Namibia to Windhoek...And also because of the perception of people in rural areas that they have to send their kids to school and when they come to Windhoek they have to stay with family members, we often found ourselves having to share our house with so many other family members...and sharing these resources that we have...But as we grew older...my older siblings started becoming a bit older...they then started renovating our house...Three of them had taken a loan from the bank to do that...Also the culture of leaving the house is not that much especially amongst the black community. So you stay quite a long time at home but as we grew a bit older...my eldest sister got married so she moved out and then there's this room open and my older brother moved in into this room...and my eldest brother bought his flat so he moved out, my other brother moved in, so when he moved out...the oldest person was just having this one room so the others shared normally a room. We will be like three or four in one one bedroom and you'd be sleeping with siblings...So only recently last year December were we able to finally finish off the whole renovations of the house and make it a bit modern. And my...brother was living in the room that was always passed on...And about two weeks ago he moved out...So finally I moved in into his room, so now I have my own room.

Apart from relying on relatives, when people without means to access the formal housing market seek to move on their own, their options are to rent or buy an existing shack or to occupy a new piece of land. Despite the label of informality - and illegality in the case of occupying municipal land - attached to such practices, they are actually structured in numerous ways. First, there are informal rental and selling markets. Informal plots and dwellings have a market value that is based on their current use value and their anticipated value in gaining formalized tenure rights (either through getting formalized in situ or getting relocated on a formally recognized plot elsewhere). The prices are a fraction of those of formal, serviced plots and permanent houses, but given the shortage of urban land and housing, these are considerable assets nevertheless.

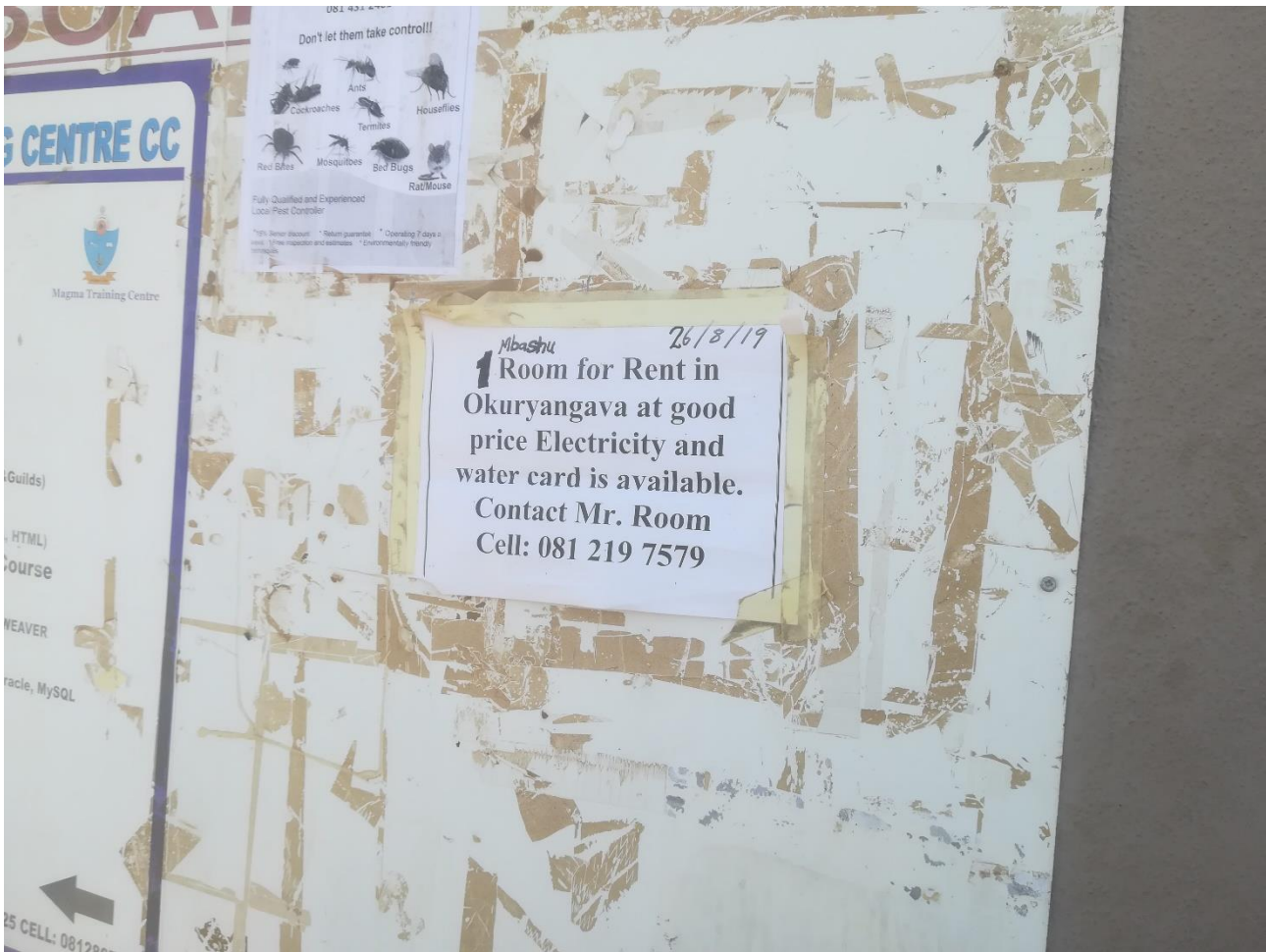


Photo 1. A rental ad for a mbashu (shack) dwelling in Windhoek, posted at the notice board of a community centre that also housed a Swapo Party office and a mobile police station. Photograph taken by the author, September 2019.

Second, trying to claim a piece of land for oneself is often eased by forms of social infrastructuring. One question related to this is where one should try to establish oneself. People often go where there are some already existing relations for them – these provide information, practical help as well as access to new relationships. For example, many of the people in Theo’s neighbourhood were originally from Ohangwena and from the adjacent area across the border in Angola, as these areas have historically formed a single cultural entity and continue to have close relations and constant interaction.

There are multiple aspects involved in claiming a site and holding on to it. The first concerns being able to establish oneself in the first place and is particularly relevant when one is trying to settle on previously unsettled or barely settled land. In such areas, efforts of grabbing land are noticeable. This moment has become particularly relevant over the past few years, after the Supreme Court ruled that the sections of the Squatters Proclamation of 1985³ that authorise the demolition of squatters’ shacks are unconstitutional without a court order (Ellinger 2015: 10–11). Since then, the City has tried to prevent new settlers from establishing themselves in the first place. Therefore one

³ Proclamation AG 21; *Official Gazette Extraordinary of South West Africa* No. 5047, 7–17.

has to move fast if one is to successfully establish oneself, often in the middle of the night and help from others comes in handy.

Another key aspect of establishing oneself on a site concerns being permitted to settle by people who already live in an area, whether local leaders or future neighbours. This is particularly relevant in areas with more established presence of informal residence. Indeed, one of the responsibilities of the local leadership system that the City has established in the informal settlements is to try to control the influx of new residents, justified by the effort to keep areas from becoming too congested. However, the means of the leaders to control the influx of newcomers are limited, as noted by many of the local leaders I communicated with. Potential new residents are quick to point out that everybody in the area is equally 'illegal' and therefore should be in no position to dictate to others whether they can settle there or not. However, apart from the idea that it is hard to try to prevent others, many also expressed the sentiment that it would not be right to do so if those who try to get land are in genuine need of a place to stay and do not try to grab land for speculative reasons.

In sum, multiple negotiations of claims as well as multiple forms of cooperation (but also conflict) are involved in arrangements of housing and land acquisition. The situation is similar in managing the provision of basic needs and trying to achieve more secure tenure, after one has initially established oneself on a site. I will give a few examples related to electricity and water.

In principle, electricity connections are only available to those on formalized plots. In practice, the situation is more complex as it is quite common for residents of informal settlements to get electricity from houses with official connections – in such settlements where houses with official electricity connections are sufficiently close. Older parts of Havana, next to the formalized township of Hakahana is one such settlement. Anna, who was a resident of Hakahana told of providing electricity to an informal household in Havana in the following way.

Lalli: How...does that tapping happen, if they want to get electricity from this house how do they get it?

Anna: We gave them privately, the municipality didn't know that we gave them electricity...otherwise we will be in trouble. So it goes through under the ground.

Lalli: How far is it?

Anna: It's very far, can you see that...shining one up there?...So they used to dig a hole going up there...in the night...If the municipality...caught us they will take electricity from us...All these houses this side, they gave also...So we are stealing, sorry to say that.

Lalli: So did they pay for that?

Anna: They don't give really money, they only [buy] the [prepaid] units [from the municipality].

Lalli: So if people are selling electricity out of their houses in that way, do they take any profit out of that for themselves or do they just charge the same amount as they will have to pay the municipality?

Anna: Like those other houses, they get profit but we don't...since those people that we gave, they are close to us, they are our neighbors at the north, we don't need to charge anything...We are friends.'

There are a few things worth noting here. First, even though a good (electricity) is exchanged here for compensation (recharging the prepaid units), the transaction is not framed as a commercial one of simply buying and selling for profit – although that is also common, according to Anna and some

others who told about electricity tapping. For Anna, the arrangement is based on a pre-existing relationship that she characterizes as friendship and that is based on shared origins in the north of the country. Additionally, such sharing of electricity is officially not permitted and carries the risk of repercussions, so trust is a necessary component of such practices.

Anna's friend Ndeshi and her brother John also lived in Havana. Their household was not tapping electricity but they knew the practice well and benefited from others' electricity supply in other ways. As they explained:

Ndeshi: If i want to charge my phone i have to go to somewhere...I go charge my phone at Anna's house...and there are some houses that have solar panels...If you have a friend who has a solar panel in the house, [they] can always help charging your phone...Some people have to dig so they get electricity from the better houses, to bring to the shacks...A lot of people have done it...Electricity, yeah, that's the main problem for us, we've been living here 22 years, no electricity, but we are now used to it.

Lalli: So...do people, when they draw those lines, cables from somebody's house there to the shack here, do they pay to the house owner?

Ndeshi: Yeah they pay, there is a certain amount that they pay, that's below a 1000 dollars, it's usually between 500 to 800 dollars, somewhere there, the lowest is 500 and then the highest is 800 dollars.

John: Once the electricity has [finished]...the owner has to call, no the electricity is finished. So then they have to contribute again, because the house owner has like...five shacks who took electricity...so this week is yours, this week is mine, the other week is hers, the other week is his, so until the end of the month. Then we start again from the first one.

Ndeshi: Yeah and the end of the month we have that fixed amount that you have to pay then throughout the month, you all have to contribute.

Lalli: But it sounds complicated, how do people know that when the [providing] house [tells that you] have eaten up your share...that that person is telling the truth?

Ndeshi: It does not matter who have used up their share...As long as the electricity is gone off, its done...She just call...there is no electricity, you have to do something.

John: Once the electricity is off, you know that this is my week, let me go and...buy electricity'

As becomes evident from this account, informal rules concerning the responsibilities and expected contributions of each party involved have evolved to govern the practices of sharing electricity. However, there is no exact system of accounting for how much each participant has benefited but rather a general economy of equal contributions and reasonable use. At the same time, it is also evident that the relationship is asymmetrical in the sense that the providers have more information than the recipients concerning electricity use and can use the dependent situation of the recipients for profit if they so wish.

While electricity can only be received through individual connections, illegal tapping or, in smaller amounts, from solar panels, water tends to be the first public service provided in new areas of informal residence, in pre-paid communal taps. In new informal areas that are still without these taps, collective systems for fetching water have emerged. However, even in areas where the communal taps have been installed, access to water is not automatic. The taps provide prepaid

water⁴ and tokens are only given to those who are ‘numbered’, i.e. recognised residents of an area, so it is possible to have to go without. However, as with electricity, there are arrangements of shared access, with more than one household sharing a water token, usually those without access to pre-paid water tokens charging the tokens of others and getting access to water in return.

The combination of shared access systems like those described above, on one hand, and demanding and pleading from authorities, on the other, is particularly clear in the case of basic service provision. For their daily existence, the residents continuously rely on systems of mutual assistance and networked provision of various kinds. However, they are simultaneously engaged in prolonged interaction with municipal officials and low-level political authorities, with the aim to receive better public services. Over time, informal areas receive more services through this process of upgrading and may eventually become formalized townships, at which stage the residents receive their own plots and individual service connections. However, this process tends to be extremely slow due to lack of funds, but according to many, also lack of capacity and political will.⁵

Another issue over which the residents interact with authorities concerns improvements in tenure security. The upgrading policy of the City has since its inception in the late 1990s been officially informed by the spirit of trying to see informal residents as rights-bearing citizens who are actively trying to improve their lives instead of lawbreakers and a problem to be controlled (City of Windhoek n.d.; 1999; 2000; 2019). In practice, such principles are constantly compromised by the persistence of rate-paying as a basis of entitlement and tendencies to stress the illegality of land occupations (Metsola 2020b). However, one should not underestimate the room that the participatory approach of upgrading has offered to informal residents to try to achieve better tenure security through an incremental, multi-faceted process of negotiating with local authorities and gradually establishing firmer basis on a site. Being a known member of the local community plays a role here, even more if one becomes active in local systems of administration or ruling party politics. So do concrete indicators of established presence, such as being a numbered (i.e. registered) resident of an area or a holder of a water-token. Eventually, this process may culminate in obtaining a certificate of occupation from the City, which grants the holder an officially recognized right of lease tenure, either on the site where the person currently resides or a relocation site.

Let me sum up the forms of social infrastructuring that occur among the residents. Different kinds of transactions are involved. Notably, most of them are not perceived as commercial exchange (in which a good or service changes hands for a standard payment) but as ‘help’ that one gives because of a close relationship with the receiver and/or recognizing the genuine need of the recipient, or as part of an established reciprocal relationship of contributions. Importantly, these arrangements are not merely about flows of goods or money. They tend to also consist of structured activities – for example coming together to accomplish an objective, or taking turns in taking care of one or another issue. People not only invest money, but also considerable time and effort in such forms of provisioning, which contributes to the way in which they structure meaningful relationships.

Such relationships play a role in organizing provision, but it also works the other way around, as old relationships are reproduced and new ones created in efforts to cater for daily needs. It is common

⁴ The rate for a kiloliter drawn from a communal water point is N\$ 28.41 (slightly under 2 USD at January 2021 rates); www.windhoekcc.org.na/documents/131_tariff_book.pdf: 5: Infrastructure, water & technical services.

⁵ I outline the upgrading policy in more detail in Metsola 2018 and 2020b.

to frame these relationships in terms of close, familial, kinship or friendship relations. It is perhaps more helpful to think of these arrangements in terms of a continuum instead of as absolutely distinct modalities. A transaction involving a one-time payment for a good or a service differs from a regular relationship between a provider and a recipient, which in turn will differ from what is offered as assistance and not requiring any immediate return (or, possibly, no return at all). Along this scale, there is movement towards increasing intensity in personal relationships, from situations of Simmel's (2010 [1903]) blasé attitude through Maussian (2002 [1925]) reciprocity of the gift to the sharing characteristic of intimate personal relationships (see also Graeber 2011: chapter 5).

Also, the scope of these activities varies. Many of them involve just a few neighbours, relatives or friends but over some concerns and in certain situations, large parts of the community come together, for example in putting forth their demands in public meetings over infrastructure and access that concern them all. And often, of course, access to resources and services also makes divisions and inequalities in the community visible. Those who are poor in material terms are often disadvantaged also in terms of cultivating supporting relationships (Tvedten 2011). For example, one resident complained in the public meeting between City of Windhoek and residents in the Mix Settlement about 10 km north of Windhoek in September 2019 that 'Mix does not have water. There are those who have [money] who bought themselves even a wheelbarrow [to fetch water from far] but we have people who drink from the riverbed.'

As I have pointed out through the paper, social infrastructuring not only occurs among the residents but also between them and various authorities. These relations tend to escape any simple dichotomy between conflict and cooperation. For example, the informal tapping of electricity is 'illegal' but in practice it is widespread and not actively controlled. To give another example, there are efforts to control land occupations through evicting newcomers and lately also fencing off areas. However, at the same time, there is what can be called coproduction of increasing tenure rights and notions of 'property' as land occupations officially deemed illegal are practically tolerated and brought under the official orbit through enumerations, waiting lists and certificates of occupation.

From one point of view, the informal residents are at the mercy of the goodwill of the authorities, as they have no few legally recognized rights to what they need. However, from another point of view, the way in which their situation is commonly perceived as an urgent problem as well as, obviously, their status as voters, places them in a position to put pressure on the authorities. Over time, their demands become part of planning processes and provision decisions, while it also works the other way around, with resident claims reflecting what the existing policies and officials' statements promise. Any advances in public provision feed expectations for more delivery in the same neighbourhood as well as for similar provision in areas that have not been yet covered. Such convergence is fed by the City policy of organizing informal residents in small groups with elected representatives as the lowest rung of the administrative machinery in the informal settlements as well as by the constant communication that occurs between the City and the residents through councillors, local leaders and public meetings.⁶

⁶ I examine these more closely in another article in preparation.

Discussion: Precarious existence and visions of a better society

What is the broader significance of the cases of social infrastructuring in Windhoek that I have discussed in this paper? I have worked here from the assumption that infrastructures should not be seen as non-human technological artefacts but as an assemblage of human and non-human components. Also, they are not neutral means to enable the functioning of society. Rather, they reflect power structures, values and ideals and in turn contribute to the remaking of the latter. From this perspective, the field of infrastructural structures and activities in Windhoek work to forge relations among the residents and between them and various authorities. I argue that the everyday governance of contemporary Namibian urbanity is largely made through the countless minute actions around infrastructural provision that the residents engage in, both among themselves and vis-à-vis the authorities. At the same time, visions of a more just society emerge.

I suggest that we can fruitfully examine infrastructure as an arena for creating obligations, which in turn serve to create relationships. Many ground-level forms of social infrastructuring rely on more or less symmetrical relationships of mutual assistance (Shipton 2014), of sharing and reciprocity between kin, friends and peers. These reflect and contribute to such models of occupying urban space and political community that are based on extended, personalized exchanges and associated sense of mutual dependencies rather than impersonal, isolated transactions with their attendant subject, the individual citizen. As anthropologists have repeatedly argued, such forms of relatedness are profoundly human. Capitalism as a socio-economic system and statehood as a form of political organization have made this profoundness hard to grasp, instead promoting a narrative of self-interested individuals formed into societies by these grand forces. Yet, capitalism and the state have nowhere eradicated ground-level organic socialities – and this would be impossible, as our very existence as humans is based on such an interactive context.

Relationships between the residents and authorities that occur around infrastructural provision also follow the model of mutual dependencies, but of a hierarchical, asymmetrical kind where recognition, respect and following of authority are exchanged for access. Infrastructural provision can be used as a means of generating allegiance that demands support as its counterpart, but at the same time such provision creates expectations that can be turned by the residents into claims where the authorities become the obligated party; and the promises they make of infra provision are as such a form of moral indebtedness.

This model of hierarchical mutual dependencies has a long history in the forms of political consolidation in the southern African region (Ferguson 2013; 2015; also see Friedman 2011 specifically for Namibia). It was characterized by a tendency to accumulate followers and their reproductive and labour power already in the pre-colonial era. The migrant labour regime of the colonial times can in some ways be seen in continuation to this, in the sense that there was demand for workers and at the same time, the state regulated access to paid labour. Such employment was desirable as a source of wealth and status in the workers' communities of origin (Siiskonen 1990; Moorsom 1997) but at the same time, generated strong resentment against the negative terms of dependency it placed on the workers at their work locations (e.g. poor conditions and restriction of rights). In a similar way, contemporary Namibian precarious urbanites resent what they see as immoral, parasitic forms of clientelist appropriation for political or material gain, while

simultaneously arguing for a benevolent, responsive and caring public authority, one that lives up to its perceived obligations towards its citizens. These issues are important as such, but I believe they may also hold important lessons for other societies and cities, including Northern ones, on how provisioning and the political community can be constructed in conditions where full employment as an organizing principle has eroded.

A noteworthy aspect of the relations of social infrastructuring in Windhoek is how kin terminology lends itself into strengthening the sense of relatedness and associated mutual obligations quite malleably (see also Spiegel 2018; Bjarnesen and Utas 2018). The more or less equal and symmetrical relationships or sharing and reciprocity between those who are considered as peers or equal come to be framed as happening between 'brothers' or 'sisters', for example.⁷ Unequal or asymmetrical relationships, in turn, such as those between bosses and workers, political leaders and their followers, or, indeed, between the government and the citizens, come to be framed in terms of hierarchical kin relations, like those between parents and children. This is a powerful way to create intimacy and sense of obligation in supposedly distant or bureaucratic relationships.

The above picture is complicated by its coexistence with a status quo of planning and economic institutions that grounds access in property ownership (Metsola 2020b). Many Namibians live bourgeois urban lives where the practices of social infrastructuring discussed in this paper do not play a significant role. Furthermore, many of those for whom they are a daily reality dream of also becoming propertied citizens and leading more independent lives. This suggests that the relationality that underpins practices of social infrastructuring is not an absolute and unchanging cultural facet. It might be more helpful to think of different cultural or moral registers, social rationalities and associated modalities of action that people resort to situationally.

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⁷ See also Moorsom (1997) on the 'brotherhood' that operated as a system of networked cooperation among contract labourers in colonial Namibia; see also Gordon 1977.

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