IAI International African Institute
UA Urban Africa

Lindsay Blair **Howe**

Extra/ordinary Johannesburg

Centrality, periphery, and the spaces between

UCLPRESS

Extra/ordinary Johannesburg

URBAN AFRICA

Series editors:
Jennifer Robinson
Jeffrey Paller

Managing editor:
Stephanie Kitchen

The Urban Africa series, jointly published by UCL Press and the International African Institute, is unique in presenting a critical, in-depth analysis of contemporary issues affecting urban environments across the African continent. Books in the series provide wide-ranging and rigorous studies of the urbanization processes shaping African contexts, and African perspectives on global urbanization. The series aims to publish books with a distinctive African-centred approach; to showcase leading scholars in African urban studies; and to offer a high-profile platform to scholars from the African continent who are under-represented in urban studies.

Extra/ordinary Johannesburg

Centrality, periphery, and the spaces between

Lindsay Blair Howe

UCL PRESS

First published in 2026 by
UCL Press
University College London
Gower Street
London WC1E 6BT

Available to download free: www.uclpress.co.uk

A CIP catalogue record for this book is available from the British Library.

ISBN: 978-1-80008-976-1 (Hbk)
ISBN: 978-1-80008-977-8 (Pbk)
ISBN: 978-1-80008-978-5 (PDF)
ISBN: 978-1-80008-979-2 (epub)
DOI: https://doi.org/10.14324/111.9781800089785

This book is dedicated to my two favorite humans: Clara and Flora.
Being your mother is my greatest joy and privilege.

Contents

List of figures

Acknowledgments

I would like to extend my most profound gratitude to the people who made this book possible. To Jennifer Robinson, Christian Schmid, and Philip Harrison: it would not exist without you. Thank you for pointing me towards fascinating places, pushing me to develop ideas, and always providing the most excellent feedback and guidance a person could ever hope for.

I am also eternally indebted to all my colleagues in South Africa for many years of fruitful collaboration. To Margot Rubin and Alexandra Parker, for all the deep questions we pursued and the methodologies we developed together in Johannesburg; to Sarah Charlton and Mohammed Suleman, for leading us to work across Gauteng and Maputo. To Graeme Götz and the Gauteng City-Region Observatory (GCRO); Mike Makwela and Planact; and Jennifer van den Bussche at Sticky Situations, without whom the volunteered geographic information (VGI) work would never have been possible. To Tanya Zack, for all your thoughtful scholarship and kindness; to Mark Lewis, for so graciously allowing me access to the most stunning images. To Thireshen Govender, for being my favorite sparring partner—and for the beautiful illustrations. And to my Shakkies, who have been the very best of friends through it all. Thank you.

Dear colleagues at the ETH Zurich and Uni Liechtenstein made the research process a joy instead of a job. I am particularly grateful to Nitin Bathla for helping me make sense of too many things to name while having fun doing it; to Metaxia Markaki and Lindsay Sawyer for sharing their sharp thinking on urbanization and peripheralization, and the deep care for one another; to Caroline Ting and the team at the Chair of Sociology for the enduring friendship. To Anna Heringer, the Martins (Rauch and Mackowitz), and Cornelia Faisst at the Urbanism & Society Research Group for inspiring everyone around them and supporting me without fail. And to Johannes Herburger—one could not wish for a more excellent colleague and friend. Cheers.

I am endlessly thankful to my family for their patient understanding while I constantly move between continents, and for tolerating me

during the writing of this book. Especially to Flora and Clara—I hope I make you half as proud as you make me every single day without fail. And to Helen and Darryl, for being my family in South Africa.

Many other people contributed materially to this work in ways I could never begin to repay. Thank you to Lucky Nkali, Tryna Mabasa, and Lesego Tshuwa for your incredible support in the field. To Charles Ginanda: you are sorely missed. Thank you to all the participants who so generously gave of their time and their stories. I hope I have done them justice.

I am also honored to be a part of forward-thinking groups of like-minded people, in particular, Hanna Hilbrandt, David Kaufmann, and Philippe Koch with urban publics Zurich (upZ); and the Bushbuckridge Synthesis Working Group "community of practice." Thank you for the scintillating conversations, and for exchanging deep concern for people, places, and theories that shaped the thinking in this book.

This book and the work behind it also would not have been possible without the support of the Swiss National Science Foundation, Volvo Research and Education Foundation, the GCRO, and a USAID-DIL grant from the University of California, Berkeley sponsored by Margaret Crawford. Nor would it have been complete without the reviews of my habilitation so generously undertaken by Owen Crankshaw and Sabine Knierbein, or the feedback from the two anonymous reviewers of the manuscript that became this book. I am so grateful to you all.

1
Introduction

The city of Johannesburg, South Africa is often associated with inequality or spoken of as the epitome of the "apartheid city." But is it the historical legacy of apartheid that warrants this reputation? Is it something about the deeply segregated way people still live today? Or is it possible that the affectionately nicknamed "Jozi" is, instead, not actually so extreme? Perhaps it is even representative of phenomena found across many contemporary cities and regions?

This book asserts that the region surrounding Johannesburg is an "ordinary" city-region,[1] in which the distinguishing characteristic of urban life is constant negotiation (see Figure 1.1). This area is locally referred to as the Gauteng City-Region (GCR). It takes its name from the Gauteng Province, in which the major urban metropolises of Johannesburg and Pretoria are located, containing an estimated population of more than 12.2 million.[2] But this number is actually larger for the GCR because its spatiality actually encompasses the functional extents of a much larger region, extending into its neighboring provinces (see Figure 1.2). In the fields of urban studies and human geography, many theories about the production of such large, highly urbanized spatial configurations describe what scholars such as French Marxist philosopher Henri Lefebvre (1901–1991) termed the *urban fabric*: physical space manifesting "daily activities and routines, the constraints and options people have in daily life, and the access to all sorts of material and social resources."[3] Urbanization, as a process that transforms space and social relations, transforms this fabric.

Urbanization also effectuates reciprocal processes of centralization and peripheralization. These processes are the compression of human activities, movements, and intentions into larger flows of materials, politics, and perceptions. Places must be navigated, produced, and inhabited, often requiring an immense amount of effort to do so. Change both

Figure 1.1 Johannesburg from the Ponte Tower in October 2024. © Lindsay Blair Howe.

presents people with opportunities and precludes them from others as they go about their everyday lives. Urbanization is therefore also a "multifaceted and contradictory processes that is simultaneously productive and destructive" as it encounters people and spaces.[4]

If Johannesburg is dramatic in anything, it is perhaps in the articulation of inequality it embodies—the sheer scale and complexity of the spaces and situations its residents must confront as they traverse it. People's movements stitch together these places along the way as they go about their lives. Analyzing these traces of individual choices and mediations therefore has significant value for understanding urbanization in this highly variegated urban region, where new centralities are continually emerging and urban life is stretched across enormous scales.

Historian and postcolonial scholar Achille Mbembe notes that societies are forged and reconfigured in the present, always a few steps ahead of any sort of "knowledge" we can generate from them. He describes how:

> as the new century unfolds, many increasingly acknowledge that there is no better laboratory than Africa to gauge the limits of our epistemological imagination or to pose new questions about how we know what we know and what that knowledge is grounded in.

> … There is no better terrain than Africa for a scholarship that is keen to describe novelty and originality, multiplicity, singularity, and complexity.[5]

In South Africa, and in particular in Johannesburg, the dramaturgy of individuals enacting their agency—how it confronts state governance and their development strategies, as well as the entrepreneurial, extractive needs of the private sector—characterizes the city-region. And in these conflicts, we see how acting with and beyond the state, or divergence from "formalized" processes, concomitantly enables opportunities through creativity, resistance, and negotiation, or—as many people I interviewed in Johannesburg usually called it—"the hustle."[6]

Figure 1.2 Extents of the Gauteng City-Region in 2017. © Lindsay Blair Howe. Base map image data: © 2018 AfriGIS (Pty) Ltd. Image Landsat / Copernicus. © 2018 Google.

But what does everyday life look and feel like? How do such social realities connect to the broader phenomena of urbanization? And is it this condition of constant negotiation, of flow, of the hustle, that puts the "Africa" in the "African city"? In approaching these questions, this book builds a narrative by looking at Johannesburg, utilizing Lefebvre's theories on the production of space, and following people in the course of their everyday lives.

The "hustle" of African cities could perhaps be juxtaposed with the Marxist concept of "struggle"—which was primarily concerned with conflict between social classes, or more specifically with the aspirations of the working class and the possibility they could unite to become a new political class, thereby overcoming their oppression and exploitation.[7] This echoes the spirit of Achille Mbembe's arguments in *Out of the Dark Night*, when he states: "If decolonization was an event at all, its essential philosophical meaning lies in *an active will to community*—as others used to speak of a will to power. This will for community is another name for what could be called the *will to life*."[8] In Johannesburg, this will to life is related to how both macro-scale and micro-scale forces shape space and social realities. And this—the struggle and everyday life—was a central concern of Henri Lefebvre.

The utility of connecting social realities to Lefebvre's theories about the production of space, in particular his concept of "spatial dialectics" between center and periphery, is why this book aims to bring urban Africa into conversation with a long-dead white theoretician from Paris. *Extra/ordinary Johannesburg* reveals how the French philosopher's assertions about the production of space remain relevant today, where they reach their limits, and how they can be further articulated by what we can observe about centrality, periphery, and all of the spaces between in this African urban region.

The chapters of this book draw from more than a decade of empirical research into the social realities of people in the GCR encompassing Johannesburg. They reflect on the way its people and the spaces they produce assemble to form a relational, geographic whole. Through deep insight into the practices and experiences of everyday life, they show how cities and regions like greater Johannesburg are more than just a sum of their parts. Individuals, and the collectives they forge, influence processes of urbanization and capital accumulation. And in Jozi, capital is not nearly as abstract as it is often portrayed in theories of economics or the social sciences. People are behind it, too; there is agency and dissensus and concession and confrontation behind how capital manifests as it "hits the ground."[9] There are not just binaries between new centralities

for capital or people and left-behind peripheries; seemingly infinite degrees of power and privilege shape the mesh-like spaces between. The urbanization processes and "urban portraits" in this book attempt to portray this region's unique attributes and distinctive characteristics.

In essence, my empirical work unpacks how people navigate and negotiate urban space as individuals, as households, and how they come together to forge this so-called "will to live."[10] If, aligned with the writings of Frantz Fanon, and by extension the South African scholar Gillian Hart, racism in South Africa was a systematic "technology of dispossession"[11]—with which to extract value from land and the human body—emerging from the "enclosure of race" involves disassembling all of the matter that enforced it.[12] The "rogue urbanism" of Edgar Pieterse and AbdouMaliq Simone, or "displaced urbanization" of South African scholars like Graeme Götz and Ngaka Mosiane, asserts the importance of scholarship originating from Africa as part of this project to reassemble concepts anew, within the persisting fabric of the existing urban.[13]

Related to this idea of reassemblage, terms like Global South or informality proposed by scholars including Ananya Roy are important contributions to the canon of urban theory because they call attention to voices and spaces that were neglected and marginalized in urban studies. Yet my empirical work in Johannesburg shows that these generalized terms risk becoming "flattening" because they cloak a wealth of much more complex phenomena driving urbanization processes. It is in this sense that my research aims to contribute to the overall projects of decentering knowledge about the urban and to decolonization—by asserting the intrinsic value of everyday life, giving a voice to the manifold forms of individual and collective agency greater Johannesburg contains, broadening thought to dispense with existing spatial and social categories—in favor of new identities grounded in self-appropriation and self-determination.

Today, from recessions to pandemics and life-altering climate events,[14] we are confronted with multidimensional aspects of inequality in the urban fabric that exacerbate the existing dynamics of center and periphery as never before.[15] Urban research increasingly indicates the importance of connecting theory with real experiences, of establishing an active dynamic between deciphering the world around us and conveying what we discover as something both distinctly tangible and broadly generalizable. In doing so, we soon reach the precipice of what we know and peer over the edge into what we are only beginning to comprehend. All of it may have implications to make life better—or make life worse—for real people.

This was certainly my own experience learning from Johannesburg. And while the conclusions presented in this book are born of this particular African city, they can be much more widely applicable.

Approaching Johannesburg

The first time I went to Johannesburg was on a redeye flight connecting through Madrid. I awoke as the sun began to rise across Southern Africa, particles of frost crystallizing along the edges of the airplane's narrow window panes. The ground below was mostly barren, intersected with the dark seams of the bush. As we traversed Botswana and entered South Africa, the land began to roll, in pronounced contrast to the angular, geometric surfaces of platinum mines that were pocketed into the edges of the hills. The mines never operated in isolation: even from the air, I could see the individual shacks of human settlements snaking outwards from these compounds. Beyond the Platinum Belt, as we approached the city of Johannesburg, the landscape began to densify in a staggering manner: mining and industrial agriculture gave way to vast swathes of single-family homes, industrial nodes, massive shopping malls, and a network of highways extending as far as the eye could see (see Figure 1.3). The plane curved east as we reached Soweto, and the entire downtown of Johannesburg lay before me, from the Nelson Mandela Bridge to the Transnet high-rise, plastered with advertisements for the Anglo-American Mining Company.

The plane landed, I disembarked, and took the Gautrain into the city center. This vibrant, pulsating downtown was the center of gravity for the entire region I had experienced in the air—although, as I learned, the region was infinitely more complex than just a geographic center and its corresponding peripheries. I spent the next decade going everywhere I could across its nearly 175-kilometer diameter, until I could recognize almost every place along the path I flew so many times between Switzerland and South Africa. Every tiny corner seemed to be part of this all-encompassing fabric that led towards Johannesburg, like a great magnet drawing metal fragments towards itself, then breaking away, always constituting itself anew.

When I took this flight, it was a year after the 2010 World Cup had rewoven the city's fabric—the Gautrain ferried tourists from the airport to the Central Business District (CBD), the Maboneng district downtown was beginning to thrive, and the dominant mantra of development was creating a "world class African city."[16] This was inherently a

Figure 1.3 The Johannesburg CBD and Soweto in February 2024. © Lindsay Blair Howe.

contentious statement: What was world class, and what would be distinctly "African" about it in Johannesburg? I had traveled on my redeye flight with my Master's thesis research partner, Vanessa Joos, a fellow architecture student at the ETH Zurich with whom I had connected on a seminar week trip to Addis Ababa, and who had previously spent several years living and working in Southern Africa. We spent months planning the trip, contacting organizations such as the Johannesburg branch of Shack/Slum Dwellers International, Planact, and the University of the Witwatersrand.[17] People from these organizations introduced us to Soweto, Alexandra, and Marlboro South. We knew little of Lefebvre, or geography, or theory. But Christian Schmid from the ETH Zurich was our thesis co-supervisor, and so we began to learn about his philosophies and about urbanization. Johannesburg always remained the lens through which to decipher what we observed.

Building on these encounters, my exploratory doctoral fieldwork, beginning a few years later in 2014, turned to uncovering the GCR's processes of urbanization.[18] It showed that one of the major forces in the region was a national mandate to deliver "mega human settlements" on the urban edge.[19] This was a measure to redress apartheid, clashing with people's own practices of making and remaking their urban

environments on their own. Mega human settlements were intended to replace the shacks broadly referred to in the South African context as "informal settlements."[20] In contrast, local government—specifically, the city of Johannesburg—favored informal settlement upgrading,[21] densification strategies for urban centralities,[22] and capital expenditure for transport infrastructure.[23] Alone in this conflict between tiers of government, it became evident that there were multiple understandings of the city, its bounds, and how to manage its spaces and people. Yet nowhere was it explicit what was "African" about any of this.

During my doctoral fieldwork between 2014 and 2017, I began to examine increasingly remote settlement areas. As my area of exploration increased, so did my need for new tools capable of grasping all of these complex, interrelated places. But most of what I did during the several months of fieldwork I undertook each year was spend time with people just going about their normal, everyday lives. I experienced so many spaces of hope and progress, and also so much tension, frustration, and intense friction, where privilege and poverty existed right alongside one another. Some of the participants I forged a strong bond with left the city, and I never heard from them again; some have since even passed away. The work was intensely personal, and it took me many years to be able to write about it.

In this book, I often reference Achille Mbembe; this is not just because he was also based at the University of the Witwatersrand and an expert on Johannesburg, but because he makes two key distinctions in contextualizing African research. First, he describes how scholars such as Paulin Hountondji (1942–) distinguish "between discourses *on* or *about* Africa that come *from* or are produced or developed *by Africans within Africa* (the study of Africa by Africans in Africa) and those coming *from outside*," acknowledging that there is no predominant consensus in Africa "about what is 'African' and what is not."[24] Second, he notes:

> It is one thing to make a normative and outside judgement on African objects without taking into account their history, their heterogeneity, or the enigma of which they are the expression. It is another to seek to grasp, through their distinctive properties, their substance and their functions, the ways of being and seeing of Africans, or gain, taking them as an intermediary, to want to learn about the metaphysical kernel on the basis of the world authored by Africans made sense to them.[25]

The tendency to treat "Africa" as an object of study, but not of knowledge production, remains pervasive in universities of the West. The

academic import of scholarship originating from Johannesburg, and the relevance of this both ordinary and extraordinary region for understandings of urbanization processes, thus cannot be overemphasized. Studying Johannesburg reveals so much about the workings of both capital and the everyday, from global geopolitics to culture, social reproduction, and individual experiences.

In Johannesburg, the forms of extractive valorization—beginning with mining—embedded into the space of the region today are built upon complex systems of social relations, in which the traces of the past continue to ripple through the present (and connect in sometimes unexpected ways). To me, it was clear from the air, from the very beginning, that this space was a paradigmatic example of *extended urbanization*,[26] in which the configuration of space itself continues to reinforce inequality, in parallel to socially constructed structural factors like race, identity, and privilege.

It also became clear through this deep engagement that Johannesburg and the greater urban region surrounding it encompassed multiple such forms of marginalization, and that the structure of space imposed a disproportionate burden on the people required to navigate incredible distances as they conducted their everyday lives. In Johannesburg, centrality is not just a geographic characteristic; rather, it is a key resource for overcoming the processes that lead to continual advantages for some social groups and perpetual disadvantages for others. Thus, the concepts of centrality and periphery in extended urban regions gradually began to form the heart of explaining what I had observed inductively.

What I learned from Johannesburg is that there is no singular "African" city—just ordinary places that can provide us with generative ideas about the alignments, entanglements, encounters, and negotiations that produce what we call the urban. These places aimed to break free of the systems that repressed them yet were fated to build something anew, as a co-constitution with the systems and cultures and sometimes even the "settlers" themselves that remained and cannot be disentangled.[27] And people's stories in these places are, often, quite extraordinary indeed.

From empirics to theory and back again

This book is a collection of places and of the social realities people experience there—out of which I try to deduce broader conclusions. I have also naturally been influenced by my contextual embeddedness with my research advisors, Christian Schmid and Philip Harrison, by their

important theoretical contributions to urban studies and spatial planning, and by my colleagues in their groups.[28] We did not all operate within the same parameters or use the same research methods; my own framework, for example, heavily relied on critical urban theory and Southern African scholarship, combined with ethnographic and geospatial data collection methods (see Chapter 3). All of us were working empirically in the Global South; almost all of us identified as female; we all had some sort of relationship to Henri Lefebvre and his theories about urbanization and social reproduction.

This section elaborates the theoretical underpinnings that frame the book, including my understanding of Lefebvre. I do not claim to be a premier expert on his scholarship, nor do I want to present a detailed discussion on historical materialism. Enough others have already done this intellectual work. I intend this section to explain how his ideas inspired me, as well as how they helped me to read Johannesburg and its urban extents, stretching into the Gauteng Province and beyond.

My research is grounded in moving between theory and practice—in the stance that, when we come from outside a place and seek to understand it, we must work empirically and inductively, in order to build authentic, new categorizations and theories without imposing them.[29] My process relies on comparing and contrasting, derived in part from the historicist-materialist dialectics of Karl Marx (1818–1883),[30] which posits that every aspect of reality also automatically generates its opposite (often referred to as a "thesis" and "antithesis"). In attempting to resolve two positions, or what is termed the *Aufhebung* (synthesis) thereof, the limitations of the thesis and antithesis are revealed, and the useful moments of an idea of theory can be preserved.

According to Marx, reality is inherently characterized by contradictions and identifying the moments in which a particular *Produktionsweise* (mode of production) becomes dominant over another is central to the evolution of history. Yet, as scholar Gillian Hart argues, this approach overly reifies the narrative of capital and can even "re-inscribe" a colonizer's model of the world[31] by neglecting what Lefebvre might refer to as "everyday life" or "the residual."[32] This includes the stories of people going about the routine activities of their lives. It is a fundamental position of the postcolonial critique that history should extend beyond the Western, white-male-centric perspective and include both cities and people who are "ordinary."[33] My work, like Hart's, asserts that these seemingly conflicting dialectics between Marxism and postcolonialism can be synthesized in a way that is "neither teleological nor totalizing."[34]

Critically reflecting upon theories as a dialectical process provides a method for resolving disparities that may, at first glance, seem to be insurmountable and can instead meld into something meaningful and new. This is also true in regard to conflicting perspectives about the value of theory and empirical research. There is a dynamic sort of tension between a theory—which by nature must be, to a certain degree, abstract and broadly generalizable—and the empirical ground upon which theory can be built, which is by nature always *specific* to a space and time.[35] Yet this is precisely what is so useful about the approaches of Lefebvre: his concepts about urbanization and the production of space can be operationalized for practice, and are also open enough that they can be built upon to further iterate theory. As Christian Schmid writes in his encompassing survey of Lefebvre's philosophies: "One should not adopt or apply Lefebvre's theory without examination, but should develop it further, in constant confrontation with social reality. What is needed is an open and creative approach to this theory."[36] My own dialectical approach and search for an *Aufhebung* aims to bridge science and practice, colligating key concepts grounded in Lefebvre[37] with key concepts from postcolonialism.[38]

One of the key figures in the Paris revolts of May 1968, Lefebvre's writings on space were dormant in much of the English-speaking world of geography and urban studies until a "third wave" of rediscovery in the early 2000s.[39] Yet they are currently experiencing another even more significant resurgence—a fourth wave—in part because, as elaborated below, his theories can be used both to observe the world around us as well as to explain why it is the way it is.

In the 1960s and 1970s, Lefebvre proposed defining the urban as a process, or something that is *produced* and continually *reproduced* by social relations. He formulated this as a "spatial trialectic."[40] Schmid summarizes Lefebvre's notion of the urban, which results from "trialectic" production of space, as follows:

> the urban is a product that emerges in the complex interplay of spatial practice, the representation of space, and spaces of representation, or perceived, conceived, and lived space. It is a differential space-time in which social differences recognise, respect, and interact with each other. The urban is a possible-impossible, a concrete utopia, a utopia that is not located in the far future or in an abstract space-time, but can become realised in everyday life, in the here and now.[41]

While this may seem quite dense—and reading Lefebvre can provoke a significant amount of head-scratching, especially in translation, as he uses many different terms to describe his phenomena that do not have the same connotations as those in the original French—he essentially purports a relational dialectic between the social and physical realities of the world around us and the "mental space" through which we draw symbolic meaning and, in turn, represent these realities.[42]

This differs from the Marxian dialectic of thesis, antithesis, and *Aufhebung* that can result in a series of arguments, counterarguments, and sublations. Lefebvre posited that there are always three dimensions. Each of the perceived, conceived, and lived spaces is like its own thesis of equal value; they presuppose one another, constantly inform one another, and cannot exist without one another.[43] But the essence of this spatial trialectic can be distilled into quite simple terms (that even students of architecture like me could comprehend): material space, regulatory space, and lived space (see Figure 1.4).

- *Material space* comprises what can be *perceived* by the senses, which Lefebvre also referred to as "spatial practices."[44] It includes the physical elements that we see around us as well as the "practices" (or human actions) that are related to them. We move through this

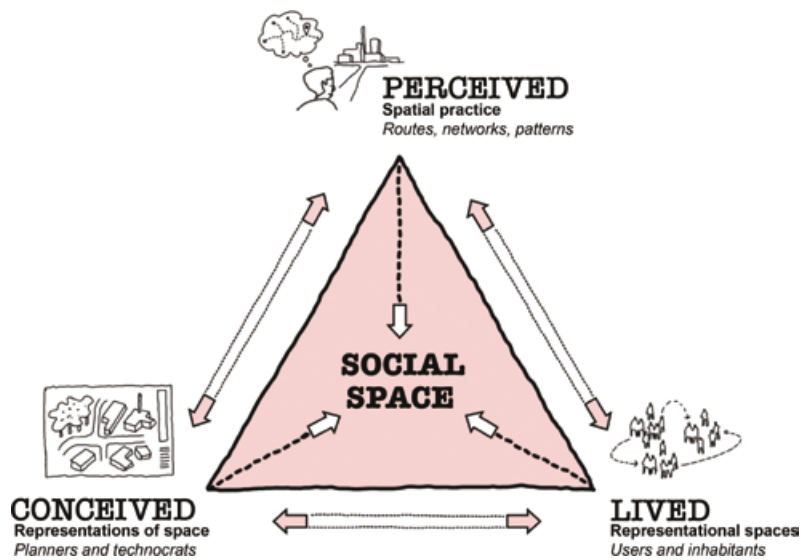

Figure 1.4 Lefebvre's conceptualization of the production of space. © Thireshen Govender.

space and have various ways of observing it. These are the tangible backbone of societies (as well as the means by which capitalism can survive, if we return to Marx): housing; infrastructure; the pathways that people take between home and work; things that we can touch and feel and smell and hear and see with all of our senses. Urbanization transforms these elements through the dialectic of center and periphery.[45] The original French term used by Lefebvre for how we move through and observe material space is *espace perçu*.

- *Regulatory space* refers to how we *conceive* of space, or how our knowledge allows us to understand, interpret, and communicate about the things we are sensing. By discussing and defining, we infuse our words with meaning and weave them into a syntax. This mental space is often the dominant mode of societies:[46] asserting control over space and modes of production through the tools of planning, such as Cartesian systems or development plans. These are the channels through which capital is distributed and are a key source from which to reflect upon state–society power relations. Urbanization transforms conceptions through the dialectic of domination and appropriation.[47] The original French term used by Lefebvre for the way we define and represent space, and the syntax we develop to do so, is *espace conçu*.
- *Lived space* or *experienced* space is the symbolism attributed to physical space. Poetry, imagination, "atmospheres," and other creative components with which we imbue an object or place with meaning occurs in this realm, according to Lefebvre. It exists both in the individual and in the collective, as in places of collective meaning like the Bastille in France. Observing lived space can allow an understanding of everyday life to emerge by moving between physical and mental space from the previous two categories.[48] Further, the forces of urbanization drive the dialectic of homogenization and differentiation,[49] in which meanings can attach to or detach from the actual forms upon which they are based. The original French term he utilizes for this atmospheric and emotional dimension of spatial association is *espace vécu*.

This act of translation and interpretation forges a link between a classically Lefebvrian theorization of space and a means of learning from the "African city."

Consider commuting on the minibus taxi system in Johannesburg as an example. Paratransit is something you can perceive: it is an object

you can touch; your body exists inside it; you sense it as it delivers you to the essential places of daily life you wish to reach. You can also conceive of it: define words to describe it, discuss policies to regulate it, planners can map its routes. You can also live it: you have feelings about this often conflict-ridden space, associations with the positive and negative experiences of ridership. Looking from these three angles allows a juxtaposition with other systems and places that has a deep regard for the ordinary human experience and for human struggle.

Lefebvre also had a word to describe the aforementioned dialectical movement between the physical world of practice and mental space of theory: *transduction*.[50] This implies the construction of a theoretical object with "incessant feedback between the conceptual framework used and empirical observations,"[51] which are capable of becoming a "general social theory and makes it possible to map, capture, and analyse the production of space *at all scales*."[52] The analysis shifts from the city, as object, to *processes of urbanization*. Thus, Lefebvre can be *operationalized* to observe a plethora of concrete phenomena—from the functioning of a public square to a planetary-wide system of extraction—while also providing the concrete tools with which to understand the phenomena as something always specific and a product of its time.

Aligned with Teresa Caldeira's calls for analytical models that can articulate general features while remaining open to transformation,[53] and Jennifer Robinson's idea of comparative tactics that allow us to formulate "generative concepts,"[54] a long-running project entitled *Patterns and Pathways of Urbanization* by Christian Schmid's research group at the ETH Zurich analyzed urban regions around the globe.[55] By comparing eight "global megacities," the project relied on many years of ethnographic research and thick descriptions of local places to identify and name processes of urban spatial change.[56] This work followed a transductive approach, investigating these eight regions with qualitative research methods and compiling empirical observations until links to theory emerged and could be visualized.

As Christian Schmid notes about his major collaborative projects on comparative and extended urbanization: "we understand urbanization as a multidimensional process that produces territories and settlements with implications for the entire planet. We also see it as part of a collective social practice that is neither inevitable nor neutral but intrinsically political."[57] Mapping was a key element of visually depicting urbanization in these projects—not in terms of a historical form, spatial structure, or specific morphology but rather as a snapshot of a particular space and time, and as a set of multi-scalar human interactions rooted in both

diachronic and synchronic analyses of the place being investigated. This approach is firmly anchored in Lefebvrian concepts.

This conceptual work is fundamental to my study of Johannesburg for two reasons. First, it provided me with a foundation for connecting the theoretical ideas of Lefebvre about the material, regulatory, and lived spaces to thick, ethnographic descriptions of the built environment. Second, it laid out how to capture and map regions as interdependent wholes, instead of spatially bounded containers delineated by municipal boundaries.

Yet despite the theoretical utility I have described, like all philosophies, Lefebvre's concepts were born of a specific place (Paris) and time (the struggles of 1968). As Schmid describes, Lefebvre "identifies the fundamental role of the state in capitalism as the equalisation of the unequal, and thus the regulation and control of the conditions of exchange."[58] Being French and Parisian was fundamental to his conceptualization of the state as the predominant actor driving the production of space. Thus, in a sense, Lefebvre was always interrogating the practices of the state and the dominion of conceived space over perceived and lived space, akin to more contemporary critiques such as "seeing like a state."[59] He discussed the "spatiality of the state" as the primary driver of territorial production,[60] and the state-led production of urban centralities—spaces of exchange, encounter, and assembly—and agency as the reactions to this spatial production.[61] Lefebvre theorized that one of the key factors determining the level of exclusion people experience is their access to these spaces of centrality.[62]

Although he visited "shantytowns" in Latin America in the 1970s,[63] Lefebvre never engaged in detail with a weak or dysfunctional state, or with the ways in which scholars like Vanessa Watson (1950–2021) have argued that high levels of mistrust between citizens and the state render normative processes of state planning—a product of conceived spaces—dysfunctional.[64] His concepts have, however, been taken up by a number of South African scholars, such as Marie Huchzermeyer, who applies his discourse on the "right to the city" to the production of informal settlements.[65] In discussing his limited engagement with such contexts, she notes that "Lefebvre argues for the right to 'town' in opposition to extreme exclusionary and segregatory measures such as those of the apartheid state, although he does not mention South Africa as such (Lefebvre, 1976[1973]: 35)" and that Lefebvre saw informal settlements, produced by people themselves, as a form of resistance to normative planning and economic dominion.[66]

"Resistance" as a category of spatial production is not very specific. It does not account for particular dynamics of place, of variances between

places, for those born of colonial legacies,[67] or of discrimination on the basis of gender and race.[68] As Stefan Kipfer and Kanishka Goonewardena so aptly describe in their 2013 paper:

> Our concern with Lefebvre's histories of city and space is not that they are rooted in European experiences or that the concepts they yielded are impossible to disentangle from these experiences (they can be). The problem is that they make it all but impossible to understand how world-wide relations (including the links between colonial and imperial cities) have overdetermined or mediated urbanization and the formation of abstract space in the modern world (including Europe).[69]

South Africa has such deeply ingrained spatial and social systems, but as mentioned above, its manifold characteristics—never only one thing—cannot be captured by imposing the kind of categories for urbanization and social processes conceived from Europe. As South African historian David Simon notes, apartheid laws "brand people at birth, thereby determining the course and location of their lives."[70]

Important particularities to Johannesburg in the post-apartheid era, for example, are the production of housing across a spectrum of owner-occupier and owner–tenant relations,[71] as well as the formation of centralities driven by people rather than by the state (see Chapter 4). In South Africa, as well as many places across the so-called Global South in postcolonial contexts—in lieu of strong and effective central states—people themselves often provide their own infrastructure in unexpected ways. This led to a spectrum of urbanization processes that reconfigured the regional-scale space of Johannesburg, which no existing theorizations and terminologies I encountered could fully explain. In this extended urban region, the dialectic between center and periphery is much more shifting, fluid, and complex than one could imagine when thinking through Paris. And its continual global embeddedness connects with the urbanization processes unfolding on a planetary scale, as Johannesburg actively seeks to promote itself among the global hierarchy of cities as a "world class African city."

In short, this book aims to do what Lefebvre himself invited us to: interrogate conceptual ideas through real places, or the "ordinary" urban fabric of the Gauteng City-Region of South Africa. It proposes reading the situation through material, regulatory, and lived aspects of space—a simple and pragmatic interpretation of Lefebvre's spatial dialectics. In the next section, I begin this work not by looking through Lefebvre

but by looking from Johannesburg, moving between theory and empirics. This process of transduction allows me to propose what a conceptualization of the African city within the framework of this book involves.

The African city is ...

How does your mind automatically fill in that blank? When you reflect again and edit your response, what does it become? We naturally tend to first think about these questions through images and stereotypes—as nuances and impressions edited upon careful consideration to become more accurate and refined. Something emerges and solidifies until we feel confident of our answer. Or we draw a blank and cannot grasp it as distinctive in any specific form at all.

So too does African urbanism resist an obvious or unified definition. It has been described as a specific form of urban dynamics—an emergent "rogue," in the words of Edgar Pieterse and AbuMaliq Simone[72]—among worldwide theories on urbanization, in which the ordinary and everyday are ascribed great value.[73] In this sense, scholars disagree as to whether Johannesburg is the quintessential African city: it is indeed different than cities on the continent that were shaped in the pre-colonial era, such as Addis Ababa or Abidjan, articulated through trade and mercantilism, or that existed as colonial and administrative capitals without significant waves of industrialization.[74] Yet compared to Cape Town—which one could persuasively argue retains more deeply entrenched divisions resulting from apartheid—Johannesburg is distinctly African in its intensity, its diversity, the rapid pace at which it was urbanized, the pressure on land and resources that resulted from this process, and its explosion of creative means of navigating the ever-changing urban, often outside the reach of the state (see Figure 1.5).

South African research, which still often dominates discussions on African urbanism, is characterized by progressive methods and addresses urgent challenges of urbanization, such as structural spatial inequality, entrenched poverty, gender disparities, and intensive youth unemployment. Returning to Achille Mbembe and the decolonial project, he defines the African city as follows:

> Radical changes go hand in hand with various other gradual and subtle shifts that are almost imperceptible, and sudden ruptures are deeply embedded in structures of inertia and the logic of routine and repetition. To account for change in such a context is

therefore to account for simultaneity, bifurcation, multiplicity, and concatenation.[75]

Using the word "concatenation" to describe how interconnected things fuse together to produce a particular result is so evocative. The negotiations of life in Johannesburg, navigating the unpredictable conditions of privilege and poverty to stake a claim to space in the city, are ephemeral and constant and necessary to survival.

Figure 1.5 Marlboro South warehouse in 2016. © Mark Lewis.

One of the most interesting things to learn from studying the urban region of Johannesburg is how people respond to and transform the urban fabric as they attempt to access resources and opportunities. As Chapters 4, 5, and 6 describe in detail, centers and peripheries are iterated in the urban fabric as distinctive, co-constituted experiences related to the embedding of capital and extraction of labor meeting people's actions. In order to overcome the ways in which they are marginalized by these processes—for example by the absence of affordable housing and infrastructure in centralities, or by historic patterns of socio-spatial segregation—people assert their own "agency" as individuals and as groups collectively. An increasing intertwining of extractive valorization and urbanization creates dependencies as various forms of agency collide.

The expulsion of the body from—or prevention of access for the body to—centrality contains aspects of both physical geography and social (infra)structure. As Mimi Sheller and John Urry have written: "travel is necessary for social life, enabling complex connections to be made, often as a matter of social (or political) obligation. … There is the proliferation of places, technologies, and 'gates' that enhance the mobilities of some while reinforcing the immobilities of others."[76] Understanding these movements underlines the ways in which those living in poverty employ what John Creswell describes as strategies "to resist, challenge, and subvert these constraints."[77]

Everyday interactions, routines, movements, and temporalities are expressions of agency in which people seek to "enlarge their space of operation."[78] How people interact, what their needs are, how this results in economic interests and the development of logical processes, and the terminologies we use to communicate about it become the objects of analysis. In "following the people"—or understanding individual choices and everyday life—the book shows how spaces with specific histories and characteristics connect to the surrounding region, and how the individual links to the greater urban region. People's social realities can actually serve to explain larger-scale phenomena without "flattening" their narratives in the process. Reading the city through their spatial practices allows us to understand why things change, or why they do not, and to what degree urban transformations unfold as we expect. Putting individual social realities at the center of analysis seems, to me, the right way to approach whatever the African city may be, with all of its "provide tangible registers of where we are and where we could go."[79]

Through the empirics of Johannesburg, it becomes evident that urbanization is something that unfolds beyond the state to a

significant degree. There is an unpredictable evolution of polycentric urban regions. Underprivileged populations, who are often marginalized as urban development takes place, are deeply ingrained in the fabric of space itself in ways that those with more resources may not be. Precarity as a result of radical change and continual uncertainty is inherent to this majority population. The plethora of ways in which agency is exercised pushes research to the limits of theorization, manifesting in a never-ending series of questions to which the answers and implications may never be definitively known. But if, as this book asserts, individual lives and livelihoods are so significant, the task lies in untangling this "hustle" and these social realities in Johannesburg, and tying these findings to the production of knowledge, to the fullest extent it can be captured.

On planetary and peripheral urbanization

As Lefebvre has become increasingly popular in English-speaking scholarship in recent years, his concepts have provided the basis for several groundbreaking theoretical innovations. One such theory is that of planetary urbanization, co-developed by Neil Brenner and Christian Schmid.[80] Building on Lefebvre's thesis that there is no longer a meaningful distinction between what is *rural* and what is *urban*—and that the planet is almost completely urbanized—planetary urbanization, as Schmid describes, "is grounded upon a basic hypothesis: that the contemporary urbanizing world cannot be adequately understood without systematically revising inherited concepts and representations of the urban."[81] As they note: "Planetary in this context does not necessarily mean interconnected globally but designates the face of being entrained within a systematic process of extraction and commodification."[82]

In yet another dialectical moment in the history of urban theory, this stood in contrast to leading proposals of the time, which were often fixated on delineating the "new urban age,"[83] and frequently conflated the urban with the administrative bounds of cities and what percentage of national populations lived within them.[84] This "debilitating city-centricity"[85] was reductive in its simplification of the urban as a characteristic of large metropolitan areas (as had already been purported as early as Georg Simmel in the early 1900s[86]), and also neglected to account for urbanization as a *process*, continually transforming and shifting. In their influential text questioning the "chaotic concept" of this alleged new urban age, Brenner and Schmid therefore called for a return

to Lefebvre and his formulation of the urban as a historical process rather than a universal form.[87]

These overarching conclusions—aimed at a general level of understanding the transformations of the urban fabric over the past several decades—were criticized in particular by some scholars in human geography. Critics asserted, to name a few key points, that planetary urbanization is too totalizing and flattening, and that it failed to adequately incorporate questions of social ontology.[88] Scholars such as Michelle Buckley and Kendra Strauss emphasized the long tradition in feminist urban scholarship of "confronting and dismantling the categories of the 'urban' and 'rural.'"[89] But despite their differences, what these perspectives actually all share is a deep concern for people and their struggles, as well as revealing what processes of capital accumulation and dispossession mean for everyday life. So while some of the strands in contemporary urban studies may initially seem like they are in conflict, when unpacking their key methods and insights, they actually have much in common.

There is an interesting intersection between planetary urbanization and postcolonial studies that, too, may initially seem disparate: how the term "periphery" is utilized. Indeed, the concepts of periphery and peripheralization are not yet well defined in the field of urban studies. There is a dynamic tension between lines of theory in which planetary urbanization is grounded, which frame a periphery in the sense of a spatial dialectic between urban centers and geographically distant peripheries,[90] and those that embrace a more socio-relational perspective: that a periphery can be anywhere and has to do with "transversal logics," subverting capital and the state.[91]

Beginning in the 1950s with urbanization in Latin America, the concept of dependency theory was developed. It encompassed what scholars such as Anibal Quijano discussed as the uneven socioeconomic development of the world on a global scale.[92] This state of existence as the "periphery of the periphery" was articulated both as a "dependency" on the West—while also considering the West's dependence on resource extraction from these global peripheries—as well as being geographically located on the urban periphery of major cities or urban areas.[93]

Building on the critiques of postcolonialism, the concept of peripheral urbanization outlined by Teresa Caldeira has led to a fruitful theoretical discourse emerging from the Global South. Caldeira outlines how "transversal" processes of urbanization driven by people contain three primary characteristics.[94] First, they do not unfold in the way planners and institutions expect (indicating different conceptualizations of what

constitutes planning). Second, they are part of capitalist logics but have "niche" results (indicating different material outcomes than expected to result from the conceptualization of planning). Finally, they can lead people to become politically active (to assert the value of their different experiences of these conceived and perceived spaces). She emphasizes that *peripheral urbanization* creates heterogeneous and highly varied cities and is a "way of producing space that can be anywhere."[95] This is a highly inspiring impulse, although the concept of the "periphery" remains open from a theoretical perspective.

To comprehend the above, this means analyzing material resources: architectural and urban elements, such as buildings, streets, and interlinkages constituting the notion of an urban fabric. *Material space* is about the body, how it moves through the world surrounding it and uses its energy to encounter and interact with elements both living and not. As Schmid describes: "For [Lefebvre] it is first and foremost the living body with its available energies that produces space."[96] He later continues: "If one follows these considerations, then basically every social relationship produces a (its) social space … If these spaces were considered in isolation, each of them would remain a mere abstraction. As concrete spaces, however, as networks, as markets, they are articulated with each other."[97] The material aspects of an urban area are really Lefebvrian derivatives of spatial practices, including the physical environment and the (movement of) bodies that produce this, as well as the rules that govern them (material and regulatory space).

Social realities entail primarily the material and lived aspects of space—for example, how people interact, what their needs are, and how this results in economic interests and the development of logical processes and "cultural values." As meanings change with time, the temporal element is key to apprehending both everyday life as well as the terminologies we use to communicate about it. For example, terms like *Global South* or *informality* were important contributions to the canon of urban theory in the early 2000s,[98] because they called attention to voices and spaces that were neglected and marginalized in urban studies.[99] But today, these generalized terms are becoming flattened, as they cloak a wealth of much more complex phenomena driving urbanization and impacting everyday life.

In order to "theorize from below"—or establish theoretical categories from more than a decade of empirical material—I returned to the dialectical method, seeking to establish insights through a series of argumentations between the specific and a general abstraction. As originally

with Marx and his dialectical materialism, social realities serve as the basis for *der Gang der Sache selbst* (the essence of the thing itself).[100]

According to the dialectical process, new concepts and terms must be proposed and be synthesized to result in something new. Similarly, one of Lefebvre's key claims in employing a spatial analysis was that it allowed concepts to grow and be continually (re)synthesized by checking them with social reality. As Christian Schmid explains:

> Lefebvre did not seek to fix or set his concepts ontologically. Instead, he explored the changing meaning, content, limits, and ultimately the conditions of the social validity of these concepts. This meant employing a double-edged procedure: the critique of concepts by practice, and the critique of practice by concepts. Theoretical abstraction thus relates to a concrete reality, to a real confrontation. This means, then, to take concepts as a guide to recognising society, or even to confront the philosophical concepts with the unphilosophical world. … the task is to confront these concepts with reality, or even immerse them into reality, and allow them to become generative.[101]

I therefore attempted to code the material derived from my corpus of multisited ethnographic research into the forces that seemed to drive processes of urbanization and peripheralization throughout the greater Johannesburg area.[102] By framing the negotiation of the urban fabric in terms of urbanization processes, I could connect the individual experience to collective processes and examine how they were expressed through and imprinted into space. It created a concrete framework for delineating how people are peripheralized, observing what kinds of resources they exploit to work with and against it, and positing what one might do to address peripheralization through planning or policy, despite and because of these contested and emerging spaces.

My method of analysis is also intended to rethink the terminologies of the discourse on poverty typically applied in Johannesburg because the way in which underprivileged areas are described relates to how they are a product of development strategies. The language of townships and "informality" is deeply embedded into South African rhetoric, although often ambiguous, as are the *de jure* and *de facto* processes of urban exclusion in the urban trajectory of greater Johannesburg. Therefore, in this work, I deliberately employ the term "underprivileged" rather than the more widespread term "informal." This word better reflects the uneven

privilege of access, resources, finance, and public consciousness that characterizes places grounded in spatial and structural inequality.[103]

In this, race is engaged with as something intersectional that strongly influences the lived experience of space (or in the case of South Africa, regulatory and material space, too). Places are imbued with different meanings, with fears, with extremely painful histories and practices. There simply is still a very strong overlap between space, race, and class in the GCR, and it does not mean the same thing to be African in Jozi as it does to be white or Indian or Coloured—the racialized categories used "cautiously" in this work,[104] as they are also still actively used by the state in policymaking.

There is a distinct territoriality to the spatialized practices of racial capital. The most intense example of this is on the regional scale, with the apartheid-era establishment of the former "homelands" and its lasting impact on people, as described in the history of the urban configuration in the next chapter and the story of Olga later in the book (see Chapter 5). There is an interstice between gender, race, and poverty that unfolds largely on the edges, in the margins and the spaces between.

Unpacking the extra/ordinary

This project follows calls by scholars like Jennifer Robinson from urban studies,[105] or Erica Simmons and Nicholas Rush Smith in political science,[106] to rethink comparison as a means of exposing shared challenges of extraction and exploitation in contexts shaped by colonial histories. Questions of specific histories—of the interstice between global capital and local agendas and the power asymmetries that result thereof, as well as how these relationships forge exciting, unanticipated results—are therefore central to the intellectual work to which this book strives to contribute.

In order to introduce Johannesburg and its surrounds more deeply, Chapter 2 presents a periodization of its historical regional dynamics and frameworks. It reveals how the patterns of apartheid were ingrained nearly from the onset of its urban history. While it began haphazardly, state strategies to facilitate the needs of the mining sector to extract resources and labor, over time, began to consolidate into a deliberate strategy for control of populations by means of spatial separation. With infusions of capital and rapidly growing populations, Johannesburg morphed into the magnetic centrality of a large, extended urban region, with the "thin oil of urbanization" described by Graeme Götz, Chris Wray,

and Brian Mubiwa weaving space into a patchwork of shifting centers and peripheries.[107] The chapter visually represents the trajectory of this urban configuration with historical maps, presented alongside depictions of contemporary urbanization processes in what is now typically referred to as the GCR. This linguistic shift from speaking of cities to speaking of a city-region is also significant, as the chapter describes.

The methods behind this work are detailed in Chapter 3. It posits a research design relying on both classic ethnographic research methods of data collection, as well as mapping analysis with volunteered geographic information (VGI). This mixed-methods design makes it possible to link micro-scale movements and choices made by people to the territory of the urban region they reproduce in the process.[108] What can be generalized out of the results is that a lack of social mobility tends to correlate with a lack of physical mobility. Repeated movements to a particular location are often a result of regular employment; highly variable patterns often indicate an increased level of precariousness in people's lives and livelihoods. Movement is so important to the experience of everyday life that it is neither plausible nor productive to implement area-based strategies for urban development. As many of the urban portraits the chapters thereafter explicate, the alleviation of poverty or shifting structural spatial inequality in a context like Johannesburg require mobile strategies and innovative approaches.

The three subsequent chapters oscillate between empirical observations from spaces considered peripheral to Johannesburg's urban centers, detailed "urban portraits" of people's lives and mobility choices in these places, and theorizations of these empirics in conjunction with Lefebvre. In these portraits, all names are changed; ages listed were those at the time of interviewing; and to improve comparability, currencies are described in both South African rand (ZAR) and U.S. dollars (USD) utilizing historic conversion rates.[109]

Chapter 4 describes the processes by which centrality emerges beyond the state, and how it can transform space over time as it presents new opportunities for people typically excluded from existing urban centers to assert agency and overcome marginalization. It details the process of toehold urbanization and presents urban portraits of Amusa in Marlboro South, Bhekumbso in Denver, and Nandi in Diepsloot. It concludes that the "right to centrality" described by Lefebvre allows us to discard the formal bounds of the city, in seeking out moments where social relations thicken through encounter and exchange, dispensing resources and opportunities through the urban region. There are

material properties of centrality, which may or may not correspond to geographic centers but are part of the rights that people claim as part of their very being urban.

Chapter 5 describes the opposite end of the dialectical process: how urban peripheries can present opportunities, primarily through the stability achieved through acquiring long-term housing. It explores the process of aspirational urbanization, which describes the "Northern Belt" of settlements extending far beyond the urban centralities of Johannesburg and Pretoria but presenting opportunities for home ownership that appeal to a particular subset of urban residents. It presents urban portraits of Amahle in Midrand and Olga in Seabe/Tembisa. The chapter describes how peripheralization, as a process, is not abstract: it is grounded in individual choices and agency; it requires people to enforce and to accept it. "Periphery" is therefore neither just about social exclusion, nor is it the opposite of centrality. What is occurring in Johannesburg is a distinctive mode of territorial production, where large-scale developments like aspirational urbanization are deliberately located and funded as part of a state-sanctioned strategy. This could also be conceptualized as state-led peripheralization.

Chapter 6 describes what is much more common than living in an urban center or periphery: that people struggle to escape their state of precariousness and expend the majority of their energy and resources on attempting to do so in the spaces between. Freedom of choice in where to live or the possibilities of income generation are often an illusion. This characterizes the vast majority of the urban fabric—which is neither a center, nor a periphery, but rather is an in-between space that resists simple categorization. The territory of the GCR is less a region of cities traversed by a series of central axes; rather, it is a complex "peripheral mesh" of trajectories between places of home, work, and family extending far beyond urban and regional areas. The chapter describes the processes of urbanization that mark much of this peripheral mesh. It also engages with an interpretation of the territory as mobile and multisited, determined not just by capital flows but by people conducting the routine activities of their everyday lives. This is depicted in the urban portraits of Behati in Sol Plaatje, Kamohelo in Finetown, and Elrose in Protea South.

The chapters in this book are a synthesis of empirical, ethnographic research involving deep observation of and conversations about people's alignments, entanglements, negotiations, and struggles throughout the greater region, which produce the material, regulatory, and lived spaces of Johannesburg. The concluding chapter posits that the same process can be done with theory—building it from the ground up, from

this very ordinary yet also exceptional, extraordinary African city. The openness of Henri Lefebvre's theories on spatial dialectics allows it to be greatly enriched by complex contexts like Johannesburg, where there are many inflections of center and periphery stretched across large spaces in between these poles, situating people's everyday lives at the heart of theoretical constructs.

Notes

1. Robinson, J (2016) Thinking Cities through Elsewhere: Comparative Tactics for a More Global Urban Studies. *Progress in Human Geography* 40(1): 3–29.
2. The most recent census data collection occurred in 2022, after years of delay related to the Covid-19 global pandemic. At the time of printing, census data was still being analyzed. Preliminary results on the municipal and district levels were available through Statistics South Africa online: https://www.statssa.gov.za/.
3. Schmid, C, Karaman, O, Hanakata, N, Sawyer, L, Streule, M, Wong, KP, Kallenberger, P, and Kockelkorn, A (2018) Towards a New Vocabulary of Urbanization Processes: A Comparative Approach. *Urban Studies* 55(1): 20–52, p. 29.
4. Schmid, C and Topalovic, M (eds) (2023) *Extended Urbanisation: Tracing Planetary Struggles*. Basel: Birkhäuser, p. 10.
5. Mbembe, A (2021) *Out of the Dark Night: Essays on Decolonization*. New York: Columbia University Press, p. 12.
6. Compare to de Boeck, F (2016) *Suturing the City: Living Together in Congo's Urban Worlds*. London: Autograph ABP; or Kihato, CW (2013) *Migrant Women of Johannesburg: Everyday Life in an In-between City*. Johannesburg: Wits University Press.
7. See, for example, Katz, CJ (1993) Karl Marx on the Transition from Feudalism to Capitalism. *Theory and Society* 22(3): 363–389; or Wallerstein, I (1976) From Feudalism to Capitalism: Transition or Transitions? *Social Forces* 55(2): 273–283.
8. Mbembe (2021), pp. 2–3, emphasis by the author.
9. The term refers to the work of Sandro Mezzadra and Brett Neilson, for example the 2019 publication *The Politics of Operations: Excavating Contemporary Capitalism*. Thank you to Melusi Nkomo for introducing me to this source, as well as to Joschka Proksik for our great discussions about urbanization and extractivism.
10. The term "community" is viewed critically in many of the design fields but is quoted here from the source.
11. Mbembe (2021), p. 53. See also Hart, G (2002) *Disabling Globalization: Places of Power in Post-Apartheid South Africa*. Berkeley, CA: University of California Press.
12. Mbembe (2021), p. 62.
13. As described by South African scholars such as Colin Murray as early as the 1980s or by Paula Meth and her colleagues. See: Meth, P, Goodfellow, T, Todes, A, and Charlton, C (2021) Conceptualising African Urban Peripheries. *International Journal of Urban and Regional Research* 45(6): 985–1007. See also Mosiane, N and Götz, G (2022) Displaced Urbanisation or Displaced Urbanism? Rethinking Development in the Peripheries of the GCR. *GCRO Provocation* #08, Gauteng City-Region Observatory, April 2022. https:/doi.org/10.36634/SVRW2580.
14. Borunda, A (2021) The Origins of Environmental Justice—and Why It's Finally Getting the Attention it Deserves. *National Geographic*, February 24. Available at: https://www.nationalgeographic.com/environment/article/environmental-justice-origins-why-finally-getting-the-attention-it-deserves (accessed July 20, 2025).
15. Beall, J, Crankshaw, O, and Parnell, S (2002) *Uniting a Divided City. Governance and Social Exclusion in Johannesburg*. Sterling: Earthscan, 29–42.
16. Götz, G and Seedat, R (2006) Johannesburg: A World Class African City. In D Sudjic (ed.) *Johannesburg: Challenges of Inclusion*. Available at: https://urbanage.lsecities.net/essays/johannesburg-a-world-class-african-city (accessed July 20, 2025).
17. Profound thanks are extended to all of my collaborators and partners. To Christian Schmid, Philip Harrison, Jennifer Robinson, Jennifer van den Bussche, Lucky Nkali, Mike Makwela,

Fred Kumbiza, and Jhono Bennett: thank you for leading me to so many interesting places and people in Johannesburg.

18. Chapter 3 presents my research design and these methods in detail. The research began with a year-long Master's thesis research and design project in 2011, entitled "Post-Apartheid Urbanism," conducted with Vanessa Joos. Doctoral research was conducted under the supervision of Christian Schmid, Philip Harrison, and Lutz Wingert from 2014–2017, and financed by Swiss National Science Foundation grant number P1EZP1_155523, USAID, a USAID DIL-Explore Award Grant entitled "Smartphone Ethnography for Development," and a Sawiris Foundation Education for Development (E4D) Grant. It was entitled *Thinking through Peripheries: Structural Spatial Inequality in Johannesburg*. Postdoctoral research continued with the 2019 project "Families in the City," which was co-led with Margot Rubin and Alexandra Parker and funded by the Gauteng City-Region Observatory. The 2020 project "Micro-Dynamics and Macro-Processes: A Maputo–Johannesburg Comparative Study of Intra-Household Decision-Making and State Investment in Transit," led by principal investigator Sarah Charlton, was funded with a Mobility and Access in African Cities grant from the Volvo Research and Education Foundation. The project team also included Margot Rubin, Alexandra Parker, Mohammed Suleman, and Lesego Tshuwa (University of the Witwatersrand); Anselmo Cani, Domingos Macucule, and Rose Mary Dias (Eduardo Mondlane University); and Johannes Herburger (University of Liechtenstein).
19. Ballard, R and Rubin, M (2017) A "Marshall Plan" for Human Settlements: How Megaprojects Became South Africa's Housing Policy. *Transformation: Critical Perspectives on Southern Africa* 95(1): 1–31.
20. Huchzermeyer, M (2011) *Cities with "Slums": From Informal Settlement Eradication to a Right to the City in Africa*. Claremont: UCT Press; Huchzermeyer, M, Karam, A, and Mania, M (2014) Informal Settlements. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 154–175.
21. Weakley, D (2013) *Recognising Vulnerability* and *Resilience in Informal Settlements: The Case of Kya Sands, Johannesburg, South Africa*. PhD thesis, University of the Witwatersrand, Johannesburg.
22. Interview with "City Planner 2" in 2014.
23. Harrison, P, Rubin, M, Appelbaum, A, and Dittgen, R (2019) Corridors of Freedom: Analyzing Johannesburg's Ambitious Inclusionary Transit-Oriented Development. *Journal of Planning Education and Research*. https://doi.org/10.1177/0739456X19870312.
24. Mbembe (2021), p. 58, emphasis by the author.
25. Mbembe (2021), p. 149.
26. Some of the leading scholars and publications in this area include: Arboleda, M (2016) Spaces of Extraction, Metropolitan Explosions: Planetary Urbanization and the Commodity Boom in Latin America. *International Journal of Urban and Regional Research* 40(1): 96–112; Castriota, R and Tonucci, J (2018) Extended Urbanization in and from Brazil. *Environment and Planning D: Society and Space* 36(3): 512–528; Monte-Mór, RL (2004) *Modernities in the Jungle: Extended Urbanization in the Brazilian Amazon*. PhD thesis, University of California, Los Angeles; and Monte-Mór, RL (2018) Urbanisation, Sustainability and Development: Contemporary Complexities and Diversities in the Production of Urban Space. In P Horn, PA d'Alencon, and ACD Cardoso (eds) *Emerging Urban Spaces: A Planetary Perspective*. New York: Springer, 201–215; Schmid and Topalovic (2023).
27. In the sense of settler colonialism. See for example Wolfe, P (2006) Settler Colonialism and the Elimination of the Native. *Journal of Genocide Research* 8(4): 387–409; or Cowen, D (2020) Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method. *Urban Geography* 41(4): 469–486.
28. Including projects such as Schmid et al. (2018).
29. Schmid et al. (2018).
30. Including the foundations by Friedrich Engels in Engels, F (1877) Anti-Dühring Part I: Philosophy XIII. Dialectics. Negation of the Negation. Online: https://www.marxists.org/archive/marx/works/1877/anti-duhring/ (accessed July 20, 2025); and by Karl Marx in Marx, K (1887 [1867]) *Capital: A Critique of Political Economy*. Trans S Moore and E Aveling, Frederick Engels (ed) *Volume One, Book One: The Process of Production of Capital, Part VIII: Primitive Accumulation, Chapter Thirty-Two: Historical Tendency of Capitalist Accumulation*. Moscow: Progress Publishers.

31. Hart, G (2016) Relational Comparison Revisited: Marxist Postcolonial Geographies in Practice. *Progress in Human Geography* 42(3): 371–394, p. 372.
32. Lefebvre, H (1991 [1974]) *The Production of Space*. Trans D Nicholson-Smith. Oxford: Basil Blackwell.
33. Robinson, J (2006) *Ordinary Cities. Between Modernity and Development*. London: Routledge.
34. Hart (2016), p. 372.
35. Schmid, C (2015) Specificity and Urbanization—A Theoretical Outlook. In ETH Studio Basel (ed.) *The Inevitable Specificity of Cities*. Basel: Lars Müller, 287–307.
36. Schmid, C (2022) *Henri Lefebvre and the Theory of the Production of Space*. London: Verso Press, p. 48. It is worth reading this book in its entirety if you really want to understand Lefebvre. I have cherry-picked some of the most important quotes and insights from this translation as one of my main inroads into Lefebvrian logic and his complicated writings.
37. Some of the key scholars currently working on or with this line of thinking on Henri Lefebvre include Christian Schmid, Neil Brenner, Andy Merrifield, Stefan Kipfer, Kaneesh Goonewardena, and Stuart Elden, among others.
38. There are many voices from postcolonial and subaltern studies that allowed this perspective to successfully emerge. Some of the most relevant for this work, and forging a connection to Lefebvre, include Marie Huchzermeyer, Richard Ballard, Jennifer Robinson, Gillian Hart, Ananya Roy, Vanessa Watson, and Teresa Caldeira.
39. Schmid (2022), pp. 19–20.

    As summarized by Schmid (2022: 18–19; 1, 57–58), Lefebvre was discussed in the 1990s by scholars such as Edward Soja, Derek Gregory, and Michael Dear. The "oversimplification" of their interpretations was criticized by scholars that eventually formed a "third wave" of Lefebvre scholarship in the early 2000s (including English and German-speaking scholars such as Christian Schmid, Neil Brenner, Rob Shields, Andy Merrifield, Stuart Elden, Stephan Kipfer, Kaneesh Goonewardena, and Łukasz Stanek).
40. Lefebvre (1991 [1974]).
41. Schmid (2022), p. 57.
42. Lefebvre (1991 [1974]), p. 41.
43. Compare to the conclusions of Schmid (2022) pp. 5, 111–113.
44. Lefebvre (1991 [1974]), p. 38.
45. Schmid (2022), pp. 8, 6–9.
46. See also Schmid, C (2008) Henri Lefebvre's Theory of the Production of Space: Towards a Three-Dimensional Dialectic. In K Goonewardena (ed.) *Space, Difference, Everyday Life: Reading Henri Lefebvre*. London: Routledge, 27–45.
47. Schmid (2022), pp. 8, 6–9.
48. On this notion, see Bertuzzo, E (2012) *Fragmented Dhaka: Analysing Everyday Life with Henri Lefebvre's Theory of Production of Space*. Stuttgart: Franz Steiner Verlag, p. 25.
49. Schmid (2022), pp. 8, 6–9.
50. Lefebvre, H (1996 [1968]) The Right to the City. In *Writings on Cities*. Trans E Kofman and E Lebas (eds). Oxford: Blackwell, p. 21.
51. Lefebvre, H (1996 [1968]), p. 151.
52. Schmid (2022), p. 31, emphasis by the author. See also pp. 41–43 for Schmid's interpretation of transduction.
53. Caldeira (2017), p. 5.
54. Robinson (2016).
55. Many of the resulting conclusions are published in Schmid et al. (2018), and in the corresponding series of dissertations and projects previously described in this book. A comprehensive review of the project is included in Schmid, C and Streule, M (eds) (2023) *Vocabularies for an Urbanising Planet: Theory Building through Comparison*. Basel: Birkhäuser. As a final note, this section of the chapter was previously published in Howe (2022a) Processes of Peripheralisation: Toehold and Aspirational Urbanisation in the GCR. *Antipode* 54(6): 1803–1828.
56. See Schmid et al. (2023), in particular the chapter on multilayered patchwork urbanism, for example, p. 285.
57. Schmid and Topalovic (2023), p. 10.
58. Schmid (2022), p. 58.
59. See Scott, J (1999) *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven, CT: Yale University Press.

60. Lefebvre (1991 [1974]), pp. 280–281.
61. Lefebvre (1991 [1974]), p. 101.
62. Lefebvre (1991 [1974]), pp. 85–86, 401–404.
63. Lefebvre (1991 [1974]).
64. On this notion, see for example Watson, V (2002) The Usefulness of Normative Planning Theories in the Context of Sub-Saharan Africa. *Planning Theory* 1(1): 27–52; Watson, V (2006) Deep Difference: Diversity, Planning and Ethics. *Planning Theory* 5(1): 31–50.
65. See Huchzermeyer, M (2014) Humanism, Creativity and Rights: Invoking Henri Lefebvre's Right to the City in the Tension Presented by Informal Settlements in South Africa Today. *Transformation* 85: 64–89; Huchzermeyer, M (2018) The Legal Meaning of Lefebvre's the Right to the City: Addressing the Gap Between Global Campaign and Scholarly Debate. *Geojournal* 83(3): 631–644; and Huchzermeyer, M (2021) A Critical Lefebvrian Perspective on Planning in Relation to Informal Settlements in South Africa. *Town and Regional Planning* 79: 44–54.
66. Huchzermeyer, M (2020) Informal Settlements and Shantytowns as Differential Space. In M Leary-Owhin and J McCarthy (eds) *The Routledge Handbook of Henri Lefebvre, the City and Urban Society*. London: Routledge, 44–54, p. 48. Citing Lefebvre, H (2003 [1970]) *The Urban Revolution*. Minneapolis: University of Minnesota Press, p. 105. See also Schmid (2022), pp. 5, 57.

    Other projects referencing Lefebvre in Johannesburg include the work of Richard Ballard (such as his 2023 edited volume with Clive Barnett, *The Routledge Handbook of Social Change*); or Simone's framing of people as the essential form of infrastructure in the city in Simone, A (2004) People as Infrastructure: Intersecting Fragments in Johannesburg. *Public Culture* 16(3): 407–429; and in Simone, AM (2021) Ritornello: "People as Infrastructure." *Urban Geography*. https://doi.org/10.1080/02723638.2021.1894397. The application of *rhythmanalysis* to public space is also relevant (such as Nkooe, ES (2016) Contested Public Spaces: A Lefebvrian Analysis of Mary Fitzgerald Square. MA thesis, University of the Witwatersrand. Available at: https://www.ssoar.info/ssoar/bitstream/handle/document/58430/ssoar-up-2018-3-nkooe-A_Lefebvrian_Analysis_of_Public.pdf); as is reflecting on the possibilities of spatial practice in the city discussed in works such as Bremner, L (2008) *Writing the City into Being: Essays on Johannesburg, 1998–2008*. Johannesburg: Fourthwall Books; or Kruger, L (2013) *Imagining the Edgy City: Writing, Performing, and Building Johannesburg*. Oxford: Oxford University Press. Finally, Hart (2014) and Roy (2015) also note the right-to-the-city discourse in the South African context, as a part of the Abahlali baseMjondolo movement, although this is not related to Johannesburg specifically. See Hart, G (2014) *Rethinking the South African Crisis: Nationalism, Populism, Hegemony*. Athens, GA: University of Georgia Press; Roy, A (2015) Introduction. In A Roy and E Shaw Crane (eds) *Territories of Poverty: Rethinking North and South*. Athens, GA: University of Georgia Press, 1–38.
67. See, for example, Kipfer, S and Goonewardena, K (2007) Colonization and the New Imperialism: On the Meaning of Urbicide Today. *Theory and Event* 10(2); Kipfer, S and Goonewardena, K (2013) Urban Marxism and the Post-colonial Question: Henri Lefebvre and "Colonisation." *Historical Materialism* 21(2): 76–116; or their contributions in Goonewardena K, Kipfer S, Milgrom R, and Schmid C (eds) (2008) *Space, Difference Everyday Life*. New York: Routledge.
68. See, for example, Buckley M and Strauss K (2016) With, Against and Beyond Lefebvre: Planetary Urbanization and Epistemic Plurality. *Environment and Planning D: Society and Space* 34(4): 617–636.
69. Kipfer and Goonewardena (2013), p. 105.
70. Simon, D (1992) Reform in South Africa and Modernization of the Apartheid City. In D Drakakis-Smith (ed.) *Urban and Regional Change in Southern Africa*. London: Routledge, p. 50.
71. As shown, for example by research into areas like Alexandra Township and Marlboro South, described in several of the further chapters in this book, as well as publications including: Howe, LB (2020) Densification in Comparison: Alexandra and Marlboro South. In P Harrison and A Todes (eds) *Densification Policies and Processes: Johannesburg in an International Perspective*. Cheltenham: Edward Elgar Press, 182–192.
72. Pieterse, E and Simone, A (2013) *Rogue Urbanism: Emergent African Cities*. Johannesburg: Jacana Media.

73. See Parnell, S and Robinson, J (2012) (Re)theorizing Cities from the Global South: Looking Beyond Neoliberalism. *Urban Geography* 33(4), 593–617; or Pieterse, E (2008), *City Futures: Confronting the Crisis of Urban Development*. London: Zed Books.
74. See Mbembe, A and Nutall, S (2008) *Johannesburg: The Elusive Metropolis*. Johannesburg: Wits University Press; cf. Bule, K and Landau, LB (2025) Mobility, Diversity, & Speculative Racial Capital: Navigating Inclusion and Exclusion in an African Urban Gateway. *Third World Quarterly*: 1–18.
75. Mbembe (2021), p. 28.
76. Sheller, M and Urry, J (2006) The New Mobilities Paradigm. *Environment and Planning A* 38: 207–226, p. 213.
77. Creswell, JW (2014) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, CA: Sage, p. 10.
78. Simone, A and Abouhani, A (2005) *Urban Africa: Changing Contours of Survival in the City*. Pretoria: Unisa Press, p. 1.
79. Govender, T (2024) Acting on Descent. RISE Africa Action Festival, May 23. Available at: https://riseafrica.iclei.org/2024-programme/luchtime-lecture-acting-on-descent-by-thireshen-govender/ (accessed July 20, 2025).
80. See Brenner, N and Schmid, C (2012) Planetary Urbanization. In M Gandy (ed.) *Mobile Urbanism*. Berlin: Jovis, 10–13; Brenner, N and Schmid, C (2014) The "Urban Age" in Question. *International Journal of Urban and Regional Research* 38(3): 731–755; and Brenner, N and Schmid, C (2015) Towards a New Epistemology of the Urban? *City* 19(2–3): 151–182.
81. Schmid et al. (2018), p. 591.
82. Brenner and Schmid (2012), p. 18.
83. Burdett, R and Sudjic, D (eds) (2006) *The Endless City*. London: Phaidon; Burdett, R and Sudjic, D (eds) (2010) *Living in the Endless City*. London: Phaidon.
84. Brenner and Schmid (2014).
85. Cairns, S (2018) Debilitating City-centricity. Urbanization and Urban–Rural Hybridity in Southeast Asia. In R Padawangi (ed.) *Routledge Handbook of Urbanization in Southeast Asia*. London: Routledge, 115–130.
86. Georg Simmel (1903) wrote of three defining characteristics of a city: *Grösse*, *Dichte*, and *Heterogenität* (size, density, and heterogeneity). These are all important factors but not by any means exclusive to a "megacity"; there is not a binary division or even a "sliding scale" from urban to not urban that can be universally defined. See Simmel, G (1903 [1995]) Die Großstädte und das Geistesleben. In G Simmel, *Gesamtausgabe*. Originally published by Otthein Rammstedt. Band 7: *Aufsätze und Abhandlungen. 1901–1908.* Band I. Republished by Rüdiger Kramme, Angela Rammstedt and Otthein Rammstedt. Frankfurt am Main: Suhrkamp, 1995, 116–131.
87. Brenner and Schmid (2014), pp. 13, 20.
88. Some of the most critical voices included scholars such as Richard Walker and Natalie Oswin. See the discussion by Sue Ruddick and her colleages: Ruddick, S, Peake, L, Tanyildiz, GS, and Patrick, D (2018) Planetary Urbanization: An Urban Theory for Our Time? *Environment and Planning D: Society and Space* 36(3): 387–404.
89. Buckley, M and Strauss, K (2016) With, Against and Beyond Lefebvre: Planetary Urbanization and Epistemic Plurality. *Environment and Planning D: Society and Space* 34(4): 617–636.
90. This includes elements of spatial production theories from Lefebvre (1991[1974]) to Schmid et al. (2018) or Arboleda, M (2020) *Planetary Mine. Territories of Extraction Under Late Capitalism*. London and New York: Verso.
91. "Transversal" or "informal" logics appear in various forms in the literature, such as: Roy, A (2011) Slumdog Cities: Rethinking Subaltern Urbanism. *International Journal of Urban and Regional Research* 35(2): 223–238; Kihato (2013); Caldeira (2017); Meth at al. (2021); or Mukhopadhyay, P, Zérah, MH and Denis, E (2020) Subaltern Urbanization: Indian Insights for Urban Theory. *International Journal of Urban and Regional Research* 44(4): 582–598.
92. Quijano, A (1967) *Dependencia, cambio social y urbanización en Latinoamérica*. ILPES.8. Buenos Aires. See also: Reis, N and Antunes de Oliveira, F (2021) Peripheral Financialization and the Transformation of Dependency: A View from Latin America. *Review of International Political Economy.* https://doi.org/10.1080/09692290.2021.2013290
93. Reis, N and Lukas, M (2022) *Beyond the Megacity: New Dimensions of Peripheral Urbanization in Latin America*. Toronto: University of Toronto Press.
94. Caldeira (2017), p. 3.

95. Caldeira (2017), p. 4.
96. Schmid (2022), p. 497.
97. Schmid (2022), pp. 501–502.
98. Roy (2011).
99. See also Meth et al. (2021).
100. Marx, K (1965) Brief an Kugelmann, 6.3.1868. In K Marx and F Engels (eds) *Werke MEW*. Band 32. Berlin: Dietz Verlag Berlin, p. 538; following Hegel, GWF (1985 [1832]) *Wissenschaft der Logik. Die Lehre vom Seyn*. Gesammelte Werke, Band 21, p. 38.
101. Schmid (2022), pp. 43–43.
102. To code in the sense of Glaser, B and Strauss, AL (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine Publishing Company.
103. Hofer, K and Kaufmann, D (2023) Actors, Arenas and Aims: A Conceptual Framework for Public Participation. *Planning Theory* 22(4): 357–379. See also Hofer, K (2024) Participation in Planning Processes in Braamfischerville. PhD thesis, ETH Zurich.
104. On this notion, see the introductory chapter of Charman, C, Peterson, L, and Govender, T (2020) *Township Economy: People, Spaces and Practices*. Cape Town: HSRC Press.
105. Robinson (2006, 2016).
106. Simmons, ES and Rush Smith, N (2021) *Rethinking Comparison: Innovative Methods for Qualitative Political Inquiry*. Cambridge: Cambridge University Press.
107. Götz, G, Wray, C, and Mubiwa, B (2014) The "Thin Oil of Urbanisation"?: Spatial Change in Johannesburg and the Gauteng City-Region. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, pp. 42–62.
108. Schmid and Topalovic (2023: 3) describe territory as "a socially appropriated space imbued with social meaning, in which historical production processes, social relations, power constellations and ecologies are inscribed."
109. Currency conversion was conducted with the Oanda website. Online: https://www.oanda.com/currency-converter/en/

2
Becoming Jozi

If Africa can be thought of as the last frontier of capitalism, or as the "laboratory of the future"—propositioned by the Ghanian-British architect Lesley Lokko at the 2023 Venice Biennale[1]—perhaps it has less to do with the continent being in an emerging state and more to do with its constant reinvention. And if African cities are characterized by fluctuating and variegated conditions—promises yet undetermined and forged through a more exigent assertion of individual and collective agency—then Lefebvre's theories about urbanization and the production of space as a process, rather than an urban form, are particularly useful tools with which to structure empirical insights. Observing the world through the lens of material, regulatory, and lived space allows one to digest the complexity of "emergent" places like Johannesburg and distill it into something coherent. In attempting to co-constitute something new in a postcolonial context, this entails engaging with people's social realities, which span a wide range of historically privileged and disadvantaged spaces.

Lefebvre proposed that the history of urban areas could be divided into "periods," indicated by a major "break" in the mode of how space is produced. Determining these periods, in sum, entails observing the patterning of space that exists today and researching how it came to be that way. It includes establishing historically produced relations between state, markets, and society—but, primarily, a periodization tries to frame the moments of significant social change derived from spatial conditions, power relations, and social structures. It thus extends beyond common approaches to history that reify politics and economy. Martin Arboleda has described how today "novel modalities of state power and capitalist imperialism [yield] a new territoriality of extraction whose immanent content cannot be fully elucidated by the *loci classici* of state-centric concepts of political economy."[2] By tracing the history of spaces—and how they generated urban fabric through space and time—it allows an

alternative trajectory of history to emerge, where there is space for people and everyday life.

This aspect of Lefebvre's theories on space was not fully articulated and has since been developed by a series of projects investigating urbanization in comparison.[3] As Schmid explains:

> *the spatio-temporal configurations of social reality*, refers to the historicity and temporality of the production of space. Lefebvre identified in his historical excursions several attempts to develop a periodisation of the modes of production of space. However, he introduced this category only in an approximate way and left it in an incomplete state. This opens new possibilities for a substantial expansion of Lefebvre's theory that have emerged in recent years, especially with the rise of postcolonial urban studies and an emphasis on the historically and geographically varied nature of space and the urban.[4]

This chapter constructs a periodization of the urban region surrounding Johannesburg: its evolution from a mining camp to "eGoli," the city of gold, into the kinetic centrality of "Jozi," at the heart of the GCR. It emphasizes the social realities of individuals and the groups they form, as a particularity of this territory, as the shifting of urban centralities and peripheries acts upon each other and the spaces between.

A periodization frames the modes of production of space by combining a political economy approach to historical analysis with an ethnographic research perspective on everyday life. I also mapped this, as the chapter on methods describes in detail (see Chapter 3). This is an attempt, in some ways, to go beyond seeing from only one perspective—such as that of the state or a researcher—towards how one might operationalize academic knowledge gained at the interstices of past and present. It aims to demonstrate the path dependencies that arose, as well as the moments when these courses were destabilized, morphing into new social realities and urbanization processes. This allows me to conceptualize a different reading of the territorial production of regional-scale Johannesburg, with alternative mappings and languages to those of apartheid.

Periods are not intended to be a comprehensive historical account nor affixed to a specific date or policy, but rather can be discerned according to the following criteria:

1. Was there a shift in how the built environment was defined by the processes of urbanization? This draws from the material results of societal practices.

2. Were there shifts in either policy, practice, or rhetoric in comparison to the built environment previously? This draws from the conceptual realm of representing spatial production.
3. Was there a shift in the way everyday people experienced the urban? This draws from the directly experienced spaces of socially associated images and symbols.

The most important criterion is when a shift begins appearing in the built environment and urban experience, posing a critical moment when change is possible.

In constructing a periodization for Johannesburg, it became apparent that the moniker of "apartheid city" is too reductive for this region. Extractivisms were at the heart of the apartheid system, but also long predated it. Mining and "extractive valorization,"[5] spurred on by global capital, have shaped Johannesburg into a large and unequal urban region since its origins. Obtaining resources like gold and other minerals, and exploiting human labor, was part of complex systems of reproduction, with a multiplicity of trajectories and uneven geographies. Johannesburg has always been an extended urban area, and one that paradigmatically demonstrates how the dialectics of center and periphery have resulted in privilege for some social groups and imposed great burdens upon others. This conclusion is derived from, but is obviously not at all unique to, Johannesburg.

Today, the GCR includes the major metropolitan areas of Johannesburg and Pretoria. Despite comprising only 1.5 percent of South Africa's total land mass, the greater provincial area has a gross domestic product of over 100 billion USD per year and accounts for approximately 35 percent of the country's total GDP.[6] The story of the GCR began with mining along the gold-containing ridge called the Witwatersrand; sites of extraction were linked to emerging urban centralities locally but were financially and politically connected to the rest of the world through global flows of capital and labor.[7] The intensive urbanization of the region over the hundred years that followed ingrained these initial patterns of privilege and poverty more and more deeply, culminating in the system of apartheid that asserted control over Black and Brown bodies, reaching farther and farther into geospatial urban extents and international labor markets, in an attempt to create a complete overlap between race, class, and space.[8]

The periodization of the GCR's roughly 140-year history is presented in six phases in this chapter, showing how its history related to the theories of extended urbanization and peripheralization (see Chapter 1).

To demonstrate this, the description of each period identifies the major changes in space, development, and planning policies, as well as what forms of urbanization were unfolding beyond the gaze of the state, described utilizing the term *popular centralities*. It details how the mining-industrial complex generated intensive dialectics between what was once tribal and agricultural land, laying the foundations for the apartheid system and giving rise to the form the city-region has today. And it shows how racial and social groups were both systematically disadvantaged and presented with opportunities by the processes of urbanization that made Jozi what it is today.

Each period also makes explicit the consistent global embeddedness of Johannesburg into global financial and political systems. This chapter thus comprehensively examines the spatial-historical production of an unequal extended urban region of centralities, peripheries, and the space between. Each of the six sections that follow describes one period within this history, with sub-sections devoted to describing the evolution of agency and centrality, followed by a concluding analysis on how the historical events of the period relate to the theoretical categories of material, regulatory, and lived space proposed by this book (see Figure 2.1).

Period 1: Pockets of centrality at extractive frontiers (1886–1910)

The material space of the region in this first period is primarily defined by the embedding of capital and emergence of urban centralities at the sites of mineral extraction. Its regulatory conceptions were largely designed to control labor in support of the mines. The lived experience of space already began to be distinguished by precariousness, as colonial relations were reconstituted through the growth of Johannesburg into a city. There was a temporality ascribed to being allowed into the nascent city and exclusion of the body from it—establishing race as the determining factor for gaining access to the resources and opportunities of an urban life.

This period starts with the rapid wave of urbanization that began with the discovery of gold along the Witwatersrand ridge. Prior to this, a predominantly agricultural colonial society dwelled in this relatively arid "Bushveld" climate.[9] As has been documented by South African urban scholars, and in related fields such as development studies and critical ethnography, colonial rule established tight control over "native populations" over the course of the 1800s and anchored these systems of social control into emerging cities.[10] The initial movement of the descendants

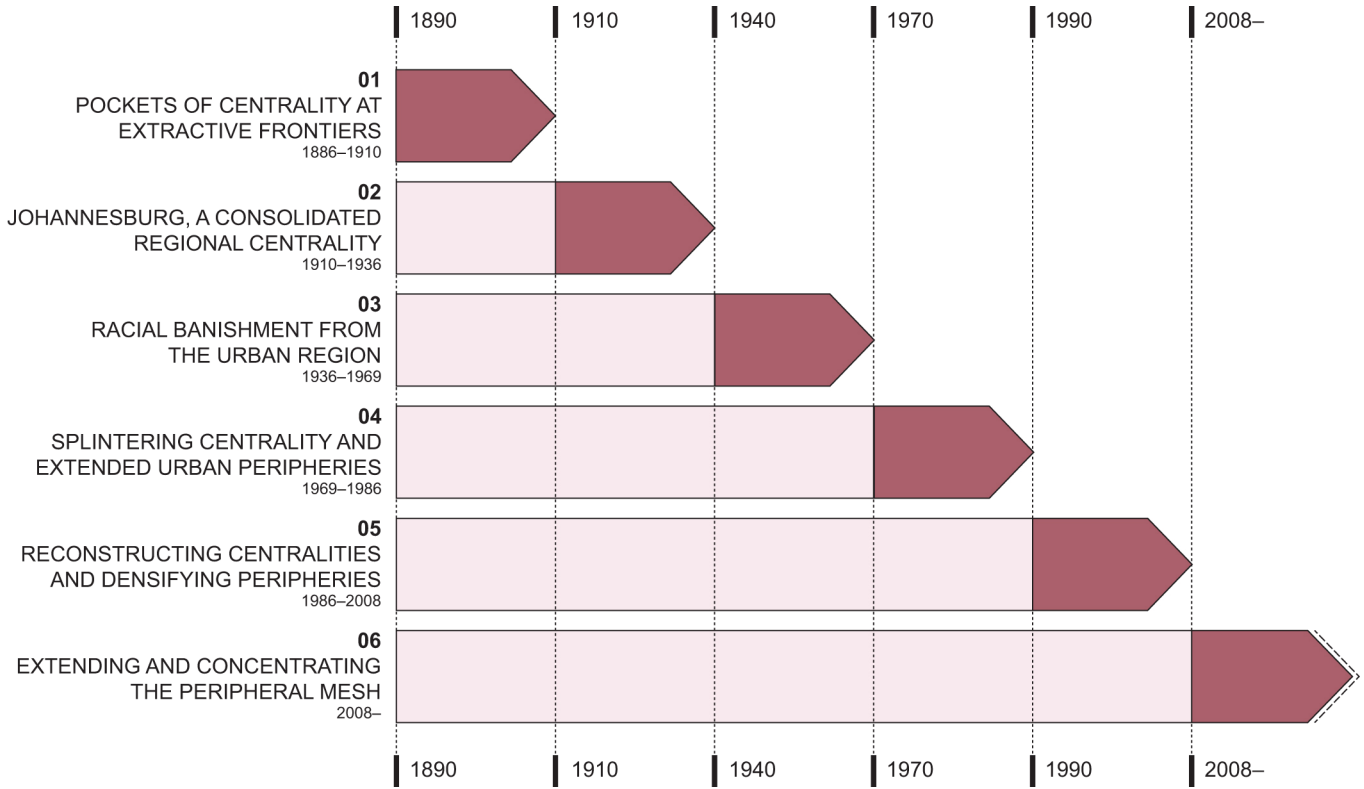

Figure 2.1 Periodization of the Gauteng City-Region. © Thireshen Govender.

of early Dutch settlers in the Cape known as the Boers (meaning farmers) into the area occurred in the 1830s; white farms and settlements were established with the permission of local chiefs, and Africans were encouraged to work the land as tenants or sharecroppers.[11]

The Boer Republic was declared in 1853 and the city of Pretoria founded in 1855. The Boers saw themselves as pioneers among agriculturally based tribal societies.[12] Power relations were therefore ingrained into the territory before its urbanization began in earnest. As the city grew in the latter half of the nineteenth century and agricultural production increased, this led to the gradual expulsion of the area's diverse tribes and more forcible subjugation into working on small agricultural holdings.[13]

When gold was discovered in what is now downtown Johannesburg in 1886, miners began extracting it with racially segregated laborers and global financial capital.[14] This disrupted the space and social relations of agricultural-based production, as new opportunities—and new forms of exploitation—presented themselves at the mines. Racial groups were allotted different jobs in a rapidly industrializing economy, according to what was known as the "Colour Bar," and were geographically separated from one another into different settlement areas.[15] There were strongly gendered splits of labor, as males were brought to live in "hostels" at the sites of mines, and women were to remain outside the city, "at home."[16]

One of the earliest urbanization processes thus corresponded to the location of mineral resources: for example, gold, platinum, coal, uranium, or quarry rock. Because this process is dependent on physical geography and is not related to development from a policy perspective, it created a series of new "frontiers" undulating outwards from the Witwatersrand. While many of the original settlements resulting from the frontier process were eliminated as the Johannesburg CBD expanded, some have persisted in the urban region since the first decade of the 1900s.[17] Initially, title deeds were available to non-white races, and sometimes even multiple races, in designated locations.[18] These were sited on land both near and far from emerging centralities, which has led to significantly different conditions in the areas that have persisted until the present day.[19]

The year 1886 thus marked the start of a transformative restructuring of material space resulting from mineral wealth extraction. It tied the area to regional-scale development, circuits of capital accumulation and dispossession, and international and semi-circular migration. This was effectively colonial capitalism at the interstice of political and social practices, resulting in the formation of a deliberately constructed territory.

Rapid urbanization began to concentrate and extend the urban fabric unevenly, as spaces between the mining extents of the region began to fill in. This included underprivileged areas for "squatting" around the periphery of centralities—which had been designated as such by municipal planning officials practically since the inception of the urban region's major urban areas—and a limited number of areas where non-white races were permitted to own land (see Figure 2.2).

New centralities, or spaces of encounter and exchange,[20] also began to influence social relations along the mining belt that unfurled along the Witwatersrand ridge. In the early 1900s, Johannesburg took on a distinctly urban flair, although still subject to colonial norms on segregation, including a spatially delineated racial and class structure. There, the "thickening webs of [urban] connectivity"[21] as a diverse cosmos of areas, people, and activities led to an increasing diversification of forms of labor, exchange, culture, and vibrancy in the everyday life of the Witwatersrand—of course, in particular for privileged, white social groups.[22] But the dominance of the Boers soon gave way to "Milnerite" British society, after the space was taken under control in the Second Boer War (1899–1902) under the leadership of Alfred Milner.[23] The historian Shula Marks has emphasized the pivotal importance of this upheaval, not just between the Boers and British, but also how the war resulted from embedded tensions surrounding land and politics across the Witwatersrand, as well as the lasting impact it had on race, gender, and class relations for this budding urban region.[24]

So magnetic was the pull of the Witwatersrand goldfields that, by the time it was officially founded as a municipality in 1904, Johannesburg was emerging as the primary centrality among the regional territory, eclipsing more established settlements such as Pretoria. These spatial relationships immediately privileged more central settlements while peripheralizing far-flung frontiers at the sites of extraction where people were highly isolated in space. Conceptualized as a cruciform, with north–south and east–west axes, the patterns connecting the city center of Johannesburg south to this ridge and north to Pretoria remain recognizable today.

The topographical element of the Witwatersrand was also a key feature of the way racialized space was partitioned.[25] For example, the ridge blocked the privileged white neighborhoods north of the ridge from dusty mining winds and divided the Central Business District from townships like Soweto built for Africans during apartheid. Even today, it remains a physical divide composed of what Kerry Bobbins and Guy Trangoš have described as "reprocessed mine dumps, blank veld, blue gum trees and toxic, yellow soil."[26]

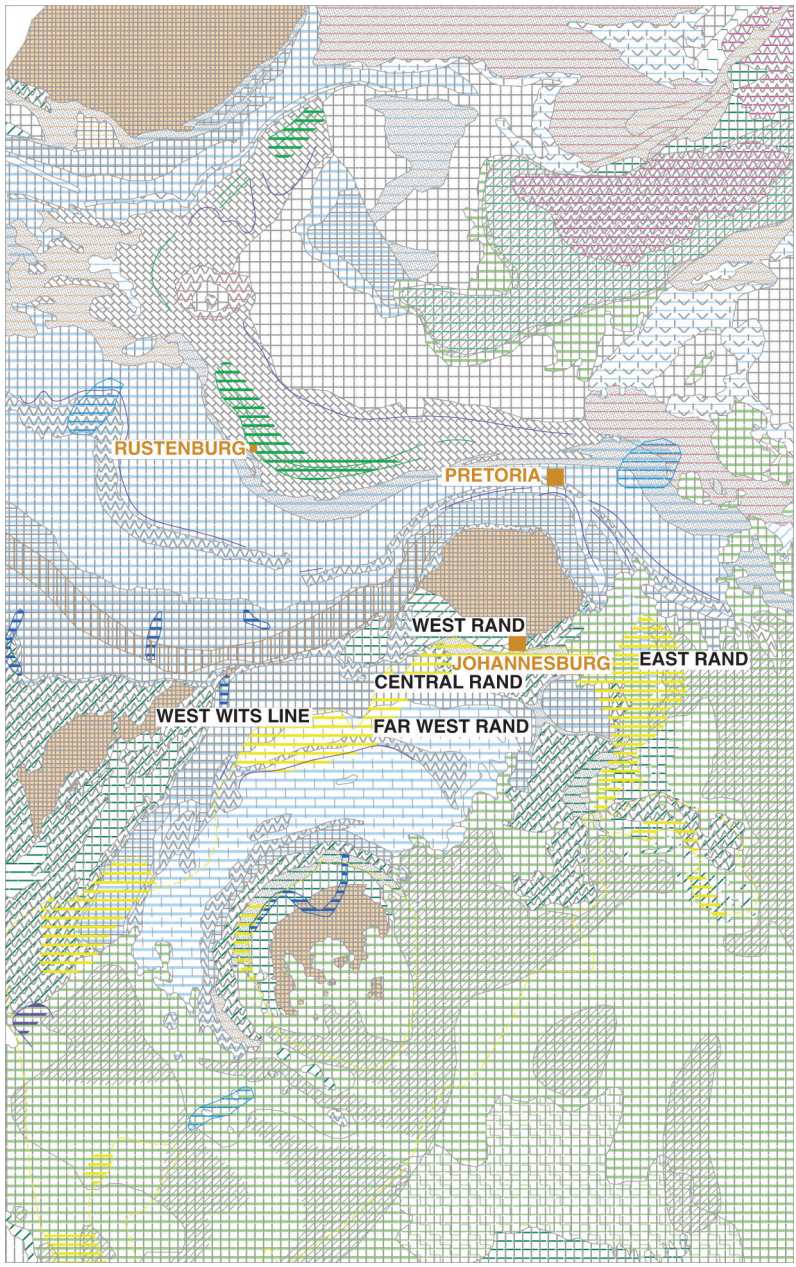

Figure 2.2 Map of Johannesburg along the Witwatersrand goldfields. Map by Antonia Trager. Base map © South African National Archives and the National Department of Mines.

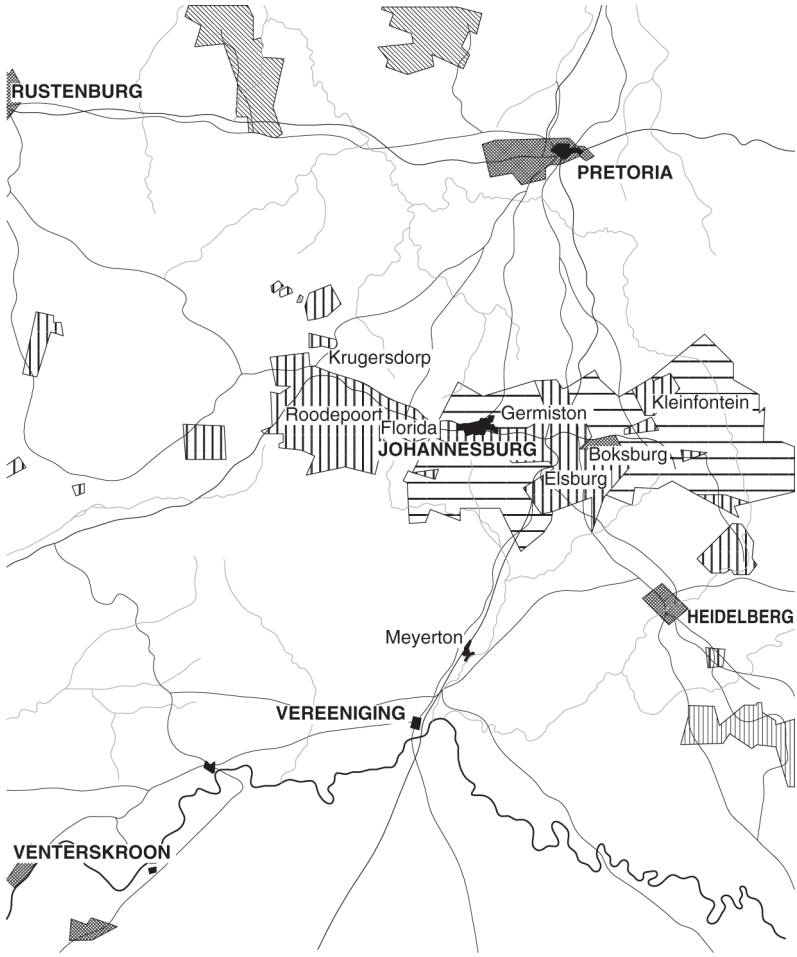

Figure 2.2 Continued

The origins of popular centrality

The idea that people form their own kinds of centrality was not something Lefebvre explicitly addressed. In his writings, centrality was something led and enacted by the state. Yet through human history, people have relied on their own capabilities for action and intervention to occupy, appropriate, and transform the urban. This individual agency, particularly

when it becomes collective, can have far-reaching effects. It manifests in Johannesburg as settlements that begin to generate their own centrality, from below; sometimes it occurs in concert with the state, but it is certainly not led by it (see Chapter 4).

For example, many early settlements classified as informal in Johannesburg were granted permission to execute "land invasions" on state or private property, where they were required to erect their own housing. This tradition dates back to Kliptown, founded in 1903.[27] The production of housing by the state for racially based settlements as relocations from these "invasions" is also nearly as old a principle. In an area called Brickfields (present-day Newtown), a multiracial population had established a shack settlement, producing clay bricks. An outbreak of the bubonic plague led the nascent city to undertake dramatic action: the Johannesburg Town Council burned down the entire settlement of 1,600 dwellings.[28]

The council erected iron barracks and triangular hutments at Pimville in 1904, in what is now a central part of Soweto.[29] Those not allocated a residence were forced to build new shacks with their own resources.[30] This precedent became the model for future mass housing urbanization, in which settlements were developed on former farming land purchased by the state—and outfitted with often inadequate facilities, infrastructure, and housing. The economy of such places was tied to commuting and subject to the restrictive "Pass Laws."

The settlement of Sophiatown was also established in 1903, less than 10 kilometers northwest of what is now the Johannesburg CBD, but under "freehold titles" instead of state-sanctioned land invasions. Freehold titles were also established in the neighboring areas of Martindale in 1905 and Newclare in 1912.[31] These were primarily residential areas, which were legally restricted from economic activity, but landowners began to sublet additional backyard rooms and autoconstructed shacks to generate income, and open shops on their properties.[32]

Further freeholds included Evaton, a farming freehold established in 1905 northwest of Vereeniging, more than 50 kilometers to the southwest of Johannesburg.[33] Another was Alexandra Township, established in 1912 as a convenient location for household and industrial labor for the northern suburbs.[34] Some of these freeholds, in particular Alexandra, would play a crucial role in preserving Black spaces in later periods of history and providing ground for resistance in the struggle against apartheid.

Conclusion

During this period, urbanization processes originating from sites of extraction created pockets of centrality led by capital interests, initiating corresponding processes of peripheralization, as well as urbanization led by people seeking opportunities there. The material space of the city began to thicken and concentrate; the number of "informal settlements" increased. Regulations were all about access to the hallowed space of the mines, serving to marginalize specific populations for the benefit of capital investments, the great mining houses, and an emerging local state. Lived experiences of space were characterized largely by great disparities between wealth and poverty, which determined where people were allowed to live and what kind of access they had to the spatial and social resources of the city. Peripheries existed alongside centralities, and there was an initial prevalence of spaces between, where people of mixed races and origins existed alongside one another in urban areas. This would not last.

The segmented lives, fractured families, and dislocated selves were only partially being forcibly imposed by settler colonialism at the beginning of this period, when urbanization began suddenly and in earnest. But by the early 1900s, practices and policies that had largely been occurring informally and opportunistically during this period were gradually replaced with policies to group people by race and to strictly regulate and limit land ownership. This period therefore ended with the introduction of official, racially based settlements: the municipally designated Native Reserves Act of 1910.

Period 2: Johannesburg, a consolidated regional centrality (1910–1936)

The material space of the region in this second period is defined by the increasing importance of the Johannesburg CBD, through waves of mining and investment in associated industrial processes, cementing its status as the most important urban center within the greater urban fabric. Practices of racialized spatial development and control of in particular Black bodies consolidated in municipal hands as pressure increased on the original, more diverse spaces of the inner city. An ever-increasing number of regulations and restrictions codified these practices into law, in service of the mining-industrial complex. Spaces of opportunity for

disadvantaged social groups were constantly under threat; fear of eviction and violent removal to the young city's urban edges began.

The period begins with the year 1910 because it marked the beginning of more consolidated strategies for race and class-based areas to manage the urban space that concentrated along the Witwatersrand. This occurred in parallel to the agreement that founded the Union of South Africa, which explicitly excluded the political participation of Black South Africans. Thus, the first act of a new nation was simultaneously one of disenfranchisement.

The Union of South Africa represented a government friendly to the demands of mining and industry, actively supporting their pursuits to secure land and labor.[35] The Natives Land Act of 1913 declared less than 8 percent of South Africa's total land area as "Black reserves," prohibiting any purchase of land by people classified as Black, as well as restricting sharecropping arrangements prevalent in the pre-industrialized period.[36] "Black land" was placed under communal tenure, controlled by local chiefs. These shifts increased pressure for wage labor in cities, changing spatial practices and dramatically impacting everyday life for people expelled from centralities (see Figure 2.3).

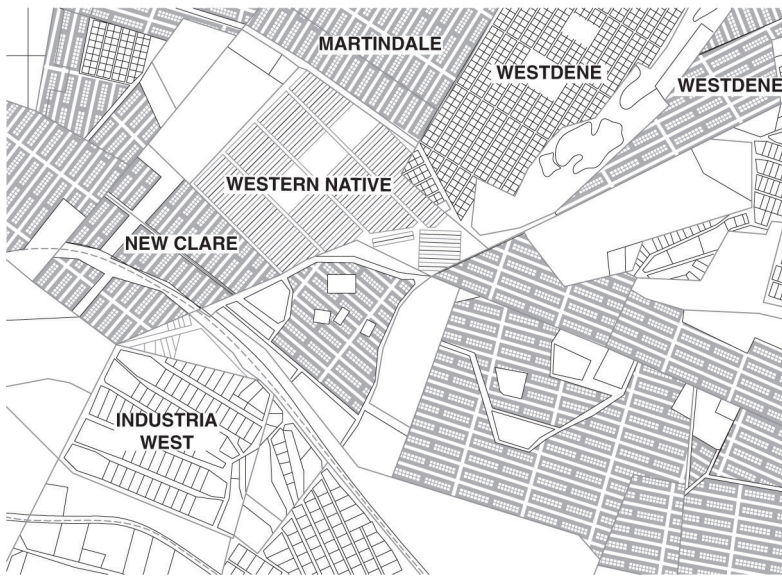

Figure 2.3 Map of Johannesburg in the 1930s with racially designated areas. Map by Antonia Trager. Base map © South African National Archives and the National Department of Mines.

The space of the region was characterized by further concentration and extension: parts of the mining landscape began to experience diversification into industrial areas and racial reserves were increasingly consolidated. Gradually, the key mechanisms for the spatial and structural segregation of apartheid were conceived and implemented during this period. As the period progressed, early forms of colonial segregation were expanded and the trajectory of territorial expansion with Johannesburg at its center was evident.

Gold was decoupled from the international monetary standard in 1932 following Great Britain's attempts to mitigate the effects of the Great Depression, once again flushing wealth into the City of Johannesburg.[37] Its emerging downtown experienced a corresponding intensive population growth and building boom as the city became both regionally predominant and globally significant. As the "valuable" areas of the city expanded outwards, more and more space was required—and most of the non-white populations were pushed out, their settlements destroyed. This displacement was enacted legally, on the basis of the Native Urban Areas Act of 1923 and Slum Clearance Act of 1933. The Johannesburg CBD was declared white in 1933, and so-called "slum clearances" began in earnest by 1934.

Popular centralities expand under racial restrictions

Due to the decentralization of powers of the South African government as Johannesburg began to develop, settlements located within municipal boundaries were not initially subject to the Natives Land Act of 1913 dispossessing "non-white" races of their land. However, as cities expanded, these became some of the most contested sites of apartheid spatial planning. Only two major areas representing this process remain today: Evaton and Alexandra Townships.

Alexandra, northeast of the Johannesburg CBD, was originally zoned as a Black residential township in 1912, and gained more dense, diverse built structures and unregulated land uses as its population increased. Passes to reside in Alexandra for work could be more readily secured by Black Africans during the apartheid era than in other areas due to the rare existence of Black-owned land.[38] As noted by Philip Harrison, Adrian Masson, and Luke Sinwell,[39] the original landowners in Alexandra were relatively affluent and possessed plots of 250 m^2. Alexandra thus rapidly grew into a physically and socially dense, politically charged neighborhood.

Due to urban in-migration to Alexandra, particularly after the Slums Clearance Act of 1934 that removed non-white people from the

city center, the population rapidly expanded. It led to a particular form of densification, locally known as backyarding,[40] which created a new form of tenure and social tension between landowners and those to whom they sublet rooms.[41] Backyarding and the increasing co-presence of people within urban spaces, as mentioned in the section on the previous period, was key to apartheid political resistance in future periods.

Conclusion

During this period, Johannesburg emerged as the primary regional centrality for industrialization and the influx of global capital, eclipsing other established centers. Its material space was characterized by the expansion of urban areas and corresponding transformation of agricultural land into the establishment of new "townships" (neighborhood subdivisions). Policies began restricting people's freedom of movement and designated residential areas even further as this urban expansion began to intensify, and more central areas of the city were forcibly transferred to the white population. The overall footprint of Johannesburg also continued to expand into the surrounding terrain, consuming land at a rapid pace and extending the scale of spatial practices, particularly along the corridor to Pretoria and "filling in" spaces towards former mining sites. Everyday life reflected an even more increased division of experiences as neighborhoods were forcibly removed and relegated into urban peripheries. Increasingly, peripheralization processes began to have a distinctively geographic dimension between urban center and urban edge.

Extinguishing such "black spots" in particular, beginning in 1936, ushered in an era of intensified colonial segregation, building on the efforts of local councils to permanently dislodge the few cosmopolitan and variegated neighborhoods that had survived this period. The period therefore concluded when the first resettlements on the scale of the territory were implemented in 1936, as opposed to racial consolidation and segregation driven primarily by municipalities.

Period 3: Racial banishment from the urban region (1936–1969)

The material space of this third period was defined by regional-scale, racially based expulsions as the policies of "high apartheid" filtering down from the national level sought to enforce a complete separation

of race and class through space itself. This phase included further waves of destruction of primarily Black neighborhoods and their corresponding removal to a new scale of urban edge that required intensive commuting. The cruciform pattern established early in the spatial history of the region became even more pronounced—and this territory began to be conceived of as the interdependent region comprising Pretoria–Witwatersrand–Vereeniging. The fracturing of everyday life through the sheer size of the region and increased control over people's lives further intensified.

In 1939, Pretoria engineered its first large-scale, race-based removal with Atteridgeville to the south; Sharpeville was established in 1941 in the Vaal Triangle and Katlehong on the East Rand in 1945.[42] After the National Party came to power in 1948, these mass-scale projects of social engineering emerged in earnest across the entire urban region: 1951 saw the emergence of Soweto,[43] then Mamelodi and Kwa-Thema, followed by Daveyton in 1952 and Tembisa in 1957.[44]

Centrality played a pivotal role in the establishment of peripheral townships: all of the municipalities that comprise the contemporary urban region began expelling their populations outwards beyond the boundaries of built-up land. In part, this was because relocation strategies required large tracts of inexpensive land, but it was also deeply linked to the strategy of separation and commuterization crucial to the apartheid government's mechanisms of control.[45] These relocations were predicated on racial and ethnic rhetoric.

The concentration of economic power in Johannesburg in the previous period had an effect not just on the surrounding territory but also on national politics. The Boer political movement, born of the cultural struggle on the English-dominated Rand, gained traction during this period. The strength of the region propelled this nationalist movement into a more prominent place in national rhetoric—giving rise to the National Party that would soon gain control of the government in 1948 (see Figure 2.4). The Prohibition of Mixed Marriages Act that they soon passed in 1949 represented the expansion of their power beyond the spatial and political into the most intimate spheres of life.

In comparison to the previous period, more incremental relocations conducted by municipalities were soon replaced with mass resettlements. On the urban edge—at the frontiers of mineral extraction—races and ethnicities had continued to be spatially separated, as they had since the first mines.[46] Now, they were targeted for housing schemes and ethnically delineated reserves. Expanded state control under a series of new laws led to the eradication of many non-white settlements in proximity to

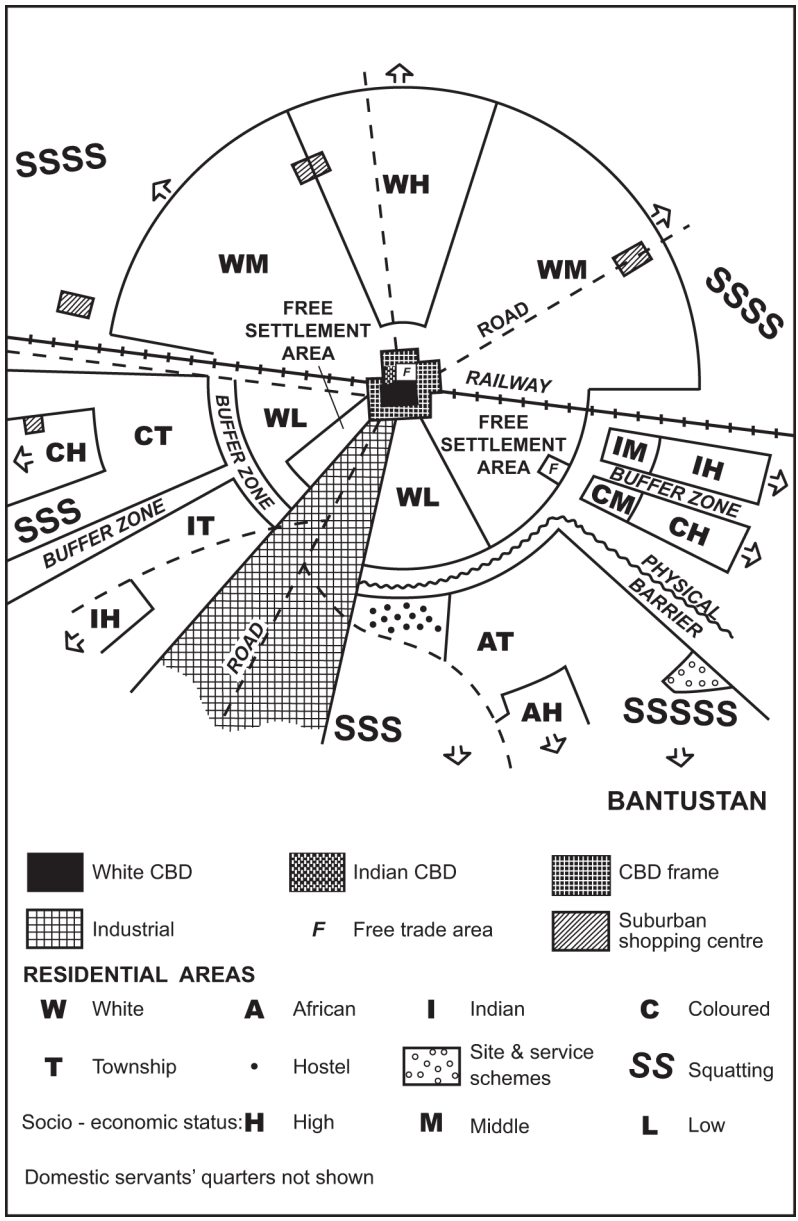

Figure 2.4 Map of Johannesburg with the 1948 "Apartheid Model." As reproduced in Simon (1992, p. 43) "Figure 2.2: The Modernized Apartheid City Model"; reproduced with kind permission from Taylor and Francis Group.

centralities and a significantly more centralized, coordinated approach to this policy of apartheid across the GCR.

What began as de facto policies were slowly codified into law by the first half of the twentieth century: the aforementioned "interracial mixing" was banned nationally in 1949; the Group Areas Act restricted races to specific spatial locations in 1950; the Pass Laws Act of 1952 and Natives Resettlement Act of 1954 meant Africans had to carry identification at all times outside of the distant urban peripheries to which they were removed.

By the end of the 1950s, coinciding with a peak in labor demand following a boom after the Second World War, the scale of these relocation settlements was becoming so large that they required unfathomable volumes of land to execute. They were planned at similar distances to the most remote extents of the urban region that had previously been dominated by frontier urbanization. Hammanskraal, 45 kilometers north of Pretoria, and Mabopane, 40 kilometers to its northwest, were established in 1959; Zamdela near Sasolburg and Kokosi near Focheville were established in the early 1960s, and remain some of the most remote large-scale settlements built by the state today.[47] Throughout the next decade, existing settlements were frequently supplemented with additional, racially delineated areas, for example in Soweto, or Vosloorus, Sebokeng, and Ga-Rankuwa.

Ethnicity played a significant role in the peak of the apartheid project in the 1970s: ethnically constituted "homelands," or *Bantustans*, to which all "Native" populations were legally relegated, forced people to commute from peripheries into urban centers with state-financed bus and train transit.[48] These homelands became known as the "total strategy," or final solution, for achieving apartheid (see Figure 2.5).

Johannesburg, in the words of Anthony Lemon, "transitioned from the 'segregated city' to the 'apartheid city'."[49] Governance of racially divided areas was outsourced to Black local councils, whose responsibilities included infrastructure and service delivery, despite not owning the land which they administered or having funding to support these tasks.[50] Black, Coloured, and Indian populations were turned into commuters, their new homes deliberately void of public spaces and any hint of centrality. As David Simon explains:

> The objective of South Africa's grand apartheid design was near-total racial segregation at all geographical scales. Concomitant with the creation of bantustans [sic] at national level was a policy of constrained African urbanization, whereby access to urban areas

and urban shelter on any legal basis was tied to formal sector job availability. One of the crucial mechanisms for achieving this was state ownership of all urban African housing, a policy which necessitated abolition of pre-existing African freehold rights granted to some permanent urban residents at the end of the last century. Coloured and Asian freehold rights were preserved.[51]

Black people could thus own *homes* but not *land*. In all of this, the explicit purpose of tying race and class to space and modes of everyday life was to control the ever-indispensable cheap labor extracted from African bodies. Housing on the remote urban peripheries was specifically instrumentalized to underwrite the reproduction of labor in Johannesburg, akin to Ananya Roy's concept of "racial banishment" that involves

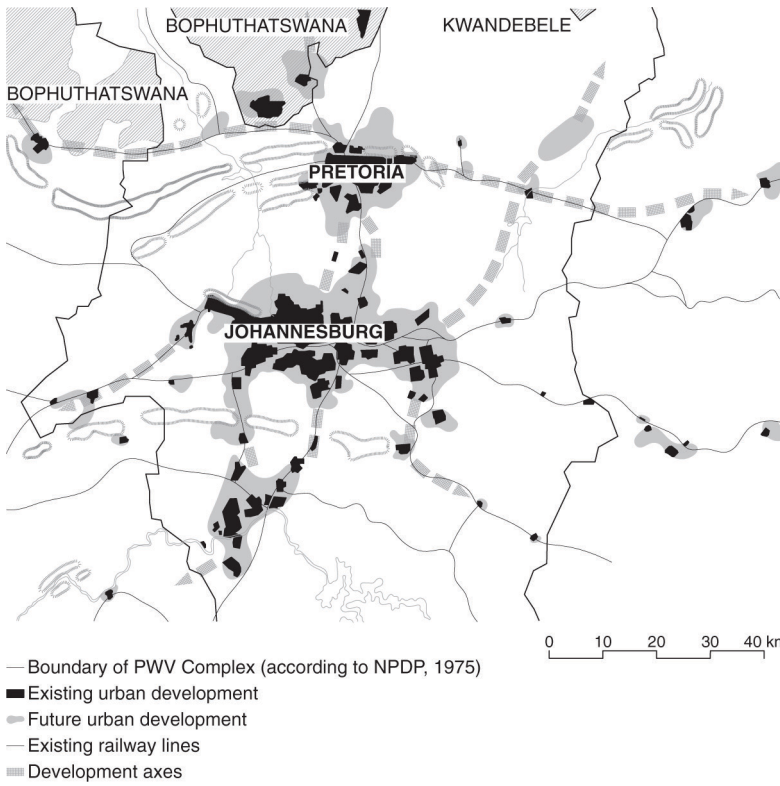

Figure 2.5 Map of Pretoria–Witwatersrand–Vereeniging Region in the 1970s. Map by Antonia Trager. Base map © South African National Archives and the National Department of Mines.

"state-instituted violence against racialized bodies and communities."[52] As Caroline Kihato explains, the apartheid spatial landscape "produced a group of people who lived and depended on it, but could not claim it as their home … and although they toiled in its mines, industries, and streets, they had no rights to live in it or make decisions about its future."[53]

As the centralities of Pretoria and Johannesburg expanded—along with smaller towns, too, as demonstrated below—these growing white-designated areas often came into conflict with areas designated for other racial groups. These racial majorities were almost always forcibly removed to even more remote geographic peripheries.[54]

The impact of forced removals and relocation to the urban peripheries is one of the most lasting damaging aspects of apartheid—an unequivocal accumulation by dispossession and increased separation of the activities of daily life.[55] Families were raised, self-determined livelihoods constructed, and interpersonal networks crystallized. Their spaces were conceptualized to be politically independent, yet were utterly dependent on the greater urban region for supplies and economic opportunities. This is precisely what popular centrality can offer—and why it is a threat to oppressive political-economic systems and those who operate them.

Popular centrality as a threat to the apartheid order

As more and more space was required for white urban residents, many of the last remaining vibrant urban places for other races close to the city centers became too "disruptive," and they were expunged. People were sent far afield to the point of fully fracturing their everyday lives between urban centralities and urban peripheries. This process severly disrupted their social networks and destroyed their capital, which had often been invested in their house, and cut off their access to the resources and opportunities of the city.

Heavily targeted by local councils and branded "black spots," Sophiatown, Martindale, and Newclare faced removals in the 1950s.[56] Sophiatown was subject to the violent eviction of its people in 1955, despite resistance from famous anti-apartheid activists including Nelson Mandela. Its Black residents were forced to move to Meadowlands, in Soweto; its Coloured residents were expelled to Eldorado Park, far southwest of the city center; so, too, were its Indian residents, who were forcibly removed to Lenasia. Along with the Western Native Township, all three areas were completely expunged from the map and "renewed" for

white residents by 1959.[57] Lady Selborne, a similarly diverse urban area founded in 1905, 15 kilometers northwest of Pretoria, was able to resist relocation with slightly more success, but was also eradicated by 1973.[58]

Conclusion

During this period, centrality—the access to urban centers, in this case—became increasingly exclusive for (British, wealthy) white populations. Material spaces resulting from mass relocations and housing construction on the urban peripheries marked a "regionalization" of the spatial development trajectories conceived under apartheid. Regulations and policies over space and everyday life also became increasingly nationalized during this period of "high apartheid," in which lives became completely fragmented and families fractured by the mobility required for moving between homelands and urban centralities. Because there was not significant financial investment into these peripheral areas, and people were largely commuting, it was historically difficult for popular centrality to arise.

The overall urban fabric of the growing region thickened between centralities and new geographic extents, creating a "peripheral mesh" nearly 200 kilometers wide during this period. It ended in 1969 with a restructuring of the urban region as continued waves of urbanization and increasing global financial entanglement slowly began to make the apartheid project impossible.

Period 4: Splintering centrality and extended urban peripheries (1969–1986)

In the fourth period, the material space of the region became even more extended as new concentrations of (sub)urban life concomitantly expelled underprivileged populations to even more distant peripheries. The transition to a service-based economy and opening of space to global corporations in places like Sandton reconfigured space and exacerbated spatial inequalities. As apartheid began to crumble under direct protest, subversive everyday practices, and a global economic slowdown after 1973, the centers were put under increasing pressures to diversify and establish a Black middle class to increase consumption.

The fourth period began when a multitude of shifts in urbanization processes ushered in the explosion of the historic centrality of Johannesburg's CBD. This had to do with a simultaneous reconcentration

of global financial capital and "white flight" into places like Sandton, and the thickening of space along the remote urban edges, all the way to the "homelands." The region became completely commuterized as large-scale regional flows along highways characterized many people's everyday realities, and it was also highly dependent on state subsidies for transit. Moreover, as mining began to decline and the service industry increased its share of the economy, restrictions on Black labor became a hindrance for this "capital-intensive" sector.[59] All of these factors served to "explode" centrality into fragments, increasing the complexity of the urban fabric.

Two independent municipalities, Sandown and Bryanston, merged to form "Sandton" in 1969, with the express purpose of creating a more tax-friendly CBD for global financial interests. This new business district was situated 15 kilometers north of the Johannesburg CBD and represented the trend towards decentralized nodes housing international corporations across the urban region. While these trends were, in many senses, an intensification of existing processes, they anchored centrality for only a privileged segment of the population into the fabric of the urban region.

The homelands and the advent of the highway system (in particular the N1 running all the way from Cape Town through Bloemfontein in the Free State, the Witwatersrand, Pretoria, and Pietersburg in the Limpopo to the border with Zimbabwe) also altered the traditional cruciform development of the corridor to begin a new period in the history of the urban region. Alan Mabin asserts: "This form of [transit-based] planning completely reconfigured the map of public investment in the city-region and its trajectory remains very powerful today."[60]

There was some peripheral development outside the major centralities, providing opportunities for remotely located people. The national government began to incentive industrial growth at the sites of mass housing settlements, for example adjacent to the emerging homelands north of Pretoria and in the Vaal district to the south. Mining was already on the decline in the central areas of Johannesburg; industry, as well as more upscale housing, continued to extend the urban region into the far north and large swathes of land to the southeast instead. More recent examples of frontier expansions include the gold mines of the far West Rand, such as Wedela from 1978, or the settlements of the Platinum Belt extending west of Pretoria, such as Marikana, which transitioned from agriculture to mining from the 1970s onward.[61]

The shifting sense of centrality reinforced these peripheries, and the independence of the highly fragmented homeland of Bophuthatswana

in 1977 strengthened the conception of a commuterized region as large townships were built just beyond the former homeland boundaries closest to Pretoria (see Figure 2.6).[62]

Commuting became an urgent challenge, as did the neglect of remotely located homeland areas with extremely underfunded governments. As the South African scholar Anthony Lemon describes:

> Some 750,000 so-called "frontier commuters" who cross "homeland" borders daily to work, together with their dependents and all other living in townships and squatter settlements which are functionally a part of urban areas in "White" South Africa, are excluded from RSCs. Thus the Pretoria RSC excluded well over half a million people—nearly one-third of Bophuthatswana's population—living in the Odi 1 and Moretele 1 districts, many of them squatters in the Winterveld. No effort has apparently been made by the Transvaal Provincial Administration to negotiate the inclusion of these districts, yet their exclusion deprives some of the areas most in need of upgrading.[63]

Within this same analysis, Lemon also points to regional divergences within the Transvaal Province; for example, the city of Johannesburg prioritized the provision of infrastructure to its townships, but Pretoria operated according to a "sliding scale" of needs that also funneled funds to wealthy areas such as Verwoerdburg.[64]

Regional-level planning bodies were established in the 1970s to control these developments, an implicit recognition that the "spatiality of the state" enacting apartheid was necessary on multiple scales.[65] As Lemon notes: "The whole period 1910–83 was characterized by increased state and provincial control over local authorities."[66] Nevertheless, a strong resistance to the regional tier of analysis and development persisted, in part due to the historical independence of the major metropolitan municipalities and trajectories of their respective developments.[67] These conflicts between the objectives of decentralized tiers of national, regional, and local urban planning and governance still exist today.

Thus, the newly emerging sub-centrality of Sandton began to shift power away from the Johannesburg CBD further north along the Pretoria–Witwatersrand–Vereeniging corridor as more centrally located townships continued to be removed and consolidated in the far peripheries of the Bantustans. These spaces must continually be considered through the lens of the extreme distances of the centers and peripheries embedded in the overall urban region.

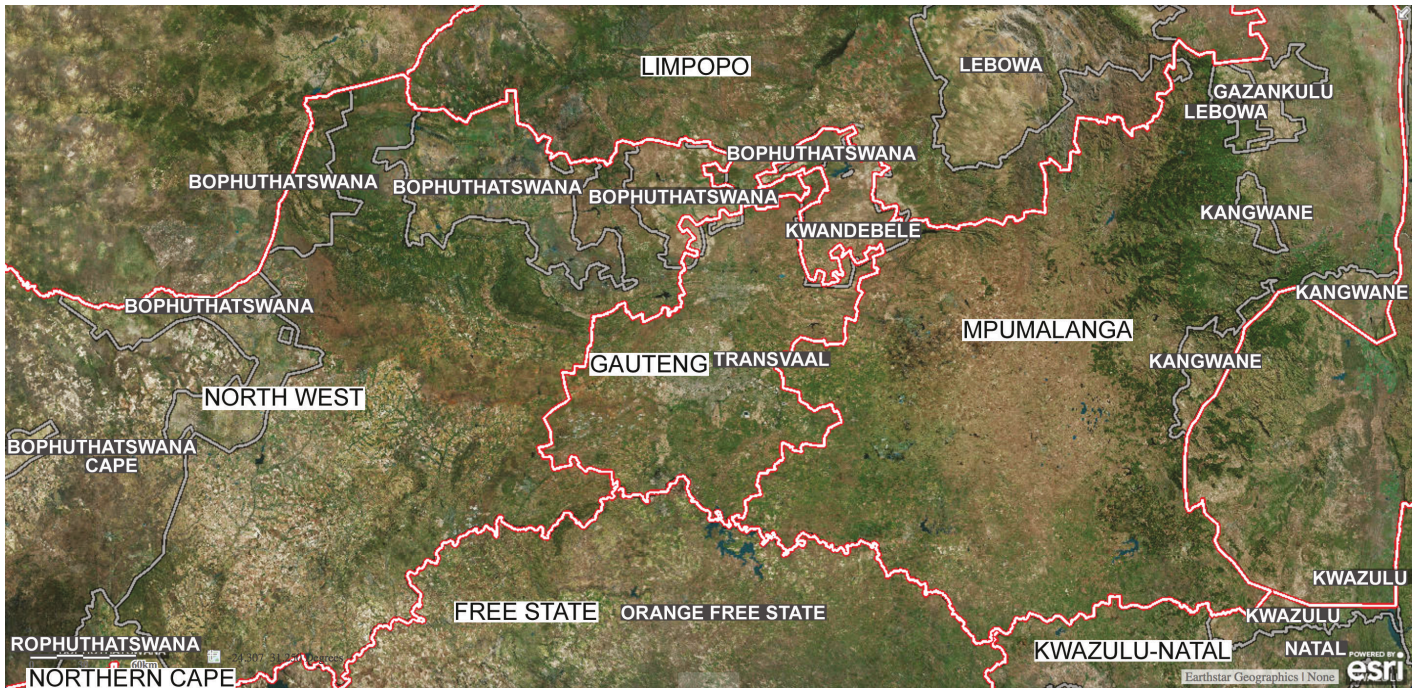

Figure 2.6 Map of the former Transvaal including Bophuthatswana. Public domain, available on the GCRO GIS Map Viewer, http://gcro1.wits.ac.za/gcrojsgis.

The resurgence of popular centralities

From the few dense urban areas where Black populations were allowed to remain in the extended urban region, political power began to emerge. Resistance movements led by famed activists such as Nelson Mandela and Steve Biko made sure areas were uncontrollable, or "ungovernable," and over time this helped lead to the demise of apartheid, along with the international divestment campaigns that began to severely impact the South African economy in the 1980s. The idea of individual agency became something collective: the processes of urbanization that yielded housing densification and popular centralities played a key role in the struggle.

In the central areas, rapid growth was also occurring. One of the first attempts at de-densification policies by the apartheid government was in Alexandra Township in the 1970s, where the government attempted to control social protests by forcibly resettling the men of Alexandra into gender-divided, "single-sex hostel" buildings. This resulted in even more, and increasingly violent, political contestation; in parallel, the population of Alexandra still continued to increase drastically through backyarding until, by the end of the decade, it was considered the densest place in the country.[68]

Adjacent to Alexandra Township, directly to the north, lies the light-industrial-zoned area of Marlboro South. The industrial township, in contrast, had originated in 1966 as a buffer zone,[69] one of several strips of land intended to physically separate the African residents of Alexandra from their surrounding affluent, primarily white areas.[70] Yet just as these businesses began to emerge, Alexandra became deeply embattled in the fight against apartheid control, culminating in 1986 in an uprising called the Six Day War. The government, nearly in a state of collapse, declared a State of Emergency in the area. It halted de-densification attempts, and instead abolished racial restrictions on movement, known as influx control. Coupled with plummeting land values and political instability the newly developed businesses of Marlboro South began to close.[71] The land and its abandoned buildings soon began to be used for a new wave of privately sanctioned "land invasions" during the period that follows this one.

Such rising central contestation against removals, resettlements, and evictions had a visible impact on business in the CBD too. These developments marked significant changes in the social realities of the central and peripheral spaces of the region. Throughout the 1970s, the municipality of Johannesburg began to make corresponding changes to

racialized zoning laws, allowing "mixed-marriage" residential areas, free trade areas in the CBD, and the desegregation of amenities and utilities.[72] This occurred pursuant to a 1982 Transvaal Supreme Court ruling, in a lawsuit representing people evicted from central Johannesburg spaces such as Joubert Park, Hillbrow, Berea, Yeoville, Mayfair, and Bertrams. There was widespread social unrest, rent boycotts, and international divestment.

Conclusion

During this period, inequality was consolidated on a regional scale: spaces of privilege existed along major highway corridors connecting urban centralities, while underprivileged spaces—the "manufactured political frontiers" of the Bantustans—were rendered practically invisible. Housing construction continued along race, space, and class lines into these extreme geographic peripheries, while the "meshwork" between also continued to expand, reconsolidate, and become increasingly blurry and complex.[73] Life was dominated by transit, which both then and now demands a large portion of most South African households' budgets, compared to other countries around the world, as in much of the so-called Global South.

At the same time, the loosening of certain apartheid restrictions for social policies introduced in the previous period in these centralities soon began in earnest, in response to the extreme state violence towards mass protests like the 1976 Soweto Uprising. Urban life in centers became more accessible for the majority population, as finally in 1986, influx controls were lifted and every person, regardless of their skin color, could finally move throughout South Africa freely. By then, the apartheid regime's system of controls had become so destabilized that the national government began to allow municipal governments to determine where the Group Areas Act would still apply. This marked the end of this transitional and critical period of Johannesburg's spatial history.

Period 5: Reconstituting centralities and densifying peripheries (1986–2008)

During the fifth period, the region's material space included a boomerang effect of informal settlements mushrooming in central areas and intensive backyarding processes as regulatory policies regarding land, housing, and mobility were opened to people of all races. Within two decades,

this process of urbanization largely stabilized. This embodied the most dramatic change to the lived experience of space in the GCR, full of conflicts between persisting path dependencies of the built environment and the new opportunities freedom of movement potentially afforded. There were not automatically more jobs in centralities—at least in "formal" sectors—but access to urban centers spurred all kinds of new forms of exchange and encounter, against and with the residues of apartheid.[74] This growth—at first extremely rapid, and then steady—held until just a few years ago, when observations and census data began to signal a possible significant change.

The shift in national policy from what the apartheid government termed "orderly urbanization" to the stabilizing of new informal settlement development bookend this period of rapid and intensive urbanization. According to the policy of orderly urbanization, all races were legally allowed to reside in urban areas. This shift was paradigmatic, as it deconstructed the concept that urban areas in South Africa were only for those of European descent.[75] Overnight, people could no longer be removed from occupied spaces without an official court eviction notice. It also loosened state control over the land market—while refusing to fully loosen control over labor. In total, 2.8 million people of Black racial designation alone entered urban areas in South Africa between 1985 and 1991.[76]

By the end of apartheid in the 1990s, this led to a restructuring of space across the GCR. A "mushrooming" of informal settlements occurred once people were legally allowed to be present in urban centralities.[77] This included a range of new and rapidly grown settlements within city centers, as well as their peripheries: in the south, Orange Farm in 1989 and Finetown in the early 1990s;[78] in the north, Diepsloot in 1991[79] and Kya Sands likely in the early 1990s;[80] in the east, Ramaphosa in 1994;[81] and a proliferation of infill settlements along the industrial belt south of the Johannesburg CBD beginning in 1999.[82] Most of these settlements arose as a response to the lifting of restrictions on the racial groups permitted to occupy centralities, including the appropriated high-rise residential towers in places like Hillbrow or the houses of Bertrams or Yeoville.[83]

The 1994 transition to majority government with President Nelson Mandela marked not just the formal end of apartheid but a significant turn in policy, including the signature program to redress the populations deliberately repressed by the policies of apartheid—and those of dispossession that had been operating since the founding of the urban region. Yet the pattern of greater Johannesburg continued to urbanize along the same lines of logic: everyday practices encroaching on centralities and the production of mass housing on the urban periphery, directed

towards the underprivileged and "aspirational middle class."[84] Housing for more privileged income sectors continued to evolve northwards and westwards of the Johannesburg CBD, as well as to the east and south of the Pretoria CBD, converting former agricultural land into exclusive, highly secured residential areas.

This period therefore also represents a shift in structural spatial inequality from one explicitly based on race to complex new configurations of class, in which inequality also reflects the restructuring of the labor market.[85] The government essentially stopped officially declaring areas for any particular racial group, and ceased enforcing race-based restrictions on land and home ownership. The government continued to support "site and service schemes," in which the private sector implemented the infrastructure supply and housing construction to meet skyrocketing demand.[86] As a reduction of control by the state coincided with an emerging real estate market for those previously unable to own property, the control over space became blurred. Through such phenomena, as Grant Saff astutely predicted in 1994: "class dimensions will become more pronounced, with access to urban space based on wealth rather than racial criteria becoming the defining characteristic of South Africa's cities."[87]

Alison Todes and her colleagues examined demographic changes after apartheid, including migration and urbanization rates, noting: "access to employment is a smaller motivating factor in choice of location, with some 42% locating in places where they have social networks, and another 30% where they are able to access secure tenure."[88] Such phenomena remain observable among the GCR's urban centralities, although the emergence of new informal settlement areas has slowed significantly since 2008.[89] But the new configuration of spaces on the regional scale resulting from these shifts is incredibly complex, and the processes occurring on the GCR's peripheries—the apartheid project's sites of exploitation and population control—often remain obscured.

The city of Johannesburg, through agencies like the Johannesburg Social Housing Company (JOSHCO), has begun producing rental accommodation in areas of relative urban centrality over the past two decades, since the early 2000s. Their stock primarily included renovated inner-city buildings and greenfield sites surrounding Soweto.[90] However, it remains a contested landscape between local, provincial, and national government: megaprojects are the latest iteration of conflict over control of greater Johannesburg between metropolitan, provincial, and national governance, which existed throughout apartheid.

Yet another important state agent, the city of Tshwane metropolitan municipality (formerly Pretoria), was fixated almost entirely on connecting

former Bantustan spaces of the north to the city center with transit in the post-apartheid era, continuing to build peripheral housing and developing "urban core densification" for retail in these remote spaces.[91] These responses to the legacy of apartheid all seek to address spatial inequalities, yet the question remains: How can planning realistically address such dynamics of complex, urban centralities and peripheries, which are highly ingrained into both physical spaces and social practices?

The potential of popular centrality

Popular centrality can arise and contain potential, which is dependent not only on relational location but also on the kinds of agency people exercise and how it comes together collectively. For example, Marlboro South served as a "buffer zone" between Black and Indian residential areas under apartheid.[92] Landowners and white industrialists in Marlboro South were aware of the immense existing Black population density in neighboring Alexandra Township in the late 1980s and the ever-increasing pressure to provide accommodation for new arrivals with the abolition of racially based restrictions on movement. This had two consequences: first, it resulted in a complicated assemblage of abandoned and underdeveloped stands; second, industrialists advertised emergency housing on underutilized or abandoned plots. These premises quickly became occupied in the 1980s, generating an intensive wave of population increase through self-financed and self-constructed spaces in existing light-industrial warehouses.

According to a warehouse resident who arrived in Marlboro South in the late 1980s, newcomers were provided with neither utility services nor guidelines for construction; they were simply allowed to occupy a property.[93] During this initial phase of occupation, the erection of shacks on vacant land was not yet prevalent; density primarily increased as residents built their own shacks within the warehouses, rented directly through a landowner or (alleged) representatives.[94] Emergency housing advertised by former business owners remained a popular form of housing for newcomers into the early 2000s, leading to a precarious, mixed-use, and spatially dense residential community in a light-industrial area. Because they lived in violation of planning and zoning schemes, their power to organize was limited and their level of social exclusion high.

In contrast, the density of neighboring Alexandra primarily increased through backyarding, with owner–tenant relationships and multilayered land uses. As a former freehold location, Alexandra

possessed significantly more power thorough the history of land ownership. Partially because of this, there was a long history of political activism in this space, with an important collective symbolism as a site of resistance. These factors allowed centrality to develop in ways a more "precarious" space like Marlboro South remains too tenuous to fully engender.

Today, the estimated 8,000 residents of 39 residential factories and several greenfield shack settlements have severely stretched basic utility services in the area. Availability of clean water, electricity, and sanitary facilities is one of the greatest challenges in Marlboro South, especially inside the factories. One water tap typically provides water for washing, cleaning, bathing, and cooking for the entire community. It is dark inside the buildings, even during daytime hours, and electricity is required to illuminate interior rooms without windows. Utility connections are illegal, and residents struggle to legalize them in a way they can afford. Some buildings have functioning sanitation; typically in each building, two or three toilets are utilized by 130–160 residents, or they rely on portable toilets and the bucket system when access to the city water and sanitation systems has been truncated.

Upgrading these conditions presents a vastly different challenge in Marlboro South compared to the dense fabric of Alexandra's backyards, which have varied forms of tenure and are zoned for residential occupation. Alexandra is a complex web of owners and tenants, officially zoned as residential with many interstitial businesses. Marlboro South is officially zoned light-industrial and now hosts an expanse of what are technically illegal residential functions (see Figure 2.7).

The dynamics between historical land-owning residents of Alexandra, long-term residents of the apartheid townships, and post-apartheid actants of densification processes in Marlboro South continue to intertwine their complex histories today. Alexandra played a significant role in South African history. As such, today, it has an ever-growing sense of centrality; this is both an asset to its development and potentially a threat, as the urban land market begins to intervene in what were, for most of its history, socially controlled transactions. Marlboro South arose during a tumultuous period of history and developed in the margins. Today, it sits between Alexandra and some of the wealthiest, most privileged spaces in the city-region's former white areas. With its wide variety of functions and diffuse history, it fluctuates between marginalization and development, a manifestation of the apartheid legacy inscribed into the urban fabric.

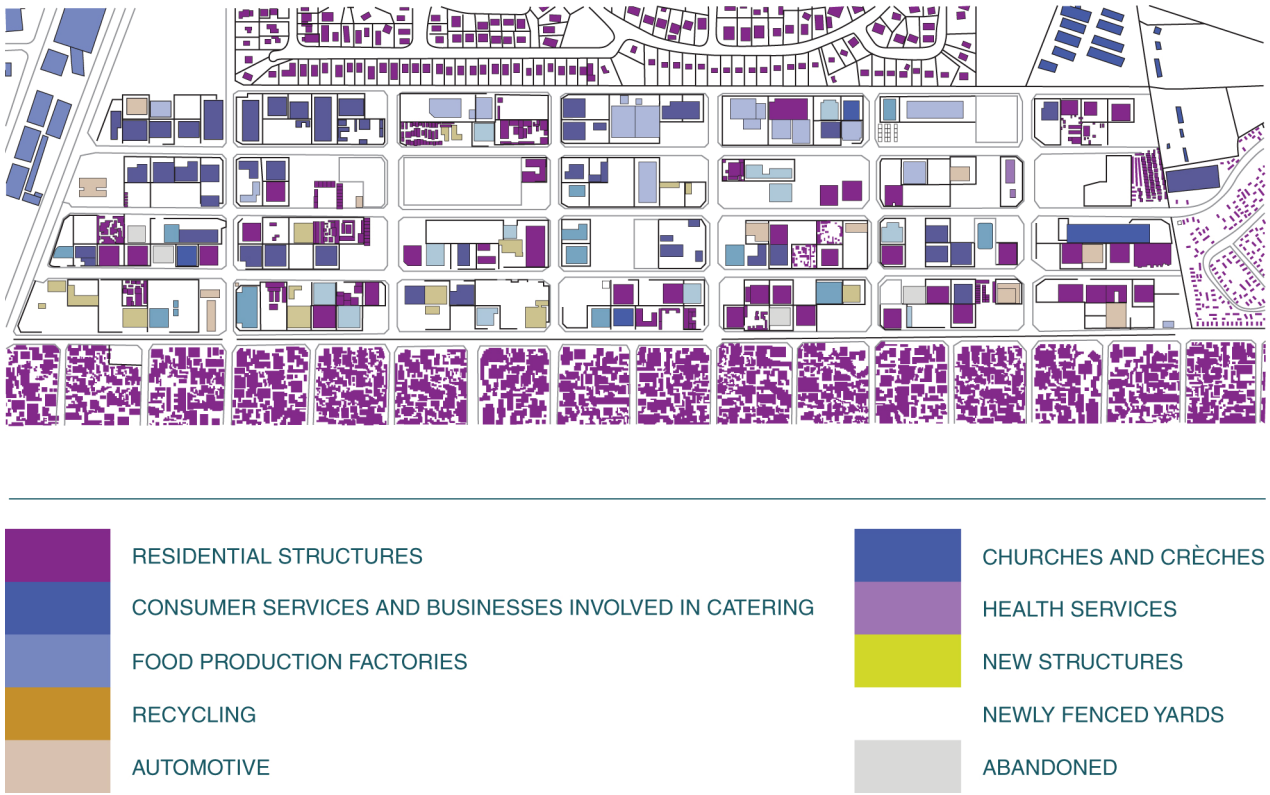

Figure 2.7 Map of urban fabric and functions in Marlboro South in 2016. © Lindsay Blair Howe and Vanessa Joos.

Conclusion

During this period, urban centralities began to be flooded with people and projects bringing the "urban imaginary" back into Johannesburg. This liveliness and intensity are encapsulated in the city's most contemporary nickname: Jozi. The material space of the greater region showed a slight reconcentration, with increasing division of space along class lines but more mixing of racial groups into formerly white and centrally located areas. At the same time, massive waves of housing production began on the urban peripheries under the promises of the post-apartheid government, continuing existing trends of extension and reconcentration. Bold infrastructure projects were introduced to connect the spaces between centralities and peripheries. In short, both a "revival" of the city and reconcentration of urban life occurred in parallel to the explosion of the region—Lefebvre's spatial dialectics on steroids, unfolding in real time. The everyday experience of the city-region became so complex that it was difficult to grasp at all.

Period 6: Extending and concentrating the peripheral mesh (2008–)

The period of urban growth and agency that defined the previous period—from the practical end of apartheid until very recent history—has been continually morphing. Since 2008, the meshwork of settlements stretching across the material space of 200 kilometers has largely stabilized its footprint.[95] Policies largely followed the "infrastructural turn" occurring globally, in which government administrations sought to provide large-scale urban infrastructure projects to address the needs of its populations.[96] In some ways labor inequality and social inequality were reduced, but by and large, the existing spatial and social structures in the GCR persist.[97] Yet now, as Philip Harrison and Alison Todes have described in their publication examining the "promise of planning," an observable mistrust of government to deliver on their promises is growing, alongside an increasing urgency of everyday human needs that are going more and more unmet.[98]

Yet at the same time, aligning with worldwide trends advocating urban renewal,[99] a new alliance of actors is seeking to reconstitute the centrality of Johannesburg, in the face of impending decline. Revitalization efforts and city improvement districts began to occur in the early to mid-2000s, but were often highly contested, as post-apartheid residents and

their less-than-formal everyday lives are not part of the vision for a commercial and cultural center.[100] Projects such as the Maboneng District in Johannesburg serve as symbols of deracialization, its patrons representative of the new, integrated South Africa. However, these remain commodified zones of urban consumption and represent the persistence of class lines in the formation of public space in Johannesburg, as well as much of South Africa and beyond. Moreover, the expansion of such areas contains echoes of apartheid, as the occupants of nearby Jeppestown are gradually priced out of their accommodation and deliberately excluded from participating in the social and economic relations one street away from their homes.

Lack of confidence in government across all tiers has increased in recent years, especially since the Covid-19 pandemic took a significant toll on the South African economy, and coincides with surprisingly low levels of urban population growth in the GCR reflected in the most recent census data from 2023.[101] This portends another reconfiguration of material spaces, regulatory policies, and social realities. Looking back in another ten years, this shift will be more evident than it is now—in the moment, in the making, and as described in the empirical chapters that comprise the rest of the book—so the rest of this section summarizes the key policies shaping centrality and periphery in the GCR today (see Figure 2.8).

Regulatory space in the GCR

Thinking through the five phases of spatial history until 2008, it is clear how influential the various levels of the state and their development have been in shaping Johannesburg and its surrounds. There are multiple tiers of governance responsible for spatial planning and urban development, each of which approach the legacy of extended urbanization from colonialism, mining, and apartheid in different ways.[102] And their strategies are often in conflict with one another. The Gauteng Province is responsible for regional transit and human settlements. It promotes the idea of cruciform urban development, like the bars of a kite: a north–south axis along the national highway connecting Pretoria through Johannesburg down to the energy-producing center of Vereeniging on the Vaal River, and an east–west axis connecting the two airports of O.R. Tambo and Lanseria through northern Johannesburg.[103] Along the edges of this "kite," on the distant peripheries of this nearly 200-kilometer-in-diameter region, they conceived "mega human settlements" to deliver the most housing possible on the cheapest land available, connected by highways.[104]

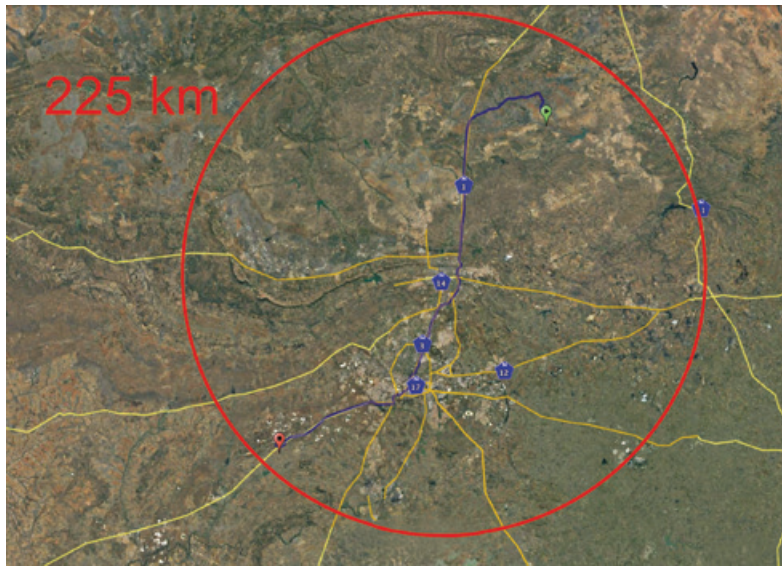

Figure 2.8 Contemporary map of the Gauteng City-Region. Image data: © 2018 AfriGIS (Pty) Ltd. Image Landsat / Copernicus. © 2018 Google.

In direct contrast to this, the city of Johannesburg is actively promoting a strategy of densification, and of setting a mandatory urban edge on outward growth.[105] They, too, promote transportation—in particular through an initiative once entitled the "Corridors of Freedom."[106] Local tiers of government have also begun asserting their capacity to deliver housing. Due in part to the extensive housing backlogs, as well as because of pressure from public protests about removals, a search for alternative models has become more prevalent within local government. The city of Johannesburg, for example, was recently granted the authority to manage housing projects within its metropolitan bounds.[107] While project financing previously relied on the national housing program, such shifts in power relations have led to more complex public–private partnerships in mass housing production on more well-located sites.

Government spatial planners typically view development as a sociotechnical phenomenon: they counter impoverishment with infrastructure and private sector, state-subsidized affordable housing or infrastructure. Yet it has not led to high-quality urban spaces on the peripheries, as an urban planner with the city of Johannesburg noted: "Developers aren't interested in the long-term impact of things … the costs aren't theirs to

worry about, so it's hard to motivate them."[108] A former city manager also cited a lack of concern for "social good" in development practices: specifically, the overriding power of developers to drive where development occurs rather than considering whether or not people can truly inhabit the spaces of the urban periphery they so often select, where the cheapest land is available.[109] It is simply easier to work with existing models for mass producing housing as a *tabula rasa* on cheaper, peripheral land than it is to negotiate the complex palimpsest of the existing urban fabric. This was done during the apartheid era, and today, it follows neoliberal logics of housing production Ananya Roy has described as "poverty capitalism."[110]

Yet innovative strategies for the specific spaces of the peripheries remain almost entirely absent from this discourse—in part, because the fact that so many people are living so peripherally presents a true conundrum for spatial planning, requiring new and potentially more risky development models.[111] Instead, transit-oriented development (TOD) is simply equivocated with improvements in sustainability and access to opportunities for the poor.[112]

TOD has several implications for the GCR. First, it has many unintended consequences that are challenging to predict in advance, ranging from the evolution of the urban land market to what happens to people who are displaced by development. Kirsten Harrison, for example, has noted how challenging it is to enforce affordable housing creation in corridor development in the GCR, despite well-formulated policy.[113] Second, TOD is based on what expert planners recognize as centers and connecting the peripheries to them, rather than analyzing the conjunctural relationships between them and the modes of spatial production that unsettle the logics of markets and state strategies. Third, policies in which the objective is to move people to centers do not mean that these people find opportunities in highly competitive established centralities. TOD is therefore often ill-equipped to incorporate micro-scale behaviors—so crucial to the context of urbanization in the GCR—and risks concentrating privilege along the very corridors it intends to make more equitable.

In one session of a longer series of interviews, a spatial planning expert commented: "The City of Johannesburg has committed itself to creating a 'guided' enabling environment for the private sector as they attempt to direct investment into areas not part of existing mainstream investment trends … Historically, [they have] had a limited impact in managing productive relationships with the property sector."[114] This is

recognized by directors within the city administration, who have stated, for example: "The City in the past has been very careful not to enforce adversarial relationships with developers. But maybe we should take a stronger stance to get the outcomes we want."[115]

Will the state be able to break from these practices and assert itself to enact such policies? And will shifts in market conditions convince developers to align their strategies with those targeting structural spatial inequality? These two factors will have a significant impact on urban development, particularly for the social groups historically disadvantaged by apartheid, in the immediate as well as the long-term future.

Conclusions

Discussing his work from Johannesburg, Achille Mbembe describes the challenge of working both with and against the enduring presence of the apartheid regime, having "left a legacy of some of the most inegalitarian structures of revenue distribution in the world." He continues that while

> preferential or affirmative action policies have been put into place for historically disadvantaged groups [and in] recognition of individual rights … in the most perverse configurations, attempts at reconstructing the state and nation on the basis of the principle of difference and the recognition of particular identities serve to exclude, marginalize, and eliminate certain components of the nation.[116]

Intrinsic conflicts continue to characterize space and social relations in South Africa today—and even more intensively in the face of increasing resource and job scarcity, chronic energy provision failures and economy insecurity, global pandemics, and social pressure.

What about Johannesburg's history matters? Henri Lefebvre never really engaged with conducting spatio-historical and empirical research aimed at attempting to read urbanization processes from the perspective of a complex African city like Johannesburg. Despite this, his strategies for understanding the syntax of space as something socially constructed and experienced—and as continually rewritten through the dynamic interplay between material, regulatory, and lived spaces—allow us to construct precisely such a reading of this urban area. In the face of reconfigured global challenges and geopolitical alliances in the future, all of

this points to a continued struggle between the opportunities of established urban centers, the genesis of popular centralities, and the destructive forces of peripheralization.

As the periodization in this chapter asserts, the territory-building processes that evolved into the GCR today began as a deliberate strategy for colonial domination over the spaces spanning a region essentially more than 200 kilometers in diameter. Scholars from Jo Beall, Owen Crankshaw, and Sue Parnell to Philip Harrison and Tanya Zack or Alan Mabin note that the policies of the apartheid era,[117] although "ruthless and extreme in separating out the remnants of integration [ultimately] failed in its objective of absolute segregation."[118] With everything from land to capital, housing to transport almost exclusively controlled by a minority group, apartheid was an inconceivably complex and gargantuan machine of social engineering.

The story of this region unfolded in five completed periods, with a new phase just beginning to unfold over the past decade and a half. My periodization, or spatio-historical analysis shows that, in many senses, Johannesburg is an "ordinary" urban region. It underwent processes of industrialization, rapid population influx, a shift to the service-sector economy, and urban expansion into the geographic peripheries. Yet the specific spatial dialectics between centrality and peripheralization resulted in a rather extraordinary urban configuration, with extreme challenges such as racial banishment to overcome. To fully move back to the present—and transition towards the empirical research that the rest of this book contains—the next three sections outline a few final key points about these facets of urbanization that continue to determine the space of the GCR today.

Centrality

Urbanization began at the sites of mineral extraction and attracted social groups that were subject to varying levels of residential tenure, forming spaces of exchange and encounter, particularly in Johannesburg. Access to the opportunities and resources of centrality was highly monitored and tightly controlled, becoming highly exclusive along racialized lines. The formation of new centralities in the northern suburbs along the corridor to Pretoria, particularly from the 1970s, reiterated the regional-scale urban configuration. At the critical juncture when influx control was abolished, deracialization gradually transformed greater Johannesburg into a blurred iteration of the former system but continuing to reflect extreme class inequality.

Periphery

Apartheid constructed the built environment to ingrain control into the territory, creating a class of permanently underprivileged commuters entrenched in areas of poverty. Large-scale housing developments on the peripheries continued to perpetuate apartheid patterns for lower-income residents in the post-apartheid era, while privileged housing was concentrated in other parts of the urban region. TOD policy does address environmental sustainability, reducing vehicular transportation in and around this massive urban region, but it alone cannot counteract nearly 150 years of mining and apartheid. It does not adequately shift the structure of space itself and in some cases consolidates privilege along corridors that already have better access to transport and opportunities, threatening the most vulnerable with displacement.[119]

Spaces between

What kind of city-making will be prioritized in the future? In examining the everyday production of space across the urban region of greater Johannesburg, studies into the lives of the underprivileged are practically invisible in conceptions of the urban that focus on the narrative of capital, but these implicit actions are essential to the functioning of greater Johannesburg. From the street vendors in the CBD to the unregulated recycling practices of Diepsloot and taxi routes of Hammanskraal, these people in the "spaces between" carry the weight of the urban region. Most of these activities of everyday life connect into and connect out of major urban centralities on occasion, but largely unfold beyond our view. It is partially within these residuals that Johannesburg shows what its unique and specific potentials are for space and everyday life.

Notes

1. This references Mbembe's description of Africa as the last frontier of capitalism in *Out of the Dark Night*; "African Futures" was also the subject of the European Conference on African Studies (ECAS) 2023 conference in Cologne, as well as Lesley Lokko's curation of the 2023 Venice Architecture Biennale.
2. Arboleda (2020), p. 5.
3. This included, for example, the doctoral theses of scholars such as Lindsay Sawyer (*Plotting the Prevalent but Undertheorised Residential Areas of Lagos: Conceptualising a Process of Urbanisation through Grounded Theory and Comparison*. PhD thesis, ETH Zurich, 2016); or Monika Streule (*Ethnografie urbaner Territorien – eine transdisziplinäre Analyse metropolitaner Urbanisierungsprozesse von Mexiko-Stadt*. PhD thesis, ETH Zurich, 2016), among several others at Christian Schmid's Professorship of Sociology.
4. Schmid (2022), p. 60, emphasis by the author.

5. Arboleda (2020).
6. Statistics South Africa (StatsSA) (2011) Statistical Release Census 2011. Available at: www.statssa.gov.za (accessed July 20, 2023).
7. See Harrison, P and Zack, T (2012) The Power of Mining: The Fall of Gold and Rise of Johannesburg. *Journal of Contemporary African Studies* 30(4): 551–570.
8. As described by Kevin Whitehead (2013) *Race–Class Intersections as Interactional Resources in Post-Apartheid South Africa*. Newbury Park: Sage.
9. Some of the publications about the emerging city and society in what is now the Gauteng City-Region include, for example, Norwich, OI (1986) *A Johannesburg Album: Historical Postcards*. Johannesburg: Ad. Donker; Van Zyl, D (1986) *The Discovery of Wealth. Heritage Series: 19th Century*. Johannesburg: Thorold's Africana Book; or the classic, Bawcombe, P and Scannell, T (1973) *Philip Bawcombe's Johannesburg*. Johannesburg: Village Publishing.
10. Drakakis-Smith, DW (1992) *Urban and Regional Change in Southern Africa*. London: Routledge.
11. See the seminal publications by Laurine Platzky and Cherryl Walker, for example Platzky, L and Walker, C (1985) *The Surplus People: Forced Removals in South Africa*. Johannesburg: Ravan Press, 72–83.
12. Worden, N (1994) *The Making of Modern South Africa: Conquest, Segregation and Apartheid*. Oxford: Blackwell, p. 37.
13. Götz, Wray, and Mubiwa (2014), p. 45.
14. Harrison and Zack (2012), p. 558.
15. Van Onselen, C (1982) *Studies in the Social and Economic History of the Witwatersrand 1886–1914*. London: Longman.
16. There were, of course, many women who also resided in the city, for example by finding jobs as domestic workers and living in the properties of the homes where they worked. For a fascinating account of this phenomenon, see Ginsberg, R (2011) *At Home with Apartheid: The Hidden Landscapes of Domestic Service in Johannesburg*. Charlottesville, VA: University of Virginia Press.
17. The history of the "slum" settlements is explained, for example, by Hellmann, E (1935) Native Life in a Johannesburg Slum Yard. *Africa* 3: 34–62; Hellmann, E and Rooiyard, S (1948) *A Sociological Survey of an Urban Native Slumyard*. Cape Town: Oxford University Press; or Koch, E (1983) Without Visible Means of Subsistence: Slumyard Culture in Johannesburg 1918–1940. In B Bozzoli (ed.) *Town and Countryside in the Transvaal*. Johannesburg: Ravan Press, pp. 151–175.
18. Much of the scholar-activist work in the 1980s and 1990s was involved with the question of land, occupancy, and which races were permitted to live where, emphasizing stories of how radical change could be possible. See, for example, Davenport, TRH and Hunt, KS (1974) *The Right to the Land*. Cape Town: David Philip, pp. 100–116; Platzky and Walker (1985), p. 335; or Parnell, S (1991) Race, Class, Gender and Home Ownership Subsidies in Contemporary South Africa. *Urban Forum* 2(1): 21–40 and Parnell, S (1993) *Johannesburg Slums and Racial Segregation in South African Cities, 1910–1937*. PhD thesis, University of the Witwatersrand, Johannesburg.
19. Similarly, several scholar-activists engaged deeply with everyday life on the extreme urban peripheries, in the then-existing "Bantustans." As previously mentioned, see Platzky and Walker (1985). See also work by the Black Sash, for example the 1983 publication *Squatters and Housing*. Cape Town: Black Sash National Conference 1983.
20. Brenner and Schmid (2012); Schmid et al. (2018).
21. As described by Brenner and Schmid in the 2014 publication The "Urban Age" in Question. *International Journal of Urban and Regional Research* 38(3): 731–755, p. 738. This echoes Louis Wirth's conception of urban life as a diverse cosmos of areas, people, and activities (Wirth 1969 [1937], pp. 143–144, quoted in Brenner and Schmid 2014, p. 738).
22. Viljoen, M (2009) The Life, Death and Revival of the Central Rand Goldfield. *World Gold Conference*, The Southern African Institute of Mining and Metallurgy, 131–138. Available at: http://saimm.org.za/Conferences/WorldGold2009/131-138_Viljoen.pdf (accessed July 20, 2025).
23. For a history of the Second Boer War, see: Thompson, L (2000) *A History of South Africa*. New Haven, CT: Yale University Press.
24. For a detailed discussion of the lasting impact of the war, see the second chapter (Class, Culture, and Consciousness in South Africa) and third chapter (War and Union, 1899–1910)

by Shula Marks in: R Ross, A Kelk Mager, and B Nasson (eds) (2011) *The Cambridge History of South Africa*. *Volume 2: 1885–1994*. Cambridge: Cambridge University Press.

25. See, for example, the research by Sue Parnell and Gordon Pirie, such as: Parnell, S and Pirie, G (1991) Johannesburg. In A Lemon (ed.) *Homes Apart: South Africa's Segregated Cities*. London: Paul Chapman, 129–145.
26. Bobbins, K and Trangoš, G (2018) Mining Landscape of the Gauteng City-Region. *GCRO Research Report No. 7*. Johannesburg: Gauteng City-Region Observatory, p. 45. Available at https://cdn.gcro.ac.za/media/documents/Mining_Landscapes_of_the_GCR_final_web_FA.pdf (accessed July 20, 2025).
27. See the work by Judin, H, Roux, N, and Zack, T (2014) Kliptown: Resilience and Despair in the Face of a Hundred Years of Planning. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 319–341; see also Weakley (2013).
28. Shorten, JR (1970) *The Johannesburg Saga*. Johannesburg: Published by the author.
29. See for example Maud, JPR (1938) *City Government: The Johannesburg Experiment*. Oxford: Clarendon Press; or Viljoen, M and Reimold, W (1999) *An Introduction to South Africa's Geological and Mining Heritage*. Randburg: Geological Society of South Africa.
30. Shorten (1970).
31. Paulson, SJ (1946) Early History of Newclare and Sophiatown Townships. [Archived letter, January 3, 1948] Union of South Africa Department of Native Affairs, Communication No. 51/313(E). Available at the South African National Archives (accessed July 2015).
32. van Onselen (1982).
33. See Khumalo, VR (2014) *From Plough to Entrepreneurship: A History of African Entrepreneurs in Evaton 1905–1960s*. PhD thesis, University of the Witwatersrand, Johannesburg; Khumalo, VR (2016) Evaton and a Quest for Economic Independence: A New Dimension to Entrepreneurship, 1940–1949. *New Contree* 77: 23–45.
34. See Bonner, P and Segal, L (1998) *Soweto: A History*. Cape Town: Maskew Miller Longman, p. 30; Bonner and Nieftagodien (2008).
35. Platzky and Walker (1985), p. 82.
36. This is citing Act No. 27 of 1913, enacted by the Parliament of South Africa and administered by the Minister of Native Affairs. It commenced on June 19, 1913 and was repealed June 30, 1991 by the Abolition of Racially Based Land Measures Act.
37. It corresponded to another development boom lasting until the Second World War. See Harrison and Zack (2012), p. 555.
38. Bonner, P and Nieftagodien, N (2008) *Alexandra: A History*. Johannesburg: Wits University Press.
39. Harrison, P, Masson, A, and Sinwell, L (2014) Alexandra. In P Harrison, G Götz, A Todes, and C Wray (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, pp. 342–369.
40. See Rubin, M and Charlton, S (2020) Living with Strangers: Backyarding, Density and Intimacy in Johannesburg. In M Rubin, A Todes, P Harrison, and A Appelbaum (eds) *Densifying the City? Global Cases and Johannesburg*. Cheltenham: Edward Elgar Press, pp. 190–201.
41. The rapidly increasing density of the built environment invoked the ire of the apartheid government in the late 1940s and 1950s, as described by Bonner and Nieftagodien (2008).
42. For more on this historic tragedy, see for example: Lodge, T (2011) *Sharpeville: An Apartheid Massacre and Its Consequences*. Oxford and New York: Oxford University Press.
43. Harrison, P and Harrison, K (2014) Soweto: A Study in Socio-spatial Differentiation. In P Harrison, G Götz, A Todes, and C Wray (eds) *Changing Space, Changing City: Johannesburg After Apartheid*. Johannesburg: Wits University Press, pp. 293–318.
44. South African History Archive (SAHA) (2011) Community Oral History and Photographic Project. Available at: www.saha.org.za (accessed July 20, 2017); interview with M Makwela (2014).
45. This statement is based on the historical trajectory of the areas as well as information collected from multiple expert interviews.
46. Crush, J, Jeeves A, and Yudelman, D (1991) *South Africa's Labor Empire: A History of Black Migrancy to the Mines*. Cape Town: David Philip.
47. SAHA (2011). Precise dates of establishment of Kokosi (and many of the southeast areas) could not be procured from literary reviews and interviews were not conducted at this particular settlement.
48. Platzky and Walker (1985).

49. Lemon, A (1992) Restructuring the Local State in Councils, Redistribution and Legitimacy. In D Drakakis-Smith (ed) *Urban and Regional Change in Southern Africa*. London: Routledge, 1–32, pp. 2–3. For a description of some of the impacts of the Group Areas Acts of 1950 and 1966 in greater Johannesburg, see this chapter.
50. Lemon (1992), pp. 5–6. This chapter also explains the history of Black local councils within urban areas, which already experienced high levels of conflict over infrastructure and service delivery in informal settlements in the apartheid era.
51. Simon, D (1992) Reform in South Africa and Modernization of the Apartheid City. In D Drakakis-Smith (ed) *Urban and Regional Change in Southern Africa*. London: Routledge, p. 52.
52. Roy, A (2019) Racial Banishment. In Antipode Editorial Collective (eds) *Keywords in Radical Geography: Antipode at 50*, p. 227. Available at: https://onlinelibrary.wiley.com/doi/pdf/10.1002/9781119558071.ch42 (accessed July 20, 2025). Roy discussed Los Angeles in this text, which was experiencing similar waves of urbanization and racial segregation without the codified policies of apartheid.
53. Kihato (2013), p. 5.
54. See Murray, C (1987) Displaced Urbanization: South Africa's Rural Slums. *African Affairs* 86(344): 311–329.
55. Simon (1992), p. 39. Simon explains how removals led not just to accumulation through dispossession but also to gentrification and what I later describe as aspirational urbanization: "While many of the removees [from urban spaces under the Group Areas acts] found themselves in inferior housing in sterile, overcrowded, and distant townships, their former homes were frequently turned over the Whites at relatively low prices. … White-owned companies were involved in the new townships housing construction. Many Whites thus made substantial direct profits out of Group Areas removals. This process therefor represents an example of congruent interests between various segments of capital and the state in the pursuit of urban apartheid."
56. Horrel, M (nd) A Survey of Race Relations in South Africa 1951–1952. South African Institute of Race Relations, Johannesburg. Available at: https://www.sahistory.org.za/archive/sairr-1951-1952 (accessed July 20, 2025).
57. Sindane, L (2005) Remembering Sophiatown: 50 Years On. Available at: https://web.archive.org/web/20060924050209/http://www.joburg.org.za/2005/feb/feb9_sophiatown.stm (accessed July 20, 2025).
58. Carruthers, J (2000) Urban Land Claims in South Africa: The Case of Lady Selborne Township, Pretoria, Gauteng. Kleio, *African Historical Review* 32(1): 23–41.
59. Simon (1992), p. 34. Simon also connects the demise of apartheid to urbanization, noting that apartheid's restriction of skill acquisition to white people "became a significant constraint on the increasingly sophisticated and capital-intensive economy, with its far higher skill requirements" by the late 1970s, pitting race and class interests against one another.
60. Mabin, A (2013) The Map of Gauteng: Evolution of a City-Region in Concept and Plan. *GCRO Occasional Paper 5*. Johannesburg: Gauteng City-Region Observatory, p. 22.
61. Interview with a spatial planning professor (2015).
62. The lack of urban centrality in these spaces failed to interest the majority of industrialists; aside from some specific cases (see Hart 2014), the policy was largely a failure. See, for example, Addleson, M and Tomlinson, R (1986) Industrial Decentralization Policy and the Prospects for the Development of South Africa's Homelands. *Journal of Modern African Studies* 24(1): 155–163; and Addleson, M (1990) Decentralization Incentives, Industrialists' Plans and the Location of Manufacturing Activity. *South African Journal of Economics* 58(2): 173–186.
63. Lemon (1992), p. 22.
64. Lemon (1992), pp. 24–25.
65. Fair, TDJ (1975) Commuting Fields in the Metropolitan Structure of the Witwatersrand. *South African Geographer* 5(1): 7–15, p. 11.
66. Lemon (1992), p. 19. See also the work of Cameron (1988), pp. 50–51.
67. Mabin (2013), pp. 20–22.
68. Bonner and Nieftagodien (2008).
69. See Parker, A and Appelbaum, A (2020) On the Defensive: The Residential Strategies Shaping Densification in Johannesburg's Northern Suburbs. In M Rubin, A Todes, P Harrison, and A Appelbaum (eds) *Densifying the City? Global Cases and Johannesburg*. Cheltenham: Edward Elgar Press, pp. 202–212.
70. No literature or interviews yielded insight into what happened between the sale of stands in the 1960s and the businesses established in the early 1980s in Marlboro South.

71. Several interviewees noted violence was so prevalent that factory workers would refuse to enter the area.
72. Simon (1992), pp. 46–47.
73. The concept of "meshworks" is theorized in Barua, M (2023) *Lively Cities: Reconfiguring Urban Ecology*. Minneapolis, MN: University of Minnesota Press. See also how this relates to Johannesburg in: Howe, LB (2024) From Lively Spatial Combinations to Lively Theorizations. *Urban Geography* 45(3): 507–510.
74. Many such situations are described in fascinating detail in a publication tracing the complex history and present of some of Johannesburg's downtown buildings in their occupied states: Dechmann, N, Jaggi, F, Murbach, K, and Ruffo, N (2016) *Up Up: Stories of Johannesburg's Highrises*. Johannesburg: Fourthwall Books.
75. Murray (1987); Bonner and Nieftagodien (2008).
76. See, for example, Saff, G (1994) The Changing Face of the South African City: From Urban Apartheid to the Deracialization of Space. *International Journal of Urban and Regional Research* 18(3): 377–391; or Cooper, C, Hamilton, R, Mashabela, H, Mackay, S, and Kelly, J (1992) *Race Relations Survey 1991/92*. Johannesburg: South African Institute of Race Relations (SAIRR), p. 330.
77. Huchzermeyer, M, Karam, A, and Mania, M (2014) Informal Settlements. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, pp. 154–175.
78. Leong, T (2009) Cities of Refuge: The Emergence of Temporal Urbanism. Site Exploration—Orange Farm. Cities of Refuge Series (7.1 and 7.2). *Wits Institutional Repository* environment on DSpace. Available at: http://wiredspace.wits.ac.za (accessed July 20, 2017).
79. Harber, A (2011) *Diepsloot*. Johannesburg: Jonathan Ball Publishers.
80. Weakley (2013), p. 115.
81. Dube, N. (2010) "Many Shades of the Truth": The Ramaphosa Case Study. The Xenophobia Project, Centre for Sociological Research at the University of Johannesburg, p. 7.
82. Bennett, J and Toffa, T (2014) Introduction to Studio at Denver. Desktop Analysis, Documentation & Compilation of Existing Data. Johannesburg: Unit 2, Faculty of Art, Design and Architecture, University of Johannesburg.
83. Bénit-Gbaffou (2014), pp. 252–268.
84. As stated in an interview with a City Manager (2016); see also Harrison and Harrison (2014).
85. Crankshaw, O (2022) *Urban Inequality: Theory, Evidence and Method in Johannesburg*. London: Bloomsbury.
86. Beavon, K (1992) Some Alternative Scenarios for the South African City in the Era of Late Apartheid. In D Drakakis-Smith (ed) *Urban and Regional Change in Southern Africa*. London: Routledge, 66–92, p. 53. Beavon further elaborates some further foundations of what I later describe as aspirational urbanization, explaining how the production of mass housing by white-owned supply and construction presented a new opportunity for capital accumulation. He stated: "Elite areas or even separate townships are now emerging in Black areas of towns and cities countrywide. This is especially evident with respect to the Coloured and Indian populations, where the lines between working class and mushrooming middle class are now clearly drawn not only in economic and political terms but increasingly also in spatial terms."
87. Saff (1994), p. 377.
88. Todes, A, Kok, P, Wentzel, M, Van Zyl, J, and Cross, C (2010) Contemporary South African Urbanization Dynamics. *Urban Forum* 21(3), p. 7.
89. Huchzermeyer et al. (2014).
90. Interview with a JOSHCO executive (2014).
91. City of Tshwane (CoT) (2016a) Regional Spatial Development Framework. Region 1. Approved 2017. Available at: www.tshwane.gov.za (accessed July 20, 2017).
92. The historical information about Marlboro South was previously published in Howe (2020).
93. Respondent, previous resident of Chico's ice cream factory (2016).
94. Respondent, C Gininda (2016).
95. See Huchzermeyer et al. (2014).
96. On this notion, see *Handbook of Infrastructures and Cities*, edited by Olivier Coutard and Daniel Florentin. On the infrastructural turn and implications of policies shaped by this thinking in the Gauteng City-Region, see: Howe, LB, Rubin, M, Charlton, S, Suleman, M, Parker, A, and Cani, A (2024) Multiple Publics, Disjunctures, and Hybrid Systems: How Marginalized Groups Stake Their Claims to Transport Infrastructure, pp. 307–318.

97. Crankshaw (2022) describes how inequality has, in some ways, been reduced. Gaps between races in income levels reduced, for example, yet this is also a product of Black elites earning high salaries than necessarily a broad overall reduction in inequality. He discusses labor markets and shifting skill sets, or occupational class structure transformations, and how this relates to change in spatial configurations.
98. Harrison, P and Todes, A (2024) *The Promise of Planning: Global Aspirations and South African Experience Since 2008*. London: Routledge.
99. Compare to the work for example of López-Morales, E (2015) Gentrification in the Global South. *City* 19(4): 564–573.
100. See, for example, Fraser, N (2007) Community Driven Partnerships through City Improvement Districts: Urban Development Partnerships in the Cities. SA Cities Network Seminar, March 28, 2007; or Garner, G (2011) *Johannesburg Ten Ahead*. Johannesburg: JoburgPlaces.
101. This references thinking by Mosiane and Götz (2022) as well as the most recent census data: see StatsSA (2023) SA Census Portal. Available at: https://census.statssa.gov.za/#/ (accessed July 20, 2025); and the Quality of Life Surveys conducted by the Gauteng City-Region Observatory. Available at: https://gcro.ac.za/research/project/detail/quality-life-survey-7/ (accessed July 20, 2025).
102. This section was previously published as part of a 2021 article in *Urban Geography*: Howe, LB (2021) The Spatiality of Poverty and Popular Agency in the GCR: Constituting an Extended Urban Region. *Urban Geography* 43(9): 1287–1308.
103. Interview with a provincial MEC, Minister of Transit (pers. comm., October 15, 2014).
104. Ballard and Rubin (2017).
105. Interview with a Gauteng City-Region Observatory executive (pers. comm., January 20, 2015).
106. See Harrison, K (2017) Transit Corridors and the Private Sector: Incentives, Regulations and the Property Market. In P Harrison (ed.) *Spatial Transformation through Transit-Oriented Development in Johannesburg Research Report Series*. Johannesburg: University of the Witwatersrand Press.
107. Interview with a spatial planning professor (2015); interview with a City Transformation senior employee (2017).
108. Interview with a City Transformation senior employee (2016).
109. City of Johannesburg Development Planning Department official (pers. comm., June 26, 2016) and Johannesburg City Manager official (pers. comm., August 23, 2016).
110. Roy, A (2010) *Poverty Capital: Microfinance and the Making of Development*. New York: Routledge.
111. Much excellent work on the production of mass housing and bond housing has been done by Sian Butcher. See for example: Butcher, S (2016) *Infrastructures of Property and Debt: Making Affordable Housing, Race and Place in Johannesburg*. PhD thesis, University of Minnesota; Butcher, S (2018) Making and Governing Unstable Territory: Corporate, State and Public Encounters in Johannesburg's Mining Land, 1909–2013. *Journal of Development Studies* 54(6): 1–24; Butcher, S (2020a) Creating a Gap That Can Be Filled: Constructing and Territorializing the Affordable Housing Submarket in Gauteng, South Africa. *Environment and Planning A: Economy and Space* 52(2): 173–199; Butcher, S (2020b) Appropriating Rent from Greenfield Affordable Housing: Developer Practices in Johannesburg. *Environment and Planning A: Economy and Space* 52(2): 337–361.
112. Croese, S (2017) International Case Studies of Transit-Oriented Development: Corridor Implementation. In P Harrison (ed.) *Spatial Transformation through Transit-Oriented Development in Johannesburg Research Report Series*. Johannesburg: Wits University Press.
113. Harrison (2017). Attempts to promote these objectives include offering developers incentives, such as density bonuses and a "direct line" to discuss permit applications with planning officials. See also Gauteng Spatial Development Framework (GSDF) (2013); interview with an urban and regional planning expert (2014).
114. Harrison (2017), p. 2.
115. Interview with a City Transformation executive (2016).
116. Mbembe (2021), p. 176.

117. Beall et al. (2002); Harrison and Zack (2012), p. 566; Mabin, A (1992) Comprehensive Segregation: The Origins of Group Areas, c. 1935–1955. *Journal of Southern African Studies* 18(2): 406–429.
118. Harrison and Zack (2012), p. 554.
119. Compare to the work conducted in the North American context, primarily in California, by Karen Chapple and Anastasia Loukaitou-Sideris, for example Chapple, K and Loukaitou-Sideris, A (2019) *Transit-Oriented Displacement or Community Dividends? Understanding the Effects of Smarter Growth on Communities*. Cambridge, MA: MIT Press; or in the context of Marlboro South in Johannesburg: Howe (2020).

3
Deciphering societies on the move

If the African city of today is one of more pronounced individuality and agency, shaped by constant negotiation and the volatility of people's social realities, conventional methods of urban research are ill suited to grasp this complexity. People's movements are rarely depicted in enough detail to reveal their specificity and regularity; nor can established methods fully describe what patterns of mobility mean for them and how areas might be interrelated—information required for proposing planning policy or comparative research grounded in empirical realities.

Traversing the urban fabric is a necessary part of everyday life, not merely for accessing essential supplies but also for conducting the caring and acts of maintenance that make work possible. There is, simply put, a massive amount of information about these kinds of quotidian activities and related symbolic meanings in Johannesburg that we do not possess.

Despite the popularity of big data today, what is actually occurring in urban space can be masked by quantitative approaches. We require fine-grained, qualitative, and mixed-methods research if we want to be able to move beyond simply describing what an urban area contains to why it functions the way it does. As this chapter discusses, VGI is a valuable tool that can bridge this methodological gap because it can illustrate Lefebvre's dialectics of centers and peripheries in a novel way, indicating where centers and peripheries are, as well as the movements in between them. This is essential to understanding the everyday functioning of urban regions and the impact of extended urban areas on individual and collective urban life, especially for the least privileged residents of such areas.

Yet in the assemblage and interpretation of knowledge about the urban, one must also constantly grapple with what an expert is and what

an expert does, and what right an outsider has to engage with an African city. Andy Merrifield has written on this subject, reflecting on how:

> "Expert" becomes a pretext to say what you like in a certain context; it's an opt-out clause, a denial of open-mindedness, of being inquisitive, of stretching your horizon. Experts affirm what they think they know matter-of-factly, never straying outside their comfort zones, where they'd be insecure, a non-expert, like the rest of us. So they play it safe; expert circles shrink, vistas narrow, intellectual curiosity diminishes.[1]

In architecture school, students are taught how to present and defend ideas, to always project authority and expertise—to buy into the male biases that still widely dominate the profession. But the kind of urban research I wanted to conduct—inductive and empirical, learning from the ground up with people at the center—required precisely the opposite approach.

It also required a serious reflection on my own characteristics as a foreign white woman, going into the field with an awareness of the Eurocentrism that has long shaped discourses in qualitative fieldwork and urban studies. Redressing these effects and understanding academic complicity therein, as discussed by Hanna Hilbrandt and Julie Ren,[2] challenges us to "reverse the gaze" by looking at oneself in relation to the other,[3] acknowledging the institutional and epistemological benefits that Western and European researchers benefit from,[4] and aiming to translate research into advocacy for new spheres of action despite the long shadow of colonialism.

Listening, curiosity, and cognizance of my positionality were therefore essential to understanding people and centering their stories at the heart of the research. With this in mind, in my work in Johannesburg, I always aimed to ask: How can one grasp the urban experience from the perspective of the people with whom I engage? I asked this while remaining cognizant that it is never entirely possible to fully live these realities as researchers—inherently a privileged position? This builds on the ethnographic approach of establishing close relationships with subjects of study, emphasizing their agency,[5] and continually validating research designs through the use of mixed methods.[6] Conducting this process led me to the two critiques of existing "expert" methods and approaches I present in this chapter, as well as the development of a new methodological research component utilizing VGI as a means of tracing, comprehending, and depicting social realities.

The chapter delves deeply into the research design to examine patterns of movement and interaction, describing the mixed methods

utilized in five studies in total. It includes how partner organizations and participants were recruited, and describes the VGI smartphone application developed for the series of research projects and the multisited ethnographic research and expert interviews.

Sedentary biases and relational understandings

Despite frequent calls for interdisciplinarity and mixed methods in urban studies,[7] there is surprisingly little research into how people's individual, everyday movements connect with processes of urbanization. One reason this has not occurred is because understanding this relationship requires both quantitative and qualitative knowledge. Even methods from the field of migration studies,[8] as well as multisited ethnographic approaches on different scales, must overcome a "sedentary bias" focused on places and neglecting physical movement itself.[9] Another reason is a lack of conception of areas as relational wholes across multiple scales of investigation.[10]

Critique 1: movement and mobility

The study of movement is more common in migration and transportation than in urban studies, yet it is limited in understanding the reasoning behind people's specific mobility choices. Evolving out of the classic migration literature, scholars proposed a "new mobilities paradigm" in the early 2000s, emphasizing this movement and experienced space. In their seminal text, Sheller and Urry explain:

> Social science has largely ignored or trivialised the importance of the systematic movements of people for work and family life, for leisure and pleasure and for politics and protest … the spatialities of social life presuppose (and frequently involve conflict over) both the actual and the imagined movement of people from place to place, person to person, event to event.[11]

Yet despite this appreciation for relationality and empirical groundedness, descriptions of movements themselves and mixed methods remain scarce. The qualitative methods typically employed in such studies, suggested by Sheller and Urry, also propose seven surprisingly sedentary tactics, such as "time-space diaries," evaluating personal objects such as websites, or describing affective dimensions of mobility.[12]

A further difficulty with investigating mobility is the tendency of social science and mobility studies to engage by tracking "big data" obtained

without consent. Big data is defined as "machine-readable information"—available in overwhelming quantity today, often without any kind of consent—as the basis of urban analysis,[13] and known as "network science."[14] It uses large-scale datasets to shift towards a "topological perspective," seeking to delineate the "flows" Manuel Castells described during the birth of the digital age.[15] Such investigations often track mobility through aggregating mobile phone datasets,[16] following up on "statistically-relevant" information using qualitative methods, such as semi-structured interviews.[17]

This could indeed be described as mixed methods, and has even been used to pursue questions about everyday life, but the focus is typically on the patterns themselves, which often create more questions than they can answer. However, scholars such as Kael Greco criticize these approaches, noting:

> This prevailing notion is that important stories sit somewhere within all data, and consequently, the task of analysis and representation is to simply uncover stories. And thus, the march toward data-absolutism continues, instilling a tendency to cast meaning where it simply doesn't exist—to identify or construct false patterns in the great static that is big data.[18]

Who is included in these kinds of mobile phone and social media-based datasets? By starting from a large-scale dataset, how can researchers identify what the right questions are to pursue? Big data thus has significant limitations in the investigation of people's actual movements.

If the core of spatial practices in everyday life is how one travels through the urban environment—which Lefebvre refers to as lived-symbolic or experienced space[19]—movement can lead to a reconfiguration of the "micro-geographies of everyday life" as well as urban space itself.[20] Mobility is therefore not just a characteristic but also generative, providing access to resources and opportunities.[21]

There have been innovative attempts to utilize smartphones to gather quantitative geospatial data, such as the informal taxi-mapping projects Digital Matatus in Nairobi and WhereIsMyTransport in Cape Town,[22] yet VGI otherwise remains largely unexplored in transportation studies and related fields.[23] Established mixed-methods approaches rely instead on tools such as GPS trackers and start-and-end questionnaires,[24] or a combination of questionnaires and semi-structured interviews.[25] Such approaches are promising in their ability to bridge scales and have successfully discussed phenomena such as the emergence of gentrification[26] and persistence of segregation.[27] However, they remain

area-based, focused on the sites that movement leads to and from, rather than the pathways weaving locations together to constitute the "everyday" production of space.

Critique 2: the relationality of space

The formation of urban territory is a relational and dialectical process; territories are produced, managed, and governed deliberately.[28] People move through them, seeking opportunities and remaking space in the process. Some suggestions for improving everyday life for marginalized social groups, for example, include escaping poverty and persecution through mobility;[29] the interplay between fixity and mobility;[30] and how the dialectic between mobility and immobility "raises questions of power relations and the politics of place and movement, suggesting that (im) mobility resources, spatial freedom and constrictions are unevenly distributed across social categories."[31]

Mobility studies does emphasize why people make choices to live where they do, for example, describing affinities for certain environmental features or personal bonds to certain places.[32] Aligned with this in urban studies, Patrik Rérat and Loretta Lees use the term "spatial capital" to describe the ability to benefit from the spatial dimension of society,[33] for example in terms of access to transportation and therefore resources, making choices "in terms of both fixed location and mobilities, to organize one's life according to aspirations and constraints."[34]

For people negotiating life in urban areas like Johannesburg with few material and financial resources, entire decision-making processes and resources often revolve around accessing opportunities and their movements are all-consuming. Space is much more than emotionally affective for people living in poverty or something to be governed—it is a strategy, leveraged as identity and a means of advocating against relationally produced inequality.[35]

So while movement is no longer trivialized in the social sciences or urban studies, no existing methodologies or tools are comprehensive or precise enough to understand the Gauteng City-Region (GCR) as construed through everyday movements and interactions, as a means of reflecting on what Loïc Wacquant refers to as the "relations of poverty, territory, and power" and transcending the constraints of area-based studies.[36] Parallel to the critique of neglecting movement itself, neglecting such aspects of structural segregation and inequality cannot yield a full understanding of the production of space on multiple scales in contemporary urban regions.[37]

The next section of this chapter explains how research attempted to build on these critiques, "thinking through people" with a research design developed across several projects in the GCR.

Research design

In the GCR, inequality is visible from satellite imagery. Based on these impressions and literature review, I compiled a list of areas to visit in 2011. In selecting where to investigate, rather than purely looking for areas with, for example, the most similar or most different characteristics to compare, I followed the practice of "siting" proposed by scholars such as Thea Riofrancos.[38] Siting allows the investigation of linkages, hierarchies of power, and questions of scale, and to see whether similar trade-offs and dilemmas arise in complex and possibly divergent contexts.[39]

I first conducted exploratory fieldwork and multisited ethnography: moving in a car and on foot, taking taxis and rideshares, while continuously conducting ethnographic interviews. Semi-structured expert interviews included informants embedded into areas, as well as professional experts from academia, government institutions, transport associations, planning and design offices, and NGOs (see Figure 3.1).[40] Yet while these methods from the social sciences were highly valuable in understanding the general trends of urbanization, further levels of spatial thinking were required to grasp the relationship between these parts and the relational whole of the urban configuration.

My initial investigations also revealed that temporality and mobility were crucial components of everyday life in the GCR. A mixed-methods approach, including focus groups, ethnographic and expert interviews, as well as mapping with an innovative smartphone tracking application, was developed over the course of several projects. I also introduced a further research method beginning in 2014, recruiting participants to collect VGI with a smartphone application about their movements and modes of transportation (as detailed in the next section).

Further methods implemented between 2011 and 2019 comprised several hundred site visits including participant observation and ethnographic interviews. Nearly 100 interviews with professional experts, such as planners or government officials, were conducted, including 24 expert interviews targeting current and former planning officials and urban designers within the city of Johannesbrg and Gauteng Province; political representatives; members and leaders of community-based

Figure 3.1 Fieldwork in progress at Planact. © Lindsay Blair Howe.

organizations (CBOs); business owners; as well as local experts such as community leaders, taxi drivers, or families and households.

For areas this book describes in depth, such as Diepsloot or Denver, I conducted a minimum of five rounds of on-site fieldwork, supplemented with a literature review, material from the South African National Archives, and interviews with key stakeholders in government. The first visit consisted of a drive throughout the area and photographic documentation of the settlement typology, establishing initial contact with potential informants, while the second involved following up on key observed phenomena and making contact with informants to conduct initial expert interviews. The third visit consisted of multi-hour, semi-structured expert interviews at primary informants' places of residence, followed by a multi-hour walk throughout the area with the informants to the places that were meaningful to their everyday lives. A series of ethnographic and mobile interviews was conducted with people encountered along the way, including members of their social networks as well as businesses embodying the social and economic characteristics of the area.

The fourth visit, conducted after writing up the results from the first three visits, confirmed the information garnered with informants at a place of their choice and repeated segments of the walk to further enrich information and examine change. A fifth visit addressed any open

questions and final photographic documentation. The five visits describe only the formal visits with participants of my doctoral study; many more were conducted informally through the course of fieldwork from 2014 to 2017, and again through further collaborative projects between 2019 and 2022.

Several years of mobility studies tracking movements and modes of transportation were conducted too, as described below, cross-referenced with a quantitative survey commissioned in 2016, as well as data from StatsSA 2011 Census and the Gauteng City-Region Observatory's (GCRO) 2009 Quality of Life Survey. The empirical findings were synthesized through triangulation,[41] as well as mapping methods.[42]

But in all honesty, what made the most sense to me was to follow my instincts. I found that if I framed any place as ordinary and simply let the things that are unique and fascinating emerge inductively, they always did. This guided my initial studies, which I conducted for my doctoral work, and set the stage for several large-scale collaborations described later in this chapter.

The volunteered geographic information app

In their 2014 description of the Gauteng City-Region, in the compendium on Johannesburg entitled *Changing Space, Changing City*, Graeme Götzand his colleagues Chris Wray and Brian Mubiwa from the GCRO state: "a key factor in understanding a functional city-region is the daily flows of people between its constituent parts."[43] Not only is movement key to fathoming regions, but physical mobility is also one of the purest expressions of freedom from apartheid.[44] As such, connecting patterns of mobility to social realities helps to formulate a grounded perspective on the everyday production of regions like the GCR.

Writing on data derived from mobile phone big datasets, Greco further notes: "The cell phone is one of the most powerful real-time sensing mechanisms currently available to us; the ubiquity of digital devices allows us to capture extremely high-resolution traces of humanity across a variety of dimensions."[45] This is also true for urban Africa, in which mobile phones play an important role in generating income opportunities and accessing resources and social networks.[46] However, the use of VGI remains largely unexplored.[47]

If we look at their actual movements, people do not always act in the ways one might expect, for example, traveling between peripheries

and the nearest centers according to major transit corridors. Instead, they utilize the distinctive complexity of the region. Some travel at regular intervals to very different destinations, often seeking work using many modes of transit; some are able to walk to opportunities because they have carved out a precarious "toehold" for themselves in the urban fabric; others spend intervals living between members of their family in distant peripheries and more centrally located areas. Maps of these popular trajectories reveal that what were once considered peripheral parts of the region's urban edge are becoming new kinds of centralities as people connect into these spaces and break from apartheid-era commuting patterns (which the next chapter discusses comprehensively).

Discovering where people go and why allows highly specific insight to emerge into how they attempt to access centrality and how the space of the city-region is a resource for them on both the micro (individual/household) and macro (regional) scale. VGI, in combination with other qualitative methods, is thus presented as a valuable tool for illustrating dialectics of centers and peripheries—indicating where centers and peripheries are, as well as the movements between them. VGI also provides a highly detailed basis for illustrating phenomena such as regional-scale migration "circuits,"[48] revealing urban inequality in spatial structure and pointing at nodes where groups could potentially encounter one another.

The mobility patterns and modes recorded with VGI demonstrate how transportation paths and motivations for travel remain intricately linked to income level, race, and the structure of space itself. While it is assumed that geographic locations and movements have a significant impact on space and opportunity, particularly for those with few resources, the method and tools presented in this chapter are capable of showing how and where these things unfold. As Caitlin Blaser Mapitsa and Loren Landau explain in their investigations of municipal responses to mobile populations in South Africa: "Looking at the capacity to plan toward a mobile population can unlock technical, political, and conceptual challenges municipalities currently face in a wide range of programs," including issues of social cohesion and "expressions of power."[49]

The Gauteng City-Region VGI studies and beyond

An initial beta test of the project was first conducted in 2014: five target settlements in the city-region were identified through discussions with Prof. Dr. Philip Harrison at the University of the Witwatersrand and Jennifer Van Den Bussche of the NGO Sticky Situations. One resident

of each area, located on the periphery of greater Johannesburg, was selected for a test of what was then titled the *myCity* application (see Figure 3.2). They were chosen to represent a wide spectrum of urban residents within the geographic areas; the settlements themselves were selected according to their varying proximity to the CBD and primary financial and job centers.

Participants were selected in conjunction with Jennifer van der Bussche in Johannesburg and a volunteer of her organization, Lucky Nkali, who also assisted in the coordination of participants to ensure information transmission remained anonymous and that language was not a barrier in instruction (see Figures 3.3 and 3.4). The participants represented both genders (three female, two male), ranged in age (between 20 and 55 years), and had varying occupations (student, hip-hop artist, housewife, community organizer, and unemployed). Each of the participants reported their GPS positions and modes over the course of one week. This version of the application had no feedback mechanism for the user; it was not yet capable of displaying maps or graphical information.

The primary round of doctoral fieldwork for the retitled *myJozi* application was then conducted during the winter of 2015 with 30 participants. The smartphone data was supplemented with ethnographic interview questions and extensive site visits. In this round, the participants were also selected to represent their area of residence relative to their centrality or peripherality from places of opportunity. They were selected to represent both genders (14 female and 16 male), ranged in age (from 20 to 67 years), and had a wide range of occupations (e.g., welder, mechanic, domestic cleaner, cake froster, Reconstruction and Development Programme (RDP) contractor, Pikitup recycler, NGO volunteer, or unemployed). Previous participants were re-recruited, along with further people through two NGOs: Mike Makwela represented Planact and several volunteers assisted from Shack/Slum Dwellers International (SDI). Planact is one of the oldest NGOs in South Africa, established in 1985 by development experts aiming to promote social and political change.[50]

Planact's interest in the project was twofold: because they work to build capacities across such a wide range of spaces and conditions in greater Johannesburg, they benefit from an understanding of how flows of people and information function across this whole; they are also interested in potential tools that can advance their analysis processes and that can act as a networking platform for the residents of the settlements with whom they engage. SDI was interested in the project due to a previous research partnership in Marlboro South and because they were curious about how collecting this kind of information might potentially impact

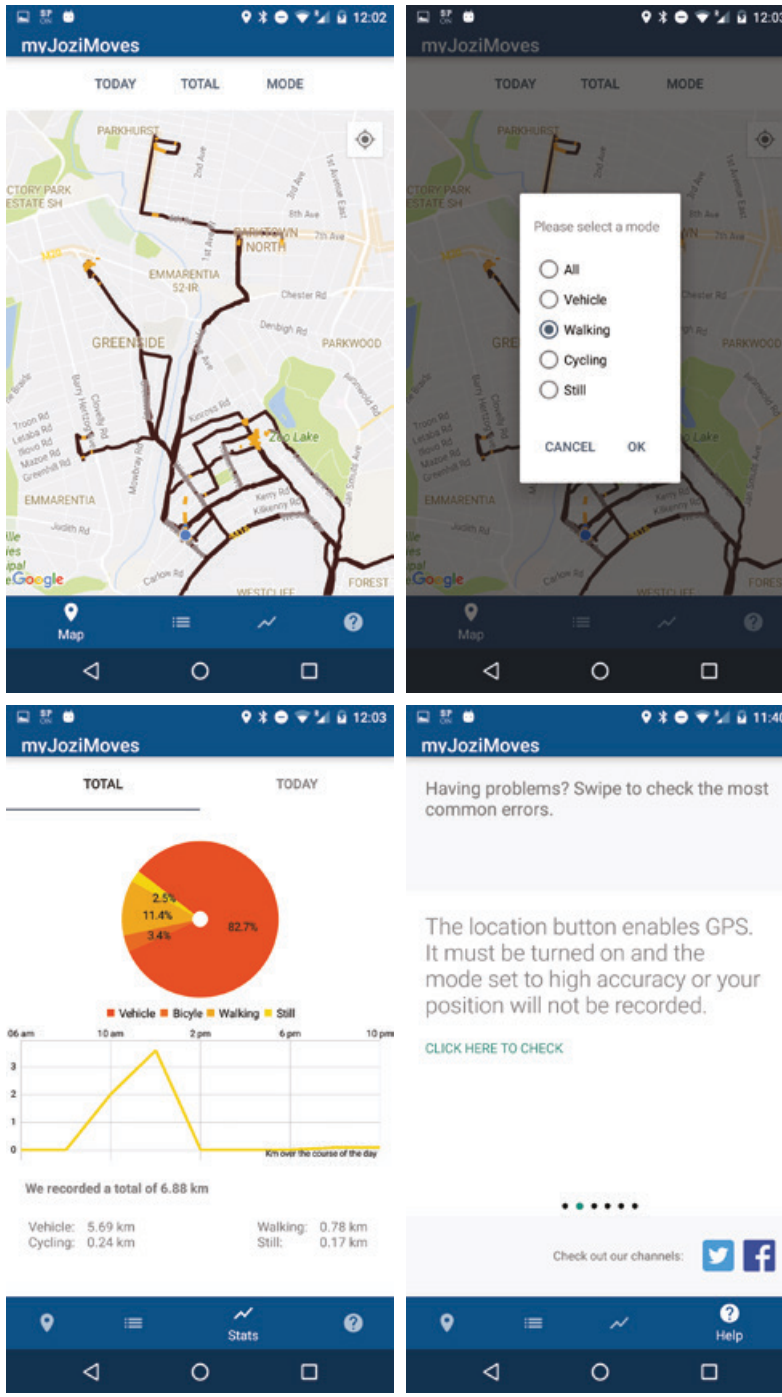

Figure 3.2 Smartphone application screenshots.
© Lindsay Blair Howe.

Figure 3.3 In the field with Lucky Nkali and "Amahle" in 2014. © Lindsay Blair Howe.

the settlements they support through upgrading processes. These partnerships provided an invaluable transdisciplinary link between academia and the study participants.

From July 8 to August 7, 2015, the app recorded qualitative and quantitative data with these participants, which were roughly distributed across ten settlements. The application functions in such a way that little background knowledge and effort by the user was required for it to

Figure 3.4 In the field with Lucky Nkali and Tryna Mabasa in 2024. © Lindsay Blair Howe.

collect the datasets. Upon opening the program, a user survey is automatically initiated and each participant completed it. This setup process, as well as an introduction to the research goals and study objectives, was conducted at a group workshop supervised by Planact.

After this step was completed, all that was required to track GPS positions and frequencies of movement was running the program in the background; while participants were encouraged to check in with the program and use its features, it required no further interaction. The information was anonymously uploaded to a server for analysis by the research team.

Additional features were integrated into this iteration of the application, in order to create a broad-based appeal to end users, whether first-time or long-term smartphone uses. This included automatic mapping of paths and modes of transportation for the end user directly on their device, graphics indicating distances and modes traveled to foster internal motivation to continue the study, and a user-friendly interface aligned with applications such as WhatsApp. One of the primary sources of error during the test study was human rather than technical: simple mistakes such as accidentally turning off the data bundle or failing to carry the phone at all times significantly influenced data collection at this

scale of accuracy. In the full study, participants had the capacity to diagnose errors directly through the application; errors were also diagnosed in person by the research team, who were able to deal with technical problems quickly and efficiently during the study.

Parallel to the data collection phase, potential candidates for further study were interviewed using a semi-structured outline, and then once their patterns were established, the information was combined. Twenty-six of the 30 participants were interviewed at their place of residence and four at their place of work or their chosen public location. These interviews lasted various lengths of time, depending on their circumstances, level of safety in the area, and quality of information.

After the study was completed, the accumulated paths of each person were examined to understand the overall spaces through which they move. Then, each day of the study was examined individually, with attention to travel times and transfer points, but primarily with an emphasis on end destinations to establish repeating patterns and exceptions. In a final step, these mobility patterns were enriched with the personal survey information, as well as the interviews and site visit information, to reflect participants' urban realities more accurately.

After collecting the VGI, datasets were processed by a web-based visualization tool. Each GPS point collected can be visualized individually to reveal modes of transportation, *anchor points* (locations a person visited as part of their daily routines), and *trajectories* in between these spaces. The points were connected with colored lines that represent the participant's mode of transportation. Data was visualized as individual maps as well as filtered into maps along lines such as race, income, and geographic location (see Figure 3.5).

In order to connect the recorded GPS data sets to the purpose of the trip to establish the patterns, the following questions were considered in the evaluation of each map for each member of the sample:

1. What are the primary anchor points and trajectories?
2. How regular are the patterns?
3. What distances and times are exhibited?
4. What is the space the participant visits connected to (profession, education, family)?
5. Does any quality (demographic) about the person particularly stand out as important to their mobility habits?

Each person experienced many different motivations throughout the study to varying degrees. The patterns simply describe how people are

Figure 3.5 Maps from all participants in the 2015 study.
© Lindsay Blair Howe.

getting to the places they are going and the living and working spaces they produce through these movements. The maps are thus relative and best understood with contextualization—getting at the "why" behind the patterns that emerged—which was provided by discussing the maps with participants in follow-up interviews.

After collecting data for 30 days with 30 people, over 1,700 such maps were generated. Participants' movements were compared to one another and the interview material: What did movements reveal about a person's experienced space, and were they relevant for a specific demographic? Were the patterns isolated to a specific geographic case or represented in multiple areas? Regardless of the participant, one week of consistent data supplemented with interviews was enough to understand the choices they made as they moved throughout the GCR because of the high level of specificity made possible by these mixed methods.

The first full-scale study posed the question as to whether the methodology could be scaled up to a statistically relevant sample size: a second study in 2016, for a project entitled *myJoziMoves*, conducted an experimental trial with 368 people for 25 days using the smartphone application. The primary challenge in this study was the fact that expert interviews could not be conducted with everyone from the sample. As such, the project was very different in nature and experienced some of the common pitfalls of quantitative studies.

While the same principle applied—with roughly one week's worth of GPS data and the survey, a person's patterns and some motivations could be gleaned with relatively high accuracy—it did not lead to as rich information because there were too many participants to synthesize patterns of movement with in-depth knowledge about their lives. While follow-up interviews were conducted with selected participants—arranging contact and how to meet over WhatsApp—the interstice between quantitative and qualitative data did not lead to a significant insight into relationships between movement and urbanization, or the relational conceptualization of poverty in the GCR, despite a much broader sample size.

The methodology thus proved to be most effective and rewarding with a relatively small sample size and with a mixed-methods approach, in which participants were first recruited in a personal manner to build trust, then conducted the smartphone tracking for several weeks, and finally discussed the maps as part of in-depth, semi-structured interviews.

Testing this hypothesis, a third research design was executed in 2019, focusing on the mobility of families in the GCR. This project—entitled *Families in the City*—included focus groups, a two-week smartphone study, and expert interviews in five geographically and economically diverse areas with 50 participants. It used the quantitative aspects of the methodology—under a new iteration entitled *myJoziMoves*—to point out which questions to ask, creating working theses on the relationship between movement and spatial footprints in and around Johannesburg

by cross-referencing observed phenomena with statistically relevant information. This mixed-method approach used quantitative data to explain what things are happening and qualitative data to propose why (see Figure 3.6).

Finally, a fourth study conceived for the African Mobilities initiative of the Volvo Research and Education Foundation was executed. Beginning in 2019, I was part of a large team led by Sarah Charlton that utilized this research design to examine aspects of gender and mobility across a range of demographic groups and incomes and in comparison with a range of areas in Maputo. For this project, we began with focus groups, recruited several households to conduct VGI collection for two weeks, and finished with interviews. Further methods included WhatsApp groups for each area, autophotography exercises, and audio journaling through voice notes.[51]

The 2020 study primarily focused on how people living in what were considered marginalized areas of Maputo and Johannesburg used transport infrastructure, attempting to situate their lived experiences in relation to government transport plans and policies. The project utilized the methodology described above in order to approach household and micro-level experiences. In all of the studies, consideration was given to demographic characteristics such as race, language, household composition, and level of income. This study also included a second research component, comprising expert interviews with key actors in transport and infrastructure planning. It included, for example, transit planners and government officials with the Gautrain Management Authority, Gauteng Provincial Department of Transport, the City of Johannesburg Transport, and City of Tshwane Transport.

Citizen cartographers and triangulating results

The method also has implications for the increased—arguably the complete—digitalization of society. Smartphones, as part of the methodological approach with VGI, became an important communication tool with participants and provided insight into the potentials as well as the challenges of an increasingly digital society.

As Nicole Aschoff describes in her book *The Smartphone Society*, smartphones "have given rise to new consumption patterns; and they are at the center of new visions about democracy, politics, and the future."[52] Empirical research has revealed certain emancipatory moments made possible by the smartphone, such as digital banking, the possibility to

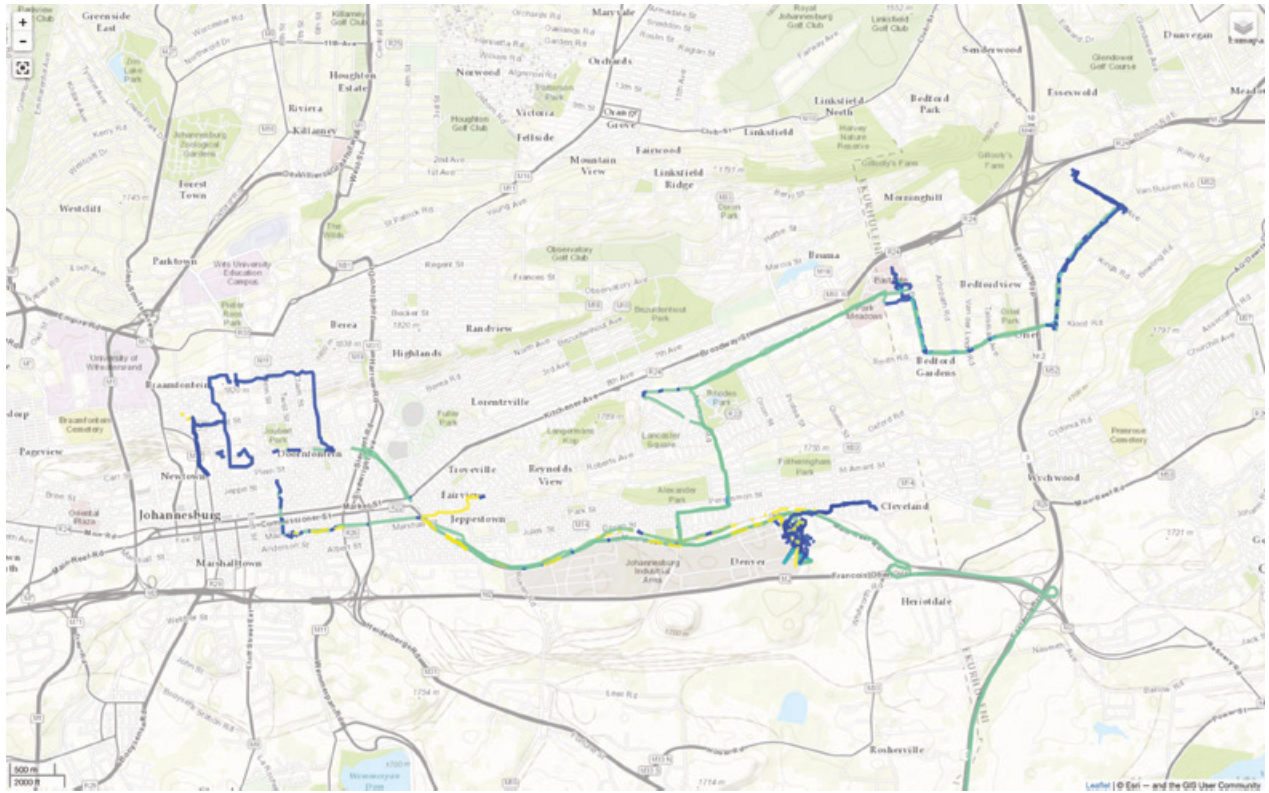

Figure 3.6 Map from a participant from Denver in the 2019 study. © Lindsay Blair Howe. Base map image data: © 2018 AfriGIS (Pty) Ltd. Image Landsat / Copernicus. © 2018 Google.

search for jobs online, improved opportunities to socialize with family and friends near and far, and the chance to engage with the state, for example through social media.

Studies have also revealed how digital tools led to exploitation of people and their data. VGI involves using this information sensitively; it attempts to reveal things with people's explicit permission and consent. This is the opposite of the data exploitation and monetization that occur very broadly through the use of smartphones worldwide. Studies have often revealed the strong grip of disinformation—sometimes spread shockingly rapidly across groups of participants on platforms like WhatsApp. This chapter sought to connect these observations to the broader societal shift described as a "complete urbanization of society," ranging from everyday behaviors as people move about space to their most intimate and personal interactions.

From the micro-perspective, experiences with the *myCity*, *myJozi*, and *myJoziMoves* mobile applications allowed participants to become aware of their position within the greater fabric of the city and to see their daily trajectories. During the trial, they were also able to take photos and post them to Facebook and Twitter. This immediate mapping and documenting provided people with a way to tell their own stories (ethnographically) while generating replicable movements and patterns (quantitatively). The research was planned as an anonymous test; however, participants used the phones to set up their own WhatsApp accounts and began interacting with the primary on-site researcher, texting updates about the app and their activities.

There were also some negative consequences and difficult situations that arose because of the technology. We worried that providing smartphones might make participants targets. One single-mother *zama zama* (artisanal miner) from Denver had her phone stolen during the 2020 study when she was robbed walking to the area she typically remined to look for traces of gold. Another participant from the Joe Slovo informal settlement, who facilitated recruitment of further participants through his work at SDI, was also robbed after a night at a shebeen. He asked if I could utilize our VGI visualization tool to tell him where the phone currently was, so he could confront the thief.

I did not acquiesce to his request, for the obvious ethical reasons and because we did not want to put him in any danger that could arise through such a confrontation. Moreover, we could not say with any accuracy where the phone was at any given moment in time. The app was programmed to send location data to the server with a 48-hour delay, unless the

participant "pushed" the data themselves, using a button in the app. This was intended to protect privacy on all sides.

These "citizen cartographers" produced a body of semi-quantitative, semi-qualitative data that redefined the parameters of the data currently available to understand poverty and inequality in urban landscapes.[53] Therefore, a further potential of the VGI data and mapping visualization tool is a transdisciplinary link between ordinary residents of the city and planning officials. Such engagements and exchange can not only foster more productive discussions about the city but also underline inclusive strategies for planning and upgrading that have the most effects on those who live in underprivileged circumstances every day. It is a particularly effective means of describing and communicating about socio-spatial inequality that can appeal to demographic groups across the Gauteng Province.

The intersections between materiality, the political conception of space, and tracking of movement by the citizen cartographers were relatively concrete. By juxtaposing them, a significant "soft" factor about the spatial structure of the urban region emerged: how present or absent a place was in public discourse and institutional discussions on development and urban rights. This "level of rhetoric" was established through a review of current news reports and policy documents, supplemented with expert interviews and site visits. While hardly a quantifiable category, an area's level of rhetoric frequently corresponded to its ability to access resources because the state cannot fully redress apartheid all at once and must choose how to allocate funding. One way of contesting peripheralization is therefore to become present in public consciousness, such as the famous township of Soweto[54]—or to become nefarious, like Diepsloot.[55]

The urbanization processes of the Gauteng City-Region

In order to understand how urbanization is enacted in contemporary Johannesburg, it is necessary to understand the historical-material structure of space. Moving between the present and the past of the region, according to a "regressive–progressive" procedure,[56] sheds light on how the traces of past injustices continue to shape the urban fabric today. This methodology for identifying urbanization processes and visually depicting the findings was adapted from a project run by Christian Schmid's team at the ETH Zurich, which compared the patterns and pathways of urbanization in urban regions around the globe.[57] Specifically,

I conducted three steps: linking historical analysis to ethnographic research; triangulating these results to describe them as urbanization processes with uniquely derived terminologies; and visualizing them through a mapping technique originally developed by ETH Studio Basel in the early 2000s.[58]

My systematic examination of the GCR's urbanization processes focused on material, regulatory, and experienced spaces. This included analyzing the physical infrastructure of space, its architectural and urban elements such as buildings and streets—interlinkages constituting the notion of an urban fabric—as well as the history and regulatory frameworks that shape how it is allowed to evolve. I also evaluated how people move through and experience space—primarily observing patterns of movement with the aforementioned VGI and mobile interview methods—to reveal the temporal elements of why people go where they do and what happens along the way. Beginning from individual areas, working from the regional peripheries inwards towards centralities, I then cataloged and compared them to one another until achieving a "thick description" of relational urbanization processes.[59]

By conducting this process, I identified and mapped five major transformations shaping the GCR today. Together, these indicated a range of urbanization processes driving the production of the region to perpetuate inequality—concentrating privilege where it existed and complicating access to centrality and opportunity for the majority of the population (see Figure 3.7).

The first process was the consolidation of centralities, primarily the city of Johannesburg and the city of Tshwane (Pretoria), as well as the emergence of new sub-centralities for specific segments of the population, which shifted and reconsolidated from the 1970s forward.[60] The second was industrialization arising near mass housing, as specifically encouraged by the state during apartheid.[61] The third was land deliberately left "fallow," or undeveloped, often brownfield sites of exhausted mines or defunct industries. Fourth, I identified several processes consolidating privilege—defined as access to centrality and opportunity—around the region, for example "elite islands" of gold and lifestyle estates for the city-region's most affluent.[62] Fifth, I noted several processes that functioned to concentrate historically marginalized populations, from housing production on the remote peripheries to attempts to subvert these constraints and dwell near opportunities.

I further differentiated the processes I determined as associated with the concentration of underprivileged social groups in space by investigating areas through additional literary review, archival research,

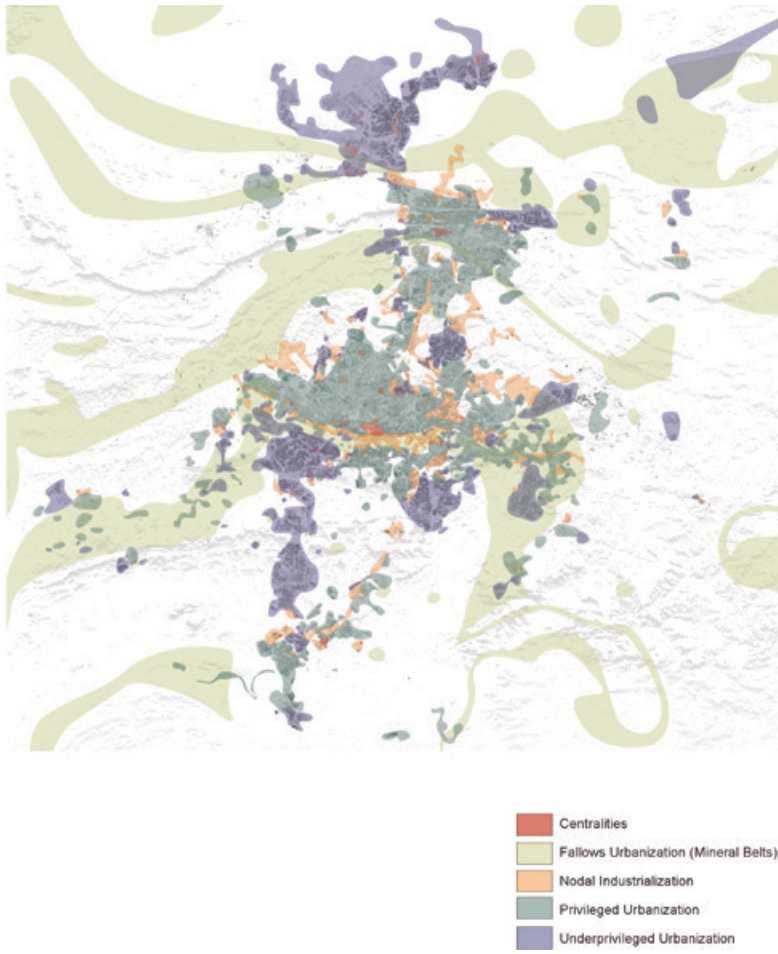

Figure 3.7 Map of urbanization processes in 2017. © Lindsay Blair Howe. Base map Image data: © 2018 AfriGIS (Pty) Ltd. Image Landsat / Copernicus. © 2018 Google.

and interviews to determine the logic behind their origins. I mapped their spatial location in comparison to (sub)centralities, as spaces of encounter and exchange, and more deeply studied their rhetoric. This comparative analysis yielded five distinct sub-processes (see Figure 3.8).

Frontier urbanization involved satellite mining settlements, often far beyond the rest of the urban fabric of the GCR, at sites of mineral extraction. Toehold urbanization was the typically small-scale occupation of land, constructed by and for people themselves to access resources and opportunities. Freehold urbanization described what initially seemed similar in

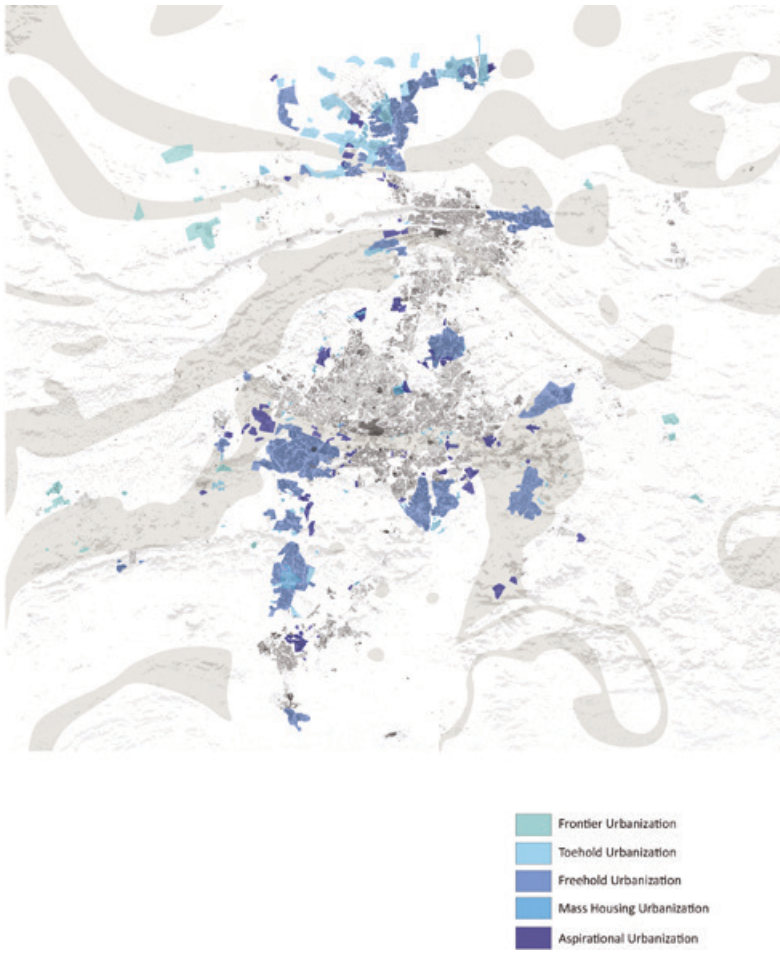

Figure 3.8 Map of underprivileged urbanization processes in 2017. © Lindsay Blair Howe. Base map image data: © 2018 AfriGIS (Pty) Ltd. Image Landsat / Copernicus. © 2018 Google.

urban morphology to toeholds but occurred according to significantly different logics: on pockets of land that were historically Black owned and where owner–tenant relationships prevailed to yield more stable forms of tenure. Mass housing urbanization represented monofunctional, low-income neighborhoods on the urban peripheries, usually funded through the national RDP. Aspirational urbanization, too, at first appeared similar in morphology to mass housing; however, it was delivered by private developers, targeting higher-income groups that qualified for bank loans.

The graphical depictions of these processes shaping the GCR, and indeed the processes themselves, are always a snapshot of a fixed moment in time. The map is to be understood as a continually evolving series of theses on the spatial production of the territory, as well as a continually evolving set of human interactions rooted in the space to be analyzed. This does not occur in terms of a historical form, spatial structure, or specific morphology. Rather, it attempts to visualize patterns of urban inequality and expose the means with which urban areas change or remain the same. The boundaries of the areas shaded on the map capture a fixed moment in time and are inherently relative; as such, these boundaries are rendered as amorphous.

Conclusions

The urbanization processes identified show how centrality is a resource because it offers opportunities associated with phenomena such as encounter, exchange, proximity, and co-presence that can exist in urban centers. Empirical research suggests that the typical identifiers for social groups, such as "poor" or "deprived," mask a whole range of social realities. A wide range of actors create spaces across a spectrum of spaces that cannot be reduced to any one descriptor or spatially bounded area. From self-building infrastructure to creating tenancy arrangements, moving between spaces, and everything that happens along the way, what makes the city and region around Johannesburg might be precarious and constantly in negotiation—but it is actually highly structured and rarely informal.

Such networks and implicit actions are practically invisible in conceptions of the urban focused on the narrative of capital, but they are essential to the functioning of Johannesburg. From the street vendors downtown to the unregulated recycling practices and taxi routes of the city's peripheries, people are the infrastructure that allows the region to function.[63] This further reinforces the need for specificity in urban analyses, and for thinking from the productive interstices of empirical research and theorization grounded in experiences from outside the typical canon of knowledge in urban research.

For example, the 2015 study followed three participants in Marlboro South that had very different lives and experienced very different degrees of precarity: one was Amusa, who regularly commuted to her job south of the CBD, as the next chapter details; a second was an unsalaried activist working for an NGO, who had wide-ranging and completely

irregular patterns of movement, and who died in 2019; the third was unemployed and almost never left the area at all. Each of the many participants from Marlboro South that participated in studies over the years had their own unique story—erratic and nomadic patterns characterized their movements, and precarity defined their experiences of space.

Thus, a broader conclusion from conducting this empirical work is that just because people have similarly low levels of income, or are similarly isolated on the peripheries of the urban region, does not mean their tactics for overcoming their marginalization or accessing opportunities are the same. Periphery is also a possible resource, depending on qualities such as the degrees of mobility and immobility people who live there can afford, the status of their tenure where they reside, and the specific kinds of spatial and social resources they can access. And then there are the spaces between—those which are neither geographically central nor possess enough infrastructure for people to conduct their daily lives. Current categories abstract such findings too greatly.

Despite their limited capacity to influence their lives, the underprivileged encountered in this project continually voiced optimism for the future through collective ventures. They have almost no leisure time, meaning that the time and energy they invest in organizing or participating in social movements is extremely valuable. Volunteering for the smartphone studies, when viewed from this perspective, reflects a deep concern for their circumstances and willingness to share even the most intimate details of their lives in pursuit of a more just urbanity.

James Corner has commented that "mapping unfolds potential; it remakes territory over and over again, each time with new and diverse consequences."[64] The unique juxtaposition of spatial and social data the methods in this chapter pose provide a means of grasping how people and their quotidian movements produce territory, as well as the impact conceptions government and policymakers and planners have, particularly for underprivileged social groups. The problem remains that "the urban landscape still has the poorest the farthest away—and this landscape isn't changing because of the availability and affordability of land. So what was once a racial division has now become an economic division on the urban periphery."[65] VGI allows us to see these patterns in a striking manner, as the subsequent chapters of this book demonstrate. It not only reveals ingrained patterns of segregation and inequality, but also potential nodes for encounter and improved co-presence between social groups.

In focusing on how the production of space has occurred between the dialectics of center and periphery, the processes of toehold urbanization, aspirational urbanization, and mass housing urbanization emerged

as some of the most dominant forces shaping the overall city-region. In examining these processes, it became evident that extreme geographic peripherality can lead to isolation and deep poverty. On the other hand, the emergence of centrality has led to increased opportunities and urban qualities for other areas. And this is constantly shifting and changing as people remake the urban through their movements and interactions.

These three urbanization processes are explained in the chapters that follow, including a series of detailed narratives from citizen cartographers referred to as "urban portraits," which show how these concepts relate to real human lives and their livelihoods. Each portrait represents a synthesis of qualitative and quantitative data; one which uncovered far more about movement, access, and space as a resource than I could have ascertained with established methods. The subtle ways in which the movements of people produce space in the urban region of greater Johannesburg bears witness to the wide variety of strategies the underprivileged employ to negotiate their lives from geographic and social peripheries.

Notes

1. Merrifield, A (2016) The Amateur of Life. February 9. Available at: https://andymerrifield.org/2016/02/09/the-amateur-of-life/ (accessed July 20, 2025).
2. Hilbrandt, H and Ren, J (2022) Refracting Eurocentrism, Operationalizing Complicity: The Swiss Sonderfall as a Vantage Point. *Environment and Planning D: Society and Space* 40(4): 589–606.
3. On the concept of reversing the gaze, see: hooks, b (1992) *Black Looks: Race and Representation*. Boston, MA: South End Press, p. 116. This was also the subject of the 2024 "Reversing the Gaze" conference at the University of Basel.
4. See Oswin, N (2020) An Other Geography. *Dialogues in Human Geography* 10(1): 9–18; Roy, A (2020) "The Shadow of Her Wings": Respectability Politics and the Self-Narration of Geography. *Dialogues in Human Geography* 10(1): 19–22.
5. Howe (2020); Streule, M (2019) Doing Mobile Ethnography: Grounded, Situated and Comparative. *Urban Studies* 57(2): 421–438.
6. Johnson, RB and Turner, LA (2003) Data Collection Strategies in Mixed Methods Research. In A Tashakkori and C Teddlie (eds) *SAGE Handbook of Mixed Methods in Social & Behavioral Research*. Thousand Oaks, CA: Sage, pp. 297–319, 299; Plano Clark, VL and Ivankova, NV (2016) *Mixed Methods Research: A Guide to the Field*. Thousand Oaks, CA: Sage, p. 7.
7. Alise, MA and Teddlie, C (2010) A Continuation of the Paradigm Wars? Prevalence Rates of Methodological Approaches Across the Social/Behavioral Sciences. *Journal of Mixed Methods Research* 4(2): 103–126; Creswell, JW (2010) Mapping the Developing Landscape of Mixed Methods Research. In A Tashakkori and C Teddlie (eds) *SAGE Handbook of Mixed Methods in Social & Behavioral Research*. Thousand Oaks, CA: Sage, pp. 45–68.
8. Blaser Mapitsa, C and Landau, L (2019) Measuring Municipal Capacity to Respond to Mobility. *SAGE Open*. https://doi.org/10.1177/2158244019829565; Kihato (2013).
9. Compare to the work on multisited ethnography discussed by Marcus, GE (1995) Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography. *Annual Review Anthropology* 24(95): 95–117; or Streule (2019), p. 10.
10. The two arguments presented in this section were previously published as part of Howe, LB (2021a) Thinking through People: The Potential of Volunteered Geographic Information. *Urban Studies* 58(14): 3009–3028.

11. Sheller and Urry (2006), p. 208.
12. Sheller and Urry (2006), pp. 217–218.
13. Offenhuber, D and Ratti, C (eds) (2014) *Decoding the City: Urbanism in the Age of Big Data*. Basel: Birkhäuser, p. 7.
14. For a survey of network science in the early 2000s, see: Börner, K, Sanyal, S, and Vespignani, A (2007) Network Science. *Annual Review of Information Science and Technology* 41(1): 537–607.
15. Castells, M (1996) The Network Society. In *The Information Age: Economy, Society and Culture*, Vol. 1. Maiden and Oxford: Blackwell, pp. 500–510.
16. Hövel, P, Simini, F, Song, C, and Barabasi, AL (2014) Computational Models of Mobility: A Perspective from Mobile Phone Data. In D Offenhuber and C Ratti (eds) *Decoding the City: Urbanism in the Age of Big Data*. Basel: Birkhäuser, pp. 110–124.
17. Rojas, FM (2014) New York Talk Exchange: Revealing Urban Dynamics through the Global Telecommunications Network. In D Offenhuber and C Ratti (eds) *Decoding the City: Urbanism in the Age of Big Data*. Basel: Birkhäuser, 65–80, p. 66.
18. Greco, K (2014) Seeing the City through Data / Seeing Data through the City. In D Offenhuber and C Ratti (eds) *Decoding the City: Urbanism in the Age of Big Data*. Basel: Birkhäuser, 125–142, p. 128.
19. Schmid (2008), pp. 33–34.
20. Cresswell, T (2011) Mobilities I: Catching Up. *Progress in Human Geography* 35: 550–558, p. 551.
21. Marcus (1995).
22. Badger, E (2014) This Is What Informal Transit Looks Like When You Actually Map It. Available at: www.citylab.com (accessed August 5, 2019); Jackson, T (2017) WhereIsMyTransport Maps Cape Town's Public Transport Network. Available at: http://disrupt-africa.com (accessed August 5, 2019).
23. See, for example, Axhausen, KW (2006) Concepts of Travel Behavior Research. Report for IVT Institut für Verkehrsplanung und Transportsysteme, Chapter 11. Zurich: ETH Zurich; Crampton, J (2009) Cartography: Maps 2.0. *Progress in Human Geography* 33(1): 91–100. Newly announced work by the Chair of Kay Axhausen is now also beginning to engage with individual-level data and VGI, for example the "TimeUse+" doctoral project of Caroline Winkler: https://www.ivt.ethz.ch/en/vpl/projects/timeuse.html (accessed July 20, 2025).
24. Offenhuber and Ratti (2014).
25. Rérat, P and Lees, L (2010) Spatial Capital, Gentrification and Mobility: Evidence from Swiss Core Cities. *Transactions of the Institute of British Geographers* 36: 126–142, p. 132.
26. Rérat and Lees (2010).
27. Burgers, J and Musterd, S (2002) Understanding Urban Inequality: A Model Based on Existing Theories and an Empirical Illustration. *International Journal of Urban and Regional Research* 26(2): 403–413.
28. Roy, A and Shaw Crane, E (2015) *Territories of Poverty: Rethinking North and South*. Athens, GA: University of Georgia Press.
29. Wacquant, L (2015) Class, Ethnicity, and State in the Making of Marginality: Revisiting Territories of Urban Relegation. In A Roy and E Shaw Crane (eds) *Territories of Poverty: Rethinking North and South*. Athens, GA: University of Georgia Press, 247–259.
30. Manzo, LC, Kliet, RG, and Couch, D (2008) "Moving Three Times Is Like Having Your House on Fire Once": The Experience of Place and Impending Displacement Among Public Housing Residents. *Urban Studies* 45(9): 1855–1878.
31. Di Masso, A, Williams, D, Raymond, C, Buchecker, M, Degenhardt, B, Devine-Wright, P, Hertzog, A, Lewicka, M, Manzo, L, Shahrad, A, Stedman, R, Verbrugge, L, and von Wirth, T (2019) Between Fixities and Flows: Navigating Place Attachments in an Increasingly Mobile World. *Journal of Environmental Psychology* 61: 125–133, p. 126.
32. Di Masso et al. (2019), p. 126.
33. Rérat and Lees (2010), p. 104.
34. Rérat and Lees (2010), p. 115.
35. Bénit-Gbaffou (2014).
36. Wacquant (2015), p. 248.
37. Musterd, S and Ostendorf, W (eds) (2013) *Urban Segregation and the Welfare State: Inequality and Exclusion in Western Cities*. London: Routledge.

38. Riofrancos, T (2021) From Cases to Sites: Studying Global Processes in Comparative Politics. In ES Simmons and NR Smith (eds) *Rethinking Comparison. Innovative Methods for Qualitative Political Inquiry*. Cambridge: Cambridge University Press, 107–126, p. 121.
39. On this notion, see L Bartlett and F Vavrus (2017) *Rethinking Case Study Research: A Comparative Approach*. New York: Routledge; as well as Simmons and Rush Smith (2021), pp. 8–9.
40. A particularly meaningful engagement that spanned such a wide range of stakeholders was the *Spatial Transformation through Transit-Oriented Development* project series, funded by the city of Johannesburg and international organizations including the French Development Agency, in order to connect academic studies to policy recommendations. Research at institutions in Johannesburg is often conducted in this transdisciplinary manner, working with NGOs and people, linking to policy recommendations for cities and provinces. For more details, see for example Howe (2020) or Rubin, M and Appelbaum, A (2016) *Synthesis Report*. Spatial Transformation through Transit-Oriented Development. Johannesburg: University of the Witwatersrand Press.
41. Flick, U (2009) *An Introduction to Qualitative Research*. London: Sage.
42. For the evolution of this methodology, see Diener, R, de Meuron, P, Herzog, J, Meile, M, and Schmid, C (2005) *Die Schweiz. Ein städtebauliches Portrait*. Basel: Birkhäuser; and Streule, M, Karaman, O, Sawyer, L, and Schmid, C (2020) Popular Urbanization: Conceptualizing Urbanization Processes Beyond Informality. *International Journal of Urban and Regional Research* 44(4): 652–672, p. 653.
43. Götz et al. (2014), p. 1.
44. Interview with an architect-activist working in Denver and Marlboro South (2014).
45. Greco (2014), p. 129.
46. Aker, JC and Mbiti, IM (2010) Mobile Phones and Economic Development in Africa. *Journal of Economic Perspectives* 24(3): 207–232.
47. Schönfelder, S and Axhausen, K (2003) Activity Spaces: Measures of Social Exclusion? *Transport Policy* 10: 273–286.
48. Cross, C, Mngadi, T, and Mghele, T (1998) Constructing Migration: Infrastructure, Poverty and Development in KwaZulu-Natal. *Development Southern Africa* 15(4): 635–659, p. 655.
49. Blaser Mapitsa and Landau (2019).
50. Royston, L (2003) On the Outskirts: Access to Well-Located Land and Integration in Post-Apartheid Human Settlement Development. In F Khan and P Thring (eds), *Housing Policy and Practice in Post Apartheid South Africa*. Sandown: Heinemann, pp. 234–255.
51. Digital communication played a pronounced role in the fieldwork undertaken during the Covid-19 pandemic. For more detail, see Howe, LB (2022b) The Gender–Poverty Nexus and the Post-Pandemic Era in South Africa. *Urban Planning* 7(3), special issue on *The Resilient Metropolis*: 35–48.
52. Aschoff, N (2020) *The Smartphone Society: Technology, Power and Resistance in the New Gilded Age*. New York: Penguin Random House, p. 1.
53. The term "citizen cartographers" is derived from the reflection essay by Elwood and Ghose on the societal and political effects of GIS that began in the mid-1990s. This included topics ranging from collaborative planning initiatives to participatory action research and community research management. See Elwood, S, Lawson, V, and Shepard, E (2017) Geographical Relational Poverty Studies. *Progress in Human Geography* 41(6): 745–765.
54. Harrison and Harrison (2014).
55. Harber (2011).
56. Lefebvre, H (1991 [1974]), pp. 79–81; and 2000 [1970], pp. 23–24. A succinct explanation of the regressive-progressive method is presented by Schmid (2022) in Chapter 3.1 The Critique of Everyday Life, in the subsection entitled "The Regressive-Progressive Procedure."
57. This project is described in Chapter 1. Schmid et al. (2018); Schmid and Topalovic (2023).
58. Diener et al. (2005).
59. Geertz, C (1973) Thick Description: Towards an Interpretive Theory of Culture. In C Geertz (ed.) *The Interpretation of Cultures*. New York: Basic Books, pp. 310–323.
60. See Alan Mabin's work on the subject, including: Mabin, A (2013) *The Map of Gauteng: Evolution of a City-Region in Concept and Plan*. GCRO Occasional Paper (5). Johannesburg: Gauteng City-Region Observatory; and Mabin, A (2014) In the Forest of Transformation: Johannesburg's Northern Suburbs. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, pp. 395–417.

61. Hart (2014).
62. Murray, MJ (2015) Waterfall City (Johannesburg): Privatized Urbanism in Extremis. *Environment and Planning A* 47(3): 503–520.
63. Simone (2004).
64. Corner, J (1999) The Agency of Mapping: Speculation, Critique and Invention. In D Cosgrove (ed.) *Mappings*. London: Reaktion, 213–252, p. 213.
65. Interview with a transport planning professor (2014).

4
Centrality: toehold urbanization and the production of popular centralities

This chapter is the first of three chapters illustrating how individuals generate the urbanization processes shaping the Gauteng City-Region (GCR). This occurs as people negotiate centrality, periphery, and the spaces between, which I show by combining macro-scale observations about spatial dialectics with eight "urban portraits" of everyday lives spread across the three chapters. They narrate how typical social realities in Johannesburg unfold across a range of conditions and geographies and conditions: from remote to central, from highly marginalized to upwardly mobile. These portraits highlight the wide variety of tactics people employ, which exist alongside one another within the same geographic space of the city-region.

This chapter on centrality describes how agency stitches together space and generates urbanization processes in the GCR. While the state is never entirely obscured or disentangled from the production of territory, *popular*, or people-driven, forms of urbanization show how people's everyday movements and interactions come together to counter the spatiality of the state. Especially when people are not included in or are unable to participate in development strategies, they devise their own means of accessing or creating opportunities in the urban fabric. These paths of access and livelihood generation can even bypass the intentions of the state and concentrate enough urbanization processes in space such that new centralities begin to arise.

Through such intensive processes of concentration unfolding across Johannesburg, places once considered peripheral to the region are becoming new kinds of centralities as people connect into these spaces and diverge from the more predictable patterns of the apartheid era. People are driving the kinds of urbanization for which we do not yet possess the terms. While it may initially appear similar to the processes that

led to a "favela" in Brazil or a "slum" in India, each of these have a particular reason they occurred, in the way they did, where they did. There is a specific connotation associated with these distinctive words. A new vocabulary for the specific processes emanating out of the centrality of Johannesburg was required.

In the making and shaping of opportunities in this African city—in lieu of the central state being able to solve the vast range of challenges wrought by deeply entrenched inequalities—people utilize the urban as a "spatial resource" to meet their needs. Agency is defined in this book as the spatial practices of individual people as they move through and interact in space to generate what Daniel Thompson refers to as "realms of opportunity."[1] This kind of agency is often connected to forms of social organization that exist within, and despite, the "formal" material spaces of urban development. Activities such as waste picking or street vending in central Johannesburg impact more than just individuals as people move to access opportunities and resources.[2] Accordingly, this chapter juxtaposes an interpretation of Henri Lefebvre's concept of centrality with "popular agency" to propose such a form of urbanization occurring from below.

In their everyday movements and activities, people both engage with and depend on existing centralities. They draw from these resources to propagate their own opportunities where people are concentrated in space. There is a wide range of urban and spatial outcomes from these dynamic flows of bodies, capital, knowledge, and experiences. The term "popular centralities" captures this concentration of space by and for people, in ways no other previously existing terminologies do. It incorporates the idea of agency and suggests that what was once an urban periphery can become a space of opportunity.

The stories collected of people throughout the GCR for the research contained in this book show the degree to which they are able to exercise agency over their lives and imagined futures. Their histories, personalities, and desires, their familial structures and relationships, constrain and enable each of them differently. If people can exert their own will, and manifest "one's own capacity for articulating difference and expressing a positive force,"[3] in the words of Achille Mbembe, this becomes a decolonial moment. Can everyday movements and interactions exercising agency—or individual experiences and perceptions of space influencing processes of urbanization—therefore be considered a decolonial practice? This chapter asserts that the formation of popular centralities can indeed be such a thing.

This aligns with Henri Lefebvre's assertion that centrality is a key (and contested) resource and part of a "right" to urban life.[4] Yet in Johannesburg, the ordinary and extraordinary African city, it seems

more legitimate to describe its unique processes of urbanization in terms of the exigent quest to access resources and opportunities. So while state-centric processes of development are a well-studied and key force defining Johannesburg and its surrounds, processes of urbanization driven by people are also as important in making and shaping space and everyday life.[5]

This chapter therefore delineates a Lefebvrian interpretation of the African city: people creating centrality through their alternative markets and practices, their "transversal logics," leveraging social realities, personal networks, and geographic proximities to create new urban infrastructure and qualities of life. My empirical research proves Lefebvre's propositions about how spatial dialectics function—but in Johannesburg, there are much more complex spaces and actors beyond the state than his theories encompassed. This case bridges across scales, spans from the individual to the collective, and shows how social realities and spatial resources matter even more for those with few assets, for the historically and racially disadvantaged and dispossessed, and for other vulnerable social groups.

Thus, this chapter builds on Lefebvre's spatial dialectics, and extends this theory to resonate with the African city.[6] It then explicates the process of toehold urbanization, introduces a spectrum of material spaces in the urban fabric that have resulted from this urbanization process, and illustrates how these led me towards the concept of popular centralities. All of these theoretical findings are grounded in the three urban portraits the chapter relays. The portraits of Amusa in Marlboro South and Bhekumbso in Denver demonstrate typical patterns of people seeking access to the resources of existing centralities. By locating themselves proximally to these centralities, in informal settlements that function like "toeholds," this gives people the most basic forms of access to the urban. The portrait of Nandi in Diepsloot speaks to the opportunities that can arise through advanced processes of toehold urbanization, where spatial and social resources have been siphoned off and directed into the production of popular centrality. All of these stories reflect the complex, interwoven relationships between individual agency, collective processes, and the state in South Africa.

Interpreting Henri Lefebvre's "centrality"

Centrality was of the most important concepts to Lefebvre, and one of the key reasons why his theoretical work is so useful for urban research. In short, the "city" and "centrality" overlap completely as the site of human

interactions and accumulation. In Christian Schmid's 2022 seminal publication on Lefebvre's most important theoretical contributions, he succinctly summarizes the definition of centrality as follows:

> He understood centrality as a form that brings together the most diverse elements of society and in this way becomes productive. Centrality can therefore be understood as a social resource. In capitalism, centrality is determined by the fundamental contradiction of access or exclusion, which expands on a planetary scale to the dialectic of centralisation and peripheralisation. Lefebvre derived from this analysis the demand for a right to the city, which he understood as a right to centrality, the right to access the possibilities and opportunities of the centre, the right for self-determination in the creation of urban space.[7]

Centrality is, by definition, constantly in flux and susceptible to the elements that already exist or are introduced anew. It is not dependent on "a material morphology. It is a *field of relations* that encompasses especially the relationship between space and time."[8]

Centralities represent a concentration of spaces of exchange and varying degrees of encounter, characterized by cultural, governmental, commercial, and financial institutions. They often correspond to transport and infrastructure, and have evolved due to the everyday interaction of multiple social and demographic groups. A key feature of centralities is that the use value of the space also plays a significant role in the sustaining of the space. They act as symbolic sites of collective memory, where the perceived, conceived, and lived converge in space-time.[9] As such, the places of exchange and encounter vary to the degree in which they fulfill these characteristics.

The concept of centrality therefore allows us to discard the formal bounds of "city."[10] Instead, following Lefebvre, we should seek out the places where social relations thicken with moments of encounter and exchange,[11] within the overall structure of what he referred to as *tissu urbain*, or the urban fabric.[12]

Centrality is also a dialectic between places of varying power. As Lukas Stanek describes, "the 'dialectic of centrality' consists not only of the contradictory interdependence between the objects gathered but of the opposition between center and periphery, gathering and dispersion, inclusion (to center) and exclusion (to periphery)."[13] This is the basis for the concepts of concentrated and extended urbanization developed by Neil Brenner and Christian Schmid.[14] Any kind of change in the urban

fabric results in a dialectical process of transformation, involving "a concentration of people, the means of production, goods, and information that leads to concentrated urbanisation, but also inevitably and simultaneously causes a proliferation and expansion of the urban fabric, thus resulting in extended urbanization."[15] Put simply, as people encounter one another in space, it becomes more dense and intensified; it also requires more space to sustain the growing population and so pushes further into the surroundings.

Lefebvre noted the centralities that were beginning to emerge as information and "decision-making" power in the age of telecommunications—which he experienced towards the end of his life—began changing the urban fabric to approach the eventual point where he predicted urbanization processes would have completely transformed what was once the city.[16] He predicted that "new centralities" would emerge to replace the old centers, completely sublated by consumption and consolidating elite control over the majority of the population.[17] These populations would be "expelled" to the peripheries of the urban to an uncertain future, far from access to the resources and opportunities of centralities.[18] As Schmid further elaborates of Lefebvre's thinking: "For him, it is not only socioeconomic polarisation that characterises the central contradiction of metropolises, but above all the fact that a large portion of the population is excluded from centrality and banished to the periphery. The struggle for centrality emerges from this analysis as the fundamental contradiction of the urban."[19]

Lefebvre discusses the "spatiality of the state" as the primary driver of territorial production;[20] part of this process is how a state conceives a means of categorizing and partitioning space. Theorizing from 1960s and 1970s Paris, Lefebvre discussed the state-led production of urban *centralities*—spaces of exchange, encounter, and assembly—and agency as the reactions to this spatial production.[21] But although his Paris-based observations about the *processes* of urbanization can be well operationalized to understand the complexity of extended urban areas today,[22] the manifold forms of urbanization unfolding in places like Sub-Saharan Africa require questioning his assumption that spatiality is driven largely by the state.[23] Especially considering the access to information and technology available today, people are countering the spatiality of the state as their agency shapes the territories in which they are not included in visions for development.[24]

Perhaps, before he passed away in 1991, Lefebvre was aware that his thesis about the general trajectory of urbanization rings true for so many contemporary urban areas worldwide. The year 1991 was also an

important year in South African history, as it was the year that "influx controls" were abolished that had previously prevented people categorized as Black, Coloured, and Indian from living or working in centralities without express permission and documentation.[25] Apartheid was a deliberate project to control the source of labor and dominate these groups by relegating them to the distant geographic peripheries. I believe Lefebvre would have been fascinated to see the collapse of the apartheid government only a few years later in 1994, and how cities like Johannesburg were almost instantaneously flooded with people from the farthest reaches of the country,[26] coming to occupy areas in the city center and near to job opportunities. Their movements asserted precisely the kind of right to centrality he described.

For example, in her research into cross-border shopping in the Johannesburg Central Business District (CBD), Tanya Zack shows how informal trade comprises an estimated 10 billion ZAR (670.5 million USD) each year, in defiance of normative conceptions of economic or urban space.[27] What may have begun as a "hustle" was never separate from enormous circuits of capital accumulation occurring through the "formal" economy, or—as former president Thabo Mbeki infamously derided it—a "second economy."[28] These are legitimate forms of production, manifest in urban space, disrupting the logics of the state and capital. And through this accretion, people can collectively transform the urban fabric.

Polycentricity, satellite cities, suburbs, and processes of agglomeration were concepts addressed by Lefebvre during his lifetime. So, too, do his novel ideas about spatial practices provide us with a useful lens for unpacking even a highly complex urban configuration like Johannesburg. Yet there are multiple forms of centrality that eschew the traditional logic of cores and peripheries in this city and its surrounding region, which Lefebvre's dialectics and concepts do not fully encompass.

A spectrum of urbanization processes has reconfigured space in unexpected ways over the past 150 years (as described in Chapter 2 and Chapter 3). There are "classic" examples of urban centralities among the fabric of the GCR. Johannesburg and Pretoria are, of course, the most prominent of these places, where all kinds of social groups can encounter and exchange with one another. The Johannesburg city center especially has often served as a litmus test for the state of social relations in the greater surrounding region. The future of the centrality, and whether or not it will remain this kind of space, depends on how the various forms and competing demands of consumption, tenure, land values, and investment evolve.

There are processes of urbanization that form new centralities—for example, Sandton through the 1970s or Fourways in the 1990s, which developed as counterpoints to the Johannesburg CBD[29]—but which, in this context, are frequently only accessible for particularly well-off social groups. Aided by the chaotic collapse of apartheid in the late 1980s, Sandton became established as an alternative to the Johannesburg CBD,[30] while the latter retained its function as the primary symbolic centrality. Today, Sandton can claim the tallest building in Africa. It remains a significant centrality for a particular subset of the population, with its function as a major financial center and corporate headquarters location, and its associated social and cultural spaces for middle-class and upper-income consumers. And the CBD is host to an astoundingly wide range of peoples, nationalities, economies, and practices, with a correspondingly large range of conflicts and contestations as it continues to decay and be made anew.

But even if we begin to look around more in the northwest, along the edges of the city of Johannesburg municipal boundaries beyond Sandton and Fourways, we begin to see further centralization processes that were not described by Lefebvre. These processes are neither driven by the state nor by development planners or private corporate interests. Instead, they are executed by people's own agency. As argued by Daniel Thompson, drawing from anthropologies of the state, people can usefully invoke their exclusion to "create and organize realms of opportunity."[31] Similarly, AbdouMaliq Simone has described the double-edged sword of how urban residents "create spaces of operation with the means they have available and how they, too, are shaped and constrained by forces outside their immediate control."[32] These processes unfold beyond the "gaze of the state," and collectively can rearticulate the urban fabric, imbuing it with new forms of power and symbolic meaning.

Urban portrait 1: Amusa in Marlboro South

Amusa's story shows how one can carve out a living by being in proximity to established centralities, stretching resources, and slipping in and out of precarious circumstances. Amusa, her husband, and their three children reside in an illegally occupied factory in a building that once belonged to W.H. Heim Engineering Services (see Figure 4.1).[33] She noted that the landowner was not the same person who had run the defunct company; the warehouse was rented out as "emergency housing" in the early 1990s, after the South African government repealed the

Figure 4.1 Amusa in Marlboro South. © Lindsay Blair Howe.

"influx control" laws that had deigned it illegal for non-whites to live in urban areas. Amusa and her husband are both in their late thirties and arrived in Johannesburg from the neighboring province of Mpumalanga in 1999 seeking job opportunities. At this stage in their lives, they had one child; however, they did not yet know anyone in Johannesburg and were unsure what their living arrangement and opportunities would turn out to be. They left their child, a son, in Mpumalanga to be raised by his grandparents, where he remains today.

At the time of the 2015 VGI study, Amusa and Khosi lived in a shack constructed inside the structure of this warehouse. From Amusa's perspective, Marlboro South, just north of well-known Alexandra Township, is very well located in Johannesburg, a 30-minute walk from taxi routes connecting to the CBD. On a typical working day, Amusa commutes to her job as a cleaner at a textile company, Textifin (Pty) Ltd. This trip costs her 13 rand (1 USD) in one direction and takes approximately one hour.

For example, on a Friday in July 2015, she left her home in Marlboro South at 5.15 in the morning. First walking a few blocks south into Alexandra, she boarded a minibus taxi and arrived at a taxi rank in Johannesburg's CBD after a 30-minute ride. After waiting at the rank for more passengers heading south, she began moving in a taxi again at 6.16. They passed the Carlton Centre shopping center, which she cites as her favorite place in Johannesburg, and crossed under the M2 highway to exit the taxi at 6.25. Eight minutes of walking later, she arrived at her workplace at 6.33. These numbers are reflected across the breadth of her commuting pattern: out of the 30 days of the study, she reported data on 26 of the days. Of these, 16 days were primarily work commutes, four days were primarily spent at home, four days were leisure related, and two were to obtain food. As such, Amusa's travel between her home and her place of work is the most significant and dominant activity.

Textifin is a textile production company located in a part of Johannesburg called New Centre, known for service delivery and product fabrication. Textifin is the manufacturing branch of Helm Textile Mills, also located on the premises, an upscale textile producer promoting their locally designed and produced South African products. "Décor fabrics to enhance your space," their slogan reads. The company, established in 1992, appears to primarily cater to high-end clients, promoting "dobby weaving" and jacquard for application in large-scale public projects or home interior design and automotive upholstery. The building itself has two entrances: one with fenced security and closed-circuit cameras with separate doors leading to reception in the Textifin factory and the Helm Textile Mills offices, and another through the receiving and

despatch portion of the building for factory workers. Amusa is employed as a cleaner for both businesses and is paid 190 rand (14 USD) per day she works.

When she stays home, which is usually on Saturday and Sundays, she often walks for ten minutes to a cluster of shops near her residence. This spatial footprint is less than 200 meters square. For larger grocery runs or more extensive supplies, Amusa travels to the PanAfrica Shopping Centre in Alexandra. For example, on a Sunday in July she left her home at 11.30 and caught a local taxi six minutes later on the main street separating Marlboro South from Alexandra. The ride took less than three minutes, and she spent 20 minutes inside the mall; interviews confirmed that she was at the home goods store entitled Mr Price as data sets indicated.

Within this footprint of 1.4 kilometers, it was evident that Amusa had achieved a certain level of access to infrastructure as well as financial security, since she could afford to take a local taxi for less than a kilometer to make purchases at a mall. Many other study participants neither commuted so frequently, nor was their walking typically confined to less than ten minutes as it was with Amusa. She also had a higher-than-average education level compared to the rest of the sample. Beyond basic necessities, Amusa and her husband reported that their children's education was their primary household expense, particularly for their eldest daughter; they dreamed of her achieving a professional degree or attending college. She wants to be a doctor, veterinarian, or geologist—in that order.

There were several notable exceptions to Amusa's otherwise highly regular "locomotor" pattern: a trip home to Mpumalanga and a trip to a Soweto cemetery. In the first case, few datasets were recorded along the way due to poor signal reception; however, vehicular activity was detected just beyond the settlement of Phola, a community founded for coal-mining support in the Mpumalanga town of Ogies. This area is loosely connected to the greater Johannesburg urban region, as migratory patterns exist, but it functions as an independent medium-size town in and of itself. It strongly reflects how apartheid functioned: the mine serves as a node between the former white town and mass housing urbanization provided for mine workers. Amusa and her husband's families had both migrated to Phola from the Limpopo Province during their respective childhoods; Amusa was in contact two days later about her trip, explaining that they had attended a funeral for a deceased family member.

I was involved in many projects in Marlboro South over the years. I was first there for my Master's thesis with my partner Vanessa Joos.

Khosi was the first person we met there; he led us around the neighborhood while we mapped the function of every building in the 5-square-kilometer area. He introduced us to his wife, and the two of them became some of my most important participants. Lines were blurred. I first met their daughter when she was eight years old. Later, I sometimes took her shopping at the PanAfrica mall, or walked her to school, after meeting with her parents.

Fast-forward to 2019: when I returned to Johannesburg for post-doctoral research, I went to Marlboro South to visit, and the family was gone. Another resident of their warehouse told me that Khosi had died just a few weeks before. He had been complaining for several days of headaches, and collapsed, never to awaken again. Soon after, Amusa had gone "home" to Mpumalanga with their children. I tried to contact them in every way I could think of—wanting to offer financial support for her and the children in this most difficult of times—but to no avail. I have never heard from them or seen them since. Even with express consent, it is hard to think of research as anything but extractive at the moment you sit down to write a person from Marlboro South's story for a book. They are experiencing daily struggles to exist in Johannesburg at all—and are constantly at risk of disappearing from the city entirely.

Amusa's story is a particularly important example for this reason. Her daily movements were regular and frequent, but cannot be tied to a predictive set of circumstances nor to her surrounding environment. Her paths cannot be correlated to a demographic group, nor can one assume there are similar paths originating from her given location. However, she is characteristic of underprivileged settlement dwellers in central areas and those with easily accessible infrastructure. Space was a critical resource for her, allowing her to connect into the space of the CBD and carve out a niche for herself in the urban fabric. If she had to dedicate more of her income to commuting, her income would not have sufficed. And as described above, when one income cannot sustain the family, they leave Johannesburg.

Several other narratives from the 2015 study reflected this pattern: regular, typical commutes ranging from 30–90 minutes. However, Amusa is not representative of a middle-class commuter. The lack of security of income and land tenure people like her typically experience in their housing situation emphasizes that even relatively mobile populations are still vulnerable, and their circumstances are precarious. While far from destitute, Amusa's home and livelihood were tenuous and reliant on her ability to commute. Some spaces in the city are located similarly centrally but allow people to rely on walking, as the next urban portrait describes.

Urban portrait 2: Bhekumbso in Denver

Bhekumbso's story is an example of how people are able to maintain a "toehold" in the urban fabric because they live close enough to opportunities to walk. There are spaces like this dispersed through the city-region, particularly along the former mining and industrial belt stretching along the Witwatersrand ridge, where there are few resources beyond the proximity to centralities. Bhekumbso is 35 years old and resides in Denver, an informal settlement on a small pocket of land within this industrial belt next to the M2 highway, east of the Johannesburg CBD (see Figure 4.2). The area was first developed in the late 1940s as housing for single men to work in Johannesburg's industrial areas.[34] At the time, just predating the official period of apartheid, non-white populations were not legally permitted to reside in urban areas; male laborers were restricted to specific locations, which included single-sex "hostels" built by the proprietors of mining or industrial areas.

In part because segregationist ethnic divisions were perpetuated by this system, laborers from other regions and provinces were clustered deliberately; however, these concentrations also occurred due to the agency of people, for example advertising jobs through their own networks that afforded them small levels of power. "Migrants from particular areas held virtual monopolies over jobs in specific factories," explains Deborah James in her history of female migrants arriving in Johannesburg.[35] Denver was strongly linked to the Zulu ethnicity,[36] and it historically served as a means to reside in near proximity to economic opportunities.[37]

These cultural enclaves were therefore extensions of regional areas within and without of the city's urban space through personal networks,[38] and migration began to dissolve the strictly male construct of the Denver hostels. As early as the 1960s, women and children began to move into the area, constructing their own housing directly adjacent to the space of the hostels. As the apartheid system was gradually disassembled from the 1980s onward, when there were no more legal restrictions on where people of racial groups could live and move around, these settlements intensified and became less pronouncedly gendered.

Denver and the settlements along the M2 highway are a prime example of opportunistic, post-apartheid land invasion settlements. Residents of this area live in some of the most precarious conditions in the region: there are few infrastructural facilities, frequent and deadly fires, and they have consistently experienced some of the highest levels of crime

Figure 4.2 Bhekumbso in Denver. © Lindsay Blair Howe.

in the city center.[39] However, they are very well located within walking distance or by local taxi to job opportunities in sectors such as auto repair, panel beating, recycling plants, and building supply manufacturers.

This area of less than two square kilometers housed more than 7,500 people at the time of census data available when research commenced.[40] In Denver, the structure of a household was often complex and sometimes hard to define; some participants lived under the same roof with three generations and had a large network of family members living far away from Johannesburg, in the province of KwaZulu-Natal (KZN) (see next section). Total household incomes ranged from 2,500 ZAR (ca. 165 USD) to 7,500 ZAR (ca. 500 USD) per month. Spending on transport ranged from nothing, for those who primarily traveled on foot, to as much as 34 percent of their monthly household income. Several households from Denver participated not just in the comparative research project but had been involved in four total studies since 2015.[41] This amalgamated data yielded significant insight into the geographic and structural factors that peripheralized people in Denver, as well as their countervailing efforts to mobilize spatial and social resources.

Bhekumbso participated in all of the studies. Throughout them, he mostly shared a room in the Denver Men's Hostel with four other men, all of whom were living in Johannesburg as singles while their families remained back home in the KwaZulu-Natal Province. Research revealed that the dynamic of men residing the hostels, while mainly women and children reside in the surrounding informal settlement, still prevails. This settlement also remains a primarily residential area within the greater industrial urban fabric and lacks even the most basic access to services and amenities.

The Denver Men's Hostel primarily houses young men of Zulu descent and of working age.[42] Bhekumbso came to Johannesburg at the end of apartheid seeking opportunities in the hostels, like his grandfather had before him had come to seek work in the mines. He has a wife and two children, who live in KwaZulu-Natal. His daily costs are comparatively low because he does not need to commute. Out of the total of 15 days he reported movements during the study, seven days reflected these work-seeking patterns. Two days reflected exceptional patterns of movement, into the CBD and to church, two days had no movement at all, and five days showed only movement around his area of residence.

On a typical day, Bhekumbso moves around on foot looking for shift work in the part of the industrial belt near the Denver Men's Hostel. He is a trained welder and seeks work, to varying degrees of success, at a variety of manufacturing-related businesses. He explained that he begins by

walking north up Plantatie Street in Denver to his first destination, where he will enquire if any work is available. If unsuccessful, he continues his trajectory in a loop through the other businesses and back to the hostel.

His first anchor point is often Calgan Lounge, a furniture factory specializing in the production of recliners. On three days of the study, he worked shifts at the factory lasting approximately four hours. Another of his primary destinations is the Overload Manufacturing Services and Glass Suppliers, where he also found welding work on three days of the study for approximately two hours on each day. Metalstitch SA (Pty) Ltd. Casting Repairs and Specialised Welding is the third of his regular stops, where he once again was able to secure three shifts ranging from two to four hours during the study. He also approaches Cobra Metals and Soilmaster Farm Equipment Manufacturers if no work is possible at the first three destinations; only once was he able to work for approximately three hours at Cobra Metals.

Wednesday, July 15 is one example of these anchor points and trajectory. His first points of the day were recorded at the Denver Hostel at 7.41. He walked for three minutes up Plantatie Street to Main Reef Road, where he stopped for 20 minutes. This shack is a spaza and tuck shop, and he takes most of his meals there. He then walked west down Main Reef Road to Overload Manufacturing Services and Glass Suppliers, arriving at 8.07 and departing again on foot at 8.09. Three minutes later, he arrived at Calgan Lounge and reported various points around the warehouse until 9.42. As this was an abnormally short shift, once again he was on the move as a pedestrian. He crossed to the south side of Main Reef Road and enquired for shifts at Metalstitch SA, where he was successful again—but only from 10.04 until 11.53.

Bhekumbso typically takes a break at midday, returning to the hostel on foot. The walk takes seven minutes downhill and nine minutes uphill, and his break typically lasts for 30 to 40 minutes. The residual time is spent at a small shack outside of the Denver Hostel. When asked if this was also a spaza, he avoided answering the question. After this break, he returned to Overload Manufacturing, his first stop of the day, at 12.38 and departed again at 14.30. After returning home, his final points of the day were recorded at 19.23 in his midday shack just to the northeast of the hostel. With three shifts acquired, even if comparatively short, this was a successful day for Bhekumbso; he said he had earned roughly 250 rand that day, paid out in cash.

One Wednesday of the trial stood out as a unique pathway. Bhekumbso began walking up Plantatie Street as usual at 12.32, stopping for his usual 20 minutes at the spaza on the corner. However, instead

of turning west down Main Reef Road, he proceeded east to the nearby Tooronga Train Station. A train arrived at 13.01, westbound towards the CBD. He disembarked at the Jeppe Station, southeast of the CBD, at 13.10 and began walking along the train tracks, continuing in a northwest zigzag pattern through the gridded streets. At 13.46, after having walked all the way from Jeppestown, he entered a building called Duncan House at the corner of De Villiers and Loveday Streets in the northeast CBD. The Station Lofts, marketed as student accommodation, are located here. After 11 minutes, he left the building again and walked the entire way back to the Denver Mens Hostel, arriving at 16.32—after two hours and 37 minutes of walking. Bhekumbso, a relatively soft-spoken and private person, insisted that he did not remember what he had done that day despite the uniqueness of the event.

Bhekumbso's production of space as a perambulator encapsulates the story of a single man arriving in the city to look for work and leaving his family behind, which has been inherent to the development of Johannesburg at key points in the history of the urban region. In Zulu, his family name means "emperor," he explained, and he remembers at all times that he is a Zulu from KwaZulu-Natal, not born of Johannesburg. It was a Sunday, and a traditional dance was taking place in front of the hostel as he spoke.

Because his transit and living costs are low, he can send home remittances and hopes to find a job in his home province in the near future. His anchor points are regular but the paths between them differ practically every day, depending on how successful he has been in securing employment. As Bonner and Nieftagodien have similarly commented about Alexandra township,[43] this leads to a certain isolation of this population demographic, spatially as well as psychologically: "Because of the poor living conditions, you have this sense of desperation—unemployed, mainly young men who for various reasons feel excluded from the system."[44] This is a particularly tenuous existence: someone like Bhekumbso has neither tenure in his residence nor tenure in his occupation.

Four other participants in the 2015 study exhibited similar patterns of movement and demographic characteristics. This illustrates a specific iteration of how people can remain "trapped" by poverty because of the constant need to hustle from one possible source of income to another every day. It also shows why access on foot to the opportunities and resources of centralities was crucial for their ability to negotiate the urban. This group simply did not have enough income to survive anything else. This kind of story is so prevalent; even if greater waves of new informal settlements have subsided since 2008 (see Periods 5–6 of the

periodization in Chapter 2), it is still shaping the urban fabric all around the greater Johannesburg metropolitan area. I decided to call this process *toehold urbanization*.

Toehold urbanization

Toehold urbanization is about access: people simply "getting a foot in the door" to opportunities in the GCR. It is typically characterized by a dense morphology of structures, like shacks, erected by members of civil society; because it is implemented opportunistically, it also typically corresponds to precarious living conditions and land tenure.[45] A "toehold" launches people into the urban fabric, utilizing complex forms of reliance on transport and social capital. It is originated on small plots of government-owned as well as private land, but the overarching commonality is a lack of legal tenure beyond general eviction law. It occurs near urban centralities and areas of economic opportunity—from Johannesburg's downtown to former apartheid buffer zones such as its mining belt and industrial parks, even golf courses—because these spatial resources are accessible for people who primarily move on foot.

Historically, toehold urbanization arose to serve the mining-industrial complex of Johannesburg, which is evident when tracing the origins of some of the areas reflecting this dense, self-organized shack morphology.[46] Areas marked "SSSS" for shacks were already inscribed along the edges of the 1950 apartheid diagram for Johannesburg, reflecting their consistent status of operation beyond the "gaze of the state" while simultaneously being sanctioned by it.[47] Kliptown, founded in 1903, was the earliest toehold resulting from this process that remains present today (see the apartheid diagram for Johannesburg in Chapter 2).[48]

A proliferation of toeholds emerged once the infamous "pass laws" restricting residential locations for non-white populations were abolished in 1986: in the south, Orange Farm in 1989 and Finetown in the early 1990s;[49] in the north, Diepsloot in 1991, and Kya Sands likely in the early 1990s;[50] in the east, Ramaphosa in 1994;[51] and a proliferation of infill settlements along the industrial belt south of the Johannesburg CBD beginning in 1999.[52] Most of these settlements were deliberately planned invasions of state and private land, including a subcategory of toeholds: appropriated high-rise residential towers in places like Hillbrow or houses in Yeoville.[53]

Until approximately 2008, "informal" settlement was one of the most significant forces restructuring the urban region. Now, there is

little urbanization on greenfield sites; non-sanctioned land invasions are scarce.[54] Toehold urbanization instead arises on a small scale, corresponding to the development of new centralities, areas of concentrated mining and industry, or adjacent to other developments in logistically accessible parts of the urban region. Individuals can sometimes successfully overcome peripheralization through access and interpersonal networks—a form of resilience operationalized at various scales as people rework their living conditions. However, toeholds as areas often lack the resources to collectively overcome their marginalization. Toehold urbanization thus often provides "arrival zones" for people throughout the region, nation, and Southern Africa,[55] as shown by juxtaposing the examples that follow.

Toehold urbanization is not an intentional plan carried out by organized actors. It is firmly grounded in what many residents refer to as "the necessary hustle" of extracting value from the everyday activities of life, in order to generate income.[56] For example, Denver is a paradigmatic result of toehold urbanization. With a 72 percent male and 98 percent Black African population,[57] it is characterized by its central location near jobs within the industrial belt but has an utter lack of supporting infrastructure and almost no security of land tenure.[58] Denver is considered by its own residents to be an arrival point in the GCR, which most people try to leave as soon as they can afford to (see Figure 4.3). Denver originated

Figure 4.3 Denver Men's Hostel in 2019. © Lindsay Blair Howe.

as migrant labor housing for Black African men along the industrial belt in the 1930s; although these industrial hostels were not strictly organized according to ethnicity, as mining compounds once were, strong cultural clusters and links to specific villages emerged.[59]

Directly preceding the official period of apartheid beginning in 1948, hostels were designated for men to temporarily provide cheap labor in the city, while their families were to remain behind in regional peripheries, such as KwaZulu-Natal. In contrast, women's gradual entries into urban life "were necessarily informal and required ducking under the state's radar."[60] Women and families had already erected shacks adjacent to the hostel by the mid-1940s—a direct response to restrictive and racist policies, as well as an attempt to claim space through familial networks.[61]

An extension of this logic that remains today, the survival of people in the area is contingent on two factors: first, a reliance on larger networks beyond the toehold to support their existence, and second, moving from their homes to seek opportunities on foot. Over the course of three studies conducted in Denver, participants often noted that they walk because other forms of transit are too expensive; they can and must reach destinations by foot. "If it was up to [my wife] I would use taxis all the time, but … we realized that the money was not enough and we would end up starving in the house. So, if it's like that I will walk. I will get used to it; I am a human being," reported one father.[62] Another respondent framed walking as a constraint but also an opportunity to cut costs.[63] Money for transportation was instead reserved for what Caroline Cross and her colleagues describe as "circuits" of migration between Denver and participants' "homes" in KwaZulu-Natal.[64] Remittances to family members thus drive both circular regional migration and everyday movements.

Related to these material conditions and spatial practices, the politics of the place are also deeply entwined with "traditional" Zulu power structures; these relations dominate both the way of life as well as who is allowed to connect into the area from the outside. The hostel land itself is owned by the city of Johannesburg, but the surrounding area of the informal settlement is located on privately owned land. Denver receives a limited degree of attention for upgrading projects by the state or development initiatives from the private sector. Typical of small settlements embedded into the mining and industrial belt, its problems are not as urgently regarded as areas that are closer to more privileged parts of the GCR. The structures and practices, including extreme precarity and poverty, tend to remain ingrained in the place itself.

In contrast, Diepsloot is located 45 kilometers away from both the CBDs of Johannesburg and Pretoria. Situated on the city of

Johannesburg's northern edge, it has a 12 km² area and population of 140,000 with 98 percent Black Africans and a relatively even gender split, according to census estimates.[65] It began with the incremental building of shacks, and its morphology could appear to be the same as Denver—or what Anton Harber described as "the hard reality of South African poverty."[66] However, toehold urbanization is not the dominant process of urbanization in Diepsloot; it has a different logic of origin, and evolution because of its spatial location and level of rhetoric, highlighting the importance of differentiating the specific causes and forms of peripheralization.

Diepsloot began as a resettlement of people from Alexandra, among other areas deemed too dense and politically powerful in the early 1990s; this relocation was directly planned and sanctioned by the state.[67] The city of Johannesburg laid out a grid on farmland they acquired, in accordance with the kind of "site and service scheme" utilized to plan apartheid townships,[68] and people were left to construct their dwellings. Several interview respondents noted how their families had come to the "arrivals" area of Diepsloot from other parts of South Africa at this time, typically renting a small shack, mediated through familial networks[69] or by contacting a "community leader."[70] As they saved enough money, they rented several shacks or larger accommodations; some were able to purchase a plot or received an RDP house after the fall of apartheid, even expanding their premises to include subletting and starting their own businesses.[71]

Unlike Denver, Diepsloot provides such opportunities for individuals to overcome their peripheralization and evolve collectively; it is thus no longer a toehold. Diepsloot has a high level of "logistical centrality," meaning the degree to which paths of movement and transit converge.[72] It is approximately equidistant from the CBDs of Johannesburg and Pretoria and adjacent to some of the wealthiest residential neighborhoods in the urban region. There are important highway routes connecting Diepsloot and a powerful taxi association; local sedan-size taxis permeate the settlement and shuttle people to the main routes. Plans for public transport, in the form of bus-rapid transit (BRT) and the Raya Vaya systems, envisioned feeder routes to the existing corridor of Soweto–Johannesburg–Pretoria for only two places: Orange Farm and Diepsloot (see Figure 4.4).

Several studies have shown that people earning between 3200 and 6000 ZAR (225–425 USD) per month have some of the largest spatial footprints in the GCR: they have enough money to afford transit and use it to seek work from their geographically more peripheral locations. Furthermore, as scholars like Harber have discussed, Diepsloot's "infamy"

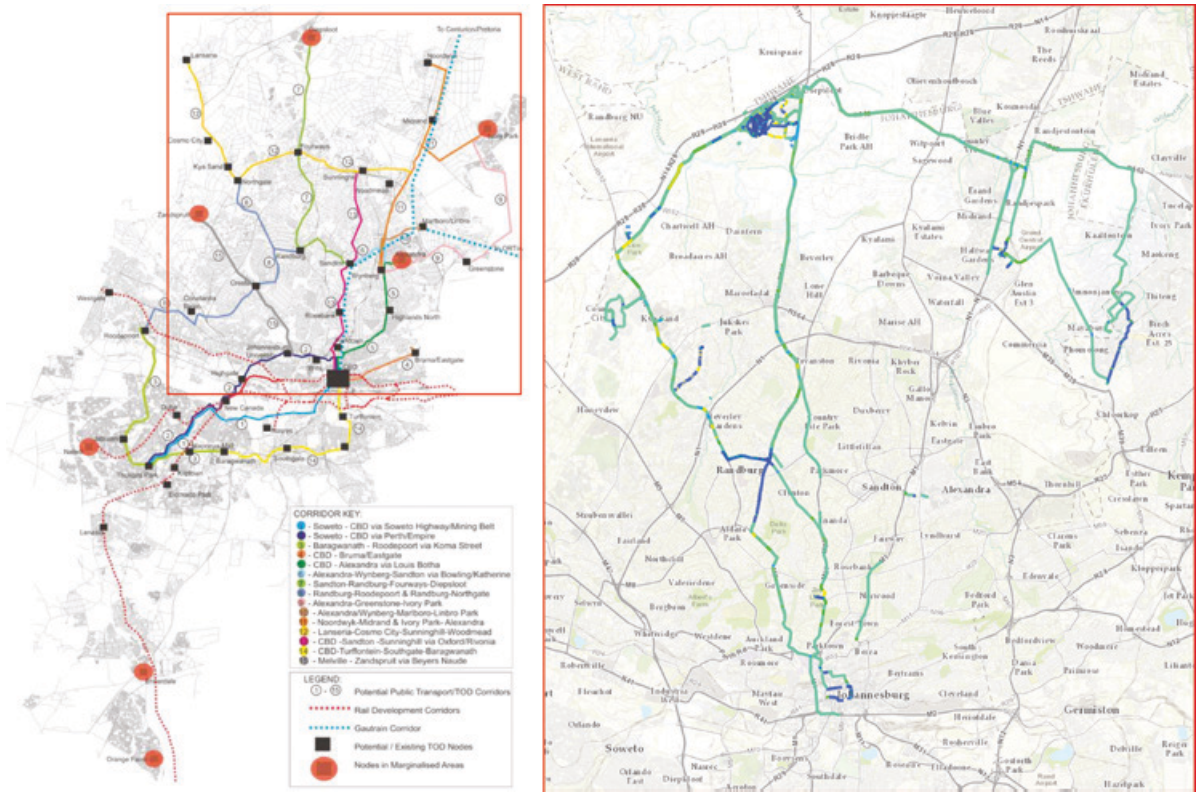

Figure 4.4 Corridors of Freedom primary and feeder routes. Reproduced with permission of the Urban Morphology & Complex Systems Institute at the University of the Witwatersrand School of Architecture and Planning.

has resulted in a comparatively high level of rhetoric, direct attention, and investment into the area. This specific spatial location gradually differentiated Diepsloot from toeholds like Denver because of the range of opportunities in and around the settlement.

Moreover, as a result of this transformation, there is a wide range of social groups living in Diepsloot; many complex forms of land tenure; and a proliferation of businesses and cultural activities generating a "popular" form of centrality. However, it has therefore also been subject to the waves of commodification familiar from other contexts internationally, for example in the *gecekondu* areas of Istanbul.[73] There are now three shopping malls because national and even global corporations, such as Shoprite, realized that this settlement of officially over 400,000 people was one of the largest untapped consumer markets in South Africa.[74]

Although the "arrivals" area established in the 1990s remains today, to launch people into the rest of the settlement and city-region, most of Diepsloot is dominated by the incremental production of housing by the state and private sector, which is comparable to the "plotting urbanism" identified by scholars including Lindsay Sawyer.[75] The kind of commodification shaping Diepsloot today is not occurring in Denver, reflecting an important difference in urbanization processes: toehold urbanization represents an intense precarity that cannot easily be overcome.

Formulating the concept of toehold urbanization was an inductive process, relying on the regressive–progressive analysis of urban areas like Denver and comparing them to one another.[76] While the built forms and spatial practices of areas can differ, or there can be slightly varying forms of access to land, access is a defining feature of areas of toehold urbanization. Both the logic of spatial production occurring outside "formal" constraints contained in the concept of peripheral urbanization is valid here, as is the importance of specific geographic location and center–periphery dialectics. Toehold urbanization typically occurs near urban centralities because these "valuable" spaces are accessible for people who primarily erect their own dwellings on land with no significant form of legal tenure and move from their area on foot.

Toehold urbanization is related to what is broadly referred to as informality in geography and urban studies, but in South Africa, this term has specific and important characteristics that warrant its own unique terminology. This process is similar to the "popular urbanization" Monika Streule and her colleagues identified in the context of Istanbul, Lagos, and Mexico City as a collective initiative "primarily led by the people, while commodification and state agencies play minor roles."[77] In this, planning, financing, and organization of

construction is executed by people, creating a range of places from the very powerful to highly marginalized. In the South African context, there is a slightly stronger presence of the state and capital but executed more on the level of individual actors. People are operating within these systems in the "transversal" way construed by Teresa Caldeira: "While residents are the main agents of the production of space, the state is present in numerous ways: it regulates, legislates, writes plans, provides infrastructure, polices, and upgrades spaces."[78] However, toehold urbanization refers specifically to the process that underlies the most precarious form of settlement, one that applies only to tiny pockets of space with no land tenure—and it is important to differentiate this from owner–tenant relationships, where people can exercise more agency and therefore have more power.

Toehold urbanization presents one of planning's most complex challenges. Because people with varying skill levels erect housing themselves, without any oversight of urban planning or safety regulations, there is a high level of variance in living conditions. Dense areas—particularly the well-located sites where pressure for land is most intense—experience frequent fires, which cannot be put out because fire trucks cannot pass through the widths of streets between dwellings.[79]

These are some of the most precarious physical environments but persist because, first of all, they have always been part of the urban configuration,[80] and second, there are no current alternatives for the lowest-income segments of the population. However, as Marie Huchzermeyer, Aly Karam, and Miriam Maina note, the amount of toehold urbanization on greenfield sites has stabilized since the early 2000s; few new settlements are emerging across the contemporary landscape and non-sanctioned land invasions are scarce.[81] Toehold urbanization thus remains one of the key processes by which greater Johannesburg is made and remade on an everyday basis, even if the process is no longer drastically reshaping the territory as it did in the initial years after apartheid.

It is important to note that, in toeholds, conditions do not automatically improve, as Caldeira describes in the context of her case studies.[82] While there are varying degrees of involvement by the state in toehold urbanization, the spaces that result from this process are often not perceived as legitimate.[83] Places like Denver are so deeply marginalized that it is difficult to transform the environment.

Many participants over the years stated that they live in fear of the hazardous and dangerous living conditions in Denver, and would leave their toehold for a more established and secure area as soon as they could afford to.[84] In fact, two study participants did leave the area, relocating

to Alexandra and Soweto, after securing better salaries and more regular employment.[85] While some spaces that resulted from toehold urbanization evolve individually or collectively, unstable tenure arrangements like those in Denver preclude transformation and reproduce peripheralization. It is extremely difficult to plan infrastructure—consisting of rigid physical objects—for "precarity";[86] the movement of people and things in and out of toeholds is fluid, opportunistic, and unpredictable.

Urban portrait 3: Nandi in Diepsloot

Nandi's story is also an example of toehold urbanization, but it shows what can happen when enough people and resources can be concentrated in a particular space and time—in such cases, centrality is not planned but rather begins to emerge organically. People living in extreme precarity can eke out livelihoods in these spaces, typically through combining small jobs or temporary opportunities within this emerging economy with assistance from state policies and programs designed to provide for those with little or no income. Nandi resides in Diepsloot Extension 13, the most northwestern part of the area close to the R114 highway, which is also the border between the city of Johannesburg and the city of Tshwane. Like the original "arrivals" area of Diepsloot, consisting only of shacks, the built spaces of Extension 13 are also still primarily dominated by corrugated metal (see Figure 4.5).

Nandi first arrived in Johannesburg in 1992 with her family from Edendale, an ethnic Zulu township near Pietermaritzburg, more than 500 kilometers away. They first occupied a flat in Hillbrow, in the Johannesburg CBD; Nandi began a series of temporary jobs, having attained only a Grade 6 education level during her childhood in KwaZulu-Natal. She spoke only Zulu fluently, and bits of other South African national languages, but spoke and understood almost no English. Unlike the other interviews, which were conducted in English, the interviews with Nandi were done through a translator.[87]

After two decades in the Johannesburg CBD, she relocated to the banks of the river running through Diepsloot and purchased a shack. Due to flooding danger, the city of Johannesburg eventually relocated Nandi into Extension 13, where she has lived ever since. Her stand has a shaded front stoop, with mosaicked rocks around small decorative plants, and spinach planted in old tires along the side of the lot. She is happier here than in Hillbrow, Nandi explained to us, because even though job opportunities are scarce, she has much more space.

Figure 4.5 Visiting a hair salon in Diepsloot. © Lindsay Blair Howe.

Nandi prefers to live in Diepsloot because, at 43, she fell pregnant with her fifth child and did not want to raise her in the inner city. Four more of her children live with extended family in Pietermaritzburg; she and her daughter are the only residents of their shack. Nandi supports her family with a small monthly stipend from Pikitup, the city of Johannesburg's official waste management company founded in 2001.[88] She was tasked with sorting recycling out of the trash that is illegally dumped at the state-funded rows of toilets installed for the residents

of Extension 13, which occurred sometime between my first visit to Diepsloot in 2014 and the course of our interviews in 2015.

Nandi also collects recycling around the neighborhood and around portions of the R114 highway, as well as at a bottling distribution depot in an adjacent extension. As her primary source of food is the local spaza shops, almost everything in her daily life occurs in and around Extension 13. On the 17 days of the study she reported activity, six of them comprised collecting recycling around the shared toilets. Five showed collections around the R114 highway and three were primarily at the bottle depot. She stayed at home without moving for three days in total. Out of all the 30 participants from the 2015 study, her spatial footprint was by far the smallest.

A representative day was a weekday, July 30, 2015, when Nandi began collecting recycling along the highway at 6.13 in the morning. She made her way to the bottle depot, checking for further recycling along the way as indicated by various stop-and-go points, then returning west on foot to her shack in Extension 13 and arriving home at 7.48. She remained there until 11.31, when she did another loop out to the highway and continued back to her area on foot by 12.01. The rest of the day was spent at home. The next day, July 31, again showed a similar configuration of anchor points and trajectories. She spent almost the entire day moving around, from 9.51 to 16.58, visiting the bottle depot after checking for recycling along the row of toilets in Extension 13. The walk home took her 16 minutes, and after 17.16, she stayed at home for the remainder of the evening.

Nandi did not have any activity points outside of Diepsloot except for one exception, on the afternoon of August 6. She had been collecting recycling in the morning in her area, and then left on foot at 12.24, heading east into Diepsloot. She picked up a taxi at 12.31, which continued through Diepsloot onto the main east–west thoroughfare and then turned south down the R511 highway at 12.49. The taxi made a further loop through the easternmost part of Diepsloot, down another major road, and exited Diepsloot at 13.08 to continue south through Fourways and the northern suburbs.

She arrived at the CBD at Noord Street, along the south side of the train tracks, at 13.56. She proceeded to walk south down Claim Street and then east down De Villiers, crossing the End Street Park into Doornfontein. On Sherwell Avenue, just south of Rockey Street, there is a section of the street where many recyclers gather. People in the CBD who have no capacity to travel at all, she later explained, collect their goods there and wait for other recyclers to purchase them, then resell

them at the Pikitup depots. She spent just over half an hour here, departing again at 14.31. Her taxi back departed at 14.46, and she was home again at 17.09.

As Jonathan Rokem and Laura Vaughan have discussed, a lack of mobility can be one of the most defining characteristics of poverty.[89] Nandi shows little to no mobility beyond her immediate vicinity; she certainly lives in poverty, yet her situation is stable due to the support of the state. Her Pikitup stipend is enough to cover her most basic costs—although only those. Nandi's movements are therefore almost exclusively on foot and her destinations highly predictable.

In her publication *Re-thinking the South African Crisis*, Gillian Hart discusses the possibility that the nation has such a wide skills and education gap that structural inequality may be generating a completely unemployable class.[90] If the current economic situation continues, this may come to pass. And it may have an even more pronounced impact on people fixed in economic, social, and physical space, unable to use the region as a resource to secure their livelihoods. A total of six participants from the 2015 study exhibited similar characteristics: living in precarity, yet stably, on the margins of geography and society. They often would not be able to do so without "social grants": the state program run by the South African Social Security Agency (SASSA) entitled the Social Relief of Distress Grant (SRD Grant), which pays child support, pensions, and disability assistance for those who have "insufficient means … and no financial support from any other source."[91] This policy is a significant means of sustaining urban life for many individuals and families across the GCR.

Diepsloot: from toehold to "popular centrality"

Henri Lefebvre engaged deeply with revolution and the struggle for urban rights. One of his key concerns was the desire for equitability and how the demand for equal rights to be present in the valuable spaces of centralities was asserted. But claiming a right to space in the city as it unfolds in toehold urbanization—how much the individual and their story matters to collective processes in a case like Johannesburg and the GCR—was perhaps beyond the realm of what he could imagine at the time. In places like Diepsloot, people are connecting into and out of urban space, changing it remarkably, and articulating a "popular" kind of centrality—or centrality driven by and made for people, which is much more complex than what Caroline Kihato has similarly described as a "place of respite outside of the state's gaze."[92]

This section proposes that popular centrality emerges as a product of geographic location—primarily the proximity to opportunities or transit connecting to them affordably—as well as enough "informality" to avoid state regulation of the encounters and economic activities that manifest between people of similar social groups. It confirms Lefebvre's assertion that centrality is a key resource for people, and that they actively assert a right to access it. Diepsloot shows how a geographically well-located settlement began to generate centrality and now receives significant attention from the state and private sector (see Figure 4.6). More geographically remote locations, or even those more centrally located but socially, economically, and politically marginalized—like Denver—do not tend to develop these characteristics of an urban centrality.

Centrality in Diepsloot materializes as a wide range of actors creating spaces across a spectrum of so-called informality, from self-building to rental arrangements, government-subsidized housing, and private developer loans. One of the primary reasons people can exercise their agency is because of its geographic location, allowing them to assert a form of power. Diepsloot was on the edge of the city-region; its initial peripherality—as the next chapter will discuss in more detail—meant that its growth, and evolution into one of the major gateways for growth and migration into Johannesburg,[93] was largely sanctioned by the government.

Figure 4.6 Diepsloot in 2024. © Lindsay Blair Howe.

As previously mentioned, it is well connected through the national highways with the minibus taxi system, enabling people to access domestic work in nearby gated communities or jobs in industrial parks. The taxis that travel to the Johannesburg CBD typically cost 18 rand (1.35 USD) and require 60–90 minutes of travel at peak time; those headed to Pretoria cost 16 rand and require 45–60 minutes of travel at peak times. Other popular destinations are the even more closely located wealthy urban areas of Sandton and Fourways, where many people seek jobs related to domestic service occupations.

Rush-hour traffic begins at 5.30 in the morning going towards Johannesburg. Many job-seekers rise as early as 4.00 to begin moving throughout the dense urban fabric of the region. As a result, people can enact their own kind of control and structure over this space locally while also using it to connect to other spaces regionally; they cannot do this if tied to longer commutes or if they are nearer to more regulated existing centralities. For example, while unemployment is high in Diepsloot according to census data, there is a proliferation of local businesses that operate outside the constraints—and taxes—of the formal market system.

A few further examples uncovered through ethnographic research illustrate the ability of Diepsloot to "upscale" what was initially toehold urbanization into popular centrality. Mome's Place is a pub located near one of the settlement's primary thoroughfares (see Figure 4.7).[94] Mome migrated from the Limpopo Province to Diepsloot in 1996, after completing his high school education. Through his network, he began a streetside business in Diepsloot selling fruits and vegetables; he was able to upscale his business into a *shebeen*, or local tavern, and start supplying other shebeens as a beverage distributor. Mome gradually solidified his position as the primary distributor of liquor in the area, lending him significant social and economic power.

His pub is now a regular meeting place for members of the current party in power, the African National Congress (ANC). Although he claimed in interviews to reside in Diepsloot, his home address is in Bryanston—one of the most expensive areas of the region in which to own property, in the elite, former white area directly adjacent to the international financial hub of Sandton. However, being a member of the community remains important to his identity as well as his business model. His story is indicative of how people residing in places that become more central can subvert economic and cultural domination through accumulation of spatial and social capital. Mome's story therefore hints at both the patronage networks characteristic of the township, as well as the

Figure 4.7 Mome's Place in February 2024 and backyard shacks in May 2017. © Lindsay Blair Howe.

alternative social relations poverty necessitates, which Sam Halvorsen describes as "alternative ideas and practices of urban territory."[95]

Demonstrating the interdependencies of the GCR, Diepsloot also provides spatiotemporal opportunities for people from far outside Johannesburg. Miss Vi sometimes lives in Diepsloot, and other times she lives in Lethlabile, one of the last apartheid-era mass resettlements from 1985, on the border of former Bophuthatswana.[96] She resides with one of her sons in a concrete-block structure on her parents' property; this land had been given to them by the apartheid government when they were forcibly relocated from Brits.

Neither she nor her parents pay any sort of monthly fees except for electricity; her other son lives with his father in Randfontein, west of the Johannesburg CBD, to attend school. Miss Vi's essential costs are her daily expenses, those of her children, and transportation. It costs 11 rand (75 cents) to go the nearby platinum mining town of Brits, 38 rand to Pretoria, and 90 rand (6.50 USD) to reach Diepsloot. "In town you don't have this kind of space and life is too hectic. People are always wanting something from you, you have to hustle all the time, it's not safe and you can't be happy," she explained.

Miss Vi estimated that 30 percent of area residents seek work in the city of Johannesburg 110 kilometers away; she lived in Diepsloot for five years trying to find work as an entertainer, singing and auditioning for TV shows. Her children were both born during this time and were sent to live with her parents. She commuted home each weekend, locked into a pattern of what could be termed circular regional migration. She eventually landed a role on a nationally televised show, playing a character in a women's prison; it films two months of the year in Johannesburg. During this time, she lives in Diepsloot; otherwise, she lives at home with her parents and younger son. Relative fame has obtained her a place of significance in Lethlabile. She began running her own entertainment company, producing events for hip-hop artists in local pubs and attracting external sponsors, such as radio stations, to fund these events.

Thus, popular centralities like Diepsloot provide a toehold for people like Miss Vi, from further away, to access the opportunities of the cities, becoming more central itself in the process. Both her local connections to her home and her mobility around the region allow Miss Vi to exercise her agency in ways that would otherwise not be possible. Enough people within a space, in combination with public programs, can trigger the advent of urban opportunities, snowballing into new centralities that can accommodate even those living in extreme precarity with few skills and prospects.

While Diepsloot is peripheral and precarious in an economic and sociocultural sense, compared to many other places in this highly unequal region, it is not invisible. Like the more famous townships of Soweto and Alexandra before it, Diepsloot is a centrality for a specific segment of the population and carries ever-more weight in the spatial structure of the territory—which is being widely subjected to predatory forms of development too. For example, Diepsloot receives high levels of capital expenditure from the state and most of the funding has been allocated to affordable housing, health and human services, and education.

However, many commercial developments, primarily malls, have also gradually arisen over the past decade.[97] Development is a double-edged sword because the "formalization" of transactional activities discourages network-based strategies for income generation on which so many of the settlement's inhabitants rely. This development is instead based on predatory capitalist extraction, and it symbolizes the increasing commodification of informal relations by the state and private capital. It is a threat to the kind of social organization and activities that have succeeded in generating qualities of centrality in Diepsloot in the first place. This is the "double-edged sword" of development: if hustle is successful, then capital comes in, manifesting new frontiers of exploitation, in complicity between the state and the private sector—as has so often been the case in Johannesburg.

Conclusions

The emergence of centrality outside the state is not something explicitly reviewed by Henri Lefebvre. While Lefebvre posited a polycentricity of new urban configurations, due to the dialectics of center and periphery, his theories did not meaningfully describe what that might look like. He viewed the production of centrality as a state-led process, providing access to social and spatial resources. Yet the ways in which centrality is produced by people in Johannesburg reveals the gap in this theory—namely, the role of popularly led processes of urbanization and concentration.

The concepts of *toehold urbanization* and *popular centralities* connect the Lefebvrian approach to spatial dialectics with postcolonialism's calls to think theory from beyond the Western world. Johannesburg is an example of how regional-scale space is composed of varying forms of center and periphery, which both proves Lefebvre's theory and reveals where his Paris-centric theories about centrality and periphery reach

their limits. Johannesburg is thus proven as a vibrant and viable source for the production of urban theory.

It would be reductive not to use these specific terms and descriptions, born of a particular place and time. Broadly, toeholds and popular centralities could be situated under the banner of urban informality. Informality has been an important concept in urban studies because it established a category and ascribed value to the parts of cities where what Niels Gilbert and Jasper de Jong have referred to as "differential spatial value" is expressed as a process of urbanization.[98] However, it cannot adequately valorize the important differences that emerge by meticulously comparing the actual spaces of the GCR. Informality as a concept remains limited when viewed through any real urban context, calling for us to employ more nuanced thinking and develop more specific and grounded theoretical categories.

Toehold urbanization essentially means carving out access to the urban fabric. It is related to the kind of "encroachment" Asef Bayat describes,[99] which densifies the territory; under the right conditions, it can lead to a popular form of centrality. It is thus closely related to "urbanization by the people,"[100] who utilize their own agency to contest enduring socio-spatial and economic inequalities.[101] Toehold urbanization unpacks essential dimensions—such as who owns the land, whether there are tenant relationships, and who is extracting profit—which matter greatly for conceiving innovative policies and built environment solutions to address poverty and inequality.

Centrality is paramount to the livelihoods people seek to create; it underlines toehold urbanization and is thus a key aspect of its differentiation from other processes. Is a toehold close to an urban centrality? Can centrality be generated by people themselves? In Diepsloot, the answer has been yes. In contrast, in Denver, the answer so far has been no. Life is a daily struggle, as many participants said over the years in precisely these words, and "no one is in Denver by choice."[102] Even though it is very centrally located geographically, it is on a small segment of land isolated within Johannesburg's industrial belt. It is also politically marginalized: it functions as an arrival zone for people primarily from KwaZulu-Natal, often allied with alternative politics such as those of the Inkatha Freedom Party or the Economic Freedom Fighters. People cycle in and out, and if they achieve any level of stability or success, they relocate to "better" areas.

Denver is a moment of movement, and this very temporality is an essential part of toehold urbanization.[103] A 2019 study participant described the choice to come to this particular location thus: "I came here

with my husband. Because things were bad back home in KZN, I came looking for work here in Johannesburg, trying to make a living."[104] She further described accepting the precarity of the built environment as a necessity because they had no money to seek other options, and because they were expected to send money "home" to KwaZulu-Natal. A male participant who took place in all of the studies between 2016 and 2020 noted that "my whole family is in KZN. Here we just come looking for work so that we are able to provide for the family back home."[105] Remittances exerted an extreme amount of pressure on many study participants, who often reported having enough difficulty providing for themselves; most had irregular or temporary jobs, many of which could be described as physically unsafe.[106]

In fact, most respondents in the 2019 and 2020 studies noted that they do not just send remittances but have children living in KZN, ranging across all ages. Poverty therefore manifests not just as a lack of income, or as a lack of presence in a space, but in the fragmenting of lives that occurs as poverty is spread across vast regional spaces.[107] Families are split, and people's spatial footprints regularly traverse extended urban regions of hundreds of kilometers. Denver thus acts as a form of the arrival space described by Tanya Zack and Loren Landau as for "vulnerable and mobile people wishing to be in but not of the city,"[108] connecting in from the greater urban region. Living in Denver was perceived, in a sense, as it was constructed during apartheid: life in the city is a temporary, income-generating sojourn, and home remains on the periphery. Without this labor, the GCR could not function as it does, nor produce the kind of GDP it sustains. The geographic and structural factors of peripheralization do not just co-exist; in Denver, they mutually constitute one another. This illustrates how the concept can be useful for understanding specific aspects of urban informality and what allows areas to either "upscale" or precludes them from change.

Comparison to other areas also yields preliminary insight into the potential implications of toehold urbanization. The context of the Lagos laguna, for example, that has been portrayed by scholars like Lindsay Sawyer and her colleagues as "popular urbanization" could also be conceived of as the opportunistic access that underlies toehold urbanization.[109] Diepsloot is an example of what happens when a toehold upscales, as analyzed by Christian Schmid and his team in the contexts of Mexico City, Istanbul, and the liminal spaces of railway lines in Calcutta or Delhi.[110] A key difference from popular urbanization is the scale of operations toehold urbanization provides. In contexts like Mexico City or Istanbul, popular urbanization comprises the majority of the urban

fabric, while in the GCR and Lagos, it is a descriptor for small pockets of access among other related processes of urbanization by and for the people.

Where people live, where they go, how they get between these places, and what they do on the way is a product of the structure of space itself; it constrains or enables opportunities through the proximity to or distance from centralities in the urban fabric. Understanding the dynamics of spatial structure is essential to grasping how space is activated in places like the GCR. People continually shift and decenter the spatiality of the GCR, inscribing new forms of power and opportunity into space and providing a toehold for those marginalized by the legacy of mining and apartheid. As the narratives of Amusa, Bhekumbso, and Nandi demonstrate, people can enact their own kind of control and structure over this space locally while also using it to connect to other spaces regionally. Such multi-scalar, lived experiences are not adequately included in the canon of urban scholarship or planning practices.

The implications of popular centralities for wider conceptualizations of global urbanization processes are not yet clear. As Katharine Rankin describes: "Unexpected similarities in experience across connected historical geographies could become the foundation for critical practices, common responses, and alterative trajectories."[111] We need to think further through such findings, reflecting on agency and popularly driven processes of urbanization.

To comprehend this means decoding social realities as relational and intersectional—considering constructed attributes such as gender, race, and privilege—that drive their means of spatial production and the opportunities they can access. When I first began researching places like Denver, I was initially told even researchers were too scared to go there. Yet even if they were classified as "too scary," the places that became critical to my research—Denver, Diepsloot, and Marlboro South—were not invisible. Their people are rarely part of the "struggle" in a political sense, through active protest, because they are too busy trying to get by. But their lives are an emblem of the struggle through the co-presence of their bodies near existing centralities or in making new centralities appear.

Notes

1. Thompson, DK (2017) Scaling Statelessness: Absent, Present, Former, and Liminal States of Somali Experience in South Africa. *PoLAR Political & Legal Anthropology Review* 40(1): 86–103, p. 88.
2. See, for example, Charlton, S (2014) Waste Pickers/Informal Recyclers. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, pp. 539–545.

3. Mbembe (2021), p. 3.
4. This assertion is based on the interpretation of Lefebvre's concept of centrality developed by Christian Schmid in his many years of engaging with and publishing on Lefebvre. See, for example, Schmid (2008); Schmid (2022); Schmid and Streule (2023); Schmid and Topalovic (2023).
5. See, for example, Watson's (2002, 2006) critiques of applying normative planning approaches in dysfunctional states, with low levels of trust.
6. Unless otherwise cited, all material originates from expert interviews. All of the names in the vignettes are code names that were selected with the participants. Personal details, photos, and any sensitive information are presented only with explicit consent.

   "Amusa" and her family originally wished to have their real names used, including the name of their teenage daughter, because they believed in the potential power of sharing their stories and the opportunities for their organizations in Marlboro South to which this might lead. We later decided to use code names after all, in particular out of consideration for their children.
7. Schmid (2022), pp. 55–56.
8. Schmid (2022), p. 403, emphasis by the author; compare to the original text by Lefebvre, H (1996 [1968]) The Right to the City. In *Writings on Cities*. Trans E Kofman and E Lebas (eds). Oxford: Blackwell, pp. 164, 172; and Lefebvre (1991 [1974]), p. 332.
9. Lefebvre (1991 [1974]); Schmid (2008).
10. Mark Davidson and Kurt Iveson successfully argue that there is still value in utilization of the term "city," as it is a relevant unit for "political efficacy," and call for "engagement with the political practices of subordinated peoples across a diverse range of cities." See Davidson, M and Iveson, K (2015) Beyond City Limits: A Conceptual and Political Defense of "the City" as an Anchoring Concept for Critical Urban Theory. *City* 19(5): 646–664, p. 646.
11. See the work on encounter and exchange as the foundations of urban life by Merrifield, A (2013) *The Politics of the Encounter: Urban Theory and Protest Under Planetary Urbanization*. Athens, GA: University of Georgia Press.
12. Lefebvre (1996 [1968]), pp. 71–72.
13. See Lukas Stanek's work, for example: Stanek, L (2008) Space as Concrete Abstraction. Hegel, Marx, and Modern Urbanism in Henri Lefebvre. In K Goonewardena, S Kipfer, R Milgrom, and C Schmid (eds) *Space, Difference, Everyday Life: Reading Henri Lefebvre*. London: Routledge, pp. 62–79, p. 74.
14. Brenner and Christian Schmid (2015); Schmid (2022).
15. Schmid (2022), p. 175.
16. Lefebvre (1996 [1968]), p. 73.
17. Lefebvre (1991 [1974]), p. 391.
18. Sassen, S (2014) *Expulsions: Brutality and Complexity in the Global Economy*. Cambridge, MA: Harvard University Press.
19. Schmid (2022), p. 411.
20. Lefebvre (1991 [1974]), pp. 280–281.
21. Lefebvre (1991 [1974]), p. 101.
22. Schmid et al. (2018).
23. See also Mbembe, A and Nuttall, S (2004) Writing the World from an African Metropolis. *Public Culture* 16(3): 347–372; and Pieterse and Simone (2013).
24. See also Ogunyankin, GA (2019) "The City of Our Dream": Owambe Urbanism and Low-Income Women's Resistance in Ibadan, Nigeria. *International Journal of Urban and Regional Research* 43(3): 423–441.
25. Platzky and Walker (1985).
26. On this notion, see Stanek (2008).
27. Zack, T (2017) Johannesburg's Inner City: The Dubai of Southern Africa, But All Below the Radar. *The Conversation*, November 5. Available at: https://theconversation.com/johannesburgs-inner-city-the-dubai-of-southern-africa-but-all-below-the-radar-86557 (accessed July 20, 2025).
28. Mbeki, T (2001) State of the Nation Address, Cape Town, February 9. *South African History Online*. Available at: https://www.sahistory.org.za/archive/2001-president-mbeki-state-nation-address-9-february-2001 (accessed July 20, 2025).
29. See, for example, Beavon, K and Larsen, P (2014) Sandton Central, 1969–2013: From Open Veld to New CBD? In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, pp. 370–394; Mabin (2014), pp. 396–404.

30. Noteworthy stalwarts that remained in the CBD are government departments of the city and province, as well as most of the major mining houses and many financial institutions (interview with a MEC minister of transport, 2014). Global capital almost unilaterally relocated to Sandton or first arrived in South Africa when a significant number of firms had already made this transition.
31. Thompson (2017), p. 87.
32. Simone, AM (2016) City of Potentialities: An Introduction. *Theory, Culture & Society* 33(7–8): 7.
33. Information on the family was derived from semi-structured interviews with Amusa (July 23 and August 1, 2015) and Khosi (July 23, 2015), as well as many more casual conversations ranging between October 2011 and May 2017.
34. The general information on Denver in this section was first published in Howe (2022b). See also Beinart, W (2014) A Century of Migrancy from Mpondoland. In P Delius, L Phillips, and F Rankin-Smith (eds) *A Long Way Home: Migrant Worker Worlds 1800–2014*. Johannesburg: Wits University Press, pp. 59–73.
35. James, D (1999) *Songs of the Women Migrants: Performance and Identity in South Africa*. Edinburgh: Edinburgh University Press, p. 25.
36. Mathiba, L (2019), *The Challenges of Upgrading Informal Settlements: A Case Study of Denver Informal Settlement*. Johannesburg: University of Johannesburg.
37. Scorgie, F, Vearey, J, Oliff, M, Stadler, J, Venables, E, Chersich, M, and Delany-Moretlwe, S (2017) "Leaving No One Behind": Reflections on the Design of Community-Based HIV Prevention for Migrants in Johannesburg's Inner-City Hostels and Informal Settlements. *BMC Public Health* 17(3): 78–88.
38. See also Cross et al. (1998).
39. Matsela, M (2015) Building Community: Denver Community and University of Johannesburg Studio 2015. June 5. Available at: https://sasdialliance.org.za/wp-content/uploads/2020/07/CORC_Annual_Report_2014-2015.pdf (accessed July 20, 2017).
40. Firth (2011).
41. There were eight participants from Denver in July 2019 (five women and three men); half of them also participated in the 2020 study, which commenced just over a year later, in October 2020. This study had 12 participants from Denver (eight women and four men). Two of them had participated in all of the studies since 2015, along with members of their households.
42. Maseko, N (2015) Inside South Africa's "Dangerous" Men's Hostels. *BBC News* (online edition), May 13. Available at: https://www.bbc.com/news/world-africa-32692461 (accessed July 20, 2025).
43. Bonner and Nieftagodien (2008).
44. Interview with Serino and Dludla (May 20, 2015).
45. The concept of toehold urbanization was first presented in Howe (2022a).
46. Platzky and Walker (1985), p. 335.
47. Mears R (2011) *Historical Development of Informal Township Settlements in Johannesburg Since 1886*. Economic History Society of Southern Africa and ERSA Workshop proceedings, Johannesburg.
48. See Judin et al. (2014); and Kornienko, K (2021) A Documentary Film. Ways of Moving: Everyday Experiences Traversing a Fragmented Cityscape. *1st International and Interdisciplinary Conference on Spatial Methods for Urban Sustainability*. Conference presentation, September 25 (online).
49. Leong (2009).
50. Weakley (2013), p. 115.
51. Dube (2010), p. 7.
52. Bennett and Toffa (2014).
53. Bénit-Gbaffou (2014), pp. 252–268.
54. Huchzermeyer et al. (2014).
55. Landau (2016).
56. Interview with C Gininda (2016); interview with T Mopasi (2015); interview with R Khumalo (2011).
57. Firth, A (2011) Statistics South Africa National Census 2011. Population statistics obtained from the Census 2011 Community Profile Databases and geographic areas calculated from the Census 2011 GIS DVD. Available at http://census2011.adrianfrith.com/.
58. Matsela (2015).

59. Beinart (2014).
60. Beinart (2014), p. 4.
61. Vosloo, C (2020) Extreme Apartheid: The South African System of Migrant Labour and Its Hostels. *Image & Text* 34: 1–33.
62. Interview with DE13 (2021).
63. Interview with DE19 (2021).
64. Cross et al. (1998).
65. Firth (2011).
66. Harber (2011), p. 15.
67. Harber (2011); Bonner and Nieftagodien (2008).
68. Simon (1992), p. 56.
69. Interview with DI15 (2015).
70. Interview with DI12 (2015).
71. Interview with DI22 (2015).
72. See the concept of logistical centrality described in: Kretz, S and Kueng, L (eds) (2016) *Urbane Qualitäten. Ein Handbuch am Beispiel der Metropolitanregion*. Zurich: Edition Hochparterre Verlag.
73. For more information on the Turkish context, see for example: Schmid et al. (2018), p. 36; Gündogan, AZ (2021) Rethinking Centrality. Extended Urbanization in Istanbul. *CITY* 25(2): 46–66.
74. Interview with NG1 (2015).
75. See Sawyer, L (2014) Piecemeal Urbanisation at the Peripheries of Lagos. *African Studies* 73(2): 271–289; Karaman, O, Sawyer, L, Schmid, C, and Wong, KP (2020) Plot by Plot: Plotting Urbanism as an Ordinary Process of Urbanisation. *Antipode* 52(4): 1122–1151.
76. For further explanation of this procedure in comparison, see also Schmid et al. (2018), p. 31.
77. Streule et al. (2020), p. 652.
78. Caldeira (2017), p. 7.
79. Interview with Weakley (2014).
80. Mears (2011).
81. Huchzermeyer et al. (2014).
82. Caldeira (2017), p. 7.
83. Huchzermeyer (2011).
84. Interviews with DE2 and DE8 (2020).
85. Interviews with DE1 and DE7 (2019).
86. Interview with CP12 (2021).
87. Her translator was a fellow resident from Diepsloot Extension 12. Interviews were conducted at her home on July 25 and 28, 2015.
88. City of Johannesburg (CoJ) (2006) Pikitup [News bulletin]. City of Johannesburg. Available at: https://joburg.org.za (accessed July 20, 2017).
89. Rokem, J and Vaughan, L (2017) Segregation, Mobility and Encounters in Jerusalem: The Role of Public Transport Infrastructure in Connecting the "Divided City." *Urban Studies* 55(15): 3454–3473.
90. Hart (2014).
91. Social Relief of Distress Grant information available on the South African Social Security Agency website: https://srd.sassa.gov.za/ (accessed July 20, 2025).
92. Kihato (2013), p. 18.
93. Landau, LB (2016) The Means and Meaning of Interculturalism in Africa's Urban Age. In G Marconi and E Ostanel (eds) *The Intercultural City*. London and New York: I.B. Tauris, pp. 65–78.
94. Mome (pers. comms., 2015), study participant in Diepsloot. He suggested and consented to using his real name, as the story is widely known and easily traceable back to him. He was also proud of his accomplishments and eager to have them written down by a researcher from Switzerland.
95. Halvorsen, S (2018) Decolonising Territory: Dialogues with Latin American Knowledges and Grassroots Strategies. *Progress in Human Geography* 43(5): 790–814, p. 801.
96. Miss Vi (pers. comms., 2017), study participant in Lethlabile and Diepsloot. She also suggested and consented to using her real name, for similar reasons to Mome.
97. Participatory design NGO executive (pers. comm., May 1, 2017).
98. Gilbert and de Jong (2015), p. 519; Roy (2011).

99. Bayat, A (2004) The Quiet Encroachment of the Ordinary. In C. David (ed.) *Tamáss: Contemporary Arab Representations* (Vol. 2). Rotterdam: Witte de With.
100. Streule et al. (2020).
101. Coe and Jordhus-Lier (2010).
102. Interview with D51 (2020).
103. Howe (2022a); Landau (2016).
104. Interview with D8 (2020).
105. Interview with D04 (2019).
106. Charlton, S, Suleman, M, Howe, LB, Rubin, M, Parker, A, Tshuwa, L, and Modisamongwe, D (2022) *Micro-Dynamics and Macro-Processes. A Maputo–Johannesburg Comparative Study of Intra-household Decision-Making and State-Investment in Transit*. Research report. Johannesburg: Volvo Research and Education Foundation, p. 55.
107. See also Roy and Shaw Crane (2015).
108. Zack, T and Landau, LB (2022) An Enclave Entrepôt: The Informal Migration Industry and Johannesburg's Socio-spatial Transformation. *Urban Studies* 59(11): 2333–2351, p. 2333.
109. Sawyer (2014, 2016).
110. Schmid et al. (2018).
111. Rankin, K (2011) Critical Development Studies and the Praxis of Planning. In N Brenner, P Marcuse, and M Mayer (eds) *Cities for People, Not for Profit*. London: Routledge, pp. 102–116, p. 106.

5
Periphery: aspirational urbanization and the periphery

The previous chapter demonstrated what resources centrality can offer people and what kinds of processes concentrate people in space, allowing something new to emerge. People imbue nascent centers with urban life—by using their agency to exploit prospects and possibilities—and this is actually an emancipatory act, one of subversion, of resistance to the forces that preclude access to existing urban centers and the opportunities they provide. This chapter describes what happens in spaces that are far removed from centralities, related to processes of extended urbanization and peripheralization on the urban edge. But while these "urban peripheries" may unfurl in the margins and extensions of regional-scale configurations, people are not necessarily peripheralized by these processes. It depends on whether or not the urban periphery presents as an expulsion or a possibility. The development of peripheries, and the condition of being "peripheral," is not simply the opposite of being central: it manifests in material, regulatory, and lived dimensions of space that differ throughout the relational whole of the territory in the Gauteng City-Region (GCR).

Christian Schmid and his collaborators, in their comprehensive comparative investigation of urbanization processes, define peripheralization as "a territorial process that generates and reinforces relations of dominance and dependency."[1] They describe how it relates to the exercise of power, wealth, and resources across the vast and variegated geographic areas their eight cases worldwide revealed. In Schmid's other major collaborative research project into extended urbanization, he and Milica Topalovic further state that: "Peripheries are not simply areas outside cities are urban life; they are always constituted *relationally* to centralities and other peripheries."[2] Boring deeper into this empirically, Johannesburg makes evident how people dwelling on urban peripheries

are able to forge opportunities for themselves in the face of this, using the region as a "spatial resource"—even as the condition of the periphery is simultaneously associated with serious challenges and forms of marginalization.

Lefebvre did not discuss the social realities of the periphery in excessive detail in his theories; for him, the periphery was where centrality was not—as the necessary other in this dialectical relationship—or what he considered as the "residual."[3] Significantly, he notes two defining characteristics of the periphery:

1. "centers and peripheries presuppose and oppose one another. This phenomenon, which has deep roots and infamous historical precedents, is currently intensifying to such a degree, that it encompasses the entire planet."[4]
2. "Where a dominated space is generated, organized and mastered by a dominant space – where there is periphery and centre – there is colonization."[5]

This draws attention to the multi-scalar nature of urbanization, suggesting a direct link between a contemporary form of colonization—a process of value extraction—and peripheralization on a planetary as well as a local scale. While he did not greatly elaborate upon this, other than in a chapter of his publication *l'Etat* on how states organize relations between central and "dominated" populations,[6] scholars such as Stefan Kipfer and Kanishka Goonewardena have further developed this concept from a postcolonial perspective, speaking to how struggles between center and periphery manifest in the urban fabric.[7]

After describing how urban peripheries are formed in the extended urban region of the GCR, this chapter describes the paradoxical situation that has arisen in its urban peripheries: *aspirational urbanization*. This urbanization process involves the production of mortgage-backed housing for the middle class—and related transformations of highly geographically remote spaces. The two urban portraits the chapter contains describe how people can become spatially fixed by the very process of capital accumulation that affords them a home. The chapter presents how their dreams of achieving a secure and stable livelihood manifest, from the more geographically central Amale in Midrand, located approximately midway between Johannesburg and Pretoria, to the highly remote Olga in Seabe—a settlement belonging to the "Northern Belt." This swathe of spaces related to the apartheid-era homelands stretches across hundreds of kilometers north of Pretoria: a

territorial construct representing the epitome condition of the urban periphery, with new opportunities arising out of its isolation from urban centralities.

Constituting peripheries

Schmid and his colleagues have noted how the "concentrated urbanization" of metropolitan areas has historically attracted significant attention in urban studies, yet extended urbanization, or "the urbanization of the peripheries—has remained largely overlooked by mainstream scientific research and public discourse."[8] Martin Arboleda, in his work on neo-extractivisms and the concept of the "planetary mine," usefully proposes that a periphery is a "ubiquitous sociospatial condition" for embedding capital and extracting labor through what he terms "sacrifice areas."[9] This points at factors that underlie the (re)production of periphery, as well as the control over land and labor sources that so characterize the history of greater Johannesburg.

These conversations also link to the concept of "peripheral urbanization" framed by Teresa Caldeira, in regard to the kinds of production occurring outside the logics of planning in areas left to their own devices (see also Chapter 1).[10] Yet even the kinds of "being outside" she describes—such as autoconstruction—tie peripheral urbanization to logics of capital and the state.[11] This too is a characteristic of the African city: both people and the state negotiating around things, defining an outside for the profit of the state and the private sector and people, as they connect to and disconnect from centralities, peripheries, and everything in between.

The regional-scale dynamics of the extended urban region surrounding Johannesburg and Pretoria privilege certain social groups through their access to centrality, while others are precluded from these spatial resources (as described in Chapter 2). As a brief review: how the GCR operates was territorialized through mineral extraction as early as the 1880s.[12] State strategies for control during apartheid capitalized upon these existing characteristics and strived to create a complete overlap of race and class by further transposing their institutional constructs into space.[13] Transport systems connected remotely located human settlements, areas of extraction, and capital investment—constructed on correspondingly cheaper land—to urban centralities; the production of housing continued in these peripheralized locations after apartheid ended too.[14]

While the metropolitan centralities of this region are often framed as the center of power relations and the developmental discourse, they have always drawn people in from the functionally integrated areas of the greater urban extents, nearly 200 kilometers in diameter (see Figure 5.1).[15] And aside from new opportunities and moments of popular centrality, the region's spatial structure—its material, regulatory, and lived spaces—largely continues to reflect the dominion and dependency resulting from mining, colonialism, and apartheid.

One reason for this is because urban development and growth still tend to occur on the urban periphery; it is still frequently assumed that even the people living a great distance from any given core city connect into the "valuable" central places where resources and opportunities occur by commuting. The VGI studies do show evidence of this (see Chapter 3), but it is largely a result of the confluence of

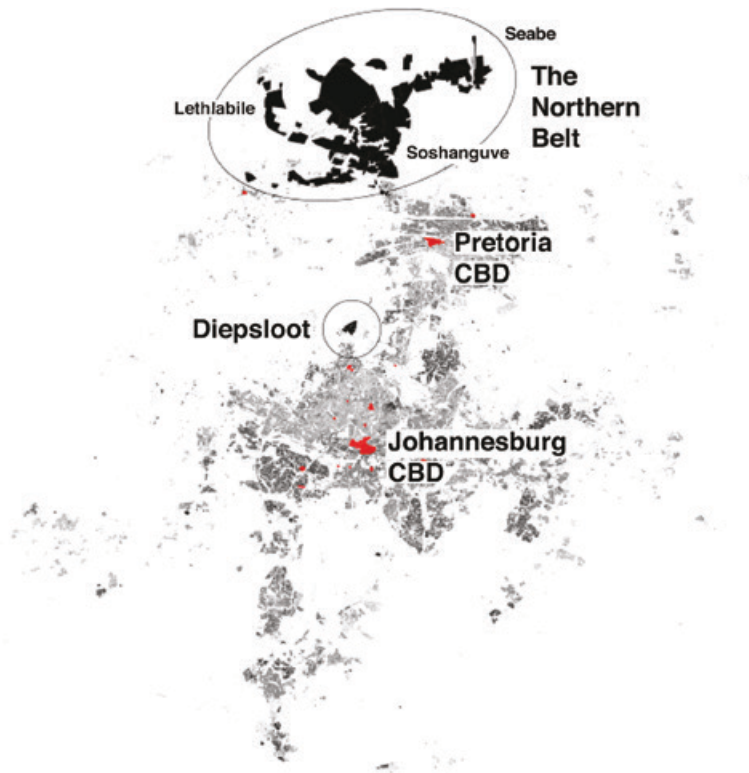

Figure 5.1 Diepsloot and the "Northern Belt" of the GCR in 2018. © Lindsay Blair Howe. Base map image data: © 2018 AfriGIS (Pty) Ltd. Image Landsat / Copernicus. © 2018 Google.

geographic and economic peripherality. The interdependent urban region is simply too large for most people to move into its major urban centralities on an everyday basis. There are several processes related to the production of housing (of both elite and underprivileged varieties) that create new concentrations of people in space and extend the urban fabric; centrality is only generated under specific conditions, such as those described in the previous chapter. What they do is engender commodification—a spatial resource that benefits only more privileged social groups.

These normative processes of housing commodification occur both with and against the state, which has been one of the primary driving forces behind urbanization, in conjunction with private capital interests. Prioritizing the voices and experiences of the people living in these places, as this body of work does, aligns with the methods utilized by scholars including Paula Meth and Sarah Charlton, who led a wide-ranging research project examining the geographic peripheries of the GCR. Meth and her colleagues categorized different kinds of processes shaping the peripheries they identified, emphasizing the way in which "logics can co-exist, hybridize and bleed into each other in different ways in specific places and at different temporal junctures."[16]

I, too, identified several processes in which new spatial concentrations were emerging on the geographic peripheries of this extended urban region, often acting as a double-edged sword for those living there. These housing-dominated peripheries were, on the one hand, an "aspirational" means of achieving stability and financial security through home ownership. The urbanization processes corresponding to housing transpired across a range of conditions, from elite, upper-income settlements along the highway corridor between Johannesburg and the former Pretoria, to vast swathes of state-led housing in Tshwane Metropolitan Municipality on the border of the North West Province, or to the south of Johannesburg bordering historically Black townships.

Geographically remote housing means that while people live in arguably less precarious circumstances than some of the conditions near centralities, they still experience a distinct form of relegation, or consignment to areas of "advanced marginality."[17] How the production of mortgage-backed housing on such spatial margins differs from state-led mass housing production, or the forms of marginalization it manifests, has seldom been discussed in the literature to date.[18] With "social and material alienation as vital mechanisms cleaving communities in 'the background' from the infrastructures supporting urban lives and livelihoods"[19]—as Jean-Paul Addie has so elegantly phrased it—the condition

of periphery, of the constant insecurity of spatial and social resources, can be isolating and marginalizing—but it is not necessarily so.

In seeking to constitute a definition of peripheralization for urban studies, I suggest that processes of peripheralization can be determined by observing how certain groups are privileged by the normative operations of urbanization, while others are deliberately disadvantaged or pushed to the outside.[20] Peripheralization is embedded into space and through time by geographic factors of location and intersectional structural factors such as race, class, politics, gender, and income. Peripheralization is a material result of the conditions under which people are unable to adequately meet their needs and participate in decisions about their futures through the spatial and structural resources they have at their disposal, regardless of relational geographic location.

The rest of the chapter relates the notions of history and centrality from the previous chapters to this definition of peripheralization, bringing these dialectical opposites into view. It explores the dualities inherent to living on the periphery, focusing on the process of "aspirational urbanization" illustrated by the urban portraits of Amahle in Midrand and Olga, whose life is splintered between Tembisa and Seabe, to the far northeast of Pretoria, across the border to the province of Mpumalanga. In following where people go, why, and how they attempt to access centrality from the margins, we learn how space is a resource for them. They accept living on the urban peripheries of the region, despite the intensive costs of mobility and toll commuting, which preclude their ability to engage with the surrounding space (Amahle) or live with their children and families (Olga). These two narratives show how its subjects use their agency, what their constraints are, and how this relates back to the processes of urbanization shaping the region.

Urban portrait 4: Amahle in Midrand

Amahle was born in the apartheid-era coal-mining township of KwaGuqa, west of eMalahleni (formerly Witbank) in 1982. Her parents decided that they would move the family to join their siblings in Tembisa, in order to be closer to more diverse work opportunities and improved schools for their children once influx controls were lifted in 1986. As such, they were residing in the municipality of Ekurhuleni (then called the East Rand) when apartheid ended; they became eligible for one of the many RDP houses constructed in the area.

Amahle's father found a job as a construction site welder and accumulated enough wealth to purchase the neighboring house, which he turned into a tavern. Amahle and her younger sister were taught to focus on their education. She passed her matric and earned a vocational certificate as a teacher's assistant, and her sister even completed two years of postsecondary education in civil engineering. Her generation is full of hope, she explained, because everyone distinctly remembers the day Nelson Mandela was released from prison, and what their parents did when they heard the news.

Amahle's story is one of an upwardly mobile social milieu. In 2010, she met an employee of the Township TV service organization who was inspecting the park next to the school in which she was employed, assessing it as a potential site for World Cup public viewings. They married in 2015, and she moved out of her parents' house in Tembisa to a townhouse in Midrand (see Figure 5.2). They have a steady source of income and her husband has a lease-to-own car. Without a driver's license, however, she relies on the taxi system on the days she works in Tembisa. Most frequently, she travels on foot to the mall near her home, Midway Mews, or the nearby school where she also has irregular employment. Her anchor points are highly skewed towards leisure activities, and the one or two times per week she works follow regular trajectories.

Out of the 30 days she actively reported data, she walked to nearby shopping on 11 of them. Shopping in malls specifically targeting Black African consumers is her most frequent leisure activity and second most frequent activity overall, with five visits during the study (and only one mall repeated). She went on foot to the nearby school four times and three times to the school in Tembisa using taxis; she also visited her family in Tembisa three times, went to church three times, and stayed home all day three times.

Amahle's paths represent her position at the interstice of aspirational urbanization and peripheral commodification. For example, there are no local taxis in Midrand to take her to the supermarket as there are in Tembisa. Since she has neither a car nor a driver's license, she walks if the destination is close or has to find a ride with someone otherwise.

On a typical day, such as Wednesday, July 22, 2015, Amahle remains at home during the morning hours and goes for an afternoon grocery run. This day, she left her home on foot at 16.17, arriving at the Midway Mews Mall at 16.24. She briefly stopped at the Engen gas station and then arrived at the Pick 'n Pay grocery at 16.43. Her shopping is usually completed within 15 minutes, after which she walks home again. The entire trip takes approximately 45 to 50 minutes on an average day.

Figure 5.2 Amahle in Midrand. © Lindsay Blair Howe.

She also remains connected to her life in Tembisa on a regular basis, visiting her parents' house and working at the Kanana Primary School where she met her husband. Her path between these places crosses the metropolitan boundaries between the city of Johannesburg and the Ekurhuleni Metropolitan Municipality multiple times. She usually works at the school once a week and visits her parents at least once a week.

These anchor points and trajectories are both predictable and regular. She also frequents malls or shopping centers regularly but often in different locations, generating varied leisure travel patterns. For example, on July 12 she took a taxi into the Johannesburg Central Business District (CBD), which took approximately 45 minutes and cost 23 rand including one transfer. Her taxi paused on Noord Street, to the south of the railway lines, for several minutes before continuing on further into the CBD. It continued down Claim and Mooit Streets, turning west down Jeppe Street, where she exited the vehicle at the Johannesburg Shopping Centre in the fashion district.

The shop she visited is a clothing and fabric supplier—primarily as a hobby, Amahle knits and sews garments and creates beaded accessories like headbands. She arrived at 10.50, and her points were temporarily lost until she returned to Noord Street taxis at 11.47. She waited in the taxi for 30 minutes, having to wait until it had enough passengers to go north at this off-peak time, and they departed at 12.12. Forty-five minutes later, she exited the taxi in Ivory Park at 13.00 and switched to another taxi at 13.04, arriving at her parents' house on Thabanchu Road at 13.11.[21] There she stayed for just over two hours, when she departed to stop at Kanana School for 20 minutes, and then set off to return home at 16.36. She was home by 17.31, under heavy traffic heading west from Tembisa to Midrand, and went to a church midweek service in the evening before returning home at 21.08.

On another occasion, "a special shopping day" she explained, she met her younger sister in Tembisa and they traveled by taxi to the Kolonnade Shopping Centre in Pretoria North. This is a mall targeting Black people with disposable income, Amahle explained. They began their trip in Tembisa at 11.40, arrived at the shopping center at 12.38, and departed just under three hours later at 15.19. The trip back occurred during heavy traffic along the Pretoria–Johannesburg corridor, such that they did not arrive back at their parents' house until 17.16.

Amahle's story and pathways relate back to the discussions of a state-created "Black middle class" at the end of apartheid.[22] She was able to utilize her education and upbringing to find a regular job, marry into a higher-income bracket, and become fully integrated into the consumer

class. While she has a variety of choices available to her, the kind of anchor points she visits are therefore relatively predictable.

As noted by Ian Bentley and his colleagues in their discussion of choice and variety in mobility as early as the 1980s: "The purpose of promoting variety is to increase choice. But choice also depends on mobility: people who are highly mobile can take advantage of a variety of activities even if these are spread out over a wider area."[23] For Amahle, the times, distances, and costs of transit are a significantly lesser factor than for those with less choice in their use of time and expenditures. However, Amahle, like other similar study participants over the years, retained close and regular ties with her original township location. The intersections of race and class identity in this upwardly mobile, commodified social milieu require further research.

Urbanizing the regional peripheries

Intensive processes of commodification in places like Midrand, which involve extracting value from land on the urban edges, has long characterized greater Johannesburg. The creation of "elite islands" in the urban fabric—or highly exclusive residential estates predicated on lifestyle branding and security[24]—neighbor the development of smaller homes, row houses, or apartments to meet the needs of the professional class. This form of suburbanization, which has increased since the end of apartheid,[25] is deliberately executed on the remote edges of the city-region and often corresponds to the development of new consumer centers such as malls. Such commuter-centric spaces essentially attempt to "bypass" existing centralities.[26]

Private developers execute the production of elite housing, with the complicity of respective state agencies. Building permits are typically issued after a long series of negotiations and concessions from the developers, who are required to finance the infrastructural expansion required to sustain these extensive greenfield development projects.[27] In Johannesburg, the demand for lifestyle estates was on the decline during the primary phases of my research; for example, subdivisions such as Steyn City in Midrand had highly publicized difficulties selling their plots.[28] Sales of comparable or slightly less elite plots in the greater Pretoria area, in the East Rand, and along the Vaal River to the far south of the region seemed to remain in high demand.[29]

There are also other processes of concentration unfolding far from established centers, extending beyond but related to housing; people

have very little influence or power over these processes. Industrial areas are an example of this. Unlike processes related to the production of housing—which are highly embedded in the public consciousness due to the legacy of apartheid—the management of industrial processes largely occurs in negotiations between private industrialists and the state.[30] Creating industrial nodes in peripheral areas and corresponding housing developments was an apartheid-era policy that led to significant restructuring across the overall regional space of Gauteng.[31] Known as "decentralization," Jeffery Butler, Robert Rotberg, and John Adams described how the policy was "primarily a social policy that has economic effects. The restrictions and concessions of the program create incentives designed to include labor-intensive industry to move away from its existing focal points towards the hinterlands."[32]

Thus, while the origins of this process on the geographic peripheries are in segregationist policies from the 1970s apartheid government, attempts to incentivize industries along corridors remain part of current spatial development strategies.[33] An example is Rosslyn Industrial Park outside of Mabopane in Tshwane Metropolitan Municipality; originally an industrial node in Bophuthatswana, it became one of the largest auto manufacturing sites for companies including BMW, Nissan, and Iveco—the latter of which is the producer of the minibus taxis that pervade every aspect of life in greater Johannesburg. The Rosslyn district provides over 20,000 jobs and was declared a City Improvement District by the city of Tshwane, as part of the plans by the Gauteng Growth and Development Agency (GGDA) to grow the automotive industry to benefit the region.[34] At the same time, environmental impact studies have shown that the park produces bacterial pollution at levels far outside the safety standards set by the World Health Organization (WHO), making water too dangerous for human consumption in the many settlements nearby that still rely on its river.[35]

The peripheries are thus a place where the powerful and the "dominated" both occupy space. With the rise of such industrial developments, further housing production inevitably follows. This entails the production of mass housing and "aspirational" mortgage-backed housing in extremely remote areas, where historically little or no other infrastructure was present.

Another such example lies southeast of the city of Johannesburg: Windmill Park, a township east of the large apartheid township of Vosloorus. Construction there began in the early 2000s, based on plans originating during the final throes of apartheid.[36] In the transitional phase before abolition of the Group Areas Act in 1990, local government

ceased declaring areas for specific racial groups when granting permission to construct new neighborhoods in the Johannesburg municipal area. They designated four parcels of land "free settlement areas," including what would become Windmill Park in Boksburg.[37] This was significant for two reasons: the city was technically acting illegally according to national policy; also, housing had previously been regulated by the central state, while these areas were permitted by local government and implemented by the private sector. Patrick Bond illustrates how such shifts were representative of the "creeping neoliberalism" of the late apartheid regime, presenting Black Africans with both new opportunities and challenges.[38]

The Windmill Park development—"surburban living, for less" according to the developer, Cosmopolitan Projects—soon became an elite destination for people previously restricted to the township of Vosloorus. It has an area of 8.35 km^2 and estimated population of 7,750, with 85 percent Black African residents.[39] Only a few minutes' drive away, this move clearly inscribed the economic and political lines between "Black working class" and "Black middle class" into space.[40] Two studies involving participants in these areas showed how a deep connection to Vosloorus remained for many residents of Windmill Park. Able to afford a car, many returned there, often as much as several times a day: shopping at their previous supermarkets, visiting family members, or attending church.[41]

A retired mechanic shop owner who participated in the 2016 VGI study (see Chapter 3) described his "peaceful" life in Windmill Park and—a strongly religious man—how his passion became volunteering in the nearby informal settlement of Waterfall, which he regularly passed traveling along the highway between his new and old homes.[42] His rhythms and patterns of movement contrast starkly with the footprints of people living in Waterfall, a toehold stretching between the edge of Vosloorus and job opportunities at a large poultry farm. Highways and familiar networks sustain such interactions between all of these places as their residents move throughout the greater region to access opportunities.

Another younger participant from Windmill Park in the 2016 study fared worse than her cohort. After losing her husband—the head of household and primary source of income—her home came under threat, as she was unable to pay her mortgage for three consecutive months with her seamstress salary.[43] She borrowed money from her children and found work in Pretoria during the course of the study, where a friend connected her with a job making curtains for a wealthy household. She traveled there by taxi; although she still had use of a car, she deemed the

cost of petrol too expensive. "If I miss too many payments [the bank] will remand my home. And these savings, all I have … will be lost," she stated matter-of-factly.

There has been a high level of rhetoric surrounding mass housing and mega human settlements in the GCR,[44] but "bond housing"—the common South African term for mortgage-backed housing, secured with a bank bond—has received less attention. Sian Butcher, often in collaboration with Richard Ballard, has produced an important series of insights into the dynamics of the housing market in greater Johannesburg, including deep and thorough analysis of its potential and pitfalls.[45] As the female Windmill Park participant's story highlights, there is actually a high level of precarity in being beholden to bank loans while simultaneously being located far away from opportunities in the urban fabric. She negotiates this marginal space to the best of her abilities, as so many do around the urban edges of the GCR. The structure of space and how people move through it—where they live and where they aspire to live—matters greatly and underlies the processes related to extended urbanization occurring on the edges of the city-region.

Aspirational urbanization

Aspirational urbanization is about assets.[46] It involves the monofunctional production of single-family housing for the "Black (lower) middle class" on the geographic peripheries of the GCR. While morphologically similar to the production of mass housing,[47] it emerged from the apartheid government's attempts to increase revenues and mitigate risk, through the creation of a larger consumer market on the urban edge and having private interests assume a more significant role in housing production. This fed upon the "aspirations" of people to achieve their post-apartheid dream of security through home ownership.

The predatory nature of how land is commodified makes it a distinct urbanization process of its own, and it remains one of the predominant forces shaping the GCR today. Logistics drives the process because any opportunity must be accessed by public or private infrastructure. Although located similarly geographically peripheral to government-financed mass housing projects, for example RDP housing (see Chapter 6), aspirational urbanization is different because it is planned and financed through "bond" mortgages from the private sector. This can lead to greater risks and rewards, first through the strict terms of these loans and second because the remote locations of the commuter

settlements provide few opportunities locally while requiring high transport costs to access resources.

The history of this urbanization processes is similar to what Caldeira noted in the case of Santiago in the 1970s:[48] the South African national government began providing subsidies to families based on their ability to contribute towards the mortgage in the 1990s, in order to facilitate purchasing en-masse peripheral housing by private developers. It followed the same patterns and models of apartheid. Engineers designed neighborhoods according to "site and service schemes" with only the most basic urban infrastructure,[49] and consisting of single-family, brick homes.

Aspirational urbanization was first enacted on land adjacent to former apartheid townships—such as Soweto in the city of Johannesburg and Tembisa in Ekurhuleni—because of lower land values,[50] as well as the fact that people could be enticed to relocate from their nearby neighborhood.[51] Beverly Hills, established in the late 1980s in Soweto, was one of the first private developments to address the Black African consumer market, followed by Protea Glen in Soweto's outer margins in the early 1990s. Similar development began in the newly established municipality of Ekurhuleni in Kingsway and Alra Park in the late 1980s.[52] This form of housing provision vastly extended the scale of urbanization that began during apartheid, while concentrations of urban activities in existing series of centralities throughout the GCR were retained.

The term aspirational urbanization thus refers to the process of people accepting life on the geographic peripheries, in order to realize their aspirations for a secure, middle-class lifestyle.[53] Today, it essentially functions as "a territorial fix for domestic capital vis-à-vis development imperatives"[54]—both in the production of space as well as forms of social reproduction intertwined with the state, finance, and civil society.[55]

Access to bank loans for these settlements is often allocated by job titles: nurse, teacher, public servant—another residual practice from apartheid. This so-called ladder dictates not only the target market but the terms of the loans and relationship between the developer and the homeowner.[56] The lack of infrastructure and transportation that characterizes these places means that they are actually highly spatially isolated in the urban fabric of the overall region, echoing AbdouMaliq Simone's writings that "physical displacement now most usually entails operating from the far hinterlands, or in territories intentionally made marginal."[57]

This urbanization process is related to suburbanization and the commuter zones primarily comprising residential development it produces.[58] However, compared to the planning of large, monofunctional neighborhoods on the geographic peripheries of other city-regions in South Africa,

this kind of building began with the spatial development policies of apartheid. Mass-scale, racialized relocation strategies required large tracts of inexpensive land and were deeply linked to socio-spatial separation and commuterization as mechanisms of control. Aspirational urbanization, as such, began as a deliberate strategy to create a "Black consumer class" in the mid-1980s, in order to continue subjugating the African population while simultaneously generating income for the failing apartheid state.[59] As Bond wryly notes: "Supplying a young black revolutionary with a housing bond through the disciplinarian private market … is one way of tying him or her down to stable labor and community behavior."[60]

In this process, land is commodified according to entrenched conceptions of space and perceptions about the built environment. As Sian Butcher notes, "capital knows how to make the lower-income mortgage market work in relation to its imaginaries of risk, return, race and space."[61] Also noteworthy is that recent financial trends, especially since the 2008 global recession, have repackaged aspirational urbanization into an international commodity (see Figure 5.3). Future Growth Asset Management, for example, invested 625 million rand in venture capital funds to back the production of "aspirational" housing by Cosmopolitan Projects around various locations in Johannesburg less than ten years later.[62]

Figure 5.3 Advertising aspirational urbanization in Soshanguve in 2017. © Lindsay Blair Howe.

Over the past several decades, developers have increasingly begun acting as loan guarantors to bridge the gap between more cautious banks and the consumer, creating predatory landlord–tenant relationships until at least 50 percent of the loan is paid off.[63] These are troublesome developments because, as Richard Ballard and Sian Butcher note in their broad assessment of the developer landscape in Johannesburg, there is often "no clear division between the social interests of state actors and the economic interests of the private sector."[64] The concept of aspirational urbanization relates to the "speculative periphery" developed in the context of the GCR by Meth and her colleagues.[65] As the authors note in their description of lived experiences on the geographic peripheries of the city-region, the purpose of development was profit generation. As a result, "the combination of distance from an urban core, extreme poverty, and very poor access to infrastructure and services worked to produce highly precarious lives."[66]

The urban fabric of the GCR resulting from aspirational urbanization thus demonstrates the relevance of Henri Lefebvre's theorems on how processes of extended and concentrated urbanization can shape everyday life: where historically underprivileged populations can afford housing, they must undergo long, costly, and often unsustainable commutes. In analyzing the vast landscape of the northwest parts of the GCR, the resulting interplay between center and periphery further ingrains structural spatial inequality into the urban fabric. This leads to a dynamic of connection and disconnection, executed by private developers—in which the state is complicit because it approves land-use and building permissions—and sometimes even forces people to return to more centrally located areas, permanently or cyclically, enacting processes of peripheralization.

Urban portrait 5: Olga in Seabe/Tembisa

Olga is 36 years old and calls multiple places in the urban region home. Her story is a poignant reminder that the commuterized patterns of apartheid-era socio-spatial relegations persist today. She grew up in a small Setswana-speaking village named Seabe (formerly De Putten).[67] It is located in the contemporary province of Mpumalanga, northeast of Pretoria, near the intersection of the Gauteng, Limpopo, and Mpumalanga Provinces (see Figure 5.4). A series of villages exist along this strip between Pienaarsrivier in the west, on the N1, and the former Bantustan of KwaNdebele, approximately a 30-minute drive away; this strip of land was the easternmost islet of Bophuthatswana.

Figure 5.4 Olga in Seabe/Tembisa. © Lindsay Blair Howe.

A consolidation of "rural" land in these remote extents of the urbanized territory and deconstruction of the communal land system was one of the major land management tactics of apartheid.[68] As Melvin Mbao explains:

> Traditionally, land under indigenous laws and customs was generally held in trust and administered by the chiefs on behalf of their tribes-people. Individual members of the tribe had security of tenure over pieces of land allocated to them for a home and crop farming, and had rights to graze livestock on communal grazing areas.[69]

These changes were intended to concentrate labor for the agricultural-industrial complex,[70] and were the first of two massive waves of relocations under apartheid. As noted by activist Cosmas Desmond, the relocations, for example to Bophuthatswana, received little public attention at the time, aside from activist groups like the one he headed. Relocations were so peripheral that they had little impact on the daily lives of the white and urban populations.[71]

In Seabe, the state split what had originally been mixed-use residential and agricultural land, and designated a "village center," Olga explained. Communal functions were thus centralized rather than spread out, as had been traditional; moreover, people were stripped of their power and decision-making over shared space.[72] Furthermore, residents of the Bantustans, as early as 1969, were required to apply for permits from their local labor bureau like foreign migrants.[73] Olga's parents were not farmers locally in Seabe; they applied for work permits in Pretoria and traveled there with state-subsidized buses set up to serve Bophuthatswana.

The people that commute on a daily and weekly basis from these spaces into greater Johannesburg today still remain largely invisible, beyond. As the provincial Growth and Spatial Development Framework (GSDF) phrases it: "To the north east of the province lies a vast expanse of semi-urban settlements that are functionally connected to the Gauteng economy by subsidized bus transport routes that have historically ferried thousands of workers into central Pretoria on a long-distance daily commute."[74] They are even more remote than the residents of the Northern Belt.

Olga and her husband are both from Seabe and now have a house on the land given to his grandmother during the apartheid restructuring of agricultural space. Today, she splits her life between her home and youngest son in Seabe—this periphery-beyond-periphery of the

GCR—while her husband and the rest of her children reside in Tembisa, to the northeast of the city of Johannesburg, just over the border of Ekurhuleni Metropolitan Municipality. Olga's second home in Tembisa is but a few streets away from Amahle's family home.

Olga typically commutes to Pretoria Central, where she is self-employed registering businesses with the South African Revenue Service. She can only work a maximum of four hours per day in Pretoria because she travels over three hours in each direction to get there from Seabe. She typically departs at 6.30 in the morning and catches a taxi within 15 minutes.

The taxis either go west from Seabe to the N1, and then south to Hammanskraal, or wind southwest through a series of villages and the Dionkeng Game Reserve to Hammanskraal. The former route is approximately 90 kilometers and the latter 85 kilometers; it takes approximately one and a half hours either way. Olga prefers to take the route through the game reserve, explaining that she sometimes sees animals there. Giraffes and antelope are visible often; sometimes, in the morning, lions can even be seen warming their bodies on the street pavement. There is no cost to enter the reserve for less than 30 minutes, so the taxis take a ticket and pass through the area for free.

After arriving in Hammanskraal around approximately 8.15, she transfers taxis within ten minutes and continues to Pretoria. Olga wishes the trains were still running because after this section, traffic increases exponentially and her arrival time becomes unpredictable. "But they had to close it down, because of violence," she continues, "because too many people were getting stabbed and robbed." Depending on traffic, these final 50 kilometers in the taxi typically require anywhere from an additional 45 minutes to an hour and a half. This trip crosses through three provinces, and Putco-brand buses follow the same routes as the taxis to the villages.

Both systems cease running relatively early in the evening due to the one-dimensionality of the commuter flows. As such, Olga must depart Pretoria by approximately 14.15, such that she can get a taxi from Hammanskraal by 16.00. If she misses the last taxi, she may be stranded there until the next day.

The time estimates in the preceding paragraph are based on interviews and visiting Seabe with Olga, as opposed to the myJozi methodology. This is because during the smartphone study in 2016, she had temporarily resided in Tembisa with her husband and eldest daughter prior to becoming self-employed, and had returned to her Seabe–Pretoria pattern by the time of follow-up interviews in 2017. The damaging spatial legacy of apartheid did not only affect the territorial formation of

space but had a significant impact on family structures and individual lives. Olga and her family represent this disjuncture in lived space, permanently locked into separate lives and cycles of semi-migration.

Olga's husband, Thabo, has been living separately in Tembisa for 20 years, working as a gas station attendant near the airport. He earned a steady salary of 3,000 rand per month. Their daughter works as a server in a Midrand restaurant, earning 4,200 rand per month. At the time, of the study, Olga worked at MECS Contract and Manufacturing in Sebenza, near the airport in Ekurhuleni, managing government contracts for RDP houses and earning 2,600 rand per month. Olga's two sons remained in Seabe with Thabo's mother, and she traveled home once a month to visit.

With a household income level of 9,800 rand, they could easily pay their rent in Tembisa, daily living expenses including transportation, and save enough money to expand their property in Seabe. This is precisely what they did, and Olga moved back home after a new two-room house was completed just before Christmas in 2016. During the study, out of 27 days reported, 17 consisted of visits to her office, three were traveling to Seabe, and one was at The Boulders mall for Saturday shopping.

Villages without self-sustaining economies, particularly in the former Bantustans, were inherent to the apartheid strategy. They remain tied to commuter networks today; as long as a taxi drives there, it is connected to the urban region. This phenomenon calls into question where the boundaries of the urban region actually are because these villages, with populations typically of several thousand residents, are also relevant to the everyday production of the region. Places like Seabe sometimes—anecdotally—evidence more commuting to small and mid-size towns such as Bela Bela, and require significant further exploration.

The Northern Belt: a territorial construct

A vast sea of houses occupies these northernmost expanses of the GCR, spilling out of the Gauteng Province into a patchwork of coal, iron, and platinum-producing mines and "traditional" villages. The term "Northern Belt" is a composite name I use in my work to refer to the urbanized landscape stretching from the mining settlement of Brits in what is now the North West Province, across Ga-Rankuwa, Mabopane, and Soshanguve, through Hammanskraal north of Tshwane, and extending eastwards into Mpumalanga and as far north as the Limpopo Province. This territory, constructed through apartheid policies, essentially functions as one typological area (see Figure 5.5). With a few notable exceptions, these places have seldom been the subject of research.[75]

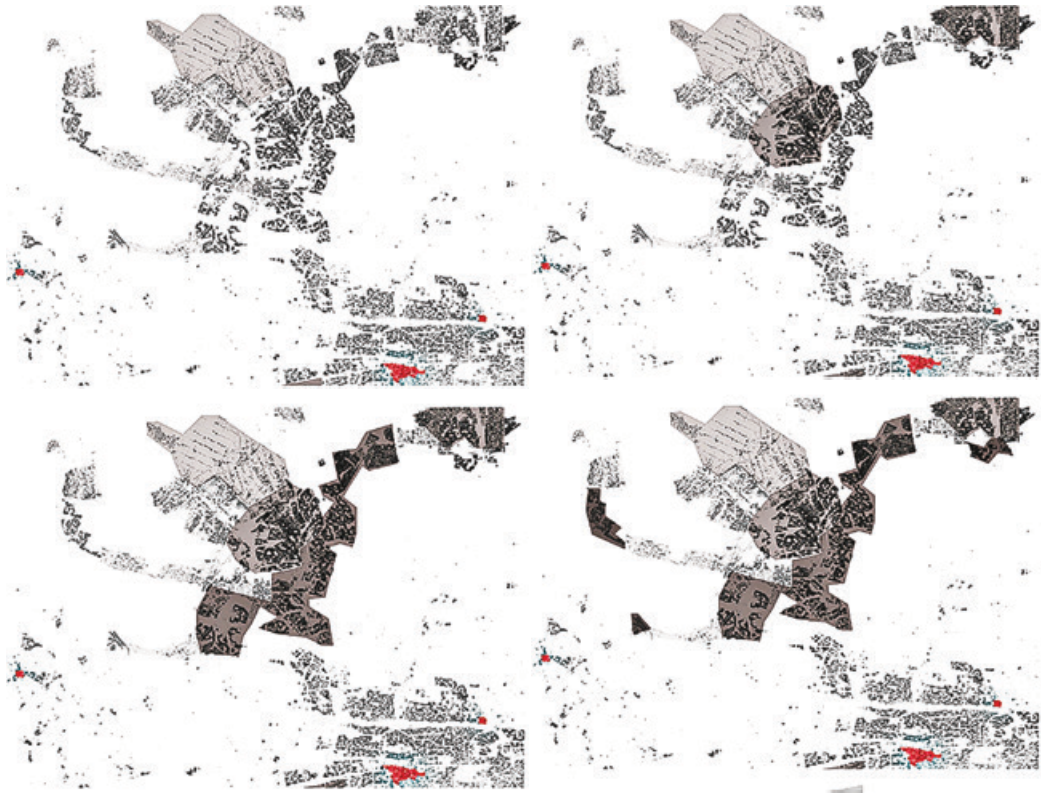

Figure 5.5 The "Northern Belt." © Lindsay Blair Howe.

While the housing typologies and urban morphologies of the Northern Belt may evoke lower-middle-class suburbia upon first impression, these areas are extremely geographically remote spaces that reveal the dynamic interplay between center and periphery. During apartheid, bus and rail routes were established to connect them to the centrality of Pretoria, requiring multiple hours of travel per day for people like Olga and those removed from the city center in its 1974 mass relocations.[76]

The Northern Belt, on average, is located 92 kilometers from the Johannesburg CBD and 50 kilometers from the Pretoria CBD. With a combined population, this area houses more than 1.2 million people, and it covers roughly 960 square kilometers. The famous township of Soweto, by comparison, has a similar population, yet covers only around 200 square kilometers.

Peripherality and commuterization have had two primary consequences for space and everyday life in the Northern Belt: there is less pressure for land, so people have more personal space—but they spend most of their time commuting elsewhere to take advantage of the resources lacking in their own areas. For people residing there, travel is their primary household expenditure, on average accounting for more than 50 percent of the total monthly income reported by fieldwork respondents in 2015 and 2016. This mobility is a form of agency, disconnecting people from space locally and instead launching them throughout the GCR in search of opportunity.

There are also significant differences in the degree of precariousness, gradient of access, and level of development across the Northern Belt. "Lettie" lives in Zone 7 of Soshanguve VV—one of the 63 "blocks" of government-subsidized housing that contain Soshanguve's estimated population of 403,162 (see Figure 5.6).[77] This is one of the points of the Northern Belt nearest to Pretoria.

"The traffic here is horrible!" Lettie exclaimed while walking around her neighborhood. Rush hour starts just after 5.00 in the morning and it takes over 1.5 hours to reach Pretoria at 6.30, as opposed to 30 minutes at off-peak times. Yet she continues to live in "Sosh VV," to a large extent due to the state-subsidized housing that makes her life affordable and the taxi system that connects her to her workplace. Lettie lives in what she calls "an affordable home": a state-subsidized house, for which her parents pay according to their income. The rate of their mortgage is 3,500 rand (245 USD) per month and the original sale price was 320,000 rand (24,000 USD).

Most of Lettie's travel begins at the local mall, Soshanguve Crossing, where she noted that she can use free Wi-Fi. She usually

Figure 5.6 Lettie's house in Soshanguve VV in 2017.
© Lindsay Blair Howe.

walks or takes a local taxi to get there, and another to get to Pretoria. For 64 rand (4.50 USD) per day—considering there are approximately 21 working days per month—this means she spends around 1,350 rand (95 USD) on transportation, which was approximately 40 percent of her income at the time. She could only afford to stay in Sosh VV because so many extended family members shared mortgage costs and daily expenses.

The damaging spatiality of apartheid not only affected the territorial formation of space but continues to impact family structures and individual lives. Like Olga, Lettie too spread her family across multiple provinces among relatives. Her newborn son was living with her at the time she was interviewed, but she has two older daughters who live with her parents over 270 kilometers away in the small Limpopo village of Ga-Masemola. This trip costs approximately 190 rand (13 USD) per direction and lasts four hours; Lettie can afford to visit them approximately once a month.

These spatial practices occur not just in the Northern Belt but all around the GCR. Thus, from the perspective of the GCR's inhabitants, this regional-scale territory appears less as a region of cities traversed by central axes and more as a complex mesh of trajectories between family members and economic opportunity. These pathways are flexible and adaptable in ways that urban infrastructure and capital investment are not.

In such an extended urban region, perhaps counterintuitively, infrastructure like transport may even exacerbate patterns of structural racism, "for instance by diverting funding from bus transit that serves minority communities, creating new physical boundaries that reinforce segregation, and of course creating new pressure on land prices in low-income areas."[78] Considering that most of the population in the GCR lives within this peripheral mesh—as the next chapter explores—strategies for fostering centralities where people live are urgently required rather than simply transporting them to existing ones.

Comparing the characteristics of daily life in Diepsloot, described in the previous chapter, and in the Northern Belt demonstrates how structural spatial inequality dominates the everyday—and indeed, is so deeply ingrained that freedom of choice in where to live or the possibilities to generate sustainable livelihoods is often an illusion. The scale and specific location of a place matters greatly, regarding the degree to which their residents are peripheralized—and how significant this degree is in respect to the number of people impacted by it.

While both places are considered peripheral by their respective metropolitan governments (the city of Johannesburg and the city of Tshwane), when one examines the context of the entire region, their degrees of peripherality become much more dramatic. Both Diepsloot and the Northern Belt are highly commuterized, as people seek to connect to the opportunities of centralities, but the peripherality of mass housing urbanization in the Northern Belt is much more extreme, such that lives are utterly dominated by transit. The Belt is embedded into the

furthest peripheries of the greater urban region around Johannesburg and Pretoria, and it is administered by many different tiers of government across local, regional, and provincial administrative borders. Any sort of large-scale cooperative initiative addressing the structural spatial inequality of this area, in and of itself, would require high levels of motivation, collaboration, and coordination.

There are spaces in both that are the result of some bottom-up forms of urbanization, for example Diepsloot's "arrivals" area and the settlements surrounding the train station in Mabopane, in the Northern Belt. However, while it is perhaps considered peripheral to the Johannesburg CBD, it is not poorly located geographically, in terms of its equidistant proximity to Johannesburg and Pretoria, and to opportunities for variously skilled labor in sub-centralities and among the urban region's wealthy households. Mabopane is both spatially dissipated as well as peripheral to the rest of the urban region, and the effects of centrality cannot develop.[79] Even Giant Stadium, which was a training venue for the 2010 World Cup, towers over the urban fabric like a modern-day relic: it encapsulates symbolic meaning, but generates few urban qualities of life.

Spaces like the Northern Belt pose a poignant dilemma for spatial planning and urban development. The size and scale of its population makes it impossible to relocate people closer to opportunities, and better connecting them to existing centralities does not mean that their fundamental problems will be alleviated. In relatively monofunctional, remote settlements, it is also harder to attract attention from a government with limited resources and many urgent challenges. Other places in the GCR—in particular, areas where wealth and poverty collide—receive this attention instead. It is more convenient to discount the peripheral spaces as the jurisdiction of another municipality, or another province, neglecting how the interdependent whole is produced relationally.

The Northern Belt thus represents a continuation of the built environment and social relations established under apartheid. It remains isolated on the periphery of the entire urban region; despite the general northward trend of centrality growth through the region's history, it is unlikely these shifts will have a significant impact without unfathomable capital investment. Much more research is required into how people are actually moving and interacting if policy is to better foster civic life, build on existing socioeconomic opportunities, and support families in their daily lives.

Conclusions

Distinct legacies of material space, spatial development policies, and experiences of everyday life determine the degree to which an urban periphery can become a place of opportunity or one of relegation. South African scholars such as Keith Beavon and Philip Harrison have discussed how the roots of inequality in Johannesburg were apparent by the first decade of the 1900s.[80] My studies into the ordinary urban peripheries of the region confirmed this observation, in the historical as well as contemporary components of investigation. Thinking through the current policy emphasis—for example, how spatial planners favoring compact-city principals purport transit-oriented development (TOD) strategies—these generalized approaches may not be able to dislodge the extreme degrees of concentration and extension across the urban region of greater Johannesburg. Furthermore, geographically remote areas, even if linked with transit, can remain trapped in increasingly precarious conditions as industries such as mining and manufacturing decline in the future.

For example, the stronger degree with which the local municipality of Pretoria implemented apartheid population removals, compared to less restrictive policies in the city of Johannesburg, resulted in significantly more isolated spaces. In the Northern Belt, in extremely remote former villages like Seabe, it appears that people live a suburban or practically idyllic village life compared to the dense shacks of Diepsloot described in the previous chapter. Yet this masks how constrained they are in their choices and in their everyday lives. Periphery is, for so many people that generously gave of their time and themselves for my research, just as much an opportunity as it is a burden. So, too, is centrality. While this conclusion, in and of itself, is perhaps banal and to be expected—thinking through the many postcolonial contexts that scathed the world—the sheer scale of the urban region surrounding Johannesburg, and acute isolation of peripheral areas hundreds of kilometers apart serves as a poignant reminder that, particularly when regulating space, policies can determine entire livelihoods.

There is therefore value in depicting the phenomenon of aspirational urbanization, in lending the phenomenon its own term as opposed to utilizing existing concepts. It is similar to existing concepts like mass housing urbanization, in which the state-led production of "affordable" housing for private ownership or rental manufactures large-scale, monofunctional settlements for low-income groups on the urban periphery.[81] However, this definition is too general to incorporate the differences in social groups, security of land tenure, and everyday spatial practices

that characterize the aspirational urbanization I identified in the GCR. Aspirational urbanization provides security while perpetuating the growth of the African middle class and economic expansion. As Claire Mercer and Charlotte Lemanski describe, this materializes as a "spatial fix,"[82] in the form of new urban development on the geographic peripheries.[83] And it is a powerful force through which capital exercises domination and reinforces dependencies.

Thinking through comparison, this process could be related to the production of housing for the "working poor," which takes the form of condominiums in places like Jakarta. Although the urban morphology is different, what AbdouMaliq Simone describes resonates with the implications of peripheral development for people in the GCR: "It is not necessarily a precarious life. The situation is largely felt as being alright. But … also constantly renders the limit of what these districts can be and turn into. The attainment of stability, just this side of precarity, becomes both security and trap."[84] This sentiment is echoed by research done by my colleagues at the ETH Zurich into the production of large-scale, monofunctional housing projects in the context of Paris's banlieues, strongly tied to interests from both the state and the private sector, and in which the boundaries between interests are unclear.[85]

What is occurring in Johannesburg is a distinctive mode of territorial production: large-scale developments such as aspirational urbanization are deliberately located and funded as part of a state-sanctioned strategy. It has the potential to completely reorder urban territories.[86] And in turn, phenomena such as toehold urbanization are often a response by those relegated from the system. This connects to what scholars are finding in large urban areas around the world: housing production is profitable, and the state often plays an "agentful" role in urban development through politics and regulation.[87] This unfolds by mediating where interventions should occur and how involved to be: public resources are often focused on central and wealthy areas with higher levels of rhetoric, to address problems more present in the public imagination. Often, the peripheries of the urban fabric simply pose a less pressing challenge.

Among the more obscure spaces, seldom subject to research, are the very spaces of mining in which the region was founded. Yet they highlight the challenges facing such an immense territory. Khutsong was founded by the state to provide mine workers for the uranium mining flourishing in Carletonville in 1958.[88] However, beginning in the 1960s, sinkholes began appearing across the landscape of the West Rand as undermined plots swallowed several families and their homes in a dramatic fashion.[89]

Combined with the exhaustion of gold deposits in the area, economic investment in the West Rand rapidly declined.[90] The over 32,000 people residing in Khutsong today have few options for employment and remain isolated in the urban fabric, approximately 90 kilometers west of the Johannesburg CBD.[91] What happens after mines close, in forgotten frontiers? A "residual" that is not something-in-the-making, where instead it is a struggle just to get by, with almost no basic infrastructure or possibilities to generate income at all?

Casual conversations with Gauteng residents across all income groups revealed that many people had never, or only glancingly, heard of some of these remote yet highly populated mining-based settlements including Wedela (population 17,928), Mmakau (population 36,605), Impumelelo (population 8,223), or Refilwe (population 19,757).[92] There is little to no news reporting done on these areas unless they are the sites of significant protest and violence—as was indeed the case in Khutsong. As provincial legislator Alan Fuchs commented in an interview, there is no viable plan for what should happen with these "most isolated pockets of poverty," nor how to address the challenges of a landscape so environmentally damaged by the negative externalities of deep-shaft mining.[93]

Many urban areas around the world exhibit similar phenomena—pockets of poverty and affluence, the production of large housing settlements on geographic peripheries, a heavy reliance on transport—which can both exacerbate structural spatial inequality and connect people to opportunities simultaneously. As Paula Meth and her colleagues conclude: "Indeed, if it is in the peripheries that twenty-first century urbanization is ultimately taking shape, then despite some recent scholarly attention, the work of researching, analysing and conceptualizing this has only just begun."[94] For there is much more urban fabric in between this region's centers than there are pure centralities or peripheries, a mesh of privilege and power. And comprehending these spaces as urbanization processes, not just urban forms, can only occur through greater understanding of the people moving across it every day.

Notes

1. Schmid and Streule (2023), p. 311.
2. Schmid and Topalovic (2023), p. 21, emphasis by the authors in the original.
3. For more on the relationship between Marxism and urbanization, see also: Merrifield, A (2019) Endgame Marxism (and Urbanism). *Monthly Review*. Available at: https://andymerrifield.files.wordpress.com/2019/11/endgame-marxism-1.pdf (accessed July 20, 2025).
4. Lefebvre (1991 [1974]), p. 567.
5. Lefebvre, H (1978) *De l'Etat. 4. Les contradictions de l'Etat moderne*. Paris: Union Générale d'Editions, p. 174. As translated by Schmid (2022), p. 432.

6. Lefebvre, H (1978), p. 447
7. Kipfer and Goonewardena (2013).
8. Schmid and Streule (2023), p. 10.
9. Arboleda (2020), p. 251.
10. Caldeira (2017).
11. On this notion, see Francisco de Oliveria's discussion of how housing the labor forces that power urban regions means that even what we today might call "informal" housing is indeed a part of the capitalist system of value extraction: de Oliveira, F (1972) Critique of Dualist Reason. *Novos Estudos Cebrap*.
12. See also Crankshaw, O and Parnell, S (2002) *Urban Change in South Africa*. Working Paper (4). International Institute for Environment and Development Urban Change. London: IIED, pp. 348–349.
13. Whitehead (2013).
14. Mabin (2013).
15. The GCR roughly contains 12.5 million people including the metropolitan centralities of the city of Johannesburg with its estimated 4.5 million residents, Ekurhuleni Metropolitan Municipality with 3.2 million, and the city of Tshwane (Pretoria) with over 2.9 million residents. Mid-decade estimates from StatsSA indicate growth from 12.4 million in Gauteng to 13.5 million, or 24 percent of the total population of South Africa. Population statistics derived from the last South African National Census (StatsSA 2011).
16. Meth et al. (2021), p. 987.
17. Wacquant (2015).
18. The work described in Meth et al. (2021) is one example, as well as some of the ongoing projects mentioned in the previous chapter. Schmid et al. (2023) also engages at length with state-led peripheralization in their chapter on mass housing production (pp. 300–323); I argue that, in the context of Johannesburg, there is an important difference between state-funded (mass) and privately backed (aspirational) housing production.
19. Addie, JPD (2021) Urban Life in the Shadows of Infrastructural Death: From People as Infrastructure to Dead Labor and Back Again. *Urban Geography*. https://doi.org/10.1080/02723638.2021.1902633, p. 8.
20. See also the work of Metaxia Markaki on the relationship between extended urbanization and peripheralization in Greece: Markaki, M (2023) Expropriation and Extended Citizenship: The Peripheralization of Arcadia. In C Schmid and M Topalovic (eds) *Extended Urbanisation: Tracing Planetary Struggles*. Basel: Birkhäuser, 197–233; and Markaki, M (2024) *Arcadia: Politics of Land and Nature at Greek Peripheral Landscapes*. PhD thesis, ETH Zurich. See also Yiqiu Liu's analysis of urban peripheries in China: Liu, Y (2023) *Limits on Growth: Urbanization Processes in the Extended Beijing Region*. PhD thesis, ETH Zurich.
21. Ivory Park began as a toehold in the city of Johannesburg, which grew westward from its border with Tembisa, which falls under the jurisdiction of Ekurhuleni Metropolitan Municipality. Tembisa was founded in 1957 as an African township. Today, the urban fabric is completely overlapped, as evident from satellite imagery. As can be imagined, this leads to significant difficulties managing services and transportation across this, the second largest township in greater Johannesburg after Soweto.
22. See Bond, P (2000) *Cities of Gold, Townships of Coal*. Trenton: Africa World Press.
23. Bentley, I, McGlynn, S, Smith, G, Alcock, A, and Murrain, P (1985) *Responsive Environments*. London: Routledge, p. 27.
24. See Dirsuweit, T (2014) The Fear of Others: Responses to Crime and Urban Transformation in Johannesburg. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, pp. 546–552.
25. See Landman, K and Schoenteich, M (2014) Gated Communities and Spatial Transformations in Greater Johannesburg. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, pp. 215–229.
26. See Schmid et al. (2018) and the work of Lindsay Sawyer, such as: Sawyer, L, Schmid, C, Streule, M, and Kallenberger, P (2021) Bypass Urbanism: Re-ordering Center–Periphery Relations in Kolkata, Lagos and Mexico City. *EPA: Economy and Space* 53(4): 675–703. See also the chapter on bypass urbanization in Schmid and Streule (2023).
27. Workshop with a City Transformation department director (2016).
28. Interviews with G Aquadro (2015, 2016); interview with a City Transformation department senior planner (2017). See also Lecordeur, M (2015) New Mega City for Gauteng. *Fin24*

Business and Finance News. Available at: https://www.fin24.com/Economy/Gauteng-launches-first-ever-post-apartheid-city-20150506 (accessed July 20, 2017).

29. Primarily based on long-term observations of the regional property market and expert interviews. See also Chipkin, I (2013) Whither the State? Corruption, Institutions and State-Building in South Africa. *Politikon* 40(2): 211–231; and Mabin (2013, 2014).
30. Mabin (2013), pp. 23–24.
31. For more on this historical process, see for example: Moss, G (1979) Total Strategy. National Union of South African Students (NUSAS). Unpublished conference proceedings, *Archive of the 60th NUSAS Conference*; or Drummond, J (1991) The Demise of Territorial Apartheid: Re-incorporating the Bantustans in a "New" South Africa. *Tijdschrift voor economische en sociale geografie* 82(5): 338–344.
32. Butler, J, Rotberg, G, and Adams, J (1978) The Black Homelands of South Africa: The Political and Economic Development of Bophuthatswana and Kwa-Zulu. *Perspectives on Southern Africa* Series (21). Berkeley, CA: University of California Press, p. 203.

    This led to key shifts in the urban configuration historically, including two significant historical changes: the shift of mining ventures from gold on the Central Rand to platinum in the northwest parts of the urban region and the deliberate concentration of industries near underprivileged areas during apartheid. See also Addleson and Tomlinson (1986); and Addleson (1990), pp. 102–103.
33. Hart (2002, 2014).
34. Information about the Rosslyn Improvement District has not yet been discussed in academic literature but is available online: https://rosslynid.co.za/index.php/background/ (accessed July 20, 2025).
35. Salvador-Oke, KT and Olowoyo, JO (2018) Bacteriological Examination and Physico-chemical Properties of Streams Receiving Industrial Effluents in Rosslyn, Pretoria, South Africa. *Journal of Environmental Science and Management* 21(2): 7–15.
36. The content from this section was previously published as part of an article published in *Antipode* (Howe 2022a).
37. Simon (1992), p. 49.
38. Bond (2000), p. xv.
39. Firth (2011).
40. For more details, see, for example, Lemon (1992).
41. Interviews with WP1 and WP2 (2015).
42. Interview with WP1 (2015).
43. Interview with WP2 (2015).
44. Ballard and Rubin (2017).
45. As mentioned in Chapter 2; see, for example, Butcher (2016, 2020a, 2020b); and Ballard, R and Butcher, S (2020) Comparing the Relational Work of Developers. *Environment and Planning A: Economy and Space* 52(2): 266–276.
46. This concept was previously published in Howe (2022a).
47. Kockelkorn, A, Schmid, C, Streule, M, and Wong, KP (2023) Peripheralization through Mass Housing Urbanization in Hong Kong, Mexico City, and Paris. *Planning Perspectives* 38(3): 603–641. See also the chapter on mass housing urbanization in Schmid and Topalovic (2023), and Chapter 6 in this book.
48. Caldeira (2017), p. 12.
49. Simon (1992), p. 56.
50. Harrison and Harrison (2014).
51. See also the work of Lemanski, C (2017) Citizens in the Middle Class: The Interstitial Policy Spaces of South Africa's Housing Gap. *Geoforum* 79: 101–110; and Mosselson A (2018) *Vernacular Regeneration: Low-Income Housing, Private Policing and Urban Transformation in Inner-City Johannesburg*. Abingdon: Routledge.
52. Seekings, J (1990) Broken Promises: Discontent, Protest, and the Transition to Confrontation in Duduza, 1978–1985. *Structure and Experience in the Making of Apartheid History Workshop*, University of the Witwatersrand, Johannesburg.
53. Harrison and Harrison (2014), p. 310. See also Cirolia, LR (2016) Reframing the "Gap Market": Lessons and Implications from Cape Town's Gap Market Housing Initiative. *Journal of Housing and the Built Environment* 31(4): 621–634.
54. Butcher (2020a), p. 173.
55. Ballard and Butcher (2020), p. 273.

56. For more on this "ladder" see: Lemanski, C (2011) Moving Up the Ladder or Stuck on the Bottom Rung? Homeownership as a Solution to Poverty in Urban South Africa. *International Journal of Urban and Regional Research* 35(1): 57–77.
57. Simone, AM (2021) Ritornello: "People as Infrastructure." *Urban Geography*. https://doi.org/10.1080/02723638.2021.1894397, p. 5.
58. See, for example, the descriptions of suburbanization proposed in Keil, R (ed.) (2013) *Suburban Constellations: Governance, Land, and Infrastructure in the 21st Century*. Berlin: Jovis Verlag GmbH; or Mabin (2013, 2014).
59. On this notion, see also Crankshaw, O (2008) Race, Space and the Post-Fordist Spatial Order of Johannesburg. *Urban Studies* 45(8): 1692–1711, p. 1694; or Khunou, G (2015) Editorial: South Africa's Emergent Middle Class. *Development Southern Africa* 32(1): 1–2.
60. Bond (2000), p. 183.
61. Butcher (2020b) p. 193.
62. O'Sullivan, D (2017) A Social Impact with Financial Benefits: Futuregrowth Invests R625m in the Gauteng Housing Market. *BizNews* [online audio interview]. Available at: https://www.biznews.com/interviews/futuregrowth-gauteng-housing-market (accessed July 20, 2025).
63. Butcher (2016), p. 159.
64. Ballard and Butcher (2020), p. 269.
65. Meth et al. (2021), pp. 995–997.
66. Meth et al. (2021), p. 999.
67. Firth (2011); see also Jenkins, EP (2007) *Falling into Place: The Story of Modern South African Place Names*. Cape Town: David Phillips, pp. 90–91.
68. On the notion of traditional authorities and land management in the South African context, see for example: Simelane, HY and Sihlongonyane, MF (2021) A Comparative Analysis of the Influence of Traditional Authority in Urban Development in South Africa and Eswatini. *African Studies* 80(2): 153–171. See also Mosiane and Götz (2022).
69. Mbao, MLM (2002) Undoing the Injustices of the Past: Restitution of Rights in Land in Post Apartheid South Africa, with Special Reference to the North-West Province. *Journal for Juridical Science* 27(2): 88–114, p. 90. For more historical context, see also Gluckman, M (1943) *Essays on Lozi Land and Royal Property*. Livingstone: Rhodes Livingstone Paper and Schapera, JA (1955) *A Handbook of Tswana Law and Custom*. 2nd ed. Cape Town: Juta & Co.
70. Mbao (2002), pp. 85–86.
71. Desmond, C (1971) *The Discarded People: An Account of African Resettlement in South Africa*. Harmondsworth: Penguin Books.
72. See also Platzky and Walker (1985), pp. 61–63.
73. Seabe was not included in the 1975 consolidation scheme. Thus, it was functionally—but not administratively—part of Bophuthatswana, one of the many exceptions to the rules set up under apartheid. This led to a confusing set of state relationships, as Seabe and several other surrounding villages were not part of the independent Bophuthatswana and their residents retained South African citizenship. See Platzky and Walker (1985), pp. 109, 381 and figure 14.2 for further explanation of this situation.
74. Gauteng Spatial Development Framework (GSDF) (2013) Gauteng Spatial Development Framework 2030. Johannesburg: Gauteng Planning Division, Office of the Premier, p. 6.
75. Places that have been studied include the previously noted work on homeland relocations by Platzky and Walker in the 1980s, examinations of Winterveld by Graeme Götz and Abdoumaliq Simone in the early 2000s; the collaborative project "Living the Peripheries" by the team of Paula Meth, Tom Goodfellow, Alison Todes, Sarah Charlton, Philip Harrison, Margot Rubin, and Richard Ballard from 2016–2019; the work by Götz and Mosiane (2022); and Simelane, HY and Sihlongonyane, MF (2021) A Comparative Analysis of the Influence of Traditional Authority in Urban Development in South Africa and Eswatini. *African Studies* 80(2): 153–171. New work into displaced urbanism/urbanization includes, for example, a developing collaboration with scholars such as Graeme Götz, Jennifer Robinson, Philip Harrison, and myself into urbanization processes in Bushbuckridge, near Kruger National Park as a sort of "Eastern Belt" to the GCR.
76. Drummond (1991), p. 339.
77. "Lettie" (pers. comms., 2016–2017), study participant in Soshanguve. See also Firth (2011).
78. Chapple and Loukaitou-Sideris (2019), p. 16.
79. See also Mosiane, N (2022) Mobility, Access and the Value of the Mabopane Station Precinct. *Urban Forum* 33(4): 537–560.

80. Beavon, K (2004) *Johannesburg: The Making and Shaping of the City*. Pretoria: University of South Africa Press. See Philip Harrison's collaborative publications, including: Harrison, P, Huchzermeyer, M, and Mayekiso, M (2003) *Confronting Fragmentation: Housing and Urban Development in a Democratising Society*. Cape Town: UCT Press; or Harrison, P, Todes, A, and Watson, V (2008) *Planning and Transformation: Lessons from the Postapartheid Experience*. London: Routledge.
81. Schmid et al. (2018), p. 48.
82. Mercer, C and Lemanski, C (2021) The Lived Experiences of the African Middle Classes: Introduction. *Africa* 90(3): 429–438.
83. See, for example, Mercer, C (2020) Boundary Work: Becoming Middle Class in Suburban Dar es Salaam. *International Journal of Urban and Regional Research* 44(3): 521–536.
84. Simone, AM (2017) Flickering in the Dark: The Compressed Tissue of the Urban. e-flux architecture. Available at: https://www.e-flux.com/architecture/urban-village/169789/flickering-in-the-dark-the-compressed-tissue-of-the-urban/ (accessed July 20, 2025).
85. Kockelkorn et al. (2023). See also the chapter on Paris in Schmid and Streule (2023).
86. On this notion, see also Schmid et al. (2023), pp. 310–311.
87. See the work of Shatkin (2017); or by Robinson, J, Harrison, P, Shen, J, and Wu, F (2020) Financing Urban Development, Three Business Models: Johannesburg, Shanghai and London. *Progress in Planning* 154: 100513.
88. Kirsher, J and Phokela, C (2010) Khutsong and Xenophobic Violence: Exploring the Case of the Dog That Didn't Bark. The Xenophobia Project, Centre for Sociological Research at the University of Johannesburg. Johannesburg: University of Johannesburg.
89. McLean, CS and Prentice, TK (1956) The South African Uranium Industry. *International Conference on the Peaceful Uses of Atomic Energy* 8(101). Available at: https://archive.org/details/proceedingsvolum032899mbp. Published by the United Nations (accessed July 20, 2017).
90. Oosthuizen, AC and Richardson, S (2011) Sinkholes and Subsidence in South Africa. *Council for Geoscience, Western Cape Unit*. Council for Geoscience Report (2011–0010). Western Cape: Council for Geoscience.
91. Population statistics in this and the following sections originate from the 2011 national census data mapped by Adrian Firth's web repository in 2011. Censes are undertaken every ten years in South Africa. Distances from CBDs cited in this work reflect the actual driving distances required rather than lines "as the crow flies" that are less relevant to the lived space of the urban region. They were calculated by entering the settlement and the name of the major centrality (e.g., "Wedela" and "Johannesburg") into Google Maps and extracting the shortest possible driving distance.
92. This assertion is based on personal interviews conducted in 2015 and 2016 with participants of the mobility study, expert interviews, and conversations with long-time Johannesburg residents between 2011 and 2021.
93. Interview with Alan Fuchs (2016).
94. Meth et al. (2021), p. 985.

6
The spaces between: urbanization and the peripheral mesh

While it might be the vibrant, pulsating urban centralities that we most readily call to mind when we hear the name of a city, most of urban life occurs in the liminal spaces between (see Figure 6.1). Picture New York for a moment. It almost inevitably conjures up an image of the streets, the skyline, of lively people inhabiting these spaces. But most of what supports life in the New York City of the imagination unfolds far beyond its municipal bounds, through the people living in every borough, extending into the region that encompasses Newark and Connecticut and the diffuse tissue of everything marked on the map. In urban imaginaries, these "bright lights, big city" eclipse the diffuse and less easily describable terrain required to sustain it.

Even if rejecting a "debilitating city-centricity,"[1] it is much harder to envision an entire region as an image. Even I have much more difficulty affixing a picture in my mind when doing the same exercise with the Gauteng City-Region (GCR), despite decades of study. What happens on this scale can never be captured by a single image, characteristic, or urbanization process. It is important to understand centralities that underlie a representation of the urban, to grasp what symbolic meaning they impart to people, and what civic functions they employ. But for most people, their realities unfold neither in clearly delineated centralities nor peripheries. They occur in the "spaces between," which remain the least understood and where meaningful, engaged research is perhaps therefore required the most. In particular, this involves researching the proliferation of informal settlements in which people construct housing on the edge of existing dormitory-like areas that resulted from the processes of mass housing and aspirational urbanization.

The "peripheral mesh" of the spaces between is shaped by the agency of individuals, as their constraints and choices and their movements

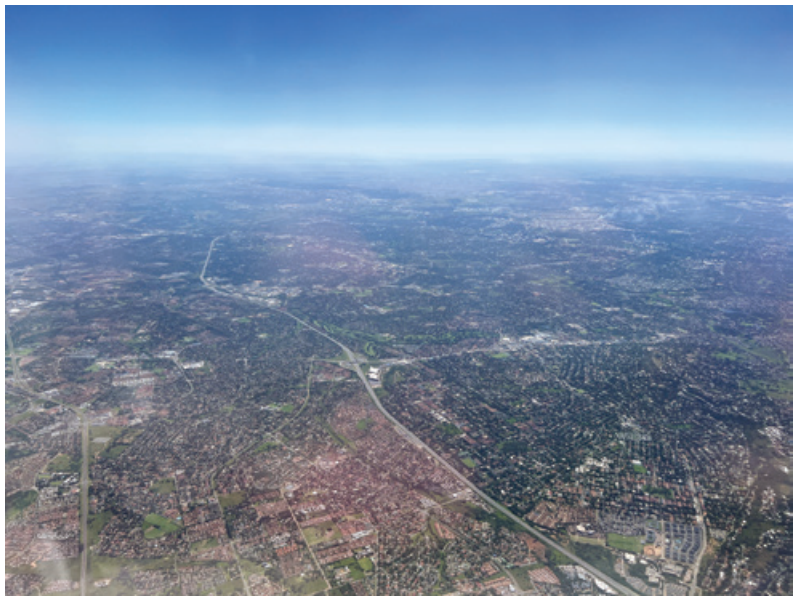

Figure 6.1 Spaces between in Johannesburg in February 2024.
© Lindsay Blair Howe.

stitch places together. Even if this "meshwork" is continually shifting, it articulates a particular kind of territory throughout urban regions.[2] Put quite simply: the movements and activities of everyday life amount to urbanization processes. And these processes are more nebulous to delineate beyond clearly detectable centers or peripheries for several reasons, including the sheer scale of terrain they cover; how complex lives and livelihoods are, stretched between places; and because doing so requires an incredible depth of time and knowledge.

In Achille Mbembe's work on South Africa, he notes how difficult it still is for the majority of people to meet their daily needs. Black labor power in particular is both valorized and dispensable. He states:

> A huge amount of labor is still put into eliminating want, repairing that which has been broken [by colonialism and apartheid], making life possible, or simply maintaining it. People marginalized by the development process live under conditions of restlessness, uncertainty, and great personal risk. They permanently confront a threatening environment in conditions of virtual or functional superfluousness. In order to survive, many are willing to gamble with their lives and with those of other people.[3]

Mbembe also criticizes the simultaneous "hypermobility" of an emergent Black middle class of consumers—a particularly destructive force when combined with increasing debt and a continued legacy of repression, as the previous chapter described with the process of aspirational urbanization.[4] The predatory interstice between the housing market, debt, and everyday lives constrained by these geographies remains highly present in South Africa's urban landscapes.

This chapter expounds upon such lines of thinking by bringing ideas about urbanization processes and peripheralization into conversation with empirical observations about what occurs in places that are neither massively marginalized nor particularly central. In contexts like Johannesburg, it is imperative to connect questions about the production of space, of the dialectics between center and periphery, with the impact it has on lives and livelihoods. Thus, the agency of people and constraints of spatial structure shape everyday life—referring back to Lefebvre's notion of spatial practices—in the margins that crisscross the urban region of greater Johannesburg. People's quotidian spatial practices connecting into and out of centers and peripheries generate spaces between.

While the in-between spaces can house potentials, their resistance to detectability inviting a certain propositionality and things-yet-to-come,[5] most of the meshwork between centers and peripheries is simply invisible to the map. The spaces between are neither exotic enough, nor their circumstances dire enough, to be afforded interest; they are characterized neither by abject poverty nor "advanced marginality,"[6] or any one trait in particular. And there is just too much of this kind of space to truly analyze in depth, even with years of engagement. Yet it is actually in precisely these spaces between that people are really peripheralized because they are trapped: there is indeed the kind of urgent want here that Mbembe described and a continued, forced hypermobility.

In the GCR, people dwell in places that are not generally well known. As the concepts of toehold urbanization and aspirational urbanization demonstrate (see Chapter 4 and Chapter 5), people can be as "trapped" into predatory lending practices on the geographic peripheries as they are stuck in pockets of poverty in more central locations with less secure forms of tenure and high degrees of precarity. Land values, the availability of space, and social networks play material roles in how people are able to live and secure livelihoods. In greater Johannesburg, policy on housing production—or mass housing urbanization—is one of the key mechanisms with which post-apartheid government intended to redress the legacy of race-based dispossession and repression. This urbanization

process largely unfolds in the spaces between centers and peripheries, and people's struggles are often rendered invisible.

The edges of areas resulting from mass housing urbanization were some of the key locations where informal settlements began to mushroom on a large scale, as opposed to the "toeholds" more near to urban centralities. Mass housing urbanization is closely aligned with the research of Schmid and his group (see Chapter 1 and Chapter 3).[7] In South Africa, this process primarily entails the large-scale construction of residential areas contracted and subsidized by the state on the urban edge, where land values are lower.[8] State-supplied housing was a key apparatus of the apartheid system, and as such is deeply embedded in the collective consciousness of South African citizens, to whom housing was promised as a part of the RDP launched under Nelson Mandela. Mass housing urbanization in the GCR is, for all practical purposes, synonymous with RDP housing; the benefits of mass housing as an asset to overcome poverty has had diverse results.[9]

In Johannesburg, mass housing and aspirational urbanization were and still are typically situated adjacent to apartheid-era townships like Soweto or Soshanguve by planners and developers. They often involve the conversion of peripheral agricultural land or traditional authority land.[10] The act of building for mass housing production is typically contracted to private developers, who receive subsidies from the National Housing Department, as housing is nationally mandated by the constitution; aspirational housing is privately financed and implemented.[11] Both were collectively envisioned as a "one family, one home" model[12]—although this is beginning to shift slightly today. And around the edges of the areas resulting from these urbanization processes, greenfield informal settlements proliferate, extending the existing space of the townships even further. Such places house hundreds of thousands of people, living in perhaps less dire circumstances than someone in a Denver informal settlement (described in Chapter 4). Yet they are largely excluded from the job market, are "fixed" in space by transport costs which limit access to centralities when they seek work, and grapple with immobility when they cannot or do not travel. Significantly, such areas are some of the few in which both urban and demographic growth is still consistently occurring across the city-region.

The rest of this chapter unpacks three urban portraits that emphasize how people's choices and agency shape this mesh between centers and peripheries, particularly in the spaces of informal settlements where I have spent most of my career in the field as a researcher. They represent divergent experiences of what might initially seem to be fairly similar

conditions of material, regulatory, and lived space. I met all three people through the nonprofit organization Planact; they were dwelling in informal settlements that branched off from areas of mass housing urbanization where Planact was conducting grassroots organization for housing justice.

At the time of the interviews, Behati lived in Sol Plaatje, a shack settlement north of Soweto, and had the least security of tenure. His life was particularly complicated by his HIV-positive diagnosis. Kamohelo lived in Finetown, south of Orange Farm; he traversed between informal settlements all across the region by conducting unpaid labor for the NGO. He had a more secure tenure, corresponding to the wider availability of land. Elrose, who lived in Protea South, southwest of Soweto, had the most stable life and source of livelihood: she was established as a leader in the community, supported by her children, and had a former role in local politics. Yet her story also contains elements of repression and violence typical to the apartheid regime, reflecting the difficult conditions that still persist today in her area.

While all three urban portraits could simply be articulated as stories of poverty—and related to income or race, for example—again, space matters. In a material sense, the spaces are all residential locations that arose because of their geographic proximity to jobs. Regarding regulatory space, the state essentially permitted people to occupy land adjacent to areas of mass housing they constructed through lack of eviction enforcement. As far as lived experiences of space are concerned, the areas are located so remotely in the first place that they function as a sort of exurban settlement with very few infrastructural resources available. Being on the edge of places *already* on the edge materializes a paradoxical situation. Some people do create urban qualities for themselves, leading to a sort of "high street" environment.[13] However, most people tend to be very tied into adjacent mass housing areas—be it for procuring the needs of everyday life or because of their social networks—meaning that this is not a frequent occurrence. We see through these examples how much proximity to opportunities and resources matters.

The specificity of everyday patterns of life, of relations and movement between parts of extended urban regions like Johannesburg, is key to understanding how Lefebvre's dialectics of centrality and periphery unfold. Structural spatial inequality still plays an active role in shaping the extended urban region of the GCR. Its urbanization processes lead to extreme contradictions between geographically isolated and geographically central spaces—yet neither can necessarily, or categorically, be designated more "peripheral" than the other. These factors reproduce

conditions that make it incredibly difficult to overcome the powerful processes that peripheralize. This chapter therefore calls us to understand the space between center and periphery that unfolds outside the typical narratives of history, politics, and economics. And we do so by "following the people" once more, into the spaces between.

Urban portrait 6: Behati in Sol Plaatje (Soweto)

Behati is 38 years old and a resident of Sol Plaatje—also referred to as Durban Deep—just north of Soweto, along the mining belt of the Witwatersrand. Founded as a mining hostel, it was repurposed by the city of Johannesburg in 1999 as a settlement for people evicted from Maraisburg, an informal settlement along the N1 Western Bypass. Much of the settlement has been upgraded from shacks into RDP housing and two-story accommodation by the JOSHCO.[14] While Sol Plaatje has had running water and electricity since approximately 2012, it remains highly isolated in the urban fabric and its residents face disproportionately long travel times seeking jobs.

This describes the experience of Behati, who arrived in Johannesburg with his family in 1995 from Queenstown in the Eastern Cape (see Figure 6.2). His mother had already departed for the city, and he and his two younger siblings were put on a bus to Johannesburg by their grandfather to meet her there, in Kliptown. His mother returned to the Eastern Cape shortly thereafter, leaving him and his siblings to fend for themselves; as a 16 year old, Behati thus began to support himself and his siblings alone. Today, he lives in one of the RDP-allocated houses constructed in 2007, along with another family of four to whom he is not related. All of the residents are subletting the house from its government-allocated owners.

Although he has vocational training in IT at the level of a professional certificate, Behati told me he is rarely able to find work. This is compounded by the fact that he is HIV positive. These two facts mark his everyday life: he roams throughout western areas of Johannesburg and Roodeport in unpredictable and irregular patterns, looking for work at various odd jobs or volunteering in the arena of HIV awareness.

As such, his primary destinations are either industrial areas in and around Roodeport or clinics and hospitals. These opportunities are not within walking distance. Behati is completely reliant on the taxi system to the next major node in Roodeport, and takes the train to destinations further east, such as Maraisburg and the CBD.

Figure 6.2 Behati in Sol Plaatje. © Lindsay Blair Howe.

During the 2015 study, his most frequent destinations were in and around Roodeport: Lewis Electrical Suppliers in Roodeport Industrial; Prison Repairs and Renovations to Old Flats in Davidsonville; and Tower Electrical Contractors in Maraisburg. His most frequent non-work-related destination was, four times, to the local clinic. He went to church in his area three times and twice in other areas. He also went to a hospital once and once into the Johannesburg CBD. Out of the 30 days he recorded during the study, he walked through the neighborhood to local spazas on six occasions and stayed home the entire day once. He also visited the Home Affairs Office once to apply for unemployment.

Some days Behati is unsuccessful in acquiring employment, in which case his destinations typically become further and further away from Sol Plaatje over the course of the day and week. On July 9, he unsuccessfully sought employment in Roodeport Industrial. Then, on July 10, he began his search further afield, communicating to me through the smartphone app that his day was "at best a 3 out of 10," also because he was missing his girlfriend and baby.

After reporting points at home from 6.41 to 14.29, as well as a brief walk to church and back for 15 minutes at 9.21, he departed Sol Plaatje on foot at 14.38. There is not always a taxi available to shorten the trip into Roodeport; on this day, he was unable to find or unable to afford taxi transportation. Instead, he walked northeast through the defunct Roodeport Deep Farm, crossing over into Roodeport Industrial at 15.23. He crossed the train tracks at Roodeport Station, continuing on foot until reaching a private home on Gordon Collins Crescent at 15.55.

This is the home of a private contractor for whom he had previously worked regularly; however, despite 15 minutes of friendly chatting, no jobs were available for him. He then walked east towards Florida from 16.10 until 16.55, where he enquired for jobs at Sesfikile Auto & Body Panels for nine minutes. He then returned on foot to Roodeport Industrial, visiting a Shoprite supermarket before catching a taxi to return home at 19.03.

A successful job search day involves significantly less time in transit. On July 19, Behati departed Sol Plaatje, walking east adjacent to the settlement down Hail Street. He caught a taxi and arrived at Roodeport Industrial at 9.07. Three minutes later, he arrived at Lewis Stores, a furniture and electrical appliance retailer. He was offered a three-and-a-half-hour shift that day, departing again at 12.53. He picked up a taxi at Roodeport Station and was home again at 13.32, where he remained for the remainder of the day.

He typically procures his food from the local shop, Thandabantu 2, which is akin to a convenience store. It has a more formal selection than a spaza shop, which is usually just a stand along the street, but less than a supermarket, with a limited product selection. He also travels to a spaza and tuck shop, located one street over from the local clinic, approximately every other day.

One unique day during the 2015 study was a result of his secondary activity as an HIV awareness spokesperson. Behati did not know what HIV was at the time he was infected and was too ashamed to get tested or seek treatment for a long time, he told me, during one of our interviews in his neighborhood. Now, he speaks openly about the disease and encourages others to get tested and learn communication strategies for discussing the topic with their sexual partners.

For example, on Saturday, July 18, Behati left home at 6.39, crossing through Roodeport and into an area called Westgate Park, near Westgate Mall. A large barracks-style building lies at the intersection of South Road and Van de Linde Road, which he entered and gave a talk on HIV awareness from 10.30 until 11.45. He returned to Roodeport Industrial a few minutes later by taxi, searching for employment at the Kwik-Fit auto mechanics before catching a taxi home to Sol Plaatje.

A further unique day was a visit to the Discovery Community Health Centre in Hamburg, for which he took the train. He explained: "I rode without a ticket because I couldn't afford it. But watching the map helped to distract me from my sorrows." He arrived at 11.19, participated in a bi-weekly support group, and exited the hospital again at 13.05. He returned home on foot instead of by train, only arriving back at his settlement at 17.44.

Behati reported in his survey that his favorite place is Brits because his girlfriend and daughter live there. His girlfriend is also openly HIV positive, and they met at the hospital support group. This is rare, he noted, and many people remain in denial about the disease even if they do get tested. When he hosts talks, he says people have sometimes admitted they hide their medication from their spouses and partners under their mattresses. While he did not visit his partner and child during the course of the study, he explained the taxi routes necessary to get there: one taxi from Sol Plaatje or walking to Roodeport Industrial, then a second into Fourways, a third from there into Pretoria, and finally a fourth from the Pretoria CBD to the Brits CBD.

Behati is a highly religious person; when not searching for or performing jobs, he attended Sunday services in his settlement as well as several church ceremonies elsewhere during the course of the study. The

frustrations of job seeking and living with HIV were uplifted by his faith and by his family, he explained. His greatest hope for the future is to find more permanent employment so they can join him from Brits and to reach many HIV-affected youth to prevent the disease from spreading further.

This nomadic pattern of everyday spatial production is irregular but frequent, taking a high toll on the body and finances in the search for employment. Such patterns are ingrained into the territory of greater Johannesburg, set in place by apartheid and reinforced by its processes of urbanization ever since. Behati's optimism was an outlier among study participants over the years with similar rhythms and characteristics. Many others did not feel there was much chance of their situation ever improving and worried constantly about how they would get by with the few resources they had at their disposal.

My engagement with the GCR has also revealed such characteristics. It unfolds in everyday life—in people's patterns of movement, in their challenges and concerns, and in the agency they exercise as they move and interact throughout ordinary urban regions like the GCR. For so many people in Johannesburg, the prospect of the self is rendered possible through negotiating the spatial and structural legacy of extraction, at an extremely high cost.

Urban portrait 7: Kamohelo in Finetown (Orange Farm)

Kamohelo, like Nandi from Diepsloot, relocated from the apartheid-era African township of Edenvale in Pietermaritzburg to Hillbrow in the Johannesburg CBD. He arrived in 1981 after his family relocated to stay with relatives. Both families were illegally subletting a flat in this area, at a time when the surrounding parts of the CBD were still predominantly white.

The Ponte Tower, on the border of the Berea neighborhood in downtown Johannesburg, was a popular place for young white professionals to reside.[15] The mixing of races—and significant differences in income levels—that followed as Black people began to move into the inner city changed this neighborhood dynamic. In a classic "white flight" scenario, lower-income Africans had already replaced most of the "yuppie" demographic by the early 1980s before influx control was even officially abolished. Kamohelo's family moved in as a part of this demographic change in the iconic high-rise tower.

Kamohelo's parents were also able to open a convenience store in the aftermath of this shift. They eventually relocated to an RDP house in

Orange Farm in the early 2000s. Now he too lives in a subsidized house off the R557, just south of Kanana Park. The residents refer to this area as Finetown, although the city of Johannesburg seems to call it Kanana Extension 3 and Extension 5, and occasionally by the name of the informal settlement that still exists there to the southeast, Thulamntwana.[16] He moved into the residence at the end of 2014.

With a less-than-high-school education level, Kamohelo has always had difficulties finding work other than odd jobs, he explained. However, because he had resided in the general area for longer than most, he became a self-elected community leader as the area densified. He became the representative of the SDI for the popularly constructed toehold of Sweetwaters, just across the R557 to the north, before he and the residents of these areas were allocated stands and housing in Thulamntwana.

Traveling for SDI is his primary activity, and despite his unpaid position and otherwise meager financial circumstances, he had one of the largest ranges of movement out of the 2015 study (see Figure 6.3). He frequently walks between Sweetwaters and Thulamntwana, and is also often picked up in a private vehicle to either meet at the head office for SDI—at the time, this was in Orange Grove—or to conduct SDI business at settlements throughout the greater urban region.

Out of the 22 days where active data was reported, nine of the times were primarily composed of trips to the SDI office by taxi or private vehicle. Five were to Thulamntwana; four were to other settlements around the Gauteng Province, such as Innesfree Park between Alexandra and Sandton, Holomisa in Katlehong, and Denver in the industrial belt along the M2 highway. Three days consisted of trips into the CBD, three reported points only at home, two mainly comprised walks around the neighborhood, and two were shopping related.

Kamohelo's pathway into work at the SDI head office, for example on July 17, usually takes just over an hour and ten minutes by taxi depending on traffic. He left his area at 8.49 and had picked up a cab only two minutes later, heading down the R554 to the east. After turning north onto Vereeniging Road (R82), he crossed the border from Sedibeng into the city of Johannesburg municipality at 9.12. Pausing at a Shell Station across from the Southgate Mall just northeast of Soweto to pick up a passenger, the taxi then continued on to the Johannesburg CBD. It stopped at the corner of Bree Street and Edith Cavell, where he then walked one block north and one more east to enter another taxi at Plein and Twist Streets. He arrived at the SDI office in Orange Grove at 10.01.

Figure 6.3 Kamohelo in Finetown. © Lindsay Blair Howe.

Another typical path is when someone from the SDI team with a car picks him up, and they drive with several self-elected community leaders to other settlement areas. On July 22, Kamohelo departed his extension at 8.40 on foot, picking up a taxi at 9.02 along the highway and arriving at Southgate Mall by 9.19. Here, he waited until 10.07, where he was picked up by an SDI associate, and they drove directly up the M1 to Innesfree Park by 10.42. This park in between Sandton and Alexandra is the site of a small-scale toehold that began as an expansion of farm staff; several further study participants resided there.[17]

The SDI team departed again at 13.46 and continued to their second stop of the day—what they refer to as Midvaal informal settlement, located in Meyerton Local Municipality just northeast of Vereeniging. They arrived at 16.07 and walked around the area until 18.04. Kamohelo was dropped off on the highway outside of his area at 19.03 and was home by 19.15 for the night.

Kamohelo's patterns are irregular, with the exception of regular visits to the SDI office, and they are frequent. His primary travel motivation is to visit other such areas to network for political and social causes. Other similar participants also exhibited these characteristics. They were constantly on the move, with some of the highest travel times per day—more than three hours of consistent movement—and irregular patterns of movement as they visited informal settlements. These participants had low and irregular sources of income, precluding them from participating in leisure activities.

Acting as a community liaison in the capacity of SDI accords people like Kamohelo a certain social status in their communities. This social power is important in how they negotiate space as well as in the formation of their identities. SDI members often wear T-shirts they created, bearing the slogan "Nothing for us without us"—and they take this mantra extremely seriously. However, while this kind of power is both significant and useful in the context of greater Johannesburg, community liaisons are also unable to improve their financial circumstances because they spent most days, even weekends, working for SDI and receiving little monetary compensation. If their network of patronage disappears or the partnership with SDI ends, they will lose both their status and their compensation.

While asset provision such as housing on the urban peripheries has led to slight increases in absolute household income and savings for the poor in the GCR, there is little evidence of changes in people's actual residential locations or their trajectories through the city.[18] As a city planner for the city of Johannesburg commented: "The alternative

strategy to connecting the region with transport is bringing jobs to places themselves and incorporating informal businesses instead of eradicating them."[19] Its success is predicated upon strong incentives for developers and considerable buy-in from underprivileged communities if it is not to result in significant displacement,[20] continuing to perpetuate or even exacerbate uneven development and socio-spatial inequality.

Urban portrait 8: Elrose in Protea South (Soweto)

Elrose is 52 years old and resides in the informal settlement of Protea South, which lies to the far southwest of Soweto (see Figure 6.4). She lives in a house constructed of concrete block and plastered pink walls, with a yard containing a personal water tap. The tap and walls, which have two small bullet holes, are evidence of her once-prominent political standing in the community as a ward councillor. She was elected as a member of the African National Congress following the democratic transition in 1994 and had occasionally been targeted by local gang members and political rivals, she explained.

Today, she is retired and lives in a three-room house with her daughter and three grandchildren. Unlike many of the other 2015 study participants, Elrose was born in Soweto and relocated to Protea South from her childhood home in Soweto as the settlement began to arise in the early 1980s. Houses constructed for white mine bosses already existed in the area, which had been abandoned when the area was rezoned for the Coloured racial group in the mid-1960s (see Figure 6.5).[21]

As a more centrally located settlement, and occupying a higher degree of rhetoric due to its location in Soweto today, there have been a number of academic engagements with Protea South. Harrison and Harrison, for example write:

> In Protea South—adjoining a modern new shopping centre and middle-class housing—there are more than 6,000 households living in shacks. The initial plans were to upgrade the settlement in situ but when the area was assessed as being dolomitic and at the risk of sinkhole formation, the community was earmarked for relocation to Doornkop (now called Lufhereng), west of Soweto. The community objected and protests organised by the Landless Peoples Movement erupted in 2002 … and also in 2013, there were violent clashes between the residents of bonded houses in the area and shack dwellers.[22]

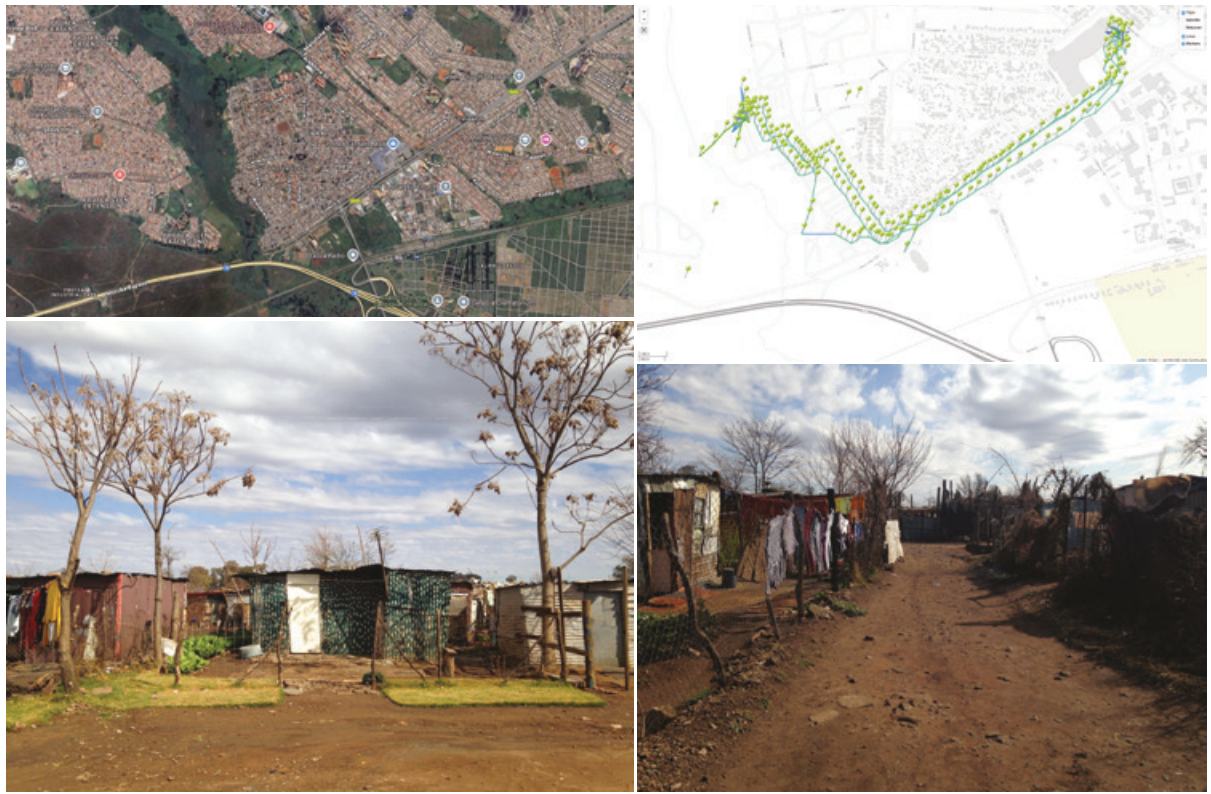

Figure 6.4 Elrose in Protea South. © Lindsay Blair Howe.

Figure 6.5 Informal settlements ringing the edges of Katlehong in 2024. © Lindsay Blair Howe.

Elrose operates within this space, her patterns shifting regularly between these different housing typologies. She crisscrossed between areas of state-led mass housing and the shack settlement "toehold" of Protea South almost every day of the study.

Institutions, such as political parties and NGOs, have a high presence in Protea South; many organizations are also religiously affiliated.

Elrose primarily occupies herself with volunteer work at either the Protea South Community Centre or St. Hilda's Anglican Church in Senaoane, a nearby Sowetan neighborhood. She regularly travels between these locations, but her travel pattern is nevertheless highly irregular. She often begins her days by walking from her home to the nearby Protea Gardens Mall, where she is then picked up by car. Her destinations, however, are continually changing.

Travel by private vehicle rather than with the taxi system reflects a certain level of status and income within the community. Yet despite these advantages, her participation in the VGI study was less regular than others in the study because Protea South still has intermittent access to electricity and poor cell phone signals. Often, she explained, she had not been able to charge her phone battery at all during the day. Over the course of the 2015 study, of which only 16 of 30 days were fully reported, her primary destinations were as follows: the church on four days; the mall on three days; a gas station at Southgate Mall (to deal with engine trouble for the car's owner, she explained) on a further three days; three days walking around the neighborhood to meet people; and finally, she remained solely at home for two days of the study.

Tuesday, July 28, 2015 was a typical day for Elrose. Her first points of the day were recorded at 10.10 at St. Hilda's Anglican Church across from the Pick 'n Pay Senaoane, where she attended a meeting for the Democratic Alliance political party. Her party departed the church at 10.21, driving northeast down Chris Hani Boulevard, one of southern Soweto's major thoroughfares and then turning north onto another of these major roads, Elias Motsoaledi Road (M77). Such paths are clearly visible in the VGI tool as a private vehicle and not a taxi for two reasons: there are no stops to pick up or drop off passengers, and people are delivered door-to-door, with no extra walking required, even on side streets.

The car reached the intersection with the Methodist Church of Christ, where they conducted a meeting for approximately 30 minutes and then returned to St. Hilda's. Later in the afternoon, they departed again for a different destination: the Chris Hani Baragwanath Academic Hospital. Elrose later explained that the organization had been visiting someone who had been injured in the course of a recent community struggle.

After visiting the man for approximately 20 minutes, the car returned back to Protea South, where Elrose was dropped off at the Protea Gardens Mall and walked home on foot. The man she visited was

the survivor of a violent vigilante attack on July 15 in Protea South, in which three accused thiefs were severely beaten and one was killed. As we walked through Protea South together, she introduced me to a member of the Community Policing Forum (CPF). He indicated the spot on the ground where the man had been stoned to death. "The problem is the police don't respond. They come on purpose only when they know the mob is over; they're scared and they don't want to have to do nothing," the man explained.

Not just as a pickup for her volunteering days but also on many other occasions, life revolves around the mall. The butcher there is the best, Elrose explained, and she goes there to get meat at least three times a week. On occasion she also purchases food from small spazas around the Protea South neighborhood—a close friend of hers runs a stand selling chicken and pap (a stickier form of grits), where she can eat for free whenever she likes. The chicken is grilled on a grate over open flames, while the pap is prepared in a pot over a second fire.

As one of the settlement's longest-term residents, Elrose was greeted by most people in the streets as we strolled together and is friendly with several leading figures in the community: the clinic doctor, the leader of the CPF, and a policeman residing in Protea South's bond housing sector. "They don't want us here," she explained, gesturing to the neat façades of the mortgage-backed housing, "but we were here first."

As Elrose noted, violent conflicts had occurred between the bond house and informal settlement residents not just in 2003 and 2013, but also in 2010, specifically targeting members of the Landless Peoples Movement (LPM), who represent many shack dwellers across South Africa. Allegedly, members of the Homeowner's Association in this area—which could be described as aspirational urbanization—attacked LPM leaders in tensions over illegal electrical connections. Indeed, media reports featuring interviews with residents indicate that those living in bond housing wish for the neighboring settlement to be eradicated for the most predictable of reasons: to reduce crime and increase land values.[23]

Elrose also exchanged greetings with the pastor of the local church, commenting that personally she is not religious. What matters to her, she says, is protecting and representing the community and making sure her daughter has enough opportunities and education to someday leave Protea South. This is also the reason she left the African National Congress and instead joined the Democratic Alliance. "The ANC no longer keeps their promises. During the struggle we were all ANC, and now Zuma has betrayed the legacy of Madiba," she noted in an even tone.

The long history of political protest and contestation, and constant threat of removal, thus corresponds not just to continually insecure relations and tenure for the residents of Protea South but to a shift in political loyalties. People like Elrose, with a pension from the state, are able to be socially and politically active in part because they do not need to seek work. Their transit costs are covered by the organizations they volunteer for, and without needing to pay rent or utility bills, Elrose's living costs remain low.

Despite the geographic and structural factors that peripheralize many of her neighbors in Protea South, Elrose can access precisely these kinds of social resources, which provide her with what she describes as a difficult but rewarding life. "I could actually afford to live elsewhere," Elrose once commented. "But I am here in solidarity with Protea South. I will not leave just because I could have an easier life elsewhere." She chose to remain in a place that is not a particularly high priority for the state to develop—with a minimal degree of popular centrality and alternative economic strategies—because of her politics, convictions, and long connection to and power in the area.

Several other 2015 study participants, as well as others in subsequent projects, had comparatively similar everyday lives to Elrose, driven by service and volunteership. Yet they were primarily pensioners who had "graduated"—to use the popular term—out of the townships and into the homeowner class, residing most commonly in areas that resulted from aspirational urbanization. Moreover, these participants were more likely to speak of solidarity with the underprivileged and to have motivations rooted in religion rather than social conviction or politics.

Elrose had more in common with the community leaders I often worked with to recruit study participants, who did not necessarily take part in the studies themselves. When I think back now to the people I worked with closely in Alexandra, Marlboro South, Diepsloot, and Denver, these leaders were highly engaged with representing their communities and advancing their struggles. Their individual bodies and identities, practices and experiences, were mobilized to co-constitute something new, right, and equitable out of their individual and collective traumas and disadvantages. It took an enormous amount of energy and sometimes an enormous toll on them. They speak and act for the people who so often cannot because they are so involved with simply getting by.

The energy and resources required to overcome peripheralization—the forces that reinforce the hierarchies of power, as if it must inevitably be so—are enormous for most people. The connection to the body, and how it perceives and moves through urban space, is just as central to the

production of space. As AbdouMaliq Simone writes on how people themselves become an essential form of infrastructure in Johannesburg:

> State administrations and civil institutions have lacked the political and economic power to assign the diversity of activities taking place within the city (buying, selling, residing, etc.) to bounded spaces of deployment, codes of articulation, or the purview of designated actors. … Such a conjunction of heterogeneous activities, modes of production, and institutional forms constitutes highly mobile and provisional possibilities for how people live and make things, how they use the urban environment and collaborate with one another.[24]

Bringing together all of the theorems about the production, concentration, and extension of space shows, as the above quotation reflects, how important centrality itself is as a resource and opportunity for people. Its polar opposite form—the expulsion of the body or prevention of access for the body to centrality—peripheralizes certain social groups in certain spaces while providing access and opportunities for others. As people propel themselves throughout the messy meshwork of the greater region around Johannesburg and Pretoria, this unfolds in specific ways in which the physicality of the body matters,[25] as do questions of gender and race and politics.

How the three people in these urban portraits live, how they experience places and time, and how they relate to one another relates to Lefebvre's lived space. They experience "social marginalization" as a form of peripheralization. Socially constructed attributes such as their race and gender—individual factors and characteristics—influence this as culturally determined "values" and approaches. Peripheralization is related to the physical makeup and elements of space—to the body, and the world surrounding it, in which we move and act.[26]

Conclusions

The openness of Henri Lefebvre's theories on spatial dialectics allows it to be greatly enriched by complex contexts like Johannesburg, where there are many inflections of center and periphery stretched across large spaces. Thinking through material space is about the relational preclusion of people who have different abilities to respond to elements that are fixed in space. Considering the cases of Behati, Kamohelo, and Elrose shows that people have very different experiences of this space, even if

they may live in places with what initially appear to be similar material and regulatory conditions. Where precisely a person is located in the greater region, the history they share with a place, and the social networks they possess within and beyond their homes are highly individualistic factors that nevertheless have an impact on the overall production of the urban. Utilizing Lefebvre as a theoretical framing for such empirical work permits the kind of inductively and specifically drawn conclusions that render this region both ordinary and extraordinary.

Peripheralization for the three subjects of the urban portraits in this chapter is derived from how space is conceptualized and represented and, correspondingly, how it is regulated. These structural factors involve understanding the policies that put people in geographically remote locations and—at least initially—forced them into spatial practices of commuting, or that drive people's "transversal" means of spatial production. It involves understanding temporalities, for example, observing how people move through and experience space, noting what happens along the way, and why they make the choices they do when they have few social resources at their disposal. To comprehend this entails decoding social realities as relational and intersectional, as well as observing how these personal factors interact with one another as historically influenced and synchronically evolving.

As Schmid describes: "Spaces of representation are embodying complex symbolisms that are linked to the secret and subterranean side of social life, and also to art … They are qualitative, fluid and dynamic and can be qualified in different ways: directional, situational, relational."[27] The structural factors of peripheralization are therefore Lefebvrian derivatives of spaces of representation, which consider the personal characteristics of an individual and how these collectively interact to signify the urban experience. This connects back to how their movements and interactions collectively shape the fabric of space.

Analyzing the peripheral mesh by examining people's individual abilities to mobilize spatial and social resources on its margins—as both "procedure" and empirical observation—confirms Lefebvre's assertion that urbanization processes generating centrality effectuate reciprocal processes of peripheralization. Christian Schmid describes how this connects to the displacement of social groups from centralities to urban peripheries, and as a result, "centre and periphery no longer form coherent territories, but archipelagos that are interdependent in various ways."[28] What I found in the spaces between clearly identifiable urban centers and peripheries—along the sliding scale between them, covering the majority of the urban fabric—articulates this dialectic. Yet at the

same time, following people and their struggles places a distinct emphasis on what happens along the way, and how people are peripheralized, in these urban "extensions" where most of urban life unfolds.[29] It also underscores the importance of transport and mobility.

In the absence of a strong state,[30] people do often create their own urban infrastructure. They also capitalize upon a certain degree of "informality" to act in "transversal" ways:[31] they conduct artisanal mining, move money in and out of regions in the form of remittances, and move their bodies in and out of regional centers and peripheries in "circuits of migration."[32] People negotiating access to infrastructures and opportunities is a key framing for much of the current literature in geography and urban studies; however, it goes far beyond the state and its dominance.

Considering the GCR as a set of dialectical relations between center and periphery also reveals that sometimes urban places arise out of capitalist activities. Arrival spaces and entry points for economic activities are key features of township life, for example, which could be identified broadly across essentially all of the urbanization processes captured in Johannesburg. Yet they are distributed unevenly. The three cases in this chapter illustrate a broader generalized finding of the research project: there appears to be a correlation between the presence of opportunities and the rise of popular centralities, dependent both on whether people are well connected to the greater urban fabric of the region and what is possible in their immediate proximity.

The urban extension that characterized spaces adjacent to the settlement areas in Soweto and Orange Farm this chapter depicts showed more evidence of classically urban qualities—such as organically emerging "high streets"—than the urban fabric of its apartheid-era township neighbors. Considering this through the more than 100 settlements visited over the course of decades of research, the presence of "informal" high streets correlates with the presence of opportunities nearby and transport connections to the greater urban region, but the intensity to which this occurs is often related to an area's location within this overall region. Daily cycles of commuting appear, in some cases, to preclude urban qualities of life from developing.

Protea South—located on the more remote extents of Soweto—was too far from more developed areas of the township to benefit directly from initiatives like TOD. Yet mobility resources are still much easier to access and daily needs easier to fulfill than for those who dwell in Finetown, which lacks a directly neighboring settlement with infrastructure—even if deficient and unequal—and lies significantly further away from other urban centralities. People are

commuting more in Finetown; urban qualities do not flourish as much; they are more trapped in space if they cannot afford to travel. In fact, some of the places with the fewest urban qualities of life were areas of mass housing that began as "dormitory settlements" during apartheid.[33] These dynamics are a residue of mining and apartheid, and continue to ingrain intractable patterns of structural spatial inequality into the terrain.

One of the key mechanisms with which the apartheid government controlled the majority population was through "commuterizing" the urban extents, expelling Black, Coloured, and Indian people to the urban peripheries and forcing them into varying cycles of migration to extract their labor power. The stories in this chapter describe how many social groups, nearly 30 years after the end of apartheid, still have few opportunities to impact the trajectories of their own lives. A form of logistical centrality, or the density and direction of transportation and mobility networks in extended urban regions,[34] still compels people to move throughout the GCR. Being continually locked into cycles of transit constrains their agency: while freedom of choice and movement are their right, they often remain an illusion.

Poverty is, for most people in the greater region surrounding Johannesburg, a socio-spatial trap—a product both of geography and the structural factors of cultural norms, economic realities, and lack of social resources. All three examples in this chapter explicate the notion that there are always degrees of privilege and disadvantage afforded by society and space. In a broader sense, it attests to the enduring disadvantages related to factors like race and gender, as well as the importance of considering the body and how it moves through space—including, for example, how women and children manage to propel themselves through space to conduct the activities necessary to underpin work in the GCR. The personal remains political across the households of Johannesburg and beyond.[35] It links the individual to the collective, to which spaces and choices are even possible in the first place.

Connecting to the previous chapter, the experiences of people like Behati, Kamohelo, and Elrose demonstrate that a "periphery" can occur anywhere, but it is a product of everyday interactions, routines, forms of mobility, and temporalities that intertwine spaces with a specific history into the greater surrounding region.[36] And processes of peripheralization can be most acute in the spaces between the opportunities that centers and peripheries possess. This observation echoes the notion of centrality as a dialectic between places of varying power, described by scholars like Azat Gündogan as "the encounter, interaction, and assembly of

differences coming together and creating something new" within the material spaces, regulatory frameworks, and lived experiences of the urban.[37]

Many investigations into peripheries share a concern for the constitution of an "outside" and for the people residing there.[38] This chapter is similarly grounded in the stance that any "ordinary" place is worthy of originating urban theory[39]—and so is any ordinary person. People's movements stitch together the fabric of the urban and collectively generate urbanization processes. And in this lies an emancipatory potential.

Notes

1. Cairns (2018).
2. Barua (2023).
3. Mbembe (2021), p. 12.
4. Mbembe (2021), pp. 29–30.
5. Simone (2004).
6. The term "advanced marginality" was first presented by Loïc Wacquant in the mid-1990s and evolved throughout his work. It entails the symbolic marginalization of entire urban areas, and of their residents, leading to deeply entrenched poverty. See for example: Wacquant, L (1996) The Rise of Advanced Marginality: Notes on Its Nature and Implications. *Acta Sociologica* 39(2): 121–139.
7. See Schmid et al. (2018); Schmid and Streule (2023); Schmid and Topalovic (2023).
8. Mass housing urbanization is defined by the work of Christian Schmid's group as "large-scale industrial housing production based on the intervention of state actors into the urbanization process, which leads to the strategic re-organization of urban territories." See Kockelkorn et al. (2023), p. 603.
9. Charlton, S and Meth, P (2017) Lived Experiences of State Housing in Johannesburg and Durban. *Transformation: Critical Perspectives on Southern Africa* 93(1): 91–115.
10. For a similar finding in other urban contexts, see Schmid et al. (2023), p. 300; on the appropriation of tribal land in South Africa, see for example Mosiane and Götz (2022).
11. Pillay, U, Tomlinson, R, and du Toit, J (2007) *Democracy and Delivery: Urban Policy in South Africa*. Cape Town: HSRC Press.
12. Interview with an ARP planning director (2016).
13. Charman et al. (2020); Charman, C and Govender, T (2020) The Creative Night-Time Leisure Economy of Informal Drinking Venues. *International Journal of Urban and Regional Research* 44(5): 793–808.
14. See the policy as outlined in Dlamini, N (2007), "Times Are Changing at Sol Plaatje" (Official Website of the City of Johannesburg). Available at: www.joburg.org.za/index.php?option=com_content& task=view&id=1741&Itemid=198 (accessed July 20, 2017) and https://www.jus.uio.no/ior/english/people/aca/malcolml/7-housing_rights_litigation_i.pdf (accessed July 20, 2025); and discussed by Myroniuk, TW and Vearey, J (2014) Social Capital and Livelihoods in Johannesburg: Differential Advantages and Unexpected Outcomes Among Foreign-Born Migrants, Internal Migrants, and Long-Term South African Residents. *International Migration Review* 48(1): 243–273, p. 272.
15. Interview with D Aquadro (2015).
16. South African Government (GovSA) (2012) President Zuma to Launch the Kanana Housing Project. News bulletin, August 8. Available at: www.gov.za (accessed July 20, 2017).
17. Insight into Innesfree Park is also described in Master's thesis research conducted with Vanessa Joos. See Howe, LB and Joos, V (2012) *Post-Apartheid Urbanism*. MSc thesis, ETH Zurich.
18. Charlton, S (2013) *State Ambitions and Peoples' Practices: An Exploration of RDP Housing in Johannesburg*. PhD thesis, University of Sheffield.
19. Interview with a postdoctoral researcher in spatial planning (2014).

20. Todes, A and Robinson, J (2019) Re-directing Developers: New Models of Rental Housing Development to Re-shape the Post-Apartheid City? *Environment and Planning A: Economy and Space* 52(2): 297–317.
21. Mabitsela, NA (2012) The Impact of Service Delivery on the Quality of Lives of the Community of Protea South, Soweto, in Johannesburg in Gauteng Province, South Africa. MA thesis, University of Limpopo.
22. Harrison and Harrison (2014), p. 306.
23. Poni, M (2010) Five More Landless People's Movement Militants Arrested in Soweto. June 4. Available at: https://libcom.org/article/landless-peoples-movement-attacked-soweto (accessed July 20, 2017).
24. Simone (2004), pp. 409–410.
25. Lekalakala, K (2020) Tales of the Vulnerability of African Black Women in Transit Spaces. *City* 24(1–2): 233–243.
26. See also the discussion in Schmid (2022), pp. 39–43.
27. Schmid (2022), pp. 514–515.
28. Schmid (2022), p. 857.
29. Simone, AM, Somda, D, Torino, G, Irawati, MRN, Bathla, N, Castriota, R, Vegliò, S, and Chandra, T (2023) Inhabiting the Extensions. *Dialogues in Human Geography*. https://doi.org/10.1177/20438206231168896.
30. See also Kushner, DC and MacLean, LM (2015) The Politics of the Nonstate Provision of Public Goods in Africa. *Africa Today* 62(1): vii–xvii.
31. See, for example, Roy (2011); Rubin, M (2018) At the Borderlands of Informal Practices of the State: Negotiability, Porosity and Exceptionality. *The Journal of Development Studies* 54(12): 2227–2242; Caldeira, T (2017) Peripheral Urbanization: Autoconstruction, Transversal Logics, and Politics in Cities of the Global South. *Environment and Planning D: Society and Space* 35(1): 3–20.
32. See, for example, Cross et al. (1998); Aroca, P and Atienza, M (2011) Economic Implications of Long Distance Commuting in the Chilean Mining Industry. *Resources Policy* 36(3): 196–203; Prada-Trigo, J, Barra-Vieira, P, and Aravena-Solís, N (2021) Long-Distance Commuting and Real Estate Investment Linked to Mining: The Case Study of Concepción Metropolitan Area (Chile). *Resources Policy* 70: 101973.
33. Charman et al. (2020).
34. Kretz and Küng (2016).
35. Referencing the famous quote popularized by second-wave feminist activist Carol Hanisch in the 1970s, and originally coined by Shulamith Firestone and Anne Koedt in *Notes from the Second Year: Women's Liberation*. The claim that it exists across households is explained in a *Time Magazine* article about the "secret tax" on women's time. See Howe, LC, Howe, LB, and Whillans, A (2023) The Pink Tax on Time: The Pervasiveness of Inequality for Women Worldwide. *Time Magazine*, January 2023.
36. Simone (2021).
37. Gündogan (2021), p. 49.
38. Authors discussing the perspective of the "outside" include, for example: Mbembe and Nutall (2004); Meth et al. (2021); and Parnell and Robinson (2012).
39. Robinson (2006, 2016).

7
Conclusion

In the writing of this book, several questions guided the narrative: Why look from Johannesburg? Why bring in Lefebvre? And why "follow the people?" Doing so allowed me to describe what everyday life looked and felt like, connect social realities to the broader phenomena of urbanization, and understand the ways in which the constancy of change—of negotiation, hustle, and flow—makes Johannesburg the quintessential African city.

The extremely large, complex urban area conceptualized as the Gauteng City-Region (GCR) contains unique particularities that warrant theorization, and they have an instructive specificity.[1] Johannesburg has been a paradigm of extended urbanization throughout its history. Its origins as a mining camp concentrated global flows of colonization and capital into the fledgling city. This launched Johannesburg as the center of gravity for a region that effectively drew from the entire Southern African region. The dialectics of center and periphery in Johannesburg marked this African city as a palimpsest: something which is never fixed but, rather, is continually being reinscribed into being. These dialectics have resulted in privilege for some social groups and how great burdens characterize the social realities of others, particularly in the "peripheral mesh" in between urban centers and peripheries where the majority of the population lives.

What has always been clear to me in Johannesburg is how—as Lefebvre also noted—knowledge and conceptions of space "involve a clandestine connection to power, a crude or subtle intermingling with political practice and ideology."[2] If we distill the essential, operable elements of his theory on the production of space, we are given the tools with which not just to comprehend the world around us but to understand why it is the way it is. As Ananya Roy has so elegantly phrased it, we should use "theory as an argument about the world, theory as a concern

with the epistemology of power, and theory as a collective imagination."[3] Lefebvre allows us to do this and frame it in terms we can all understand and put to work.

Thus, my empirical insights were framed through the scholarship on Henri Lefebvre and processes of urbanization, particularly the extension and concentration of the urban fabric.[4] Yet by doing so, even more became possible: I could link the agency of individuals stitching this urban fabric together to the production of the GCR's spatiality. This is an important counterweight to the normative operations of late-stage capitalism and its ever-expanding reach into space and everyday life. As Christian Schmid describes: "The expansion of capital depends on not only the colonizing of specific resources located in particular places and the subsequent captivation of populations as labour for the extraction of those resources but also the colonization of multiple operations of organization and cognition as well."[5] Collectively, people's choices and agency can generate forms of urbanization that are strong enough to counter even these forces. Their spatial practices are sometimes powerful enough to create new centralities, produced beyond the directives of the state.

The book proves this thesis, first through a reconstruction of the region's history in terms of major reconfigurations of the material, regulatory, and lived spaces. It presents the development of an innovative methodological approach and very long-term engagement with real people going about the activities of their everyday lives. The empirical results from decades of study allowed me to define specific urbanization processes that are shaping this ongoing sixth period of history. Conducting this regressive–progressive process shows that the inherited spatial structure and terminologies of apartheid have a long shadow, but that the territory can be represented differently and reimagined through the language of urbanization processes. In this, regional-scale space is composed of varying forms of center and periphery, which both proves the validity of Lefebvrian theory and extended urbanization and also points to where they reach their limits.

By looking from Johannesburg, with Lefebvre, and following people in their everyday lives, I established that:

1. Lefebvrian spatial theory is useful for interpreting African cities like Johannesburg, and cities like Johannesburg also productively revise and enrich his assertions about the dialectics between center and periphery.
2. Both urban centralities and peripheries provide opportunities for people with few resources. It is in the spaces between, in the mesh that

comprises the majority of the urban fabric, where processes of peripheralization occur.
3. We need to understand individual mobility and spatial practices if we want to understand urbanization, and be able to name the specific processes of extension and concentration that shape everyday life in contemporary cities and urban regions.

There is a key aspect of individual mobility, one rooted in agency and urbanization processes driven by people that inform the further development of theories on the production of space. It emphasizes the value of everyday life, the forms of individual and collective agency people imbue into space, broadening the production of urban knowledge beyond typical categories and containers. These phenomena should be kept in mind even as digitalization increases: is this the epitome of Lefebvre's complete urbanization of society? It is all still in the making.

Relevance for urban theory

There are three further conclusions that looking from Johannesburg, with Lefebvre, and following people raises.

On centrality and periphery

Purporting that there is a dichotomy between center and periphery is useful as an explanation for spatial dynamics, but it actually mirrors the reductive discussions of binary terminologies, such as rural versus urban, that are actually not particularly productive or meaningful. Returning to the vocabulary of Lefebvre: uneven geographies like the GCR are produced by both representations of space—plans and policies and political-economic forces—as well as people's choices as they go about their daily lives. As they seek opportunities within the material fabric of the urban, their spatial practices can either be ingrained or iterate space anew.

While Lefebvre posited a polycentricity of new urban configurations—because urbanization processes generating centrality effectuate reciprocal processes of peripheralization—his theorization was not backed by empirical results, nor did it explicitly engage with in-between spaces. Johannesburg reveals these missing examples of centrality and periphery. Both can present their own forms of opportunity while also preserving prejudice and injustice. This phenomenon has historical roots, the traces of which continue to influence the mega-regional urban

fabric today. They are best exemplified by the toehold urbanization that pops up near urban centralities and aspirational urbanization assembled on geographically distant peripheries.

These forms of urbanization can be a double-edged sword for people living there now: many generate opportunities, yet also represent the continuance of neocolonial and imperial relations. Whether or not the historic and contemporary turns of urbanization allow places to develop centrality are related to land ownership, policy approaches, the complicity of local governance with the interests of corporations, and forms of urban infrastructure that allow people to mobilize or preclude them from doing so. The actual physical geography of the region as a whole, and how spaces relate to each other through the movements and rhythms of everyday life, is therefore key. Especially outside the gaze of the state, and for historically disadvantaged populations, transversal logics are sometimes the entire backbone of their survival. Their agency remains a major force shaping the urban; how precisely it unfolds is dependent on the structure of space and on social reproduction.

These dynamics also divulge some of the many things one can learn from urban Africa. There are peripheral characteristics, moments of advanced marginality, in urban centralities. There are emerging centers in geographically remote peripheries. And sometimes the peripheries of geography and society are not peripheral to processes of capital accumulation. Indeed, people themselves are becoming less central to the logics of extraction, extension, and dispossession in the digital era and are "trapped" in spaces between, where getting by is a constant struggle. African scholars from Gillian Hart to Achille Mbembe have voiced great concern over the futures of such people in South Africa as they are rendered more and more surplus to the processes of capital accumulation.[6]

On the other hand, there are also surprising new developments on the most extreme geographic peripheries of the urban region. Graeme Götz and Ngaka Mosiane, for example, discuss what they term "displaced urbanisation," such as in former tribal lands administered by traditional authorities, including the R573 Moloto Road, nicknamed the "road of death" due to the "staggering" number of commuting accidents reported every year.[7] The former homelands still evidence such striking patterns of connection into, as well as connection out of, urban centralities like Johannesburg and Pretoria. Still further afield lie settlements stretching towards the international borders with eSwatini, such as Kabokweni, or Bushbuckridge, which experienced more than 3 percent population growth according to the most recent census data.[8] Such areas are the target of the most recent research asking whether these kinds of spaces

comprise new centralities, as part of the extended urban fabric of the GCR, or if they are becoming new metropolises in and of themselves.[9]

Johannesburg thus paradigmatically illustrates planetary urbanization's sublation of the fixed categories of rural and urban. It reveals how instead there is a constant "implosion and explosion" between the central spaces[10]—where encounter and exchange are possible—and the multifaceted kind of peripheries that both sustain centers and are promulgated by them. The processes that result in informal settlements, for example, cannot be understood in isolation; they must be examined as part of a relational whole—as spaces constantly being made and remade, shaped by both the surrounding urban region as well as distant, yet powerful, global forces.

On the spaces between

The spaces between have their own long histories and identities. Yet they are often overlooked and are as invisible to policy as they are on the map. Frequently, they originated as zones of production and resource extraction—for growing food, generating power, and embedding capitalist relations into the terrain. They manifest today as zones without terminologies, often on the edge of existing places, and are informally settled. These undefined zones are where the real struggles lie because people cannot access opportunities in urban centralities or in peripheries. As Christian Schmid describes in his and Milica Topalovic's publication on extended urbanization: "Access to experience becomes increasingly curtailed for many residents, thus instituting new kinds of divides and inequities that exceed income."[11] The process of mass housing urbanization constructed in the spaces between center and periphery, and the informal settlements adjacent to them, exemplifies the struggles people face in the vast fabric of the in-between.

The production of housing in segmented markets—and in disregard of proximity to urban centralities or infrastructure—has thus resulted in a persistent class divide inscribed in space. It deepens through the institutionalized discrimination of loan and real estate practices. This is a common phenomenon across urban areas worldwide, but the dominance of privileged developments compared to those that are underprivileged in Johannesburg visualizes this divide in a striking manner.

As Gavin Shatkin has commented in his analysis of megaprojects in Asia: "As large-scale profit-oriented urban entities, [such] projects represent a vision for the transformation of the urban experience through the wholesale commodification of the urban fabric."[12] This has indeed

been the outcome of the large post-apartheid housing projects in the peripheral mesh of the GCR. And the terms of financing become a predatory form of extraction, expanding the territory by means of the "lower" and "lower-middle" classes. The spaces resulting from these processes of peripheralization thus span many forms, from the very central and precarious to the very geographically remote and precarious.[13]

On agency, action, and the right to centrality

The space between centers and peripheries is being continually remade as it is traversed by people going about their activities and routines. The outcomes thereof are largely determined by two related questions: What kind of agency do people have over the fractious and fragmented city as it is? And how much power do people have in articulating and developing its future? These questions are applicable to many urban regions but have a particular relevance for postcolonial contexts on the African continent. Thireshen Govender has described how normative crises of urban development are "exacerbated by our inability to imagine an African city that is enabling and prosperous, and in which the messy complexity and treachery of leadership, power, and governance impede the enormous challenge of bringing prosperity to our majority and historically marginalized."[14] Yet the very state of urgently required repair in African cities can provide new opportunities for the decolonial project, for making and remaking the urban, both individually and collectively. We need new approaches to making urban places, grounded in the specific knowledge and thick descriptions of people and their everyday lives.

As Christian Schmid has discussed, Lefebvre's idea of the right to the city, contrary to widespread popular use, refers to the right to access centrality, as well as the right to difference, and appropriation and copresence in such spaces.[15] It implies the right to overcome the dominance of state and economic power over the spaces of everyday life: the right to be present in a space without necessarily having to consume a good or service, to appropriate it, to build the sort of "concrete utopia" that makes possible the existence of something outside the narrative of capital.[16] It is akin to the kind of *differential* space that Lefebvre imagined, in which—in another return to Marx—use value is more significant than exchange value.

Accordingly, the right to centrality in Johannesburg is not the right to any particular municipally bounded city center or specific space in and of itself, but rather, it is the right to access resources and

opportunities present in urban centralities. What research participants often wanted most beyond basic infrastructure were jobs, stability, safety, and education for their children; feeling like they were a part of the decisions that impact their lives; and the ability to live with their children instead of being trapped in cycles of migration, connecting into and out of urban spaces in patterns and pathways seemingly beyond their control. These non-material needs are less tangible, harder to encapsulate, and relate to the concept of centrality. Centrality not as power, over the state or corporations, but for people to have self-determination over their lives and participate in urban planning and development that affects them.

Such a right to centrality matters and is something applied research can address. It involves identifying the moments where social relations thicken with moments of encounter and exchange within the urban fabric. People need support for their livelihoods—in short, the provision of basic resources and access to the opportunities of urban centers—more than they need grand, and usually politically fraught, urban infrastructure projects.

Final remarks

Lefebvre asserted that the "truth" of a concept is only revealed at the end of a work because writing itself is a dynamic process without a foreseeable conclusion.[17] So, too, is the project of understanding Johannesburg, with its complicated syntax, its urbanization processes, its modes of everyday life. This urban region represents a future possible, one that is both ordinary and extraordinary, in which moments of equality can be made despite the dire challenges it faces. But if these chances are to become reality, people still need much more self-determination, more freedom to enact their needs, and more ability to participate in decisions that impact their own trajectories throughout the urban realm.[18]

This returns us to some of the provocations I introduced at the beginning of this book about the remnants of colonialism. Achille Mbembe reminds us: "Used to conquering without being in the right, colonization demanded not only that the colonized change their reasons for living, but also that they change reason itself and become beings in perpetual displacement."[19] There are things we can do both individually and collectively in order to claim a right to urban life, exercise agency, resist overpowering forces of capital accumulation and dispossession, and co-conceive more equitable futures.

There have always been moments of resistance in South Africa, moments in which people refused to accept hegemonic powers and strived to create something more just and equal. These processes and moments are distinct results of a space and time, yet exemplify what makes urban Africa such a valuable place to learn from. The way people in Johannesburg embody urbanity, how they must navigate uneven resources and geographies, their confrontations between regulation and agency point towards challenges every city and region faces in its own unique way.

In the production of urban theory, we must synthesize our knowledge and use it to critically reflect upon the inequities of the world around us. This movement between practice and theory is crucial, and is one fundamental reason much more research into the spaces of the peripheral mesh, and processes of peripheralization, is required. Academics and practitioners alike must step outside the "internal worlds" of their profession to confront out urgent contemporary challenges head on.[20] It is our obligation to engage with transdisciplinary processes on specific sites, as well as to consider the greater environmental and social consequences—on both urban and regional scales—particularly for people who have been negatively impacted by urbanization and who will become exponentially more so in the future as climate change increases globally.

I was drawn to Lefebvre because I realized—after years of puzzling over his texts and wondering if I would need to dramatically improve my French were I ever to truly get to the bottom of them—that I did not have to understand everything perfectly. What I distilled from his writings, especially by contrasting German and English translations, allowed me to somehow sublate the open questions and occasional inconsistencies by actively holding his writing in my mind and constantly connecting it to Johannesburg. The emergent "rogue" of African urbanism, as the basis with which to understand centrality and peripheralization, has much to offer the search for a more equitable world.

As scholars, we can make ourselves useful by finding these moments from anywhere and providing support where desired. We can promote diversity, access, and inclusiveness for all from anywhere. I find moments of hope from my home in Switzerland when we pass initiatives like the Zurich City Card in 2022, asking for the state to provide government-issued identification for all residents of the city, or approving the *Klima- und Innovationsgesetz* (Federal Climate Change Act) in 2023. We have the privilege to do these kinds of things—and so we

should make good on our legacy and complicity of being a "colonizer without colonies."[21]

Christian Schmid, in his seminal 2022 publication on Henri Lefebvre, clarified his conception of spatial theory. He notes that Lefebvre "understands theory as a tool that can guide and drive the process of 'cognition.' Interestingly, English has no clear equivalent to the German *Erkenntnis* or French *connaissance*, which are often used to describe the moment in which research or a discussion creates a new insight and thus helps to better recognise the world."[22] Both Johannesburg and Lefebvre invite us to examine what our insight might do to contribute positively to social change and increased justice in the world around us. And discover what any place can learn from urban Africa.

Johannesburg is thus vindicated as a convincing and inspiring source for the production of urban scholarship, theory, and action.

Notes

1. Peck, J (2014) Cities Beyond Compare? *Regional Studies* 49(1): 160–182, p. 118.
2. As described by Schmid (2022), p. 38.
3. Roy (2015), p. xi.
4. On this notion, see: Schmid et al (2018); Schmid (2022); Schmid and Streule (2023); Schmid and Topalovic (2023).
5. Schmid and Topalovic (2023), p. 383.
6. Mbembe (2021) notes the logics of extraction as something that speeds up the accumulation of surplus populations, which is also occurring through deindustrialization in Northern economies. Connecting to Marx's categories of latent, floating, and stagnant labor, he notes the need for a fourth category of "those who will never be formally employed"—echoing Gillian Hart's (2014) concerns in *Rethinking the South African Crisis* about whether developments in South Africa are producing a permanently unemployable class.
7. Mosiane and Götz (2022). See also: Simelane and Sihlongonyane (2021).
8. StatsSA (2023).
9. This research is only just beginning, based on explorations synthesized in the November 2024 working group, which consisted of (listed alphabetically): Leslie Banks, Sibongile Buthelezi, James Chakwazira, Sarah Charlton, Caroline Dieterle, David Campbell Francis, Anthony Fry, Graeme Götz, Philip Harrison, Alan Mabin, Paula Meth, Ngaka Mosiane, Jennifer Robinson, Christian Schmid, Cathy Sutherland, Alison Todes, Wayne Twine, Phillan Zamchiya, and myself. See also the work of Fana Sihlongonyane, and Taki Sithagu.
10. Brenner, N (ed.) (2013) *Implosions/Explosions: Towards a Study of Planetary Urbanization*. Berlin: Jovis.
11. Schmid and Topalovic (2023), p. 383.
12. Shatkin, G (2017) *Cities for Profit: The Real Estate Turn in Asia's Urban Politics*. Ithaca, NY: Cornell University Press, p. 77.
13. Wacquant (2015).
14. Govender (2024).
15. Schmid (2022).
16. Lefebvre, H (2000 [1971]) *Everyday Life in the Modern World*. Trans S Rabinovitch. London: Athlone Press, pp. 90, 96.
17. Lefebvre, H (1980) *La présence et l'absence: Contribution à la théorie des représentations*. Paris and Brussels, p. 16; translated by Schmid (2022), pp. 43–44.
18. On this notion, see C Geertz (1988) *Works and Lives*. Frankfurt am Main: Fischer.

19. Mbembe (2021), p. 223.
20. See Huxley, M and Yiftachel, O (2000) New Paradigm or Old Myopia? Unsettling the Communicative Turn in Planning Theory. *Journal of Planning Education and Research* 19(4): 333–342. See also Innes, J E (2004) Consensus Building: Clarifications for the Critics. *Planning Theory* 3(1): 5–20.
21. See Fischer-Tiné, H (2015) The Other Side of Internationalism: Switzerland as a Hub of Militant Anti-colonialism. In P Purtschert and H Fischer-Tiné (eds) *Colonial Switzerland: Rethinking Colonialism from the Margins*. London: Palgrave Macmillan, 221–258. See also Hilbrandt, H and Ren, J (2022) Refracting Eurocentrism, Operationalizing Complicity: The Swiss Sonderfall as a Vantage Point. *Environment and Planning D: Society and Space* 40(4): 589–606; and Roy, A (2020) "The Shadow of Her Wings": Respectability Politics and the Self-Narration of Geography. *Dialogues in Human Geography* 10(1): 19–22.
22. Schmid (2022), p. 47.

Bibliography

Addie, JPD (2021) Urban Life in the Shadows of Infrastructural Death: From People as Infrastructure to Dead Labor and Back Again. *Urban Geography*. https://doi.org/10.1080/02723638.2021.1902633.

Addleson, M (1990) Decentralization Incentives, Industrialists' Plans and the Location of Manufacturing Activity. *South African Journal of Economics* 58(2): 173–186.

Addleson, M and Tomlinson, R (1986) Industrial Decentralization Policy and the Prospects for the Development of South Africa's Homelands. *Journal of Modern African Studies* 24(1): 155–163.

Aker, JC and Mbiti, IM (2010) Mobile Phones and Economic Development in Africa. *Journal of Economic Perspectives* 24(3): 207–232.

Alise MA and Teddlie C (2010) A Continuation of the Paradigm Wars? Prevalence Rates of Methodological Approaches Across the Social/Behavioral Sciences. *Journal of Mixed Methods Research* 4(2): 103–126.

Arboleda, M (2016) Spaces of Extraction, Metropolitan Explosions: Planetary Urbanization and the Commodity Boom in Latin America. *International Journal of Urban and Regional Research* 40(1): 96–112.

Arboleda, M (2020) *Planetary Mine: Territories of Extraction Under Late Capitalism*. London: Verso.

Aroca, P and Atienza, M (2011) Economic Implications of Long Distance Commuting in the Chilean Mining Industry. *Resources Policy* 36(3): 196–203.

Aschoff, N (2020) *The Smartphone Society: Technology, Power and Resistance in the New Gilded Age*. New York: Penguin Random House.

Axhausen, KW (2006) *Concepts of Travel Behavior Research*. Report for IVT Institut für Verkehrsplanung und Transportsysteme, Chapter 11. Zurich: ETH Zurich.

Badger, E (2014) This Is What Informal Transit Looks Like When You Actually Map It. Available at: www.citylab.com (accessed August 5, 2019).

Ballard, R and Butcher, S (2020) Comparing the Relational Work of Developers. *Environment and Planning A: Economy and Space* 52(2): 266–276.

Ballard, R and Rubin, M (2017) A "Marshall Plan" for Human Settlements: How Megaprojects Became South Africa's Housing Policy. *Transformation: Critical Perspectives on Southern Africa* 95(1): 1–31.

Bartlett, L and Vavrus, F (2017) *Rethinking Case Study Research: A Comparative Approach*. New York: Routledge.

Barua, M (2023) *Lively Cities: Reconfiguring Urban Ecology*. Minneapolis, MN: University of Minnesota Press.

Bawcombe, P and Scannell, T (1973) *Philip Bawcombe's Johannesburg*. Johannesburg: Village Publishing.

Bayat, A (2004) The Quiet Encroachment of the Ordinary. In C. David (ed.) *Tamáss: Contemporary Arab Representations* (Vol. 2). Rotterdam: Witte de With.

Beall, J, Crankshaw, O, and Parnell, S (2002) *Uniting a Divided City: Governance and Social Exclusion in Johannesburg*. Sterling: Earthscan.

Beavon, K (1992) Some Alternative Scenarios for the South African City in the Era of Late Apartheid. In D Drakakis-Smith (ed.) *Urban and Regional Change in Southern Africa*. London: Routledge, 66–99.

Beavon, K (2004) *Johannesburg: The Making and Shaping of the City*. Pretoria: University of South Africa Press.

Beavon, K and Larsen, P (2014) Sandton Central, 1969–2013: From Open Veld to New CBD? In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 370–394.
Beinart, W (2014) A Century of Migrancy from Mpondoland. In P Delius, L Phillips, and F Rankin-Smith (eds) *A Long Way Home: Migrant Worker Worlds 1800–2014*. Johannesburg: Wits University Press, 59–73.
Bénit-Gbaffou, C (2014) Are Johannesburg's Peri-central Neighbourhoods Irremediably "Fluid"? Local Leadership and Community Building in Yeoville and Bertrams. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 252–268.
Bennett, J and Toffa, T (2014) *Introduction to Studio at Denver: Desktop Analysis, Documentation & Compilation of Existing Data*. Johannesburg: Faculty of Art, Design and Architecture, University of Johannesburg.
Bentley, I, McGlynn, S, Smith, G, Alcock, A, and Murrain, P (1985) *Responsive Environments*. London: Routledge.
Bertuzzo, E (2012) *Fragmented Dhaka: Analysing Everyday Life with Henri Lefebvre's Theory of Production of Space*. Stuttgart: Franz Steiner Verlag.
Black Sash (1983) Squatters and Housing. *Black Sash National Conference* 1983, Cape Town.
Black Sash (1987) *Removals Continue: The Case of the Brits Old Location ("Oukasie") Removal*. Pretoria: Black Sash Pretoria Branch.
Blaser Mapitsa, C and Landau, L (2019) Measuring Municipal Capacity to Respond to Mobility. *SAGE Open*. https://doi.org/10.1177/2158244019829565.
Bobbins, K and Trangoš, G (2018) Mining Landscape of the Gauteng City-Region. *GCRO Research Report No. 7*. Johannesburg: Gauteng City-Region Observatory, 45. Available at: https://cdn.gcro.ac.za/media/documents/Mining_Landscapes_of_the_GCR_final_web_FA.pdf (accessed July 20, 2025).
Bond, P (2000) *Cities of Gold, Townships of Coal*. Trenton, NJ: Africa World Press.
Bonner, P and Nieftagodien, N (2008) *Alexandra: A History*. Johannesburg: Wits University Press.
Bonner, P and Segal, L (1998) *Soweto: A History*. Cape Town: Maskew Miller Longman.
Börner, K, Sanyal, S, and Vespignani, A (2007) Network Science. *Annual Review of Information Science and Technology* 41(1): 537–607.
Borunda, A (2021) The Origins of Environmental Justice—and Why It's Finally Getting the Attention It Deserves. *National Geographic*, February 24. Available at: https://www.nationalgeographic.com/environment/article/environmental-justice-origins-why-finally-getting-the-attention-it-deserves (accessed July 20, 2025).
Bremner, L (2008) *Writing the City into Being: Essays on Johannesburg, 1998–2008*. Johannesburg: Fourthwall Books.
Brenner, N (ed.) (2013) *Implosions/Explosions: Towards a Study of Planetary Urbanization*. Berlin: Jovis.
Brenner, N and Schmid, C (2012) Planetary Urbanization. In M Gandy (ed.) *Mobile Urbanism*. Berlin: Jovis, 10–13.
Brenner, N and Schmid, C (2014) The "Urban Age" in Question. *International Journal of Urban and Regional Research* 38(3): 731–755.
Brenner, N and Schmid, C (2015) Towards a New Epistemology of the Urban? *City* 19(2–3): 151–182.
Buckley, M and Strauss, K (2016) With, Against and Beyond Lefebvre: Planetary Urbanization and Epistemic Plurality. *Environment and Planning D: Society and Space* 34(4): 617–636.
Bule, K and Landau, LB (2025) Mobility, Diversity, & Speculative Racial Capital: Navigating Inclusion and Exclusion in an African Urban Gateway. *Third World Quarterly*: 1–18.
Burdett, R and Sudjic, D (eds) (2006) *The Endless City*. London: Phaidon.
Burdett, R and Sudjic, D (eds) (2010) *Living in the Endless City*. London: Phaidon.
Burgers, J and Musterd, S (2002) Understanding Urban Inequality: A Model Based on Existing Theories and an Empirical Illustration. *International Journal of Urban and Regional Research* 26(2): 403–413.
Butcher, S (2016) *Infrastructures of Property and Debt: Making Affordable Housing, Race and Place in Johannesburg*. PhD thesis, University of Minnesota.
Butcher, S (2018) Making and Governing Unstable Territory: Corporate, State and Public Encounters in Johannesburg's Mining Land, 1909–2013. *Journal of Development Studies* 54(6): 1–24.

Butcher, S (2020a) Creating a Gap That Can Be Filled: Constructing and Territorializing the Affordable Housing Submarket in Gauteng, South Africa. *Environment and Planning A: Economy and Space* 52(2): 173–199.
Butcher, S (2020b) Appropriating Rent from Greenfield Affordable Housing: Developer Practices in Johannesburg. *Environment and Planning A: Economy and Space* 52(2): 337–361.
Butler, J, Rotberg, G, and Adams, J (1978) The Black Homelands of South Africa: The Political and Economic Development of Bophuthatswana and Kwa-Zulu. *Perspectives on Southern Africa* series (21). Berkeley, CA: University of California Press.
Cairns, S (2018) Debilitating City-Centricity. Urbanization and Urban–Rural Hybridity in Southeast Asia. In R Padawangi (ed.) *Routledge Handbook of Urbanization in Southeast Asia*. London: Routledge, 115–130.
Caldeira, T (2017) Peripheral Urbanization: Autoconstruction, Transversal Logics, and Politics in Cities of the Global South. *Environment and Planning D: Society and Space* 35(1): 3–20.
Carruthers, J (2000) Urban Land Claims in South Africa: The Case of Lady Selborne Township, Pretoria, Gauteng. *Kleio, African Historical Review* 32(1): 23–41.
Castells, M (1996) The Network Society. In *The Information Age: Economy, Society and Culture* (Vol. 1). Malden, MA: Blackwell, 500–510.
Castriota, R and Tonucci, J (2018) Extended Urbanization in and from Brazil. *Environment and Planning D: Society and Space* 36(3): 512–528.
Chapple, K and Loukaitou-Sideris, A (2019) *Transit-Oriented Displacement or Community Dividends? Understanding the Effects of Smarter Growth on Communities*. Cambridge, MA: MIT Press.
Charlton, S (2013) *State Ambitions and Peoples' Practices: An Exploration of RDP Housing in Johannesburg*. PhD thesis, University of Sheffield.
Charlton, S (2014) Waste Pickers/Informal Recyclers. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 539–545.
Charlton, S and Meth, P (2017) Lived Experiences of State Housing in Johannesburg and Durban. *Transformation: Critical Perspectives on Southern Africa* 93(1): 91–115.
Charlton, S, Suleman, M, Howe, LB, Rubin, M, Parker, A, Tshuwa, L, and Modisamongwe, D (2022) *Micro-Dynamics and Macro-Processes. A Maputo–Johannesburg Comparative Study of Intra-Household Decision-Making and State-Investment in Transit*. Research report. Johannesburg: Volvo Research and Education Foundation.
Charman, C and Govender, T (2020) The Creative Night-Time Leisure Economy of Informal Drinking Venues. *International Journal of Urban and Regional Research* 44(5): 793–808.
Charman, C, Peterson, L, and Govender, T (2020) *Township Economy: People, Spaces and Practices*. Cape Town: HSRC Press.
Chipkin, I (2013) Whither the State? Corruption, Institutions and State-Building in South Africa. *Politikon* 40(2): 211–231.
Cirolia, LR (2016) Reframing the "Gap Market": Lessons and Implications from Cape Town's Gap Market Housing Initiative. *Journal of Housing and the Built Environment* 31(4): 621–634.
City of Tshwane (CoT) (2016) Regional Spatial Development Framework: Region 1. Approved 2017. Available at: www.tshwane.gov.za (accessed July 20, 2017).
Coe, NM and Jordhus-Lier, DC (2010) Constrained Agency? Re-evaluating the Geographies of Labour. *Progress in Human Geography* 35(2): 211–233.
Cooper, C, Hamilton, R, Mashabela, H, Mackay, S, and Kelly, J (1992) *Race Relations Survey 1991/92*. Johannesburg: South African Institute of Race Relations (SAIRR).
Corner, J (1999) The Agency of Mapping: Speculation, Critique and Invention. In D Cosgrove (ed.) *Mappings*. London: Reaktion, 213–252.
Cowen, D (2020) Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method. *Urban Geography* 41(4): 469–486.
Crampton, J (2009) Cartography: Maps 2.0. *Progress in Human Geography* 33(1): 91–100.
Crankshaw, O (2008) Race, Space and the Post-Fordist Spatial Order of Johannesburg. *Urban Studies* 45(8): 1692–1711.
Crankshaw, O (2022) *Urban Inequality: Theory, Evidence and Method in Johannesburg*. London: Bloomsbury.
Crankshaw, O and Parnell, S (2002) *Urban Change in South Africa*. Working Paper (4). London: International Institute for Environment and Development Urban Change (IIED), 348–349.
Creswell, JW (2010) Mapping the Developing Landscape of Mixed Methods Research. In A Tashakkori and C Teddlie (eds) *SAGE Handbook of Mixed Methods in Social & Behavioral Research*. Thousand Oaks, CA: Sage, 45–68.

Creswell, JW (2014) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, CA: Sage.
Cresswell, T (2011) Mobilities I: Catching Up. *Progress in Human Geography* 35: 550–558.
Croese, S (2017) International Case Studies of Transit-Oriented Development: Corridor Implementation. In P Harrison (ed.) *Spatial Transformation through Transit-Oriented Development in Johannesburg Research Report Series*. Johannesburg: Wits University Press.
Cross, C, Mngadi, T, and Mghele, T (1998) Constructing Migration: Infrastructure, Poverty and Development in KwaZulu-Natal. *Development Southern Africa* 15(4): 635–659.
Crush, J, Jeeves, A and Yudelman, D (1991) *South Africa's Labor Empire: A History of Black Migrancy to the Mines*. Cape Town: David Philip.
Davenport, TRH and Hunt, KS (1974) *The Right to the Land*. Cape Town: David Philip, 100–116.
Davidson, M and Iveson, K (2015) Beyond City Limits: A Conceptual and Political Defense of "the City" as an Anchoring Concept for Critical Urban Theory. *City* 19(5): 646–664.
De Boeck, F (2016) *Suturing the City: Living Together in Congo's Urban Worlds*. London: Autograph ABP.
De Oliveira, F (1972) Critique of Dualist Reason. *Novos Estudos Cebrap*.
Dechmann, N, Jaggi, F, Murbach, K, and Ruffo, N (2016) *Up Up: Stories of Johannesburg's Highrises*. Johannesburg: Fourthwall Books.
Desmond, C (1971) *The Discarded People: An Account of African Resettlement in South Africa*. Harmondsworth: Penguin Books.
Di Masso, A, Williams, D, Raymond, C, Buchecker, M, Degenhardt, B, Devine-Wright, P, Hertzog, A, Lewicka, M, Manzo, L, Shahrad, A, Stedman, R, Verbrugge, L, and von Wirth, T (2019) Between Fixities and Flows: Navigating Place Attachments in an Increasingly Mobile World. *Journal of Environmental Psychology* 61: 125–133.
Diener, R, de Meuron, P, Herzog, J, Meile, M, and Schmid, C (2005) *Die Schweiz. Ein städtebauliches Portrait*. Basel: Birkhäuser.
Dirsuweit, T (2014) The Fear of Others: Responses to Crime and Urban Transformation in Johannesburg. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 546–552.
Dlamini, N (2007) "Times Are Changing at Sol Plaatje" (Official Website of the City of Johannesburg). Available at: www.joburg.org.za/index.php?option=com_content& task=view&id=1741&Itemid=198 (accessed July 20, 2017).
Drakakis-Smith, DW (1992) *Urban and Regional Change in Southern Africa*. London: Routledge.
Drummond, J (1991) The Demise of Territorial Apartheid: Re-incorporating the Bantustans in a "New" South Africa. *Tijdschrift voor economische en sociale geografie* 82(5): 338–344.
Dube, N (2010) "Many Shades of the Truth": The Ramaphosa Case Study. The Xenophobia Project, Centre for Sociological Research at the University of Johannesburg. Johannesburg: University of Johannesburg.
Elwood, S, Lawson, V, and Shepard, E (2017) Geographical Relational Poverty Studies. *Progress in Human Geography* 41(6): 745–765.
Engels, F (1877) Anti-Dühring Part I: Philosophy XIII. Dialectics. Negation of the Negation. Available at: https://www.marxists.org/archive/marx/works/1877/anti-duhring/ch11.html (accessed July 20, 2025).
Fair, TDJ (1975) Commuting Fields in the Metropolitan Structure of the Witwatersrand. *South African Geographer* 5(1): 7–15.
Firth, A (2011) Statistics South Africa National Census 2011. Population statistics obtained from the Census 2011 Community Profile Databases and geographic areas calculated from the Census 2011 GIS DVD. Available at: http://census2011.adrianfrith.com/ (accessed July 20, 2025).
Fischer-Tiné, H (2015) The Other Side of Internationalism: Switzerland as a Hub of Militant Anti-colonialism. In P Purtschert and H Fischer-Tiné (eds) *Colonial Switzerland: Rethinking Colonialism from the Margins*. London: Palgrave Macmillan, 221–258.
Flick, U (2009) *An Introduction to Qualitative Research*. London: Sage.
Fraser, N (2007) Community Driven Partnerships through City Improvement Districts: Urban Development Partnerships in the Cities. SA Cities Network Seminar, March 28, 2007.
Garner, G (2011) *Johannesburg Ten Ahead*. Johannesburg: JoburgPlaces.
Gauteng Spatial Development Framework (GSDF) (2013) Gauteng Spatial Development Framework 2030. Johannesburg: Gauteng Planning Division, Office of the Premier.
Geertz, C (1973) Thick Description: Towards an Interpretive Theory of Culture. In C Geertz (ed.) *The Interpretation of Cultures*. New York: Basic Books, 310–323.

Geertz, C (1988) *Works and Lives*. Frankfurt am Main: Fischer.
Gilbert, L and de Jong, F (2015) Entanglements of Periphery and Informality in Mexico City. *International Journal of Urban and Regional Research* 39(3): 518–532.
Ginsberg, R (2011) *At Home with Apartheid: The Hidden Landscapes of Domestic Service in Johannesburg*. Charlottesville, VA: University of Virginia Press.
Glaser, B and Strauss, AL (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine Publishing Company.
Goonewardena K, Kipfer S, Milgrom R, and Schmid C (eds) (2008) *Space, Difference, Everyday Life*. New York: Routledge.
Govender, T (2024) Acting on Descent. RISE Africa Action Festival, May 23. Available at: https://riseafrica.iclei.org/2024-programme/luchtime-lecture-acting-on-descent-by-thireshen-govender/ (accessed July 20, 2025).
Götz, G and Seedat, R (2006) Johannesburg: A World Class African City. In D Sudjic (ed.) *Johannesburg: Challenges of Inclusion*. Available at: https://urbanage.lsecities.net/essays/johannesburg-a-world-class-african-city (accessed July 20, 2025).
Götz, G, Wray, C, and Mubiwa, B (2014) The "Thin Oil of Urbanisation"?: Spatial Change in Johannesburg and the Gauteng City-Region. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 42–62.
Greco, K (2014) Seeing the City through Data / Seeing Data through the City. In D Offenhuber and C Ratti (eds) *Decoding the City: Urbanism in the Age of Big Data*. Basel: Birkhäuser, 125–142.
Gündogan, AZ (2021) Rethinking Centrality: Extended Urbanization in Istanbul. *City* 25(2): 46–66.
Halvorsen, S (2018) Decolonising Territory: Dialogues with Latin American Knowledges and Grassroots Strategies. *Progress in Human Geography*. https://doi.org/10.1177/0309132518777623.
Harber, A (2011) *Diepsloot*. Johannesburg: Jonathan Ball Publishers.
Harrison, K (2017) Transit Corridors and the Private Sector: Incentives, Regulations and the Property Market. In P Harrison (ed.) *Spatial Transformation through Transit-Oriented Development in Johannesburg Research Report Series*. Johannesburg: University of the Witwatersrand Press.
Harrison, P and Harrison, K (2014) Soweto: A Study in Socio-Spatial Transformation. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 293–318.
Harrison, P and Todes, A (2024) *The Promise of Planning: Global Aspirations and South African Experience Since 2008*. London: Routledge.
Harrison, P and Zack, T (2012) The Power of Mining: The Fall of Gold and Rise of Johannesburg. *Journal of Contemporary African Studies* 30(4): 551–570.
Harrison, P, Huchzermeyer, M, and Mayekiso, M (2003) *Confronting Fragmentation: Housing and Urban Development in a Democratising Society*. Cape Town: UCT Press.
Harrison, P, Masson, A, and Sinwell, L (2014) Alexandra. In P Harrison, G Götz, A Todes, and C Wray (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 342–369.
Harrison, P, Todes, A, and Watson, V (2008) *Planning and Transformation. Lessons from the Postapartheid Experience*. London: Routledge.
Harrison, P, Rubin, M, Appelbaum, A, and Dittgen, R (2019) Corridors of Freedom: Analyzing Johannesburg's Ambitious Inclusionary Transit-Oriented Development. *Journal of Planning Education and Research*. https://doi.org/10.1177/0739456X19870312.
Hart, G (2002) *Disabling Globalization: Places of Power in Post-Apartheid South Africa*. Berkeley, CA: University of California Press.
Hart, G (2014) *Rethinking the South African Crisis: Nationalism, Populism, Hegemony*. Athens, GA: University of Georgia Press.
Hart, G (2016) Relational Comparison Revisited: Marxist Postcolonial Geographies in Practice. *Progress in Human Geography* 42(3): 371–394.
Hegel, GWF (1985 [1832]) *Wissenschaft der Logik. Die Lehre vom Seyn*. Gesammelte Werke, Band 21. Hamburg: Felix Meiner Verlag.
Hellmann, E (1935) Native Life in a Johannesburg Slum Yard. *Africa* 3: 34–62.
Hellmann, E and Rooiyard, S (1948) *A Sociological Survey of an Urban Native Slumyard*. Cape Town: Oxford University Press.
Hilbrandt, H and Ren, J (2022) Refracting Eurocentrism, Operationalizing Complicity: The Swiss Sonderfall as a Vantage Point. *Environment and Planning D: Society and Space* 40(4): 589–606.
Hofer, K (2024) *Participation in Planning Processes in Braamfischerville*. PhD thesis, ETH Zurich.

Hofer, K and Kaufmann, D (2023) Actors, Arenas and Aims: A Conceptual Framework for Public Participation. *Planning Theory* 22(4): 357–379.
hooks, b (1992) *Black Looks: Race and Representation*. Boston, MA: South End Press.
Horrel, M (nd) A Survey of Race Relations in South Africa 1951–1952. South African Institute of Race Relations, Johannesburg. Available at: https://www.sahistory.org.za/archive/sairr-1951-1952 (accessed July 20, 2025).
Hövel, P, Simini, F, Song, C, and Barabasi, AL (2014) Computational Models of Mobility: A Perspective from Mobile Phone Data. In D Offenhuber and C Ratti (eds) *Decoding the City: Urbanism in the Age of Big Data*. Basel: Birkhäuser, 110–124.
Howe, LB (2020) Densification in Comparison: Alexandra and Marlboro South. In P Harrison and A Todes (eds) *Densification Policies and Processes: Johannesburg in an International Perspective*. Cheltenham: Edward Elgar Press, 182–192.
Howe, LB (2021a) The Spatiality of Poverty and Popular Agency in the GCR: Constituting an Extended Urban Region. *Urban Geography* 43(9): 1287–1308.
Howe, LB (2021b) Thinking through People: The Potential of Volunteered Geographic Information. *Urban Studies* 58(14): 3009–3028.
Howe, LB (2022a) Processes of Peripheralisation: Toehold and Aspirational Urbanisation in the GCR. *Antipode* 54(6): 1803–1828.
Howe, LB (2022b) The Gender–Poverty Nexus and the Post-Pandemic Era in South Africa. *Urban Planning* 7(3), special issue on *The Resilient Metropolis*: 35–48.
Howe, LB (2024) From Lively Spatial Combinations to Lively Theorizations. *Urban Geography* 45(3): 507–510.
Howe, LB and Joos, V (2012) *Post-Apartheid Urbanism*. MSc thesis, ETH Zurich.
Howe, LB, Rubin, M, Charlton, S, Suleman, M, Parker, A, and Cani, A (2024) Multiple Publics, Disjunctures, and Hybrid Systems: How Marginalized Groups Stake Their Claims to Transport Infrastructure. In O Coutard and D Florentin (eds) *Handbook of Infrastructures and Cities*. Cheltenham: Edward Elgar, 307–318.
Howe, LC, Howe, LB, and Whillans, A (2023) The Pink Tax on Time: The Pervasiveness of Inequality for Women Worldwide. *Time Magazine*, January.
Huchzermeyer, M (2011) *Cities with "Slums": From Informal Settlement Eradication to a Right to the City in Africa*. Claremont: UCT Press.
Huchzermeyer, M (2014) Humanism, Creativity and Rights: Invoking Henri Lefebvre's Right to the City in the Tension Presented by Informal Settlements in South Africa Today. *Transformation* 85: 64–89.
Huchzermeyer, M (2018) The Legal Meaning of Lefebvre's the Right to the City: Addressing the Gap Between Global Campaign and Scholarly Debate. *Geojournal* 83(3): 631–644.
Huchzermeyer, M (2020) Informal Settlements and Shantytowns as Differential Space. In M Leary-Owhin and J McCarthy (eds) *The Routledge Handbook of Henri Lefebvre, the City and Urban Society*. London: Routledge, 467–476.
Huchzermeyer, M (2021) A Critical Lefebvrian Perspective on Planning in Relation to Informal Settlements in South Africa. *Town and Regional Planning* 79: 44–54.
Huchzermeyer, M, Karam, A, and Mania, M (2014) Informal Settlements. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 154–175.
Huxley M and Yiftachel, O (2000) New Paradigm or Old Myopia? Unsettling the Communicative Turn in Planning Theory. *Journal of Planning Education and Research* 19(4): 333–342.
Innes, JE (2004) Consensus Building: Clarifications for the Critics. *Planning Theory* 3(1): 5–20.
Jackson, T (2017) WhereIsMyTransport Maps Cape Town's Public Transport Network. Available at: http://disrupt-africa.com (accessed August 5, 2019).
James, D (1999) *Songs of the Women Migrants: Performance and Identity in South Africa*. Edinburgh: Edinburgh University Press.
Jenkins, EP (2007) *Falling into Place: The Story of Modern South African Place Names*. Cape Town: David Phillips.
Johnson, RB and Turner, LA (2003) Data Collection Strategies in Mixed Methods Research. In A Tashakkori and C Teddlie (eds) *SAGE Handbook of Mixed Methods in Social & Behavioral Research*. Thousand Oaks, CA: Sage, 297–319.
Judin, H, Roux, N, and Zack, T (2014) Kliptown: Resilience and Despair in the Face of a Hundred Years of Planning. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 319–341.

Karaman, O, Sawyer, L, Schmid, C, and Wong, KP (2020) Plot by Plot: Plotting Urbanism as an Ordinary Process of Urbanisation. *Antipode* 52(4): 1122–1151.
Katz, CJ (1993) Karl Marx on the Transition from Feudalism to Capitalism. *Theory and Society* 22(3): 363–389.
Keil, R (ed.) (2013) *Suburban Constellations: Governance, Land, and Infrastructure in the 21st Century*. Berlin: Jovis Verlag GmbH.
Khumalo, VR (2014) *From Plough to Entrepreneurship: A History of African Entrepreneurs in Evaton 1905–1960s*. PhD thesis, University of the Witwatersrand, Johannesburg.
Khumalo, VR (2016) Evaton and a Quest for Economic Independence: A New Dimension to Entrepreneurship, 1940–1949. *New Contree* 77: 23–45.
Khunou, G (2015) Editorial: South Africa's Emergent Middle Class. *Development Southern Africa* 32(1): 1–2.
Kihato, CW (2013) *Migrant Women of Johannesburg: Everyday Life in an in-between City*. Johannesburg: Wits University Press.
Kipfer, S and Goonewardena, K (2007) Colonization and the New Imperialism: On the Meaning of Urbicide Today. *Theory and Event* 10 (2).
Kipfer, S and Goonewardena, K (2013) Urban Marxism and the Post-Colonial Question: Henri Lefebvre and "Colonisation." *Historical Materialism* 21(2): 76–116.
Kirsher, J and Phokela, C (2010) Khutsong and Xenophobic Violence: Exploring the Case of the Dog That Didn't Bark. The Xenophobia Project, Centre for Sociological Research at the University of Johannesburg. Johannesburg: University of Johannesburg.
Koch, E (1983) Without Visible Means of Subsistence: Slumyard Culture in Johannesburg 1918–1940. In B Bozzoli (ed.) *Town and Countryside in the Transvaal*. Johannesburg: Ravan Press, 151–175.
Kockelkorn, A, Schmid, C, Streule, M, and Wong, KP (2023) Peripheralization through Mass Housing Urbanization in Hong Kong, Mexico City, and Paris. *Planning Perspectives* 38(3): 603–641.
Kornienko, K (2021) A Documentary Film. Ways of Moving: Everyday Experiences Traversing a Fragmented Cityscape. *1st International and Interdisciplinary Conference on Spatial Methods for Urban Sustainability*. Conference presentation, September 25 (online).
Kretz, S and Kueng, L (eds) (2016) *Urbane Qualitäten. Ein Handbuch am Beispiel der Metropolitanregion*. Zurich: Edition Hochparterre Verlag.
Kruger, L (2013) *Imagining the Edgy City: Writing, Performing, and Building Johannesburg*. Oxford: Oxford University Press.
Kushner, DC and MacLean, LM (2015) The Politics of the Nonstate Provision of Public Goods in Africa. *Africa Today* 62(1): vii–xvii.
Landau, LB (2016) The Means and Meaning of Interculturalism in Africa's Urban Age. In G Marconi and E Ostanel (eds) *The Intercultural City*. London: I.B. Tauris, 65–78.
Landman, K and Schoenteich, M (2014) Gated Communities and Spatial Transformations in Greater Johannesburg. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 215–229.
Lecordeur, M (2015) New Mega City for Gauteng. *Fin24 Business and Finance News*. Available at: https://www.fin24.com/Economy/Gauteng-launches-first-ever-post-apartheid-city-20150506 (accessed July 20, 2017).
Lefebvre, H (1978) *De l'Etat. 4. Les contradictions de l'Etat moderne*. Paris: Union Générale d'Editions.
Lefebvre, H (1980) *La présence et l'absence: Contribution à la théorie des représentations*. Paris: Casterman.
Lefebvre, H (1991 [1974]) *The Production of Space*. Trans D Nicholson-Smith. Oxford: Basil Blackwell.
Lefebvre, H (1996 [1968]) The Right to the City. In *Writings on Cities*. Trans E Kofman and E Lebas (eds). Oxford: Blackwell.
Lefebvre, H (2000 [1971]) *Everyday Life in the Modern World*. Trans S Rabinovitch. London: Athlone Press.
Lefebvre, H (2003 [1970]) *The Urban Revolution*. Minneapolis, MN: University of Minnesota Press.
Lekalakala, K (2020) Tales of the Vulnerability of African Black Women in Transit Spaces. *City* 24(1–2): 233–243.
Lemanski, C (2011) Moving Up the Ladder or Stuck on the Bottom Rung? Homeownership as a Solution to Poverty in Urban South Africa. *International Journal of Urban and Regional Research* 35(1): 57–77.

Lemanski, C (2017) Citizens in the Middle Class: The Interstitial Policy Spaces of South Africa's Housing Gap. *Geoforum* 79: 101–110.
Lemon, A (1992) Restructuring the Local State in Councils, Redistribution and Legitimacy. In D Drakakis-Smith (ed.) *Urban and Regional Change in Southern Africa*. London: Routledge, 1–32.
Leong, T (2009) Cities of Refuge: The Emergence of Temporal Urbanism. Site Exploration—Orange Farm. Cities of Refuge Series (7.1 and 7.2). *Wits Institutional Repository* environment on DSpace. Available at: http://wiredspace.wits.ac.za (accessed July 20, 2017).
Liu, Y (2023) *Limits on Growth: Urbanization Processes in the Extended Beijing Region*. PhD thesis, ETH Zurich.
Lodge, T (2011) *Sharpeville: An Apartheid Massacre and Its Consequences*. Oxford: Oxford University Press.
López-Morales, E (2015) Gentrification in the Global South. *City* 19(4): 564–573.
Mabin, A (1992) Comprehensive Segregation: The Origins of Group Areas, c. 1935–1955. *Journal of Southern African Studies* 18(2): 406–429.
Mabin, A (2013) The Map of Gauteng: Evolution of a City-Region in Concept and Plan. *GCRO Occasional Paper 5*. Johannesburg: Gauteng City-Region Observatory.
Mabin, A (2014) In the Forest of Transformation: Johannesburg's Northern Suburbs. In A Todes, C Wray, G Götz, and P Harrison (eds) *Changing Space, Changing City*. Johannesburg: Wits University Press, 395–417.
Mabitsela, NA (2012) *The Impact of Service Delivery on the Quality of Lives of the Community of Protea South, Soweto, in Johannesburg in Gauteng Province, South Africa*. MA thesis, University of Limpopo.
Manzo, LC, Kliet, RG, and Couch, D (2008) "Moving Three Times Is Like Having Your House on Fire Once": The Experience of Place and Impending Displacement Among Public Housing Residents. *Urban Studies* 45(9): 1855–1878.
Marcus, GE (1995) Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography. *Annual Review Anthropology* 24(95): 95–117.
Markaki, M (2023) Expropriation and Extended Citizenship: The Periphalisation of Arcadia. In C Schmid and M Topalovic (eds) *Extended Urbanisation: Tracing Planetary Struggles*. Basel: Birkhäuser, 197–233.
Markaki, M (2024) *Arcadia. Politics of Land and Nature at Greek Peripheral Landscapes*. PhD thesis, ETH Zurich.
Marks, S (2011) Class, Culture, and Consciousness in South Africa. In R Ross, A Kelk Mager, and B Nasson (eds) *The Cambridge History of South Africa. Volume 2: 1885–1994*. Cambridge: Cambridge University Press.
Marx, K (1887 [1867]) *Capital: A Critique of Political Economy*. Trans S Moore and E Aveling, Frederick Engels (ed) *Volume One, Book One: The Process of Production of Capital, Part VIII: Primitive Accumulation, Chapter Thirty-Two: Historical Tendency of Capitalist Accumulation*. Moscow: Progress Publishers.
Marx, K (1965) Brief an Kugelmann, 6.3.1868. In K Marx and F Engels (eds) *Werke MEW*. Band 32. Berlin: Dietz Verlag Berlin, p. 538.
Maseko, N (2015) Inside South Africa's "Dangerous" Men's Hostels. *BBC News* (online edition), May 13. Available at: https://www.bbc.com/news/world-africa-32692461 (accessed July 20, 2025).
Mathiba, L (2019) *The Challenges of Upgrading Informal Settlements: A Case Study of Denver Informal Settlement*. Johannesburg: University of Johannesburg.
Matsela, M (2015) Building Community: Denver Community and University of Johannesburg Studio 2015. June 5. Available at: https://sasdialliance.org.za/wp-content/uploads/2020/07/CORC_Annual_Report_2014-2015.pdf (accessed July 20, 2017).
Maud, JPR (1938) *City Government: The Johannesburg Experiment*. Oxford: Clarendon Press.
Mbao, MLM (2002) Undoing the Injustices of the Past: Restitution of Rights in Land in Post Apartheid South Africa, with Special Reference to the North-West Province. *Journal for Juridical Science* 27(2): 88–114.
Mbeki, T (2001) State of the Nation Address, Cape Town, February 9. *South African History Online*. Available at: https://www.sahistory.org.za/archive/2001-president-mbeki-state-nation-address-9-february-2001 (accessed July 20, 2025).
Mbembe, A (2021) *Out of the Dark Night: Essays on Decolonization*. New York: Columbia University Press.

Mbembe, A and Nuttall, S (2004) Writing the World from an African Metropolis. *Public Culture* 16(3): 347–372.
Mbembe, A and Nuttall, S (2008) *Johannesburg: The Elusive Metropolis*. Johannesburg: Wits University Press.
McLean, CS and Prentice, TK (1956) The South African Uranium Industry. *International Conference on the Peaceful Uses of Atomic Energy* 8(101). Available at: https://archive.org/details/proceedingsvolum032899mbp. Published by the United Nations (accessed July 20, 2017).
Mears R (2011) *Historical Development of Informal Township Settlements in Johannesburg Since 1886*. Economic History Society of Southern Africa and ERSA Workshop proceedings, Johannesburg.
Mercer, C (2020) Boundary Work: Becoming Middle Class in Suburban Dar es Salaam. *International Journal of Urban and Regional Research* 44(3): 521–536.
Mercer, C and Lemanski, C (2021) The Lived Experiences of the African Middle Classes: Introduction. *Africa* 90(3): 429–438.
Merrifield, A (2013) *The Politics of the Encounter: Urban Theory and Protest Under Planetary Urbanization*. Athens, GA: University of Georgia Press.
Merrifield, A (2016) The Amateur of Life. February 9. Available at: https://andymerrifield.org/2016/02/09/the-amateur-of-life/ (accessed July 20, 2025).
Merrifield, A (2019) Endgame Marxism (and Urbanism). *Monthly Review*. Available at: https://andymerrifield.files.wordpress.com/2019/11/endgame-marxism-1.pdf (accessed July 20, 2025).
Meth, P, Goodfellow, T, Todes, A, and Charlton, C (2021) Conceptualising African Urban Peripheries. *International Journal of Urban and Regional Research* 45(6): 985–1007.
Mezzadra, S and Brett Neilson, B (2019) *The Politics of Operations: Excavating Contemporary Capitalism*. Durham, NC: Duke University Press.
Monte-Mór, RL (2004) *Modernities in the Jungle: Extended Urbanization in the Brazilian Amazon*. PhD thesis, University of California, Los Angeles.
Monte-Mór, RL (2018) Urbanisation, Sustainability and Development: Contemporary Complexities and Diversities in the Production of Urban Space. In P Horn, PA d'Alencon, and ACD Cardoso (eds) *Emerging Urban Spaces: A Planetary Perspective*. New York: Springer, 201–215.
Mosiane, N (2022) Mobility, Access and the Value of the Mabopane Station Precinct. *Urban Forum* 33(4): 537–560.
Mosiane, N and Götz, G (2022) Displaced Urbanisation or Displaced Urbanism? Rethinking Development in the Peripheries of the GCR. *GCRO Provocation* #08, Gauteng City-Region Observatory, April. https://doi.org/10.36634/SVRW2580.
Moss, G (1979) Total Strategy. National Union of South African Students (NUSAS). Unpublished conference proceedings, *Archive of the 60th NUSAS Conference*.
Mosselson A (2018) *Vernacular Regeneration: Low-Income Housing, Private Policing and Urban Transformation in Inner-City Johannesburg*. Abingdon: Routledge.
Mukhopadhyay, P, Zérah, MH, and Denis, E (2020) Subaltern Urbanization: Indian Insights for Urban Theory. *International Journal of Urban and Regional Research* 44(4): 582–598.
Murray, C (1987) Displaced Urbanization: South Africa's Rural Slums. *African Affairs* 86(344): 311–329.
Murray, MJ (2015) Waterfall City (Johannesburg): Privatized Urbanism in Extremis. *Environment and Planning A* 47(3): 503–520.
Musterd, S and Ostendorf, W (eds) (2013) *Urban Segregation and the Welfare State: Inequality and Exclusion in Western Cities*. London: Routledge.
Myroniuk, TW and Vearey, J (2014) Social Capital and Livelihoods in Johannesburg: Differential Advantages and Unexpected Outcomes Among Foreign-Born Migrants, Internal Migrants, and Long-Term South African Residents. *International Migration Review* 48(1): 243–273.
Nkooe, ES (2016) *Contested Public Spaces: A Lefebvrian Analysis of Mary Fitzgerald Square*. MA thesis, University of the Witwatersrand. Available at: https://www.ssoar.info/ssoar/bitstream/handle/document/58430/ssoar-up-2018-3-nkooe-A_Lefebvrian_Analysis_of_Public.pdf (accessed July 20, 2025).
Norwich, OI (1986) *A Johannesburg Album: Historical Postcards*. Johannesburg: Ad. Donker.
O'Sullivan, D (2017) A Social Impact with Financial Benefits: Futuregrowth Invests R625m in the Gauteng Housing Market. *BizNews* [online audio interview]. Available at: https://www.biznews.com/interviews/futuregrowth-gauteng-housing-market (accessed July 20, 2025).
Offenhuber, D and Ratti, C (eds) (2014) *Decoding the City: Urbanism in the Age of Big Data*. Basel: Birkhäuser.

Ogunyankin, GA (2019) "The City of Our Dream": Owambe Urbanism and Low-Income Women's Resistance in Ibadan, Nigeria. *International Journal of Urban and Regional Research* 43(3): 423–441.
Oosthuizen, AC and Richardson, S (2011) Sinkholes and Subsidence in South Africa. *Council for Geoscience, Western Cape Unit*. Council for Geoscience Report (2011–0010). Western Cape: Council for Geoscience.
Oswin, N (2020) An Other Geography. *Dialogues in Human Geography* 10(1): 9–18.
Parker, A and Appelbaum, A (2020) On the Defensive: The Residential Strategies Shaping Densification in Johannesburg's Northern Suburbs. In M Rubin, A Todes, P Harrison, and A Appelbaum (eds) *Densifying the City? Global Cases and Johannesburg*. Cheltenham: Edward Elgar Press, 202–212.
Parnell, S (1991) Race, Class, Gender and Home Ownership Subsidies in Contemporary South Africa. *Urban Forum* 2(1): 21–40.
Parnell, S (1993) *Johannesburg Slums and Racial Segregation in South African Cities, 1910–1937*. Unpublished PhD thesis, University of the Witwatersrand, Johannesburg.
Parnell, S and Pirie, G (1991) Johannesburg. In A Lemon (ed.) *Homes Apart: South Africa's Segregated Cities*. London: Paul Chapman, 129–145.
Parnell, S and Robinson, J (2012) (Re)theorizing Cities from the Global South: Looking Beyond Neoliberalism. *Urban Geography* 33(4): 593–617.
Paulson, SJ (1946) Early History of Newclare and Sophiatown Townships. [Archived letter, January 3, 1948]. Union of South Africa Department of Native Affairs, Communication No. 51/313(E). Available at the South African National Archives (accessed July 2015).
Peck, J (2014) Cities Beyond Compare? *Regional Studies* 49(1): 160–182.
Pieterse, E (2008), *City Futures: Confronting the Crisis of Urban Development*. London: Zed Books.
Pieterse, E and Simone, A (2013) *Rogue Urbanism: Emergent African Cities*. Johannesburg: Jacana Media.
Pillay, U, Tomlinson, R, and du Toit, J (2007) *Democracy and Delivery: Urban Policy in South Africa*. Cape Town: HSRC Press.
Plano Clark, VL and Ivankova, NV (2016) *Mixed Methods Research: A Guide to the Field*. Thousand Oaks, CA: Sage.
Platzky, L and Walker, C (1985) *The Surplus People: Forced Removals in South Africa*. Johannesburg: Ravan Press.
Poni, M (2010) Five More Landless People's Movement Militants Arrested in Soweto. June 4. Available at: https://libcom.org/article/landless-peoples-movement-attacked-soweto (accessed July 20, 2017).
Prada-Trigo, J, Barra-Vieira, P, and Aravena-Solís, N (2021) Long-Distance Commuting and Real Estate Investment Linked to Mining: The Case Study of Concepción Metropolitan Area (Chile). *Resources Policy* 70: 101973.
Quijano, A (1967) *Dependencia, cambio social y urbanización en Latinoamérica*. ILPES.8, Buenos Aires.
Rankin, K (2011) Critical Development Studies and the Praxis of Planning. In N Brenner, P Marcuse, and M Mayer (eds) *Cities for People, Not for Profit*. London: Routledge, 102–116.
Reis, N and Antunes de Oliveira, F (2021) Peripheral Financialization and the Transformation of Dependency: A View from Latin America. *Review of International Political Economy*. https://doi.org/10.1080/09692290.2021.2013290.
Reis, N and Lukas, M (2022) *Beyond the Megacity: New Dimensions of Peripheral Urbanization in Latin America*. Toronto: University of Toronto Press.
Rérat, P and Lees, L (2010) Spatial Capital, Gentrification and Mobility: Evidence from Swiss Core Cities. *Transactions of the Institute of British Geographers* 36: 126–142.
Riofrancos, T (2021) From Cases to Sites: Studying Global Processes in Comparative Politics. In ES Simmons and NR Smith (eds) *Rethinking Comparison. Innovative Methods for Qualitative Political Inquiry*. Cambridge: Cambridge University Press, 107–126.
Robinson, J (2006) *Ordinary Cities: Between modernity and Development*. London: Routledge.
Robinson, J (2016) Thinking Cities through Elsewhere: Comparative Tactics for a More Global Urban Studies. *Progress in Human Geography* 40(1): 3–29.
Robinson, J, Harrison, P, Shen, J, and Wu, F (2020) Financing Urban Development, Three Business Models: Johannesburg, Shanghai and London. *Progress in Planning* 154: 100513.
Rojas, FM (2014) New York Talk Exchange: Revealing Urban Dynamics through the Global Telecommunications Network. In D Offenhuber and C Ratti (eds) *Decoding the City: Urbanism in the Age of Big Data*. Basel: Birkhäuser, 65–80.

Rokem, J and Vaughan, L (2017) Segregation, Mobility and Encounters in Jerusalem: The Role of Public Transport Infrastructure in Connecting the "Divided City." *Urban Studies* 55(15): 3454–3473.
Roy, A (2010) *Poverty Capital: Microfinance and the Making of Development*. New York: Routledge.
Roy, A (2011) Slumdog Cities: Rethinking Subaltern Urbanism. *International Journal of Urban and Regional Research* 35(2): 223–238.
Roy, A (2015) Introduction. In A Roy and E Shaw Crane (eds) *Territories of Poverty: Rethinking North and South*. Athens, GA: University of Georgia Press, 1–38.
Roy, A (2019) Racial Banishment. In Antipode Editorial Collective (eds) *Keywords in Radical Geography: Antipode at 50*. Available at: https://onlinelibrary.wiley.com/doi/pdf/10.1002/9781119558071.ch42 (accessed July 20, 2025).
Roy, A (2020) "The Shadow of Her Wings": Respectability Politics and the Self-Narration of Geography. *Dialogues in Human Geography* 10(1): 19–22.
Roy, A and Shaw Crane, E (2015) *Territories of Poverty: Rethinking North and South*. Athens, GA: University of Georgia Press.
Royston, L (2003) On the Outskirts: Access to Well-Located Land and Integration in Post-Apartheid Human Settlement Development. In F Khan and P Thring (eds), *Housing Policy and Practice in Post Apartheid South Africa*. Sandown: Heinemann, 234–255.
Rubin, M (2018) At the Borderlands of Informal Practices of the State: Negotiability, Porosity and Exceptionality. *The Journal of Development Studies*, 54:12: 2227–2242.
Rubin, M and Appelbaum, A (2016) *Synthesis Report: Spatial Transformation through Transit-Oriented Development*. Johannesburg: University of the Witwatersrand Press.
Rubin, M and Charlton, S (2020) Living with Strangers: Backyarding, Density and Intimacy in Johannesburg. In M Rubin, A Todes, P Harrison, and A Appelbaum (eds) *Densifying the City? Global Cases and Johannesburg*. Cheltenham: Edward Elgar Press, 190–201.
Ruddick, S, Peake, L, Tanyildiz, GS, and Patrick, D (2018) Planetary Urbanization: An Urban Theory for Our Time? *Environment and Planning D: Society and Space* 36(3): 387–404.
Saff, G (1994) The Changing Face of the South African City: From Urban Apartheid to the Deracialization of Space. *International Journal of Urban and Regional Research* 18(3): 377–391.
Salvador-Oke, KT and Olowoyo, JO (2018) Bacteriological Examination and Physico-chemical Properties of Streams Receiving Industrial Effluents in Rosslyn, Pretoria, South Africa. *Journal of Environmental Science and Management* 21(2): 7–15.
Sassen, S (2014) *Expulsions: Brutality and Complexity in the Global Economy*. Cambridge, MA: Harvard University Press.
Sawyer, L (2014) Piecemeal Urbanisation at the Peripheries of Lagos. *African Studies* 73(2): 271–289.
Sawyer, L (2016) *Plotting the Prevalent but Undertheorised Residential Areas of Lagos: Conceptualising a Process of Urbanisation through Grounded Theory and Comparison*. PhD thesis, ETH Zurich.
Sawyer, L, Schmid, C, Streule, M, and Kallenberger, P (2021) Bypass Urbanism: Re-ordering Center–Periphery Relations in Kolkata, Lagos and Mexico City. *EPA: Economy and Space* 53(4): 675–703.
Schmid, C (2008) Henri Lefebvre's Theory of the Production of Space: Towards a Three-Dimensional Dialectic. In K Goonewardena (ed.) *Space, Difference, Everyday Life: Reading Henri Lefebvre*. London: Routledge, 27–45.
Schmid, C (2015) Specificity and Urbanization—A Theoretical Outlook. In ETH Studio Basel (ed.) *The Inevitable Specificity of Cities*. Basel: Lars Müller, 287–307.
Schmid, C (2022) *Henri Lefebvre and the Theory of the Production of Space*. London: Verso Press.
Schmid, C and Streule, M (eds) (2023) *Vocabularies for an Urbanising Planet: Theory Building through Comparison*. Basel: Birkhäuser.
Schmid, C and Topalovic, M (eds) (2023) *Extended Urbanisation: Tracing Planetary Struggles*. Basel: Birkhäuser.
Schmid, C, Karaman, O, Hanakata, N, Sawyer, L, Streule, M, Wong, KP, Kallenberger, P, and Kockelkorn, A (2018) Towards a New Vocabulary of Urbanization Processes: A Comparative Approach. *Urban Studies* 55(1): 20–52.
Schönfelder, S and Axhausen, K (2003) Activity Spaces: Measures of Social Exclusion? *Transport Policy* 10: 273–286.
Scorgie, F, Vearey, J, Oliff, M, Stadler, J, Venables, E, Chersich, M, and Delany-Moretlwe, S (2017) "Leaving No One Behind": Reflections on the Design of Community-Based HIV Prevention for

Migrants in Johannesburg's Inner-City Hostels and Informal Settlements. *BMC Public Health* 17(3): 78–88.
Seekings, J (1990) Broken Promises: Discontent, Protest, and the Transition to Confrontation in Duduza, 1978–1985. *Structure and Experience in the Making of Apartheid History Workshop*. Johannesburg: University of the Witwatersrand, Johannesburg.
Shatkin, G (2017) *Cities for Profit: The Real Estate Turn in Asia's Urban Politics*. Ithaca, NY: Cornell University Press.
Sheller, M and Urry, J (2006) The New Mobilities Paradigm. *Environment and Planning A* 38: 207–226.
Shorten, JR (1970) *The Johannesburg Saga*. Johannesburg: Published by the author.
Simelane, HY and Sihlongonyane, MF (2021) A Comparative Analysis of the Influence of Traditional Authority in Urban Development in South Africa and Eswatini. *African Studies* 80(2): 153–171.
Simmel, G (1903 [1995]) Die Großstädte und das Geistesleben. In G Simmel, *Gesamtausgabe*. Originally published by Otthein Rammstedt. Band 7: *Aufsätze und Abhandlungen. 1901–1908.* Band I. Republished by Rüdiger Kramme, Angela Rammstedt and Otthein Rammstedt. Frankfurt am Main: Suhrkamp, 1995, 116–131.
Simmons, ES and Rush Smith, N (2021) *Rethinking Comparison: Innovative Methods for Qualitative Political Inquiry*. Cambridge: Cambridge University Press.
Simon, D (1992) Reform in South Africa and Modernization of the Apartheid City. In D Drakakis-Smith (ed.) *Urban and Regional Change in Southern Africa*. London: Routledge, 33–65.
Simone, AM (2004) People as Infrastructure: Intersecting Fragments in Johannesburg. *Public Culture* 16(3): 407–429.
Simone, AM (2016) City of Potentialities: An Introduction. *Theory, Culture & Society* 33(7–8): 5–29.
Simone, AM (2017) Flickering in the Dark: The Compressed Tissue of the Urban. e-flux architecture. Available at: https://www.e-flux.com/architecture/urban-village/169789/flickering-in-the-dark-the-compressed-tissue-of-the-urban/ (accessed July 20, 2025).
Simone, AM (2021) Ritornello: "People as Infrastructure." *Urban Geography*. https://doi.org/10.1080/02723638.2021.1894397.
Simone, AM and Abouhani, A (2005) *Urban Africa: Changing Contours of Survival in the City*. Pretoria: Unisa Press.
Simone, AM, Somda, D, Torino, G, Irawati, MRN, Bathla, N, Castriota, R, Vegliò, S, and Chandra, T (2023) Inhabiting the Extensions. *Dialogues in Human Geography*. https://doi.org/10.1177/20438206231168896
Sindane, L (2005) Remembering Sophiatown: 50 Years On. Available at: https://web.archive.org/web/20060924050209/http://www.joburg.org.za/2005/feb/feb9_sophiatown.stm (accessed July 20, 2025).
South African Government (GovSA) (2012) President Zuma to Launch the Kanana Housing Project. News bulletin, August 8. Available at: www.gov.za (accessed July 20, 2017).
South African History Archive (SAHA) (2011) Community Oral History and Photographic Project. Available at: www.saha.org.za (accessed July 20, 2017).
Stanek, L (2008) Space as Concrete Abstraction: Hegel, Marx, and Modern Urbanism in Henri Lefebvre. In K Goonewardena, S Kipfer, R Milgrom, and C Schmid (eds) *Space, Difference, Everyday Life: Reading Henri Lefebvre*. London: Routledge, 62–79.
Statistics South Africa (StatsSA) (2011) Statistical Release Census 2011. www.statssa.gov.za (accessed July 20, 2023).
Statistics South Africa (StatsSA) (2023) SA Census Portal. Available at: https://census.statssa.gov.za/#/ (accessed July 20, 2025).
Streule, M (2016) *Ethnografie urbaner Territorien – eine transdisziplinäre Analyse metropolitaner Urbanisierungsprozesse von Mexiko-Stadt*. PhD thesis, ETH Zurich.
Streule, M (2019) Doing Mobile Ethnography: Grounded, Situated and Comparative. *Urban Studies* 57(2): 421–438.
Streule, M, Karaman, O, Sawyer L, and Schmid, C (2020) Popular Urbanization: Conceptualizing Urbanization Processes Beyond Informality. *International Journal of Urban and Regional Research* 44(4): 652–672.
Thompson, DK (2017) Scaling Statelessness: Absent, Present, Former, and Liminal States of Somali Experience in South Africa. *PoLAR Political & Legal Anthropology Review* 40(1): 86–103.
Thompson, L (2000) *A History of South Africa*. New Haven, CT: Yale University Press.

Todes, A and Robinson, J (2019) Re-directing Developers: New Models of Rental Housing Development to Re-shape the Post-Apartheid City? *Environment and Planning A: Economy and Space* 52(2): 297–317.
Todes, A, Kok, P, Wentzel, M, Van Zyl, J, and Cross, C (2010) Contemporary South African Urbanization Dynamics. *Urban Forum* 21(3).
Van Onselen, C (1982) *Studies in the Social and Economic History of the Witwatersrand 1886–1914*. London: Longman.
Van Zyl, D (1986) *The Discovery of Wealth. Heritage Series: 19th Century*. Johannesburg: Thorold's Africana Book.
Viljoen, M (2009) The Life, Death and Revival of the Central Rand Goldfield. *World Gold Conference*, The Southern African Institute of Mining and Metallurgy, 131–138. Available at: http://saimm.org.za/Conferences/WorldGold2009/131-138_Viljoen.pdf (accessed July 20, 2025).
Viljoen, M and Reimold, W (1999) *An Introduction to South Africa's Geological and Mining Heritage*. Randburg: Geological Society of South Africa.
Vosloo, C (2020) Extreme Apartheid: The South African System of Migrant Labour and Its Hostels. *Image & Text* 34: 1–33.
Wacquant, L (1996) The Rise of Advanced Marginality: Notes on Its Nature and Implications. *Acta Sociologica* 39(2): 121–139.
Wacquant, L (2015) Class, Ethnicity, and State in the Making of Marginality: Revisiting Territories of Urban Relegation. In A Roy and E Shaw Crane (eds) *Territories of Poverty: Rethinking North and South*. Athens, GA: University of Georgia Press, 247–259.
Wallerstein, I (1976) From Feudalism to Capitalism: Transition or Transitions? *Social Forces* 55(2): 273–283.
Watson, V (2002) The Usefulness of Normative Planning Theories in the Context of Sub-Saharan Africa. *Planning Theory* 1(1): 27–52.
Watson, V (2006) Deep Difference: Diversity, Planning and Ethics. *Planning Theory* 5(1): 31–50.
Weakley, D (2013) *Recognising Vulnerability* and *Resilience in Informal Settlements: The Case of Kya Sands, Johannesburg, South Africa*. PhD thesis, University of the Witwatersrand, Johannesburg.
Whitehead, K (2013) *Race–Class Intersections as Interactional Resources in Post-Apartheid South Africa*. Newbury Park: Sage.
Wolfe, P (2006) Settler Colonialism and the Elimination of the Native. *Journal of Genocide Research* 8(4): 387–409.
Worden, N (1994) *The Making of Modern South Africa: Conquest, Segregation and Apartheid*. Oxford: Blackwell.
Zack, T (2017) Johannesburg's Inner City: The Dubai of Southern africa, but All Below the Radar. *The Conversation*, November 5. Available at: https://theconversation.com/johannesburgs-inner-city-the-dubai-of-southern-africa-but-all-below-the-radar-86557 (accessed July 20, 2025).
Zack, T and Landau, LB (2022) An Enclave Entrepôt: The Informal Migration Industry and Johannesburg's Socio-spatial Transformation. *Urban Studies* 59(11): 2333–2351.

Index

Johannesburg, South Africa, is often associated with inequality and referred to as the quintessential "apartheid city." Yet this book argues that Johannesburg, part of the highly urbanized Gauteng City-Region, is actually an "ordinary" space where spatial changes both marginalize and create opportunities for people going about their lives.

Relying on more than a decade of empirical research, the book interrogates the concept of "spatial dialectics" proposed by Henri Lefebvre. Through deep insight into the practices and experiences of everyday life, Lindsay Blair Howe shows how cities and regions like greater Johannesburg are more than just a sum of their parts. Individuals, and the collectives they forge, influence processes of urbanization and capital accumulation. *Extra/ordinary Johannesburg* reveals how Lefebvre's assertions about the production of space remain relevant today, but also where they reach their limits, and how theories on the production of space can be further developed by a stronger understanding of this African urban region. What we can learn from how people are able to navigate the urban fabric of centralities, peripheries, and the spaces between matters greatly in productively reimagining ways to encounter urban Africa.

Lindsay Blair Howe is an urbanist with a background in architecture. She is Professor of Urban Development and Spatial Planning at the Technical University of Munich.

Free open access version available from www.uclpress.co.uk

UCLPRESS

Photo credit: Lindsay Blair Howe

Cover design: www.hayesdesign.co.uk

ISBN 978-1-80008-977-8

9 781800 089778 90000