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REGULAR PAPER

Remittance micro-worlds and migrant infrastructure: Circulations, disruptions, and the movement of money

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Abstract

Remittances are increasingly central to development discourses in Africa. The development sector seeks to leverage transnational migration and rapid innovations in financial technologies (fintech), to make remittance systems cheaper for end-users and less risky for states and companies. Critical scholarship, however, questions the techno-fix tendency, calling for grounded research on the intersections between remittances, technologies, and everyday life in African cities and beyond. Building on this work, we deploy the concepts of "micro-worlds" and "migrant infrastructure" to make sense of the complex networks of actors, practices, regulations, and materialities that shape remittance worlds. To ground the work, we narrate two vignettes of remittance service providers who operate in Cape Town, South Africa, serving the Congolese diaspora community. We showcase the important role of logistics companies in the "informal" provision of remittance services and the rise of fintech companies operating in the remittance space. These vignettes give substance to the messy and relational dynamics of remittance micro-worlds. This relationality allows us to see how remittances are circulations, not unidirectional flows; how they are not split between formal and informal, but in fact intersect in blurry ways; how digital technologies are central to the story of migrant infrastructures; and how migrants themselves are compositional of these networks. In doing so, we tell a more relational story about how remittance systems are constituted and configured.

KEYWORDS

Cape Town, migrant infrastructure, mobile money, regulation, remittances

1 | INTRODUCTION

Over the past 20 years, the development sector has revived its celebration of remittances (Zapata, 2013). The current "remittance euphoria" (De Haas, 2007, p. 7) is animated by impressive statistics that demonstrate – albeit with many provisos – that remittances now outstrip development aid or direct foreign investment (DFI) in developing countries (Brookings, 2020;

Rodima-Taylor & Grimes, 2019). Despite this celebration, development experts concur that many factors are undermining the potential of remittances (De Haas, 2007). For example, the cost to send money using credible and established money transfer operators (MTOs) remains prohibitively high, especially given the often precarious nature of migrant work (Finmark Trust, 2020a). The challenge of accessing formal remittance systems is further exacerbated by regulatory controls that require particular forms of identification and immigration status. Together, these factors compel migrants to use "informal" channels that are composed through diffuse forms of authority and know-how.

Developmental efforts to improve remittance infrastructures, and the concomitant forms of statistics and expertise deployed to propel this euphoria, exemplify how remittances are structurally prescribed and regulated. These structures are hierarchically established by large-scale institutional and corporate forms of authority (Guermond, 2020a). Their detachment from the grounded practices through which money, goods, and services are transferred in and across multi-scalar geographies largely disregards the multifarious remittance compositions that emerge to modify or subvert these prevalent structures. These compositions complicate our ideas of power, subjectivity, and entrepreneurialism. They disrupt binary logics of formal/informal schema, corporate/state powers or oppressed/mobilised subjects. For example, they challenge us to think beyond the financialised (migrant) subject, and towards distributed understandings of agency and power (Webber et al., 2020). It is in the "grey" zones (Yiftachel, 2009) or "edge territories" (Hall, 2021) that contested "remittance-scapes" are forged, sustained, and disrupted (Guermond, 2020a).

This paper explores the capricious and socio-technical nature of remittance circulations (Bailey & Yeoh, 2014). Focusing on the micro-world of Cape Town's migrants from the Democratic Republic of Congo (DRC), we show how remittance systems operate across space and scale. We engage with Amin's (2004) relational concept of "micro-worlds" to understand the regulated, hybrid, and interpersonal circulations at work. We extend our relational orientation by "worlding" our understanding of remittance compositions, showing how such micro-worlds are given shape not only by the regulatory regimes through which the "rules of the game" take effect, but also by emergent migrant infrastructures —or socio-material formations (Hall et al., 2017). These infrastructures are both soft and hard, creating diffuse assemblages through which high volumes of small transactions are mobilised across diverse geographies (Rodima-Taylor & Grimes, 2019). Micro-worlds and their concomitant migrant infrastructures interoperate between overlapping economies, which convene material, social, and digital relations within and across nested hierarchies and across diverse geographies.

We focus on two empirical vignettes that reveal the nuances of Cape Town–DRC micro-worlds: 1) the largely invisible remittance circulations supported by multi-country logistics companies and 2) the highly visible "social mission" driven fintech companies that are ramping up their activities in the remittance space. Both of these approaches emerge as a response to – or disruption of – the costly and restrictive features of legacy remittance systems. These vignettes show the dynamic ways in which remittance circuits are regularly modified or reinvented by established and emergent operators.

In demonstrating this, we make several interrelated claims. First, rather than linear flows, we observe networks of multi-directional transactions and mobilisations of money. Money flows both from migrants and to migrants, bending to the constraints of the dollarised economy. This money often takes the form of digital value, of debts and credits, moving between institutions. Ledgers and systems of accounting evolve too, through ongoing practices of instructing, converting, and settling across institutions, corporations, and agents.

Second, we see that assumptions about formal and informal flows, what divides them, who regulates them, how they are spatialised, and their associated costs and risks, are evolving and contested. Supposedly formal and informal systems intersect, as do disruptors (such as fintech companies) and legacy systems (such as banks). The binaries so common in the development discourse therefore require reconsideration, focusing on the blurry and relational dynamics at work.

Third, through this grounded orientation we show how a socio-technical interface is central to this dynamism, albeit one that is differentially distributed. Interfaces are sustained through mobile phone applications used by individuals to send money, or through actual logistics transactions where goods travelling between cities are moved by a cadre of coders who spend their days building algorithms to interoperate between disparate platforms, or by Cape Town's start-up incubators which are in constant search of fintech projects with charismatic directors.

Finally, many different people, arranged in hierarchies that incorporate variable access to capital and citizenship status, are core to the composition of these socio-technical relations. Among these, migrants themselves are central to the composition of these remittance systems. This agency is not reducible to passive clients of dehumanising and aggregating algorithms. Nor to the localisation of macro processes. Rather, through "the ongoing art of being global" (Ong, 2011, p. 3), migrants are active operators who mediate between spaces and platforms, resisting (where possible) subjectivities and regulatory regimes that simplify their lived experiences (Smyth, 2017; Zapata, 2013).

The relational and grounded orientation of this project has distinctive methodological implications requiring multi-scalar triangulation. We conducted research between January and August 2020. A total of 13 interviews were undertaken, with remittance service providers from the formal and informal sectors (6), business owners who use various platforms (3), and researchers in the fields of finance, international law, and migration studies (4). We spent time with key informants in their places of work to be able to situate remittance practices within wider economic and livelihood strategies.[1] We also sent R400 (US$26)[2] to a recipient in the DRC using each of the platforms described in our vignettes. The steps involved in sending and receiving the money were documented via WhatsApp voicenotes sent by the recipient, and then transcribed, translated, and incorporated into the analysis. Interviews and participant observations were undertaken in combinations of French and English. In line with research ethics, all research participants and their respective agencies are given pseudonyms in this paper.

2 | REMITTANCE AND DEVELOPMENT: CELEBRATIONS AND CRITIQUES

In this section we unpack the remittance development project as well as critiques of this project by scholars across a range of disciplines. Our aim, in this section, is to support and extend relational readings of remittance circuits within this critical register (Zelizer, 2006, 2012, 2014).

2.1 | The remittance development project

The development–migration–remittance nexus has waxed and waned in popularity since the early 1950s (De Haas, 2006). In recent years, the discourse has celebrated the incredible scale of inflows to African countries (Anyanwu & Erhijakpor, 2010). While remittances are often imagined as flowing unidirectionally from the global north to the global south, flows among African countries are gaining attention (Migration Data Portal, 2020). According to 2016 data, 43 percent of the remittances received within sub-Saharan Africa came from other African countries (CENFRI, 2018). Intra-African remittance flows are increasingly presented as “an enormous opportunity to be unlocked” (Vodacom Group Limited, 2019, p. 13; see also Finmark Trust, 2016, 2020b).

To unlock this potential, while managing a plethora of risks, the developmental project has sought to liberalise the market, tighten regulation of formal providers like Western Union, and crack down on “informal” systems such as the well-documented *hawala* system (Pieke et al., 2007).

As such, regulation is a central aspect of the remittance debates. In the developmental project, remittance systems face overlapping rounds of national and international legislation aimed at guarding against speculation, enacting currency controls to limit capital flight, and attending to the US fixation with money laundering and terrorism (Bowers, 2008; Feldman, 2006). Amplified since 11 September 2001, “Know Your Customer” or “Know your Client” (KYC) legislation makes financial institutions responsible for collecting detailed information about transnational money senders and receivers (Gupta et al. 2007; Ramachandran, 2016). Failure to comply comes with high financial costs. For example, in 2017, the MTO Western Union was fined US$586 million for KYC non-compliance, leading to a regulatory crackdown across its highly distributed network of over 40,000 agents (FTC, 2017).

These regulations have particular consequences for undocumented migrants, many of whom do not have sufficient documentation, such as IDs and visas, to use formally regulated systems. Even with the South African Reserve Bank’s introduction of licences for “limited authority” remittance companies in 2014, and Financial Intelligence Centre Act (FICA) amendments to allow for a “risk-based approach” to KYC in 2017, many migrants continue to use informal systems; as Finmark Trust points out, informal remittance services between South Africa and the rest of the continent are still dominant and growing (Finmark Trust, 2020a). These revised regulations, some of which are global and others national, are overlaid onto a palimpsest of regulatory frameworks that have shaped remittance systems, and the everyday operations of financial compliance, over the decades.

2.2 | Legacy systems and disruptions

Emergent and evolving regulatory regimes are responding not only to geopolitical trends, but also to rapidly changing technological landscapes. As with many large infrastructure systems, it is widely acknowledged that the legacy systems for transnational money transfer, typified by the banks and dominant MTOs, are ill-suited to the sorts of globalised transactions that remittances represent (Gomber et al., 2018). Banks are formatted and optimised for high-value transnational transfers, discriminating against low-value transactions through their pricing structures (Vodacom Group Limited, 2019). Similarly, leading MTOs such as Western Union and MoneyGram charge huge commissions in order to cover the costs of their hefty, highly distributed, and increasingly inefficient infrastructure of money transfer agents (Folkinshteyn et al., 2015).

Owing to these heavy infrastructures and complex regulations, intra-African remittances (especially from South Africa) have historically been exceptionally costly (Mudungwe, 2017). However, bank–retailer partnerships, emerging digital models deployed by banks, and so-called limited-authority MTOs are actively driving down the costs and prices. These "disruptions," as they are commonly termed in the business lexicon (Christensen et al., 2018) are celebrated as developmental techno-fixes. Fintech innovations are central drivers of legacy system disruptions (Gomber et al., 2018). Fintech reflects a new era in mobile money and remittances, piggybacking on the growing penetration of mobile phones, digitisation, and internet access in Africa.

2.3 | Structural and relational critiques of the remittance−development project

Since their inception, critical scholars have interrogated the development assumptions of the development−remittance nexus and techno-fix policies at large (Akokpari, 2006; De Haas, 2006; Hudson, 2008). In the 1970s, the rise of Marxist scholarship and the explanatory power of meta-narratives related to capitalism, globalisation, and the nation state provided a necessarily rich structural critique of the developmentalist project of remittance celebration that dominated discourses in the 1950s and 1960s. Marxist and neo-Marxist scholars point to the pervasive imbalances that are both produced by and reproduce spatial inequalities between regions bound together by histories of colonisation, exploitation, and financialisation (Nzima et al., 2017).

This critique extends further to the celebration of fintech (Boamah & Murshid, 2019). Most of the critical geography scholarship deconstructs and exposes the ways in which remittances and the fintech that supports them in fact contribute to the financialised or colonialised subjugation of those ostensibly set to benefit from development efforts (Bernards, 2019; Guermond, 2020b; Natile, 2020). In the face of investments, regulatory efforts, and subsidisation on the part of financial institutions, multilateral lenders, and nation states themselves, this critical fintech scholarship work is a firm reminder that such development celebrations obscure and erase the ways in which migrants and uneven geographies are enrolled in processes of extraction, austerity, disciplining, and dependency.

Despite the tendency towards structural critique of development discourses, there are also calls for more relational analysis of finance and money (Mawdsley, 2018), attentive to complexity in social relations, everyday practices, human labour, material infrastructures, and digital intermediation in remittance infrastructures. Zelizer, for example, argues that much of the work on remittances deploys a "narrow structural reductionism" (2012, p. 146). She calls for more relational work on money and the economy, seeing people not simply as embedded *in* markets, but constitutive *of* their very formation. By extension, it is through interpersonal transactions that diverse economies in general, and economic life in particular, are given form and meaning (Zapata, 2013). Interpersonal transactions, Zelizer argues, more easily lend themselves to understanding the "multiplicities of money" (2014, p. 5).

This relational approach accounts for the many ways in which economic and financial transactions reflect, among other things, intersectional identities, competing claims, and overlapping meaning-making processes (Smyth, 2017). The relationships, subjectivities, and interpersonal interactions shape how remittance infrastructures are assembled, maintained, diverted, and revised. For example, significant effort among a small group of scholars has gone into tracing the complex dynamics of the *hawala* system (Langhan & Kilfoil, 2011; Lindley, 2009; Nzonde, 2018; Passas, 2006).[3] Similarly, urban scholars have shown how remittances, through the organisation of flows of goods and money, shape the material development of real estate and built environment investments in African cities in unexpected and dynamic ways (Grant, 2007; McGregor, 2014).

This relational scholarship, within which we situate our argument, focuses on the complex dynamics that exist on the ground. This grounding does not militate against the necessity of understanding both the development project (and even imperative) or the structural critiques that are often overbearing and violent. However, there remains a pressing need to further nuance our understanding of remittances and the systems and hierarchies through which they flow in Africa and more widely, by capturing the social, technological, and regulatory complexities of what is happening on the ground.

3 | THE MICRO-WORLDS AND INFRASTRUCTURES OF REMITTANCE

In embracing a more networked and relational reading of the life-world of remittance circuits, we return to our two core orientations of micro-worlds and migrant infrastructures. Here, we bring into dialogue key analytic features of the micro-world and its application to remittance circuits in economic life. We further expand on the infrastructural dimensions of these circuits, thinking through how the social constitution of migrant infrastructures facilitates supra-national and multi-city flows, alongside the prevalence of bordering that mediates migrant life and migrant economies.

3.1 | Micro-worlds and relationalities

In Amin's (2004) work on regulating economic globalisation, he discusses remittances as part of a "micro-world" of economic globalisation and regulatory assemblage.[4] Micro-worlds foreground the importance of multi-scalar, overlapping, and dynamic processes, through which power is performed and produced in a myriad of diffuse ways (Amin, 2004). Micro-worlds reflect the ways in which diverse entities – each with different ways of being and knowing – form a "complex whole" (Anderson et al., 2012). The diversity of parts is held together – precariously and at times inconsistently – by a plethora of relations both direct and indirect, where micro-worlds are constituted in "ongoing processes of composition" that are fundamental to the heterogeneity of dynamic assemblages (Anderson et al., 2012). They are produced by routine and unspectacular activities that, by the sheer scale of their performance, have immense reach. This is particularly apparent in the context of remittance systems, which are, at their core, characterised by low-value and high-volume transactions, flowing through varied channels, and requiring social and technical brokerage at a plethora of points and scales (Zelizer, 2006).

The messy and often opaque networks that form through these micro-worlds are instrumental in the formation of new geographies, circulations, and places, reterritorialised and rescaled through diverted and dynamic flows of people, ideas, goods, and money (Swyngedouw, 2004). Emergent micro-worlds create new social formations (Simone, 2011) and spatialities (McGregor, 2014). In doing so, migrant configurations transcend nation states and geopolitical divisions, thereby eluding the binaries of global "north and south" and "developed and developing" states, or "rural and urban" migration.

As Amin (2004) points out, micro-worlds, rather than being under-regulated (as is commonly asserted, particularly in the African context) are in fact replete with rules and parameters. This hyper-regulation provides ample explanatory power for understanding how remittance-scapes reflect a plethora of overlapping, contested, misaligned, and dynamic regulatory practices. Authorised financial institutions behave in uncompliant ways, and overlapping and contradictory legislation (such as laws pertaining to KYC) provides ample grey areas for interpretation and manoeuvre (McGregor, 2014). In the context of the everyday life of remittance circulations, additional "rules of the game" structure migrant life and the movement of money and goods. These include, for example, the visible regulatory operations of porous bureaucracies, or the interconnected nature of faith-based organisations with livelihoods and households. Here a repertoire of etiquette, trust, and obligations reveals how the movement of money is interwoven with the "elastic" nature of spiritual, familial, and associational ties across space (Nyamnjoh, 2013).

3.2 | Migrant infrastructures

In the case of remittances, the infrastructures that facilitate supra-national and multi-city flows must also be understood as part of the plethora of infrastructures that mediate migrant life and economies.[5] Core to Hall et al.'s (2017) definition of "migrant infrastructure" is its social formation in urban space; in the context of our vignettes, we pay attention to the geography of social proximity and how it mediates the logistics of transactions. Usefully, Xiang and Lindquist (2014) further emphasise the socio-technical dimensions of migrant infrastructure. Central to the concept of migrant infrastructure is therefore the explicit attention to agency, where migrants are actively engaged in composing systems, despite and because of the pervasive bordering that seeks to curtail their subjectivity (Ley, 2004). Migrant infrastructures are composed along the blurred boundaries between the formal and informal, the digital and social (Guermond, 2020a; Yiftachel, 2009). And as we will also show, they are sutured together (De Boeck & Baloji, 2016) by the labour of migrants themselves (Simone, 2004). This infrastructural orientation encourages us to detail the negotiations of routes, flows, and crossings, whether in re-forming remittance circuits or alternative spaces of accommodation in a hostile global geography of borders.

3.3 | Cape Town's financial micro-world

A focus on the more diffuse and distributed nature of infrastructure that underpins and superimposes itself on migrant life positions infrastructure not as passive sites of neoliberal destruction but as places of iterative experimentation (Guma, 2020). Responding to Mbembe's (2004) call to "[write] the world from an African metropolis," we locate our understandings of migrant/

remittance infrastructures within the metropolis of Cape Town. Within this, we focus on the micro-worlds of Congolese migrants through the systems they adopt and adapt in Cape Town to facilitate exchange and transactions across worlds. Situating Cape Town as an African metropolis means foregrounding its infrastructural complexity, connectivity, and particularity.

Cape Town, like South Africa overall, has strong banking infrastructures that reflect the highly regulated domain of South African financial institutions as legacy systems. The largest four banks have strong and diffuse infrastructural footprints across all the urban centres in the country, and high-quality online banking systems that allow for rapid payments to be made from mobile phones and computers. There has even been innovation in the banking sector that confronts the often high cost of banking for the poor.[6] Owing to this reality, alternative platforms for mobile money, for example through eWallets like M-Pesa which are central to other African countries, have struggled to find a market in South Africa, where poor people – particularly in the urban centres – are served by formal banks (Finmark Trust, 2017).

However, there remain gaps in the South African payment infrastructure.[7] South Africa's banking system is not geared to address small-value transnational transactions, nor is it responsive to the migration status of many who require these services. This reality creates fertile ground for alternative products and processes of economic transaction to emerge in the remittance space. While, as relational scholars suggest and as we will further show, both the informal/formal divide and the concept of the unidirectional corridor are indeed insufficient to understand the complexity of these dynamic pathways, a basic understanding of the extent to which money moves in accordance with these two catalogues provides a compelling starting point to understand the vignettes we discuss in the following section. Reflecting on the context of South Africa and the DRC, Finmark Trust has estimated that remittances in the "South Africa to the DRC corridor" more than doubled between 2016 and 2018, from R201 million to R440 million[8] (Finmark Trust, 2020a), with 44 percent of flows from South Africa to the DRC using formal channels and 56 percent using informal ones. The vignettes that follow trace two processes – one formal and the other informal – which illuminate this picture while also disrupting the analytical grammars we have for making sense of them.

4 | CONGOLESE MIGRANTS AND THE MAKING OF CAPE TOWN'S REMITTANCE MICRO-WORLDS

This section covers two vignettes, both of which form part of the Cape Town Congolese mobile money micro-world. We first discuss the case of a logistics agency, and follow this with a discussion of the emergence of a fintech start-up. Both these cases disrupt the legacy systems and, more importantly, our understanding of the complex systems that are emerging. The analytical value of these vignettes mirrors our commitment to understanding migrant infrastructures as variably distributed, and the selected vignettes demonstrate the social dynamism and structural constraints existing in this regulatory micro-world and infrastructural realm.

4.1 | Parcels and promises: undocumented remittance flows through logistics companies

Before coming to Cape Town in 2010, Migré worked at an import and export company in Lubumbashi, DRC. The company, Provisions Agency, had branches in the DRC and across the continent, including in Nigeria, Angola, and Benin. Having abandoned his passion for studying human rights law in order to work, Migré was also an activist. When Provisions Agency closed all of its offices in 2008, he focused his attention on publishing articles in the newspaper, exposing the corruption scandals related to the mining sector in the Katanga region. This exposure made him personal enemies within the state. This was not Migré's first run-in with the extra-legal state; as a zealous law student in the 1990s, he had had many encounters and even an arrest. However, now having a family to care for, he was unwilling to continue taking such high risks. To secure his family's safety, he sent his child and wife to Cape Town in 2009, following them in 2010. When he arrived in the city, a friend allowed him to take his shifts working security at a large office building. Knowing this would be temporary, Migré also looked for companies where he could apply his freight and logistics skills. Migré's precarious working life continues to be integral to the ways in which he composes his livelihood, merging many jobs across the week, and drawing on his social contacts across these varied spaces to build his work in transactions and transfers.

Today, Migré is the manager of logistics at Express Agence, working for his friend Marc who oversees the Cape Town operations. The company's head office is in the port city of Durban, with a smaller office on the foreshore of Cape Town's bustling city centre. The Cape Town office is only around 20 m^2, but occupies a prime position, nestled on the sixth floor of a run-down high-rise close to the central city train station. The station is used by the majority of commuters and is the key departure point for the Shosholoza train line that is used to transport goods and people between Cape Town, Johannesburg, and Durban. By train and plane, the agency manages the movement of goods between major cities in the DRC and South Africa, and its prime urban locality remains core to the infrastructure of its remittance work that is both physical and digital.

The agency itself is responsible for the movement of goods, but relies on the transnational migrant economy to sustain it. Its activities commonly include importing Congolese foods for the diaspora community and exporting luxury goods, such as clothing and lotions, to the local elites in Kinshasa and Lubumbashi. However, depending on what entrepreneurs in the various cities want to sell, the goods it exports could include anything that can be bought in one country and sold for increments more in the other. Migré referred to this "achat par correspondence" – mail order purchase –as essential to the operations of the business. Mawit, a Congolese migrant living in Cape Town, for example, posts pictures of toys and clothing which she can buy in South African shops as her WhatsApp profile picture for her followers to see. Even though she marks up the prices several-fold, there is generally a high demand; her friend collects the money in Kinshasa and Lubumbashi and sends it to her to buy the goods. Mawit, in turn, sends the goods to the DRC also using the agency's logistics services. People come to Migré to send their goods, rather than going directly to the train company, because they trust that he will ensure their goods are safely transported. And if the goods disappear, they know he will reimburse them, without the hassle of having to deal with the unwieldy bureaucracy of the train company. Rather than relying on the regulatory assurance of a contract, the infrastructure of mutual responsibility is sustained by close circuits of trust, and Migré knows that being reliable is core to sustaining a customer base. There are a handful of these agencies in Cape Town, some of which only transact between South Africa and the DRC, and others which – like Migré's first company in Lubumbashi – have a wider network across the continent.

Most of these companies, while primarily involved in logistics, also allow people to send money transnationally. Allowing people to remit funds is fundamental to the functioning of the companies, as cross-border goods traders also require cross-border money transfers. Import-export companies play a central, albeit poorly documented, role in remittance circuits between Cape Town's diaspora communities and cities across Africa. Their contribution flies under the radar of most accounts of remittance flows, contributing to the catalogue of repertoires deployed by migrants who wish to move money across borders. Migré insists that transnational money transfer is not the core business of Express Agence, but also confirms that people, including himself, need cheap, fast, and trustworthy methods to send and receive the money.

Migré and Marc work together to enable these transfers. Alongside his core job of logistics, Migré manages funds coming and going from the Cape Town office, and Marc manages the communication with the Kinshasa office. People can come into the office or simply send a WhatsApp message to Migré with the amount that they want to send. The cost of the remittance, calculated in dollars, includes a top-up on the exchange rate as well as a commission charge of between 3 and 5 percent. While there is little room for manoeuvre in regard to the exchange rate, the commission the agency charges is negotiable and can change depending on the amount of money being sent, how vital he deems the transaction to be, or how close a friend he considers the sender. Migré noted:

> Every day I check the rate in the morning. And then I decide. If, say, it is 16.65 rands for one dollar, I will tell people that I will charge them 17 rands [per dollar to send the money]. We must do this because we can't get money for cheap from the banks. Then we also must have commission too. This is on top. But still cheaper than if you go to Western Union.

Migré writes down each transaction by hand in a spiral notebook. In place of writing "USD" or "rands," he uses the code "K." While the risks are very low, if the authorities should check the books he will tell them that it stands for kilograms. He includes the sender's name, whom they want to send the money to, and the amount sent. Neither senders nor receivers need to provide proof of ID or documentation of immigration status. Migré provides the sender with a proof of payment from his receipt book, and takes down the name and mobile phone number of the recipient in the DRC. Using WhatsApp, Migré contacts Marc and Marc contacts the Congolese partners, at which point the money is made available to the recipient. There are two options for how the money can be collected. The first is at the head offices of Express Agence in Kinshasa. The second is using Airtel Money Wallet. In the case of the latter, a code is sent directly to the phone of the recipient.

Between the agency's South African and Congolese branches, money is in constant circulation. When one of the offices runs out of cash, Marc attends to the imbalance, making a formal international payment between the company accounts. However, there are infrequent needs for settlement between the two countries, as there is money flowing in both directions and floats that are maintained by the logistics operations in both countries. There are the obvious cases of remittances – money sent by those working in Cape Town to families back home to survive. However, there is also money coming in. Sometimes it is small amounts to support "achat par correspondence," so that entrepreneurs can buy South African goods to sell to the Congolese middle classes. And sometimes large sums are involved, sent to support students who must pay fees and living expenses in Cape Town. When these instructions come into Migré's office, he sends the money via electronic funds transfer (EFT) to the students, sometimes using alternative accounts, so as not to implicate the agency and to avoid handling large sums of cash. Large inbound payments are also common for funerals. Migré, in fact, cited a case where over US$10,000 was sent from the DRC through the agency to pay for the coffin and repatriation of a deceased person.

Money is also sent to Cape Town to support workers who struggle to find jobs or start businesses. This labour precarity, which is endemic to migrant life, has become even more common during the COVID-19 lockdown in Cape Town and elsewhere, prompting livelihood precarity to be more centrally invoked in the analysis of remittance life-worlds (Datta & Guermond, 2020). For example, while Migré works at the Express Agence, provides security at a hipster bar in the evenings, and works at a farmers' market on Saturdays, the latter two were closed during the extended COVID-19 lockdown (from March to September 2020), and the work at the agency also dried up, leaving Migré reliant on money sent to Cape Town by his family in the DRC to survive the harsh economic climate.

The informal transnational money transfer practices of companies like Express Agence are fundamental to migrant economies and everyday life in Cape Town. Like the *hawala* system, the system used by these companies is entirely based on trust, operating outside the scrutiny of the authorities. There is no formal regulation of the system to track and secure these transactions, only the integrity of those directly involved. An internal ledger is kept among those involved in the transactions, balancing the books through reverse transactions, exchanges in the real economy for dried fish or televisions, or some simple – and opaque – accounting techniques between the branches of the company. While most would consider what the agency does to be wholly informal (or even illegal), failing to comply with the KYC legislation and exchange control regulations, the lines are blurred, intersecting formal and informal, visible and invisible practices. Formal bank settlements are made between the company offices, and established mobile money services (like Airtel in the DRC or bank-to-bank EFTs in Cape Town) are used for in-country distribution; the agency rarely "actually moves" money, and when it does, it does so legally.

What this vignette surfaces is that migrant infrastructure combines a prime set of proximate urban localities for the transfer of goods, together with a finely tuned system of regulation in which trust is established through social networks and sustained practices of reliability. Connections matter, whether in the format of translocal train networks or curated cultural links. Moreover, the relation between client and service provider is negotiated to accommodate differential rates and flexibility according to needs, relationships, and fragilities. In this everyday composition of remittances, Migré and his clients recognise the shared realities of holding down many jobs, or of being without work. Crucially, the ever-present precarity of migrant life, pervaded by limited citizenship status, means that migrant infrastructures are emotionally and pragmatically shaped to circumvent the punitive requirements of sovereign border logics.

4.2 | Agents and apps: regulated remittance flows through new fintech companies

Oscar is a refugee from the DRC living in Cape Town. He has worked in a whole variety of sectors, including in bars and in a paragliding company. Among his many jobs, he worked at several of the new fintech remittance companies. Cape Town is well known as a tech hub on the continent, boasting a dedicated community of start-ups and extensive broadband infrastructure (Pollio, 2020). South Africa's once notoriously high cost of formal remittance channels led to a surge of social mission-driven fintech companies competing to capitalise on this space (Finmark Trust, 2016).

MoneyHome is a leading start-up, operating out of a third-floor office in a grey building with no signage or significant visual markers. The building is located several kilometres from Migré's office, in a slowly gentrifying suburb adjacent to the city centre. The surrounds reflect a certain bricolage of vehicle repair workshops, second-hand shops, galleries, and microbreweries. The start-up office has a trendy aesthetic, comprised of exposed brick, elegant coffee machines, and steampunk-inspired fixtures, and is markedly different from the makeshift interiors of Western Union shops or Money Market kiosks in Shoprite, Cape Town's budget grocery store.

MoneyHome is often grouped together with its start-up competitor, Mukuru. Like MoneyHome, Mukuru boasts a social vision; it was started by a Zimbabwean-born, South African-educated, London-based entrepreneur and rock musician. Both start-ups have sought to create apps with a legible and useable interface, directly attentive to the needs of migrants in Cape Town. Betty, a Congolese businesswoman who sells curries and samosas at a local market, told us that the apps are easy to use:

> These apps are so easy to use. With Mukuru, I can just send a short message to Mukuru [on WhatsApp] and they respond with all the questions like: Where do you want to send? Do you want to send money, airtime, groceries, or whatever? How much? How do you know this person? And things like this. Then I can get a code from them and they tell me where I can go and deposit the cash. Usually at the nearby Pick n Pay [grocery store].

In Cape Town, MoneyHome, Mukuru, and similar companies deploy agents, enrolling migrants who have intimate knowledge of their own migrant communities to attract, enrol, and retain customers. Oscar, for example, was approached by Mukuru to operate as an agent in the Congolese community in Cape Town. In contrast to MoneyHome, which only has agents in Cape Town (and uses partners for distribution in other countries), Mukuru has developed networks of its own agents across many African cities, setting up kiosks and counters. The sophistication of the digital capacity for transfer is therefore mediated in grounded ways, both by agents and by an array of localised and accessible spaces. These fintech start-ups make their money on small margins, with a lean and flexible approach. Aside from their agent networks, they do not have a large physical presence in the real economy such as stores that provide liquid currency, and their small physical infrastructure is highly localised and makeshift. Unlike Western Union, they do not have a vast and diffuse physical presence in almost every African country.

MoneyHome, despite its name, does not itself handle cash. To send or receive hard cash, users must go to one of MoneyHome's partners. In Cape Town, cash can be deposited at any partnering Pep Store (a basic convenience store) or sent by EFT. MoneyHome, therefore, piggybacks on existing everyday infrastructures, reducing the many risks and costs of holding, securing, and insuring hard currencies.

While reducing key risks, these companies also take on new ones. In South Africa, their apps have benefited from the more traditional players' reluctance to reduce regulatory standards for enrolment, despite national legislation that allows for reduced KYC procedures. As Oscar pointed out, unlike the eWallets provided by the banks, MoneyHome and other fintech apps require a very basic form of FICA registration (including taking a "selfie" to prove your identity) and do not require a bank account, making them easier and less costly for refugees and undocumented migrants to use (Langhan & Kilfoil, 2011). Oscar clarifies:

> Western Union, MoneyGram and even InterAfrica, which is in partner with Mukuru, are more strict … And that is why they don't get that kind of market. [These new companies'] target market is the immigrant[s] who have documents that are not really, that were not accepted by the banks.

Not only do emergent fintech companies reduce costs through regulatory minimisation, they also often work on a flexible and competitive basis with long chains of partners. Their partners are connected through interoperable technological platforms. Partners bring the cash, licences to provide financial services in different African countries, and the distribution infrastructure necessary to ensure that the hard cash or digital value is accessible to recipients no matter their location. In an interview, MoneyHome director Daniel, an experienced aid worker, entrepreneur, and artist, emphasised the benefits of diffuse and interoperable connections:

> We spend a lot of time investing in partnerships and like, you know, trying to be friendly and nice, that's our DNA … We don't want to own the entire value chain because we don't have the financial resources to build up an agent network. Because we've been going for a while, we have three partners in the country. So we say to them listen, you can't charge us this much because otherwise we'll direct the traffic elsewhere. [Building these systems] is very difficult and takes lots of effort. Lots of smart and expensive people. There was a whole floor, that's all they do, like you have people here, that's an entire floor and all they do is integrations.

The DRC is a relatively new addition to the MoneyHome offering. To receive money in the DRC there are two options. If the recipient has an Airtel Money Wallet, they can receive the money directly on their phone. If they do not, they can receive the money at one of the many and highly distributed branches of Western Union. Setting up the partnership with Western Union allowed MoneyHome to develop its distribution network, paying a percentage of the transaction to Western Union and charging clients its own flat rate of 5 percent. The agreement took over a year to negotiate and recently went live.

The lower costs and interoperability of these disruptive services are not the only reasons why these platforms are able to compete with the established legacy systems. Like Express Agence, where Migré works, the app-based fintech companies also reap the benefits of speed. For the users, the money transfer is instant. This is possible because partnering companies have floats of digital currency and cash currencies. Unlike Migré's agency, settlements between partners must be made on a regular basis – sometimes several times in a day. The frequency of these settlements depends on the size of the floats, and on the agreement between MoneyHome and its various partners across the continent. The settlements invariably require routing the transaction through corresponding banks in the United States. The plethora of small financial institutions across Africa are unable to transact directly with one another. Large "switching banks" are required to manage the transactions. All banks need to deal in US dollars at the end of the day, and need to have settlement accounts with US banks because the global trading system or financial system is based in dollars.

Corresponding banks come with heavy regulatory costs; anti-terrorism and anti-money laundering legislation slaps large fines on financial institutions that cannot prove they have properly screened their partners and senders of funds. Every country has its own KYC legislation and, in the context of the US, each (sub-national) state has its own interpretations of this legislation. As a researcher and expert on banking and financial services in Africa, noted:

> Although there is quite a lot of willingness by the kind of principle regulating bodies around the world to exempt low-value transfers from regulations, because of the way the United States' regulating environment works, it's a federal structure, so although the [federal government] can say, "just please handle transfers for low-value [transactions]," the NYC attorney may decide to take a case against a bank in South Africa because someone has proved that one of the transfers by one of its MTOs was done by a warlord. And then Standard Bank [in South Africa] could get sued or banned from engaging with banks in New York.

While MoneyHome and similar remittance companies can benefit from pooling low-value/high-volume transactions and limiting the number of settlements made between partners, they still rely on a monopoly held by the messaging service SWIFT (Society for Worldwide Interbank Financial Telecommunications). Most in the sector see SWIFT, and its concentrating and corresponding financial geography, as a necessary evil. The company, based in Brussels, is a monopoly and market leader, developed nearly 50 years ago and now accounting for over half of global financial transactions. It adds significant costs to transactions and, in the case of South African transnational banking transactions, "[n]o clear costing [is] given to justify the very high SWIFT fees charged to customers" (Langhan & Kilfoil, 2011, n.p.).

Emergent fintech innovations challenge the existing legacy systems, forcing financial institutions such as Western Union to interoperate with new players, and shifting away from the risky and high-cost reliance on cash; but they cannot, at present, overcome the dollarised infrastructures that shape the remittance geography, drawing important intermediaries into the micro-world. Those at the cutting edge of the technological debates, such as MoneyHome director Daniel, speculate about a future that is not dependent on corresponding banks outside Africa. He argues that "regional switches could make a difference, but the real gamechanger is crypto. Ripple is the enemy of SWIFT." Ripple, like many other emerging technologies in fintech space, is a blockchain-based payment company developed in California's Silicon Valley. While still in a highly speculative phase, the visions of these start-ups challenge the well-established correspondent banking system through which SWIFT operates.

These debates about controlling infrastructures of remittance, while seeking to disrupt the long and costly networks that force African transactions through Western institutions, are envisaged from their own digital geographies, far from the grounded realities of the particular places that connect, and in fact create, these networks. Whether or not these major disruptions become realities remains to be seen. In the meanwhile, companies such as MoneyHome are already disrupting the formal market, providing a platform that is widely interoperable with existing distribution networks, significantly cheaper than its formal counterparts, flexible and nimble in the circulations and directions of its flows, built through ongoing communication across long supply chains, and existing almost entirely digitally —outside of the world of hard cash and material infrastructure.

5 | CONCLUSION

The vignettes presented in this paper span the realms of small agencies and emergent fintech initiatives, and show the many ways in which the legacy banking systems are being disrupted, with remittance flows rerouted through cheaper, more heterogeneous, and more culturally responsive infrastructures. Through these vignettes we disrupt both structuralist and developmentalist framings in several important ways. We argue that money does not flow unidirectionally or in linear fashion but circulates and diverts; that binary assumptions about formal systems being costly and informal systems being risky do not hold true in the face of overlapping regulatory and risk systems; that digital technologies are central to migrant infrastructures and economies; and that rather than being simply subjectified, migrants are compositional to the infrastructures that shape money transfer and remittance worlds. Using the material from the vignettes, we summarise these arguments below, and point to future research areas.

5.1 | From remittance corridors to circuits of money

We have shown that the movement of money is neither linear nor unidirectional. A simplified story about migrants coming to South Africa to work and send money home to the DRC fails to capture the dynamic circulations of this money.

Remittance flows are diverted through multiple urban centres and spaces, from Cape Town, Durban, and Johannesburg, on to New York, connecting migrants in Cape Town with overlapping federal and state financial regulations in the US, and then on to Kinshasa and Lubumbashi. Via a plethora of kiosks and stalls across villages and towns, money also circulates *to* Cape Town, to support students, pay for funerals, or support struggling families – inseparable social infusions of economic circulations. These dynamic diversions create the substance of the micro-world, shaped by regulatory overlays and infrastructural establishments both hard and soft. Future work on migration and money in Africa must attend to the implications of these multidirectional flows, which are inseparable from everyday life and infused with complex geopolitical controls.

5.2 | Grey remittance-scapes

The greyness of remittance-scapes is central to our argument. Remittance infrastructures are partially fixed through processes of authorisation and financialisation that identify and legitimise designated routes, structure how and between whom interactions happen, and shape the grey and risk-laden infrastructures that sustain these transactions. However, they are also dynamic and distributed, shifting through many and dispersed practices and incentives. This is evident in the degree to which the remittance landscape is fast-changing, and infused with new technologies and dynamics. The cases presented here show that new fintech platforms both compete and collaborate with legacy systems such as Western Union, mobile phone companies, and banks. Moreover, from EFTs to mobile wallets, supposedly informal systems intersect with legally authorised infrastructures in hybrid ways. As such, commonly held binaries – between the formal/informal, legacy systems/disruptive technologies, digital/manual mechanisms, and risks/costs – are being disrupted and restructured. The costs are rapidly dropping, while the risks are diversifying and scattering. Moving forward, more research is required into the blurriness across regulatory interfaces and between so-called “formal” and “informal” modes of transfer.

5.3 | Digital infrastructure as migrant infrastructure

The importance of digitised and financial infrastructure is underexplored within discussions on migrant infrastructure. However, as we show, remittance circulations are dependent on digital processes that emerge as socio-technical interfaces mediated in an assemblage of skills, convenience, and everyday spaces. Of course, the use of the digital domain differs. Whether piggybacking on now ubiquitous digital platforms (for example, EFT and WhatsApp), which facilitate the more manual work of ordering the transfers between the various parties, or creating an entirely bespoke digital offering (such as a highly mechanised cell phone application), the digital is essential to remittance practices. Across these different digital configurations, and in combination with the use of existing material systems such as supermarkets and convenience stores, or mobile phone companies, we see the emergence of flexibility, interoperability, and responsiveness at the intersections between users, technology, and innovators. For future research, there is significantly more scope to engage with the intersections between financial, digital, social, and material infrastructural arrangements in Africa. And it is vital to do this in ways that resist assumed techno-pessimism and recognise the interoperations and interconnections between digital technologies and everyday life.

5.4 | The migrant as compositional to socio-technical infrastructures

Finally, we argue that, through a whole range of mundane practices, people are central to the making of remittance infrastructures. Our vignettes reveal migrants as active and agile agents, and not simply the recipients of financialised logistics and subjectivities. Migrants constitute logistics and compose the varied ways in which goods, services, and money flow across space. This is why it is important to incorporate humanities into the literature of remittances generally, and finance at large. It is equally important to ensure that structural economic frames are complemented by the agentic, negotiated, and everyday ways in which socio-technical and transborder infrastructures come into being.

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ENDNOTES

[1] Migrants regularly have several places of work, so this included spending time at bars, restaurants, and stands at markets.

[2] There are regular fluctuations in value between the South African rand (R) and the United States dollar (USD). At the time of publication, the exchange rate was R15.4 per USD.

[3] Scholars show that the *hawala* system is highly distributed and informally regulated by a multi-scalar network of money transfer agents, drawing on trust and regional identity ties. These agents provide an immediate and trusted service to end-users, settling with one another either through reverse flows, bulk payments, or goods transactions in lieu of debts.

[4] The deployment of the term 'micro', in this sense, is not in opposition to macro or global processes. Nor are micro-worlds reducible to microcosms of meta-logics.

[5] There is a huge body of work on the social and political nature of infrastructure within urban studies and geography at large. For some examples of this work, see Graham (2010), Leyshon and Thrift (1997), and Peck and Whiteside (2016).

[6] Capitec Bank, for example, is now one of the leading banks serving low-income clients; it minimises banking fees by focusing on ATMs, linking with supermarkets, and using online platforms.

[7] Finmark, Interview with Advocate Magedi-Titus Thokwane (South African Reserve Bank), SADC Payment System Project Manager, transcribed from http://finmark.org.za/remittances-from-sa-to-rest-of-sadc-webinar/ (accessed 20 March 2021).

[8] Converting both rand amounts using the 2021 exchange rates, this would range from approximately US$28.5 million to US$13 million.

REFERENCES

Akokpari, J. (2006). Globalization, migration, and the challenges of development in Africa. *Perspectives on Global Development and Technology*, 5, 125–153. https://doi.org/10.1163/156915006778620089

Amin, A. (2004). Regulating economic globalization. *Transactions of the Institute of British Geographers*, 29, 217–233. https://doi.org/10.1111/j.0020-2754.2004.00126.x

Anderson, B., Kearnes, M., McFarlane, C., & Swanton, D. (2012). Materialism and the politics of assemblage. *Dialogues in Human Geography*, 2, 212–215. https://doi.org/10.1177/2043820612449298

Anyanwu, J.C., & Erhijakpor, A.E. (2010). Do international remittances affect poverty in Africa? *African Development Review*, 22, 51–91. https://doi.org/10.1111/j.1467-8268.2009.00228.x

Bailey, A.J., & Yeoh, B.S. (2014). Migration, society and globalisation: Introduction to Virtual Issue. *Transactions of the Institute of British Geographers*, 39, 470–475.

Bernards, N. (2019). The poverty of fintech? Psychometrics, credit infrastructures, and the limits of financialization. *Review of International Political Economy*, 26, 815–838. https://doi.org/10.1080/09692290.2019.1597753

Boamah, E.F., & Murshid, N.S. (2019). 'Techno-market fix'? Decoding wealth through mobile money in the global South. *Geoforum*, 106, 253–262. https://doi.org/10.1016/j.geoforum.2019.08.012

Bowers, C.B. (2008). Hawala, money laundering, and terrorism finance: Micro-lending as an end to illicit remittance. *Denver Journal of International Law and Policy*, 37, 379–420. https://doi.org/10.1016/j.geoforum.2019.08.012

Brookings (2020) *Africa in focus: Figure of the week: Remittance flows to sub-Saharan Africa expected to slow after years of growth*. Available at: http://www.brookings.edu/blog/africa-in-focus/2020/06/25/figure-of-the-week-remittance-flows-to-sub-saharan-africa-expected-to-slow-after-years-of-growth/ (March, 20, 2021)

CENFRI. (2018) *Exploring Barriers to Remittances in Sub-Saharan African Series. Volume 1: Where Are the Flows?* Retrieved from https://cenfri.org/publications/where-are-the-flows/ (April, 20, 2021)

Christensen, C.M., McDonald, R., Altman, E.J., & Palmer, J.E. (2018). Disruptive innovation: An intellectual history and directions for future research. *Journal of Management Studies*, 55, 1043–1078. https://doi.org/10.1111/joms.12349

Datta, K., & Guermond, V. (2020). Remittances in times of crisis: Reflections on labour, social reproduction, and digitisation during Covid-19. *Antipode Online*. Retrieved from: https://antipodeonline.org/2020/06/18/remittances-in-times-of-crisis/ (Feb 18, 2021)

De Boeck, F., & Baloji, S. (2016). *Suturing the City: Living Together in Congo's Urban Worlds*. London, UK: Autograph ABP.

De Haas, H. (2006). Migration, remittances and regional development in Southern Morocco. *Geoforum*, 37, 565–580. https://doi.org/10.1016/j.geoforum.2005.11.007

De Haas, H. (2007) Remittances, migration and social development. *A Conceptual Review of the Literature*. Retrieved from https://www.unrisd.org/80256B3C005BCCF9/(httpAuxPages)/8B7D005E37FFC77EC12573A600439846/$file/deHaaspaper.pdf (April, 20, 2021)

Feldman, M.R. (2006). Fund transfers–African terrorists blend old and new: Hawala and satellite telecommunications. *Small Wars and Insurgencies*, 17, 356–366. https://doi.org/10.1080/09592310600672867

Finmark Trust. (2016). *Cross-border remittances*. Report prepared by Eighty20.

Finmark Trust. (2017). *Research report on mobile money in South Africa*. Retrieved from http://www.finmark.org.za/wp-content/uploads/2017/12/Final-Report-on-Mobile-Money-in-South-Africa-v11.1_clean_digital_CB.pdf (March, 20, 2021)

Finmark Trust. (2020a). *South Africa to the rest of SADC: Remittance pricing*. Retrieved from http://finmark.org.za/wpcontent/uploads/2020/05/FMT_SADC_pricing_report_CB4_10052020.pdf (March, 20, 2021)

Finmark Trust. (2020b). *SADC remittance values and volumes*. Report prepared for FinMark Trust by Genesis Analytics.

Folkinshteyn, D., Lennon, M.M., & Reilly, T. (2015). The Bitcoin mirage: An oasis of financial remittance. *Journal of Strategic and International Studies*, 10, 1–7. https://ssrn.com/abstract=2601621 (June, 10, 2021)

FTC. (2017). *Press release: Western Union admits anti-money laundering violations and settles consumer fraud charges, forfeits $586 million in settlement with FTC and Justice Department*. 19 January. Retrieved from http://www.ftc.gov/news-events/press-releases/2017/01/western-union-admits-anti-money-laundering-violations-settles (Feb, 10, 2021)

Gomber, P., Kauffman, R.J., Parker, C., & Weber, B.W. (2018). On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems*, 35, 220–265. https://doi.org/10.1080/07421222.2018.1440766

Graham, S. (Ed.) (2010). *Disrupted Cities: When Infrastructure Fails*. London, UK: Routledge.

Grant, R. (2007). Geographies of investment: How do the wealthy build new houses in Accra, Ghana? *Urban Forum*, 18, 31–59. https://doi.org/10.1007/BF02681230

Guermond V. (2020a). Contesting the financialisation of remittances: Repertoires of reluctance, refusal and dissent in Ghana and Senegal. *Environment and Planning A: Economy and Space*, 00, 1–22. http://dx.doi.org/10.1177/0308518x20976141

Guermond, V. (2020b). Marketisation as financialisation in the making? The construction of remittance markets in Senegal. *Geoforum*, 117, 234–245. https://doi.org/10.1016/j.geoforum.2020.10.009

Guma, P.K. (2020). Incompleteness of urban infrastructures in transition: Scenarios from the mobile age in Nairobi. *Social Studies of Science*, 50, 728–750 https://doi.org/10.1177/0306312720927088

Gupta, S., Pattillo, C., & Wagh, S. (2007). Making remittances work for Africa. *Finance and Development*, 44, 1–8.

Hall, S. (2021). *The Migrant's Paradox: Street Livelihoods and Marginal Citizenship in Britain*. Minneapolis, MN: University of Minnesota Press.

Hall, S., King, J., & Finlay, R. (2017). Migrant infrastructure: Transaction economies in Birmingham and Leicester, UK. *Urban Studies*, 54, 1311–1327. https://doi.org/10.1177/0042098016634586

Hudson, D. (2008). Developing geographies of financialisation: Banking the poor and remittance securitisation. *Contemporary Politics*, 14, 315–333. https://doi.org/10.1080/13569770802396360

Langhan, S., & Kilfoil, C. (2011). *The cross-border money transfer experience: Why taxis and buses are still preferred to banks*. Retrieved from http://www.finmark.org.za/wp-content/uploads/2016/01/Cross-Bord-Money-Trnsfer-FocN.pdf (Dec, 15, 2020)

Ley, D. (2004). Transnational spaces and everyday lives. *Transactions of the Institute of British Geographers*, 29, 151–164. https://doi.org/10.1111/j.0020-2754.2004.00122.x

Leyshon, A., & Thrift, N.J. (1997). *Money/Space: Geographies of Monetary Transformation*. Hove, UK: Psychology Press.

Lindley, A. (2009). Between 'dirty money' and 'development capital': Somali money transfer infrastructure under global scrutiny. *African Affairs*, 108, 519–539. https://doi.org/10.1093/afraf/adp046

Mawdsley, E. (2018). Development geography II: Financialization. *Progress in Human Geography*, 42, 264–274. https://doi.org/10.1177%2F0309132516678747

Mbembe A. (2004). Writing the World from an African Metropolis. *Public Culture*, 16, 347–372. https://doi.org/10.1215/08992363-16-3-347

McGregor, J. (2014). Sentimentality or speculation? Diaspora investment, crisis economies and urban transformation. *Geoforum*, 56, 172–181. https://doi.org/10.1016/j.geoforum.2014.07.008

Migration Data Portal. (2020). *Regional data overview: Migration data in the Southern African Development Community (SADC)*. Retrieved from https://migrationdataportal.org/regional-data-overview/southern-africa (Dec, 5, 2020)

Mudungwe, P. (2017). *Leveraging the African diaspora for development*. Retrieved from https://www.diaspora-centre.org/wp-content/uploads/2017/10/Leveraging_Diasporas_for_Development.doc.pdf (Dec, 3, 2020)

Natile, S. (2020). Digital finance inclusion and the mobile money 'social' enterprise. *Historical Social Research/Historische Sozialforschung*, 45, 74–94. https://doi.org/10.12759/hsr.45.2020.3.74-94

Nyamnjoh, H. (2013) *'I pray for him over the phone': Transnational chain-prayer amongst Cameroonian Pinyin and Mankon migrant community in Cape Town*. Available at SSRN 2253732.

Nzima, D., Duma, V., & Moyo, P. (2017). Theorizing migration-development interactions: Towards an integrated approach. *Migration and Development*, 6, 305–318. https://doi.org/10.1080/21632324.2016.1147897

Nzonde, P. (2018). *Migrant remittances and socio-economic status of recipient households in the DRC: Case of Congolese migrants in the Western Cape in South Africa*. PhD Dissertation, University of Cape Town, South Africa.

Ong, A.H. (2011). Introduction: Worlding cities, or the art of being global. In A. Roy, & A. Ong (Eds.), *Worlding Cities: Asian Experiments and the Art of being Global* (pp. 1–26). Oxford, UK: Blackwell.

Passas, N. (2006). Demystifying Hawala: A look into its social organization and mechanics. *Journal of Scandinavian Studies in Criminology and Crime Prevention*, 7(S1), 46–62. https://doi.org/10.1080/14043850601029083

Peck, J., & Whiteside, H. (2016). Financializing detroit. *Economic Geography*, 92, 235–268. https://doi.org/10.1080/00130095.2015.1116369

Pieke, F.N., Van Hear, N., & Lindley, A. (2007). Beyond control? The mechanics and dynamics of 'informal' remittances between Europe and Africa. *Global Networks*, 7, 348–366. https://doi.org/10.1111/j.1471-0374.2007.00173.x

Pollio, A. (2020). Making the silicon cape of Africa: Tales, theories and the narration of startup urbanism. *Urban Studies*. Online. https://doi.org/10.1177/0042098019884275

Ramachandran, V. (2016). *Mitigating the effects of de-risking in emerging markets to preserve remittance flows*. *EMCompass* no. 22. Washington, DC: International Finance Corporation. Retrieved from https://openknowledge.worldbank.org/handle/10986/30348 (Oct, 15, 2020)

Rodima-Taylor, D., & Grimes, W.W. (2019). International remittance rails as infrastructures: Embeddedness, innovation and financial access in developing economies. *Review of International Political Economy*, 26, 839–862. https://doi.org/10.1080/09692290.2019.1607766

Simone, A. (2004). *For the City Yet to Come: Changing African Life in Four Cities*. Durham, NC: Duke University Press.

Simone, A. (2011). The urbanity of movement: Dynamic frontiers in contemporary Africa. *Journal of Planning Education and Research*, 31, 379–391. https://doi.org/10.1177/0739456X11416366

Smyth, A. (2017). Re-reading remittances through solidarity: Mexican hometown associations in New York City. *Geoforum*, 85, 12–19. https://doi.org/10.1016/j.geoforum.2017.06.025

Swyngedouw, E. (2004). Globalisation or 'glocalisation'? Networks, territories and rescaling. *Cambridge Review of International Affairs*, 17, 25–48. https://doi.org/10.1080/0955757042000203632

Vodacom Group Limited. (2019). *Future proofing mobile financial services. Making borders matter less: Revolutionizing remittances through mobile money*. Retrieved from https://www.vodacom.co.tz/public/assets/files/Vodacom_Public_Policy_series_14Nov.pdf (April, 20, 2021)

Webber, S., Leitner, H., & Sheppard, E. (2020). Wheeling out urban resilience: Philanthrocapitalism, marketization, and local practice. *Annals of the American Association of Geographers*, 111, 343–363. https://doi.org/10.1080/24694452.2020.1774349

Xiang, B., & Lindquist, J. (2014). Migration infrastructure. *International Migration Review*, 48, 122–148. https://doi.org/10.1111/imre.12141

Yiftachel, O. (2009). Critical theory and 'gray space': Mobilization of the colonized. *City*, 13, 246–263. https://doi.org/10.1080/13604810902982227

Zapata, G.P. (2013). The migration–development nexus: Rendering migrants as transnational financial subjects through housing. *Geoforum*, 47, 93–102. https://doi.org/10.1016/j.geoforum.2013.03.010

Zelizer, V. (2006). Circuits in economic life. *Economic Sociology – The European Electronic Newsletter*, 8, 30–35.

Zelizer, V. (2012). How I became a relational economic sociologist and what does that mean? *Politics and Society*, 40, 145–174. https://doi.org/10.1177%2F0032329212441591

Zelizer, V. (2014) *Remittance circuits*. TSI Working Paper No. 8. Retrieved from https://projects.iq.harvard.edu/files/tsi/files/8-zelizer2015_tsiworkingpaper.pdf (Feb, 20, 2020)

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