

Ring roads, revived plans, & plotted practice: The multiple makings of Nairobi's urban periphery

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ABSTRACT

From the Thika Superhighway to the opening of the Expressway, Nairobi's recent history has been marked by the rapid development of large-scale mobility infrastructures. The paper uses the recently built urban bypass highways that circle the city as a heuristic entry point to theorise the urban and contribute to debates on the nature of the urbanising periphery in Africa. The empirical contribution of the paper is structured into three parts: plans; projects; and plotting. We show how plans operate as performative technologies, manufacturing the imaginary of how places fit into larger systems and relate to imagined cores. We then turn to the patchwork of projects – in particular the bypass roads and related 'new towns' – which reflect vestiges of these planning ideas, but in fact come to be operationalised as incremental expansions. Finally, we show how plotting – the plot-by-plot development driven by small businesses and families – in fact contributes the bulk of development activity. These investments knit urban fringes together in constant conversation with plans, and with the highway infrastructures which reduce the distances between places and spaces. Together, these vectors show the diverse ways in which the periphery is given imagination, substance, and value.

1. Introduction: bypass roads as an urban heuristic

In May 2022, the Nairobi Expressway, an 8 lane and 27 km highway financed by the Exim Bank, was opened for public use. The moment was marked by controversy and critique over a range of issues: the Chinese-style pagoda that decorated the toll plaza; the opportunity cost of such a large investment; the environmental issues created by felling indigenous trees to make room for the highway; the limitations of existing environmental legislation in addressing sustainability issues in large-scale infrastructure development; the unaffordable and exclusionary toll fees; the interference of the off-ramp lanes with longstanding *matatu* stops, and the logic of infrastructure-driven economic logics amidst the country's rising debt burden (Abdi, 2022; Business Daily, 2021; Eickhoff, 2022; Guma et al., 2023; Kimari, 2021; Kosgei & Kioko-Mutinda, 2019; Mulwa, 2019; Sipuka, 2023; The Star, 2022; Wangari & Wangari, 2022). The Expressway has also received praise - celebrated by (wealthier) commuters, Uber drivers, and Nairobi's business community for reducing travel time between the bustling centre of Westlands and Jomo Kenyatta International Airport from nearly 2 h to less than 40 min. The Expressway is significant - changing the relationship between one of Nairobi's many edges and one of its most important nodes. It forms part

of a suite of recent investments that restructure the city, changing the logistical patterning and compressing the contours of space and time.

Reflecting from metropolitan Nairobi, this paper uses highway investment in general, and urban bypass roads specifically, as a heuristic entry point to theorise the urban and contribute to debates on the nature and extent of peripheral urbanisation in Africa. Like the Expressway, we are interested in how investments – both discursive and actual – in bypass roads animate peripheral development processes in and around Nairobi's northern fringe (Fig. 1). We focus on the city's periphery – the bypass roads, real estate development, porous bureaucracies, and institutional fragmentation – to speak from what has come, over time, to be imagined and experienced as its edge, and where the nexus of land, infrastructure, and governance determines much of the city's development (Turok, 2016).

The research echoes scholars who have usefully theorised urban peripheries in Africa and the global South. We align with those who challenge discourses presenting peripheries simply as frontiers of financialisation, whereby large developers collude with city governments to develop elite enclaves (Benjamin, 2004; Goodfellow & Huang, 2021; Mbiba & Huchzermeyer, 2002; Meth et al., 2021; Sawyer et al., 2021). We equally resist narratives that disavow the vitality of

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state-driven investments or plans in favour of narrow celebrations of bottom-up processes. We show, rather, that the making of the periphery is driven by a range of actors, small and large, powerful and ordinary, international, state and non-state, national and local (Korah et al., 2020). Similarly, we unpack the processes and practices adopted by large and small scale actors, which tend to vary from legislatively established structures, adding further complexity into the understanding of urban processes and practices. It is in the centering of these diverse and dynamic processes, and a nuancing of claims about African urban frontierism (both materially and conceptually), that we foreground everyday, dynamic, and asynchronous development narratives. The processes of space production in the periphery are layered and complex, and attempts to unpack them create risks of falling into the trap of never-ending layers of complexity.

This paper pulls apart this complexity by assessing three distinct processes through which spatial production has unfolded in Nairobi's northern periphery, using the bypass roads to provide unique insights into this process of peri-urbanization.

First, we zoom back from the bypass roads which anchor this paper to look at the series of plans created by the local and national governments for the metropolitan-region development of the city. As we show, plans to develop ring roads in Nairobi were not – as is often assumed – a Chinese initiative (see Goodfellow & Huang, 2021, who challenge this notion in other African urban contexts), but in fact part of the 1973 metropolitan master plan and 2008 national economic and strategic plans. As such, in contrast to discourses that see such mega-projects as neo-colonial (Lesutis, 2021) or as deploying imported technocratic logics of urbanism (Guma et al., 2023), we argue that the highways were

submissions. While this dormancy could be read as a failure of plans and associated regulatory tools, we suggest that plans could also be seen as performative technologies in and of themselves. In other words, the architects of these plans expressed ambitions – both spatial and institutional – with the knowledge that implementation of such plans would be unlikely, staggered, or even risky. These visions were intended more to inspire than to direct.

Second, we turn to the piecemeal implementation of these plans – the projects which reflect particular threads of these technical documents. We begin by looking at the institutional question showing that while the imagined centralised metropolitan authority has never been created, various state authorities create temporary metropolitan institutions as and when needed – for example, the short-lived Nairobi Metropolitan Services (NMS), or the Nairobi Metropolitan Transport Authority (NaMATA). Ironically, however, some of these agencies do not have jurisdiction outside of the county boundaries, suggesting that their formation only imply refracts these earlier logics. Following this, we turn to the implementation of the bypass roads and show that plans for these roads have – after many years – been revived and developed. They are concrete manifestations of the revival of dormant plans.¹ Linked to these roads, we have also seen the rapid opening up of the land around Nairobi for large-scale residential developments. Tatu City is a well-known example of this sort of mixed-use project. However, there are many more. These projects, due to the ease and lack of finance, are themselves implemented in a piecemeal manner. We note that these developments have ramped up following the completion of the bypass roads, which have unlocked demand for and accessibility in these areas. In contrast to what Watson (2014) and others had suggested, these are not fantasy

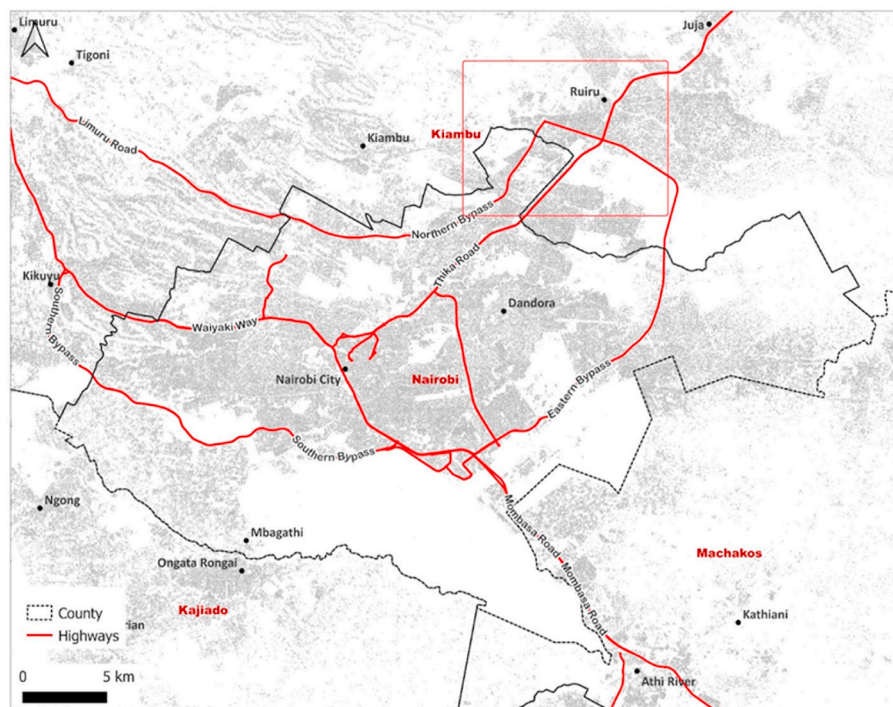


Fig. 1. Bypass roads in context.

imagined as part of a post-colonial urban expansion project that is presently being accelerated through these new logics. In addition to outlining spatial visions, these plans also held institutional visions for the governance of the metropolitan region, attempting to address the challenge of horizontal coordination by proposing centralised agencies with mandates over the functional region. The ideas in the plans, however, lay dormant for decades, living only in reports and planning

¹ This paper recognizes that the 1973 plans were being revived within a context marked by specific global political and economic shifts, and these affected the manner in which the plans were selectively revived, adjusted, and adapted. The paper however focuses on the pieces and components that were revived in the early 2000s, and not on mapping the broader global political-economy that framed this period.

developments. They are very real, enlivened by large-scale infrastructure investments.

Third, and finally, we turn to the more plotted development of the periphery that has shaped the expansion of Nairobi into neighbouring Kiambu County. We show that activity predates major road infrastructure development but has also accelerated in response to it. These developments often occur outside of the rules of the state, highlighting the porosity of bureaucracies at the metropolitan edge, but also a dialectical relationship between incremental land development, land value, and state-led investment. It provides a fundamental mechanism for local financial savings to be stored in the land. Building on mega-investments, we see these diverse patterns of mixed-use activities and local economies in the metropolitan periphery, thus allowing low- and middle-income families and smaller-scale investors to share in the wealth created by increased connectivity and rising land prices.

Methodologically, we piece together these reflections from field observation and site visits, secondary analysis of diverse sets and types of data, including mapping and spatial analysis using historical imagery, personal accounts from interviews with land developers and land buying company representatives in the Nairobi metropolitan area, image analysis (of the changes within the bypass intersections), discourse analysis of spatial and strategic plans (1976/2008) and promotional material for real-estate developments, analysis of databases on project finance for bypass road investments, and changing land values in metropolitan Nairobi. Data collection and analysis was undertaken between March 2022 and January 2023. We triangulate between this heterogeneous data and the key conceptual themes of this paper to arrive at a series of reflections, anchoring our contribution.

2. Peripheral urbanisation: actors, processes, and porous bureaucracies

Over the past 20 years, African cities have been centred in scholarly and developmental urban debates. While African cities might once have been “off the map” (Robinson, 2013), the renaissance of Southern theory has encouraged a landslide of work on cities in Africa (Agyemang et al., 2019; Gambe et al., 2023; Korah et al., 2020; Mercer, 2022; Todes, 2017; Wragg & Lim, 2015). This burst in thinking both *on* and *from* urban Africa has mapped onto the rapid growth of the cities and towns. Africa’s largest cities have experienced metropolitan expansion, with the urban fabric stretching to consume peri-urban farmland, rural settlements, and neighbouring towns (African Development Bank, 2022). This metropolitan expansion further maps onto a complex near history of decentralised governance, which has often resulted in demarcation of municipal boundaries that have little relationship to functional urban areas and functional assignment (Cirolia, 2020). These changes are also situated within broader political-economic shifts occurring at a supra-national and global scale, which impress upon and shape national and local spatial investment decisions. The outcome has been that the spatial governance of rapidly growing metropolitan regions is coordinated through messy and convoluted bureaucracies and ecosystems, with the role of planning and decision-making being assigned to local-level administrations that have limited resources, while major infrastructure planning and investment is at the national and supranational scales (Kanai & Schindler, 2019; Schindler, 2017). It is at the urban periphery where many of these questions play out and where insights into such multi-scalar processes may best be found.

Our thinking on metropolitan expansion – aligning closely with a Southern orientation – responds to the calls of Sawyer et al. (2021) for theorisation not *of* the periphery, but *from* it. As such, “peripheral spaces are not simply Cartesian spaces identifiable through mapping and boundaries” (Meth et al., 2021), but rather reflect relationally configured spaces that are made through dynamics between – among other things – the core, corridors, real estate markets, state policy, and everyday practices. In other words, the periphery exists through understanding it in relation to something else imagined to be the centre.

The concept of peripheral urbanisation has also been deployed by Teresa Caldeira (2017) to highlight modes of urban space production that occur on the edges of official logics and systems, generating new modes of politics, processes, and contributing to the heterogeneity within cities of the south. Such theorisation allows for an inverted perspective – an orientation towards cities and the urban area shaped by blurred boundaries and contested relationships. It also allows us to ask: centre of *what*, and to *whom*?

Of course, the periphery does not only offer metaphorical and methodological value. There are material geographies that experience the tangible implications of visions, policies, and practices associated with the expansions at the edges of major metropolitan centres. These spaces, while produced through orientations to the core, also exist and are developed in their own rights – materially and institutionally. Meth et al. (2021) draw empirical insights from a series of African cities to articulate five peripheral ‘logics’ – modes of development that drive peripheral expansion. These are: speculative, vanguard, auto-constructed, transitioning, and inherited. As we will return to these categories when we reflect on Nairobi, it is worth unpacking what the authors intend. By speculative, the authors are referring to the sort of risk-taking speculation of medium and large-scale private sector-led development. By vanguard, they are reflecting on the state’s central role in opening areas through active investment in connective and large-scale infrastructure such as highways or large-scale housing projects. By auto-constructed, they are referring to the piecemeal and ‘plot by plot’ (Sawyer et al., 2021) development which is often informal and unregulated, whereby building is undertaken either by households themselves (as famously described by Caldeira (2017), or more often by small scale industries, developed to respond to these demands (Mercer, 2022). And finally, ‘inherited’, speaks to the dormitory towns, ‘new cities’, and resettlement camps, often created as state-driven projects, which are unable to develop an economic base and thus become ‘spaces of obligation for the national and local state’ (e.g. South African townships). They do not claim that these modes exist in isolation, but they argue – and we will echo – that such can co-exist and intersect. These logics are not meant to be definitive, but rather – through grounded explorations of the edges of the urban – they provide ways of thinking and seeing with and from such material spaces. These modes remind us that the periphery is not just an imagination of what and who is (not) the centre – there are real spaces and places, given effect, meaning, and infrastructure – through diverse and dynamic peripheralisation logics.

It is impossible to reflect on the urban periphery, and its development, without reflecting on the question of land – its value, management, sub division, sale and development (Korah et al., 2020). The literature on peripheral land management, sometimes called ‘peri-urban’, provides some useful conceptual tools for understanding peripheral urbanisation and metropolitanisation at large. Ordinarily, the systems and processes of land subdivision and registration, exchange, and development are scattered across multiple jurisdictions and levels of government, even though the construction and development process is ultimately administered at the local government level. This paper focuses on the outcomes of these processes, without glossing over the fact that a deeper unpacking of these processes would highlight greater nuances in our understanding of processes and practices deployed by households in accessing and registering rights to land for development on the periphery.

As Kanai and Schindler (2019) remind us, peri-urban local governments – those that often hold jurisdiction over the places that form part of these projects and practices of peripheral development – depending on context, are often weak and under-resourced. In the case of Kenya, the municipalities located at the periphery of Nairobi were historically smaller in size and resource, but were also constrained through a governance framework that favoured central government control over devolved authorities. The 2010 Constitution ushered in an era of devolved governance that seeks to transfer more power and resources to County administrations, but this process is still incomplete (Gore &

Gopakumar, 2015). The spatial governance of the region therefore still bears some of these limitations, creating opportunity for circumvention of regulations. The messiness in local bureaucracies becomes a space of opportunity not only for elites and foreign capital, but also for poor residents to influence interventions in their favour, and local states to bypass even their own plans and rules (Sawyer et al., 2021). Benjamin (2004) also frames the approaches adopted by poor urban residents taking advantage of these “porous bureaucracies” to advance their interests as “politics by stealth”. Rather than remaining passive recipients or victims of grand and elite processes, urban residents are active agents in a conflict-ridden terrain (Benjamin, 2004, p. 186). Moreover, the porousness of the bureaucracy, and the everyday work which goes into the enactment of the state, also gives effect to the embedded structure constraints facing local government in Africa (Bierschenk and Olivier de Sardan, 2014). As such, urban land becomes a site of practices of regulatory bypassing, where fluid, pragmatic, enabling environments at the local government level sometimes give voice and space for all actors – rich and poor – to operate. Ironically, this ends up diluting the effect and efficacy of ambitious master plans and central government interests.

We draw from the above set of concepts: peripheral urbanisation, bypasses/ing and blurry bureaucracies, as useful starting points for this paper on Nairobi’s metropolitan expansion of edge development. The following sections draw from this conceptual nexus to unpack the developments that have occurred in Nairobi’s northern edge – in an area identified by the intersection of two bypass roads and a major highway. This region also encompasses multiple sites where owners of large tracts of land have initiated ‘mega’-development real estate projects. Viewing this area as a blurry locale that exemplifies an overlap of these theoretical debates on the relationship between the periphery and the metropolitan, and the plans and practices which substantiate these spaces over time.

3. Representations of metropolitan Nairobi: performative plans

In Nairobi, the urban imaginary, particularly for the periphery, was first manufactured through the creations and circulation of plans. Planning has always had an unsettled relationship to urban development in Africa – a vanguard practice which codes space, with or without the correlatory physical investments. Authors have pointed out how African urban plans infrequently reflect the reality of city development processes, particularly in the context of informality (Cirolia & Berrisford, 2017). While the modernist master planning tools that dominated in the post-colonial period remain salient, emerging aesthetics have refracted Middle Eastern visions of urban modernity (Watson, 2014). Researchers have also observed how policy mobilities are adapted and mutated as they interact and relate to local realities (Korah et al., 2020). Many of the plans often also remain on paper, bureaucratic and political instruments that remain unrealized. While this disjuncture could be read as a failure of plans and associated regulatory tools, we suggest that plans could also be seen as *performative² technologies in and of themselves*. They are not simply reflections of what is planned. In their drafting and circulation, these plans take an active role. They produce the imagined periphery, articulating the value of places in relation to Nairobi. At the same time, they shore up the ways in which tools of the state are prone to porosity and adaptation. In this section we look at the evolving plans for the metropolitan region, through which ambitious stories about the expansion of the metropolitan area are progressed and proposed over time.

The recently developed bypass roads, often considered to be the

outcome of Chinese investment strategies (see Zajontz (2022) on the role of China in road investment in other African contexts), interlink with highways that stretch from the urban core to the periphery. While these roads were developed in the past ten years, the plans are in fact much older. According to archival plans, Bypass ring roads were introduced in Nairobi’s 1973 *Metropolitan Growth Strategy*. The strategy was developed by a consortium of technical experts called the Nairobi Urban Study Group, bringing together the City’s Town Planning Section with an international firm, Collins Buchanan and Partners, alongside experts from the United Nations (City Council of Nairobi, 1973). Half a century later, physical copies of these plans are hard to come by, and we found the plan in the personal library of retired planning professor Peter Ngau.

Developed just 10 years after Kenyan independence from British colonial rule, the *Metropolitan Growth Strategy* represented a focused attempt at shaping the future spatial trajectory of the country’s capital as part of a wider set of post-colonial urban and infrastructural projects. The strategy laid out compelling models and visions for population growth in the area, outlining aspirations for spatial growth management, housing supply, land banking, and highway development for the functional urban region. According to experts involved, these plans felt almost too ambitious, but equally exciting, something that would demonstrate the professed intentions of more equal developmental futures. The bypass roads were, at the time, conceptualised as part of a ring of roads and highways intended to structure movement and flow for the metropolitan spatial form, with growth particularly expected to expand towards Nairobi’s northern boundary.

As we will return to in the following section, the 1973 plan did not simply express a spatial vision, but also outlined an institutional one. The report, and those who authored it, foresaw a stronger role for the City’s Town Planning Section – which was then a unit under the City Engineer’s Department. It recommended the expansion of the role of the city’s planning sections to one that would manage the processes of regional metropolitan urbanisation and land use management, coordinate housing and transportation programmes and systems, and plan the growth for the nearby towns of Thika and Athi River (City Council of Nairobi, 1973, p. 75). This would mean that the unit would not only manage the area under the local jurisdiction of the Nairobi Municipality, but also create horizontal linkages to determine coordination across the surrounding municipalities. In effect, the plan imagined the city to be both materially and institutionally expansive, with the peri-urban peripheries brought under partial control of the core. The ring roads would – of course – be the spatial linkages of this multi-fold metropolitan project. While this vision of metropolitan governance did not materialise in the last decades of the 20th century, ideas to create a centrally administered metropolitan region in Nairobi resurfaced in the early 2000s through two key documents: *Kenya Vision 2030: First Medium Term Plan (MTP) 2008–2012* (often shortened to *Kenya Vision 2030; Republic of Kenya, 2008*; Nairobi’s *Metro 2030* strategic plan (Ministry of Nairobi Metropolitan Development, 2008). According to our interviews, these plans were both published widely, swept into public debates and discourses in the media and development circles.

Unlike the largely spatial plans of the 1970s, *Kenya Vision 2030* was an economic plan, and the first Medium Term Plan (MTP) for implementing the country’s vision for economic growth and macro-economic development. A close reading of this document shows that Nairobi was enrolled centrally in this story of national growth, given its regional significance and relative economic importance. Linking back to the question of connectivity infrastructure, one of the key priorities outlined in *Kenya Vision 2030* was the improvement and modernisation of the country’s physical infrastructure, primarily through highway and roads development. The strategy document also proposed the creation of a Nairobi Metropolitan Region Bus Rapid Transit System, and a light rail system for the Nairobi metropolitan area. Similar to the 1973 *Nairobi metropolitan strategy*, the national plan also outlined proposals for the installation of public transit infrastructure through corridors spanning the breadth of the metropolitan region, connecting Athi River town to

² Here we are using the concept of performativity from STS and heterodox economics scholarship (rather than gender or arts). There are, of course, interesting overlaps in these uses, however, we use this term with the intention of showing that the act and function of making the plan is the core intention, and that these plans do not intend to predict the future or align with reality.

Kikuyu Town, Thika to the Nairobi CBD, and the Jomo Kenyatta International Airport to Nairobi's CBD.³ Nairobi *Metro 2030* strategic plan, developed in 2008 by the national ministry of Nairobi Metropolitan Development (MoNMED), was strongly aligned to this national strategy, as both documents were published in the same year.⁴ The *Metro 2030* strategy expanded on spatial and institutional proposals that had been outlined in the 1973 Nairobi metropolitan growth strategy. The main difference was that the 1973 strategy first imagined the infrastructural development of Nairobi's urban periphery as an expansion of the core. In contrast, by 2008, significant development in these regions amplified and accelerated the shared understanding that these areas, once considered largely in relationship to rural counterparts and networks, were now part of the city itself. To give effect to this imagination, the 2008 strategy proposed the creation of a centrally managed metropolitan administration over a region that by then covered over 15 independent local authorities (Fig. 2). This was justified by the need for spatial development coordination, the alignment of infrastructure investment, transport provision and services management, as well as the need to structure a multimodal space economy (Ministry of Nairobi Metropolitan Development, 2008).

However, like the 1973 strategy, many of the proposals outlined in the *Metro 2030* plan were not codified into legislation, and any processes toward their realisation were overwritten by the 2010 Constitution (Gore & Gopakumar, 2015). Adopted three years after the contentious and violent 2007 election, the 2010 Constitution reinstated a two-tiered political and administrative structure of National Government and County Governments, while also realigning the territorial-administrative sub-national boundaries into 47 counties, of which Nairobi City County is one (Republic of Kenya, 2010). At the same time, the Constitution also halted the more ambitious metropolitan boundaries and administrative structures that were being proposed in earlier plans, and since none of the metropolitan authorities or proposed management frameworks in the 2008 strategy had been created or assigned statutory authority, these ideas were once more shelved. We see, in this process, plans not so much as a spatial or institutional directive, but as a set of discourses that require constellations of codes and coding to make legible, durable and implementable.

Curiously, ideas and narratives of a 'metropolitan region' persist in plans and reports published after 2010. Examples included the 2013 *Spatial Planning Concept* for Nairobi Metropolitan Region, which had been developed by MoNMED,⁵ and the 2014 *Nairobi Integrated Urban Development Master Plan* (NIUPLAN), which was developed by the County Government of Nairobi with technical support from the Japan International Cooperation Agency (JICA). While these plans were initiated prior to 2010, they were not amended to align with new Constitutional boundaries, and therefore represented the perpetuation of metropolitan visions for the city and region, albeit one mostly held by national government agencies, rather than the county governments who would be implicated in this (e.g. Nairobi County and the surrounding County governments).

While NIUPLAN was focused on the area bounded by the County Government of Nairobi, it proposed interventions, plans and proposals

³ Vision 2030 also outlined proposals for new metropolitan regions outside Nairobi, including Mombasa, Kisumu-Kakamega, Kitui-Mwingi-Meru, Wajir-Garissa-Mandera and Nakuru-Eldoret. For Nairobi, the plan also proposed a national Metropolitan Area Authority to assist central government and local authorities with comprehensive physical planning, zoning, and the enforcement of urban development standards.

⁴ It is worth mentioning that *Metro 2030* was developed by the Ministry of Nairobi Metropolitan Development (MoNMED), a national government agency created in 2008 through a presidential directive. As observers noted at the time, mandates assigned to MoNMED paralleled those of an already existing Ministry of Local Government.

⁵ By this time, MoNMED had been dissolved and absorbed into the Ministry of Lands, Housing and Urban Development.

that considered the metropolitan area as a whole. For example, the report proposed investments in a regional Mass Rapid Transit System (MRTS), the upgrading of critical infrastructure across the metro, and the establishment of towns and secondary nodes/sub-centres to create a multi-nodal metropolitan complex. It also reiterated the need for metropolitan spatial coordination, infrastructure investment, and management beyond the county boundaries. To decongest traffic from the core city, the plan again pointed to the (still mythical) bypass roads, indicating that "after the completion of the Southern Bypass, heavy vehicles should be restricted from entering into the [core city] area surrounded by the Eastern Bypass, Northern Bypass, and Southern Bypass." (Nairobi City County, 2014, p. 18). Such quotes reflect the intention of these plans to perform a sort of vision of coordination and connection - a social fact with a rich technological life that existed nearly entirely on the pages of plans.

Reflecting on these sequential hundred-page city and metropolitan plans and strategies by local and national government, we note the performative role they play in manufacturing a perceived set of relationships between Nairobi and its proximal space; and in holding and perpetuating visions and aspirations for a consolidated and centrally administered metropolitan region, connected both through its governance as well as through key mobility investments. We suggest that these plans, through articulating spatial, economic, material, and institutional imaginaries of the role of particular places in the story of Nairobi's growth, come to quite literally 'make' particular places into Nairobi's periphery.

4. Peripheral projects: the piece-meal implementation of grand plans

For the urban development fraternity, the proposals outlined in the 1973, 2008, and 2014 plans and strategies were largely considered to be 'failed plans', existing merely on paper. Those involved in developing and driving the planning process often lament the mismatch between the effort placed in developing the proposals and twists and turns that reshaped their direction. However, while much of what lives in metropolitan spatial and strategic plans remains far from material reality, some aspects of these plans have come to life - albeit revived in unexpected and piecemeal ways (see Sawyer, 2014 for similar processes in Lagos). These plans, therefore, exist in a liminal space - where they are both dead and still alive, unimplemented and yet not entirely discarded, and often partially realised. As such, in these peripheral processes there is no linear process from planning to development, but rather such ideas mutate, from conceptualization through announcement, uptake, and financing, and through decades of actualisation.

The adjustment and partial implementation of these plans over time reveals constellations of actors and interests that coalesce and shift through changing global and national economies and geopolitical imperatives. It is, therefore, less useful to see these metro strategic plans as fantasies or failures, when they could also be viewed as interventions against backdrops animated by uncertainty and financial and fiscal constraints. In this section we show that there are three ways in which these plans have been revived and implemented: 1) the recent formation of centrally controlled authorities, 2) newly completed roads and highways in the northern metropolitan area, and 3) the gradually unfolding real estate projects in the same areas. These reflect a continuous (though disconnected and asynchronous) process of actualisation and revivification of these older plans, strategies, and aspirations for the metropolitan area. The difference in the present is that these old plans are being reanimated and reimagined by a wider range of loosely coordinated actors, and within new global economic regimes. It is nonetheless important to assess these processes of plan reanimation through the projects and investments being activated in the present, the assemblages of actors and institutions animating the processes, and the forces influencing the selection and phasing of investments.

We begin with the question of metropolitan scale governance. In

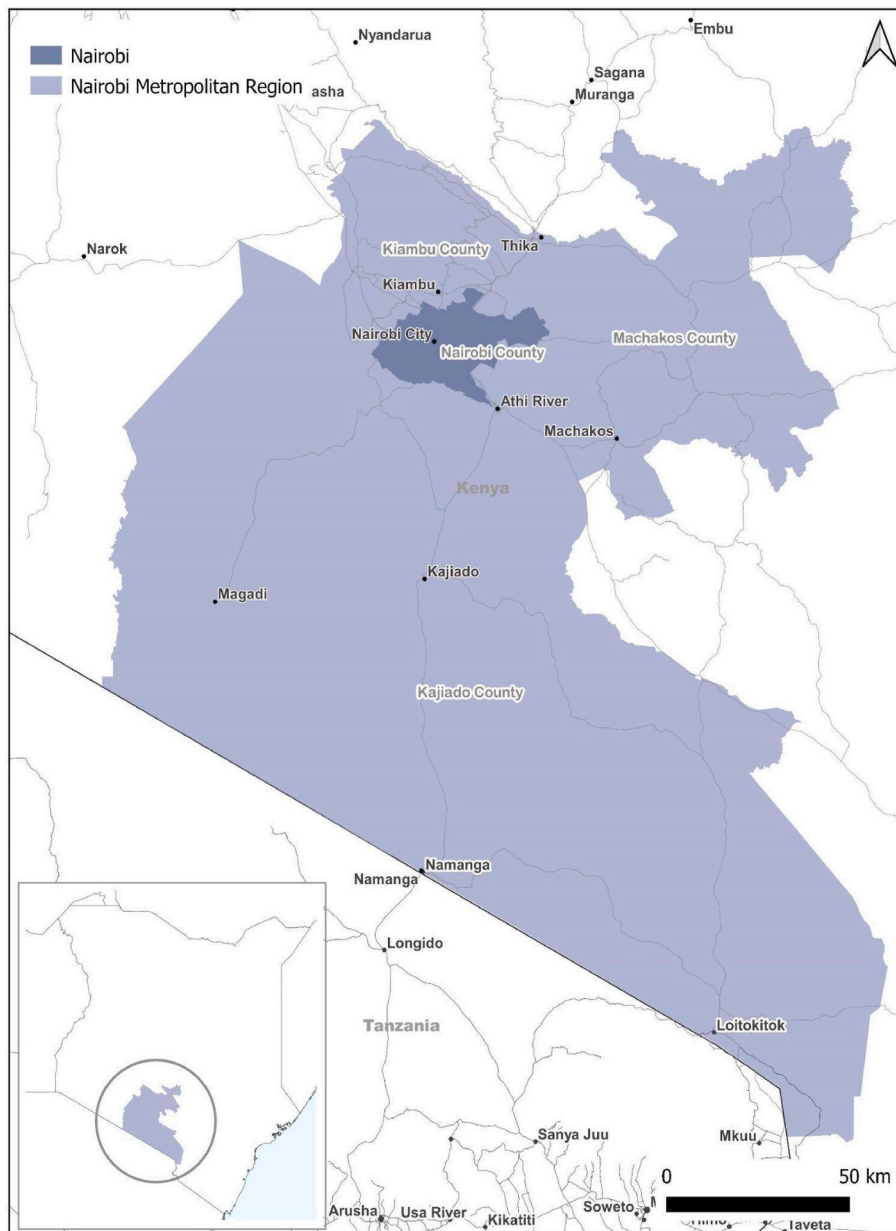


Fig. 2. The extent of the proposed Nairobi Metropolitan Region in the Metro 2030 strategy.

reality, some plan ideas have been adapted into new metropolitan agencies and projects. While the large-scale proposals in the plans have not been realised, new institutions, programmes and special-purpose agencies created over the years have carried some of the goals forward. Examples include the Nairobi Metropolitan Service Improvement Project (NaMSIP), a metro-wide urban development initiative established in 2012 and coordinated by the State Department for Housing and Urban Development, financed by the International Development Association (IDA) to invest in roads, commuter rail stations, sewerage and stormwater, markets, integrated water development, and disaster and emergency preparedness across the metropolitan counties; the Nairobi Metropolitan Transport Authority (NAMATA), established in 2017 and mandated with the installation of an integrated metropolitan public transport system; or the more recent and now dissolved Nairobi Metropolitan Services (NMS) – a transitional agency installed in 2020 to coordinate core functions (health, transport, public works, physical planning and development) for the embattled County Government of Nairobi. Following the 2022 elections, these functions were reinstated

to the County Government of Nairobi (Nairobi City County Government, 2022).

These programmes and directorates perform some of the metropolitan management and service delivery functions that were proposed in the 1973 and 2008 plans, but are far smaller in scope and statutory authority. Despite bearing the name ‘metropolitan’, few provide any sort of real metropolitan coordination of peripheral integration. These cycles of planning and strategy formulation for the metropolitan area, coupled with aspirations to legislate a single metropolitan political and administrative region, illuminate continuous tensions between central and devolved governments in relation to the administration of capital cities that are also not unfamiliar within an African urban governance discourse. This paper acknowledges these ever-present contestations and power relations between the national government and the capital city, and between the capital city, Nairobi, and surrounding administrative regions, though they extend beyond its scope. The key focus remains on the fact that embroiled within these political and regional debates on land, resources, and governance, are legitimate concerns

about how to govern fragmented urban territories, connected by infrastructures both mega and partial.

Turning to the question of infrastructure, nearly 50 years after they were imagined, the bypass roads were resourced and constructed in little over a decade. Other authors have also highlighted similar processes of infrastructure-led development and investment activity that occurred across Africa within the same period, drawing on a combination of public finance and private loans, and aimed at enabling regional connectivity, industrialisation, economic integration and growth (Dye et al., 2022, Gillespie and Schindler, 2022). Others have critiqued the logic being applied in packaging and financing infrastructure development, and the technocratic, market-based models of structuring urban development through these modes, particularly at the expense of more inclusive city building (Guma et al., 2023). As can be seen in Table 1, these bypass roads were financed by a combination between Chinese investment and national financial commitments, and built by Chinese construction companies. The leading Kenyan agencies have been the national road authorities, in particular the Kenya National Highways Authority (KeNHA), and to a lesser extent the Kenya Urban Roads Authority (KURA). The bulk of literature and analyses of these investments highlights the role of Chinese construction companies engaging in direct lobbying of national government departments to revive defunct plans (Goodfellow & Huang, 2021; Mugendi, 2011; Plummer, 2019), though we have presented how these also draw from evolving macro-economic development strategies (Republic of Kenya, 2008, 2013, 2018; Huang & Pollio, 2023). In Kenya and the Nairobi metropolitan region, this new confluence of actors, interests, and resource flows has led to the achievement of highway and roads proposed in these 1973 and 2008 plans.

The scale (both spatially and financially) of the bypass roads is much smaller than the Nairobi-Thika ‘superhighway’ – which connects Nairobi to Moyale at the Ethiopian border, as part of the Great North Trans-African Highway (Cape Town to Cairo). They have, however, played a similarly important role in reshaping the periphery of the city, as they shift from being planned fantasies to everyday urban infrastructures. In just over a decade of commissioning, the roads have become a routine part of the urban structure of Nairobi, integrated into urban movement networks of all kinds. As with the rest of the metropolitan roads, the superhighway and bypass roads feature the familiar traffic congestion, used daily for all manner of regular movement into and around the city. In many ways, these highways have become notably mundane and incremental. These bypass roads however have a perplexing relationship with the periphery taxonomies. While undeniably part of the state-led infrastructure development projects outlined in the 2008–2012 economic development strategies – projects which characterise vanguard peripheralisation – the early performance of the plans, which

precipitated both the so-called mega-projects and the actual development of any significant infrastructure was however piecemeal in nature.

A final driver of large-scale urban development in Nairobi’s periphery has been real-estate and land development activity. In Kiambu County on Nairobi’s northern periphery, this took the form of large- and small-scale projects in housing, land speculation and real estate development that transformed the former coffee-growing region into a predominantly residential area. A notable component of these is mega-real estate development projects implemented by real-estate and finance-sector investors which correlate with similar investments in mega-real estate development across Africa – driven by speculations in land and real estate. Many of these projects became prominent in the early 2000s, evolving parallel to ongoing processes of national and metropolitan strategic and infrastructure planning and investment (Gillespie and Schindler, 2022). They also drew together a similarly broad constellation of actors, funds, and investments ranging from state to non-state actors seeking to capture and capitalise on shifting land values, particularly following the post-2003 stabilisation of Kenya’s economy.

Adjacent to infrastructure investments, these speculative land and ‘mega’ real estate investments feature prominently in narratives and imaginaries of the development trajectory (and decongestion) of Nairobi. Examples of large-scale developments include Tatu City (Rendevor), Northlands Estate, River Run Development (Cytonn), Migaa Golf Estate in Kiambu County, and Thika Greens Golf Estate in Murang’a County (Fig. 3). Marketing reports and promotional videos from the projects establish links with Kenya’s *Vision 2030*, presenting their own glossy master plans that guarantee residents a life in planned, development-controlled, mixed-use estates that would allow them to live, work and play in serene, curated environments. From these locations, residents are also assured access to world-class retail and entertainment facilities, and – through access to the newly completed bypass roads – the Jomo Kenyatta International Airport. Therefore, like the national and metropolitan strategies, these projects outline visions for an imaginative, alternative urban existence, presenting these through compelling, artistic, visually striking, hyper-realistic graphics and animations that tap into global trends as well as local aspirations and imaginations.

The first and most popular of these developments in Kenya is Tatu City, a 5000-acre mixed-use development in Kiambu County. According to media outlets and practitioners involved in developing the ‘new city’, Tatu City was notable in being one of the largest real estate projects in the country, and in the way the project was linked to ongoing national and metropolitan plans and strategy documents. Tatu City marketing documents presented the project as being “endorsed as a flagship project under Kenya’s *Vision 2030*”. Similarly, in presentations on Nairobi’s *Metro 2030* spatial strategy, Tatu City was also presented as one of the “new towns” in the region, creating a shared trajectory for the development alongside state spatial planning and infrastructure investment visions. Tatu City was, in many ways, on the frontier of these developments, aiming to capitalise both on the conversion of cheaper agricultural land in the former coffee-growing region into mixed-use development, and on the proximity of the relatively weaker Kiambu County.

Over the past decade of implementation, Tatu City, like many developments in Kenya – while presenting spectators, speculators, and aspirant homeowners with stock images of fully completed homes and neighbourhoods – has quickly shifted strategy to selling plots for individual development, as a means for rolling out this larger master plan. In other words, rather than developing in line with their professed plans, they are being built very much incrementally, as the city has always been developed. As with national and regional plans and strategies, we propose an alternative view of this shift. Rather than seeing these projects as divorced from the reality of Nairobi, this shift could be seen as reflecting the reality of the Kenyan spatial and real estate market, where ambitious plans are used to test the market for finance and development, but the reality of financial access (both of individual buyers and

Table 1
Highways and bypass roads in Nairobi.

| Highway | Lead Agency | Finance | Construction |
|--------------------------------|-------------|---|---|
| Thika Road (2012) | KeNHA | AFDB (ADF) Exim Bank GOK | China Wu Yi Sinohydro Shengli Engineering |
| Eastern Bypass (2014) | KeNHA | GOK | China Road and Bridge Corporation |
| Northern Bypass (2014) | KeNHA | Exim Bank (85%) GOK (15%) | China Road and Bridge Corporation |
| Southern Bypass (2016) | KeNHA | Exim Bank (85%) GOK (15%) | China Road and Bridge Corporation |
| Western Bypass (2022) | KeNHA | Exim Bank (85%) GOK (15%) | China Road and Bridge Corporation |
| Eastern Bypass Dualling (2022) | KURA | Exim Bank GOK | China Communication Construction Company |
| Nairobi Expressway (2022) | KENHA | China Road and Bridge Corporation (CRBC). | China Road and Bridge Corporation |

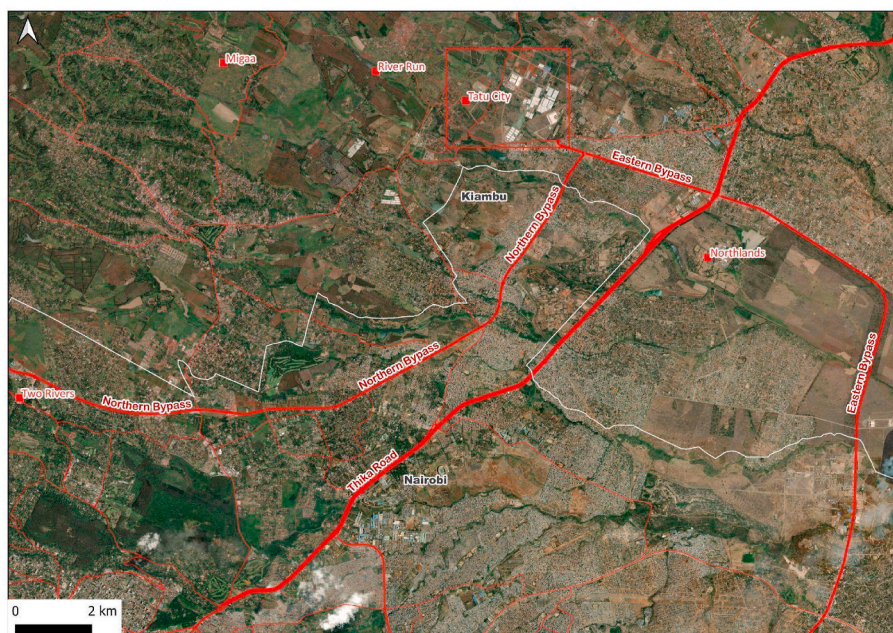


Fig. 3. Tatu City and other ‘mega’ real estate developments in Nairobi’s northern periphery.

developers) mediates material development prospects. Developments like Tatu City, once considered to be remote, disconnected ‘fantasies’ by critical planning scholars, are now centred in these new material connectivity linkages, surrounded by smaller-scale developments.

Real-estate developments such as Tatu City reflect the hybridity of concepts and processes of “bypass urbanism” presented by Sawyer et al. (2021) or speculative urban logic described by Meth et al. (2021). These developments offer middle- and high-income residents the option of living in centrally planned, development-controlled, self-contained zones that bypass and circumvent the more ‘chaotic’ urban area around them. They also speculatively rely on the state-developed bypass roads as new networks of connectivity and movement, and the increase in land values as a result of these infrastructures. Lastly, they rely on the skilled application of existing planning instruments (such as special economic zones or special planning area legislation) to expedite or circumvent lengthier and laborious processes of local development control and land-use management at the local government levels.

This section shows how plans have been ‘revived’, albeit in a piecemeal nature. Most mega-projects, we show, are themselves part of incremental patchworks. It shows that, rather than being driven by a single planning logic or coordinated framework, Nairobi’s metropolitan spatial transformation for the past half-century presents an asynchronous and disconnected process of plan actualisation that selectively extracts ideas from old plans without implementing them to their full potential. This process is also incremental, adaptive, and continually transforming in response to changes in social, economic, and political realities. They also show the importance of seeing these spaces not as coordinated by a sinister and singular project of frontierism, or by a handful of powerful elite actors, but rather developed through multiple logics and investments that are sometimes aligned and, in other times, competing and contradictory.

5. Plotted practices of land development: capturing value in Kiambu

In this final section we look at sub-urban processes of plotted development – a slower, more everyday (Cirolia & Scheba, 2019) form of peripheral urbanisation. The majority of research and documentation on private developments in the metropolitan periphery focuses on mega-real estate developments (sometimes called elite enclaves), as

discussed in the previous section (Carmody & Owusu, 2016). But as Meth et al. (2021) remind us, there are additional processes at play which – through their sheer agglomerative scale, reflect greater and more substantial forces shaping development. In Kiambu, Nairobi’s now northern periphery, we are particularly interested in the ways in which plot-by-plot developments (Karaman et al., 2020) interface with the plans and projects outlined in the previous sections. In doing so, we are attentive to the ways in which this plotting dialectically engages in the gaps and opacity of sub-national and sub-urban governance practices.

Time is a vital factor in this (slow) plotting, requiring a temporal view of the areas as they have changed. As presented in the first section, the northward expansion of Nairobi towards Thika town had long been projected by planners. The map in Fig. 4 below uses built-up area data from the Global Human Settlements Layer to indicate the land use changes that have occurred in the northern metropolitan region from 1980, 2000 and to Pesaresi and Politis, 2023. From the map, it is evident that this expansion occurred as plans had envisioned, despite the fact that the steps proposed for the structuring of this growth were barely implemented. It also shows that these slow and ‘plot-by-plot’ investments prefigure large investments in the highways, but have also responded to them. Therefore, while land intensification at the intersection of Thika Road and the Eastern and Northern Bypass began prior to the construction of the highways, a temporal view shows that it occurred more rapidly at the individual plot level – especially after their completion.

This area, bounded by the intersections of Thika Road, the Eastern Bypass and, further down, the intersection of the Eastern and Northern Bypass highways, has transformed over the past two decades from farms and scattered residential smallholdings into a mixed-use peri-urban zone connecting Nairobi to the industrial town of Ruiru. Analysis from the Hass Property and Land Index Datasets, which track changes in land and property prices across key nodes in the Nairobi metropolitan area, show that while prices have increased all around the metropolitan area, they increased more significantly in Kiambu. This increase, according to the Hass Consult Land Price Index for Q4 2020 was attributed to the role played by “institutional investors such as insurance companies,

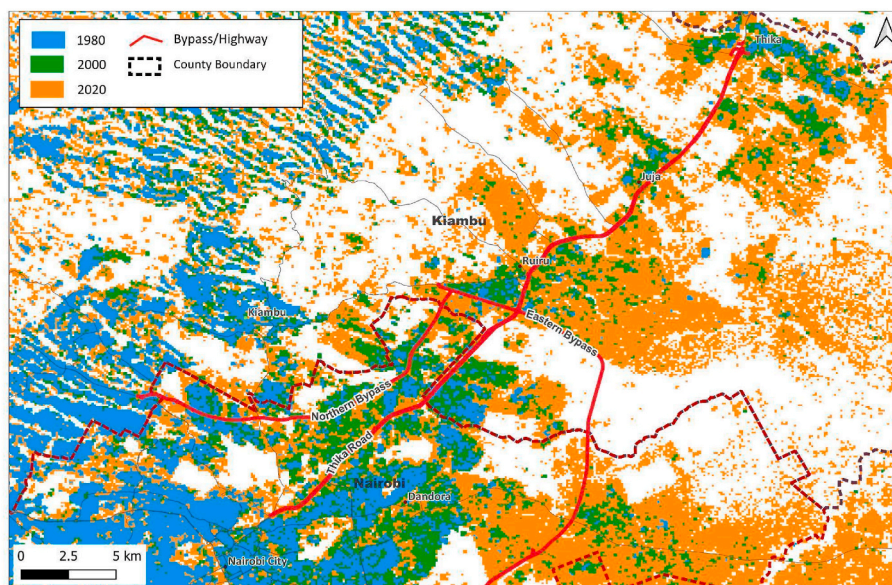


Fig. 4. Built up area over time in Nairobi's northern areas (1980–2020).

SACCOs⁶ and real estate developers who bought large parcels of land for subdivision and further speculation” (H.C. Limited, 2020). This is corroborated in conversations with families that have lived in this area for years, and who have watched these changes over time. These mid-range players are able to mobilise member savings to scale their investments, and have contributed significantly to the speculative land markets around the metropolitan fringe.

The transformation of these spaces reflects a dynamic interplay between what Meth et al. (2021) call “vanguard investments” (including the planning and development of the Thika Road superhighway and the Northern and Eastern Bypass roads) and, the processes of housing development by individual investors through plot by plot development. Mercer (2020) also reflects on similar processes of middle class suburban plotting, reminding us that this development is undertaken “largely outside of the circuits of international capital by urbanites who buy small plots of land and construct their own houses, mostly using cash and without housing finance”. Notably, this individual construction does not mean that landowners are laying their own bricks: plotted development involves mobilising the labour and expertise of a whole range of local service providers, from material suppliers to architects to builders.

As shown in Fig. 5 below, this plottedness manifests as diverse land uses from plot to plot. It is therefore common to find small-holder farms adjacent to blocks of flats, adjacent to a small townhouse estate with four, five, or six residential units, interspersed with neighbourhood private schools, day-care facilities, and commercial and light-industry activities. To support these real estate investments, important economic activities have coalesced along these corridors, and at key intersection points. At critical intersection points along the bypass highways, there are now informal transport interchange zones, where new transport routes have been established to connect various nodes around the metropolitan region, and from which micro-mobility service providers (*tuk-tuk* three-wheel taxis and *boda-boda* motorbike riders) ferry passengers deeper into the residential estates. Other interchanges have mushroomed into shopping centres as informal markets and other vital economies, shops, and kiosks are established. Further out, support services for continuous construction work – such as trucks for hire, brick

sellers, solid-waste extraction trucks, sand ferrying, informal welders, and gardening services and plants – are available. A drive along the Eastern and Northern Bypass roads offers a view of these expanding linear economies through the string of shops, supermarkets, petrol-filling stations, restaurants, bars and ‘nyama-choma’ (roast meat) eateries, car wash services, building materials shops, and light industrial activities. These supportive economies and services have accompanied and followed these residential investments, emerging incrementally and gradually through the processes of auto-construction and transitioning periphery described by Meth et al. (2021).

This plotting can also be viewed as evidence of the limitations of the County Government’s development-planning capacity in controlling the rapid rate of development in these areas (Gitau, 2018; Museleku, 2013; Njoroge, 2013). Using Ruiru Town,⁷ Gateri (2002) highlights the impossible task faced by poorly resourced local – and largely rural – local governments in controlling or managing the subdivision and transfer of freehold land within a system marked by overlapping regimes of land regulation. However, rather than seeing this solely as incapacity, we see value in applying concepts of “porous bureaucracies” or “politics by stealth” (Benjamin, 2004) to explore modes through which urban residents and local authorities in the periphery simultaneously enjoy and resist regulatory gaps, choosing to selectively enforce rules and regulations.

There are, of course, winners and losers in this opacity. The lack of clear and enforceable zoning guidelines has enabled landowners and smallholder investors to undertake land subdivision and development activities that best suit their needs and purposes, or in response to market demands and pressure. This development activity has also generated revenue for resource-poor local authorities, such as Ruiru sub-county and Kiambu County. The lack of planning regulation and the porousness of the land development bureaucracy however also has its limits – even for those landowners who initially benefited from the blurriness. In cases of wealthier neighbourhoods, residents associations have banded together to outline development guidelines, which they

⁷ Following the 2010 Constitution, Ruiru Town was integrated into the Kiambu County Government, and now forms one of the sub-county areas.

⁶ ‘Savings and Credit Cooperatives’ (SACCOs) are a common way for everyday people to pool money for investment in land, stocks, or real estate projects.



Fig. 5. Mixed-use and high-density investments along the Northern Bypass.

then try to enforce on new investors, though these lack the regulatory power of the local government. Planners and administrators located in the towns surrounding Nairobi have therefore had to react⁸ – with quite limited resources. Diverse activities are therefore ‘allowed’ by these administrations as a pragmatic response to development pressure and revenue deficits.

As such, these smaller administrations located on the edges of metropolitan areas – and the administrators who drive the everyday management of urban space in these regions – are not merely passive participants in this process driven by rapid spatial expansion, but also responding pragmatically to their own demands and interests. What this suggests is that metropolitan planning at the periphery is more than peri-urban land use management. It involves the envisioning of peripheral, subnational bureaucracies and their function within the wider systems of horizontal and vertical governance arrangements. While grand visions for metropolitan consolidation may not come to light, the speculative processes triggered by those original plans – coupled with hard investments implemented in a piecemeal manner – drives a plotted urbanisation process and centres peripheral practices, not only of the people who build homes and businesses, but also of the bureaucrats tasked with making sense of this pattern of urbanisation.

6. Conclusion

This paper reflects on the processes through which places become peripheries of metropolitan centres, or to be understood as extended parts of the core. We use the historical spatial development of Nairobi’s northern periphery, and particularly the investment in bypass roads which feature across several vectors, as central to this peripheralisation process and project. The vectors we explore – in brief – include plans, projects, and plotting.

We show how plans operate as performative technologies, holding visions over long periods of time and manufacturing the imaginary of

how places fit into larger systems, and how these systems could be materialised and governed. We then turn to the patchwork of projects – the bypass roads themselves, mid-size real estate developments, Special Economic Zones and others – which reflect vestiges of these planning ideas, but which in fact become operationalised as incremental expansions in conversation with one another through speculative and developmental aspiration. Alongside the projects we also explored how institutional structures are proposed, implemented, and renegotiated in an attempt to coordinate and govern the expanding metropolitan region through shifting political, social, and economic realities. Finally, we show how plot-by-plot investment activity by small businesses and families provides the bulk of investments, knitting the area together, influencing much of the urban form evident in the periphery, while also capitalising on value created by plans and large-scale investment processes.

Our findings further substantiate the conversations about infrastructure-led urbanisation, peripheral transformation, and porous bureaucracies taking place in the debates on urbanisation in the global South. The work challenges the discourses that sloppily frame these dynamic spaces as simply the frontier of urban development of capitalist accumulation. We show instead that there are layers to how these spaces are imagined, constructed and sustained over time. The research also offers evidence of how multiple modalities of peripheral investment activity overlap and reinforce each other over time, blurring easy distinctions. These strands reflect a combination between private sector speculation, historical state driven vanguardism (both with hard infrastructure and spatial-institutional imaginaries), and also a form of auto-construction which is at once plot based and yet linked to complex and expansive building and construction labour and material value chains. The research therefore underscores the value of assessing transforming urban peripheries through multiple lenses, paying attention to the disparate forces and actors that shape different activities. It also unpacks the interface between ecosystems of spatial development management at the local government level and investment coordination at multiple scales, illustrating the consequences of a temporally and sectorally disjointed and selective approach to investment coordination.

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⁸ Prior to the onset of County Governments, areas north of Nairobi were under the management of the Town Councils of Kiambu, Ruiru and Thika. Following the 2010 Constitution, land use management and administration now falls under the County Government of Kiambu. Some land management functions are still being undertaken by the central government.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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