



## Urban growth and strategic spatial planning in Johannesburg, South Africa

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### ABSTRACT

The article examines the way strategic spatial planning in the City of Johannesburg has attempted to reshape existing and emerging spatial patterns of a divided sprawling city, focusing particularly on current initiatives to link spatial planning and infrastructure development through the growth management strategy. The strategy has been well institutionalised in the municipality, with strong political support and links to budgets. New public transport systems are being introduced, linked to spatial plans, although some of these developments have been contested. While the property industry is responding positively to some aspects of planning, moving towards greater spatial equity remains challenging. The planning-infrastructure link seems to be strengthening planning, but it is a demanding approach which requires a very different form of planning than the traditional master planning.

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### Introduction

Located within South Africa's economic heartland, the Gauteng province, Johannesburg is South Africa's largest city and metropolitan municipality (3.9 million) and its most important economic centre. Under apartheid, urban growth was controlled and the city was segregated on racial<sup>1</sup> lines, but these policies and patterns began to break down from the late 1970s and in the post-apartheid era after 1994. Spatial change in Johannesburg has been rapid since then, with the emergence of new suburban nodes and edge cities; the development of gated communities in sprawling settlements; the growth of publicly provided housing and informal settlements generally on the periphery; and racial change and densification in the inner city. Although new patterns of growth have generally been at higher densities than in the past, the city has continued to sprawl. And while a level of deracialisation has occurred in middle class areas in the north (Kracker Selzer & Heller, 2010), spatial divisions along class lines are very evident.

Strategic spatial planning in the post-apartheid era has attempted to promote more compact and integrated cities, and to redress patterns of inequality of the past. This article examines how spatial planning in Johannesburg has attempted to reshape existing and emerging spatial patterns of a divided sprawling city through the use of spatial frameworks to guide development. It focuses particularly on a very recent initiative to link spatial planning

and infrastructure development through a growth management strategy. This initiative is consistent with current international emphases on linking spatial planning and infrastructure (Angel, 2008; Mattingly, 2001; UN-Habitat, 2009; Neuman, 2009; Singh and Steinberg, 1996).

This article outlines the approach adopted in Johannesburg. It explains how and why it emerged, what has been required to make it possible, and the challenges it faces. The article draws from available literature and planning documents, as well as from 20 key interviews with municipal officials and councillors, property developers, planners and academics in 2009 and 2010. These interviews are not always cited directly, in some cases to preserve confidentiality.<sup>2</sup>

### From master planning to contemporary approaches

After World War II, master planning, which attempted to shape urban growth through physical plans showing the future layout of cities and the density and intensity of land uses (Watson, 2009), became the dominant form of spatial planning in many countries. From the 1970s, master planning was roundly criticised for its inability to shape spatial change in cities (especially those in developing countries), as a consequence of its failure to understand urban spatial dynamics and markets; its rigidity; the poor links to implementation; its lack of a participatory dimension; and its failure to gain the cooperation of departments and institutions necessary to the realisation of the plan (Devas, 1993).

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<sup>1</sup> The use of racial categories in this article reflects the prevalence of past and current racial divides and is not intended to condone them. The term 'black' includes people of African and Asian (mainly Indian) origin, and people who are mixed racially – referred to as 'coloured' under apartheid.

<sup>2</sup> Those not cited directly in the text include four property developers, four officials in departments other than planning, a private planner, a representative of the South African Property Owners Association, and an academic with expertise in property market trends.

Despite this critique, old style master planning persists in some countries (Watson, 2009), but many cities are exploring alternative forms of strategic spatial planning which are more flexible (focusing on directional guidelines and key strategic interventions); go beyond land use plans to bring together sectors and institutions; involve forms of collaborative planning, including a range of stakeholders and wider levels of participation (UN-Habitat, 2009); and link to implementation through projects and budgets. One strand of this work focuses on the connection to infrastructure development (Mattingly, 2001; Singh & Steinberg, 1996) since it is recognised that roads, transport systems, utilities and social infrastructure play key roles in shaping the spatial form of cities (UN-Habitat, 2009).

There are however questions as to the effectiveness of this form of planning, and its ability to manage urban growth and change, particularly in developing countries, where institutional capacities and resources are more limited (Watson, 2009). Challenges include, inter alia, countervailing property market trends within and particularly beyond the jurisdiction of the plan; nimbyism and resistance to the ideas of the plan; political decision-making contrary to the plan; a focus on backlogs impeding investment in managing future growth (Mattingly & Winarso, 2000); and difficulties in achieving co-ordination between and within key institutions (Stead & Meijers, 2009). Strategic plans may also be ineffective since land use management systems remain unreformed in several contexts (Watson, 2009). Further, spatial change is a long-term process, which requires commitment over time. This may be difficult to achieve. For instance, Steinberg (2005) shows how political change has resulted in the displacement of strategic plans in a number of Latin American cities. Yet planning may involve an evolving set of agreements and initiatives over time, rather than a single plan (UN-Habitat, 2009).

The discussion of the Johannesburg to follow explores some of these dimensions and issues in the South African context.

### The Johannesburg context

Johannesburg is South Africa's centre of finance, business and corporate headquarters, with strong global and African links. It is South Africa's largest local economy, accounting for 13.7% of national output, and 11.2% of employment (Quantec, 2009) – although this has gone along with relatively high levels of poverty (25%)<sup>3</sup> (Presidency, 2006) and unemployment (24.5%) (Quantec, 2009). It is the most dynamic economy within the Gauteng province, a city region with a population of 10.5 million (including three metropolitan municipalities), which is responsible for some 35.1% of national economic output (Quantec, 2009).

As such, it has been the most important destination for local and international migrants in the country. Johannesburg's population grew at 4.1% per annum (p.a.) between 1996 and 2001 in the first few years after the ending of apartheid, much faster than a national population growth rate of 2% p.a., suggesting relatively high rates of in-migration. Since then, growth appears to have slowed, but was still relatively fast at 3.2% p.a. between 2001 and 2007<sup>4</sup> (Statistics South Africa, 2007). Declining household size however has meant that the number of households

has grown even more quickly (COJ, 2006). Hence, like many cities internationally (Angel, Sheppard, & Civco, 2005), Johannesburg's built footprint is expanding rapidly. This growth is also the consequence of the dominant spatial form of new development.

Since the 1970s, Johannesburg has experienced a decentralisation of office and retail development from the central business district (CBD) and the growth of new economic nodes in the north of the city, such as Rosebank, Sandton, and Midrand (Fig. 1). Decentralising firms initially followed consumers to suburban locations, and over time responded to demands for car-oriented environments, for new types of work space, and for secure spaces away from the 'crime and grime' of the CBD. Goga (2003) also notes the role of investment imperatives in the property industry in driving office decentralisation from the 1990s. By 2004, only 36% of Johannesburg's economic output was produced in the CBD (which remained the most important single centre of economic activity in Gauteng), while 52% was produced collectively in several nodes to its north (COJ, 2009a), demonstrating the extent to which Johannesburg had emerged as a polycentric city. The dominant pattern of new residential development for the middle and upper classes has been low-rise gated complexes on cheaper land in the northern and western edges of the city, usually at much higher densities than the older suburban areas. These developments respond to concerns about safety, but also reflect the demand for more affordable housing or for less encumbered lifestyles. Patterns vary, but include 'townhouse' complexes, low rise apartment blocks, golf estates, and more recently, very large multi-use developments of over 1000 units containing a variety of residential types. A level of redevelopment of existing suburban areas has also occurred, as plots are reused for office or retail development or for higher density residential complexes. These areas are increasingly mixed racially, but are mainly upper/middle class (Kracker Selzer & Heller, 2010).

Nevertheless, patterns are more complex. Close to upmarket Sandton is Alexandra, historically an area of African freehold title, where residents successfully resisted removal under apartheid. It continues to attract large numbers of low income migrants into its informal settlements and backyard shacks. Some large new informal settlements (such as Diepsloot) have emerged on the urban edge in the north, and there has been a level of experimentation with residential developments which mix low and middle income housing provided by both the private and public sector in these areas, such as Cosmo City, designed to accommodate some 70,000 people (COJ, 2009b).

For the most part, however, the growth of housing for the urban poor has been within or close to existing 'townships' reserved for Africans under apartheid. Most of these are in the south, most importantly Soweto, established as an area for apartheid relocations in the 1950s, now with a population of over a million. Despite several economic development initiatives in these areas (described below), they remain places where levels of formal employment are low. Only 4.6% of Johannesburg's economic output is generated in Soweto (COJ, 2009a). These types of figures however do not reflect informal economic activity occurring there, and neglect the ways in which people there are reinventing these places (Mbembe, Dlamini, & Khunou, 2008).

The bulk of housing for the urban poor has taken the form of the public provision of detached 'RDP' housing<sup>5</sup> developed through the national Department of Human Settlement's capital subsidy scheme, and the growth of backyard shacks and informal settlements. Some

<sup>3</sup> Proportion of population with income below the Minimum Living Level (MLL). Johannesburg has one of the highest percentages of population living below the MLL in the country (Presidency, 2006).

<sup>4</sup> Based on the 2007 Community Survey, a national sample survey covering 275,000 households. Municipal figures have been derived using statistical techniques based on projections of the 1996 and 2001 census figures. They are open to contestation, and there are other estimates. Still, most other data and projections suggest that Gauteng was the main focus of migration (Todes, Kok, Wentzel, van Zyl, & Cross, 2010). The last census was in 2001.

<sup>5</sup> Houses provided by the public sector for the urban poor on an ownership basis. 'RDP' refers to the 1994 Reconstruction and Development Programme, in terms of which this kind of housing was originally provided.

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