Human Geographies of Stellenbosch

Transforming Space,
Preserving Place?

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2. Evolution of spatial plans in Stellenbosch

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Introduction

In South Africa, the Spatial Planning and Land Use Management Act (SPLUMA) (16 of 2013) prescribes Spatial Development Frameworks (SDFs) as the primary instruments for guiding spatial change in municipalities. SPLUMA prescribes SDFs based on the principles of spatial justice, spatial sustainability, efficiency, spatial resilience, and good administration as a way of ensuring municipal responsibility towards spatial transformation in South Africa. A municipality's SDF therefore becomes the main policy document that informs spatial transformation, and provides guidance to private and public investment initiatives that support the municipality's spatial and social vision. By analysing official spatial planning policies and frameworks, this chapter attempts to track whether and how the views of the ideal spatial development of Stellenbosch have changed over the last three decades. The chapter will start with a brief overview of evolving international and national perspectives on what is considered to be ideal urban form over the last 30 years. This serves as an introduction to determine how the evolution of key elements and views of the ideal spatial development of Stellenbosch (as espoused in its spatial plans and policies) align to these trends. The final section of the chapter provides a perspective on the implications of this analysis for the future spatial planning of Stellenbosch.

International perspectives on ideal urban form

The last four decades have delivered a substantial body of research devoted to different views regarding what constitutes the most efficient or sustainable urban form. Having garnered momentum from Local Agenda 21 and the environmental sustainability discourse born in the early 1990s, the notion of achieving a compact urban form has received overwhelming support in the debates in this research. The compact city ideology is associated with the new urbanist school of urbanism which sets out 27 principles to guide new urbanist development practice, urban planning and design at regional, neighbourhood and block scale. Nine principles are identified to guide policy, urban planning and design at neighbourhood and district level. The idea of relatively self-contained neighbourhoods are based on principles such as compact, pedestrian friendly, and mixed-use neighbourhoods; neighbourhood walkability and mixed land

uses; a broad range of housing typologies and price levels within neighbourhoods to cater for a variety of ages, races, and incomes; concentrations of civic, institutional, and commercial activity embedded in neighbourhoods; and a range of parks and recreation facilities distributed within neighbourhoods (Biddulph 2000; Berke 2002; The Congress for New Urbanism 2018). While these principles were largely born out of a strong reaction against mass suburbanisation and decentralisation of residential and commercial land uses that have dominated the post-war years, a counter argument has risen which argues in favour of a less interventionist urban environment. The Los Angeles school of urbanism, as it is known, argues that the exodus from the city, the processes of extensification rather than of intensification, has been in evidence for 50 years, and this can be attributed to its meeting of people's personal aspirations (Dempsey, Brown & Bramley 2012; Bramley et al. 2009). In a non-interventionist, market-led society like the United Kingdom (UK), such aspirations were dominant, and the voluntary exodus from cities over the past thirty years far exceeds any planned process (Welbank 2010). This phenomenon is also closely interlinked with the complex relationship between governing ideals and capitalism/private developers. Capitalism is the dominant economic order in most cities across the world and its influence on urban development is widespread. Capitalistic systems are generally characterised by free-market competition and speculation between businesses and urban development, over which government regulation has fairly limited control. The spatial impact of capitalism (globally and locally) means that capital flows to locations where the biggest potential return will be yielded, resulting in a differential use of space and a different scale of geographic inequality (Pacione 2009). Despite the significant pressure for urban development in peripheral locations, spatial planning tools and instruments such as greenbelts, urban edges, urban growth boundaries and densification strategies have been widely adopted in cities in the northern hemisphere since the early 1990s in attempts to limit the expansion of urban areas and achieve a more compact urban form. The Smart Growth movement originating in the United States, encompassing several strategies to increase compactness and efficiency in cities in the United States is one of the most acclaimed outcomes in spatial planning for compact cities. Given conditions of over-densification and urban poverty in cities in the South, many arguments have however also been brought forward arguing against compaction and additional densification in the centres of these cities (Horn 2014).

The compact city has traditionally been associated with a monocentric city structure and has often been placed against city forms exhibiting urban sprawl or decentralisation, however, the concept of polycentrism has become increasingly prominent within the current urban debate (Sinclair-Smith 2015; Horn 2014). It can refer to different scales of the built environment, whether at global, regional or city level, and has been characterised by a varied terminology – e.g. polycentric regions (Cowell, 2010; Hall & Pain 2009), polycentric urban systems (Brezzi & Veneri 2015; Maly 2015; Vasanen 2013), multimodal urban networks (Gil 2014) or polycentric networks (Burger, Van der Knaap & Wall 2014; Meijers 2005). At a large, regional scale it has been argued that the polycentric mega city region is the new phenomenon that is emerging in the most urbanised parts of the world. It has been defined as “a series of anything between ten and 50 cities and towns, physically separate but functionally networked, clustered around one or more larger central cities, and drawing enormous economic strength

from a new, functional division of labour” (Jenks et al. 2008, p.51). Large urban regions in the north such as the Ruhr in Germany, Stoke-on-Trent in the United Kingdom, and the San Francisco Bay Area in the United States are recognised as polycentric urban networks.

Urban compaction and the instruments used to curb urban expansion have always been at odds with planning for formal housing for an ever-growing urban population in the South. In this context two distinct forces drive peri-urban development: firstly, the informal accretion of migrants to the city, unable to afford land and housing in the city and as a result residing in (often) slumlike environments at the urban periphery, and secondly, private sector driven urban development favouring middle class value-driven residential development outside urban centres. Polycentricity in the South has recently been interpreted and expressed as mega projects or new towns on greenfield sites, removed from central cities and its obstacles to development such as NIMBYism and high land prices (Cain 2014; Watson 2014; Harrison 2017). In the past two decades, developing countries have seen a wave of construction of new satellite towns around booming cities, primarily as a way of relieving development pressure from the overcrowding of inner city areas (Watson 2014). In Asia, China alone has planned around 100 new towns of which several have already been constructed (Abubakar & Doan 2017). While this trend has become very popular in planning frameworks in the South, there are many concerns regarding its viability and longevity in the development environment of Southern cities (Horn 2014; Watson 2014).

The concept of Transit Oriented Development (TOD) has proved to be an enduring theme in planning for efficiency during the last three decades. As polycentric urban nodes increased, so did the interconnectedness of these nodes by means of public transport corridors (Ren, et al. 2018). TOD is defined in terms of mixed-use development near and/or oriented to transportation corridors and mass-transit facilities. Common characteristics of TOD include urban compactness, pedestrian and bicycle-friendliness, public spaces near stations, and stations designed to be community hubs. In parts of Asia, North America and Europe, the TOD approach reaches beyond stations toward a network approach to realign entire urban regions around rail transport. TOD strategies are usually based on the idea that there will be both social and economic benefits to its implementation, such as reduction of CO2 emissions, prevention of urban sprawl, and an increase in property prices (Cervero & Dai 2014).

The implementation of TOD around a Bus Rapid Transit (BRT) corridor in Curitiba, Brazil in 1974 are considered a major advance towards improving urban efficiency in congested urban centres as the linking of densification strategies to efficient and reliable public transport has significantly increased the efficiency of the urban area, even with regards to the provision of social housing within the urban footprint. Since 2000, cities throughout the world, many of which in the South have looked to BRTs as a way of stimulating TOD and increasing urban efficiency (Acioly Jr 2009). Bogota, Marrakesh, Jakarta, Cape Town and Johannesburg are some of the most well-known examples of where such systems were recently implemented. The challenge in implementing TOD alongside principles of achieving greater social justice and integration, relates to extremely high land prices in the vicinity of transit systems and the difficulties of viably redeveloping these areas for lower income households.

South African perspective on the ideal urban form

One of the key elements of evolving spatial planning policy in South Africa initiated by the new 1994 democratic dispensation, has been the notion of 'spatial transformation of cities'. The initial 1994 spatial policy response was strongly influenced by planning academia framing the problem of South African cities in terms of its inequitable and inefficient spatial structure as a result of both apartheid and urban sprawl, which exacerbated poverty and unemployment, and impacted on natural resources and agricultural land at the urban periphery (Watson 2002). The alternative spatial approach ushered in the notion of a compact, integrated city – much in line with the compact city and new urbanist thinking in vogue with the ecological sustainability discourse in the North at the time – and introduced concepts such as nodes, transportation corridors and urban edges (Harrison et al. 2008). The entire compact-city approach represented a critique of apartheid's racial segregatory planning (as well as urbanisation and population control) and instead emphasised spatially just principles such as the integration of urban areas.

The abolishment of the apartheid government engendered the recognition of the spatial imbalances and inefficiencies then prevalent in urban areas. The first attempts by the post-apartheid government to address these imbalances were presented by the Reconstruction and Development Programme (RDP) in 1994, the Development Facilitation Act (DFA) (87 of 1995), the Urban Development Framework (UDF) 1997, and the Municipal Systems Act (MSA) (32 of 2000). The RDP was a direct attempt by the new government to address the housing shortages created by apartheid. The DFA represented the first tentative steps of instituting a new planning system and introduced important principles for spatial planning, such as discouraging urban sprawl, promoting densification, promoting the integration of residential and employment areas, and encouraging mixed-use development. The promulgation of the Municipal Planning and Performance Management Regulations (South Africa 2001) introduced the system of Integrated Development Planning (IDP) and ushered in an era of so-called 'joined-up' governance. The primary focus was to ensure focused delivery through the temporal and spatial coordination of development and investment initiatives of all three spheres of governance. Part of this system required the preparation of SDFs as instruments that give spatial expression to the developmental vision and priorities of municipalities as an integral part of the preparation and approval of IDPs. The traditional structure plans of municipalities were therefore replaced by SDFs as the primary tool for guiding the future spatial development of municipalities.

Following the initial crises responses to addressing the spatial legacies of apartheid, the National Development Plan (NDP) and SPLUMA currently offers a more balanced recognition of the factors influencing and contributing to spatial equality and transformation, such as the space economy of cities, the relationship between location and transportation, and the role of the informal sector. The principles of spatial justice, sustainability, efficiency and resilience put forward by SPLUMA remains committed to the vision of compact, functionally integrated urban areas (National Planning Commission 2012). The normative principles of compact urban development and integration put forward by national planning policy and legislation as a means of

achieving spatial justice, are to date embraced in South African municipalities' IDPs and SDFs in the form of increasing densification, focusing investment around public transport infrastructure, supporting TOD and containing urban footprints by making use of urban growth boundaries. Of specific relevance to spatial planning are the provisions of SPLUMA that require the preparation of SDFs at various levels of spatial aggregation ranging from a national level, down to a municipal level, and precinct level within an individual municipality.

While the rate of informal growth increases unabatedly throughout the developing world, there has been an increased recognition that informality needs to be accommodated in spatial frameworks. The key element of today's paradigm of "Sustainable Human Development" is the idea of enablement, helping the poor help themselves. South Africa's NDP specifically recognises the role of informal settlements in providing the poor with affordable access to urban land and housing, and calls for an improved understanding of the informal strategies and livelihoods of the poor in policy development (National Planning Commission 2012). To this end, there has been considerable emphasis on urban upgrading strategies. This form of upgrading is a radical departure from previous policies that sought to eradicate informal settlements or relocate them to urban peripheries (Roy 2005). In addition to informal upgrading, a more recent trend in planning for informality has been the pro-active reblocking of informal settlements as well as the identification of state-owned land for de-densification of these areas (City of Cape Town 2013). Many informal settlements are however located in disaster-prone and environmentally sensitive areas, making them unfit for in-situ upgrading. It then becomes even more imperative that appropriate land be identified for upgrading elsewhere.

In summary, the notion of 'spatial transformation of cities' emerged as a key element of planning policy in South Africa after 1994. The evolving policy and legal framework since 1994 are underpinned by a number of common spatial planning goals and concepts that have subsequently been widely applied in municipal spatial planning processes. This overall principle of spatial transformation is focussed on the long term outcome of compact, sustainable and productive cities pursued through a greater mix of land uses, increased population densities and access to economic opportunities, whilst improving public transport systems by focussing development around a network of nodes and corridors. These components are strongly influenced by the evolving international views on ideal urban form and the mechanisms to achieve this ideal urban form.

We now turn our attention to the question whether and how these views of ideal urban spatial development is reflected in the official spatial planning policies and frameworks of Stellenbosch over the last 30 years.

Evolving views of spatial development in Stellenbosch

History of Stellenbosch spatial plans since 1990

The concept of a 'spatial plan' in the context of this section, refers to the municipal SDFs and their predecessors – urban Structure Plans. Before reviewing the evolving views

expressed in these plans we first provide a brief review of the policy and legal context of the spatial plans applicable to Stellenbosch since 1990.

The Stellenbosch Structure Plan of 1990 was prepared in terms of the (then applicable) Land Use Planning Ordinance of 1985. This planning process was initiated in 1988 and was finalised and approved in 1990. In terms of the (then applicable) Black Communities Act (Act 4 of 1984) Kayamandi at that stage did not form part of the area of jurisdiction of Stellenbosch, and from a technical and legal point of view did not form part of the area covered by the Structure Plan (Dennis Moss Vennootskap 1990a). For practical purposes and for the sake of completeness of the plan, Kayamandi was however included in the Structure Plan area. The planning principles and underlying concept of this plan was strongly influenced by the Guide Plan for the Cape Metropolitan Area of 1977. This plan identified the future structure of the Cape Town metropolitan area as being shaped by important transport routes (with a specific focus of infilling along these routes), and the development of four important satellite towns (one of which was Stellenbosch) (Dennis Moss Vennootskap, 1990b). The historical morphological unfolding of Stellenbosch prior to 1990 is described in detail in the first volume of this Structure Plan.

The first official version of a new generation post-1994 SDF was the Stellenbosch Municipality Spatial Development Framework of 2005. This plan was prepared in terms of the MSA (Act 32 of 2000) which required municipalities to prepare an IDP, including an SDF as one of its components. The process of preparing a revised Stellenbosch SDF commenced in 2010 and was finalised and approved by Council in 2013. This version of the SDF was again revised during 2017, specifically to accommodate some minor changes to the urban edge, and again approved in May 2017 as part of the IDP process. The content of the 2013 and 2017 SDFs are largely similar with the main difference being some amendments to the urban edge in the 2017 SDF. In the analysis of the SDFs that follow below, these two plans were not reviewed separately due to the significant similarity in content.

In 2017 the municipality embarked on a process to prepare a new SDF to be compliant with the requirements of SPLUMA. This process consisted of a number of separate but mutually informing specialist baseline studies, and took place with the inputs and oversight of an Integrated Steering Committee (ISC), as prescribed in the Western Cape Land Use Planning Act (LUPA), and comprising representatives across spheres of government and sectors. LUPA is aimed at consolidating the legal requirements that relates to spatial planning and public investment in the Western Cape and sets out the minimum institutional arrangements for preparing SDFs, enabling participation across spheres of government and sectors. These institutional arrangements are further described in the Stellenbosch Municipal Land Use Planning By-law of 2015. This latest version of the SDF was approved by Council during November 2019.

Review of the evolving spatial development principles and strategies for Stellenbosch

Methodological considerations

This section reflects the dominant views of each period regarding the envisioned future spatial development of Stellenbosch and the key mechanisms/strategies to pursue these spatial development principles as expressed in the four generations of spatial plans since 1990. These views were identified from a detailed content analysis focussing specifically on the detailed spatial principles and strategies contained in each of the four plans. These principles and strategies were then synthesized into sub-themes and eventually aggregated into five main themes. The focus of this analysis was to identify the dominant spatial planning views prevalent within the various periods, and how these views have evolved over the study period. We first clarify a number of methodological aspects relating to this analysis.

Firstly, the focus of this analysis is on the content of the 'plans' which is the result of a 'planning process'. We recognise that the contents of the 'plan' and the views expressed therein is the result of a process influenced and shaped by the general contextual environment within which this plan has been prepared (physical, economic, demographic, social), as well as the specific operational environment present at the various time periods within the organization (Stellenbosch local municipality). Different professional service providers also assisted with the preparation of each of the versions and the content of the plans would thus inevitably also have been influenced by the planning perspectives of these professionals. Despite these influencing factors, the views espoused by the proposals and strategies contained in these plans represent the official position regarding future spatial development of Stellenbosch at that time and informed the evaluation of new development applications during that period.

Secondly, as explained earlier, there were four broad eras of planning in the last 30 years, each governed by different policy and legal frameworks. This inevitably implies that the format and contents, as well as the accepted nomenclature differs in the various versions of the plan. Notwithstanding the terminology used, the focus of the content analysis is on the broad overall principles for guiding future spatial development, and the associated strategies to implement these principles.

Thirdly, the spatial scope of the analysis also requires clarification. The area of jurisdiction of the Stellenbosch Structure plan of 1990 covered the area generally referred to as Stellenbosch Town, from Cloetesville and Kayamandi in the north to Jamestown in the south, and Idasvallei in the east. The other three versions of the SDF however covers the entire Stellenbosch local municipality area (including towns, settlements and hamlets such as Franschhoek, Wemmershoek, Kylemore, Pniel, Langedoc, Muldersvlei, Klipmuts, Raithby, Koelenhof and Vlottenburg). In the analysis of these plans the principles and strategies generically applicable to the entire municipal area, as well as the more specific strategies applicable to Stellenbosch town were considered. This implies a much stronger focus on the specific role of Stellenbosch Town within the broader municipal context and its functional relationships with other nodes within the municipal area.

Spatial development principles and strategies

Five broad themes emerged from the analysis of the spatial development principles and strategies in the plans (Figure 2.1): settlement structure; economic development; protection of natural resources; transport and movement system; and cultural heritage, sense of place and agriculture. These themes will now be discussed individually as it evolved over the study period, and in each instance also briefly be linked to the way in which the plans reflect international and national perspectives on ideal urban form.

When considering the first theme of settlement and residential structure it is clear that the principle of densification has remained the central tenet of spatial planning in Stellenbosch over the entire period of study, primarily pursued by higher residential densities and infill development. A notable shift in emphasis is evident from a primary concern with desirability and quality of new development (visual impact, high quality appearance, impact on adjacent properties) expressed in the earlier plans (most prominently in the 1990 structure plan), to a much stronger desire to pursue socio-economic and housing integration and greater mix of land uses in the more recent plans. From the 2005 plan onwards a clear strategy to achieve better integration of different income groups and a balanced supply of housing for different income categories is also becoming evident. In the latest 2019 SDF a clear strategy is defined to integrate Kayamandi and the Stellenbosch central areas by means of the proposed Adam Tas corridor. From the 2005 SDF onwards, the implementation of this overall principle of spatial restructuring is further supported through a strategy promoting a greater mix and integration of land uses, including the creation of economic opportunities closer to lower income areas. Two important spatial concepts in support of these strategies for spatial restructuring is the use of corridors, and urban edges to limit expansion of the urban footprint, both of which is prominently advocated in all the versions since the 2005 SDF (see Figures 2.2 and 2.3 for a comparison of the spatial reflection of corridors and the urban edge in the 2013 and 2019 versions of the plan). The strategy of spatial corridors became particularly prominent in the 2013 SDF, advocating that development should be prioritised along rail routes, main roads, and intersections. This concept was further refined in the 2019 SDF in the form of the proposed Adam Tas mixed-use corridor. A further prominent strategy emerging in the later 2013 and 2019 versions of the plan is the focus on the upgrading and transformation of informal settlements. This is probably a reflection on the morphological prominence of this aspect and the development pressures experienced by Stellenbosch over the last decade. In terms of spatial structuring elements, the SDFs from 2005 onwards reflect a clear commitment to national principles of spatial restructuring post 1994. The use of corridors, densification and mixed land uses, whilst supporting the objectives of spatial justice and restructuring, are also in line with the spatial planning mechanisms applied to achieve greater urban efficiency in the international planning environment since the 1990s. Upgrading and transformation of informal settlements receiving priority in the SDFs since 2013 is another prominent theme emerging from spatial planning practice in the South during the last decade, and further underscores the firm commitment to spatial restructuring in national spatial policies.

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Figure 2.1 Evolution of key spatial principles and strategies over consecutive Stellenbosch spatial plans (1990, 2005, 2013, 2019)

The second relates to economic development and reflects a clear transition from a focus on the dominant economic sectors and the importance of the Stellenbosch CBD in the 1990 Structure Plan, to a broader view recognising the needs and requirements of the informal sector and small businesses in the 2013 and 2019 SDFs. The 1990 Structure Plan emphasized the role and importance of the CBD with the recommendation that retail and tourism activities should be prioritized over offices. It also included a strategy that promoted decentralization of chain stores and offices from the CBD. A further unique feature of the 1990 Structure Plan was the strategy to promote the establishment of corporate head offices in Stellenbosch. All three the plans over the period 1990 to 2013 recognised specific priority economic sectors from a spatial perspective with agriculture, tourism, tertiary sector (including education) and non-polluting industries consistently remaining the key sectors to be promoted from a planning perspective. A mutual spatial strategy shared by plans across the study period is the importance of improving integration between living and working places and aligns to national imperatives of achieving functional integration in urban areas. The earlier strategy of decentralisation of offices and large chain stores however gave way in favour of the preservation of the historic town centre to continue acting as core

retail and tourism centre. The latter strategy is strongly associated with new urbanist ideals of preserving a vibrant, pedestrian-friendly and safe town centre. Exactly how the location of different economic sectors functionally relates to both higher and lower end living spaces remains ambiguous.

Figure 2.2 Stellenbosch Town analysis and proposals: SDF 2013/2017 (Source: Stellenbosch LM 2012; Stellenbosch LM 2017)

The third identified theme is the protection and maintenance of natural resources. In view of the characteristics of the study area, strategies to protect ecological systems (also using the terminology ecological corridors, ecological processes, and ecosystem services) remained a key element of the spatial strategies across all four versions of the spatial plan (see Figures 2.2 and 2.3 for comparison of natural resource and open space components reflected on the 2013 and 2019 versions of the plan). The planning and use of urban open space received specific attention in the 1990 and 2019 versions of the spatial plans. In the case of the former the strategies were focussed on aspects such as flexible standards, context specific planning, and the use of urban open spaces as noise buffers. In the 2019 version the focus has shifted to the integrated use and planning of urban open space, including its integration with public transport and NMT. The 2013 SDF provided a substantial focus on strategies to ensure sustainable urban infrastructure, including aspects such as water conservation and demand management, water quality, reduction of waste streams, use of solar energy, and use of recyclable building materials. Strategies dealing specifically with rivers and water sources are a key feature of the SDFs from 2005 onwards including strategies for protecting the functioning of freshwater ecosystems (2005), indigenous riverine ecosystems (2013), and improving public continuity and access along river corridors (2019). Ecological and environmental sustainability have retained and increased their prominence on the international urban planning agenda, especially since the 1992 Earth Summit. The Stellenbosch SDFs have therefore remained consistently committed to supporting the principles put forward by international policy frameworks prescribing environmental and ecological indicators. As a town rich in environmental and cultural assets (see Chapters 4, 11, 12 and 13), it is to be expected that these elements will receive priority in a local SDF, as it consistently does.

Figure 2.3 Stellenbosch SDF 2019 (Source: Stellenbosch LM 2019)

The spatial strategies dealing with the fourth theme of transport and the movement system is the aspect that remained the most consistent in the various versions of the SDFs. The principle of a multi-modal transport system supported by a strategy to maximise the use of public transport and Non-Motorised Transportation (NMT), and specifically promoting infrastructure and facilities for pedestrians and cyclists consistently remained a key feature in all the plans. This is further echoed in the support for shifting away from private transport, initially voiced relatively neutrally as reducing the obstacles created by private vehicles (Structure Plan 1990), to a more pronounced strategy of encouraging a shift away from private transport in the 2005 SDF, culminating in a radical strategy of 'encouraging car free living' in the 2013 SDF. The principles of NMT and car free living are very much in vogue with new urbanist principles in favour of supporting more compact urban development. The new urbanist objectives are usually supported by development strategies to encourage TOD around public transport nodes such as rail- or bus stations. It is interesting that, given the town's persistent commitment to achieving less reliance on private vehicles, the backbone of the town's multi-modal public transport system remains the railway system, walking and cycling. Even though emphasis is placed on providing access throughout the town centre by way of NMT, there are no plans to strengthen the rail – or NMT systems, or TOD, with other forms of public transport, such as BRT systems, which has been widely adopted internationally and nationally.

In the Stellenbosch context the aspects of cultural heritage and the agricultural landscape (and by extension the resulting sense of place) are intimately interwoven through the wine industry (See Chapter 13 for a discussion on the Stellenbosch wine festival) and its long history in the area. The principles and spatial strategies dealing with the cultural heritage, sense of place and agricultural land remained largely consistent and unchanged in all four the plans considered. The principles of protecting high potential agricultural land and conserving the visual and scenic quality of the town is also recognised in all the plans. Specific spatial strategies becoming more prominent in the 2013 and 2019 versions of the plan is control of building heights and architectural styles, zonings to protect view sheds, the protection of undeveloped ridge lines, and protecting scenic routes and vistas – see Chapter 4. Spatial strategies to protect and preserve the cultural and historical character and sense of place of the town (including cultural landscapes and historically significant structures and precincts) have also become increasingly important in the latter versions of the SDFs. The growing importance of spatial ideals such as improving sense of place in public spaces and protecting the visual quality of the town scape are in line with new urbanist principles of achieving aesthetically pleasing urban areas. The cultural and historical assets in the town centre warrants this spatial approach, although proposed ways of achieving functional integration between the affluent, tourist-centred town centre and the remainder of the Stellenbosch town remain unclear.

Conclusion: implications for future spatial planning of Stellenbosch

The findings outlined above imply a number of likely impacts on the future spatial planning of Stellenbosch. The town has been successful in limiting the extent of urban footprint growth relative to population growth through the consistent implementation of an urban edge policy. This trend is likely to endure in the foreseeable future with the continued use of an urban edge policy in the latest 2019 version of the SDF. This has forced, and will continue to direct, both public and private developers to seek opportunities for infill and densification within the existing urban fabric such as Die Weides (see Chapter 3) and Dennesig (see Chapter 4) and urban edge. The challenge for future spatial plans will be to ensure that this densification and intensification does not take place haphazardly within the defined urban edge, but to channel it within a logical spatial structure tied to the notion of TOD and increased use of NMT.

Despite the consistent focus in all the reviewed SDFs on moving away from private transport in favour of public transport and NMT, very little noticeable shift has been evident. The Stellenbosch Integrated Transport Plan (2016–2020) indicated that the dominant form of transport remains private owned cars (61.5%), while the share of walkers and cyclists remain low (ranging between 27% in Kayamandi to 5% or less in the Stellenbosch high-income suburbs) (Stellenbosch LM 2016). This implies that spatial planning activities will in future have to be much stronger integrated with transport and infrastructure planning to have a meaningful impact. Pedestrian and cycling infrastructure and facilities will have to extend beyond token projects at a local neighbourhood scale, to also permeate the spatial structure of Stellenbosch at various scales. It implies a much stronger emphasis on NMT in the planning of new developments, as well optimising the role of this aspect to achieve spatial integration across the entire town.

The results of the SDF analysis have indicated an emerging stronger focus on the concept of spatial integration in the later versions of the SDFs. The implementation of these strategies of functional and socio-economic integration will require the formulation of more explicit strategies, and translating these strategies into tangible projects. The latest 2019 SDF provides some tentative steps in this direction and will hugely benefit from the implementation of one successful catalytic project to provide the necessary impetus for this process. This will also give practical expression to the recommendation of the NDP that municipalities should develop explicit spatial restructuring strategies that are linked to implementation instruments (National Planning Commission 2012). The notion of TOD with high intensity development around railway and other public transport stations or along major roads and at intersections is an important instrument in advancing the idea of spatial integration. However, despite the ongoing commitment in SDFs to promoting public transport and TOD principles across the entire study period, actual implementation thereof remains rather limited (Du Plessis 2019). The more detailed proposals for corridor development in the latest version of the SDF indicates a continued commitment to the implementation of this concept and its important future role in the spatial restructuring and integration of Stellenbosch. This will however

require the cooperation of different spheres of government, and the cooperation of a variety of role players.

The growth of informal housing in both absolute and proportional terms suggests that spatial planning has not been able to successfully manage the growth of informal settlements or satisfy the demand for lower- and medium-income housing in Stellenbosch. Moreover, despite the SDF's intentions of supporting informal businesses, a coherent strategy for developing viable spaces for informal trading is still lacking. It is clear that the traditional spatial planning response to the challenge of informality which focuses on the supply side through identification of land for future development will not solve this problem on its own. What is required in future is a much better understanding of the fundamental processes involved in the functioning of the informal housing market. This includes an improved understanding of the economic mechanisms of the informal housing rental markets in Stellenbosch and the factors influencing demand and supply, as well as the relevance of institutional mechanisms to regulate the informal housing market.

One of the most significant challenges of future spatial planning for Stellenbosch is the dilemma of balancing the significant demand for residential and economic growth together with the large number of visitors it attracts annually on the one hand, and maintaining the character and visual appeal of the town on the other hand. Balancing the need for new development with maintaining the historical heritage character and sense of place of Stellenbosch will remain a key challenge and these are discussed in the next two chapters. It is thus imperative that suggested interventions in the physical environment as formulated in the municipal spatial plans are not limited to the timescales of regulatory spatial planning processes, but transcends multiple timescales over which the various individual elements of the broader urban system will evolve and co-exist. In addition, the interpretation and implementation of spatial concepts and strategies will have to be embedded in the nuanced patterns of a local neighbourhood scale, for Stellenbosch town as a functional entity, and within the broader context of Stellenbosch and its role and function within the Cape Town City Region.

A critical element in charting the way ahead is the need for introducing clear indicators and targets to evaluate the aggregate impact of spatial strategies and proposals contained in each consecutive version of the SDF. Clear and easily understandable indicators reflecting the progress of spatial strategies and proposals are a key element in formulating and communicating spatial planning arguments. The introduction of such robust indicators in the future spatial plans will enable planners and other role players involved in the preparation and implementation of spatial plans to be more confident about their roles in achieving the end results. In the words of Wong (1998, 234): "real innovation and improvement (of planning) can only come if we share the experience of our predecessors and consolidate past lessons, the right and the wrong, to develop new ideas and methods from that basis."

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