Is spatial integration socially sustainable?

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Abstract

This article raises the question whether spatial integration is socially sustainable in a South African context. This is an important question given that settlements remain socially unsustainable despite several years of integrated planning and the inclusion of spatial integration measures in post-apartheid urban spatial policy. A review of literature and existing research about the relation between spatial integration and social sustainability suggests that the question is still inconclusive and that further empirical research is needed about social 'responses' to spatial integration in a South African context. It is concluded that such research should be done as basic and applied research to improve planners' understanding of the relation between spatial integration and social sustainability and to better inform integrated planning.

IS RUIMTELIKE INTEGRASIE SOSIAAL VOLHOUBAAR?

Hierdie artikel bevraagteken die sosiale volhoubaarheid van ruimtelike integrasie in 'n Suid-Afrikaanse konteks. Dit is 'n belangrike vraag gegewe dat nedersettings steeds sosiaal onvolhoubaar bly ten spyte van 'n aantal jare se geïntegreerde beplanning en die insluiting van ruimtelike integrasiemaatstawwe in hedendaagse stedelike beleid oor ruimte. 'n Oorsig van literatuur en bestaande navorsing oor die verhouding tussen ruimtelike integrasie en sosiale volhoubaarheid stel voor dat die vraag steeds onbeantwoord bly en dat verdere empiriese navorsing oor sosiale reaksie tot ruimtelike integrasie in 'n Suid Afrikaanse konteks nodig is. Gevolglik word dit voorgestel dat hierdie navorsing as basiese en toegepaste navorsing behoort te geskied om beplanners se begrip oor die verhouding tussen ruimtelike integrasie en sosiale volhoubaarheid te verbeter asook om die beplanners beter in te lig oor geïntegreerde beplanning.

A NA HO KOPANGWA HA DIBAKA HO MOLEMONG WA SETJHABA?

Kgatiso ena e botsa potso ya hore na e be ho kopanngwa ha dibaka ho molemong wa setjhaba ha re lekola maemo a Afrika Borwa. Potso ena ke ya bohlokwa ha re hlokomela hore dibaka tsa bodulo ba setjhaba di hloka botsitso, le ho ja ho bile le maiteko a ho kopanya dibaka ka dilemo tse ngata le ho kenngwa ha mehato ya ho kopanya dibaka tsa makeishene maanong a tlileng ka morao ho puso ya kgatello. Tekolobotjha ya dingolwa le diphuputso tse teng mabapi le dikamano pakeng tsa ho kopanngwa ha dibaka le botsitso ba setjhaba e hlahisa hore mathata a sa le mangata le hore ho ntse ho hlokahala diphuputso tse ding hape tse mabapi le "maikutlo" a setjhaba mabapi le ho kopanngwa ha dibaka ka hara Afrika Borwa. Tumellano ke hore diphutso tsena di tlameha ho etswa e le tsa sethatho ho sebediswang ho matlafatsa kutlwiseso ya ba ralang dibaka ya dikamano tse teng dipakeng tsa ho kopanngwa ha dibaka le botsitso ba setjhaba le ho fana ka kutlwiseso e tebileng ho ba ralang ho kopanngwa ha dibaka.

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1. INTRODUCTION

The spatial form of South Africa's urban settlements poses a huge challenge in terms of social sustainability.[2] This is historically due to the impact of modernist and apartheid planning ideologies. Modernist planning ideology, associated with functionalism, prioritised the private car and the efficiency of municipal service delivery at the cost of pedestrian-scale development and the creation of quality public spaces. Apartheid planning ideology, associated with segregation, systematically re-located Black and poor communities on urban peripheries with few economic and social opportunities (Behrens & Watson, 1996: 7-43; Behrens, 1996; Dewar, 2000: 210-211; CSIR, 2000). Some of the distinctive features of South African settlements are therefore poor quality public spaces and unnecessary long distances between places of living and working. These features continue to have a severely negative impact on social life in settlements in the form of poor sense of place and community, unequal access to economic and social opportunities, loss of valuable time and money on travelling, etc.

The spatial form of South Africa's urban settlements is therefore clearly not socially sustainable, i.e., settlements do not sufficiently enable present and future social development and general human well-being. Therefore, one of the objectives of integrated planning is to make settlements more sustainable through spatial integration measures such as compaction and densification. 'Compaction' is interpreted as a more optimal and integrated use of urban space and restriction of unnecessary urban sprawl, whereas densification is interpreted as more intensified land use, especially in residential terms (Department of Housing [DoH], 2004).

The supposed logic is that spatial integration will necessarily reverse the spatial fragmentation of modernism and apartheid as well as the negative impact these have had on social life.

In developed countries, emphasis on spatial integration is more in relation to the need for greater economic and environmental sustainability (Smyth, 1996: 107). In South Africa, however, it appears to be more in relation to social sustainability (Todes, 2003: 109; Irurah & Boshoff, 2003: 248). This is arguably because of the strong correlation between spatial fragmentation and racial- and income divides and because spatial fragmentation effects black and poor communities the most. This means that the notion of spatial integration being socially sustainable is particularly important in a South African context. Spatial integration is seen as a key tool of integrated planning to achieve greater social sustainability as well as much needed socio-economic redress.

Ideas to spatially integrate settlements through compaction and densification go back to Dewar & Uytenbogaardt's seminal work, *South African Cities: A Manifesto for Change* (1991). They argued that the problems with South African settlements included car dependency, low-density sprawl and spatial fragmentation along class and racial lines, whereas compaction and densification were important means to reverse these problems and to achieve spatial integration. At the same time, New Urbanism, an international movement advocating compaction and densification through traditional neighbourhood development (TND) (Katz, 1994), also influenced local thinking about spatial integration (Harrison, 2002).

These ideas led to the earliest versions of post-apartheid urban spatial policy to advocate spatial integration through means of compaction to develop settlements that are socially sustainable. The *Urban Development Strategy* and *Urban Development Framework*, published by the Department of Housing (DoH) (1995; 1997 respectively), advocated spatial integration measures such as compaction, densification, and mixed land-use to achieve "the physical, social and economic integration of our towns and cities" (DoH, 1997 as cited by the CSIR, 2000). This was given legislative backing as early as 1995 by

the *Development Facilitation Act* (*DFA*) (Act, No 67 of 1995). All the land development objectives in the *DFA* emphasise integration and/or compaction and densification. Given that the DFA applies to all other planning legislation, spatial integration through compaction and densification is therefore particularly significant in terms of a local urban development agenda of (socially) sustainable settlements. Although Todes (2006) chronicled a decline (and possible resurgence) of urban spatial policy since the late 90s, the DoH's latest policy, *Breaking New Ground: A Comprehensive Plan for the Development of Sustainable Human Settlements*, still advocates spatial integration in the form of compaction and densification as a means to develop settlements that are socially sustainable (DoH, 2004).

However, the spatial form of South Africa's urban settlements remains economically, environmentally and socially unsustainable despite several years of integrated planning and the inclusion of spatial integration measures in post-apartheid urban spatial policy (Dewar, 1998: 369; Du Plessis & Landman, 2002; Tomlinson, 2002: 380; DoH, 2004: 11; DBSA, 2005: 54-61; SACN, 2006: 3:1 — 3:65). Literature on integrated planning and the evolving spatial form of urban settlements in post-apartheid South Africa actually refers to increasing spatial fragmentation, social discord, and cultural resistance to spatial integration (Dewar, 1998; Schoonraad, 2000; Harrison *et al.*, 2003; Murray, 2004).

If it is accepted that spatial integration could be socially sustainable (e.g., see Jenks *et al.*, 1996; Williams *et al.*, 2000; Jenks & Burgess, 2000), although it does not seem to be the case in South Africa, the question arises whether spatial integration is in fact socially sustainable in a South African context? For example, does spatial integration result in more equal access to social and economic opportunities? How will different income and population groups respond to more compact and dense settlements? How can spatial integration be implemented realistically to achieve greater social sustainability — does the political will and technical know-how exist? These are particularly important questions considering that enduring urban poverty, poor quality of life and socio-economic divides will most probably remain on

the national policy agenda. It is also important considering that integration, one of the main objectives of post-apartheid planning, has not had the desired results, which could raise doubt over the current planning profession.

The question whether spatial integration is socially sustainable in a South African context thus constitutes the focus of this article. However, given the magnitude of the question, this article does not report any significant primary research to address the question, but instead provides a critical review of literature, existing research and recent policy to provide indicative answers to the question and to determine possible further research that might improve planners' current understanding and better inform integrated planning. As such, this article proposes an agenda for further research about the relation between spatial integration and social sustainability.

2. REVIEW OF LITERATURE AND EXISTING RESEARCH

The first part of the review is of particular definitions and indicators of social sustainability from literature that deals with the subject either directly or indirectly, whereas the second part is of existing research about particular aspects of the relation between spatial integration and social sustainability. The review of definitions and indicators is used later on to help evaluate existing research and recent policy, and to determine possible further research. Tables 1 and 2 list the various definitions and indicators by date of publication as direct quotations from international and local literature respectively.

The definitions in Tables 1 and 2 suggest that the concept of 'social sustainability' is indeed very broad — hence the definition adopted in this article that refers broadly to social development and general human well-being. It is also clear from the indicators that 'social sustainability' implies many different economic, environmental and social objectives that would be context dependent. Nevertheless, indicators are generally of two types — those pertaining to positive social conditions (e.g. access to facilities and services, social security and inclusion, rights of vulnerable groups, etc.) and those pertaining to

Table 1: Definitions and indicators of social sustainability in international literature

SOURCES	DEFINITIONS	INDICATORS
Crookston et al., 1996	"Good standard of living"	"Housing density, transport, services and facilities, urban management and safety, and the housing market"
Smyth, 1996: 102 &105-109	No specific definition	"Preferred lifestyles, social inclusion/exclusion"
Troy, 1996	No specific definition	"Family and community life"
Commission of the European Communities, 1990 as cited by Welbank, 1996	"Positive urban values and urbanist living"	No specific indicators
Williams et al, 1996: 88	"Positive urban image and urban vitality"	"Environmental attitudes and perceptions"
Burton, 2000a: 1970-1972; Burton, 2000b: 22	"Social equity"	"Access to superstores, access to green space, job accessibility, public transport use, non-motorised travel, amount of living space, health, crime, segregation, job opportunities, affordable housing, wealth"
Kim, 2005: 187	"People and community"	"Percentage of affordable housing for low-income groups, number of local environmental agencies and citizen groups participating in the planning process, percentage of residents participating in the planning and management of site"

Table 2: Definitions and indicators of social sustainability in local literature

SOURCES	DEFINITIONS	INDICATORS
Du Plessis & Landman, 2002	No specific definition	"Health, safety, shelter, productive life, access to information, and quality of the built environment"
Irurah & Boshoff, 2003: 247-250	"Socio-cultural sustainability / The just city"	"Impact of the built environment on social systems and cultural values, rights of vulnerable groups in the context of the built environment"
Oelofse, 2003: 89	"Social justice"	Unspecified, but cites the work of Burton (2001) that includes; "use of public and other non-mechanical forms of transport, employment opportunities, access to facilities and open spaces, affordable housing, crime and safety, social cohesion, etc."
Todes, 2003: 111-113	No specific definition	"Livelihood strategies, location of housing, plot sizes, cultural responses to different densities"
Zack & Charlton, 2003	No specific definition	"Poverty, affordability of basic services, neighbourliness, crime and safety, and environmental issues"
Allen, 2002: 16-17 as cited by Pieterse, 2004: 90	"Quality of life and social justice"	No specific indicators
Swilling, 2004: 225	"Equity"	No specific indicators
SACN, 2006: 3:36-3:51	"The inclusive city"	"Water, sanitation, electricity, refuse removal, housing, social and community services, wealth distribution, human development, HIV/Aids, quality of life"

positive social responses (e.g. positive environmental attitudes and perceptions, resident participation, etc.).

Moreover, it is important to note that local literature includes more definitions pertaining to social equity, which in turn would include indicators pertaining to social conditions. This is of course justifiable given current realties in South Africa of spatial dislocation, huge housing and services backlogs, etc. Still, local literature includes indicators pertaining to social responses, notably Irurah & Boshoff's "cultural values" (Irurah & Boshoff, 2003: 247), and Todes' "cultural responses to different densities" (Todes, 2003: 112). Local literature therefore suggests that 'social sustainability' in a South African context involves sustainable social conditions and responses, although there currently appears to be greater emphasis on social conditions, which, as indicated, is explainable given current urban realities. However, given the emphasis on democratic values, participatory processes, and an increased sensitivity towards the needs and preferences of different cultural groups in post-apartheid South Africa, it should be questioned why social sustainability is not construed more in terms of positive social responses.

As indicated earlier, the second part of the review is of existing research about the relation between spatial integration and social sustainability. Research about the relation between space and society constitutes a broad field. The sub-field of environment-behaviour studies, involving the work of urban scholars like Amos Rapoport, Kevin Lynch, Donald Appleyard and Oscar Newman, is arguably the most well-known (e.g., see Moudon, 2003: 371-373). This field also includes significant research about the relation between density and quality of life following the negative social experiences of high-rise public housing in the West (e.g. see Newman 1973; Coleman, 1985; Cuthbert, 1985). The sub-field of residential satisfaction studies also includes significant academic and government commissioned research about social responses to denser and more integrated residential environments, especially public housing developments. However, Furbey & Goodchild (1986: 171-175) have critiqued the predominantly positivist and reductionist approach of government commissioned surveys in British public housing estates saying that these surveys failed to consider the influence of social contexts on residents' perceptions of their housing situation. They pointed out that the tool that was used to measure residential satisfaction, known as the Housing Appraisal Kit, included questions that focused on basic residential needs only and not on the broader subjective experiences of residents. As such, they question many of the government commissioned surveys in which findings pointed towards residential satisfaction.

International research about whether spatial integration is socially sustain-

able, however, is mostly covered in the sub-field of compact city studies. This field has been well documented in a series of three books; *The Compact City: A Sustainable Urban Form?*, edited by Jenks *et al.* (1996), *Achieving Sustainable Urban Form*, edited by Williams *et al.* (2000), and *Compact Cities: Sustainable Urban Forms for Developing Countries*, edited by Jenks & Burgess (2000). Compact city theory revolves around the advantages (sustainability) and disadvantages (unsustainability) of compaction that are put forward by 'centrists' and 'decentrists' respectively. 'Centrists' argue that compaction result in more efficient use of resources, less pollution, greater thresholds for economic and social opportunities, etc., which in turn result in greater economic, environmental and social sustainability (Breheny, 1996; Hillman, 1996). 'Decentrists' argue the disadvantages of congestion, loss of open space, social resistance etc., and deem compaction to be unsustainable, particularly in social terms (Breheny, 1996; Stretton, 1996). 'Compromisers' argue for a balance between compaction and decentralisation in the form of urban intensification (Williams *et al.*, 1996: 84).

Compact city theory about whether compaction is socially sustainable is concerned with the validity of arguments that compaction is socially sustainable, and how realistic compaction is in social terms (Jenks *et al.*, 1996: 99). Arguments that compaction is socially sustainable are said to be based more on theoretical reasoning rather than empirical research. An example of this in local literature is Irurah & Boshoff's (2003: 249) claim that compaction is socially sustainable despite no references to any supporting empirical research. Arguments that compaction is not socially sustainable seem to be based more on empirical research. Examples include research that highlight the strength of rural and suburban values (Breheny 1992, as cited by Skovbro, 2001; Breheny, 1996: 29; Stretton, 1996: 49; Schoonraad, 2000), and negative social responses to problems associated with compaction (Næss & Engesæter 1992, as cited by Skovbro, 2001; Burton *et al.*, 1996: 232 & 234). However, it should be noted that research about negative social responses does not necessarily negate the fact that compaction may result in positive social conditions, such as

improved services, increased social and economic opportunities, etc. Burton *et al.* (1996: 239) therefore conclude that research about whether spatial integration, in the form of compaction at least, is socially sustainable remains inconclusive and that further research is needed.

Local research about whether spatial integration is socially sustainable is arguably less coherent than the field of compact city studies. Early research suggested that spatial integration was socially sustainable (Dewar, 1984; Cook, 1987; Posselthwyte, 1986; Fadane, 1993; Hansmann, 1993; Charlton, 1994 as cited by Todes, 2003), whereas research by the late 1990s suggested otherwise (Todes, 2003: 112; Tomlinson, 1997; Schoonraad, 2000 as cited by Harrison, 2002). However, Du Toit (2007) found that even though residents had negative perceptions of environmental quality at an inner city high density housing complex, they nevertheless had positive perceptions of the housing type as they benefited from the complex's amenities, convenient flats, and central location. This is because many residents had special needs, such as the elderly, single parents, and those without private transport, which suggests that certain groups might be becoming more amenable to high density living provided that such housing meets certain residential needs.

There are a number of contributions by South African urban scholars to the third book in the compact cities series. Most of these were about whether spatial integration, in the form of compaction at least, is socially sustainable. Dewar (2000) used a proposed structural plan for Cape Town as an example and promotes compaction as a means to address unemployment, accessibility to public transport and equal access to urban opportunities. Schoonraad (2000) referred to research conducted in Pretoria and argued that compaction may not be socially sustainable or feasible. Her arguments are that:

- the poor are not able to live in a compact city,

- South Africans have anti-urban values, and

- planning frameworks and market forces hamper the implementation of compaction.

Yet, with regard to the first argument, it should also be noted that many poor South Africans do in fact live in dense urban conditions, such as inner city flats, informal settlements, and second dwellings adjacent to low-income houses. It probably depends much on whether the poor rely on some form of income or subletting, subsistence agriculture and live stock. Dewar (1998: 370) also argued that planning frameworks hamper the implementation of compaction by saying that the DoH discourages housing subsidies for plots smaller than 300 to 400 square meters, despite the Department of Land Affairs' encouragement of compaction and densification. Todes *et al.* (2000) used Durban as a case study of spatial integration and proposed a less idealistic approach to compaction that would include greater community participation.

The Cato Manor Development Project (CMDP) is an important case study of the use of spatial integration to achieve social sustainability. The CMDP is an integrated area development project near the Durban inner city that was intended for low-income communities. Research about whether the project was economically, environmentally and socially sustainable was documented extensively in the book *Urban Reconstruction in the Developing World* (Robinson *et al.*, 2004), and to a lesser extent elsewhere (e.g., see CMDA, 2003; Beall & Todes, 2004). Some of the findings were that residents benefited economically and socially from the close proximity to the inner city and the provision of social infrastructure, and that there was some degree of gender sensitivity during planning and implementation processes. Yet, higher densities and relatively small plots posed diffiulties in terms of subsistence agriculture and accessibility to services. Crime remained a problem and there was also very little integration with surrounding middle- and higher-income communities. The level of private sector investment and development along activity corridors was also lower than expected.

Local research about whether spatial integration is socially sustainable therefore remains inconclusive as well, or at least seems to suggest that spatial integration could be socially sustainable depending on certain conditions. However, local research that specifically addresses the relation between

spatial integration and social sustainability as coherently as compact city studies is still lacking. For example, Donaldson & Van der Merwe (2000: 56) argued in a review of the status of integrated planning that further research is needed about South African's attitudes toward spatial integration. Similarly, at the time of his writing, Swilling noted that there was only one local study on sustainable urban development that took into account social sustainability criteria (Irurah *et al*. 2002 as cited by Swilling, 2004: 217).

To conclude, the above review suggests that more empirical research is needed about whether spatial integration is socially sustainable in a South African context as current arguments for spatial integration are either inconclusive, or based more on theoretical reasoning with a lack of empirical evidence. Moreover, arguments of centrists are currently based more on the positive social conditions that may arise from spatial integration, with little reference to positive social responses. This could also be due to the likelihood that it is assumed that positive social conditions will result in positive social responses. Therefore, not only is more empirical research needed, but empirical research that would focus on social responses to spatial integration.

3.   REVIEW OF RECENT POLICY

Whereas planners have a limited understanding of the relation between spatial integration and social sustainability, particularly of social responses to spatial integration, two recent policy documents are briefly reviewed to show that there is furthermore limited consideration of social responses to spatial integration in the sphere of policy and implementation. These documents are revisions of earlier policy and as such should constitute a reflection on prior experience and existing knowledge about the relation between spatial integration and economic, environmental, and social sustainability.

The one document, *Breaking New Ground* (DoH, 2004), includes a component involving information, communication and awareness building in which communities at grass roots level are included in housing processes in the form of mobilising campaigns (e.g. "Letsema") and community development workers (CDWs). However, these initiatives appear to be aimed at making housing projects work by getting the 'buy-in' of communities and improving social conditions. Although this form of public participation is necessary, the initiatives, however, are not aimed at addressing different social responses to the kind of housing being proposed, such as social-, medium to high density-, mixed land use- and mixed income developments. Negative media reports[3] regarding the proposal of mixed income developments provide some idea of what the social response is likely to be on the ground. Furthermore, although the policy also includes a monitoring and evaluation (M&E) component, this is essentially aimed at housing subsidy- and expenditure data and performance management. Yet, M&E can also be a very useful tool to assess social responses to integrated urban development and to adjust such projects accordingly. Although the term 'M&E' is seldom found in literature on planning methodology and processes, some authors have indeed discussed the potential use of M&E in planning (e.g., see Madsen, 1983; Talen, 1996; Hoch, 2002).

The other document, *Guidelines for Human Settlement Planning and Design* (CSIR, 2002), also known as the "Red Book", was commissioned by the DoH and incorporates the spatial integration measures of compaction and densification advocated by current urban spatial policy as well as the land development objectives of the DFA. As such it constitutes a very different approach to lay-out planning compared to earlier guidelines that were based on functionalist and modernist planning (Behrens, 1996; Behrens & Watson, 1996: 7-43). Basically, the approach, which is very similar to that advocated by Dewar & Uytenbogaardt (1991), is a minimalist one that involves the mere provision of a spatial structure of interconnected main routes. Higher density development would then take place along these routes while public services would be located at points of high accessibility. This would then create thresholds for public transport and more diverse social and economic opportunities — especially in poorer communities that lacked private transport. It then assumes that:

- public and private sector development would take the form of higher density developments along main routes;

- thresholds will be created for social and economic opportunities;

- such opportunities will benefit poorer communities; and

- South African's will necessarily adopt more urbanist life styles associated with higher-density living.

The approach is in fact criticised for being too physically determinist and for not considering broader social and economic forces impacting on the spatial development of cities (Turok, 1994; Tomlinson, 2002; Watson, 2002 as cited by Todes, 2006: 53, and Robinson, 1998; Simone, 1998 as cited by Todes, 2006: 62). The proliferation of gated communities, shopping malls, peripheral residential developments, and continued reluctance of people to (willingly) use public transport are examples of this critique. Although, the *Red Book* advocates public participation as part of the planning and design process, as with *Breaking New Ground*, such participation is not aimed at addressing possible negative social responses to spatially integrated designs, but rather at making such designs work by getting the 'buy-in' of communities. Furthermore, most planners are also reluctant to use the Red Book saying that it is not in line with market demand or the preferences of real estate developers (Slabbert, 2006).

4.   THE NEED FOR FURTHER RESEARCH

The review above suggested the need for further empirical research about social responses to spatial integration since existing research is inconclusive and since there is still a limited consideration of social responses to spatial integration in the sphere of policy and implementation. The objectives of such further research would therefore be to improve planners' current understanding about the relation between spatial integration and social sustain-

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3   E.g., see the *Beeld*, 6 & 7 September 2005; *Business Day*, 23 August 2005; *Cape Argus*, 14 August 2005; *Cape Times*, 8 July 2005; *Citizen*, 4 June & 30 September 2005; *Die Burger*, 13 September 2005; *Financial Mail*, 3 & 10 June 2005; *Rapport*, 2 October 2005; *Sunday Times*, 25 September, 2005; *Sunday Tribune*, 21 August 2005; *This Day*, 10 September 2004.

ability and to ensure more effective integrated planning in social terms. To meet both these objectives, the 'bases of knowledge' of further research should be purposefully grounded in two different epistemologies, namely interpretivism and pragmatism. Interpretative research, which is necessary to improve planners' current understanding about the relation between spatial integration and social sustainability, is subsequently discussed in more detail.

The first and most important consideration is that further research about the relation between spatial integration and social sustainability concerns the interaction between space and the South African society. Soja (2001: 3) coined the term 'social-spatiality' to refer to the notion that (urban) space is socially produced. Social-spatiality constitutes a shift from positivist notions of space as autonomous to society, i.e., impacting on society, to phenomenological notions of space and society impacting on each other in complex ways depending on the meaning society attaches to processes that shape space. Williams *et al.* (1996: 94) describe social spatiality in relation to spatial integration and social sustainability as follows:

> Much of how urban residents perceive their neighbourhood is based on their understanding of the processes which shape it. If the processes are seen as unjust then it is likely that they will remain unacceptable … without an understanding of the aims of intensification [spatial integration], it is unlikely that urban dwellers will accept the compromises they are sometimes asked to make, and will not relate the local effects with the strategic aims of sustainable development.

Therefore, if planners are to better understand social responses to spatial integration in a South African context, it is important to be able to interpret people's understanding of and the meaning they attach to spatial integration, as well as processes and conditions associated with it. Particular 'meanings' is what will cause people to either respond positively or negatively to spatial integration in terms of perceptions and behaviour. Interpretative research about the relation between spatial integration and social sustainability is arguably rather different to most existing research,

which is associated more with positivist and realist research, i.e., research that determines causal relations between spatial integration and social sustainability, or that identifies and describes underlying or structural factors associated with particular perceptions of or behaviour towards spatial integration. From the review presented in this article it is evident that planning researchers and practitioners have done little to interpret society's meaning(s) of spatial integration.

It should be noted that interpretative research is not new, but in fact constitute one of three distinctive epistemologies in the social sciences (Sarakinsky & Vally, 1994: 28-29). However, further research about the relation between spatial integration and social sustainability within this epistemology would be relatively new, especially in a South African context. It is not suggested that interpretative research should become the predominant type of research about the relation between spatial integration and social sustainability, but rather that it should be conducted in addition to existing research within other paradigms. Possible limitations of interpretative research in a South African context should also be acknowledged. For example, it might be that many poor urban residents simply do not respond to spatial integration in terms of their meanings or interpretations of urban space, but rather in terms of rational choices to ensure economic survival. Interpretative research about the relation between

spatial integration and social sustainability in a South African context therefore need to be conducted with methodological rigour to ensure valid and reliable findings.

Two objectives for further research were stated earlier, namely, to improve planners' current understanding about the relation between spatial integration and social sustainability and to ensure more effective integrated planning in social terms. It was also stated that further research should be based on interpretivism and pragmatism to meet these two objectives respectively. Questions for further research are subsequently proposed for each objective in terms of basic and applied research respectively.

Table 3 distinguishes between subquestions for basic and applied research in terms of the two objectives for further research about the relation between spatial integration and social sustainability. Basic research roughly involves theoretical research typically done within universities whereas applied research involves practical or problem solving research typically done within planning practices. LaGro (2001: 67), Dandekar (2005) and Ellis (2005) make a similar distinction between basic and applied research for planning and design whereas LaGro indicates that applied research done in practice can contribute significantly towards theory. The distinction is also useful given complementary differences in purposes between basic and applied research. The key pur-

Table 3:   Questions for further research

	BASIC RESEARCH	APPLIED RESEARCH
RESEARCH QUESTION	Is spatial integration socially sustainable?	
PROPOSED SUB-QUESTIONS	What does spatial integration mean to South Africans? What are South Africans' perceptions and understandings of the processes that shape urban space? Are anti-urban values still predominant across different cultural groups? What are South African's attitudes towards spatial integration measures such as compaction, densification, mixed land-use, mixed income neighbourhoods, etc., and how do such attitudes differ across different sub-groups? What are the responses of planning officials and practitioners to spatial integration and what is the political will at local government level to implement spatial integration?	How could spatial integration be made more socially sustainable in a South African context? What are the institutional and planning framework difficulties in implementing spatial integration projects with a social sustainability component and how may such difficulties be overcome? How will spatially integrated projects impact on the social sustainability of communities and how will possible negative impacts be addressed?

pose of basic research is to develop theory, whereas the key purpose of applied research is to solve planning problems and implement projects. Basic research may serve to advance theory and to critically reflect on policy and practice. Applied research in turn may serve to test the validity of theory and to advance planners' understanding of the implementation and impact of spatial integration projects. Yet, it is not intended that further research should necessarily be either purely basic or applied, but should be informed by unique research objectives, the context in which the research is done, and the stakeholders involved.

5. CONCLUSION

In this article, the question whether spatial integration is socially sustainable in a South African context was raised. A literature and research review suggested that the question is still inconclusive and an argument was made for further basic and applied empirical research about social responses to spatial integration. As the spatial form of South Africa's urban settlements remains socially unsustainable, despite the introduction of integrated planning and the inclusion of spatial integration measures in post-apartheid urban spatial policy, the need for such further research about the relation between spatial integration and social sustainability is likely to become more important. An improved understanding about the relation between spatial integration and social sustainability is also important from the point of view that spatial integration is likely to remain high on the urban policy agenda due to the need for better economic and environmental sustainability as well.

Ideally, the proposed further research should be done within a single framework that outlines the epistemology, objectives, designs and methods, and various researchers and research institutions involved to ensure intended outcomes and impacts. Although such research is probably best commissioned by government, sciences councils in collaboration with built environment practices could arguably also commission and conduct such research. Considering the complexity of the proposed research and of research about the relation between spatial integration and social sustainability in general, a further question

arises whether there is a sufficient understanding of the role of designs and methods in built environment research in South Africa. In this regard, it is also suggested that there is a need for meta-research about designs and methods for built environment research in South Africa.

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