THE FUTURE OF CITIES IN SOUTH AFRICA

Bill Cameron

TRC Africa (Pty) Ltd, PO Box 95230, Waterkloof, 0145

1.   BACKGROUND

It is of value to reflect on the role and effectiveness of planning, as exemplified in the papers on Alberton (van Straten et al, 2000) and Cape Town (Clark, 2000). Future visions, which have implications for the planning of both transport and settlements are provided in respect of Centurion (Joubert et al, 2000), Cape Town (Clark, 2000) and Greater Pretoria (Pretorius, 2000). In each case, the authors have suggested a role for public transport in the city-forming process. However, without the commitment to invest in public transport infrastructure and rolling stock, these visions may be regarded as 'more in hope than in expectation'. The meritorious and innovative system of realms, nodes and corridors for Greater Pretoria (Pretorius, 2000) is challenged, as are all our spatial development concepts, by the economic realities of 'spatial dualism' in all South African cities. Greater Pretoria may be an extreme example of the poverty gap, but the trends evident in Pretoria are to a greater or lesser extent, evident throughout South Africa (Lombard and Olivier, 2000).

In a paper presented at SATC 1997, I concluded that:
- there is need for a more rigorous examination of the spatial component of the urban economy, and for research into the future impact of technology change on urban form and urban lifestyles;
- the spatial dimension of poverty in cities in South Africa needs to be more fully examined, as well as the future role of public transport in the city-forming process; and
- integrated planning and urban management which will be necessary to achieve the spatial vision for post apartheid cities, will require fundamental institutional changes if they are to effective (Cameron, 1997).

It was concluded that a more modest vision of urban spatial restructuring is required, based on incremental adjustment of the current situation, to be facilitated by 'urban growth management'.

2.   CURRENT AND FUTURE CHALLENGES FOR TRANSPORT AND SETTLEMENT PLANNING

For decades we have been saying and believing that 'transport shapes our cities'. This has undoubtedly been true. Transport was, for example, the instrument of apartheid, which facilitated the unsustainable dualism reflected in the spatial atlas of Pretoria. The question must be posed as to whether transport can be the instrument used to address this problem. In a small way it can. For example, we are already seeing Black school children being 'bussed' into inner-city schools. Unfortunately, however, the investment necessary to sustain the large-scale long-distance transport of workers, students and scholars will not be forthcoming, either now, or in the long-term future. Furthermore, there is a real danger that much of the existing infrastructure is falling into a state of disrepair and is being neglected because of changes in demand patterns, particularly for trips to work.

There is a new dynamic which will impact on our cities in the 21st century and which offers a serious challenge to urban planners. This dynamic is already upon us. In the last decade, South Africa has witnessed a fundamental structural change in political, social, economic and technological factors. On all fronts, these changes have already impacted on the spatial structure of cities and will continue to influence the location of population and economic activity, the resultant travel patterns and modes, and the financial base of municipal government.

3.   THE IMPACT OF POLITICAL CHANGE

In 1990 the public service (including parastatals) was the largest employer in Pretoria. The majority of the managerial, professional and technical employees of the State were White and a large proportion commuted daily to the Central Business District (CBD). Since that time, provincial government has relocated to Johannesburg, other state departments have relocated to the suburbs and government has rapidly downsized. By 2005, there will be very few remaining White public servants commuting to the CBD. These changes, which are evident throughout South Africa, have had a profound impact and will continue to play a part in shaping our cities, Pretoria in particular. The recent Pretoria Origin-Destination Survey has indicated that between 1995 and 1999 the number of work trip ends in the CBD declined significantly (GPMC, 2000).

Change in the demographic structure of the CBD and CBD frame, is having a major impact on retail trade patterns and the demand for office floor space. The CBD today has a larger residential component, reflecting a shift to the centre by those groups for whom accessibility is a major attraction (the carless).

4.   THE IMPACT OF ECONOMIC CHANGE

The foregoing political change has also had an economic impact, notably in the downsizing of the public service. In his remarkable book 'Never mind the Millennium, what about the next 24 hours?', Sunter notes that it is not only governments throughout the world which are shedding jobs, but also big business. Corporate business is increasingly less reliant on manual labour, having computerised and mechanised, in line with trends in the developed world. Increasingly, corporate business is outsourcing skills and services. Trade Union activity and South Africa's labour legislation has helped to stimulate this process, which is likely to continue in the foreseeable future. Sunter's message is that neither government nor big business can be relied on for job creation; quite the contrary. Increasingly, formal sector job creation will come from small to medium enterprises (SMEs) but even this may be problematic in South Africa if Trade Union militancy, labour laws and income tax laws continue as disincentives to job creation. Statistics South Africa (SSA), which publishes the annual October Household Survey, indicates that OHS 1998 highlighted a formal sector job loss of 300 000 in the period 1996 to 1998. According to SSA, the official unemployment rate rose rapidly from just under 20 per cent to more than 25 per cent in the same period.

The OHS 1998 notes that the number of informal sector jobs appears to have grown by a similar amount. Unfortunately, however, precise information on the informal sector is not available and the quality of the new informal sector jobs is almost certainly lower than that of the formal sector jobs lost.

A new trend in modern developed economies is for highly skilled professionals to leave full-time employment and do less-formal work as contractors from home. In South Africa, informal work is largely low value-added and conducted by people unable to find formal employment. There is, however, a trend towards home office and SME employment in the formal sector.

Downsizing, the emergence of SMEs, home office employment and the growth of the informal sector are having, and will continue to have, a significant impact on the structure of cities, on travel patterns and on the demand for public transport. Many of the SMEs and informal sector jobs are relatively 'foot-loose', that is, they are not necessarily tied to any specific work location. Many may be home-based and involve considerable travel for and during work, rather than to work. This major change in employment structure has both positive and negative implications for transport. On the one hand, the increasing dispersal of work opportunities has negative consequences for mass transit which flourishes where work trip ends are highly concentrated, either in CBDs or activity nodes. On the other hand, dispersed activities can result in more bi-directional movement on the network and a spreading of demand resulting in more optimum use of infrastructure. In cities such as Bangkok, roads and streets are intensely utilised for practically 24 hours a day.

Trends within the employment sectors will also impact on land use in cities and in the resultant patterns of travel. From a national perspective, the sectors in which there are, and will continue to be job losses, are the primary and secondary sectors namely, agriculture, mining, manufacturing and construction. This trend will help to accelerate the process of urbanisation; agriculture, forestry and mining usually being associated with rural conditions, whereas the growth of service activities, is almost exclusively urban. Many of the growth sectors, such as transport and communications, community, social and personal services and tourism, are relatively 'foot-loose' and may not be strongly place-related. Centralised warehousing, 'just in time' delivery and the demise of parts departments, together with dispersal of the growth in demand for goods and services, are creating new opportunities in the transport sector in logistics and distribution. Urban areas are being, and will continue to be, impacted by increases in small freight traffic, parcel services, couriers and other delivery services. Managing road-based freight in the future will be one of the big challenges to urban planners.

5.   THE IMPACT OF SOCIAL CHANGE

The recent remarkably peaceful and orderly political change which took place in South Africa, gave rise to hopes and expectations of the possibility of the evolution of a fully integrated, harmonious society in South Africa. We would live and work together and put aside past differences to address the residual problems of poverty, 'haves and have nots', which in terms of the legacy, manifested as Black and White. There has been some remarkable progress, but such is the extent of inequality that the disparities will remain pronounced for decades to come. The lurking temptation to make the 'poor richer by making the rich poorer' will be strenuously resisted and can result in increasing polarisation. It is reported, for example, that the rates arrears in the affluent suburb of Waterkloof Ridge amounted to R9 million during the course of the last financial year and that the Pretoria City Council took the unprecedented step of offering an amnesty to defaulters, provided that they resumed their payments.

The paper on spatial duality in Pretoria amply demonstrates the extent of the disparities. The gap between rich and poor is not uniquely South African but is a global phenomenon, exemplified by the gulf in per capita incomes between North Americans on the one hand and Africans on the other. These political and economic realities are all having social consequences, many of which have already impacted on city life and the city-forming process in South Africa. Unemployment, the

rapid increase in crime and ineffectual reactions from the criminal justice system, are resulting in a general state of lawlessness.

From an urban management perspective, the consequences will be significant. The trickle- down effects of lawlessness from violent and petty crime to a lack of observance of laws designed to produce a regulated and orderly society, is going to severely impact on the ability of municipal government to perform its functions in managing cities. Examples of these manifestations of the breakdown of urban society include:

- theft of electricity and water through illegal connection to the distribution networks;
- failure to pay rates and rentals, resulting in accumulated backlogs and costly procedures and processes to bring defaulters to book;
- illegal occupation of buildings and land;
- rental arrears which place a rates burden on landlords and result in cessation of building maintenance resulting in a general deterioration of building stock;
- failure to observe traffic laws and non-payment of speeding, parking and other fines for traffic violations;
- illegal dumping of waste and littering of open spaces, parks and verges; and
- informal sector 'privatisation' of verges and sidewalks by parking Mafioso and street vendors.

One of the most significant reactions to these changing urban conditions, is the general perception that public spaces in our cities are unsafe. Those with the resources to choose alternatives, are opting for 'closed' public places protected by access control and armies of private sector security guards and electronic surveillance. This trend is further dispersing urban commercial activity as developers rush to provide secure commercial, shopping and office precincts, accessible to the affluent by car, but relatively far from established transport services. The future economic viability of 'open' public places and activity centres which are difficult to police, such as Hatfield in Pretoria, may be questioned. In the CBDs, property developers had decades to ensure a return on their investments, but this will not be the case in many new 'open' activity centres such as Hatfield, which is already beginning to show the symptoms of decline. These problems are not being adequately managed by city planners.

The trends described above are also reflected in the residential property market, with the emergence of security 'ghettos'. It is axiomatic that 'like associates with like', even if the groups associating themselves behind the walls of security villages have little more in common than the shared perception that this is the only way to survive safely in the city. The extent to which other ghetto-type segregations will occur, based on other commonalities such as ethnicity or religion, remains to be seen. There is, however, a strong possibility that such associations will evolve to afford the protection offered by collectives, or vigilance committees, or other communal associations.

On the social front, a number of strategic questions may be posed, in considering the future organisation of the city, in response to its associational needs, as follows:
- will cities become a collection of urban villages with highly dispersed activities;
- to what extent are agglomeration and centralisation still the dominant dynamics in shaping urban patterns;
- will cross-city people movement grow or decline; and
- can urban villages, however economically disparate, satisfy the majority of urban activity needs locally, thereby reducing urban trip lengths and facilitating the growth of non-motorised travel?

6.   THE IMPACT OF TECHNOLOGICAL CHANGES

Millions of words have been written about 'e-commerce', the 'new age economy', tele-commuting and the global village associated with the new information and communications technology (NICT). The media and cyberspace are choked with the hypotheses and theories of new age futurists. Accordingly, this paper does not seek to add to the speculation but cites instead a number of well-considered thoughts by the veteran 'city guru' Peter Hall and others, writing in the publication Computers, Environment and Urban Systems (Pergamon, 1999).

NICT will affect urban and non-urban areas in every sense, because:
- they impact upon spatial organisation;
- they provide tools for those who work in these areas with respect to their organisation, planning and management; and
- they can accommodate the different positions that citizens take in a whole range of activities, according to the different roles (political actors, users and clients) they perform in these areas (Cecchini, 1999).

7.   FUTURE URBAN FORM

Simultaneous access to data and information is a key characteristic of NICT and this form of accessibility is increasing, based less on physical proximity and more on the concept of tele-presence as a substitute for physical participation. This scatters spatial links and modifies the concept of community (Cooper and Flehr, 1997; Plant 1999). At this point, it will be logical to suggest that the 'death of distance' will bring about a situation in which it might be argued that cities have no future at all (Rizzi, 1999).

Peter Hall's view is that 'fortunately for cities, there are problems with this formulation' and that we are not witnessing the end of 5 000 years of city building. Rather, that new development of the future city will be driven by significant social, economic and technological changes which, even though not completely new, impose new challenges on planning at the dawn of the new millennium (Hall, 1999). Others believe that it will be necessary to abandon strictly deterministic forecasting models and the rigid schemes which still constitute the governing instrument of urban systems, and embrace techniques which are much more flexible and open (Rizzi, 1999).

Cecchini argues that the 'territorial effects of NICT have to date been poorly forecasted', ('if people use the phone then they won't move any more', 'if people work at home then the city will disappear') both for the very same reasons whereby other technological forecasts have not proven true, and also for some other specific reasons, including the following:

1.   In urban dynamics, permanence (stratification) and change are intertwined.
2.   The city is the best ecological niche for the human species, partly because human-kind is an adaptable species.
3.   The city makes it possible to isolate oneself, and impossible to avoid being with other people.
4.   The city is the place of social interaction amongst different people and in this sense cyberspace is not a city. Social interaction defines the city, not the dogma of spatial proximity (Cecchini, 1999).

The city will continue to be real, but its connections with its surroundings and its interior will increasingly be defined by NICT. Production of goods (material and immaterial) will continue. The distances between people and activities will not disappear and the difficulties of communication will persist, but it will not be as it was, neither in its methods, nor in its form, nor in its contents (Cecchini, 1999).

Evidence from Europe suggests that over a period of more than a century, since the invention of the telephone, personal business traffic has grown at almost exactly the same pace as telecommunications traffic. Hall concludes that this strongly suggests that telecommunications do not replace the need for face-to-face contact. In addressing the myths and realities of telecommuting, Hall concludes that agglomeration is the continuing urban glue (Hall, 1999). He argues that according to Weber's agglomeration principle, advanced services will still concentrate in the cores of major cities (Weber, 1929). While activities have changed, four key groups of activity will continue to thrive on agglomeration in world cities. These are:

1.   Finance and business services.
2.   Power and influence (command and control), namely government and large corporations.
3.   Creative and cultural industries including print and electronic media.
4.   Tourism, including transportation services.

Hall concludes that an extremely strong force of agglomeration operates throughout these activities or sectors. He observes that they are highly synergistic with each other. For example:
● hotels, conference centres and exhibition centres are simultaneously business services and part of tourism;
● museums and galleries are creative/cultural activities, but also part of tourism; and
● advertising is both a creative and a business service.

Falling transport and communication costs have allowed some kinds of activity to migrate to suburbs and to even smaller cities, particularly business services. Many activities have dispersed to places in the urban hinterland, producing local points of dispersed reconcentration. Latterly, longer distance dispersal is producing the phenomenon of the Call Centre, offering information or sales over the telephone.

Hall concludes that new style highly-equipped, edge cities and travel hubs, may come to supplement and even supplant traditional central locations. In addition to spatial changes, many cities will experience temporal changes in the coming century. Because of synergy, activities may cater for different audiences at different times of day, thus producing the phenomenon of the '24 hour city' (Hall, 1999).

8.   A NEW URBAN FORM

A new archetypical urban form is beginning to appear in many cities, with significant variations from one city to another, depending on history and culture. The main elements are as follows:

1.   A traditional business core (e.g. a port);
2.   A secondary business core (associated with high-class residential areas), featuring office and entertainment/cultural activities, such as are manifest in Sandton;
3.   A tertiary business core (inner edge city) with a concentration of new offices and some-times entertainment such as Rosebank or Hatfield in Pretoria;
4.   An outer edge city (usually on a major axis towards the airport);

5.   Outermost edge cities (usually planned new towns);
6.   Specialised concentrations often on edge-city sites, for example theme parks such as Disneyland (Hall, 1999).

According to this process of reconcentration the traditional monocentric city has been replaced by a new polycentric urban form. Hall notes that in many cities there is a preferred axis or sector of development, quite often the high-quality and high-rent residential sector, which attracts commercial activities. This conforms to the process which older analysts such as Murphy & Vance termed the 'Zone of Assimilation', which is now operating on a vast spatial scale (Murphy & Vance, 1954). Their concept of a 'Zone of Discard' is also still operating, producing inner-city areas with high levels of structural unemployment and depressed real estate markets which attract low-income newcomers, immigrants and refugees (Hall, 1999, citing Murphy & Vance, 1954).

A new urban polarisation is taking place, first in the USA and now increasingly also in European cities. There is an escalating degree of social and cultural segregation as between privileged and deprived areas. This has at least two dimensions: it can and usually is coarse-grained, as in the division between advantaged and disadvantaged sectors of the city; but it can also be fine-grained, as where disadvantaged housing is found next door to affluent villas (Hall, 1999). As we have seen from the paper on spatial dualism, the same urban form and polarisation is continuing to occur in South African cities. The primary difference in South Africa is in the larger gap between the privileged and the deprived and in the proportions of these two socio-economic groupings. In Africa, the deprived comprise the vast majority, making African cities in the 21st century potential power kegs.

Cities will, however, survive long into the future, taking many different shapes and forms. Urban form will continue changing under the pressure of the major driving economic, technological and social forces. The main effect of these forces is and will be, to increase geographical competition, increase spatial scale, favour increasing specialisation, assist deconcentration and reconcentration and thus turn monocentric urban regions into polycentric urban structures. The main challenge in the coming millennium will be how to take hold of these developments and channel them, to achieve more sustainable urban forms.

9.   CONCLUSION

In the paper on spatial development presented at SATC in 1997, I argued that long-term planning based on highly dubious population and employment forecasts and naive assumptions about the ability of urban planners to shape the physical form of our cities, is   undesirable. Such plans are unattainable in a free market environment, in which the initiative for land development rests largely with private developers. It was noted that rapid change in technology requires, above all, that our planning should be flexible. I concluded by suggesting a more modest vision of urban spatial restructuring based on incremental adjustments of the current system, to be facilitated by 'urban growth management' including improved road access management.

This session on Transport and Settlement has reiterated the need for spatial planners to change their ways. It is imperative that rapid steps should be taken to address the disparities between the privileged and the deprived in South African cities. The most appropriate planning response will be to change the process of housing delivery to the deprived. Instead of perpetuating the mass housing schemes of the apartheid era on cheap peripheral land, spatial planners should be looking to develop small parcels of land for low-income housing in the inner-city areas. This should be supported by strenuous efforts to vary the form of house-type and tenure by means of an alternative housing

delivery policy and process. Effort should be devoted to minimise the extent of segregation and facilitate the sustainable use of existing facilities and amenities including schools, hospitals, libraries and other infrastructure. Noero argues that the RSA settlement pattern is anti-urban and is unsustainable and debilitating (Noero, 2000).

In summary, as urban planners we need to recognise that there are laws of complexity at work in cities, that guarantee that the detailed trajectory of urban systems will remain forever intractable. We should recognise that it is better to do less, but to do it better (Cecchini, 1999). In my own words 'we should be doing the right things rather than doing things right'.

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