

# University of the Witwatersrand, South Africa

## School of Architecture and Planning

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### 1. Introduction

The School of Architecture and Planning at the University of the Witwatersrand, Johannesburg, universally known as 'Wits', offers both undergraduate and postgraduate routes to planning qualifications. The School is situated at the centre of Gauteng, the most urban of South Africa's nine provinces. Whilst it sees itself in local, national, continental and global perspectives, the School draws many of its students from Gauteng as well as from other South African provinces, other African countries (Mozambique, Lesotho, Zimbabwe, Botswana and the DRC, for example) and in small numbers from other continents. Many or most graduates work in Gauteng.

This paper describes and seeks to analyse the setting in which the School is situated, the nature of planning in the region at present, the planning curriculum at Wits, our relationship with the planning profession, and the relevance of our curriculum to the world around us.

### 2. The setting of the School

'Gauteng' is the Sesotho word for 'place of gold', and was adopted as the name of the most urban South African province, centred on Johannesburg, in 1995. The Gauteng City Region (GCR) is broadly coterminous with Gauteng Province. This province has 1.4% of South Africa's land area, 19.7% of South Africa's population, and 37% of South Africa's motor vehicles. The province produces approximately 38% of the country's GDP.

**Figure 1: The location of Gauteng**

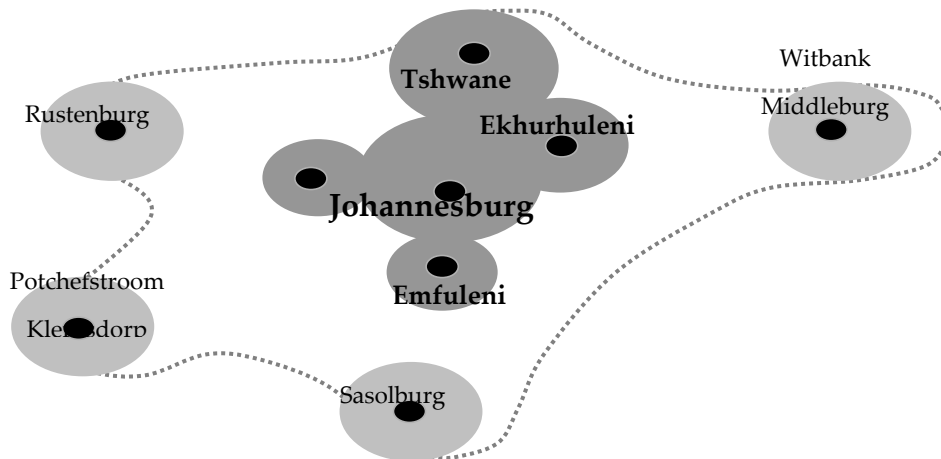


Source: School of Architecture and Planning, University of the Witwatersrand

The GCR can be described as a constellation of urban developments within a radius of roughly

100 km from the centre of Johannesburg. These urban elements are intimately linked through the strong commuter movement patterns between them, intense physical interaction, and many shared services. The GCR economy is driven by commerce, finance, and high-level services. Government and administration have a very large presence, because the GCR hosts the national administrative capital (Pretoria/Tshwane),<sup>1</sup> the provincial capital (Johannesburg) and several very large municipalities. Mining, the original *raison d'être* of urban development in the region, now takes place largely outside the GCR although it remains mostly directed from within the cities in the province.

**Figure 2: Gauteng City Region**



Source: Gauteng Premier's Office 2004

The 2007 population of Gauteng Province was estimated at almost 10.5 million people. Gauteng is a young city region – similar in age to other major global city regions such as São Paulo and Los Angeles. The oldest surviving focus of urbanism in the region is Pretoria (now in Tshwane Metropolitan Municipality), founded in 1855. Its scale was rapidly eclipsed by Johannesburg after the beginnings of gold mining (1886) and coal mining in what is now the Ekurhuleni Metropolitan Municipality in the 1890s. People came to Gauteng from all over southern Africa – many as migrant workers under oppressive and partly forced conditions, both from within rural South Africa and from Lesotho, Mozambique and further afield. As early as 1904, agencies were created to serve most of the present core Gauteng city region. By the 1930s provincial and national governments were attempting to treat Gauteng as a single region for land use planning purposes. Indeed, the first land use zonings by government in South Africa began in Gauteng at the time, under the 'Witwatersrand Joint Town Planning Committee' (Mabin 1993). Successive governments visualised Gauteng as a single region for purposes of economic development.

As part of the apartheid policy implemented after 1948, central government planned new areas for large segregated public housing schemes. These designated areas became the African townships of Greater Soweto, Mamelodi, Tembisa, Sebokeng, KwaThema and others. With the advent of democracy in 1994, the creation of a provincial government allowed for a new focus on the nature, challenges and

<sup>1</sup> Tshwane is the name chosen for the metropolitan council covering the old municipal area of Pretoria and many other local authorities. The place name Pretoria continues to be commonly used for the city and especially its more central parts.

opportunities of the city region and regional urbanisation issues. Local government within the city region changed radically after 1994: the present institutional architecture dates only from 2000.

Much of the built environment of the GCR is continuous, but it remains spatially fragmented. The GCR has about 3 million *households*, a number which is growing faster than the population (SACN 2004). Thus, a lower population growth rate (2.2%) will probably mean a continued fairly rapid rate of growth (perhaps 4%) in need and demand for housing units and service connections. A higher rate of population growth might mean a 6% or higher rate of growth for housing and service connections.

## 2.1 Safety issues

Unfortunately Gauteng is probably best known around the world for its crime rates – a perception usually attached to the name of Johannesburg. High levels of violence and crime are results of a relative lack of social cohesion, which in turn results from the legacy of apartheid as well as growing levels of inequality, high levels of unemployment, weak policing and other factors. Many projects and policies seek to address safety concerns – some at small scale in communities and others at the scale of provincial government. Statistics available from annual South African Police Service reports suggest some recent improvement in rates of dangerous crimes but levels remain high, and more work is required to address this issue for the sake of ensuring the long-term future of individuals and of the economy.

## 2.2 Roles of provincial and local authorities

As noted above, the GCR has a provincial-level government whose area of jurisdiction more or less covers the urban region. Within that region are local governments – three metropolitan municipalities (Ekurhuleni, Johannesburg and Tshwane (Pretoria)), and three district municipalities, the latter subdivided into eight local municipalities. Each authority includes multiple legacy planning systems governed by different laws and traditions.

National government has a large influence on planning practice through its wide powers and substantial capacities, especially in relation to fiscal and related policy. Ongoing land planning capacity in the large GCR lies mainly with the municipalities. National legislation requires environmental permissions to be sought separately from subdivision or other 'planning' permissions. However, the provincial government has more funds for innovative major projects than does the municipal government, the latter having experienced severe fiscal difficulties over the past decade. Thus, in recent years, public sector-led urban development has increasingly become a matter of collaboration and negotiation between the various institutions of government (and private sector entities) which have attempted to coordinate and integrate their plans in regard to both local and national development.

The four main principles guiding Gauteng planning and development approaches are:

1. Prioritise spatial concentrations of economic activity which show potential for expansion.
2. Promote socio-economic inclusion through strengthening existing overlaps between areas of economic activity and poverty.
3. Stimulate emerging overlaps of economic activity and poverty by focused investment.
4. Promote equitable access to basic services, protection of resources and efficient urban form.

The provincial government has become an instrument of coordination and integration of the

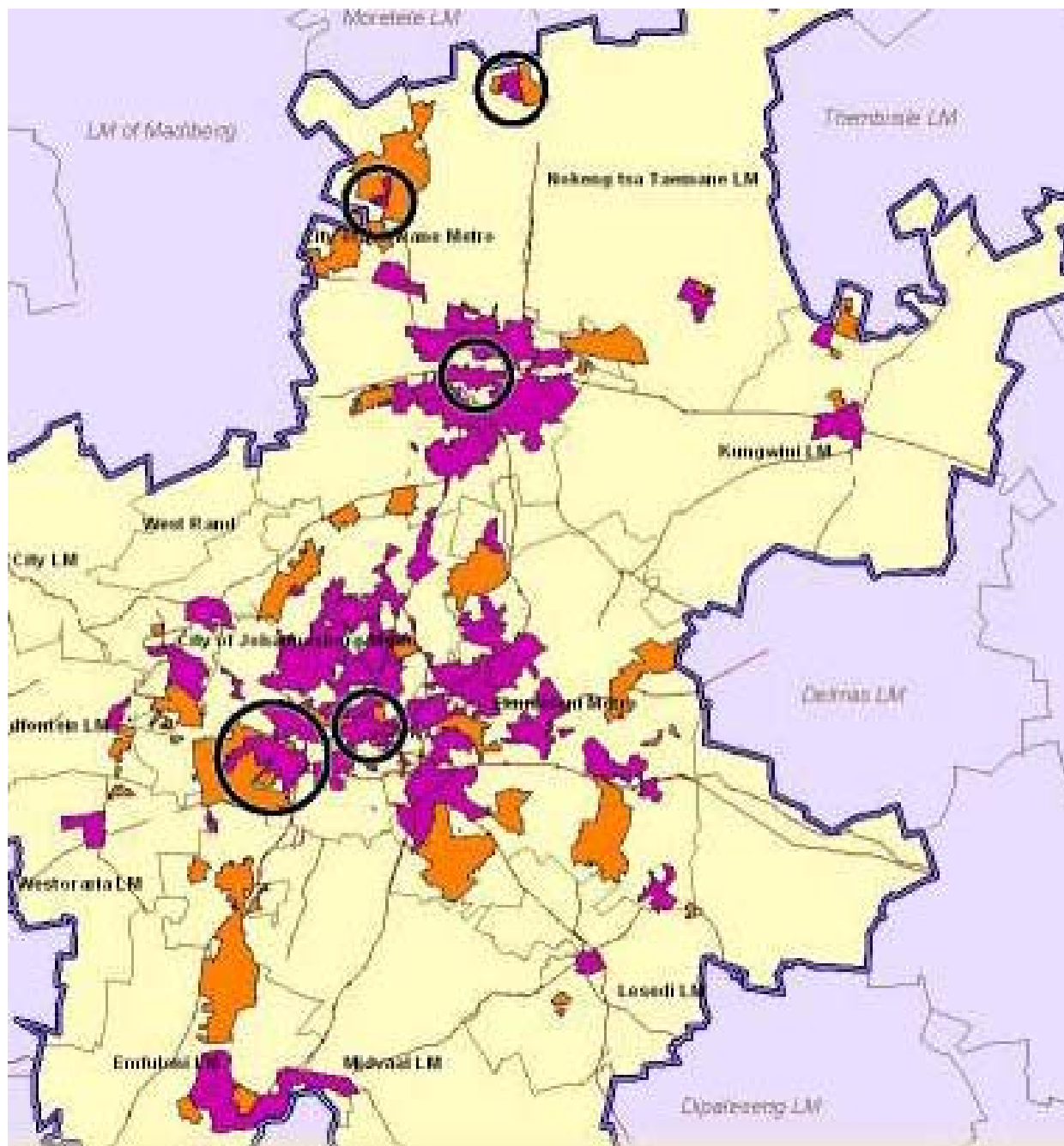
strategies and plans of municipal governments. It seeks also to engage with neighbouring provinces to negotiate coordinated strategy where the reach of the GCR is effectively beyond that of the provincial government. However, the position of Gauteng in relation to neighbouring countries is perhaps neglected.

### **2.3 Land, housing and services**

Poverty is concentrated in particular areas of the GCR. Such areas tend to overlap with (but not be identical to) (a) old 'townships', most of which began as segregated public housing estates fifty or more years ago; (b) various inner-city areas where combinations of run-down housing, crowding and poor servicing conditions exist; and (c) informal settlements which have emerged over the past thirty years from land invasions, informal housing markets, and informal rental. Planning regimes are different across these types of settlement.

The Gauteng Department of Housing estimates that over 600 000 households live in informal circumstances; many housing units have been built, but the backlog has grown. Despite the fact that the number of households with formal homes grew by more than 705 000 in 5 years, the number of households living in informal settlements grew by more than 163 000 during the same period. For each new house built, the chances are that an existing household subdivides.

Figure 3: Residential areas where poverty is concentrated, Gauteng, 2006



Source: Gauteng Department of Economic Development 2007

Note: Main areas of built-up environment are shown in purple and orange; main concentrations of poverty are shown in orange; circles indicate rare areas of overlap between substantial economic opportunity and residential concentration of poverty.

There are several hundred thousand 'backyard shacks' (structures varying from flimsy quality to more permanent buildings on the sites of formal units). There are also substantial numbers of settlements which are entirely informal – that is, anything from illegal to quasi-legal, and generally with poor or non-existent services. In 2005 the *Gauteng Informal Settlements Study* found 405 informal

settlements, with almost 490 000 structures and roughly the same number of families or household units reported as using them (Gauteng Department of Housing 2005). The numbers have grown since.

Services are very unevenly distributed across Gauteng. Service provision in informal areas varies from high levels of water, sanitation and energy supply services in some cases to a complete lack of direct household access to such services in others.

Over 80% of Gauteng households use electricity for heating and cooking (Stats SA 2007). Ninety-eight per cent have access to piped water; 85% have waterborne sanitation, although 10% have only poor pit latrine facilities; 85% have municipal refuse removal once per week. It is probable that these figures are relatively inaccurate, since many informal areas do not have waterborne sanitation. Lack of more complete and precise information is a critical contributor to potential disputes over informal settlement policy. Given the number of informal settlements and of their residents, upgrading is a critical issue (Huchzermeyer 2009). Present policy tends to emphasise 'eradication' of informal settlements over their upgrading; this is an area of contestation.

Tenure is varied across GCR settlements, and includes freehold, formal rental, informal rental, permissions to occupy land, and completely irregular tenure. Rental tenure is common: its forms include backyard shack and room renting in the formal township areas. Apartments are also important, and the building of new rental apartments is once again beginning to expand after a long period of quiescence. The agencies concerned are non-profit, publicly support initiatives working through agencies such as the Johannesburg Housing Company, and private sector developers.

Land prices are relatively low in Gauteng by world standards. Public funds have been used more to build in peripheral locations than in central ones due to land price differentials. Although this practice is discouraged by current national housing policy (which subsidises units for poorer people) peripheral construction continues. There is some evidence of greater security, both residential and economic, resulting from land titling initiatives affecting poorer citizens, although little evidence of realisation of value from title (Marx & Rubin 2008). The Constitution of the Republic of South Africa generally guarantees private property rights, and radical change in land ownership and use is therefore improbable at present.

The built environment varies greatly in density, and in some places does reach high levels by global standards. A key example is inner-city Johannesburg, where considerable change has occurred in recent decades; every issue associated with central cities can be found here, from contemporary regeneration projects with local and provincial government money to building abandonment and some intense struggles over the right to space.

## **2.4 Transport**

Gauteng has a relatively sophisticated transport network consisting of railways, freeways, major roads and many individual operators of collective transport, as well as major actors such as the commuter rail corporation. However, the network is designed for a very different spatial configuration of employment and residence than that which exists, and is under strain as a result of recent developments. Congestion between the major employment growth zones in the northern parts of the Johannesburg metropolitan area and the major residential areas in the south-west, including Soweto, is serious, and there are other examples of similar problems. Public transport is poorly provided and organised: mass public transportation is lacking; connections between the rail network and major areas of growth are wanting; and there is a lack of integration between the various modes of transport where they co-exist.

Privately owned and operated minibuses provide the predominant form of collective transport. The irregular origins of this 'industry' imply huge difficulties in its regulation, but at the same time this mode makes a vital contribution to mobility throughout Gauteng.

Crucially, there is limited integration of transportation and other forms of planning. Although efforts at coordination are improving, strategic, land use, economic and other approaches to planning still tend to follow their own logics and trajectories and not to integrate their results and proposals sufficiently.

Bus rapid transport (BRT) has emerged as a favoured approach to the improvement of passenger transport under conditions of congestion. The major authorities are engaged in extended development of BRT systems and new challenges face urban development and planning as a result. But the largest construction project at present in South Africa is a multi-billion dollar new railway system intended to link the major business areas of Johannesburg and Tshwane to one another, and to OR Tambo International Airport. The project is named the 'Gautrain'; it is a project of the Provincial Department of Transport, funded by various participants including the National Treasury, and takes the form of a Build-Operate-Transfer project with multinational corporations involved in the consortium. Construction commenced in 2007 and completion of the first major sections is scheduled for 2010.

## **2.5 Environmental concerns**

Gauteng concentrates a remarkable diversity of natural environments and ecosystems, as well as a substantial cultural heritage with, in some places, very rapid rates of urban development. Gauteng's environmental footprint is very large. Its energy supplies come in large part from coal-fired electricity power stations in Mpumalanga Province, which produce vast amounts of greenhouse gas emissions with impacts on a very large area. Many issues and challenges (air quality, soil contamination, sensitive ecosystems, dolomitic geology with sinkhole risks etc.) face urban development, and the fragmentation of planning systems makes matters needlessly complicated.

## **2.6 The economy of the region**

Like that of Mexico City, Gauteng's economy continues to surprise those who expect regions located far from coasts or waterways to decline. But its unemployment levels are very high, despite economic growth rates above 5% per year for several years. As a result, the major authorities are interested in 'local economic development'. There is a long history of successful attraction of investment by local authorities, but much of this is competitive and not complementary in nature ('build your shopping mall here'). Secondary industry is largely related to servicing what has been called the 'minerals-energy complex' at the heart of South Africa's economy (Fine & Rustomjee 1996). Greater openness to global competition has meant industrial decline in many sectors, although some industries (such as the automotive industry) have continued to grow and have received substantial national and provincial support. Whether such approaches are sustainable is in question. The mainstays of the Gauteng economy are now finance and related business services, and trade. The main employers are increasingly in these sectors, and in government, transport and construction.

The property economy of Gauteng is extremely vigorous and is presently largely related to what can be termed private suburban development of all kinds of land uses, at various densities and in new forms which authorities struggle both to control and to understand. This is a major challenge for planning.

## 2.7 Civil society dynamics in the region

Very diverse civil society organs are unevenly developed across the Gauteng landscape. Most prominent some decades ago were township-based popular mass organisations, known as ‘civics’ in South Africa, but these generally proved weak in the longer term despite their importance in the period of anti-apartheid struggle. Residents’ associations in middle class areas have proved as strong, and are now key elements in planning negotiations. Some newer social movements seek to organise landless people and those subjected to eviction, with relatively little impact thus far – except for some notable court victories against authorities attempting to reshape inner city space. There is a sense that civil society can offer much more than it has been able to do thus far, and whilst direct actions around urban development issues remain relatively low-profile, some non-governmental organisations (NGOs) continue to work closely with so-called community-based organisations (CBOs) in promoting housing development for poorer people, in situ upgrading and similar projects. A key example is the well known NGO Planact, now almost 25 years old, but in reality only servicing some half dozen moderately sized communities. Nonetheless the impact of the models created in such relationships is very important to the development of planning practice.

## 2.8 The impact of culture and ethnicity on urban dynamics

Gauteng is a cosmopolitan region but has a long history of exclusionism, the most dramatic being apartheid which sought to limit the indigenous population of the cities. The most recent exclusionary actions have been part of a publicised (and national) wave of xenophobia which drove thousands from their homes in early 2008.

Many languages are spoken in the GCR – English is the first language of a small minority of perhaps 15%, and other major languages are Sepedi, Sesotho, Setswana, isiZulu, Afrikaans, isiXhosa and more. There is no majority ‘ethnic’ group in the province, but of course the region has a black African-origin majority of about 70%, with the rest of the population being variously of Asian, European and mixed origin. Poverty is concentrated among those of African origin, but wealth has diversified in the past few decades and the ‘middle class’ is now very mixed, by language, even if ‘white’ remains the colour of much wealth. Unsurprisingly there are political tensions, and for planning purposes engagement with diverse language communities and diverse cultural practices (e.g. ritual slaughter versus quiet weekends) poses challenges which are becoming more rather than less complex.

## 2.9 Some current trends in the region

Among the trends impacting upon planning work in the GCR at present are the following:

- New transport systems are rapidly developing, including the BRT system and the major new rail line linking Johannesburg, Pretoria (Tshwane) and OR Tambo International Airport.
- Whilst the region has always been multinodal, suburbanisation of residence and business has dispersed and substantially increased its many-centredness. There is much new development which is creating new kinds of spines and corridors, as well as nodes, and the urban environment is undoubtedly much more complex than it was a mere decade ago.
- Older, lower-income areas have in many cases become much more diverse and business is growing in places which were once dormitories, reinforcing the trend identified in the previous point in new ways.
- Informal settlement continues to grow, as do public, subsidised housing estates, and there is



contestation over upgrading and removal of settlements.

- Numerous attempts have been made by provincial government as well as national government, and in some cases by municipalities, to introduce new forms of zoning, land use control and other instruments of land management – but they have been frustrated by the complexity of the issues and conflicting views on the best directions to take, which has tended to result in a lack of progress.

### 3. Planning legislation and systems in Gauteng

Urban planning in Gauteng has some 19th-century antecedents. Land subdivision was subjected to legal control in the 1890s, reinforced in the early 1900s, after a period of massive speculative subdivision the effects of which are still evident today in, for example, poor road linkages between different areas. Land use control became significant from the 1930s onward, when the first 'town planning schemes' were developed. The relevant legislation was based on earlier British models, and still forms the main basis of land use planning and control in the province. But there are many different schemes which were produced in terms of diverse legislation throughout the apartheid period, and it has proved difficult to unify them. What is more, there is a complex intersecting tissue of laws.

#### 3.1 Post-apartheid approaches to planning

The most important piece of post-apartheid planning legislation, the Development Facilitation Act (No. 67 of 1995), added yet one more method of gaining approval for land subdivision without removing the earlier ones. It was added to a form of zoning based on early 20th-century British practice introduced in the 1930s which remains substantially intact. The basis of the system is preparation of 'town planning schemes' by local authorities, with which development is supposed to comply. Diverse rules apply in different areas, due to the history of division of authority. Although some consolidation has occurred, 'township' areas are generally differentially treated from other urban areas. Much land use change in recent times has been regulated through 'consent' alteration rather than through changes in schemes; or schemes have been ignored on a large scale where capacity to regulate has been limited. The existence of various laws allowing diverse routes both to subdivision and to land use change permission are huge challenges for planners in Gauteng and elsewhere in South Africa.

There are also bodies of law and practice related to legislation originally passed for land use and related control in 'townships', as well as in 'traditional authority areas' and 'towns', which over time were proclaimed in the latter, separate from although sometimes similar to other law and practice. Although several attempts have been made to consolidate and reform the large and cumbersome body of law and rules in the field, so far all have failed due to lack of engagement with the issues and perhaps lack of political vision or will.

More recent growth of planning has focused on 'integrated development planning' (IDP). All municipalities are obliged to prepare IDPs in terms of national laws passed over the last twelve years. These laws are very broad in scope and are intended to shape municipal budgets, something only partially achieved. Over the past five years much work has been done on 'spatial development frameworks' (SDFs) associated with IDPs – these are guiding documents, although in a few cases municipal land decision-making has been fairly seriously based on such guidelines. The field has been lucrative for some consultants. Much remains to be done to develop this field in more effective directions.

At the same time there is, as noted, considerable effort expended on local economic development planning. However, with most authorities prioritising the same sectors and generally taking a competitive approach, not a great deal has been accomplished and there is not much to show for this effort thus far. It is, however, an arena of planning employment.

It has also been noted above that there is separate environmental legislation in South Africa, and in our view some form of successful integration between environmental permission systems and land use permission systems seems urgently necessary; meanwhile planners compete amongst themselves and with other professionals to make decisions and hold the high ground.

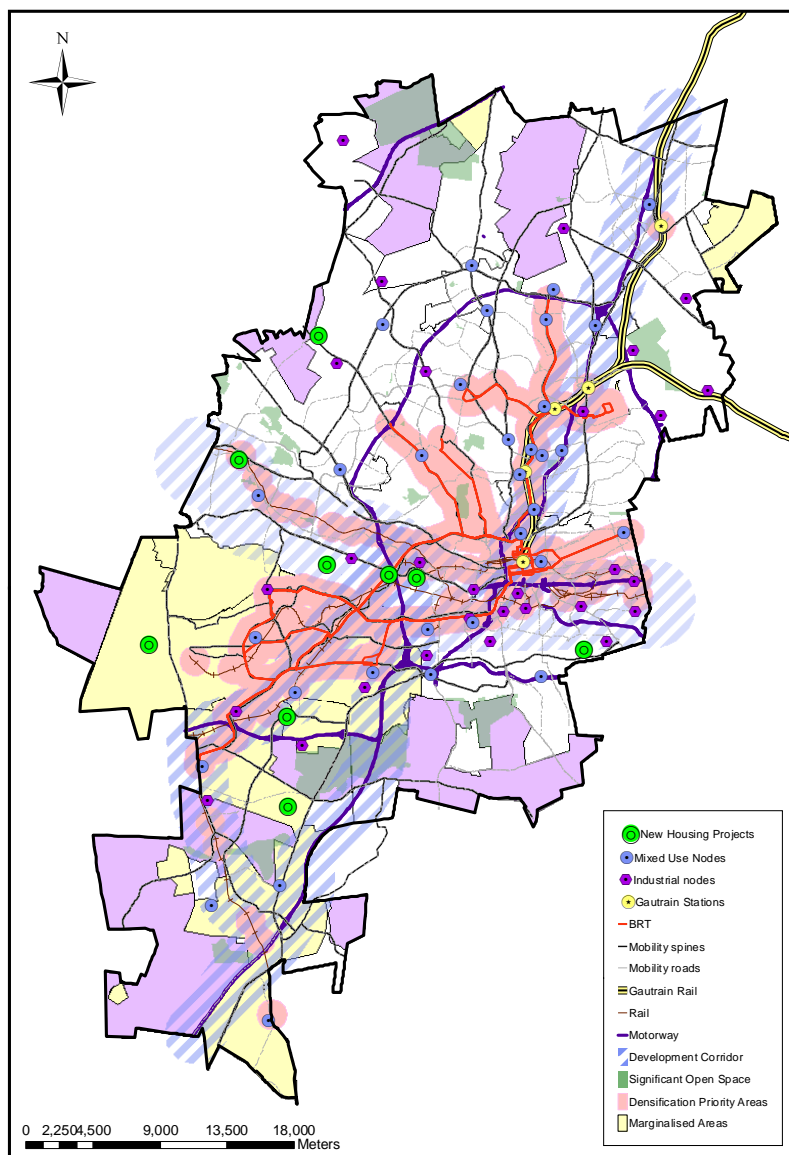
Similarly, there is also separate legislation for transport planning. The result is minimal integration, at least until very recently, between land use and transport planning.

Within municipalities there has been much activity around neighbourhood plans, precinct plans and other smaller-scale plans, which have perhaps begun to influence decision-making more substantially.

In addition, there are several area-based projects attempting to address complex development problems through local multi-sectoral interventions, such as the Alexandra Urban Renewal Project, and the Johannesburg Development Agency, focused on inner-city renewal. Other local development projects seek, inter alia, to develop previously marginalised areas, and to address local housing and development issues.

Figure 4 shows the typical features which planners are concentrating on at present in Johannesburg and most other places in Gauteng – including urban growth boundaries, new corridors, new transport routes, etc.

**Figure 4: Johannesburg Spatial Framework**



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Source: CoJ 2008

In summary, the rapidly developing urban landscape of Gauteng is a prime example of a city region posing immense challenges to urban planning; planning activity is enormously diverse, and the future of planning is by no means certain. The aim of a School such as ours is to prepare students to grapple with this complexity at all scales and across all sectors, and perhaps over time to specialise without losing sight of the bigger picture and the range of issues confronting the cities.

A typical summary of what contemporary urban planning is trying to achieve in Gauteng comes from these points listed on the official website of the City of Johannesburg, whose planning department seeks to achieve:

- a city with an urban form that is efficient, sustainable and accessible;
- a city with a quality urban environment providing for integrated and sustainable settlements and well-designed urban spaces;
- an appropriate and efficient land use system that facilitates investment and continuous regeneration;
- effective urban management to ensure maintenance of appropriate standards of safety, cleanliness and orderliness across the city; and
- an efficient and effective spatial information service that meets the standards of a world-class African city. (CoJ 2008)

### **3.2 Transformation of planning in South Africa and in Gauteng**

After decades of struggle – in which the organised labour movement, CBOs and international pressures were all critical – apartheid formally ended in the 1990s and the first democratic elections were held in 1994 (1995 for local government). An era of contestation over the best means to transform South African cities began in the late 1980s. Planning has been deeply implicated in attempts at transforming the cities, and many have sought to ‘reconstruct’ the cities, echoing earlier attempts, after the damage wrought in the apartheid era (Mabin & Smit 1997).

Probably more than half of the planners in South Africa are employed in Gauteng. Their employment profile perhaps breaks down evenly between the public and private sectors, with a small number in NGO and other spheres. There is considerable movement between the sectors. A great deal of planning work is presently done by people without planning degrees, an issue which planning as a profession and planning schools have perhaps been slow to address. This is especially true of IDP-related planning work. Academically educated planners are sometimes confined to preparing SDFs to accompany IDPs, whilst the core process and work may be performed by others.

In this context planning education has been subjected to a diversity of attempts to reshape the meaning of planning and the nature of ‘planners’. Much remains to be explored in order to grasp the relationships between the various discourses of planning and the expectations of planning education (Klein 2008), but this paper will not attempt to engage in detail with the field. Instead it will turn now to the attempt to shape planning education in ways which address the early 21st-century circumstances of Gauteng.

## **4. Planning education at the University of the Witwatersrand**

### **4.1 The university context**

Wits University is 86 years old. Planning was first taught in the former Department of Architecture in the 1940s in the form of a postgraduate diploma course. An undergraduate degree began in 1965. The present postgraduate degree dates back 20 years. A separate department teaching planning was formed in 1967, but architecture and planning re-merged in 2001. The School is in the Faculty of Engineering and the Built Environment. The university has about 25 000 students, and a rich intellectual tradition carried by its academic staff. It has been subjected to many pressures, trying to resist segregation of university education in the 1960s and 70s, and to make many changes in line with the struggle against apartheid in the 1980s as well as in support of democratisation in the 1990s. The composition of the student body has changed from one with a small black minority 25 years ago to having a significant black majority today. The staff of the School of Architecture and Planning have long contributed to debate and action in this contested environment. But the main contribution of the School to planning remains its teaching and learning environment.

Wits offers two routes to professional planning qualification:

1. a three-year Bachelor of Science (Urban and Regional Planning) (BSc URP) from which candidates can continue to a one year BSc Honours (URP);
2. a two-year Master of Science (Development Planning) (MSc DP), which accepts entrants from cognate honours degrees, not necessarily in planning. This programme is, however, being restructured into a proposed one year Bachelor of Urban Development Studies with honours, and a one year Master's in Development Planning. It is hoped that these new degrees will be introduced in 2010.

Both existing professional outcomes (BSc Hons URP and MSc DP) were accredited by the South African Council for Planners (SACPLAN) in 2008.

### **4.2 Aims, philosophy and approach of the planning curriculum**

The main concern of the School is to produce skilled professionals who are able to operate intelligently and ethically within complex and changing environments. The focus is therefore on developing critical thinking and problem-solving abilities, and on the close, interactive relationship between theory and practice. Teaching courses emphasise theory as the intellectual foundation of all planning activity, and several courses develop the theory-practice link in topic-based work. The aim is to develop reflexive practitioners, who can think critically about their work but who go beyond analysis and critical thinking to generate constructive and creative responses to problems. The teaching approach includes a considerable emphasis on problem-based learning, and aims to provide a balance between critical capacity, substantive understanding, practical skills and creative approaches.

The School maintains a high level of contact with the planning profession and with planning practice. This contact is largely informal, but there is also a more formal relationship with the City of Johannesburg and close ties with key NGOs. In addition, staff participate in the activities of the South African Planning Institute, and several staff are engaged in practice in various forms. These links help to keep teaching abreast of developments in the field, and of the changing nature of the market for planners. While acknowledging the importance of the demands of the market, the School does not

believe that a vocational focus should be at the expense of developing critical and deep learning. Rather, vocational and practical experience are used to develop critical thinking. The intention is to develop planners who can respond to the changing demands of practice over the longer term, who can learn on the job, and who can adapt their practice to the problems at hand. The concern is thus with promoting 'deep learning', and developing values and understanding, rather than with imparting detail and finding the perfect match for current market demands.

Planning is understood as an evolving discipline and set of practices that are both contextual and strongly informed by global ideas and processes. The curriculum therefore places a strong emphasis on the contextual and on the global. Hence particular attention is paid to what planning means within the South African context, and to understanding the nature of the local context, but also to locating this within global planning thought and ideas, and introducing students to comparative planning systems in both the developing South and the North. The programme explores and encourages students to pursue planning practices and theories that are sensitive and appropriate to the rich complexity of contemporary urban, rural and regional contexts within South Africa and elsewhere. The intention is to provide quality education that is appropriate to the needs of a rapidly urbanising country, and a continent facing enormous developmental challenges. At the same time, the importance of embracing social, political, and economic justice is emphasised. This emphasis is built into several courses.

The degrees offer 'generalist' planning education, with some opportunity for specialisation in senior years of study. The approach allows a combination of the breadth required in the contemporary South African environment with an enabling of greater depth of learning in particular areas.

The spatial focus of planning is seen as critical; thus many courses emphasise this dimension, and there are courses on urban design, spatial concepts and land use management, amongst others. However, the importance of the integrative nature of planning, and of the relationship between planning and governance, is reflected in the curriculum. A strong consciousness of the problems and possibilities attaching to the future development of the country leads to an emphasis in both theory and practice on development and developmental processes. This emphasis cuts across divides between 'town planning' and 'development planning', and is incorporated into both the undergraduate and postgraduate degrees.

The School does not subscribe to any single notion of planning, but rather promotes engagement with diverse approaches. Some areas of focus reflect staff skills and interests. There is also a strong focus on the urban and the Johannesburg context, although these are understood as part of broader regional and national contexts. The university and the School place a strong emphasis on research, and staff are expected to keep up with recent literature and ideas. Research is also stressed in the courses for final-year students. This is seen as critical in a context where planning deals, inter alia, with what are sometimes termed 'wicked problems' – complex, deep problems that are not generally amenable to simple solutions. In addition, a focus on research is consistent with the current focus on monitoring and evaluation within planning.

In response to the changing nature of the discipline and the requirements of the market, a flexible and reflective approach has been adopted, and the programme is reviewed on a regular basis. Major curriculum changes were introduced in 2001 in both the undergraduate and postgraduate programmes, when a new professor joined the programme. A further round of change is now under way for the MSc DP, as noted above. More minor changes are incorporated on an ongoing basis, particularly following an annual programme review.

The educational style is a combination of studio- and lecture-based learning, and some courses include engagement with communities. Service learning, which connects students with the real life of planning practice and city politics, has been undertaken in the past. Each year of study in the undergraduate programme includes two major projects and one overnight field trip, as well as several local trips. In 2008, work experience in planning firms/organisations in the public, private and community sectors has been built in as a component of final year students' course work, and this is likely to be expanded. A combination of formative and summative assessment occurs in most courses, which can include essays, presentations, reports, project work, formal examinations and oral examinations, depending on the course.

### **4.3 The outcomes guiding programme and course design**

The Wits planning degrees broadly aim to develop the 'Bloemfontein Competencies': a set of outcomes agreed to by South African planning schools in 2000.<sup>2</sup> A survey of planning professionals suggests that these are acceptable to practitioners (Faling 2002; Faling & Todes 2004). At Wits these outcomes have been translated into the following categories.

#### *Minimum content outcomes:*

- An understanding of urban, regional and transnational contexts
- An understanding of political, economic and social processes
- The history and theory of planning processes and practices
- The administrative, political, physical and legal aspects of planning
- An understanding of environmental processes and challenges
- Spatial dimensions of planning: design, land management and spatial frameworks
- At least one area of specialisation

#### *Value components outcomes:*

- A concern for professional ethics
- A concern for social justice, transformation and equity
- Respect for diversity
- A concern for the natural environment

#### *Skills components:*

- Critical thinking and problem-solving
- The application of substantive and normative theoretical constructs to planning practices
- Data collection, research methods, qualitative and quantitative analysis
- Use of information technology
- Written, oral and graphic communication skills
- Collaborative problem-solving
- Ability to integrate and synthesise knowledge within plans, policies and research reports

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<sup>2</sup> These were intended to inform the work of a 'Standards Generating Body' established under the South African Qualifications Authority (SAQA), which would define outcomes, but this process has been stalled.

*Exit-level outcomes:*

- The learner must have knowledge and understanding of the moral and ethical dimensions of acting in the public domain, and must be able to apply these in planning practice.
- The learner will be able to demonstrate a sound theoretical and contextual knowledge and be able to apply this to action.
- The learner will be able to link knowledge to spatial plans and policies.
- The learner will be able to link and synthesise programmes and projects of different sectors and institutions within a framework of integrative development.
- The learner will be able to do academic research to develop critical thinking and problem-solving abilities.
- The learner will be able to apply the managerial and communicative skills necessary for managing planning and development processes in the public and private sectors.

#### **4.4 The planning curriculum at Wits**

*The undergraduate/honours degree sequence in Urban and Regional Planning*

A new structure was introduced in 2001 to enable greater flexibility, but also to refocus the curriculum towards the context: Africa, South Africa and Johannesburg. Important new areas of planning were introduced, such as integrated development planning and local economic development. In addition, courses were refocused to link theory and practice, while courses offered by other departments were re-oriented to the needs of planning. A level of specialisation was introduced in the final year of study. The redesign of the programme also included consideration of pedagogical issues such as the level of competence expected by students in each year of study; developing skills and ensuring 'scaffolding' over the years of study; and the scale and complexity of issues, concepts, theories and principles. The previous four-year BSc (Town and Regional Planning) was split into a three-year BSc URP and BSc Hons URP to enable greater flexibility. The major aspects of the current curriculum are described below, and the programme structure is set out in Table 1.

In the first year students are given a broad understanding of space and of the context for planning. They are introduced to geography, sociology and the development of cities both globally and in southern Africa. They develop basic skills such as academic writing, computer skills, graphic skills and design. Project work focuses on a local scale.

During the second year of study a wide range of planning courses are studied, so that students have an understanding of the range of different types of planning. Courses include further studies focusing on local design, environmental planning and land management, integrated development planning, development policy and processes, engineering aspects of planning, economics, and planning for housing, services, infrastructure and transport. The breadth of the second year is intended to enable students to be better informed in order to choose their specialisation in the third year of study.

In the third year students have a limited specialisation choice. The opportunity is provided to select between specialisation streams; currently, these are housing and urban environmental design. This allows for a more in-depth understanding of the selected subject, and potentially orients students to different spheres of planning practice, although in reality studies suggest that the main demand in practice is for generalists. Specialisation, however, allows students to gain greater depth of knowledge, which is positive in terms of skills-building and student confidence. The two specialisations currently on offer (housing and urban environmental design) reflect the strengths of



staff within the School, and are also areas of contemporary importance in practice. In addition, students can choose an optional course from anywhere in the university.

At this point students can exit the learning programme with a non-professional qualification or continue with the fourth year, the honours year.

The honours year includes a major integrated planning project, allowing students to integrate their understanding of theory and practice and their learning from previous years in an applied way. The honours year also includes various courses of direct significance to understanding the profession: Professional Practice and Ethics, Planning Law, and Advanced Planning Theory. The honours degree also contains a substantial research component.

**Table 1: Undergraduate/honours planning curriculum**

Year	Course code	Course	Credits*
<b>Year 1: 156 credits</b>	ARPL 1007	Settlements through History	12
	ARPL 1006	The Southern African City through History	12
	ARPL 1009	Introduction to Environmental Interpretation	18
	ARPL 1008	Introduction to Settlement Form and Design	18
	SOCL 1005	Introduction to Sociology A: Identity and Society	18
	SOCL 1006	Introduction to Sociology B: South Africa and Globalisation	18
	GEOG 1003	Geography for Planners	24
	APPM 1017	Mathematical Techniques for Planners	36
<b>Year 2: 144 credits</b>	ARPL 2004	Introduction to Land Management and Environmental Planning	18
	ARPL 2005	Contemporary Design and Environmental Issues in South Africa	12
	ARPL 2006	Planning for Housing, Services, Infrastructure and Transport	12
	ARPL 2007	Development Policy and Processes in South Africa	12
	ARPL 2008	Integrated Development Planning	12
	ARPL 2009	Histories and Futures of Planning	12
	ARPL 2010	Philosophies, Theories & Methodologies of Planning	18
	ECON 1002	Economic Concepts I A	18
	ECON 1003	Economic Concepts I B	18
	CIVN 1003	Civil Engineering and Infrastructure in Relation to Planning	12
<b>Year 3: 144 credits</b>	<b>Required courses:</b>		
	ARPL 3006	Comparative African Cities	12
	ARPL 3007	Johannesburg as a City in Africa	12
	ARPL 3008	Planning at Regional, National and Transnational Scales	12
	ARPL 3009	Property Evaluation and Local Economic Development	12
	ARPL 3010	Comparative Planning Systems	12
	Plus an elective		36
	Plus all courses in one of the two streams as follows:		
	<b>Stream One: Urban Environmental Design</b>		
	ARPL 3012	Comparative Approaches to Urban Environmental Design	24

	ARPL 3003	Contemporary Issues in Architecture	12
	ARPL 3004	Two and Three-Dimensional Computer Design	12
	<b>Stream Two: Housing</b>		
	ARPL 3013	Housing Theory, Law and Policy	24
	ARPL 3003	Contemporary Issues in Architecture	12
	ARPL 3004	Two and Three-Dimensional Computer Design	12
<b>Year 4 –</b>	ARPL 4006	Professional Practice and Ethics	20
<b>Honours:</b>	ARPL 4007	Planning Law	20
<b>180 credits</b>	ARPL 4008	Advanced Planning Thought	20
	ARPL 4009	Integrated Planning Project	20
	ARPL 4010	Research Report	80
	ARPL 4011	Research Design for Planners	20

Note: \* 1 credit = 10 hours of student work

### *The MSc (DP)*

The MSc (DP) was also revised in 2001, reflecting similar ideas to the undergraduate course. The revised degree also responds to recent trends in the field, including the increased importance of environmental planning and management, integrated municipal planning and tourism planning. It focuses particularly on core areas of development planning, such as spatial and institutional integration and economic development. The development planner is conceived of as someone who will have major responsibility and skills in integrative inter-sectoral planning, such as integrated development planning. In addition, it is envisaged that such planners will be largely oriented towards policy concerns.

Accordingly, the degree is based on a series of core courses focusing particularly on development and development contexts; governance, policy and institutions; planning theory, techniques, practice and law; as well as on key sectors for planning, namely spatial planning and environmental planning. Students also take two options, and write a research report.

The structure of the degree is set out in Table 2, which reflects the usual split of courses between the first and second years of the master's programme, although there is some flexibility here. Students coming onto the programme can undertake it on a part-time or full-time basis, but most courses are in the late afternoon, making part-time study possible.

Although the revision of the MSc DP is relatively recent, a further major revision is under way, in part due to restructuring of the South African educational landscape but also in response to changing needs. The distinction between 'urban and regional' and 'development' planners seems anachronistic, as both are concerned about development and in practice, the market does not distinguish between the two. While the market in 2001 had shifted away from spatial planning (see Todes et al. 2003), there has since been a resurgence of spatial planning, particularly with the boom in the property

market,<sup>3</sup> and with major investment in large infrastructural developments. Although areas such as integrated development planning are as important as before, greater emphasis on, and skills development in, the area of spatial planning is required. In addition, areas such as project management and implementation also need greater emphasis.

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<sup>3</sup> As a consequence of the current global financial crisis and credit squeeze, it seems likely that the property boom is over – as evidenced in declining property sales and prices.

**Table 2: Curriculum of the MSc in Development Planning**

Year	Course code	Course	Credits (360 total)
<b>Year 1:</b>	ARPL 7026	Spatial Concepts and Processes	20
	ARPL 7028	Technology and Techniques in Development	20
	ARPL 7029	Philosophies, Theories and Methodologies in Development	20
	ARPL7033	Development Economics for Planners	20
	ARPL 7032	Environmental Planning and Sustainable Development	20
	ARPL 7039	Policy Analysis and Social Processes	20
	PADM 5021	Governance and Governing	20
	ARPL 7036	Basic Planning Skills*	
<b>Years 1 &amp; 2:</b>		<b>Optional courses including:</b>	
		Housing, Habitat Planning, Local and Regional Economic Development, Tourism Planning, Project Management, and others within the university	40
<b>Year 3:</b>	ARPL 7019	Research Report (Development Planning	120
	ARPL 7024	Professional Practice and Ethics	20
	ARPL 7025	Law for Development Planners	20
	ARPL 7030	Municipal Planning	20

Note: \* Non-credit course for those without background in a range of technical skills

The restructuring of the degree has provided an opportunity to develop an honours programme with a strong urban development focus, where graduates can also move on to the master's degree in housing, or to a research master's, if they do not wish to continue on to the development planning master's. The proposed honours degree (150 credits) focuses on the many links between cities, development and planning, and on key elements of urban development: land and housing; urban economies and property markets; urban politics and governance; spatial planning, transport and infrastructure. The master's degree (180 credits) includes a major research component and courses of importance to planning professionals: law, professional practice and ethics; planning theory; municipal planning. Students with four-year undergraduate degrees in planning who have covered these topics in their previous degrees will instead be able to take courses developed to respond to current issues, needs and staff interest, or courses available elsewhere in the university. The new master's degree thus enables responsiveness to changing needs, and to the need to deepen planning education.

#### 4.5 Resources, entry requirements, student numbers and throughput rates

Compared to many planning programmes in Africa, Wits has relatively good resources:

- a dedicated planning and architecture library within the building, and access to several university libraries and electronic journals;
- two computer laboratories with approximately 45 computers, equipped with GIS and CAD.

Wireless internet access has recently been introduced in the building;

- some nine staff members who teach mainly in planning, and a further five staff members from the School who teach particular courses. In addition, several part-time staff assist in studios or teach specific courses.

There are currently some 169 students, 51 in the master’s course, 18 in the honours course, and the remaining 100 in the BSc programme. Student numbers have increased significantly over the last few years as the demand for planners has grown. First-year student intake has increased to around 40 in the undergraduate programme. Rising demand for places has enabled entry requirements to be raised as well. Entrants now require 24 points (equivalent to about a 60% pass in the matric year), the same as for architecture and engineering, as well as mathematics and English. Numbers in the MSc DP, however, have been more constant, but in 2008 numbers dropped as a consequence of university requirements that entrants have completed an honours degree before being accepted into a master’s degree. Prior to this, students with undergraduate degrees were accepted, as is common in other South African universities. Students require at least a 60% result in their honours degree. When the new degrees are introduced, this will rise to 65%.

Staff : student ratios vary by class, with lower ratios in project-based and specialisation courses and at higher levels, apart from the master’s degree (see Table 3). Throughput rates are approximately 50% in the undergraduate and master’s programmes<sup>4</sup> and 88% in the honours programme.<sup>5</sup>

**Table 3: Approximate student : staff ratios, 2008\***

Year	Average class size 2008	Student : staff ratios in project-based or specialisation courses (approx.)	Student : staff ratios in other courses (approx.)
1	50	25 : 1 but 10 : 1 in half of the studio sessions**	50 : 1
2	25	13 : 1	25 : 1
3	20	10 : 1	20 : 1
4	18	9 : 1	18 : 1
5	20	20 : 1	20 : 1

Notes: \* Figures vary by class.

\*\* Until 2008, Wits had an extended curriculum for students who needed academic support. This involved a longer period of study and an additional course. In 2008, this was replaced with a mainstreaming approach in which an additional studio session for all first year students was run using tutors.

## 5. The relevance of the Wits planning curriculum for 21st-century environments

Two methods were used to reflect on the extent to which the Wits planning programmes equip

<sup>4</sup> This applies to the period 1998–2001 for the undergraduate programme and 1998–2002 for the master’s programme. Cohorts beginning since then include students who are still registered. However, figures are highly variable for each year.

<sup>5</sup> In 2007.

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graduates to respond to the challenges of the 21st-century environment: a School workshop, attended by eight members of staff; and a short survey of a selection of planning graduates approached by staff members. Graduates from the 1985–2006 period were asked about the positive and negative aspects of their planning education. Ten graduates currently working in various fields of planning responded. The location, field of work and institutional position of respondents is shown in Table 4 in the Appendix: most are working in Gauteng, but two are in Mozambique. Respondents work mainly for government or municipalities, but in a wide range of areas, from land use management to integrated development planning to project management to research. Roughly half came through the undergraduate programme<sup>6</sup> and half through the MSc DP degree. There are obvious biases in the way the survey was undertaken, but the responses are nevertheless useful in providing an assessment of the relevance of the curriculum of the Wits degrees.

Overall, responses are remarkably positive, and there is considerable consistency across staff and graduate perceptions. On the whole, both graduates and staff argue that the curriculum is well adapted to the needs of the environment, although some more technical areas, such as land use management, transportation, finance and computer applications might receive greater attention.

The most important strength of the Wits planning programme is the focus on critical thinking and a reflexive approach, which produces adaptable graduates who are able to learn on the job. The emphasis on theory is useful as a means to further understanding of the environment and the difficult problems that planning addresses. The diversity of staff views and perspectives also helps students to think about issues in a variety of ways. Responses from graduates include the following:

‘...the key benefits of my Wits education are: I was encouraged to think critically; I was encouraged to look at problems holistically; I was encouraged to approach planning issues from a social perspective...’

‘It equipped me in the sense that I can relate to whatever comes my way, even though I might need to read up on more information and get a better understanding...’

‘My Wits planning education provided me with the essential interdisciplinary knowledge, skills in a wide range of fields and honed my conceptual abilities. These are the essential problem-solving capabilities that equip me to do my job well...’

‘The MSc DP has prepared me to be a critical thinker and afforded me an opportunity to have a holistic view of development planning, which is something our country needs in order to address some of the development challenges facing our society...’

The curricula of both the undergraduate and the master’s programmes respond to many of the big issues of the 21st-century environment: informality; mobility, urbanisation and managing urban growth; urban regions; the complexity of spatial forms of cities and their drivers; economic development; infrastructure and services; sustainability and environmental issues; social diversity and inclusion planning; urban politics and governance, amongst others. Contemporary forms of planning and debates around them are taught, such as integrated development planning, spatial framework planning, local design and participatory planning. In addition, several courses and projects focus on Gauteng and its complexity, and enable students to link theory to concrete

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<sup>6</sup> The BSc TRP or BSc URP and BSc Hons URP.

situations, as well as to understand the breadth and diversity of planning contexts and issues faced.

There are nevertheless limitations. Much of the literature and theory used comes from the global North. This reflects well-known imbalances in academic work, and while we draw on literature from the global South as far as possible, and have a particular focus on it in certain courses (such as African Cities), there are major gaps in various areas, and some of the literature is difficult to access (e.g. only available in consultancy reports etc.). The weaknesses of the programme therefore partially reflect broader inequalities. Nevertheless, we have not necessarily looked enough at issues such as weak states and how to plan in such contexts. It should be noted, however, that these concerns did not emerge in any of the comments by graduates.

Other concerns raised by staff, and by the analysis of the Gauteng environment in section 2 of this paper, are related to whether we go far enough in grappling with questions of environment and sustainability. Our programmes include substantial courses on these issues, including important questions such as climate change, but due to staff limitations, courses are perhaps less extensive than they might be, and are not sufficiently integrated with project work. They are arguably insufficient to begin to challenge or bridge the divide between planning and environmental management. This divide is particularly deep in the South African context, far more so than in many other countries. Further, given the importance of transport issues in the Gauteng context, and indeed in major cities across the world, this also emerges as something of a gap, although it is partially covered in courses at undergraduate level and there are plans to introduce it in the revised postgraduate degree. Again, neither of these emerged as concerns for graduates, although they did point to some specific areas that should receive greater coverage.

As indicated above, the main gaps in the curriculum for both graduates and staff are around more technical and practical issues. The programme has attempted to keep a balance of theoretical and technical knowledge, and to integrate them as appropriate in project work. The programme has avoided training students in areas of detailed local application, such as specific land use management schemes, and perhaps pays too little attention to this field as whole – as some graduates working in this area argued. Other gaps noted by graduates, or areas which could be strengthened, include: legal and financial skills relevant to development; economic aspects of land development; urban design; computer applications in planning; and elements of the practical workings of municipalities. Some argued for more project work or for more practical experience while studying.

While some of these concerns reflect the particular fields where graduates work, several of these points are accepted by staff and similar points were made by them. Staff members argued that in contrast to developed countries, where the emphasis falls very heavily on conceptual material, and where it is possible for planners to specialise in particular areas, in South Africa planners are forced to be generalists, working across areas, and they need applied technical knowledge as well. This is part of what adaptability involves. In addition, while South Africa has good policy, implementation is often poor, and improvement requires conceptual, as well as technical and political, skills.

For instance, one part-time staff member is undertaking planning in the Cradle of Humankind, where very flimsy guidelines are being used to manage development. There is no data source on the development rights that have been allocated, and there are significant pressures from neighbouring municipalities and politicians to grant further rights: this unique and historically significant resource is in danger of being destroyed. Planners in this context need to know where and how to draw the line, and they need to be able to manage the politics of doing so. A GIS database with various data sets including rights already granted, a knowledge of the environmental and land use issues involved, plus an ability to make judgements conceptually, and negotiation and mediation skills, are



necessary in this context. Strong political, strategic and tactical skills would also help. Several of these skills are covered in the course, but there is room to improve on training in computer applications courses, which tend to be taught by outsiders and are not always well integrated into project work; improvements could also be made in training related to conflict resolution and negotiation/mediation skills, and financial skills. There is also room to go further in the development of technical and practical skills in relation to land use planning. Graduates also need to be able to use the old-fashioned planning tools – maps, aerial photographs, etc. – although these are largely covered in the courses.

Other strengths in the Wits planning programme noted by staff and graduates include:

- The diversity of students and types of graduates. The two paths to professional planning qualification draw students from different backgrounds. While undergraduates generally come straight from school, postgraduates come from a variety of undergraduate degrees, and several have work experience. Many postgraduates come from other countries, and graduates of the MSc DP saw the diverse backgrounds of colleagues as a strength.
  
- The development of good communication skills, and the attention given to developing writing skills through programmes and research reports. Both of these have been important for graduates in their working lives.
- The extensive use of semi-real world projects.
- The breadth of fields and areas of knowledge covered and the multidisciplinary nature of the work.
- The emphasis on problem-solving and thinking outside the box.
- The ‘tough’ ‘intense’ training which equipped graduates with an ability to work in any context.
- Research and analytical skills.

Graduates of the Wits planning programmes are finding jobs in a variety of fields, not only in Gauteng but also in other parts of South Africa and Africa, as well as in the UK, USA and Australia. The combination of a focus on both local contextual literature and projects with international literature and theory from various contexts, we hope, facilitates this adaptability.

Graduates are ending up in very responsible jobs, and from their responses, they seem on the whole to be confident where they are, although some pointed to the gaps between the academy and the specific world of practice. We are, however, also aware of graduates moving quickly to higher levels of responsibility than they have the experience for, and this remains a challenge. Whether outsiders will judge our graduates as effective is, of course, another matter.

## 6. Conclusion

Wits University is the longest-established centre of planning education in South Africa, and the programme has developed over time to adapt to the changing environment. In the current period, ongoing review and revision, as well as an appreciation of the complexity of the local context and the challenges it poses, are important ways in which the programme has striven to increase its relevance. The programme draws on both international and local conceptual material, and brings together theory and practice in order to develop creative and reflexive practitioners.

In our view, our curriculum is appropriate, and the feedback from graduates is generally positive. One major area of improvement would be to marry theory and the technical aspects of planning more effectively, and to strengthen the latter, as well as to do more work on particular areas such as environmental planning and transportation. There are some limits to the theory that we draw on and how much we confront the bigger issues of state power and implementation. However, we confront a diverse context, and planning is many things here; and our graduates are adaptable, thoughtful people with some level of technical skills, who seem to be reasonably effective in practice.

## Appendix

**Table 4: Graduate survey respondents**

Degree	Location	Work type	Institutional location
BSc TRP PHD	Gauteng	Development planning and housing	Private consultant
MSc DP	Mozambique	Tourism planning	Government
BSc TRP	Mozambique	Feasibility studies, project management	Large private engineering firm
BSc TRP	Gauteng	Land use management	Municipality
MSc DP	Gauteng	Strategic planning, monitoring, reporting and evaluation linked to the IDP	Municipality
MSc DP	Gauteng	Research management, project and programme management, policy analysis and formulation, monitoring and evaluation	Government
MSc DP	Gauteng	Programme and strategy manager	Municipality
BSc TRP	Gauteng	Land use management	Provincial government
MSc DP	Gauteng	Research	Private sector
MSc DP	Gauteng	Research	Research parastatal

## References

- CoJ (City of Johannesburg) (2008) *Official website of the City of Johannesburg*. Accessed September 2008, [www.joburg.org.za](http://www.joburg.org.za)
- Faling W (2002) The relevance of planning education in South Africa. MSc Urban and Regional Planning dissertation, University of Natal, Durban
- Faling W & Todes A (2004) Employer perceptions of planning education in South Africa. *Town and Regional Planning* 47: 32–43
- Fine B & Rustomjee Z (1996) *The Political Economy of South Africa; From Mineral-Energy Complex to Industrialisation*. London: Hurst & Co
- Gauteng Department of Economic Development (2007) *Gauteng Spatial Development Perspective*. Johannesburg: Gauteng Department of Economic Development
- Gauteng Premier's Office (2004) *Perspective on Gauteng City Region*. Johannesburg: Gauteng Premier's Office
- Huchzermeyer M (2009) The struggle for *in situ* upgrading of informal settlements: Case studies from Gauteng. *Development Southern Africa* 26(1): 59–74
- Klein G (2008) The transformative potential of planning education in the context of transitional societies: a case study of South Africa. Unpublished paper, School of Architecture and

Planning, University of the Witwatersrand, Johannesburg

Mabin A (1993) Of rigour and *mortis*: the Witwatersrand Joint Town Planning Committee, 1934–1940. *Planning History* 15(2): 49–54

Mabin A & Smit D (1997) Reconstructing South Africa's cities? The making of urban planning 1900–2000. *Planning Perspectives* 12(2): 193–223

Marx C & Rubin M (2008) *The social and economic impact of land titling: South African case study: synthesis report*. CUBES, University of the Witwatersrand. Accessed September 2008, <http://web.wits.ac.za/NR/rdonlyres/5103535F-7AE0-44FF-9424-60C8399CC6BC/0/SAcasestudy.pdf>

SACN (South African Cities Network) (2004) *The State of the Cities 2004*. Johannesburg: South African Cities Network

Stats SA (Statistics South Africa) (2007) *Community Survey*. Accessed September 2008, [http://www.statssa.gov.za/community\\_new/content.asp](http://www.statssa.gov.za/community_new/content.asp)

Todes A, Harrison P & Watson V (2003) The changing nature of the job market for planners: Implications for planning education. *Town and Regional Planning* 46: 21–32