



Drawing by: Author , Autocad 2011 coloured lines on black background

Conclusion

5.1 Findings

In formulating a set of findings it is often close to the end of the thesis that one has to carefully work through data gathered, to ensure the findings are drawn from scientific information and not from ones own or others perceptions formed through the course of the investigation and that has not followed due course.

Although the document does make assumptions and takes various points of view into account, it aims to be factual in its analysis. The most astonishing set of facts relating to the study area was the projected and expected and actual population growth. Also astonishing, was the level of unemployment and the rapid rate of urbanisation not only in Grahamstown but the Eastern Cape.

The research and reading led me to documents produced by local council and government. These proposals were often interesting and contained valuable data for planning. They often did not look at the underlying problems when arriving at solutions. I found that some of the documents were aimed at repairing symptoms of urban decay rather the curing the cause of the problems. These documents are also geared to achieve results in terms of numbers.

In this discourse I chose to study history of the town, to try and define how the problem or “fracture” was established and how it developed over time.

There is however also a human factor in the urban landscape, in that people use the city on a daily basis and shape its future. Often the actual inhabitants of specific areas are manipulated and marginalised and therefore their ‘right to the city’ is limited or negated. Spatial injustice is difficult to measure, and is often only visible after the fact, it continues long after the initial restructuring or act of injustice.

The findings in this study fall under the following groups:

- Historic findings (study of culture, politics and urban form)
- Research findings
- Analytical findings (analysis of physical features within the study area)
- Interpreted findings (Discussed under 5.2)
- Guidelines (Findings employed to inform decision making discussed under 5.3)

Findings need to be interpreted or analysed to draw helpful conclusions from them.

Historic findings:

The study of the history of Grahamstown played an integral part in my understanding of the current urban form of the city. Without understanding how the city developed over a period of 200 years of varying military and political rule, it would not be possible to draw conclusions about how to intervene to heal fractures in the urban fabric or how to further enhance positive features that developed over two centuries. The historic finding supported my hypothesis that, Grahamstown’s current urban form was primarily influenced by two distinct periods, Colonial Development, and Apartheid Restructuring. I do however find that this urban form has been further entrenched since liberation in 1994. The effects of separate development can be seen in every town and city in South Africa. One of the most visible features of separate development in the urban landscape is the RDP (now called breaking new ground developments) housing seen on the edge of every town in the countryside. By placing these new houses on cheap land on the periphery and then giving these houses to the poor (People qualify for these houses by proving the period of time they have lived in the area), the government is further marginalising these people. The houses are poorly constructed (in most cases), and the people who inhabit them still have to travel long distances to get to their jobs. This type of edge development although popular with government and province because it is highly visual, contribute to the cost of providing services and promotes urban sprawl.

Research findings:

Research shows that most of the people living in the edge condition or township are unemployed or employed in the informal sector (Moller, 2001, p.15). Only 16.1% are employed in the formal sector. The research has also shown that almost half of Grahamstown East’s households have a woman heading it (48%). It also showed that those households were significantly worse off than male headed households (Moller, 2001, p.18). One of the more interesting findings of the research was that over half (51%) of the residents of Grahamstown East grew vegetables (Moller, 2001, p.26). This information had a profound effect on how I viewed the design focus of this study. Poor people living on the periphery are concerned with shelter, food security, and safety from crime. Of these food security must be the highest priority. This led me to focus the design on setting aside space for urban farming.

Analytical findings:

Analysis of the study area takes up an inappropriate large proportion of time. For this reason I decided to limit the physical analysis to the minimum, and spend less time wasted on analysis and made certain assumptions. Having said this, I feel that the analysis of the study area has helped with informing the design process and narrowing the focus. The most valuable form of analysis was that of the historic aerial images. These images gave me insight into the physical development of the town over a period of close to 70 years. It also confirmed the theory that the town has always developed along segregated lines.

5.2 Discussions and Interpretation

Due to the historic background of Grahamstown as a colonial town, originally strategically placed to ensure military security of the then eastern frontier of the Cape Colony. Its relative location between Port Elizabeth and East London, inland and secluded, lent itself to a particularly controlled analysis. Grahamstown has grown from 1812 to 2012 (200 years) around a very distinct *central urban area* (Cathedral Square), and around primarily two very separate cultures. Its remoteness from other larger urban areas has made it an urban hub drawing people from the surrounding farms and homelands. The rate of urbanisation in Grahamstown has led me to various assumptions and points of view, which although very difficult to ignore and certainly interesting, could not be fully verified or supported. However some basic principles relating to the future of the town, as a urban growth node could be established beyond doubt.

The basic economic drivers of Grahamstown were of great interest to this study, and the assumption of Grahamstown as being a world class *centre for education*, was established beyond doubt, Including the fact that this economic sector had capacity for future growth. Not only does Grahamstown have Rhodes University it also has over 26 Schools of which 7 are well respected private institutions. It is this educational system which magnifies the disparity between the two “cultures” so to speak, in the cities urban fabric. All of the 7 private schools fall within the colonial sector of the town. The balance of investment is severely skewed towards the *colonial* town and very little commercial investment has been credited to the *native* part of town. It therefore is one of the hypothesis of this discourse that by concentrating new investment or even strategically moving investment from the colonial part of town to the township, it might generate the initial capital injection required to kick-start development and encourage growth nodes.

Financial considerations, although very important, even critical for the success of any intervention, is delimited from the research and the assumption is that there is very little money available for development and redevelopment of public space. The emphasis is on basic service delivery and even this has fallen way behind. The assumption further dictates that spending public money on public space is not currently a priority of local and provincial government. The lack of funding is not necessarily permanent, and for that very reason it is assumed that at some point in the future funds will become available to spend on public space facilities. It is with this in mind that one should be able, with minimal funds, to plan for future urban growth and public space making, and in so doing ensuring that correct measures are in place for future growth. It has become very fashionable to design along the “green” principle, and it will soon become unacceptable to design without an integrated ecological plan.

If one looks at the aerial picture of Grahamstown on “google earth”, there is a clear difference between the tree footprint of the colonial section of town and the township, with very little to almost no trees in the township. While the colonial sector has an abundance of trees. Although it is debatable whether the two parts of town need to be physically reintegrated on every level and some separateness could be good, there are two areas where the city could be integrated. The first being integration through landscaping and trees, which is very physical and literal, and second being through education (or information accessibility) which is a more abstract form of integration. Spatial injustice can often be overcome by means other than physical connection.



Fig. 502



Fig. 503

Photographs supplied by: Nation Geo-Spatial Information 1949

5.3 Guidelines

The following guidelines could be used to inform the study for determining frameworks for healing fractures and fissures in the urban fabric of towns and cities caused by Colonial Development and Apartheid restructuring in South Africa:

5.3.1 Historic analysis: (history of fractures and fissures)

This type of analysis is required to understand the urban fabric of the town from a historic perspective, and also to understand historic land tenure, and basic timing of events that determined the current layout of the town or city. Spatial injustice could be more easily mapped by studying key historic events.

Historic analysis was tackled under two basic themes:

- Historic research of the area to determine how it was established and how it grew. This would also determine who the land belonged to historically, and how it changed hands over the years. It would magnify injustices of the past and if they have been redressed. Historic research would also determine basic cultural groupings and how they developed in the area. In the case of this research it would be evidence of security of land tenure, given to the Mfengu people by the British Government and endorsed by Queen Victoria.
- Physical evidence of a growth pattern over the full history of the town or city and its environs. This would include historic maps, photographs, aerial images and historic agreements and contracts.

5.3.2 Contextual analysis: (how current context is influenced by history)

A contextual analysis is a standard form of analysis for most urban design frameworks. In the case of this study and studies such as this, the context would have to be continually tied back to the historic analysis to determine the reason for the urban form.

Contextual analysis would be grouped as follows:

- Context of the city in relation to the larger urban sub-urban or rural geographic area.
- Current political analysis in the context to be tied back to historic political situation.

5.3.3 Geographic analysis:

Due to the fact that the physical geography of a town was often used as a design tool to enable separate development of the colonial part of town and the native town, it is critical to have a clear understanding of the physical geographic character of a city or town to enable the interventions or suggestions to be effective. Often a ridge or hill or valley would be used as the physical divide between the colonial town and the township. The river or stream running down the valley would form a physical divide with flood plains on either side creating a buffer that would be difficult to develop on thereby preventing effective connection or integration between the two. Grahamstown would turn out to be an ideal study area to prove the effect of geography and elevation on the eventual layout of the city as it currently is. Although geography by itself does not influence city design and planning, it is used by planners and urban designers to place proposed buildings, roads and townships in relation to the physical form of the land to achieve the maximum desired effect. This relationship between the natural form of the land and the built form and space is often the main obstacle to effective integration. The physical barrier between parts of a city is not always negative and can form a distinction between different parts of a city, it only becomes a problem if it is effective as a tool for spatial exclusion. Spatial exclusion or the control of access or prevention of economic flow of investment are the symptoms that need to be addressed. This discourse looks specifically at the imbalance between the two townships. If the imbalance can be overcome without materially erasing the geographic barrier then that would be first prize. The geography in Grahamstown has to some degree prevented sprawl towards the south and north west, but has encouraged sprawl to the north east, which still continues. For this reason the design proposed for the reintegration of the two towns, relies heavily on the implementation of a growth boundary.

5.3.4 Demographic analysis:

Demographic information is always critical and leads to many questions and answers. The demographic information for this study was obtained mainly from the 1996 and 2001 census, the 2011 census information will only be available in March 2013. Some of the demographic information was taken from a survey done of Grahamstown East in 1999, which is the entire coloured and black townships of Grahamstown. The survey of 1999 divided the township up into 27 Neighbourhoods. The survey then chose sample households randomly in proportion to the number of even in each neighbourhood, 862 households were surveyed in total.

5.3.5 Landscaping analysis: (Position of Public Open Space in relation to Built Environment)

In most great cities parks and trees play a major part in defining the city and its attractiveness. It is often our only connection to nature within a big city. The position of parks and the relation of areas bordering parks are of critical importance to the relative success of these spaces. The number, size and position of trees plays a significant role in how the city is perceived. Grahamstown has many Public Urban Green Spaces (PUGS) , and some of these spaces are more successful than others. A study done by students from Rhodes University in 2002 indicated that PUGS in the colonial part of town was better maintained and more used by residents than similar spaces in the townships. It therefore lead me look at the findings of this report. The report was called “An economic and condition analysis of public urban green spaces in Grahamstown, Eastern Cape. (Shackleton, 2011)”. In the report they refer to these spaces as PUGS. The main aim of the report was to determine the current condition of these open spaces in Grahamstown, both in the old colonial town and the township. Some correlations were drawn between findings in the colonial and the township spaces. Their main findings showed that there was a disparity between perceptions towards public urban green spaces in the separated cultures, and these perceptions was linked to the condition and economic value of the spaces as they stand today (2011). The aim of my study was to determine what the effect would be if we moved PUGS from its current locations to new strategic positions. Could PUGS in new positions give impetus to linkages into the township? Would the spaces left, after moving the PUGS be effectively used for infill? The hypothesis of this study was, that if we reduced PUGS and moved them to areas to increase their impact, the possibility of their condition improving would be higher.

5.3.6 Ecological analysis: (Footprint sustainability study)

A detailed analysis of the current and projected ecological footprint of the study area. This type of study could lead to questions on sustainability of growth. By determining the current influence of an urban area on the ecology, immediate and wider to the region, planning could be informed as to measures needed to mitigate the future footprint of the city. Basic analysis would be based on the following:

- Waste produced both piped and for dumping (comparisons between colonial town and township areas would be helpful).
- People and animal impact on the environment.
- Projected impact by 2030 or 2050 or 2075 (2075 is only 63 years away, less than a lifetime)

By creating an urban development boundary, further sprawl can be prevented. This would force infill development. In turn this would also mean savings on new infrastructure and will reduce cost of new roads.

‘Sustainability’ is the word of the moment. It’s everywhere—in the pres, in government reports, on business websites, all over the internet. Adjectives proliferate: ecological, environmental, economic, social, cultural, political, architectural, urban, rural—whatever next? With all the variety of meanings splashing around, does sustainability mean much at all? Is it just another fashion of the intelligentsia, or merely a useful cover story for business as usual? Sustainability does mean something both important and new. It speaks of the greatest change in human thought and behaviour for 3000 years. It is fundamentally about the global environment. It is about cities. A simple metaphor may be useful. Think of having a good soak in the bath. Before getting out and grabbing the towel , lie there a moment longer and pull the plug. The water level immediately begins to drop. A colder perimeter creeps around your body. A little whirlpool or vortex forms above the plughole. Now think of the bathwater as the environment. The city is the vortex created by swallowing up the environment—it is the energy, the water and the materials consumed by city dwellers. There are two ways of keeping the water in the bath. Put the plug back in, or run the taps at the same rate as the water going down the waste pipe—or do some combination of the two: stem the flow, run the water. (Low et al, 2005, p.13)

5.3.7 Accessibility analysis: (Access to education, information and facilities)

Spatial injustice is centred around access or more accurately non-access. By creating separate areas for different cultures to develop independently, and doing this for the reason of keeping a certain race creed or class away from economic opportunity, creates problems for both groups. Access was in the case of this study denied mostly on the basis of race and therefore excluded a number of people from the inception of the community. This separation and control of access has been transferred with liberation and has continued, almost unchanged from 1994 to 2012, and shows very little sign of change in the future. The colonial part of Grahamstown is still predominantly white (not by act of law), and the township certainly still mostly black and coloured. Accessibility, especially access to economic opportunity is not only a South African problem and is certainly at the forefront of discussions in many developing and even developed countries. Unfortunately the economically marginalised is often only accommodated on the fringes of society. Therefore people migrating often from rural areas find cheap refuge on the edges of the city on land not belonging to them. This type of edge condition is already well established in South Africa and is further entrenched by the history of separation. The question is: If we know that certain cities are growing due to mass migration, and that a large number of these migrants are poor and already excluded, can we plan for their arrival, and can we give them access to economic opportunity whilst still respecting their humanity? Can we prevent this growth from becoming a sprawling growth on the periphery and accommodate them within the urban fabric by planning effectively? Once again a very specific growth boundary would assist in preventing sprawl and would to some extent force authorities to consider infill development as a model for growth over the expansion by developers on the periphery of the city.

5.3.8 Political landscape analysis: (unfortunately necessary)

An analysis of the political landscape is necessary to determine the stakeholders, role-players and most importantly the decision-makers and policy makers. Political will can often turn proposed projects into action, or prevent proposed projects from becoming reality. A mere understanding of the political landscape will not necessarily help the design process. An integration of policy making into an urban design framework can make the difference between theory and action emanating from the framework recommendations. One example of policy change, could be that of convincing local government to adopt a policy of infill development rather than sprawl on the periphery. Policy makers could for instance also insist that all new investments of a public nature be made in the township and by so doing, encourage new investment into the poorer part of town.

5.4 Epilogue

It is difficult to say whether it is possible for peripheral communities to be reintegrated into the urban fabric of old colonial towns, or if these separate communities will continue to develop separately, and yet be reliant on one another for their survival. It is however important to understand that the situation, as it is now, is not ideal. Especially not in a country where we are trying to redress inadequacies of past segregation and spatial injustice. We also know that with mass migration to urban centres, this problem of growth on the periphery will be magnified, and will become more difficult to deal with as time passes.

The separate development of the peripheral community, although problematic, is not all negative. It affords truly poor people, a foothold in the city despite not owning property or being able to afford formal rental accommodation. It is a hard way to access the city for employment, and space on the periphery is not uncontested. The true questions are: Can we plan effectively for migration? How valuable are these migrants to the urban areas they flock to? I believe the answer to the first question is: Yes, that we are able to plan for mass migration towards our cities, and that we do not have a choice. For if we do not plan for this, we condemn millions of people to chaos, poverty, hunger and ultimately an inhumane way of life. It might then be argued that it is our obligation to plan for mass migration of poorer communities to cities and towns. In the light of the current world food crisis, it might also be our obligation to plan for food security within cities. The answer to the second question: How valuable are they? Is not simple. How do we measure the value of a single person or 100 000 people? How do we measure the value of social capital or a labour force? I would like to make the following statement: The people migrating towards cities for survival and jobs are immensely valuable, not only as a labour force but also as a support to the economy both formal and informal.

The only question that remains is: If these migrant people were of no value to the economy, would we still plan to accommodate them? And I believe the answer is yes!

The way we design for the future has changed significantly, the master plans of the past are too rigid for current needs. Planning on a massive scale, often spending money on items that are not critical to specific communities survival, and thereby cause suffering and discomfort to communities who can least afford it. Contemporary design in the current paradigm of the endless city (Burdett et al, 2007) requires a flexible, incremental and focuses solution that is open to continuous reappraisal and revaluation. Human settlement patterns change over time and needs vary from area to area, flexibility can be the difference between successful urban intervention or failure. Designing for the informal, the unplanned has become a necessity. An estimated 1 billion people live in squatter settlement worldwide (Burdett et al, 2007, p. 348). This number is astonishing, 1/7th of the worlds population live in unplanned accommodation.

I believe our success as a human race in the near future will be determined by the way we plan for and accommodate the 1 billion squatters worldwide. The marginalised community has become larger than could have been expected, and the problems of housing shortages and food security have been with us for along time. How long before it is too late to turn the situation around? How long before the number of people living in squatter communities outnumber those living in formalised housing? The previous question might sound absurd, but this is exactly the case in Grahamstown. People living in Informal or semi formal type housing outstrip those living in formal housing by almost double (77,4%)

I do not wish to seem over dramatic, but I can only conclude from the information that is available to me as Secretary General, that the members of the United Nations have perhaps ten years left in which to subordinate their ancient quarrels and launch a global partnership to curb the arms race, to improve the human environment, to diffuse the population explosion, and to supply the required momentum to development efforts. If such global partnership is not forged within the next decade, then I very much fear that the problems I have mentioned will have reached such staggering proportions that they will be beyond our capacity to control.

U Thant, 1969

(3rd Secretary of the United Nations 1961–1971)

(Meadows et al, 1972, p.17)

It is hard to believe that these words were spoken in 1969, apart from the “arms race” these words could have been spoken by *Ban Ki-Moon (8th Secretary of the United Nations)*, last week. The question of the peripheral community or squatters or illegal immigrant has become a burning issue in South Africa. The longer we wait to invest in these communities the larger the problem will grow.

This discourse hardly scratches the surface of the problem, but the following principles have been isolated:

- Prevent urban sprawl by setting an urban development boundary (to be reassessed every 5–10 years)
- Strategically invest in the peripheral community to stimulate economic growth.
- Understand the problem and it’s causes through research. (cultural and economic)
- Develop in a focussed and incremental way. (developmental frameworks to be flexible)
- Revaluate continuously.
- Integrate isolated communities by creating new linkages.
- Upgrade, redevelop and densify existing areas.
- Infill development to be favoured over developments on the periphery.
- Design for informality, and support informal economies.

It is hoped that this study has shed some light on the possibility of planning for integration by modest means, if the basic guidelines are in place future development can follow easily and sustainably.