

CAPE TOWN

DENSIFICATION AS A CURE
FOR A SEGREGATED CITY

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INTERNATIONAL NEW TOWN INSTITUTE

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DENSIFICATION AS A CURE
FOR A SEGREGATED CITY

INTERNATIONAL NEW TOWN INSTITUTE

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- 5 **The Density Syndicate**
Edgar Pieterse, Michelle Provoost
- 10 **Africa's Urban Imperatives**
Edgar Pieterse
- 26 **The Openheid State.**
From closed to open society in Cape Town
Michelle Provoost
- 42 **The Ambition of a Democratic City**
Rashiq Fataar
- 56 **Two Rivers Urban Park**
- 86 **Maitland**
- 128 **Lotus Park**



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“The ideas of the Density Syndicate are very important for the city and us citizens because it shows us how we can reimagine the city and what can be unlocked through a different kind of creativity.”

Mokena Makeka (architect at Makeka Design Lab)

“The New Town Wescape is one of the most evil things in urbanization that we have done. [...] Equal access to the city for all people is a right.”

Zackie Achmat (activist and film director)

“From a private point of perspective, mixing access and density is even more important than the quality or quantity of housing”

Martin Kearns (development executive at V&A Waterfront)

“One of the things we need urgently in our country and cities is discourse, debate and dialogue on urban development like the Density Syndicate. [...] If we do not experiment I cannot see how we can transform.”

Luyanda Mpahlwa (architect at Design Space Africa)

“I am impressed and encouraged by the level of thinking and innovation that has transpired in the Density Syndicate projects.”

Seth Maqetuka (executive director Human Settlements at City of Cape Town)

Quotes taken from the Density Syndicate conference ‘Density and Access’, November 3rd 2014 in Cape Town.

The Density Syndicate

Twenty years after democracy, South African cities remain stubbornly divided, fragmented, inconvenient for the poor and uninspiring. This stems in large part from the legacy of apartheid spatial planning: the ideal of single family homes on individual plots of land, and politicians allowing developers to choose the way of least resistance for the expansion of the city, producing extensive urban sprawl. This manifested in fragmented cities made up of a patchwork of disconnected business districts, wealthy neighborhoods, gated communities and poor townships. Sadly, the unintended consequences of post-apartheid urban policies have consolidated this legacy leaving a landscape of neo-apartheid urbanism in its wake.

In the case of Cape Town, the affluent City Bowl and southern and northern suburbs stand in contrast to large swathes of township and informal areas. Despite considerable deracialization of lower middle-class suburbs, the townships and informal settlement areas remain profoundly mono-functional, racially homogenous and most vulnerable to a multiplicity of risks—fires, floods, crime, social violence, evictions and so on.

It is uncontested that the current situation is socially, economically and ecologically unsustainable. Yet, despite the availability of urban design expertise and policy commitment to transformation, we have very few compelling examples of how we can imagine and build our city differently. Moreover, we are struggling to figure out ways to achieve greater urban integration whilst also establishing more sustainable pathways into the future. The planning and policy imperative of greater urban density is a powerful lens to address the dual imperatives of social integration and urban sustainability.

In order to explore how to achieve densification that allows for different uses and the interaction of different people, the African Centre for Cities, the City of Cape Town and the International New Town Institute brought together an international group of professionals and called it ‘The Density Syndicate’.

The African Centre for Cities has since its start in 2007 focused on urban research from an African perspective as a response to the growing recognition worldwide of the importance of cities and urbanization, particularly in the developing world. The sense is of impending crisis due to the many challenges and ACC’s aim is to

provide a sustained base from which critique and alternatives for urban issues can be launched.

The International New Town Institute is a think-and-do-tank, also focusing on urban research from the perspective of global urbanization, especially in the global south. INTI comes up with alternatives for the often poorly conceptualized and designed new cities that spring up all around the globe. By exchanging knowledge and experience INTI aims to contribute to a better quality of the urban environment.

The Density Syndicate was conceived as a Research-by-Design project, using the capacity of design proposals to investigate and discuss potential development strategies. Three locations were chosen to speculatively test the possibilities of density strategies in the very different, yet exemplary contexts of a greenfield site (TRUP++), a brownfield site (Maitland) and an informal settlement (Lotus Park). Each site offers a unique set of parameters and contested interests. By using the combined design intelligence of Dutch, German, Turkish, American and South African designers and urbanists, the Density Syndicate developed innovative, alternative strategies for the future of Cape Town. Three teams developed speculative designs for densification in each of the areas, keeping in mind how important it is to create viable ways of achieving mixed-income, transit-based and sustainable ways of living. The teams were supported by a reference group including representatives from the City of Cape Town, an economist, a social scientist, an historian, an ecologist and relevant design thinkers. Additionally each team worked with Masters students from the University of Cape Town.

The results of the Density Syndicate are presented in this publication. Although the locations and also the design proposals are very different, they share the same ambitions and points of departure.

The ambition to break open separated city districts and connect them to each other is best illustrated by the design for Two Rivers Urban Park. The project positions an elongated 'leftover area' as a central public space between the adjoining suburbs, townships and informal settlements. The addition of housing blocks transforms the backs of the neighborhoods that are adjacent to the green space, turning them into fronts instead. The proposed mix of lower-income and middle-class housing hardly exists anywhere in Cape Town to date, nor is there knowledge available here on how such a mix should be arranged, either financially or in terms of the regulatory framework.

At another location, Maitland, a density strategy is being used to bring about a mix of housing and businesses as well as combining different population groups. The economic axis of Voortrekker Road, wedged in between middle-class suburbs, is also the spot where hundreds of thousands of workers arrive every day, brought in by train from the Cape Flats. Entitled 'Pan-African Hub', a model is being designed in which immigrants, workers and suburban residents jointly and

incrementally develop the area, and live and work there.

In the third location, the informal settlement Lotus Park, an alternative model for the 'one family one plot' policy used so far by the government is being developed in cooperation with community representatives. In Lotus Park, emancipation and personal development are given priority in a model for gradual improvement of the neighborhood through collective housing construction. By applying housing subsidies in an alternative form (not by household, but by cluster of households), the residents are able not only to organize themselves and make use of the expertise and building experience present in the area, but also to improve their own home, expand its size, and continue living in the neighborhood themselves.

The municipal government expects this project to yield an innovative method that can be used in the informal settlements (which comprise 15% of the settlements in Cape Town), since this approach concentrates not on the house as a single unit, but on a holistic strategy for the community that focuses on the local economy and social relations.

The purpose of the Density Syndicate is to function as a resource for future densification plans for the City of Cape Town and to offer alternatives for the present approach to urban development. Looking at the way in which stakeholders position themselves towards each other, how the regulatory framework is formulated and how it is perceived, it seems to be 'business as usual' in Cape Town to separate, to zone, to create projects which are like islands, and to outplay conflicting political ambitions. Cooperation and trust, necessary for any larger urban project, seem to be lacking.

The proposals of the Density Syndicate may seem to suggest a far higher degree of complexity in planning practice than Cape Town is used to, and this is probably true. Still, it is necessary, because there is a strong need for the city to solve her major challenges. Segregation, not only of people but also of functions and projects, should belong to the past. Socially, ecologically and economically it is necessary to embrace the level of complexity needed to bring about an improvement of the city. This is the first thing the Density Syndicate wants to point out: business as usual is simply not good enough anymore. The alternative options that are demonstrated in this book will hopefully contribute to a more sustainable and just future for Cape Town.

Edgar Pieterse, dir. African Centre for Cities
Michelle Provoost, dir. International New Town Institute



A typical "spaza" (semi-formal convenience shop) in DuNoon, Cape Town
(photo: David Harrison for Cityscapes Magazine | ACC).

Africa's Urban Imperatives

Africa is key to the future of the world. In just two generations (35 years), one in every four people on the planet will be African; up from one in six at present. Africa has the most robust population growth of all world regions and this is expected to continue until the end of the century. Due to this dynamic, by 2040, Africa will have a labour force that is larger than that of China or India.¹ The fulcrum of these shifting dynamics will undoubtedly be Africa's cities. The region has the highest rate of urbanization at 3.3% per annum and already boasts as many one-million+ cities as Europe. Yet, despite these dynamics, Africa continues to be imagined as a vast "natural" terrain marked by wild landscapes and rich in potential for natural resource extraction and agriculture; the veritable food basket of the world.

1 McKinsey Global Institute, *Lions on the move: The progress and potential of African economies*, Washington DC: McKinsey & Company, 2010

2 The Global Commission on the Economy and Climate, *Better Growth. Better Climate. The New Climate Economy Report*. Washington DC: New Climate Economy, 2014

3 The Millennium Development Goals expires in 2015 and will be replaced with the Sustainable Development Goals (SDGs) that will come into effect from September

The disjuncture between the pervasive imagination of Africa and the material reality of intensifying urbanization reveals a vast political and policy vacuum in thought and action. This brief essay provides a contextual overview of the scope and scale of Africa's urban revolution, looking out to 2050. In the second section, these trends are located within a dynamic policy landscape as national governments, pan-African bodies and civil society organizations gear themselves up for important debates about the future of urban development and governance under the umbrella of the Habitat III processes. At stake in all this is the framing of the urban question in the 21st Century because the dominant perspective will fuel a raft of new investments and institutional arrangements.² Since the urban question holds the key to the larger development *problematique* of inclusive and resilient growth, at the core of the unfolding Sustainable Development Goals negotiations, the stakes cannot be higher.³ The third section of the essay will descend from the Continental scale and explore how these trends and debates are becoming manifest in South African cities, with a more intimate focus on metropolitan Cape Town.

Urbanization Trends & Dynamics

The number of Africa's urban dwellers is projected to increase from 471 million (40%) in 2015 to 1.33 billion in 2050 and Africa is projected to pass the 50% urban tipping point around 2035.⁴ There is of course tremendous variation across Africa. Northern and Southern Africa are both relatively urbanized, with West and East Africa on the other end of the spectrum. This is very important because the bulk of population

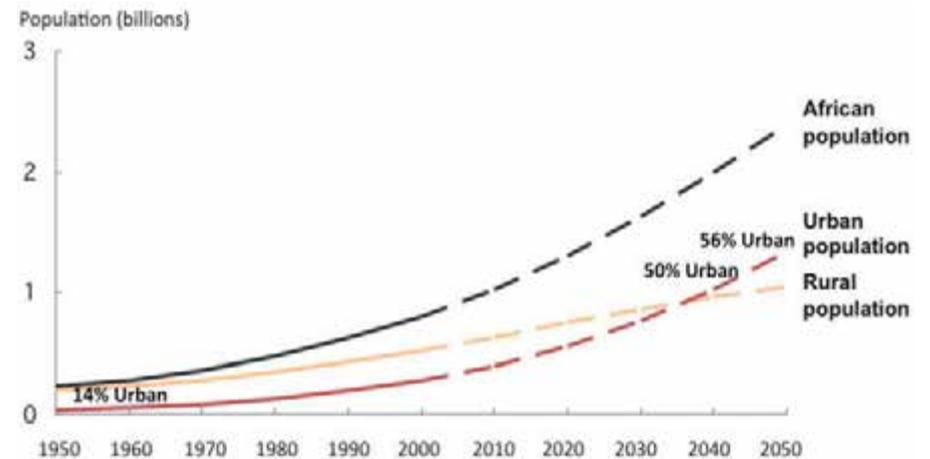


Figure 1: Actual and projected demographic changes in Africa, 1950-2050 (Source: United Nations 2014).

2015-2030. The United Nations has been mediating international negotiations on the SDGs since 2012 and this process culminates in a major UN summit in September 2015. Urbanisation was absent from the MDGs but will feature prominently in the SDG regime

4 United Nations, *World Urbanization Prospects. The 2014 Revision*, New York: The UN Department of Economic and Social Affairs, 2014

5 Africa Progress Panel, *Jobs, Justice and Equity. Africa Progress Report 2012 - Seizing*

growth in Africa will be concentrated in these two regions, which are also the poorest in terms of GDP/capital⁵, as can be seen in figure 4.

Figure 1 puts the current level of urbanization in a hundred year context, ranging from 1950 and projected to 2050. These trend lines obscure the importance of regional and country variance and should therefore be considered in relation to the disaggregated data in figure 3.

In addition to appreciating the enormous variety in levels and rates of urbanization across the continent, it is equally important to grasp the phenomenon of urban primacy coupled with small-scale urbanization.⁶ Most sub-Saharan African countries are characterized by a lop-sided urban system. The traditional colonial capital city tends to be very large and dominant in the national political economy, followed by much smaller cities and a large array of town-like urban areas. Exemplary examples of this include Rwanda, Tanzania, Kenya, Malawi, Namibia, and so forth. United Nations data suggest that in 2015, 9.2% of the urban population reside in mega cities with populations exceeding 10 million, contrasted to: 5.3% in cities between 5-10 million; 22.5% in 1-5 million cities; 8.4% in 0.5-1 million cities; 7.3% in 300,000 – 500,000 cities; and most significantly, 47.3% in cities smaller than 300,000 inhabitants. In light of this, it is prudent to prioritize research and policy that can give us a better handle on how best to understand and manage the 1-5 million cities and the majority urban condition of less than 300,000.⁷ Given the significant growth of populations in the two classes of larger cities (5 million and up), it is obviously just

as important to get a handle on those contexts as well. At 3.9 million, Cape Town is a good example of the 1-5 million class of city.

Recent data provide some indication that despite the distribution of Africa's urban population, the larger urban settlements serve as the economic engines. A study prepared by the New Climate Economy and LSE cities on 87 sub-Saharan African cities with a population in excess of 0.5 million reveals important new insights: the total population of the 87 African cities is 17% of the total population of the 39 countries, yet their GDP share accounts for 35% total GDP in 2012. The study further shows that the GDP of the 87 cities was about US\$ 661 billions in 2012 and is projected to increase by more than US\$ 1 trillion by 2030, equivalent to a cumulative increase of 155% and an annual growth rate of 5.34% between 2012 and 2030.⁸ It is therefore impossible to overstate the importance of getting urban planning, management and governance right in these contexts in order to optimize the potential that resides there because it holds the key to unlock the larger opportunities of the Continent.

opportunities in times of global change.

Geneva: Africa

Progress Panel, 2012

6 Bekker, S. and Thernborn, G (eds.),

Capital Cities in Africa: Power and Powerlessness,

Pretoria: HSRC Press, 2012

7 United Nations, World Urbanization

Prospects. The 2014 Revision, New York:

The UN Department of Economic and

Social Affairs, 2014

8 Godfrey, N.

and Zhao, X. The

Contribution of

African Cities to

the Economy and

Climate: Population,

Economic Growth,

and Carbon Emission

Dynamics, drawing

on data from Oxford

Economics and

LSE Cities for New

Climate Economy

(forthcoming)

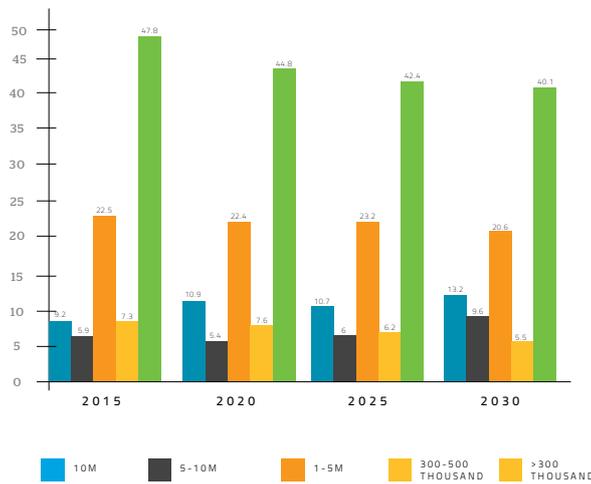


Figure 2: African Settlement Size. Source: United Nations 2014

One of the most important constraints on sustained economic growth in Africa is the limited infrastructure footprint, especially with regard to energy and transport networks. However, increasingly diversified economic development (beyond natural resource extraction) does not only require various network infrastructures, it also requires an educated and mobile labour force. This imperative is undermined by profoundly inadequate education and health investments and extremely skewed patterns of service delivery. These infrastructural deficits explain to some extent the predominance of non-formal economic, labour market and housing dynamics across much of sub-Saharan Africa.



Nairobi, Kenya (photo: Simone Rots, INTI).

A few pertinent indicators will suffice to illustrate this point:

- In Africa, 61.7% of the urban population live in slum conditions as defined by UN-Habitat;
- 63% of the labour force are estimated to be trapped in vulnerable employment; and
- 55% of Africa's GDP is derived from informal economic activities.

These almost unfathomable numbers compel one to accept that urbanization in Africa is an exemplar of what Ananya Roy calls "informality as a mode of urbanization".⁹ This effectively means that the bulk of urban policy prescriptions that assumes a competent (local) state, formal businesses, predictable and substantial tax revenues, and so on are simply not assumptions that can be counted on in most of sub-Saharan Africa. Yet, on the back of the new found Afro-optimism heralded by the *Economist* a few years ago, urban and infrastructural investments are lining up. However, these flows might be the last thing that African cities need.

The problems with simply absorbing any investment willing to enter Africa are multiple. One, due to the limited nature of decentralization reforms, most African cities and towns are not governed by strong, resourced and competent local authorities, which also means that the planning and regulatory regimes in place are either absent, or inappropriate or not enforced. Two, in the absence of effective urban planning and management over the long-term, a highly inefficient, often characterized by low-rise sprawl—but incredible dense in slums

⁹ Roy, A., 'The 21st-Century Metropolis: New Geographies of Theory', *Regional Studies*, 2008, 43(6): 819-830

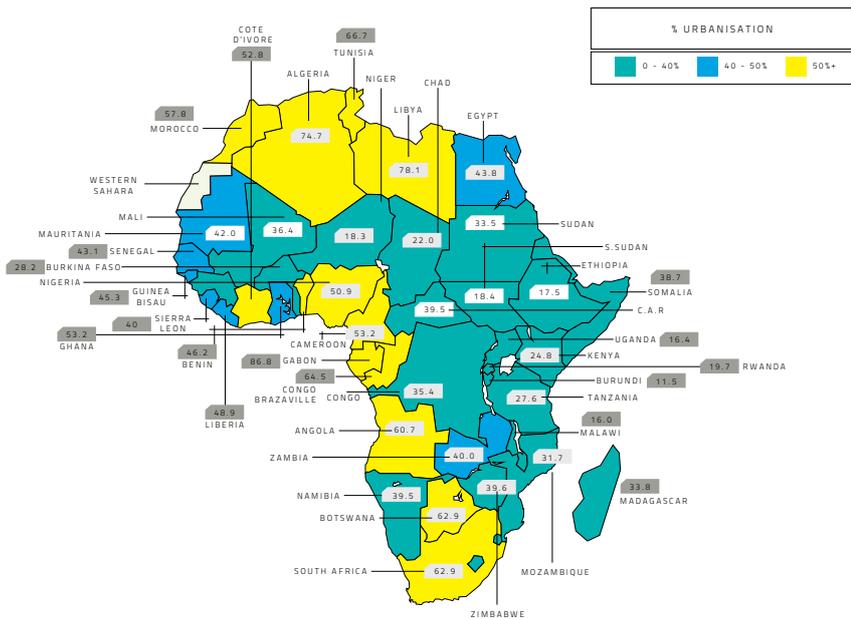


Figure 3: Percentage urban population per country across African regions (Sources: AfDB, 2014; State of African Cities Report, 2014).

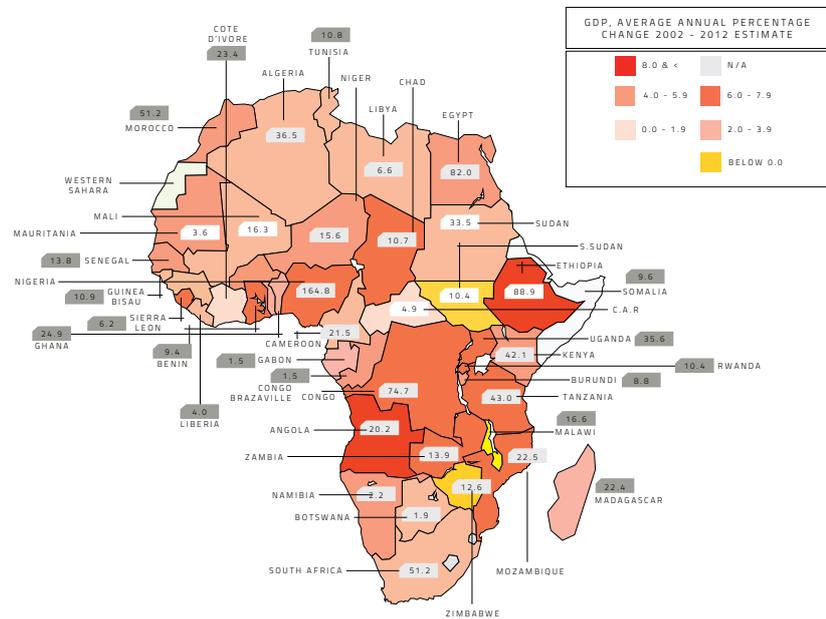


Figure 4: GDP per country across African regions (Sources: AfDB, 2014; State of African Cities Report, 2014).

10 Jaglin, S., 'Regulating service delivery in southern cities: rethinking urban heterogeneity', in: Parnell, S. and Oldfield, S. (eds.), *The Routledge handbook on cities of the global South*, London: Routledge, 2014

11 Watson, V., 'African urban fantasies: past lessons and emerging realities', *Environment and Urbanization*, 2014, 26(2): 561-567

12 For a brief overview and explanation of key terms see: "The "urban SDG": an explainer" accessed September 20th 2014 from: www.citiscopes.org/story2014/urban-sdg-explainer

13 The Global Commission on the Economy and Climate, and its flagship project The New Climate Economy, were set up to help governments, businesses and society make better-informed decisions on how to achieve economic prosperity and development while also addressing climate change. To read the full *Better Growth, Better Climate* report, see: www.newclimateeconomyreport.org

14 The Global

areas—urban form has taken root. Furthermore, the expanded urban structure is also marked by stark class, and sometimes, ethnic divisions, which creates the possibility of splintered urbanism: partial and selective provision of urban infrastructure systems and services.¹⁰ Three, many of the real estate investment proposals on offer across Africa are new town models that are both inappropriate and unaffordable, apart from setting up a situation where limited public resources get diverted from the needs of the urban majority to service a narrow band of economic and elite interests.¹¹

The Political and Policy Stakes

Key international and pan-African development policy processes around the Sustainable Development Goals that will be adopted by the United Nations in September 2015, offer a window to sharpen the global and African urban question. This is particularly important since Habitat III (scheduled for October 2016 in Quito) will be the first round of UN Heads of State conferences to deepen the new SDGs. It is broadly accepted that there will be a much stronger urban perspective across all of the SDGs and at least one explicit goal that will deal with the urban.

The draft goal under consideration reads: "make cities and human settlements inclusive, safe, resilient and sustainable."¹² This invocation opens up the door for a new mainstream perspective on global and urban development, most clearly reflected in the findings and proposals of the New Climate Economy group¹³:

The next 15 years will be critical, as the global economy undergoes a deep structural transformation. It will not be "business as usual". The global economy will grow by more than half, a billion more people will come to live in cities, and rapid technological advance will continue to change businesses and lives. Around US\$90 trillion is likely to be invested in infrastructure in the world's urban, land use and energy systems. How these changes are managed will shape future patterns of growth, productivity and living standards. [...] Future economic growth does not have to copy the high-carbon, unevenly distributed model of the past. There is now huge potential to invest in greater efficiency, structural transformation and technological change in three key systems of the economy: cities, land use productivity and energy systems.¹⁴

In the detail of the report they point to the retrofit implications of this agenda for Europe, the Americas and Japan and a combination of future build and retrofit in the fast growing regions of Asia and Africa. It is against the backdrop of this vital debate that questions need to be asked about the appropriateness of the "fantasy cities" or new town agenda as roundly critiqued by Vanessa Watson and others.¹⁵ For, to be sure, these will be packaged and marketed in precisely the same policy



A view from an informal settlement to RDP Housing across the street in Ilitha Park, Khayelitsha, Cape Town (photo: David Harrison for Cityscapes Magazine | ACC).

Commission on the Economy and Climate. *Better Growth. Better Climate. The New Climate Economy Report*. Washington DC: New Climate Economy, 2014

15 Watson, V., 'African urban fantasies: past lessons and emerging realities', *Environment and Urbanization*, 2014, 26(2): 561-567.

Provoost, M., 'New Towns for the 21st Century: The Planned vs the Unplanned City', in: Provoost, M. (ed.) *New Towns for the 21st Century: the Planned vs. the Unplanned City*, Amsterdam: SUN, 2010

16 Parnell, S. and Pieterse, E. (eds.),

terms as argued for by the proponents of the new climate economy. However, the current version of new town proposals simply does not engage with the real non-formal, adaptive African city as intimated before and elaborated elsewhere.¹⁶

In this context, debates about the nature of the city, urban form and metabolic dynamics go to the very heart of contemporary politics. Figuring out how to cope with existing urban populations and their spatial practices must be combined with fresh ideas about how best to manage anticipated growth. Due to the relatively mature structure and demographic trajectory of South African cities including Cape Town, it offers an important exploratory terrain to define how retrofitting and green field developments could be reimaged and implemented.

Urban Modernism hand-in-glove with Apartheid Socio-Spatial Engineering

Cape Town is emblematic of the challenges of all South African cities. Its unique topography—being ensconced between two mountain ranges and two oceans—renders the racialised class divisions more starkly, but the self-same historical and policy dynamics prevail. The similarities stem from the fact that all South African cities were born in a cauldron of racism and capitalist exploitation. From the outset urban form and the regulation of movement was rooted in a desire to keep racial groups distinct and unequal. When the mines mushroomed in contemporary Gauteng (province where Johannesburg is located) and around Kimberly circa 1880, black men were allowed to temporarily settle in barracks designed to be single-sex and devoid of any services

or comfort. These dwellings were simply warehousing for exhausted bodies before the next shift of toil commenced. These racialised worker barracks became the template for mono-functional “locations” on the edge of the colonial core city, but still rooted in an imaginary of the migrating black body with no right to family life, pleasure or new opportunities that the city may offer.¹⁷

By the 1920s there was such a large proportion of black workers in urban areas that a raft of regulatory laws were introduced to lay the basis for the townships that continue to distinguish the South African landscape. But at this point, modernist planning precepts were also firmly entrenched being made to serve both an industrialization and racial superiority agenda¹⁸; imperatives that continue to live on in the DNA of South African cities. The Group Areas of Act of 1950 was the purist manifestation of this planning mind-set. In terms of this Act, settlements (cities and towns) had to be stratified in terms of classes of use, e.g. residential, commercial, industrial, recreational, protected (nature), and so forth. Furthermore, these modernist categories had to have a distinct racial allocation, premised on concentric model of urban expansion developed by Ernest Burgess of the early Chicago sociology school.¹⁹

This logic created a perfect template to push racial and class segregation to absurdist extremes, ostensibly premised on “scientific” rationale. Cape Town has a unique place in this larger program of violent social engineering. Due to the slave-based economy since the onset of colonialism, Cape Town had a disproportionate share of so-called mixed-race or Coloured population compared to the rest of the country.²⁰ This situation was artificially kept in tact through legislation called the Coloured Labour Preference policy, which made it virtually impossible for African black people to work and live in Cape Town unless it was in menial labour occupations. In other words, the Coloured Labour Preference policy was a cruel and vicious piece of regulation aimed at driving a wedge between black people and creating a differentiated scale of racial privilege and disadvantage that graphed onto a spectrum of skin pigmentation. The darker you were, the more oppressed and exploited you will be. Sadly, the policy was enormously successful to stem migration flows and to imbue a deep-rooted social schism between African and Coloured communities that endures until this day.

Once the Group Areas Act was being implemented, the apartheid state maintained a relatively large public housing programme especially during the 1950-1970s. In broad terms it was premised on the post Second World War European model but the form of the housing mirrored the suburban ideal of the White population even if in miniature version. Coloured, and to a lesser extent, African communities were provided subsidized rental housing (later on with the option to buy) in the form

Africa's Urban Revolution. London & Cape Town: Zed Books & UCT Press, 2014.

Pieterse, E. and Simone, A.M. (eds.), *Rogue Urbanism: Emergent African Cities*. Johannesburg: Jacana Publishers, 2013

17 Beinhart, W. and Dubow, S. (eds.), *Segregation and Apartheid in Twentieth Century South Africa*, London: Routledge, 1995

18 Mabin, A. and Smit, D., 'Reconstructing South Africa's Cities? The Making of Urban Planning 1900-2000', *Planning Perspectives*, 1997, 12: 193-223

19 Burgess, E., 'The Growth of the City: An Introduction to a research project', in: LeGates, R.T. and Stout, F. (eds.) *The City Reader. Second edition*, London & New York: Routledge, 1996 [original 1925]

20 The 2011 Census shows that Coloured constitute 42% of Cape Town's population even though the national share is only 9%

of 3-4 storey flats or semi-detached bungalows in mono-racial areas. Typically, the more working class, the further away the areas were from economic opportunities, or they abutted polluting industries.

However, after the 1973 oil crisis, the apartheid state ran into serious fiscal problems and one of the first policy implications was to slow down the provision of public housing for black groups. Concomitantly, the South African economy started its structural shift away from manufacturing to services creating the conditions for large-scale unemployment two decades later. Into these processes, emerged a re-radicalization of black politics, especially on the back of trade union-led strikes in 1973 and student protests in 1976, inspired by the visionary politics of Steve Biko's Black Consciousness Movement. The states' response was one of vicious retaliation and increasing militarization of the society. It used urban planning to ensure that the security forces could easily isolate and seal-off black townships and schools.²¹ As elsewhere in the neo-colonial world, Modernist delineations have always been useful for military strategy.

By the mid 1980s, the protest genie was well and truly out of the bottle, domestically and internationally, and no amount of securitization, detentions, or victimization could restore Apartheid-era acquiescence. At the urban scale, and especially in Cape Town, it also meant that anti-migration and population control policies simply fell by the wayside. In 1984, the Coloured Labour Preference policy was abolished and the city started to undergo a profound demographic adjustment, which still reverberates to this day. Cape Town has been transformed demographically due to migration from various parts of the country (predominantly from the Eastern Cape province), and to a lesser extent, the rest of the African Continent.

Planning desires & unanticipated outcomes

When the process of democratization set in in 1990 with the release of Nelson Mandela, urban thinkers were deeply engaged with the problematic of undoing the apartheid city, which was not only marked by racial segregation and modernist mono-functionalism, but it was also characterized by extended sprawl and low densities, except for overcrowded informal settlements and public housing. From the outset of the democratic transition period, urban development experts were in agreement:

There appears to be an emerging consensus as to the most desirable nature and direction of urban restructuring in South Africa. The following points have been put forward as general principle: . . . Reorientation of urban growth away from the urban periphery, or at least slowed lateral spread. The acceptance of higher density development in new areas, and areas where land is inefficiently used. Reintegration of fragmented parts of the city, primarily through the



Lagos, Nigeria (photo: Akintunde Akinleye, Cityscapes Magazine | ACC).

21 For a general overview on how spatial planning was used for social control, see: Christopher, A.J., *The Atlas of a Changing South Africa*, Second edition, London & New York: Routledge, 2001. For a specific example on how this unfolded in one township in Johannesburg, see: Boraine, A., 'The militarization of urban controls: the security management systems in Mamelodi, 1986-1988', in: Cock, J. & Nathan, L. (eds.) *War and Society. The Militarisation of South Africa*, Cape Town: David Philip Publishers, 1989

22 Hindson, D., Mabin, A. and Watson, V., *Restructuring the Built Environment. Report to Working Group 5 of the National Housing Forum*, Johannesburg: National Housing Forum, 1993, 7-8
23 Pieterse, E., 'Planning and Land-use Conflicts amidst the Search for Urban Integration: The Case of Wingfield', in: B. Fruend & H. Witt (eds.), *Development Dilemmas in Post-Apartheid South Africa*, Durban: University of Kwazulu Natal Press, 2010
24 Dewar, D., 'The urban question in South Africa. The

planning of lines and nodes of commercial/ industrial and higher density residential development, focused on public transport systems. [Furthermore, the] use of vacant and under used, well located land parcels for lower income settlement. Achievement of a higher degree of mix of land uses. A focus on public transport.²²

This policy approach was informed by the work of a private sector think tank, the Urban Foundation, the long-standing planning and design ideas of the Urban Problems Research Unit (UPRU) at the University of Cape Town, and the work of left-wing service organizations such as Planact that worked closely with grassroots organizations in black townships affiliated to liberation movements.²³ Despite these diverse informants, a remarkable consensus emerged about the core urban planning proposals which are most developed in the ideas of David Dewar, based at UPRU.²⁴ In reviewing post-1994 policies it is clear that the tenets of Dewar's work have proved enduring. What is particularly interesting is that Dewar has also been the main intellectual resource for informing spatial planning in Cape Town during the transition and especially during the 1996-2000 term of office of the CCT, the precursor to the metropolitan government of today.²⁵

Yet, despite this clarity of mind about the importance of using planning and land-use regulation instruments to reverse Apartheid-era sprawl and functional divisions, it is equally clear that twenty years since the democratic elections, the apartheid urban form remains stubbornly in place, and this is acutely manifest in Cape Town. Why?



Informal Market, Khayelitsha, Cape Town, South Africa (photo: Sydelle Willow Smith for City Desired | ACC).

need for a planning paradigm shift', *Third World Planning Review*, 1995, 17(4): 407-419.

Dewar, D. and Uytendogaardt, R., *South African cities: A manifesto for change*, Cape Town: Urban Problems Research Unit, University of Cape Town, 1991

25 Elaborated in: Hindson, D., Mabin, A. and Watson, V., *Restructuring the Built Environment. Report to Working Group 5 of the National Housing Forum*, Johannesburg: National Housing Forum, 1993

26 Harrison, P., *South Africa's spatial development: The journey from 1994*. Report prepared for the Office of the President of South Africa as

Since the answer is too multi-dimensional and convoluted a story to summarize effectively, a few basic points will have to suffice. In a nutshell, the efforts by democratic government to effect redistribution since 1994 has inadvertently worsened spatial divisions and inequality. The policy priority was to provide 2.3 million households who did not have adequate shelter with a formal house, basic services and a title deed.

The spear point of this policy is the RDP Housing programme that guarantees all households below a predetermined income threshold (3500ZAR/270 euros per month) the right to a "free" public house including the title deed. For the government this entitlement is the programmatic expression of the constitutional commitment to the right to housing. Many progressive movements in the (developing) world would give a limb to achieve such a political commitment. But this seemingly progressive policy has had disastrous impacts on the livelihoods of the working classes and the poor and the overall urban landscape. Since the 100% subsidy covers the (market) cost of land, internal services and the physical top structure, the only way in which the programme could be implemented at scale by private developers was through the purchasing of large tracts of cheap land, typically at the edges of cities and towns. The spatial effect of this is that class and social segregation intensified, the poorest are furthest away from economic opportunities, and the extremely sprawled and low-density urban form associated with apartheid modernism became more entrenched; with disastrous ecological consequences.²⁶ A diagnostic to this effect was articulated in the government's *Breaking New Ground* policy framework of 2004, but without it leading to an exit from the free public housing approach.²⁷ The reason is self-evident: The political

risk of being seen to back away from a commitment to a free house for all poor South Africans is incalculable, especially since 2.8 million had been supplied between 1994-2013.²⁸ And so, de facto urban public policy lurches forth in a no-mans land of perpetuating the status quo because doing the opposite – as articulated in your own policy agenda – amounts to political suicide.²⁹

The effects of this policy are stark in Cape Town. Almost all of the new public housing that has been provided since 1994 are at the opposite end of the economic hubs of the city, adding a massive transport cost onto the budget of working class families. Almost all of the new public housing mirrors the spatial form, mono-functional urban design and absence of public and economic amenities of Apartheid era townships. Thus, all of the challenges associated with sociological processes of ghettoization have not only been deepened in the old townships but have also become embedded in the new townships. As a consequence, high levels of economic redundancy due to spatial marginality are reinforced by low levels of educational attainment due to the poor quality of teaching and school infrastructure in most townships. This further reinforces the negative spiral of social and economic marginalization.

The only way in which the social and spatial dynamics of Cape Town can shift is if the city is able to forge a radically different economic trajectory that can lead to job-intensive growth in the direction of a predominantly green economy. The structure, form and spatial dynamics of the city are critical levers to enable such a trajectory, which is why it has been so important to confront the political imperative of spatial transformation. The cruel irony of the South African urban landscape is that the apartheid spatial project left an enormous amount of residual spaces—around highways, rail tracks, green buffer zones, golf courses, military barracks—to reinforce divisions and categorizations. Yet, instead of first optimizing these parcels of infill land, the housing programme and private real estate fashions have been keen on ever more suburbanization, in part due to cost but one should not underestimate the limited power of planners and urban designers to impact on public investment decisions even though all of the right sounding rhetoric is enshrined in law, policies and regulations.

In Conclusion

South African cities are not short on policies and rhetoric that extol the virtues of densification and compaction. What is missing is political leadership equipped with the skills to forge the necessary coalitions and investment to break decisively with the legacies of the past. This can be traced back to a lack of imagination for how things can be done and lived differently. It is for this reason that it is impossible to overstate the symbolic and political importance of the Density Syndicate research by design experiment. Across the three sites of the Density Syndicate,

an input into its 20-Year Review process, Johannesburg: Wits University, 2013

27 Republic of South Africa [RSA], *Breaking New Ground: A Comprehensive Plan for the Development of Sustainable Human Settlements*, Pretoria: Department of Housing, 2004

28 Republic of South Africa [RSA], *Twenty Year Review – South Africa: 1994-2014*, Pretoria: The Presidency, 2014

29 This conundrum was vividly reflected in a highly contradictory budget speech delivered by the new Minister of Human Settlements, Lindiwe Sisulu on the 23 June 2014 in which she made a commitment to accelerate the self-same programme over the next five years and simultaneously lamented how unsustainable the programme is

it was possible to respond to almost all residential and commercial typologies in the city. It meant that the proposals of the three Density Syndicates are able to spark a more imaginative and yet grounded response to the reality of neo-Apartheid urbanity. I will conclude with a final reflection on one of the three design propositions: the Two Rivers Urban Park ++ site.

The site covers a substantial and extremely well located chunk of city. It incorporates three rivers, three golf courses, two major highways, numerous public transport nodes, and abuts residential communities from all class and racial background. There is almost no better scar on the landscape of the City to demonstrate that it is practically possible to break decisively with the spatial history and dynamics of the city and forge new and more sustainable ways of living, engaging, working, enjoying the commons and accessing spaces of cultural invention and transformation. Given the scale of the site, it could easily absorb 70 per cent of all public and private real estate investments for the next two decades and provide the requisite symbolic focus that a city as divided as Cape Town needs to realize its untapped potential. The beauty of this site is that all of the land is within the control of the provincial and metropolitan government and there are incredible opportunities to foster clean technology clusters without undermining vital informal and labour-intensive ecological enterprises working the interstices of the site. Lastly, the site also covers a variety of profoundly important cultural palimpsests that can serve as catalysts for essential public debates about the unique African identity and future of the city.

As I said earlier, it is difficult to overstate the importance of the cultural provocation of the ideas contained in the Density Syndicate propositions. The method also holds the seeds for a grounded public-facing pedagogic process to forge focus on the most important and resonant democratic debates and in this sense, the broader challenges of slum urbanism foregrounded in the first half of this essay, can potentially be re-designed...



Monrovia, Liberia
(photo: Clemence Petit-Perot for Cityscapes Magazine | ACC).



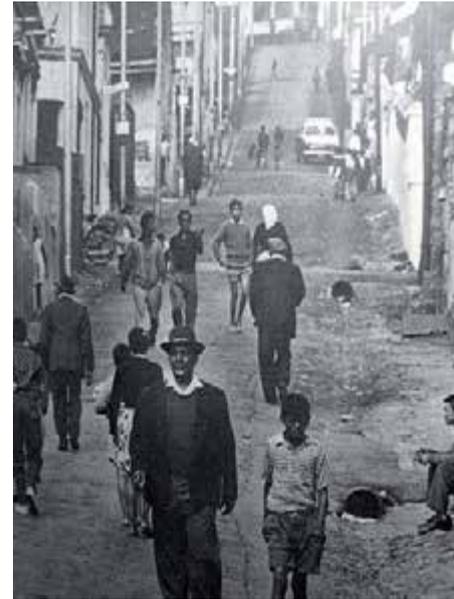
Michelle Provoost

The Openheid State. From closed to open society in Cape Town.

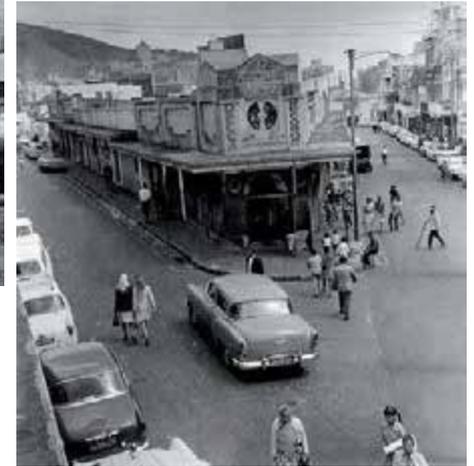
It is hard to conceive of a country where contemporary city planning has had a more negative impact on society than in South Africa. In this country, the 'makeable' world and social engineering were so 'successful' thanks to the apartheid regime that the potential of city planning to shape society has been proven beyond a shadow of a doubt. In Cape Town, apartheid is set in stone and poured in concrete.

The principles of city planning that shaped the open society in Western Europe had a huge impact all over the world in the twentieth century. The ramifications are reflected in shifting constellations in every country, under every political regime, in every mode of urban architecture. However, there is no other country where these principles have been expressed so perversely. Rather than building an open society, they have been used in the black townships to impose separation and segregation.

With the legacy of apartheid etched deep into every neighborhood, particularly in the sharp separation between the neighborhoods, the question in Cape Town today is: how can city planning contribute to a sea change in this reality that it first helped to create? How can the infinite sprawl of the segregated city be unified, opened up, woven into a coherent tapestry? Can the closed neighborhoods be cracked open, thus 'unmaking' the spatial consequences of apartheid? The Density Syndicate aims to contribute knowledge, designs and practical solutions in pursuit of this goal.



District 6 in the sixties before it was demolished (left source: outofafrica2010.wordpress.com, top right photo: Ian Huntley, bottom right source: suemtravels.wordpress.com) .



After its introduction in 1945 by Karl Popper, the significance of the concept of an 'open society' took on a life of its own. While Popper viewed social engineering as a pernicious evil, the open society in Western Europe was in fact a product of such engineering: it was the model used to build the social-democratic welfare state after World War II. In large-scale, top-down operations, the governments of Europe erected countless new neighborhoods, building entire New Towns in some cases. Those towns share many characteristics: an open-plan design with modernist social housing in boroughs, neighborhoods, and city districts structured according to a concept of local communities. The underlying aim was to create an open society, based on the egalitarian ideals of social democracy, with opportunities for personal development, emancipation and social progress for all. These neighborhoods offered a sense of stability to each individual family, but also divided the city into clearly structured units, each with its own public facilities: shops, neighborhood center, churches, schools and sports fields. Each neighborhood was clearly separate from the next, delineated by a strip of greenery or by infrastructure. The internal grid of roads was efficiently linked to through-roads according to the principles of modern city planning and traffic management in order to guarantee the accessibility of the neighborhoods. All these spatial elements can also be identified in the formal structures in the urban

fabric of Cape Town, but with a completely different political and societal significance.

Serving the apartheid system, the city planners designed neighborhoods that were intended to discourage intermingling and encounters, to separate ethnic groups, to monitor and restrict freedom of movement for the people who lived there, and to promote inequality. Popper warned that large collective systems would inevitably become dangerous and lead to totalitarian systems; he was referring to Nazism and Communism. But it was the apartheid regime that used the 'progressive' and 'democratic' tools of modern city planning in South Africa to bring about the perfect opposite of the open society.

Segregated suburbs

Once the National Party took power in 1948, the declaration of the Group Areas Act in 1950 dictated that white, colored, Malay, Indian and black (terms that are still used in South Africa) had to be kept separate from each other. Hundreds of thousands of non-whites were forced to relocate to ensure that Cape Town's inner city population would be exclusively white. The symbol of this traumatic period is District 6, next to the inner city, where up to 1970 a multi-cultural neighborhood flourished. It was completely demolished and 60,000 black and colored residents were moved to the least attractive part of the city, the Cape Town flats, a low and marshy area far from the center. Nowadays the still barren area of District 6 is considered a monument to the open society that once existed in Cape Town and that is remembered passionately and with nostalgia, in people's minds, in a museum and in organized sight seeing tours.

Countless new townships were built in the Cape Town Flats to rehouse all the non-whites, like Mitchells Plain and neighborhoods with idyllic names like Bonteheuvel en Heideveld. The city planning structure in the townships followed the Western European model: clearly defined units separated from each other by an infrastructure of highways. They consist of a number of neighborhoods situated around a central square or sports field, with the facilities lining that central area. The biggest difference between the townships and their Western European counterparts, both based on the neighborhood principle, is the intention of this formal structure and the way it is expressed. The central public space is not intended to facilitate encounters or to be used by the collective; rather, it is designed as a type of panopticon to facilitate oversight and control by the authorities.¹ This is underlined by the nature of the public buildings that line the square, which are occupied by the police station and ID card offices. The way the roads are laid out is also highly significant: they run in a straight line to the center and create axes, that are not only functional but also create a clear view and the possibility for easy police charges. The top priority here was not creating connections and providing access, but controlling who went in and out of the neighborhood. For that reason, there were

¹ This observation is drawn from the historical study on Epping Garden Village by Annika Björnsdotter Teppo, *The Making of a Good White. A Historical Ethnography of the Rehabilitation of Poor Whites in a Suburb of Cape Town*, University of Helsinki, Finland, 2004



Epping Garden Village (1938, present name Ruyterwacht).

The center of Ruyterwacht, 2014.



Central axis in Ruyterwacht, 1941.



White squatter camp in Ruyterwacht (photo: Matt Tabaccos).



Former 'male only' hostels for black laborers in Langa, 2014.



Langa riots, July 2014. Top: all entrances to Langa are closed off (photo: Shamiela Fisher/EWN). (Bottom source: drum.co.za).



Urban plan for Langa, 1920's (source: V. Bickford-Smith a.o., Cape Town in the twentieth century, Claremont 1999).

only two connecting roads that linked to the main road network, making it easy (then and now) to close off an entire neighborhood in the event of disturbances.

The transformation of the neighborhood principle into an instrument of control had already been 'invented' and put into practice in the interbellum, in neighborhoods based on the English Garden City, such as Langa (1927) and Epping Garden Village (1938, present name: Ruyterwacht). Langa was meant for a black population and Epping for 'anti-social' white families. Although the urban design dates back to 80 years ago and the racist policies that informed it have been banished to the annals of history, the mechanisms implied by the city plan continue to have an impact to this very day. Apartheid or no apartheid, the people living in this neighborhood are still poor and black. And Langa may be considered the 'friendly township' these days, where tourists frequently go on tours of the former black hostels, and which was considered safe enough to be the headquarters of our Density Syndicate workshops, but the same control and repression options are still in effect, facilitated by the city planning structure of the neighborhood. That became apparent during the second working session of the Density Syndicate in July 2014, when the police shut down the entire neighborhood during the 'service delivery protests' in Langa. The euphemism refers to major rioting and violent demonstrations protesting the delay in providing social housing, the many winter floods that primarily affect the makeshift shacks, and sporadic waste removal from the toilet facilities in Langa. The neighborhood, like the other townships, is only connected to the main city roads by two access roads. Simply by setting several large concrete blocks on these roads, the police were able to hermetically seal Langa off for three days until the riots had been quelled: no one out, no one in.

These early examples show how the postwar practice of the apartheid regime was but a systematized continuation of the segregation policy, that already in the interbellum produced neighborhoods purely planned for only one ethnic group of inhabitants.

One of the bizarre excrescences of this segregation policy is the New Town Atlantis, planned in 1977 to the north of Cape Town. It is a contemporary of the Dutch New Town Almere (close to Amsterdam) and it shares more similarities: both are suburban satellite cities with approximately 200.000 inhabitants and are built at a distance of about 25 kilometers of the city. How widespread the modernist typologies of for example the shopping center were at the time is demonstrated by the one in the center of Atlantis: a modest shopping mall with a small square that could just as easily be built somewhere in the Netherlands or anywhere else in Europe.

But overall, Atlantis differs quite a bit from Almere, and the other European suburbs of this age that wanted to offer an attractive green living environment for the (lower) middle class, which was well connected to the nearby metropolis.

Atlantis was exclusively intended to house colored residents as part of the operation to make the inner city of Cape Town 'slegs fir blankes'.² The city shares with Almere the DNA of the typical postwar New Town with independent neighborhoods surrounding a civic center and also the ambition to become an autonomous, economically independent city. A giant industrial terrain, where companies were lured to by tax incentives, would ensure that. A highway connects the city –for the managers of the companies- to downtown Cape Town, but a railway was not constructed to discourage the colored workers from leaving the city.

Density as instrument

In the course of the twentieth century, the models of the Garden City and the modernistic urban planning were applied with exactly the opposite goal in mind as they were once invented for. And even though it has been twenty years since apartheid was officially lifted, Cape Town is still the symbolic capital city of segregation. The city has a huge footprint, consisting of a series of introverted white, colored and black neighborhoods, separated by inaccessible and unusable zones. It is a fragmented patchwork of gated communities, poor townships, and even poorer informal settlements. The problems created by the urban sprawl are endless: spatial, economic, ecological and social. People live far away from their place of employment and waste hours on their daily commute; as a result, jobs are inaccessibly remote for the poorest of the poor living on the Cape Flats. Air pollution from all that traffic is abominable, and segregation leads to constant unrest and sporadic rioting. Unfortunately, the post-apartheid policy of housing the poor by introducing 'one family, one plot' politics has aggravated the urban sprawl. The ideal of a single-family dwelling on a single plot of land, which has been used since 1994 to erect millions of tiny homes, is a

² See: Chase Stafford, *Apartheid Atlantis: A Planned City in a Racist Society*, Honors Thesis Stanford University 2005, <http://www.scribd.com/doc/14160434/Apartheid-Atlantis>

building style that gobbles up space at an alarming rate. The unintended result is the consolidation of apartheid's legacy in a landscape of neo-apartheid urbanism. Although the middle-class suburbs have largely been deracialised and are now more mixed, the townships and informal settlements are still mostly monofunctional and racially homogenous.³

Facing the prospect of significant population growth, with current housing shortages already reaching levels between 200,000 and 400,000 homes, Cape Town can no longer opt for its usual expansion policies, continuing to let the city grow. Although... Plans for a new New Town called Wescape were recently approved by the municipal government, paving the way for a private development that will build a city of 500,000 people in the agricultural region north of Cape Town. The well-trodden path of the tabula rasa urban sprawl is apparently hard to abandon. This clinging to familiar ways is partly because the tradition is solidly grounded in the densely intricate regulatory framework that makes mixed use and higher densities more difficult.

Even so, that is precisely what the municipal authorities in Cape Town now envision. Catherine Stone, director of Spatial Planning and Urban Design, emphasizes that the concept of Density has priority on the spatial planning agenda in the coming years. This is not solely limited to the customary definition of density used to increase the floor-area ratio, by adding mass and volume to limit the city's footprint. Cape Town primarily aims to achieve the social and societal effects that are expected to result from increased density: the possibilities offered by mixed use, a mixture of income brackets and ethnic groups, better integration and use of infrastructure on roads, rail lines and stations, the creation of better connections between neighborhoods and city districts, and literal and figurative bridging of distances. Where the open compositions of residential blocks amidst green spaces were an expression of the concept of the open society in Western Europe, the converse holds true in Cape Town: density and urbanization embody the ideals of the open society here. It is seen as the ultimate way to unite people, offer opportunities for disadvantaged groups to develop and emancipate, and forge the fragmented city into a coherent whole. But how can this be achieved? Unlike in post-war Western Europe, this transformation cannot be a purely government-led operation. Such grand plans are not done anymore in South Africa, since they are associated with the social engineering that took place during apartheid, accompanied by large-scale authoritarian planning. At the same time, the ANC regime has given rise to certain expectations – assumptions that the government will provide the population with its own, better home. Since those expectations cannot be fulfilled, for all sorts of reasons, a different type of relationship will have to be achieved between citizens and the government, a relationship in which the government does not organize everything from the top down, instead seeking to achieve maximum engagement and self-reliance among its citizens.

3 See also: Rashiq Fataar and Brett Petzer, 'Cape Town's Anti-Apartheid Urban Plan. Reclaiming a City from a History of Hate', <http://nextcity.org/forefront/view/cape-towns-anti-apartheid-urban-plan>
Anna Brown, 'Can Cape Town's apartheid structure be undone?', <http://futurecapetown.com/2014/05/can-cape-towns-apartheid-structure-be-undone>



Atlantis shopping center, 2014.



Atlantis streetscape, 2014.



Wescape Urban Plan (source: wescapelife.co.za).



Unmaking apartheid

In his book advocating the open society, Karl Popper emphasized the independence and empowerment of the individual, free choice, and tolerance. Do these qualities exist in sufficient intensity in South Africa, where parts of the population still belong to tribal systems that are closed by definition? Recent riots like the ones that broke out in Langa are vivid reminders that Cape Town has more extreme relations and more intense responses: city planning and housing construction are not innocent concepts here. Urban transformation means walking on eggshells.

The increasing segregation which often leads to social unrest is, cynically, often caused by the very thing that Popper predicted would bring solace: the role played by the market. Where Popper argued against collective structures that would inevitably grow into totalitarian states, it has become apparent that the market, now that it has carved out a place for itself worldwide over the past two decades, can also operate as a totalitarian system and that poverty, inequality and segregation are not being suppressed, but are instead growing. The withdrawal of the government from city planning and the entrance of private parties and developers have diminished rather than fostered openness, tolerance and equality in most societies. These trends are most apparent in the new cities that are developed by the market. For that reason, governments all across the globe feel compelled to intervene and take responsibility for social housing construction and inclusiveness.

One circumstance specific to Cape Town is the dilemma facing the municipal government: it cannot make big plans, but it does have big ambitions, and there is an urgent need to facilitate real change. For that reason, the city has formulated 'density' as a priority and is launching many initiatives that create circumstances favorable to density, primarily investments in public transport and station developments. The establishment of the Density Syndicate should also be viewed as part of this objective.

The Density Syndicate is using density as a tool to open up the closed neighborhoods, thus 'unmaking' the spatial vestiges of apartheid. The key to that lies in utilizing the leftover spaces in between the neighborhoods and the interstices, which offer the option of turning the neighborhoods inside out and transforming their introverted nature. The Syndicate consists of research by design conducted by multidisciplinary teams, comprised of South African and Dutch designers and city planners as well as sociologists, local residents, civil servants, hydrologists and other scientists. The envisaged result is to produce innovative plans suitable for implementation in a number of locations that are, in many respects, prototypical of the segregated Cape Town. These are not master plans, but growth scenarios in which urban development is shaped not only by the municipal government, but also by local residents, entrepreneurs and market parties and



Cape Town sprawl, 2014.

collectives of those groups. As such, the project not only generates designs, but also produces fresh ideas for process and implementation.

The pursuit of an open society is a highly topical and relevant theme in Cape Town. The Density Syndicate introduces multidisciplinary urban design as a method to break open the closed society, with the aim of undoing the spatial consequences of apartheid, which still play a significant role in the uneven operations of the city. The Syndicate must take into account how historically loaded city planning is in Cape Town. City planning and architecture have played major roles in facilitating the problematic relations between various ethnic groups in the city; can their capacities now be used to contribute to the solution? Looking at the direct influence and importance that city planning has had in the past, today's city planners and architects can be expected to influence the facilitation of the transformation from a closed to an open society in Cape Town. This lends an unusual and intense urgency to city planning and urban development in this city.



Rashiq Fataar

The Ambition of a Democratic City

There in the newspaper on my grandfather's bed, was the most spectacular render of what Cape Town could look like in 2004: a 75,000 seat Olympic Stadium, against the backdrop of Table Mountain - a stones throw from the neighborhood in which I lived. At age 9, an image like this can be a powerful thing.

The render was of the proposed Olympic Park at the Wingfield military base site - a more than 2km long sporting precinct in the shape of the letter "L" stretching from Acacia Park Station at the northern end, down to Voortrekker Road - bisected by a dramatic rowing and canoeing canal. With sports facilities along the one half of the rowing course, the other side of the course would be the site of the Olympic village to house 15,750 athletes and officials for the duration of the Olympic Games. The 45 hectare site would be declared a new housing zone and comprise two and three storey permanent buildings as well as one storey temporary modules; the architecture was 'inspired by the regional culture and the latest environmental protection techniques'.¹

I must admit that I was biased in my view of this project. The plans in the newspaper presented my first exposure to a housing project of this scale and this density, presented within the context of Cape Town becoming relevant on a global scale - glossy renders and all. Secondly, the housing and sports facilities were planned to become integrated with our community. There are however a few things more apparent now (than when I was aged 9) which point to the significance of this proposed project within the larger project of city re-imagining of the post-apartheid city.

The Olympic Village was in fact one of two major housing projects as part of the Olympic bid with the aim of contributing towards the spatial reconfiguration of the city. The other was a proposed Media Village comprising 13,655 rooms in medium to high rise apartments on the vast Culemborg site wedge between the N1 national highway and the rail infrastructure leading into the city center.

The scale of both projects points to the post-1994 ambitions, aspirations and confidence of the city - to create inclusive, dense communities within key zones of the city. The bid, arguably the first major planning exercise for Cape Town after 1994, was also prepared in

¹ Cape Town 2004, Candidature for the Games of the XXVIII Olympiad File, Cape Town, 1996 (UCT African Studies Library)



An aerial view of the proposed Olympic Village as part of Cape Town's 2004 Olympic bid.

a time period which in fact straddled the drafting and finalization of the new constitution of South Africa in 1996 - which would at least define the core or basic principle for the policies, plans and legislation for cities and towns for the foreseeable future.

While both sites remain vacant and undeveloped to this day, they still offer tremendous potential to densify the city and build new communities. The Olympic Village site is today adjacent to the Century City development, with the second highest available office space in the metropolitan region and a serious business node in the city. The Media Village site would stretch between the edge of the Two Rivers Urban Park site and the now thriving central business district.

Both proposals were in some sense poetic in the idea of a newly democratic South Africa. For 17 days they would house the ideal of an integrated inclusive and sustainable community- with athletes and media from diverse countries, backgrounds, cultures and races living harmoniously, in well located parts of the city.

The battle of ideas and a city imagined

In South Africa's planning history, the idea of densification - the more effective use of both vertical and horizontal space in a city, with the aim of improving urban sustainability and integration - faced an uphill battle. One in the form of more than a century of draconian planning laws that actively, and violently, built on the opposing concept of segregation and - what is lesser known - the state subsidization of the car and suburban home lifestyle.

Even upon the release of Mandela, the birth of a new democracy and a new constitution, the social and cultural legacy of segregation and separation in all forms of public life (and in large parts also of private life), would make the switch to the idea of densification challenging, tense, and problematic - unless backed by a champion and political will.

How the Games affect you



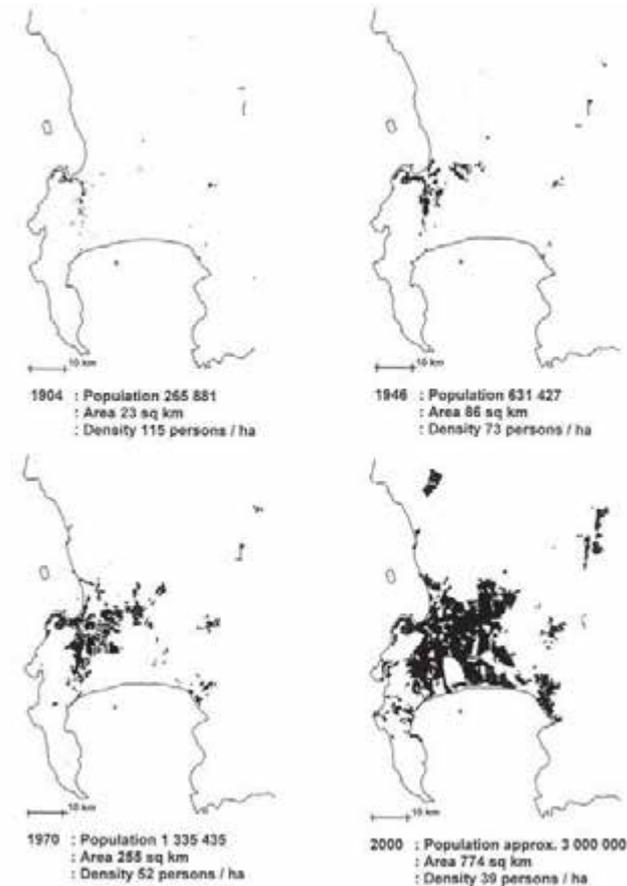
Aerial view of the Wingfield Military base, Cape Argus, 1997.

The plans and policies that would then aim to guide sustainable urban development are strongly linked to a form of imagined future of the city. In South Africa, there was perhaps no precedent of what a democratic and inclusive city, town and community borne from good policy could look or feel like. To some extent, neighborhoods like the former District 6 embodied these ideals, but the hard task would be to find the rights tools and incentives to create what could only be an imagined future city or town.

- 2 *The Reconstruction and Development Programme*, 1994
- 3 Republic of South Africa, 'National Development Plan 2030 Executive Summary - Our Future Make it Work', Pretoria: National Planning Commission, 2012
- 4 Turok, Ivan, 'Deconstructing Density: Strategic Dilemmas of the Post-Apartheid City', *Cities*, 2011, nr. 10, p.450-477

The Reconstruction and Development Programme (RDP) of 1994 - one of the most ambitious redevelopment and human settlements plans in the last 50 years (perhaps even globally)- sought to 'break down the apartheid geography through land reform, more compact cities and decent public transport' as well as 'densification and unification of the urban fabric'.² However, densities over the last two decades have only increased only partially and in some parts of the country, but 'overall, little progress has been made in reversing apartheid geography, and in some cases the divides have been exacerbated' as highlighted by the National Development Plan 2030.³ Today, the word RDP still conjures up images of a series of small homes, on small plots - resembling towns for temporary relocation rather than inclusive and vibrant communities.

Densification is hardly a new policy and has been mentioned or identified as a preferred objective in South African policy papers since the 1994 Housing White Paper.⁴ The principles of the Development Facilitation Act of 1995, applicable to the Western Cape emphasize the value of higher densities in urban



Changes in the population density of Cape Town 1904-2000 (source: Gasson, B., *The Biophysical Environment of the Western Cape Province in Relation to its Economy and Settlements*, University of Cape Town, 2001).

- 5 City of Cape Town, 'Cape Town Densification Strategy Technical Report', Cape Town: Spatial Planning and Urban Design Department, 2009
http://www.capetown.gov.za/en/sdf/Documents/Densification_Strategy_web.pdf

- 6 City of Cape Town, 'Cape Town Densification Policy', Cape Town: Spatial Planning and Urban Design Department, 2012
https://www.capetown.gov.za/en/Planningportal/Documents/Densification_Policy%20web.pdf

settlements, while the Metropolitan Spatial Development Framework (MSDF) of 1996 promoted densification as a whole but particularly in the corridors and nodes. The recommendations of the MSDF went as far as promoting densities of 100 du/ha and more in the activity spine areas and densities of 40-100 du/ha within one km of the spine.

Several frameworks from the early 2000's have outlined the socio-economic benefits and productive efficiencies of urban densification, and the ideal of a compact city including: the National Urban Development Framework, the MSDF Densification Guidelines Manual of 2002, the Provincial Spatial Development Framework (PSDF) of 2009, and the Cape Town Spatial Development Framework (CTSDF) of 2012.

The most recent and significant 'moment' for the promotion of densification was the City of Cape Town's Draft Densification Strategy⁵ presented by the Spatial Planning and Urban Design department in 2009, which became the Cape Town Densification Policy in 2012.⁶

It takes a “whole of Cape Town approach” with several technical recommendations and policy mechanisms as pathways towards achieving a target average density of 25 dwellings per hectare. While a major step forward in promoting densification, criticisms have pointed to the fact that no time scale exists for the City of Cape Town’s “middle path spatial strategy”. In addition, it is also described as “less creative and imaginative or politically threatening than other densification strategies undertaken in places such as Singapore and China” due to the lack of political commitments required in the strategy - which in some sense would have less potential for political backlash and require less intense citizen engagement and convincing.⁷

Densification at the center

The Central City Development Strategy of 2008 produced by the Cape Town Partnership included the desire to treble Cape Town’s inner city population within 10 years, including a target of 20% subsidized affordable housing. Its aim was: “To bring the people of Cape Town back into the Central City to live, through appropriate residential densification and more affordable housing”.⁸

The strategy lists densification as one of the “big ideas”. Possible measures and mechanisms to achieve this include: regulatory and zoning measures such as increased building heights and overlay bonuses in the form of increased bulk, new integrated space standards for the provision of community facilities, open space and provision of parking, and fiscal incentives to reward centrally-located higher-density development (and disincentives for low density development especially on the urban edge).

The strategy was released after an almost decade long turn-around of the decline and flight of capital in the 1980’s and early 90’s. However, the strategy, while bold in its aspiration to promote opportunity and reduce congestion, remained exactly that, an aspiration.⁹

Whilst the City aims to double central Cape Town area’s population through the City of Cape Town’s Densification Strategy, or almost triple the inner city population through Cape Town Partnership’s Central City Development Strategy, there remains physical, social and economic challenges that need to be considered, many of which are unique to Cape Town.¹⁰

And yet some evidence points towards the gradual increase in housing opportunities and units in the central city. The late 2005 log of residential conversions in central Cape Town records some 29 separate developments (96% sold) since 1999 when 340 units came onto the market. In 2004, 840 residential units were constructed. Estimates for 2006 were that approximately 2,340 would have been built.

This has mainly been in the form of massive private investment in new and converted buildings, and in public space transforming the central city into ‘a post-modern space of high-end production, service and consumption that is aestheticised, commoditized and historicized’.¹¹



View (photo: Ilze Wolff) and floorplan (source: UCT) of Springfield Terrace (Uytenbogaardt Rozendal - Architects Associated).

Investors, young professionals, day visitors and tourists benefit more than the peripheral metropolitan majority, writes Gordon Pirie in his paper Reanimating a Comatose Goddess: Reconfiguring Central Cape Town. He adds that ‘despite inclusive rhetoric, the Africanisation of post-apartheid central Cape Town is less evident than its ‘glocalisation’.¹²

In a discussion paper on the release of the CCDS of 2008 Ivan Turok writes that “increasing the central city population in a way that can be sustained will require much more than building 30-40,000 new homes”.¹³ He highlights the financial and technical task of creating new neighborhoods, the management of buildings, as well as the mix of different housing units and sizes, within a broader context of understanding both the demand and supply side of city living. While acknowledging the criticism, the Cape Town Partnership still believes that affordable housing in Cape Town’s CBD “isn’t just possible, it is something that should be actively pursued for the benefit of an integrated city and a thriving local economy”.¹⁴

An inner city community

The Springfield Terrace housing project is a low income medium-density development located in Woodstock; a neighborhood just outside the city center which has dominated the spotlight of written work and media on gentrification in Cape Town for at least the last decade. It was borne out of a design philosophy to contribute to compacting and integrating the city. The land comprised two sites, the first residual land left from the expropriations to construct the Eastern Boulevard Freeway (Nelson Mandela Boulevard) and donated by the Cape Town City Council, and another smaller site comprised of dilapidated cottages and vacant lots. The aim was that those already on the site would be housed in the new scheme - co-developed with a private partner - that consists of 133 units divided into three segments. Two of these would be for people who qualify for different forms of state subsidy. The project measured a gross density of 156 dwellings units per hectare or a nett ? density of 257 dwellings per hectare.

7 Turok, Ivan, 'Deconstructing Density: Strategic Dilemmas of the Post-Apartheid City', *Cities*, 2011, nr. 10, p.450-477
8 The Central City Development Strategy, 2008 http://www.capetownpartnership.co.za/wp-content/uploads/2009/08/CCDS-POP-DOC_opt.pdf

9 Turok, Ivan, 'Deconstructing Density: Strategic Dilemmas of the Post-Apartheid City', *Cities*, 2011, nr. 10, p.450-477

10 Ibid.
11 Pirie, Gordon, 'Reanimating a Comatose Goddess: Reconfiguring Central Cape Town', 2007 <http://link.springer.com/article/10.1007%2Fs12132-007-9012-7#page-1>

12 Ibid.
13 Turok, Ivan, 'Deconstructing Density: Strategic Dilemmas of the Post-Apartheid City', *Cities*, 2011, nr. 10, p.450-477
14 Fleming, Andrew, 'Low-cost housing in the CBD: Yes we can!', 2014 <http://www.capetownpartnership.co.za/2014/10/low-cost-housing-in-the-cbd-yes-we-can/>

Today it is widely acclaimed to be a success story, and described by local architect Ilze Wolff as “an overlooked gem as far as inner-city housing is concerned. [...] The architects created real diversity within a simple pattern, the achievement here, of course is the public space. There are about 5 to 6 sets of duplexes with about four-five apartments each. Each apartment has a direct connection with the street via a balcony, stair or entrance. Because there are always residents looking onto the street, the street becomes a lively safe place to be. Using brick as a surface material throughout also allows it to become a multifarious space suited for pedestrian and vehicles equally,,” adds Wolff.¹⁵ Additional innovations included the financial model, which aimed to ease the financial burden on low-income tenants and buyers. Housing units were sold on the open market for the highest possible price, with the profits generated used to subsidize the entry price at the lowest level as far as possible.

The project was not without its challenges. The different nature of this scheme challenged many officials in a number of departments within the Cape Town City Council and therefore ran into problems because of the fragmentation of functions and roles between city departments.¹⁶ It was agreed within the Planning Department that this project was to be based on different principles than those which underlay existing regulations and that new ideas were needed. Thus an interdepartmental team was set-up to fast-track the decision making process. Unfortunately, this team could not convince other departments to participate in the innovation. Incidentally, each department viewed the problem from a different perspective. Another challenge stemmed from bureaucratic delays with the sketch plans for the construction of this housing project only approved after a period of nineteen and a half months, increasing the costs of the project.

Notwithstanding the obstacles, the advantages of densification in this pilot project were multi-fold, including the access to public transport services, community facilities, the use of historical investments in infrastructure, and the development of a local market for service industries.

Very few other developments in the area have shown boldness in delivering dense and inclusive buildings to live and work. More could be done to allay the fears of government and officials, with regards to taking new approaches, and promoting integrated neighborhoods.

Moving beyond the RDP Model

In Cape Town, the obstacles and challenges of densification are almost equally different between the formal built environment and the informal setting. Where density levels are generally medium to high e.g. in townships the conditions are difficult and unsustainable. Where density is lower, conditions are often almost idyllic - with ample space for homes, gardens and cars as seen in our suburbs. Therefore to consider

¹⁵ Wolff, Ilze, 'OH5 Dency?', 2011, <http://oharchitecture.blogspot.com/2011/07/oh5-dency.html>
¹⁶ Awe, Temitope Abidemi, *The prospect of providing low-income medium density housing in developing countries: problems and opportunities with special reference to Cape Town, South Africa*, University of Cape Town, 2001



Views of construction at Joe Slovo Phase 3 (JSA Architects and Urban Planners) (source: Housing Development Agency).

redevelopment through densification where an already dense informal settlement exists requires a different lens.

The Joe Slovo settlement is situated in the township of Langa, 10 km East of Cape Town CBD, on City-owned land off the N2 highway a few kilometers from the Cape Town International Airport. Joe Slovo Phase 3 is a national flagship housing project of the Department of Human Settlements (DoHS), showcasing a 'new approach to sustainable housing delivery in the country' under the Integrated Reconstruction and Development Programme (IRDP) initiative. This initiative was formulated to respond to the various shortcomings that were associated with its predecessor - the Reconstruction and Development Programme (RDP). It is also closer to areas of economic opportunity than members of low-income township communities usually are. Described as 'innovative densification'¹⁷ the third phase of the Joe Slovo 3 housing project was built on the site of an informal settlement which existed for almost two decades with 7946 residents, residing in 2748 shack structures built in an informal, high density spatial arrangement. The project is considered a 'major stride forward in re-imagining and re-thinking the RDP and subsidy model' given the constraints of finite land, and an existing dense informal housing system.

The Joe Slovo 3 development achieved a higher density by having double-storey, attached units, instead of the conventional, lower-density stand-alone housing. The area introduces a mixed-use land zoning allowing for trading, working, urban agriculture and recreation, since the goal was to create a community rather than a housing settlement. Aside from the benefits of reduced travel time and cost to access work opportunities, densification resulted in a significantly reduced cost of service infrastructure and material uses costs per household.¹⁸ The design concept is primarily based on a hierarchy of public open spaces and clusters of 12 to 18 double storey attached units, arranged around courtyards or communal backyards. The design, detailing and specifications of the Joe Slovo 3 buildings are more complex than those of standard subsidy housing. The design also introduced a network

¹⁷ SAMSET, 'Joe Slovo, Cape Town: Sustainable low-income settlement densification in well located areas', 2014, <http://www.sustainable.org.za/uploads/files/file9.pdf>
¹⁸ Ibid.

of streets, pedestrian walkways and public open spaces that provide choice as well as mobility while motor vehicles are restricted to roads.

Notwithstanding challenges of implementation, Joe Slovo Phase 3 is considered a success story for the development of sustainable human settlements - and more so, when considering the major challenges in Phase 1 and 2 of the N2 Gateway Housing project. Today it is described as a “significant advancement in the current practice of housing delivery” and “likely to shift standard practice towards more sustainable settlements, and away from energy-inefficient, low density, stand-alone models which until recently were considered what communities want and deserve”.¹⁹

The ambition for the future

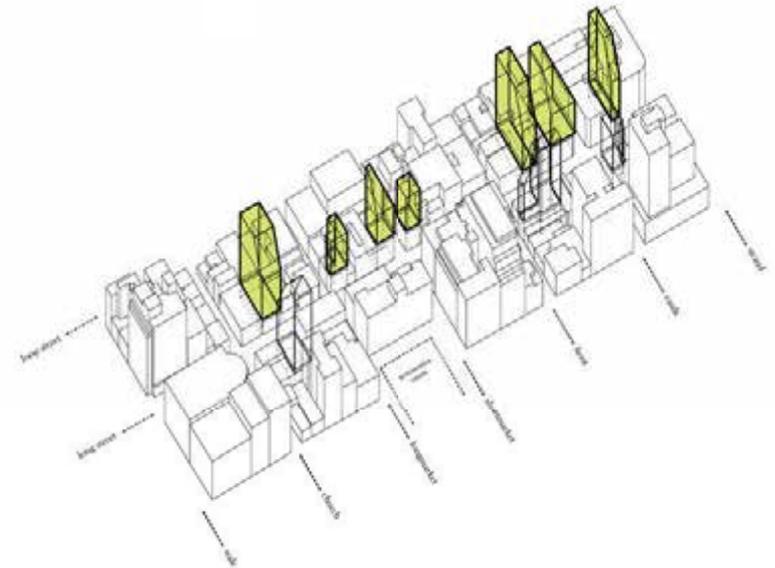
Density is not the panacea to poverty alleviation and economic growth. Density is just one element in a list of ingredients that combined make a perfect recipe for a liveable city.

The question remains to be answered as to whether the densification of urban areas, touted in many policies as the solution towards the reduction of poverty and the housing crisis, will have any positive influence on the desegregation of Cape Town’s suburbs and the dismantling of the apartheid spatial planning legacy.²⁰ Despite attempts to address these issues, restrictive planning structures, bureaucracy and the failure to recognize or formalize ‘informality’ continue to reproduce these policies of exclusivity and segregation.

Further obstacles include the absence of a unified and coordinated approach towards implementing densification with a lack of agreement between local, provincial and national government department priorities over the reuse of several under used public assets like the Somerset Hospital site, Culemborg, and other strategic land parcels and spaces within the inner city area that could be redeveloped.²¹

The past is no certain indicator of the future. And so, the future ambition and ultimately the reality of Cape Town needs more than current mindset constructs, systems and officials, but requires some imagination, as to how the outcome of density or densification will emerge. The obstacles and challenges that Cape Town faces in ensuring sustainable densification, some of which are described above, need not linger if a crucial shift in thinking by today’s young urbanists, designers and planners gets a chance.

In his 2014 Masters of Architecture dissertation entitled “Inner-city palimpsest: building the city above the city”, Simon Henstra “attempts to understand the paradox between the positive addition of density, and the negative destruction of good urban fabric and character.”²² He explores this through the vast amount of airspace above the existing city which he considers to be underutilized and underdeveloped. These and other ideas - like the idea to create a regional supra-urban



Long Street precinct, possible forms starting to emerge along the Long Street axis over time (source: Henstra, S., Inner-city palimpsest: building the city above the city, UCT Masters of Architecture Thesis, 2014).

development agency²³ - are necessary and important contributions. They should form part of a multi-decade marketing and promotion campaign to showcase and illustrate the possibilities of liveable communities that are dense - while accepting victories in a series of projects along the way.

And in 2050? In the mind’s eye, the segregation and divisions amongst people have been receding for years as a result of the ongoing stitching together of the social and urban fabric - of which densification is a strong component. The result is safer and more socially integrated communities, less defined by their history, and more so by the design interventions and innovation which have developed their identity, cultures and characters into the broader Cape Town artwork. Strong communities, nodes and cities emerge within the city-region as housing, amenities, business and infrastructure start to intertwine and adjacencies are recognized and fostered. The form of the city, both formal and informal, is surprising and unusual, embracing the modular and temporary in full. People, cultures, traditions, as well as industries, architecture and landscapes are diverse, varied and interdependent; a reflection of the multiple sub-cultures and communities which have now been unlocked through narratives and brand building. While the path to this 2050 vision may not be clear, what is clearer is that densification as a tool should be a key part of the liveable, inclusive and integrated city that every post-1994 policy and plan has imagined and aspired to create.

¹⁹ Ibid.

²⁰ Du Plessis, D.J., 'A Critical Reflection on Urban Spatial Planning Practices and Outcomes in Post-Apartheid South Africa'. *Urban Forum*, March 2014, nr.25
²¹ Turok, Ivan, 'Deconstructing Density: Strategic Dilemmas of the Post-Apartheid City', *Cities*, 2011, nr. 10, p.450-477

²² Henstra, S., *Inner-city palimpsest: building the city above the city*, UCT Masters of Architecture Thesis, 2014

²³ '7 ideas to tackle urban sprawl', Future Cape Town Summit, 2013, <http://futurecapetown.com/2013/06/7-ideas-to-tackle-urban-sprawl/>





Maitland

Voortrekker Road

CBD

Ruyterwacht

District 6

Pinelands

Langa

Two Rivers Urban Park

Guguletu

Lotus Park

TWO

RIVE

RSUR

BANP

ARK

Participants

Jakupa architects and urban designers (Khalied Jacobs)

Dhk urban design (Guy Briggs, Philippa Hedley)

H+N+S Landscape Architects (Jandirk Hoekstra, Joppe Veul)

Witteveen+Bos (Ilona van Miltenburg, Leon Valkenberg, Harro Wieringa)

City of Cape Town (Antony Marks, Friedrich Duran, Liezel Kruger-Fountain)

University of Cape Town (Sabina Favaro, Neil Armitage, Kirsty Carden)

Province of the Western Cape (Marco Morgan)



TRUP area,
with in the foreground Athlone Power Station

Two Rivers Urban Park: From Borders to Bridges

In the heart of Cape Town, the site of Two Rivers Urban Park (TRUP) is a 10 minute drive east of the city center. The site is a large, mainly greenfield, area that covers the area where the Liesbeek and Elsieskraal Rivers meet the Black River. It is also a place where the major traffic routes of the N2 and M5 connect with one other, as well as with local roads such as Liesbeek Parkway and Forest Drive. Around the perimeter are a variety of neighborhoods, providing easy walking access to the site for a large number of inhabitants, both well-off (on the west and northeast) and less fortunate (on the south and southeast). Several existing places – The River Club, South African Observatory, Oude Molen Eco Village, Valkenberg Hospital and even the retained buildings of Athlone Power Station – contribute substantially to the area's character. The site therefore offers a unique and dynamic environment with much potential.

The population of Cape Town is growing fast and in a manner that causes problems related to urban sprawl. All too often this sprawl entrenches many of the city's problems, from traffic congestion and pollution to segregation and an unequal city. The city is therefore searching for answers through examining densification options. With its large areas of open space, proximity to the center, links to existing transport infrastructure and facilities, containment by existing urban quarters, and existing components that could be used to forge an attractive urban landscape, the TRUP site provides enormous potential in this search.

However, at the moment the site functions as a barrier between the surrounding neighborhoods. Both the Black River and the highways form barriers which are barely bridgeable. Secondly, much of the land in the area is contained within enclosed properties that function as islands. With the lack of physical and experiential access to

and across the open spaces, social cohesion, social safety, appropriation and liveliness are far from optimal. On top of this the quality of water varies dramatically from one river to the other, with the water quality of the Black River being substantially worse than that of the Liesbeek. This poor water quality reinforces a negative atmosphere through its foul smell and an unattractive appearance. The poor quality is mainly a consequence of the overflow of stormwater and open sewerage ditches, holding street refuse that is flushed away as quick as possible into the river. The pollution rate of the water is therefore high, especially during the dry season. This in itself highlights a problem that is in conflict with achieving a resilient water system for the city. With the continuing growth of Cape Town, water will be a vital resource in the coming century. Access to good quality water, prevention of flooding, limitation of heat stress, and achieving a well-functioning and attractive ecological system depend on it!



The densification of the TRUP offers an alternative to the problems associated with the sprawl that characterizes Cape Town's growth pattern. Our strategy for regeneration of the site is comprehensively founded, focusing on the elements connectivity, ecology and diversity. This will generate a park landscape; not just of aesthetic value, it also offers qualities and attractions for, and in support of the integration of, the surrounding homogeneous neighborhoods. It offers prevention of flooding in the surrounding urban areas, a bio-based job economy for adjacent neighborhoods, and a recreational landscape to escape busy urban city life close to home.

Starting from comprehensible local initiatives ensures adaptation and manageability, while being part of a regional vision ensures synergy between scales and functions. The vision hereby ensures added value on a large scale, in relation to

the three elements, that local initiatives in themselves cannot achieve. By adopting this strategy step by step, the vision aims to provide a blueprint for further implementation along the rivers' extended riparian systems. The urban landscape of 'From Borders to Bridges' is therefore presented as an intensified and productive land use, meanwhile establishing conditions for the broader surrounding areas to share in the development.

The urban scale of the site prompted the design team to prepare responses at the larger scale. While it makes arguments and establishes principles that could be applied broadly across the city, it is a site specific response to its particular spatial, social and ecological nature. With the scale that the TRUP site provides we might create a new green and aqueous part of town six times the size of Green Point but much more effective and accessible.

Vision



Diversity

To densify we propose an equal mix of social housing and market oriented housing projects where social housing opportunities are leveraged through the provision of additional development rights. Diversity is driven by the flexibility to interpret a rich variety of activity built into the fabric over time. Density has traditionally been measured by the number of people being housed on a site represented in a ratio format. The prevailing narrative of good city making is that there is a density goal that will translate into better places. Our argument supports the notion that density is the appropriate intensity of use for any particular site. This includes intense functional use of many kinds, including functions not specifically intended to house people, such as recreation and a bio based job economy. A dense place therefore may not have many people residing on it and focuses on maximizing qualitative and experiential opportunities in addition to traditional definitions. Apart from enabling housing for people from a variety of backgrounds, the intensified land use offers room for growth in the surrounding neighborhoods, especially on the borders of the open space.



From uneven income distribution...



...To mixed income housing

Connectivity

The nature of the site is one of exclusion, as neighborhoods are designed to be insular and the space in between functions only as a barrier between them. Key to our strategy is the first step of providing numerous connections between functions and places. To generate accessibility and connections where separation and inaccessibility reign, we designed different scales of connection: the various existing neighborhoods and functions are connected to each other, to the green area and also to the city on the largest scale. Three different speeds are accommodated: those of high speed movement from anywhere in the city towards the park, of local traffic between and within the surrounding neighborhoods, and of slow traffic (walking, cycling) through and around the park.

Ecology

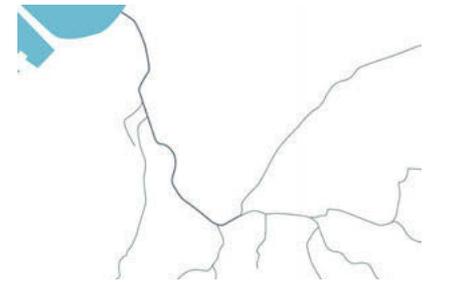
To ensure a healthy water system, water will be treated differently to the current rapid drainage system which is now in place. Rainwater will be stored, infiltrated, delayed and filtered before it reaches the river. This will partially be done in a natural park landscape and partially in a bio based job economy. Secondly, the recycling of household water will be improved at the level of the household as well as in the waste water treating facility. This ensures easy access to cleaner water, reducing the overloaded drainage system, a decrease in extreme run offs and dry times and an increase in groundwater levels. These aquatic influences will have a positive influence on the landscape and ecosystem, helping to build diversity over time.



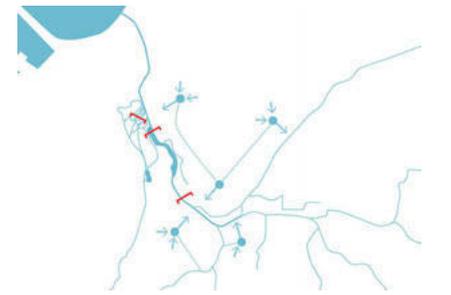
From introvert islands...



...To extrovert patches



From rivers as open sewer...



...Towards a working landscape; collecting, filtering & storing



From Borders to Bridges,
overview of proposal

Three Principles: Connectivity, Ecology and Diversity

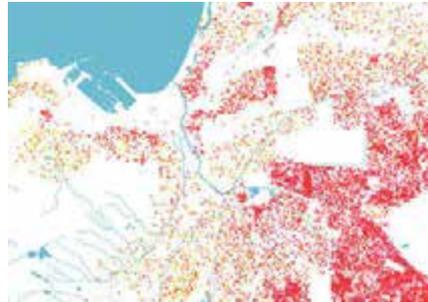
Connectivity

The site deals with many poorly bridged linear barriers such as the Liesbeek and Black Rivers, railways and highways. These barriers fragment the site resulting in isolated communities with minimal interaction. Additionally, Valkenberg (a fenced-off private hospital) is located within the proposed Two Rivers Urban Park, perpetuating the problem of fragmented city fabric found throughout the site. With a lack of entry points and public paths within the site, the space goes underutilized and unseen by the neighboring communities.

These physical spatial barriers that run through Two Rivers Urban Park have contributed to the social inequality in Cape Town, creating a situation in which the TRUP site functions as part of a system of barriers that divide the city. On the west side of the proposed Park, people earn a higher income than the communities located on the east side of Elsieskraal. The same division can be found for the average levels of education and housing values. Moreover, a potentially large area of attractive landscape is ineffectively used and underappreciated. However, despite the constraints the TRUP has the potential to be a major catalyst for the city of Cape Town.



Unequal chances for education



Uneven distribution of incomes





Concepts: 100 Bridges



Connectivity



Urban landscape on the level of the city: river promenades



Urban landscape on the level of the city: highway exits and train stations

Strategy

The first step of our strategy is to provide numerous connections between functions and places, aiming to achieve a continuous urban landscape to connect the existing fragmented city fabric. Connectivity is proposed and accommodated on a variety of scales; linking the existing neighborhood 'islands' to the larger metropolitan area through the creation of a linear urban park, resulting in connections between people, activities and places.

The implementation of improved connectivity takes place at three scales:

1. To realize better connections between the wider city and TRUP, public transport routes will need to be extended and upgraded, with upgraded railway stations and new stops on existing and new IRT (Integrated Rapid Transit) lanes.
2. New routes and bridges will be established to connect the communities of Observatory and Rondebosch (to the west) to those of Pinelands and Langa (to the east). Existing neighborhood roads and public spaces of importance will be connected to one another by extending them into the site and by linking them with the urban fabric on the adjacent side of the park.
3. Pedestrian and bicycle movement is accommodated by paths which link existing public spaces of interest to the new major slow traffic routes running parallel to the rivers. These routes, in future, may be extended to connect the site on a larger scale to Table Bay and through Philippi to the beach at Strandfontein.

Ecology

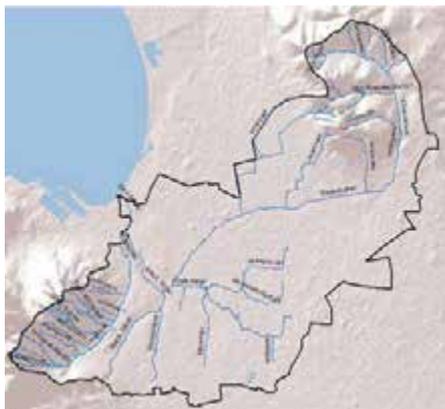
The TRUP site is the point of convergence of three rivers that cover a large catchment area, which has the potential to create a unique ecology, quality and environment. However, the current approach to water management of the catchment area treats the water as a problem to be removed as soon as possible. This response lies in historic approaches to storm water treatment and pollution management. This approach of flushing stormwater run off as quick as possible has other unintended consequences, such as downstream flooding in wet seasons, and water shortage in dry seasons – consequences that are likely to become more severe as we experience the effects of climate change.

In addition, inadequate water filtering systems substantially worsen the problem; causing foul smell and pollution, as well as being visually unattractive. This leads to unhealthy conditions, especially in poorer communities where children play in polluted water. The poor water quality is a consequence of stormwater overflow, open sewerage ditches and street refuse. However, the quality of water dramatically varies from river to river, and the water quality of the Black River is the most compromised, due both to its larger catchment area and to the location of much of that catchment running through the environmentally compromised townships and informal settlements, so that the Black River accumulates the refuse of the communities it passes through. The water quality of the Elsieskraal River flowing through Pinelands, although better than the Black River, is also undesirable. At its source in the Tygerberg mountains north of Cape Town the water is of relatively good quality. However, it runs for much of its length through urban areas gathering street pollution. Of the three rivers that meet at the TRUP site, the Liesbeek River has the

highest water quality. The Liesbeek is fed by Table Mountain streams and flows through affluent neighborhoods that are less dense and better serviced, resulting in cleaner water due to less pollution from run off and sewerage.



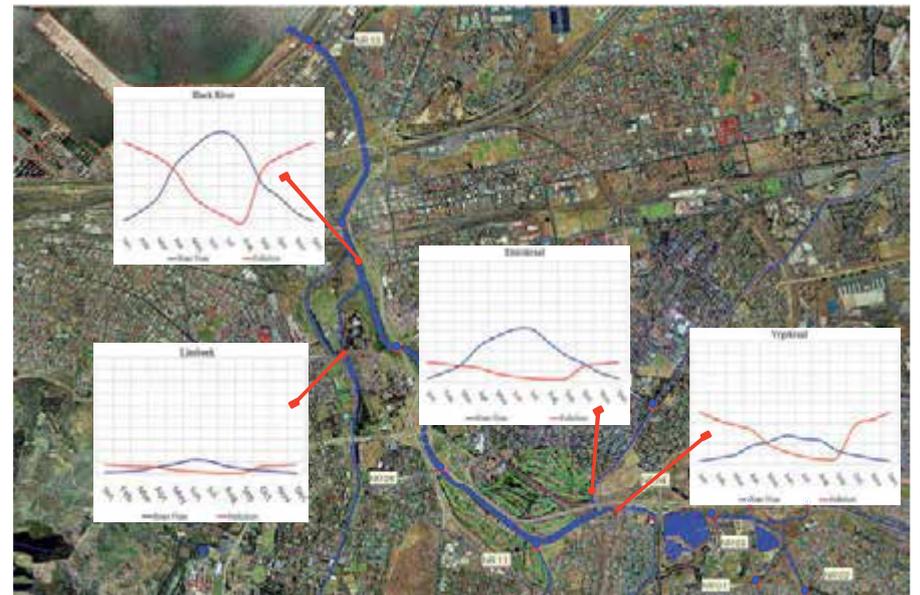
Water quality.
Achieving healthy rivers: measures at the source
1> Prevent storm water pollution (good housekeeping).
2> No grey water into surface water
3> Prevent sewer overflow and discharge to storm drains



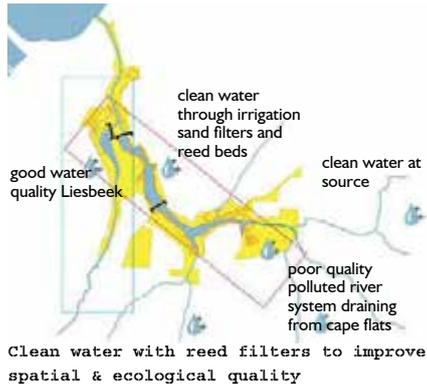
Catchment area of TRUP rivers and canals



Pollution in the rivers of the TRUP area



Monthly relative variation of flow and pollution



Strategy

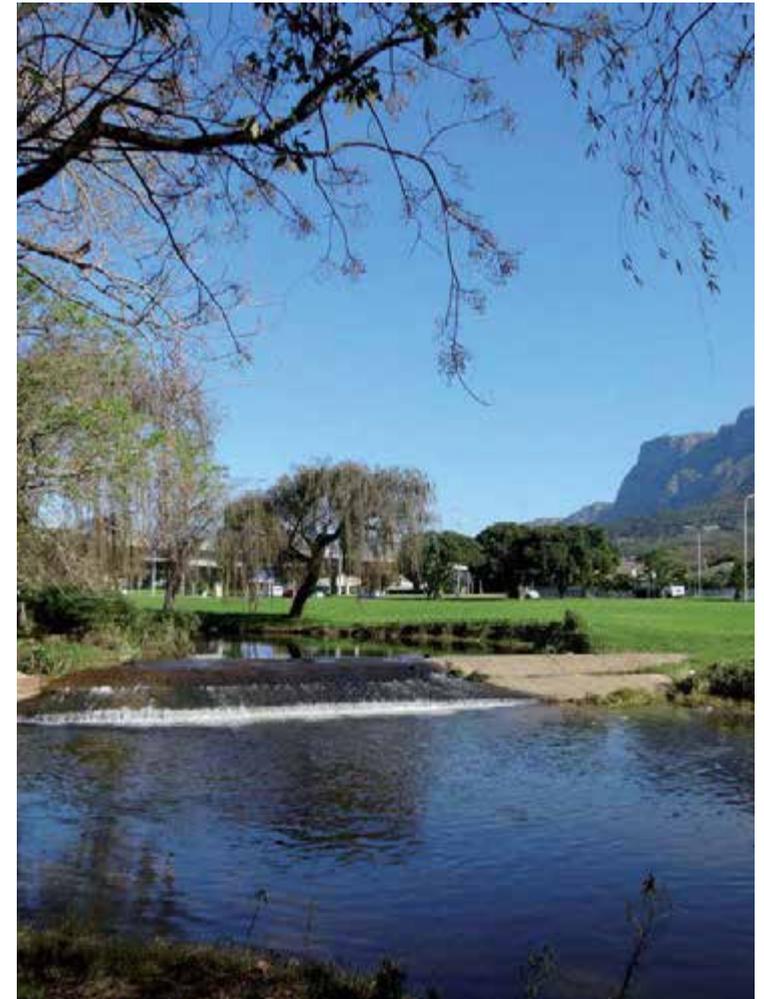
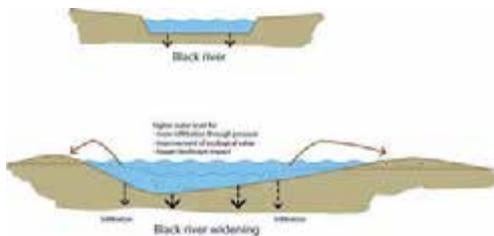
Our strategy to regenerate the TRUP site is founded on improving water management throughout the TRUP, and implementing this management strategy across the larger river systems. The resulting improvements in water quality and slower runoff release will provide a safer and better quality environment. There is enormous potential to combine the delivery of a safer and cleaner water system with creating jobs, improving the area's environmental attractiveness and fostering ecological diversity. This ecological design proposition, for an improved urban and environmental structure, will be achieved through creating room for the river, managing storage and delaying run-off, functionally zoning the landscape and implementing a bio-based economy.



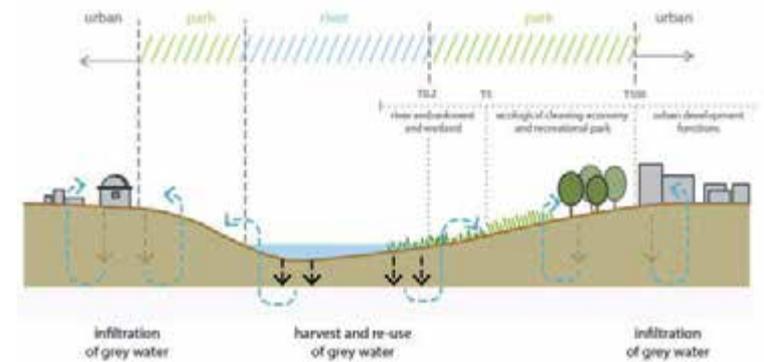
Weirs in Liesbeek and Black River: broadening the river beds

Room for the river

The development of a passive flood prevention strategy is of critical importance. Public safety will be improved by giving the river more space: deepening the main water stream with weirs at various intervals will allow a more constant water level that is deep and broad enough to prevent overgrowth of the invasive reed beds, will be visually attractive, and will reduce the potential for flooding. The broadened river will create a zone of natural wetlands along their edges, while the excavated material can be used to raise the river banks along the 100 year flood line, creating a series of terraces. During floods the weirs in the Black River overflow, allowing free water flow through the entire system. At the same time the floodable wetlands provide an extended zone that can be occupied by water, thus increasing the resilience of the system as a whole. Moreover, the wetland and embankment zone offers both ecological value and a safer environment along the edges of the Black River, due to the broad extent and gradual slope of the water edges.



Weir in the Liesbeek River



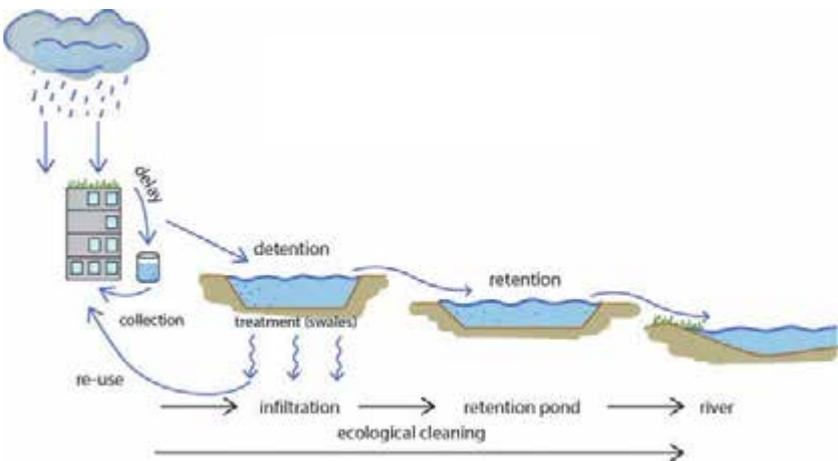
Two rivers flood levels & functions



Storm water treatment in the new urban area



Reduced water supply on the level of the blocks



Storm water treatment on the level of the urban quarter

Store and delay

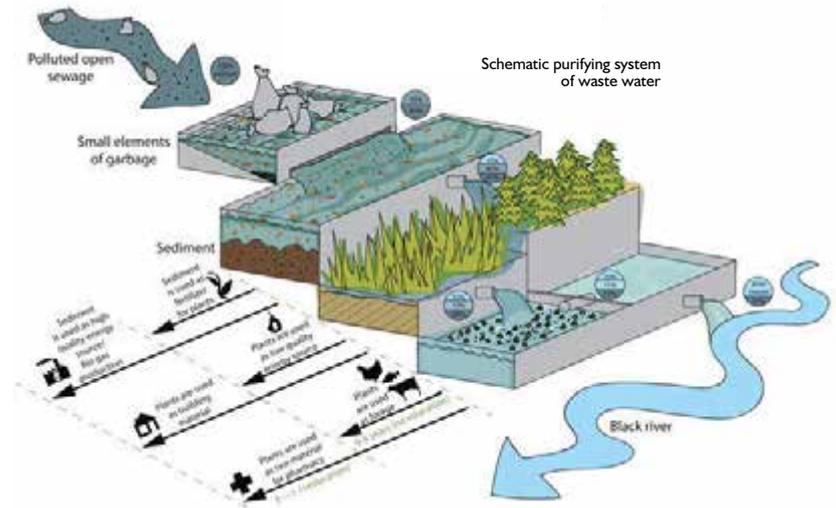
To improve safety and public health, storm water from the surrounding neighborhoods is stored and delayed. Where possible water is stored at both household level (rooftop run-off) and at neighborhood level (in detention and retention ponds). This provides access to water for secondary use such as irrigation, and reduces the impact and cost on the sewage system. This system will not only improve the quality of the river water, but also of the water system in adjacent neighborhoods. Instead of rapid collection and quick run off of storm water to the rivers, the storm water flow will be slowed, retained, and in part infiltrated into the ground to replenish groundwater systems. This will be done by creating green swales at places where there is space, or by constructing good drainage and permeable paving under streets in places where there is no room for landscaping. Additionally, the swales will have a purifying use; garbage will be filtered by grids, and plants will extract the nutrients.

Bio based economy

The southern bank of the Black River provides an opportunity for urban agriculture, with a terraced system of waterworks, where the water runs through several beds. The process begins with a large filter in front of open sewer mouths, where the larger solid waste is filtered out and taken to landfill. The water is then retained in a deposition pond where the sediment is separated out – it consists largely of nutrients and can be used to generate bio gas. The water continues through several terraced agricultural beds with different plants, which further filter the water. The plants themselves can be harvested, and species are chosen for their versatility for agricultural processing. The plants can be harvested by people with limited education and skills, but over time workers can be trained in the production of higher value plant based products. Over time this agricultural landscape can adapt in such a way that its effectiveness and the income derived from it can increase in line with improved education and training levels of workers, so providing better jobs over time.



Potential of cleaning the Black River water in Athlone Water Treatment Works



Cleaning river waters as part of the park economy

Diversity

'From Borders to Bridges' provides a vision for the Two Rivers Urban Park area in which densification is achieved by combining a diverse, multifunctional and accessible park area with a dense mixed urban environment. Apart from developing housing for mixed income groups, the intensified land use offers room for growth in the surrounding neighborhoods. New facilities, functions and jobs provide opportunities and value that attracts people and encourages development and intensification.

The areas proposed for urban development are outside the 100 year flood line, and consist of a mix of housing typologies for various income groups, supported by places for work, education, and health. The intensification of urban and park landscapes creates an integrated environment that accommodates a greater number of residents and functions, in a high quality public environment. The open landscape around the rivers is redefined – no longer as backyard space but as a public park system, with a vibrant ecology as its heart. The ecology of the site sets up the foundation for its spatial structure. The functional overlay will build diversity over time. We propose an equal mix of social housing and market orientated housing, where social housing opportunities are leveraged through the provision of additional development rights. The model for development is a step-by-step approach where public incentives and investments evoke private initiatives and projects go hand in hand in each phase. With the existing activities in the TRUP area (such as Oude Molen Eco Village) as a starting point, the organic occupation and intensification of the area has already been set in motion. This process of 'opening up' needs to be harnessed and intensified, ensuring that change and development is incremental, building on existing character and increasing diversity, rather than retreating into the development of a series of homogenized 'new neighborhoods'.



From an uneven activity distribution...



...To more intense activities throughout



Oude Molen Eco Village



Oude Molen Eco Village



Concepts: Towers. Building Blocks; 25.000 Housing Units in Mixed-Use Precinct



Impression of park border



Impression of mixed building typology

Zoning

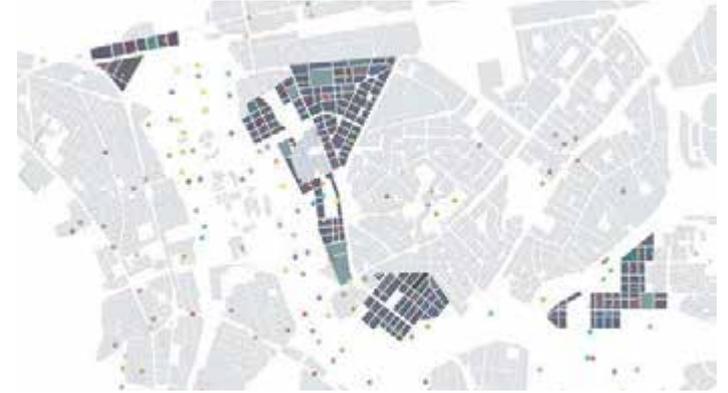
One of the overarching themes of this proposal is ecology, aiming to create an improved experience for the user along the water course. In pursuit of this, the landscape along the river will create complementary parallel zones, optimizing the use and functionality of the land according to its propensity for flooding.

The first of these zones will be frequently wet, and includes the wetlands and natural river embankments. The wetlands lie within the annual flood line, where the seasonally fluctuating water levels ensure a dynamic aquatic ecology. The embankments are part of the same natural area but are less frequently flooded, lying between the annual and 5 year flood lines, and so offer different plant species, and potential for extensive recreation and bio-based job opportunities.

The second zone is found between the 5 and 100 year flood lines, and so is less frequently wet, providing the opportunity for more permanent uses, such as sports fields for active recreation as well as aspects of a bio based economy, delivering jobs while creating a more attractive, diverse and multifunctional environment.

An intensified recreational program is proposed on the northern and western banks of the Black River, and along the Liesbeek and Elsiekraal Rivers. These areas will include sports facilities, event spaces, parkland, and opportunities for restaurants and other entertainment. The goal is to increase public access and intensify the use of the park.

Diversity of functions in park and built up area



Section over Observatory



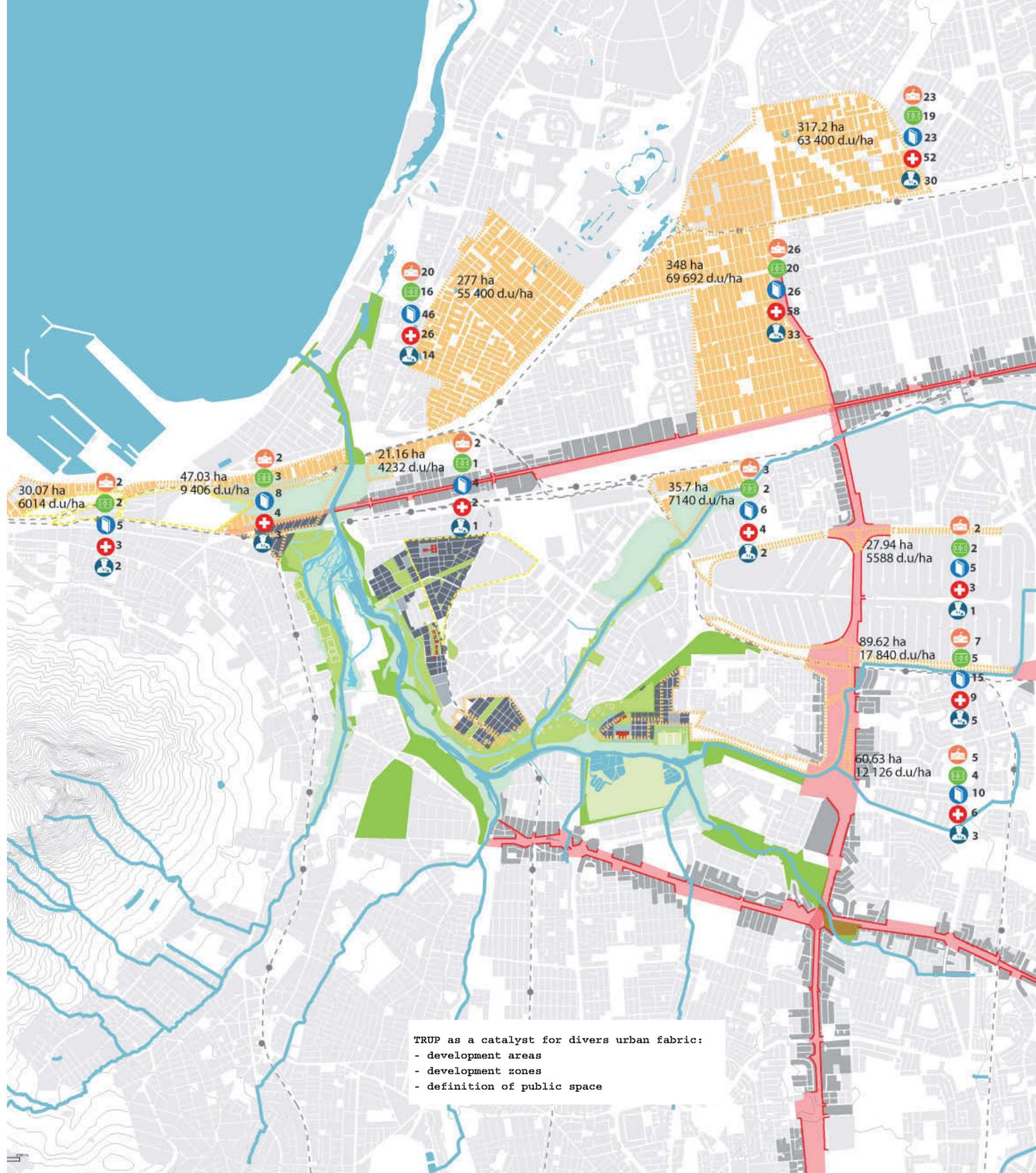
Section over Two Rivers



Section over Athlone Power Station

Development catalyst

At the larger scale the vision for TRUP as 'a continuous urban landscape' aims to begin to provide solutions to the problem of spatial segregation, inherited from the apartheid city. Where larger continuous public axes such as Voortrekker and Klipfontein Roads provide linear connections across the city, the proposals for the TRUP site identify the potential to create deeper spatial integration at the neighborhood level, while at the same time binding the two linear corridors. The green central axis of the TRUP, reinvented as useable, functional and recreational space, with the overlay of local cycle and pedestrian movement routes, functions as connective tissue at both local and strategic levels. At the neighborhood level it binds together a variety of local uses such as homes, schools, workplaces, shops, recreation space, and transport nodes around a common theme of green space and ecological functions. Green 'fingers' stretch into the surrounding urban fabric providing communities with an attractive green amenity within walking distance, while at the same time providing agri- and eco-business opportunities for local entrepreneurs and inhabitants. Strategically, the proposals for the TRUP site have the potential to act as a development pilot for opportunities that will emerge on other substantial greenfield sites in Cape Town, such as Wingfield and Youngsfield.



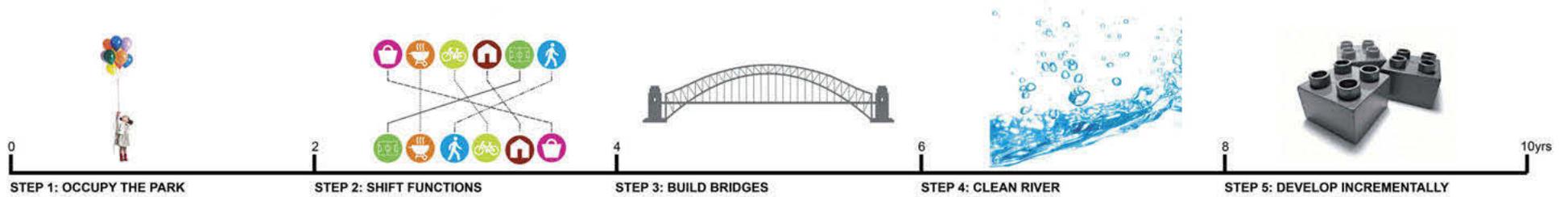


Legend

- Biomass production and biological water treatment
- Public park with recreational facilities
- Natural river embankments
- Green zones in other parts of Cape Town
- Pedestrian and cycling promenades
- Connecting streets - park access
- Bridge
- Weir
- Urban densification in high and low rise
- Water quality: clean - average - eutrophic
- Wadis
- 1/100 flood line
- Highway
- Railway
- Nodes of attraction

100m 500m 1000m

Connectivity, ecology and diversity combined:
Masterplan "From Borders to Bridges"



With the existing activities in the Two Rivers Urban Park area as a starting point, the first occupation of the area is set in motion, so an incremental process of 'opening up' can take place over the next few years.

M A I

T L A

N D

Participants

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Greater Tygerberg Partnership (Shahid Solomon)

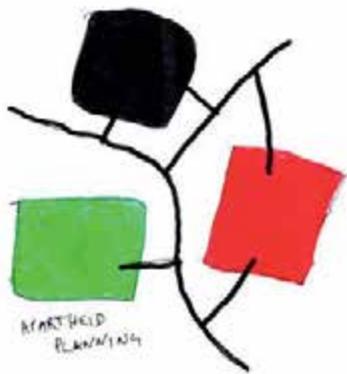


Typical low rise housing street in Maitland, 2014.

Maitland

The Pan-Africa Hub

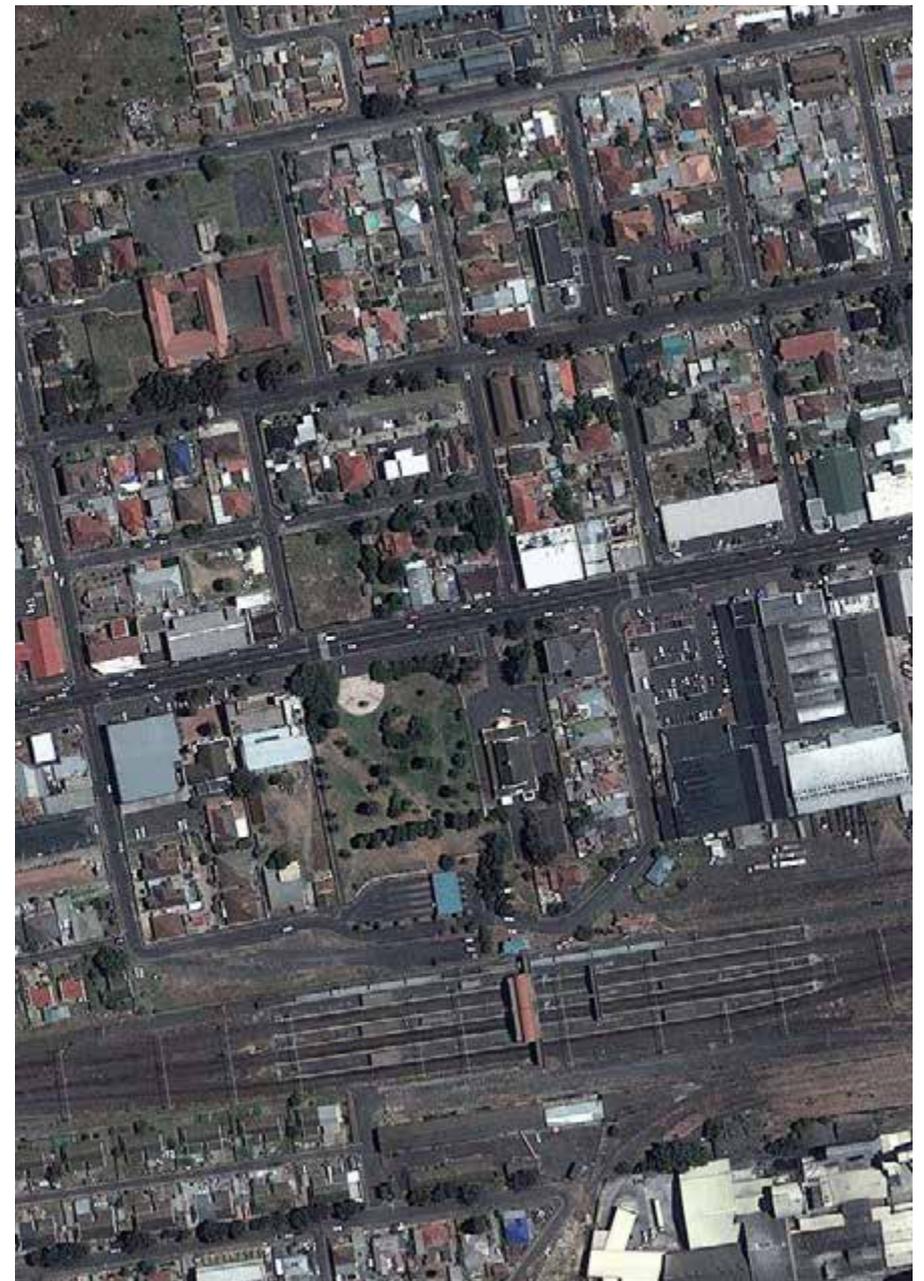
Maitland has it all to imagine a complete and mixed neighborhood that facilitates social integration, inclusion and co-existence as an alternative urban model for Cape Town.



As a sort of “Pan-Africa Hub” Maitland could invite South Africans, immigrants, workers, developers, students or middle-class families of all ethnicities to collectively participate in the development of their neighborhood. The challenge is to turn this unconscious potential into a strategy that secures and intensifies these qualities and that steers a collective and incremental development process. Maitland should facilitate the needs of its new inhabitants by allowing them to expand their businesses and homes and to accommodate the use of available land for temporary uses, like churches, markets and student homes. Like this, Maitland could become the place to be for all African people in Cape Town.

Our study aims at critically assessing contemporary planning practice in Cape Town. Today, twenty years after the end of the apartheid, 90%¹ of the city is still largely dominated by an urban structure that deliberately reduced interaction between different ethnicities and social classes to a minimum through urban planning and social engineering. The city continues to be a fragmented territory based on exclusion and separation. Well-maintained islands of wealth are harshly separated from pockets of poverty and neglect, and the ghosts of apartheid still govern urban development in the form of endless regulations that promote low density, functional separation and urban sprawl.

¹ At the beginning of apartheid in 1946 Cape Town had a built up area of 86 sq km, compared to 774 sq km in 2000. See: CoCT (2009) “Cape Town Densification Strategy – Technical Report”. Draft for Comment. Spatial Planning and Urban Design Department. City of Cape Town. P. 3.



In this context, our strategy introduces an integrative approach with the ambition to be expanded on locations beyond Maitland. The proposed pilot projects are located on strategic sites that represent typical situations in Cape Town and along Voortrekker Road: leftover spaces along transport infrastructure, over-dimensioned school yards, low densities on well accessible spots, fragmented public spaces around train stations. As such, the strategy could be extended to induce a gradual transformation of apartheid’s urban heritage into a more inclusive urban environment inside of Cape Town’s economic heartland.

Maitland key features



Maitland places



Build on what already works

When looking at how to promote greater levels of densification in the area, our goal is to build on the great potentials of Maitland. Our strategy introduces a density framework – a set of urban enhancement principles and pilot projects – to secure and strengthen Maitland’s existing qualities.

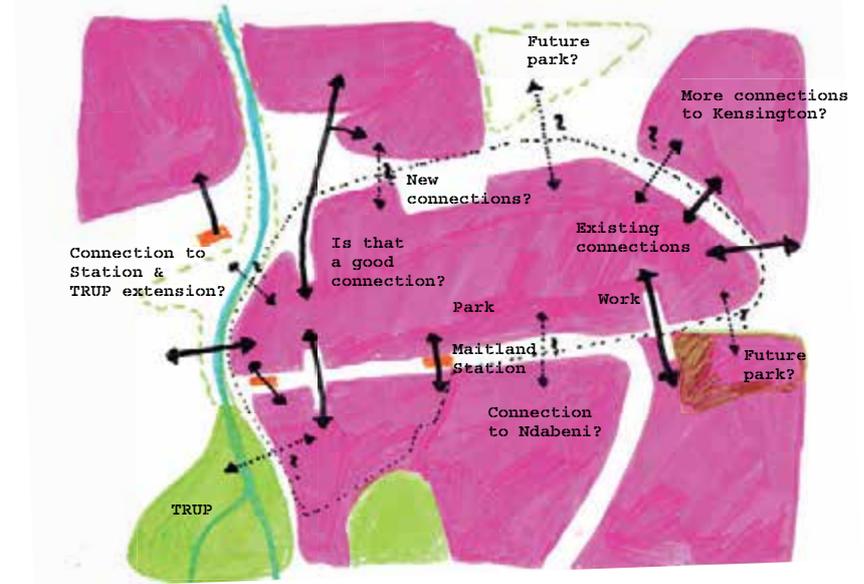
The urban principles propose the enhancement of Maitland on a neighborhood scale in terms of accessibility, public transport, public space and building density in order to make it work for densification. Inside this improved urban structure the framework envisions a range of pilot projects that can catalyze a development process to ultimately lead to Maitland’s consolidation as a “Pan-Africa Hub”. The projects introduce density and mixed use as means to intensify the use of buildings, public spaces, transport and public infrastructure and to facilitate social and economic interaction.

They are linked to implementation strategies that promote new policies and business incentives to facilitate a mix of public and private investments of various scales. Importantly, these policies and incentives also introduce a range of low-cost housing typologies – from affordable, over social, to student – and promote flexibility in design to cater for a wider market of users.

Our strategy introduces an integrated approach to densification, in a way that can be applied to locations beyond Maitland. The proposed pilot projects are located on strategic sites that represent typical situations in Cape Town, particularly along Voortrekker Road: leftover spaces along transport infrastructure, over-dimensioned school yards, low densities on well accessible spots, fragmented public spaces around train stations. As such our densification strategy could be extended to induce a gradual transformation of apartheid’s urban heritage into a more inclusive urban environment inside of Cape Town’s economic heartland.

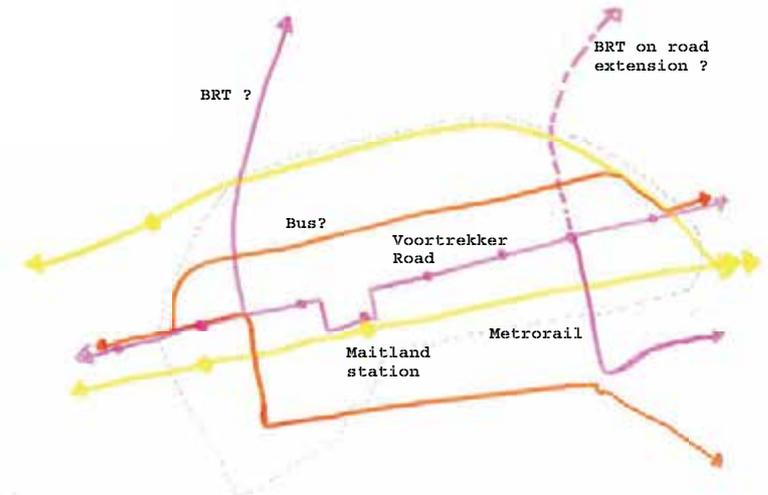
Accessibility Principle

To make the neighborhood more accessible for pedestrians and bicycles we propose a range of new connections and low-cost bridges to strategic places in the surrounding areas, such as the Two Rivers Urban Park (TRUP), potential new parks, schools or shopping areas. To reduce car and truck traffic beyond Voortrekker Road, Koeberg Road and Prestige Drive we propose to limit car-access inside the housing areas through a range of physical interventions.



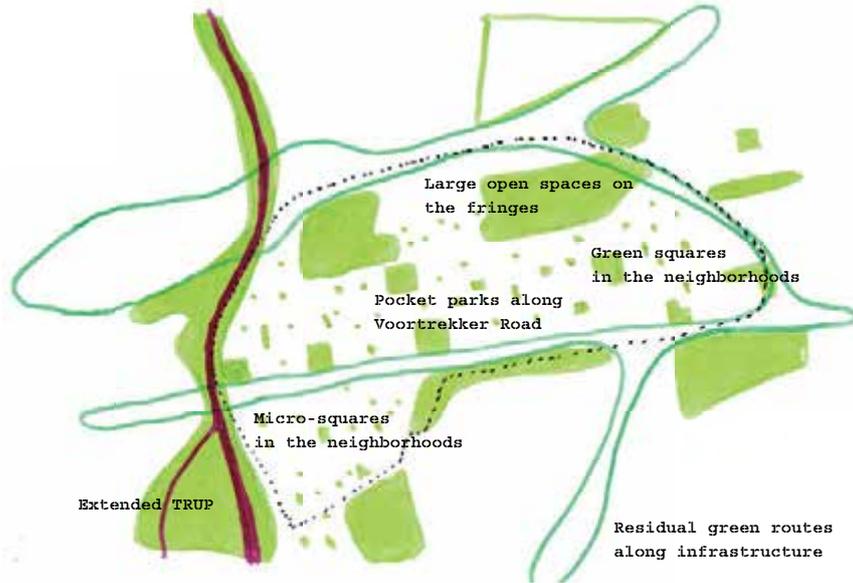
Public Transport Principle

The lower car accessibility has to be compensated by a good public transport provision. We propose two new bus lines that both run along and in parallel to Voortrekker Road. The route along Voortrekker Road would serve the busy areas in between the Matrorail stations and have a high frequency (possibly BRT). The second route would have a lower frequency and serve the housing areas and public facilities in the north of Maitland.



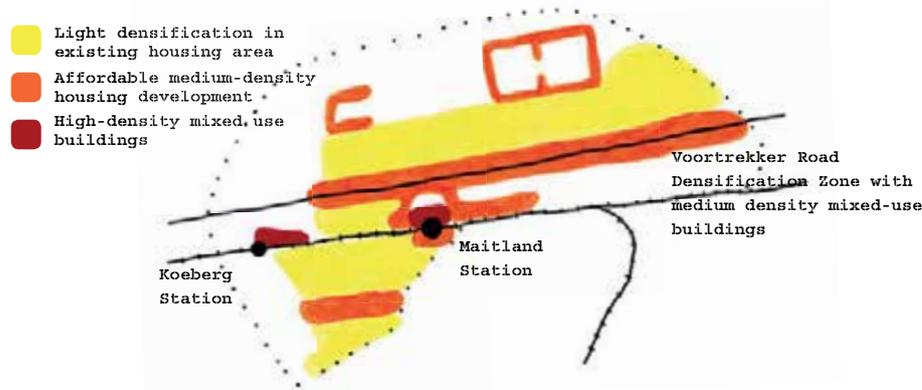
Public Space Principle

The neighborhood already features large residual green spaces as well as existing and potentially new public spaces on its fringes. We propose to maintain and expand them in order to turn them from barriers to places of recreation (low-maintenance parks, pedestrian and bicycle routes etc.) and encounter. Inside Maitland we propose a range of green squares, pocket-parks and micro squares on vacant, unused or parking surfaces to compensate for the densification of the neighborhood.



Densification Principle

We propose various grades of densification for Maitland. Around the two train stations we propose high-density, mixed-use buildings on unused surfaces next to the rail tracks to acknowledge the great accessibility of these locations. Along Voortrekker Road we envision mixed-use buildings of a medium density. In the existing housing areas we see a potential of light densification that would allow small additions or roof extensions to existing buildings. In the northern part of Maitland we propose concentrated, affordable housing developments of a medium density to intensify the use of the existing open spaces.



Maitland Town Hall, 2014.



Voortrekker Road, 2014.

Streetscape in Maitland, 2014.



Five pilot projects



Maitland Station Square



The area around Maitland Station has a huge potential to become Maitland's central public space. A range of interventions that introduce social activity and social control turn this fragmented place – that is currently mainly dominated by walls, barbed-wire and fences – into a safe and lively public space. The excellent access to public transport, its location between the station and Voortrekker Road, the existing City Hall with the adjoining park and a large amount of unused or under used surfaces make it a key location for densification. A new bus stop on Voortrekker Road creates new pedestrian movements over the square towards the station. Along this route a generous public surface enhances diverse activities, such as informal trading, playing, walking, observing or hanging out. New mixed-use buildings of 5-7 storeys with shops in the ground floors frame the

new square with an active, spatial bracket. Their permeable urban structure replaces the existing walls by introducing a range of new, programmed entry points to the square. The large strip of unused land along the train station is aligned by mixed-use buildings of higher densities (5-15 storeys). These landmarks create views towards the city center and Table Mountain and a new skyline visible from many places in and beyond Maitland. They include diverse programs such as minimal housing, restaurants, shops, parking or offices and integrate the existing minibus station. Each of them extends the train platform to create a public gallery with cafes and restaurants overlooking the square.



Concept plan of the new Maitland Station Square



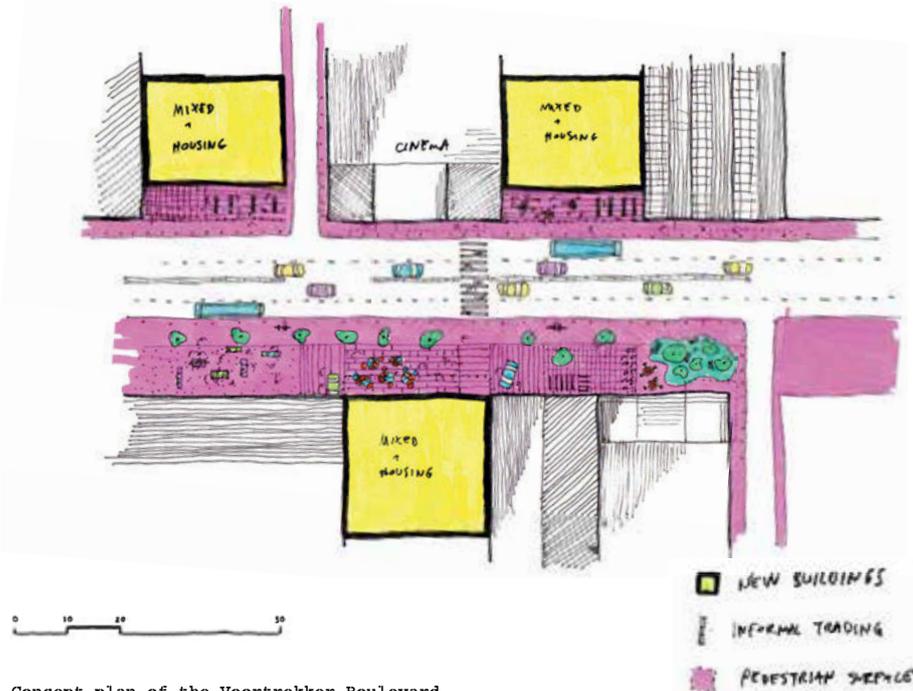




Voortrekker Boulevard

Voortrekker Road has a great potential to consolidate its emerging activity and become a dense and pleasant boulevard connecting Maitland to Belleville. Its low density mix of new and old factory buildings, its partly large but under used sidewalk surfaces and the excellent accessibility of Voortrekker Road, offer a great potential for densification and new public spaces. The strategy introduces density while maintaining the street's special charme. It creates a lively streetscape where existing and new uses, old and new buildings and diverse public activities co-exist. Flexible mixed-use buildings of 5-7 storeys are introduced next to preserved buildings on under used land (like existing surface parking, gas stations, outdated buildings). Their flexible concrete structure makes it possible to programme each floor independently. In this way, existing

programmes (car repair shops, gas stations, workshops) as well as new programmes (shops, restaurants, gyms, minimal housing, small offices and production units, ateliers) can be integrated. On the ground floor level upgraded sidewalks integrate new public activities (cafes, shops, restaurants, informal trading, walking etc.) with existing uses. On Voortrekker Road a new bus route that caters the locations between the train stations along the Voortrekker Road Corridor as well as new cycling tracks are integrated.



Concept plan of the Voortrekker Boulevard



Pop-Up Church on the Black River



The Pan-African immigrants that settle in Cape Town all bring their own community churches, especially Pentecostal churches. Many of these churches pop up in houses and industrial buildings. Maitland can welcome and facilitate this new phenomena because it happens to have a ready-made cathedral. The colonnade under the highway could easily be transformed into a pop-up church with a monumental allure. The dimension of the church can be adjusted to its success of attracting more followers. The nearby train station and adjoining parking lot guarantees accessibility.

The church's position next to the Black River creates an extra potential event: it can facilitate a baptizing ceremony. In the future the river itself will be clean enough but until that moment the holy ceremony will take place at a floating baptismal font. Next to the church there is enough space under the viaduct to accommodate a Pan-African street market. Products from all over the African continent will be for sale. It will emphasize the image of Maitland as the Pan-African Hub.





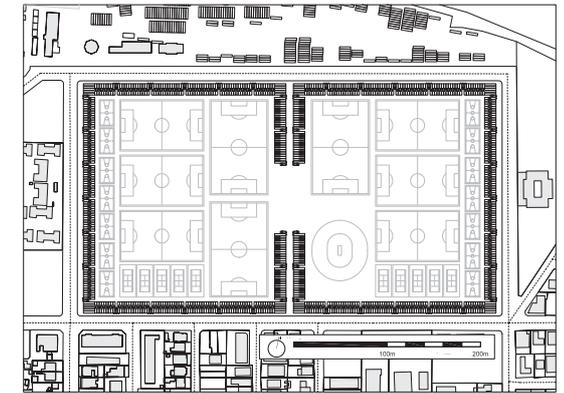
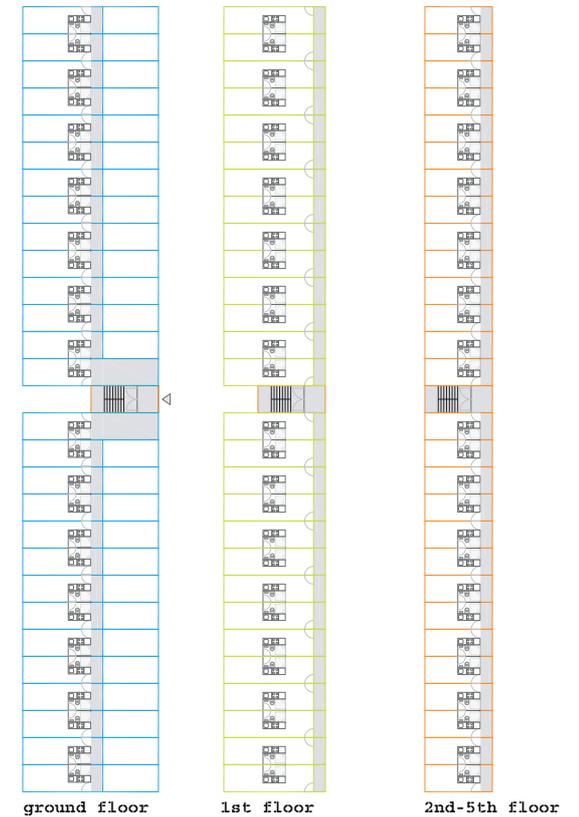
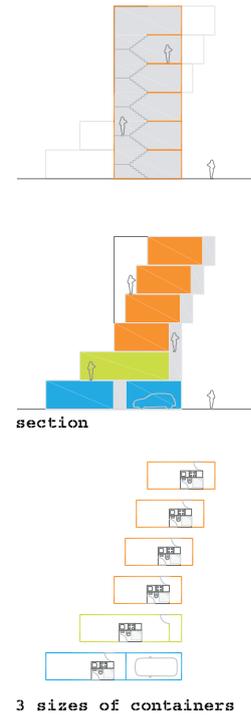
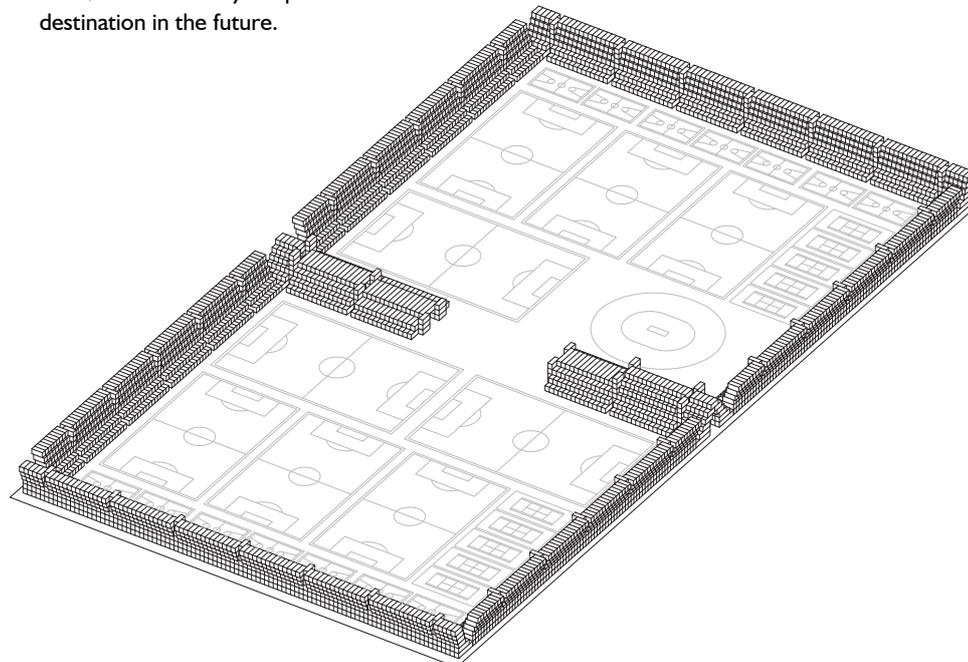
Sports with an audience



The sports fields located in the Northern part of Maitland are used for soccer during winter season and cricket during the summer season. Half of the fields is devoted to the people of the neighborhood of Kensington and half to Maitland. It is a big plot of land which could be used more intensively. We propose to place temporary student housing, build up with containers in the form of a grand stand around the fields. The plan will be organized around two courts. As a result two independent student housing complexes arise for two universities, Cape Town and Belleville, with a common space that makes them work together. And they have a wonderful view on the sportsfields and Table Mountain as well.

The container module works well with the student housing unit. One container = one student room. It relates to the harbor's landscape and at the same time brings life to the neighborhood with young students and colorful facades. The new sports park should be more versatile and will have a higher quality of facilities including a permanent audience. With the new layout there is no need to place a fence. The building turns out to be the new fence. The facilities will be used 7 days/week which

justifies the maintenance cost. We can place approximately 3600 student units and keep the same amount of sports fields. The densification is not only visible in terms of people but also in terms of sports. The new fields' layout allows to add 7 more tennis courts, 14 new basketball courts and 1 permanent cricket field. The city can keep the property of the land, through temporary lease, and in this way keeps control over its destination in the future.





Home, learning and play



Every school in Cape Town occupies a plot of approximately 3ha. The surrounding area is used as a playground. Many schools do not have enough funds for maintaining the schoolyard. We propose to build apartments around the plot which would enclose the schoolyard.

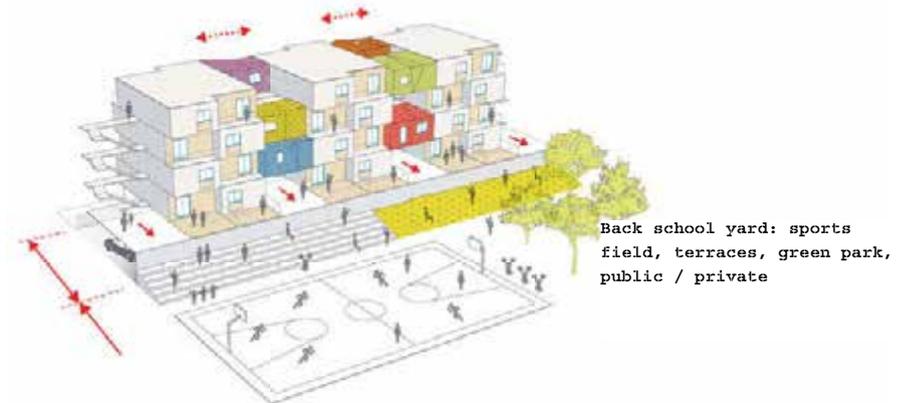
According to Density Syndicate population projections Maitland could have a density of 75 dwellings/ha. Projected on the site around the school this leads to approximately 780 people in 225 dwelling units. The school housing design shows what 75du/ha could look like.

The block opens to the East side, where the school entrance is located. This creates a green background for both inhabitants and students. With the revenue created by the houses the school can have better quality outdoor facilities.

The open courtyard offers two new sports fields surrounded by sitting terraces. The stairs can serve as a tribune for the audience during sports matches or other kind of

performances. Public safety is provided by visual and social control from the windows of the housing block.

The apartment building is set up in a way that the owner can extend and customise his own house with an extra 30m², inspired by Luyanda Mpahlwa. These extensions will fill the gaps between towers. The end result will be a vivid and fine grained housing project designed and shaped by its inhabitants.





Affordable housing for greater densities

Maitland's current levels of densification, economic opportunities, transportation connections, and population mix all come together to create a moment where creative new approaches towards extended densification can be explored and implemented. At the heart of our analysis is the fundamental recognition that Maitland's current level of densification is not a problem; there is nothing to fix!

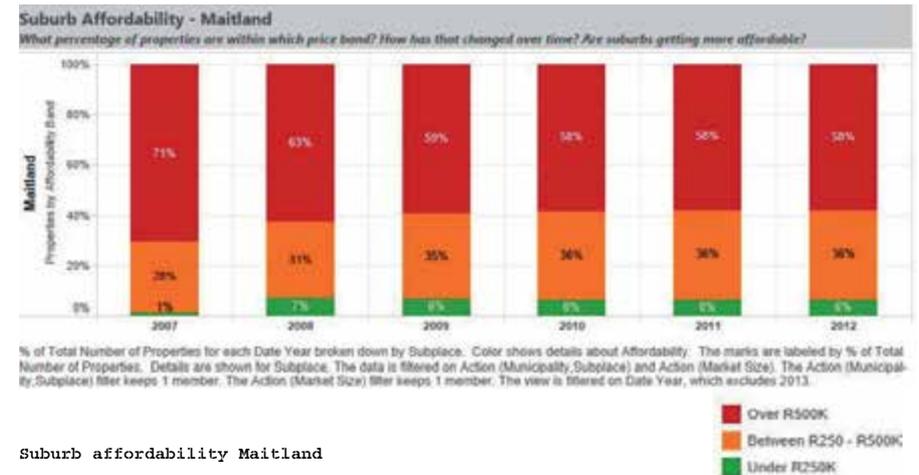
One of the key indicators of current and potential inclusive densification of an area is its residential affordability. By looking at this category, you can begin to understand the ability of an area to sustain multiple income groups, the potential to house more people, and how difficult it will be for the suburb to increase its population in an affordable manner.

According to the Centre for Affordable Housing Finance in Africa and CityMark, who have paired up to launch a new interactive housing market data set, Maitland has a total of 2,847 households living in a total of 1,972 residential properties.¹ The average sale price of a home in Maitland sits at R547,000, which is slightly above the generally-accepted national standard threshold of affordability, anything less than R500,000. In terms of the percentage of affordably-priced housing, Maitland's stock sits at 36% affordable.

Importantly, the CityMark database tells us that based on Maitland's average household income of R10,400 per month, the average house sale price is 2.1 times more than what people can currently take on in the area (based on a fixed-rate mortgage calculation and an assumed down payment). This means that, on average, it takes 2.1 times the average Maitland income to purchase the average Maitland house. Although this ratio may seem high, it is still below the

national average of 3. Ideally, the ratio should be at or around 1. For Maitland to achieve this, house prices need to aim toward a sale price of around R264,000. Pulling the data together, there are some important themes that result from this data that show a clear vision of the kinds of densification that Maitland's residential footprint needs, and the kind that it can sustain. When you combine the relatively healthy rate of 64% of households renting with the relatively mild differential between the affordability threshold and current average house prices, you can start to see evidence of a market share (those currently renting) who could be converted into homeowners with relative ease should there be stock that approaches the price point of R264,000. Taking advantage of the Public Transport zoning incentives, developers can start to substitute parking spaces with additional units to drive down per-unit costs, increase the densities on specific sites, and attract a healthy rate of sales by working with tenants who meet the price points possible in Maitland.

To add to this, there is growing promise in the City of Cape Town's partnerships with private-led Social Housing Institutions, or SHIs. These organizations have a direct agreement with the City to build rental housing for people in affordable income brackets as a means of increasing and integrating housing opportunities in well-located areas. Maitland and its nearby suburb of Brooklyn both have examples of these types of units, and more of them would be a welcome addition to the area's affordability. These properties make use of a wide variety of National and City-driven grants and subsidies to make social housing profitable; given the high level of households which currently rent in Maitland, providing more rental housing in the area will clearly



be met with strong demand. Increasing the supply of affordable housing has added benefits for the larger area: by increasing the number of people living in an area affordably, with rents and/or house prices that are more suited to their incomes, families can begin to use more of their expendable income at local economic outlets (stores, churches, restaurants, and other sites) in the Maitland area. Affordability is key to this: a family's overall income should never be over-burdened by house payments, otherwise the local economy may suffer.

Housing for Cape Town's growing migrant communities

Part of the rationale behind increasing densification in Maitland lies in the area's intrinsic functionality for a growing number of migrant communities from across Africa. In terms of creating housing solutions that meet the demands of these groups and encourage their greater economic and social inclusion, developers and designers can begin to look towards designs that include the following principles:

- Homes that maximise the number and size of bedrooms: this allows for rooms to be subletted functionally to friends,

family members, and others who take up short-term rental opportunities

- Larger kitchens with two stoves, two refrigerators, and other equipment in order to facilitate multiple families in one living space
- A selection of smaller options for couples who are willing to pay for more privacy
- Mixed-income and mixed-use developments that engender stronger social inclusion through design: this can mitigate against the growing social exclusion that migrant communities often feel in urban areas.

¹ <http://www.housingfinanceafrica.org/citymark>

Going forward: How should Maitland densify while staying affordable and inclusive?

Strategic land use

In Maitland, there are multiple lots and sites available that could be used in order to build new, higher-density, housing units. Key to creating a higher density in Maitland is activating these sites, helping to make better use of existing spaces without direct displacement of populations. Some of the ideas that underscore this theme are:

- Activate “problem sites” that are currently vacant through private small-scale apartment-style development. This can transform a site that presently encourages negative social behavior into a site that brings more people living in an environment that becomes safer and more accessible through housing construction.
- Facilitate the use of larger vacant plots of land, particularly those in the eastern areas of Maitland, for government-sponsored social rental housing and GAP Affordable Housing. This will help activate sites in close proximity to the Voortrekker Road Corridor while simultaneously expanding the feel and characteristics of the Maitland neighborhood into an area that feels largely void of character.
- Re-allocate and re-zone areas around public spaces, such as the large sports field in the North of Maitland, for expanded social housing.

Retrofitting existing buildings

One of the biggest opportunities in Maitland is the potential to retrofit existing buildings in ways that expand density through housing that is better aligned to the needs of the population. This can entail making use of the UDZ for tax-incentivised renovations and conversions from unused commercial space into residential space. Some of the possible

kinds of housing that can be achieved through this are:

- Student Housing: attracting students is one of the best ways to ensure a stronger economy of an area beyond business hours. Advantageously for developers, students are also generally amenable to sharing facilities like kitchens and bathrooms, meaning the infrastructure like piping and floor plans in presently-unused office spaces can be quickly and cheaply converted into dormitory-style accommodation without a massive internal overhaul.
- Smaller lower-income apartment and studio rental housing: by transforming existing buildings into well-managed “micro-sized” living units, which maximise spaces inside for spatial efficiency, Maitland can begin to accommodate the needs of individuals or younger families looking for affordable spaces on a rental basis. These spaces can help people such as migrants, young professionals, and other groups who are looking for a “first leg” into Cape Town—a safe, secure, and functional space to live while building up an asset base.
- Enable single-family dwelling add-ons, such as second storey additions. This can help increase the number of families that live on one plot, which can be particularly advantageous for larger families or groups of families.

Designing housing for simplicity

In Maitland, the goal of densification is to keep housing affordable. Doing this can be accomplished by designing simplicity into units, avoiding extravagant finishes and fixtures that drive up the cost of units. Building more “basic” units, particularly for

rental, will help mitigate against the desire of people from outside the community to come in, buy up stock, and sell it quickly to make a return on the investment. If these units are designed with principles that maximise space, they can also increase the overall yield per large development by bringing more people onto one site, helping to make developments more profitable to private-sector developers. An interesting possibility also exists in converting a present building into a “shell” that safely allows for people to more informally outfit their own apartments. Doing this would allow people to live in spaces that require little in terms of financial outlay, but could be built up over time to accommodate a changing family structure. It can be seen as a bridge between formal and “extra-formal” housing options that explores new approaches towards self-made housing in a denser environment. This would be a very experimental approach towards lower-income housing in the area, and would require a prolonged examination of a strategy aimed at relaxing building codes and requirements as a means of expanding habitation creativity.

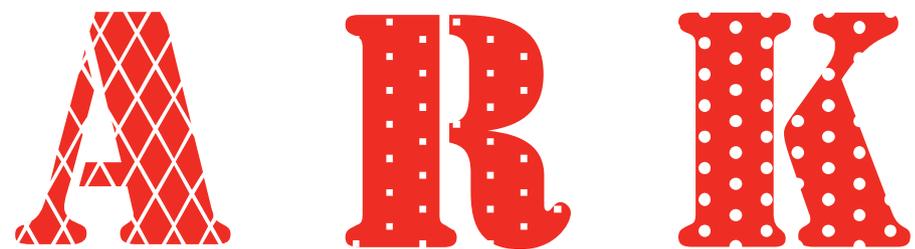
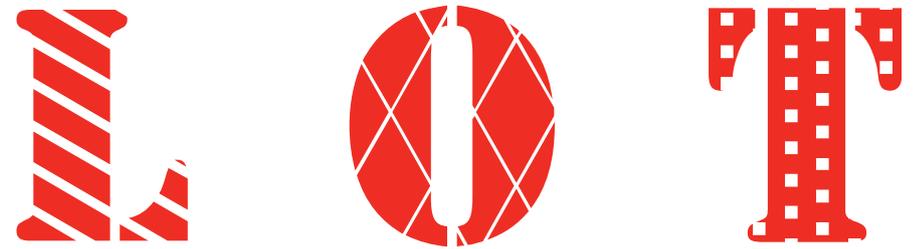
Government as an enabler

Working in partnership, local government can be a powerful force behind encouraging inclusive densification. By providing greater planning support and taking part in social engagement exercises prior to construction of new buildings, housing units, or public facilities, government can transform its role from being an “implementer” to being a community partner. Instead of only building housing, government can work with external organizations in the area to build community support for new affordable housing projects, allaying a lot of social challenges that come with new housing before they even come up. Government can also begin to enable the private sector to build more inclusively through more communication on

zoning incentives (like the UDZ and the Public Transport Zones) and intended neighborhood characteristics, set out in the City’s Spatial Development Framework.

Encouraging stronger economic development

One of the foundations of Maitland’s current success is the growing sense of economic opportunity in the community. Growing Maitland’s density will require the economy to keep serving as a source of opportunity for even more people: to make this happen, collaboration with other local areas will be key. By working strategically in partnership with other local nodes of economic growth, Maitland can ensure that its competitive edges continue to enhance the larger metro-region economy while simultaneously expanding micro-level opportunities for people who live in the area, particularly entrepreneurial business owners and operators.



Participants

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Lotus Park

Since the apartheid regime's fall [1990] in South Africa, the easing of migration rules to cities has led to the rapid growth of informal settlements in the major cities. In 2010, the total population of informal settlements was nine times more than in 1994.¹ Whether the migration to cities and the resulting land occupations in post-apartheid era actually undermined the apartheid city or emphasized it, is a major question; poverty among the ethnically segregated, the shift towards neoliberal policies and the lack of infrastructure make cities inaccessible to a considerable part of its citizens.

Lotus Park is one of the smaller informal settlements in Cape Town, strategically situated in between the railway and the canalized Lotus River, adjacent to the Nyanga train station. It borders on the area of Gugulethu, a township from the 60's. As the name suggests, Lotus Park used to be a forested area only a few decades ago, which turned into a wasteland first characterized by initiation schools, later by crime, unsafety and waste dumps.

Only since 2003 the area became inhabited, but since then development moved fast-forward. Since 2010 the area was recognized as a problem area, with conflicts about the bucket system and the unsafety ranking high, and community leaders, the city and NGO's started working on upgrading.

Today there are about 1200 houses and about 4750 inhabitants in Lotus Park, amongst them a large percentage of children. The problems of the area are quite common to those of any informal settlement in South Africa, and they are manifold. There is a lack of infrastructure: sewage, drainage are missing, there are 96 water taps of which only half is working; there are only 135 toilets with a bucket system, twice a week emptied by the municipality. The water of the Lotus River is heavily polluted and dirty. More than half of the houses have a floor level below street level, causing overflows in the harsh Cape Town winter.² Formal jobs don't exist in Lotus Park, officially everybody is jobless. But the informal economy consists of a number of restaurants, spaza shops (small convenience stores), some inhabitants have goats, others run a shebeen (bar) or a crèche. There are no facilities: no schools or health care centers and only in 2014 a community center was opened as part of the VPUU program.

1 UN-Habitat, State of the World's Cities 2010/2011: Bridging the Urban Divide, Nairobi 2010
2 VPUU, City of Cape Town, SUN, Lotus Park Informal Settlement Upgrade Baseline Survey, Gugulethu, CT 2011



Top: Community Centre in Lotus Park by VPUU. Bottom: Streetscape Lotus Park.

Spatially, Lotus Park is better structured than most other informal settlements. The fine grain urban fabric comprised of single story shacks facilitates pedestrian movement and displays an intricacy of nuances in public and private thresholds and appropriation of space. With its huge unemployment, and a huge percentage of the community under 18 years old, Lotus Park has to deal with harsh social, economic and spatial injustices. Given the chance however, this vibrant community will embrace the opportunity to make Lotus Park their home.

Retain density and improve quality

The Violence Prevention through Urban Upgrading (VPUU) program has been working with the community structures in Lotus Park since 2010 to develop a participatory upgrading model that takes cognizance of the current residents needs and improves holistically the quality of life of residents in the area. Personal safety, security of tenure, resilience, the provision of public infrastructure, capacitation of leaders and residents and a continuous monitoring of the development are elements that the program entails.

Within this process the Density Syndicate investigates how density can contribute to the social economic empowerment of the Lotus Park community. In comparison to other urban agglomerations, Lotus Park has a relatively high density of 220 p/Ha. The goal of the Density Syndicate is not to increase the density, but to create more indoor and usable outdoor area. By addressing this reconfiguration on the urban and cluster scale (and not just on the scale of the individual house), the benefits of both collective financing and participation planning can be maximized.

Effective use of collective infrastructures

Besides the social economic advantages of renegotiating space on the cluster scale, this approach makes it possible to maximize the effective use of collective infrastructures. The notion of collective infrastructures (such as wet cores on the cluster scale) can potentially be extrapolated on the neighborhood scale in the form of a bio-gas installation and productive wetlands along the Lotus River. Collective infrastructures represent an economic opportunity through reduced operational costs and potential income generation after initial investments have been regained.

Stimulate local economy

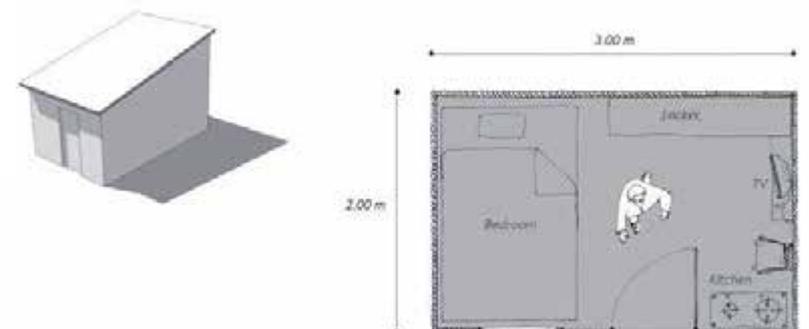
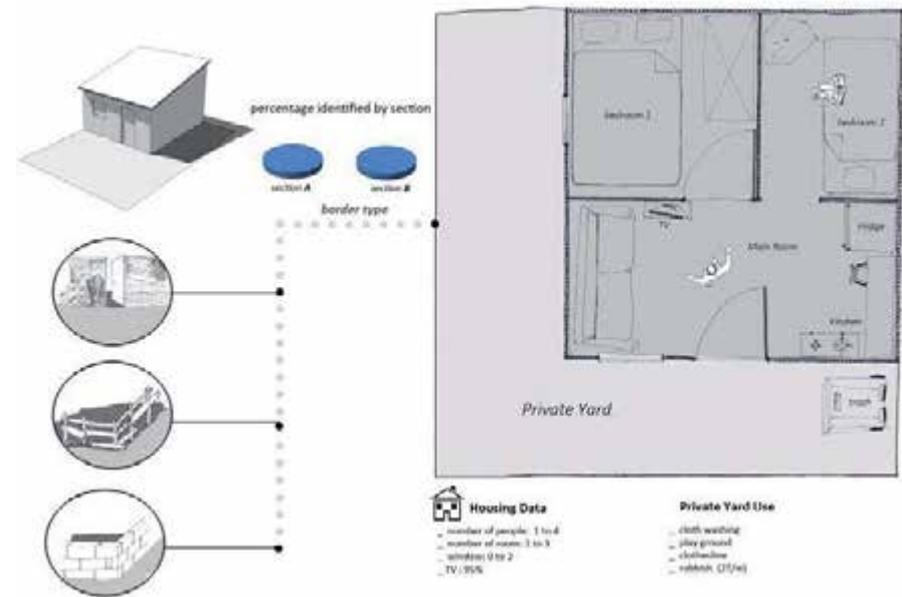
Within this framework, the renegotiation of the density of the territory and incremental development of new housing clusters represents an incredible opportunity to stimulate the local economy and facilitate empowerment. This will only succeed when combined with a long term structural support and organizational forms to manage and facilitate the process which includes firstly a complex tenure arrangement required to ensure that people have the rights and abilities to live and improve on their homes; secondly it includes financial arrangements that need to be developed around the cluster, and thirdly: a structural transformation of the settlement on a neighborhood scale.



Cluster Analyses

VPU (Violence Prevention through Urban Upgrading) conducted an extensive empirical research into the social-economic aspects of Lotus Park, that functioned as input for the design proposals. The researchers focused on clusters A and B, and investigated through interviews the characteristics of each household: the size, the composition, and the occupation of each household member. They measured and analyzed the spatial organization of the dwelling units internally, counted the use of household appliances and looked at compositions of the walls, windows and roofs. They also analyzed how different units are organized together, and how private, semi-public, and public space are shaped and organized by different physical border conditions.

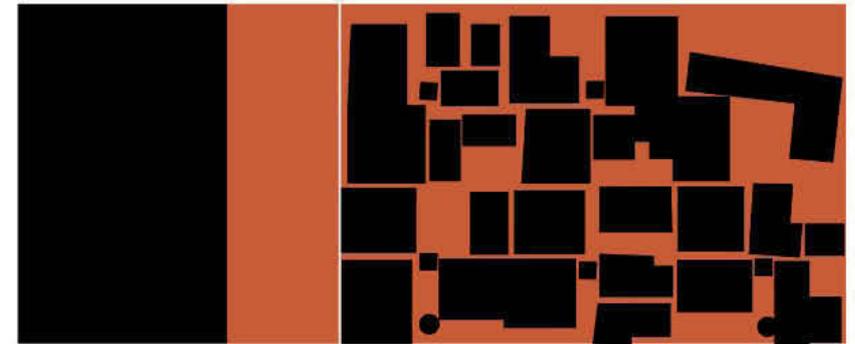
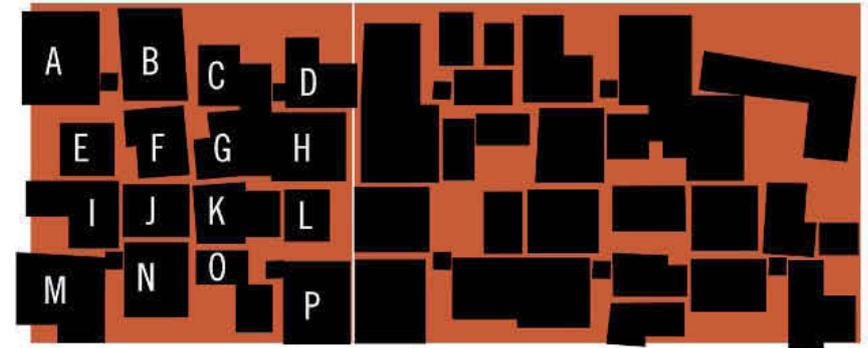
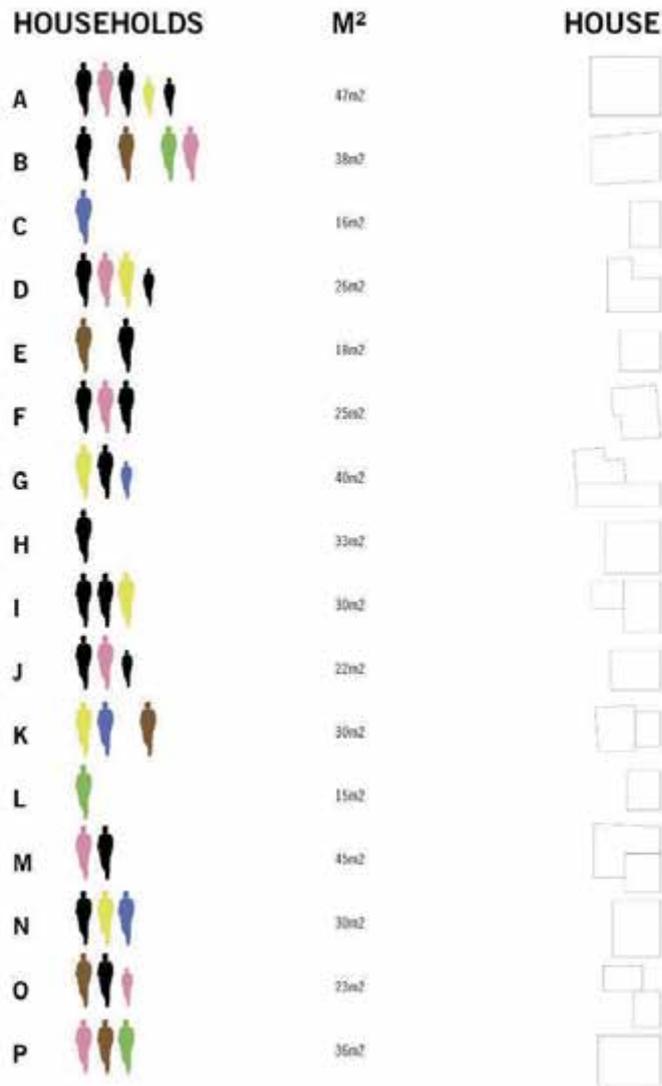
It was a crucial element of the design process to understand how the ownership of the existing structures was perceived by the residents to come up with proposals of how to renegotiate this ownership.



Cluster Strategy

In an existing block, a cluster of 16 households was surveyed. The existing households are on average 25m² and inhabited by an average of 2.75 people. A number of typologies can be identified in which the interface between the private and public realm differs. In some instances the threshold is hard and defined, in other cases, the subtle differentiation of heights or the positioning of objects demarcates the private domain. The space has been negotiated and the control and maintenance is organized between neighbors.

The Floor Area Ratio of the surveyed cluster is 0.59. This means that approximately 59% of the site area has been built with one level shacks.



FAR:0.6

open (O): 278m²
footprint (FP): 412m²

floor (FL): 412m²
average p. household(H): 25m²



Cluster toolkit

The model for development is based on the notion that a collective can achieve more than an individual. By pooling resources (money and time), and by introducing standard building elements, households can realize more effective space for the same investment. Based on standard masonry construction principles, a toolkit of prefabricated elements for incremental growth makes it possible to set up production processes in Lotus Park.

■ Party wall

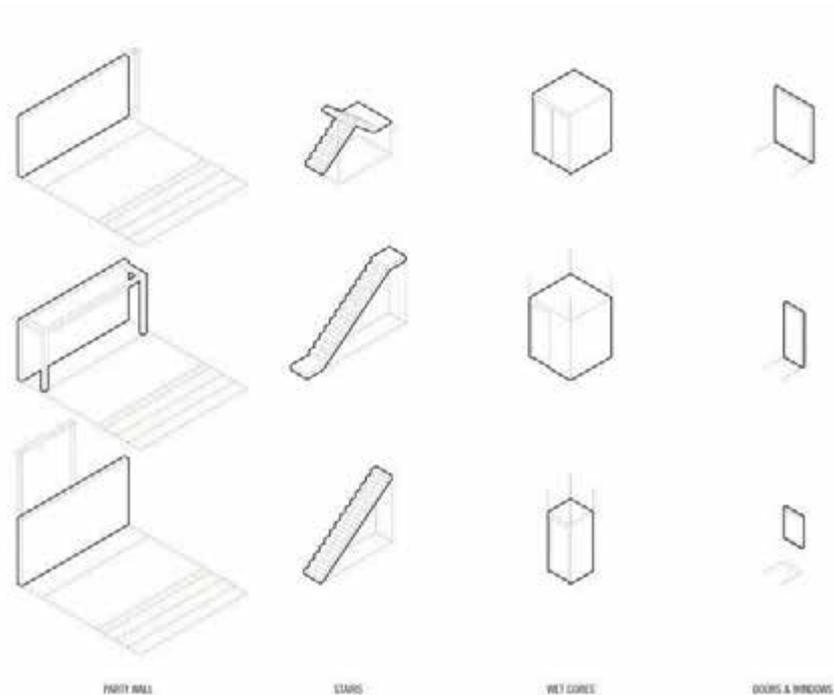
The flexible party wall is an essential structural element and plays a crucial role in fire safety. It allows for compact building typologies that are both cheaper and make more optimal use of the available space.

■ Staircases, doors and windows

A diversity of modular prefabricated staircases, doors and windows increase the flexibility and diversity in cluster design and individualization of dwellings. Depending on the typology and social structures within the cluster, internal and external staircases can be shared.

■ Wet cores

The choice in wet cores range from a single toilet or shower unit, to combined units with toilet and shower. The largest is a collective unit with 3 toilets and a shower. The degree of sharing wet cores varies per cluster depending on the social structures and available funds.



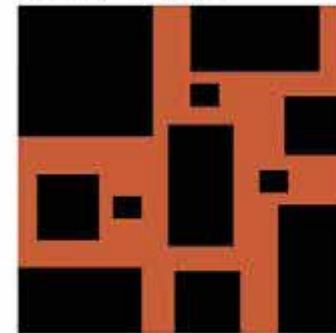
Toolkit of prefabricated elements for incremental growth

Cluster typologies

The cluster designs are approached as a renegotiation of the collective and private spaces. By reconfiguring the in-between space and going up an average of one story, a diversity of typologies can be derived using the flexible building system with locally produced standard elements.

Three main typologies are explored in which the use of shared space and the interface between public and private spaces vary.

■ Open Grain



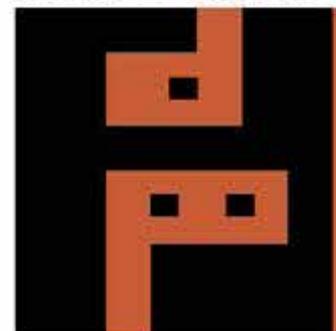
LEVELS:

1	FAR 0.6	
	O: 283m ²	FP: 405m ²
	FL: 405m ²	H: 25m ²

MODEL	FAR 1.0	
	O: 283m ²	FP: 405m ²
	FL: 723m ²	H: 45m ²

2	FAR 1.2	
	O: 283m ²	FP: 405m ²
	FL: 810m ²	H: 51m ²

■ Inner Courtyard



LEVELS:

1	FAR 0.7	
	O: 206m ²	FP: 482m ²
	FL: 482m ²	H: 30m ²

MODEL	FAR 1.1	
	O: 206m ²	FP: 482m ²
	FL: 782m ²	H: 49m ²

2	FAR 1.4	
	O: 206m ²	FP: 482m ²
	FL: 964m ²	H: 60m ²

■ Outer Courtyard



LEVELS:

1	FAR 0.7	
	O: 198m ²	FP: 490m ²
	FL: 490m ²	H: 30m ²

MODEL	FAR 1.2	
	O: 198m ²	FP: 490m ²
	FL: 805m ²	H: 50m ²

2	FAR 1.4	
	O: 198m ²	FP: 490m ²
	FL: 934m ²	H: 58m ²



Open Grain typology

The open grain typology is an optimization of the existing spatial fabric. The ineffective space between shacks is renegotiated and consolidated to create a diversity of outdoor spaces that flow into each other. This sequence of spaces has a collective quality as a cluster with open courtyards that are appropriated by three to four households. The subtle positioning of windows and doors, as well as collective wet cores and trees, generates movement patterns that facilitate interaction based on the existing social structures. With an average of 1.5 levels, this typology has an FAR of 0.9 and average of 37m² per household.

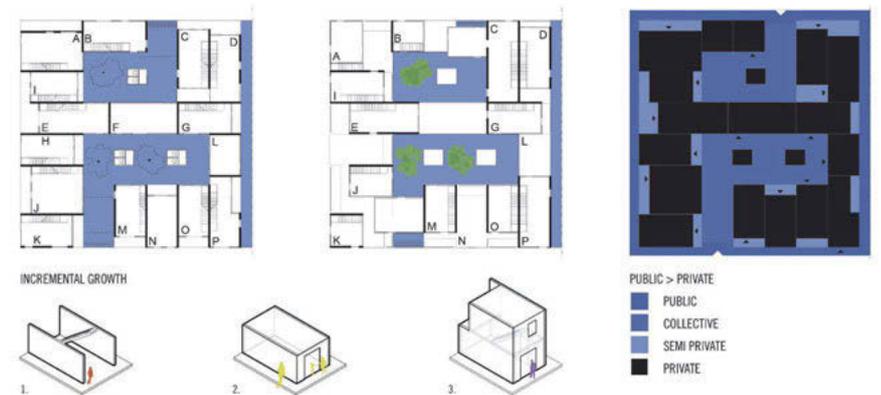
Images from left to right: Ground and first floorplans. Schematic diagram illustration appropriation of interstitial spaces. Indication of incremental development based on kit of parts.

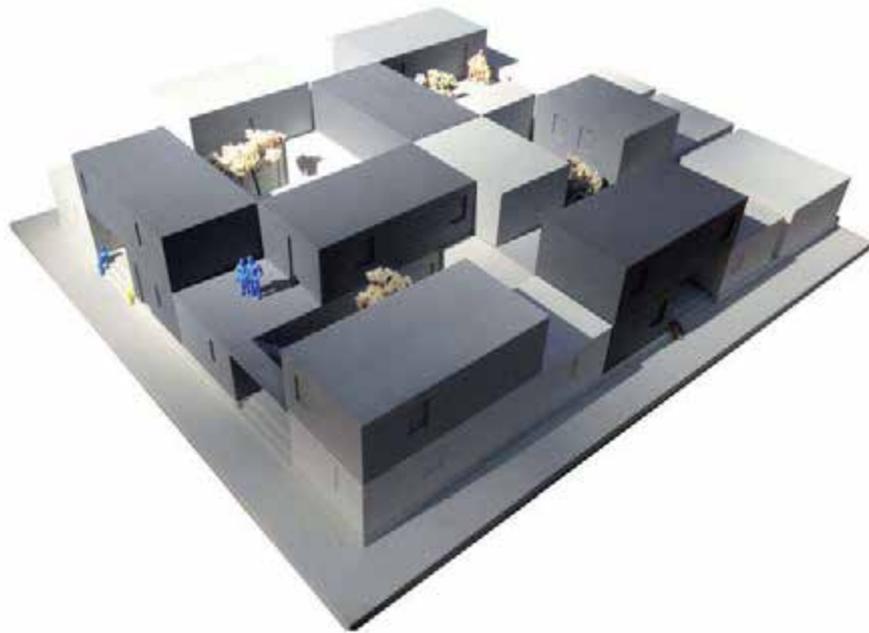


Inner Courtyard typology

The inner courtyard typology maximizes the use of collective space by creating two large internal courtyards accessible from the side streets making it possible to have households opening onto the street as well as onto the courtyard. The use of shared walls is maximized allowing vertical expansion where desired. The interface with the street varies from units that open directly onto it, to units with a setback and canopy, or with a wall and front garden. This typology is more compact than the open grain typology, and therefore has a higher FAR of 1.0 with an average of 1.5 levels. The average floor area per household is slightly higher at 45m².

Images from left to right: Ground and first floorplans. Schematic diagram illustration appropriation of interstitial spaces. Indication of incremental development based on kit of parts.

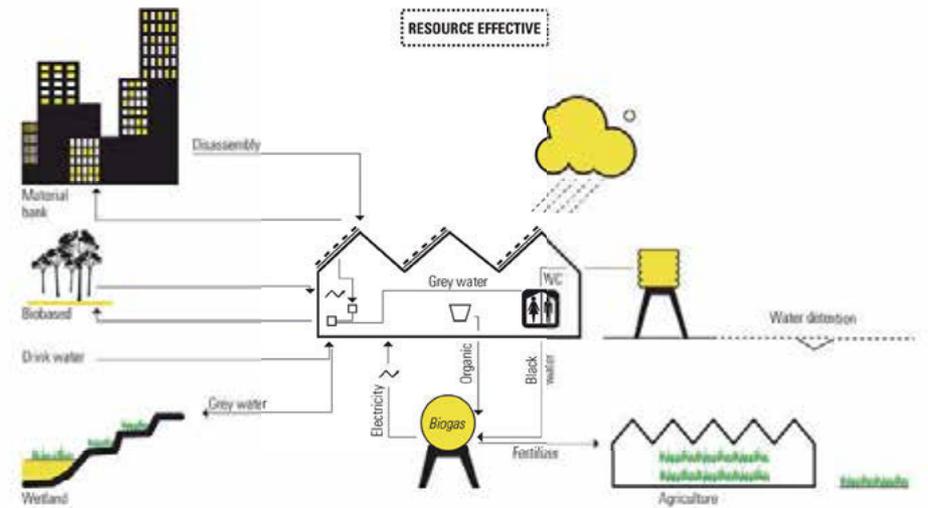




Outer Courtyard typology

The outer courtyard typology concentrates households around a semi-private collective courtyard on the street edge. The use of shared walls and compact volume makes this an effective typology from an energy and material point of view. The upper level is accessed by shared outdoor staircases that are positioned either at the front or rear of the courtyard. Wet cores are concentrated and can either be accessed internally, or externally, depending on the configuration of households and family structures. On average 4 households are organized around a single courtyard. This typology is the most compact of the three explored and has the highest FAR of 1.1 with an average of 1.5 levels. This is also evident in the average floor area of 45m² per household.

Images from left to right: Ground and first floorplans. Schematic diagram illustration appropriation of interstitial spaces. Indication of incremental development based on kit of parts.



Schematic diagram of potential urban flows. Closing energy, water, waste, material and food cycles represents an economic opportunity for the local community.

Collective infrastructures

Besides the social and economic advantages of renegotiating space on the cluster scale, this approach makes it possible to maximise the effective use of collective infrastructures. The notion of collective infrastructures (such as wet cores on the cluster scale) can potentially be extrapolated on the neighborhood scale in the form of a bio-gas installation and productive wetlands along the Lotus River. Collective infrastructures on all scales represent an economic opportunity through reduced operational costs and potential income generation after initial investments have been regained.

Water purification installation, realised in Lotus Park as a didactic illustration of the urban water system, 2014.



3 The “Cities Without Slums” action plan was developed by the Cities Alliance in July 1999 and launched by Nelson Mandela at the inaugural meeting of the Cities Alliance in Berlin in December 1999: <http://www.citiesalliance.org/cws-action-plan>. The N2 Gateway is a national government-led priority project involving the building of fully-subsidized, rental and affordable bonded homes to create sustainable communities in designated precincts along the N2 highway in Cape Town. <http://www.thehda.co.za/content/page/n2-gateway>

4 A shorter version of this article, “Transformation of Cape Town’s Informal Settlements: ‘The Pressure Cooker on the Boil’”, was published in *Quaterns*, August 6, 2014

5 Richard Sennett describes the details of the spatial prominence of the stoa in his article ‘Democracy and Its Spaces’. There, he explains the details of contemporary design projects, which work with the principles of the

Urban Scale Strategy

Lotus Park is a typical example of the informal settlements of Cape Town, the density of which is already more than five times higher than the city’s average. Mandela’s admirable restructuring and development program has hardly helped their upgrading, because the program is top down and formalized and has subsidized single housing as its product; it is ignorant to incremental processes. Greater transformation projects on the urban or national scale, like the ‘Cities without Slums’ and the ‘N2 Gateway’ project seem to favor capital accumulation but not the inhabitants of the informal settlements.³ Displacement attempts and protests of residents are regularly on the news. One inhabitant of Lotus Park resembled urban renewal in South Africa to a pressure cooker on the boil.⁴ How do you do urban upgrading or renewal in such a context?

Richard Sennett talks about the agora as one of the two main spatial elements of democracy in his reading of ancient Athens: “(...) the agora consisted of a large open space crossed diagonally by the main street of Athens; at the sides of which were temples and stoa[s], shed[s] that opened sideways onto the agora (...)”.⁵ The agora was the place in the city for the tolerance of difference and diversity: “If the same persons or activities are merely concentrated but remain isolated and segregated, diversity loses its force. To count, differences must interact.” Perhaps the most interesting feature of the agora and the stoa was the transition space just under the shelter of the stoa. The Athenian agora made different citizens interact: “(...) at the edge, under the roof of the stoa; was a fluid, liminal zone between private and public. This edge was where change would start.”

In Lotus Park, the Density Syndicate team decided from the beginning to retain the existing density but enhance the neighborhood qualities within that. ‘The edge of the stoa’ is what we are interested in as a planning concept, with the given density level, in the context of Lotus Park: touching the neighborhood on its edge, creating spaces for interaction with the city and the surrounding neighborhoods, creating potential spaces of diversity at these edges, and expecting this to have an impact on Lotus Park and Cape Town in the long run. An attempt to transform the edges of the neighborhood is also an attempt to break the apartheid’s invisible borders and isolation. In Lotus Park, we propose to realize this transformation through creating collective economical capacity. Many informal settlements suffer from unemployment; in the case of Lotus Park half of the inhabitants of Lotus Park don’t have a job. Organizing spaces of collective economical capacity at the edges of the neighborhood could increase the sense of ownership and belonging to the neighborhood, while solving the practical, yet crucial problem of unemployment.

How do we do this? Basically, we articulate the periphery of Lotus Park as public spaces that are functioning in relation to what happens in the adjacent neighborhood. For instance, in the north of Lotus Park, presently a market space is located as well as sports and education facilities. In the design, these spaces are improved and formalized as recreational and market spaces. The community center is built here, as the first urban renewal intervention. The Lotus River and the riverbanks are proposed to function as fish farms and herb gardens, and it is proposed to enhance some of the activities that already exist on the riverside such as a laundry, a car wash and car mechanics. The train tracks on the west of the neighborhood are required to be separated from Lotus Park by a wall, which will mean some of the houses need to be displaced to the southern corner of the area. This wall could create a landscape of its own, with terraces, vertical gardens and green slopes. Close to the southwest edge a pedestrian bridge is proposed in order to connect Lotus Park to the adjacent neighborhood.

The second wave of post-apartheid urbanization will reshape the nature of cities in South Africa, which will most probably be characterized by many informal settlements and an ‘urbanization of poverty’, a mutually reinforcing process, as the place of poverty moves from rural to urban areas. Projects like this one in Lotus Park, might have the potential of creating an alternative planning process, not only improving the informal settlements but hopefully adding to the creation of the post-apartheid city.



stoa’s transformative spatiality at its edge. Richard Sennett, *The Spaces of Democracy*, Raoul Wallenberg lectures, 1998, University of Michigan, Ann Arbor, Michigan, 1998

1. Common space
Recycling and (brick) production space,
Play space, Community center.

2. Train track wall
A new wall will be constructed at 15 meters from the
train tracks. Alternatives for the wall section are
designed. The dwellings, which fall in the 15m zone,
will be relocated.

3. Street structure
New organization of existing streets with a
focus on the ground level and drainage, on
density, and public and commercial functions.

4. Pedestrian bridge/common space
Pedestrian bridge connecting Lotus Park
with the ceremonial space across the
train tracks. The existing electrical
plant should be moved outside the wall
and its space should be transformed into
a common space.

5. Ceremonial space
Existing ceremonial space to
be preserved and upgraded.

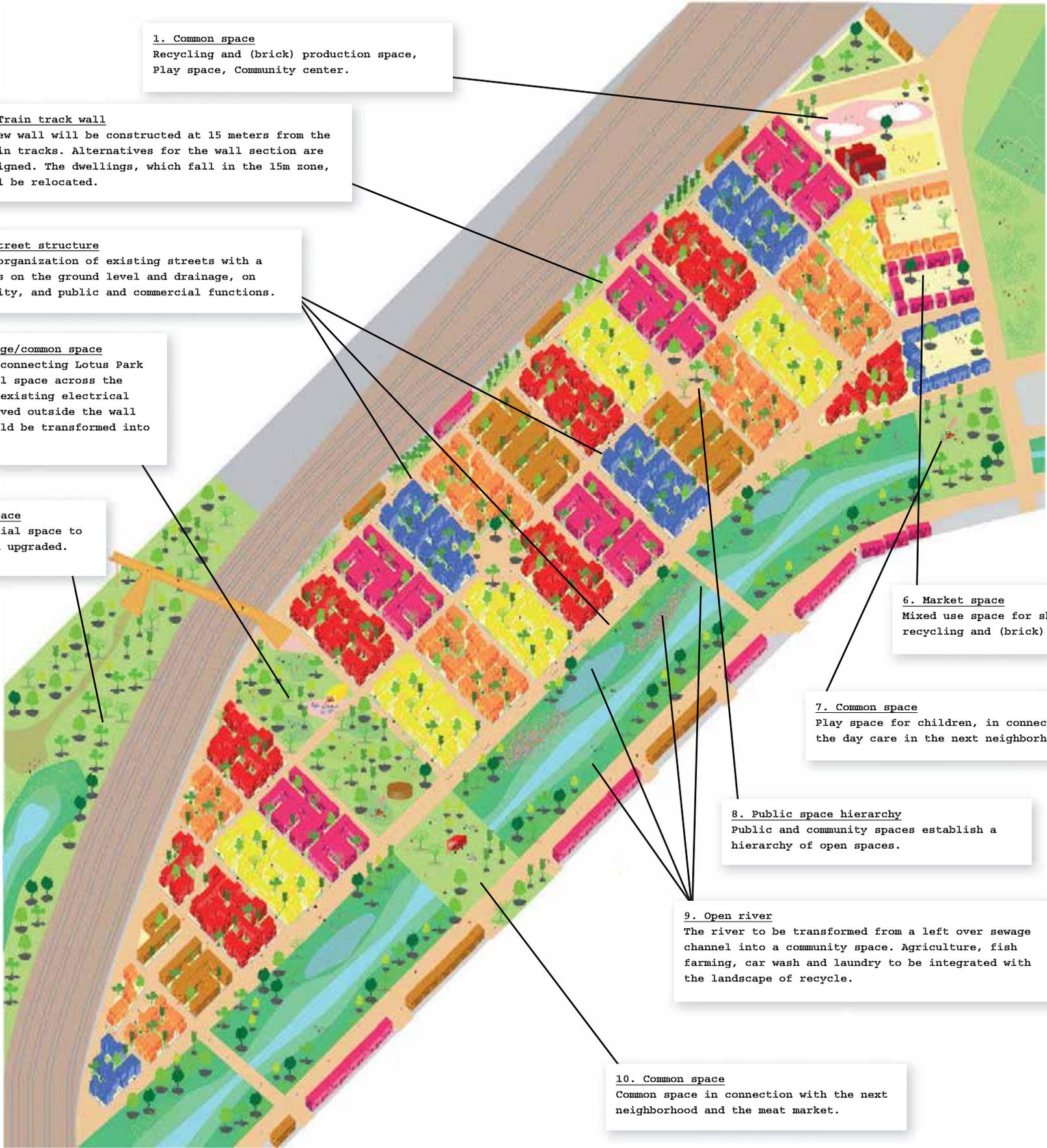
6. Market space
Mixed use space for shops, market,
recycling and (brick) production.

7. Common space
Play space for children, in connection with
the day care in the next neighborhood.

8. Public space hierarchy
Public and community spaces establish a
hierarchy of open spaces.

9. Open river
The river to be transformed from a left over sewage
channel into a community space. Agriculture, fish
farming, car wash and laundry to be integrated with
the landscape of recycle.

10. Common space
Common space in connection with the next
neighborhood and the meat market.



■ **Common space**

Extending the existing commercial and social functions, the common space near the train station can also be used as a brick workshop, where the specially designed Lotus Park bricks are being produced.



Existing football pitch



Existing recycling space



Existing market



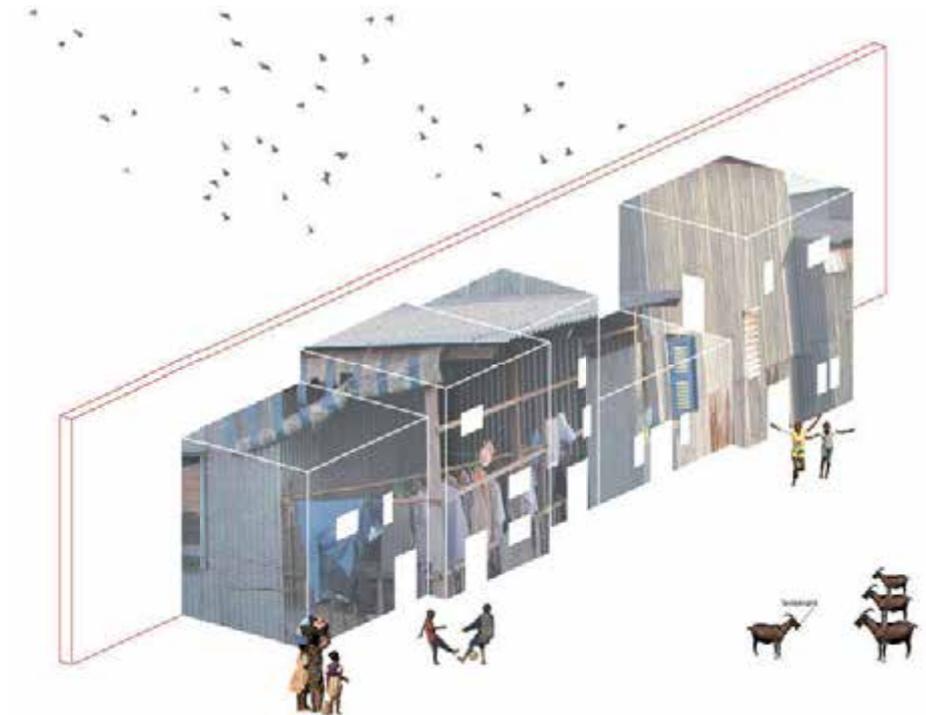
The Lotus Park brick

■ **Train track wall**

A new wall needs to be constructed offsetting the train tracks, so a safe zone of 15 meters from the tracks is established. The dwellings in this zone need to be relocated in the southern tip of Lotus Park. The new wall can be used as a building element for new dwellings.



The current train track wall

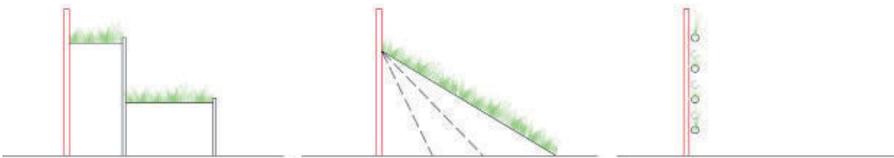


Future train track wall as building element.

■ **Train track wall (2)**

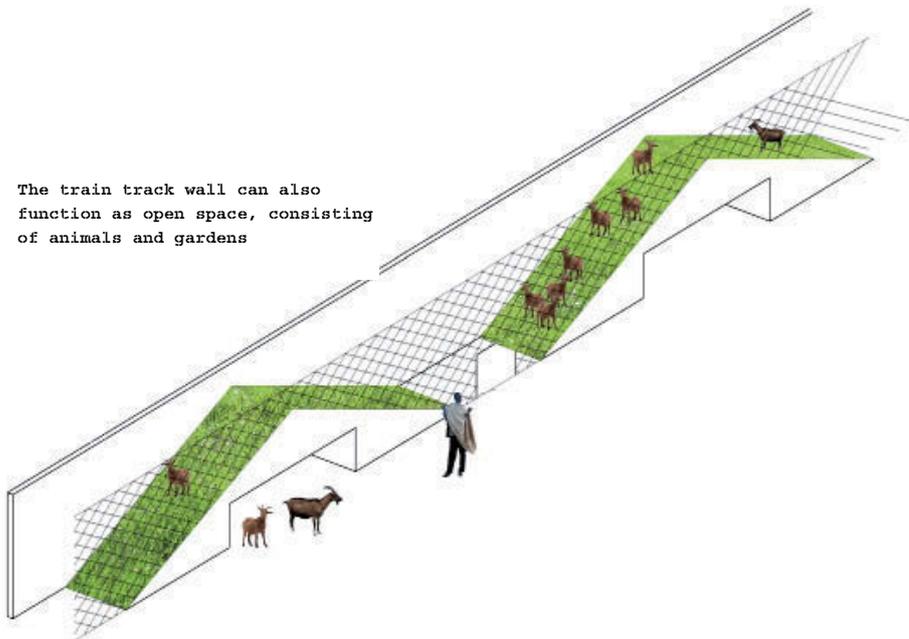


Current uses: Household gardens and goat sheds



Different options for the new wall are designed, which make it possible to use the wall as a terrace garden, a green slope or as a green wall, a vertical herb garden

The train track wall can also function as open space, consisting of animals and gardens



■ **Open river**

Presently, the Lotus River is merely a left over sewage channel, polluted and dangerous. It should be transformed into a public space, where economic activities of the community take place: agriculture, fish farming, car wash and laundry can be integrated with the landscape of recycle.



Lotus River



Car repair along the Lotus River



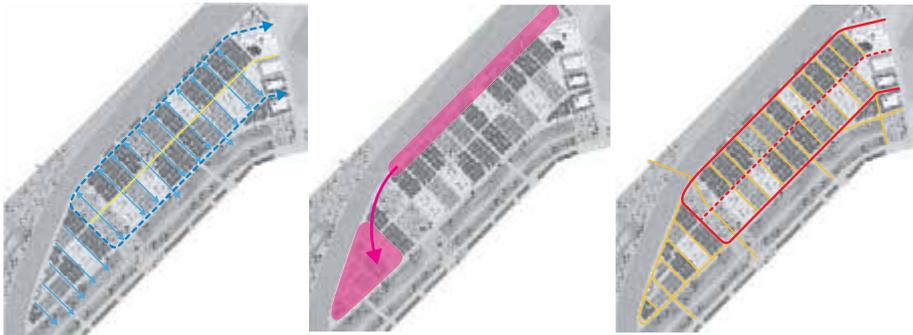
Lotus River



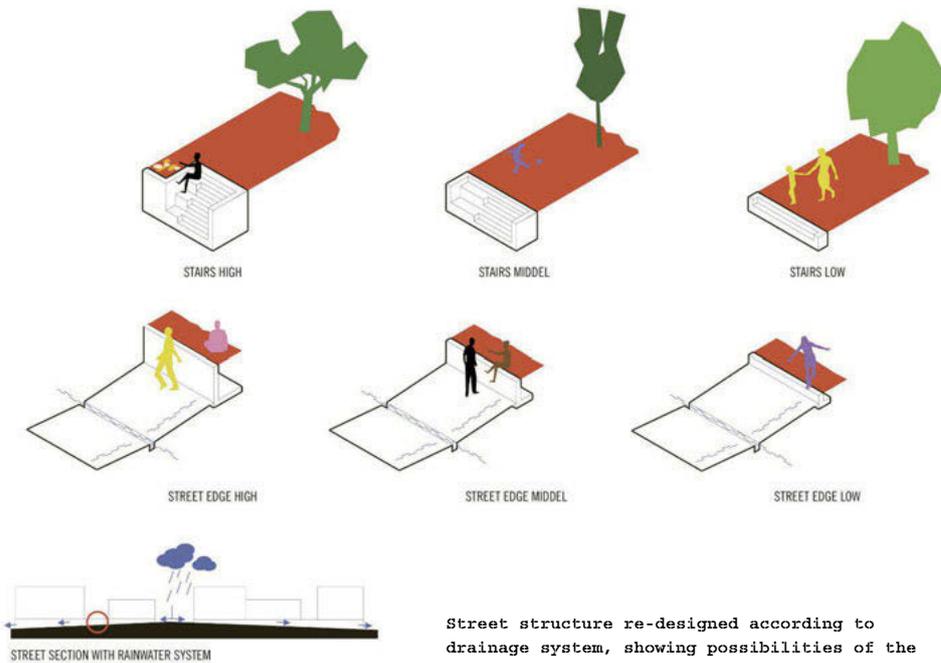
Laundry as social activity at the river side.

■ Street Structure

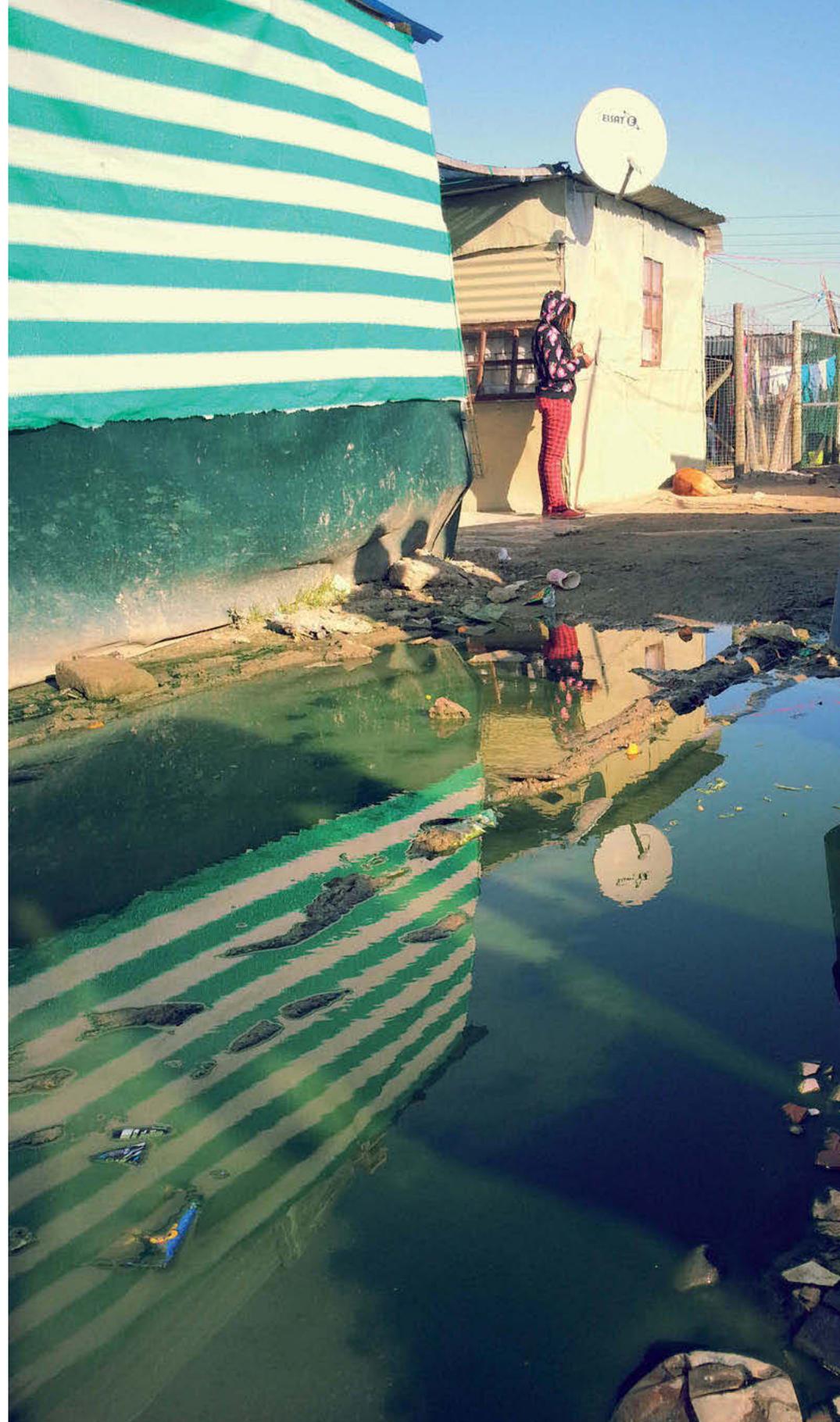
One of the biggest challenges in Lotus Park is dealing with the rainwater runoff. Lowering the street level and creating a raised edge leads rainwater in a central gutter away from the high street towards the Lotus River. Depending on the typology, this edge can be used as part of the foundations for the dwellings in the cluster. The sloping topography creates a diversity of edge conditions creating different interfaces between the clusters and the street. This sitting edge expands in parts to form staircases that are informal spaces to congregate or trade. The diversity of edge conditions activates the street aspect and contributes to the quality of the public realm.



Drainage, housing units that need to be relocated, and car/pedestrian network.



Street structure re-designed according to drainage system, showing possibilities of the use of the resulting open space.



Process and Funding

In order to provide enough houses for everyone and ensure that no one has to move out of Lotus Park new ways of organizing people, money and land are needed. The objective is to provide dignified homes for each individual household currently living there.

On the left hand side of the scheme are the key role-players in the process. The community is recognized as a whole but also as individual households who will through the process come together into cluster groups. The Government provides access to land and funding and in the middle are a number of Intermediary Agents who work on behalf of the community and government and perform different roles.

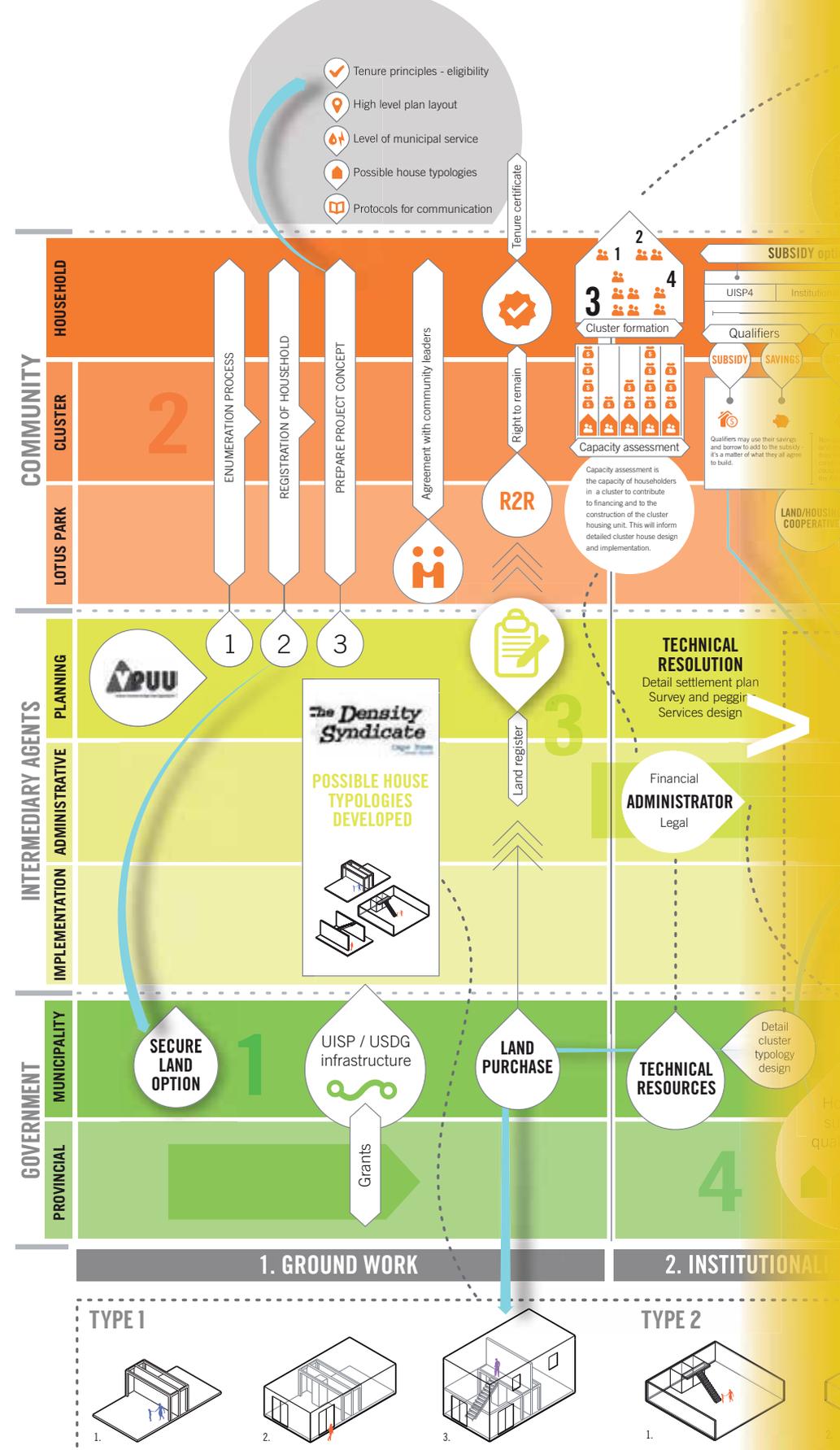
Phase one, the Ground Work, has already begun with the intermediary, VPUU, developing the community action plan, a conceptual layout of roads and enumerating beneficiaries. The Government is busy securing the land and funding for the project. An agreement with the community leaders on the process is going forward and the issue of tenure certificates to individual households marks the end of phase one and guarantees that the people currently living on the land have a right to be there and participate in the process. This is recorded in a land register.

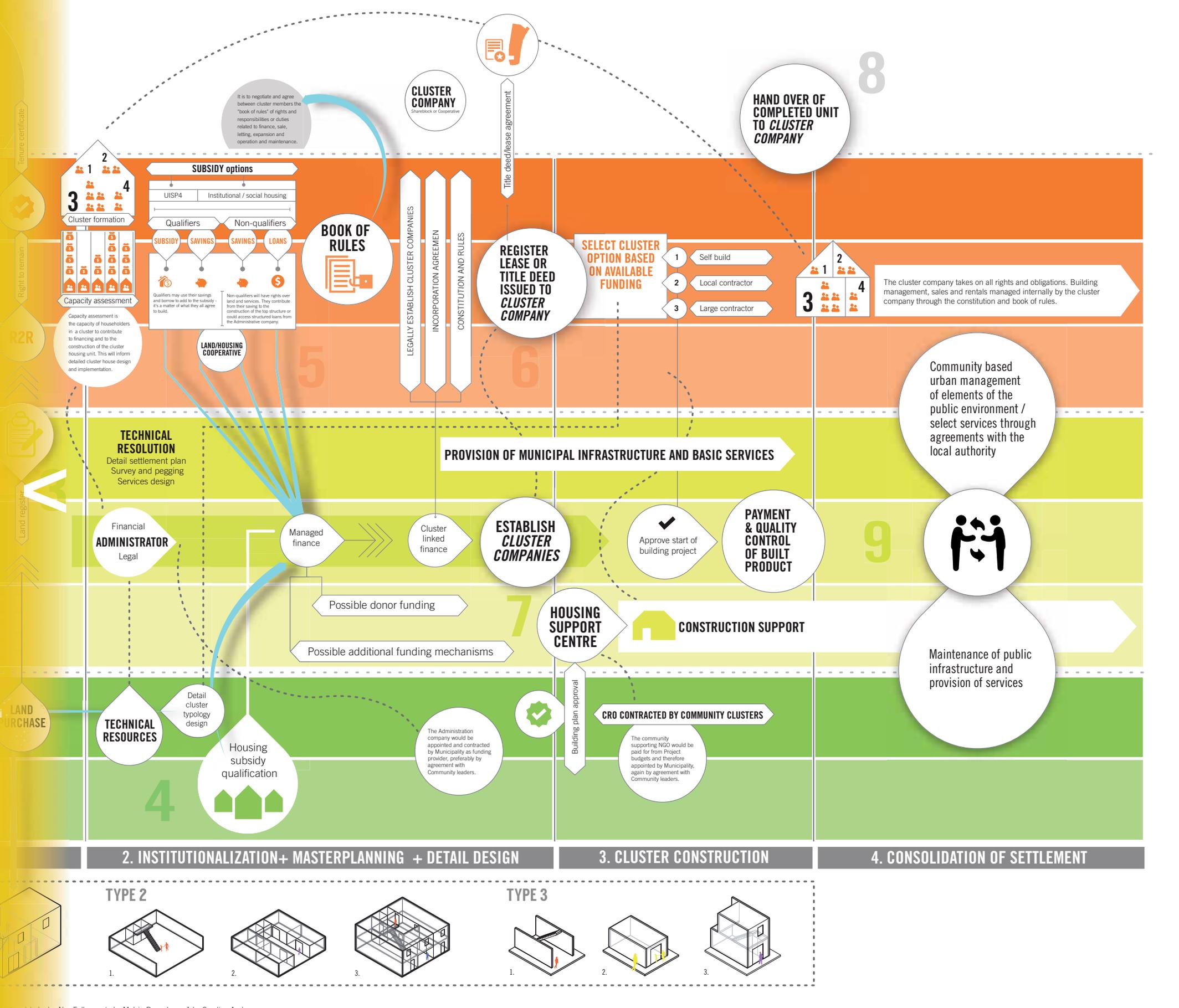
Phase two, the Institutionalization, begins with the establishment of a new intermediary or administrative agent who looks after the financial and legal interests of the community. Individual households come together to form cluster groups of their choosing. The cluster groups will eventually become registered companies and collectively own the land and houses. A capacity assessment is done of each group to understand what each is able to afford. This will depend on the ability of each household and what level of subsidy they qualify for.

The Administrator holds and manages all subsidies, savings and contributions, which each individual household makes to the construction of their new home. Once the cluster groups are formed a book of rules or constitution is signed, their plots within the settlement are allocated and the Cluster Company is formally registered with full ownership rights. The detailed design of the streets and services is completed and detailed house typology designs are prepared which cluster groups will later be able to choose from.

In phase three, the Cluster Construction, while the roads and services are being installed the cluster groups will choose their housing typologies, based on what they can afford and how they want to build it. Once the cluster house is complete the Intermediary checks it for quality and if the Cluster Company is happy, pays the people who have done the building work. The beneficiaries then move into the house and manage the building collectively through their constitution.

The fourth phase deals with the Consolidation of the Settlement. As the neighborhood is being built other things are going on. People can make alterations to their properties and sell or rent out their houses. Going forward, there will be opportunities for the community to take greater ownership and responsibility of the public environment and this will need to be negotiated with the City on a case-by-case basis.





Right to remain

R2R

Land register

LAND PURCHASE

8

9

4

6

7

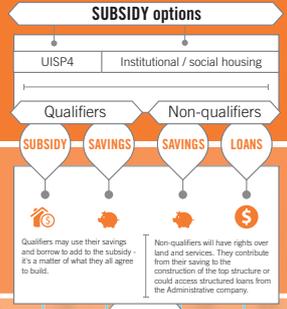
2. INSTITUTIONALIZATION + MASTERPLANNING + DETAIL DESIGN

3. CLUSTER CONSTRUCTION

4. CONSOLIDATION OF SETTLEMENT



Capacity assessment is the capacity of householders in a cluster to contribute to financing and to the construction of the cluster housing unit. This will inform detailed cluster house design and implementation.



Qualifiers may use their savings and borrow to add to the subsidy - it's a matter of what they all agree to build.
Non-qualifiers will have rights over land and services. They contribute from their saving to the construction of the top structure or could access structured loans from the Administrative company.



It is to negotiate and agree between cluster members the "book of rules" of rights and responsibilities or duties related to finance, sale, letting, expansion and operation and maintenance.



LEGALLY ESTABLISH CLUSTER COMPANIES
INCORPORATION AGREEMENT
CONSTITUTION AND RULES



REGISTER LEASE OR TITLE DEED ISSUED TO CLUSTER COMPANY



SELECT CLUSTER OPTION BASED ON AVAILABLE FUNDING



HAND OVER OF COMPLETED UNIT TO CLUSTER COMPANY



The cluster company takes on all rights and obligations. Building management, sales and rentals managed internally by the cluster company through the constitution and book of rules.

TECHNICAL RESOLUTION
Detail settlement plan
Survey and pegging
Services design

PROVISION OF MUNICIPAL INFRASTRUCTURE AND BASIC SERVICES

Community based urban management of elements of the public environment / select services through agreements with the local authority



Maintenance of public infrastructure and provision of services

Financial ADMINISTRATOR
Legal

Managed finance

Cluster linked finance

ESTABLISH CLUSTER COMPANIES

Approve start of building project

PAYMENT & QUALITY CONTROL OF BUILT PRODUCT

Possible donor funding

Possible additional funding mechanisms

HOUSING SUPPORT CENTRE

CONSTRUCTION SUPPORT

TECHNICAL RESOURCES

Detail cluster typology design

Housing subsidy qualification

The Administration company would be appointed and contracted by Municipality as funding provider, preferably by agreement with Community leaders.

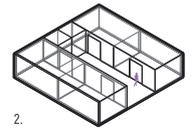
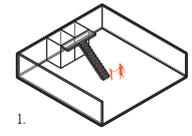


Building plan approval

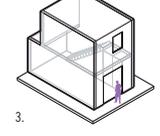
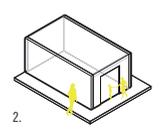
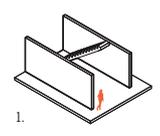
CRO CONTRACTED BY COMMUNITY CLUSTERS

The community supporting NGO would be paid for from Project budgets and therefore appointed by Municipality, again by agreement with Community leaders.

TYPE 2



TYPE 3



The International New Town Institute (INTI) is worldwide think-and-do tank, dedicated to improving the quality of cities, with a focus on New Towns built in the 20th and 21st Century. INTI is a non-profit scientific organization based in the Netherlands, is independent and not a promoter of New Town planning.

This publication is part of INTI's research and educational program *New New Towns. Why we need to rethink the city of tomorrow today*. The project aims to foster research into the many New Towns presently on drawing boards worldwide. This is necessary because especially the latest wave of new cities lacks social and cultural ambitions. INTI aims to propose alternative designs, ideas and strategies to improve the quality of life in these new cities. Huge investments are going into these New Towns. But while economic factors are prevailing, we think an infusion of New Town planning with other factors like integral planning, social sustainability, local culture and residents' participation is very necessary.

All over Asia, Africa and South America, brand new cities are seen as an instrument for economic growth and rapid urbanization. Usually they are examples of privatized urban planning and become enclaves next to sprawling metropolises. Their formal urban design distinguishes them from the largely informal character of the existing cities. Given INTI's global experience with New Town planning, we see problems of segregation and social exclusion being exacerbated by the building of New Towns.

Now that we are once again experiencing a wave of new planned cities, we have to ask: what will the city of tomorrow be? How can we conceptualize, design, finance and build it today?

Starting the discussion on the quality and the implications of the future wave of New Towns, we aim to establish a knowledge platform that will empower local parties and improve the quality and social equity of urbanization in these new cities and their metropolitan regions.

INTI is focusing on cities in different continents: **Shenzhen** (China); **Chandigarh** (India); **Nairobi** (Kenya); **Accra** (Ghana); **Dar es Salaam** (Tanzania), **Cape Town** (South Africa), and **Alphaville** (Brazil). The New Town **Almere** (Netherlands) adds the expertise and the experience of the Netherlands to the project.

Other publications from the International New Town Institute:



Model Town: Using Urban Simulation in New Town Planning

ISBN 9789085068044 English edition Paperback, illustrated 200 pages, 2009



New Towns for the 21st century: Planned versus Unplanned

ISBN 9789085068051, English edition Paperback, illustrated 288 pages, 2010



Rising in the East: Contemporary New Towns in Asia

ISBN 9789461056832 English edition Paperback, illustrated 432 pages, 2011 out of print

See also the series of Short Reads on our website: www.newtowninstitute.org

'New New Towns' is a research program by the International New Town Institute (INTI). The program is dedicated to rethinking the future of the city via practical research, improving the urban and social quality of cities in transition. Cape Town is one of them.

New
New Towns

International New Town Institute

Cape Town suffers from extensive urban sprawl, due to the legacy of the Apartheid spatial policy and the middle class ideal of single-family homes on individual plots of land. Sprawl is causing huge economical, environmental and social problems. Can we envisage a more compact and dense Cape Town, curing the many engrained patterns of unequal and unjust spatial divisions?

This book presents the provocative proposals of an international team of theorists, architects and planners, challenging the prevailing ideas on urban development in Cape Town and offering inspiring alternatives. The introductory essays are by Edgar Pieterse, Michelle Provoost and Rashiq Fataar.



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