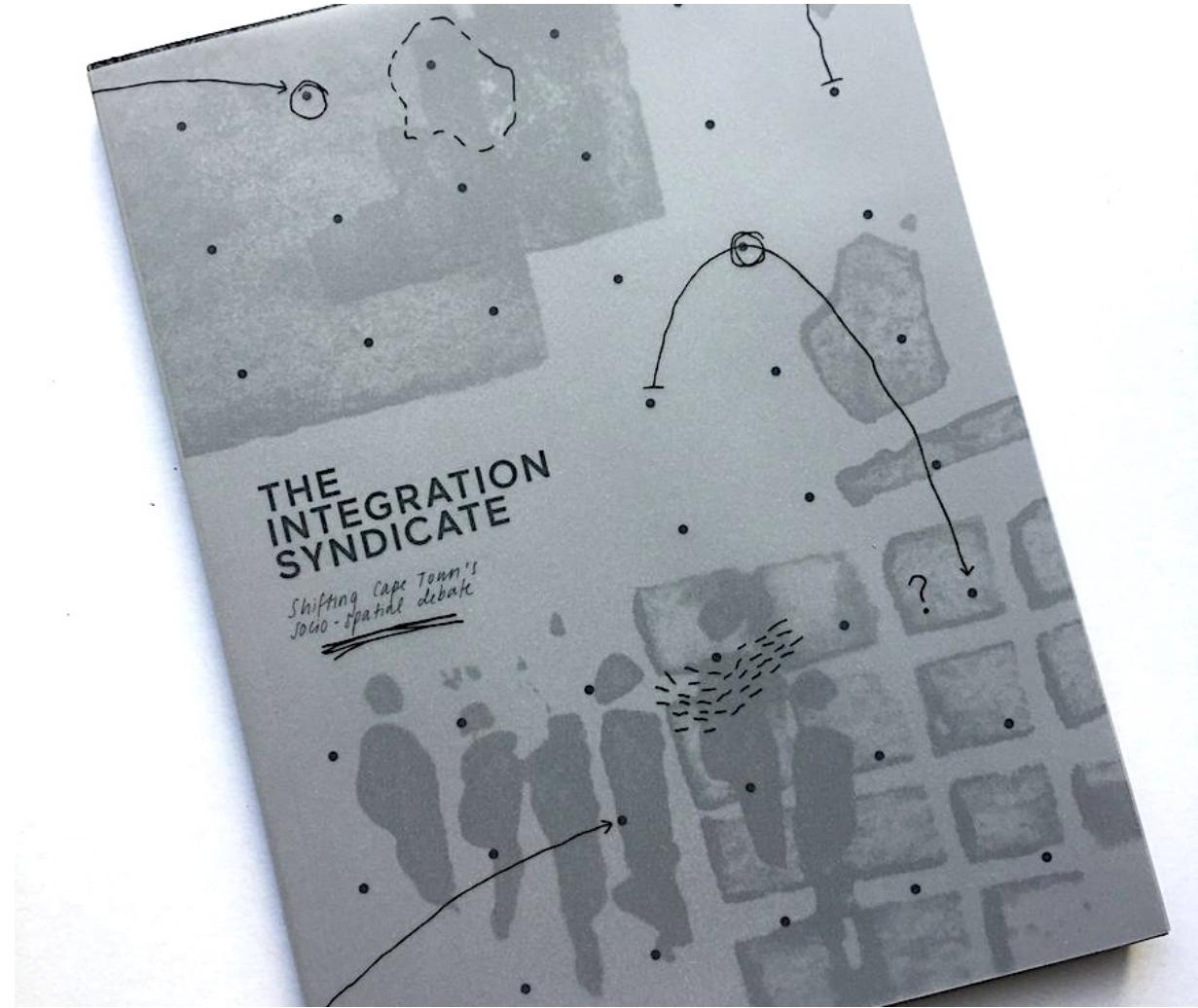
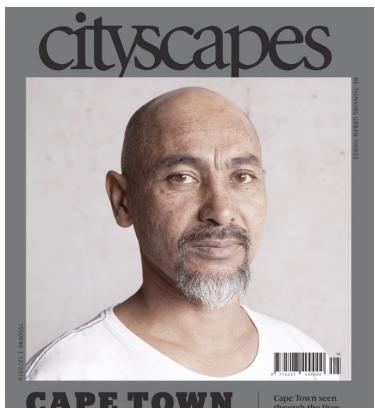
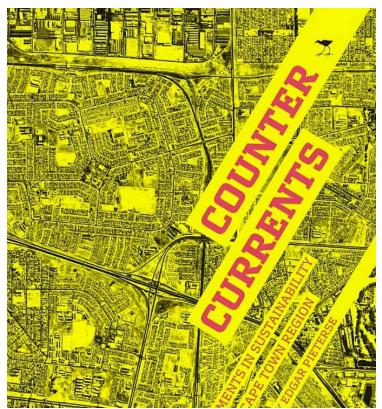




Introduction to a paradigmatic (Post)Apartheid City

Edgar Pieterse

African Centre for Cities,
University of Cape Town

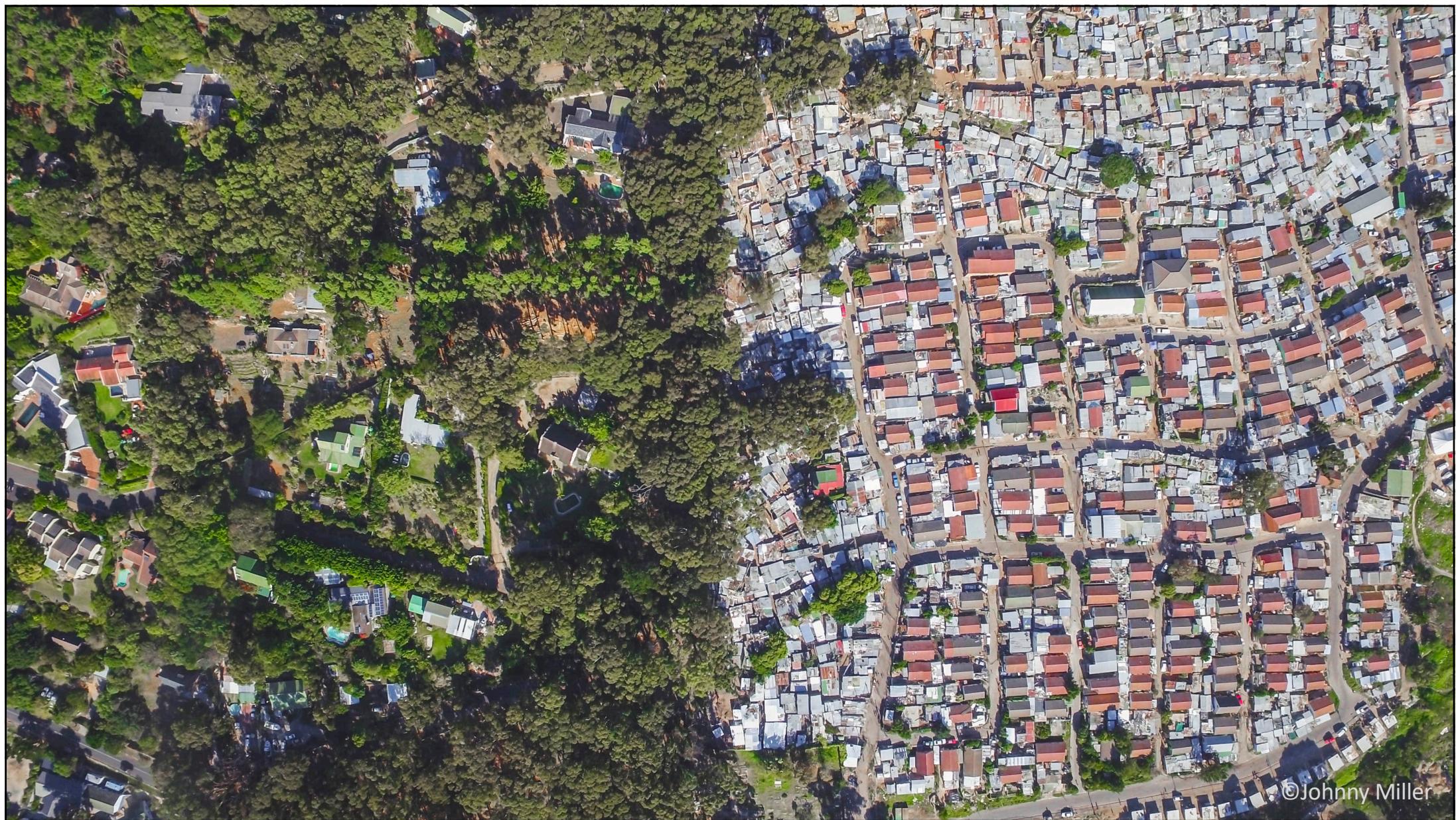


Flow of the session

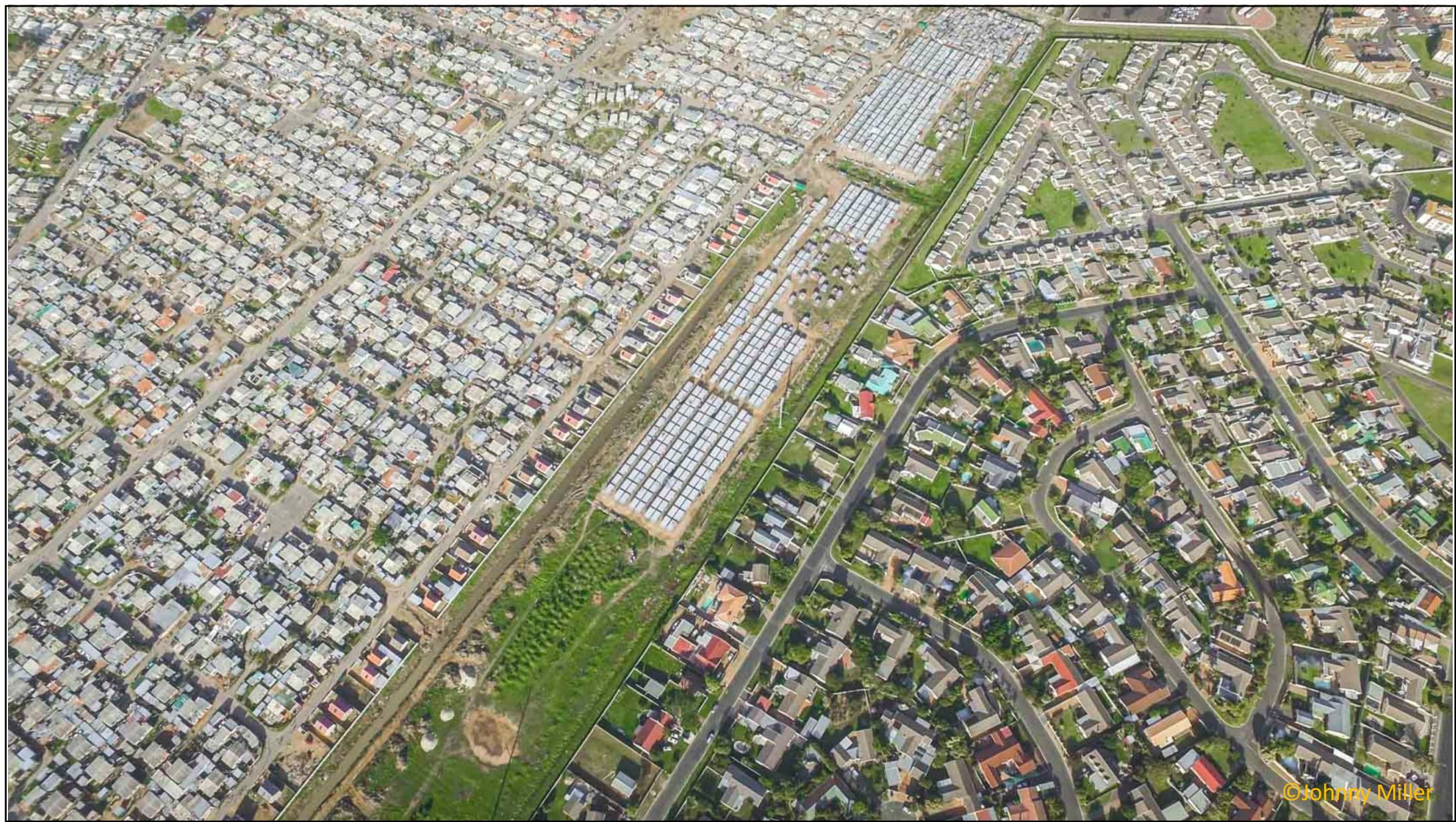
- What made the Apartheid City?
- Some concepts to make sense of history, the present and future trajectories
- Where do South Africans live, and where do they move to?
- Scorecard: Post 1994 Policies to undo the Apartheid City
- Can the Apartheid City be solved, especially the most enduring expression, informal settlements?
- What difference can digital platforms make?

The Apartheid City





©Johnny Miller



©Johnny Miller



An aerial photograph capturing a vast landscape. In the foreground, there is a large, sprawling residential area consisting of numerous small houses with grey roofs, some with red roofs. This area is separated from the middle ground by a mix of green fields and some larger industrial or institutional buildings. The middle ground features a patchwork of agricultural fields in various shades of green and brown. In the background, a range of majestic mountains with rugged peaks rises against a clear blue sky with a few wispy clouds.

<https://youtu.be/CZfCHy7ng9E>



Roots of Apartheid City Planning

- Mid 19th C: Location policy introduced in Port Elizabeth and it becomes a template
- Natives Land Act, 1913
- Native (Urban) Areas Act 1923
- Population Registration Act, 1950
- Group Areas Act of 1950*
- The Reservation of Separate Amenities Act of 1953
- The Bantu Urban Areas Act of 1954 (influx control).

“...by the early 1990s remarkably few urban dwellers had lived even a part of their adult lives in racially or ethnically integrated conditions”
 (Christopher 2001: 128).

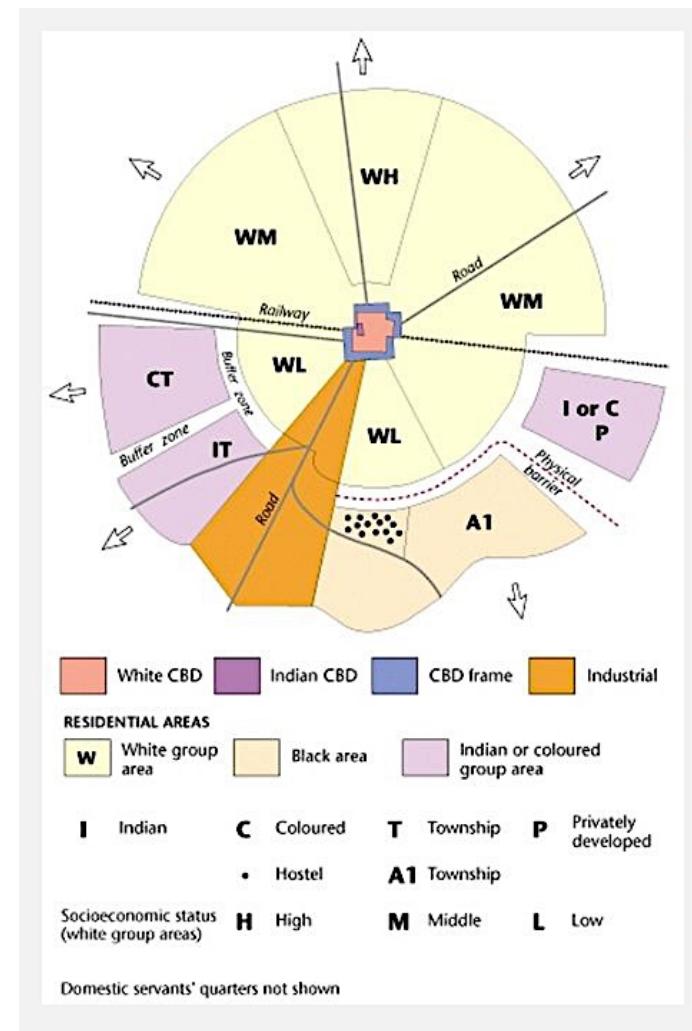
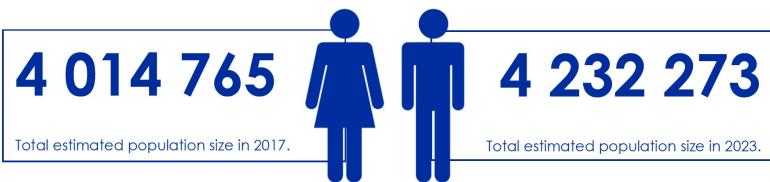


Table 1.1: Households in Cape Town, 1996 to 2011

Population group	1996		2001		2011	
	Number	%	Number	%	Number	%
Black African	168 000	25,7	251 125	32,3	444 781	41,6
Coloured	259 982	39,8	310 465	39,9	358 629	33,6
Asian	8 742	1,3	10 065	1,3	14 267	1,3
White	195 011	29,9	205 734	26,5	232 826	21,8
Other	21 350	3,3	0	0,0	18 069	1,7
Total	653 085	100,0	777 389	100,0	1 068 572	100,0

Source: City of Cape Town DI&GIS Department, using all available Census data.

POPULATION BREAKDOWN

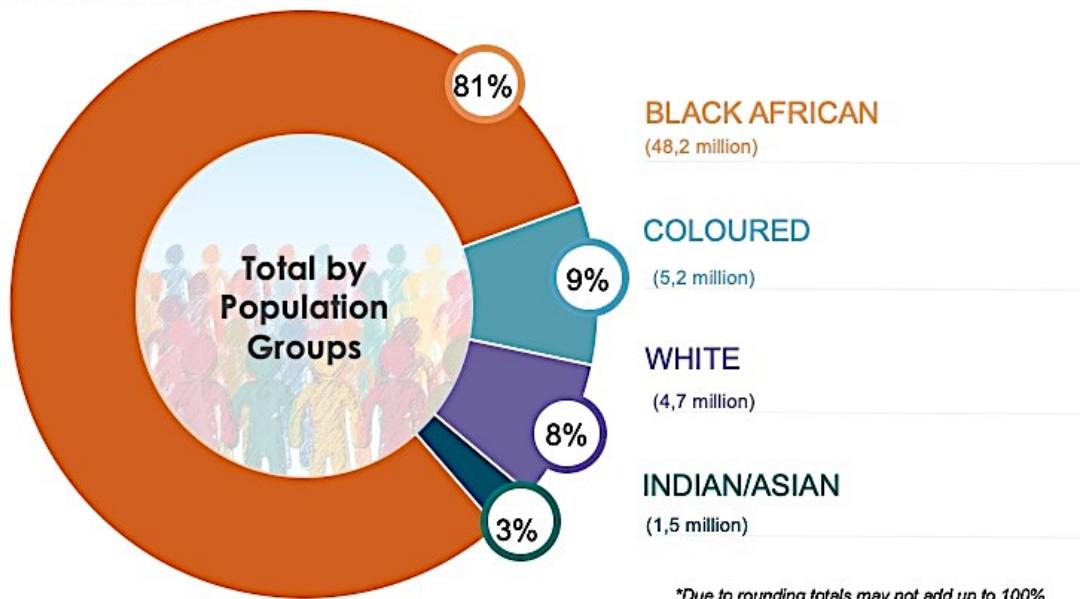


Population Distribution: 2011

Statistical group	Percentage
Black African	38.6
Coloured	42.4
Indian/Asian	1.4
White	15.7
Other	1.9

The black African population is in the majority and constitutes approximately 81% of the total SA population

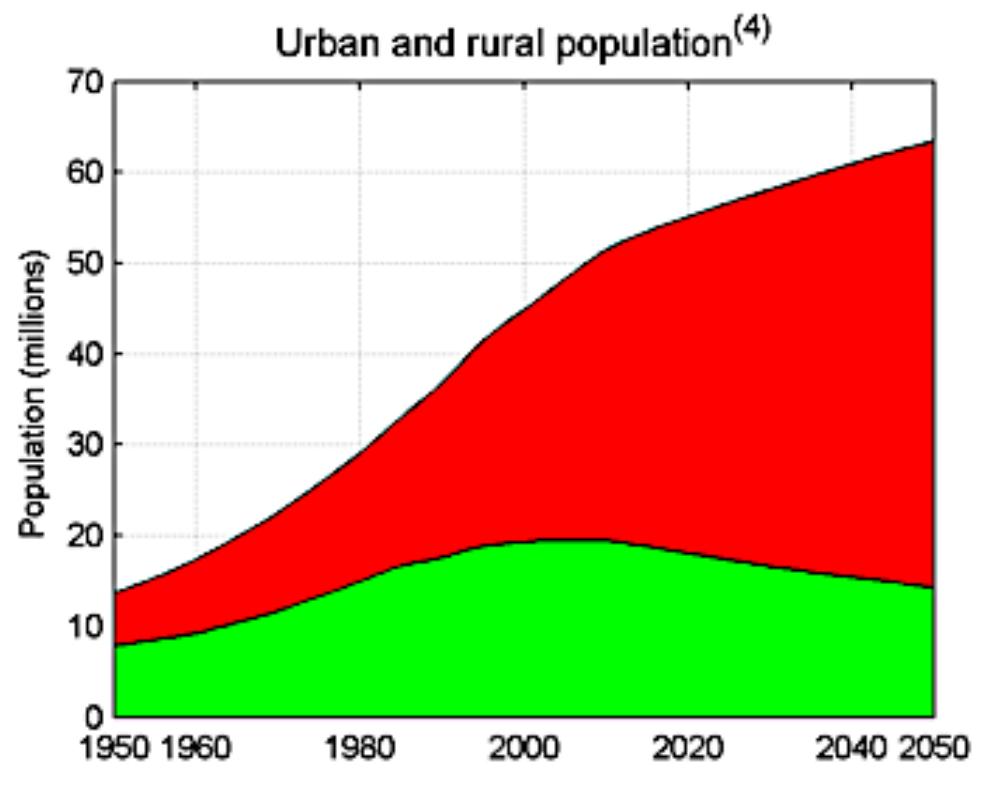
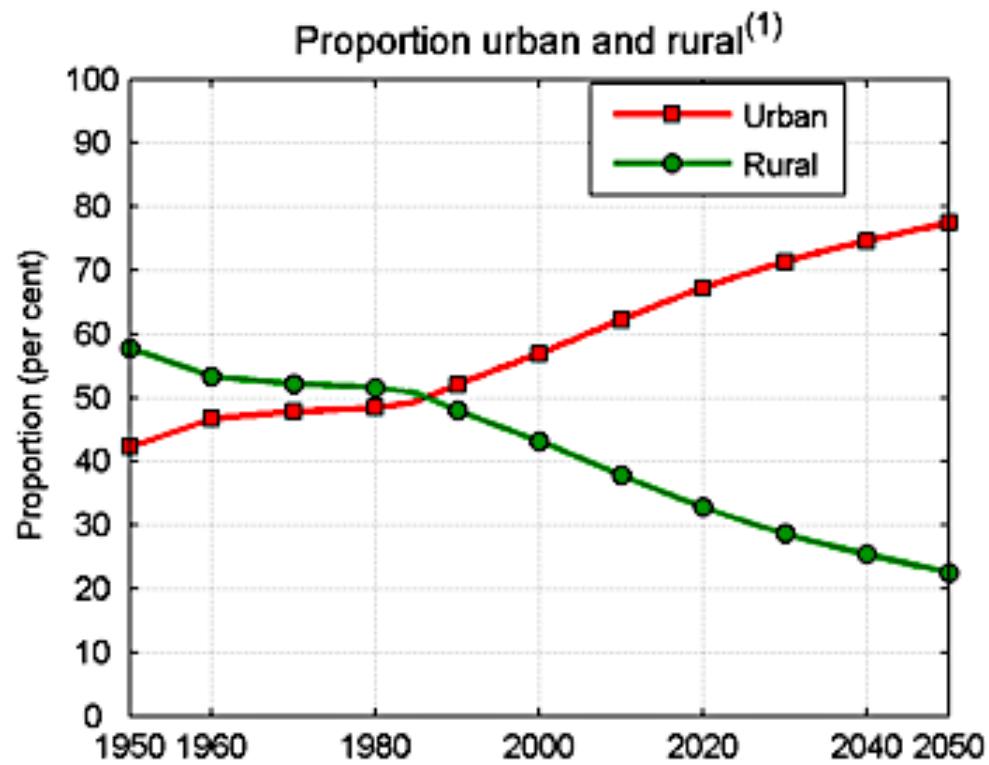
SA by population group, 2020



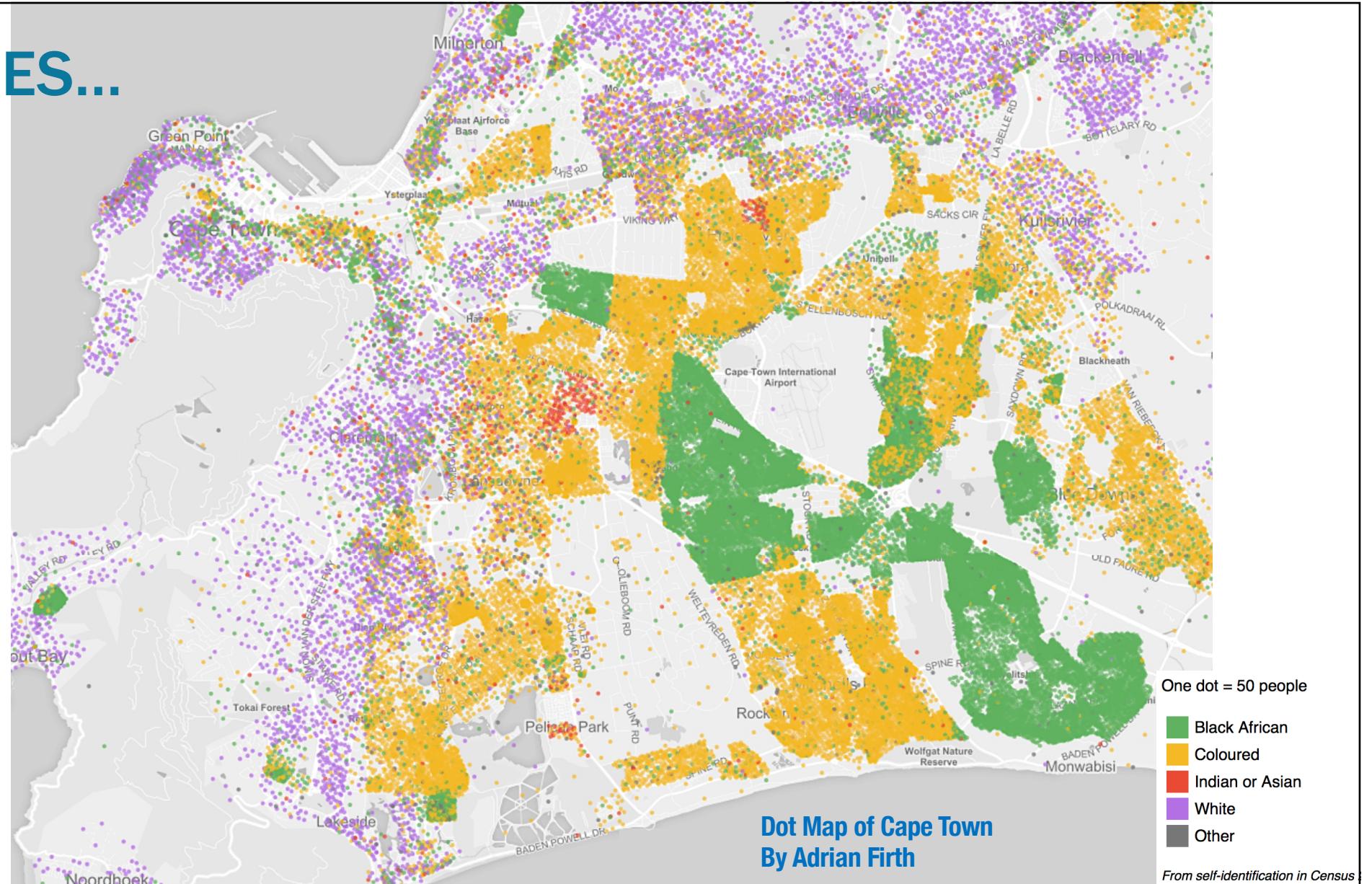
**Due to rounding totals may not add up to 100%*

Stats SA: MID-YEAR ESTIMATES 2020





LEGACIES...

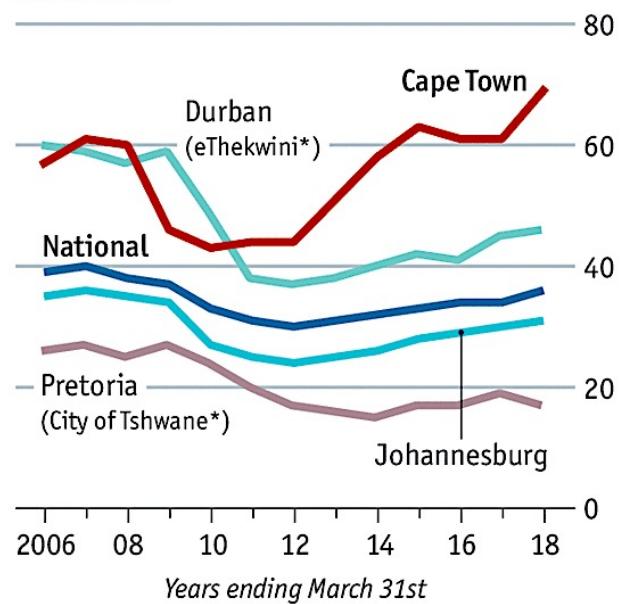


ANOTHER KIND OF LEGACY...

A criminal record

Murders per 100,000 population

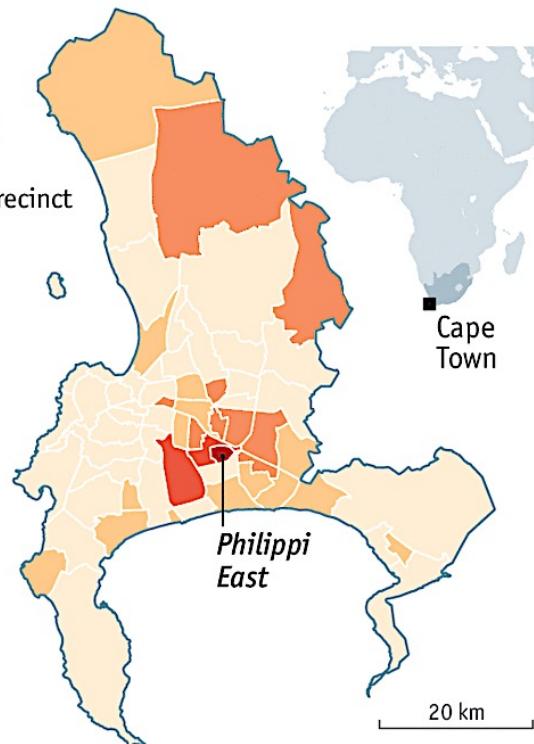
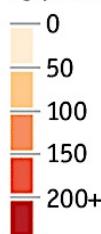
South Africa



Sources: South African Police Service; Anine Kriegler

The Economist

Cape Town
2017-18[†]
By police precinct



*Metropolitan municipality †Year ending March 31st

Comparisons:

- Caracas: 111/100k
- Tijuana: 100/100k
- Fortaleza: 83/100k
- St Louis: 65/100k
- Cali: 50/100k
- Hamburg: 0.9/100k

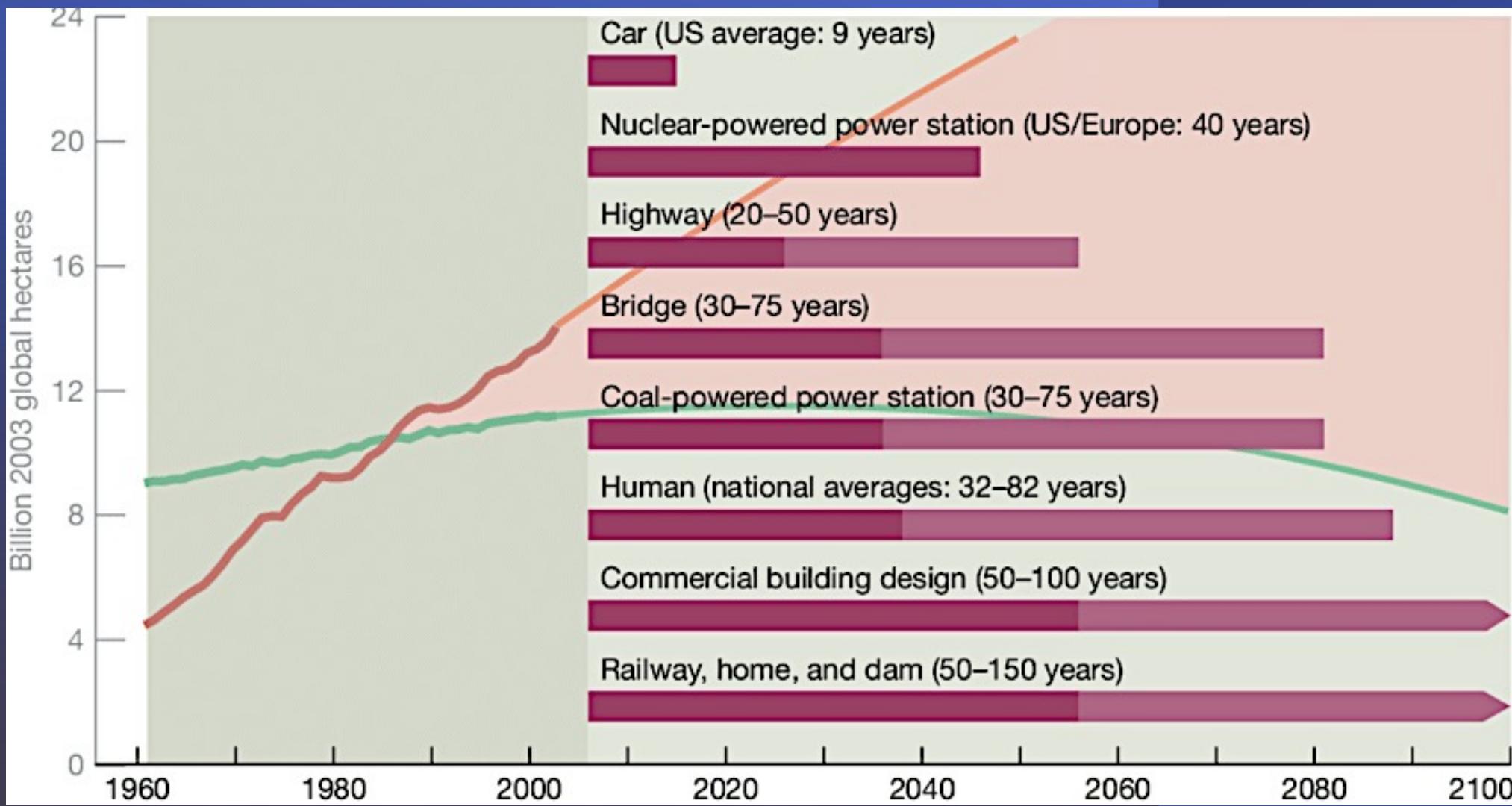
©Johnny Miller

How do we
make sense of
this continuity?

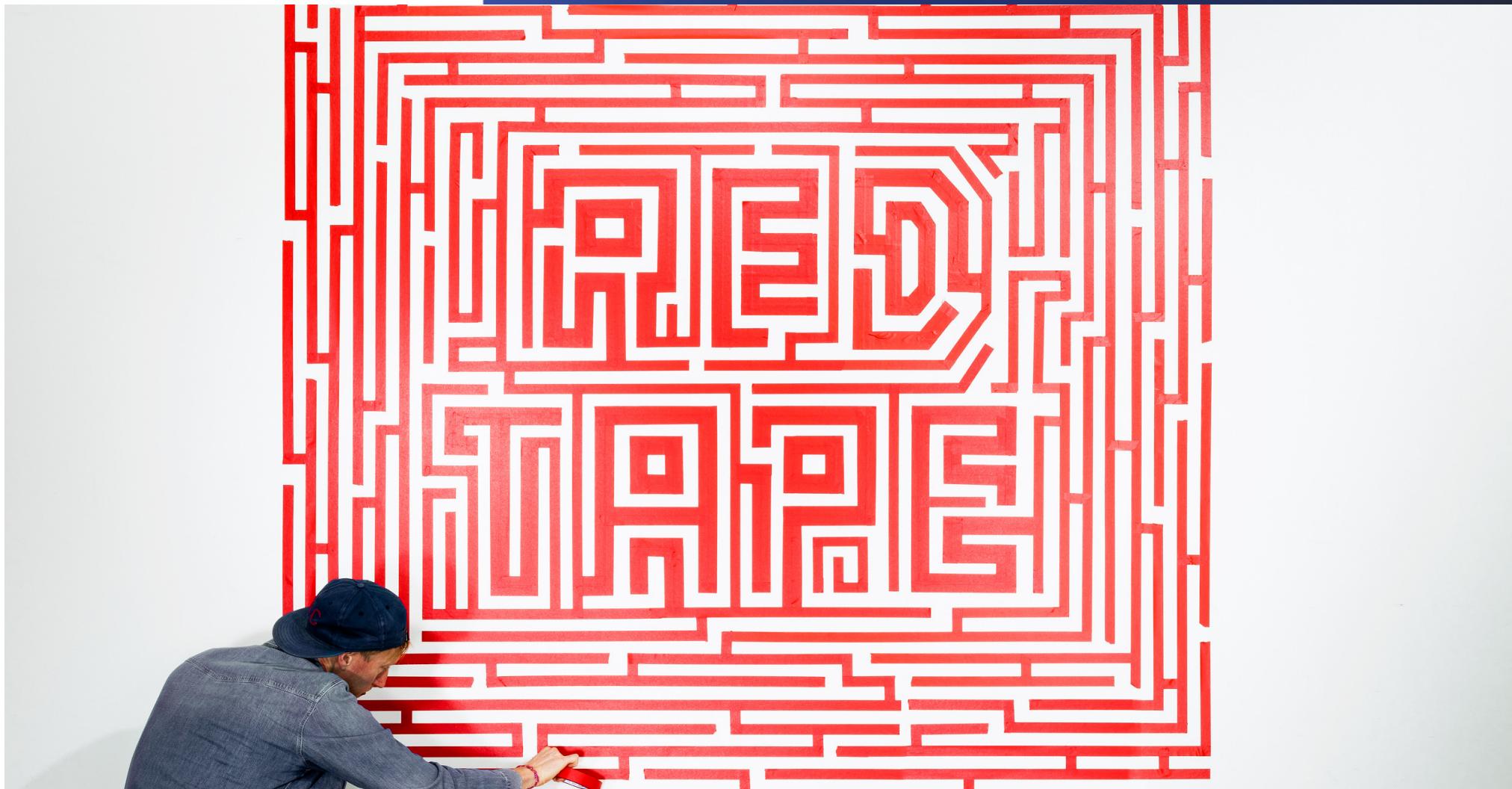


Concepts

“Path Dependency”

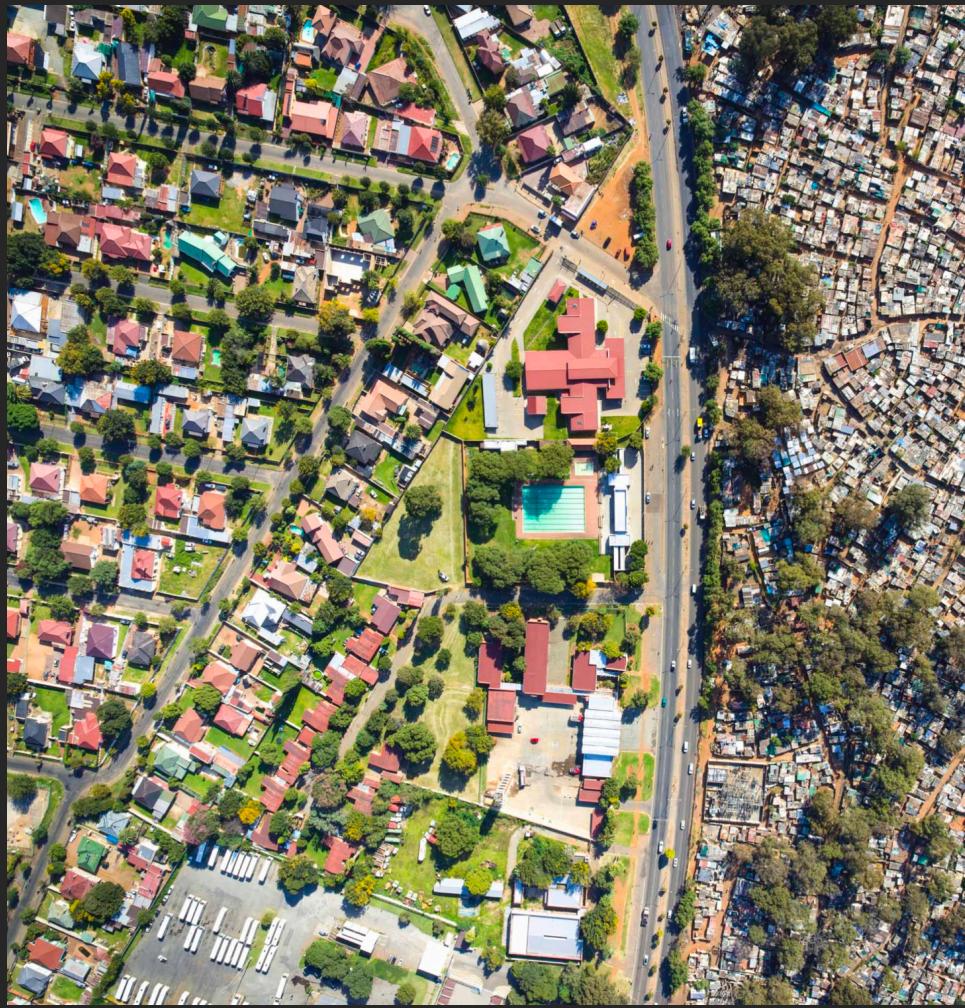


“Institutional Inertia”



Segregationist Planning Ideology

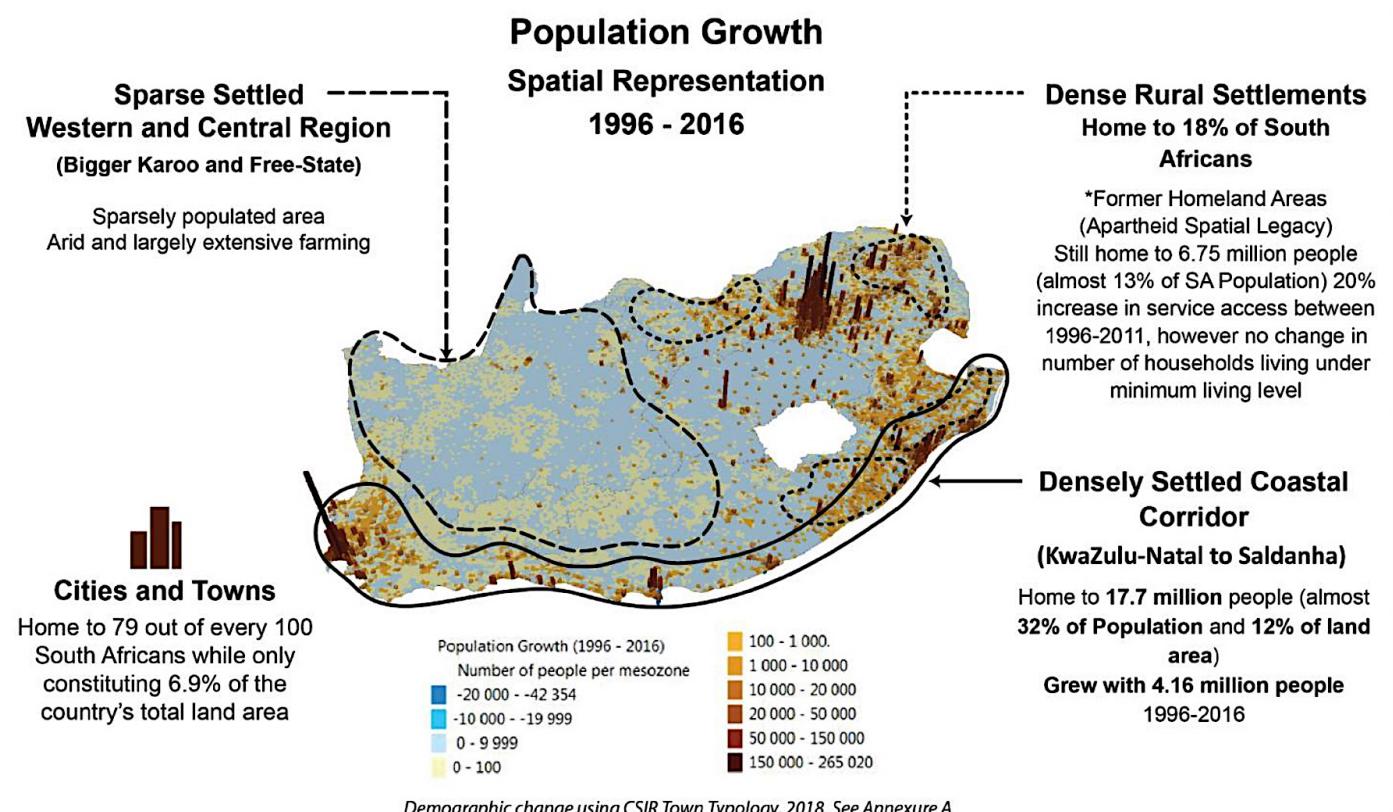
Connecting: “Functional Separation, with Racial Segregation, with Class Segregation



**Functional
separation is now
less of an ideal; class
segregation remains
firmly in place...**

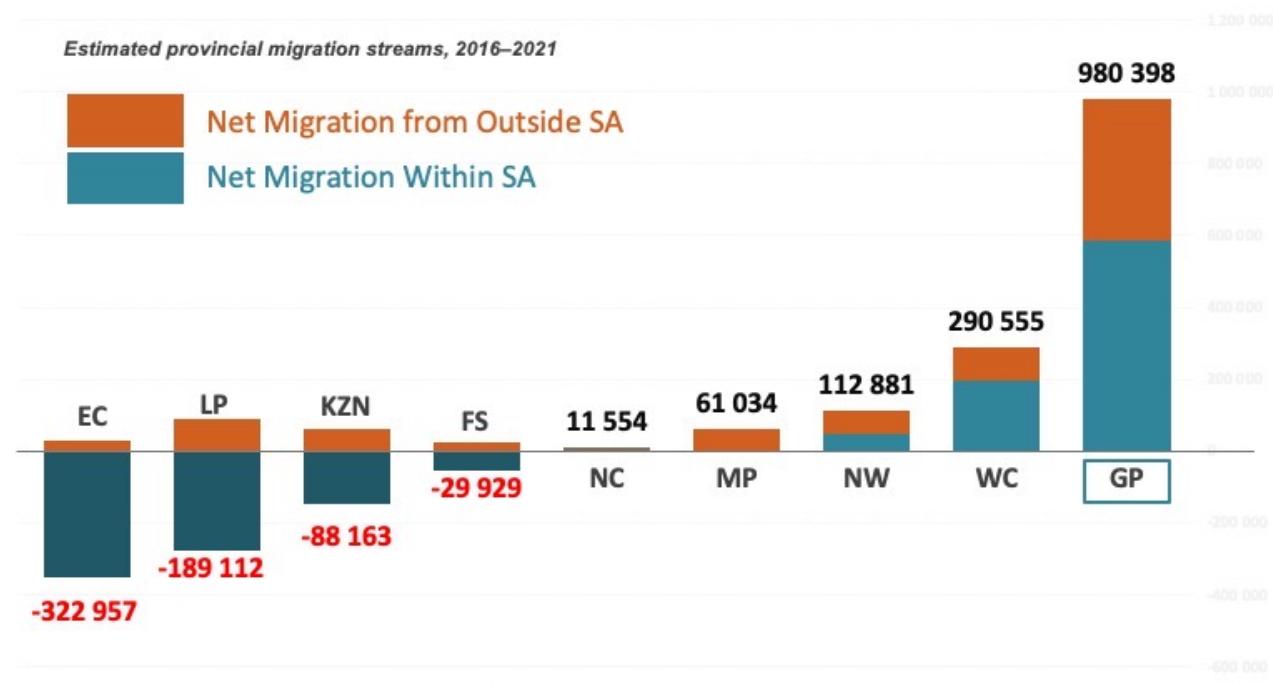


Where do South Africans Live, and Move to/from?



Draft National Spatial Development Framework 2019

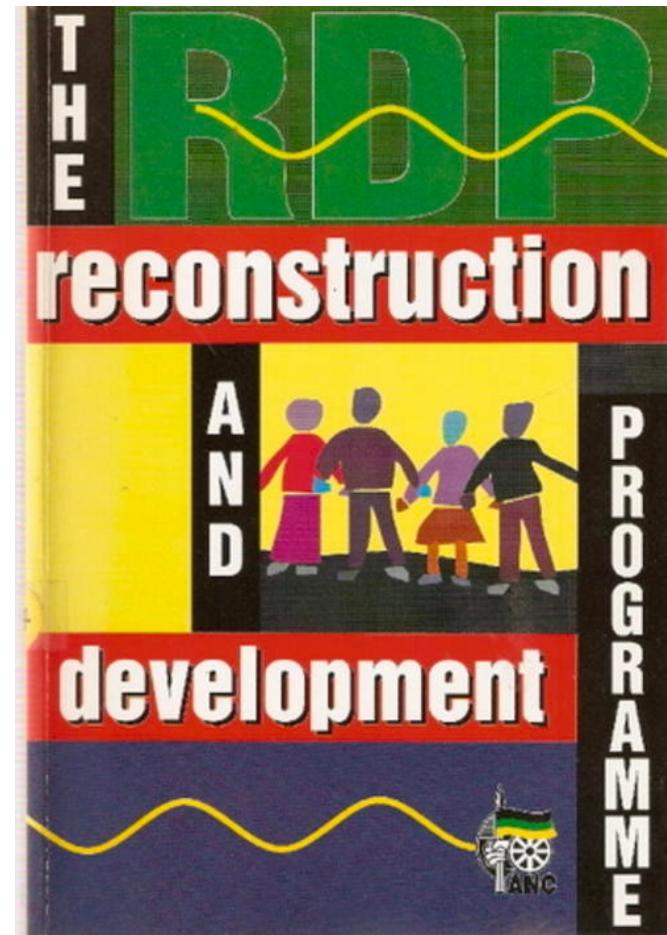
For the period 2016-2021 GP will receive 3 times more migrants than the WC



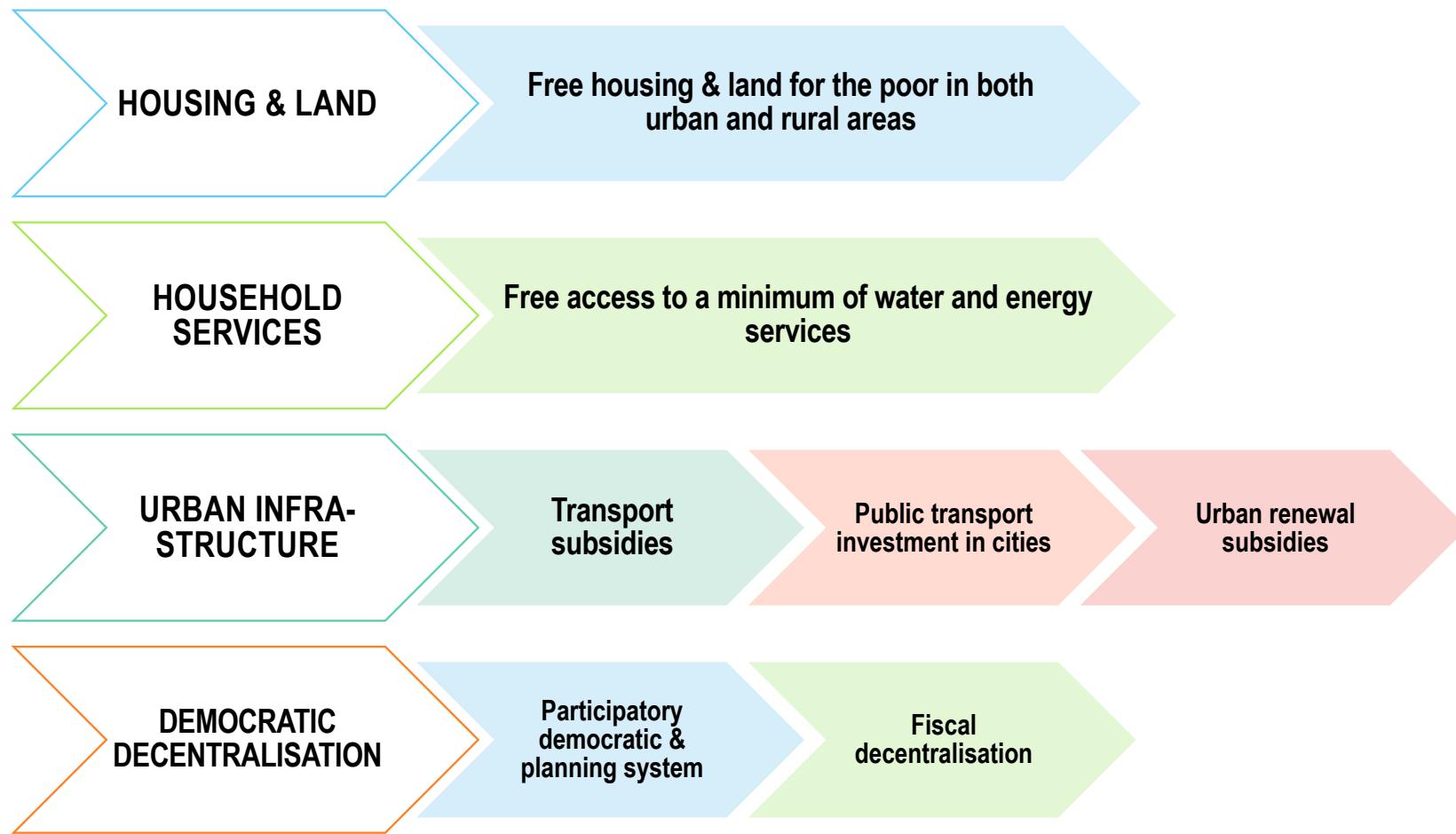
The background image is a grainy, black-and-white aerial photograph of a residential neighborhood. The streets are marked with large, light-colored circular patterns, likely representing painted roads or markings. The houses are visible as small, dark shapes scattered throughout the grid-like street pattern.

SCORECARD: POST 1994 URBAN POLICY

“...the need to break down apartheid geography through land reform, more compact cities, decent public transport, and the development of industries and services that use local resources and/or meet local needs.”



THE POST 1994 URBAN REFORM AGENDA

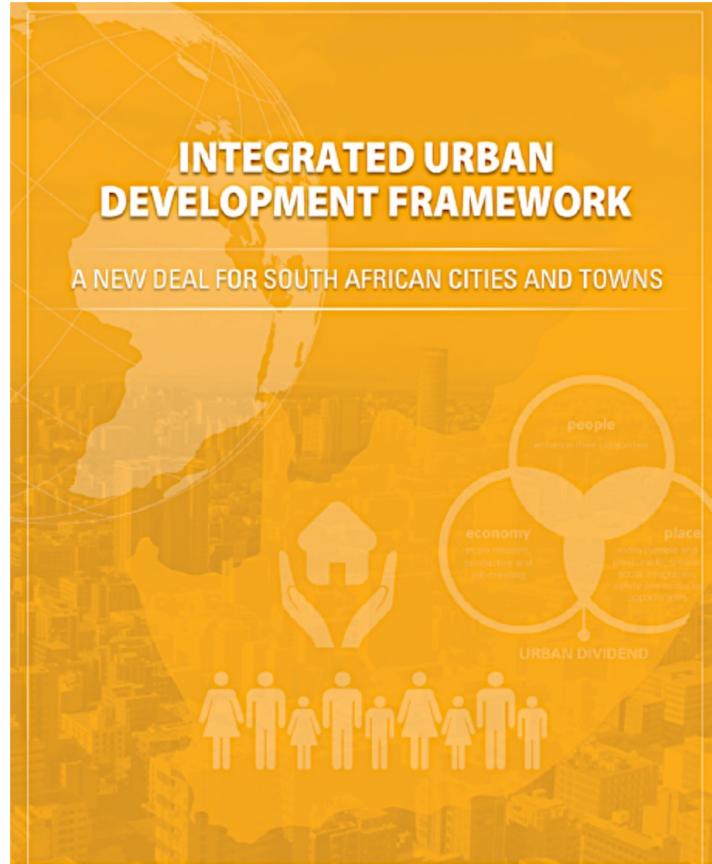




Nearly 4 million public housing
has been provided since 1994

Despite South Africa's public housing programme being one of the largest and most ambitious in the world, it has had the paradoxical effect of worsening urban fragmentation, segregation & spatial inequality...

South Africa is trapped in a PARADOX: the more it pursues redistributive social policies that reduces material poverty, the more it worsens spatial inequalities, which in turn reinforces economic and cultural marginalisation.

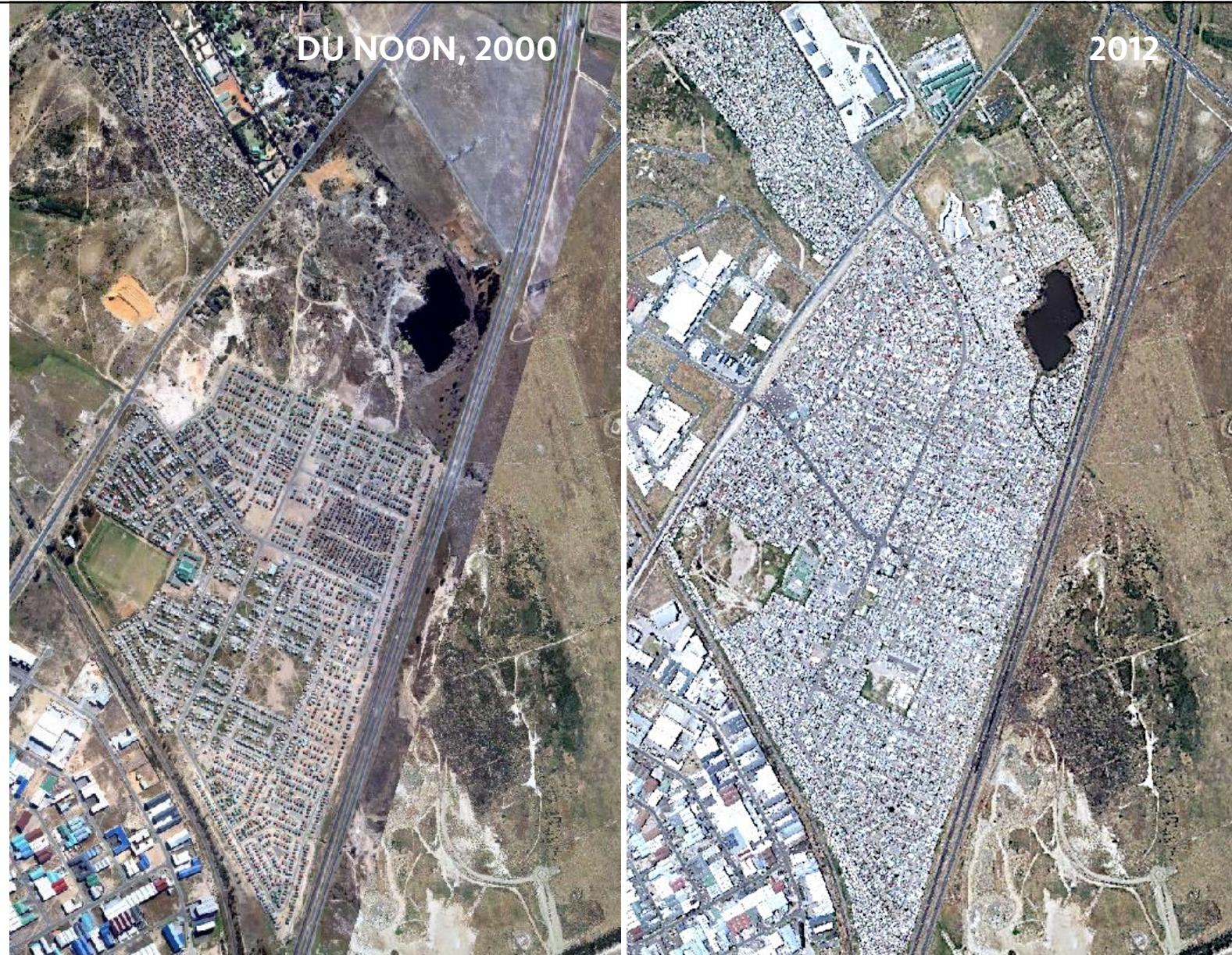


In 1995, Du Noon was planned and approved for 2 936 households and a population of 14 093.

By 2013, there were 16 881 households and a population of 66 660!

The infrastructure and housing were only designed for the planned population.

Source: CCT, 2015



Unintended Consequences

- Households formation rate is higher than population growth rate: backlog does not reduce and more young adults establish their own homes
- Public housing is far from economic opportunities, raising transport cost for the poorest families
- New RDP “townships” are soulless by design: no economic opportunity or industry; no social infrastructure and limited green space
- A Missing middle emerged: those who earn too much to qualify for a public house & too little to qualify for a bank mortgage. Tend to rent backyard shacks or rooms on other people’s property

IS NEO-APARTHEID SOLVEABLE?



Critical issues to address

- NIMBYism (attitudes and mindsets)
- A private real estate development model that reproduces class separation, but allowed to continue because it feeds tax revenues to the municipality
- Almost zero capital to invest within poor families (55%) due to high unemployment, low wages and high daily expenses: trapped in poverty

Where to intervene?

MAJORITY CITY (TOWNSHIPS)

- Basic service provision
- Sites and services
- Upgrading
- BNG/RDP housing
- Improved BRT access

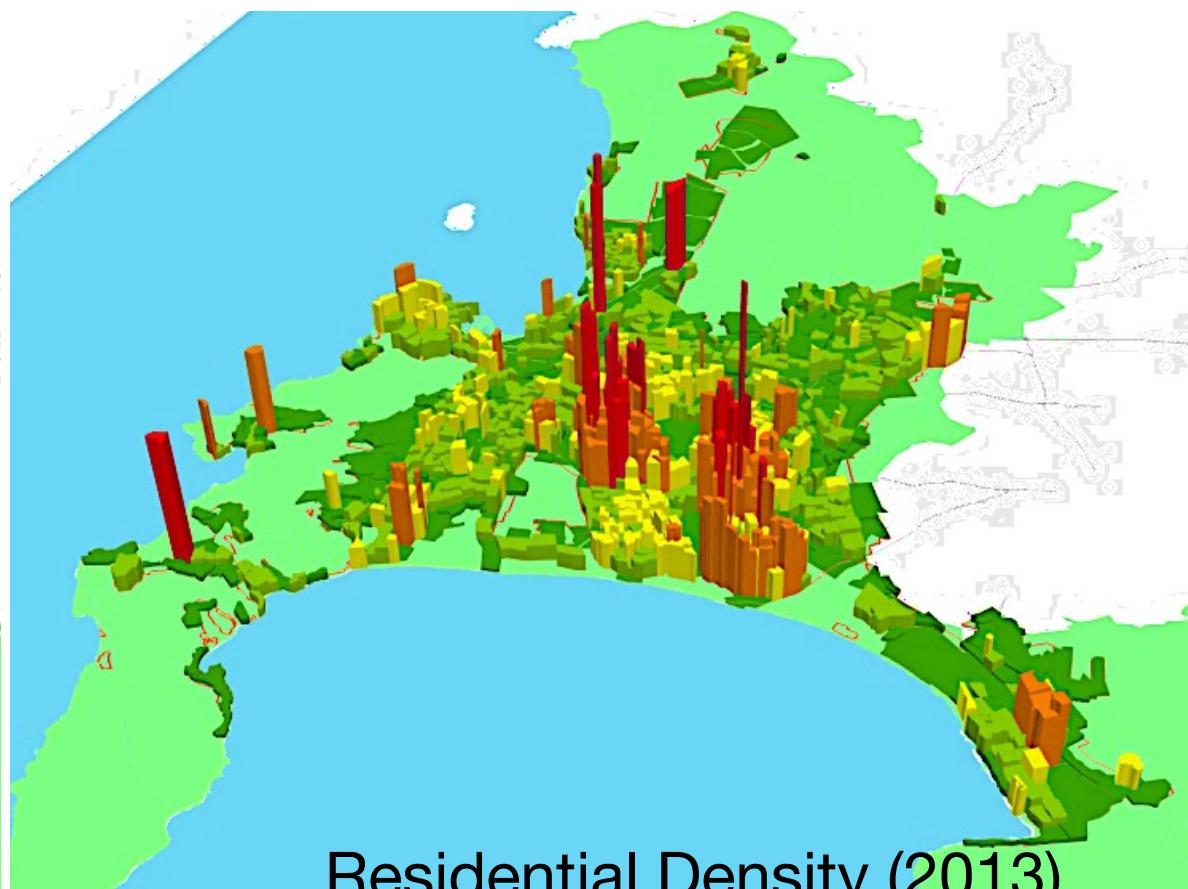
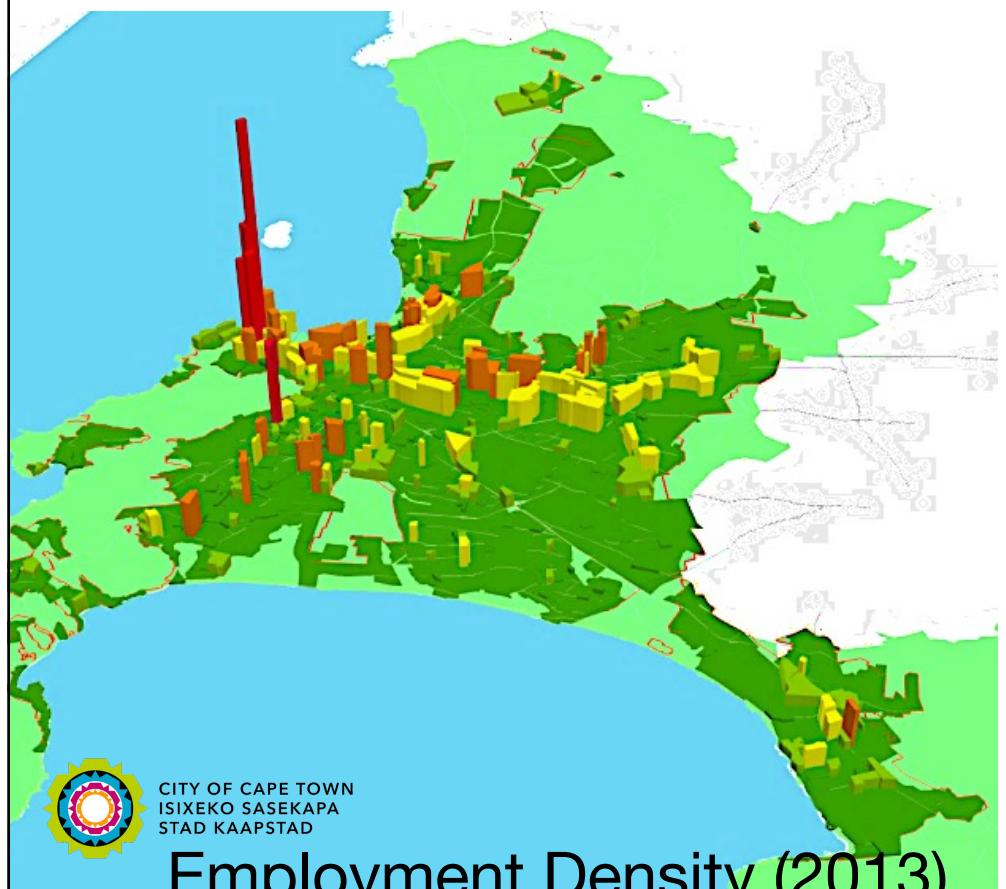
ELITE CITY

- Maintain service standards & enhance infrastructure
- Promote new real estate investment

Through TOD model... (MyCity, Rea Vaya)

MIXED CITY

Do you get people to live where the jobs are, or move the jobs to where people live?



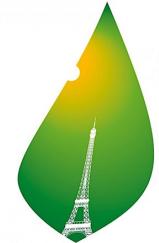
Policy Priorities

1. Improve ACCESS through safe public and affordable public transport
2. Strengthen and graduate informal business in the townships (economic development)
3. Create residential opportunities for the employment through prescribed "inclusionary housing"
4. **Create safe and multi-functional neighbourhoods in townships—incentive to invest**
5. Dynamise housing markets in townships through: attractive and sustainable public housing; “smart” backyard upgrading; holistic informal settlement upgrading
6. Use digital platforms as a tool to accelerate the sustainable infrastructure transition & reinforce neighbourhood driven development



Connecting Cape Town's Challenges to broader Sustainable Urban Development Imperatives

MAINSTREAM



COP21·CMP11
PARIS 2015
UN CLIMATE CHANGE CONFERENCE

THE GLOBAL GOALS

For Sustainable Development



Cultural fabric

Sustainable Infrastructure

Green building & retrofit

INTEGRATIVE DESIGN

Wellbeing & Placemaking

Planning, Zoning & Regulatory Reform

New Politics rooted in City-wide Coalitions
(anchored in economic, social and climate justice)

Digital Platforms & Catalysts

Multi-Level Governance Arrangements

Sustainable Infrastructure





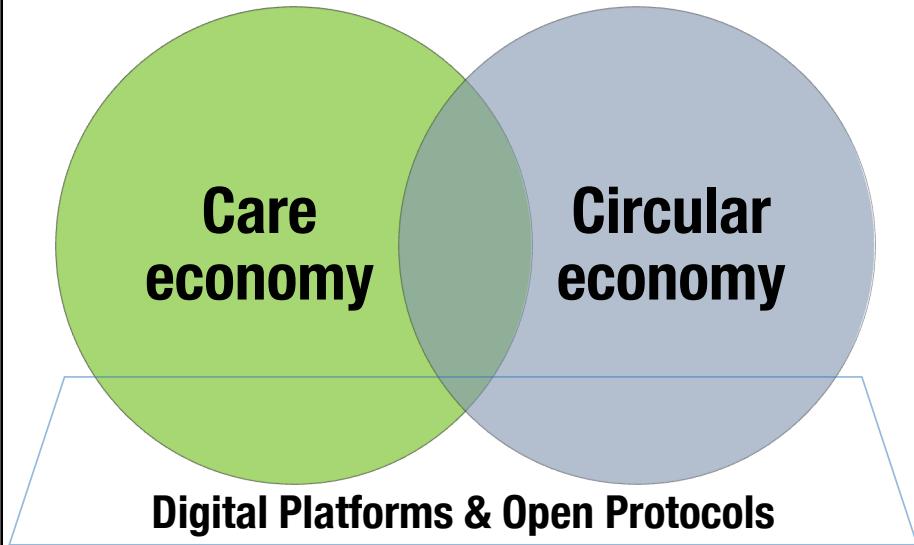
Criteria for Sustainable Infrastructure Transitions in Africa that reinforces structural transformation of economies in the direction of green industrialization & settlement health

- Low carbon (materials efficiency and continuous repurposing)
- Labour intensive & generative
- Circulates value (social, economic and ecological) within and across communities
- Digitally enabled and/or primed
- Spatially efficient and just: i.e. enhances diversity of land uses, equitable access and cultural dynamism

Sustainable urban infrastructure options for African cities

	Status Quo	Engineered infrastructure (modernist managerialism)	Ecological infrastructure	Institutional infrastructure
Energy	Centrally co-ordinated SOEs supply electricity inefficiently and expensively, insisting on fossil fuels for base load supply.	Progressive renewable energy procurement (Photovoltaic, Wind, Tide, Hydro) by utilities. Gas in some instances. SWH, LED lighting in buildings. Waste to energy. Integrated smart-grids supplied by multiple sources, create local work and reconcile supply with demand.	Sustainable biomass (biofuel, biodiesel, solid waste, sludge, recycled wood chips).	Urban development plans formulated with energy and climate constraints in mind. Feed in tariffs. Removal of fossil fuel subsidies, carbon tax, cap and trade. Sunset clauses for polluting industry. Green bonds for infrastructure.
Transport	African cities among fastest growing locations for private car ownership. Congestion and air pollution become expensive urban problems. High accident and casualty rates.	Public transport including BRT and light rail. Electric vehicles, compact cities (walkable, rideable). Efficient vehicle engines.	Greening cities for noise pollution and particulate management.	Transit oriented urban development. Designated public transport lanes. Traffic 'calming' for fuel efficiency. Fuel standards (including biofuel), vehicle taxes. Removal/ rationalisation of subsidised parking in city centres encourages public transport use.
Water	Supply side management becomes increasingly expensive. Urban demand necessitates taking water from rural industries creating bifurcated regional economies. Ageing urban water infrastructure causes multiple water leaks.	Off-stream dams harvest seasonal water for communities and create recreation amenities. Household-scale water harvesting, bulk grey water systems at city-scale ('toilet to tap') and at household scale. Fixing leaky pipes.	Catchment management, ecological reserve, soil carbon projects to improve infiltration. Ground cover to prevent dam siltation.	Demand side management. Tracking virtual water traded in commodities. 'Compulsory licensing' to ensure rational water use. Water use restrictions, discharge penalties, rising-step tariffs. Legislation preventing surface sealing.
Sanitation	Open defecation co-exists with water and energy profligate sanitation options. Informal settlements prove difficult to service with reticulated sanitation. Sewerage spills contaminate water and present health risks.	Biodigesters, composting toilets, reverse osmosis at treatments plants. Public sanitation centres as commercial opportunities (including methane capture).	Healthy water resources complement engineered water treatment. Reticulated water systems designed to harness gravity (not pumps). Artificial wetlands provide local work and water purifications.	Universal access legislation to prevent 'open defecation', discharge penalties, water quality monitoring and standards.
Built environment	Urban sprawl in conjunction with loose spatial and building standard enforcement, creates energy profligate, unhealthy and socially segregated human settlements that are expensive to service.	Bulk infrastructure and services (especially transport) integrated with human settlements. Bio-based cements, thermal efficiency in buildings, walkable cities, passive cooling designs.	Ecological flood buffers used for flood mediation, greening used for cooling, public green open spaces provide recreation amenities.	Spatial development strategy links housing with amenities. Building and material regulations. Coastal set-back lines anticipate sea-level rise.

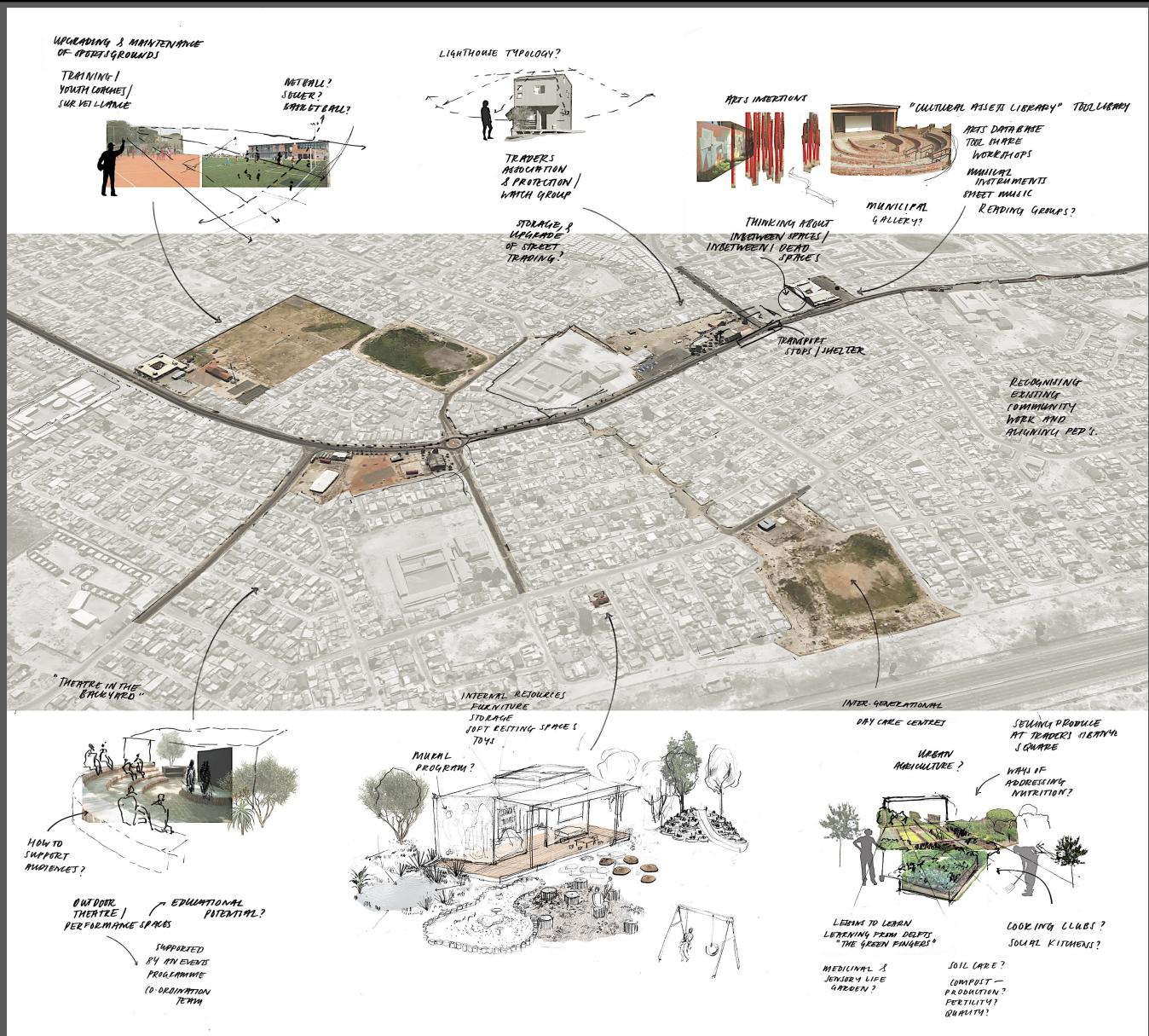
Anton Cartwright, 2017



Michael Uwemedimo/CMAP (via Midjourney)



Spatial Acupuncture



THANK YOU



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