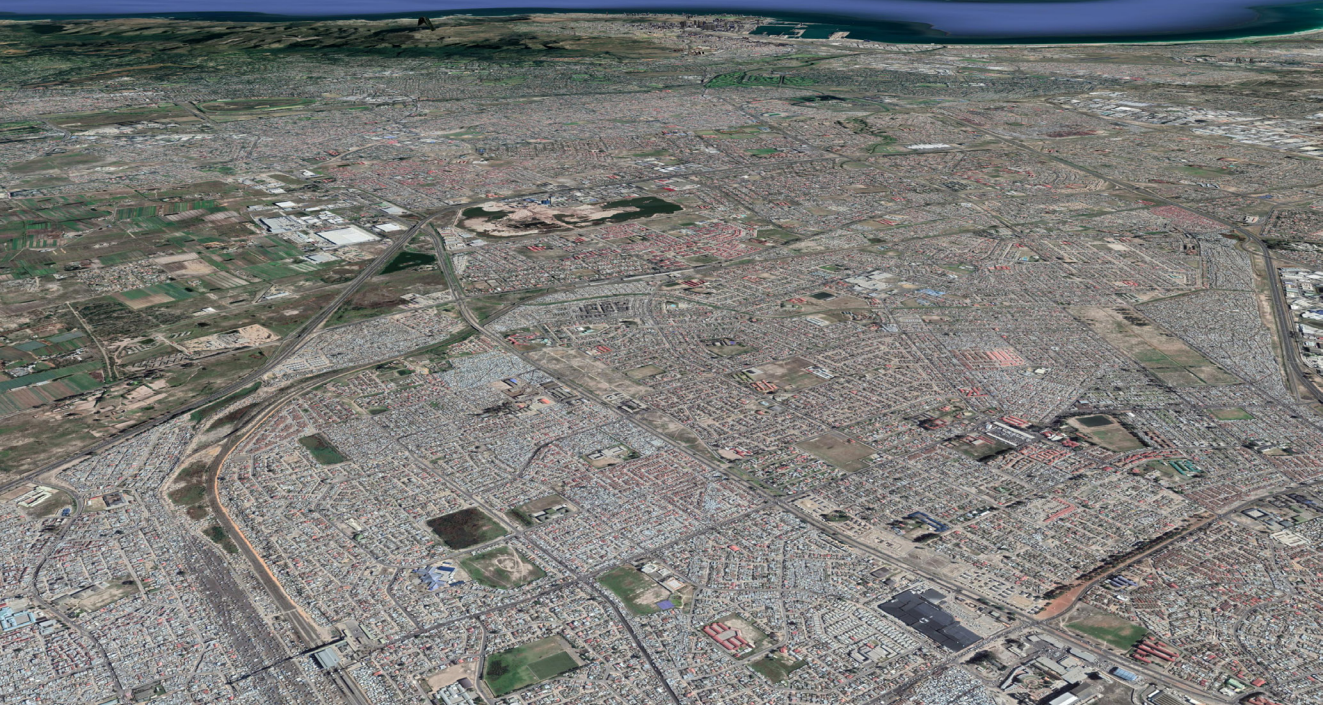


Good hope for Cape Town

by Silke Rainen

Strategy for climate
adaptation: proposal for a
vertical green wall and a food
production system based on
aquaculture and hydroculture.
Impression by OKRA
Landscape Architects.





Townships in Cape Town.



Cape Town, South Africa, is one of the most black-and-white cities in the world. It is often portrayed as the white African core, where the continent's wealth is concentrated. Around it, however, unfolds an exuberant cape of corrugated iron: the townships.

During apartheid (South Africa's official racial segregation system between 1948 and 1990), black people were forced out of Cape Town's city centre. They were condemned to start on the construction of what would become a colossal informal urban expansion. Millions of non-white South Africans built their 'shacks' out of flammable wooden panels and leaking corrugated iron roofs, not connected to mains electricity, water, sanitation or other infrastructural networks. It has been 25 years now since Nelson Mandela proclaimed multi-racial democracy and the constitution was changed to ensure basic living conditions for everyone. There have been efforts and some real developments from the appalling conditions, but for the majority there has only been stagnation. Millions of township-residents are still waiting for the basics to release them from the constant state of survival that they live in. In a miserable waiting space, with barely any jobs or facilities, people are unable to find a pur-

pose in life, and many end up joining violent gangs or seeking reality escapes such as drug and alcohol addiction, which makes the situation even worse. These are only a few of the many humanitarian difficulties that South Africa has to cope with. Now that faith in the mega-corrupt government has also fallen, people have resigned themselves to hopelessness, that nothing will ever improve. Meanwhile, the townships keep expanding.

No wonder that the cosmopolitan call for a sustainable future planet has largely remained unheard by those living under such critical conditions. Besides, these people don't need to be reminded of dealing with water shortages, rising temperatures and matters of recycling. They are already a part of their everyday battle, and it goes without saying that their first priority is to climb-out of the tough township existence before they can even start to consider any 'green revolutions'. But to try and get Africa on board such a revolution anyways, some outsiders came up with the idea that sustainability could be 'given' to the townships, for free, by providing sustainable 'goodies', say handing out a solar panel per shack. As appealing as it may seem indeed to go and upgrade a complicated society just like that, it would be less naïve to consider a slow yet definite reformation of the townships where basic qualities of life come first. The crux is that 'sustainability', with its humble character of self-maintenance and little means, might just be one of the instruments capable of kickstarting a certain township reformation. If applied correctly and strategically, sustainable planning and design could establish new foundations for a certain township quality.

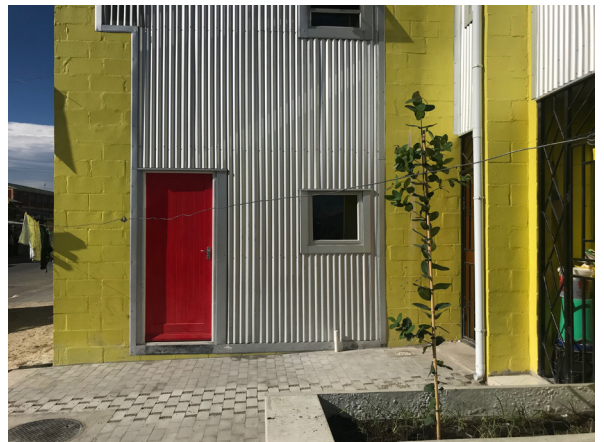
Several brave designers and planners have already taken on the townships to apply the slow strategy, which they call 'incrementalism': a sort of acupuncture manner of planting small seeds to fix an entire, complex system. Two of them even found their first test beds quite recently, in the township of Khayelitsha on the Cape Flats, one of the largest and most problematic townships in South Africa. First was the 'Empower Shack' project, initiated by



The Empower Shack project: rebuilding shacks and reblocking the clusters to create a safer and green living environment.

Some children have never seen the huge nature reserves, which are so close by. We want to change that by making green routes and lookout points.

**Martin Knuijt,
OKRA Landscape
Architects**



the Urban-Think Tank at ETH Zurich. The idea is to upgrade the physical township environment by rebuilding shacks and blocking them into clusters in such a way that a safer and green living environment can be created without claiming more land for the same amount of housing. The landscape architects at OKRA were invited to work on this newly made public space and its plantings, as well as for the other pilot project in Khayelitsha, which starts from a similar acupunctural scale. This other one is the 'Resilient Neighbourhood Model', developed by the Resilient Civil Design Collective (RCDC), which aims to activate neighbourhoods socially through sustainable interventions for achieving healthier and more meaningful lifestyles. Together with Resilient Civic Design Collective, Jack Carter Architects and Isidima Design and Development, OKRA made a plan to implement a holistic system that combines urban agriculture, water management, education and



Location of the pilot project in Khayelitsha.

Below: Potential green structure, creating linkages via green routes to the nature reserves and wetland areas





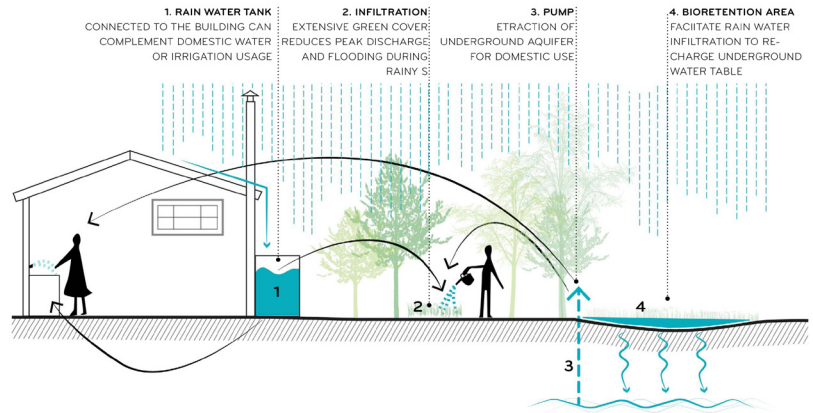
Plan for the Lukhanyo Hub in Khayelitsha: a site-specific design for the Intlanganiso Secondary School grounds.



Lukhanyo Hub is intended to function as a showcase that introduces the people of Khayelitsha to the sustainability phenomenon, and convinces them of the advantages of this lifestyle.

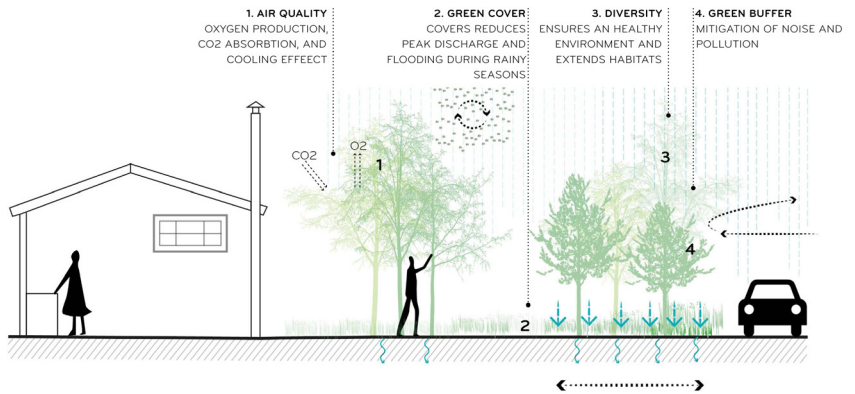
Water management

Adaptations to flooding, water shortages, and a contribution to solving the stressed underground water table.



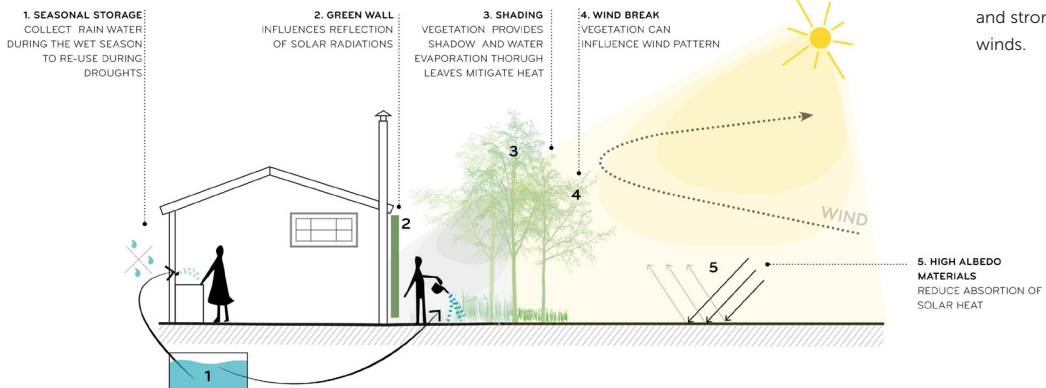
Green Structure

Solutions for the weak metropolitan green structure, the predominance of hardscape within the urban development, and the high level of air pollution due to vehicular traffic.



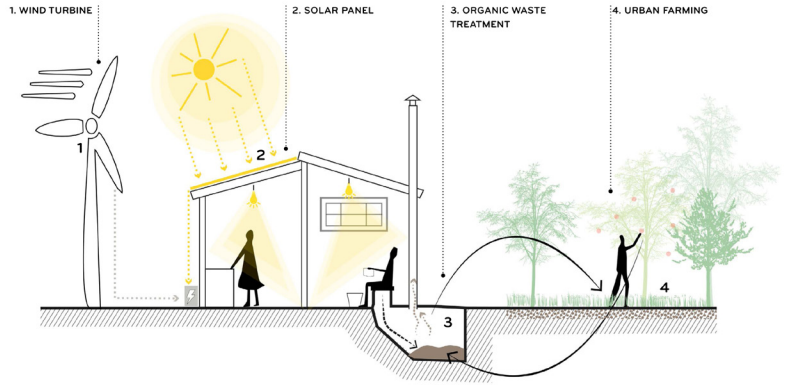
Climate Comfort

Ways of dealing with high temperatures, droughts and strong south-easterly winds.



Circularity

Combining the main problems of inadequate utilities, insufficient sanitation and food insecurity.



1. LOCAL LABOR
TRAIN AND INVOLVE
LOCALS FOR ORDINARY
MAINTENANCE

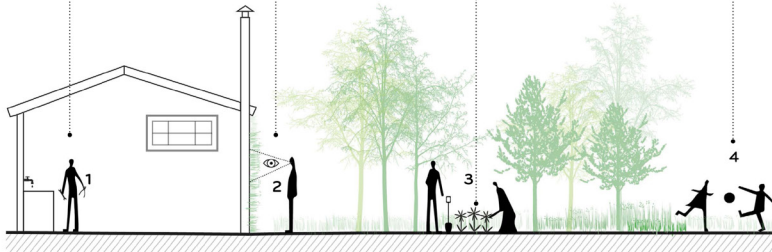
**2. VISIBLE CIRCULAR
SYSTEMS**
CREATE AWARENESS AND
RESPECT

2. COMMUNAL FARMING
BOOSTING SOCIAL
INTERACTION AND SENSE
OF BELONGING

4. SHARED SPACES
BOOSTING INTERACTION
BETWEEN ALL
AGES, ENCOURAGING TO
MOVEMENT AND PLAY

Social values

The main issues are the high rate of unemployment, low safety and weak foundation for education.



shared green and sports facilities. Underutilised land on school grounds – of which there is a lot on the Cape Flats – was identified as the location of meeting nodes and safe havens in the townships, and these make the perfect landing base for the hub system. A site-specific design was made for the Intlanganiso Secondary School grounds. The first phase consisted of an installation for circular food and water management and the first tree plantings. It has made a successful start and opened last month, welcoming – besides government officials – the students and other locals who are not only the lucky users, but also the most crucial part of the plan. They are the key actors who – through training, educational programs and social involvement – will learn how to implement and maintain the system, while refining and passing on its fruits. This pilot project, called 'Lukhanyo Hub', is intended to function as a showcase that introduces the people of Khayelitsha to the sustainability phe-

For the opening of Lukhanyo Hub we had chosen a tree, a coral tree, but when we came to order it, the nursery was not prepared to deliver it because the truck drivers didn't want to drive into Khayelitsha with a tree and heavy machinery. The distance was not the problem – it was only 15 minutes' ride – but they said it was too dangerous. So, in the end we found someone in the township with a pick-up, who was prepared to collect the tree. It's true, it was a smaller tree, but still a beautiful one for the opening ceremony.

Martin Knuijt,
OKRA Landscape
Architects

nomenon, and convinces them of the advantages of this lifestyle. Moreover, it is hoped that demonstrating the beneficial effects of the design concept will generate funding for the next design phase (within the same school grounds). Once all three of the design phases have been completed, the expectation is that Lukhanyo Hub will have grown into the green oasis of the neighbourhood, unmistakable from far and wide with its trees towering above the shacks. The socially inclusive hub should become a living example of the power of green and community to tackle health-, food- and water-related issues, simultaneously and at low cost. It will become a known, and much loved and visited place for local residents, spawning new belief in the rise of greening. The idea is that then the other schools will come knocking, and the ball will start rolling.

The idea is that using shack and environmental upgrades as a social form of urban activation will serve as a model that can be replicated at other, similar locations throughout Cape Town, and the hope is that the pilot projects will become their own catalysts. To succeed, the designs had to be stunning and super-efficient, but also ingeniously cheap, simple and quick to build, since they rely exclusively on microcredits, local labour and also a fragile form of trust. Planning and design interventions will only stand a chance in the townships if they directly relate to some of the most urgent and basic needs of those living there: food security, efficient water management, social cohesion, skill development, health improvement, women's empowerment, reduction of unemployment, crime, alcoholism and drug addiction, and faith in progress. There is cautious optimism that the pilot projects will prove to have addressed some of these big issues. The combined success of Empower Shack and Lukhanyo Hub may bring new lifestyles to the township residents in the form of health, safety, security and social-economic purpose. Admittedly the elements of a fairly basic existence. But perhaps a springboard from which people can find purpose in progress and start to grow; shape ideas about the future; refine their living environment

further; become gardeners, urban farmers, inventors, planners and designers themselves.

Extremely high crime rates, racial hatred, unstable political situations, lack of resources and funding or running out of time might seem like insurmountable challenges to the reformation of the townships. But why not dream on now that we're on that right track? A dream would do justice to brave plans and designs that make it more of a futuristic reality. The township as an archetype/urban typology would reveal itself as a platform par excellence for creating sustainable societies. Since the residents are already used to sharing, adapting to the landscape and fitting life to limited resources, the skills for sustainability would come naturally to them. For sure, they would bypass the white 'core' of Cape Town and *their* green revolution. Since that core owns the gold but not the resiliency, it makes sense that its wealthy citizens would have to hire the practically skilled and well-educated township residents to sustain their structures too. With that money, new investments can be made for the good, progress continues, and above all there will be a united quality of life to Cape Town. And above all, the dream would draw on Nelson Mandela's vision.





At the opening ceremony 10 children received a certificate for attending the workshop at CoCreate and for helping with the construction of Lukhanyo Hub. They will also attend a training course at Abalimi Bezekhaya, a local organisation that promotes urban farming.

