

# South African architect **Luyanda Mpahlwa** has devised an ingenious low-cost home to tackle the housing crisis in Cape Town's townships. Sean O'Toole meets a professional who is taking issue with the urban planning scene



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You don't have to be a statistician to realise that things don't add up in Cape Town. Swooping in by plane over the jutting mountains that surround this most un-African of African cities, the natural wonders soon give way to another reality: endless tracts of shanties. Crisis is a word often used to describe the city's bleak housing situation. Statistics help clarify why.

Cape Town needs more than 350 000 new homes for its swelling population. This is just the tip of the iceberg. A conservative estimate puts the figure at 460 000 by 2020. High unemployment among those in need, currently over 60 per cent, merely adds to the woes. It is not a pretty picture, but one that the country's government is trying to address.

Since the advent of democracy in 1994, the ANC-led government has supplied 2.4 million houses to the country's poor. Ironically, the process has taken place without significant involvement of architects and urban planners. It is a situation that greatly irks architect Luyanda Mpahlwa, a principal and director of MMA Architects.

In a recent newspaper article on the subject, published in an influential weekly newspaper, Mpahlwa summarised his argument as follows: 'Housing delivery, although driven by government, is largely being delivered by developers. It is therefore fair to say that the non-involvement of architects and urban planning professionals in the housing delivery process has been to the detriment of this process, and has led to the neglect of urban quality of life.'

Seated in the boardroom at his Cape Town offices, the tall, former Robben Island political prisoner further clarified his position. 'The big problem is that there is not sufficient monitoring of how these developers follow the requirements and guidelines that have been set for quality,' he says. It is not simply the inferior quality of the fixtures and workmanship that are problematic. Conceptually, the country's brick and mortar 'grant houses' evidence little by way of design innovation: horizontal sprawl has effectively trumped any exploration of vertical density. There has also been little by way of material innovation.

All of which underscores Mpahlwa's argument that there is a 'need to find creative ways to unlock the lack of involvement in this critical field of delivery'.

Sharing Mpahlwa's outrage at the stymied opportunity is Ravi Naidoo, the tireless entrepreneur behind Design Indaba. Last year he came up with a solution. It announced itself in the form of a challenge: design a 40m<sup>2</sup> residential house for £3125 (the current government subsidy per household). Branded the 10x10 Housing Project, Design Indaba paired up local and international architects to work on conceptual designs for a model low-cost home. Mpahlwa was introduced to London-based Will Alsop.

'We started sharing information on how we would approach the brief,' says Mpahlwa, whose local renown is based on embassy projects in Berlin in Germany and Addis Ababa in Ethiopia.



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'We couldn't find common ground on real working co-operation.' He decided to go it alone. Assisted by Kirsty Ronné, Mpahlwa devised a double-storey unit that exceeds the 40m<sup>2</sup> limitation by a full 14m<sup>2</sup>. Other design innovations include the off-centre positioning of the house, close to the road, thereby maximising garden and play areas. There is also a stricter division between common and private areas in the home. Crucially, the design acknowledges its limitations and allows for future extensions – a feature singularly lacking in current low-cost homes.

Mpahlwa, who completed his Masters degree in architecture while living in exile in Berlin during that city's epochal transition, further applied his thinking to the choice of materials. His solution: a timber structural frame combined with a sandbag infill construction. Marketed under the trade name Ecobeams, this product offers many appealing benefits: it requires no electricity at the construction site; the building technique is easily learnt, promoting community involvement; the only 'wet' tradesman required is a plasterer; the finished product, which is heavier than brick construction, is wind resistant; and the home is thermally sound and comfortable all year round.

Mpahlwa's design solution, which will be distributed as architectural open source, is currently taking form on a plot in Freedom Park, a new development on the impoverished Cape Flats.

'My involvement with 10x10 had two components,' admits Mpahlwa. 'One was to take up the challenge, the other was to see if this is an opportunity to develop a product that can contribute to the national debate around quality housing at the low end.' It is still a fledgling debate, he concedes. 'There hasn't been sufficient awareness or interest to provide a diversified housing product in South Africa,' he adds. Although small-scale, Mpahlwa's progressive solution suggests that optimism is possible.

**1** Computer rendering of Luyanda Mpahlwa's low-cost home for Design Indaba's 10x10 Housing Project

**2** Freedom Park in Cape Town – the site of the 10x10 project

**3** Luyanda Mpahlwa

**4** A house under construction

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