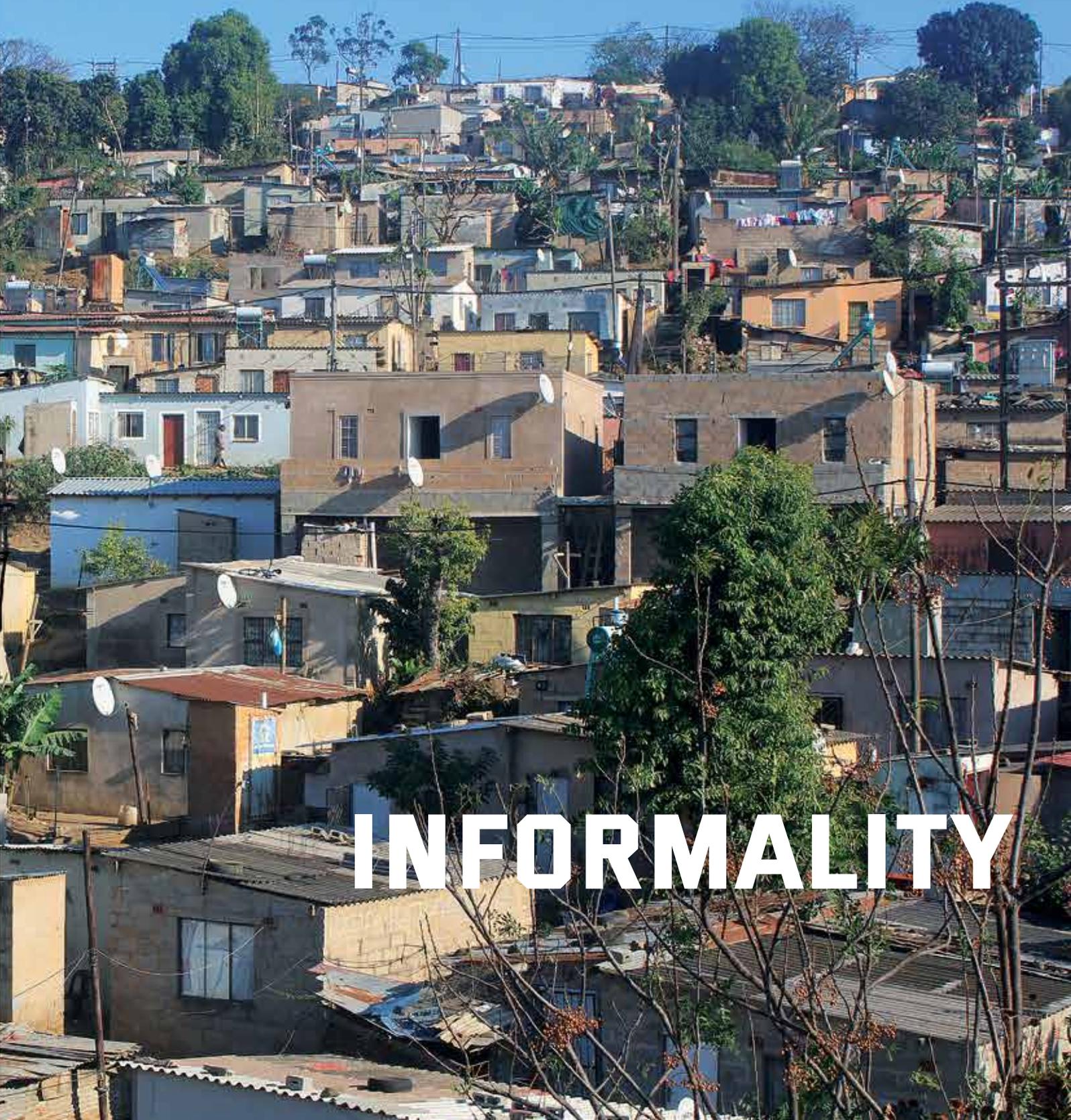


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SAIA-KZN



INFORMALITY

EDITORIAL



Guest editor Rodney Harber, known as 'Khulu' to the artist, Anathi Bhengu-Forrert, aged 9.

This edition on **INFORMALITY** presents another point of view from that which is normally aspired to. Laissez-faire but not disorganised, arbitrary or unhealthy. The *Cambridge English Dictionary* defines Informality as: "The fact of not being formal or official, or of being suitable for friends and family but not for official occasions". It works upwards from the grass roots, is people orientated and calls for open-minded, local observation and communication to impart a feeling of ownership and consequently, sustainability. It is also open-ended, drawn out and usually falls on deaf ears with the prevailing development paradigm.

Herein town planners, architects, an engineer and a housing practitioner, as well as students have challenged the norm to reveal possibilities to extend our impact and also challenge this situation.

Perhaps thereafter we will be brave enough to ask questions like "Why demolish?" or will we just ignore slums when we could support and transform them into suburbs of a caring city.
Rodney Harber

The contributor of numerous articles in this Journal and the instigator of innumerable ideas for following up on, this is the first issue Rodney Harber has guest edited. Perhaps plucking up such courage comes naturally as one approaches 80!
Editor



Informal settlement on Springfield Road, at the intersection of Hendry Rd leading up to Morningside.

2019 SAIA-KZN

This bi-annual ceremony was held in the main hall of Hillside Campus, 39 Inanda Rd, Hillcrest, on the evening of Friday, 2nd August, and included the induction of the SAIA-KZN President for 2019-20, Pat Smith. Appropriately, the venue had been designed by the President himself and was featured in *KZ-NIA Journal*, 2/2004.

Following selection by the Awards jury, certificates of Special Mention as well as certificates of Award for Architecture were presented to the architects and clients of premiated projects, the latter of which are eligible to compete at national level for Merit or Excellence awards next year. For more information on the projects, readers are referred to the previous issue, *SAIA-KZN Journal*, 2/2019.



Co-masters of ceremony at the event were SAIA-KZN Vice-Presidents, Skura Mtembu (left) and Adheema Davis (right).



Musa Shangane, Commercial Director of Corobrik, sponsors of the event, welcomed the assembly.



Outgoing President of two successive terms, 2015-16 & 2017-18, Ruben Reddy.



Newly inducted SAIA-KZN President, 2019-20, Pat Smith.

Guest speaker was Prof Ora Joubert of Pretoria, who commenced her teaching at Natal (UKZN) in 1990. Her inaugural class, then 3rd Year, included current SAIA-KZN President, Pat Smith; current regional committee members Richard Horner (and wife, Wendy née Swain) and Monique Gillespie née Scott, and 2019 Special Mention co-recipient, Lindsay Napier née Swindell.

INFORMALITY

PRESIDENTIAL INDUCTION AND AWARDS CEREMONY



Frank Emmett and Trish Emmett received an Award for Architecture for Bond Square, Point.

Client representative, Dr Stanley Gichia, Chief Professional Services within the KZN Department of Public Works, with Ismail Cassimjee receiving an Award for Architecture for the amendments to Oliver Tambo House, Pietermaritzburg.



Jonathan Hall with Karen and George Elphick received the Awards for Architecture for both ABSA regional head office, Umhlanga, and for 90A Bellamont Road, Umdloti.

Jeremy Steere accepted the Award for Architecture for Magistrate Tower, Mtunzini.



Lindsay Napier and Yusuf Patel earned Special Mention for the restoration of the disused church and its repurposing as Masjid Maryam mosque, Samora Machel Street, Durban.



Erica Coskey and Sarikha Binda with Amanda Lead accepted the certificate of Special Mention for the amendments to Albini mission church, Ntshongweni.



At the event, a scroll of honour was presented to Robert Brusse. The citation reads:
Soon after graduating Robert received his calling to cultural heritage, which, with his personal traits of independence and self-reliance, logically lead to the founding of his own practice with architectural conservation as its speciality.

Realising that the task was huge, he involved students and heritage committee members in a number of his projects. The practice undertook the conservation of significant secular and many missionary buildings and distinguished itself with numerous peer-acknowledged conservation awards. Magnanimously, Robert concluded that to further the cause, the specialist expertise he had acquired needed to be disseminated and he involved fellow professionals as interns.

This scroll of honour is presented to Robert Brusse by his colleagues with affection and profound respect in recognition of his dedicated service to our profession of Architecture over many years.



A Special Mention went to Ocean Architects for the restoration of the oriel turret of Greenacres building, Durban. From left: Directors of Pro-Plan Construction, Denver Kruger and Kyle Mitchell; Michelle Quarumby of Ocean Architects; and Rory Mitchell, Project Manager Pro-Plan.



Richard Dobson received Special Mention for the prototypes of bio-efficient stoves, deemed Works of Social Importance.



KZN Region of the South African Institute of Architects



This journal, now in its 43rd year of publication, has since inception been sponsored by Corobrik

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NEWS

**August, Women's month**

Women's month commenced, appropriately, on 1st August, with an exhibition at the Institute of the work of Sally Adams, the first sole female practitioner in KZN, entitled *'A life in practice'*. This exquisite exhibition, which featured aspects of her architecture over four decades and, generously, acknowledged all collaborators, was opened by Jo Lees. To quote from the invitation "Sally has eschewed the limelight, awards processes and publications but has, nevertheless, earned the respect and admiration of her peers". A fortnight later, the month was marked with a full day's programme 'The future is not female...It is intersectional', held at *Corobrik* in Avoca.



Kate Otten, SAIA Vice-President and a guest speaker; Karuni Naidoo, chair and founder of *Women in Architecture SA* (WiASA); Dirk Meyer, chief executive of *Corobrik*; Nina Saunders, past-President SAIA-KZN; and current President, Pat Smith.

Thekwini Architecture Head

After serving a year as Deputy Head of the Architecture Department, eThekwini Municipality, Allan Shazi was recently appointed Head. A graduate of UKZN, Allan joined the department in 2008 and subsequently acquired a postgraduate certificate in Project Management at Wits.

PLANNING 'VIOLATIONS' AND URBAN INCLUSION OR NEGLECT: CONTRADICTIONARY PERSPECTIVES ON AFRICAN CITIES

Koyi Mchunu

The city in Africa is the epicenter of the emancipated state. These cities were not designed with the majority of their current residents in mind. The question then becomes how do the majority of city-dwellers occupy spaces that were not designed with them in mind? How do we reconcile what appear to be seemingly contradictory city-imaginings into a coherent whole in order to try to breach the so-called 'implementation gap'? The informal/formal dichotomy explains inasmuch as it obfuscates discussion about what goes on in African cities.

The predominant views of cities in Africa have too often painted a partial yet over-arching picture image that does not bear any close resemblance to reality. There still exists a serious disconnect between the numerous stories that African cities seem to be telling. One view states that most cities of the global south are characterised as either partially, or even frequently, auto-constructed, defying the laws or logic of planning. Too often, this auto-construction is mis-recognized simply as 'failure' and 'violation' of planning, sometimes referred to as an 'implementation gap'. Yet how should we understand 'violation' and 'failure' when it is done by a large proportion of residents, the city's poorest, who have a claim to the city and shelter (dubbed as informality), and at the same time by the rich through influence (regarded as a regularization matter)?

UKZN Architecture discipline

Following their success at national level in the 2019 *Saint-Gobain* Multi-Comfort design competition, two M.Arch students, Mohammed Shah and Neeshalin Naicker, flew to Milan to represent Southern Africa on the international stage on 4th June.

This year's task was a complex urban problem set within the 'Milan 2030 vision', which aimed at connectivity between a metro station and the neighbourhood, refurbishing existing social housing and providing new sustainable solutions for urban living, while bearing in mind the diverse population of old and young and migrants.

While UKZN did not return with the international prize as last year, see Journal 3/2018, the submission won respect for addressing food security and its promotion of environmentally sustainable practices.

KwaZulu-Natal Museum

The tender for professional consultancy services for the upgrading and conversion of the disused St Anne's hospital building, Jabu Ndlovu (Loop) Street, Pietermaritzburg, as the new KwaZulu-Natal Museum closed on 27th September. This 'request for proposals' attracted a total of 38 submissions, the outcome of which is not expected before late November.

Ron Lewcock 90!

On 27th September Ronald Lewcock celebrated his 90th birthday in Sri Lanka with his wife, Barbara, family and friends. From 1952-69 Ron was on the staff of Natal/UKZN, during which he researched and published his PhD thesis, *Early 19th century architecture in South Africa* (1963). Still today, the tome remains a yardstick for any work on South African architecture. *Congratulations Ron!*

What does the fact that our cities are also auto-constructed tell us about planning? How should planning respond to such 'violations' that combine both the difficulty of orderly urban development with concerns for urban equity and inclusion?

The second is that as elsewhere, cities in Africa exist as ensembles of houses, streets, social events, and practices and at the same time as objects in the minds of their inhabitants and visitors. Cities always have an imagined multiple as nobody can experience a city in all its parts simultaneously. How does one reconcile the partial, often contradictory, strange experiences of the city as cohesive entities, which is necessary to bridge the implementation gap?

This demands accommodating the idiosyncratic as well as collective views, in one image creatively mediating between one and many. It calls for a creative analysis of how urban residents in Africa situate themselves in their cities as social spaces and how they build on their shared everyday experience. This means transforming everyday experience into elements of the image of the city as an object that town dwellers can relate to in meaningful ways. Current predominant imaginings of African cities do not speak to the lived experiences of the majority of residents.

Third, others have lamented what they regard as the Africa rising narrative about the resurgence of economic growth, an emerging market boom, a growing consumer market in African cities and the sense that the African middle class has tripled and is one of the fastest growing in the world. This view is associated with the proliferation of 'urban fantasy' plans from Silicon Accra, Ghana; Konza City, Kenya; and Kalimba City, Angola, to name a few, which seem to be sanitized from the poor and marginalized. This is linked to the phenomenon of economic globalization that has witnessed the historically unprecedented penetration of market forces on all aspects of society. Political power and capital are coming together with devastating consequences for the poor in pursuit of the status of World African City replete with international convention centres, 5 Star hotels, airports and the like.

On the other side of the same coin is the story of African cities where the majority of populations live below the poverty line. Many are living in slums or informal settlements and many will never get a formal job ever in their lives. According to this view, Africa is not rising but staying the same and in some cases getting even tougher.

Is it possible to reconcile such diverse views of the city into a coherent whole? The answer is a resounding yes. The notion of co-production of urban space suggests a more collaborative imagination that is much closer to reality. The eThekwini Municipality's 'Durban Resilience Strategy' that was adopted in 2017 is a multi-stakeholder collaborative informal settlement endeavor aimed at developing an implementation plan for resilience building.

The lived experiences that characterize daily life of the majority in African cities eschew predominant norms and standards of city-management. Informality represents residues, clues of how a more democratic urbanism could be imagined and practiced.

Dr Mchunu is a Senior Lecturer in the Planning Programme of UKZN. Editor



Kalimba City, Angola. The development intended to solve Angola's immense housing shortage was funded by China international Trust and Investment Corporation and built by Chinese nationals. However, as the rental is out of reach to most Angolans, and where families with six children are not uncommon, only a fraction of the high-rise development is occupied, resulting in a virtual ghost town (*Mail & Guardian*, 23 September 2019).



THEY AND WE

Rodney Harber

South Africans live in duality. 'We' and 'They'. They drive recklessly in taxis yet move an estimated fifteen million commuters every working day with only an average of three killed. This is a glowing example of Black Economic Empowerment (BEE) with two hundred thousand taxis operating below the radar in a cash economy. We back ridiculously subsidised Bus rapid transit (BRT) buses with fancy stations (*SAIA-KZN Journal* 2/2018) or trains with an added top up to China South Railways!

Informal and formal

Architects are largely 'We' due to their training. We can celebrate that the widespread focus on Informality was spawned here in KZN with the theme 'otherwhere' at the International Union of Architects (UIA) conference held in Durban in 2014.

The universal estimates are compelling, "Estimates are that there are about a billion squatters in the world today – one in every six humans on the planet. And the density is on the rise. Every day, close to two hundred thousand people leave their ancestral homes in the rural regions and move to the cities. Almost a million and a half people a week, seventy million a year. Within 25 years the number of squatters is expected to double; the best guess is that by 2030 there will be two billion squatters, one in four people on earth"¹. Time to wake up and smell the coffee!

Two decades ago there were at least eight subsidised housing delivery systems. Now we have only one. Separate Reconstruction and Development Programme (RDP) boxes in straight rows, packaged and delivered ready for occupation. All identical: BUILD SERVICE OCCUPY. However when they invade land it is the reverse: OCCUPY BUILD SERVICE. Getting one's 'foot in the door' is paramount.

When civil society still cared, last century, the URBAN FOUNDATION (UF) (see *NPIA Journal* 2/1984) came into being and tackled this apparent paradox. At that time the grip of Apartheid was loosening and thousands of squatters moved into and onto the edges of South African cities.

Bester's Camp

Lying on the north-western edge of Durban was one of these – over one thousand makeshift structures around the former Bester's Construction blockyard².

Urged on by the city, the UF Informal Settlements Division commissioned my partner Adrian Masson and I to assist in unravelling this situation. As Judith T Ojo-Aromokudu and others confirm in this edition, informality has a structure which needs to be uncovered by directing detailed and ongoing community surveys which, to reduce costs, are implemented largely by the communities themselves.

It soon became clear that the residents at Bester's valued what they perceived to be a well located settlement albeit on very steep terrain. It was initially proposed that ten percent would have to be relocated to make way for rational planning but this was turned down flatly. Clearly the approach had to be incremental so three large models were made marked: Now, Soon and Eventually (no unachievable timeframes!).

The first 'Now' was a faithful recreation of the status quo where residents could identify their shelters. 'Soon' depicted short term 'quick wins'

to achieve immediate hygiene including public water kiosks, pit toilets, narrow paved roadways, paths, steps and storm water drainage lines. 'Eventually' illustrated a dense, multi-level settlement as a vision for the future. The steep shoreline of Amalfi in Italy was offered as a precedent.

Survey

A representative sample of structures was then surveyed to see how they were constructed and to expose prevailing problems. Rising damp was one of these so brochures were produced and distributed. This included measuring up all structures and noting the profile of their residents. This revealed coverage of 28% on sites of only 104sqm on average. Internally it was discovered that habitable space per occupant was 6.33sqm/pp indicating severe overcrowding. The average structure had six residents and 2.5 habitable rooms with an overall density of 436 p/ha. Significantly pedestrian access was an accepted norm.

The corners of all sites were then pegged by technicians and community members in a lengthy process involving the consent of all neighbours. When land surveyors ratified these pegs and produced layouts a sense of security of tenure triggered a flurry of resident initiated home improvements. To achieve hygiene the subsidised installation of masonry, ventilated pit latrines commenced, lined up wherever possible for a later collective system. A prepaid electricity meter system was also installed from a forest of poles and overhead wires which also formed public lighting for safety.

Distribution of funding

When the funding equivalent to a small house became available to approved beneficiaries, it was recorded on a computer-based card system devised by the project managers. Here it could be drawn down as needed. Nearby hardware shops tendered to provide basic materials and to make up to five deliveries as near to the site as possible. The shops would be paid directly from the central fund monthly with the allocation of each beneficiary reduced accordingly. Dozens of local builders were thereby activated and their approved output was settled at agreed rates.

At the risk of glamourizing poverty, the approach, gleaned from informality at Bester's Camp (see cover), has resulted in a people-centered, high-density suburb of individual houses set in sub-tropical vegetation. It stands in stark contrast to the recent rolled out houses in the distant background: One 'developer', full waterborne services, straight lines, overall control, centralised funding and strict timeframes! Housing as a Product and not a community owned Process!

As Nabeel Hamdi states "The knowledge that participation is not something you tag on if you have the time or good will, but an integral part of making design and planning efficient and effective. It underpins today's concepts of partnerships and good governance. It cultivates ownership and, with it, a sense of belonging and responsibility..."³.

We the architects

I recall representing our national body at the Botshabelo Accord during 1994 where architects swore before Minister of Housing, Joe Slovo, with Mbhazima (Sam) Shilowa, then General Secretary of the Congress of South African Trade Unions (COSATU) looking on, to become involved with public housing. The initial Housing Boards were fully

representational and memorable debates took place where officials were held accountable and all statistics were at hand. These Boards later shrivelled into Housing Advisory Boards and then evaporated altogether as the Department of Human Settlements held close to the bosom. Debate has diminished with the dreary results we see all around us. Control, control and more control. The ubiquitous concrete block.

Planning misfit

Koyi Mchunu has articulated this misfit brilliantly in this issue. Managing to gain trust and penetrating recycled buildings is very enlightening. They gain privacy behind corrugated cardboard partitions held together with packaging tape secured back onto the masonry walls. Extra goods such as blankets are stored on wires anchored into the walls and strung across the spaces.

In a former small hotel that used to house families waiting for the weekly mail ship one finds the entrance guarded by the Muslim owners. Only African foreigners are admitted as they surrender their passports as security – men to the right and women to the left. Upstairs they huddle with their countrymen, sixteen, shoulder to shoulder on the carpeted floors in rooms originally meant for couples. A single plug point provides power for cooking their traditional dishes augmented by local vegetables bought on the pavement downstairs.

This extraordinary collection includes 'circulatory migrants' some of whom have been bringing crafts from their countries of origin for decades to sell in Durban, like wire sculptures from Zimbabwe and cane products from Mozambique etc. It is a highly ordered refuge right in the Central Business District (CBD); similarly with the urine-smelling homeless people's shelters controlled by wonderful people.

Urban reality for poor

Just watch them emerging early in the morning from the single guarded entrances of former factories in Umgeni Road, neatly dressed to catch a taxi across the road or walking into the CBD to work. It is a world of no children since they have to be left far away with grannies.

The centre of this space is dominated by the yellow painted original hall for the Order of St. John isolated on a traffic island. Latterly it was the Natal Badminton Club and also the Portuguese Club. This derelict 'problem building' is now the home for dozens of fugitives. They enter through a small entrance at the rear. The asbestos roof is caving in and ficus trees are taking root on the ample Classical ledges. One cannot imagine what has become of the sprung wooden floor inside.

This site has been considered for massive social housing schemes. Fifteen storeys high with lifts, fully serviced, convenience stores. However, since the transport authority is the 'tail that wags the dog', also a parking garage! Projects have failed due to meagre budgets and also heritage legislation which won't permit the old memory simply to be demolished.

Converging paradigms

Can't we learn from reality? Retain the deeply modulated classical elevations, the best historic features of the old building. Celebrate it as the main entrance – biometrically controlled with a manager's office. Cast aside a parking requirement within a sea of taxi ranks on the edge of the CBD, have facilities for children to live with their parents and move vertically up a broad, spiralling 'pedestrian street' to conform to universal access? The units themselves could open off this street and consist of 48sqm open platforms with a small 'wet core' consisting of a toilet and a hip bath at the rear for hygiene. All services would be 'pay as you go'. Storage is a problem in all homes so surround the space with 600mm cantilevered concrete shelves together with steel eyes to attach straining wires to.

Each unit could also have a trading window at the rear for residents to take in washing, sell food and mend clothing or whatever they wished to do. Accommodation would be augmented with a refuse chute, lockup cages for drying clothing in windy areas, a space for socialising at a shisa nyama ('buy and braai') and a ground floor Early Childhood Development (ECD) and playground for small children to release mothers into the job market.

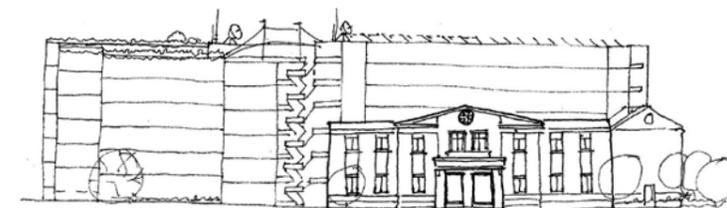
Read what my colleagues have to say and respond to natural forces then bring the steep hillsides of Bester's Camp right into the CBD!

Vuka (wake up), after all it's the New Dawn. We and They need to *khuluma* (speak). Let's make a great, caring City of US.

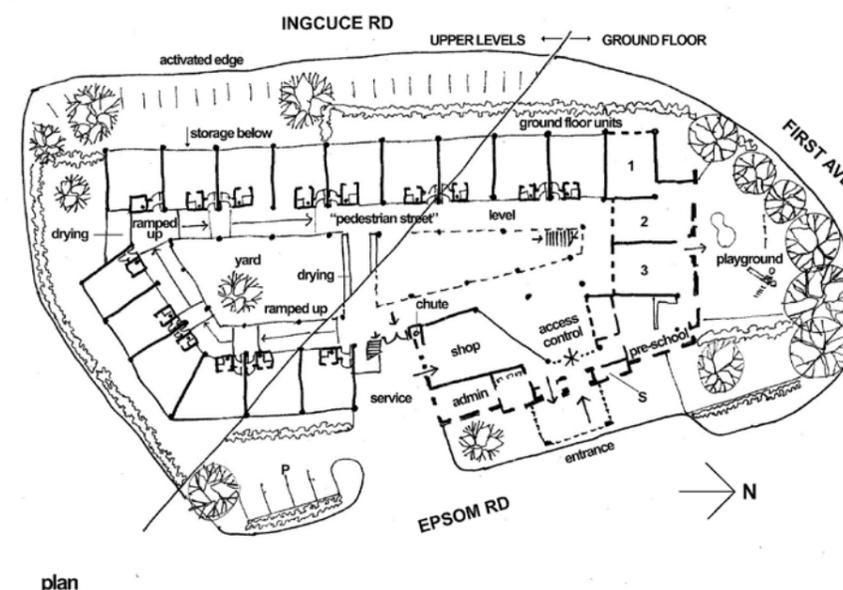
Rodney Harber is guest-editor of this issue.
Editor

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epsom road elevation

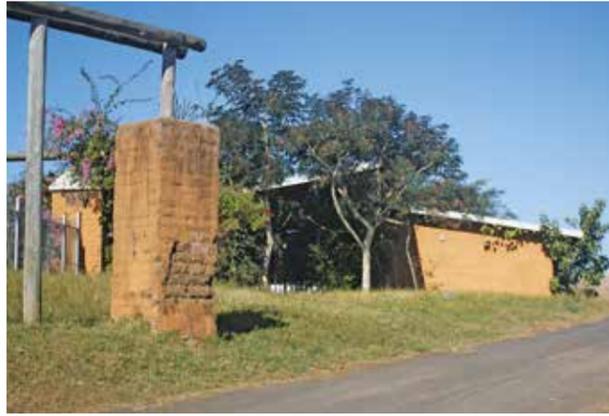


plan

FROM THE GROUND UP?

AN EARTH-BUILT STRUCTURE TWO DECADES LATER

Garryn Stephens



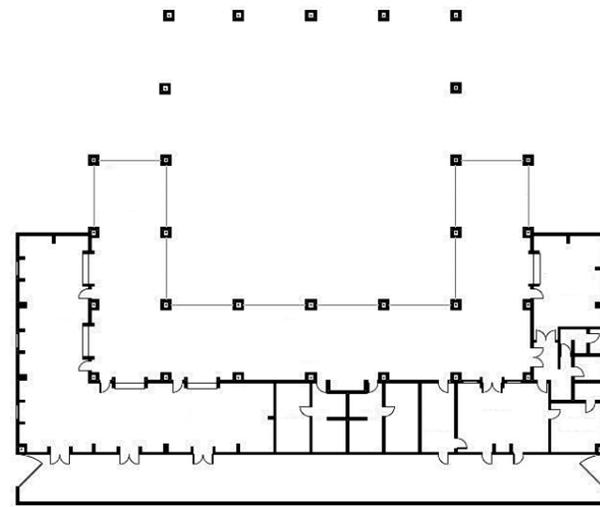
The Housing Support Centre today.



Through and beyond the clustered composition of cement-block houses in Waterloo, Verulam, a building long assumed obsolete stands firmly on a small hill. A fading and cracking coat of orange over mud-brick walls strikes the eye behind overgrown bushes and trees, with roofs still hidden beyond, sloping towards the hidden inner courtyard, before which, standing in relief on the left wall defining an entrance, remnants of a sculpted kangaroo, while on the right a sign which reads 'Waterloo Community Centre'.

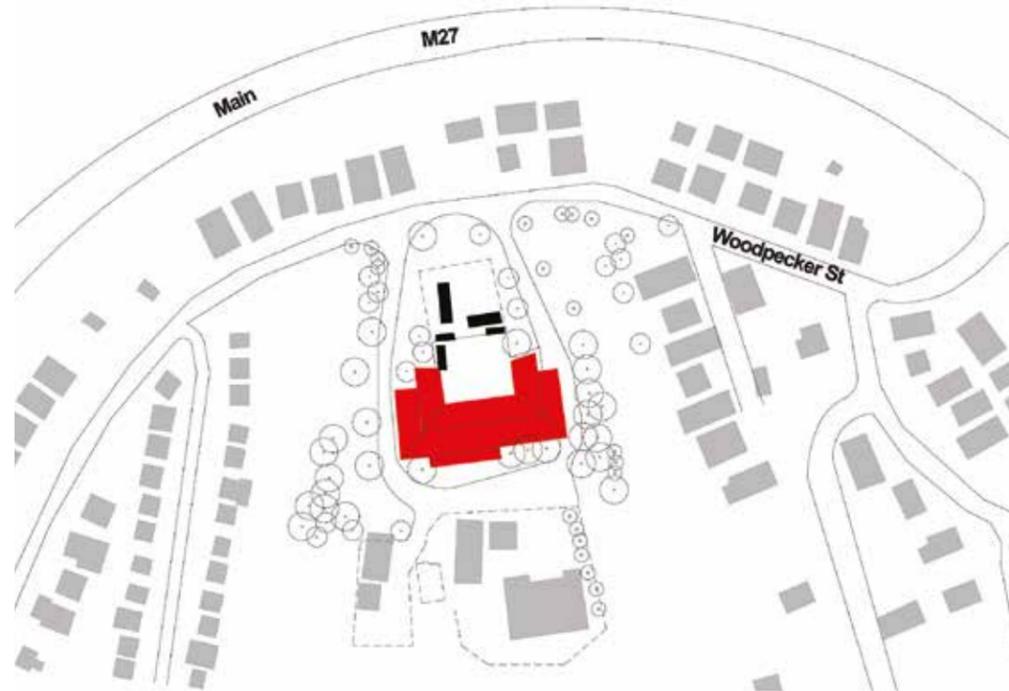
The sculpted kangaroo symbolises the sponsors of the building, AusAid.

Well into a period when reparations for the sins of apartheid were ripe, the *end* of the millennium brought about the *start* for many (previously deprived) South Africans to begin to *build* their lives properly, even literally. 'The Waterloo Housing Project' (Durban, 1997), initiated and funded by the Australian Agency for International Development (AusAID) and supervised by their Dr Steve Burroughs, "was established to facilitate a large scale residential construction phase for a community of 100 000 people" with the ideals of "public participation and ownership at all levels". This began with the primary objective of implementing a system which offered "a wide range of professional advice and services to potential low-income home-buyers/builders" (Burroughs, 2003).



Indoor and undercover training spaces are located on one end, ablutions and change rooms centre, while administration and a computer lab mark the other end.
Architects: Architects Collaborative.

This system required a facility, a Housing Support Centre (HSC), from which advice and services could be offered. Moreover, it required a building which, by its very construction, would be used to train those who were interested in the suggested 'self-build' options of eventually constructing their own homes through the housing project, by the means available to them. Finally, a building which could stand as an example to the community of what can be achieved using appropriate technologies, such as, in this case, mud-brick or stabilised-earth construction.

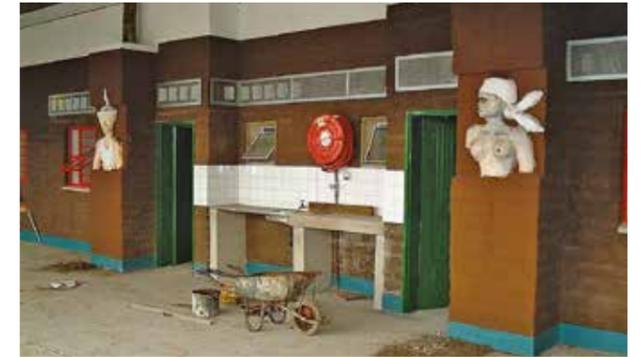


Location plan by author.



Mud bricks on a concrete block plinth; hollow piers attached and detached support the roof structure of gum-poles.

Built on a large oval-shaped site identified therefor, the HSC building was placed along the southern boundary, sensitive to the site's potential for growth. It was sensitive too, to the Durban climate, with broad verandas defining the northern edge, sheltered by articulated roofs of metal sheeting upon gum-poles, raised slightly above the roofline of the enclosed rooms, for cross-ventilation into the veranda and courtyard. The veranda defined and faced an open square, where the intended training of the community members in appropriate construction and material technologies and processes could continue. Beyond this primary function as HSC, the building was designed to adapt into a community facility, "to house a day-care centre, crèche, welfare centre or HIV hospice for orphaned children of the community. The ultimate use would be decided in consultation with the community to fulfil any specific needs that they may have" (Burroughs, 2003).



Ablution entrances.



The completed building from west.



Underused wide north-facing veranda. Photo of 2019.

Over 20 years on, the predominant community function and presence seems to have been neglected as the building is now primarily occupied as offices for the local taxi association. The open courtyard is used for parking and has been enclosed with containers for storage and a 'meals-on-wheels' soup-kitchen. However, while the centre has partially adapted to the needs of the community, and despite clear signs of little or no maintenance since its construction more than two decades ago, the mud-brick building still stands firmly intact. But it stands almost alone, beyond the cluster of houses, as well as a nearby Early Childhood Development centre, constructed in more convenient cement block.

**"If I wanted a house like that,
I would have stayed on the farm"** Overheard comment

Here stands a building, which, by the sustainable nature of its mud-brick structure, is still physically able to continue serving a changing and growing community. But sadly, the intention as a model for the construction of other sustainable buildings like it, most especially in housing, has been overlooked. Behind the overgrown bushes and trees? No, behind the perception that one is 'moving backwards'. It is arguable that among people in social transition, there is a prejudice towards building with stabilised-earth, from the ground up.

Besides the critical questions of appropriation regarding the culture of the lack of maintenance and poor sense of public ownership, the primary question is: why no more? Why has successfully implemented stabilised earth technology not been repeated in a context so desperate for liveable and sustainable housing?

A BAS-graduate of UKZN, Garryn Stephens is currently undertaking practical training with Harber & Associates. Editor

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FIXING SCHOOL SANITATION

David Still

Background

On 20 January 2014 Michael Komape, a five year-old learner, fell through the dilapidated, badly rusted seat of a toilet at the Mahlodumela Primary School near Polokwane and drowned in the sludge pit below. The incident made headline news and eventually resulted in the Limpopo Department of Education being taken to court and found guilty of negligence. The Komape court case had not yet been finalised when in March 2018 the nation was shocked to learn about another child, Lumka Mkhethwa, who drowned in a pit toilet at the Luna Primary School near Bizana in the Eastern Cape.

These incidents understandably resulted in widespread outrage, condemnation and calls for action. The most common response was that pit latrines should be eradicated, and President Cyril Ramaphosa tasked his responsible ministers to come up with a plan to do just that. On 14 August 2018 the President announced the Sanitation Appropriate for Education (SAFE) initiative, which encourages the private sector to assist government to realise its goal of improved sanitation for all by the year 2030. One of the short term, high level priorities is the provision of decent toilet blocks at the more than 4 000 rural schools which still rely on pit toilets.

Neglect

Sanitation at our schools, in particular our rural schools, has always been badly neglected. For anyone who has only ever experienced clean, tiled, flush toilets it is a visceral shock to experience for the first time a filthy, smelly, roughly built block of pit toilets at a rural school. One wonders how it can be that a nation that prides itself on the high standard of our infrastructure (Our highways! Our World Cup stadiums!) can neglect our children's health and dignity so very badly. And, relative to some of our national challenges (think Eskom, for example), fixing school sanitation really isn't too difficult or that expensive. And yet, all the initiatives, all the budgets and all the sincere commitments notwithstanding, we are in fact still floundering.



Poor quality pedestals often observed in our rural schools. These pedestals are not only unsafe, but are impossible to keep clean, with the result that no attempt is made to keep them clean. Either of these pedestals would be dangerous for a small child, who could fall into the pit.



Appropriate policies

Firstly, the condemnation of pit toilets as unacceptable is a potentially disastrous policy. Secondly, the real problem with school sanitation has little to do with the design of the toilets, and everything to do with their maintenance and cleaning. Thirdly, there is a bewildering range of options for alternatives to pit toilets, and we are not doing a very good job of sifting out which of these alternatives are really appropriate, and which are better left well alone.

VIP toilets

In the public perception, and certainly in the political realm, the problem to be dealt with is pit toilets. They must be eradicated. For the most part they have been and are being replaced with VIP toilets. VIP is an acronym for a 'ventilated improved pit', a term coined by the pioneering Blair Research Institute in Zimbabwe in the 1980s, and which has been adopted worldwide.

The thing is that a VIP toilet is in fact still a pit toilet, despite the fancy name. The Zimbabwean innovation was all about reducing odour and controlling the breeding of flies, but also implied in the description 'improved' is that the toilet is structurally sound, affords privacy and is easy to keep clean.

There are many variations of VIP design and when people ask me to explain the difference between a VIP and any other pit toilet, my answer is simply that a VIP is a pit toilet that is well designed, well built and well maintained. If a pit toilet meets these criteria, it provides a much higher level of service than a dysfunctional flush toilet, and it is common to find flush toilets in our schools that are unusable due to operations and maintenance problems (like for example, an erratic water supply).

At the moment most of our rural schools that are classified as having acceptable sanitation (about 70% of the total) have some form of VIP toilets and all the current efforts to eradicate sub-standard sanitation are focused on the 4 000 schools which have sub-standard pit toilets.



Waterborne sanitation does not necessarily guarantee a better outcome, which depends on good maintenance and a reliable water supply.

So, if the idea should take hold that all forms of pit toilets, including VIP toilets, are unacceptable and must be eradicated, then we are about to embark on a massive and wasteful programme getting rid of toilets that are functional, and replacing them with toilets that will be very expensive to build and to maintain, and which may often not be functional. The rallying cry to eradicate pit toilets is therefore potentially fraught with unintended consequences.

Maintenance and responsibility

What we have observed in all our work researching school sanitation, is that even though very significant amounts of money are being spent by government on the building of new school toilets (the average cost per seat works out to over R80 000), if you return to many of those toilets a year or two later you might easily think they were 10 years old. Soiled walls, broken doors, broken basins, broken taps, broken or missing seats, broken toilets, blocked toilet pans, muddy floors, pools of standing water, urine and faeces on the floor, absence of toilet paper and soap – these sights are common.

There are massive government programmes that have been responsible for the construction of new school toilets for many years, but there is no programme, office or individual responsible for the operation and maintenance of those toilets once the new toilets are handed over.

Maintenance of all school property is the responsibility of the school and the school governing body, and evidently the cleaning and maintenance of the children's toilets is not near the top of their priority lists when it comes to allocating their scarce resources. Many schools do not have dedicated cleaners on their staff, and if they do, many of those cleaners do not consider cleaning the children's toilets to be part of their job description (it is). If the cleaner is willing to clean the toilets, they may not have the basic equipment needed to do the job (like disinfectant) or the basic training to understand how to do the job effectively. The best principals take an active interest to ensure that the school toilets are in good condition (some exceptional principals even use their own time and money to purchase the odd small thing needed to maintain the toilets) but many do not.

We have encountered school principals who do not set foot inside the school toilets from the beginning of the year to the end. Until the cleanliness and condition of our school toilets becomes a top priority, reinforced by a chain of accountability from cleaner to principal to Governing Body to the Department of Education, we should not expect the conditions in our school toilets to improve dramatically, no matter how many new toilets are built and how many billions are spent on the building every year.

Technology

Regarding technology, school sanitation, like all sanitation really, is stuck in a kind of binary paradigm. If the school is in a town it will have flush sanitation. If it is in a rural area it will usually have some form of dry sanitation (usually a variant of the VIP). There are many technological options between these two extremes, and knowing whether any of them can be safely used in the school context is not easy when all the decision-makers have to go on is the enthusiastic claims of the salesmen who are punting the different systems.

The school context is different from the home context in that there is a diffusion of responsibility for getting things done, and therefore a sanitation technology which has been found to work well in selected domestic homes may in fact prove to be a liability in a school.



Good quality plastic VIP pedestals have been manufactured in South Africa for more than 25 years. These pedestals are safe as the openings are limited to prevent a small child from falling through (Image courtesy EnviroSan).



Some products incorporate custom-designed seats for small children. These pedestals are easy to keep clean and hygienic (Image courtesy EnviroSan).

Manageable

In deciding whether to try out something new, a good maxim is that used by the medical profession: first, do no harm. If the system which is being proposed is going to burden the school with greater operating and maintenance costs than the present system, then it is probably a bad idea. If the system has not been tried and tested in a comparable environment for at least two years with good results confirmed by an independent, suitably experienced and competent professional, then treat any claims of superior technology with caution.

Relative to the cost of sorting out one of our more delinquent State-Owned Enterprises, the cost of fixing school sanitation in South Africa is manageable. But in the long term we will only see a real change if the condition of the toilets our children use at school is something which becomes a top priority, and if scarce resources and time are allocated to ensuring that once built, toilets are kept clean and in good working order. That means attention being paid to them every single day, without fail, whenever school is in progress, forever. Without that commitment, no-one can say we are serious about the health and well-being of our children.

In 1993, professional civil engineer David Still established Partners in Development (Pty) Ltd, an engineering consultancy based in Pietermaritzburg, with school sanitation among its many developmental skills. Editor

UBUNTU ARCHITECTURE: LISTEN TO BUILD

Wandile Mthiyane

Architecture is just a frame and people are the big picture.

Obi Okolo, Vice-President, American Institute of Architects Students, 2014-15

The design and planning professions exist to serve people in their efforts to live healthy, productive and edifying lives. Yet our professions have also been guilty of focusing on solutions that don't really serve our clients' objectives or best interests. There are many explanations for this, and also excuses, but at the heart of this challenge is the struggle to prioritize people over processes, institutions, politics, economics and one's own world view. In the words of Michael Murphy of MASS Design Group, Boston, "design is never neutral it either hurts or heals". This can best be exemplified by the perfectly crafted Apartheid architecture. It's been just over 25 years since the Apartheid era ended and yet you can still almost accurately guess which neighborhood a person is from based on the colour of their skin.

The legacy of Apartheid is very visible in the cities across South Africa. Townships such as Soweto in Gauteng and KwaMashu in eThekweni were deliberately planned to oppress black Africans. The '40-40-40 principle' summarizes the basic approach:

1. Locate housing at a great distance from economic centers so as to force at least a combined 40-kilometer commute. This limits economic opportunity and keeps people disconnected from social and political activity.
2. This arrangement results in 40% of income diverted to transportation, further limiting economic opportunities and the ability to build prosperity.
3. Finally, the provision of 40sqm houses keeps conditions crowded, limiting opportunities for economic self-empowerment within the home.

The design details of these plans consistently aimed towards these same goals. Townships were laid out to disconnect people from opportunity in all possible ways: limited access roads into the township, deep linear buffers, large lots and deep setbacks, long blocks, a public realm built for automobiles rather than social or political activity, and few places for gathering or civic activity. Land use was strictly enforced to maintain large swaths of single uses rather than mixed uses or diversity of housing. In short: an environment that can work well for prosperous people with automobiles, but inherently limits the opportunity for people with restricted means.

The legacy of this planning history is evident almost everywhere. In a nation where less than a third of households

have access to automobiles, it should be considered whether current planning efforts are inadvertently continuing some of the same Apartheid-era practices. Large swaths of single-use residential housing estates surrounded by automobile-oriented thoroughfares and shopping centers with seas of parking lots hardly encourage broad access to economic opportunities for small-scale entrepreneurs. Neither do the resulting public spaces cultivate an inclusive, diverse public life, with detrimental impacts on real and perceived safety. This has tangible consequences. Designers of low-cost housing might focus on the bottom line, production efficiency, approvals, engineering factors, political struggles, government-sponsored studies, international trends and the culture of the prevailing industry, yet the voice of the individuals being served might rank relatively low (or be mute). Likewise, urban planners might focus on municipal budgets, land use regulations, policy frameworks, institutional politics, best practices literature, and development trends yet the communities in questions may never be consulted in earnest.

Umbumbulu

In Umbumbulu, a community located 40km southwest of Durban, is where Ubuntu Design Group carried out its pilot home and urban design master plan. In this community there are two processes that overlap: the municipal process and the process governed by the Sobonakhona traditional tribal authority. The latter is revered by tradition and plays a major local leadership role, especially regarding land use on tribal land. Every day, people seek out *Nkosi* Makhanya and his *indunas* (tribal councillors) for advice, direction and assistance, whether at informal meetings at the tribal court offices or informally in the street. The tribal court is an accessible, respected part of the community, and present.



Wandile Mthiyane with collaborators in consultation with the community.

Photograph by Troy Homenchuck



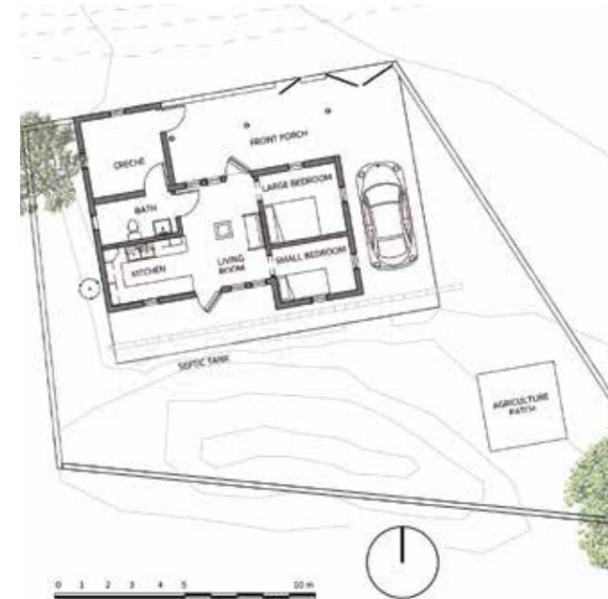
Umbumbulu Community Center, concept proposal by Ubuntu Design Group in collaboration with Andrews University, 2016.

By contrast, local people perceive the municipal offices of central Durban to be abstract, opaque and distant. This is in spite of the best intentions of understaffed municipal architects and planners – evidence of this intention can be found in eThekweni's many excellent planning documents. Distance challenges relationships. It is difficult to live out the Zulu concept of *ubuntu* (I am because you are) in this context. And yet, an extended engagement with locals reveals that Umbumbulu citizens are creative people who understand local limitations but can also offer real working solutions.

A walk with an induna reveals a precise understanding of how the curb radius of a road impacts on vehicular speeds, accidents and business at the informal markets. A discussion with a room full of local residents

The case of the Mtshali family

The Ubuntu Community Process conducted in Umbumbulu revealed the crucial need for a sustainable low-cost housing strategy. The project team, in collaboration with *Nkosi* Makhanya, selected the Mtshalis as the pilot family for the first Ubuntu House. Nkosinathi Mtshali is a survivor of a road accident and his wife, Fikisiwe, lives with a disability, which left the couple with their child dependent upon a government grant. To make matters worse, they lost their house in a storm.



Plan of the house of the Mtshali family in Umbumbulu.

In keeping with the principle of 'listen to build', the project team prepared a preliminary design proposal, which was reviewed extensively by the Mtshalis, their extended family and friends. The proposal was also collaboratively reviewed by the architecture faculty and students at Durban University of Technology before being significantly revised by the project team subsequent to an in-depth site visit.

The resulting Ubuntu House is not a typical low-cost product. It is a climate-responsive design that enables the family to earn an income, thereby promoting financial independence. Its site arrangement promotes social interaction and space. It also promotes local materials and methods to prioritise investment in local, small-scale builders and the immediate Umbumbulu economy. This project teaches us that no one knows what's best for their home and community better than the person who lives or will live in that place.

illustrates how housing is the foundation for strong communities, but also that it matters how the design considers local needs and the participation of local skills. A design workshop encourages councillors to lay out a vision on how commercial development can be inclusive of independent retailers.

And extended meetings reveal that local challenges with alcohol abuse can be met by beginning with a sustainable agriculture strategy. This article is not a policy plan for directing municipal or tribal implementation as if the government and traditional authorities could provide for everything. It is an invitation to re-imagine the potential of Umbumbulu and eThekweni by listening to people in order to build collaboratively.

Architects sometimes need to forget what they were taught at design school and listen to the genius, creativity and wisdom of the locals in order to design culturally contextual and sustainable places. In the words of Steve Mouzon, an architect, urbanist, author and photographer based in Miami, if people are involved in the design process, they'll love the outcome, if they love the place they'll take good care of it and if they take good care, that place will last longer hence making it sustainable. Before we start talking about solar roofs and other eco-friendly design materials and equipment let's start by designing places that people love and that's where true sustainability begins.



The practically finished house. The orange-coloured portion at right serves as a day care centre, which provides a service to the community and an income for the family.



Nkosinathi Mtshali and his wife, Fikisiwe in the living room.

Wandile Mthiyane studied Architecture at Andrews University, Michigan, thanks to an initial grant by eThekweni Municipality. On his return to South Africa, he commenced practice as Ubuntu Design Group in Durban. He was recently selected as one of the 2019 Obama Foundation Africa leaders. Editor

WHAT CAN WE LEARN FROM INFORMAL SETTLEMENTS?

Judith T Ojo-Aromokudu

Introduction

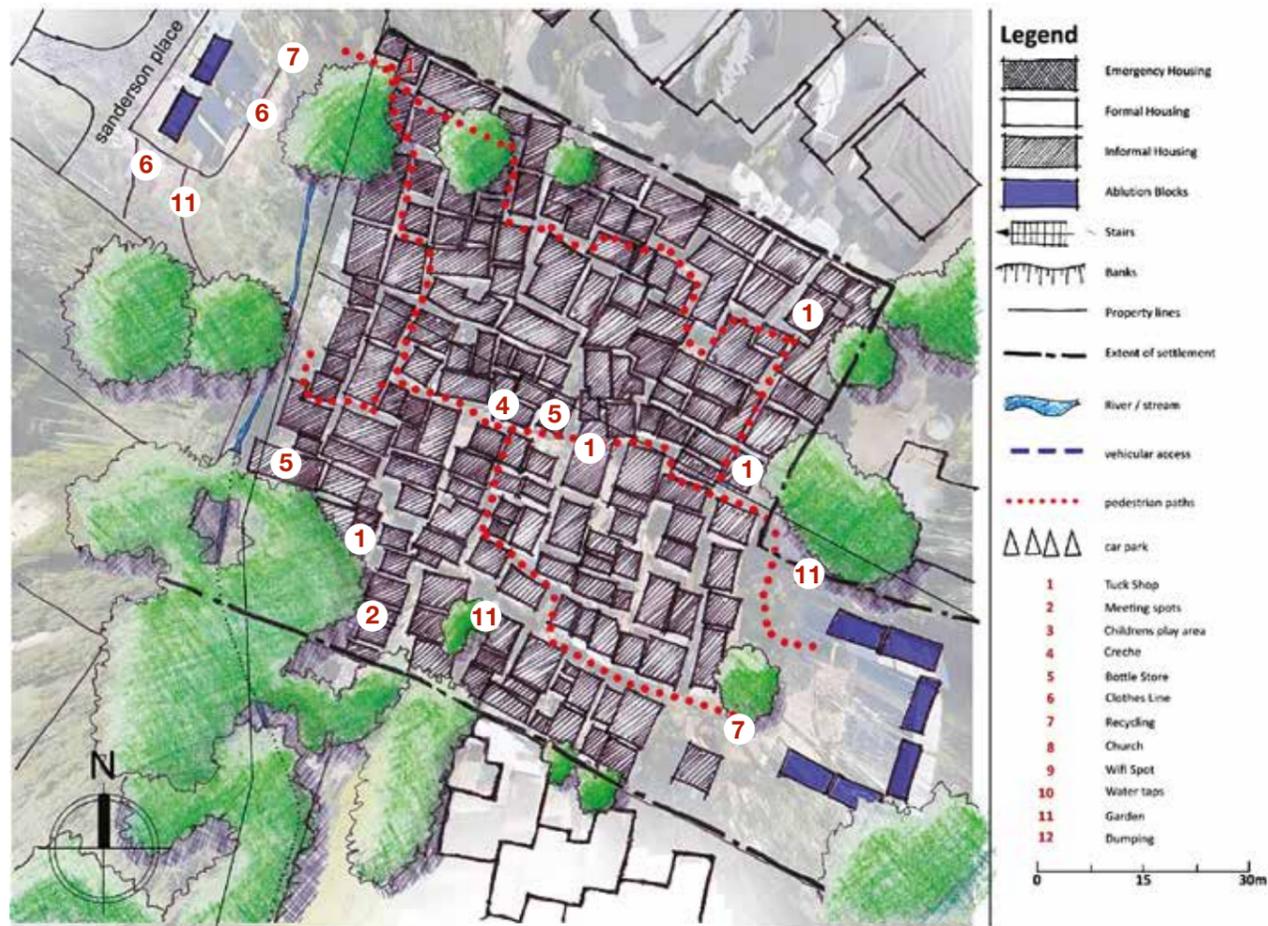
Informal settlements are a prominent feature in the urban built form of rapid developing cities of the Global South. They present as unplanned, often illegal settlements in fast growing cities. While they offer housing alternatives for many of the urban poor, the dwellings are often defiant of regulatory building standards and riddled with health and safety concerns to the detriment of both the occupants and other formal neighbours. This is not only due to poverty but can also be blamed on improvisation.

The settlements are often overlooked by formal authorities until they pose a health and safety hazard and nuisance to formal neighbours that can no longer be ignored. They present complex challenges to the urban environment, many of which, it can be argued, the architect is trained to resolve. It is, of course, acknowledged that before the training of architects, residential settlements were effectively meeting the housing needs especially in the rural areas, where vernacular architectural language is the norm. This entailed self-help efforts and building practices that evolved through trial and error, giving rise to a vernacular language that is responsive to the local reality. Thus a co-production of knowledge may be the way forward.

In this article I will argue that informal settlements provide an array of lessons for urban housing challenges. Taking the view point that space is an outcome of necessity (Dana, 2014), it becomes important to understand the spatial necessity of residents, and to interpret the configuration of patterns created in space. I have used data collected for my research study from the Havelock informal settlement, referred to as Greenwood Park by the municipality, because of its position in that suburb, west of Chris Hani (North Coast) Road. When compared to other informal settlements



Havelock informal settlement in Greenwood Park suburb. The settlement is accessible from Sanderson Place (top left), which peters out there, and from Havelock Road at right. Drone photograph by Viloshin Govender, 2018.



Detailed map of Havelock informal settlement.

within the eThekweni municipality, this was a relatively small settlement of 227 households as at 2017. Interviews were conducted with 25 residents regarding their daily activities and observations were made regarding their dwellings and living environment. The principles of Vitruvius are used as a lens to discuss the dwellings.

Origin of residence

The lived experiences in the informal settlement are reflective of the character of the residences. The informal settlement dweller in KZN is predominantly African, having ongoing ties with the rural areas, and is more often unable to afford formal housing options, but hoping to access state provided housing opportunities.

Obtaining permission to stay

The occupation of vacant land is not always without permission or consent. Residents usually obtained permission to build their dwellings from some existing presence. This could be the registered owner of the land, or an established resident who had already obtained permission. It was therefore not possible to build without first getting a nod from somewhere.

In the case study, the findings showed that the first settlers were given permission to occupy the land and over time they then granted permission to others to stay. As such, the findings revealed that the process of dwelling in the informal settlement is always with consent from the 'community leader' i.e. the *sibonda*. I put this in inverted commas because it does not refer to a formal or democratically elected leader, but rather to the leader Gramsci (1986:131) refers to as the intellectual of the community.

It implies that there is a referral system in place, which became apparent from the data collected. The findings showed that groups of residents came from the same rural areas, either relatives or neighbours, and many paid regular visits to their rural homes. In this way, social support systems were established within the settlement. Along with this came the indigenous building knowledge, creating as far as possible familiar symbolic and functional elements.

Keeping ties with ikhaya

One major lesson that we can take away is that the informal settlement residents keep ties with their *ikhaya* or rural homes. Even though not all respondents came directly from the rural areas, there were very few who did not regularly return to their rural homes. Regular contact with the rural areas also meant that residents kept cultural and traditional practices and rituals, many of which required peculiar environments. For example, in the rural homes, rituals were carried out in separate circular units, which were kept for communication with the *amadlozi*, a Zulu term for ancestors and a life-giving force.

Settling and dwelling

It can be argued that residents do not actually dwell in the urban areas. To dwell means to be at peace in the place, which entails connecting physically, spiritually and emotionally with place (Heidegger, 1971). The findings showed that residents did not connect spiritually or emotionally with the urban environment as they kept ties with rural traditional practices and often did not engage with statutory rules and regulations, and frequently had little regard for the environmental impact of their activities. Rather, residents took the risk of settling on vacant land, and engaged in traditional building practices as they

mirrored their rural homes in the city, creating a place of abode, and looked forward to more permanent housing solutions from the state.

Spaces created

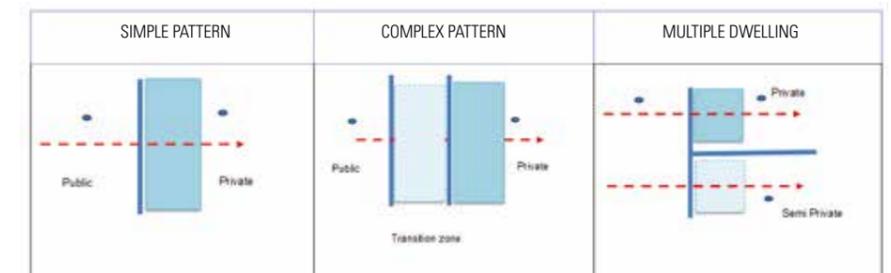
The Havelock informal settlement occupies two privately owned lots, on steep land that slopes from Havelock Road to Sanderson Place. On the lower end at Sanderson Place is a small stream flowing across the settlement. Being in a developed residential area, there are also existing water and sewer pipelines. The first resident was granted permission to stay by the landowner in 1986. The number of households has increased from 162 in 2012² to the already mentioned 277 in 2017. Space allocation depends on the available vacant area.

Key activities within the settlement relate mainly to rejuvenation. The interior space created was a multi-functional open space of no more than 24sqm. Activities carried out within the dwelling included sleeping, cooking, bathing, washing, relaxing and praying. It was observed that the space was given meaning by the placing of furniture such as the bed.



A small stream crosses the settlement.

The dwelling layout can be categorized as three major typologies i.e. the single dwelling, the complex, and the multiple dwelling. The single dwelling had a single entrance, and movement was directly from the public



The dwelling layout categorized into three major typologies

to the private area. The complex dwelling was a single structure with more than one entrance door and a transition zone which could be a multi-functional area in which the household members relaxed or carried out business activities. The dwelling was usually more than one room deep. In the multiple dwelling, the household occupied more than one dwelling unit. There were no internal passages from one room to another. However, there was a semiprivate zone, linking the public area to the private.

The units were laid out in such a way as to create a private open area for the household. It was observed that as household size increased either an extra room was added onto the single typology or a separate unit was erected often for older male members of the household. In some instances, additional units were needed to accommodate other income generating activities such as providing rental accommodation, childcare services, and/or petty trading.

Activities within the dwellings happened around the basic furnishing in place. Furnishing commonly found was related to resting, relaxation, storage and services. Electrical appliances such as televisions, fridges, kettles and microwaves were accessed using illegally connected electricity. Storage items found within the dwelling were the kitchen cupboards, wardrobes, shelving and water storage containers. Larger items were stored on the roof of the dwelling and helped to hold the roof down.

Storage was obviously a challenge for residents. Some residents complained of not having enough space for the type of furniture desired and were not pleased with the littering of items that could not fit into dwellings in external passageways. It was observed that items left in exterior passageways were exposed to damage and eventually became unusable, congesting pathways further.

Commodity

Human comfort relates to social and physical comfort within the dwellings. It requires conditions for circulation, privacy and ventilation within the space. It entails social comfort amongst the gender divide, often dictating behaviour within the space. The interior lighting was of poor quality, with natural light streaming through joints and openings between the walls and roof, in the absence of windows. The illegal electrical supply connected a single light bulb within the dwelling, which provided extra lighting when available. Where windows were present, very little light filtered through, due to the dense nature of the settlement.

While the conditions may be considered uncomfortable, they were similar to common practice in the indigenous dwellings where circulation was exterior and the passage from the exterior to the interior was a transition from the public to private space. The sudden change in perceptive ability due to poor lighting disorientated any stranger on entering the dwelling, thus giving the occupants the opportunity to welcome or refuse such a visit; the major difference being the compactness within the settlement which impacted on human comfort.

The spaces within the dwelling were put to multi-functional use which changed across the day. This, however, created conflict within the dwelling. For instance, it was not possible to cook when all the folded-up beds were spread out on the floor. This restricted activities to time periods and could be cumbersome as the household members were forced to stick to daily routine. In other instances, residents may have had to vacate the dwelling for activities that required privacy such as taking a wash in a large basin within the dwelling. Daily activities were not limited to the interior of the dwelling but extended to the ablution block and other communal gathering spaces.

Sanitation in informal settlements is a major challenge. In all the case studies the local authority had provided community ablution blocks (CABs) for use by the residents. They were also managed by residents. The CABs were located on the periphery of the settlements and were fitted with toilets and showers. The location proved to be a challenge to many of the residents as they had to walk some distance to make use of the facilities. It emerged from the interviews that residents, especially the children, often had a quick wash-down within the dwellings. This practice created both privacy and hygiene concerns. A close look at the layout of the dwellings revealed that not only did dwellings share common elements such as roof coverings and walls; they also shared common outdoor spaces around which building entrances were located. This clustering of dwellings provided outdoor gathering spaces within the settlements.

While common building elements had economic benefits, issues of health and safety were compromised. For example, privacy was reduced and the ease of the spread of fire was increased. However, residents were proud of their efforts and referred to their dwellings with positive terminologies (Ojo-Aromokudu, Loggia & Ndinda, 2018).

Firmness and delight

The dwelling sizes were minimal, responding precisely to human scale and proportions. The dwellings were of a post and beam type of construction with semi-cladding, similar to those of the rural homesteads. Ceiling height takes its reference from the door height, and in the worst case the highest part of the room is door height. Recycled materials such as off-cuts from banner printing factories were used to finish the interior of the dwelling. This provided not only a decorative finish but insulation.

Respondents indicated that they had built their dwellings with the help of family and neighbours. The poor construction can be attributed to two main factors, hasty construction practices due to the illegality of the exercise and inability to access skilled services and appropriate building materials. The combination of these factors results in the shoddy workmanship witnessed on the urban landscape, when compared to rural dwellings that have stood the test of time.

Building tasks included the gathering of building materials, which were stored in the settlement until there was enough to put up the dwelling. Common building materials included recycled corrugated iron sheets, and reused components such as doors and window frames. Other occupants used natural materials such as mud, wattle and daub, replicating their rural building practices.

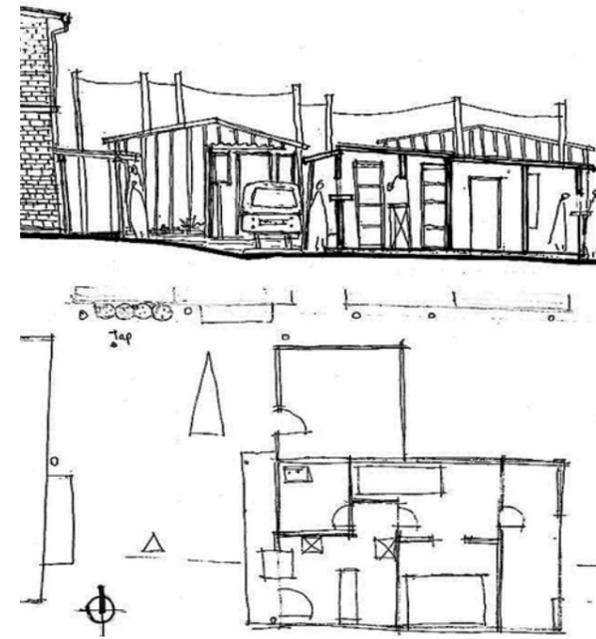
Delight reflects the social and economic expression of the society and can be considered a snob value. It refers to something that improves the dwelling which could be decorative features, or an additional space such as a veranda in front of the entrance. According to Laura Hunt, the vernacular "...meets the 'fit for purpose' requirements and may go further to add on a 'snob value'..." (Pr. Arch, eThekweni municipality, interview, Durban, 31 May 2017).

This characteristic was found to be more common in dwellings that had to be rebuilt after a fire or flooding incident; as such the older the dwelling, the more the decorative expressions. In the interior, decorative features included posters and other objects of display such as calendar pictures on the corrugated sheeting often used as walls. Others finished the exterior of the walls with colourful paints. This formed the socio-economic and cultural expressions of the household.

Conclusions – Lessons learnt

The lessons learnt can be both what we should do and what we should not do in tackling the housing challenges of the urban poor. Firstly, lessons of attitudes are important. The residents showed positive attitudes and were willing to engage in solving their housing challenges. They made use of limited resources and initiative in creating living spaces for themselves.

However, these dwellings often failed to meet basic health and safety requirements, which are critical for residents, non-residents and the environment as a whole. At a neighbourhood level, communal living is evident in the reality of the settlement. The use of exterior space is important bearing in mind the limited space within the dwelling.



Section and plan of a unit in KwaMathambo, another informal settlement nearby, also on private land along Chris Hani (North Coast) Road.

These constituted shared spaces within the broader settlement, some defined by households as semi-private spaces, while others were more public. In designing residences for the urban poor, it is therefore important to include exterior spaces within which communal bonds can be developed. Residents' shared ideas and social capital is enriched in such spaces. The idea of sharing was also evident in the process of erecting the dwellings and in the sharing of building elements such as roofs and walls.

Building methods lacked the required integrity. While the transition of indigenous knowledge into the urban areas may be laudable, it is noted to be dwindling, lacking the relative integrity of the original. This particularly

related to the adaptation of building materials found in the urban areas. The urban poor therefore engaged in experimental practices using recycled urban waste, easily accessible from neighbouring industries to erect their dwellings. Learning from this practice will require a more concise examination of building materials and practices, and would provide a basis for alternative building methods that are not only innovative but also affordable.

Apart from the physical context, the economic and socio-cultural forces gave broader drivers for housing challenges of the urban poor. This requires a buy-in from all actors, within and outside of the settlement and an understanding by built environment professionals, and the powers that be, to enable the urban poor to create healthy and safe human settlements that exhibit the Vitruvian principles of firmness, commodity and delight.

Dr Ojo-Aromokudu is a professional architect and until recently a lecturer in the Housing Programme of the School of Built Environment and Development Studies, University of KwaZulu-Natal, Durban. Editor.

1. Apart from those who came directly from the rural areas, others came from dense rural, urban and other informal settlements. Over 90% of respondents were born in the rural areas.
2. Slum Dwellers International (SDI) carried out an enumeration exercise in 2012 and recorded the number of households as 162.

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In Memoriam

Jean Powell (1927-2019)

Mature former Natal School architects will remember Jean Powell who taught Descriptive Drawing during their foundation years – often dressed in leopard print pants.

She recently passed away after an enduring association with our profession. Few realised that she had completed the Foundation course in Architecture at the Bartlett School of Architecture followed by the Central School of Art and Crafts, both in London.

A versatile and thoroughly trained artist she worked in collaboration with many architects, including Derek Sherlock, Luis Ferreira da Silva, Brian Johnson and the writer, her notable work being the vibrant vitreous enamelled doors to Roy Farren's electricity sub-station, in St Thomas' Rd, opposite DHS.

She, together with Dennis Claude, founded the Art Deco Society during the late '90s. This endeavour is still ongoing. Her versatile oeuvre was displayed during 2015 in an exhibition curated by Robert Brusse. *Rodney Harber.*

Stan Ivor Foley (1934-2019)

Many will remember quantity surveyor, Stan, always smiling despite limping due to an injury resulting from a road-running accident, who for many years served as acting head of the department at Natal during the 1980s and '90s. As it was his wish, his life was "celebrated with jazz and champagne".

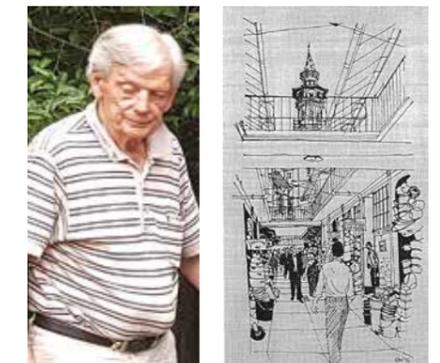
Garth Williamson (1938-2019)

On matriculating from DHS in 1955, Garth studied Architecture at Natal. Interestingly, he played rugby as scrumhalf for the province (now Sharks), earning 38 caps, 1958-62, and in 1960 was selected as a Junior Springbok. In 1963 he commenced Planning studies at Edinburgh University, before joining the consultancy of his mentor, RMJM. Returning, and working briefly with Ted Tollman, he accepted a call from RMJM to work in Saudi Arabia. On conclusion, in 1975 he joined the Durban City Engineer's Department and was soon appointed Chief Town Planner.

A project-oriented Urban Design office was formed. Garth played a key role in the 1980s Beach and City programme, with consultant Revel Fox. The Expo '85 commemoration was catalytic, with the conversion

of redundant railway sheds as the Durban Exhibition Centre. Former staffers recall the heady days of these public space upgrades, Garth proving a gifted and inspiring team leader.

Garth was known for his sketching ability, his ready wit, and his signature red convertible Mercedes Benz, left hand drive, usually driven with open top. Our thoughts are with his family and especially with his daughter, Amanda, on the Planning staff at Wits. *Arthur Gammage.*

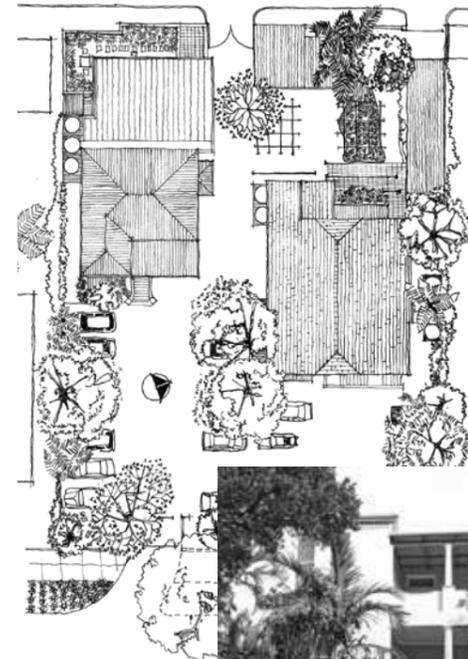


TRAVEL DIARY

HERITAGE AND MODERNITY IN WORKS OF GEOFFREY BAWA (1919 – 2003)

Somakanthen Govender

My journey was prompted by the re-development of our Glenwood offices that comprise two historic buildings, 44 & 46 Lena Ahrens Rd. Number 46 is in the Edwardian style, whilst the other is in the Union style, and both styles have their origins on foreign soils. Consequently, in the re-development questions of local character and environmental fit surfaced.



Site plan of the neighbouring villas, the Durban base of the practice Artek 4 on 44 and 46 Lena Ahrens Rd, Glenwood.

The Edwardian villa at 46 Lena Ahrens Rd.



Colonial buildings in KZN are Classical and in many ways result from industrialisation of components and transfer from England to KZN. To establish local character, we looked at a process of local cultural inclusion in the form of patterns, motifs, styles, materials, construction techniques etc.

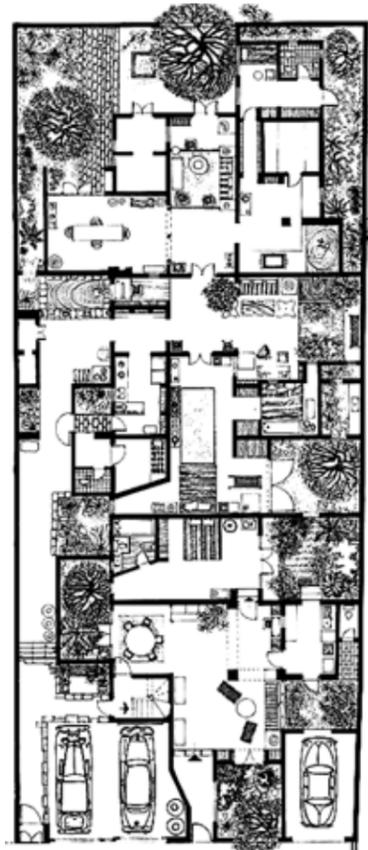
According to Christian Norberg Schultz, "Place is an extension of nature and consists of the physical, ecological, environmental but also intangible phenomena such as feelings. Genius loci or 'spirit of place' has been recognised, as the concrete reality man has to face and come to terms with in his daily life. Architecture means to visualise the genius loci, and the task of the architect is to create meaningful places, whereby he helps man to dwell... within an 'inside' place as an extension of the nature outside."

The idea of dwelling within an 'inside' place as an extension of the nature outside has led to our exploration of courtyard architecture, which appears to be an obvious fit with our environment. Colonial buildings reorganised into courtyards is not novel and was explored by Geoffrey Bawa in Sri Lanka.

To develop a better understanding of 'tropical modernism', which should apply to Durban, I journeyed to Sri Lanka in January 2019 and found the following three buildings to typify Bawa's contribution.

33rd Lane, Bagatelle Road, Colombo

In 1952, during his first commission in Colombo, Bawa rented the third in a row of four tiny bungalows. Over time, the remaining bungalows fell vacant and he bought the entire row. He then demolished the first bungalow and erected in its place a Corbusian tower, with a first floor sitting room and a guest suite and a second floor loggia with a roof terrace.



33rd Lane, Bagatelle Road, Colombo. Take note of Bawa's intricate hand-drawn plan (Brochure of Geoffrey Bawa Trust).

The artwork is typical of the local cultural infusion which Bawa showcases within the architectural fabric. The entrance corridor heralds an owl sculpture bathed from a discreet narrow roof light reminding us of his admiration of Baroque architecture. All of this culminates in the naturally-lit atrium.



33rd Lane, Bagatelle Road, Colombo. Entrance breezeway.



The courtyard with reflecting pool originally functioned as the waiting area for patrons of Gallery Café.

The Gallery Café, Colombo

In 1958, Bawa employed gently sloping clay roofs that applied Ceylonese vernacular and simple Scandinavian forms. However, in the tropics, the pure white forms tarnished quickly and sun screens in the humid climate produced stuffy interiors.

The conclusion was that the roof was the most important part of the building in the tropics and the interiors should be protected by deep overhanging eaves and cooled cross ventilation, perfectly captured in the central courtyard with its reflecting pool and which functioned as a waiting room for patrons. When the owner left, Bawa bought the premises, still incomplete, and adapted it as the offices for his practice.

The Kandalama Hotel, Dambulla

One of Bawa's last works was the Kandalama Hotel (1992), located near Dambulla and sited on an isolated ridge overlooking the Kandalama reservoir. The building is faceted to follow the contours and measures almost a km in length. The hotel wings are reached via single loaded open corridors that snake past the edge of the cliff. The detail is robust to match the rock outcrop. There is deliberate contact with the outside by touch, feel and sight.



Kandalama Hotel: a building to look out of.

The open façades carry a second skin of concrete purlins and timber slats that support dense screens of foliage. The building disappears into its natural habitat. The architecture is stark and understated, supporting the notion that this is not a building to look at, but a building to look out of.

Bawas' tropical modernism

These three examples bear testimony to Bawa's mindful awareness of man's relationship with nature. He was one of the original advocates of tropical modernism, the architecture with wide, open spaces that encourage cross-ventilation and make use of local resources and materials. But, in addition, Bawa demonstrated that architecture can reflect cultural notions.

Nuances to glean

If the climate permits, maximize edge-to-edge use of the site and strive to attenuate any form of arboreal focus. Courtyards enable the amalgamation of introverted buildings. In hot, humid climates, use shade and enclosure to create an 'inside' place as an extension of the nature outside. Use pergolas to formalise external spaces. Redirect attention towards vistas to draw the outside in. Use and re-use local materials. Now to get down to attuning our offices to the principles of Bawa's 'tropical modernism'!

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Readers are referred to previous coverage on Bawa in *KZNIA Journal*, 2/2012 by Kevin Lloyd.

