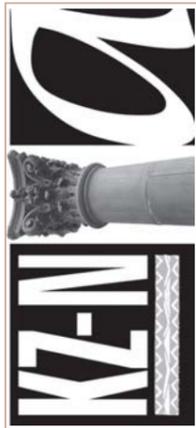




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Social Housing



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This journal, now in its 33rd year of publication, has since inception been sponsored by Corobrik.

News...

KZ-NIA President and Regional Committee 2009-10

AT THE ANNUAL GENERAL MEETING of the KZ-NIA, held co-incidentally with World Architecture day on Monday, 6th October, 2008, the following members were confirmed to serve on the Regional Committee for 2009-10:

Bruce Clark, Ivor Daniel, Patricia Emmett, Franco Frescura, Joanne Lees, Bharti Vithal, Miles Pennington, Walter Peters, Derek van Heerden, Greg Townshend, Gina Walker and Melissa Wilkins. At a subsequent meeting, Miles Pennington was elected President.



After graduating from the University of Natal in 1978, Miles Pennington worked in Johannesburg before commencing independent practice in 1985.

He returned to Durban where he taught at his alma mater, became a partner in Stafford & Associates and re-established his practice Pennington & Associates.



School of Architecture, UKZN

2007 PRIZE-GIVING
 FOR THE FIRST TIME, KZ-NIA prizes were awarded to UKZN students of Architecture at the AGM.

Bachelor of Architectural Studies
 Yr 2 *Barrie Biermann Prize*: Helen Reeves
 Yr 2 *Gordon Small Prize*: Dimitri Dobrov
 Yr 3 *Calvert McDonald Prize*: Grant Prestedge

Master of Architecture
 Yr 1 (4) *Clement Fridjohn Prize*: Lauren Haiden
 Yr 2 (5) *S N Tomkin Prize*: Louis du Plessis

The O'Brien-Brown Bursary was awarded to BAS Yr 1 student **Freeman Dube**.

SAIA Prizes
 The *David Haddon Prize* for the best student in Professional Practice went to **Louis du Plessis** as did the *SAIA Prize for the Top Student in the M.Arch degree*.

Letter to the Editor: 40 Years in Northern KZ-N

YOUR EDITORIAL OF ISSUE 2/08: "Outlying Practices" has evoked many memories of my own experiences practising in northern KZ-N since March 1968.

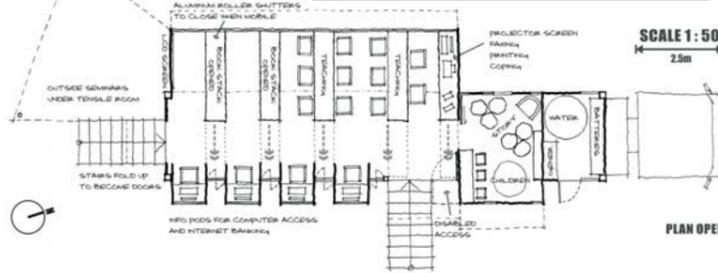
Lacking finance and influential contexts, I decided my only opportunity to share in a partnership would be to go where no other architects were established. At the time, ISCOR was planning on establishing a steelworks in Ladysmith, Newcastle or Vryheid, so I opened the branch office in Vryheid for Bill Ellens Snr.

Communication with the outside world was difficult via the old fashioned local telephone exchange. If it was a local call, you were connected straight-away, but out of town trunk calls could take up to two or three hours. Other than letters, telegrams were the only means of sending written messages.

Using locally available building materials was the only option. Anything transported from outside inevitably caused major delays.



Ryan Harborth being congratulated by national Minister of Arts and Culture, Dr Pallo Jordan on receiving a first prize.



First Prize in Competition for a Model Community Library

FOLLOWING ON FROM the launch of the 2007 Library Transformation Charter, the Department of Arts and Culture invited students of Architecture of any year and from all SA universities to participate in a design competition in search of new directions for community libraries on seven generic sites across the country.

The design for a library in an informal settlement in the Western Cape, on a flat site with neither an established access road nor any piped services, has been won by **Ryan Harborth**, an M.Arch 1 (Yr4) student. He titled his submission "Mobile Knowledge", and proposed two trucks each with horse and trailer and which sides would expand laterally once parked. One truck was dedicated for book holdings and the other equipped for teaching literacy, the key to library usage. The trailers could be left on any particular site until removed.

Leslie Croft 90!

ON 10TH DECEMBER, Professor Emeritus Leslie Croft celebrates his 90th birthday. He was the second Professor of Architecture and Head of the Department at the University of Natal from 1965 until his retirement in 1978, architect of Denis Shepstone building in which the discipline of Architecture resides, begetter of the Faculty of Architecture and Allied Disciplines and founder Dean. *Congratulations Leslie!*

Retirement

AT THE END OF 2008, **Walter Peters** retires after 32 years of full-time service, a career which, uniquely, spanned all academic ranks from Lecturer to Senior Professor. He has accepted the nomination as 21st Sophia Gray laureate and is to present the lecture and exhibition in Bloemfontein in August 2009.

Drawing materials came by rail from Durban. Copying drawings was achieved by stretching the tracing over light-sensitive ammonia paper and exposing to sunlight until the yellow background faded. The paper print was then quickly inserted into an ammonia box and a print copy of the tracing emerged.

I moved to Newcastle for the decade 1969-79 working with Colin Glasspool. On Ellens' retirement in 1976, we were joined by Tony Clarkson in Ladysmith and practised as Glasspool, Coote and Clarkson until Colin opted for independent practice. I now have a small office incorporated in a cottage at a retirement complex in Vryheid, where I have been resident since 1999, and am fortunate to still be involved in the planning, tender documentation and supervision of school projects in the area. According to my register, I have undertaken 600 projects since my arrival in Vryheid.

John Coote, Coote Clarkson Architects (Vryheid) Inc.

Letter shortened.—Editor

Durban aims to build 30000 new social housing units in five years in its "restructuring zones"¹ – urban areas where potential exists for the city to densify and integrate its people. These are areas best suited to higher density residential developments because they are well supported by transport nodes and close to jobs, schools and other infrastructures.

So what exactly is social housing? It is typically rental housing which is owned and managed by non-profit housing associations with the sole aim of providing affordable units to a specific target group. Through medium and higher density schemes, the expense of good sites can be off-set, and government subsidization assists in keeping monthly rents below market rates. Social housing is built for use and not for gain

Why rental tenure? KwaZulu-Natal has one of the two largest rental markets in the country with 33 per cent of all households renting (the average is 18-20%). Within the eThekweni municipality alone, 39 per cent of tenants rent shacks.² A dire shortage of suitable rental stock exists. This issue showcases projects (undertaken by architects) which aim to alleviate the shortage in this market and includes both social rental housing and projects financed through the national hostel upgrading programme.

Social housing is a relatively new form of housing in South Africa, introduced in 1995 with the establishment of an institutional subsidy mechanism. The tendency in the sector³ over 1996-2006 showed that the provision of this form of housing became more exclusive as the feasibility of operating housing associations diminished. The subsidy value (actual value of the project linked to the subsidy used to construct houses under the government's Reconstruction and Development Programme) was hit by rising inflation and financiers' demands for 'management intensive' operations to minimize the risk profiles of housing associations. The easy route was to increase the physical product and to let units to higher-earning households (and thereby increase rental amounts). But this further removed the possibility of poorer tenants gaining entry to housing. Part of the national government's strategy for a sustainable built environment was to institute a Restructuring Grant of approximately R100000 per rental unit created (see page 3). Through this grant and the national housing policy, social housing is the best if not the only opportunity for households earning under R7500 per month of getting a newly built, architect-designed home. The massive significance of this is highlighted by its alternatives.

Since 1994, 200000 houses were built in Durban without an architect anywhere in sight. During the same time period the Durban municipality's dedicated Housing Unit

Editorial
Social Housing



Guest editor Laura Hunt at Moshe Safdie's Expo '67 'Habitat'.

together with the KwaZulu-Natal Department of Housing, wet the roofs of 140000 new houses built under the capital housing subsidy scheme. The vast majority of these roofs were unremarkable mono-pitches covering, at the very most, two small rooms and a "wet core" in a single story house on a single small plot of land. Hey! They were a very good start with each having a title deed, a postal address and a house full of piped services. Once again, architects weren't there with a drawing. Most of these new neighbourhoods confined housing options for the poor to the urban periphery, where cheaper land improved affordability at the outset, but which ultimately segregated them from access to a diversity of formal and informal urban opportunities. Longer term, the sprawl created raises the serious issues of socio-spatial fragmentation and residential inequities. It also puts in question the environmental and financial sustainability of our cities.

The Constitution emphasises "adequate shelter for all" in keeping with the Universal Declaration of Human Rights as set out in 1948. This right to adequate housing has been recognised as an important component of the right to an adequate standard of living.

The "Breaking New Ground" policy initiated in 2002 shifted the focus from quantities of (mainly freehold) housing units to qualities of sustainable human settlements. A far broader range of higher-density developments is being considered which, in addition to social rental housing and the upgrading of hostels, covers community residential units, inclusionary housing, and the regularization of inner city work-live arrangements in parallel with more suburban housing models. (see page 3)

This issue looks at how architects are challenged to explore ways of enhancing the housing experience of poor people. With zero budget for aesthetic niceties, the scale, orientation and proportion of shared spaces between blocks of small flats become all important in optimising amenities (see pages 4-5) and getting projects built at all is an accomplishment in itself (see page 6-7).

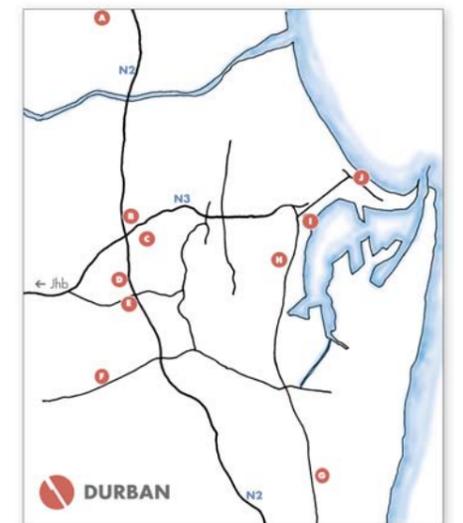
The essential design challenge of these newly built medium-rise (two and three storey) projects is that they begin to define a new sense of urbanism at the periphery of the formal city where no such sense currently exists. In addition to the development of new housing on greenfield sites, local housing associations (First Metro Housing Association and SoHCo) have contributed to inner city renewal by revitalising run-down apartment blocks and by recycling obsolete office towers into flats (see pages 8-9).

Likewise, the upgrading of single-sex migrant worker hostels to family accommodation sees architects densifying and dignifying these sites with new high-rise blocks which connect to lively streetscapes below (see pages 10-11).

With the target of 30000 units to be designed and built in five years, it's fantastic to see the quality and thought behind the social housing project proposed by student Ryan Harborth on pages 12-13. Let's get out the bumf and get more of this housing built!

Laura Hunt
 Laura Hunt recently joined the eThekweni Municipality's City Architects after lecturing at the University of KwaZulu-Natal where she taught in a new undergraduate degree offered in the Housing Program. Prior to this, Laura worked with the Built Environment Support Group where she designed KZ-N's first social rental housing project; the Shayamoya project at Cato Manor. (see KZ-NIA Journal 3/2000)

- Endnotes:**
1. The eThekweni Municipality has defined a first phase of these as being Cato Manor, South Durban Basin, Pinetown CBD, Inanda/Ntuzuma/KwaMashu and the Durban Inner City area.
 2. The Social Housing Foundation (July, 2008): Supply and Demand of Rental Accommodation in South Africa
 3. The Social Housing Foundation (2001): Trends in the Social Housing Sector.



- Durban**
- A KwaMashu
 - B Habitat (KZ-NIA J 2/2002)
 - C Candella Road
 - D Shayamoya (KZ-NIA J 3/2000)
 - E River View /uMkumbane
 - F Valley View/Hillary
 - G Mobeni
 - H Dalton Road
 - I Solynar
 - J Rutherford Street

SHiFT-ing to Quality in the Rental Housing Sector

Diane Arvanitakis

An advocacy organisation, the Social Housing Focus Trust (SHiFT) is an NGO bringing together the expertise of professionals who aim to improve the quality of the design and environment of social housing projects.

With a vision of building communities and social cohesion, the Trust aims to “shift” the delivery of affordable housing to quality, not just quantity, through an integrated design in line with *Breaking New Ground* strategy and the more recent *Restructuring Zones* policy.

SHiFT was set up in 2000 when a group of architects gave their input at a workshop organised by the Social Housing Foundation (SHF). This workshop defined *Guidelines for Social Housing Design*. Since then, SHiFT has been involved with capacity-building tools, research and documentation, policy debates and awareness campaigns, all relating to social and rental housing delivery.

On the back of the success of the first competition initiated in 2002, further competitions were held in 2004, 2006 and more recently in 2008. The aim is to allow students to debate and engage with the various challenges relating to social housing, often their only exposure to these issues during the academic curriculum.

An innovation this year invited entrants to design around the lives of real people. We provided small biographies to help entrants with visu-

sation. As a result, the project designed around the needs of real people was a starting point. Furthermore, entrants were allowed to select their own sites with the only criteria being that it met the *Restructuring Zones* characteristics.

Beyond that, there were three interlinked aspects of design on which we were looking for ideas and innovation: urban design, site planning and unit design – each of these to be addressed on a separate drawing. The competition also limits entries to black and white submissions, encouraging students to develop a drawing language.

Urban design was to illustrate an understanding of the site in relation to the surrounding urban fabric and to help jurors understand the respective contexts. At the site planning scale, juries prioritized the creation of ‘a sense of place’ and making creative use of different land uses, such as shops, workshops and playgrounds. For the first time crime emerged as a priority in the design of schemes in the entries.

At unit design, scale-efficient design of limited space was prioritized in the judging. Orientation, the flow of rooms, access to the unit and the relationship between different units were all important, not forgetting the use of private open space – the main contributor to the overall sense of enjoyment of an environment. A sense of identity and factors which increase the liveability for the individual unit also needed to be considered. Affordability for very low income households resulted in the provision of shared facilities. But

even so, design can make an important contribution to such an environment, encouraging joint and responsible management of common facilities.

The competition also invited new ideas in the field of energy-efficiency in design and living. This aspect received little attention from most entrants, which was disappointing. In terms of energy usage, as well as the recycling of waste and use of recycled materials, there was room for more creativity, although the winning entry did contribute to this aspect.

Interest in the competition by students resulted in an enthusiastic 34 entries being submitted (of a potential 35) from eight (of the potential ten) institutions.

The award ceremony was held as an event at the annual Architectural Students’ Congress in Bloemfontein, with the exhibition of entries at the Oliewenhuis Art Museum in September. This gave all those involved in the competition the opportunity to view the entries. The competition was funded by the Libyule Community Development Trust and the National Housing Finance Corporation and was administered by SHiFT.

The experience of running student competitions has given SHiFT the confidence to embark on a competition for professionals, earmarked for 2009/10, thus improving architects’ awareness of the social housing sector.

Diane Arvanitakis is the Executive Manager of SHiFT and is based in Johannesburg –Editor



Social Housing: Intensifying Inner City Housing Supply

Minenhle Makhanya Architects

Proposed Apartment Block at 19 Rutherford Street, 2007

First Metro Housing Association, established in 1998 by the eThekweni Municipality now owns and manages 800 units across ten properties. These combine refurbished flats in the traditionally high-density flatlands of the beachfront and Albert Park as well as new projects on greenfield sites (Howell Road and Westridge).

One of First Metro’s planned new developments is a 63-unit apartment block at 19 Rutherford Street in a vibrant and dynamic section of Durban’s South Beach. The nine-storey block is inserted between two existing First Metro blocks of flats, Hawaii East and Hawaii West. The dilapidated two-storey bar and entertainment venue on the site will be demolished to optimize the 5.3 PAR on the prime 600sqm site supported by high levels of public transport and recreational infrastructures.

First Metro sees an opportunity to meet the demand for affordable, quality housing while contributing to addressing historically distorted settlement patterns.



The design envisages two parking levels (34 bays) and seven residential floors yielding 63 units. There is a mix of 21 two-bedroom units at a generous 59sqm and 42 one-bedroom units at 38sqm. The municipal standard for one

parking bay per unit is achieved by factoring in the adjacent parkade. The 1.5m fall across the site allows for a half ramp parking solution, which increases the number of parking levels without compromising the building height. The half-level ramp rises from the wide pavement to the main entrance floor.

The three-meter Trafalgar Lane at the rear requires a building setback at a 15m height and this has dictated the form of the block: The lower three levels enjoy vertical circulation in the north-west corner while levels 4–9 have the lift core and stair well centred on the west elevation about a central corridor. There is a triple volume about the stair on the first three residential levels. The fire escape on the east elevation is expressed on the façade.

A play area, caretaker’s flat and laundry facilities are located where the setback occurs (roof of level 4). The setback assists with sealing the bulk of the building and reducing the width to aid cross-ventilation of the units. Pending detailed cost estimates, balconies will be included on some units on the Rutherford Street façade.

Laura Hunt

A Future Role for Architects?

Transforming the Suburban Housing Model

The dedication of this *KZ-NIA Journal* to urban housing for the lower end of the market implies that this could be an emerging market, and also one that may be worthy of (and need) the attention of architects. I ask myself if there will be space for architects in urban housing at the lower end in Durban anytime soon, and what the likelihood might be of such housing being constructed at scale.

Right now the market is tiny, with only a little space for architects. The State is leading efforts to stimulate a market to emerge, NGOs are pushing too, but the private sector is hanging back. What the State is up to is probably the most important indicator of what can happen and how the other market actors will get involved.

There may be quite a lot of support for this market if the eThekweni Municipality implements its plans for:

- The densification of Durban’s fifteen or so urban centres;
- The release of council land to stimulate affordable and gap housing in these urban centres;
- The establishment of higher-density corridors (such as that from Bridge City in KwaMashu south to Isipingo);
- Improvements to the public transport system for the 2010 World Cup, especially the re-emergence of rail as a critical form of mass transport. A threshold needs to be crossed to make this possible and more attractive for people to live and work in the urban centres, in multi-use corridors, and in

the vicinity of rail stations and other transportation nodes;

- Regularisation of the many inner-city informal conversions of offices to residential cubicles (so-called rack-renting or work-houses) rife on the edge of the old Durban CBD;
- Real and lasting departure from one-house, one-plot housing as the false economy and loss of opportunity of this housing type become more obvious.

Maybe there would be more support if:

- The national and provincial housing departments offer significant subsidies for social, communal, transitional and special needs housing;
- The banks build on their early experiments with project finance activities;
- Niche lenders (like the socially-minded, but Gauteng-based, Trust for Urban Housing Finance (TUHF)) emerge to support small and micro landlords. Their role could be particularly catalytic if they are also asked to blend State subsidies into their project loans;
- Established KZ-N social housing institutions like SoHCo, Msunduzi Housing Association and First Metro Housing are supported;
- Private special needs institutions (like those for the elderly) and religious institutions involved in housing (and there are surprisingly many of these) see themselves, and are seen by the State and others, as being very significant housing developers, and consequently are given the funding and other concessions to do more.

There may be a slim chance if the private residential property sector turns to the middle and lower-end of the market (instead of turning to commercial or industrial) as the takings in the top-end residential market tails off. Small and micro landlords and developers are those most likely to be tempted by urban housing.

The architect left in me also wonders what potential there is in housing to make urban places. The popular consensus seems to be that inner-city projects will be fine irrespective of what income brackets they target, that they will integrate with their environments and they will contribute to the social and economic activities of their locales.

But my worry for lower-end projects at the city edge and in the suburbs is that they will simply mimic the fenced-in, access-controlled, social and economic loneliness of suburbia. I also worry that dislocation from context, introversion and segregation, can never be overcome by well-intentioned (but likely to be underfunded and under-achieved) attempts to create an on-site community. The household numbers and economic diversity within a scheme will be just too low. I will be immensely glad if architects and developers prove me wrong and, instead, go on to locate urban schemes within suburban locales, address the need for tightly controlled access, and yet make environments dense enough, extroverted enough, and large enough to help transform suburbia.

Anton Aiello

Anton studied Architecture at the University of Natal and consults in matters of housing and urban strategies and programmes –Editor

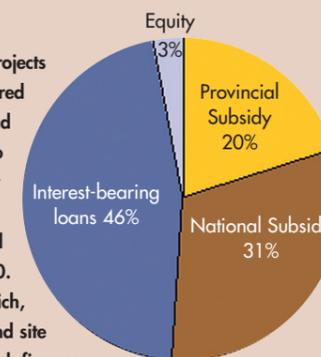
FINANCING SOCIAL HOUSING PROJECTS Heather Maxwell

Average Total Budget per Unit = R195 000

To implement social rental projects, SoHCo raises finance from three or more independent sources. For the Durban projects implemented over the 2007/2008 period, finance was secured from a National Department of Housing administered scheme called the National Capital Restructuring Grant, designed to assist projects which help communities and residential areas achieve social, spatial and economic restructuring goals. A housing subsidy per unit was also secured from Provincial Government and the balance of the finance was secured as interest bearing loans, locally and internationally.

Including management and operational costs, finance and interest costs, SoHCo is able to rent the subsidized units for between R450 and R2 000 per month, to families with monthly incomes ranging from R2 500 to R 7 500.

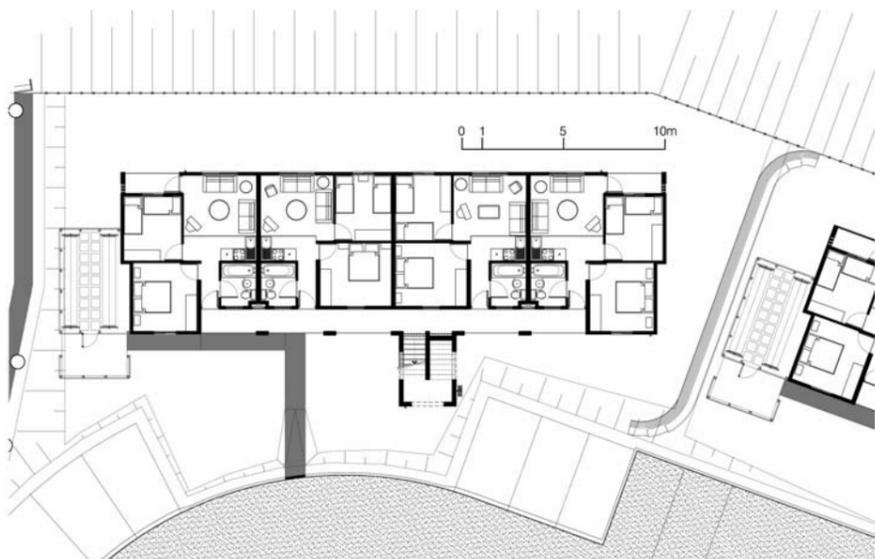
To secure a subsidy, the project and applicant organization has to achieve a range of financial targets which, during 2007, effectively set the maximum cost per unit at R195 000. This figure includes all costs – land price and site servicing, all professional fees, building construction costs and VAT. As final rentals are a parameter through which finance is secured, they become a condition of finance and pricing and cannot be adjusted to take up any unforeseen events during construction. Budgets are, therefore, absolutely fixed, meaning that all aspects of specification and design need to be finalized prior to award and construction commencement.



Heather is an architect, who has worked for the Built Environment Support Group and the Cato Manor Development Association, and is currently CEO of SoHCo (Social Housing Company), a Durban-based housing association with 1227 rental housing units in Durban and East London and 650 underway in Cape Town. SoHCo is the recipient of the 2008 Goven Mbeki Housing Award for Social Housing Institution of the Year. —Editor

Social Housing: Homes not Housing

Lees & Short Associated Architects cc



Valley View (Hillary) and River View (uMkhumbane), 2004 - 2008

The predominant form of State-funded housing delivery (and policy emphasis until recently) has been the model of detached dwelling units on discrete sites. This has led to much (justified) criticism of the sad state of some of our neighbourhoods. It has also led to a situation where providers of housing and the profession itself have not seen a clear role for architects in the delivery of affordable housing.

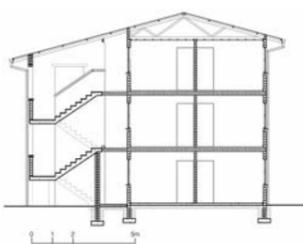
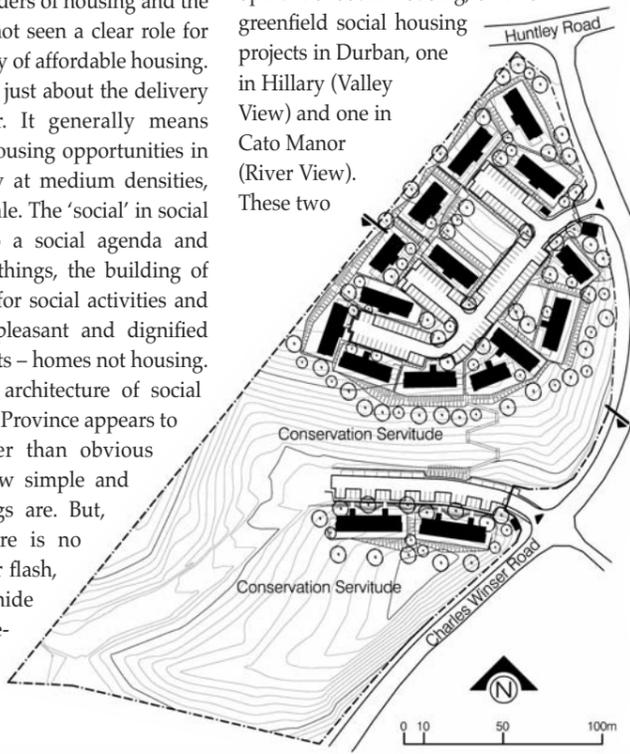
Social housing is not just about the delivery of bricks and mortar. It generally means providing affordable housing opportunities in good locations, usually at medium densities, for rental and not for sale. The 'social' in social housing also refers to a social agenda and implies, among other things, the building of communities, support for social activities and the creation of safe, pleasant and dignified residential environments - homes not housing.

At first glance, the architecture of social housing projects in this Province appears to be unremarkable other than obvious observations about how simple and utilitarian the buildings are. But, precisely because there is no money for gimmicks or flash, there is nowhere to hide and considered space-

In Hillary, buildings sharing a boundary with existing suburban residential sites are scaled down to suit, and the project fits well in its context.

conscious design, maximising the potential of every cent to add value to the livability of the project is the primary design challenge. The required simplicity is by no means simplistic, or easy to achieve!

This article attempts to articulate some of the learning that we have experienced in the process of working with SoHCo, a Section 21 non-profit company committed to the development of social housing, on two greenfield social housing projects in Durban, one in Hillary (Valley View) and one in Cato Manor (River View). These two



projects are still under construction, so the most profound learning is still to come once the projects are occupied and are tested as living environments. To put things in perspective, the all-inclusive development costs of these two projects is about R200 000 per unit. An apartment of a similar size at the Point or Gateway would be marketed at around a million rand.

Unit design

At the smallest scale, unit design must be efficient and circulation kept to a minimum, though this may compromise recognised design 'minimums' such as crossing to a bathroom at the entrance, services grouped tightly together and a single living space - walls take up space. Rooms need decent proportions and it is useful to allow for at least two possible bedroom furniture layouts. There is only money for one window per room, but a good trade-off is the largest possible window for the living area. Keeping the built form under one simple rectangular roof limits the expenditure on rainwater goods, and if balconies are tucked into the floor-plate arrangement they might just survive the quantity surveyor's sharp pencil. This is important, as balconies are functionally and psychologically useful, even if narrow and small. Within this simplicity it is, nevertheless, important to articulate the wall plane so that shadows may make up for a lack of finesse elsewhere.



At SoHCo's River View project, a curved wall of three-storey buildings is positioned at the edge of a steep drop, facing out to distant views of Durban, and simultaneously sheltering a group of protected outdoor spaces, each of which has a slightly different scale and function.

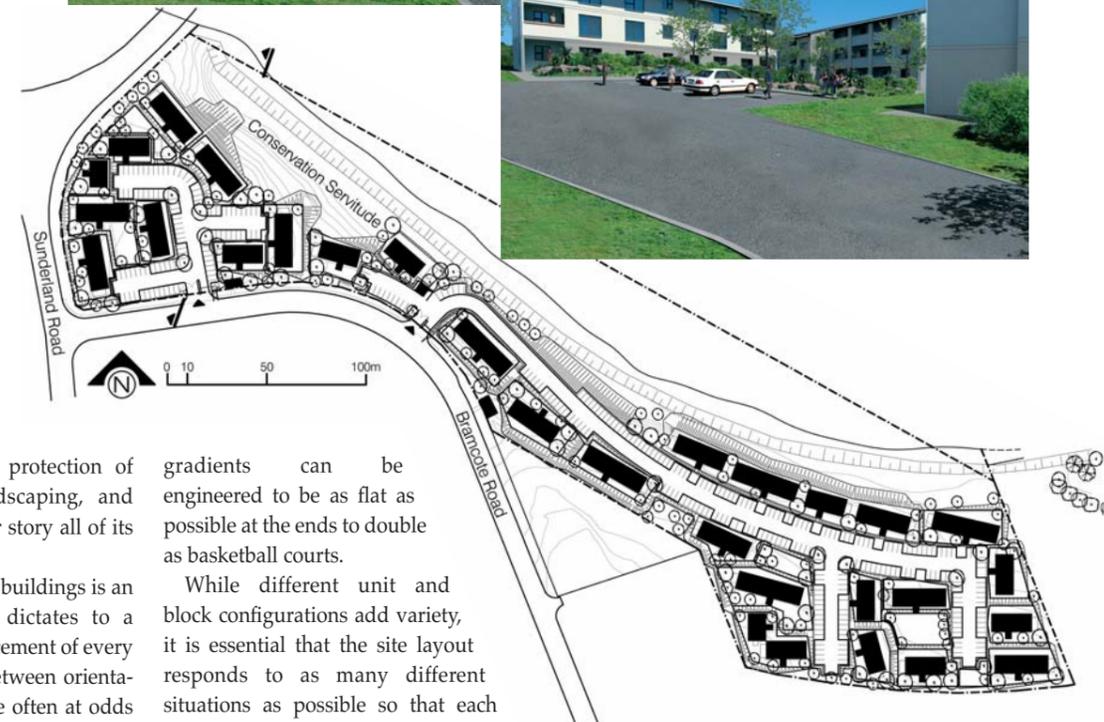
Site layout

The importance of varied and useable place-making is amplified, with the buildings forming a backdrop, a pared-down stage set for activities and social interaction, rather than the main event. The space between buildings and their relationships with roads and outdoor social areas becomes the key to a successful living environment. Practical concerns must be taken into account - refuse, laundry, safe surveilled places for small children, adventure places for older children, social spaces, intimate quiet spaces, nature spaces, framed and wider views, cars and pedestrians, protection of banks, maintenance-free landscaping, and chameleons (but that is another story all of its own).

The design and layout of the buildings is an iterative process. Landscape dictates to a certain extent and, with the placement of every building, there is a trade-off between orientation and topography, which are often at odds with one another. Inevitably, roads and associated parking become the main figure-ground generators. An hierarchical solution with a main circulation spine, buildings fronting onto the spine engaging with street, public or internal side roads off the spine, with a variety of outdoor rooms of varying utility, seem to work.

Buildings can be grouped to define an area of green space - large kicking field, smaller spaces off the road for relief, courtyards positively defined by buildings, picnic/braai areas - to encourage a variety of ways of engaging with the outdoors, so external areas become an extension of the small units. It is important that these spaces are differentiated in order to provide identity within a homogenous built form.

Again, in response to the limited resources, where possible everything must have a dual role. Initially only some of the parking is hardened, the balance is grassed, and all of the parking must double as play space. Road



gradients can be engineered to be as flat as possible at the ends to double as basketball courts.

While different unit and block configurations add variety, it is essential that the site layout responds to as many different situations as possible so that each place becomes unique - buildings may be positioned to address the street directly, join with others to create outdoor rooms, or respond to a larger topographic situation. Through landscaping and planting, the spaces between provide welcome relief from tightly planned units, and the installation of play equipment is crucial to complete the project.

Conclusions

In the quest towards the creation of dignified places to live, one of the design objectives should be to integrate the projects with their surrounding built and social fabrics, looking for a sense of integration in the neighbourhood. Both projects attempt to address issues of community, urbanity and livability, and they do achieve this in some measure in ways that the one-house one-plot development model can never hope to. What is needed is a re-look at the development density in these well-located sites and, most importantly, the integration of complementary non-residential

uses in the area so that we can really start talking about sustainable settlements.

The River View project forms a buffer between higher income, low density, private formal housing and larger scale commercial/industrial strip development. Valley View is inserted into an existing established suburb. The buildings, sharing a boundary with existing low density residential sites, are scaled down and the project fits well within its context. Ironically, because it is a requirement that at least 30 per cent of units be allocated to the lowest income group (since it is not feasible for entire projects to cater for this group) these projects do potentially provide real opportunities for a degree of socio-economic integration. Over time it is hoped that social housing projects become more the norm - as is implied in recent national policy - and that this begins to have an impact on a broader environment.

Joanne Lees and Leon Conradie

Social Housing: Getting the Maths working

Horner Associate Architects

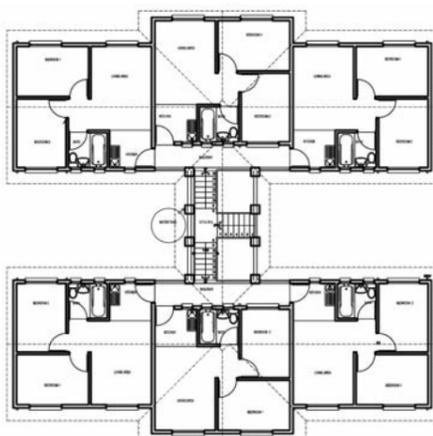


Acacia Park and Signal Hill—Pietermaritzburg, Candella Road—Cato Manor, 2002-2008

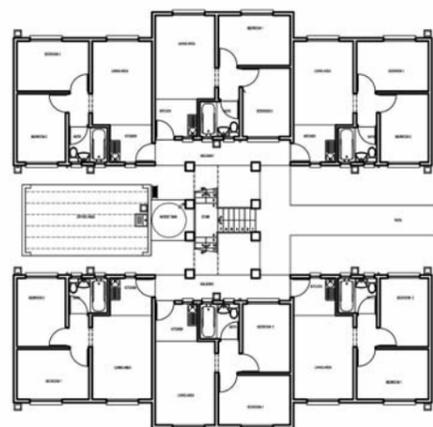
"I'm not a low-cost housing architect – I design houses with R12million budgets where people want large properties away from cities, with musical showers and cows in their yards." Richard Horner, who undertakes 52 projects a year, has designed three of the nine existing greenfield social rental housing schemes in KwaZulu-Natal.

Motheo Construction approached Horner Associate Architects with the challenge of designing a social housing project in Pietermaritzburg where "the maths doesn't work". Early models of social housing looked at housing as a village with landscaping. Motheo had R88 million for low income housing.

The history of Acacia Park was that no-one could get the housing to work financially. The client, Msunduzi Housing Association (MHA)



First Floor



Ground Floor

Block plans common to all three projects.

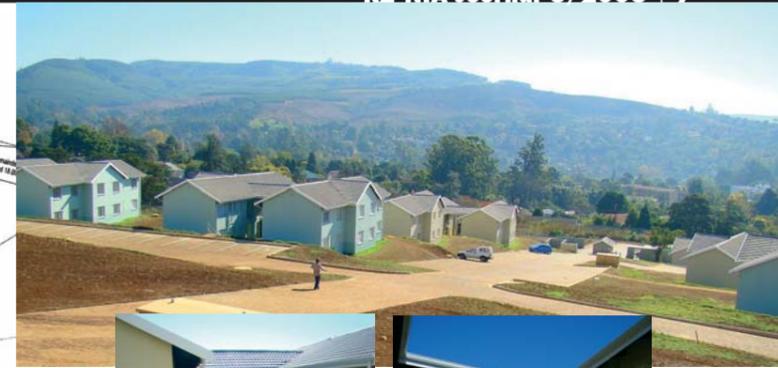
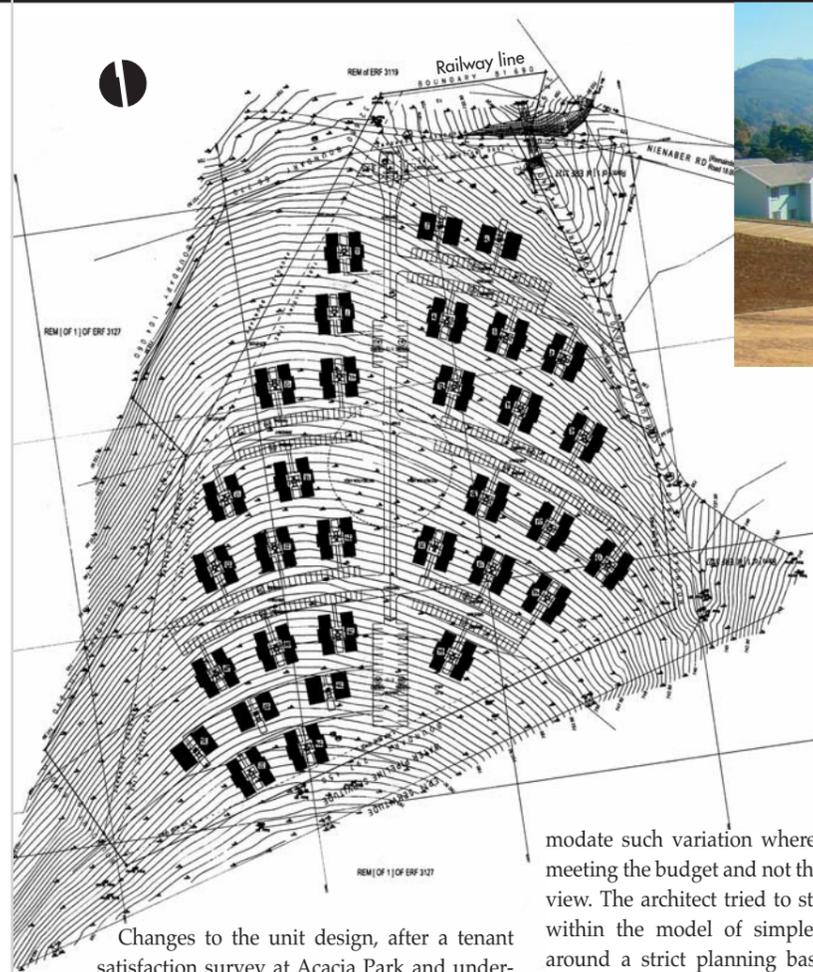
had R27million to build 300 units and quotes were hitting R35million. Motheo's proposal came in on budget which meant that the housing subsidies could begin to serve the targeted income groups with rentals that were affordable.

Thirty to forty per cent of the total capital costs are in the infrastructure (roads and piped services). Core services and access routes need to be linear – this is the secret to reducing servicing costs. All three schemes have central access routes with blocks arranged around level car parks (play areas). Cut and fill is always 50 per cent to reduce costs of site works. The minute you sit with an architect and chat "village" the price goes up and the project does not work. In 2004, the target price per unit was R187 000. There were soft loans from MHA and subsidies assisted in keeping the resultant rentals low. To meet the 300 units, they needed to meet the budget of R187 000 per unit and the "village" idea was added in after this was achieved, with parking areas, braai places, play areas and trees.

In the central core around which twelve units are clustered, there are 10 000 litre JoJo tanks harvesting storm water off the block's roof. This allows for free clothes and car washing. The project was contractor-driven with local artisans trained-up during implementation.

One year later, Motheo asked Richard to do it again for R192 000 per unit at the Candella Road housing project in Cato Manor where 148 units were delivered on time and on budget for the eThekweni Housing Association.

Signal Hill followed this with an additional 364 units for MHA. The target group here was households earning between R3 500 and R7 500 per month (such as nurses, teachers and policemen and women).



Signal Hill, Pietermaritzburg, in association with Mthulisi Msimang Architects cc.

modate such variation where the focus is on meeting the budget and not the users' points of view. The architect tried to stretch the budget within the model of simple units clustered around a strict planning base of the central access route.

Changes to the unit design, after a tenant satisfaction survey at Acacia Park and understanding the need for reducing lifecycle costs, included tiles replacing carpets, chipboard cupboards upgraded to metal kitchen units, solid-core entrance and semi-solid internal doors ensuring greater durability and ceramic instead of plastic cisterns. In terms of maintenance, a splatter coat dado was taken to cill height as there were insufficient funds for face-bricks. The location of geysers in locked secure roof areas, only accessible by maintenance staff, ensured that tenants could not tap into their neighbour's geysers.

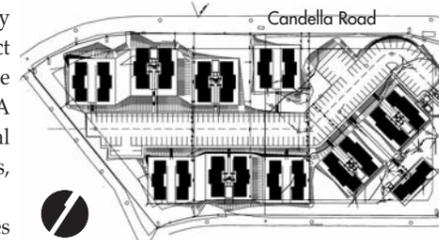
The resultant designs are still sophisticated for end users, many of whom have previously lived in informal settlements. The architect maintains that the product is fair but could be better. The management of the units by MHA and local caretakers is good and rental amounts are kept out of market conditions, ensuring affordability and a fair quality unit.

The Signal Hill project budgeted for trees and landscaping, which is an improvement on Acacia Park where additional landscaping is still required.

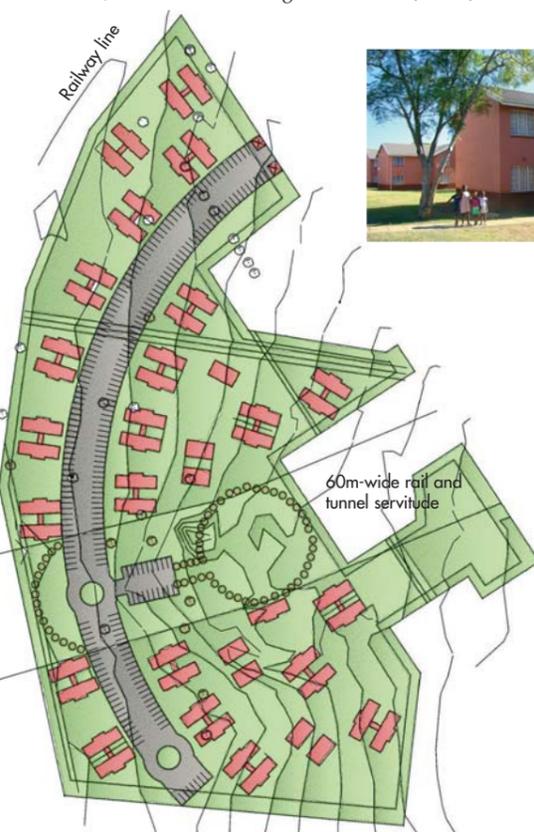
Tenants want to park outside their units, but the projects cannot afford the access ways for this. Colours play up the hill with zones of same colours around the car parks.

One criticism is that Signal Hill is without alteration of east and west-facing windows to the north to optimize day-lighting and views to the city centre. It is the architect's assertion that the contractor's roll-out could not accom-

The development of the model looked at a 24-unit cluster, mini block of flats, and also a 3-storey option, but the 12-unit block is optimum. A pure unarticulated form is the cheapest and quickest to construct. Other cost savings were involved omitting strip footings in favour of rafts, using 140mm concrete block walling (30% saving over brickwork) and tiled roofs. Acacia Park originally looked at steel trusses which were unsuccessful. The design resolution required 'rusticity' based on skill levels of artisans.



Candella Road, Cato Manor—Durban.

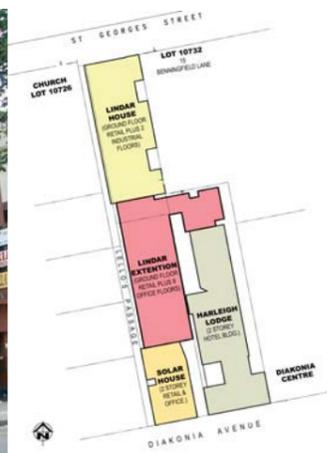


Acacia Park, Pietermaritzburg.



Social Housing: Recycling old buildings for social housing

Robert Johnson Architect



Below: The former squash courts on the top two floors of Lyndar House Extension. Above, left: Existing scene St George's Street; and (right) Diakonia Avenue.



Solyndhar Conversion for SoHCo at 37 St George's Street and 30-34 Diakonia Avenue, 2005-2008

Pre-teen memories of the Albert Park area are of the Tropicale Restaurant, double-malt milkshakes and slap chips on a tray clipped firmly to the side of the family's '55 Chev Biscane, a 6-cylinder with whitewalls and sunvisor.

Later, during early '70s' student days, the Tropicale became an after-party party venue, though by then the bike had replaced the Chev, and traffic on the Southern Freeway interchange was belching petrol fumes onto that fine building.

By the mid '90s the Tropicale had been demolished, architects who had had their offices in the area had moved up to the Ridge, and new migrants were flooding the area seeking jobs in the city and affordable accommodation. The fabric of the area began to decay as overcrowding and crime became commonplace and building stock deteriorated.

The Belgica hotel in St George's Street closed down, the park was fenced off along St Andrew's Street [now Diakonia Avenue] and the bowlers abandoned their greens.

But life continued on the streets – braais over 44-gallon drums, soccer on the bowling greens, live music at the Plaza, concerts in Albert Park, street trading on the pavements – happily taking their place alongside the Music School, the Old House Museum and Diakonia Centre.

The City built a pedestrian refuge down Diakonia Avenue and applied some traffic calming measures. They also paved and provided street lighting in Lello's passage, a slot of a pedestrian thoroughway of particular urban quality.

In 2005 SoHCo bought a group of four buildings between St George's Street and Diakonia Avenue and between Lello's Passage and the Diakonia Centre, with the intention of converting them into residential units for rental to low-income earners.

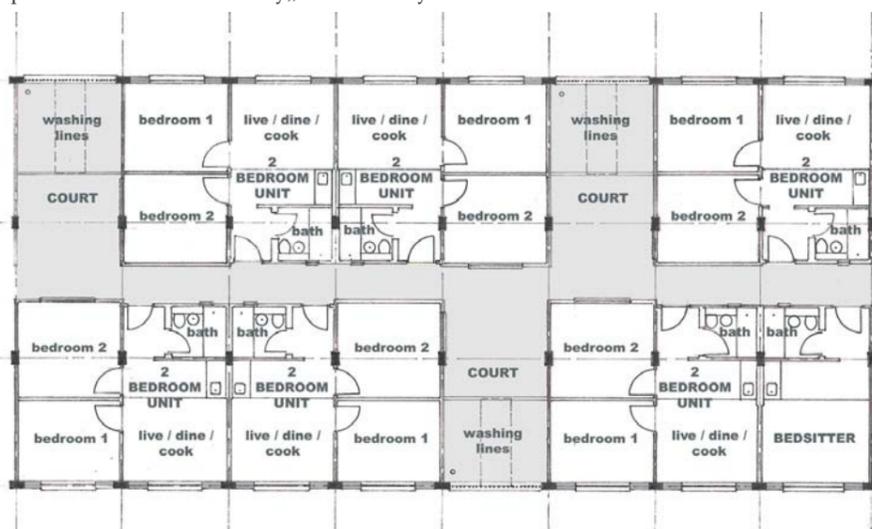
The four buildings on three consolidated sites include an erstwhile three-storey cheque-printing factory (Lyndar House), a nine-storey office building (Lyndar House Extension) with squash courts on the top two levels (with panoramic views of the Bay), a two-storey

shop and office building and a two-storey residential hotel. Shops existed on all the street frontages at ground floor level.

With ideas based on a successfully tried SoHCo two-bedroom unit of minimum 30m², we launched into a gigantic alterations and additions project on buildings ravaged by neglect and overcrowding.

The existing office and cheque-printing buildings lent themselves to an arrangement where the units could fit to suit the existing structural grid, with units on either side of a central corridor.

Opening every fifth module to form a court allows sideways natural light and ventilation to the corridor-side bedrooms. The outer half of each court forms a drying yard, the washing lines connected between a bar fixed to the ceiling at one end and, at the other, a bar incorporated into the external screen. Very large and deep windows to the 'back' bedrooms onto the courts were required in order to achieve adequate lighting and ventilation levels.



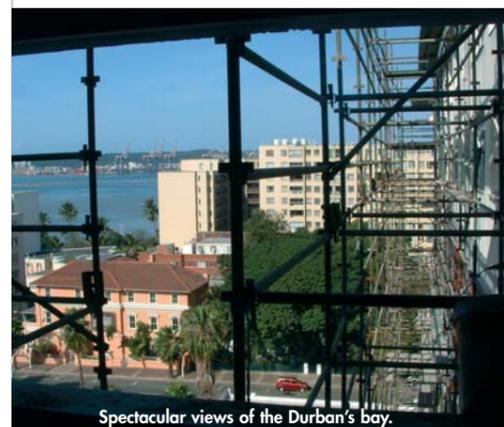
Lyndar Extension — Typical floor of the nine-storey office building re-configured.



Lyndar Extension — Carcase exposed.



Spectacular views of the Durban bay.

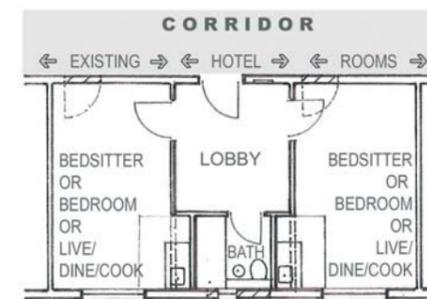


The inner half of these courts are places for children to play and for people to gather – a space in the street left clear for impromptu activities.

Working to the existing structural grid, the typical two-bedroom units ended up at 41.5m² which we anticipated could be inhabited reasonably comfortably with appliances and furniture.

Accommodation of vertical services – sewer and waste water, domestic and fire water supply and electrical and electronic cables – run through openings cored through the slabs.

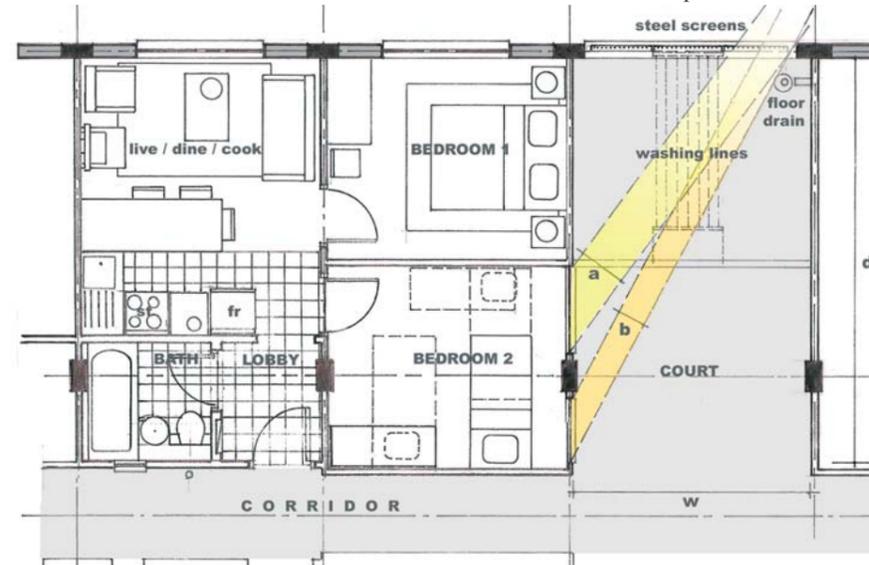
Harleigh Lodge, having been a residential hotel with rooms and communal ablutions, lent itself to minimal alteration. We evolved a model where three rooms became a potential two-room plus bathroom unit, which could be used by a family or by two individuals sharing a unit.



Harleigh Lodge — Layout Model.

The current total unit count is 142, which includes a number of one-bedroom and bachelor units, and resulted from the building's irregularities at its ends.

The quality of life for the residents will ultimately depend, not so much on the design of the units but on what happens at ground floor level in the buildings and beyond. Lello's passage, once the retail space is taken up, can become a vibrant urban pedestrian mall.



Natural Light + Ventilation Calculation $a \times h + b \times h = 10\% (w \times a)$ Furnished unit of 41,5sqm.

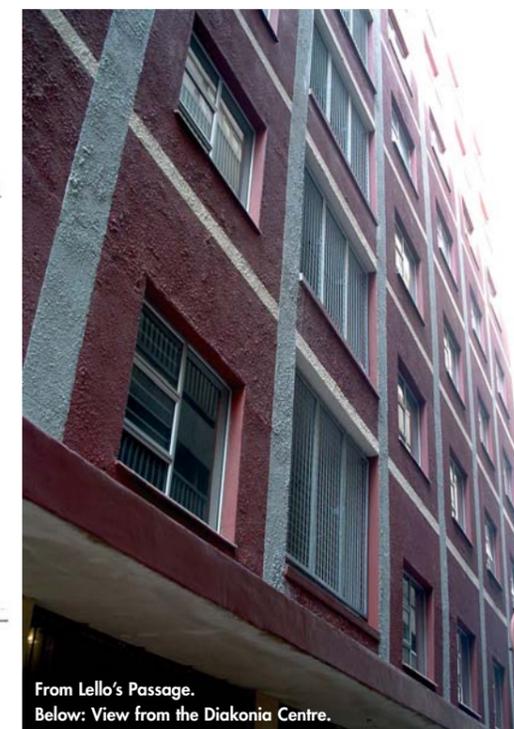
A day-care centre has been proposed and other potential uses include library, internet café, hairdresser, convenience store, laundromat and DVD hire.

With an increased resident population, Albert Park itself will acquire the potential to sustain a range of recreational activities and, with that level of occupation, a potential to re-establish Tropicale Two!

Robert Johnson



Court with washing lines above head height.



From Lello's Passage. Below: View from the Diakonia Centre.



Upgrading hostels: Offering some privacy

Naroth Architects

SJ Smith Hostel, Mobeni, 2002-2007

The SJ Smith hostels are located 10km to the south of central Durban between Lamontville township and Mobeni. The complex is isolated from other residential areas and is situated within an industrial node. The current project commenced in 2002 with the eventual aim of upgrading the entire complex.

The hostels originally consisted of free-standing blocks, mostly three-storied, catering for 10-bed dormitories on the perimeter with communal ablution and cooking facilities buffeted between the central light-well spaces. Overcrowding was largely to blame for the intolerable living conditions, putting enormous strain on the infrastructure.

The main motivation for the upgrading, apart from the dilapidated condition of the building, was to change from a communal environment to one offering some privacy to residents. Existing dormitories were converted into mainly three-bedroom apartments incorporating ablution and kitchen facilities to accommodate five to six persons. In turn, the communal facilities were converted into residential units.

An attempt was made to humanise conditions and create a sense of belonging, with residents hopefully assuming a greater responsibility for the maintenance and care of their surroundings. Residents should no longer feel like "part-time" inhabitants and, therefore, be amenable to paying rent.

Iqbal Naroth



Apartheid legislation set window cills at 1800mm above floor level. Pull strings were added to provide for opening and closing of windows.



KwaMashu and Dalton Road Hostels, 2004-2007

archiTRONIC have been involved in the upgrading of existing hostels for family use and in the provision of new accommodation. Our experiences have taught us to become adept at the use of space, both inside and out, and to promote a streetscape of variety.

KwaMashu A (Tembalihle). This site had two existing hostels located in the middle. We managed to fit in an extra parallel block on either side and another, L-shaped, to fit the geometry of the site. The latter defines playspace on the inside.

An interesting aspect was that construction was to be carried out by the future residents who effectively gained a reduction in rental for their "sweat equity". Thus construction had to be simple, such that 20 teams of uninitiated people and a construction manager could work supervised by the architect.

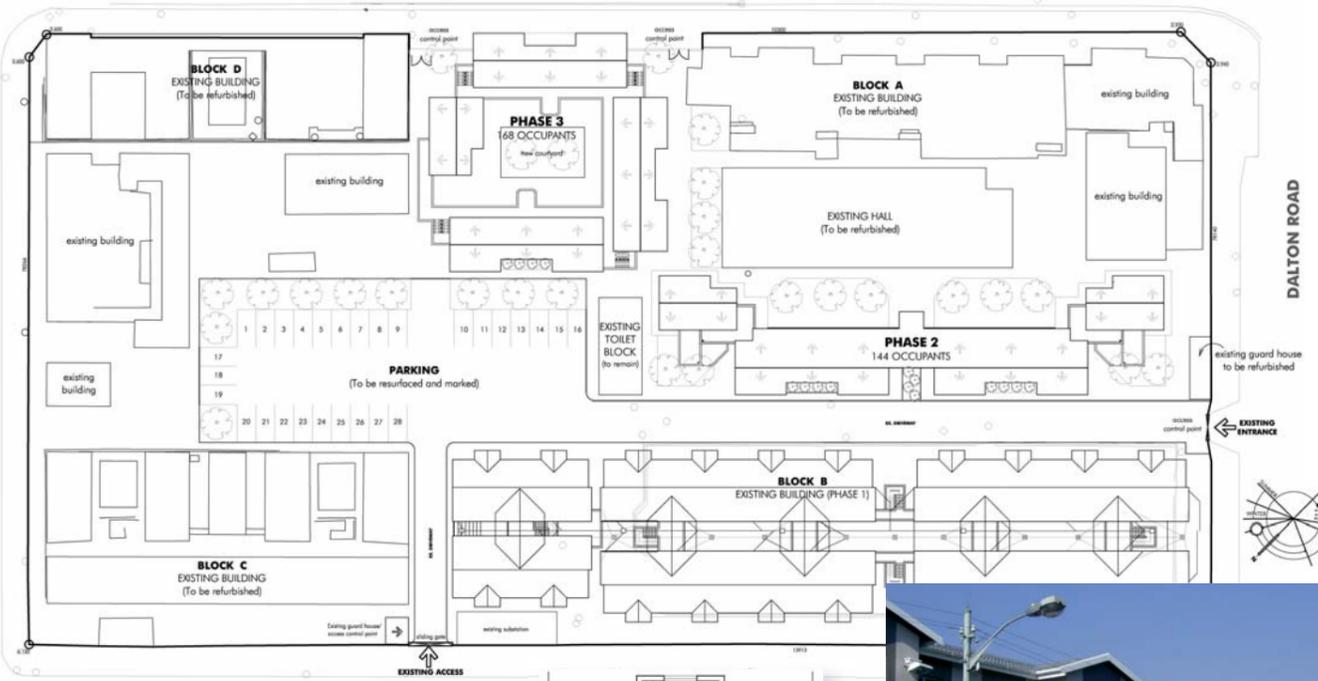
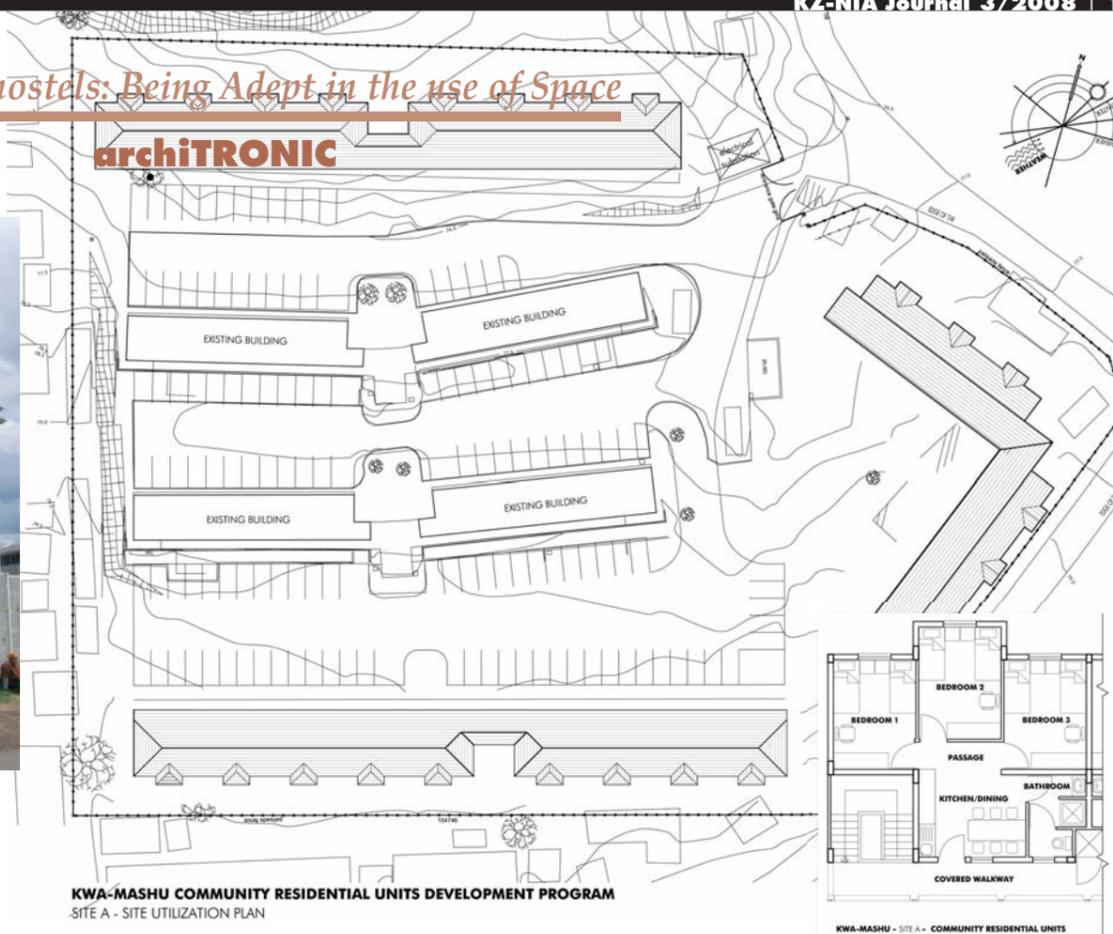
Dalton Road. This was an existing complex in which we inserted further residential units, this time for families. We chose a typology of parallel blocks distanced by internal courts, and made allowance in the budget for landscaping within the basic legislated 10sqm per person allowance.

It was important to us that the resultant streetscape acknowledge the residential use of the building which we articulated with projecting gables.

Ravi Jhupsee

Upgrading hostels: Being Adept in the use of Space

archiTRONIC



Social Housing

UKZN entry wins SHiFT 2008 architectural student design competition

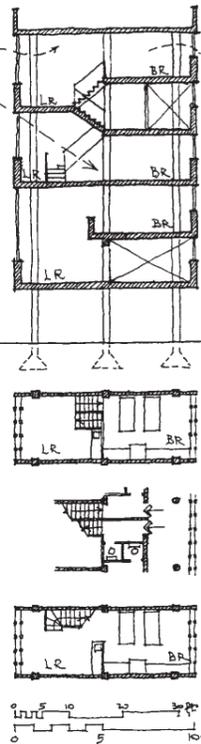
"Eyes on the Street" was a phrase much used to emphasise the importance of designing for the surveillance of public movement routes. In this regard, attention was drawn to the residential proposals developed by members of the Russian Association of Contemporary Architects (OSA) in their 'fraternal' design competitions of the late 1920s.

One of these proposals featured two superimposed bedroom units, each with one-and-a-half storey living room, serviced by a corridor at mid-level wedged between the bedrooms and the two apartments. Thus each apartment was a through unit, allowing for both cross-ventilation and deep penetration of daylight, of which Le Corbusier's cross-over two-level dwelling wrapped around an interior street at Unite d'Habitation at Marseilles is a larger version.

These discussions prompted the use of the half-level section and the provision of higher ceilings, the combination of which would promote cross-ventilation in Durban's humid summers, provide good day-lighting and surveillance, and volumes appropriate for retail on the ground floor.

—Editor

Source: Schoenauer, N 6,000 Years of Housing. New York: Norton, 2000.



Further to the 2006 Social Housing Focus Trust (SHiFT) design competition in which a UKZN entry won 3rd Prize (see KZ-NIA Journal 2/2006), in the 2008 competition the entry by Ryan Harborth won 1st prize. This is particularly significant as no UKZN entry has won a national architectural design competition since 1996.

The competition aimed to generate ideas and further debate on alternative housing design and delivery options. In particular, the 2008 competition promoted housing models for dense residential environments within existing urban areas to enable linkages with the urban fabric in the widest sense.

Entrants were required to design an urban framework in response to a self-identified site. The density was to be between 100 and 200 units/hectare and there was to be a variety of accommodation types to address the needs of a changing urban population including conventional families, single parents with children, and couples. A parking bay was to be provided

for every ten beds or three dwelling units; social, retail and service facilities were to be integrated, and the proposal was to engage with its context in the fullest sense.

The entry by Ryan Harborth (originally developed in collaboration with fellow student David Long) was based in Durban's Warwick Triangle where underused land was utilised. The submission was singled out by the jury for its successful integration into the urban fabric, its use of buildings to define public and private spaces, making use of different unit types and levels and the careful planning of individual units.

The prize will afford Harborth a two week excursion to Holland under the auspices of the social housing authorities there.

The UKZN submissions were supervised by practising architect and urban designer, Glanville Jacques, and Prof Walter Peters.

—Editor

Reference: SHiFT Innovation in Social Housing Competition. Assessors' Report, August 2008.



edge analysis . site gradient

URBAN DESIGN PROPOSAL

connecting existing precincts

1. connect road network
2. establish street grid
3. establish street width
4. establish street hierarchy
5. establish street layout
6. establish street orientation
7. establish street connectivity
8. establish street continuity
9. establish street coherence
10. establish street consistency

MOVEMENT AND ACTIVITY

PEDESTRIAN MOVEMENT
ACTIVITY/INTERACTIVE EDGES
VEHICULAR MOVEMENT

COMMERCIAL EDGE
RETAIL CONTINUITY
CELEBRATION OF PUBLIC LIFE
CREATION OF PUBLIC HEART
INTERACTION OF PUBLIC AND RESIDENTS

CELEBRATION OF PUBLIC LIFE
MERGING/CONNECTION OF PUBLIC SPACES
CLUSTER FORMATION/ NATURALLY UNITED GROUPS
EQUALITY WITHIN GRATED PUBLIC SPACES

HIERARCHY OF PUBLIC SPACES

ABOUT THE SITE: the land-use proposal sets up an activity gradient from south to north, ranging from high commercial activity to medium density residential. The proposal includes the creation of a high street connecting two previously isolated precincts of Durban. This connection is established through the use of a commercial/entertainment high street, to the west of the site exists a busy road, unfavorable for residential development. The choice of site within the urban design proposal, was paramount in establishing a conceptual departure point for the housing proposal. The necessity for retail activity surrounding the perimeter of the site would ensure economic sustainability for the residents of the complex. This commercial edge would also provide adequate capital cost offsets. The site was seen as a facilitator to kick start the development for the entire land-use proposal - a phase one.

GROUND FLOOR PLAN
Scale 1:250

SECTION A-A
Scale 1:200

Number of beds and units:

Unit types	No. of units	No. of beds
Ground floor:		
Live/work units	17	17
1 bedroom units	4	4
2 bedroom units	2	6
Transient Units	24	72
First floor:		
1 bedroom units	52	52
2 bedroom units	2	6
Transient units	22	66
Second floor:		
2 bedroom units	51	102
1 bedroom units	6	6
Transient units	24	72
Third floor:		
2 bedroom units	24	48
Total:	228	451
Parkings:		
Provided:	44	
Site Area:	1.2 hectares	
Units per hectare:	190	

ECO-TOWER

NW TANKS
SOLAR WATER HEATERS
PV PANELS
WIND LINES
COMPOST HEAPS
MULTI-LEVEL PLANTING

SECTION A-A
Scale 1:200

SHiFT HOUSING (URBAN) RESTRUCTURED ZONE > PLANS/SECTION/3D VIEW/ ECO TOWER

FIRST FLOOR PLAN
Scale 1:500

SECOND FLOOR PLAN
Scale 1:500

3D SECTION OF UNITS ON HIGH STREET C-C

3D SECTION THROUGH SITE AT B-B

EXPLODED INDIVIDUAL UNITS

3D SECTION THROUGH NORTH WEST ARIEL VIEW SHOWING MASSING

UNIT PLANS, SECTIONS AND CALCULATIONS

Live / Work Unit 32 m² Ground and First Floor Scale 1:100

One Bedroom Unit 32 m² Ground and First Floor Scale 1:100

Two Bedroom Unit 40 m² Second Floor Scale 1:100

Two Bedroom Unit 40 m² Third Floor Scale 1:100

Three Bedroom Unit 60 m² Ground and First Floor Scale 1:100

Left Unit 40 m² Fourth Floor Scale 1:100

Two Bedroom Unit 40 m² Second Floor Scale 1:100

Advertising (and offices) for residential rental subsidisation, positioned on the most visually prominent facade.



Architects a decade into independent practice

DZMSpace: Palm Lakes



Palm Lakes on the KwaZulu-Natal North Coast consists of 12 500 units, an office park and a corporate park. We were commissioned to define the architectural code and act as principal architects.

In developing the architectural code, we decided that a spirit of co-operation should underlie the building code, defining what should not be done, instead of what had to be done. For example, contrived, historicist or foreign vernacular architectural mimicry was unacceptable. We believe this allows for interpretation while encouraging individual identity. Fortunately, the clients, Wim Sak and Mark Froman, embraced the contemporary image despite the market being driven (in 2005) by themed estates using borrowed imagery. Luckily the market responded well to both the units and the contemporary design. The gatehouse, clubhouse, and the first 244 units are now nearing completion.

The A3 unit is a compact single storey, three-bedroom, two-bath-unit for the affordable/middle market. The concept places individual

emphasis on the indoor and outdoor living area and the bedroom area. The intention is to reduce the impact of mass and thus minimise the visual impact of the built form on the site and the surrounding community. The typology of the pavilion promotes this through the articulation of form, the use of glass walls with the contrasting wing walls clad with natural stone, and the over-sailing flat roofs. Where smaller units do not allow for efficient variation to the main building form, ancillary buildings such as garages and gazebos are used to create courtyards to effectively fragment the building footprint. To embrace the concept of a single suburban garden, there are to be no boundary walls.

Each building is a part of the whole development and should contribute toward the

overall quality. Coherence is established by the consistency of materials and forms, which we believe can promote a spirit of good neighbourliness.

Martin du Plessis

For the course Simulated Office Project Vagelli Zervogiannes and I founded a virtual practice styled levelsixdesignlab, a name based on the fact that the class of 1993 was accommodated on Level 6, Shepstone Building, in what was then the University of Natal. We each received distinctions, which confirmed the success of our collaboration and encouraged the founding of a real practice in Durban by the same name 6 years later. In 2005 levelsixdesignlab was re-branded as DZMSPACE (PTY) LTD to communicate a new strategic focus as well as the maturity of the company. DZMSPACE (PTY) LTD comprises the founding partners together with Adrian Morris.



DZMSPACE



South African Institute of Architects SAIA AWARDS

News...

Corobrik SAIA Awards

During the gala dinner at the conclusion of the SAIA biennial conference held in Midrand, 29-31 October, the following KZ-NIA practices were conferred with the highest Awards of the SA Institute of Architects:

Award for Excellence:
EPA Studio, Westway
Elphick Proome Architects

An extract of the citation reads: "The large volumes, the creation of poetic spaces and the sensitive detailing are resolved with architectural finesse of a high degree, considered worthy of excellence." See KZ-NIA Journal 2/2007.

Award for Excellence:
Igoda View House, East London
omm Design Workshop

This is the fourth Award for Excellence to the practice! An extract of the citation reads: "The project demonstrates an assurance in the use of rectilinear geometries, a restraint of materials' choice and finishes, composed in a series of solids and voids where spaces can be variably configured through use of sliding walls, doors and shades."

SAIA President's Award
Warwick Junction Project, Durban
Richard Dobson Architect

This is a new SAIA Award to recognise projects of a developmental nature completed between 1995 and 2004. An extract of the citation reads: Warwick Junction Project in Durban, has "demonstrated that the public spaces in cities can be responsibly and creatively utilised as a development resource to



Awards for Excellence:

Above—EPA Studio:
Elphick Proome Architects.

Right—Igoda View House:
omm Design Workshop.



include a wider range of economic participants and, specifically in South Africa, those previously legally excluded from inner city benefits.

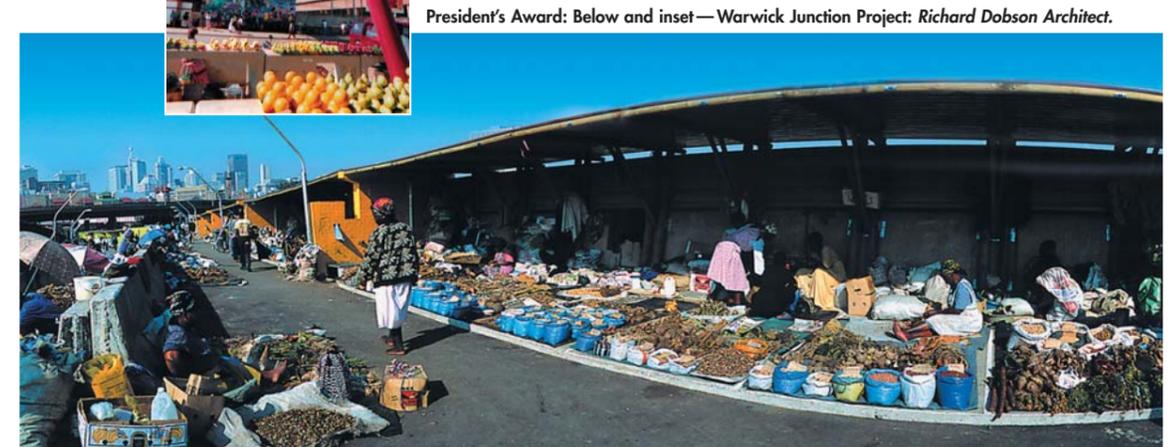
Respecting these livelihoods is an essential component of South Africa's transformation." This is a "successful example of how the formal and informal sectors can co-exist

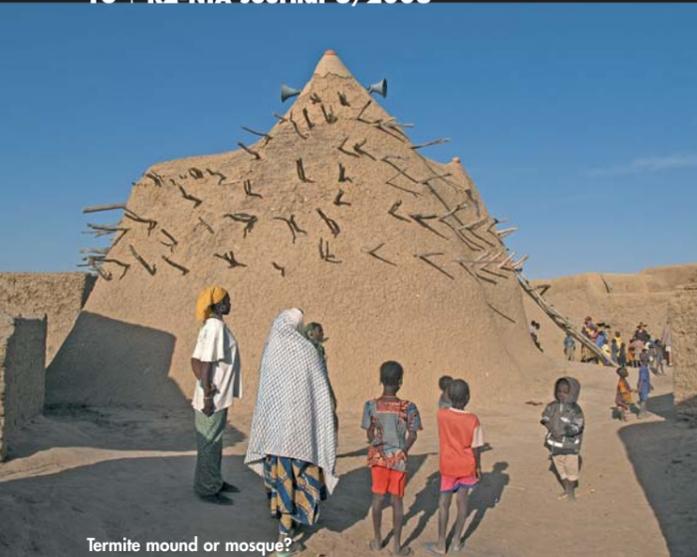
and contribute to the betterment of all". The Award was given "to recognise the project as well as all the participants for persevering in their task and providing a model for the many challenges we face as a developing country." See KZ-NIA Journal 3/2001.

SAIA President and Vice-President

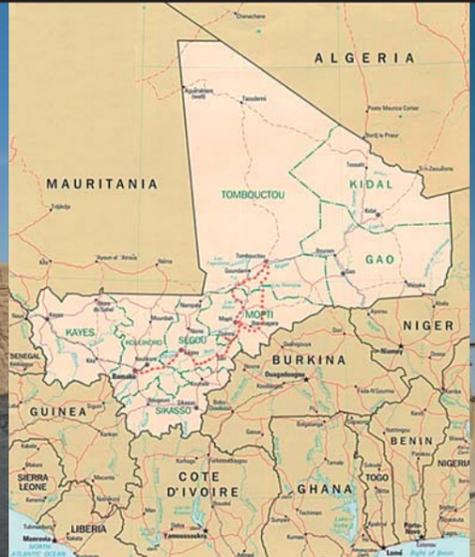
At the same function, Alan Stratford of East London was inducted SAIA President for 2009-10, and Fanuel Motsepe of Johannesburg Vice-President.

President's Award: Below and inset—Warwick Junction Project: Richard Dobson Architect.





Termite mound or mosque?



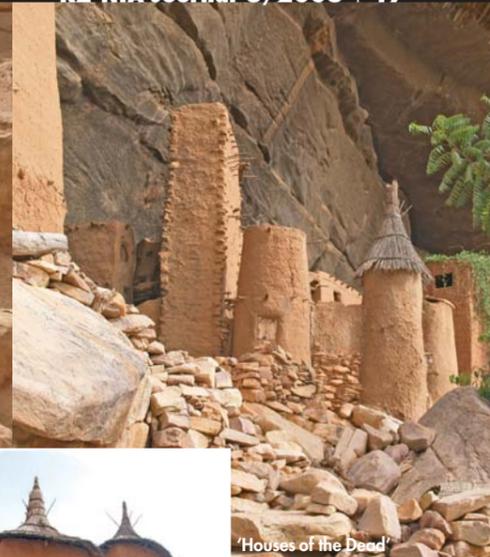
Mosque "wired for sound"



Bandiagara cliffs



Dogon burial caves



'Houses of the Dead'

Ardo van Eyck's descriptions of the Dogon settlements on the Bandiagara escarpment in Mali and the images of their dwellings, clustered below the cliffs in Bernard Rudofski's *Architecture without Architects* made lasting impressions on those of us who were students during the late 1960s. So the opportunity of joining an architectural tour through Mali, via Timbuktu to the Dogon country, in February of this year was too good to miss. Facilitated by Peter Rich and led by a retired French academic and his wife, the party consisted of the French couple, four South Africans, four Americans, two Canadians, two Italians, two Austrians and an Australian, all architects except for one sculptor.



Dogon mosque

Arriving in Bamako, we met our Malian guide and set off, via what Debbie Whelan (*A Travel Diary KZ-NIA Journal 2/2008*) calls the 'sanitized route'. We were driven from Bamako to Mopti in dilapidated but perfectly adequate 4x4s and once on the Niger, our *pinnares* stopped over-night on the river banks to allow us to camp. During the four days we were on the river we made several stops to visit some of the many mud-built villages and towns that line the shore – each inhabited by a different tribal group – Peule, Fulani, Bozo and Bobo – and each specialising in a different form of production – fishing, herding or growing a variety of crops – existing within a complex network of interdependencies, evolved over many centuries. Islam is ubiquitous along the river, each settlement clustered around its mud-brick mosque, all quite unique, some

grand and bedecked with minarets, some so modest that they could almost be mistaken for termite mounds. Life in these settlements is clearly very hard, people eking out an existence in the harsh landscape. At every stop we were mobbed by scores of very small children, but saw far fewer older children and almost no elderly people. Approaching Timbuktu, Tuareg settlements also started to appear on the river banks, with their camel

skin or woven palm-frond tents. Timbuktu is no longer the magic city of myth – it is remarkable only for being there at all, rather than for any notable urban character. The manuscripts are memorable and the Djingarey Mosque, under restoration by French architects, was technically interesting. Otherwise, its hot and dusty and currently perhaps more chaotic than usual as most of the sand streets are being paved – World Heritage Status and big NGO emblazoned SUVs having recently arrived.

From Timbuktu, where our cheerful *chauffeurs* and vehicles were waiting for us, we drove via Douentza into the Dogon country. Over the next week we made our way south-west along the foot of the cliffs, walking during the day up to and through Dogon settlements and sleeping at night on the roofs of *campements* run by local entrepreneurs who supplied stews of athletic, free-range chicken and sweet potatoes and endless bottles of beer and *Coke* to counteract the fierce heat and pervasive dust.

All flat land, which has not been overwhelmed by sand, is cultivated. Settlements are sited on the surfaces which cannot support crops – among and on the chaotic jumble of boulders which litter the slopes below the vertical sandstone cliffs. The closely packed, flat roofed, family dwellings of stone and mud

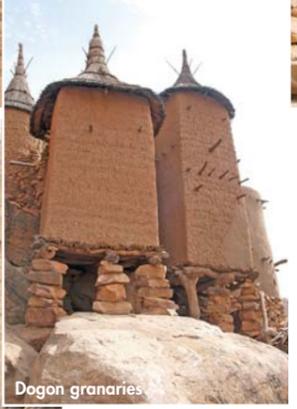
brick, are each surrounded by the men's and women's 'granaries' with steeply pitched, thatched roofs, thus defining the private courtyards which are the locus of daily family life. The principal crop is millet, boiled and eaten with a relish made from baobab tree leaves and onions. Dogon women endlessly transport scarce water on their heads, in gourds, to irrigate the often minute fields. The cliffs rising above the settlements are the burial places of the Dogon dead, who are interred in the cave structures cut into the cliff faces, which originally housed the 'Tellem' – 'the people who were here before'.

For several hundred years the Dogon have lived in harmony with their ancestors in this extreme landscape – a narrow strip of life approximately 150km long and 2–5km wide in the vastness of the arid Sahel. Not surprising then, that an elaborate animist religion and culture was evolved by the Dogon to mediate their existence in this harsh environment. French ethnologists and anthropologists who encountered the Dogon in the first half of the 20th century were astonished at the complexity and sophistication of the social customs, mythology and patterns of settlement of these people, previously dismissed by Europeans as 'primitive'.

Van Eyck's acute writings celebrate the success with which, in their built structures, the Dogon were able to reconcile the needs of the individual within the collective, the private within the public realm and the subtlety with which due weight was given to the multi-layered constituents of 'place'. His assertion that many aspects of our contemporary material culture, and architecture, are crude and obtuse by comparison, is indisputable. So it is dismaying to be confronted with the inescapable evidence that this subtle culture is dying. The cumulative effects of tourism, such as we were engaged in, the construction of tube wells along the foot of the escarpment, the building of schools to educate the children, and



Dogon courtyard



Dogon granaries



Decaying Tagouna

and though very little of the craftwork on sale is 'old', most is still arrestingly distinctive. The spread of Islam which is supplanting animism is giving rise to remarkable mud-brick mosques exhibiting many of the formal devices of traditional Dogon buildings, with an astonishing inventiveness and vitality.

Returning, somewhat chastened, by road via Mopti and Djenné, we managed one last Malian experience – a visit to the re-cycling zone in Bamako – an area of waste ground about two or three hectares in extent in which hundreds of small-scale artisans, working under plastic sheeting and grain sacks supported on sticks, recycle every available piece of metal – from tin cans to motor cars to heavy structural steel girders – nothing is wasted. Its all cut, bent, beaten, shaped and finished by hand using only muscle power – no electricity – to produce an amazing array of goods. Cast aluminium cooking pots, ploughs and every kind of household utensil are all dispatched for sale throughout the country. The enterprise, ingenuity and titanic physical effort evident in this place seemed to me to encapsulate the contradictions of this remarkable country – profoundly marginalized, yet with a vibrancy and vitality which one would be foolish not to respect.

Antony Wilson

Antony Wilson is in partnership with Paul Mikula under the style MikulaWilson Associates cc. They traveled to Mali in February 2008. Paul Mikula's idiosyncratic and beautiful Mali travelogue is to be published by Phansi Museum in December 2008. –Editor

A Travel Diary

Mali via Timbuktu and Dogon country