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**AIDS & ARCHITECTURE**

**Journal of the KwaZulu-Natal Institute for Architecture**





This journal, now in its 27th year of publication, has since its inception been sponsored by Corobrik.



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## AIDS & Architecture

### Editorial

In June 1981, five men in Los Angeles were reported suffering from rare pneumonia found in patients with weakened immune systems. These were the first recognized cases of AIDS, the acronym for the 'acquired immuno-deficiency syndrome'. Today, 21 years later, more than 40 million people are infected world-wide, most of them in sub-Saharan Africa, and almost a third of the people living in KwaZulu-Natal!

AIDS is the biggest killer of South Africans, caused by a germ or virus called HIV, the acronym for the 'human immuno-deficiency virus'. This virus slowly weakens a person's ability to fight off other diseases, breaking down one's body's defence systems against other infections, and leading to the fatal condition commonly called AIDS.

In the 1980s, when HIV/AIDS became recognized as an epidemic, there was a rush in the USA and Europe to create not only AIDS inpatient units but specialized AIDS hospitals as well. Yet, when first a talk on HIV/AIDS was arranged at the KZ-NIA in 1999, the sum total of three members arrived!

Kevin Bingham, who with Prof Rodney Harber arranged that talk, is registered for an M.Arch degree by research and has chosen as his title 'Impact of HIV/AIDS on Selected Building types in KZ-N'. I am grateful that he proffered the subject as a theme for a KZ-NIAJ issue and that he accepted the task as guest-editor.

Walter Peters, Editor

**FRONT COVER:** The central space, looking up into the water tower of the Africa Centre for Health & Population Studies at Somkhele, near Matubatuba. **BACK – From top:** View of entry corner; western court stoep; and detail of the community mural wall. *Photographs by Angela Buckland*

## News

### Corobrik Regional Architectural Student of Year 2002

At a function held in the foyer of the University's Malherbe Library on Friday, 21st June, Director of Sales, Mike Ingram, announced the winners of the above Corobrik Awards programme.

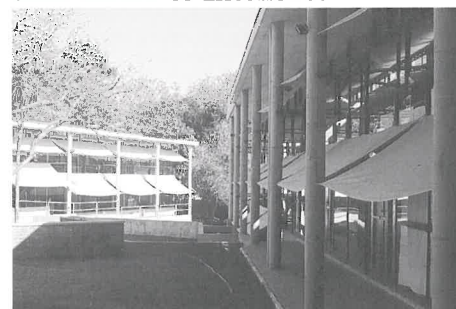
For his Design Dissertation *Fragments – Places for Architecture* (within central Durban) **David Louis** was declared Corobrik Regional Student of 2002; 2nd Prize went to Ms **Leonie Mervis** for her *Peoples' Forum* in Warwick Triangle; and 3rd to **Suhayl Ballim** for his *Hlanganisa – Skills Training Centre*, Pietermaritzburg.



Mike Ingram, Corobrik Director of Sales, with Regional Winner David Louis, Leonie Mervis and Suhayl Ballim.

*Roy Reed Photography*

### SAIA Award of Excellence



The Office Development for Electric Ladyland in Kloof was awarded an SAIA Award of Excellence at a gala function marking the 75th anniversary of the SA Institute in Bloemfontein on Friday evening, 30th August. This is the second and consecutive time this most prestigious Award has been made for a building in KwaZulu-Natal.

*Congratulations to Mrs Janina Masojada and Andrew Makin and all the staff at OMM Design Workshop. – Editor*

### Corrections:

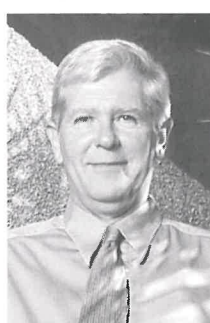
#### Emerging Architects, Issue 1/2002

The correct spelling of the building in Cato Manor by East Coast Architects is **Intuthuko Junction**, and the address is 750 Francois Road. **Ms Debbie Whelan** obtained her PG Dipl in Architecture a decade later than published, in 1996.

### AUA President

At the VIIth AUA General Assembly held in Tunis 23-25th May, KZ-NIA member **Brian Johnson** was elected unopposed to the 3-year term as President of the African Union of Architects, after serving as Vice President (Southern Region) since 1995.

*Congratulations!*



**AUA President Brian Johnson**, past NIA and ISAA President, and 2000 SAIA gold-medallist.

*Photo: Craig Hudson*

### SAIA Vice-President

**Ms Patricia Emmett**, KZ-NIA President was elected SAIA Vice-President at the meeting of the Board of Representatives held in Bloemfontein on Wednesday 28th August. At the same meeting Mr **Jan Ras** (FSIA) was elected President.



*Breiff Florens*

## Clay Facebricks

### **Corobrik @ 100**

#### **CONTEMPORARY BRICK DETAILS**

*In the first issue of this journal of 2002, the centenary year of our sponsors Corobrik, we published examples of facebrick buildings in various styles of architecture during the course of the century.*

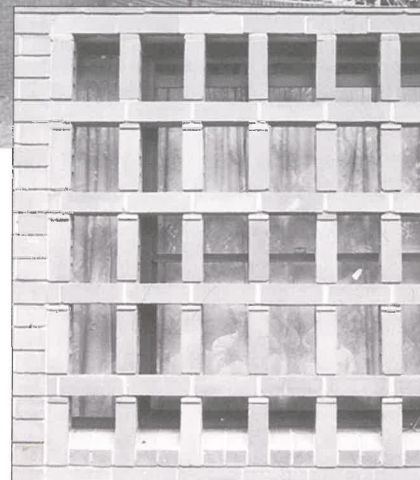
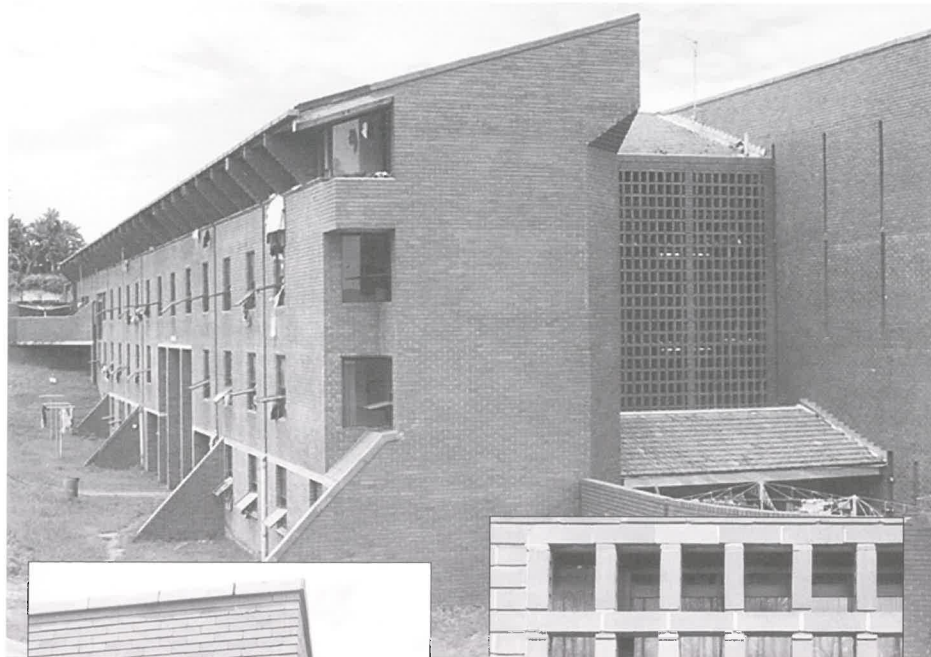
*In this issue, we feature a few good examples of contemporary facebrick detailing.*

#### **Student Residence A: Mangosotho Technikon, Umlazi**

Architects: Hallen, Theron & Partners, 1981



Corbelled plinth headers to the wing wall of a student room.



Filigree screen of alternating soldier and stretcher courses.

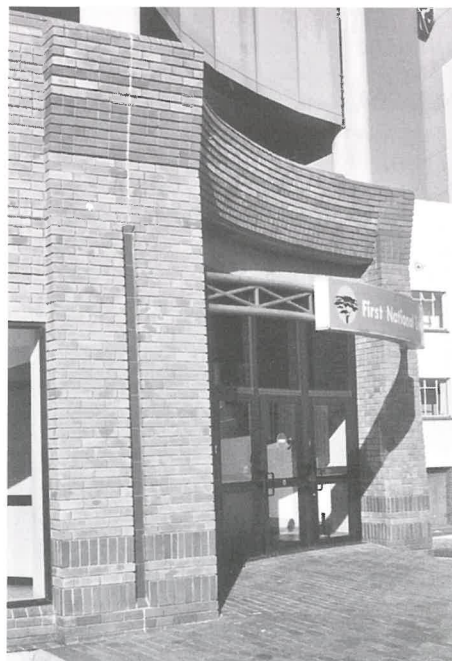
LEFT: Corbelling in plinth headers from a splayed reveal to a right-angled abutment above.

#### **FNB House, 151 Musgrave Rd, cnr Clifton Place, Berea**

Architects: Paton Taylor Associates Inc, 1998.

RIGHT: Scaling the building with bands of contrasting bricks.

FAR RIGHT: Coupled piers with soldier coursed base; battered shafts; and capitals in corbelled brickwork, comprising banded coursing of headers and stretchers



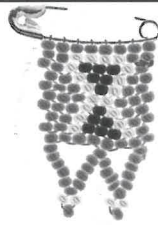
# 100

**COROBRIK  
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1902-2002

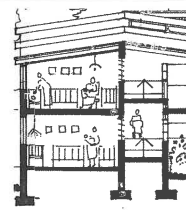
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## Guest Editorial

# AIDS & Architecture



AIDS has been with us for over two decades and the almost daily news articles on the subject have to many become commonplace and numbing. Litigation and personal rights have replaced statistics and stigma. Conferences are held and ideas shared – but still the pandemic

persists. For many the severity of the situation has not struck home – for others, the disease is or has been living in their home.

For architects and members of the allied disciplines practicing in the Southern African context, the HIV/AIDS problem will in some way impact upon their work. Its effect on the economy in terms of worker productivity and training are already being observed. The effect on the social issues related to accommodation and health care, are vast.

increase the numbers of beds in their clinics. This solution quickly reached saturation point and resulted in general cells being assigned to AIDS patient care. Terminal patients are even released into the care of their families. New prison design will need to make provision for extensive health care facilities.

Hospitals, especially those in the Northern KwaZulu-Natal region are hard pressed to accommodate increased patient numbers. Again, beds are regimented against each other and in the access corridors, with at times beds being shared. These hospitals regularly record HIV/AIDS statistics of 100% in their medical wards. Similarly, increases in HIV/AIDS statistics are being recorded in street shelters, hospices, mortuaries, universities and technikons. Graveyard space has in many instances reached capacity.

One may conclude that more medical and patient-care facilities should be developed to alleviate the mounting problem. Running costs, staffing and often political wrangling limit this as an option. While AIDS awareness campaigns valiantly spread the warning, Hospice and home-based care organisations are generally left to offer comfort and medicines. Innovation and adaptation in many instances is the order of the day – for example a converted rabbit breeding shed has been converted into AIDS orphan accommodation at the Lily of the Valley in Eston, while shipping containers have been modified to accommodate Hospice outreach facilities at Inanda.

## Architect awareness

There is no formal course in AIDS awareness in Architecture at Natal University. Studio design projects are generally decided upon by the various semester co-ordinators and studio staff. Third Year students have since 1988 researched and designed an AIDS Centre in the local context. This experience has heightened their awareness of the problem and prepared them for such work on entering the profession. A number of final year students have tackled the topic in their Design Dissertations.

The 'AIDS Brief for Professionals: Architects' by Bingham and Harber (1998), was one of a number of briefs written for the Natal University's Health Economics and HIV/AIDS Research Division, edited by Professor Alan Whiteside. This document discusses the AIDS problem and its relevance to Architects and is accessible on the university's web-site: <http://www.und.ac.za/und/heard/AidsBriefs/AidsBriefs.htm>

Kevin Bingham



The spread of HIV/AIDS is having a major impact on the economies of the world, in particular those of developing countries. This impact is realised across a wide range from individual households, to the macro-economy of a nation. While steps are being taken to halt the spread of the virus and scientists are engaged in the development of vaccines, the true impact of the epidemic has not as yet been revealed.

The purpose of this Brief is not to explore the impact HIV/AIDS will have on infected workers within the architectural field, nor the effect this will have on their productivity and output. However cognisance should be taken of such impacts within areas where these skills are in short supply. The Brief does aim to show the probable consequences the epidemic will have on the provision of building types for the community, and highlights the need for a reassessment of both government and provincial policies on building procurement and delivery. Consequently, an awareness and understanding of the implications this epidemic has on the built environment is of prime importance to Architects and associated Consultants. Finally, the Brief suggests a means of dealing with the resultant impact of AIDS on Architecture.

### BACKGROUND

The professions of Architecture and its allied disciplines have the unique responsibility of creating and guiding the construction of practically all the buildings and housing activities performed by the various sectors of the community.



Architecture, in pure terms, is centred around the creation of a structure, shelter or space. It is the Architect's role to formulate a brief together with a Client, and encapsulating the latter's intentions, conceive a design. Through documentation in drawn and written form, incorporating detailing and specification, the concept is developed into working drawings suitable for tendering and construction purposes. Once the project proceeds onto the building site, the Architect controls the Client's interests, through regular site inspections and meetings with the project team, ensuring that the design is constructed accurately and that standards of workmanship are acceptable.

The nature of architectural projects is such that a degree of time lapse occurs between the

initial briefing and the handing over of the completed project to the Client. This may range from a few weeks to a number of years. Of difficulty in the latter instance is that Architects are required to plan for the future in an ever-changing and somewhat uncertain environment. The impact of HIV/AIDS will further complicate this situation.

### The changing role of the Architect

The traditional role of the Architect has been one of Team Leader in the design team, controlling proceedings within a project and overseeing and liaising with the other Consultants in the team. Recent trends have seen this role eroded by the birth of the Project Manager, who, where employed, takes on the

role of Project Coordinator. While this reduces the Architect's role as "policeman", ensuring that the deadlines of others in the team are met, it in no way reduces the liaison that is needed between the Architect and the other Consultants.

### Architectural workers

The exposure to HIV for the Architectural worker under normal circumstances would be no greater than for any other professional person. However, the risk of contracting HIV may be increased due to:

- work performed away from the home/office e.g. contract work and site supervision;
- attendance at certain promotional launches or functions of a marketing nature.

Reduced investor confidence and poor economic growth are recognised as associated issues that limit the scope of work for the construction professions. The shift to the more socially orientated needs of communities in terms of shelter and health-care, and the necessity for architects to adapt to these needs, may scare some away. This is not the realm of glamour and financial wealth but commonly that of *pro bono publico* and donations.

The negativity associated with the pandemic is depressing and most often results in avoidance. This response extends to include architects: Two workshops orchestrated by the KZNIA on the topic of Architecture and AIDS have drawn very poor responses. However, there is no doubt that for those who have delved into the provision of architecture for HIV/AIDS, the greater rewards of hope, and the joy of providing for those in need, are attained.

## The impact on architecture and building types

Research has shown that HIV/AIDS has an impact on most building types in our region. For example, in prisons in the mid 1990s the solution to the increase in prisoners with AIDS was to

The 'AIDS Brief for Professionals: Architects' by Bingham and Harber (1998) which discusses the AIDS problem and its relevance for Architects.

**Kevin Bingham — Guest Editor**  
Born and bred in Durban, Kevin graduated with a Higher National Diploma in Architecture at the Natal Technikon in the early 1980s. After a year working as an Architectural Technician at Campbell Bernstein and Irving in 1982, Kevin entered the Natal University's six-year Bachelor of Architecture degree course.

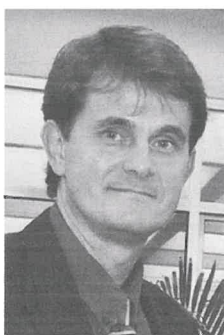
Graduating in 1988, Kevin headed for London, worked with George Trew Dunn and toured Europe. He returned to Durban in 1990 with short stints at ZAI and CBI before joining FGG Architects. In 1996, Kevin joined the staff of the School of Architecture at Natal University on a part-

time basis, tutoring in second year and thereafter secured a full-time post the following year.

Consulting as Bingham Associate Architects, Kevin has realised a range of projects. These include specialisation in acoustical work in recording studio design, performance venues and industrial sound control; medical facilities including outreach work for Hospice; industrial facilities and a

number of private residential developments.

Kevin is married to Lynne and they have two sons. He serves on their school's governing body; is a junior-league coach soccer; and is a long distance runner.



## *AIDS & Architecture*

### **"One step forward two steps back":**

#### **The AIDS Policy Impasse and HIV Treatment Access in South Africa**

Conflict over recent AIDS policy-making in South Africa between government, civil society and mainstream scientists over how to approach the epidemic has certainly been dramatic and marked by government denial.

This year has been mixed in terms of successes and failures of AIDS policy-making. However, the highest of hopes for better government AIDS policy have been largely dashed in a process that has involved two steps backward for every step forward.

The April 17th Cabinet Statement on AIDS led many to hope that it marked a serious shift in policy, ending the impasse between government, civil society and scientists over AIDS policy-making, especially in its recognition of the fact that HIV causes AIDS and that anti-retroviral treatment can dramatically improve and elongate the lives and health of people living with HIV.

However, the government's blocking of the KwaZulu-Natal (KZ-N) Global TB, AIDS and Malaria Fund application, and attempts by the Medicines Control Council to ban the drug Nevirapine for prevention of mother to child transmission (MTCT) indicate that there may be less reason for hope now than many AIDS activists and researchers thought in April. It appears that government denial of the problem, and the efficacy and safety of correctly administered anti-retroviral treatment, persists.

The KZ-N Global Fund application was jointly submitted by the KZ-N Health Department, Chamber of Commerce, the National Association of People living with HIV/AIDS (NAPWA) and researchers at the University of Natal's Nelson Mandela Medical School (participating in the Enhancing Care Initiative) to run a series of programmes to fight AIDS in KZ-N. It included elements such as education for HIV prevention, HIV treatment pilot projects, and even programmes around the problems experienced by children orphaned by AIDS in KZ-N.

Crucially, the application included a strong treatment element: this is probably the cause of conflict directed at it by national government, which has often shown hostility towards anti-retroviral treatment.

The national government insists that the proposal's funding be channelled nationally through the South African National AIDS Council, which has been largely ineffectual in shaping AIDS policy. However, the Global Fund is maintaining that the money should go directly to KZ-N as the proposal outlined.

The Global Fund granted KZ-N R700million to implement the programmes on the basis of a

strong and comprehensive proposal. This is money that KZ-N desperately needs as the Province with the highest rates of HIV infection in South Africa.

The Treatment Action Campaign and others have strongly objected to national government holding back the proposal's implementation.

Recently, the Constitutional Court ordered the government to roll out Nevirapine to prevent MTCT. However, the high hopes of many were later dashed. A few weeks after the court order the Medicines Control Council announced that it planned to review the registration of Nevirapine and potentially ban its use for prevention of MTCT.

However, the National Institute of Health (NIH) in the US, and the World Health Organisation (WHO) maintain that Nevirapine is safe and effective in reducing the rates of MTCT. Extensive trials of the drug have proven this.

The sudden change of heart about Nevirapine on the part of the Medicines Control Council may indicate that the independence of the organisation is being undermined as the Treatment Action Campaign recently claimed.

But what does all this mean for architects in KZ-N? — Firstly, if the government sees sense and rolls out MTCT prevention programmes and allows the KZ-N Global Fund application to proceed, there will probably be more construction and renovation of clinics, hospitals, research and AIDS project co-ordination facilities and laboratories in KZ-N. Already there has been an increase in donor funding in South Africa in the last few years for civil society and research projects and programmes focussed around AIDS.

This means many buildings and spaces will have to be designed specifically to roll out HIV treatment. As this journal issue highlights, there are many innovative ways that architecture can meet the special needs of AIDS service-delivery facilities.

Architecture as a discipline and profession must face up to the societal challenges that AIDS poses in South Africa. One of these is to push for an AIDS policy which recognises the right to access to HIV treatment, and to build and create spaces that will be used to realise that right.

*Mandisa Mbali*

*Ms Mbali is a Research Intern at the Centre for Civil Society within the School of Development Studies at the University of Natal, Durban.*



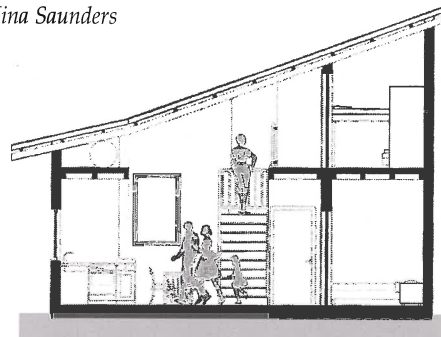
## *AIDS & Architecture*

### **Pilot Project: Community-Family Care Homes, Cato Manor**

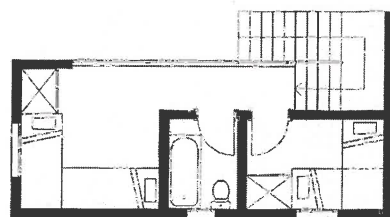
There are an estimated 150 000 AIDS orphans in Kwa-Zulu Natal, and the number is expected to escalate to 472 699 by 2010 (HEARD: Town & Regional Planning Commission Report, 2000). The 1997 White Paper for Social Welfare advocated the fostering of community self-reliance, rather than relying on state funded facilities.

BESG (Built Environment Support Group, University of Natal) is currently investigating models for orphan care provision. One such project is the Community-Family Care Home. The principles of the model are that six children live with foster-care parents in a home, which is established in the community. Orphaned children are to be raised in an environment and culture similar to their community of origin, with state resources channeled to maximize the potential of communities caring for their own vulnerable children.

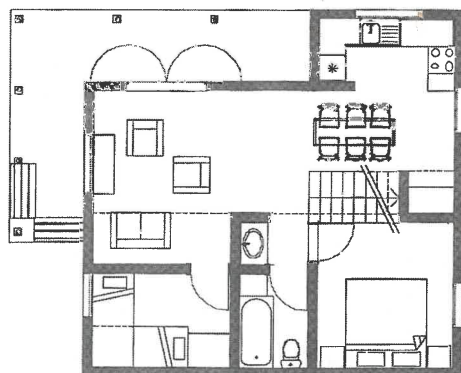
*Nina Saunders*



**Cross Section**



**Upper Floor Plan**



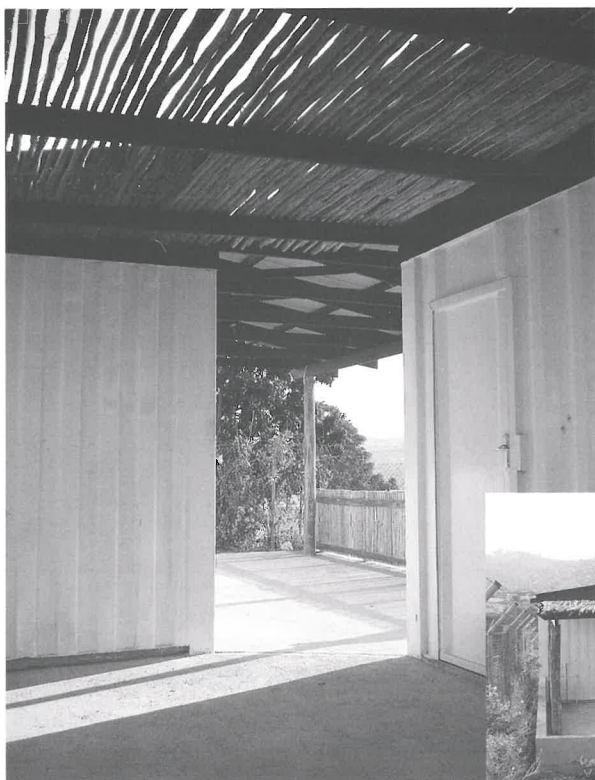
**Ground Floor Plan**



## AIDS & Architecture

### Highway Hospice Outreach Facility: Inanda "C"

Bingham Associate Architects



proved a protracted exercise, but eventually permission was granted.

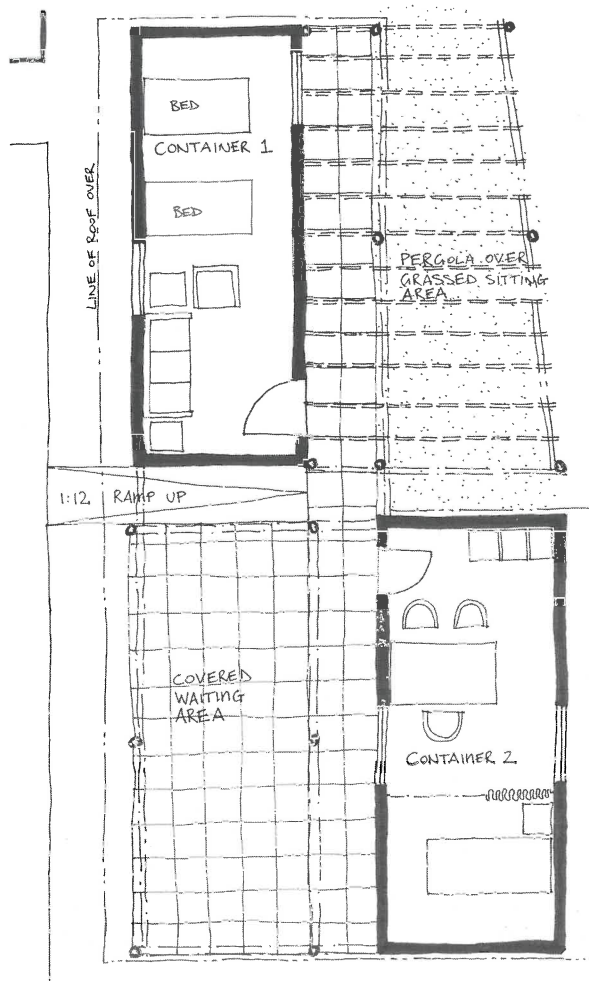
One container is used as a counselling and consultation room with the adjacent covered exterior space providing a waiting area. The other container is used as a "drop-in" centre and meeting space. Exterior to this is a seating area covered with an intingu pergola. Here handicrafts are created and day-care offered.

Kevin Bingham



Highway Hospice situated in Sherwood, Durban, recognised the necessity to take its services closer to the people most in need. After having established a clinic in Chesterville, west of the city, the Hospice approached the Durban City Health Department, and requested permission to set up a facility at their Inanda Clinic, north-west of Durban. As in the case of Chesterville, residents come from disadvantaged backgrounds. The established City Health clinic attends to the general needs of the community, but with an increase in the number of HIV/AIDS cases visiting the clinic, management recognised the need for specialised care and counselling of the terminally ill. A small area of land at the north-west corner of the Clinic site was allocated for the facility.

Sketch plans and a model were prepared of a concept which incorporated two metal shipping containers with an over-sailing roof for thermal control. Obtaining permission from the Department of Works permission



## AIDS & Architecture

### Sinikithemba\* Centre Bingham Associate Architects

Pressured by increasing HIV/AIDS statistics at McCord Hospital in 1999, a small team of dedicated doctors and social workers dreamed of opening a centre to attend to the needs of the infected and affected. Glaswegian doctors Val and Mike Patton, walking to work at the hospital each day, had 'eyed out' the grand Ridge House at the crest of McCord Road. They prayed that this would one day become the home of this AIDS Care Centre.

Kevin Bingham was approached by Val to assist in their quest. So began months of planning interspersed with visits to Hospices up and down the KZ-N coastline, the Sinikithemba team being loaded into the Hospital's Toyota Venture (painted in the colours of the South African flag) and driven by their architect.

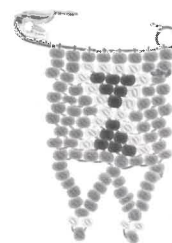
Phase One of the vision is finally being realised – the existing double-storey dwelling is to be converted into counselling and training facilities with a spectacular, roof-lit and bay windowed room, being converted into a multi-purpose facility doubling as a chapel. Added to the existing building will be medical rooms and a "drop-in" centre, catering for day visitors and craft workers. People living with the virus create beadwork and handicrafts, and this offers added companionship and a sense of self-worth, in turn improving their health.

Phase Two is the addition of counselling offices and a small hospice facility for the training of AIDS caregivers and patients.

The architectural style of the addition is domestic, comprising a facebrick plinth, plastered and painted walls, all under an aluminium sheet roof. A monopitch roof over the "drop-in" centre allows clerestorey south lighting into the upper volumes of these busy spaces, while broad-roofed verandahs spill out into the sub-tropical garden.

Kevin Bingham

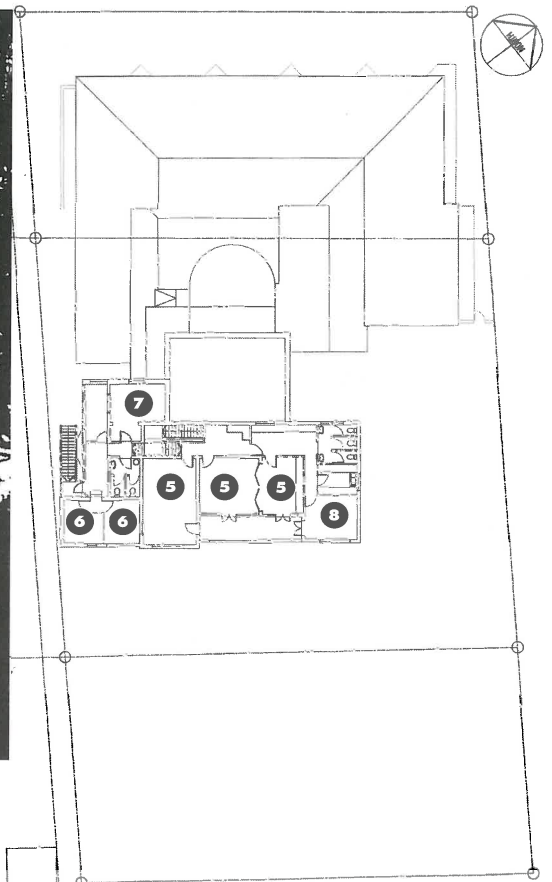
\*Sinikithemba: We Give Hope



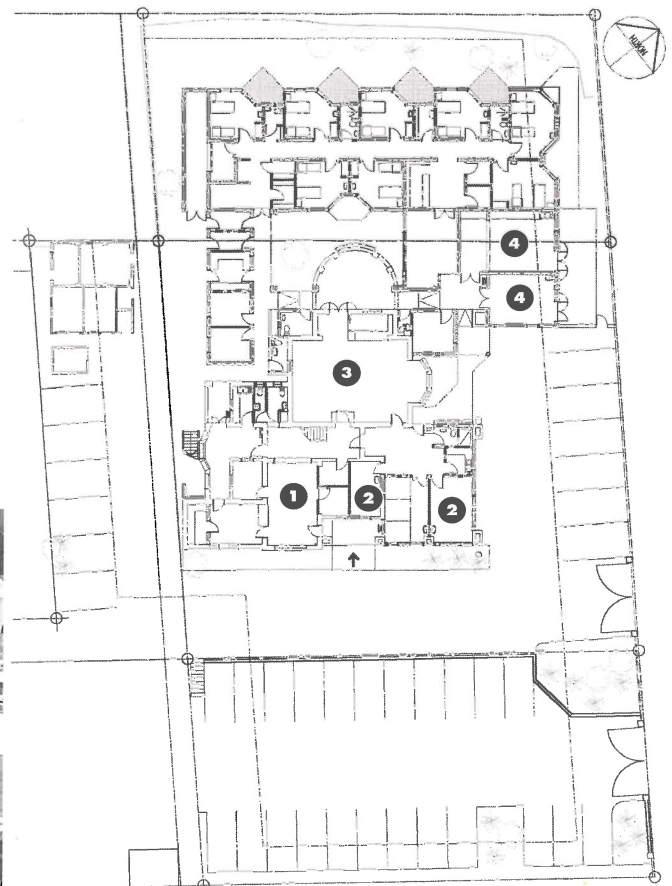
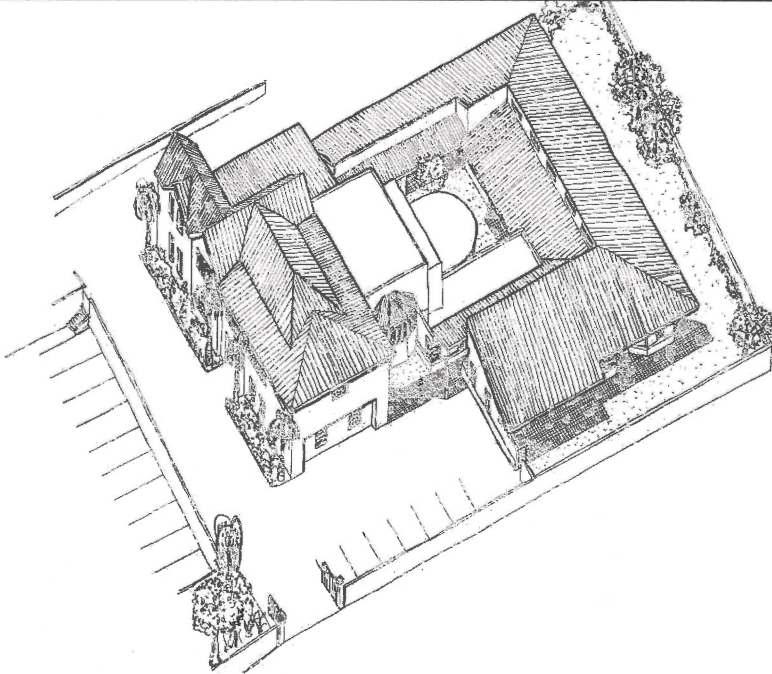
LEFT: Miniature Zulu love-letter with the AIDS ribbon symbol, made by the craftworkers for sale through the Sinikithemba Christian AIDS Care Centre.

OPPOSITE: Beadworking in the pleasant gardens of Sinikithemba Christian AIDS Care Centre.





First Floor



Ground Floor

0 1 2 3 4 5

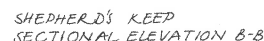


- |                 |                  |
|-----------------|------------------|
| 1 Waiting       | 5 Meeting        |
| 2 Consulting    | 6 Counselling    |
| 3 Multi-Purpose | 7 Family Therapy |
| 4 "Drop-In"     | 8 Resources      |



**Shepherd's Keep**  
*Amanda Lead Architect*

The more public areas of the building are approached first from the entrance. The training hall and chapel have been grouped as one large flexible space with a folding partition. Covered walkways



Amanda Lead





## AIDS & Architecture

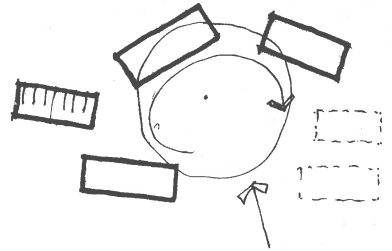
# Medical Research Facilities at Somkhele: Africa Centre for Health & Population Studies East Coast Architects CC



Architects: East Coast Architects  
Quantity Surveyors: Mike Royal Quantity Surveyors  
Structural / Civil Engineers: James Rivett-Carnac & Peter de Bruin  
Electrical / Mechanical Engineers: C.A. du Toit Consulting Engineers  
Landscape: Geoff Nichols Horticultural Services  
Brief Development: Costas Criticos  
Furniture & Interiors: East Coast Architects  
Main Contractor: Condor Construction

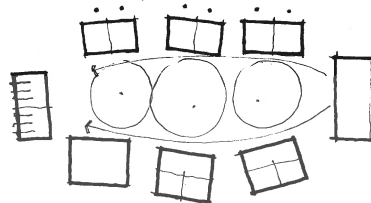
### GENESIS: the design concept of the AFRICA CENTRE

**1.** The Centre starts out as a cluster of trailer offices and residential units around an acacia tree in the hot, dry Umfolozi bush to house 12 permanent and 6 visiting medical and social scientists. Impermanence and resale are issues that drive this thinking – the centre has a limited life in terms of the funding.



**2.** We advise the client to consider a rural campus of traditional materials – an umuzi of 'four corner' structures that:

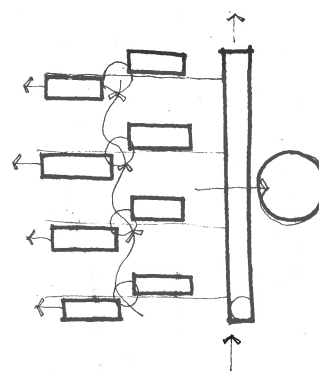
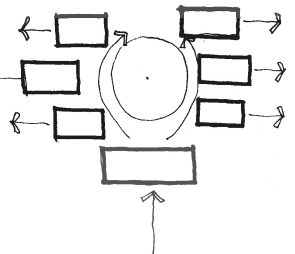
- achieves better spatial and thermal conditions for less investment;
- employs local men – women will be employed as field workers and will be the necessary interviewees of the envisaged social research;



- is indistinguishable from local built fabric thus aligning the centre with local rural conditions; and
- will leave structures behind for general community use – crèche, school, admin centre – at the conclusion of the project

**3.** The idea of *in-situ* building takes hold and is received enthusiastically by local communities. The centre grows – 20–30 scientists and 20–30 field workers and the layout becomes more formal. A need for an established identity is expressed. Two things become clear:

- The thought of limited life of the centre is naive.
- The centre will grow over time – the layout should accommodate future growth.



**4.** The centre continues to grow – 40–50 scientists and an equal number of field workers. The idea of a 'community' is mooted which generates a 'social' space as a hub for the centre – a symbolic iconic structure which pushes the centre further away from 'invisibility' in the area. The centre is now too big to remain inconspicuous.

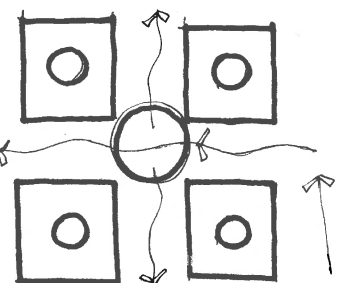
Design development proceeds on this model and during the preparation of documentation the centre continues to grow.

**5.** A new Director is appointed and the developed scheme is discarded because:

- The layout will make the centre difficult to manage – decentralised cellular offices encourage academic fiefdoms with little opportunity for dynamic collaborative research.

• The conceptual departure point no longer contains the size of the centre – 60–80 scientists with more projects clamouring for space. We are asked to look at a centralised layout with dynamic, open plan, research office space.

Derek van Heerden

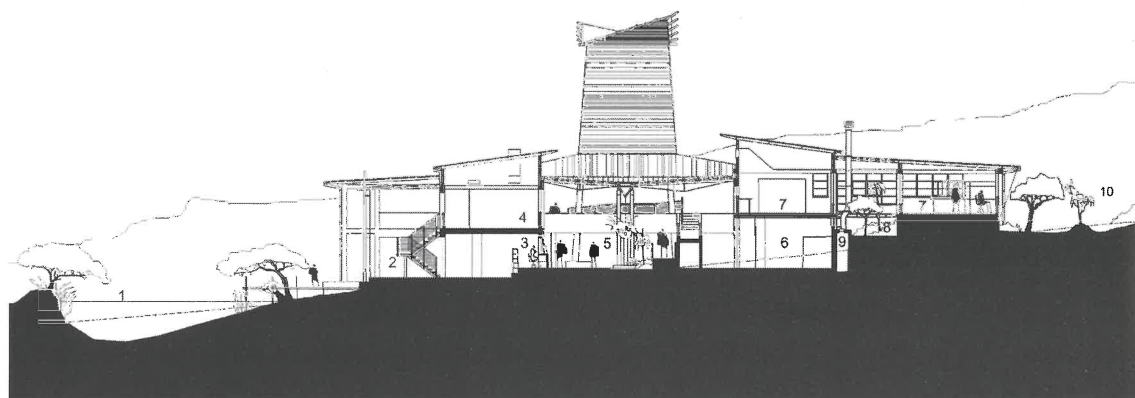




## EXODUS:

### Points of Departure

The Africa Centre for Health & Population Studies is an initiative established five years ago by three South African research institutions – the Medical Research Council, the University of Natal and the University of DurbanWestville. It operates on funding from the Wellcome Trust and other national and international funding agencies. The Africa Centre research programme comprises both office and field-based research into the health and population problems, including HIV, in a surveillance area of 85,000 people living in the rural KwaZulu-Natal District Council of Umkhanyakude.

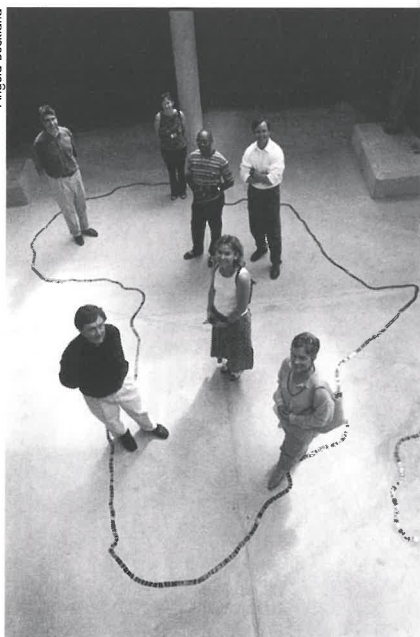


SECTION A-A

0 2 4 6 8 10m

- |                     |                   |                           |
|---------------------|-------------------|---------------------------|
| 1 Wetlands          | 5 Entrance foyer  | 9 Service duct            |
| 2 Community liaison | 6 Ablutions       | 10 Future research office |
| 3 Reception         | 7 Research office |                           |
| 4 Library           | 8 Atrium          |                           |

Angela Buckland



Wellcome to Africa!

In the course of early design discussions with Dr Mike Bennish, the Director of the Africa Centre, he stated that the new research facilities should comprise "a distinguished building, or group of buildings, constructed at reasonable cost". The design of the buildings and their performance should "help define an intellectually vibrant research centre... that contributes to the community that it is a part of. The buildings should make good use of indigenous strengths and be aesthetically pleasing to both their occupants and the surrounding community".

### Site and Context

The 13 hectare site lies at the heart of this research area and crests a hill overlooking an undistinguished valley amidst a scattering of rural homesteads. Views to the south are onto the White Mfolozi River valley and to the north the hills of Hluhluwe Game Reserve.

The site's new found gravitational centre is



LOWER FLOOR PLAN

0 2 4 6 8 10m

- |                   |                   |                      |
|-------------------|-------------------|----------------------|
| 1 Western court   | 8 Atrium          | 15 Ablutions         |
| 2 Bin area        | 9 Northern steps  | 16 Showers           |
| 3 Kitchen         | 10 Tower over     | 17 Foyer/Gallery     |
| 4 Servery         | 11 Meeting room   | 18 Reception         |
| 5 Canteen         | 12 Deck           | 19 Community liaison |
| 6 Archives        | 13 Wetlands       | 20 Computer server   |
| 7 Research office | 14 Eastern piazza | 21 Computer staging  |

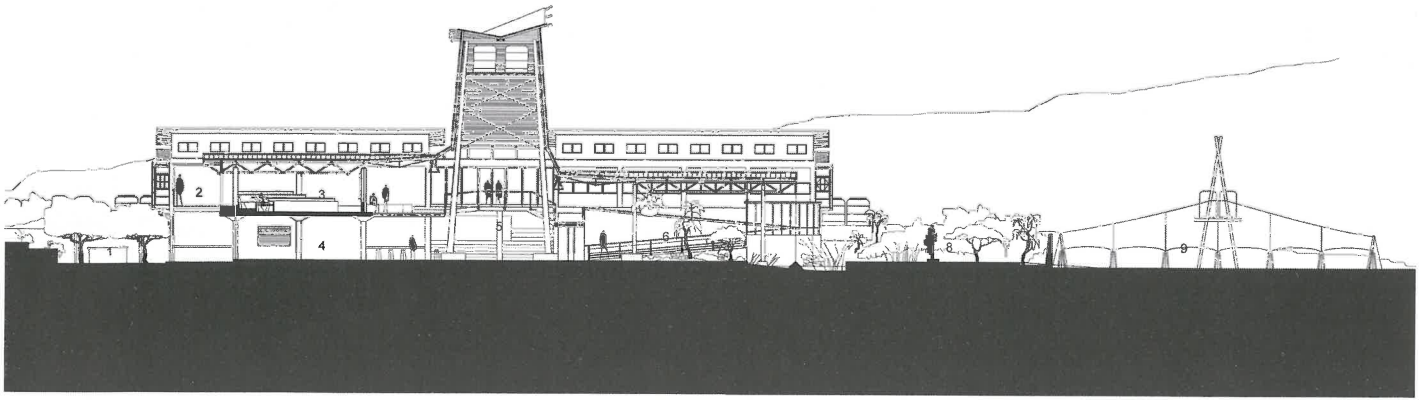
reinforced by the weighty presence of the adjacent courthouse of iNkosi Mkhwanazi. A community hall and regional water supply office make up the balance of the node at Somkhele.

### Form and Planning

There are two groups of buildings on this south-facing slope. The main building comprises four

discrete office research 'pods' clustered around the irregular Greek cross-shaped area allocated to social and interactive activities. From afar the 15m high water tower makes a bold, formal statement in the landscape, and from within the building it is a strong reference point around which circulatory and communal activities are arranged.





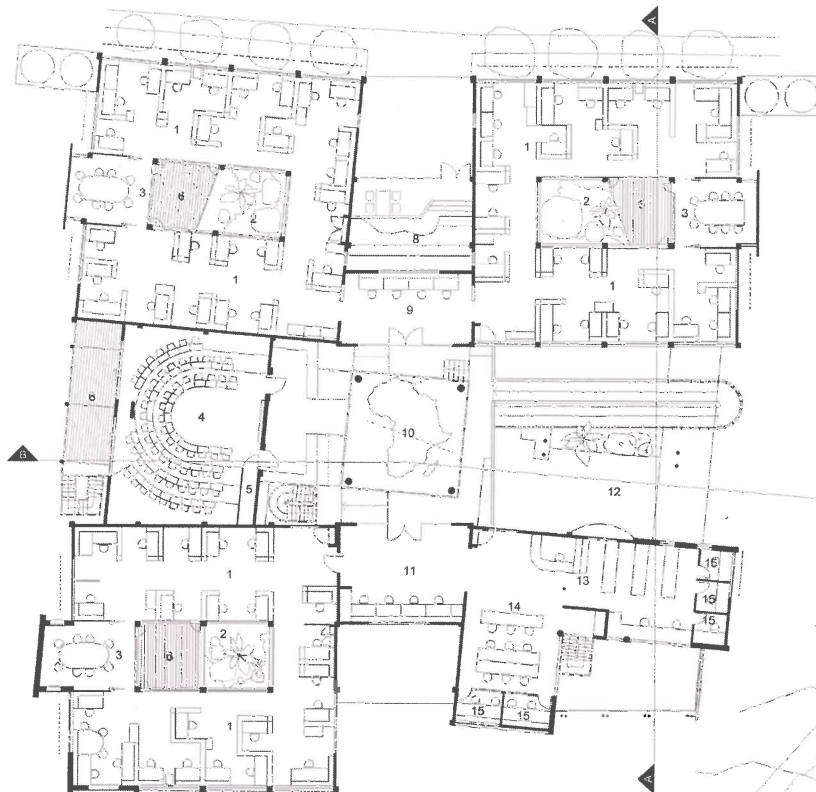
SECTION B-B

0 2 4 6 8 10m

- 1 Western court
- 2 Deck
- 3 Auditorium
- 4 Canteen

- 5 Tower
- 6 Ramp
- 7 Foyer/Reception
- 8 Eastern piazza

- 9 Foyer/Gallery
- 10 Shade House (indigenous nursery)



UPPER FLOOR PLAN

0 2 4 6 8 10m

- 1 Research office
- 2 Atrium
- 3 Meeting room
- 4 Auditorium
- 5 Store room
- 6 Deck
- 7 Northern stairs
- 8 Void
- 9 Foyer/Gallery
- 10 Tower over
- 11 Utilities (South bridge)
- 12 Void (Foyer below)
- 13 Library
- 14 IT Training
- 15 Study carrel
- 16 Void

The ancillary building complex is a robust yet low key arrangement of workshops, stores and security accommodation.

These two sets of buildings, each with different functions, are separated by a substantial wall which as an element of hard landscaping also provides a canvas for mural and plaster artists from the community.

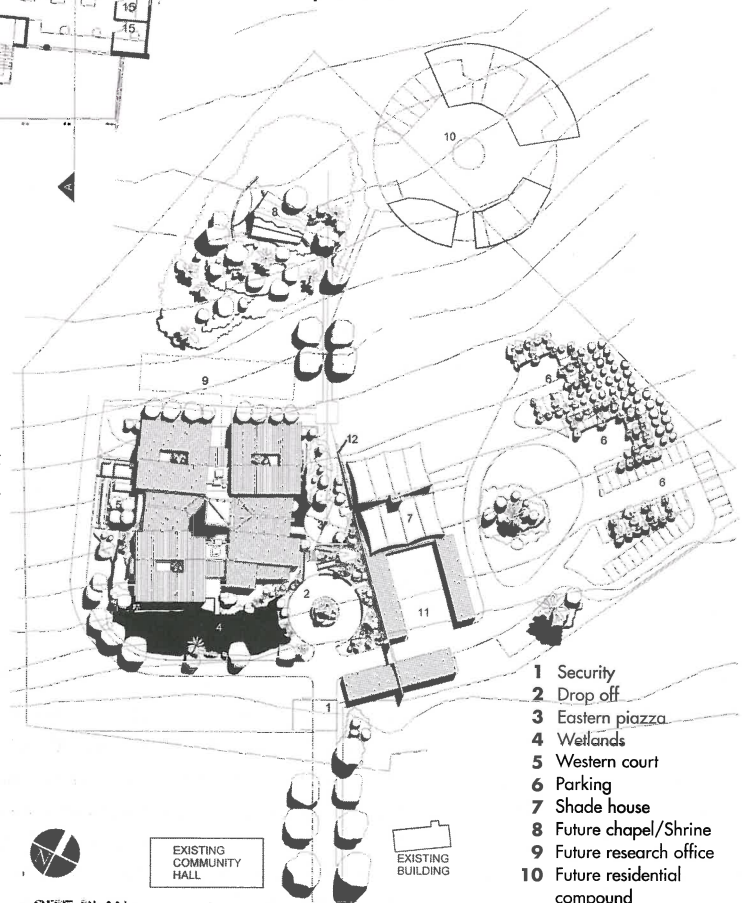
### Materials and Construction

Materials, detailing & structural elements are exposed and demonstrate the way in which the buildings have been constructed.

Exposed concrete-framed construction created an opportunity to use a wide range of materials for non-loadbearing infill panels.



Reception area.



SITE PLAN

0 5 10 15 20 25 30m

- 1 Security
- 2 Drop off
- 3 Eastern piazza
- 4 Wetlands
- 5 Western court
- 6 Parking
- 7 Shade house
- 8 Future chapel/Shrine
- 9 Future research office
- 10 Future residential compound
- 11 Vehicle depot
- 12 Community mural wall





Concrete blockwork, steel, aluminium and glass and timber have been used in varying combinations.

The eucalyptus, ubiquitous to this part of Zululand, has been used extensively – massive 15m tree trunks support the main tower, 'telegraph' poles form the main roof structure and saplings adorn shading devices and balustrades.

### Furniture and Interiors

Flexible open plan office layouts allow for a range of furniture configurations for up to 25 work stations within each of the 225m<sup>2</sup> office research 'pods'.

The open plan configurations encourage both formal and informal interaction between staff members as well as maximising exposure to natural light, ventilation and distant views.

A modular, cost effective furniture system has been designed to suit the continually changing needs of the client.

### Environmental Controls

Internal atria within each of the office blocks ensure that the maximum distance of any work station from a natural light or ventilation source is only three metres.

The tower takes advantage of the 'thermal stack effect' to assist with the natural ventilation of the central areas of the building. Solar radiation heats the corrugated steel cladding, which in turn heats the air in a 300mm wide shaft around the perimeter of the tower. As this air rises and is exhausted through the top of the tower, cooler air is drawn into the building from landscaped areas and across water features.

A deep eaves overhang on the north elevation and shading devices on the east and west elevations will reduce the solar heat gain on internal spaces.

### Water Collection and Conservation

Water conservation strategies include low-flush toilets and low volume shower facilities. 'Grey' water from showers and wash hand basins has been separated to irrigate the gardens.

Sewerage is treated on site in a small 1,500 litre bio-reactor and the clean water from the system will discharge into a community vegetable garden and cattle watering trough.

Stormwater from the site and buildings is either collected in rainwater tanks or managed on the surface and fed into natural wetlands. The wetland system provides habitats for a myriad of fauna and flora and is traversed by a bridge at the main entrance to the research complex.

### Participation

As the research operations of the Centre are firmly rooted in the community of the Umkhanyakude District Council, it was essential that the building process invite and encourage the participation of residents from the surrounding villages. The building contract required that 100% of

**ABOVE:** North-east elevation with community mural wall in foreground, photographed from the shade house.

the unskilled labour force and 75% of the skilled staff be drawn from the immediate community. In addition the following projects have had either partial or complete community involvement:

- Landscaping and estate management
- Murals and decorative plaster work
- Art and crafts for display and decoration
- Steel work for sunscreen frames, furniture and gates
- Furniture manufacture
- Ceramic tile mosaics

### Landscaping

The landscaping layout has been created using planting material indigenous to this region of Zululand. Indigenous plants from the footprint of the building were removed and propagated off site.

Planting material has been used to moderate climatic influences on the buildings. In this regard special consideration has been given to afternoon sun on western elevations and the control of prevailing winds. Internal courtyards within each of the office blocks have been used to introduce natural light and ventilation to the work spaces and creepers will eventually help to shade these spaces. Appropriate indigenous plants in containers have been used in all interior plantscaping designs.

Due to the nature of the research conducted, medicinal plants have been used to demonstrate the importance of traditional healing procedures.

An indigenous nursery replenishes plant material on site and will eventually retail to the local community.

### Building Costs

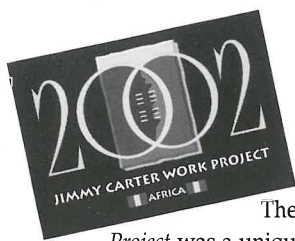
This 2,700m<sup>2</sup> building was built at a fully inclusive rate of R2,400/m<sup>2</sup>. This compares favourably to the R3,200/m<sup>2</sup> building costs of comparable, urban based office or research spaces. Proof that good design doesn't need to cost the earth!

Steve Kinsler



Entrance foyer.





The *Jimmy Carter Work Project* was a unique event involving the construction of 100 houses in five days, 3–7 June 2002. Almost 6 000 people from 45 nations, together with 100 beneficiary families, participated in this process. It was more than a feat of construction – it was an experience that changed many people's lives.

What impressed most, was that the project involved more than just houses, but that the processes of community formation and their integration with the broader community were integral to the design of this living environment. This project presented to South Africa a model for societal transformation and hope.



*Habitat for Humanity* is an international non-profit ecumenical Christian housing ministry which seeks to eliminate 'poverty housing' from the world and make decent shelter a matter of conscience and action. Conceived in the Congo in 1976, it now operates in 83 countries around the world, 18 of which are in Africa. It has since built more than 120 000 houses, providing some 500 000 people in more than two thousand communities with safe, decent and affordable houses.

*Habitat* was established in South Africa in 1987 and is registered as a non-profit organisation (NPO). In 1994 it expanded its operations to Durban, and in 1998 to Cape Town.

*Habitat* uses a mutual-help methodology. Persons in need of housing do not work on their own i.e. self-help, but group together to tackle their housing needs collaboratively. Group members provide their labour voluntarily, thus eliminating labour costs. *Habitat* assists in the formation of such groups, and assists in acquiring land, finance, building materials and technical support. Once completed, homeowners are required to repay the loan within a five to ten year period. Such loans are granted by *Habitat* at no interest, but outstanding balances are adjusted each year to accommodate inflation. This is done to ensure that the value of repayments can be recycled to finance additional houses ('House for House Repayment Fund').

*Habitat* is not only a ministry to the poor, but actively seeks to engage those who have time, money and/or skill, and who wish to engage in building houses and communities in their city. By integrating volunteers, sponsors and employers from the broader community, *Habitat* bridges the racial, income and religious chasms that tend to fragment our society.

## Jimmy Carter Work Project

### 100 Houses in 5 days!

*Habitat for Humanity* seeks to challenge the notion that meeting housing (and other societal) needs is the sole responsibility of government. By so doing, *Habitat* seeks to challenge the culture of patronage which perpetuates dependency and under-development in Africa.

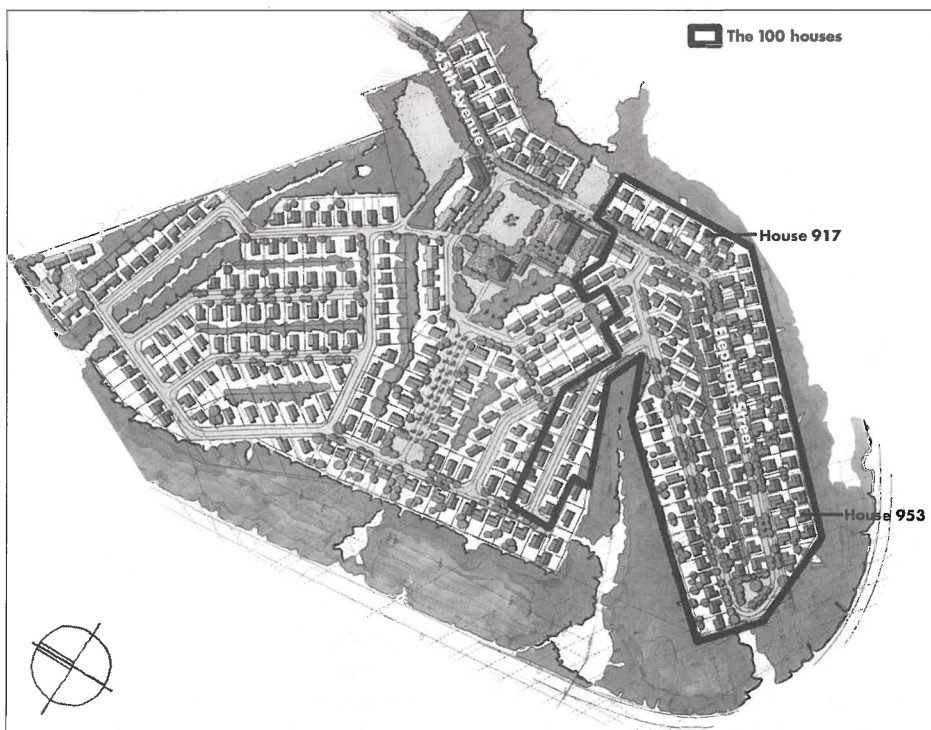
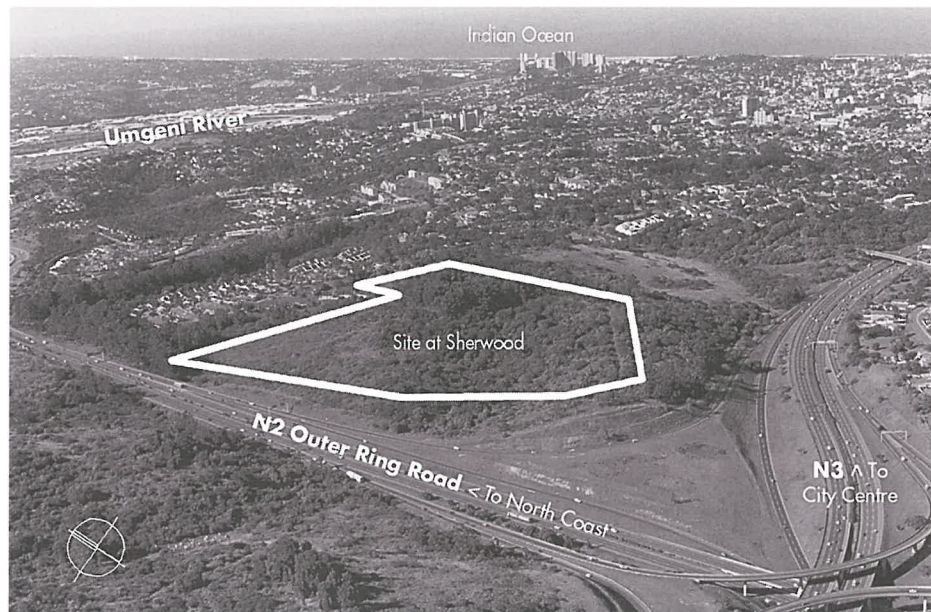
#### Jimmy Carter Work Project

Voluntary participation is usually confined to weekends or public holidays. But, *Habitat* also organises events over a period of five days at which commitment is sought to construct a number of houses. The purpose of such events is to emphasise the role ordinary citizens can play in meeting housing needs. As such, *Habitat* aims to facilitate the rebuilding of vol-

unteerism and broaden civil society. For this reason *Habitat* chose to locate the *Jimmy Carter Work Project* 2002 in South Africa. In 1983 the former US President (1976–80), committed himself to work for a week each year on a *Habitat* house. With the support and commitment of the eThekweni Mayor, Councillor Obed Mlaba, Durban was chosen, and land was made available in Sherwood.

#### The Environment

While the *Jimmy Carter Work Project* was a five day event, the physical environment and the community being established should exist for generations. In this regard, every aspect (location, beneficiary selection and community





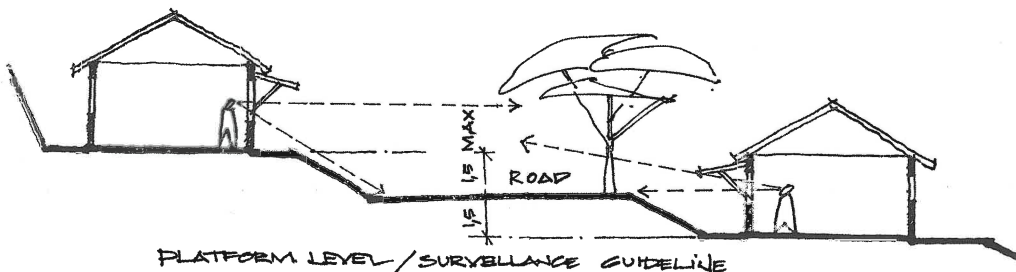
formation process, neighbourhood consultation, environmental quality, financing, tenure, physical layout and building technology) of the development was considered in terms of its long-term implications. Whilst the JCWP provided the impetus, it also induced tremendous pressure. The date of the event was fixed two years in advance and was an immovable deadline. After securing the development rights, only five months remained to complete roads and infrastructure for 350 housing units.

### 1. A Community of Choice

The undeveloped nature of the land and its isolated location afforded an opportunity to conceptualise and establish a community from scratch, free of political patronage which can characterise low-cost developments.

Poverty can be defined as the absence of choice. Those recently urbanised, wishing to obtain a foothold or consolidate their existence within the city, often find themselves in employment-linked single-room accommodation lacking security of tenure, forcing spouses and children to live separated, sometimes for their entire childhood. Alternatively they locate themselves in informal settlements alongside neighbours who may do not share their values or aspirations, finding their lives dominated by conformity to 'group think' or the ball and chain of ghetto culture.

*Habitat* through this development desired to provide such persons a choice to live in a different environment, an urban community, neither a geographical entity nor a political con-



The infrastructure: House and street relationship.

stituency, but a collective of persons sharing common values, aspirations and identity.

### 2. A Collaborative Community

In essence the physical and institutional model is a fusion of the co-housing or gated community and a sectionally titled development. The project was targeted at persons who qualify for the subsidy available from the Department of Housing. Applicants were made aware that the project would require more than the standard requirements for government housing and were therefore required to:

- have no outstanding debts;
- secure their employers' recommendation, moral support and voluntary involvement;
- obtain their religious community's recommendation;
- agree to a collaborative construction process;
- demonstrate a savings record of at least six months;
- participate in an envisioning process;
- participate in a 'values formation' process;
- and, undergo urban ownership orientation and training.

### 3. Development Principles

Fundamental to this development was the retention and enhancement of the value of investment. In this respect *Habitat* wished to demonstrate a way of realising houses and establishing a community which goes beyond the physical aspect of development and deals consciously with some of the intangibles that contribute to the formation of communities and their long-term economic and social sustainability.

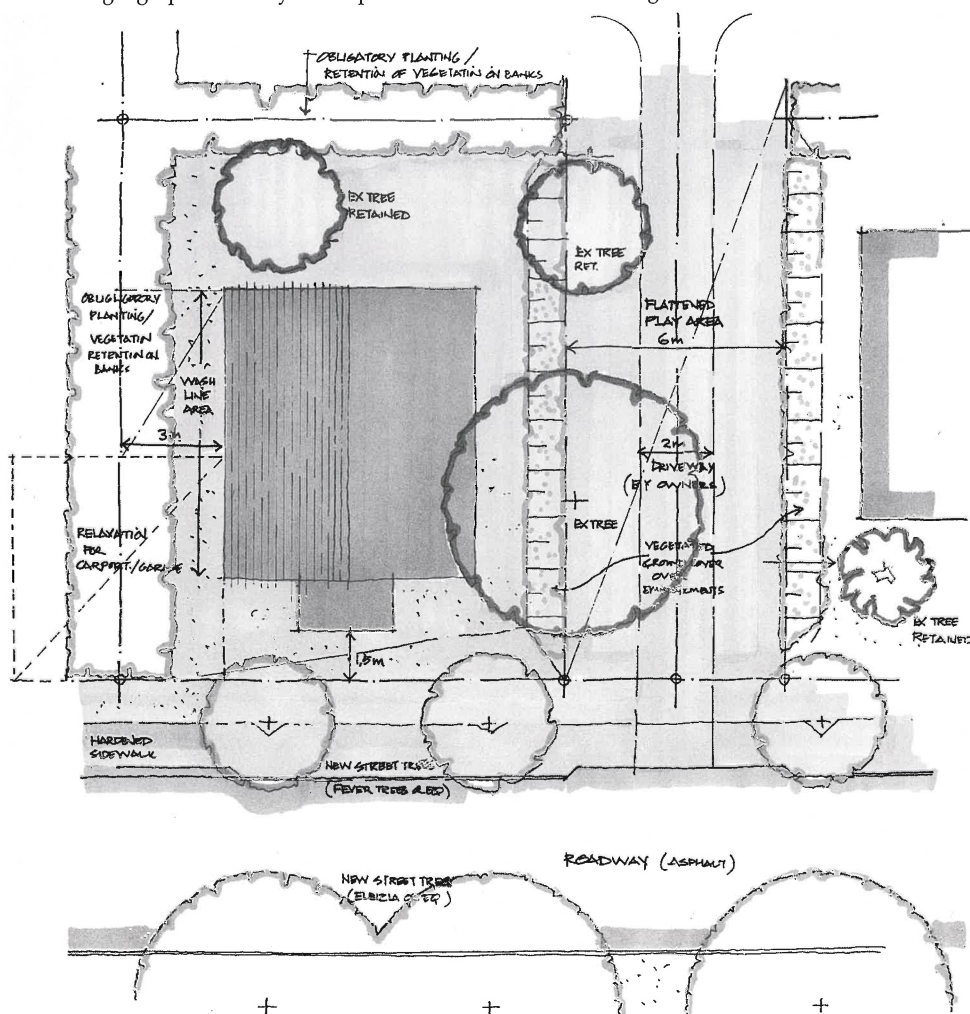
**Location and Amenities:** Affordable housing most often is located on left-over or peripheral land, removed from valuable social or physical infrastructure, and economic opportunity – places of permanent disadvantage. The Sherwood location provided an inherent value, and afforded the opportunity for this to increase over time.

• **Environmental Quality:** The design of public spaces, architecture and engineering utilities, together with the retention and enhancement of the natural environment have contributed to a unique environment within affordable housing developments. More important, however, has been the assimilation and internalisation of these aesthetic and ecological values by community members, and their inclusion and status in the environmental rules of the homeowner's association.

• **Behaviour:** Behaviour and property value are linked. Loud music or conducting oil-changes in the street affect perceptions. The applicants were derived from a variety of races, economic and social backgrounds, some with the personal burden of previous abuse, hardship or oppression. It could not be assumed that the emerging community had a common understanding of 'community', or what constituted appropriate behavioural patterns. Consequently, it was important to articulate these and to establish commonly agreed rules of behaviour, to both govern and resolve potential conflicts.

• **Enforcement of Values:** Membership of the community is ratified only on signing the rules of the Homeowner's Association which address sustainability of the community and its living environment. Disregard for such rules can result in eviction and the sale of the unit.

• **Neighbourhood Integration:** The juxtaposition of an affordable housing project with a more affluent residential environment requires serious and responsible consideration. Fears of diminishing property values are real, unless behavioural and environmental values can be agreed upon and upheld. Openness and honesty between parties was essential in establishing compromises, and obtaining support from local residents. The process serves as a demonstration for future infill projects.





## 4. Physical Layout and Urban Design

### 4.1 Layout

The site measures approximately 16 hectares, however much of this is constrained by steep slope-conditions, poor soils and natural drainage channels. The site is accessed from the highest point on the north and the land falls away to the north-west and south.

Land subdivision is based on detached housing and freehold ownership. The minimum site size is 180sq m and the average size is approximately 300sq m. As far as possible the geometry of the subdivisions allows for the clustering of houses around 'Savings clubs' or *stokvels* (The community is composed of savings clubs comprising four to eight households each).

### 4.2 Land use

Community and commercial facilities are located near the site entrance at the top of the hill to ensure concentrated community activity and regular surveillance of play areas. Commercial rights have been secured to permit income-generating activities to subsidise public improvements and facilities by the Homeowners' Association.

### 4.3 Open Space System and the Environment

- The site is bounded to the east, south and west by the Durban Metropolitan Open Space System. Two open space corridors, following the alignment of the drainage channels, traverse the site to facilitate animal movement.
- An Environmental Management Plan was formulated requiring large trees to be retained, even though many of these are alien species. Such trees will be replaced over time when recently planted indigenous trees (over 6000) have achieved significant growth. Community members have adopted the use of indigenous ground-covers and shrubs to protect sloping surfaces and water courses.

Engineers and contractors were required to retain all significant trees. These were surveyed before commencing civil engineering works and house positions and types were adjusted to retain such assets.

Landscaping Guidelines have been formulated to ensure that the placement of vegetation satisfies the need for property demarcation and minimises or negates the need for hard elements such as boundary walls.

### 4.4 Infrastructure

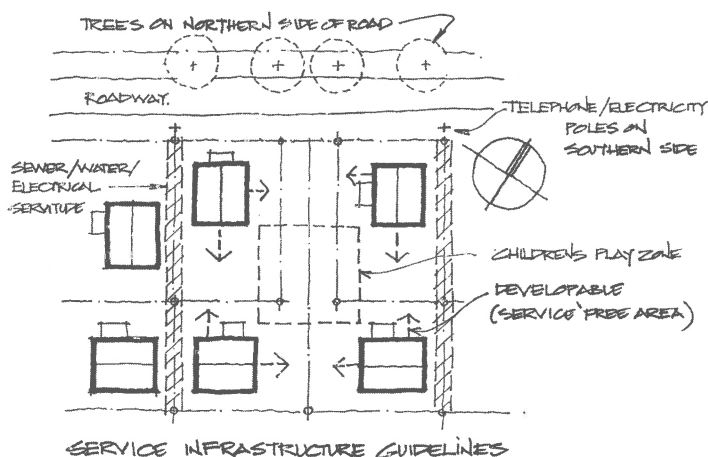
With an urban designer as the client, engineering design and utilities could be guided to meet with the overall objectives. For this reason much emphasis was placed on guiding the placement of services.

House and Street Relationship: Housing platforms were required to be no more than 1,5m above or below the street elevation. This to ensure adequate surveillance of the street.

Utility Clusters: Special permission was sought from the Executive Directors of Durban Electricity and Water to cluster reticulation along "service boundaries" to provide service-free zones for future house extensions and play areas. (below)

Reciprocal Servitudes: Access servitudes are combined to enable shared access.

Electric and telephone poles were positioned to demarcate boundaries. Poles have been placed on one side of the street to permit the planting of street trees on the other side.



## 4.5 House Orientation

Wherever possible, entrances face the street. This is to reinforce the importance of public space as the unifying element of the community. A variety of house configurations and types have been designed to provide interest along the street frontage.

## 5. House Design

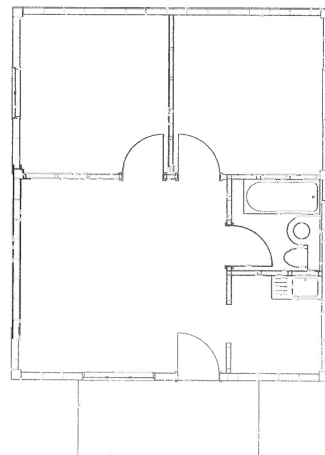
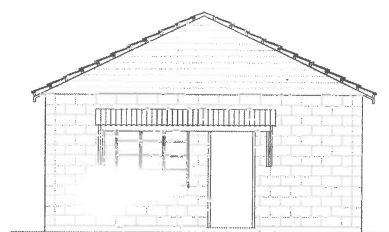
The Development is split into three phases. The first phase comprises 130 housing units, 100 of which were constructed during the Jimmy Carter Work Project.

### 5.1 Specifications and Costs:

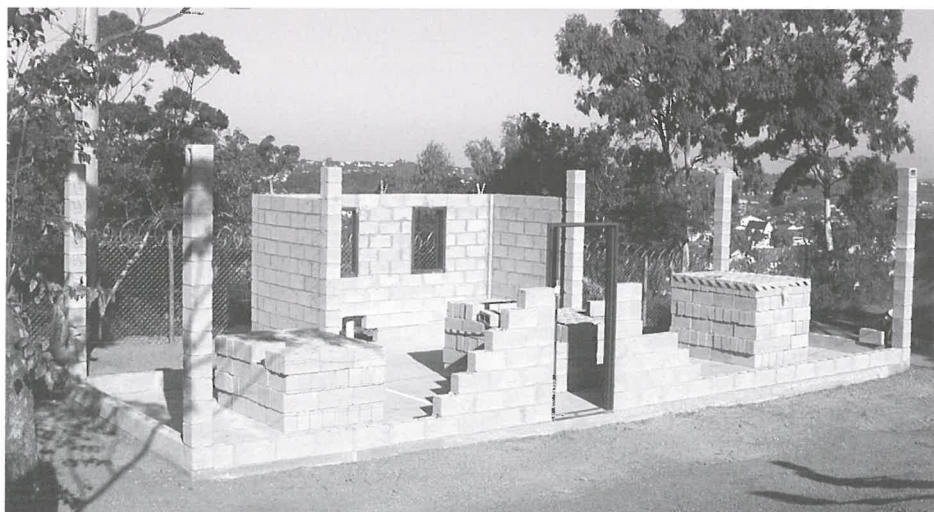
Foundations	Raft foundations to platform base; to engineer's specifications
Floors	100mm, 20Mpa reinforced and pigmented concrete
Roof	Concrete roof tiles; fibre-cement awning and lean-to (Type B)
External walls	140x390x190mm concrete blocks; 200x200mm Corner Columns
Internal walls	Drywall of 100mm timber frames and 15mm gypsum plasterboard linings
Ceilings	6.4mm gypsum plasterboard
Plumbing fixtures	Kitchen sink with mixer; prefabricated unit with bath, basin and geyser beneath. Geyser, and Taps
Electrical fixtures:	'Ready-board', light fittings and sockets to all rooms
Windows	Standard pressed metal frames; sizes modified for blockwork construction
Doors	Galvanised and painted steel frames
Habitat for Humanity	R26 000 (to be repaid over 5-10 year period)
Anticipated Rental/Instalments	R250 p.m. escalated at rate of inflation on annual basis (excl. rates, water and electricity)

### 5.2 House Types:

See House Type A (below) and B (overleaf)



Plan and elevation – House Type A.  
LEFT: Prototype for House Type B.





## 6. Preparing the Site for the Event

Every effort was made to ensure that the methods, materials and construction details were thoroughly considered:

- Five prototype houses were constructed prior to the event to test the construction methodology, the speed of construction, and to expose construction detail and procurement problems. By the time of the event, the construction leaders had been thoroughly trained.
- Materials were selected to facilitate volunteer construction, but were also constrained by donations and compromises made to suit neighbourhood and safety concerns.
- Corner columns were erected, initially to enable the simultaneous construction of the roof and walls (abandoned due to concerns for safety), but also to obviate the need for timber profiles (particularly on steep sloping sites) and to provide a gauge for horizontal jointing.
- For the first time Durban Electricity provided electrical 'Ready Boards' to incomplete houses. This was achieved by constructing a wall portion to receive the installation and external connection. Power was thus available at each house for electrical tooling for the duration of the event.
- Water connections were similarly provided to each house before the event.

### 6.2 Five-day Construction Programme

Monday:	All blockwork, including window and door frames to be completed to wall plate level.
Tuesday:	Trusses erected and braced. Internal drywall framing and door-frames completed. Internal electrical reticulation completed.
Wednesday:	Roof riling; internal drywall cladding and ceiling; and external painting completed.
Thursday:	Internal plumbing installed. Internal painting completed and doors hung.
Friday:	Canopies attached. Door Painting completed. Landscaping and trees planted. House dedication ceremony held 4pm.

### 6.3 Project Logistics

- Food: Habitat for Humanity catered for breakfast, lunch and supper for 3300 each day. To save time, packed lunches were delivered to each house.
- Transporting of volunteers: A temporary bus terminus was established on site. Collection points were established at Durban's ICC and Durban-Westville University, where cars could be safely parked, and volunteers were collected at 6am and returned at the end of the day.

### 6.4 Materials and Tooling:

- All the materials required were packaged and provided at each house, or stored (for security reasons) within a container serving a maximum of four houses on site. Anything that could be done to simplify construction was considered eg all measurements for battens and bracing were marked on the trusses.
- Habitat for Humanity secured all construction tooling required through purchase or donation. A hardware merchant established a temporary retail store on site to provide any additional tooling that may be required.
- All materials and tooling was placed under the supervision of a container 'master'. Tooling

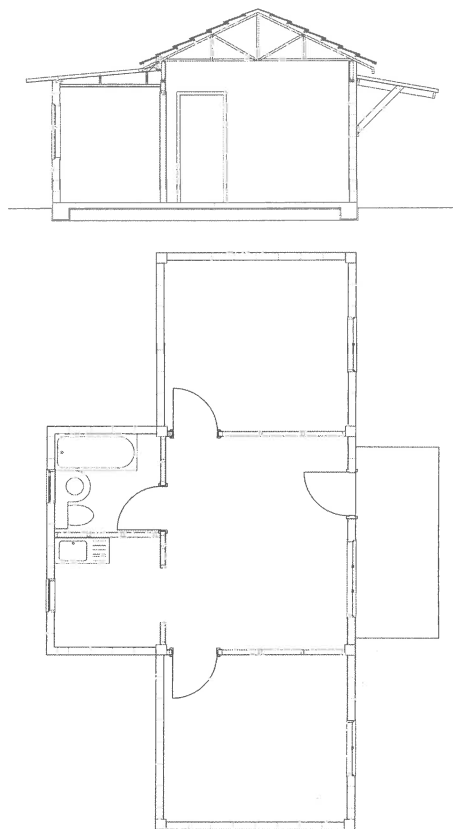
and Material requirements were regularly checked to ensure that activities were not delayed.

## In Conclusion

*Habitat for Humanity* (South Africa) was vindicated when Jimmy Carter issued a press statement claiming the Durban event to be the best organised in its 19-year history. Considering that the event has previously been held in New York, Houston, Los Angeles and many other US cities, this is no mean feat!

Larry English

*Mr English studied Architecture at the University of Port Elizabeth and Urban Design at Witwatersrand. After lobbying for the establishment of Habitat for Humanity (South Africa) since 1993; he was appointed to the Board of Directors of Habitat; and thus was able to initiate and direct the Jimmy Carter Work Project in Durban. He has since been appointed Director for Urban Development for Habitat for Humanity (International) – Africa & the Middle-East.*



House Type B

Architects & Urban Designers:  
Habitat for Humanity SA  
Project Managers:  
Habitat for Humanity SA  
Consulting Engineers:  
Biggar Engineering  
Geo-Technical Engineers:  
Khuzwayo Hadebe Engineering (Pty) Ltd  
Structural Engineers:  
Sikaphamile Consulting CC  
Land Surveyors:  
Siyazama Consulting  
Environmental Consultant:  
Digital Muthi  
Contractors:  
Stedone Construction CC and  
Civ-Tech Construction CC

## JCWP – Africa 2002

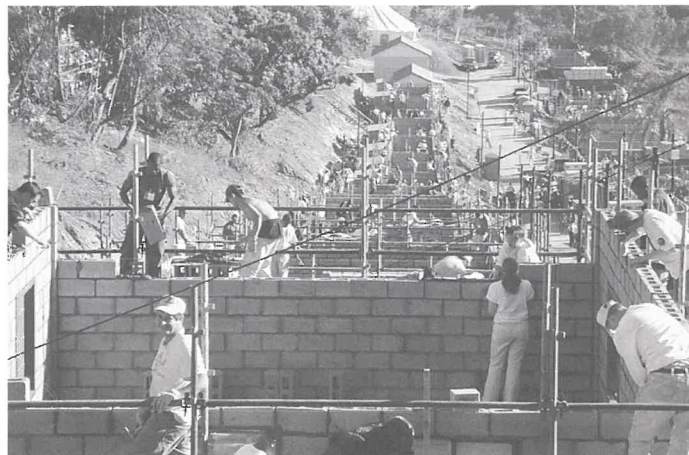
## The Missing Link

Having studied the full 6 years and earned the title of Architect (well, Candidate Architect for now), I am well aware of the lack of hands-on experience the course affords fledgling architects. When I say 'hands-on', I'm talking about physically laying bricks, mixing concrete, erecting roof trusses and so on. It was an issue that was raised time and time again throughout my years of study, but...to no avail.

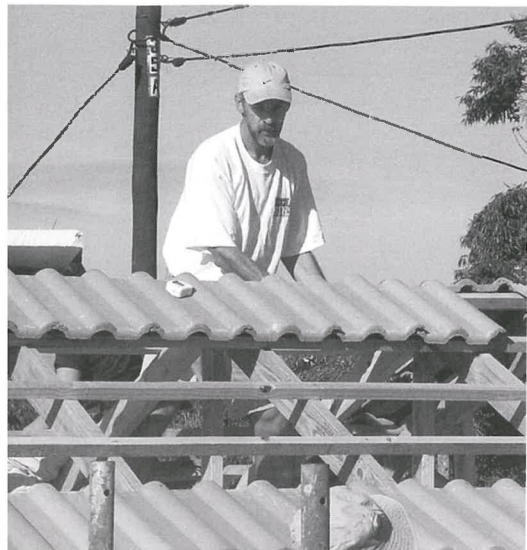
It's very difficult to enter the real world of Architecture and building with any confidence having had none, or perhaps in some students cases, minimal experience on a building site or with building materials. Designing something in the office is one thing, building it on site is something quite different. Every architect needs to be aware of those differences so that they can be factored in at the design stage. Every architect needs to get hands-on!

I was recently given the opportunity through the *Habitat for Humanity* Jimmy Carter Work Project in Durban. (That's not to say that I didn't get involved out of the goodness of my heart, I just had an "added incentive") This was one week in which everyone involved realized their true physical ability. Besides the house building leader and the crew leaders who may have had some prior experience on a building site, (although generally only of a DIY nature), volunteers were from all walks of life, young and very old. With 6 years of building design behind me, I had expected to be slightly up on the other "crew members". It was slight!

I completed each day feeling fulfilled and informed, and at the end of the week I felt like I was finally coming to grips with what building and construction is all about. It has helped me greatly, but I can only imagine how much more an experience like this would have benefited me had it been earlier in my architectural life. Trying to relate to architectural detailing without ever having to deal with it first hand, is putting the cart before the horse.







**Day 3 – Laying Roof tiles.** Derek Olorenshaw, in photo, is an ex-Durbanite who has been living in Denver, Colorado for 25 years. A student of Natal University, he joined the protests back in the late '60s to stop the removal of squatters from this site. JCWP gave him the opportunity to get his own back!

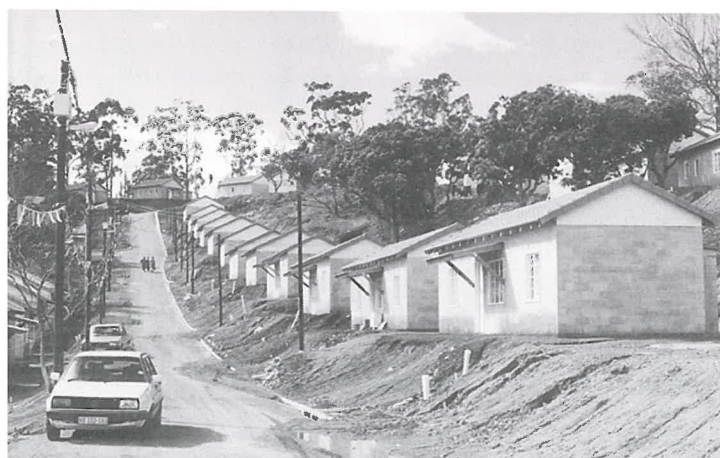


**The Team of House 953:** Front row from left: Jeff Joslin (USA); Ms Jin Hye-H Yun Jin (Korea); Ms Alkyssa Getzoff (USA). Back row: Mrs Robin Barsoum (USA); John Barsoum (USA); Ms Ellen Choi (Korea); Ms Joyce Mjoli (owner); Kevin Boyd (SA); Mike Chianakas (USA); Paul Buckley (SA); Ms Michelle Chianakas (USA).

It seems inconceivable that, after 6 years, anyone can be awarded the professional status of Architect, creator in the built environment, without ever lifting a brick!

Kevin Boyd

Mr Boyd, graduated from Natal in 2000 with the degree B.Arch (cum laude). – Editor



came to know each other before occupation of the houses began. This is an advantage that can't be measured in monetary terms.

**Opposite page, left:** House Type B under mass-construction on the afternoon of Day One.  
**Left:** The completed houses.

## JCWP – Africa 2002

### The 'blitz build'

A group of volunteers from the Free State consisting of architects a number of 4th year students of Architecture at UFS and their lecturer, left for Durban to participate in this project.

After completion the registration on Monday morning (which took nearly 3 hours), we were assigned to the residence of Bheki and Nomdu Nxumalo (917 Elephant Street). The nationalities of the volunteering group for house Nxumalo included Americans, Australians, Britons, Germans and South-Africans.

#### 'Blitz build'

The erection of the house can be compared with the assembling of a kit of parts. Every component was clearly marked, eliminating confusion between different parts.

The experience that the contingent gained through their participation in this project is invaluable, not alone do members understand how a building is assembled or constructed, but a close relationship was formed with the new house owners. This construction process was like building a real life *Lego* house!

The local radio station made specific mention of the fast progress of house 917, and during the interview Bheki promised free accommodation to all Free State architects and architecture students!

#### Conclusions

The building of these houses served as a vehicle to bring people from all walks of life together to build homes with and for people in need. During JCWP 2002 the former US President and First Lady, Rosalynn, worked side by side with South Africans of all walks of life, and thousands of international volunteers

The real success of the programme can possibly be found in the forming of a sense of community. The 100 families

The homeowner (often with an extended family) was part of the construction team and with this comes an added feeling of responsibility and ownership. Being part of the construction team also provides the homeowner certain skills when it comes to later maintenance of the house.

The volunteer construction teams were headed by a house leader, 4 crew leaders and then the crew members. The house leaders were mostly American and, with some exceptions, there were people of another nationalities who acted as crew leaders. This inevitably led to some friction. As a Kenyan mentioned at dinner one evening: "The Americans are very hard to question".

However the Americans also need to be thanked, the precision with which this operation was executed was astounding. The American volunteers paid \$500 to participate, in addition to being responsible for their own travel and accommodation expenses!

Jacques Laubscher

Mr Laubscher is a Lecturer in Architecture at the University of the Free State in Bloemfontein.



**The house hand over:** Back row – Monica Bitzer, Nomdu Nxumalo (owner's wife), Van Aardt de Jager and Jacques Laubscher. In front Yolande Hendricks and Maretha Dreyer. Not shown here Christiaan Neethling.



**The dedication ceremony:** Margaret Fafudi is presented a Zulu Bible by Jimmy Carter as Siza Dube (on behalf of his mother) and Jacques Laubscher (on the right) look on.



## Book Review

### BLUEPRINTS in Black & White

In the flyer announcing this book, it is explained that "*Blueprints* examines the process of change from South Africa's earliest beginnings. It looks at the various forces that moulded the built environment we have inherited and outlines the history of the professions, their associations and their training programmes." This is a fairly ambitious programme, considering the relatively small amount of academic enquiry that is available to draw upon in the South African context, but more on this below.

The book is soft covered of an unusual A4-format. The page layout is that of what seems to be a now popular type, and which consists of a central column of text with side columns containing either illustrations – mainly black and white photos – or boxes of text. There are the occasional colour photos and even some larger photos contained within the main body of the text. Most of the illustrations are of the thumbnail variety, and some seem to have a marginal connection to the text they are informing (p48 as an example). The same remarks apply to the boxes of text, eg the top side box on p80.

There is a bibliography, although it is far from complete or exhaustive. Also included is a minimal referencing system so that the main sources of the information cited can be traced.

Although the book is sponsored by the National Department of Public Works, it is not a detailed study of that Department's role in, or influence on, the country's built environment. There is, however, some material on the DPW included in the text.

It is also a little difficult to decipher whether this is a history of the built environment itself or of the various professions involved in shaping that environment. Possibly this arises from the ambitious programme which was to cover all of South Africa's history. However, the weighing of the text really gives the focus of the book with some 50% (approx. 60 pages) covering the period since 1948, in other words the Apartheid years.



Therefore, of necessity, the previous periods all get little, almost a superficial coverage which probably adds very little to the field of knowledge. At the risk of being pedantic, some of this information is actually erroneous, thus on p20 the early C19 contracting procedure is described as "master builders who generally hailed from one of the trades, would hire skills from the other trades". In fact, the general procedure was to split the contract into two sections; that of the carpenter and that of the bricklayer/mason; this being entirely logical, given the nature of most buildings at the time. On p33 it is stated that the basis of all building regulations in South Africa are the London Building Regulations of 1894. The reality is that most early sets were based on the 1877 British Model Building Bylaws.

What the book demonstrates quite convincingly is how difficult it is to write any form of objective history of the recent past. Nevertheless, it is an important contribution to begin understanding the tragic past and our various professions' involvement in shaping Apartheid's built environment. The dismantling of that particular legacy must obviously be the great imperative facing all the professions in South Africa. Fortunately, this work is well under way. One hopes that there will be sufficient and appropriately educated, rather than just trained, human resources available to continue this vital task. One of the ghosts that still seems to haunt the country is the expectation or reliance on government to provide a vast amount of control.

In a creative field like architecture, it is vital that merit and ability be the most important criteria for ensuring that the built environment of the future is of a high quality. Without this, all the legislation and well meant logistical frameworks in the world will only result in unloved cities and poorly realised buildings. Guarding against mediocrity is the key to the country's future.

Dennis Radford

Prof Radford is Head of the School of Architecture, De Montford University, Leicester.



## A Travel Diary

### Egypt

I was invited to Egypt for the first International Conference for Architectural Heritage as one of the five people comprising the work group for the UIA Region 5 (Africa). The conference would be held in Alexandria in the new Great Library.

My first reaction was that I definitely wanted to go and submitted my abstract for a paper, which was accepted. Funding was a problem but the Egyptian Society of Architects agreed to fund my accommodation, and I decided to go when I received an e-mail stating that I had been booked into the Hotel Cecil. The day after I paid for my ticket, I received a further e-mail saying that the hotel had been changed to one for which I could find no information.

The travel agency of Johan Beukes (an architect in Bloemfontein), *Etnique Travel*, handled my travel arrangements and visa application.

### Cairo and surrounds

I arrived at Cairo at 23:00. Johan had arranged for a tour guide, Ahmed, to meet me with a combi and a driver and we set off for the President Hotel, on the Zamalek Island in the Nile. The next day Ahmed was back with the driver and an Egyptologist for the tour to Memphis (the first capitol of ancient Egypt), Saqqara and the pyramids of the Giza Plateau. Memphis is frozen in time with donkeys, water buffalo, green lushness and primitive farming techniques. It was good to hear that in 2700 BC the architect Imhotep was revered for designing 6 stone mastabas set on top of one another, to form the prototype of the pyramids.

I was unprepared for the reality of the pyramids at the plateau of Giza. The scale and alignment, and the relationship of the sphinx (carved from the remainder of stone at the quarry, so that the quarry would not be an eyesore) were breathtaking. The axial arrangement of Khafre's Valley Temple, and the sophisticated stone construction, make it hard to believe that these were built in about 2500BC. Only the pyramid of Khafre (the middle pyramid) was open. A narrow, low 300 metre long passage led to an empty room.

### Alexandria

We also managed to see how papyrus was made, and visit a shop filled with replicas from the Egyptian Museum. That afternoon I caught the train to Alexandria, thanks to the guide as

John Bizzell. *Blueprints in Black & White. The Built Environment Professions in South Africa – An Outline History.* The 132 page book is available from Solo Collective, 4 Elgin Drive, 3610 Cowies Hill (Tel 031 266-5178; Fax 266-1100), at R125 (VAT and postage inclusive).





View from the pyramid complex at Giza, c.2680–2560, towards Cairo, 12km distant.

everything is in Arabic, and set off on the journey taking two and a half hours through the Nile Delta. The quality of the apartment blocks is appalling. Most were unfinished with protruding starter bars as nascent columns for future floors projecting from the majority of buildings. Another guide, Emil, met the train in Alexandria and took me to my hotel. This was a military hotel, where people could hardly speak English and even the menu was in Arabic. That night I started wondering about the logic of travelling on your own to a country where you could not understand anything.

Saturday dawned with an amazing view across the Mediterranean. The bus from the library arrived and I met many architects from Egypt, Syria, Palestine and Russia, who were staying at the same hotel as I was. The library was more spectacular than anticipated. It is built on the Corniche – the road alongside the sea adjacent to the University of Alexandria.

On the bus, I saw the conference programme for the first time and found out that I was scheduled to present my paper that afternoon. During lunch, a very kind Egyptian architect, who was trying out his equipment, agreed to let me use his laptop and loaded my CD onto his hard-drive. It worked perfectly. The paper was entitled "Lessons from Robben Island – Conservation and Reconciliation in South Africa".

Many of the papers dealt with the pyramid plateau at Giza. There is a search for an identity, what makes Egyptian cities different from other Islamic cities, and what has happened to Pharaonic influences. There were fascinating papers on historic cities and the very sophisticated methods used to evaluate the fabric of ancient buildings including the use of dermatological equipment. I was the only architect from Africa outside of Egypt, so the conference was not really a true reflection of Work Group 5, Africa, but the library alone is worth the visit. The detailing gives new confidence in Egyptian construction.

The Egyptians were generally very kind and helpful. On the last afternoon, everyone left to return to Cairo. As I had not received a programme, I was scheduled to stay on an extra night. I went for a

long walk along the Corniche, to photograph the buildings we always whizzed by on the bus. The traffic is dreadful, with no pedestrian crossings or robots. You just have to walk into the traffic and hope that you dodge the cars. Mineral water is a necessity, and is even used to brush your teeth.

Vladimir, my Russian neighbour in the hotel, showed me how to learn Arabic numbers by studying numberplates, which had both descriptions.

The last day I caught the train back to Cairo (R64 for a first class carriage). I met a fascinating eighty year old American lady, who had lived in Egypt all her married life, since her mother arranged her marriage to an Egyptian sea captain (tall with blue eyes), which was the best thing, she said, that ever could have happened to her! I spent the day in Cairo, at the Egyptian Museum, before catching the plane home.

My overwhelming feeling now, regarding the trip, is one of lost opportunities. During the conference a large group of us were taken to the Syrian Club for dinner, but other than that

all meals at the hotel were taken in one's suite, which was a one bedroom apartment without a kitchen. I would love to go back and travel down the Nile to Luxor and Aswan, but next time I would not go on my own. There are too many restrictions if you are a woman travelling alone.

Tricia Emmett

KZ-NIA President, Ms Emmett travelled to Egypt at the beginning of March. – Editor



The inclined disc of the roof of the Great Library at Alexandria, completed 2001, rising over the Corniche boulevard along the Mediterranean Sea.



The battered drum of the library exterior on the landward side, opposite the University.

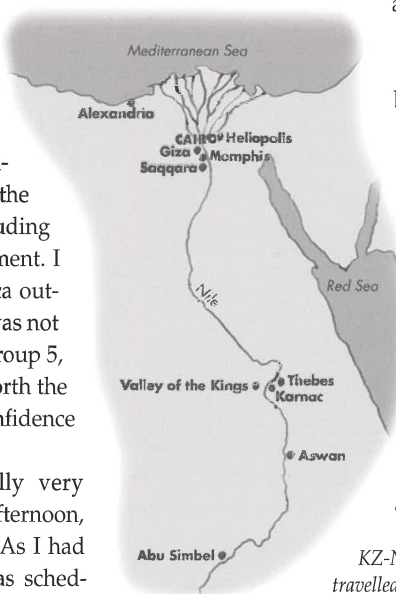


Interior. The world's largest reading room consisting of 14 terraces cascading under a grove of stylised lotus bud columns.

### Bibliotheca Alexandrina:

The architectural competition for the Great Library was held in 1989 and attracted 524 entries from 52 countries.

It was won by Snøhetta, an emerging practice based in Oslo, its three collaborators being Norwegian, American and Austrian.



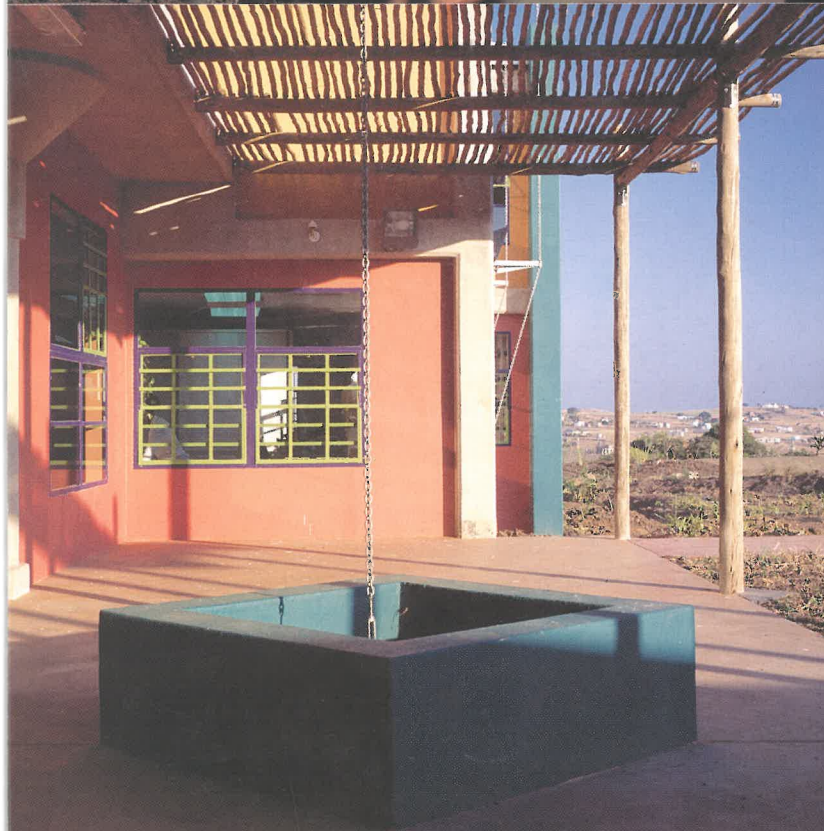




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