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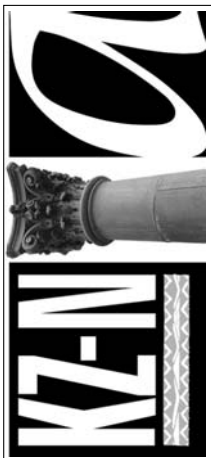
KZ-NIA JOURNAL • ISSUE 1/2004 • VOL 29 • ISSN 0379-9301

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News

### Corobrik Student of the Year

At a ceremony held at the Sandton ICC on Friday, 13th March, Ms Desrae Dunn of the University of the Witwatersrand was declared *Corobrik* Student of the Year. In her Design Dissertation *Reconfiguring [Con]text*, Ms Dunn attempted to reshape an architectural frame of reference to include stories and narratives as tools for design.



### SCHOOL OF ARCHITECTURE, University of KwaZulu-Natal:

#### 2004 Prize-giving ceremony

At the ceremony held in Howard College Theatre on Thursday, 1st April, KZ-NIA President Mohideen Abdul Gafoor awarded the following prizes for academic achievements during 2003:

#### Bachelor of Architectural Studies

Year 1 *Barrie Biermann* Prize: Ms *Sinegugu Ndlovu*

Year 2 *Gordon Small* Prize: *Marco Rimensberger*

Year 3 *Calvert McDonald* Prize: Mrs *Erica Coskey*

#### Bachelor of Architecture (Advanced)

Year 1 (4th) *Clement Fridjhon* Prize: Ms *Mizan Rambhoros*  
Year 2 (5th) *SN Tomkin* Prize: Ms *Tiffany Murray*

#### O'Brien Brown Memorial Fund

For 2004, this bequest will assist Yr2 student Ms *Rosalie Bloem* as well as Yr5 student *Gregory Gordge*.

Ms *Tricia Emmett*, SAIA Vice-President,

Pictured with the winner *Desrae Dunn* are (from left) *Corobrik* executives, *Flemming Petersen* (Chairman), *Harry Voorma* (Sales & Manufacturing Director) and *Peter du Treuvou* (Managing Director).



presented the SAIA *David Haddon* Prize for the Best Student in the subject Professional Practice to *Gregory Gordge*; and the new SAIA Best Student Award for the highest achievement over the final 2 years of study to Ms *Tiffany Murray*.

Mrs *Hazel Bond* presented the *Sherwood-Bond* Bursary to final year student *Ndimphiwe Jamile*.

Prof *Ted Tollman*, representing the *Bernstein* family and the KZ-NIA, presented the third *Brian Bernstein Travel Scholarship* to BAS graduate Ms *Paulette Barbeau* who is to embark on a tour of inspection of historical gardens of Europe.

Head of the School, Prof *Ambrose Adebayo*, presented the *Plascon* Prize for the Visual Communication component in Yr1 to Ms *Leticia Moodley*; the *Garth Moyes* Award, which acknowledges the Yr4-student who contributed most to good fellowship in the class to *Yusuf Vahed*; and the *Geoffrey Le Sueur Travel Scholarship* to BAS-graduate Mrs *Erica Coskey* who is to carry out a study of both traditional & contemporary architecture in the Middle East.

#### Programme Director: Architecture

*Alethea Duncan-Brown* has been appointed Programme Director for

both the BAS and BArch Programmes in Architecture at the University of KwaZulu-Natal for a further year.

#### UKZN Graduation May 2004

At the inaugural graduation ceremonies of the University of KwaZulu-Natal, *Joseph Kiprianos* was awarded the degree PhD in Architecture for his thesis *The Sacredness of Space and its values in the Maronite Church in Lebanon. A Fusion between Liturgy and Place*.



From left: *Sinegugu Ndlovu*, recipient of the *Barrie Biermann* Prize for the Best Student in First Year 2003; *Erica Coskey*, winner of the *Le Sueur Travel Scholarship*; *Alethea Duncan-Brown*, Programme Director: Architecture; *Rosalie Bloem*, recipient of an *O'Brien Brown* bursary; *Mohideen Abdul Gafoor*, KZ-NIA President; *Mizan Rambhoros*, recipient of the *Clem Fridjhon* Prize for the Best Student in 4th Year 2003; and *Greg Gordge*, recipient of an *O'Brien Brown* bursary.



From left: Prof *Ted Tollman* who represented the *Bernstein* family; 2004 *Bernstein Travel Scholarship* recipient *Paulette Barbeau*; recipient of the 2004 *Sherwood-Bond* Bursary *Ndimphiwe Jamile*; Mrs *Hazel Bond*; and *Dennis Claude*, who as guest speaker waxed lyrical on *'Times Gone & Times to Come'*.

#### 2004 Architectural Students Congress

Hosted by the University of KwaZulu-Natal, the annual national architectural students congress with theme *A New Architecture is Possible* took place in the N-Shed Passenger Terminal, Port of Durban during the week 20–22 April.

The concomitant 22nd annual *Murray & Roberts' Des Baker Award for Students of Architecture* for the design competition *Housing for Vulnerable People* was this year restricted to 2nd year students. The panel of judges decided upon three winners: *Lucie de Mojencourt* and *Stephanie Potgieter* of UCT; and *Robert Armstrong* of Tshwane University of Technology, formerly Pretoria Technikon. In addition, the design by *Imke*

*Stals*, also of TUT, was highly commended.

The jury consisted of *Rajeev Kathpalia*, partner in the Ahmedabad-based practice *Vastu-Shilpa* founded by *Balkrishna Doshi*; *Heather Dodd* of *Savage & Dodd*, Johannesburg; and *Kevin McGarry* of *Architects Collaborative*, Durban.

#### 2004 Sophia Gray Laureate

*Paul Mikula* has been chosen to present the 15th annual *Sophia Gray Memorial Lecture and Exhibition* in Bloemfontein on Thursday, 26th August. This is the first time the laureate for this prestigious event hails from KwaZulu-Natal.

#### RIBA Hon Fellow

*Martin Knoetze*, who was appointed jointly as ISAA Secretary and SACA Registrar in February 1972, and ISAA Director in 1977–1997, is the recipient of one of eighteen RIBA Honorary Fellowships for 2004.

Such recognition rewards contributions which non-architects make to architecture in its broadest sense, including its promotion, administration and outreach. The 6-person jury was chaired by RIBA President *George Ferguson* and included *Sir Terry Farrell* and *Zaha Hadid* (RIBA) February 2004).

#### SACAP Recognition

In terms of Clause 25(3) of the Architectural Profession Act, 2000, KZ-NIA has been recognised as a Voluntary Association.

This certification of 5 year validity, enables KZ-NIA to directly communicate with SACAP, and provides for consultation on matters contained in the Act, and for the nomination of persons to Council.

## Editorial

# Building the New South Africa 'Architects of Record' or 'Service Providers'?

A good definition of democracy was given by the 16th US President *Abraham Lincoln* in 1863: "government of the people, by the people, for the people". The essence of a democratic state concept is the constitutional right of the people to govern themselves in a society based on equality.

On 27th April 1994 South Africa emerged as a democracy and to mark the momentous occasion, this day has since become a public holiday known as 'Freedom Day'. As the country celebrates its first decade of freedom, one may ask how the change to a democratic society has affected architects and architecture in the Province of KwaZulu-Natal.

The number of registered architects has dropped considerably, both in private practice and in the public sector. Immigration has taken its toll and the steady trickle appears to be continuing. Thus younger colleagues jump into the deep end, learn on the job and, as this journal proves, a number have become 'proficient swimmers'. But, the visually dominant buildings of KZ-N may also have reduced the status of the local architect, both by typology and skill. Gambling casinos now vie with shopping centres and are conceived by Concept or Theme Architects recruited elsewhere, with 'architects of record' appointed from the local fraternity, to prepare the technical documentation and administer the project.

During the Apartheid era, gaming casinos were developed in the homelands to attract whites to experience the forbidden fruits and thereby contribute to the upliftment of the



uShaka Island Point Marine Park, Durban, built May 2002–April 2004. The existing *Seaworld* at the termination of *West Street* has been demolished. A new aquarium with the largest collection of Indian Ocean marine exhibits, replete with shipwreck, 'swim-through' and 'walk-through' tanks, water park and retail village has been opened south of *Bell Street*. Concept Architects: *Creative Kingdom Inc*; Architects of Record: *Urban Edge Architects & Urban Designers*; *Langa Makhanya Architects*.

homeland. The nearest to KZ-N was the *Wild Coast Casino*, just across the southern border in the Transkei. Today there is a profusion of casinos whose profits are siphoned off to support charities. Thus *Newcastle* has its *Monte Vista Casino*; to *Scottsville* Race Course in *Pietermaritzburg* has been added the *Golden Horse Casino* and *Edutainment Centre* (2001); and *Durban* has its *Suncoast Casino* and *Entertainment World* at *Battery Beach* (see KZ-NIA/ 1/2003). North of *Durban*, the temporary *Sugar Mill Casino* at *Mount Edgecombe* is about to be substituted with the staggering *R727 million Sibaya Casino* and *Entertainment Kingdom* to be completed at *Umdloti* at the beginning of *December*. To this list should be added the *R735-million uShaka Marine Park* on *Durban's Point*.

Casinos in KZ-N may be comparable with the extravagant enterprises of the Roman world as theatres, circuses and baths, whose purposes were to keep the unruly populace occupied with games and pleasures while thousands were unemployed, and may in South Africa just serve to divert the community from the reality of rampant HIV/AIDS infection; poverty; unemployment and crime. But, there are other buildings, which give



*Golden Horse Casino*, *New England Road*, *Pietermaritzburg*, 2001. At 14m height, this pegasus may be the largest equestrian statue in the world. Concept Designer: *Dean Simons*; *Lance Kinnear Architects*.

substance to constitutional democracy, with neither a 'theme architect' nor gaming as their function, such that improve the lot of the people; some initiated by the people; and some to provide facilities for the people, and I trust readers will concur that the architects of KwaZulu-Natal are successfully taking up the challenges of the democratic era.

While members strive to uphold the motto of the KZ-NIA: *allis navantes operam* (to be of service to others), I doubt many would be comfortable with an experience recently reported. On the completion of a project, the client prepared a list of invitees to the opening function. Among those the architect recognized his name – with designation 'service provider'!

*Walter Peters, Editor*



Main cover photograph: *Constitutional Court, Johannesburg* – photographed from the ramparts of the *Old Fort*. From left: *Constitution Square*; signage on the Court in South Africa's 11 official languages; the entrance to the *Foyer*; and the remains of a stair tower of the demolished *Awaiting Trial* block re-incarnated as a beacon of light. Architects: *OMM Design Workshop, Durban*, and *Urban Solutions, Johannesburg*.

Detail photograph: *Neon mobile* by *Andrew Vester*, see p3.

Photography: *Angela Buckland*



## Building the New South Africa

### Constitutional Court, 1 Constitutional Hill, Johannesburg, 1998–2004 OMM Design Workshop and Urban Solutions

A major milestone of democratization has been the passing into law of the Constitution of the Republic of South Africa in 1996. This is the supreme authority of the new constitutional democracy. It includes a Bill of Rights and serves to ensure that political powers are exercised within a framework of constitutional constraints, irrespective of what might be intended by Parliament. Eleven judges were sworn in to safeguard the Constitution, widely considered as of the most progressive in the world.

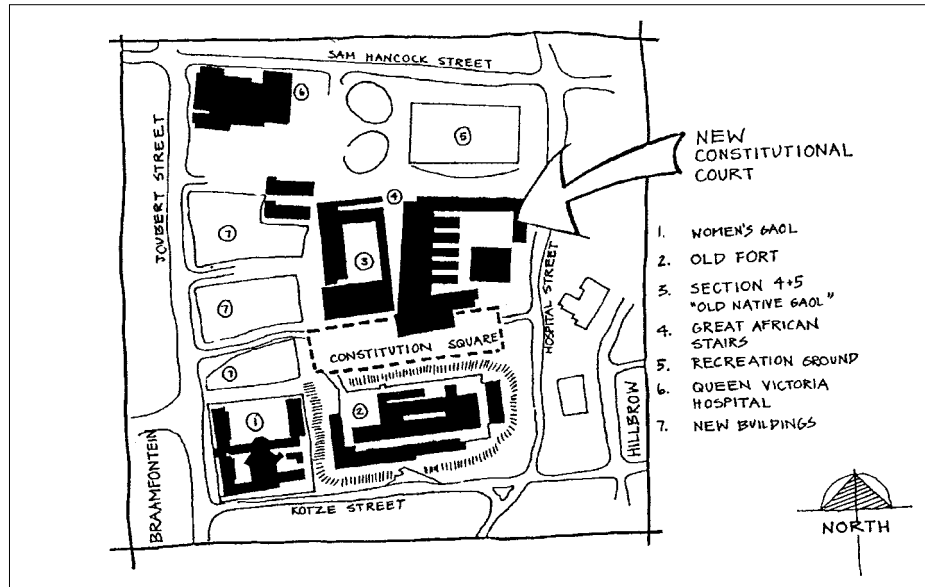
Thus, in late 1997 the Department of Public Works launched an open design competition, aimed primarily at architects, but also to anyone who wished to enter, for an appropriate architectural expression to reflect this new democratic institution.

This was a two-stage competition for which 185 entries were received from across the globe. The panel of 9 adjudicators included Indian architect Charles Correa; Sri Lankan Geoffrey Bawa; Editor of the *Architectural Review*, Editor Peter Murray; and South Africans Willie Meyer and past ISAA- President Herbert Prins. The winners of the 2nd stage were announced on 8th April 1998: OMM Design Workshop, Durban (Janina Masojada, Andrew Makin, Eric Orts-Hansen) and Urban Solutions, Johannesburg (Paul Wygers). All members of these two practices studied *Architecture at the University of Natal*, and it is for this reason that coverage of KZ-NIA Journal here reaches across its provincial borders.

#### Site

The site lies on the northern face of Braamfontein ridge in Johannesburg, the apex of the Witwatersrand region. Though referred to as 'The Old Fort Precinct', the site initially accommodated a prison of the Zuid-Afrikaanse Republiek (Transvaal) built 1892. Following the abortive Jamieson Raid of 1895–6, Paul Kruger's government instructed Chief Architect of Public Works, Sytze Wierda, to remodel the prison as a fort, buttressed, battlemented and turreted, and completed in 1899.

However, like the sister forts in Pretoria, this 'old fort' also played no part in the Anglo-Boer War (Picton-Seymour, *D Historical Buildings in South Africa*). Instead, it reverted to its prison function, and in subsequent years grew additional but separate wings for the incarceration of political prisoners, among them many luminaries of 20th century South African



Site plan showing the Constitution Hill Precinct

history as Mahatma Gandhi, Albert Luthuli, Robert Sobukwe and Nelson Mandela. In 1983 the building ceased to operate as a prison, and the Rand Light Infantry located there.

#### Brief

The entire precinct was to be developed as 'Constitution Hill', to become a public space for the city and a symbolic place for the nation where the Constitutional Court and Human Rights Commission would be accommodated alongside museums in the historic prison buildings. While the competition focused on the Constitutional Court, proposals called for an appropriate setting for the new elements within the entire site.

#### Winning Concept

The 12.5 ha site had been insular from inception and was deliberately inaccessible. It had to be connected to neighboring precincts, with emphasis on pedestrian movement.

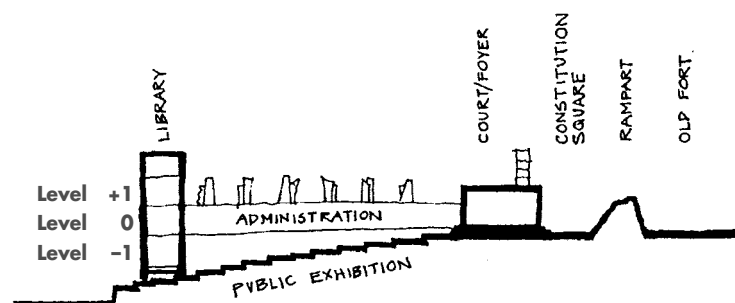
One priority of the winning submission was the design of a building that would benefit

from the 'rich, complex legacy of the site'. Another was the notion that in a democratic society civic buildings 'can either gain their symbolic value by expressing the openness they represent' or they can be 'alienating monuments' (*SA Architect*, August 1998). OMM Design Workshop and Urban Solutions sought 'the power of a pre-eminent building without monumentality'.

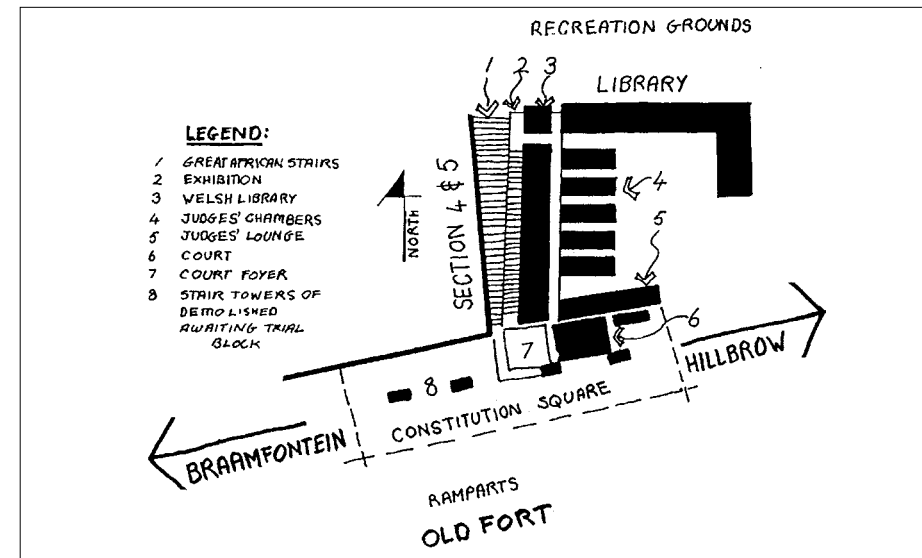
Thus resulted a concept of a series of terraces stepping down the steeply-falling site, facing due north and thus misaligned with both the fort and the other prison buildings. Topography and misalignment suggested the Great African Stairs, which incorporate a meandering ramp within the tapering space, and ascend to the Foyer and Court at the head of the complex, aligned parallel to the fort. Foyer and Court are accessible directly from Constitution Square which gives tangible evidence of the striving for an open democracy.

Parallel to the Great African Stairs lie the Exhibition Gallery and the Administration Section, separated from the Judges' Chambers by the triple-volume Internal Walk interspersed with Atria.

To meet with the architects' own objective of interweaving past with future, stair towers of the former prison buildings were retained and incorporated into the new complex, and materials such as bricks were retrieved and recycled. A



Section through the site showing the slope down the Great African Stairs



Elements of the Constitutional Court

consistent approach is echoed in the principles for energy conservation, whereby interior comfort in the building is largely achieved by harnessing the advantages of the high diurnal range experienced in Johannesburg. But for the Court and Auditorium which are air-conditioned, in Summer an internal temperature no higher than of 26°C is achieved, some 6–7°C below the ambient temperature (see illustration, page 4). Similarly, the Court is designed not to require artificial amplification.

The public faces of the building engage with the passers-by. Thus the various artworks and the mosaic cladding. Sun-baffles and screens too are endowed artistically, and shelter is provided by indigenous trees.

#### A reflection

The design competition aimed for "appropriate architectural expressions...to reflect ... new democratic institutions and profound changes in society and culture". This building achieved that

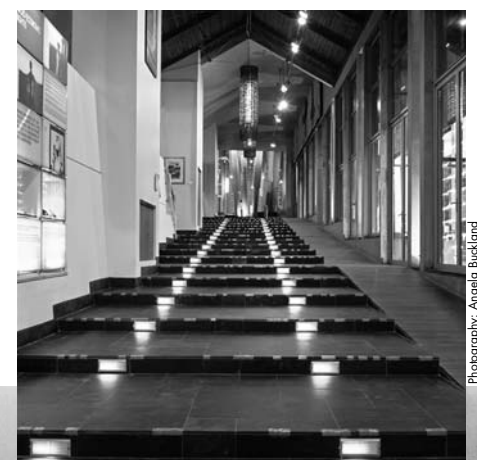
and more. Rather than a backdrop to be admired from afar, it created a place, which, as the judges of the design competition concluded in 1998, "has the potential to express a new architecture which is rooted in the South African landscape, both physically and culturally".

However this architectural potential will be judged in time, it is significant that the first major post-Apartheid building, was opened officially on Human Rights Day, 21st March 2004. This date is a public holiday and commemorates the 1960 massacre at Sharpeville which led to the banning of both the Pan African Congress and the African National Congress.

Walter Peters, Editor

Right, from top: Neon mobile by Andrew Verster representing the nine Provinces of South Africa – independent and inter-dependent; View from outside into the reception space of a Judge's Chambers; The staircase within the Exhibition Wing.

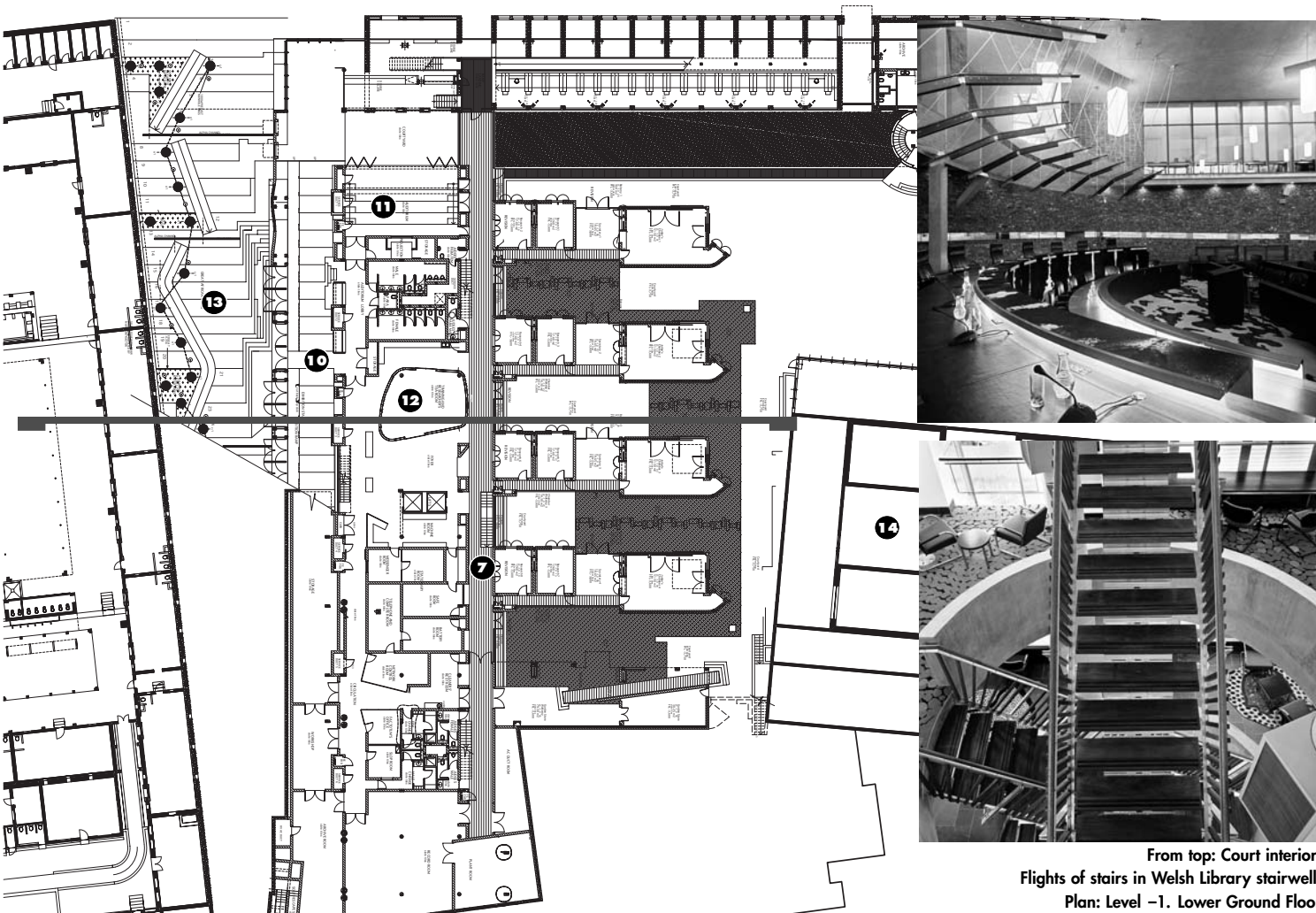
Fish-eye view of the north-west corner. From left: Library; Welsh Collection tower; gable termination to the Exhibition Arcade; and Great African Stairs.



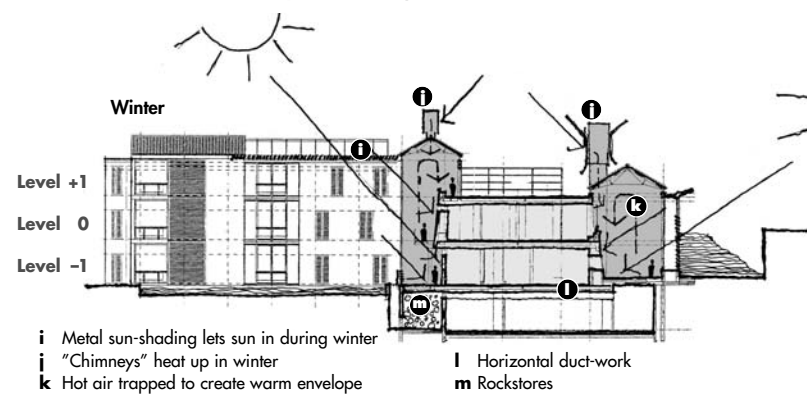
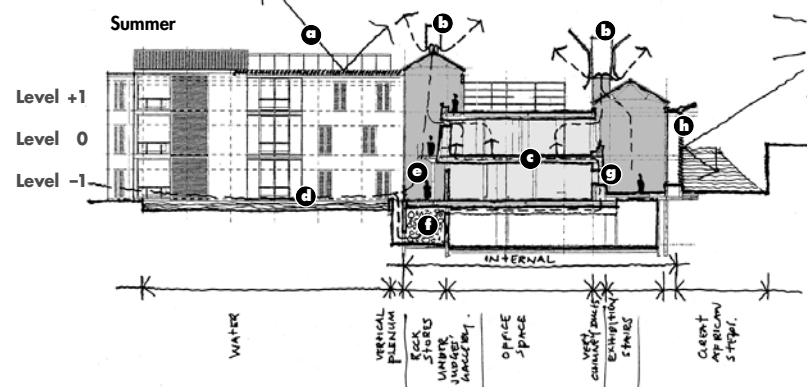
Photography: Angelo Buckland







- a Metal louvres keep sun off external walls
- b Heated air escapes through "chimneys"
- c Cool air delivered into habitable spaces through floor voids
- d Air moves over water and cools
- e Cool air in through low level openings
- f Rockstores along basement edge
- g Vertical "chimney" ducts
- h Sun-screens keep sun off external walls



#### TECHNIQUES FOR ENVIRONMENTAL COMFORT

Metal louvres shade the atria separating the judges' chambers and evaporative cooling is achieved as air crosses the pools. In addition to the thermal mass provided by the building's superstructure, rockstores were incorporated in the perimeter of the basement, to allow for controlled storage of heat and coolth at the optimal times of day and night. These rockstores comprise 6m-long modules with 3 partitions, each containing approx 10m<sup>3</sup> of granite rockfill constrained within steel cages, and concomitant plant rooms with fans.

#### PASSIVE COOLING

In summer, heat from the day's operation is flushed out to atmosphere whilst cool night air is simultaneously drawn into the building. Fans are switched off at sunrise to preserve the stored coolth until required.

Air is supplied to floor mounted supply diffusers via a raised floor-void, which also serves to accommodate data and power cabling systems. Suspended ceilings were avoided to expose structural mass to the occupied space. This mass is cooled at night by the deliberate summertime purging of occupied areas with cool night air, which cool radiant surfaces increases daytime occupant comfort.

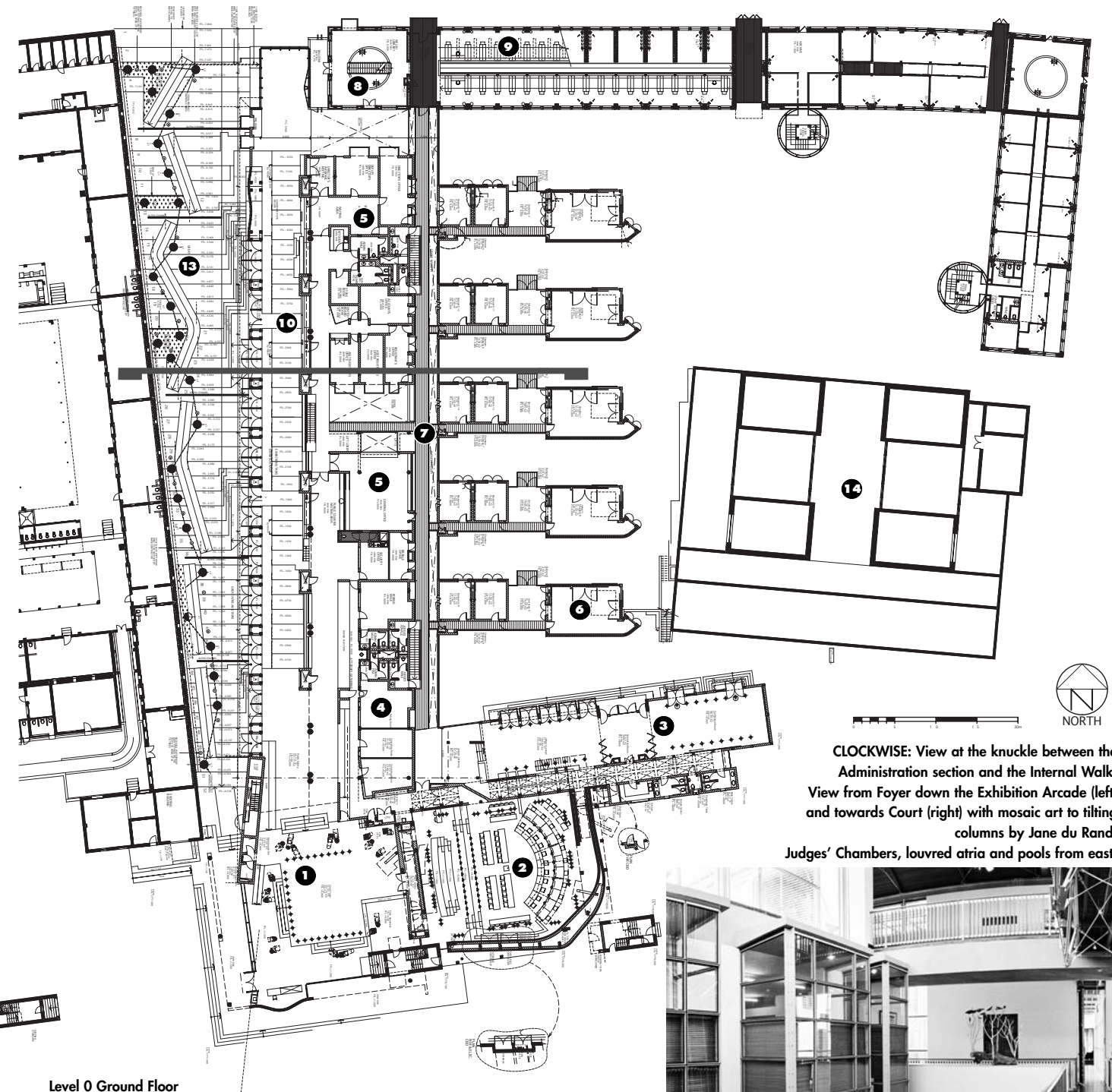
Once room temperatures begin to rise above a predetermined temperature, the day fan is activated to draw air through the first of 3 rock compartments. The temperature of the rocks will gradually rise until a point is reached where the amount of cooling imparted to the air is insufficient. At this point motorized dampers automatically divert air through the second partition. The third partition follows on to serve the final period of the day.

Effectively, coolth stored at night is utilized by day and the cooler the night, the more passive cooling is available the following day. The high diurnal temperature-swing experienced in Johannesburg summers makes this technique economically effective.

#### PRE-HEATING

Fans are not run during winter nights. Thus on winter mornings the rocks contribute a measure of passive pre-heating, due to residual heat stored from the airflow of the previous afternoon. In this way heat is borrowed from the previous afternoon and used to combat the early morning chill. Supplementary heating will often be required throughout winter, but that is evened out, thus reducing peak electrical loads and heating costs.

Ref: Ove Arup & Partners, Harare. Constitutional Court. Mechanical Design Note. September 1998



#### Level 0 Ground Floor

- 1 Foyer
- 2 Court
- 3 Judges' Lounge, Conference & Committee Room
- 4 Council Robing & Meeting Rooms
- 5 Administration
- 6 Judges' Chambers
- 7 Internal Walk
- 8 Rex Welsh Special Collection
- 9 Reference Library
- 10 Exhibition Arcade
- 11 Public Auditorium
- 12 Training Space
- 13 Great African Stairs
- 14 Existing Sub-Station





## Building the New South Africa

### Umkhumbane Community Health Centre, cnr 7th and 8th Roads, Cato Manor, Durban, 2003 Robert Johnson Architect & Associates in association with ZAI Consultants CC



Cato Manor is a large area not far from the Durban City centre which suffered greatly under the Apartheid government's policy of forced removal. It is being rebuilt, in fact it is the largest inner-city urban development project of the new South Africa, see *KZ-NIA Journal* 3/2000.

The need for a Community Health Centre (CHC) to complement the provision of primary health care facilities in Cato Manor was first identified in November 1995. The concept was subsequently developed, and the Central Node Precinct was identified as a suitable location for the facility. The European Union approved funding for the facility in EU Annual Work Plan (AWP) for 1997/98.

#### Brief and Schedule of Accommodation

What emerged from numerous discussions was the idea of a 'Place of Wellness' where health care could include services centered around lifestyle, nutrition and diet, exercise, urban agriculture, various forms of therapy

and counseling in an atmosphere of learning, teaching, and exchange of ideas. In many cases services would be provided by the academic institutions as part of their post-graduate and practical experience programmes. Apart from the spaces allocated to the various departments, the brief thus included seminar, research, community group activity, outdoor 'break-out' and creative 'activities' spaces.

Based on these requirements, the estimated area (and consequently the cost) exceeded that originally contemplated by about 45% and vigorous debate with the service providers followed, exploring the possibilities of sharing space, and the use of the same space at different times. It was proposed that non-specific, generic spaces, which could accommodate a range of activities, would be appropriate. Once the schedule and estimate had been fine-tuned, a motivation for additional funding was submitted to the City Council which agreed to provide the shortfall.

#### Planning Guidelines

With reference to the aims and objectives of the development of the Central Node, urban development objectives of the built form guidelines were given as follows:

- Pedestrian-responsive 'build to line' edge conditions
- A 'fine grain' of development, simulating 18m subdivisions
- A height restriction of 2–3 storeys

Further, the new road on the eastern boundary was identified as the intended "high street" of the Central node; the main pedestrian entrance, and components which could serve the public on a semi-independent basis should be off the high street, with pedestrian oriented activities taking precedence over vehicular functions.

The Health Department required that health service provision be at one level, a clear separation between client and staff and service access, exclusion of visitor parking from the



site, and a high degree of security, especially for the 24-hour Midwife Obstetrics Unit. Of primary concern to the Department was the very real threat of baby theft – babies are frequently stolen and registered as the thief's own child so that the state subsidy can be claimed.

#### Design Concept

Of principal concern was the idea of a clear and unambiguous patient circulation route – this evolved into the idea of a 'shopping mall' for health services, which would be grouped along, and directly accessible off a circulation 'spine'.

Industrial building technology, assessed to be the most economical with which to form the external envelope, was used to form large span monopitch roofs meeting at a central monitor, where a pair of curved steel posts support all of the members meeting at the mid-point. With large spans, the variety of room sizes could be accommodated under a roof supported independently. The roof monitor, while providing natural light and ven-

tilation to the circulation spine and to the rooms facing and backing onto it, was thought of as a shaded avenue, with places for rest and recreation, filled with fresh air and sunshine.

Because of the slope of the site from the entrance road on the East towards the West end of the site, and the need to keep health

service accommodation on one level, the void below the building, increasing in height from East to West, forms an accessible service zone for piped gases, water, and sewers.

#### Implementation

Tenders were invited on the basis of the *Targeting of Affirmable Business Enterprises* and *Targeting of Local Resources* forms, and the offers were adjudicated by a committee consisting of representatives of the City Architectural Department, CMDA, EU, the professional team, the City's Tender Board, and the Local Councillor for Cato Manor. Construction began on 27 June 2002 and the project was completed on 25th November 2003.

Robert Johnson

#### Structural & Civil Engineers

LSC Brunette CC

#### Quantity Surveyors

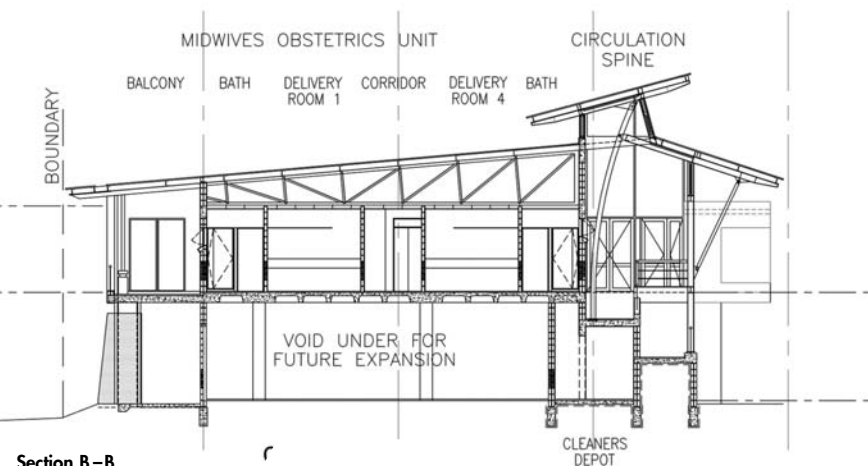
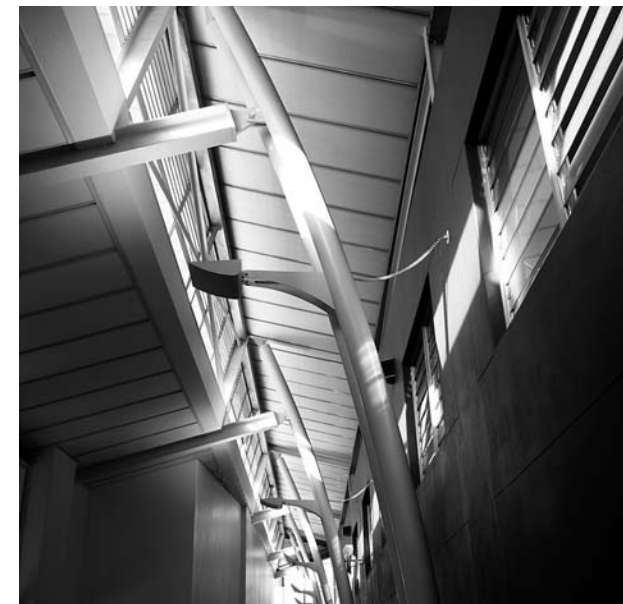
Bham, Tayob, Khan & Matunda

#### Electrical & Mechanical Engineers

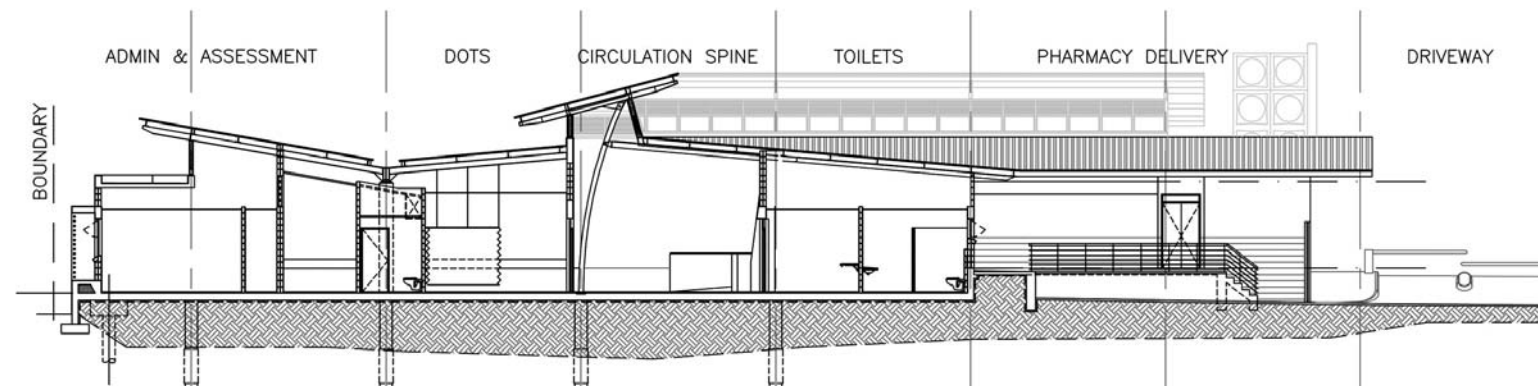
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#### Main Contractor

Tekweni Building Projects cc

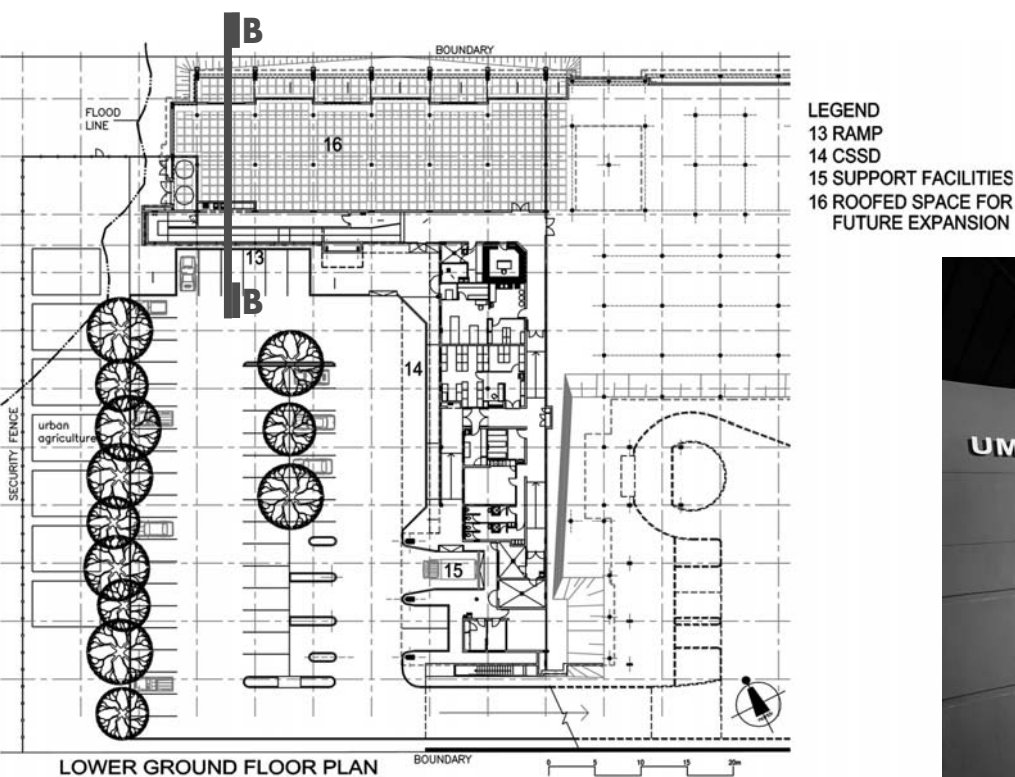
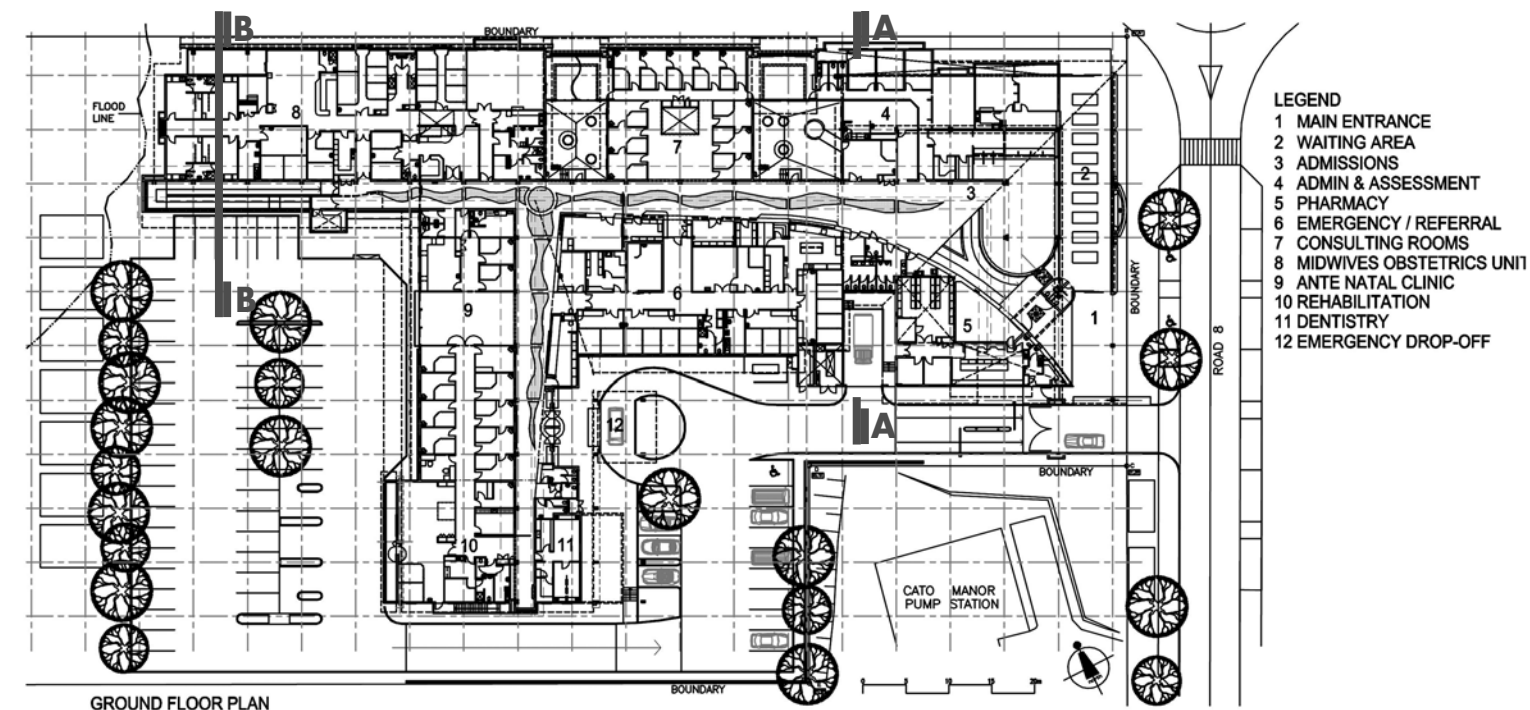


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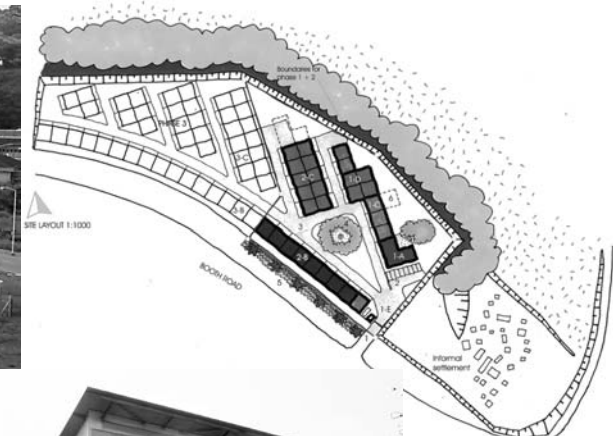
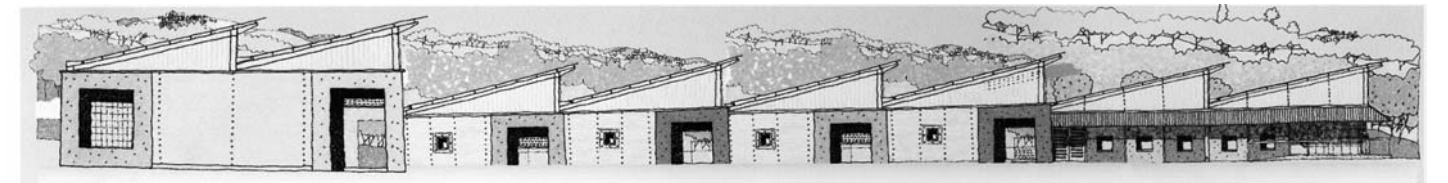
Section A-A





## Building the New South Africa

### Umkhumbane Entrepreneurial Support Centre, 240 Booth Road, Cato Manor, Durban, 2003 John Royal Architects



The Entrepreneurial Support Centre, which became operational in the first quarter of 2002, aims to promote a culture of competitiveness and business acumen by providing advice on tendering, business planning, access to finance, administration, management and other forms of assistance. Its primary target is the fledgling entrepreneur in the manufacturing sector with evident growth potential, but entrepreneurs from the service and retail sectors are also encouraged to use the services.

CMDA, the development agency charged with redeveloping Cato Manor (see *KZ-NIA Journal* 3/2000), conceptualized the facility as a business incubator and aimed at small manufacturers requiring a workspace of some 100sq m space. Qualification criteria included proof of residence within Cato Manor; the potential for employment of community members; and the ability to afford the R12/sq m rental.

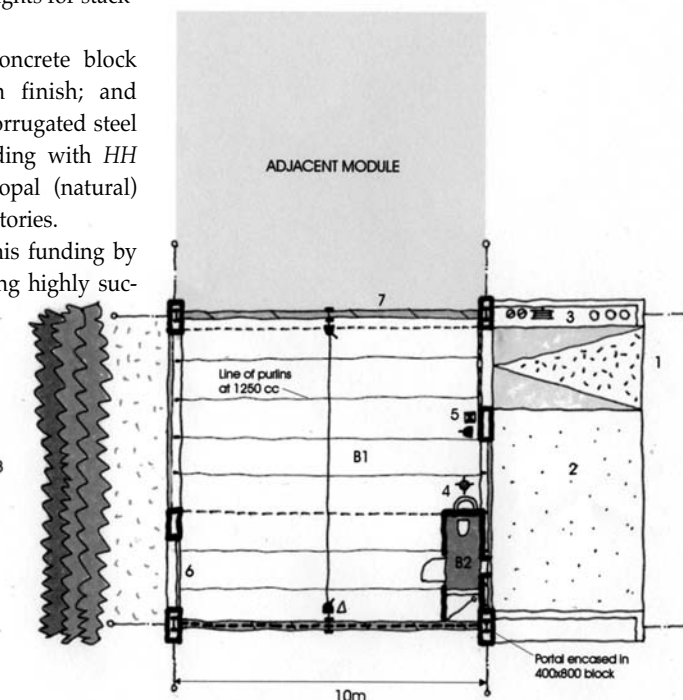
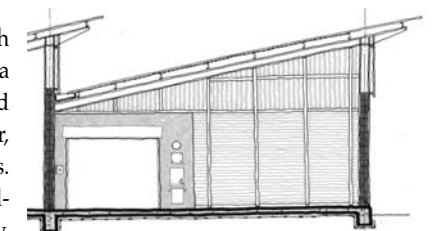
The brief called for a phased development within a secure environment exposed to maximise visibility. The site along a bend of Booth Road suggested the layout in the form of a right hand. The 'thumb' is symbolised in the concave, walled development along Booth Road, which also gives visibility, with backed lettable units as the 'fingers'. Access is from the 'wrist' with an immediate public parking area at the right, and a series of short culs-de-sac which branch to 'fingers' of units off a spine road inside the 'thumb'. A landscaped community gazebo

and tuck shop is wedged in between the road-side units and the L-shaped administration block. Here consulting and training rooms are entered diagonally off a veranda, with the two wings defining a courtyard for outdoor instruction on the quieter, north-east.

Two types of manufacturing units with clerestory south-lighting are available on a 9.6x9.9m module, replete with parking and ramped loading bays, roller-shutter door, ablution, electrical points, and bin areas. Larger units on the same module are column-free at 190 and 388sqm respectively, and have increased ceiling heights for stacking or mezzanines.

Construction is robust: concrete block walls with *Marmoran* resin finish; and *Brownbuilt* 'CUSTOM ORD' corrugated steel sheets for roofing and cladding with *HH Robertson* Pro-Lite polymer opal (natural) translucent sheeting for clerestories.

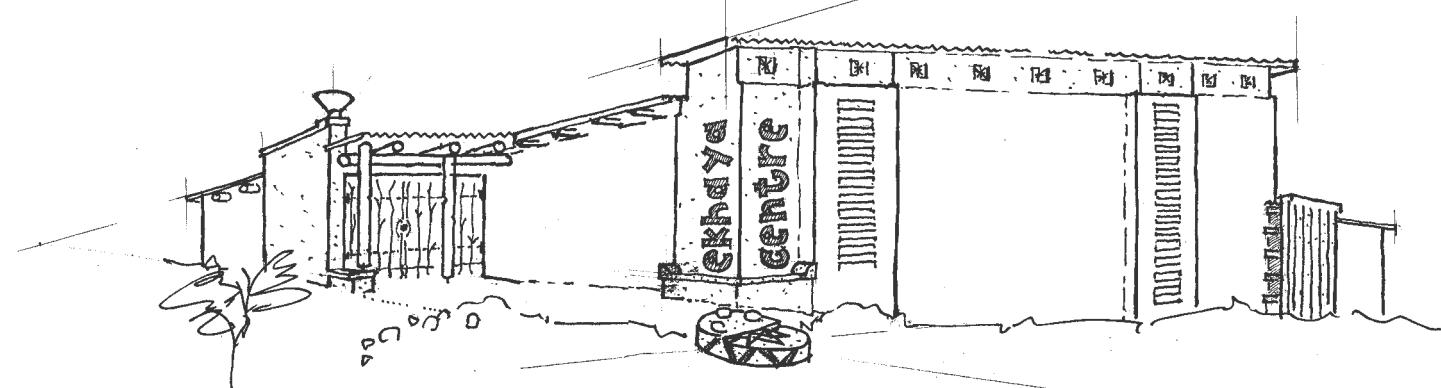
With 133 persons active, this funding by the European Union is proving highly successful in uplifting community enterprise. -WP





## Building the New South Africa

### Ekhaya Multi-Arts Centre, Giya Road, Section B Subcentre, KwaMashu, 2003 Kirk White Architect



This Centre is singled out because it demonstrates an achievement "by the people, for the people". The 24th Durban International Film Festival, the longest-running such event in South Africa, saw screenings decentralized, to include the newly-opened Ekhaya Multi-Arts Centre at KwaMashu in October 2003. —Editor

Culture is seldom seen as a lever for economic development.

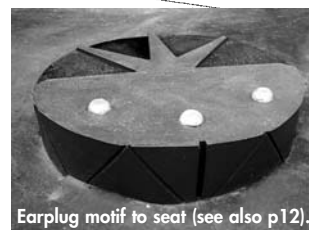
At a minor neighbourhood centre in Kwa-Mashu on the far north-western outskirts of Durban, one such initiative has just taken root. It is here that a group of township youth, frustrated by the lack of prospects and the limited

change seen in their own backyards, banded together to establish the Ekhaya Multi-Arts Centre. The centre is wholly owned and managed through the K-CAP Development Trust founded by the group, and is open to all youth from violence-affected areas wishing to pursue careers in the performing and visual arts.

Funding for the project was entirely self-sourced by the youth. They accessed a mixed bag of donors from abroad, local chambers of business, the casinos, and the national lottery. To date, no public sector funding has been forthcoming.

The funders all endorsed this homegrown initiative as critical to both the survival of such cultural projects and to the social stability of poor communities. From such origins, a home to the arts and a launching pad for an emerging brand of socially-bonded entrepreneurship has been created.

As a centre dedicated to the arts, the building differs from other community- and youth-based centres seen before. There is a 320-seat drama theatre, naturally ventilated, with stepped floor and fixed seating. It has high-resolution digital film projection facilities, "intelligent" special effects, lighting and live sound record-



Earplug motif to seat (see also p12).

ing capabilities. Other facilities include a music recording studio, a video-edit suite, a graphic arts workshop, and a small resource centre-library.

The neighbourhood centre, in which the project is located, straddles a rolling grassland hilltop with an amalgam of vacant sites, derelict buildings and corner stores, a dirt track through the middle, and a ring of working class houses around. The dirt track forms the main approach to the building site. Negotiations are underway for local government to create an open, paved hilltop square for this space. This form of urban place creation is common in the Western Cape, but is rarely done in KwaZulu-Natal. The intention is to generate a new venue for township open-air festivals and occasional markets within the heart of a moribund neighbourhood centre.

Locating substantial physical resources in abjectly poor, crime-prone communities presented special problems of territorial ownership and of design fit. In response to this site context, a defensive approach was chosen. Walls are designed to turn their backs on the vacant, unkempt surroundings of long grass and decades-old piles of rubble. These walls define the site boundaries, eliminating most of the need for fencing. Openings facing the site perimeter are avoided as much as possible. An image of security is further projected by multiple bands of precast concrete lintols shading glazed openings.

Public entry through these perimeter walls leads directly onto a ramped internal street or gallery, descending the full length of the site. This route is tarmac paved and roofed with a colossal-order "avenue" of gumpoles. It terminates in a performance courtyard with pergola at the bottom of the site. Ramp and courtyard are the central spaces to the scheme and perform a dual function. They are firstly the main



social gathering spaces for the township youth to "hangout" and promenade along. They are also the organising lines along which performance spaces, studios and function-rooms are arranged. These served spaces are compositionally treated as simple restricted-access cells, internal in focus but directly connected to the outside; whilst the service spaces of outdoor circulation dominate as animated, socially-interactive places.

Concerns for community identity and architectural regionalism are expressed organisationally rather than in any aesthetic form or shape. Social processes of meeting or lingering within physical spaces of safety or collective creativity, have determined built form. In fact, design initiatives to introduce overt cultural imagery were generally resisted by the client body for a more neutral, contemporary appearance. Debate in the group between traditionalists and modernists, and of appropriate ways of expressing these sentiments, continues. In the final design, only the odd ornamental accent or two was conceded. An

abstracted interplay of gumpole-framing against exposed electrical cable-trays, power trunking, metal conduit-ing and junction boxes is probably the project's most distinctive architectural expression!

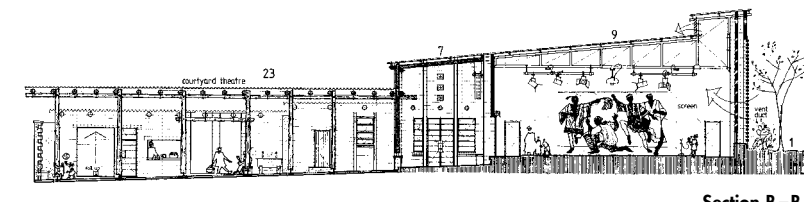
Future development of a traditional craft-village serving local clientele is planned in one corner of the site. It should reinforce this tension between historically-rooted built forms of mud, thatch or animal hide, and industrially manufactured cement blockwork and

galvanised ribbed-steel monopitch roofing.

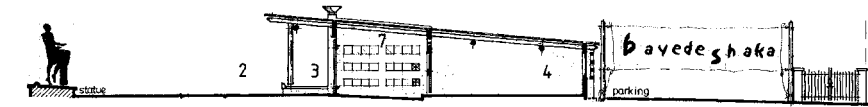
By using cultural heritage as a resource for development, this project sees the political struggles of the 1990s blending into a new form of socially-bonded activism, with a home-base of its own from which to cast a wider net.

Kirk White

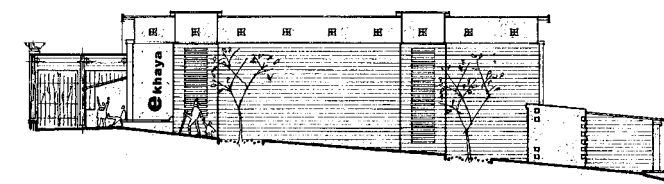
IN MEMORIAM: Alfred Hlabisa, security guard, ex-policeman and fighter for justice, was savagely gunned down before us on site this Good Friday, 9 April 2004. Hambe Kahle, brother. Peace be with your family in Lesotho; peace be with the community of KwaMashu.



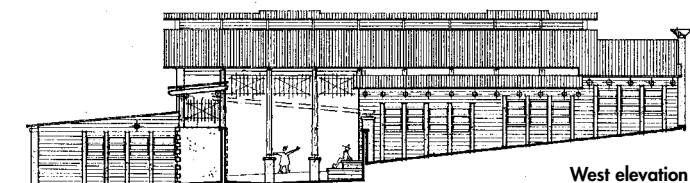
Section B-B



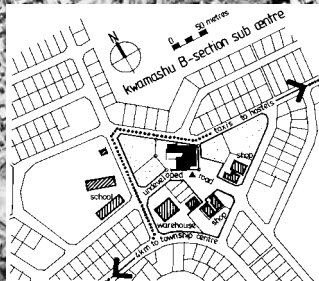
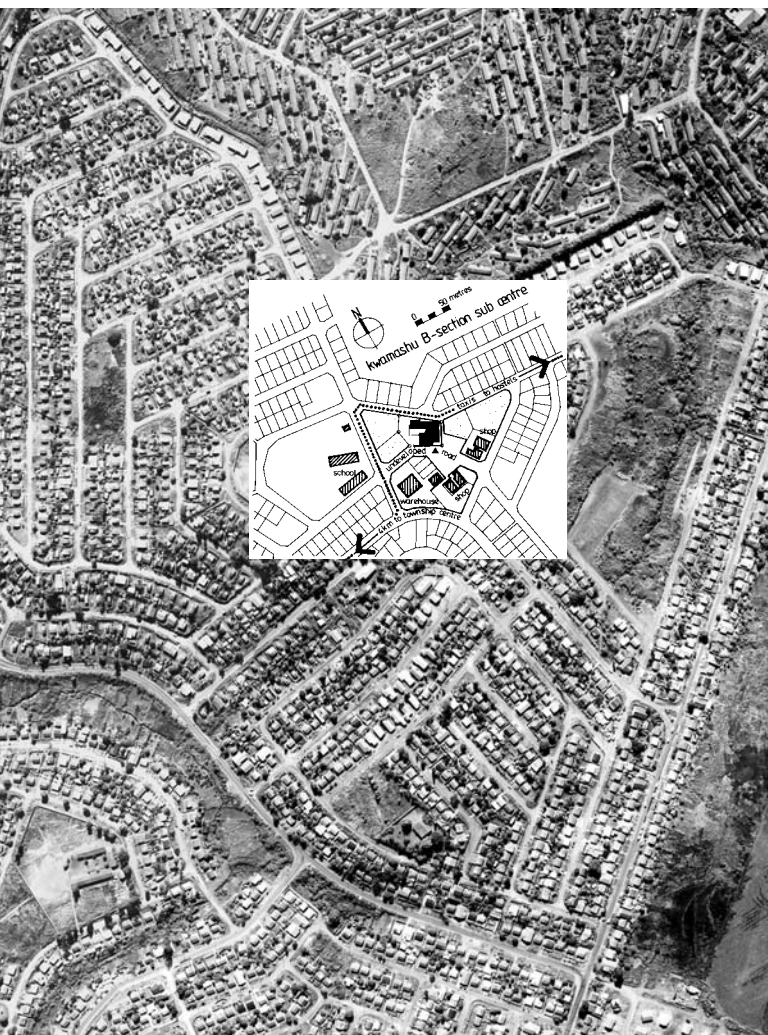
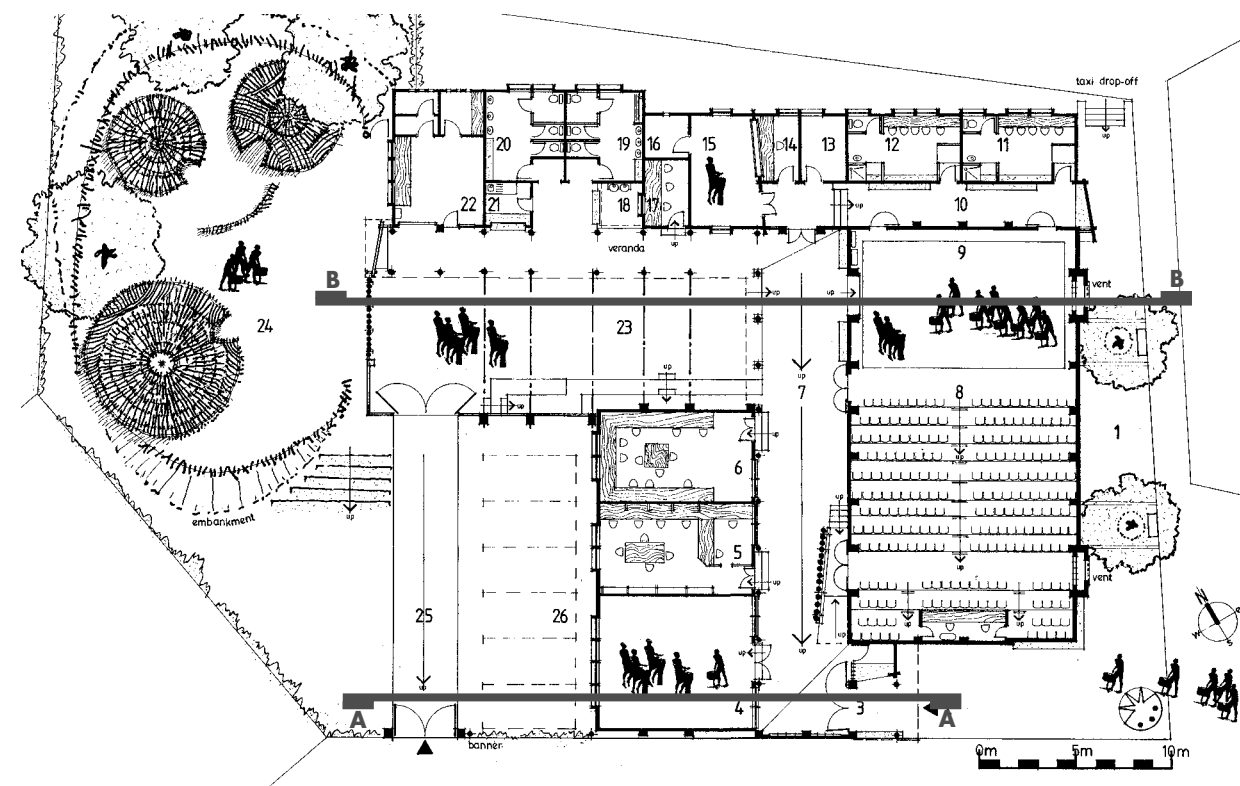
Section A-A



East elevation



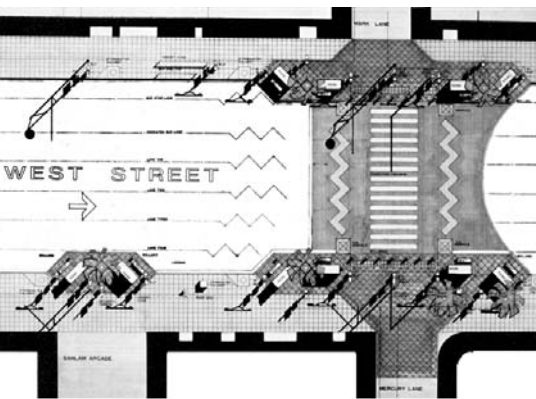
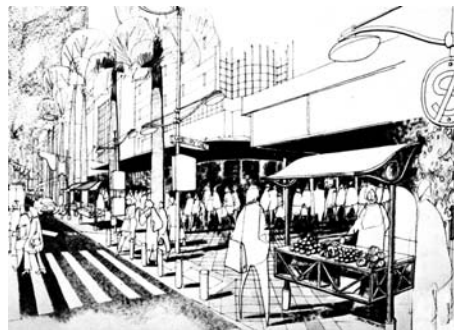
West elevation





## Building the New South Africa

### West Street Renewal Project, Durban, 2003 Interarc Architects; Seedat & Seedat Architects



DETAIL OF PEDESTRIAN CROSSING AND NODE

As the primary owner of the streets and sidewalks, the city could initiate Apartheid transformation of business ownership on this immediately available space. Perspective by John Frost; part-plan by Interarc Architects, 1999.

Legislation to control the movement of black South Africans formed a mainstay of Apartheid. In terms of the 1955 Natives (Urban Areas) Amendment Act, influx of blacks into cities became controlled by the insistence on the carrying of reference books. Following the abolition of Influx Control in 1986, informal traders migrated to the pavements to claim parts of the city center. This action shook investor confidence and resulted in a flight of capital and jobs from the CBD.

The national Parliament passed *Business Act, Section 6: Street Trading*, which excluded trading from outside places of worship, heritage sites, and places of residence etc and insisted that goods be removed overnight. In consequence, the former Council of the City of Durban defined areas for pavement trading, first with paint and then with stainless steel studs, had stalls designed, manufactured and affixed, and issued vendors with licences.

With the advent of the enlarged municipal boundaries of the Durban functional region, the metropolitan Council, known as eThekweni since 2001, opted for a developmental approach towards trading in the public realm. It entered into a partnership with the private sector aimed at reversing the decline of the inner city and launched the Inner Thekweni

Renewal & Urban Management Programme (iTrump). Within this context, it initiated an Informal Economic Policy, an international prototype, to manage and support the informal economy, and identified precincts for its implementation.

A lead project of iTrump was the upgrading of the streetscape and the accommodation of public realm trading on Durban's main street, West Street. Design proposals for this precinct, which stretches from Broad Street to Gardiner Street, were prepared and presented end 1999 and carried out during 2002/3. –Editor

#### The Mosaic artwork

The mosaic artwork for the West Street pilot project was managed



Paul Mikula's annual *Art-Craft-Tradition* calendars viz. the year celebrating traditional Zulu earplugs provided the inspiration for the mosaic designs.

"These earplugs have been worn by both men and women in the Msinga area since the 1930s and are made of wood or are covered with vinyl floor tiles or Perspex" (*Art-Craft-Tradition* calendar 1997).

and co-ordinated by Durban based artist-architect Jane du Rand who operates a studio called MOSAIC.

The intention of the mosaic artwork in West Street was to involve participants from previously disadvantaged backgrounds, and to use the project as an empowerment exercise ie the participants should learn and gain from their involvement and be able to use the experience to earn a living thereafter in a viable career.

Participants were involved in two work-stages. First, the preparation of the designs in the studio which was carried out by students and recent graduates of Fine Art at the Durban

Institute of Technology or others with design related training; and second, the installation on site of all the pre-made elements eg pavers, bollards, benches, and tree surrounds.

#### Design Concept

The Municipality called for an indigenous theme and, after searching for some time, the bold designs of the traditional Zulu earplug (*iziqhaza*) seemed most appropriate for the scale of the project while lending themselves to graphic re-interpretation.

#### Colour

As we were working with a series of nodes along the length of the street, each node was assigned a specific colour scheme. This was either red, blue, green or yellow. Five or six shades were allocated to each colour scheme as well as black and white.

While this was a device to unify each node and to 'hold the designs together', it also resulted in each node having its own specific identity, and participants were able to confidently explore their personal design variations, within the defined design concept colour restriction.

#### The Participants

The team consisted of Raksha Gobardan; Zama Donywa; Thando Mama; Sbu Nkhosi; Nandipha Baduza; Richard Masoka; Patrick Xulu and Elias Lukhozi. Jane du Rand

The assistance of Richard Dobson, programme leader for iTrump, is gratefully acknowledged. –Editor

## Building the New South Africa

### Strollers Overnight Facility, 55 Mansell Rd, Durban, 2002 Elphick Proome Architects Inc in association with Laren Beni Architect

Mansell Rd Market off Umgeni Road, opened in 1997 to centralise various informal markets a short distance from the city centre (see *KZ-NIA Journal* 4/1997). Shoppers come to this market from far off and thus seek overnight accommodation.

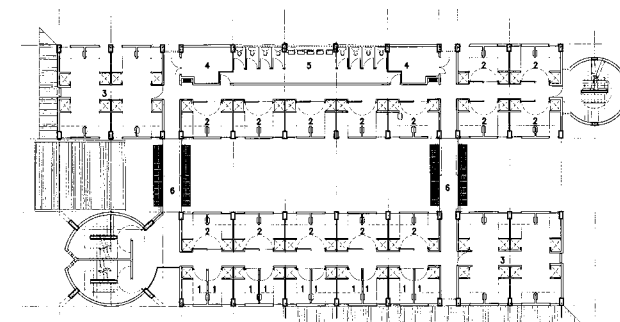
Following a fee-bid proposal, Durban Metro Housing briefed the successful architects to provide a prototype for people who cannot afford the available overnight accommodation and thus sleep on the pavements. Hence the design was based on 330 occupants at an affordability rate of R8 per night in rooms with 1, 2, 4, and 16 beds.

The concept, designed to grow like coaches to a train, sees out-sourced laundry, bedding, bathing and trading facilities on the ground floor, and two parallel wings of accommodation with ablutions over three floors for each gender, separation by a barrel-vaulted galleria. Within a 'no frills' policy, finishes are cheap yet robust.



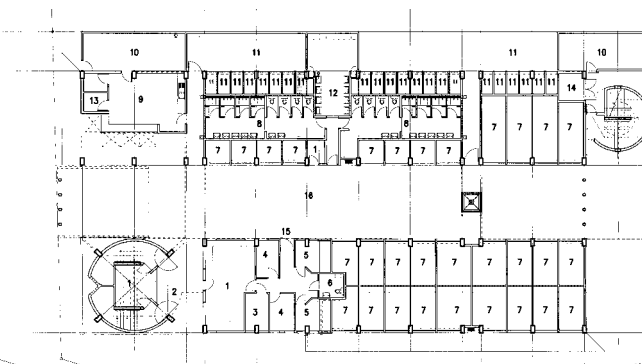
SECTION A-A  
SCALE 1 : 200

KEY  
1 - STORE  
2 - ABLUTIONS  
3 - OFFICE  
4 - PARAPLEGIC ROOM  
5 - PARAPLEGIC BATHROOM  
6 - COURTYARD  
7 - 2 BED  
8 - 4 BED  
9 - BRIDGE



FIRST FLOOR PLAN  
SCALE 1 : 200

KEY  
1 - 2 BED  
2 - 4 BED  
3 - 16 BED  
4 - STORE  
5 - ABLUTIONS  
6 - BRIDGE



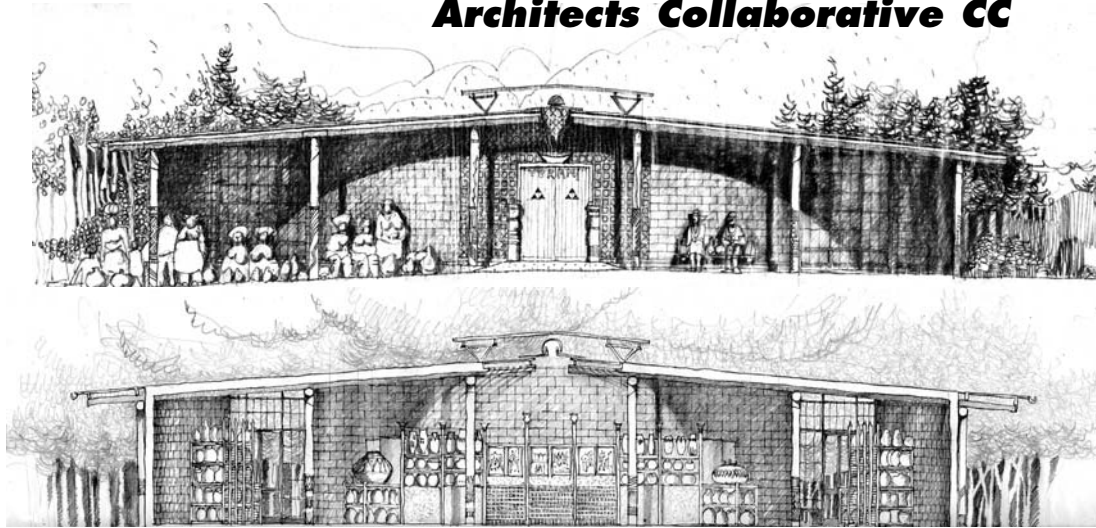
KEY  
1 - OFFICE  
2 - ENTRANCE 1  
3 - SLEEP  
4 - DEBARRED ROOM  
5 - PARAPLEGIC ROOM  
6 - PARAPLEGIC BATHROOM  
7 - TRADING  
8 - ABLUTIONS  
9 - KITCHEN  
10 - REFUSE AREA  
11 - STORAGE  
12 - LAUNDRY  
13 - WET STORE  
14 - METER ROOM  
15 - ENTRANCE 2  
16 - COURTYARD  
17 - ROAD

GROUND FLOOR PLAN  
SCALE 1 : 200



## Building the New South Africa

### Vukani Collection Museum, Nondayi Road, Eshowe, 2001 Architects Collaborative CC



The term democracy is of Greek origin, literally meaning 'power of the people'. The Vukani association was begun by Swedish missionary Rev Kjell L  Froth as a project to alleviate poverty. Today the members have been empowered, can support their families and can educate their children. The Association is owned and operated by over 1000 crafters who manage pricing and sales, and ensure the maintenance of standards. This museum was built to house a collection of Zulu basketry, including part of the collection originally owned by Rev L  Froth. –WP

Paul Mikula writes:

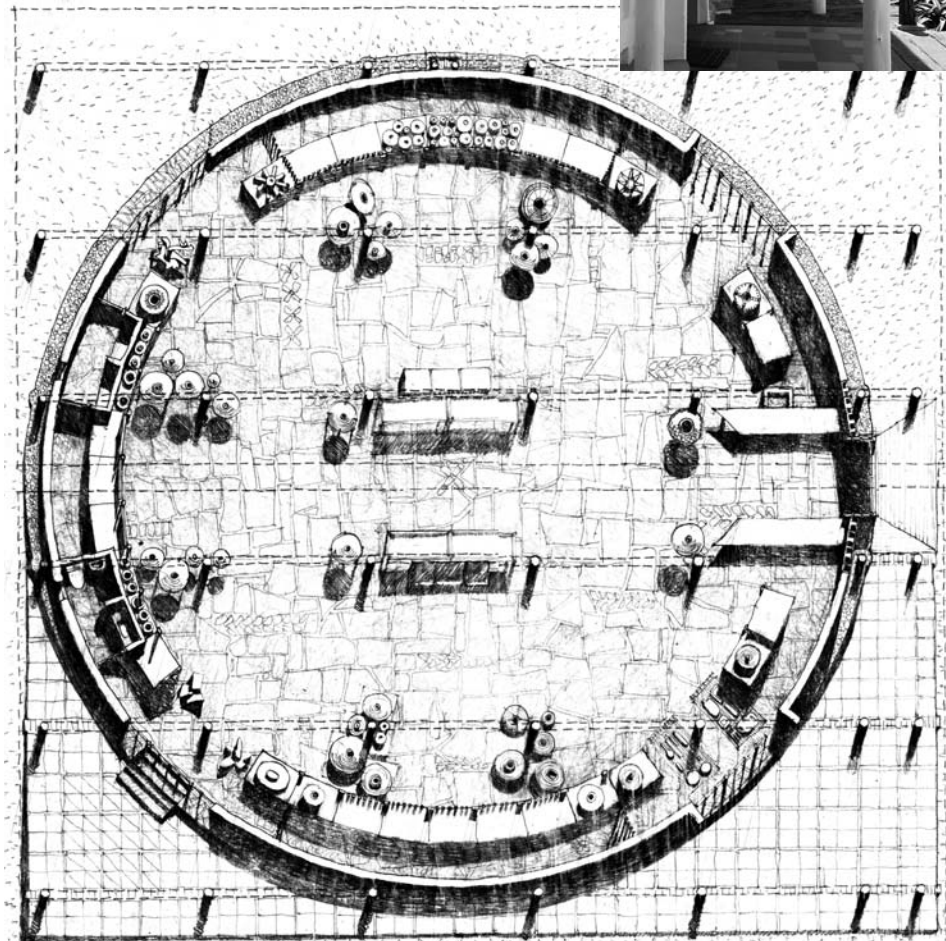
"We set ourselves the following brief. The building had to be:

- a worthy container for a most fabulous collection of Zulu baskets;
- complement Fort Nongqayi (1883), settler's house and the missionary museum, and become a proud member of a new cultural village for Eshowe;
- become a symbol of a new architecture that looked for its roots within the community;
- a building which is civic yet takes its imagery from rural areas; and
- a building with which the makers of the craft can be familiar and comfortable with, and which represents their emergence as crafters and artists, as members of the new South African society.

We took the simple forms of rural buildings. The white drum building, the rondavel of the Oyaya area, and married it to the rectangular 'four corner' Kwa-gogo or Indlunkhulu building of most homesteads.

In this way we achieved a building which was directional and yet fitted within the overall village plan, a building which creates welcoming external spaces and secure, harboring internal spaces for the collection.

With our very limited budget we used the traditional building methods of the area; the



concrete block drum, and the pole and beam structure of the Indlunkhulu and married these. We dignified everything by carving, painting or patterning.

Internally the building is planned as a drum within a drum. The outer narrow strip is the work and storage area. Displays are arranged on the stepped concrete inner drum display unit. In this way all the items are on display, sometimes at the front or at the back of the open shelves. We believe that far-flung museums such as this must show all they have.

Windows are arranged within the deepest regions of the rectangular overhang so that no direct sun penetrates the building.

The very special items of the collection are displayed on the gum pole posts, which sprout horizontal arms at higher levels where particularly beautiful baskets are displayed. The centre of the museum has some large tables where workshops take place. All colour patterns used on the building and in the carving are the local codes for the Oyaya area.

The total budget was R400 000, with very lit-



tle money available for running costs. The large overhangs protect the walls and the form of the museum which can at all times be supervised by one person, are all attempts to control these costs.

The museum has now been in existence for about four years and has worked well. From



the poorest rural granny struggling to get to Eshowe, to the most affluent Norwegian visitor, they all love it. They have never seen baskets so proudly displayed. A worthy home for the Reverend Kjell L  Froth collection, built up over 20 years from the best examples of the

work of his Vukani project, which reintroduced basket making into the local areas, thereby allowing so many of the rural poor to feed their families back home".

**Project Manager & Quantity Surveyors**  
Makhoba Volbrecht Assocs CC

#### ASSISTED PASSIVE AIR CONDITIONING

It was recognised that a form of climatic control would be required for the preservation of the collection from deterioration due to dust accumulation and extreme humidity conditions, when the operating budget permits.

#### PASSIVE AIR CONDITIONING

The concept of passive air conditioning centres on a combination of thermal storage, and the diurnal temperature and humidity ranges, to supplement or replace conventional mechanical air conditioning.

A typical design would provide for the air with which the building is ventilated to be circulated in and around the most massive elements of the building, often enhanced by additional mass elements such as gabion and baskets filled with coarse rubble or rock segments. These high mass-elements are exposed to night-time conditions which in areas with a high diurnal temperature range, are considerably cooler than day time temperatures. The effect is to cool the structure when the building is not occupied and create a thermal store. Granular substances such as granite or coarse concrete also have a desiccant ability, which absorbs humidity during the hottest part of the day and re-releases it into the air during the less humid night conditions.

This principle is particularly suited to dry temperate climates with a high diurnal temperature range, but what is not generally known, is that the KwaZulu-Natal coastal belt is well suited for passive air conditioning all year but for the summer months.

#### ASSISTED PASSIVE AIR CONDITIONING

Initial planning of Vukani included an extensive under floor labyrinth of ducts, but budgetary constraints precluded their realization. The building was thus

constructed with ducts above ground, below the first display tier, which thus integrate the floor slab in the concept of the thermal store.

The majority of discomfort anticipated during peak conditions will be caused by the high humidity levels, and the mechanical plant will be selected to dehumidify and filter the incoming fresh air without necessarily significantly reducing its temperature.

#### MECHANICAL PLANT

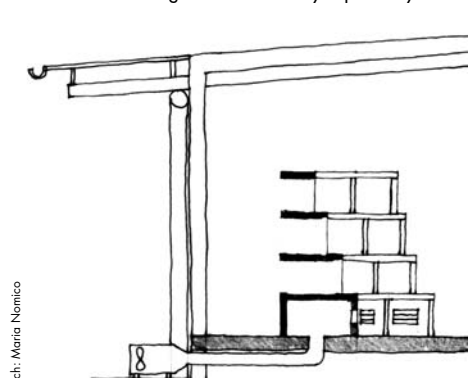
The mechanical equipment consisting of a modified split-system air-conditioning unit, would incorporate an additional heating coil introduced downstream of the cooling coil. This coil would serve to recover heat normally rejected by the outdoor condensing unit, and

thereby reduce the overall operating cost of the unit. The unit should have sufficient cooling capacity to de-humidify a supply of fresh air, to pressurise the building against the ingress of humid outdoor air. The dehumidified air would be supplied through the ducts described above, benefit from the thermal store, and distributed through grilles on the

sides of the ducts.

The air handling unit would contain a bypass channel for direct delivery of outside air into the space, whenever outside conditions are favourable, and an increased supply rate should promote a higher air-flow during cooler night conditions, and maximise the flushing and pre-cooling of the structure. During peak conditions this system should use approximately 60% of the energy of a conventional plant, and operate with minimal energy consumption in passive mode for over half of the year. It could also function as an efficient reverse-cycle heater during winter if required.

Steve Nomico; Nomico Design Consulting Engineers, Durban







## A Travel Diary

### New Monuments of Commemoration in KZ-N

*Immature, unstable societies tear down old statues and memorials, so stated the Editorial in the Daily News of 3 November 1998. In the new South Africa existing monuments have been respected, and important people and events formerly unacknowledged given proper recognition.*

*The following overview may not be comprehensive but, judging by their number, the subject of monuments and war memorials is riding high in KZ-N consciousness. The continued production of public monuments by both the official, and interestingly, private sectors suggests that the necessity for monuments remains recognized and desirable.*

*Monuments are intended to capture a moment in time and help shape our understanding of the past. Thus the power of a monument lies in its concentration of complex events into symbols to guide our perception of that past. Even if much was unworthy, it should not be forgotten.*

*As an art form the conventional statue is no longer adequate and today conceptually-based monuments aim to engage with viewers in the memorial process. But, where public monuments have traditionally possessed an inherent sense of endurance and permanence, that criteria cannot be said of all the newcomers.*

*Besides, monuments should be conceived as forms of public art. If architecture is the most public of the arts, and monuments are pieces of public art without a necessary purpose, one may question whether among this genre many will touch all of the sensibilities of a wide audience. The examples nevertheless do add content to the puzzle of our collective memory and in this regard it may be better to build with perfunctory dignity than not to build at all.*

Walter Peters



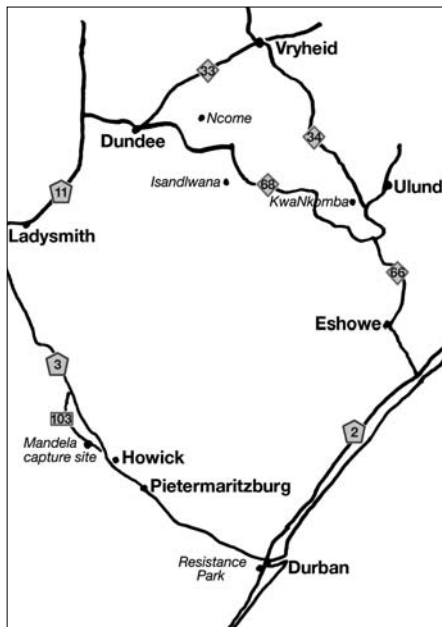
On the other bank lies the existing Afrikaner memorial of bronze ox wagons in laager formation, which the Ncome monument neither replaces nor imposes upon. In fact, being on opposite banks and connected by a proposed footbridge, the symbolism is commendable.

#### Amafa aKwaZulu-Natali

KwaZulu-Natal was the first Province to enact its Heritage legislation, the KwaZulu-Natal Heritage Act (Act No 10 of 1997), well in advance of national legislation.

The statutory body established to protect and manage cultural heritage within the Province is known as Amafa aKwaZulu-Natali (Heritage KZ-N). This body which results from an amalgamation of the former KwaZulu Monuments Council and Natal Regional Office of the National Monuments Council, was founded on 1st June 1998. Its head office is at oNdini, Ulundi, and it operates a regional office in Pietermaritzburg. The Built Environment Committee of Amafa reviews all interventions proposed for buildings 60 years of age or older.

Amafa took the initiative for a number of new monuments of commemoration, eg the Monument to the Zulu fallen at Isandlwana; and the burial site of the progenitors of the Zulu Royal lineage within the valley of the Spirit of eMakhosini at KwaNkomba, 20 km west of Ulundi.



#### ▼ Ncome Museum and Monument Complex, 1998

At Blood River, Dundee-Vryheid

This monument is a product of the Legacy Project of the national Department of Arts and Culture, which aims to bring about an inclusivity to existing monuments.

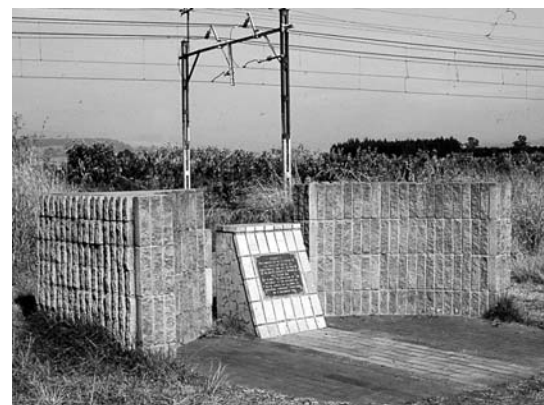


It is located on a bank of the iNcome River, also known as Blood River. The design of the monument was inspired by the shape of the traditional Zulu 'war-horn' battle formation. The museum within, interprets the events that lead up to the battle of 16th December 1838 in which innumerable Zulu warriors died trying to drive the Boers from the Zulu territory, mowed down by rifles until the iNcome River ran red with their blood.

The Battle of Blood River was a decisive turning point for the 19th century Voortrekkers in their penetration of the interior in southern Africa. Thanksgiving for victory came to be interpreted as a compact with God, and the annual celebrations of Blood River became a powerful and emotive rallying points for Afrikaner nationalism.

Both expressions are recreations of the past. Recognition of that by both Zulu and Afrikaner reflects our societal maturity. Today the date of the battle remains as a national public holiday, termed the 'Day of Reconciliation'.

References: Ncome Museum brochure by Prof J Maphalala; *Daily News*, 3 November 1998.



#### ▲ Mandela Capture Site, Lions River, 1996

Interplan Architects

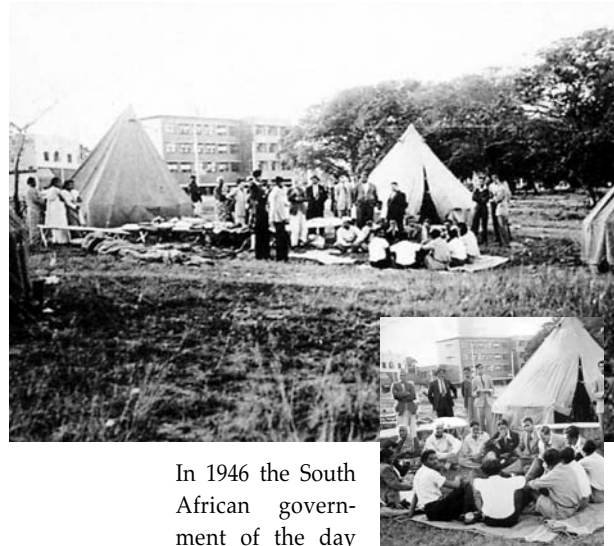
Prompted by the interest shown by former State President Nelson Mandela in identifying his capture site of 1962, a coup established with the assistance of a traffic officer, the Howick Interim Local Council decided to con-

fer the Freedom of the Town on Mandela. With that resolve came the idea to erect a memorial at the site, on a lay-bye to the R103 Provincial road reserve.

The monument has a central path leading to a marker between two scotia plinths which stake out the capture spot. It was designed by the late Brian Summerton; and constructed by municipal staff with materials donated by Corobrik and others.

#### ▼ Resistance Park, Umbilo, Durban, 2002

Ravi Jhupsee Architects



In 1946 the South African government of the day passed the 'Asiatic Land Tenure and Indian Representation Act, which restricted the rights of Indians in Natal to own and occupy land only in prescribed areas, and which effectively isolated this population group in racial 'ghettos'. The Natal Indian Congress launched a passive resistance campaign which saw supporters pitch their tents and camp in the triangulated vacant land at the confluence of Umbilo Road and Gale Street, flouting a law which reserved the area for whites. Following friction between the two races, the police were forced to intervene. Some 2 200 Indian men and women were arrested, brought to trial and imprisoned.

The monument was initiated and sponsored by the Indian community. It symbolises the events on the site in 1946, abstracted to depict only the structure of the tents, suggestive of the



removal or denial of shelter.

It is located on an irregular podium as an island, to heighten the sense of separation and relates to the policies inflicted on the people. A variety of stone cladding was chosen to imbue the structure with a sense of robustness and thereby reflect the strength of the resistance. The walls are clad with sculptured freezes depicting key events in the history of SA liberation.

References: *National Monuments Council, Annual Report 1998*, p22-3; manuscript of brochure supplied by the architects.

#### ▼ Spirit of Emakhosini, KwaNkomba, 2003



This monument astride the R34 was designed by sculptors Nkosinathi Khanyile and Abbo Hall.

In concept it resembles a toposcope crownning the *Nkomba* (point), from which one can view into the valley of Emakhosini, containing the graves of seven Zulu kings. A giant beerpot (*ukamba*) on a stand (*inkatha*) and a mat (*icansi*) marks the centre of the raised section, which perimeter is lined with 19 different plaques reminiscent of domestic life during the times of the Zulu empire of the 18th century. The perimeter of the lower platform is staked out by horns and tusks of cast aluminium which symbolise the seven kings.

#### ▲ Memorial to the Zulu Fallen, Isandlwana, 1999

This design by sculptor Gert Swart is inconspicuously located, aside the entrance to the battlefield, at the foot of the Isandlwana hill. The monument is the first to the victorious Zulus who on 22nd January 1879 defeated a British force under the command of Lt-Genl Lord Chelmsford during the Anglo-Zulu War.

The design consists of a stylized necklace in cast bronze, such as would be awarded a warrior for special valour, lying on a 7m diameter dry-stone base, accentuated at the cardinal points by 4 bronze headrests to represent the four armies deployed by King Cetshwayo.

▼ **Isandlwana Lodge** (1999) provides a panoramic view over the battlefield site. Architect: Roy Farren Associates

