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

**Building with Rural Communities**

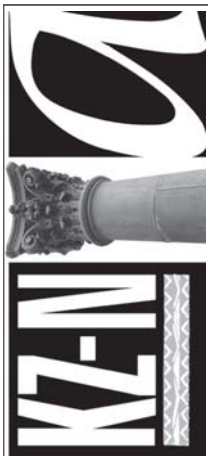
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## News

### Architecture Week

From 18–23 October, the Institute took up the offer to exhibit architecture to a broad public in the neighbouring KZNSA Gallery. A concomitant programme of events began after the opening by Albie Sachs, Justice of the Constitutional Court of SA. These included the induction of KZ-NIA President, Bruce Clark; the ceremony to honour the clients and architects of 2005 KZ-NIA Award-winning buildings; a re-run of the multi-media presentation prepared for the UIA bid; a workshop for budding architects; visits to architect's homes; and guided tours of colonial, Hindu, and Art Deco Durban.

### Farewell to Martin Knoetze

At a function held at Fourways, Johannesburg, on 14th October, members of the profession and friends bade farewell to Martin Knoetze, retiring Registrar of the SA Council for the Architectural Profession.

Following on from an itinerant career as a civil servant in various corners of the British Empire, and an interview in London by the late Tobie Louw, Martin

**2005 KZ-NIA REGIONAL AWARDS** — Seen at the function held at the KZNSA Gallery are from left: Peter du Trevou, Managing Director of Corobrik and lay member of the 2005 KZ-NIA Awards jury; Tricia Emmett, SAIA-President; Blessed Gwala, KZ-N Minister of Works; and Bruce Clark, KZ-NIA-President.



was appointed Secretary to the Institute of SA Architects in 1971. With the introduction of the

Council for Architects, for many years, Martin wore both executive hats, effectively writing letters to himself (see KZ-NIAJ 2/2001)!

After 25 years of playing (The Strange Case of) Jekyll & Hyde, Martin accepted the sole appointment as inaugural Registrar of the newly established SACAP.

But, even in retirement, Martin will be making available the fruits of his many years

of experience on a consultancy basis — although hiking is to get priority!

### SA Council for the Architectural Profession

Readers will note with pride that of the newly appointed Council, three are graduates of the University of (KwaZulu-) Natal, and one is KZ-N member and current SAIA-President, Ms Patricia Emmett.

The full Council-complement for the period 2005-09 is: Sipho Njobe; Dean Scott-Hayward; Ms Rani Naiker; Ms Patricia Emmett; Prof Gerald Steyn; Mrs Lula Scott; Phillip Crafford; Johan Barnard; Themba Mithethwa; Khotso Moleko (Vice-President); and Malcolm Campbell, who commences a second term as President. The new Registrar is Mrs Catrina Hambly.



**2005 SIMULATED OFFICE PROJECT** — The KZ-NIA Prize for the 'Best Practice' went to the team styled *Atelier 4*. From left: Mr Duncan Radcliffe (OTIS Sales & Marketing Support Manager); members of the *Atelier 4*: Christine Baumgartner, Rishi Chunnoo, Sathia Govender and, at extreme right Koomarsamy Sabapathie; Prof Ambrose Adebayo, Head: School of Architecture, Planning & Housing; and Carl Wright, representing the client-architects.



### Simulated Office Project 2005

Winners of the KZ-NIA Prize for the 'Best Practice' went to a team which styled itself *Atelier 4* (Christine Baumgartner, Rishi Chunnoo, Sathia Govender, and Koomarsamy Sabapathie). The collaborating Quantity Surveying student was Kumeran Pillay. This 'practice' together with one styled *EKAANI CC* (Miriam Adebayo, Jodi Davids, Rumbi Makoni and QS-student Fungai Madwiza) each took a Second Prize by OTIS, respectively for the 'most innovative' and 'most technically resolved' application of a mechanical vertical transportation system. Architect-clients for the former were **Ruben Reddy with Carl Wright**, and for the latter **Maria Vidal**. The Prize by the KZ-N Chapter of the Association of SA Quantity Surveyors for the Best Quantity Surveying 'Practice' went to **Nishan Naidu** who styled his 'practice' **Shaik & Zuma**.

### Educating the Architect

This conference was held on the Howard College campus of the University of KwaZulu-Natal, 22–24 September 2005.

A good range of academics from all the SA universities attended the conference and the papers presented around a superb keynote address by Prof Ronald Lewcock (Georgia Institute of Technology), were all relevant and interesting.

The symposium on

the closing morning, attended by a number of practising architects, raised a number of issues. A brief summary is listed below:

Prof Ronald Lewcock summed up:

1. Examine the way research might be better integrated with architectural education. In other fields of university endeavour (like medicine), this is the basic approach to teaching.
  2. Look carefully at the project-critique system and perhaps rethink it entirely.
  3. Study, scientifically, methods of criticizing in education.
  4. The role of the computer in education. Is the current trend to provide each student with a desk-top the right one? (Remember Plato: the very act of speaking gets in the way of thinking!)
  5. The specific problems of Africa. Other points abstracted from the body of presentations and discussions include:
  6. The need to distinguish between 'education' and 'training' and the balance, or imbalance, between them; and the role of 'process versus product'.
  7. Awareness of our transition into the 'knowledge society'.
  8. A need to understand the basic economics of development.
  9. A need to understand the thoughts and feelings of the youth of today.
  10. The desirability of closer links between students and practitioners; inter alia.
  11. Teaching an awareness of the social responsibilities towards communities of the disabled or disadvantaged.
- A significant outcome of the conference will lie in the quality of follow-up on the noteworthy matters that emerged.

Dennis Claude



**EDUCATING THE ARCHITECT CONFERENCE.** Members of the organizing committee together with Prof Ron Lewcock in the foreground. At back Kevin Bingham; middle row, from left, Prof Rodney Harber, Dennis Claude and Prof Franco Frescura; in front Alethea Duncan-Brown.

## Editorial

### Building with Rural Communities

In this issue we feature work by architects joining the fight against the pressing social challenges in our Province, KwaZulu-Natal, such as unemployment and under-development. Access to water, sanitation, refuse removal, and electrification are equally pressing issues, but for these architects are not equipped. Housing, however, is a field in which the architect's special skill, design, have been little challenged, and one hopes the involvement by the profession will not remain illusive much longer.

Many of the projects featured are built with and by the local communities. How they are realized at places barely findable on maps, let alone on serviced sites, is admirable. Besides, there is a sensitivity of detail and choice of material and form, which qualifies some of these buildings as indigenous. These buildings are responsive to the needs of the communities and do the profession proud.

Walter Peters, Editor

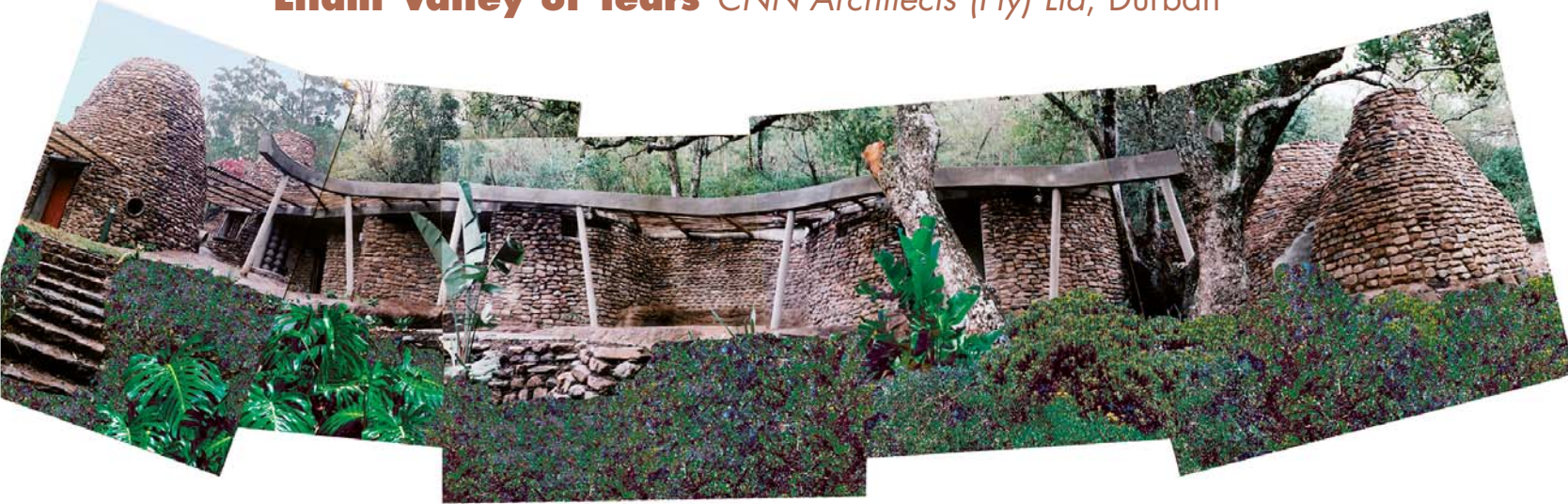


COVER: Public amenities surrounding the hot spring pools at Lilani Valley of Tears.



## Building with Rural Communities

### Lilani Valley of Tears CNN Architects (Pty) Ltd, Durban



#### LILANI HOTSPRINGS & HEALTH HYDRO - PHASE 1

Named 'The Valley of Tears' by the local inhabitants, this facility is hidden within the Lilani Valley of the Hlimbitwa River, a tributary of the Mvoti, and is accessible by car from Ahrens, east of Greytown. Surrounded by the beautiful Kranskop mountains, the mineral hot springs are rich in sulphur and radium, and are known to have healing qualities. The site has significant cultural, historical and ecological value within an attractive African landscape, complemented by traditional homesteads of the rural inhabitants.

The Valley will include a progression of 'rehabilitation layers' over a period of time, from the stabilisation of the indigenous landscape to the architectural layer. The latter is envisaged to tread lightly into the environmental skin, breathing a new spirit of multi-cultural dialogue and interpretation. This rehabilitation of the natural landscape is to reinstate the strength of an "African Place", where the architecture will become an interpreter, sensitive to heritage and the present economic and social needs, in a synthesis of past and present.

Rich folklore and traditional skills, together with the natural resources from the site were used in the juxtaposition to contemporary materials, all in keeping with the low maintenance strategy. Natural resources such as stone were used in simple building practice, where locals were trained in construction and the environmental consultant guided the limited extraction of stone from the river.

The organically sculpted hot mineral pools of various capacities operate on a natural gravity feed system, without disturbing the natural watercourse to the marsh and river below. Private pools are enclosed into cave stone structures, all with related ablutions and change facilities.

Due to the funding programme from the

government's 'Poverty Relief Fund', the development was planned for three distinct phases. To date, two phases have been completed, which include, rehabilitation of the sulphur springs with public amenities, self catering chalets for 10 guests, eight double units to accommodate 16 guests, and a kitchen with dining and outdoor landscaped areas.

Phase III will complete the development into a Health Spa/Resort destination, all in accordance with the business plan. This will include a reception and administration area, sales and information kiosk, landscaped courtyards, a *boma* (open space used for meals and social gatherings), recreation facilities, therapy rooms and a completed restaurant with indoor and outdoor dining areas. The master plan envisages an architectural product, which will take cognisance of the various cultures, both foreign



and local, which shared in the development of the area through the years.

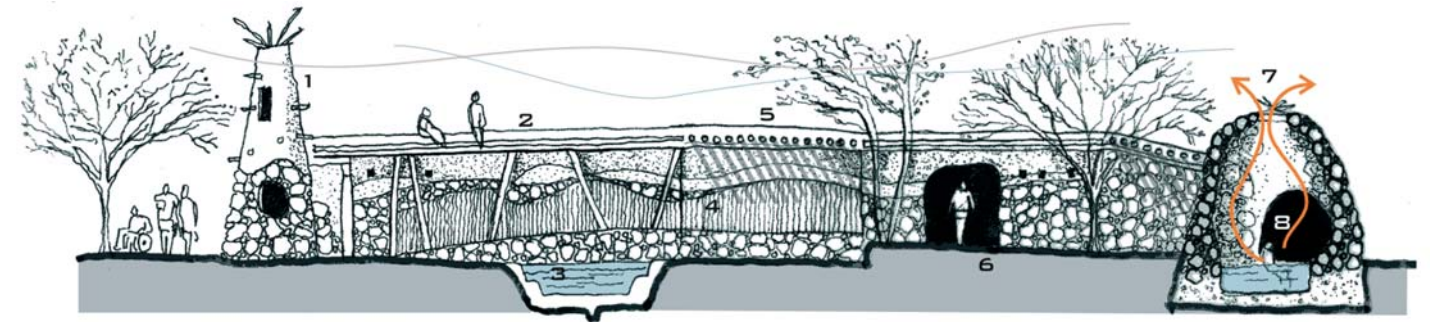
The development has experienced various constraints, which have included the remoteness of the development within the valley, the poor condition of the singular 10 kilometre access route down to the site and the inconsistent turnover of capital funding, which led to a phased implementation process. The three phases of the project had to operate independently during construction, which called for adjustments from the professional team.

However, the implementation of Phase I has assisted in establishing a branding for tourism in the region by drawing on Lilani's unique natural character, and by providing guidelines for the process of development, construction and training procedures for the area. Necessary infrastructure was implemented which included the inception of electrical supply to the rural homesteads within the Valley.

Phase I of the development transformed a predominantly agricultural community into first-time entrepreneurs, with the Sithole-Mthembu Trust especially established to drive development in the region, to maintain and manage the project, and with direct benefits to the community previously employed as unskilled labourers.

As the tranquil setting of Lilani transforms its guests from their city routine, time seems secondary to the effectiveness of this natural African experience and way of life. The spirit of this consistent calm heartbeat of an 'African Place' is now in the hands of new proprietors, who being indigenous, will undoubtedly develop Lilani into a special place, where a renewed dignity and cultural pride is welcoming guests.

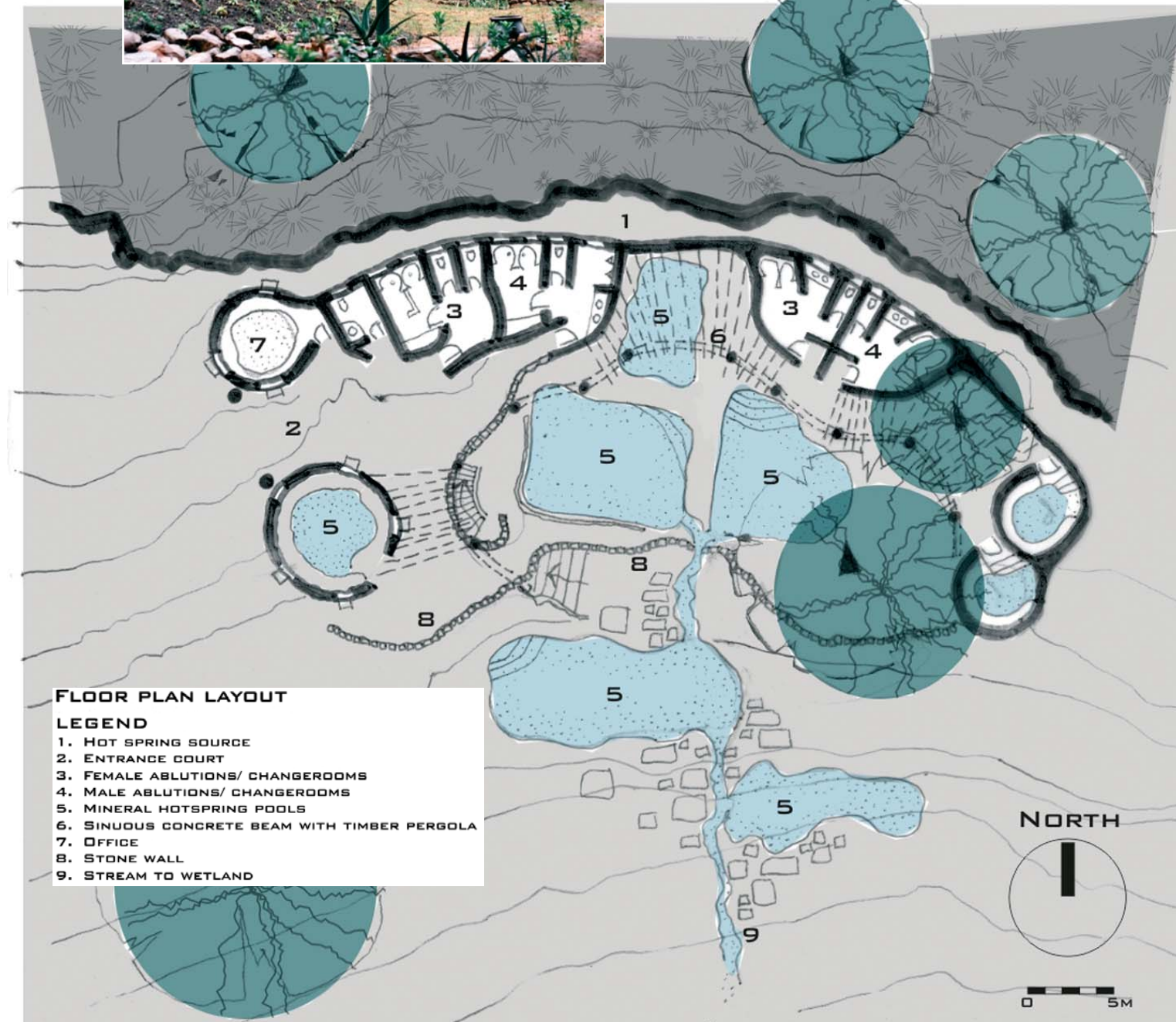
This project was also published in 'ie magazine' of June 2003. — Editor



#### SECTIONAL ELEVATION

##### LEGEND

1. ENTRANCE TOWER
2. ROOF DECK
3. SULPHUR HOT SPRING
4. PUBLIC CHANGEROOMS
5. SINUOUS CONCRETE BEAM WITH TIMBER PERGOLA
6. PRIVATE POOL AREA
7. APERTURE FOR LIGHT AND VENTILATION
8. PRIVATE CAVE POOL



#### FLOOR PLAN LAYOUT

##### LEGEND

1. HOT SPRING SOURCE
2. ENTRANCE COURT
3. FEMALE ABLUTIONS/ CHANGEROOMS
4. MALE ABLUTIONS/ CHANGEROOMS
5. MINERAL HOTSPRING POOLS
6. SINUOUS CONCRETE BEAM WITH TIMBER PERGOLA
7. OFFICE
8. STONE WALL
9. STREAM TO WETLAND

NORTH

0 5M



## Building with Rural Communities

### Siyabonga Tourist Centre CNN Architects (Pty) Ltd, Durban



The Siyabonga tourist centre, 225 kilometres from Durban, forms an information gateway into the Greater St. Lucia Wetland Heritage Park, where visitors experience the wetlands, rich in ecological and cultural heritage. The tourist centre includes a craft shop, a multi-purpose area temporarily occupied by the Park authorities, exhibition areas, a restaurant, a ferry jetty and an amphitheatre with the estuary as a natural backdrop.

After 1994, our democratic government prohibited mining in St. Lucia, declaring that the area's natural beauty be protected as a peoples' park, focused on tourism and conservation, and contributing to reconciliation and nation building. In 1999, the Park was recognised as the first World Heritage Site in South Africa by UNESCO.

Due to the sensitive ecology, a group of indigenous people volunteered to be relocated from the Dukuduku forest. As a benefit for them the Park authorities established the Siyabonga Informal Craft Facility along the edge of the estuary. The recent upgrade of this facility into the current Siyabonga Tourist Centre, has added value to the existing area by providing the

necessary tourist related facilities, which includes a formalised ferry node as an important tourist attraction, with adequate public viewing decks overlooking the estuary.

This previously disturbed site is ideally located along the main vehicular and pedestrian access route, which lies in a neutral area between the community and the St. Lucia Village. This development allowed for an opportunity to rehabilitate the existing landscape, and provide a platform for cultural and economic development.

Themed around the biology and placid character of the estuary, the facility serves as a narrative, interpreting texture, colour, and materials that weather into the environment. The architectural expression is that of a simple lightweight shelter within the pristine mangrove banks of the estuary, where the tranquil flat plane of the estuary is expressed in the planar form of the architecture. Framed timber structures and aluminium roof planes project beyond the walls, creating deep overhangs, for protection from the coastal elements. Timber decks, concealed eaves and canopies continue the linear scale and rhythm of the architecture, where the skyline of the natural mangroves remain undisturbed.

Cool shaded overhangs subdue the structure

into its surroundings while filtering off the harsh African light against areas of contrasting exposure. A tactile structure, where the facades become planes of activity, invite the visitor's interaction with the community through free enterprise, and cultural recitals

A central courtyard, allowing for the natural landscape through the centre, articulates the spatial planning of rectilinear volumes. The craft sales area allows for maximum frontage onto the access route of passing traffic, while the linear layout of the restaurant with dining and viewing decks have uninterrupted view of the estuary. The centre provides multi-purpose areas, which are juxtaposed to the courtyard allowing for various functions, from offices and conferences to interactive multimedia exhibitions.

The inclusion of local contractors, and the training of members of the community in construction, special crafts for building, and operational involvement, ensured local benefit. Most of the building materials were sourced locally, which included large quantities of Saligna timbers from the local mill.

This new paradigm in tourism facilities is created for the development of people, where visitors, private business and community share in the significant value of the area.

The development aims to articulate the relationship between architecture and nature, where the building will eventually define a personality of place alongside the estuary, as an organic response with simple detailing to heighten the awareness of local materials and our communication with the natural world.

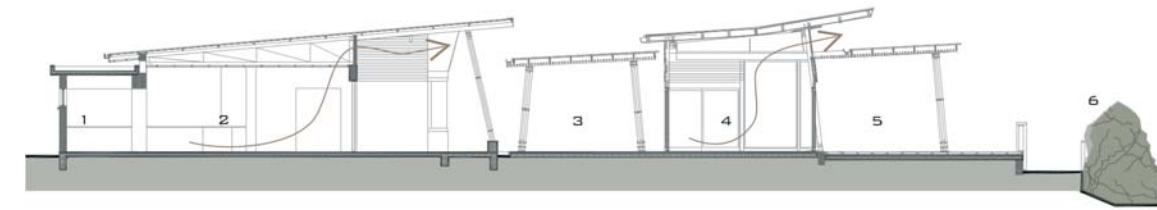
*This project was also published in 'World Architecture', February 2005: Landscape on the Edge – New Architecture in South Africa. —Editor*

#### SECTION A-A

#### LEGEND

1. SCULLERY
2. RESTAURANT KITCHEN
3. OUTDOOR COVERED DINING
4. MULTIPURPOSE DISPLAY
5. TIMBER DECK
6. ST. LUCIA ESTUARY

0 1 5M

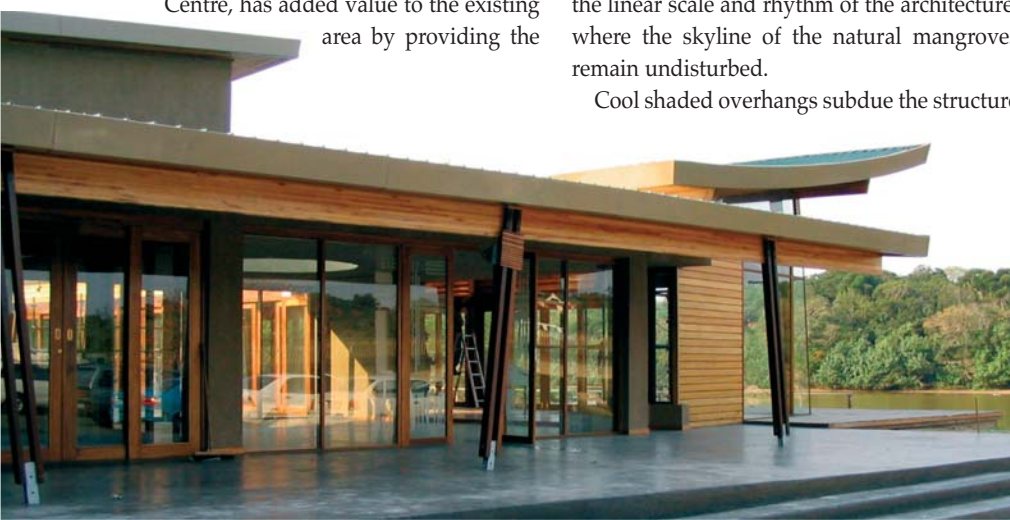
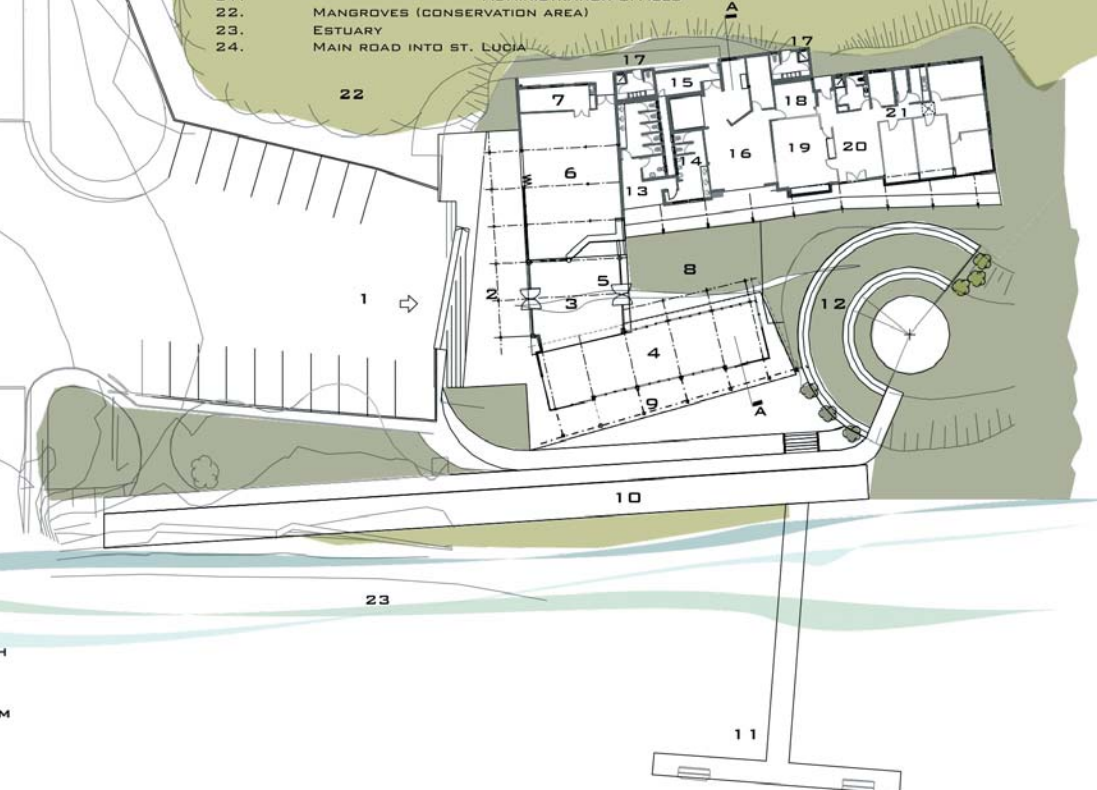


#### LEGEND

1. PARKING
2. COVERED OUTDOOR SALES
3. RECEPTION AREA
4. MULTI-PURPOSE/DISPLAY
5. INTERACTIVE MAP MURAL
6. CRAFT SALES
7. STOREROOM
8. COVERED COURT
9. COVERED TIMBER DECK
10. PROMENADE
11. NEW TIMBER JETTY
12. AMPHITHEATRE
13. FEMALE ABLUTION/ DISABLED WC
14. MALE ABLUTION
15. KITCHEN YARD
16. KITCHEN, COLDROOM & SCULLERY
17. STAFF CHANGEROOMS
18. OFFICE (KITCHEN)
19. PARKS AUTHORITY-BOARDROOM (20/30 PEOPLE)
20. RECEPTION & WAITING
21. ADMINISTRATION OFFICES
22. MANGROVES (CONSERVATION AREA)
23. ESTUARY
24. MAIN ROAD INTO ST. LUCIA

#### FLOOR PLAN

0 2 10M





## Building with Rural Communities

### iNhlazuka Multi-Purpose Community Centre

Mthulisi Msimang Architects CC, Pietermaritzburg



The project was commissioned by uMgungundlovu District Municipality in July 2002. The brief was to design a new Multi-Purpose Community Centre (MPCC) in iNhlazuka, a rural settlement within the Richmond Local Municipality. The MPCC had to accommodate various departments (government, parastatal, NGO and local businesses) that would provide essential services to the community.

Inhlazuka lies 32 kilometres along the D1035, south-east of Richmond. As in most rural areas, homesteads comprise the bulk of the existing built fabric. Other existing facilities are the various schools, a hall, a clinic and various general dealer shops. Access to basic services like water and electricity in the area is a problem. The clinic is the only structure that is electrified and also has a waterborne sewer system.

The site was chosen because of its size, layout and proximity to the existing clinic and primary school. Its addition was thus seen as an opportunity to reinforce and strengthen this node.

The site is elevated and on a clear, sunny day one can see the ships on the Indian Ocean. This exposed position does however expose the site to prevailing winds and storms which demand quite robust detailing for fixing of the roof and verandah overhangs.

The MPCC is 'broken down' into different building blocks which create and define outdoor spaces or courts. This arrangement provides for the following benefits:

- separate buildings or 'rooms' organised around outdoor space is an original African

idea inspired by the 250+ days of clear weather;

- reducing the scale better fits the centre within the surrounding context;
- it becomes simpler to phase construction (particularly if the initial budget is proven to be insufficient); and
- natural lighting and ventilation are easier to harness.

Double-storey blocks are positioned along the road-side of the site. These buildings provide a 'strong protective wall' to the 'softer' internal courtyards and single-storey buildings. Smaller openings are used on the road-side whilst on the courtyard-side glazing can be more generous. For climatic considerations, blocks were positioned along the North-South axis.

Buildings are linked by a covered verandah which provides additional waiting space and also acts as a transition zone between the outdoors and indoors. To create interest, bases of the verandah piers are of face-blockwork whilst the top sections are of steel. Strong colours were utilised to define and contrast the various building elements.

The following accommodation is provided: offices for Social Welfare, Home Affairs, SAPS, Dept of Labour, Local Authority and uMso-bomvu together with facilities like Information, covered Waiting areas, Training areas, an Indoor Sports Hall, a Telecentre, a Canteen and overnight accommodation for SAPS personnel.



Inside Hall

The MPCC is fully electrified and this includes external lighting which will enable use of the facilities at night.

Construction of the buildings was simplified and made straightforward. Durable and readily available building materials were specified. This was to minimise future maintenance of the building and also to enable the community to participate during construction. To this end the following general specification was employed:

**Roof:** pre-painted galvanised sheeting on steel roof structure.

**Walls:** a combination of face-brickwork with plastered and painted areas.

**Structure:** steel portal frame for the hall; reinforced concrete frame elsewhere.

**Floors:** vinyl tiles internally and concrete to Verandahs.

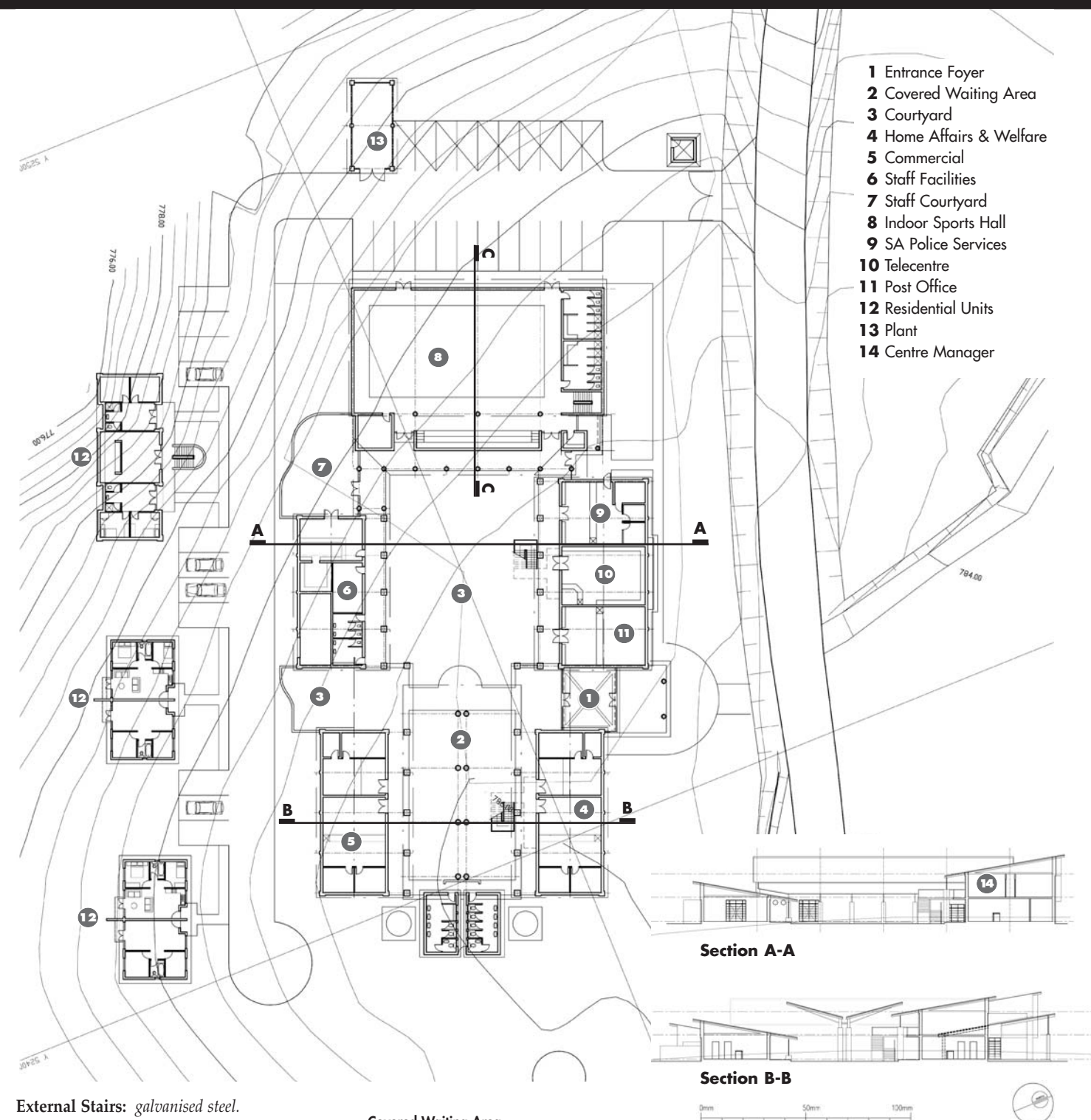
**Windows:** painted steel frames.

**Doors:** fully-glazed steel double doors to main entrances; timber doors internally.

**Verandah Piers:** ace-block bases with painted steel posts along the top.



Sports Hall — Section C-C



- 1 Entrance Foyer
- 2 Covered Waiting Area
- 3 Courtyard
- 4 Home Affairs & Welfare
- 5 Commercial
- 6 Staff Facilities
- 7 Staff Courtyard
- 8 Indoor Sports Hall
- 9 SA Police Services
- 10 Telecentre
- 11 Post Office
- 12 Residential Units
- 13 Plant
- 14 Centre Manager

**External Stairs:** galvanised steel.

**Balustrades:** galvanised steel.

**Paths and Courtyards:** combination of concrete and brick paving.

By the end of the construction period, it was gratifying to receive reports that the community were happy to have ended up not only with a building, a communal asset, but that they had been enriched from having participated during the design and construction phases. It is envisaged that the skills acquired will increase their future employment opportunities and thus improve their ways of life.

The development of the centre has also served as a catalyst to the upgrading of the piped water supply. Plans are also in place for the tarring of the access road to better link this remote community with Richmond and Eston. Mthulisi Msimang

Covered Waiting Area





## Conservation of Rural Buildings

### Fordoun Health Spa, Nottingham Road

Grice, Small & Pettit, Pietermaritzburg

Fordoun was originally owned by a Byrne settler who named the farm after his native parish in Scotland. It had long been the dream of the current owner, Jon Bates, to develop a boutique hotel and health spa on his property. When the dairy operation was moved to a more suitable part of the farm, it left behind a group of old stone sheds and farm buildings, somewhat run-down but with enormous potential for redevelopment.

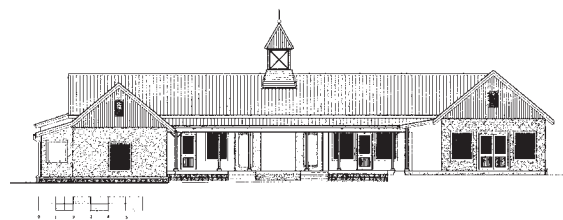
The layout of the buildings, stretched out along a farm road and grouped around a large open space, gave the sense of a small rural village and it was this concept which was developed and reinforced in the planning of the accommodation and the spaces between the buildings.

#### Layout

The hotel reception and restaurant are positioned centrally, entered off a large public courtyard, and open out to quiet gardens and green lawns on the north. Across the courtyard, built into an old tractor shed, is the other 'public' building, a small conference centre.

Seventeen double rooms have been fitted into various old stone sheds and cottages (and one new building), all accessed off the former farm road. Lean-to roofs were added to the existing structures to provide en-suite bathroom accommodation on the one side and new verandahs on the other, with views out to the lush green farmland or inwards to semi-private courtyards. A new turret structure stands at the south end of the street, framing a gateway out of the 'village', and providing a vertical focus amongst the low-roofed buildings.

At the opposite end of the walkway is the health spa, once again fitted in to a series of existing buildings. On one side are the reception and special treatment rooms, while the bigger 'shed' contains the larger spaces – a heated indoor pool built into the old milking shed, a gym looking into the pool area and an aerobics studio with views out to the fields.



7 New building with turret terminating the southern end of the 'village street'.

Change rooms along the south side and a conservatory/juice bar on the north help to enclose a large sunny central courtyard, while the old farm offices have been converted into a staff service wing. One of the unique features of Fordoun is a 4.0m diameter saline flotation pool built into the structure of the old farm silo, where clients can relax, floating on their backs, listening to underwater music and gazing up at a 'star-lit sky'.

#### Materials and Textures

The forms and colours of the new buildings are deliberately understated, allowing the simple shapes and textures of the existing buildings to stand out. Old stonework has been restored in a way that shows its age and some of its history, while old timber had been salvaged from demolitions and used to form verandah posts and exposed rafters when adding on to the old buildings. Internally, stonework has been restored and left exposed where possible, with internal brick ledges introduced to counter possible damp problems in the stone walls. The new buildings are built of brick, with a bagged finish externally and plaster internally – all new plaster and timberwork is painted.

All the roof coverings have been replaced with new *Chromadek* sheeting. Although in most cases the old roof structures had to be replaced as well, where possible – as in the spa pool-room – the original timber trusses were retained to reflect the character of the old buildings. In several of the bedrooms, original yellowwood ceilings and beams were in good condition and these have also been restored.

Floor finishes also reflect the combination of old and new. Internally floors are tiled in large cement 'flagstones', while the traditional quarry tile is used on external verandahs. In the street, panels of old recycled bricks are framed in borders of new terracotta pavers, contrasting with the texture of the gravel terraces and cobbled courtyard.

#### The Street

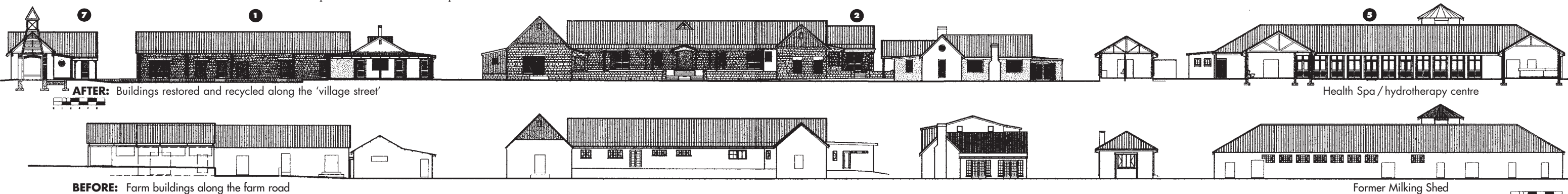
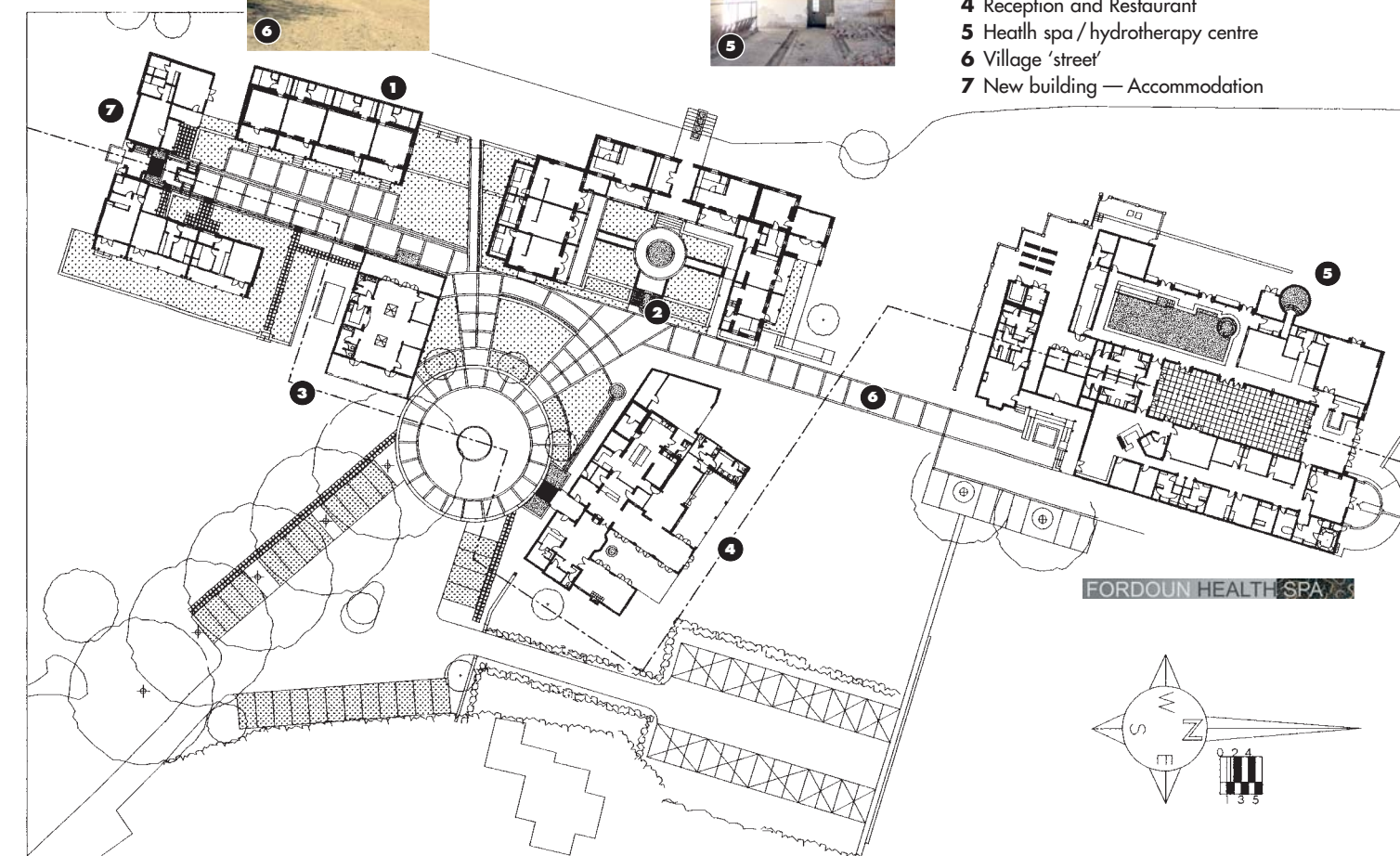
Central to the whole concept is the public space, which takes the form of a simple village street connecting the buildings together. Low stone walls between the buildings create a visual edge between village and countryside, and together with the buildings themselves create spaces off the street – small semi-private courtyards where people can sit, and larger spaces framed by trees and buildings, with views (and sometimes paths) out into the countryside. The street is brought to life by the movement of guests and staff, and changes according to the time of day and the weather.

The close connection between the 'village' and the countryside beyond is reinforced with the extensive use of water, which is pumped from the dam to a high point near the turret, from where it flows by gravity through a series of water features – designed to suggest traditional irrigation channels – before finally splashing into a large pool at the hotel entrance. The water is always moving but never noisy, and contributes to the Fordoun spa's overall feeling of peace and tranquility.

Nich Grice



- 1 Block 1 — Accommodation
- 2 Block 2 — Accommodation
- 3 Conference centre
- 4 Reception and Restaurant
- 5 Health spa / hydrotherapy centre
- 6 Village 'street'
- 7 New building — Accommodation



BEFORE: Farm buildings along the farm road

Former Milking Shed



## Building in a Rural Environment

### Ubuntu, where the Spirit of the Place is expressed through the Architecture Stan Field Associates, Palo Alto, California



Situated in the KwaZulu-Natal Midlands in the vicinity of Nottingham Road, the site occupies some 50 hectares of pristine undeveloped land.

#### Project identification

The land had been acquired from a local farmer whose wise stewardship had maintained its intrinsic qualities. A valley basin fed by an underground spring had been formed into two dams, which are surrounded by indigenous forests of Yellowwood and Stinkwood together with Pine forests, interspersed with clusters of Eucalyptus groves, the remaining African grassland between.

The long-term plan is to develop nine single-family residential sites and after an extensive analysis and identification of micro-environments, a site alongside the dam was chosen for the first house. The purpose of this house is also to serve as a generic prototype that would embody the principles and philosophy around which the future development would unfold.

#### Eco-design approach

Successful human habitation of the land requires a striving for optimum congruency with the land, that minimizes artificial support systems in favor of the organic, and which could lead to a self-sustaining eco-system.

The design approach is based on allowing an architecture to emerge from the existing land-form to become a man made extension of it. The built form to emerge from that place becomes the filter, as it were, for all design decisions to percolate through the sensibilities, that are both sustainable and belonging.

The form of the architecture is a direct response to the particularities and uniqueness of the site. A fold or crevice in the ground in which to anchor a spine rock wall, became the first act of human intervention. This dry stone retaining wall zigzags through the folds in the landscape and inherits the 'genetic' composition of the landform. Concrete buttress walls are then raised to mark out the footprint of habitation. The deep wooden roof beams are

then 'draped' between them, and so the resulting form is born from this ground.

The building is designed to generate its own warmth and energy using the natural stone and concrete walls and floors for thermal mass. Rainwater from the roofs is collected using a system of furrows to store the water in the mini dam alongside the house. The dam's overflow would encourage perpetual wetlands that could bring back indigenous flora and fauna, bird and animal life that all abound in the vicinity. All building materials are from the surrounding vicinity and methods of construction optimize the skill and craft of local labor.

#### The house

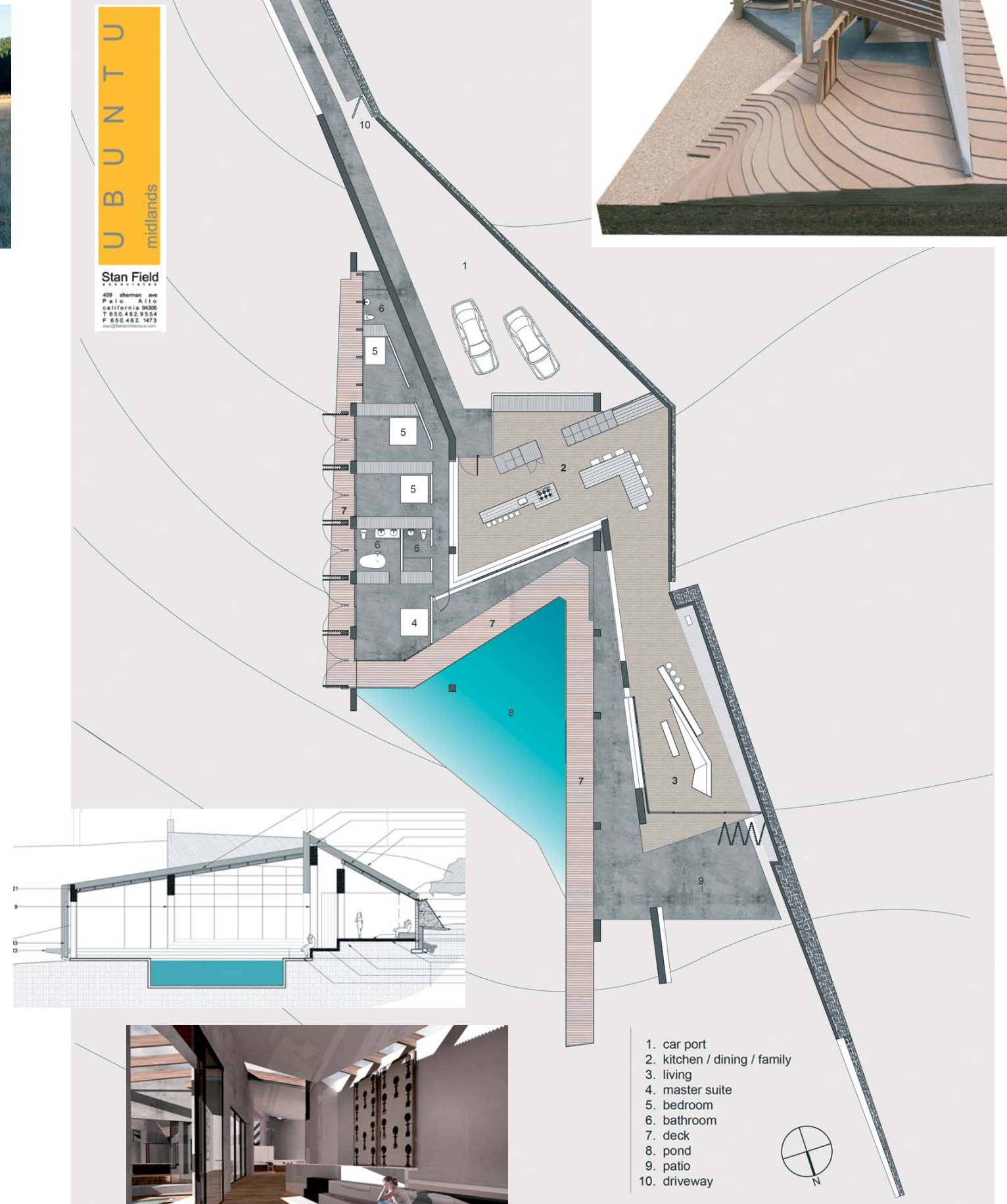
Arrival is gradually sensed by the growing gabion stonewall as it emerges out of the sloping ground along the strip driveway and entrance beyond.

The house has a two-fold function serving both permanent and intermittent occupancy. And so, through the use of exterior unfolding wooden shutters can be opened and closed almost like a 'clam'. These shutters can be calibrated to also serve as sun control devices.

There are three distinct zones, living – kitchen, dining, family – sleeping. However, there is a sense of continuity as the spaces weave through one another creating visually exciting interior landscapes enhanced by the ever-changing play of light on luscious surfaces.

The rock spine wall provides the sense of enclosure and all other spaces can be opened to allow the occupants to engage freely with the nature. The daylight zones embrace the pond overlooking the regenerated wetlands, birdlife and vistas beyond, while the bedrooms orient towards the sunrise.

Stan Field





## Building for Rural Communities

### Kokstad Private Hospital East Coast Architects, Durban



NW ELEVATION

Kokstad is a farming town, three hours south-west of Durban on the N2. It has in recent years become a de facto administrative centre for the northern part of the Eastern Cape. At an altitude of 1300m, the climate is severe – hot summers and cold winters with snow annually. Architecturally, the town has some historic gems but for the most part it is a collection of agricultural and contemporary retail sheds – *Brown's Cash & Carry, Spar*, etc.

We were approached by an established general medical practice that was operating from a converted residential building in the main street of the town. Theirs was an interesting proposition – to design an efficient layout in an economical building that would allow them, and I quote 'to see more patients and through reduced overheads, charge them less!'

#### Site

A 4,400m<sup>2</sup> site had been procured just west of the main street through Kokstad, running between two secondary streets. Traffic authorities in the town dictated a one-way flow of traffic across the site from south to north – this because the exit street has traffic lights at the

intersection of the main street. The long, narrow site (100m long x 40m wide) and linear vehicular circulation played an important role in determining the footprint of the building.

#### Design

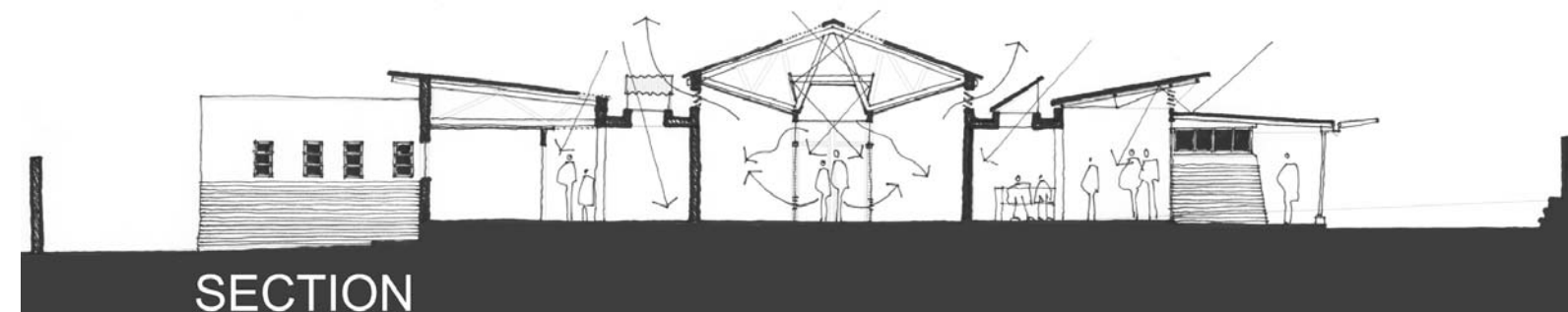
Central to the operation of the hospital, and key to the efficiency levels required, was the arrangement of the doctors' examination rooms. By grouping these around a central corridor, the four resident doctors are able to oversee 12 examination rooms. The logical flow of patients from reception/waiting, to screening (pre-examination), to examination and, where necessary, to procedures, was also a factor that increased efficiency. The planning of these rooms generated an almost square plan with consequent problems of interior spaces lacking access to natural light, ventilation and views. Our response to this dilemma was to modulate the roofscape by forming two broad reinforced concrete valley gutters upon which the roofs would be staged, thus allowing natural light and ventilation through clerestory windows. In addition, combinations of simple roof lights and clear roof sheeting allow direct and reflect-

ed natural light into passages and corridors. Doctors and operating theatre staff have commented on the benefits of having external views from every room in the hospital (except X-ray!).

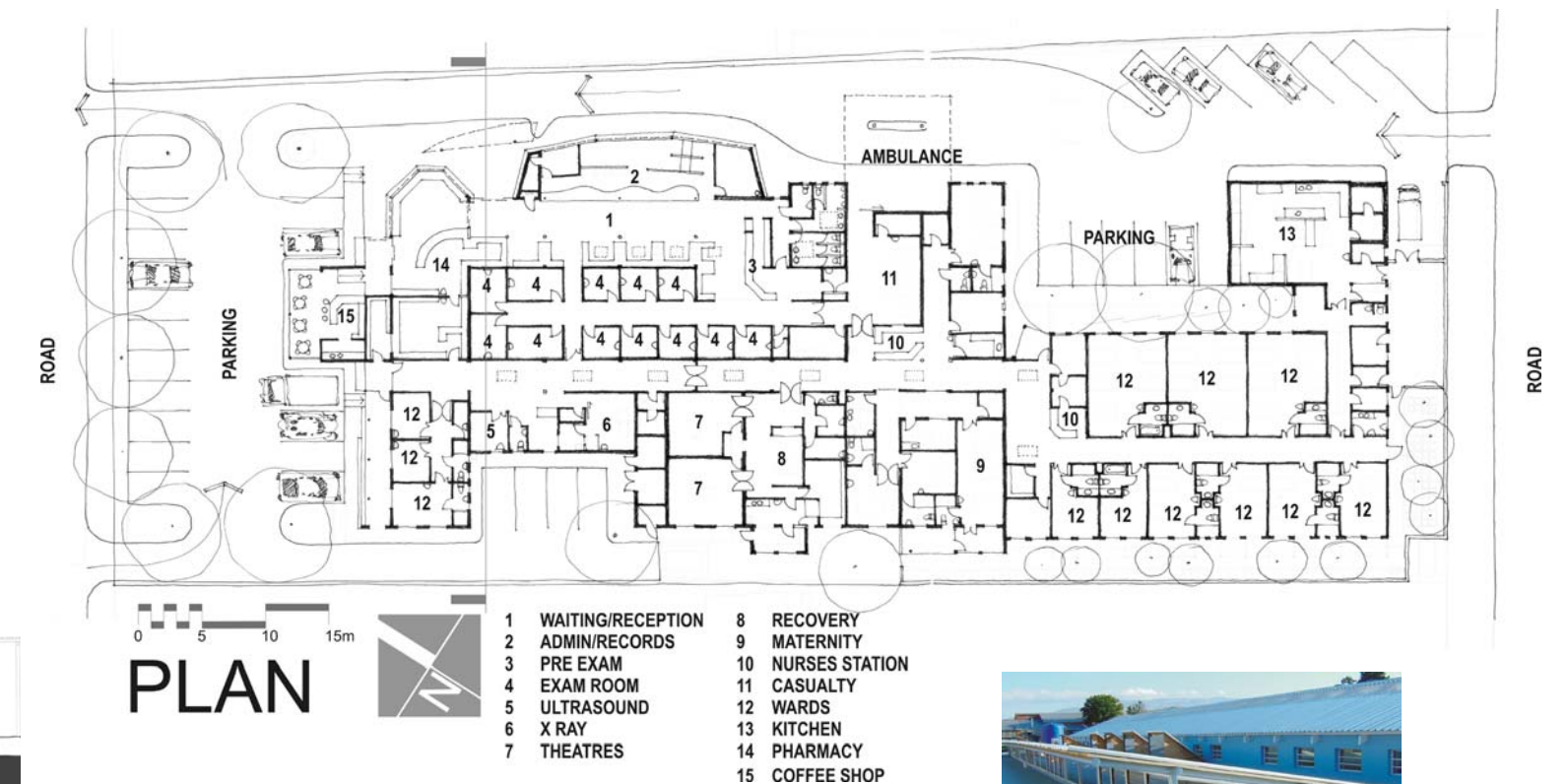
The building was designed for two phases: the first being the medical centre, and the second the recently completed ward and kitchen wing. The building uses locally sourced clay bricks, steel windows, and metal roof sheeting, and suggests a reference to the rural shed vernacular through roof forms and side cladding of some of the building. Phase three is a late addition and is about to be constructed and includes a conservatory-type coffee shop on the north-west entrance façade. Solar protection will be provided by means of vertical gardens of deciduous creepers.

#### Conclusions

From client feedback, it would appear that our strategies for natural light and ventilation have been successful in that the hospital reports that their electricity charges are lower than in their previous premises. No mean feat, given that the new facility is approximately three times



SECTION



the footprint! Furthermore, the thermal insulation strategies and the attention to north-east sunlight provide comfortably warm spaces in the winter mornings. The success of the organisational diagram has ensured that the volume of patients treated has also increased substantially. In terms of economy this 37-bed hospital was developed at a total cost of R360,000 per bed. This rate includes the cost of the land and all medical equipment and compares favorably with comparable rates in the industry which sometimes exceed R600,000 per bed.

*Derek van Heerden, Steve Kinsler*

Quantity Surveyor: *Mike Royal*

Structural Engineer:

*Simon Notcutt*

Electrical Engineer: *Eddie Krause*

Building Contractor: *Owen Peters*

Medical Practitioner: *Brett Craig*





## Building for Rural Communities

### Woza Woza, Mooi River Envelope Architects CC, Durban

The Mpofana Municipality is situated at the northern end of the Midlands Meander. In an effort to inject development into the town of Mooi River, its municipality secured government-funding to develop the site adjacent to the southern Toll Plaza, on which a previous attempt at rejuvenation had been made, namely the construction of craft stalls and a thatched information kiosk. Both had failed.

A new proposal which incorporated the existing structures was accepted. The new facility with restaurant, wine and delicatessen outlets, would provide the focus for the development which included additional arts and crafts stalls, a children's play-area, an exhibition space and a bandstand. This concept was developed in consultation with the local farming interest groups, residents and the municipal task team. The initial budget was cut and the project was down-scaled. The mezzanine floor to the restaurant facility was excluded, but fortunately the viewing deck was preserved.



View from north-west

The functionality of the over-sailing metal roof borrows from the surrounding farmyard architecture, with three circular silo-like structures accommodating the entrance tower and the two specialty shops. The building also incorporates materials and forms from the local context, uses rock excavated from the site as column bases, and is

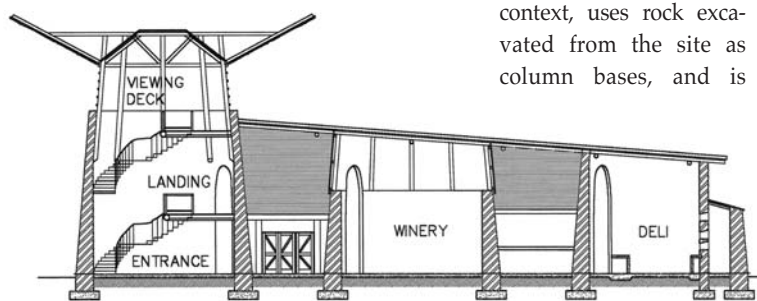
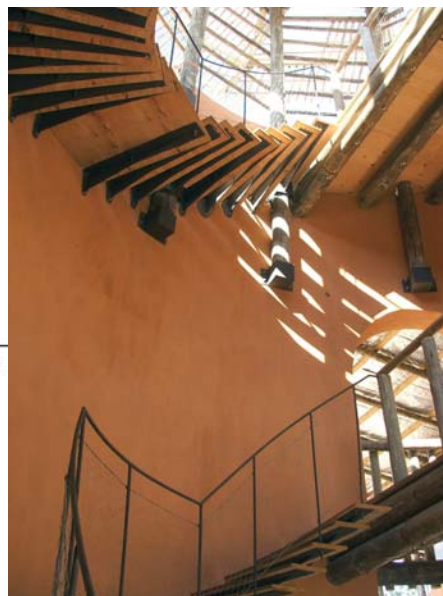
intended through its form and composition to entice visitors to the site out of curiosity.

The vision of future phases is not lost to those who initiated the project. It is intended that the success of the initial venture will facilitate further development of the site and the town.

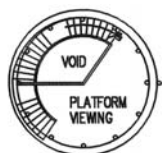
Kevin Bingham

Project Consultants  
Architects:  
Envelope Architects  
CC (Kevin Bingham,  
Raymond van Staden,  
Lloyd Ngidi)

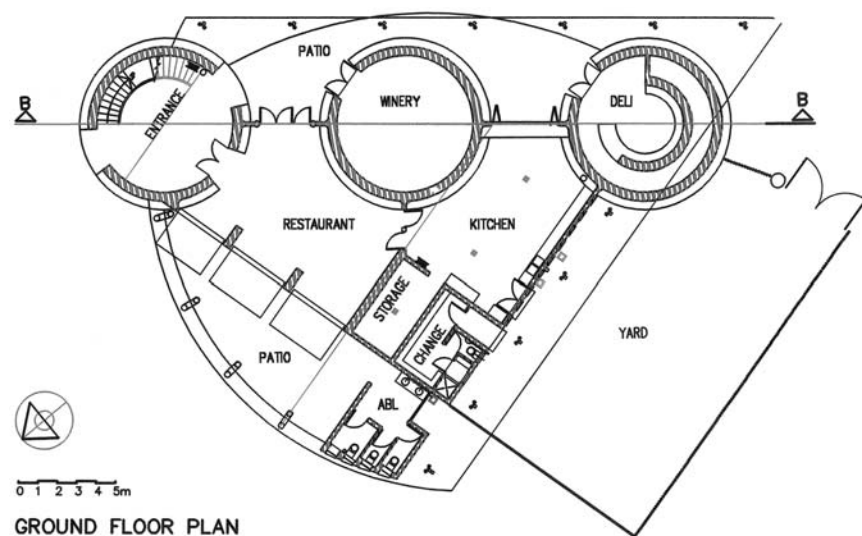
Project Managers:  
Cope CC  
Structural Engineer:  
Ed Weakley  
Quantity Surveyor:  
Mike Royal  
Contractor:  
Selwyn Subramanian



SECTION B:B



VIEWING PLATFORM PLAN



GROUND FLOOR PLAN



## 8th World Congress on Art Deco

### New York City, 22 — 29 May 2005

*I like the city air, I like to drink of it,  
The more I know New York, the more I think of it,  
I like the sight and the sound and even the stink of it.*  
Cole Porter's 'I Happen to Like New York'

I had the opportunity of representing the Durban Art Deco Society at the 8th World Congress on Art Deco in New York in May this year. The Congress was a week-long event of talk, tours, displays and ended with the AGM of the International Coalition of Art Deco Societies at the Waldorf Astoria.

Decophiles gathered en masse draped in 1920s regalia at the CUNY Graduate Centre, Midtown Manhattan, for the



daily talks. The strong nostalgia for the era, which keeps reappearing encapsulated in fashion and furniture time bubbles, seemed justified by the end of the week. A notable characteristic of the Art Deco era is the dynamic interplay of the disciples of painting, dance, architecture, graphic design and fashion (Lowe, 2004: 63) and this was illustrated in the varied lectures given.

The new world of the 1920s and 1930s was clearly a time of great optimism, a world of fast cars, fast elevators, fast trains – incontestable proof of the progress of mankind (Lowe, 2004: 123). It signaled a time of rapid change, accelerated by technological inventions. For a city like New York, it offered the opportunity of verticality for a long while unsurpassed. The impact on the psyche of the times must have been significant when one considers that the

entire population of an average American town of 10 000 could now be vertically 'officed' on a piece of real estate in Downtown Manhattan.

The office was seen as a place of glamour and liberation for men and, and it should be emphasized, for women. The notions of liberation for women (Lowe, 2004: 28) in the Art Deco era is most notable through fashion, where with the dispensing of the corset, the 'bust had been freed', but with the hobble skirt 'the legs shackled' as quoted by Valerie Steel in her lecture *Art Deco Fashion*.

Rapid urbanization took place and New York became the first city to pass a zoning ordinance, which later significantly determined the form of skyscrapers. Allowances for light to adjacent properties was one consideration in the 'stepping back' which became a feature of all Art Deco skyscrapers. The climax of skyscrapers is undoubtedly the Empire State Building by Shreve Lamb & Harmon begun in 1929 during the stock market boom and completed in 1931 in the depression. This limestone structure was built at a rate of

four-and-a-half storeys per week and took eleven months to complete (Lowe, 2004: 128). The building is so well mannered at street level belying its vertical exuberance. Rosemarie Haag Bletter in her lecture entitled *Reading Manhattan's Art Deco Skyscrapers: Up Close and from Afar* argued that due to the dense urban setting the skyscrapers are designed to read as beginning, middle and end, as they were viewed in this fragmented way, and not in their totality.

In Carol Willis's lecture on the *Skyscraper Museum of New York* she declares skyscrapers the vernacular of capitalism, and David Garrard Lowe who gave a lecture at the

Museum of New York City describes the lobbies of Art Deco skyscrapers as the 'narthexes of the new cathedrals of commerce'. Lowe also referred to the Rockefeller Centre as the 'Vatican of Art Deco'. Rockefeller, incidentally, felt that Gothic was the only appropriate Christian architecture and had to be convinced by his wife, Abbey Aldridge Rockefeller, and son Nelson, that the development required the 'streamlined modernity' of the Art Deco style (Lowe, 2004: 169).

Notions of 'godly' through the association of borrowed motifs from the tomb of the Egyptian pharaoh Tutankhamun, opened in 1922 and sacrificial altars of the Yucatan, go a long way in supporting the cathedrals of capitalism analogy, but in overview Art Deco draws widely on a variety of symbolism in the adornment of the buildings. As cited by Valerie Steel, the movement confirms the popularity of exoticism and fantasies of orientalism in the 1920s and '30s. Lowery Sims of the Studio Museum in Harlem also spoke of 'Afro Deco'. Abstract symbols of commerce, machinery, labour are also prevalent denoting the progress of the era.

Some symbolism is more overt. The eagle headed gargoyles on the Chrysler Building are based on the hood ornament of a 1929 Chrysler Plymouth. Lowe argued that if the Chrysler speaks about the automobile with further references to hubcaps and spokes of a wheel, then the Empire state Building speaks about wings, about flight. His analogy was reinforced by the fact that the tower of the building was designed to be a dirigible mooring mast. It was only ever used twice for this purpose. Clearly some symbolism should remain metaphoric!

The week ended with a lavish dinner and vintage music at an Art-Deco-influenced Chelsea supper club, the Eugene, concluding a week of full immersion in an era restlessly slumbering.

Nina Saunders

Nina Saunders is a committee member of the Durban Art Deco Society. She currently works for the Architecture & Buildings Department of the eThekweni Municipality.

#### References

Lowe, D. *Art Deco New York*, New York: Gupta, 2004

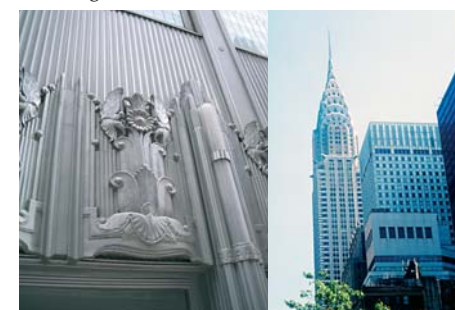
#### Quick guide to spot an Art Deco Skyscraper

Art Deco skyscrapers are visible 'in the round' – there is no perceptible corner.

Fenestration and colour are used to further vertically express the building.

Striking use of colour – often red, black or white strips.

Look for a miniaturized motif of the building, either above the entrance or in the lobby.





### Ending the Journey...looking for the Swahili coast in Oman

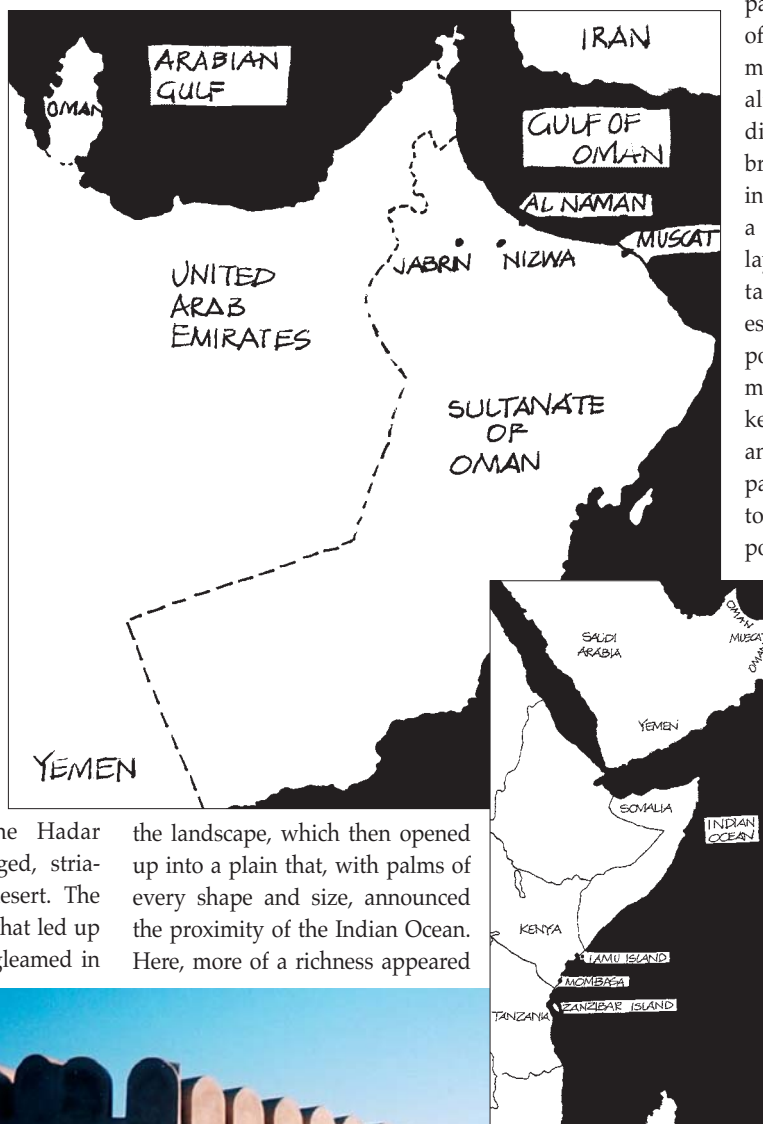
Throughout previous visits to eastern African sites such as Zanzibar and Lamu, the influence and presence of the Omani Arabs permeates the built environments and the culture. Their early tenure on the coast influenced the development of local architectures and culture, and leaving the deepest remnants in the form of the religion of Islam. The constant presence of the influences was tantalising, and a chance to separate the real from the introduced was needed. Thus, a recent opportunity to visit Oman, albeit brief, was for me a chance to look for what could possibly be the real and the contrived in the architecture of the east African sites. My prime interest was pattern and form and contour, and the transfer of idea. It became a journey of experience rather than a journey of rigorous documentation.

We drove into Oman from the Emirates, leaving a contrived and reconstructed built environment that left little to interpretation. Small villages dotted the route, situated next to dry riverbeds that, guides informed us, would become raging torrents on occasion. Images such as a camel tethered on the back of a bakkie prevail, a roadside market selling rugs and cushion covers, and plastic mealies and green guavas. The landscape travelling through the Hadar Mountains was breathtaking, rugged, striations of colour and undeniably desert. The mountains were silhouetted layers that led up to the sky and the horizon. Silica gleamed in



### A Travel Diary

#### Oman



in the fertile landscape, with small community mosques with a simple but deeply coloured blue and yellow domes, and elaborate minarets. Villages with flat-roofed mud-brick houses had little replicas of Eiffel towers supporting television aerials. However, what becomes a recurring theme is the prevalence of the fort, a massive structure topped with pointed crenellations, to the extent that glossy brochures present routes that are connected by the forts. In the light of the prevalence of these

particular buildings, the transfer of religious structures such as mosques was not prominent, although the Omani mosques differed markedly from their brothers across the Arabian Gulf in Iran. Muscat became our base, a city of a breathtaking series of layers nestled between mountainous folds. A sweeping esplanade overlooking an active port was the location for shops, mosques, and the extensive market. Dramatic rises to hilltops and then descents reveal other parts of the city that were hitherto unknown. The entrance to the port is heralded by a large fort that commands a space reminiscent of that in Mombasa, with a similar tower built on the land end of the entrance, seemingly clinging to the rocky base. The buildings here grow out of the landscape, expressing power and wealth.

Here, in most part, earthen structures dominate the landscape, whereas in the East African examples, coral

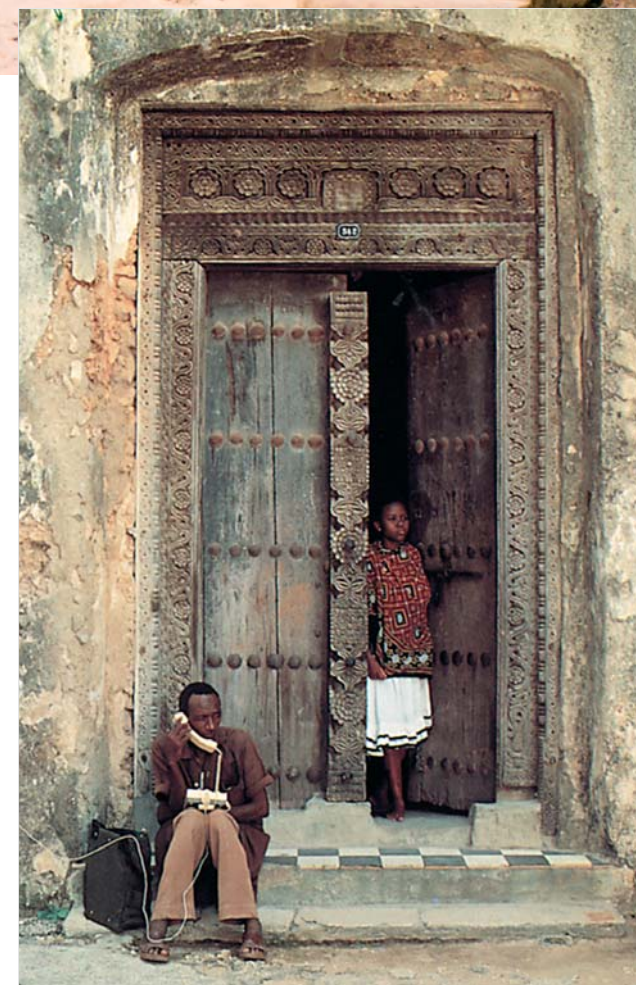
the landscape, which then opened up into a plain that, with palms of every shape and size, announced the proximity of the Indian Ocean. Here, more of a richness appeared



Nizwa fort, Oman



rag forms the bulk of the material integrity, such as in Fort Jesus at Mombasa, a large crumbling edifice to colonial powers. Thus, the architecture itself is not specifically reminiscent of the eastern African coast, but elements of it are. In this respect, views out to space, doorways, layout of the spaces etc, had reference. In particular, the language of the doorways and manners in which the monumental structures specifically, meet the sky, were similar. One needs not necessarily to quote the well-known Zanzibari type doors, which are prevalent in a variety of different manifestations along the Swahili Coast, with large carved or brass bosses, and intricately carved pillars or top parts, but the manner in which 'entrance' is celebrated is triumphant, whether it is the beach entrance to the Mosque outside Lamu, or the entrance to the Al Naman castle on the northern coast of Oman. Sense of entrance, propriety, and scale all feature in the creation of a simple structure. Specifically, the formation of the crenellations on the forts in both regions is similar, with a delicate confluence of the castellation into a soft point. The forts are certainly not 'type' buildings, as the variance between the sprawling Nizwa fort, with its layers of approach and associated market, is more reminiscent of the



Top: Entrance to a mosque near Lamu on the east African coast.

Above: Gateway to Al Naman Castle, Oman.

Left: Intricately carved door surround, Zanzibar. Postcard, photograph by Jean-Denis Joubert.

Unfortunately, much of the relatively wealthy Middle East has a reconstructivist idea about preservation and restoration. This means that buildings may be totally rebuilt, often using cement, and lauded as part of the heritage of the culture. It is, in many ways a relativist blessing, that places such as Lamu, Mombasa and Zanzibar, are too poor and cement too expensive, that this form of repair cannot take place, so that the original character of the building is evident, although rough and crumbling.

Debbie Whelan

Mrs Whelan, a Lecturer in Architecture at the Durban Institute of Technology, visited Oman in December 2004.  
— Editor