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INTERPRETATION CENTRE AT eMAKHOSINI-OPHATHE HERITAGE PARK

KZ-NIA
Journal of the KwaZulu-Natal Institute for Architecture

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Corobrik Student of the Year 2005

Winner **Cillié Malan**, is the second consecutive MArch(Prof) student of the University of Pretoria to win this prestigious title. He is seen here being congratulated by **Peter du Trevou**, Managing Director of the sponsors, *Corobrik*, for his thesis entitled "supa-MARKET" for Esselin Street, Pretoria. Judges were Ms Heather Dodd, Mthulisi Msimang and Braam de Viliers. The award for the Best Use of Brick went to Ms Letsabisa Lerotholi of Tswane University of Technology.

UNIVERSITY OF KWAZULU-NATAL

UKZN School of Architecture

Graduation 2006

At a graduation ceremony held on the Westville campus of UKZN on Saturday, 13th May, 28 BAS-degrees were awarded, those of **Lauren Haiden**, **David Long** and **Sinegugu Ndlovu** with the appellation *cum laude*. A single PG Diploma in Architecture, and 13 BArch(Adv) degrees were also conferred.

2006 Prize-Giving Ceremony

At a function held in SH1, Howard College Campus, on Tuesday, 9th May, KZ-NIA-President Bruce Clark presented the following KZ-NIA prizes:

Bachelor of Architectural Studies

Year 1 *Barrie Biermann Prize:* Ms **Stephanie Zangerle**

Year 2 *Gordon Small Prize:* Ms **Tasmi Quazi**

Year 3 *Calvert McDonald Prize:* **David Long**

Master of Architecture

Year 4 *Clement Fridjhon Prize:* **Sathia Govender**

Year 5 *SN Tomkin Prize:* **Koomarsamy Sabapathee**.

He also presented the *O'Brien-Brown Bursary* to Yr3-student Ms **Rosalie Bloem**.

SAIA-President Ms Tricia Emmett presented the *David Haddon Prize for the Best Student in the subject Professional Practice* to both Ms **Paulette Barbeau** and Ms **Peta Osborn**.

Mrs Hazel Bond presented *Sherwood-Bond Bursaries* to both **Sathia Govender** and **Koomarsamy Sabapathee**, students undertaking their Design Dissertations.

Representing the Bernstein family, Prof Ted Tollman presented the *Brian Bernstein Memorial Travel Scholarship* to BAS-student **Bongokuhle Ntuli**, who will travel to Brazil and visit Curitaba in particular.

Head of School, Prof Ambrose Adebayo, presented the *Garth Moyes Memorial Prize for Good Fellowship* to Yr5 MArch student **Corné Nothnagel**; and the *Le Sueur Travel Scholarship* to Ms **Sinegugu Ndlovu** (BAS-graduate) who will travel to Europe.

Africa Union of Architects

At the April 2006 Council Meeting of the Africa Union of Architects held in Accra, Ghana, **Rodney Harber** was elected Chairperson of BERT (Bureau of Education, Research and Technology). This means that he will represent Region V (Africa) on the UIA Education Commission and the UNESCO/UIA Validation Council for Architectural Education, both based in Paris.

Prize-winners and dignitaries at the 2006 Ceremony. From left: SAIA-President Tricia Emmett; Paulette Barbeau; Corné Nothnagel; Koomarsamy Sabapathee; Head of School, Prof Ambrose Adebayo; David Long; Stephanie Zangerle; Sathia Govender; Tasmi Quazi; Rosalie Bloem; Sinegugu Ndlovu; Bongokuhle Ntuli; KZ-NIA-President Bruce Clark and Academic Co-ordinator: Architecture Programmes, Kevin Bingham.

Letters

KZ-NIAJ 3/2006: Building with Rural Communities

Waarde Heer
Ek wil u graag bedank dat ek julle pragtige tydskrif gereeld ontvang.
Elke eksemplaar word bewaar op my boekrak vir later gebruik.
Ek wys graag artikels aan my vriende of kliente.
Die kwaliteit van artikels en fotos is van die beste gehalte, gedruk op glans papier.
Baie dankie en ek sien uit op julle lys to bly en in die toekoms julle blad te ontvang.
Argiteks Groete,
Hans Botha, Randburg

Hi Wally
Today I received the journal 'Building with Rural Communities'.
Great work, Wally!
The overall magazine is interesting and beautifully put together and I especially want to compliment you on the way in which you portrayed my work.
All the best
Stan Field,
Palo Alto, California

Baie dankie. Many thanks.—*Editor*

Guest Editorial
Sustainability

When I was growing up, my Dad was a social worker and my Mom a nurse. Both are retired today. They were proud of their jobs and saw them as a 'calling'. Through their professions, each impacted on many people's lives. But when I opted for a career in Architecture, I began to realize that my parents' efforts were somewhat limited by the conditions of the physical environment, that most of their patients were forced to live under during those years. I began to wonder if there could be ways to assist, for example, by finding a method to build shacks (that were mushrooming everywhere) in a way that would improve the quality of life of the families. This thought stayed with me throughout my years at University, the time I spent in private practice, and today as I work for the eThekwini Municipality.

In the new South Africa our government has come up with solutions to correct the past. One of them has been to provide low-cost houses for all. At last, however, when those were built they were more like 'structured shacks'. Well meaning as our government was, I still had the same question, if there is a way to develop and build low-cost housing in a way that is sustainable.

Yes, the quality of life was improving with the provision of basic services like clean water, sanitation, electricity and roads. The structures were definitely better: if one considers the building materials used. But something was still missing. That is what I regard as the main ingredient, that will make the designed space work better: an understanding of the culture of the people being designed for.

In the early years of the new South Africa my experience was that architects generally had an inadequate interest in getting involved with low-cost housing developments (I stand to be corrected). Only few architects became involved, some with NGOs like DAG in both Cape Town and Durban, and the Built Environment Support Group based in Durban, who came up with interesting housing typologies for low-cost housing. However it is interesting that in September 2004 the government approved its 'Sustainable Settlement Plan' (or 'Breaking New Ground') which included commitments by architects of the South African Institute of Architects (among other role players) to a Social Contract for Rapid Housing Development. These commitments are:

(a) engage in human settlement planning, which meets best-practice standards for social, environmental and economic sustainability;
(b) enhance the housing product by means of qualitative improvements in the provision of shelter, aesthetics, technical performance and cost-effectiveness;
(c) advance the creation of non-racial, socially integrated cities by playing a lead role in urban renewal and inner city regeneration, and innovative inner-city housing design; and
(d) mainstream housing as a subject for research and education within the building professions.

These commitments need to be adopted by architects as a basis towards the production of sustainable architecture.

With the exposure to organizations like NEPAD and Agenda 21, and sustainable development conferences, architects have embraced the policies of sustainable buildings. We have seen beautiful buildings, some internationally recognized as conforming to the principles of sustainability. However I do not think that is enough. I believe that sustainability should be every architect's responsibility for all structures designed and built. Sustainability should not be the preserve of the 'select few'.

The underlying debate in this issue can be summed up by an abstract from an argument by Maurice Broady: "The answer is that we must now begin to develop a more realistic understanding of the relationship between architectural design and human behaviour, one which reflects what actually happens rather than what we hope to happen." This suggests that architects might need to reflect, and begin to question their approach to designing the built environment, particularly in areas as low-cost housing developments.

One finds writings by sociologists, archaeologists and ethnologists on the subject of the built environment and sustainability, specifically the relevance of the socio-cultural dimension. It will be interesting for architects to begin to review and debate the findings and arguments of these disciplines. In her book *Domestic Architecture and Use of Space,* Susan Kent states "Architects need to seriously study those aspects of culture that are most likely to influence the use of space if they want to design compatible buildings". To me that is part of sustainable architecture. I have expanded a lot on my 'nostalgia' about housing, but in my opinion this is true for architecture as a whole.

The articles in this issue cover only a few among a pool of the issues on the subject. Each author will attempt to define sustainability in relation to their subject.

This issue does not seek to look at the physical architecture, that is the built structure, but more at issues of policy, culture and social architecture in relation to sustainable architecture.

Bonani Mkhize— Guest Editor

Born in Ingwavuma, grew up in Umlazi and educated at Inanda Seminary, Mrs Mkhize studied Architecture at the University of Cape Town where she graduated in 1996. After working in the offices of GAPP in Cape Town, Louis Karol in Johannesburg, and Ismail Cassimjee in Pietermaritzburg, she joined Protekon KZ-N before being appointed a Senior Architect with the eThekwini City Architects' Department. —Editor

Sources:
Broady, M (1968). *Planning for People.* London: Bedford Square Press.
Housing Indaba, Cape Town (2005) *Social Contract for Rapid Housing Delivery.*
Kent, S (Ed) (1990). *Domestic Architecture and Use of Space.* Cambridge: University Press.

Editorial — SUSTAINABILITY: PUBLIC SECTOR DEVELOPMENT

BECAUSE ARCHITECTS ARE ENTRUSTED with the investment of large amounts of capital in building developments, the profession carries a concomitant responsibility in ensuring that such investments address environmental, socio-cultural and economic issues within a sustainability framework.

This issue of *KZ-NIA Journal* introduces readers to sustainability as conceptualized in public sector architecture and within the eThekwini Municipality in particular, and a further issue is to cover efforts within the private sector.

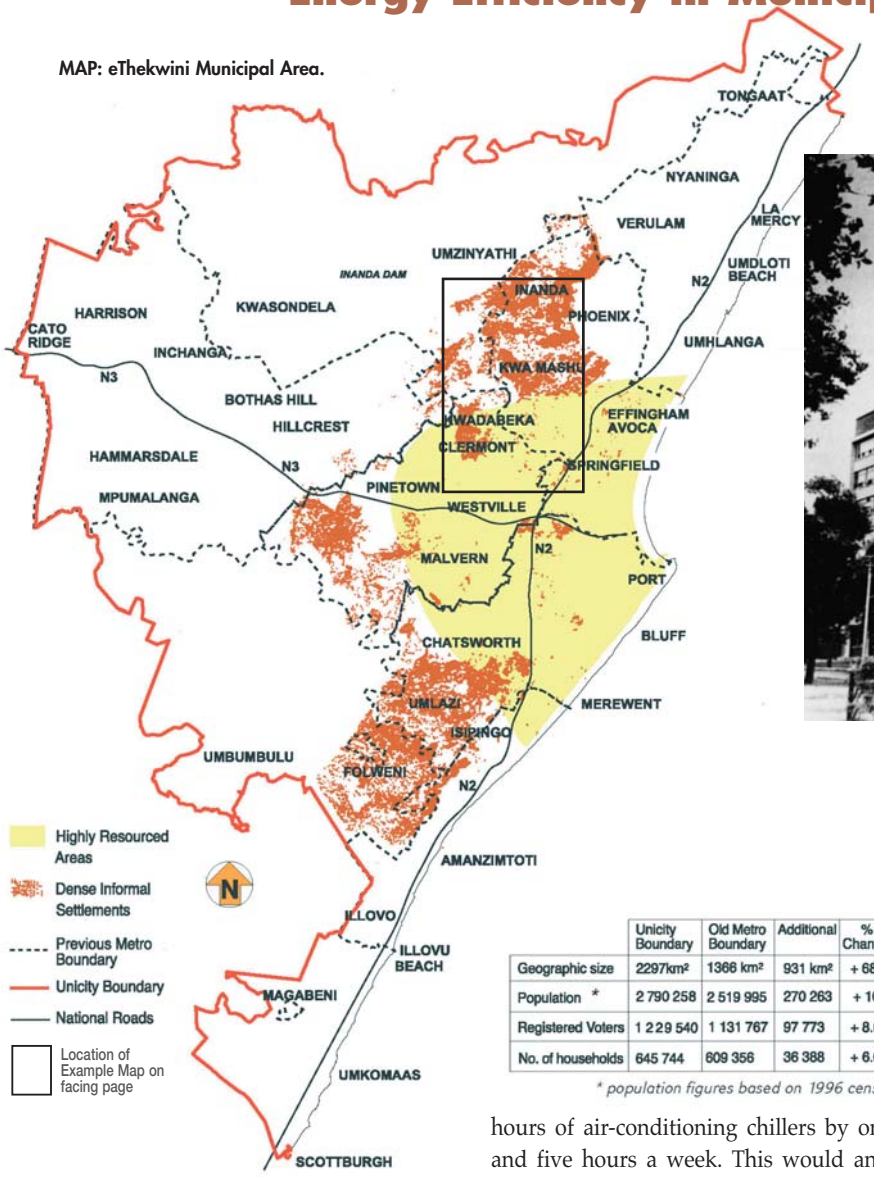
I am most grateful to Bonani Mkhize for advancing the theme and for the collaboration of her colleagues at the eThekwini City Architects' Department, and I trust that this issue will promote discussion, and bring greater understanding to the need of a sustainable approach to development.

Walter Peters— Editor

Sustainability: Public Sector Development

Energy Efficiency in Municipal Buildings

MAP: eThekwini Municipal Area.



City Engineer's Building, 166 Old Fort Road.
LA Lambert, Chief Architect, 1957.
Lynsky, R. (1982) *They Built a City,* City Enginers's Dept.

	Unicity Boundary	Old Metro Boundary	Additional	% Change
Geographic size	2297km²	1366 km²	931 km²	+ 68
Population *	2 790 258	2 519 995	270 263	+ 10
Registered Voters	1 229 540	1 131 767	97 773	+ 8.6
No. of households	645 744	609 356	36 388	+ 6.0

** population figures based on 1996 census*

Key findings:

- **the collective payback on all recommendations identified is five months;**
- **the total energy saving of 418 700 kWh per annum is equivalent to 17% of this building's energy usage;**
- **if the low-cost and no-cost opportunities are considered alone, the annual saving would be 283 700 kWh per annum, or 12% of this building's energy usage;**
- **payback for the low-cost and no-cost opportunities would be achieved collectively within two weeks; and**
- **the annual CO_2 savings based on a low-cost and no-cost measures alone would be 241 tonnes.**

The business plan of the eThekwini City Architects Department has a section on Sustainable Architecture as one of its focus areas, of which the key performance indicators (kpi) are: reduced energy use in the operation of Council buildings; reduced non-renewable resources in the construction of Council buildings; the use of recycled buildings for Council requirements; and the design of sustainable buildings. The Department is targeting that eThekwini Municipality be recognized as an originator and leader in Sustainable Architecture.

As part of the study into the kpi on reduced energy use in the operation of Council buildings, an energy audit and energy efficiency assessment was carried out of the City Engineer's building at 166 Old Fort Road in August 2005 by the eThekwini Energy Team (Environment Management and Architecture Department).

The energy-saving recommendations were of low-cost, non-cost, and medium-cost options. Low-cost and non-cost options proposed a minimization in the operational hours of air-conditioning chillers by one day and five hours a week. This would annually save Council R99 500. Should that successful, the second proposal is to raise the chilled water set-point by 2-degrees C during the six winter months. Currently it is maintained at 6-degrees C throughout the year. This would save Council R8 300 annually.

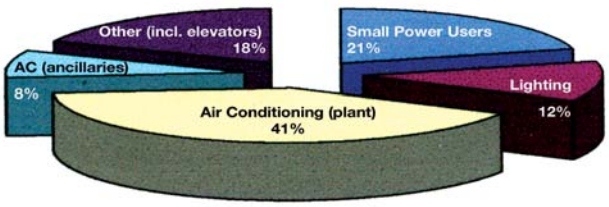
Medium-cost options are to install timers to limit the operations of the air-conditioning fan-coil units during after-hour periods. Although it would cost Council R1 500 per timer to install four timers on each of the seven floors, the savings would amount to R45 000 annually.

The non-cost proposal is the initiation of an awareness-raising campaign among staff. Observations made during the survey and subsequently, suggested that there are opportunities for energy efficiency improvement via good house-keeping measures. Such measures often amount to little more than ensuring lights are switched off during lunch break and after-hours. The savings to Council would be R30 400 annually.

Summary of Recommendations

Cost	No.	Saving kWh/yr	Saving R/yr	Cost, R	Payback, Years	CO_2 Saving tonnes/yr
Low	1	262,000	99,500	0	0	223
Low	2	21,700	8,300	5,000	0,6	18
Medium	3	118,000	45,000	42,000	0,9	105
Medium	4	80,000	30,400	30,000	1	71
Total	-	**418,700**	**183,200**	**77,000**	**0,4**	**417**

City Engineer's Typical Load Breakdown



Bonani Mkhize
eThekwini City Architects' Dept

Reference:
eThekwini Municipality (2006). *CCP2 – Buildings Energy Efficiency Roll-out Programme.*

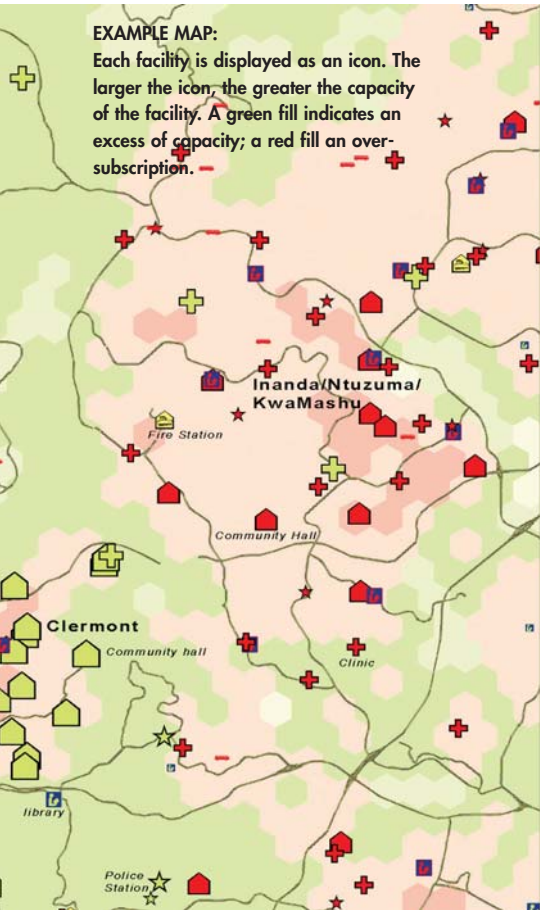
Sustainability: Public Sector Development

Quality Living Environments' Programme: Ensuring Sustainable Social Facilities

"The fight for sustainability will be won and lost in our cities. Cities house the dominant portion of our country's population and this is where unsustainable practices have the greatest effect through sheer magnitude. This is also where most of the country's resources are being spent." [1]

The role-out of social facilities has been high on eThekwini Municipality's agenda over the past ten years, particularly in areas of past historical neglect. The numbers of social facilities which now fall under the ownership of the local authority total some 520; and range from community halls, sports halls and libraries, to parks, playing fields and cemeteries. Scrutinized under the lense of sustainability, questions arise about the spatial distribution of these facilities, capital budgets required for the development, and resources for operations and maintenance, and for programme developments.

From 2000 on, each local authority in the country was required to develop an Integrated Development Plan (IDP), in compliance with the Municipal Systems Act 132 of 2000, which sets out goals and monitoring mechanisms for every municipal area. A long-term survey of eThekwini residents showed that although services and housing had been steadily delivered since 1994, the perception of quality of life had begun to decline.[2] Significantly, a shift of focus in the 2005/6 IDP placed the emphasis on Outcomes (e.g. quality living environments) rather than Outputs (number of new facilities).



This approach has been integrated into one of eight IDP plans to develop Quality Living Environments for residents of the eThekwini Municipality. The City Architects' Department, in conjunction with other departments, is responsible for a programme ensuring the delivery of sustainable community facilities.

The adequate provision of social services is integral with the building of quality living environments. A model has been developed which matches the demand for facilities based on population density, distribution and demographics, and the supply of these services based to spatial location, capacity of service, and the levels of accessibility based on public transport, travel time and distances. The location and capacity of each and every social facility in the metropolitan area is currently being mapped with the updated 2001 census figures. The results will expose backlogs and areas of over-supply, see example map.

Facilities are graded according to the degree of amenities provided, for example a hall graded 'A' has kitchen and catering facilities, over and above the requisite space for meetings. Some interesting patterns are already emerging, with many clusters of facilities appearing in the southern Pinetown areas, and a complete dearth of facilities to the northern areas of the metropole near Tongaat. But before labeling an over-subscription of facilities, one has to identify facility sizes to get an over-all idea of capacity within an area.

An assessment matrix has also been developed, essentially a questionnaire identifying a proposed project's IDP compliance, ascertaining whether social facilitation processes have been engaged, identifying the demands for the facility, and seeking information on the broader impact of the proposals etc. The intention is that only once a project proposal has successfully passed through an assessment matrix can the project be 'packaged' for delivery.

Given the premium on well-located land, the costs of development, and the strain on operational capacity and maintenance funding, the IDP calls for the diversification of the use of existing and new facilities, in order that integrated services could be provided from a single facility.[3] A policy is currently being developed to identify the spatial and managerial implications of multiple-use.

Key to the process is determining which types of facilities are best suited to multiple uses and what type of functions are compatible. The project also entails collaborations between various sectors of government i.e. Public Works Department, provincial Departments of Education, provincial and municipal Library Services, municipal departments of Parks, Recreation and Culture, and the development of protocols for usage. The project includes the development of a pilot study in the delivery of a multi-use hall to be developed for Waterloo. The hall is based on a prototype developed for the Chesterville Ext II precinct in Cato Manor *(see pp 4–5)*.

The project also draws on case studies in the Cato Manor area like the Wiggins Multi-Purpose Precinct and the Dorothy Nyembe Cato-Crest Multi-Purpose Development. In both these precincts, schools have been developed in close proximity to other social amenities like community halls, and in the Wiggins Precinct, a Library (see *KZ-NIAJ* 3/2000). The spatial implications and deliberations of multiple uses do present challenges, but are infinitely more navigable than the operational hurdles experienced in both these pilots. The policy is to be presented to Council by June of this year.

A related but separate policy on community participation in the management of facilities is also being developed. The devolution of responsibility from local government to a community level has advantages for both parties, but cannot neglect the cost of such services when rendered by the community.

The above programmes address both the beginning and the end of the project cycle, with an aim of delivering buildings which meet the required needs and can continue to do so through sustained upkeep.

Nina Saunders

Mrs Saunders works for the eThekwini City Architects' Department and together with her colleagues Ken Breetzke, Ken Froise and Nardus van Heerden, is project-managing aspects of the above Programme. –Editor

Footnotes:

1. Personal Communication: Ken Breetzke commenting on "Out of Africa: Local solutions for Global Challenges" conference, 2004.
2. 'Quality of Life' surveys have been undertaken annually since 1998. More recent surveys indicate an improved perception of the quality of life. For further information on the surveys, contact Brian O'Leary on OLearyB@durban.gov.za
3. eThekwini Municipality IDP 2004a:30.

Sustainability: Public Sector Development

Multi-Purpose Community Hall at Chesterville Extension II,

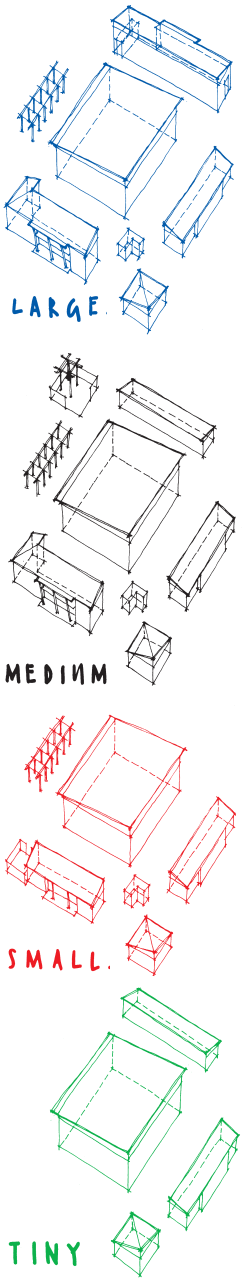
off Booth Rd, Cato Manor. *Lees & Short Associate Architects cc*, 2002

In August 1999, during the design stage of the above hall, the issue of standardization of hall designs emerged. It was the EU Technical Adviser to the developing agent, Cato Manor Development Association (see *KZ-NIAJ* 3/2000), who felt that there would be merit in pursuing this aspect, and possibly to use the Chesterville Hall as a pilot project, in an attempt to arrive at an appropriate and acceptable standard for future community halls in Cato Manor.

The standardization of community halls in Cato Manor was summarized as follows:

Advantages

1. Allowing for accurate budgeting and the preparation of feasibility studies related to the future provision of facilities
2. Saving time in project preparation
3. Provides for equity between communities
4. The facilitation of communication with community groups.
5. Reducing professional fees, although experience of standardizing school designs in Cato Manor shows that this saving would be minute.



The western edge of the hall opens out completely to the central space of the site, and a pergola provides shade over overflow terraced seating with a view into the hall. This is the only side of the hall that does not have a lean-to element attached, and any future extensions to this particular hall would be on this side.

Good Hope Centre opened 26 October 2002.
Far right—Library by Urban Architects (Pty) Ltd, 2000. (See *KZNIAJ* 2/2001).

Disadvantages

1. Assumes that there is only one way to solve a problem and imposes that solution in differing circumstances.
2. Limits specific responses to unique site conditions. It is worth noting that the undulating topography of Cato Manor presents particular challenges, and it is the author's opinion that the key to optimal use of resources in each project is to maximise the unique potentials of each site, and to look for the best-fit solution for each site.
3. The potential for community halls to provide special landmarks in a landscape generally made up of housing. This affects community identity and the legibility of the urban landscape.

An Appropriate Model for Cato Manor

It was recommended that a position somewhere between that of repeated standard community halls and a custom design be adopted. This would mitigate the potential disadvantages of standardization, without losing the potential to facilitate planning and budgeting, and communication with community groups.

The recommended schedule of accommodation should be adopted as the basic standard, with the phasing of additional elements, should individual budgets not allow for the full schedule. The hall space should be designed of repetitive structural bays, that additional bays can be added later, should extensions be necessary and budgets permit.

The hall should be conceived of as a 'kit of parts', where the hall itself is a large central volume with ancillary elements 'clipped on' around the perimeter. The elements should be standardized in concept, although not necessarily in their detailed design, and can be reasonable accurately budgeted for if the recommended minimum specification is assumed.

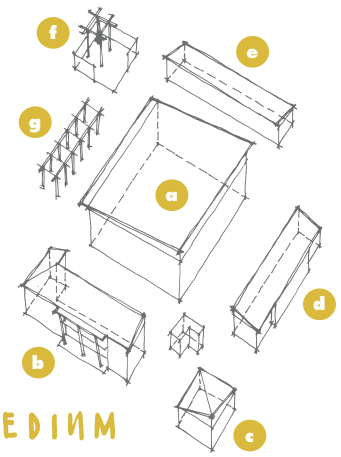
Design Rationale for the Hall at Chesterville Extension

The Multi-purpose Community Hall hall was conceived of as such a 'kit of parts', which emerged from a report entitled *Recommendations for Standards and Standardisation of Community Halls in Cato Manor* (1999) prepared by the architects, integral with their appointment.

a. The hall is conceived as a large central volume with ancillary elements 'clipped-on' around the perimeter.
The ancillary elements consist of groups of functions that would almost always be best arranged adjacent to each other, thus:

b. The entrance element comprising the foyer, ticket office, tuck shop, administrator's office, and caretaker's accommodation.

c. The ablution block for both males and females, which as a detached element can be accessible from the foyer or directly from outside.



Community hall designed as a 'kit of parts'.

of a relatively unskilled labour-force. Some feature elements of the building were designed specifically to be manufactured by specialist sub-contractors to a high standard, while the shell of the building could be more robust, and be constructed using labour-intensive methods.

While the public space should be freely accessible at all times, security of facilities was high on the agenda, and the centre was thus designed with this intent in mind. The buildings were located on the perimeter of the site, designed to be secure in themselves, and linked with fencing to secure the central space and the parking. The caretaker's accommodation in the hall has been situated for maximum surveillance of the entire site after hours.

Joanne Lees and Gary Short

d. The stage element comprising the stage, the associated side spaces which could also be used as venues for small meetings, and change rooms.

e. The utilities element comprising a chair store, equipment store, office or small meeting room, and the kitchen.

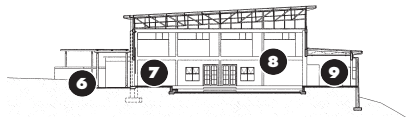
f. Outdoor cooking area.

g. One side of the hall needs to cater for overflow, when crowds exceed the hall capacity, and for a future extension of the hall itself.

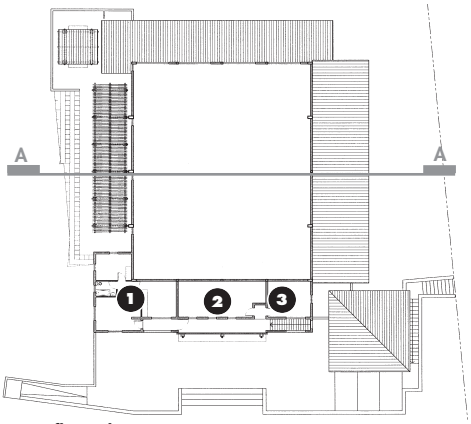
The construction process had to be as inclusive as possible of local contractors and labour. The building was thus conceived with the intention that the architecture should be of as high a standard as possible, notwithstanding the limited budget and delivery by way

Angela Buckland

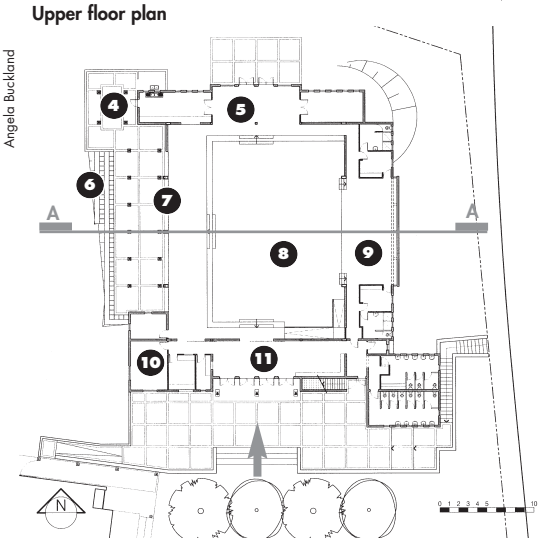
View from interior to entrance foyer.



Section A-A



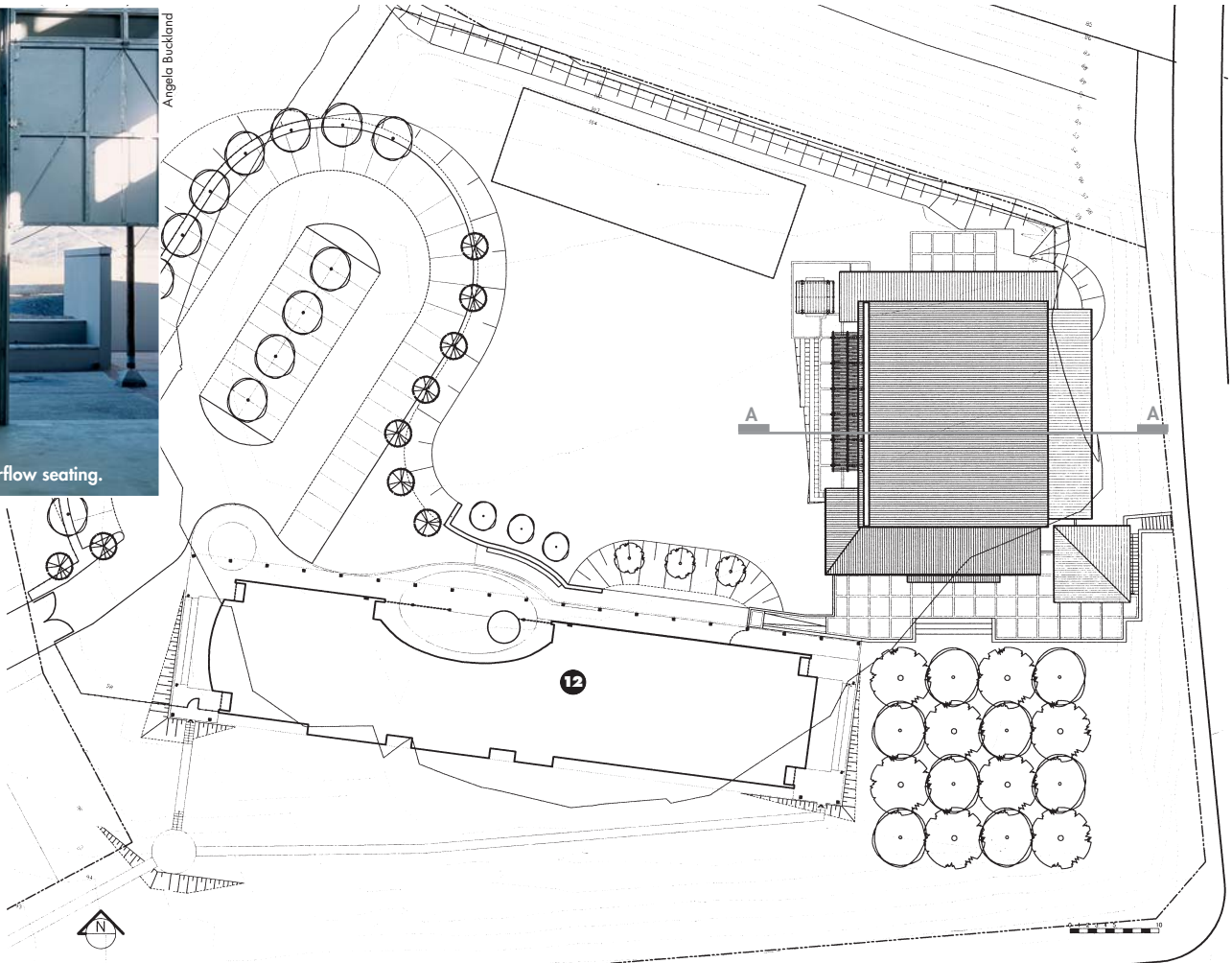
Upper floor plan



Ground floor plan

Angela Buckland

Slide-up doors for overflow seating.



1 Caretaker's flat
2 Meeting Room
3 Councillor's Office
4 Outdoor cooking
5 Kitchen
6 Outdoor stepped seating
7 Slide-up doors
8 Hall
9 Stage
10 Office
11 Entrance foyer
12 Library

Sustainability: Public Sector Development

Municipal Architecture in eThekwini — a sustainable response?

eThekwini Municipality maintains a professional architects' department, which has been in existence since 1942. The office is multi-disciplinary, including all the built environment professions (Architecture, Quantity Surveying, Mechanical and Electrical Engineering, Structural Engineering, Urban Design, Landscape Architecture, Construction Project Management) and building maintenance services. The department is headed by a registered architect, and has a professional staff of eighty-seven.

The department has experienced a number of metamorphoses over the past two decades, going from a very bureaucratic "corporation" to a semi-autonomous "business unit" in the 1990s, and is now moving towards a more corporatised and integrated "service provider", within a developmental and democratic local government. There have been ongoing challenges to the department's relevance as a "viable" operation, from a financial, corporate and political perspective, which have to a large extent been resolved through careful structuring and focusing of the department to reduce costs, increase relevance and "value add" to the organisation. It now employs some of the most respected architects in the city, and has achieved a positive reputation both within the local professions, and with the politicians and residents it serves.

The department is not bound by the whims of wealthy developers or entrepreneurs, but is guided by a strong code of ethics and professionalism, and through the influence of the "people" personified in their elected municipal leaders. All projects undertaken within the department are within the public realm, and all buildings for which services are provided are owned by the Municipality.

INITIATIVE	INTENT
Needs analysis:	Ensuring that facilities or buildings are only provided in cases of proven need; that they are appropriate for their purpose
Project Assessment:	Ensuring that all projects are in line with the Council's strategic plans (IDP), policies and business plans
Community consultation:	Working with people to determine the actual needs, priorities and desires
Local labour & small contractor development programmes:	Enabling direct participation and collaboration with the people in delivering the project
Urban Design Frameworks:	Rationalising the project response to broader plans for an integrated and equitable environment
Contextual Analysis:	Aligning design responses with social, political, ecological and cultural expectations
Feasibility assessments (social, ecological, financial/ economic):	Protecting against public expenditure on unsustainable developments
EIA (Environmental Impact Assessment):	Protecting public interests and rights to participate in resolutions on ecological, social and economic grounds
HIA (Historic Impact Assessment):	Protecting cultural and historical heritage and memory
Energy footprints (SBAT):	Maintaining sustainable energy consumption levels in development
Sustainable Architecture Policy:	Ensuring continuity and understanding of the components of a sustainable approach to architecture within the municipal context
Sustainable Community Facilities Policy:	Ensuring that distribution, multiple use and effective operation of facilities is prioritised
Sustainable Public Realm Policy:	Setting standards and maintenance plans for streetscape elements including urban design, architecture, street furniture and landscape
Pro-active Maintenance:	Reducing maintenance costs through effective management
Life-cycle costing:	Keeping a balance between capital expenditure, asset depreciation and maintenance or operating costs
Passive solar design:	Using local environmental and climatic attributes to contribute to sustainable solutions
Strategic Architectural Projects Forum:	Architects participating actively in economic development strategies to foster a sustainable economic environment
Skills development Plan:	Creating opportunities for new entrants to the profession, and for ongoing learning for professionals
Employment Equity Plan:	Ensuring sustainable human resources with appropriate skills and qualifications
Affirmative Procurement:	Assisting equality
Construction Protocols:	Leveraging maximum benefits to all levels from economic investments
Urban Greening:	Improved quality of local living environments
Housing typologies analysis:	Participation with people to address the need for densification and improved amenity
Appropriate designs and technologies:	Sustainable technological resolutions
Bare bones architecture:	Cost effective responses to suit limited resources

The department is responding to the needs for a more sustainable approach to architecture in the following ways:

As a profession, should we not be looking to re-balance the distribution of services we provide, so that the poor are able to participate in the creation of architecture, to the extent that the profession gains broader relevance and becomes more sustainable. This is a difficult shift for professionals within a market-driven economy. Leadership may be required from the public sector in order to move towards a more inclusive and sustainable profession.

Jonathan Edkins

Mr Edkins is Chief Architect, City Architects' Department, eThekwini Municipality –Editor

Sustainability: Public Sector Development

Additions to the International Convention Centre

Dennis Gilbert

Durban's award-winning International Convention Centre (ICC), built 1994–97, is currently being added to on the southern end to Commercial Road. This article sets out the context for the additions. It is hoped that on completion full coverage will be provided to complement that of issue 1/1999. *–Editor*

New Arena

Ensuring the sustainability of the Durban ICC

The definition of sustainability used in this context, is: "maintain or keep (something) going continuously". Having been a key player in the original ICC, the eThekwini Municipality's Architectural Department under the leadership of Jonathan Edkins, took on custodianship of the initiative to regenerate this facility to ensure its sustainability. Working with a range of stakeholders, specialists and professionals, the Department has facilitated the process of interrogation, brief formulation, and delivery of the new Arena extension.

The Durban ICC has been highly successful since its opening in 1997. It has been rated as one of the world's top ten 'Best Convention Centres'. With the subsequent development of similar facilities in Johannesburg and Cape Town has come the threat of loss of market share, and indeed this has affected the business of Durban's ICC. In order to ensure its sustainability as a successful conference venue, and keep Durban on the map as a convention destination, there is a need for the facility to reinvent itself, to stay ahead of the competition. The challenge using Yin-Yang analogy, is to preserve the core but stimulate progress. In other words, understand and keep the formula that makes Durban's ICC so successful, but at the same time anticipate and respond to new needs and future trends.

With this in mind, a process was embarked upon to interrogate what might be necessary to respond to the challenge. From a Value Management workshop evolved the idea of a 'Trade Campus', to reinforce a distinct precinct dedicated to the specialist activities synergistic with the convention industry. The concept was to extend the convention centre as a multi-purpose venue to accommodate additional conference, exhibition and banqueting space, but that the extension should be conceived as an arena. This would provide a venue for indoor sports and concerts, and incorporate the existing Exhibition Centre (opposite Walnut Road) in a way that could allow this facility also to be regenerated in the future; a tourist reception centre; new hotel accommodation; and an integration into the inner city network via 'corridors of excellence' and the proposed 'people mover' system.

Simultaneous with this process, economic research and analyses confirmed that the arena extension was a project of strategic importance to the city. Being a flagship project of the eThekwini Municipality, the ICC Durban (ICCD) Arena is required not only to expand the existing facility and accommodate a more diverse range of activities, but also to contribute towards the objectives of the Municipality's Integrated Development Plan (IDP) and Long Term Development Framework (LTDF). To this end, an analysis was carried out to establish the potential impact that this project could have on the economy, both locally and nationally. The analysis concluded that the following could be achieved with this project:

- between 12 953 and 15 324 new jobs in the construction phase;
- over 23 000 new sustainable jobs after ten years of operation;
- an estimated contribution to the South African GDP of R612m in the first year of operation; and
- a cumulative total contribution to the SA GDP of R21.6 billion by the tenth year of operation, with over R7 billion of this being newly generated foreign exchange.

Recommendations included the need for the project design and development to maximize the opportunities for securing indirect economic benefits for eThekwini, as well as the direct benefits associated with hosting major exhibitions, conventions, sporting events and concerts.

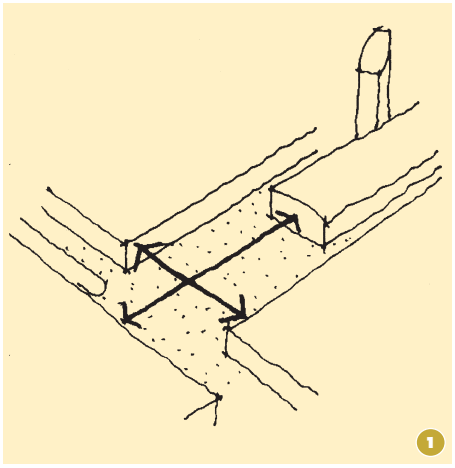
In December 2003, the eThekwini Municipality 'gave the go-ahead' for the implementation of the ICC Durban Arena at an estimated cost R395 million. The brief included providing a venue which would accommodate more conference space, exhibitions and indoor sporting and concert events, so as to enable ICC Durban (ICCD) to maintain its status as the best venue of its type in the country. In

order to ensure that the broader economic impacts are maximised, it was agreed that the project should maximize and pro-actively create opportunities for new catalytic business development (in particular for local and previously disadvantaged communities) during construction and through events; and develop a comprehensive strategy to ensure that the promise of induced tourism is realized. Part of this imperative would be achieved through a revised approach to the context of the ICC within the social and physical fabric of the City. The development team decided that it was essential that all members of the eThekwini community should feel ownership of the ICCD Arena, and be able to "touch" and interact with the building in as unrestricted a way as possible.

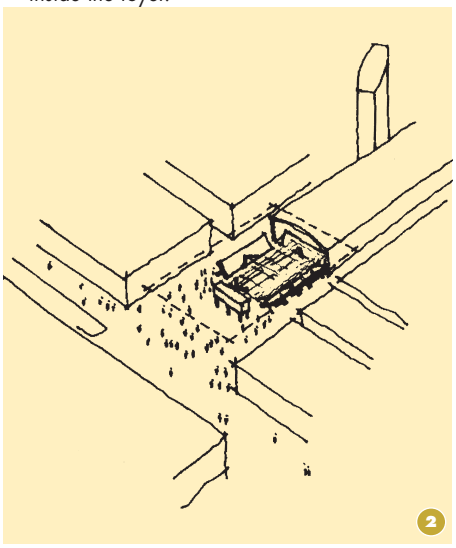
ICCD: THE STRATEGIC CONCEPT

In response to the challenges posed by the economic and business analyses, the strategic concept for the project was characterized by five main design responses:

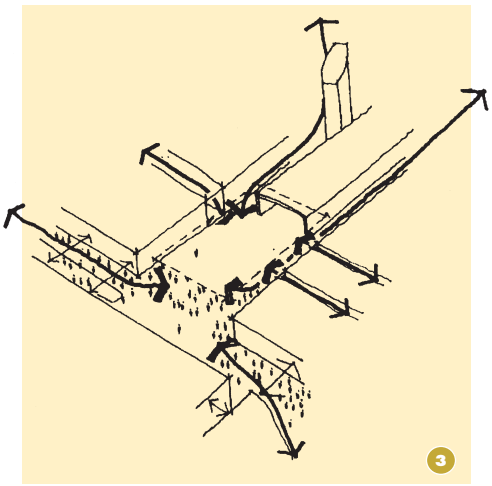
1. The project site boundaries were conceptually expanded to include the whole of the space to the south of the ICC. This gave rise to the concept of "Africa Square," an iconic gathering place for the public adjacent to the arena, drawing on the symbolism of meeting under a giant tree in the African landscape.



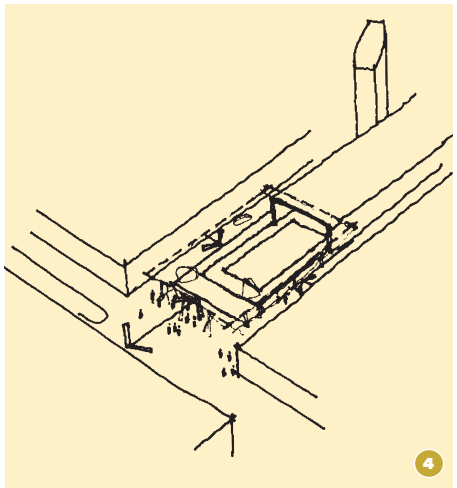
2. Showcasing the arena as a part of the public realm by reducing visual and physical obstacles between the public outside and the activities inside the foyer.

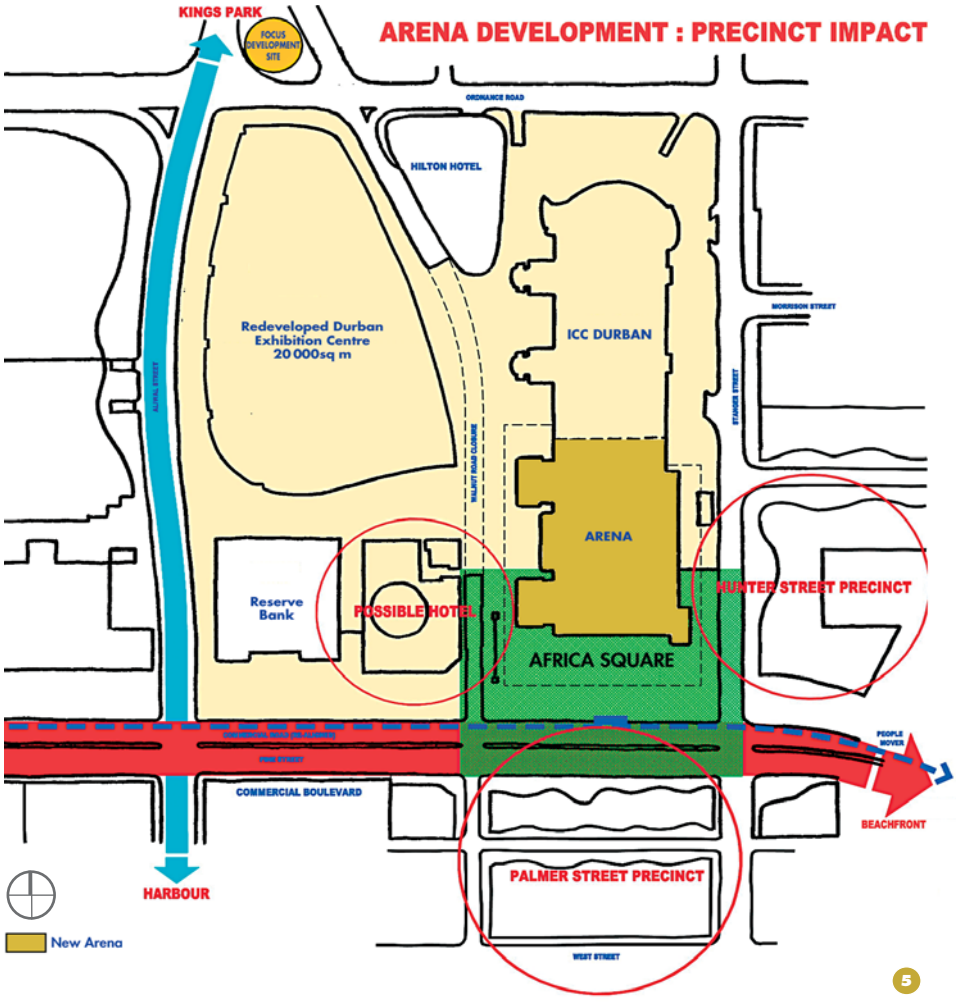


3. Integrating the ICCD through "Africa Square" into the City network so that it relates strongly and directly to other city experiences.



4. Creating and actively promoting small business opportunities on the boundaries of "Africa Square".





5. The scale and nature of the development, strongly reflecting local culture and responding positively to the environment, should contribute to the iconic nature of the building making it a memorable landmark-experience for visitors to Durban.

The proposed Africa Square on Commercial Road.

BELOW: ICC Durban southward Extensions. Photograph of 19 April 2006.

Implementation of the above will be phased to allow for the associated urban development to integrate with the inner city development framework.

New legislation

During the late stages of design and documentation, it was established that new acoustic legislation had been enacted, which calls for the building fabric to comply with new sound reduction criteria. The design also had to take cognizance of requirements in terms of the Safety at Sports and Recreational Events Bill soon to be promulgated.

Incorporation of these new standards sets the ICC Durban Arena apart from all other facilities of this nature in the country, as it will be the only entertainment venue of this size that will be fully compliant.

Procurement

The ICCD Arena Procurement Forum was established to facilitate the procurement process during the construction phase. This forum was mandated to analyse and apply appropriate BEE (Black Economic Empowerment) targets to maximize new business opportunities for previously disadvantaged communities, and to assist with the transfer of information for the purposes of tracking and reporting on actual economic benefit to the local and national economy as a consequence of the development.

Tenders for the principal building contract were procured in two stages to ensure that all potential tenderers were able to participate, and that those which qualified on technical grounds were properly informed on empowerment criteria and requirements before submitting their priced tenders.

The contract was awarded in December 2004 to the Masinya Consortium for the contract sum of R356 986 440. The Masinya Consortium comprises the Masinya Empowerment Group (MEG) with a shareholding of 51%, and Group 5 and WBHO each with a shareholding of 24.5%. MEG is a joint venture between companies owned and managed by people from Black Priority Population Group and Women and Disabled People groupings.

The new arena will be able to accommodate 6 000 spectators for sporting events and 10 000 spectators for concert events and 25 000m² of net exhibition space.

Sports to be accommodated: Basketball 5 800 seats; Boxing 6 800 seats; Ice hockey 3 850 seats; Equestrian 4 320 seats. Badminton, football, gymnastics, hockey, karate, tennis, volleyball, wrestling and weightlifting will also be accommodated.

In terms of the conference facility, the new extension will provide the following in addition to that provided by the existing ICC: theatre seating layout: 4 182 seats; banqueting layout: 2 400 seats; classroom style seating: 1 000 seats; basement parking for 1 200 cars.

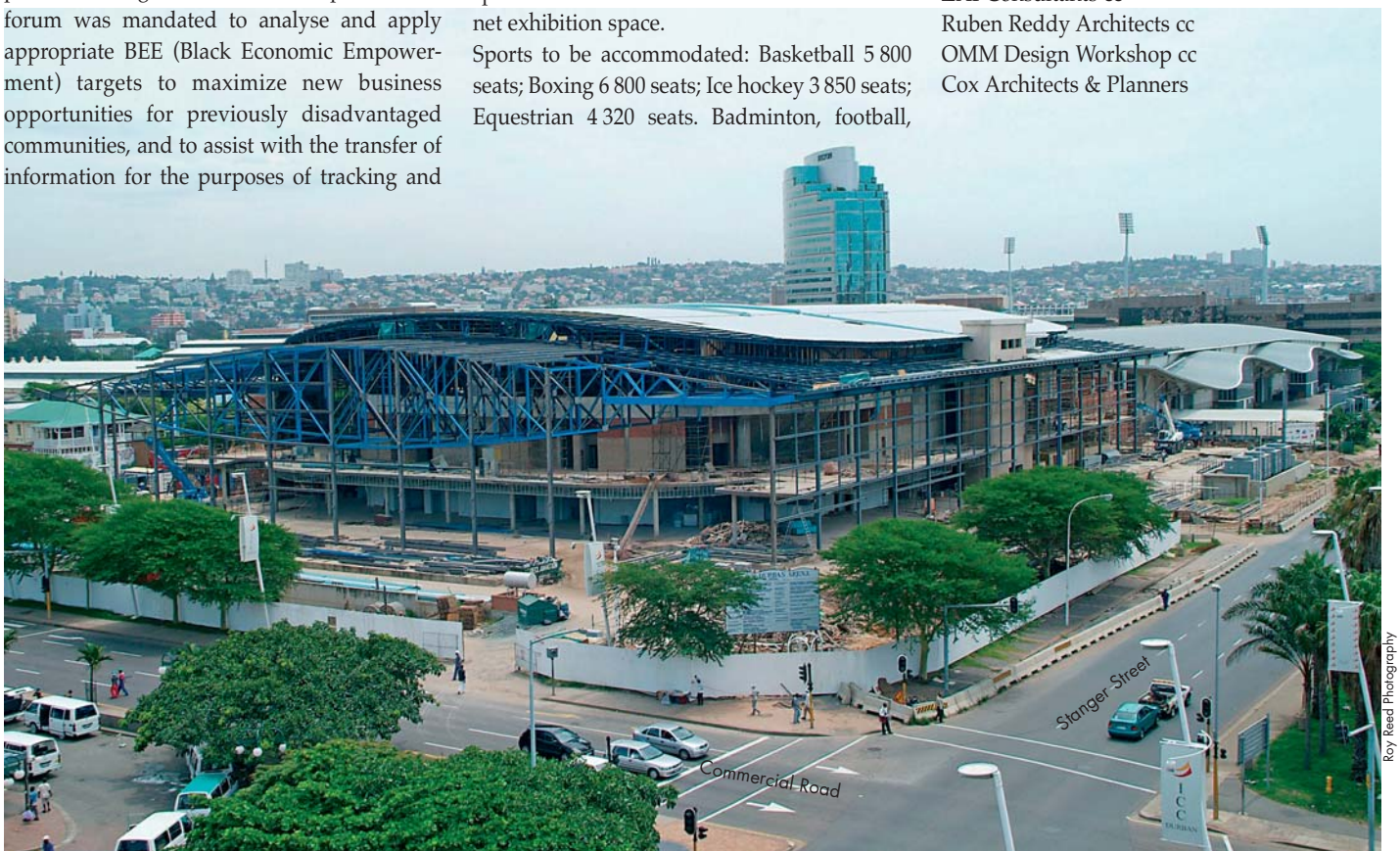
Operable walls enable the arena space to be subdivided to accommodate a range of different layout configurations. For concert type functions, the following configurations are possible: standing layout 10 000 places; end stage configuration 5 642 seats; central stage configuration 6 248 seats; and side stage configuration 5 328 seats

Ken Froise

Mr Froise is a Senior Architect in the employ of eThekwini Municipality and Development Manager for ICCD Arena. –Editor

ICC Durban Arena architects:

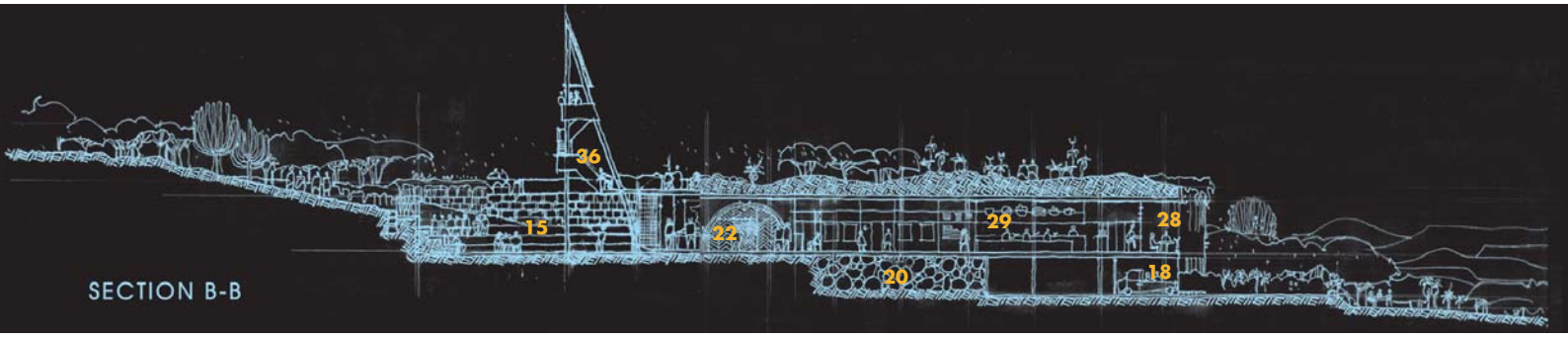
ZAI Consultants cc
Ruben Reddy Architects cc
OMM Design Workshop cc
Cox Architects & Planners



Roy Reed Photography

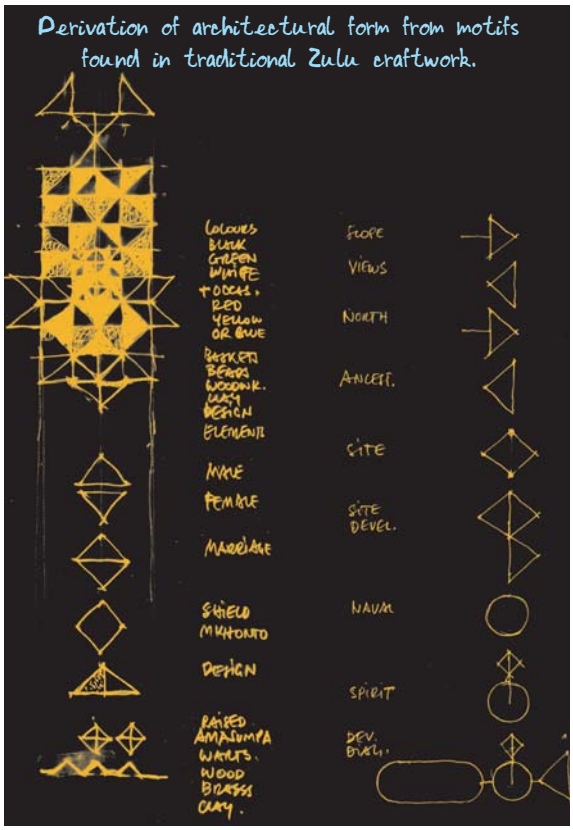
Sustainability: Public Sector Development

Interpretation Centre at eMakhosini-Ophathe Heritage Park



The submission by Vusilela Consortium, of which the architect-members are Paul Mikula, Jeremy Steere and Tony Wilson, has been announced winner of the design competition for the Multi-Media Interpretation Centre at the eMakhosini-Ophathe Heritage Park.

The competition was unusual in that it called for the procurement of the services of a multi-disciplinary consortium by way of a two-staged process. First, an evaluation of proposals in terms of prescribed selection criteria; and second, the commissioning of three short-listed consortia for the preparation of concept designs on a remunerative basis.



Context and Design Brief

The Office of the Premier, KwaZulu-Natal, appointed AMAFA (Heritage KwaZulu-Natal) to implement the R16m multi-media heritage interpretation centre at the eMakhosini-Opathe Heritage Park, located in the 'Valley of Kings' , some 120km inland from Empangeni between Babanango and Ulundi. This interpretation centre is to be the anchor facility and point of departure for visitors to a cluster of heritage sites within the greater Zululand Tourism region, an area of approximately 34 000ha, to be proclaimed a cultural and biodiversity (game reserve) conservancy, a combination possibly unique in Africa.

In particular, the project aimed at recreating the cultural and natural landscape of 19th century KwaZulu, and sustainability in all its facets was to feature large.

Sustainability

Environmental sustainability was to be pursued through the preservation of existing undisturbed ecosystems and the maintenance of a herd of Nguni cattle ranging with game animals. The design of the building was to embrace the principles of *energy efficiency* through passive solar control and a conservative approach to electrical and mechanical installations. *Social sustainability* was to be achieved by ensuring the involvement and flow of benefits to local communities, including opportunities for employment, acquiring equity in the facilities, and the creation of markets and marketing opportunities for the products of local enterprises. *Financial sustainability* was to be ensured through developing and using the Park's attributes to attract a range of visitors and tourists to generate sufficient revenue to maintain the park.

Winning submission

Significantly, the winning entry incorporates the protected uMgungundlovu stockade site which AMAFA has reconstructed, replete with Royal dwellings based on archaeological surveys, and which AMAFA will extend to allow the visitors to comprehend the scale of the historic complex. Subserviently, the interpretation centre was placed at the lowest point of the site, at the given road access across the river. In fact, topography allows for the two-storey centre to be terraced into the site and yet be earth-sheltered, to mitigate solar heat gain while melding the structure with the landscape.

Visitors arrive at the lowest level and ascent on one side of the triangulated plan. They can then either circumambulate an open-air amphitheatre on an acute angle of the triangle and access the site, or enter the triangulated plan of exhibition space and restaurant surrounding the auditorium, and opening to the views. The depth of the lower level is given over to a rock store to passively temper interior comfort, while the exposed end provides seminar, administrative and maintenance facilities. A look-out tower at the amphitheatre provides 360-degree views over the whole of the setting.

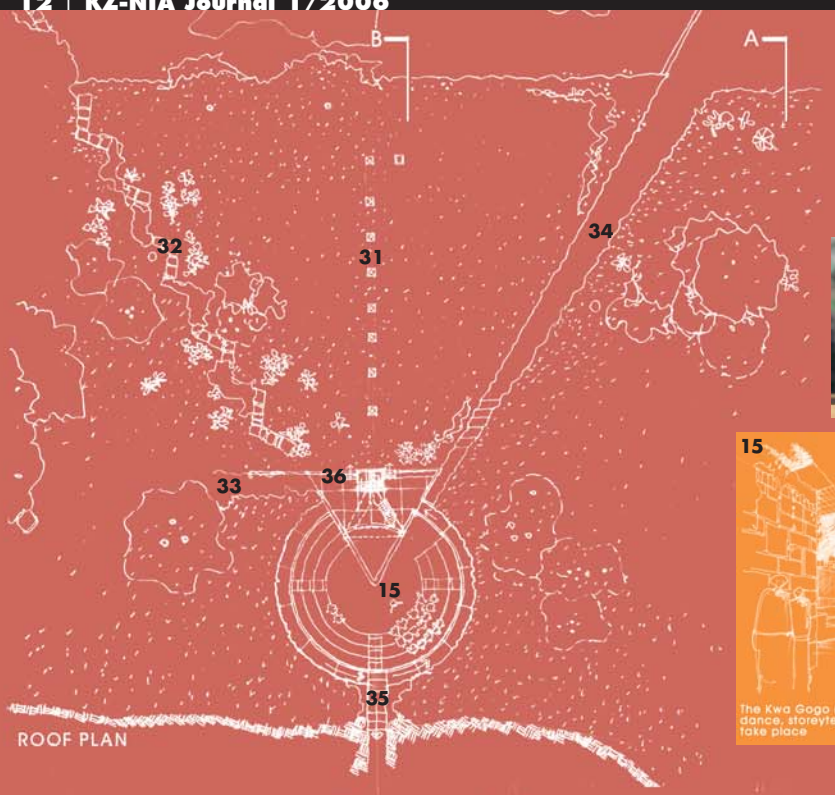
Interestingly, the brief called for a building which would "occupy a place among the icons of SA architecture". Yet, with sustainability also writ large in the brief, the winning submission can hardly qualify as a "building"!

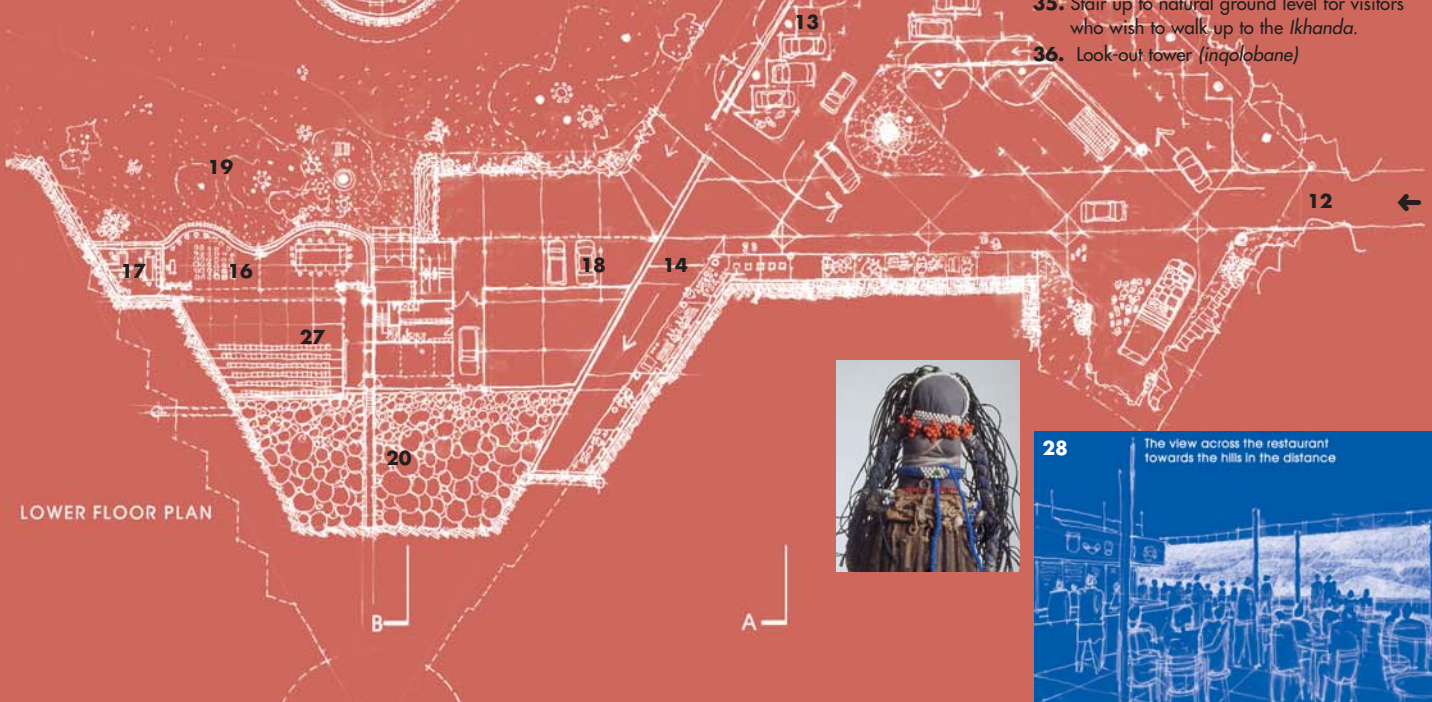
The recommendations committee comprised Lawrence Mtambo of the Premier's Office; Andrew Venter (chairman) of *Wildlands Conservation Trust*; Abe Wentzel of *Tourism KZN*; Roger Porter of Ezemvelo *KZN Wildlife*; Regina van Vuuren of *AMAFA*; and Mthulisi Msimang and Prof Walter Peters of *KZ-NIA*.

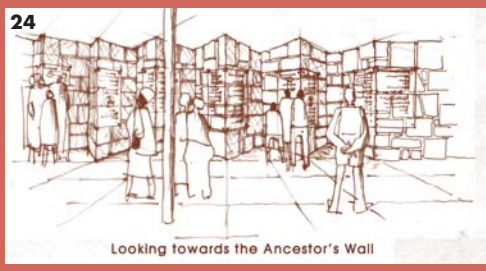
SITE PLAN OF UMGUNGUNDLOVU

Note - Contours at 5m Intervals

1. uMgungundlovu
   - pole fencing to be re-established
   - floors of dwellings to be identified
   - some units near South entrance to be reconstructed to allow visitors to more clearly comprehend the scale of the historic complex
2. Existing path
3. Grave of Nkosinkulu
4. Old stone entrance gate walls
5. KwaGogo – meeting place (amphitheatre) for music and story-telling with circular ramp up to look-out tower above symbolising the *inqolobane*
6. Visitor pick-up/drop-off for guided tours of uMgungundlovu
7. Existing vehicular track
8. Earth covered roof of new building, planted with indigenous trees, shrubs and grasses
9. Staff housing
10. Visitors parking
11. Existing bridge over Mkhumbane River







12. Access road
13. Visitor's car park
14. Ramped walkway up to Interpretive Centre entrance with recesses for crafters, etc.
15. Amphitheatre
16. Seminar/meeting rooms
17. Office (Director)
18. Staff parking
19. Landscaped picnic area
20. Rockstore for passive cooling system
21. Entrance foyer
22. Entrance to *Imbubu* – reminiscent of an entrance to the ancestor's hut
23. Informal small group seating for audio-visual presentation
24. Ancestor's Wall of dry-stacked stones collected from derelict *isibayas*
25. Archaeology display
26. Thick, curved wall, incorporating display cases containing examples of utensils, beadwork and other artifacts
27. Auditorium with raked seating for 200
28. Self-service restaurant opening up to panoramic views to distant hills
29. Restaurant kitchen – bulk stores at lower level
30. Tourist shop
31. Planted earth covered roof with extract vents – reminiscent of the *amasumpa* on a clay pot *(see example at top)*
32. Continuation of dry stone Ancestor's Wall above ground, as seat, surrounded with planting
33. Path to pick-up/drop-off point for the vehicle taking visitors to the top of the *Ikhanda*
34. 'Cut' in the earth above entrance ramp below
35. Stair up to natural ground level for visitors who wish to walk up to the *Ikhanda*.
36. Look-out tower *(inqolobane)*

Educating the Architect

Approaches to Teaching and Learning

This is a contribution from the conference 'Educating the Architect' held on Howard College campus, UKZN, 22–24 September 2005. It is the intention that further articles will follow. –*Editor*

'Play activity should not be underestimated. It is the human equivalent of infinity and the hope for tomorrow.' (Chazan 2002:20)

Summary

This paper aimed to contextualise our understanding of the education of architects by comparing the approaches used in the architecture design studio with the techniques used in the applied arts. The discussion was based around a case study in which a group of students from architecture (1st year, University of Plymouth, UK) 'swapped places' with 1st year National Diploma students at the Plymouth College of Art and Design in order to have an experience of a different studio teaching/learning model. The experiences of all participants (students, observer and tutors) were reflected on to critique and ultimately develop architecture education practice and find common ground and differences between the two disciplines.

The project was developed to respond to the following questions: What are the differences and similarities of approach? How might the differences and similarities impact on the way that students learned? What are the strengths and weaknesses of each? How might the applied arts model be used to inform the way we 'teach' architecture?

The study clearly focused on the student experience and as a result, data was collected through participant observation, triangulated by comparison with student feedback recorded through a workshop and a reflective questionnaire.

The findings suggest that the role of 'play' as a creative tool is an area that is currently under-utilised in the architecture design studio. The paper proposed that the introduction of play may be empowering for both tutors and students in a way that will enhance students' creativity and ultimately allow them to use play to critique and develop their (architectural) environments. The paper summarised the following ways that the applied arts model be used to inform the way we 'teach' architecture:

Introducing play in the studio. The reflections suggested a conscious role for play in the architecture studio. The natural place would be at the ideas stage of the project. There is an argument for a structured opportunity for play at this stage – a 'time-out' workshop for example, which is all about exploring ideas in a very quick timeframe, and which may (but does not have to) feed into an ongoing project. Intriguingly the project suggested that a structured start to play activities need not inhibit the playfulness of the event. The project suggested that a location for this workshop which is outside of the normal studio environment may benefit the workshop and be more likely to provide a playful environment.

Ensure a play atmosphere by removing marking. Research with children has shown that *'when children are paid with a toy or other reward for doing something they ordinarily do as play, the activity loses its appeal; the extrinsic reward seems to reduce the intrinsic value of the activity. In other words, extrinsic rewards can turn play into work'* (Chance 1979:13). The playful activity should be seen as something which may contribute to future work (and indeed is quite likely to as evidence with children, and supported by this study with adults, is that people *'function at a higher level of sophistication in their play than at other times'* (Chance 1979:22)) but which does not necessarily need to influence it at all. This is also linked to the need to suspend seriousness:

Suspend seriousness and consequences. *'In play a person is given a sort of diplomatic immunity from the serious activities of life'* (Chance 1979:16). Play gives us freedom to make mistakes, which is a fundamental change in attitude to most of the work, both at school, and in business that we experience. This ability to accept and learn from failure is an important characteristic in creative work, and one which is difficult for students to adopt. *'The freedom to fail, the permission to explore the impossible and the absurd, allow [students] the opportunity to explore the outer limits of [their] skill, thereby gradually extending those limits'* (Chance 1979:22). This allows the potential for creative ideas in architecture (and ultimately society) to change and move forward.

Pitch the playful activity at the right level. Playfulness is at its peek when the activity is of medium difficulty compared to the individual's skill (Chance 1979:15). However there is a suggestion that there is a play-competence spiral: *'learning leads to more sophisticated play, and play provides a kind of mastery that leads to more learning, which leads to more sophisticated play, and so forth'* (Chance 1979:24). The appropriate level will therefore develop with the stage that each student is at.

View play as a critical tool. Through play *'behaviour and ideas can be commented on. They can be criticized, evaluated, revised, or rejected. This is what makes poetry, social commentary, art, science and humour possible'* (Schwartzman in Chance 1979:37). This quotation is from literature about children's play, but seems all the more relevant and fundamental when revisited from the perspective of adult learning and creativity. As HE level educators, we are all conscious of the need to inspire critical thinkers, but the idea that play might facilitate and communicate that critical thinking is often overlooked.

Facilitate play through being involved as an active participant. Most significantly, it is suggested that the most important way that adults can intervene in children's play (in order to further develop the level of play) is to actually participate in play. They need to take part rather than just talk about it. This perspective provides an interesting new role for the architectural educator, which may ultimately empower students and release educators. This role allows tutors to participate alongside students in play, whilst also subtly developing that play to perhaps explore ideas and issues that might be pertinent to the wider project, or the emerging play. In a time of 'student-centred learning' it is an empowering model that provides a challenging, but also supremely creative role for the educator.

Rachel Sara

Dr Sara is a Senior Lecturer at the School of Architecture, University of Plymouth, UK. –*Editor*

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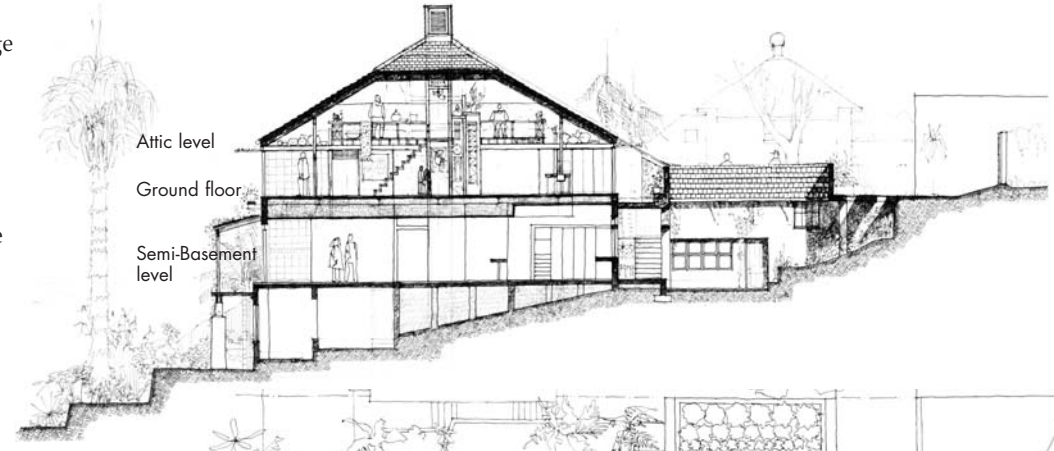
A Letter from India

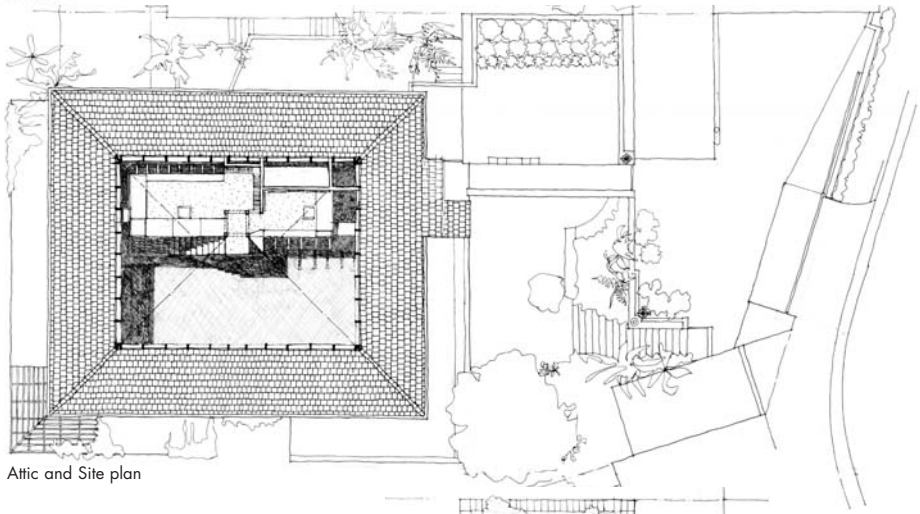
South Africa: My Personal Journey through a Distant Land

My rather scanty knowledge about South Africa was limited to cricket, Indians in Durban, the indigenous people and their architecture and the fact that one does not come back without visiting the game reserves. I had seen some works of modern architects including that of Paul Mikula, who had generously offered to host and take care of me for a few weeks. He had handed me over to the academic community of the country. I visited five schools of architecture for three days each, to get involved in the ongoing architectural juries and to give a couple of lectures from the five topics that I had sent in advance. I had positive expectations of learning something new and seeing yet another continent. At the end of the trip I came back much enriched mentally. The little known South Africa was a new reality and at that, the biases one always sees this country with, were put in a better perspective (I have not and I do not judge a place from my limited experiences of a short visit, I simply try to learn a place). At the very onset I must confess, I have not seen the architecture of the indigenous people, which otherwise I would make a beeline for due to my academic interest in vernacular architecture. Soon you will know why.

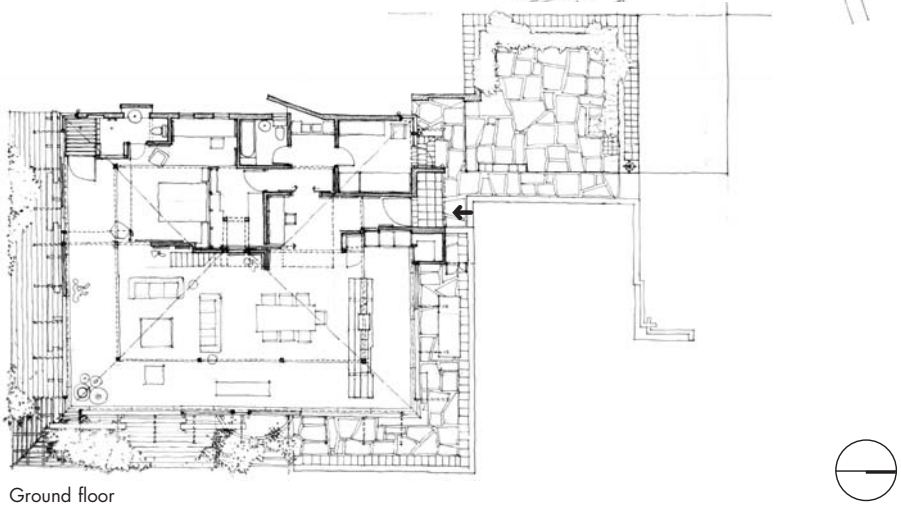
Paul's single-person abode is located on one of the finest locations in Durban from where one has a panoramic view of the docks almost without seeing any other part of the city. It is an open-space house over which a large four-sided roof looms and the bedrooms occupy half the square of the main floor with the mezzanine. While seating in the open space of kitchen/living and the dining area, it felt as if one was experiencing a space that was like a cross section as we construct them in architectural drawings. Even the main structural beams are seen as though sawed off!! At least for four days I lounged around while listening to good music and minimal talking with Paul on the topics of our mutual interest, while going to his office and visiting his invaluable beadwork collection in the Phansi Museum.

The evening get together at Paul's place was a wonderful opportunity to meet a lot of like-minded architects and intimately share with them what Indian Architecture and people were. This was very different from other lectures. It was full of warm discussion over wine and dinner. Architects Thorsten Deckler and Anna Graupner had arranged a similar

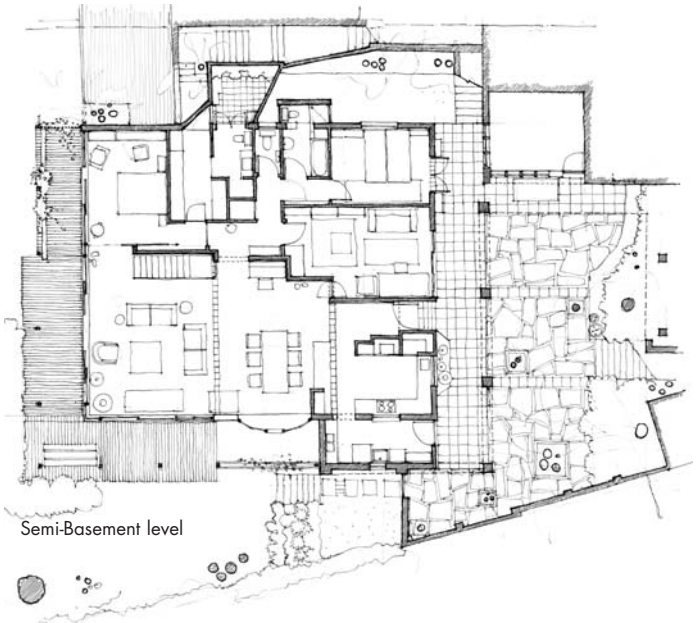




Attic and Site plan



Ground floor



Semi-Basement level

House Mikula, 45 Loudon Rd, Upper Glenwood, Durban.

Following an earlier gutting of many walls of the 1940s villa to capture the panoramic views over Durban from the elevated position, the horizontal planar ceiling was removed in 2003 to expose the roof structure and incorporate the attic spaces.

gathering in the warehouse district in Johannesburg. It was in these two meetings that I came close to understanding the vitality that the architectural community had.

When in India in 2001, Paul had shown me the works of South African architects, however, I was now seeing them in the actual context of the place while interacting with a lot of his friends like Yusuf Patel, Peter Rich, Pattabi Ganapathi Raman and others. The high point of the trip was a five-day drive that my host gave me from Durban to Johannesburg while visiting friends and projects such as the Basket Museum in Eshowe and the Hluhluwe game park. I suddenly became aware of the stark realty of the place in the mind-boggling landscapes of the country and the imprints that the indigenous people had made on it. At times I was a bit sad upon seeing the efforts at giving the modern life to the sons of the soil after the change of rule from the white hands. The characterless, forced looking, alien and sprawling settlements of the sons of the soil as prescribed by 'their own' democratic government made me ponder upon the entire idea of the indigenous ways of life and the culture therein. This, to me, was no different from miss-spelled notion of 'development' that I have seen in parts of India and Asia. As a believer in the value of the vernacular architecture and the irreplaceable quality of life people lead within it, my notions were challenged. The new settlements had no sense of bearing, pride and belonging nor place, continuity and connectedness.

I was in a time warp. The feeling was especially nagging because this is where the origins of mankind are supposed to be nestled. Are not the gone-by times worth preserving? If the imprints of time cannot be preserved in Africa and Asia where else can they be? What is the worth of preserving the imprints of human existence? How to be in the modern times while respecting the spiritual development embedded in the past and such became my prime questions in the context of India and Africa. I am sure all of us carry the weight of these questions while enjoying the fruits of human endeavours thus far. In this sense there is nothing philosophical about them. They are the concerns of our time. Can the professional outlook be formed around them?

Aspects of AIDS that I learnt about were important and crucial. Suddenly I realised how enormous the problem would be in India after seeing and meeting people in South Africa. The awareness, problems in mitigation and the hurdles in propagating the ideas were much visible here compared to India. I realised that the socio-cultural aspect of the Indian populace seems to have brought about a blind screen over a problem of grave dimensions. The other aspect that made me extremely conscious was that of free movement without a sense of any fear. In most of the urban environments and especially in the residential areas there was this bubble of fear in which people lived. Insecurity was evident all around in the built environment way up to the universities. For a person who comes from such an easy to move atmosphere like that of India, this bubble was too much to handle while conducting daily routine life. I have a feeling that there are ways out of this situation and efforts of all kinds can be in place in neutralising it.

My presentations to the five schools I visited were dealing with the vernacular architecture, an important South Indian temple in wood, a solarium that rotated 360 degrees on its central axis, works of selected modern architects and the work examples of my Basic Design courses. I hope that these were of some use to the students and the architects that saw them.

Of the schools that I visited, Cape Town was a cut above all. First of all the very location as my finale to the African sub-continent was a great gesture in time and space. What better way than a University to end the land with! I am crucially aware of the fact that these were the decisions of the colonizer, however, some things always make sense. I wish I had more time at the Cape Town school. In fact some more time would be required if one were to do anything meaningful. Even the lectures and their understanding need to be gauged through some discussions and perhaps followed up in a seminar or a design problem of sorts.

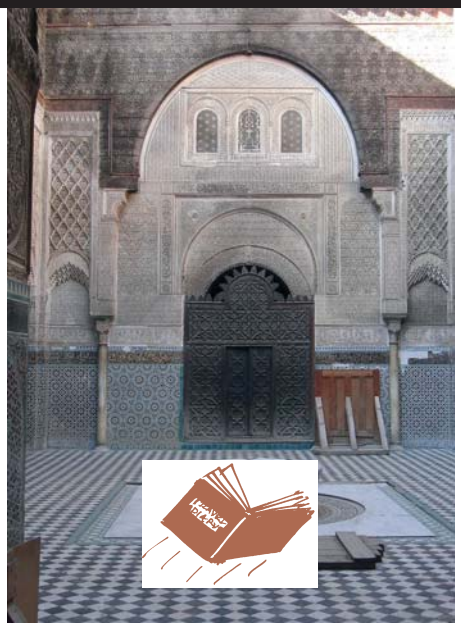
My feelings were strongly evoked through out the trip. It was not just the seductive nature of Mother Nature that griped my being but the desire it prompted in me to make a distinction between the natural and the man-made. Paul's house made in wood, Peter Rich's 'The Bridge' constructed in steel and painted red in an indigenous people's locality, the project near Phoenix (Gandhi's Ashram) by Rodney Harber, the housing efforts made between 1920s and up to the present shown by Fabio Todeschini and the constructed landscape (of mind?) in stone were some of the projects I have carried in my memory.

All of these are constructive efforts at bridging the time and space that South Africa is and probably can be. From what I saw in terms of architecture and the general socio-cultural climate, there was much in common between India and South Africa in a strange manner. The depth of culture, a preserved one in the case of South Africa and in the case of India, one that has evolved in many layers, have learning experience that one will not find in the Western world.

Miki Desai

Miki Desai is a Professor at the School of Architecture, CEPT, Ahmedabad. He visited South Africa during May 2005. –Editor

Nelson Mandela Interpretation Centre, Mandela's Yard, Alexandra. View of the Bridge approaching from the south along Seventh Street.
Peter Rich Architect.



A Travel Diary

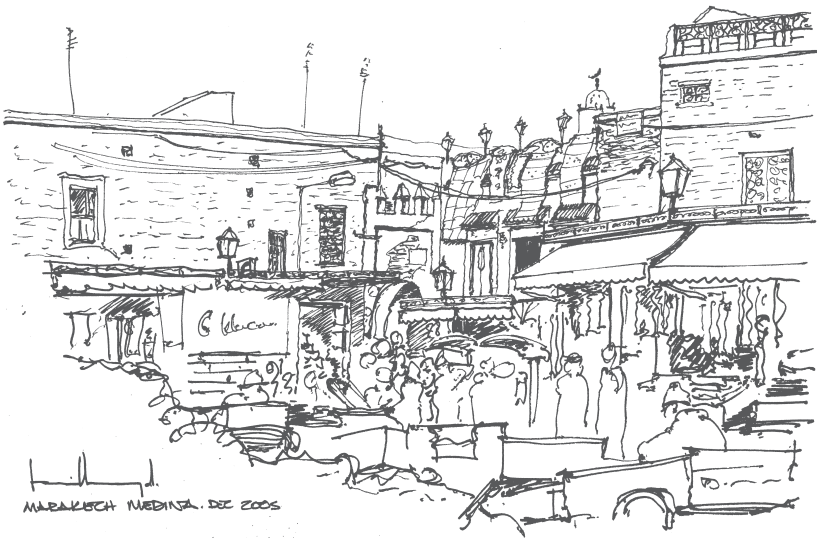
Morocco

Why Morocco?

It's a country of diverse climate and natural terrain, a country with a mixture of cultures, a country famous for its food and craftwork, and a treasure-trove of architectural solutions. My wife, Hanlie, and I chose to experience the northern hemisphere winter and spent a few weeks during December–January 2006 traveling around Morocco on a variety of modes of transport with neither pre-booked accommodation nor itinerary.

The route taken was:

Acclimatize in Casablanca (two days); train to Marrakech to explore the markets (*suq*) (two days), local bus to Essaouira to enjoy the cultural seaside city over Christmas (three days); local bus via transfers through Agadir and up the fertile Oued Sous valley south of the Grand Atlas mountains with days spent in the mud walled towns of Taroudant and Taliouine (three days). Taxi via the African film set capital of Ouarzazate to the oasis town of Zagora. This string of oases from the Grand Atlas mountains in the north to the Sahara desert in the south, (three days). Then a chauffeur-driven 4x4 ride to the desert, to spend New Year's eve in a bedouin tent in the Sahara dunes, and across the stony desert plains via Tazikhant and Ouarzazate (two days). Then, a combined (collective) taxi up the Valley du Dades to Skoura and the beginning of the valley of a thousand *kasbahs* (two days), then by combined taxi on to Boulmaine Dades with the entire town in brown adobe buildings alongside the river and the irrigated fields with the snow capped Grand Atlas mountains to the north behind the town (two days) into the Gorges du Dades with a taxi and on to El Rachidia with a combined taxi (one day), then through the snow covered Middle Atlas mountains to Midelt, a town still with a strong feeling and appearance of a French provincial town with stork nests atop many of the chimneys (one day). Local bus on to Fez via the president's favorite holiday town of Ifrane and through the famous cedar forests with troops of barbery apes (two days). Spent two days touring the Fez *medina* (old walled centre of town) with a guide as recommended to prevent one from loosing one's self in the world's largest *medina* and then a luxury bus to Chefchaouên high in the Rif mountains.



This Andalusian looking town with white and blue stone walls is infamous for the growing and selling of hashish (three days). We eventually got a taxi to Fez and first class train tickets on to Marrakech via Meknes, Rabat, and Casablanca (one day).

We were now tired of the hustle and bustle of catching local taxis and buses and decided to hire a small car to explore the Grand Atlas mountains beyond Marrakech. The stone-wall, terraced fields in the Valley De L' Ourika, the ski resort of Oukaimeden alongside the highest mountain, Ben Toubkal, the Imlil valley with its snow-clad nut orchards and black rock faces of the sheer valley sides and lastly the terrifying three-metre-wide hairpin road up the Tiz-n-Test pass, were all explored during the next five days.

After all this traveling, and accommodation sometimes rather basic, we spoilt ourselves in the only pre-arranged accommodation. This was one night at the only aman hotel on the African continent, the Amangena, just outside of Marrakech in an old walled olive orchard and set on the side of a new golf course estate. This six star boutique hotel with only 38 rooms and built as in a contemporary interpretation of the Moroccan palace was one of the highlights of our tour with service and a setting fit for royalty, but at a king's price I may add.

We had hoped to spend two days dedicated to more skiing in the mountains but unfortunately due to the excellent snow all accommodation was full, instead we headed back to the coast between Essaouira and Agadir to the surfers paradise to watch the waves breaking in the relatively isolated bays along the dry Atlantic coastline (two days). We returned our car to Marrakech to do some more shopping and to catch the train back to Casablanca and to fly back home via Paris

The highlights of Morocco were:

The myriad of stall-lined streets in the ancient medinas, the courtyard *riads* (houses) in the same central town areas, the metal trelliswork to the windows, the copper and pewter hand-hammered basins, the lantern lamps, the adobe walls in the oases, the *kasbahs*, the stone walls dividing up the fields on the coastal plain, the art nouveau architecture of districts in Casablanca, the dry red snow covered enormous Atlas mountains with the terraced fields and cliff hanging hamlets,

the friendly people, the ardent trading, cramming six people into a combined Mercedes taxi, trying to find out in our limited French where and when the bus left for our intended destination, the tagines and *couscous*, the local wines, the freshly squeezed orange juice at the sidewalk cafes, the men-only bars which are so filled with smoke you can hardly enter, cafes with locals all glued to the one TV screen watching a local soapie or football, the haunting desert inspired music, and lastly the entire country.

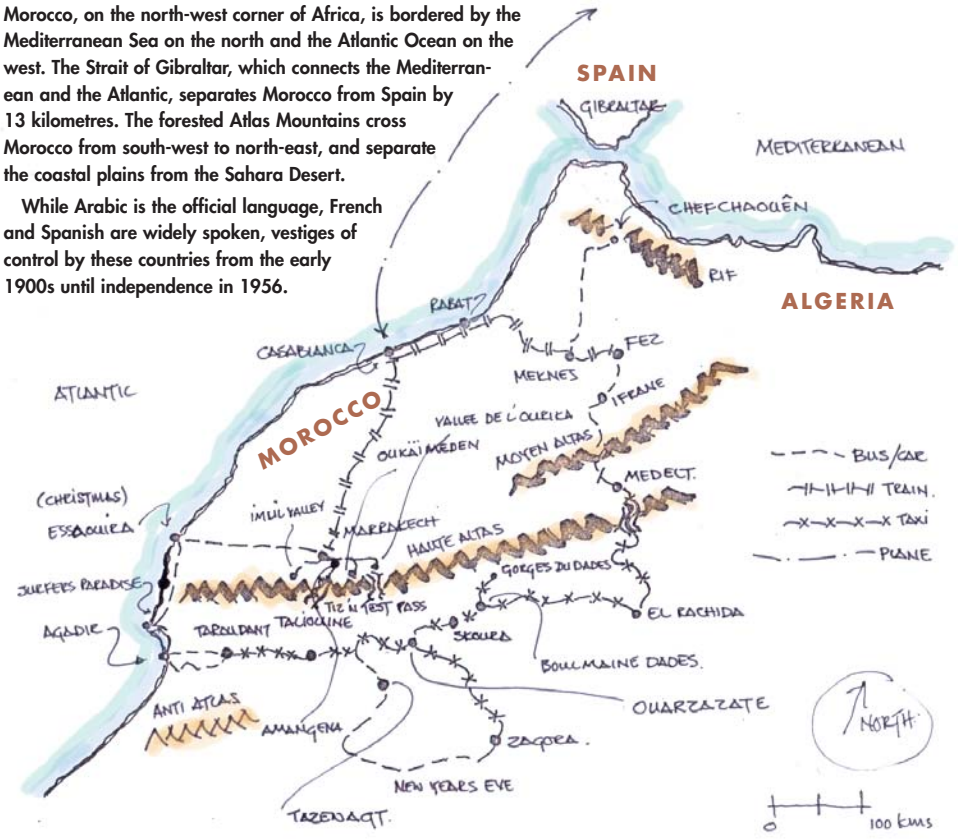
Finally, it is a country, which will satisfy travelers with all sorts of interests, budgets, time frames and desires, and lastly it is a safe, friendly country definitely worth a visit.

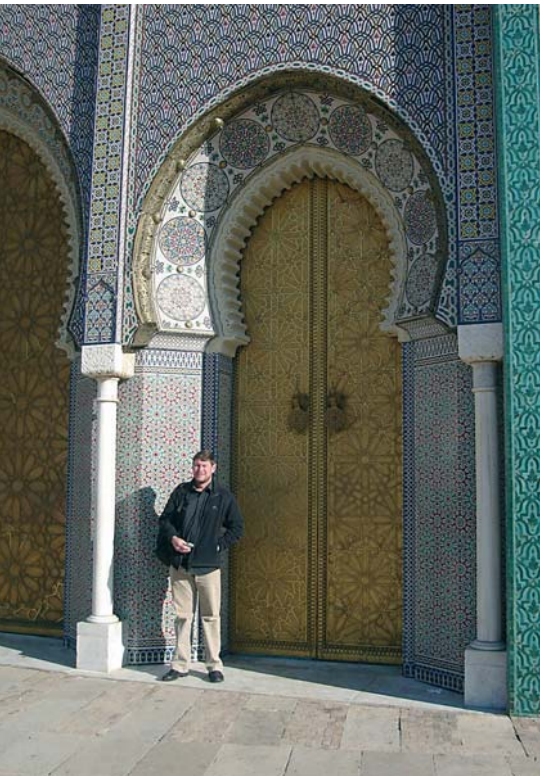
Kevin Lloyd

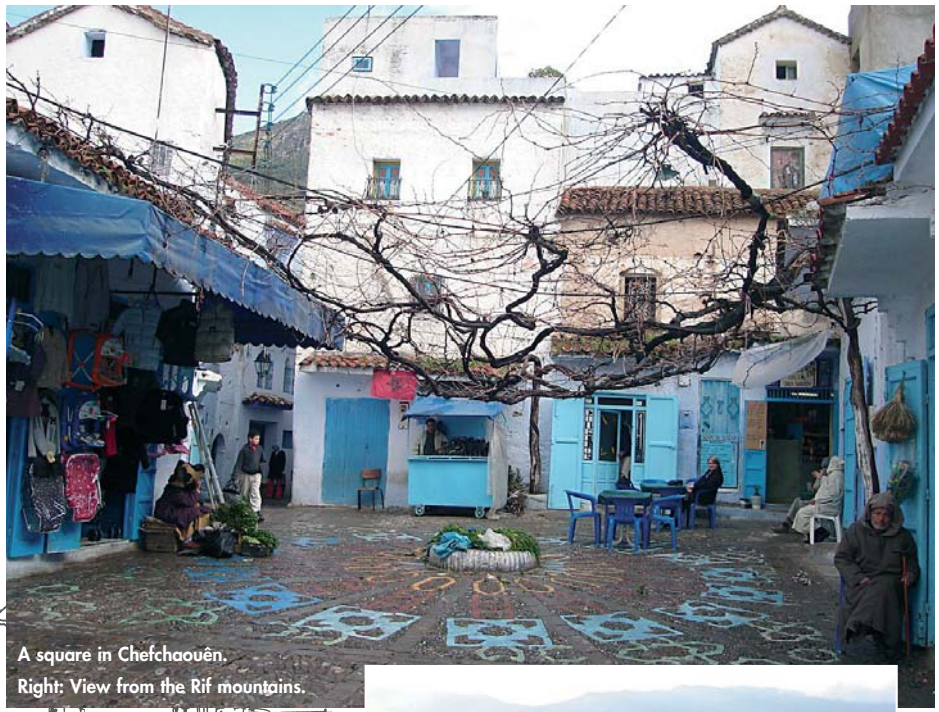
Mr Lloyd practices as Kevin Lloyd Architects in Kloof.
—Editor

Morocco, on the north-west corner of Africa, is bordered by the Mediterranean Sea on the north and the Atlantic Ocean on the west. The Strait of Gibraltar, which connects the Mediterranean and the Atlantic, separates Morocco from Spain by 13 kilometres. The forested Atlas Mountains cross Morocco from south-west to north-east, and separate the coastal plains from the Sahara Desert.

While Arabic is the official language, French and Spanish are widely spoken, vestiges of control by these countries from the early 1900s until independence in 1956.







A square in Chefchaouên.
Right: View from the Rif mountains.