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**Durban's Point**

News...

**UIA ArchAfrica 2008**

The ArchAfrica 2008 conference with the theme "Sustainable Africa" was held at Durban's Albert Luthuli International Convention Centre, 13-19th February.



Hassan Asmal, SAIA-President; Corobrik Speaker Prof Kazuo Iwamura of Japan who gave the keynote address "Backcasting Strategy towards the Sustainable Design of the Built environment"; Ms Thoko Didiza—The Hon Minister of Public Works—who opened the conference; Peter du Trevou, Corobrik MD; and Ivor Daniel KZNIA-President.

**Corobrik SAIA Awards of Merit**

At a banquet held at the Albert Luthuli ICC on Saturday, 16th March, Corobrik SAIA Awards of Merit were made to the architects of three KZNIA submissions: EPA Studio, Dockpoint and Proud Heritage (see page 15).



From left: Peter du Trevou, Corobrik MD; Hassan Asmal SAIA-President; and Jonathan Hall, Nich Proome and George Elphick, recipients of a Corobrik SAIA Award of Merit for their new office building, EPA Studio at Westway. With this photograph, the Editor wishes to correct the misidentification of persons in the photograph contained in issue 3/07.

**Corobrik Student of 2007**

Marinda Smalberger of the University of Pretoria was declared winner of this coveted title which carries a prize of R35 000. Her design dissertation was entitled *Portal to Pretoria: Establishing a northern Gateway for the City*.



Prof Ora Joubert, Head of the Department of Architecture, University of Pretoria; Peter du Trevou, Corobrik MD; Corobrik Student of 2007 Marinda Smalberger; and Prof Roger Fisher, University of Pretoria. Photographs on this page: Roy Reed Photography

**DURBAN'S POINT IN HISTORY**

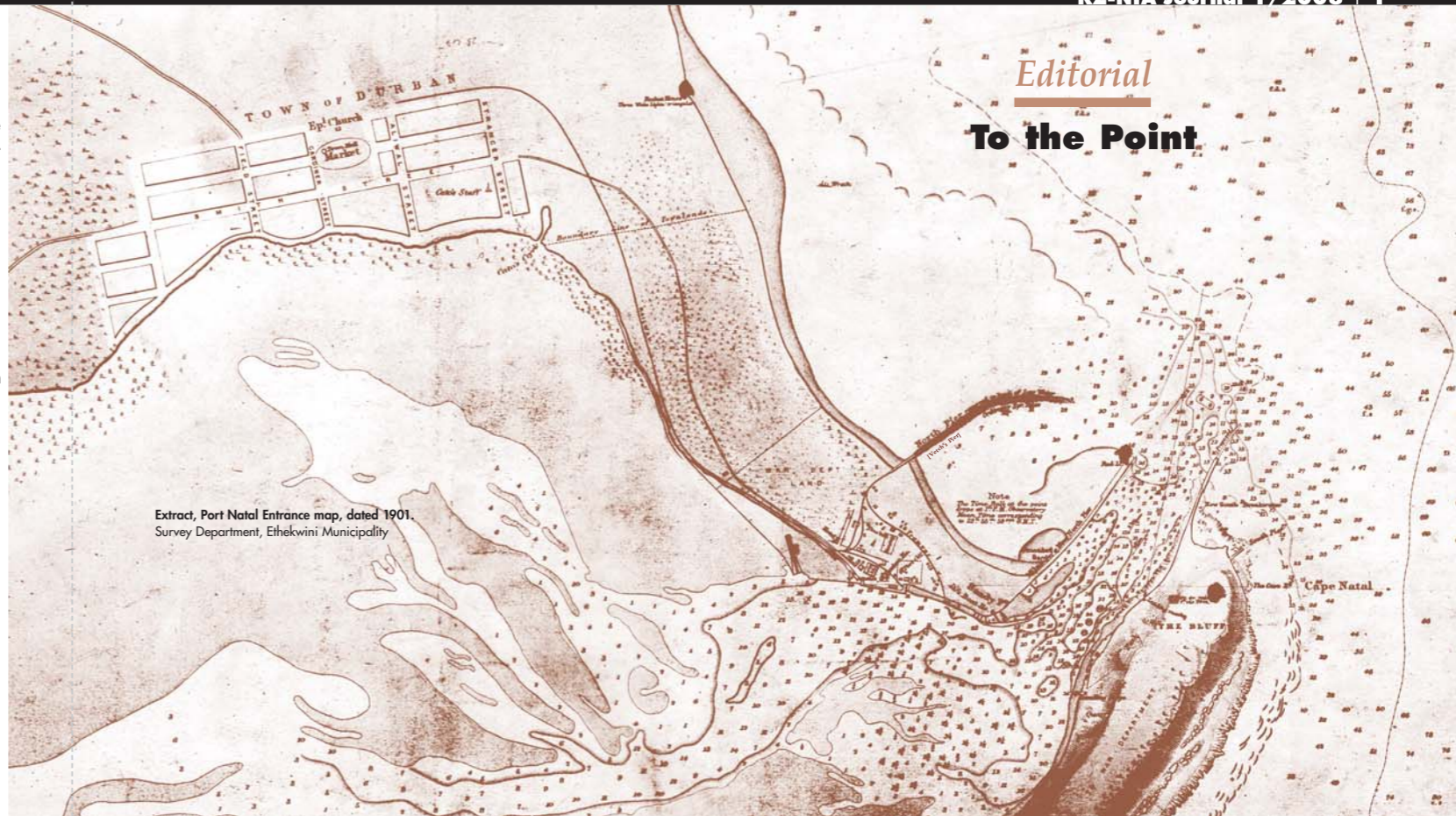
On Christmas day in 1497, Vasco da Gama and his compatriot Portuguese seafarers en route to India in the 'San Rafael', named the Bluff headland they sailed past *Ponte de Pescarto* (point of fishes) and, in acknowledgement of the day, they named the land Terra de Natal, which means birth. But the bay with its harbour potential was ignored until the 19th century when, in 1824, the first European settlers led by Francis Farewell and Henry Francis Fynn arrived from the Cape, set up camp and secured a land grant for the bay region from the Zulu King Shaka. This tongue of land, dune-like in form, is typical of many river and lagoon land forms on South Africa's eastern seaboard, yet Durban's Point has a history closely related to the development of Durban and the Province of KwaZulu-Natal.

To guard the entrance to the bay and to protect the English settlement, a stockade named Fort Victoria was built on the Point in 1838, soon to be replaced by a blockhouse in 1848. While tugs guided small ships into the harbour basin, passengers and cargo were generally loaded onto lighters at the outer anchorage. Horses used to draw goods to the city centre until that momentous occasion in 1860 when transportation could be facilitated by the opening of South Africa's first railway line. Later, in 1891, an electric power station was erected at the Point which was used to supply current for lighting the principal streets with arc lamps.

It was recognized early on that the development of Natal depended largely upon the improvement of the harbour, yet a sand bar across the entrance effectively prevented sailing ships from entering the bay. First harbour engineer, John Milne, proposed the building of two piers from the Point and the Bluff respectively, to deepen the mouth by tidal scouring and so overcome the restrictions imposed by the sand bar. Milne's pier, which commenced in 1851, forms the root of the present North Pier. In 1857, four years later, Capt. James Vetch commenced the construction of a crescent-shaped pier to enclose a large area of water and so create an outer harbour basin, which aimed at creating a safe outer anchorage. This proved a total failure, and was abandoned in 1864.

The inadequacies of the harbour were highlighted during the 1879 Anglo-Zulu War. As a result, the Natal colonial government created the Natal Harbour Board in 1881 under the chairmanship of Harry Escombe. Under the supervision of Edward Innes, harbour engineer from 1881-1887, the present north pier was constructed by extending Milne's breakwater, and the south pier was built to starve the bar of sand which drifts northward past the harbour mouth. Cathcart Methven, successor to Edward Innes from 1888 to 1895, designed the first bucket dredger and when he had the opportunity, extended the north pier. At the time Methven left Durban, the inner harbour facilities were more capable of dealing with the increased demands made on them during the Anglo-Boer war, 1899-2001. However, the sand bar remained until the technological progress of greatly improved dredgers coped with the difficult sea conditions at the bay entrance and eventually conquered the bar. As a result, on 25th June 1904 the Armadale Castle was the first mailship to sail into the bay and herald a new era for the port, and since that time the largest of ships have been able to enter the harbour at any state of the tide. —WP

The assistance of Mr Arthur Gammage, Acting Manager: Urban Design & Landscape Architecture, eThekweni Municipality, is gratefully acknowledged. —Editor



Extract, Port Natal Entrance map, dated 1901. Survey Department, eThekweni Municipality



Photograph of 1932.



Six decades later, 1992.

The Point at Durban is a broad spit of land reaching from the city to the harbour mouth. But for its fine historic building stock of warehouses lining the inner side of Point Road, the railway, police and fire stations, and the villas and row houses of harbour staff elevated behind, the area was unremarkable. To boot, due to the mix of tenements and 'rooming houses', hotels and especially the night-spots associated with seamen and harbour traffic, Point Road developed a sordid reputation as Durban's sleazy district.

Despite being linked to the city center by the country's first railway line in 1860 and Point Road (recently renamed Mahatma Gandhi Road), a major vehicular traffic arterial, like an eddy, the Point has for many decades been excluded from the main development thrust of the city. One reason was that almost all the land south of Bell Street was in public ownership, largely by the railways, state and the city, which rendered the area sterile and perceptively abandoned. The area stagnated and was allowed to run-down.

After decades of neglect, during the late 1990s the city council started selling off the land as a deliberate strategy aimed at regeneration. While much development has taken place, regrettably there are still few people visible. One reason appears to be that purchases of many of the properties have been speculative. One can only hope that the vibrant human enclave envisioned, with shops and restaurants along the canals, is yet in its infancy and will blossom as the development progresses. —Walter Peters, Editor

**Vasco da Gama Memorial**

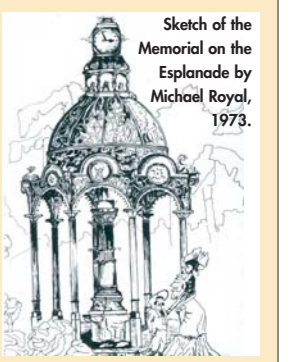


To mark the 400th anniversary of Da Gama's landing and Queen Victoria's Diamond Jubilee, a cast-iron memorial drinking fountain was chosen from catalogues of Walter McFarlane's Saracen Foundry, Glasgow.

A clock tower tops the filigree dome. Surrounding the dome, heraldic birds look out between decorative roundels, and the whole canopy is supported on eight slender columns. From beneath the dome cast-iron owls stare down at the lions supporting the water basins of the fountain. Samson crowns the post off which the basins are supported. The unveiling took place on Christmas Eve 1898.

As a result of the general deterioration of the area it was decided to move the Da Gama Memorial from the Point to the Esplanade in 1969.

Seymour D. *Historical Buildings in South Africa*. Cape Town, Sruikhof, 1989. Photograph: UN Winter School '67.



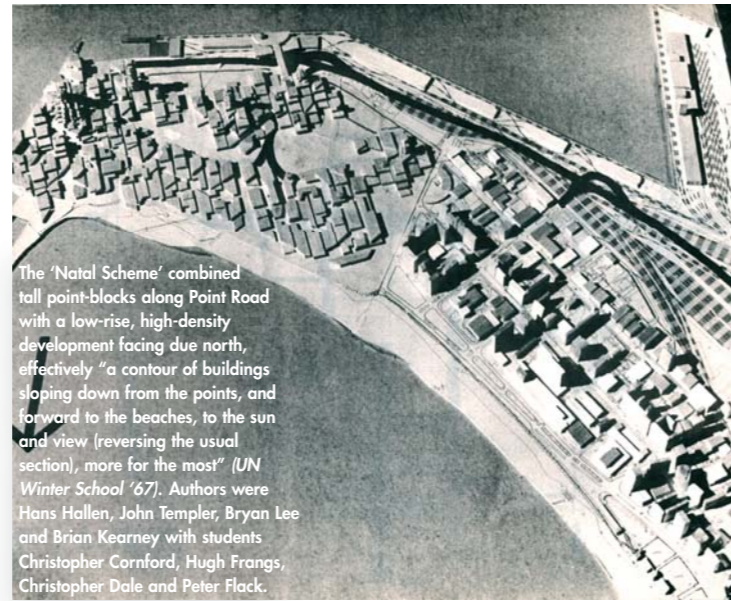
Sketch of the Memorial on the Esplanade by Michael Royal, 1973.

## Durban's Point Remaking the Point

The Point has been subjected to at least two rejuvenation initiatives involving architects.



Seated, from left to right, Gino Valle, Revel-Fox, Pancho Guedes, and Hans Hallen (standing).



The 'Natal Scheme' combined tall point-blocks along Point Road with a low-rise, high-density development facing due north, effectively "a contour of buildings sloping down from the points, and forward to the beaches, to the sun and view (reversing the usual section), more for the most" (UN Winter School '67). Authors were Hans Hallen, John Templer, Bryan Lee and Brian Kearney with students Christopher Cornford, Hugh Frangs, Christopher Dale and Peter Flack.

### UN Winter School '67

Early in 1965, the Natal School of Architecture, as it was affectionately referred to, decided it needed the stimulation of a major design session. Thus, for the first two weeks of July 1967, the Department hosted a Winter School.

It was hoped that the Winter School

would show that a considerably improved urban environment could result if the particular problem received the necessary consideration and was attacked energetically with imagination. For its case study Durban's Point was chosen, an area deemed ripe for change.

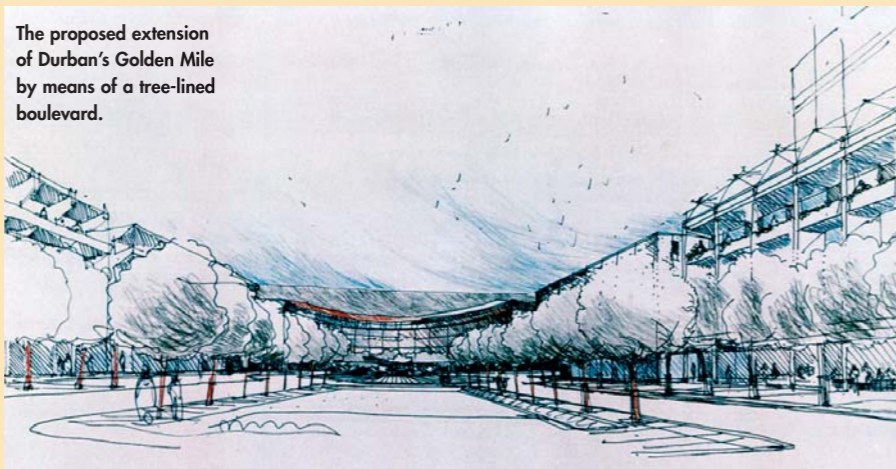
Students and staff from other SA schools were invited as well as critics including Gino Valle (1923–2003) from Udine, Italy; Julian Beinart then Dean of Faculty of Fine Arts & Architecture, University of Cape Town; Pancho Guedes then of Lourenço Marques (now Maputo); Revel Fox (1924–2004); planner Eric Mallows; Hans Hallen; and Peter Whitworth, an architect by training but director of the Design Institute of SA in Pretoria. While many ideas were put forward and the findings published, the Point continued as one of the most under-utilised assets within the city. — WP

#### References:

- CREDO August 1967 No6
- UN Winter School '67. Department of Architecture, University of Natal, 1967.

### A Consortium for Development Proposals

The proposed extension of Durban's Golden Mile by means of a tree-lined boulevard.



A further attempt occurred in 1986 when the City Engineer of Durban appointed a consortium of architects, urban designers and town planners, convened jointly by Hans Hallen and town planner Gerry Wassel.

The consortium proposed an extension of Durban's Golden Mile by means of a tree-lined boulevard re-aligning with the axis of



the Point at a traffic island. The boulevard distinguished leisure and recreational facilities on the east or beachside, from residential accommodation on the west, which reached to the existing development lining Point Road.

Development would gradually decrease in height, scale and density to preserve the prominence of the Bluff, with the exception of a landmark building located seaward of the fulcrum. — WP

#### Reference:

- The Point. Proposals for the Development of the Point Area of Durban. Prepared by a Consortium appointed by the City Engineer of Durban and jointly convened by Hans Hallen and G Wassel, April 1986.

## Durban's Point Point Waterfront Development Framework



Photo-montage of 2008.

When the project of uShaka Marine World was announced, the appointed Development Directors, Moreland Developments, cautioned the client, eThekweni Municipality, not to proceed without considering the project within the context of the whole of the Point. Besides, the northward widening of the harbour entrance from 175m to 280m had already been approved (currently under construction), as had the extension southward by 200m of the Durban harbour quay (2002–3).

Thus in 2001, Moreland called for 'expressions of interest' from professionals, and thereupon assembled a team charged with

the preparation of an urban design framework for the redevelopment of the Point. The successful design team consisted of Nathan Iyer of Iyer Rothaug Collaborative; Erky Wood of GAPP Architects & Urban Designers, Johannesburg; and Rodney Choromanski and Karuni Naidoo of CNN Architects.

A ground rule was that the Point should not be developed as a precinct in its own right. While it was a natural cul-de-sac which should be distinctive, the Point was an integral part of the city and its separateness should not be accentuated. Conversely, the uShaka theme park should not be extended to fill the site, but

serve as a stepping stone to the derelict area which should be developed as an urban place, and in particular one which engaged with Africa. Such African urbanism was interpreted as living in the public domain in which the buildings would perform their roles as shapers of space. The area would be free of boom-gates; instead, safety and security would depend largely on the public manners of the architecture.

While the Point is surrounded by water on all but one side, water could only be accessed at the beach. Yet, the new aquarium at uShaka was extracting seawater from a dedicated new



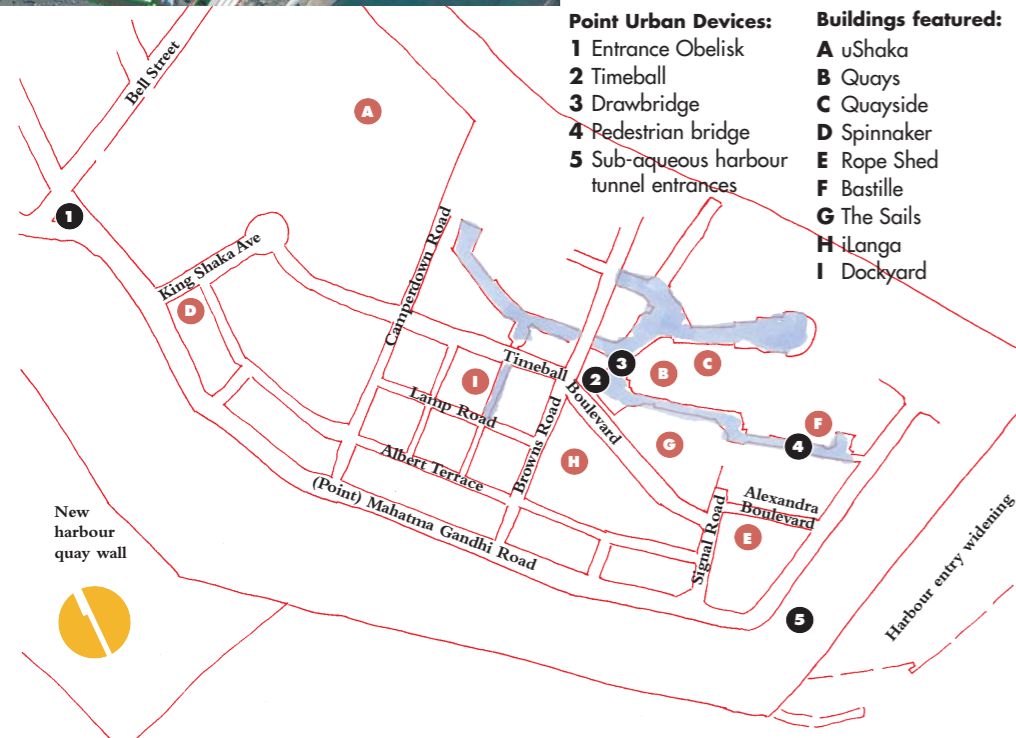


portion of the Point had never been laid out and for this a structuring basis had to be sought. Interestingly, the analysis concluded that the block size occupied by the historical rowhouses, bounded by Timeball Boulevard, Patterson Street (now canal arm), Lamp Road and the pedestrianised Ballard Street, measuring some 90m x 70m, offered the most advantages (see Dock Point, KZ-NIA Journal 2/08). In this way the historical grid is respected and the beachfront extended southward to Vetch's pier, with sea-fronting lots reserved for hotel development whose massing will be conditioned to allow for maximum sun on the beach.

It is generally accepted that a small craft harbour, which enhances the existing one, would be most appropriate within the area defined by North and Vetch's piers. However, building on the foundations of Vetch's pier proved to be anathema to snorkelling enthusiasts, and an environmental impact assessment was in any event required. Thus, it is proposed that a new pier, parallel to Vetch's yet inflected in plan, and terminating at the new North pier with a narrow entrance to the small craft harbour, be built. This pier would provide for fishing, and leave a sheltered snorkelling area between the two piers. In turn, a new L-shaped quay would be built on the land and North pier sides of the small craft harbour. The side abutting the residential accommodation would be available for shops and restaurants to engage with passers by. This quay would in fact become the outer, seawall of a basement parking-garage to cater for both residents and visitors. In this way a 'theatre of sea sport' could emerge, while an iconic hotel built within the basin could provide the terminal landmark to the development.



- Point Urban Devices:**
- 1 Entrance Obelisk
  - 2 Timeball
  - 3 Drawbridge
  - 4 Pedestrian bridge
  - 5 Sub-aqueous harbour tunnel entrances
- Buildings featured:**
- A uShaka
  - B Quays
  - C Quayside
  - D Spinnaker
  - E Rope Shed
  - F Bastille
  - G The Sails
  - H ilanga
  - I Dockyard



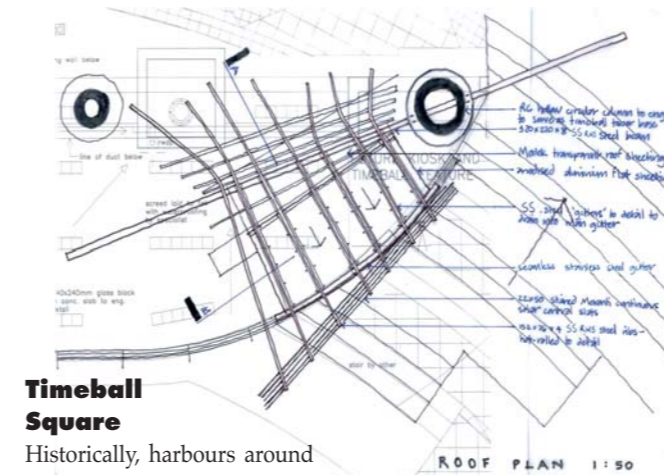
## Point Urban Devices



### Obelisk and Cascade

Situated at the entrance to the Point re-development project area and on an island between two carriageways of Mahatma Gandhi (Point) Road, this water feature is in the form of an obelisk on a raised prow with water cascading down the wide end.

Architects: GAPP Architects and Urban Designers



### Timeball Square

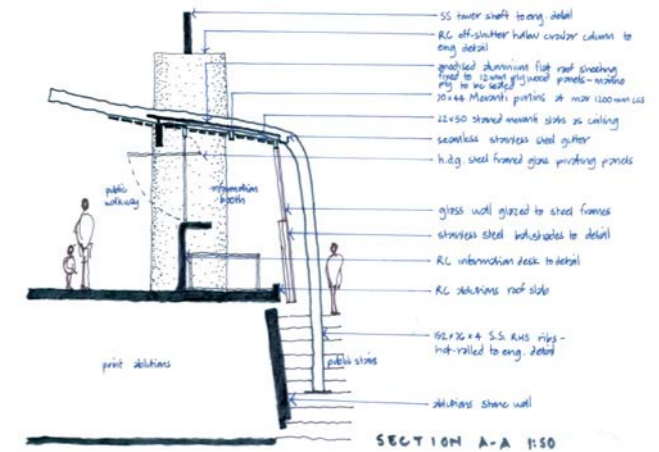
Historically, harbours around the world were equipped with timeballs, structures placed in prominent positions and consisting of a vertical rod or pole from which a ball was dropped at a certain moment each day for the purpose of indicating mean time. Durban's Point had such a structure which has been immortalized in the road appropriately named Timeball Boulevard.

In re-developing the Point, it was felt there was a need for a device to give visual structure and orientation to the area. In addition, public toilets were required on Timeball Square.

The site at the corner of Timeball Boulevard and Browns Road and the land between the corner and the canal, which was at a lower level, was to be negotiated by way of a terraced outdoor theatre. The change in level resulted in a kiosk at road level and public ablutions at a lower level. This was a taxing design challenge as ablutions require day-lighting and ventilation. However, the design team decided that they were not going to resort to windows opening onto a public space, but instead day-lighting was achieved by imbedding shards of opaque glass in the kiosk floor, and ventilation with extractor funnels.

The site contained historical fieldstone walls built by prisoners of the Bambatha Rebellion, 1906-07. These were broken down, and individual fieldstones, dressed to signify their re-use, were incorporated in the wall of the ablutions, off the ground and short of the slab of the kiosk, to encourage airflow. The 48m tower is in two sections, the lower drum is of reinforced concrete, and the needle was pre-manufactured in two parts and craned into position. The structure and aesthetics to the needle were inspired by bangles. The timeball is controlled by a computer accommodated in the drum, which also controls the coloured lighting at night.

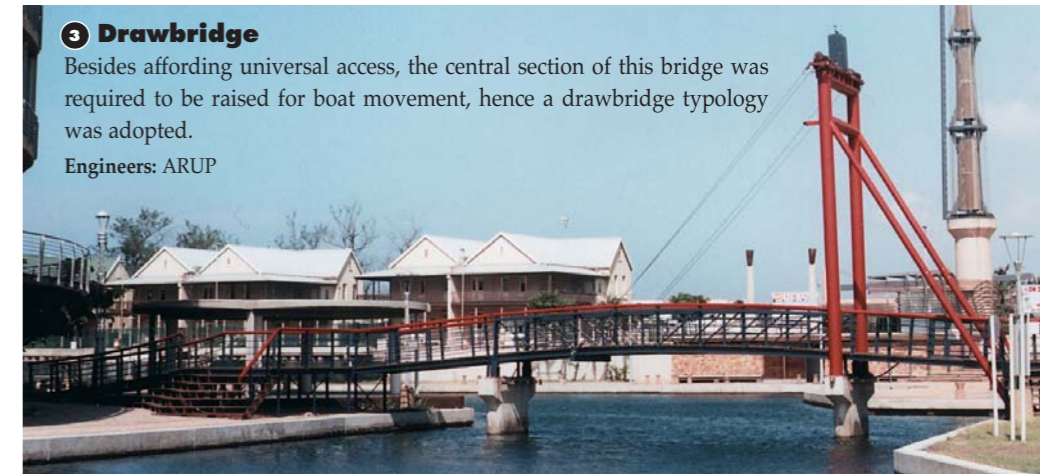
Architects: CNN Architects  
Engineers: CBI and ARUP joint venture



### Drawbridge

Besides affording universal access, the central section of this bridge was required to be raised for boat movement, hence a drawbridge typology was adopted.

Engineers: ARUP



### Pedestrian Bridge

To provide for boat clearance, pedestrians, and ramps for the disabled, the handrail to this slightly cambered bridge became an integral part of its structure.

Architects: CNN Architects



### Sub-aqueous Harbour Tunnel entrances

With the harbour entry being widened, a new sub-aqueous services tunnel was needed to connect the Point with the Bluff and each termination required a top structure.

The profile of the Point top structure echoes the rake of the emerging tunnel and the sides are clad with off-cut granite pieces, honey-combed where ventilation is required.

The Bluff top structure is sited alongside the whaling station. Aware of its position at the foot of Durban's most important geographic feature, it is as neutral as possible, yet again clad with granite off-cuts.

Architects: CNN Architects



# Durban's Point

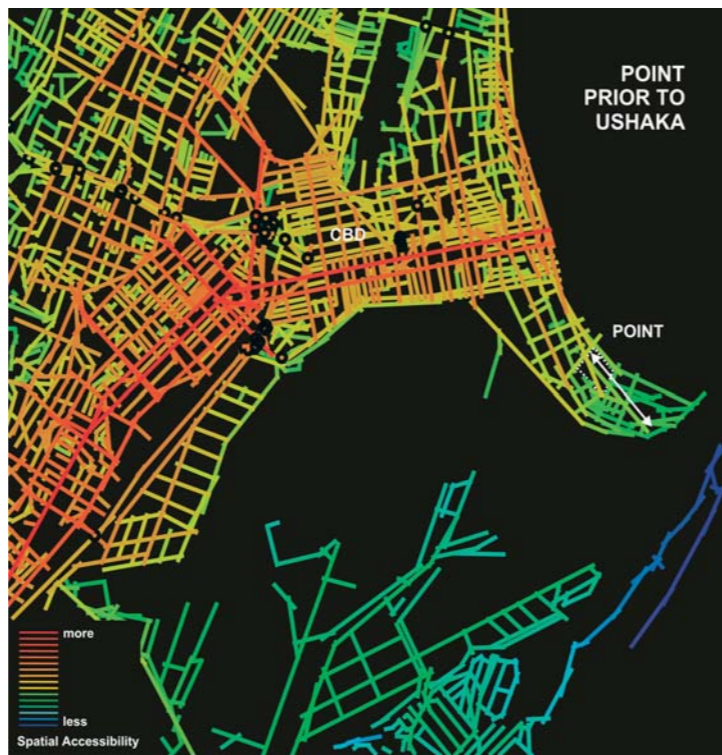
## Point Precinct: Evidence-Based Urban Design

Sustainable urban developments can benefit greatly from being subjected to rigorous analytical assessment. By scientifically observing what actually happens in a place, a better understanding can be made of the unique nature of the place and its relationship to its global and local contexts. The findings of these baseline studies can then be translated into a design that meets the real needs of the place and the community. Space Syntax has developed evidence-based tools that can demonstrate the way in which a new development is likely to impact on the social and economic performance of towns and cities. This is achieved by tackling two key questions: where should development go and how should it connect. The answers can empower designers with the ability to assess the likely impact of their decisions on spatial outcomes before they are implemented, such as movement flow and crime risk.

The Point precinct has been undergoing a massive regeneration in the last few years, turning derelict buildings surrounded by large tracts of underutilized land into high-density high-rise apartments. This regeneration could not have been achieved without large capital injections from the eThekweni Municipality which has been responsible for investing in the upgrade of the infrastructure in the area. Interest in ensuring the success of this development prompted the Architecture Department

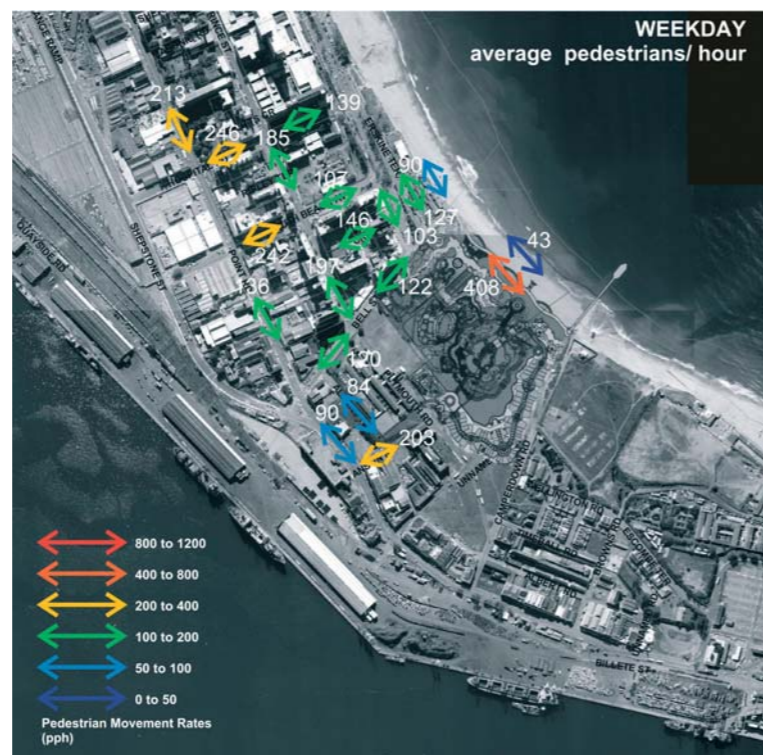
of the eThekweni Municipality to commission Space Syntax (South Africa) in 2004 to undertake an analysis of the current development framework plan for the Point Waterfront Project which was prepared by Iyer Rothaug Collaborative.

Successful places rely on movement; therefore vehicle and pedestrian accessibility are critical elements in the economic success of any regeneration strategy. Patterns of spatial accessibility exert a strong, regular and measurable influence on where and how people move through cities, and where and how they stop. For example, in studies of well-functioning areas in cities all around the world, Space Syntax has consistently found that more people tend to move along simpler, spatially accessible routes, and to avoid layouts that are overly complicated and spaces that form dead ends. The Space Syntax spatial accessibility maps created of cities throughout the world have consistently highlighted the location of the main retail streets simply by analysing the configuration of the grid without taking into consideration other factors such as attraction and signage.



### Spatial Accessibility of the Point

In order to better understand pedestrian accessibility of the Point precinct, a computer model of the Point and its urban context was constructed. The model calculated spatial accessibility values, which are colour-coded with red lines representing high spatial accessibility (high potential movement), through orange, yellow, green, light blue and dark blue for low spatial accessibility (low potential movement). The model provided a basis from which to test design proposals to assess the likely impact of the proposed new routes and connections on pedestrian activity and thus test the success of the regeneration proposals in terms of pedestrian accessibility. The model



calculates a spatial accessibility value for each street, based on the complexity of routes and how they link with each other. In this way it can be seen that a centrally located street, well-connected into its surroundings, will be relatively easy to reach from everywhere else, and as such will have a high spatial accessibility value. On the other hand a cul-de-sac is likely to be more difficult to reach from the rest of the network and is inherently likely to have a low spatial accessibility value, and consequently will experience lower movement along its length.

An analysis was undertaken on the existing Point prior to any development and compared two proposals of Iyer Rothaug Collaborative which investigated different configurations for the beachfront promenade and small-craft harbour.

In terms of its global context, the Point is an isolated tract of land located at the tip of the entrance to the harbour. The Point's only connections back to the city are a few tenuous north-south links. The accessibility model reflects the isolation of the area and the low potential movement this site is likely to experience, purely as a result of its inaccessibility to the rest of the city. This clearly locates the area spatially as a destination that requires some catalytic project to draw visitors to it. Is this assumption correct? Yes and no. The importance of a catalytic project lies not only in the provision of the catalyst but also in its location and its consequent impact on other developments in the area. See: *Point Prior to uShaka*

### Location of uShaka

In locating the large impenetrable block of uShaka between Bell Street and Camperdown Road, an important route was severed (Escombe Terrace – indicated by the white arrow). This route not only tied the street network within the Point together, but could potentially also have contributed to improving the linkage between the city and the Point Waterfront precinct. The severing of this link has reduced the potential for the Point precinct to optimally stitch itself into the urban fabric and from benefiting from the potential movement of people who would have used this route to approach the area.

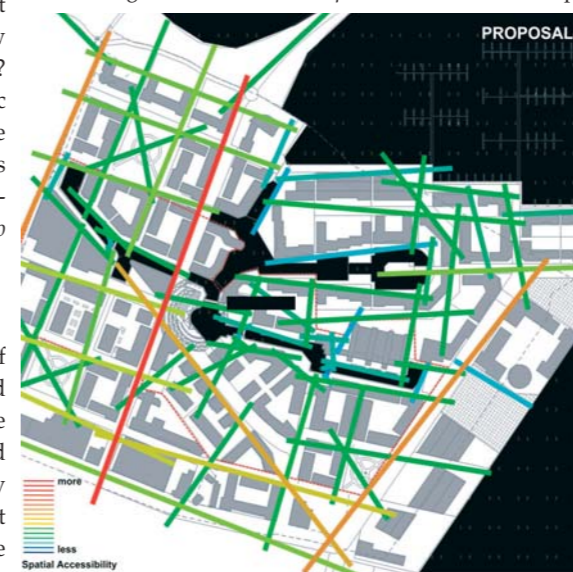
In observations of pedestrian movement around uShaka, it was noted that high movement was concentrated along its main access routes, but the pattern of movement in the surrounding streets was not significantly influenced. The introverted nature of this development serves as an attraction, locking movement to its main access routes and

thereby limiting the potential for further spin-off developments in the surrounding areas. See *Weekend/Weekday illustrations*.

### Public Promenade

The Architecture Department's concern about the potential exclusivity of the waterfront edge was substantiated in the analyses of the two proposals for the promenade. The findings clearly illustrate that in fragmenting the promenade, movement is likely to be low, and ownership is likely to shift from public to private and become exclusive in an attempt to control security because of the lack of natural surveillance through use. The simplification of the route improved movement along the promenade and into connecting streets.

Furthermore the spatial accessibility analysis of the Point Waterfront plan indicated which streets are likely to have the highest accessibility (potential movement) within the precinct, these being the promenade, Browns and Camperdown Roads. The opportunity to capitalise on any potential movement along those routes should not be lost. These edges should be activated by frontages that encourage pedestrian interaction, and in so doing further stimulate movement to and along these routes. See *Proposal 1 & 2*



### Public Waterway

The canal, envisioned as a vibrant public waterway is poorly accessible and is therefore likely to experience low volumes of natural movement. The reason for this can be attributed to the fragmented nature of the route, the impaired visibility along the route and the lack of the integration of this route into the surrounding streets. Unless major attractions are placed along the route to stimulate movement, it is unlikely to be the vibrant public waterway that was imagined. Attractions need to be placed at accessible intersections along the canal in order to take advantage of the higher potential movement of people along these routes as they move from back of beach to front of beach. The public space of Timeball Square and the events it could hold already have the potential to create a public focus, but more attractions will need to be created to stimulate movement along the length of the canal.

### Mix of Uses

Movement-seeking retail land uses should be placed in more accessible locations where there is higher pedestrian traffic (footfall), while those land uses not as dependant upon pedestrian traffic should be placed in less

accessible locations. The framework plan has allowed for a mix of uses in the area. However, it allows for retail and commercial land uses to be distributed across the site on all ground floors. Distributing land uses across the site limits the cohesion between developments and disperses rather than concentrates movement along accessible routes.

### Conclusions

The findings from the baseline analysis of the Point have highlighted the role that spatial context plays in evaluating potential design interventions. Furthermore, in clear and objective terms that are easily understood, the Space Syntax tools have been used to illustrate the potential shortcomings of the proposed designs by relating the impact of design decisions to likely human outcomes, such as movement flows of pedestrians, accessibility and crime risk and the impact on land use-outcomes that deal directly with the social and economic concerns of the client.

*Bridget Horner*

*Bridget Horner is an architect and Director of Space Syntax (South Africa). Bridget completed her professional degree in Architecture cum laude at the University in Port Elizabeth. She was awarded a Commonwealth Scholarship to study at the Bartlett School of Graduate Studies at the University College, London. After working in the London office of Space Syntax, Bridget travelled extensively in Europe, Eastern Europe and Asia. Upon returning to South Africa in 2001 she worked exclusively in the field of urban design, first with Kruger Roos in Cape Town, before establishing Space Syntax (South Africa) in Durban in 2004. –Editor*



# Durban's Point

## uShaka Marine World

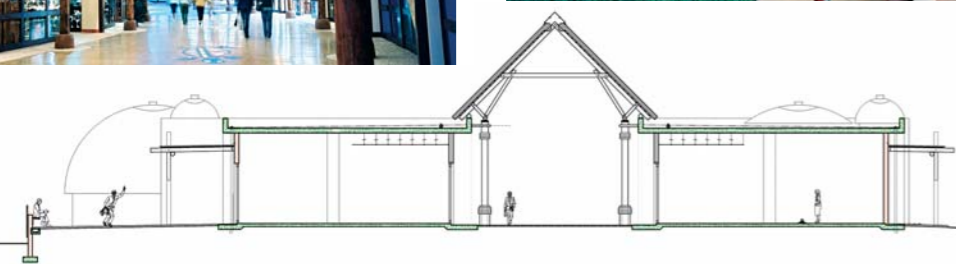
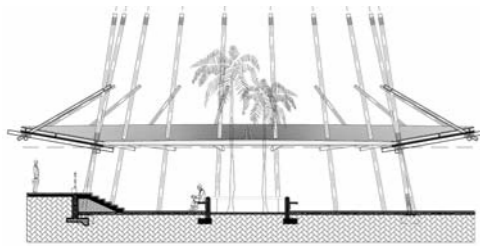
The development of this marine-based theme park on one of the most barren, yet prime real estate tracts in Durban was strategic, namely that it serve as a catalyst to the redevelopment of the Point. It was conceived to provide

Durban with a new aquarium and cater for recreation and leisure, and as such contains six major components: aquarium and dolphinarium with associated research facilities, a themed water park, retail outlets and restaurants.

The 17ha site is accessible to pedestrians from a promenade along South Beach, and to vehicles from the southwest off Mahatma Gandhi Road. The water park meets with the wall of the existing high-rise residential accom-

modation in Bell Street on its north-western boundary; while the retail component designed as a sinuous and articulated mall marks the south-east where it was located for incorporation into the Point development proposals. A 'shipwreck' with restaurants, surrounded by aquarium exhibition pools or lagoons, and a lazy river are at the heart of the site and represents its focus. Facilities for the SA Association for Marine Biological Research (SAAMBR) are inconspicuously placed alongside the vehicular entrance, and the dolphinarium with stadium is wedged between the shipwreck and water park.

Centrepiece of uShaka Marine World is the 80m long 1920s phantom cargo ship built of



concrete and steel, representative of the many wrecks on the eastern seaboard. The upper decks contain restaurants with superb views into the park and over the various aquarium exhibition pools, while the interior provides the vertical transition from street level to the underground viewing decks.

The retail component known as Village Walk was designed to give the ambience and image of an African village market. This resulted in pairs of retail blocks with open, articulated knuckles – conceived originally to link to future adjacent development – from which views can be had of the Point, the beach and over the park itself. Restaurants terminate the beachside of the retail mall and open to terraces overlooking a panorama stretching from the Bluff to Umhlanga Rocks in the north.

Appropriate landscaping played an unusually large role in this project. On one of the harshest and most exposed sites of Durban, all vegetation had to be able to resist salt-laden wind blowing off the sea. Besides the propagation of vast species, mature coconut and wild date palms had to be sourced from as far as Maputaland and transported to site. The numerous coconut palms originate from discontinued plantations

A new 144m pier was built to extract the large volumes of seawater needed to maintain the aquarium and marine world; and the mechanical infrastructure is located beneath the retail component providing the base for the elevated position of the latter. In addition, the reticulated and purified water has to re-enter the sea, a fact that spawned the idea of creating canals to form the spine of the Point redevelopment proposals.

After 21 months, the uShaka Marine World opened at the end of April 2004 at a cost of R735 million. —WP

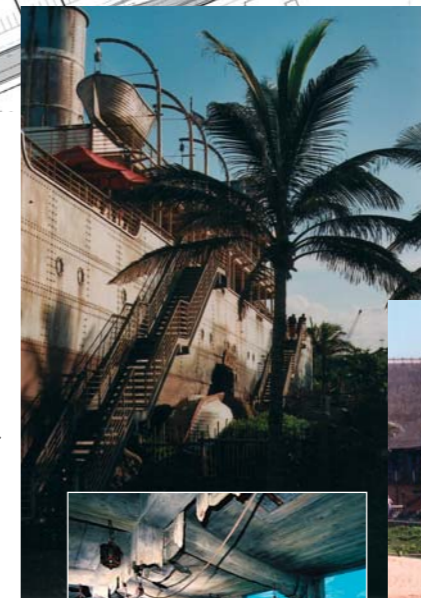
Compiled from the article *uShaka Marine World* in *Architect & Builder*, May/June 2004, and with the assistance of Bruce Douglas and Lara Grondein of Boogertman + Partners Architects. —Editor

**Concept Architects:** Creative Kingdom Inc  
**Architects of Record:** Urban Edge Architects\* in association with Langa Makhanya Architects.  
 \*since restyled Boogertman + Partners Architects.  
**Photographer (pg.8):** Russell Cleaver

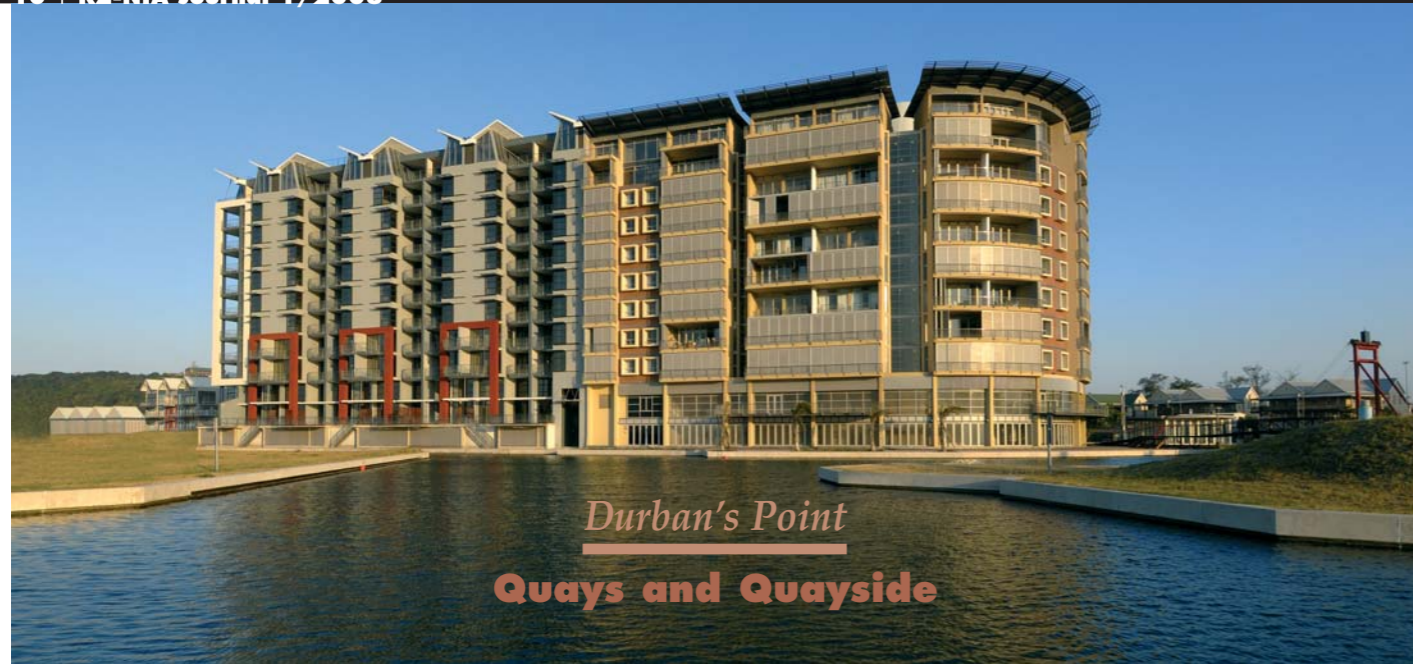
Ushaka Marine World was named Overall Winner of the SAPOA Award for 2005. In the same year, it received the International Award as Best Marine Park by Themed Entertainment Awards (TEA). —Editor



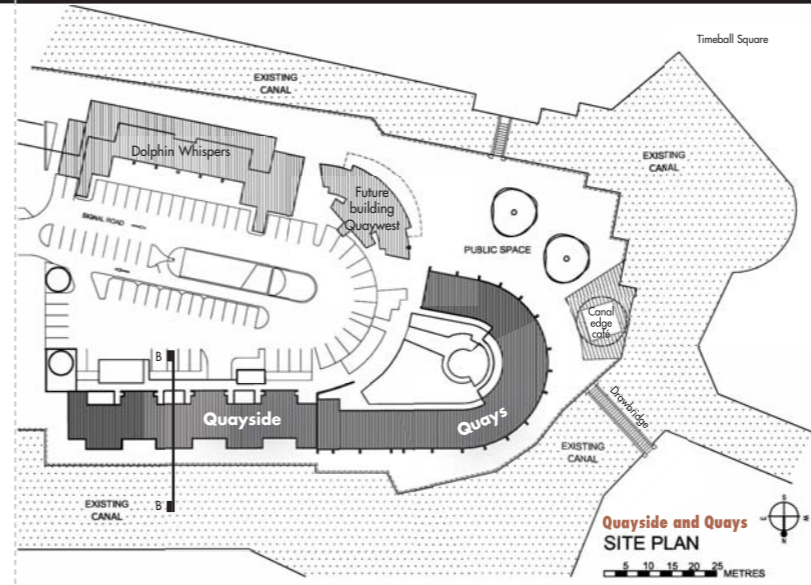
- uShaka Marine World**
- 1 Entrance from parking area
- 2 Water Park
- 3 Dolphin Stadium
- 4 Seal Stadium
- 5 SAAMBR
- 6 Shipwreck
- 7 Aquarium
- 8 Restaurants
- 9 Retail outlets



Russell Cleaver



**Durban's Point**  
**Quayside and Quays**



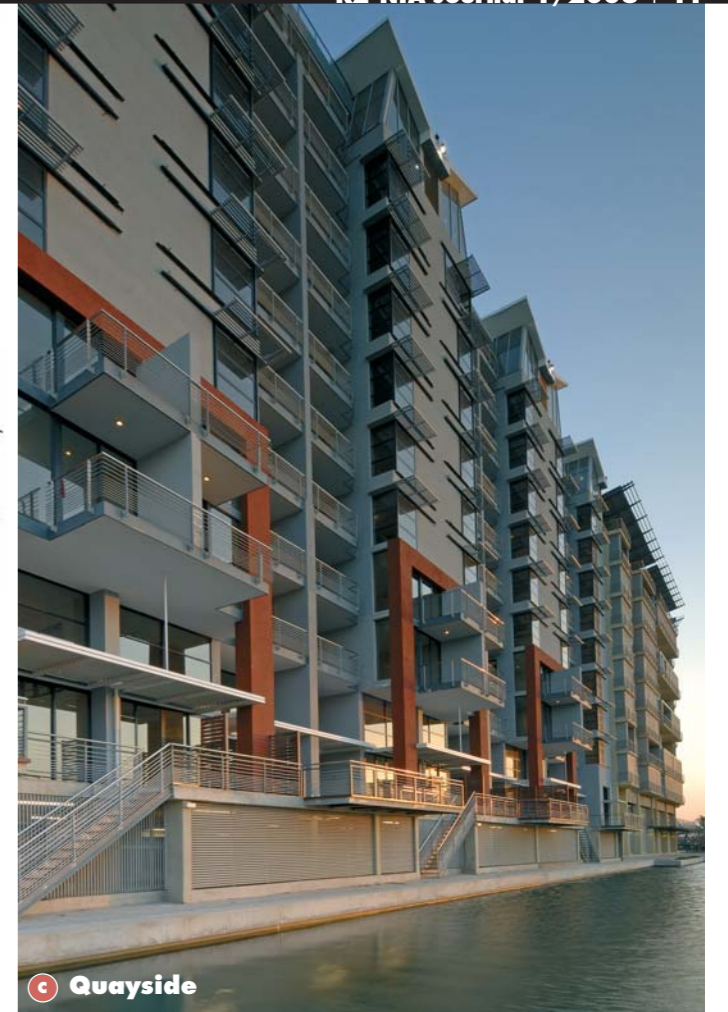
**Quayside** is a 13-storey residential building which faces due north overlooking Vetch's Pier and the future Small Craft Harbour. It contains 75 units, ranging from small one-bedroom units to large, four-bedroom penthouses. Access is on the south from a court common to the various buildings on the 'promontory' site.

The duplex units at the lowest levels are provided with generous double-volume spaces and extensive decks, which effectively reach out over the canal. The typical two-bedroom units are compact. They have corner windows with panels which slide on the outside of the building allowing the bedroom space to open out to the sea view. Safety is provided by the 'Juliet' balustrades. The penthouses enjoy spectacular views up the coastline northward to Ballito, and, due to their attic position, they also have a view of the sky, which accounts for the winged roofs characterizing the crest of the building.

The north façade is screened from direct sunlight by means of various pergolas of horizontal aluminium louvres. On the south façade an attempt was made to avoid the appearance of a typical 'beachfront apartment block' by giving attention to the articulation of the walkways with rain screens and feature towers which animate the elevation.

Construction commenced September 2005 and was complete in June 2007.

**Architects:** Elphick Proome Architects  
**Quantity Surveyors:** Schoombie Hartmann  
**Structural & Mechanical Engineers:** WSP  
**Electrical Engineers:** BFBA  
**Contractor:** G Liviero & Son  
**Photographer:** Karl Beath



**Quayside**

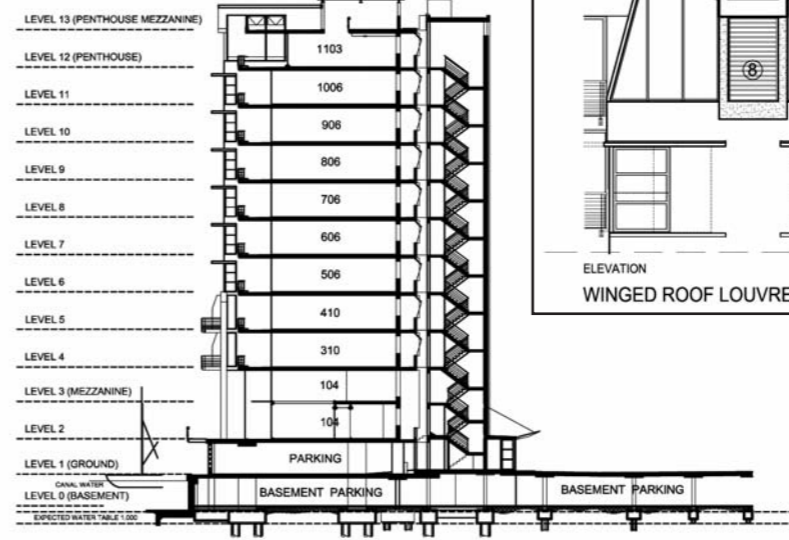


**Quays**

be carefully chosen. The paint specification was enhanced, marine hot-dipped galvanized mild steel was left in its natural condition, and the roof was covered with profiled aluminium sheeting. Despite the site being exposed to high winds, all-weather use of the verandas has been ensured by the inclusion of sliding folding screens, which provide windproof and water-resistant environments while adding interest and variety to the exterior.

Due to the complexities of design and execution, the construction period stretched from September 2003 to June 2006.

**Architects:** Elphick Proome Architects  
**Engineers:** WSP Africa  
**Quantity Surveyors:** Schoombie Hartmann  
**Main Contractor:** G Liviero & Sons  
**Photographer:** Karl Beath



**SECTION B - B**

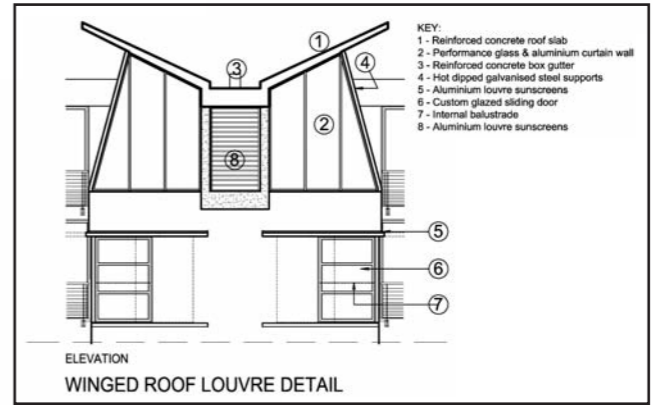
0 5 10 15 20 25 METRES



**UNIT 1103 - PENTHOUSE**  
GROUND FLOOR PLAN

**KEY:**  
1 - Living  
2 - Dining  
3 - Kitchen  
4 - Bedroom  
5 - Bathroom  
6 - Master Bedroom  
7 - En-Suite  
8 - Terrace  
9 - Mezzanine  
10 - Deck  
11 - Pool

**FIRST FLOOR PLAN**  
METRES - SCALE 1:200



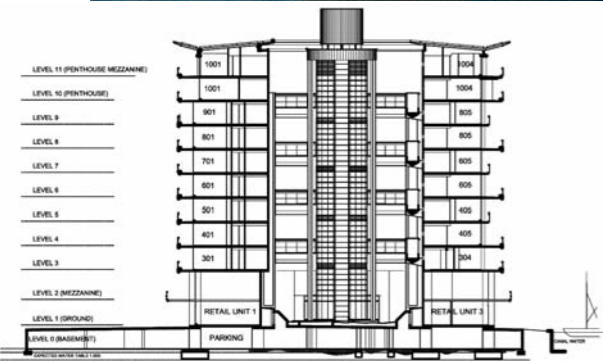
**ELEVATION**  
**WINGED ROOF LOUVRE DETAIL**

**KEY:**  
1 - Reinforced concrete roof slab  
2 - Performance glass & aluminium curtain wall  
3 - Reinforced concrete box gutter  
4 - Hot dipped galvanised steel supports  
5 - Aluminium louvre sunscreens  
6 - Custom glazed sliding door  
7 - Internal balustrade  
8 - Aluminium louvre sunscreens

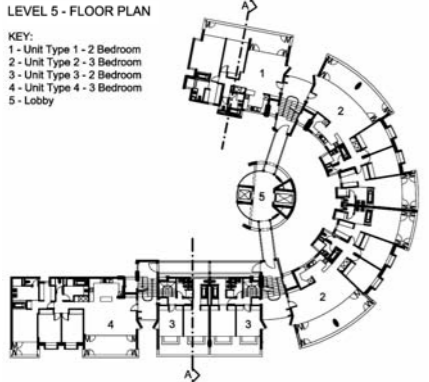
**KEY:**  
1 - Entrance  
2 - Living  
3 - Dining  
4 - Kitchen  
5 - Scullery  
6 - Bath  
7 - Bedroom  
8 - Terrace  
9 - Timber Deck  
10 - Utility Room  
11 - Garden  
12 - Master Bedroom  
13 - En-suite  
14 - Study



**UNIT 105 DUPLEX UNIT**  
UPPER LEVEL

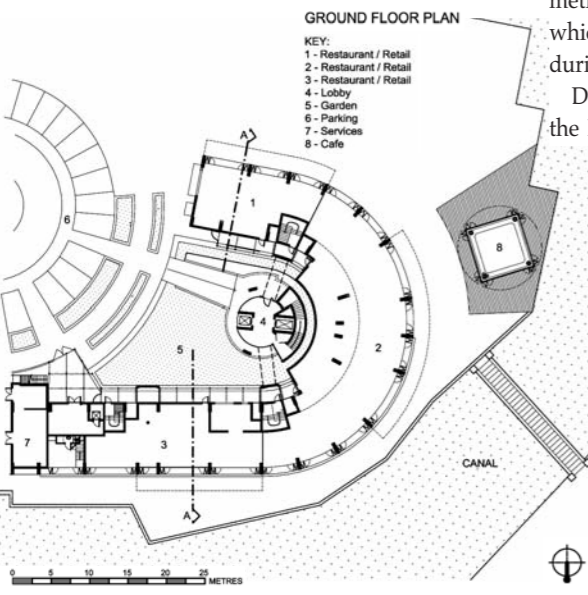


**SECTION A - A**



**LEVEL 5 - FLOOR PLAN**

**KEY:**  
1 - Unit Type 1 - 2 Bedroom  
2 - Unit Type 2 - 3 Bedroom  
3 - Unit Type 3 - 2 Bedroom  
4 - Unit Type 4 - 3 Bedroom  
5 - Lobby



**GROUND FLOOR PLAN**

**KEY:**  
1 - Restaurant / Retail  
2 - Restaurant / Retail  
3 - Restaurant / Retail  
4 - Lobby  
5 - Garden  
6 - Parking  
7 - Services  
8 - Cafe

**Quays** is located at the confluence of three canals. The site has 180° views of the ocean, the city, the northern coastline, and the harbour, and exploiting these priorities determined the semi-circular shape of the plan. Consistently, all habitable rooms and verandas of the 40 apartments are located on the exterior, with the utilitarian spaces on the interior affording views of the harbour entrance and the Bluff.

Elevator access is by bridges from a free-standing tower at the centre of the circle. However, as all buildings also require staircases, the bridges are on alternate levels and connect to the staircases from which access is provided to the apartments on half-levels.

The prospect of opening to the canal waterfront gave rise to the suggestion that the ground floor perimeter be lined with restaurants. These are double-volume with the promenade connected by drawbridge to the general pedestrian circulation routes of the Point. Parking is contained in a basement only half-metre above the water table, a situation which demanded extensive dewatering during construction.

Due to the extreme corrosiveness of the Point, finishes and materials had to



**F. Bastille apartments, recycled former Point prison. Architects: Cooper Architects. Photographer: Karl Beath**



**H. Semi-detached houses restored for iLanga Newspapers. Peter Konigkramer Architects CC.**

## Durban's Point The Spinnaker

Albert Terrace, while pedestrian entrances to all spaces are exclusively off Albert Terrace. The tower of 14 typical floors each housing five apartments is surmounted by penthouse floors which enjoy 270°-360° views. The latter are stepped up towards King Shaka Avenue to accommodate the different height restrictions pertaining to both the Point and the particular site and to capitalise on views to the harbour mouth and the Bluff. Due to the complexity of the accommodation requirements, the tower is equipped with two sets of double elevators and staircases.

Given its potential as a landmark, this tall building was designed both aesthetically and metaphorically. The corner of Albert Terrace represents the mast – within which the lounges of the northern-most units are accommodated

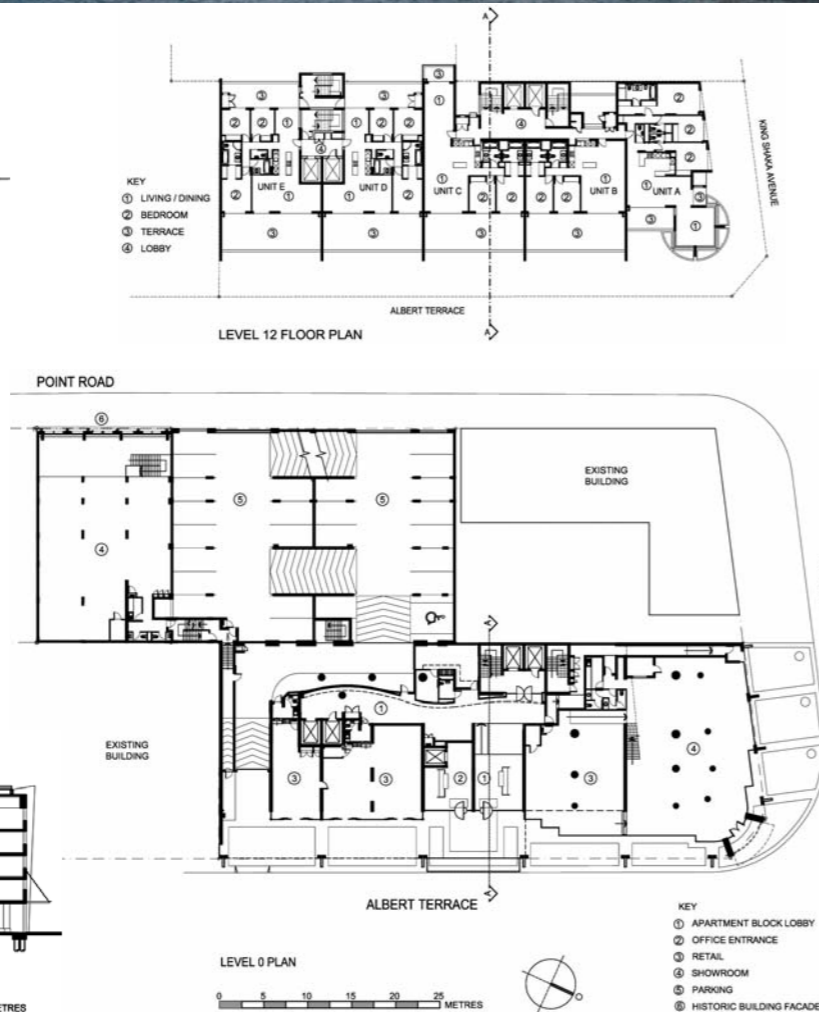
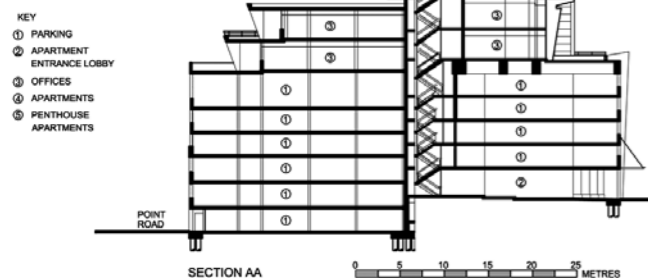
– and the tower the spinnaker, which balloons as it 'catches the wind' to achieve a convex profile to provide a variety of veranda widths for the apartments. To further distinguish the individual elements of the building, the podium is painted red while the mast rises from red to yellow through 24 colorations. After exploring different structural options, the building was realized in monolithic concrete.

**Architects:** Elphick Proome Architects  
**Structural Engineers:** May Houseman & Associates  
**Project Managers & Quantity Surveyors:** Grant & Whitfield  
**Main Contractor:** JT Ross

This site abuts the Point re-development project. Because of its proximity to this project and the 110m height allowable on the site within a general 42m height restriction, the architects engaged with the DPDC [Durban Point Development Company (Pty) Ltd] Review Committee which agreed that the building be conceptually integrated in the re-development. Thus the tallest building in Durban built within the last decade, was conceived as a gateway to the Point precinct.

The zoning, which provided for an equal bulk of commercial and residential accommodation, was re-negotiated to 75% residential and 25% commercial use. Spectacular views are enjoyed from the site which is bounded by roads on three sides: Albert Terrace overlooks uShaka Marine Park and the Indian Ocean, and enjoys Durban's ideal north-east orientation; at higher levels King Shaka Avenue offers views to both the ocean and the city; while vestiges of historical buildings line Mahatma Gandhi (Point) Road.

The ground floor with its retail space and the parking decks above forms the podium to the residential tower and two recessed office floors. Vehicular access is off Mahatma Gandhi (Point) Road with egress into



## Durban's Point The Berthing Master's Store (Rope Shed)

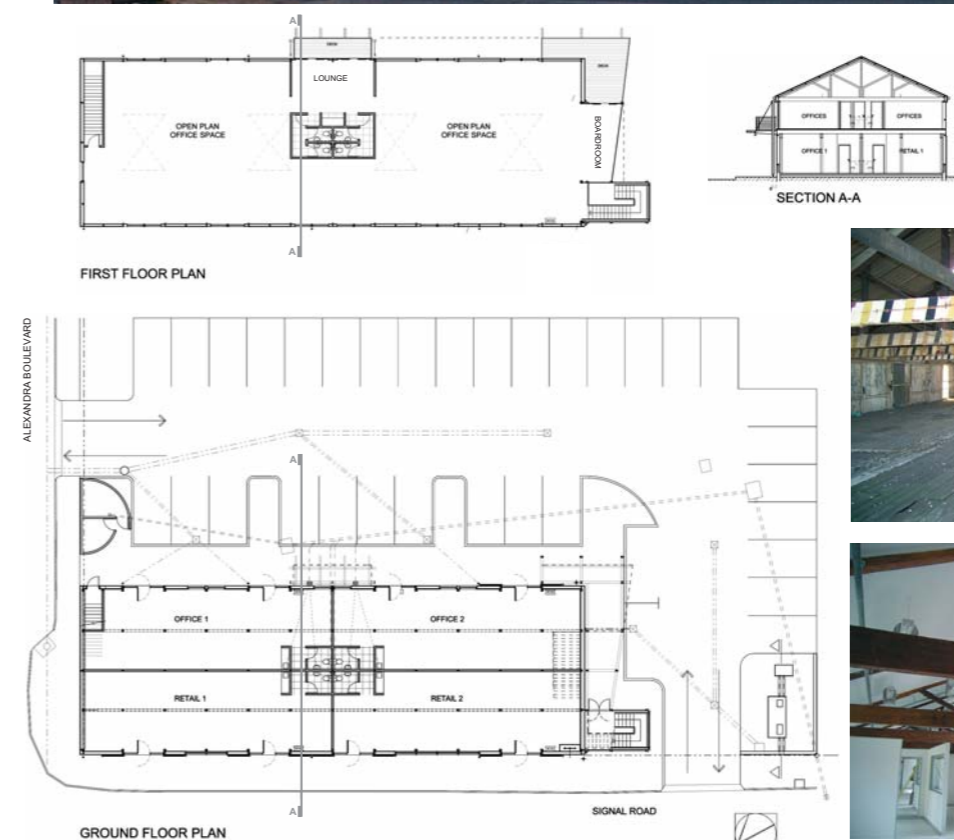


The Berthing Master's Store was a two-storey Victorian wood and iron shed constructed in about 1900 as a store for ropes. The building was originally one large space of simple proportions with large industrial sliding doors, which was subsequently modified to include a mezzanine level constructed in timber. The balustrades to the stairs to the upper level were originally of rope!

The building was in a severe state of decay when restoration commenced with the corrugated iron sheeting corroded and falling off the structure. The timber was generally sound with no sign of borer, so that this and the original roof structure were retained. The mezzanine was also retained even though it had been a later addition, but the original stairs were removed as they were rotten and could not comply with the fire regulations.

Following conservation principles, additions to the building were designed as clip-on but self supporting structures, so they could be clearly seen as interventions. A new entrance stair was enclosed in glass to link the two levels. A boardroom at first floor level, constructed mainly of glass, has been extended at an angle from the building and this room links onto a timber deck on a steel structure. A lounge area at the centre of the building leads onto a further clip-on balcony.

The heavy bolted timber king post trusses have been retained and left exposed with services at first floor level, and the original roof lights have been reinstated. Appropriate landscaping able to cope with the harshness of the salt environment has been laid out. One of the many challenges facing the contractor was that the building was neither square nor plumb.



**Architects:** Emmett : Emmett Architects cc  
**Structural Engineer:** J & K Consulting Engineers (Phil Jennings)  
**Contractor:** Turnaround Construction





Architects a decade into independent practice

House Cullen, Ladysmith



TOWNSEND ARCHITECTS

The Editorial Committee of KZ-NIA Journal has decided to promote the work of emerging practices by featuring a project by a practice in operation for less than a decade in every issue. KZ-NIA members who meet this criteria, are encouraged to contact the KZ-NIA Executive Officer so that coverage can be planned for. —Editor

38 Chevri Road, Ladysmith is situated on a gently sloping north facing site overlooking natural grassland, thorn scrub and the distant Drakensberg. The brief, in 2003, came from a client who was passionate about the process of building and was willing to embark on a journey of exploratory ideas and sketches before finalizing the drawings for construction.

The natural topography of the site informed a design solution that contrasted solid with void. While the more solid and enclosed south elevation faces the street, the north elevation with extensive glazing opens onto a private verandah and distant Drakensberg mountain views. The bedroom wing of the house has been carefully positioned to ensure privacy from the adjacent neighbour, whilst ensuring that the neighbour's view was not compromised.

The open-plan living area of the home is double-volume. The first floor is accessed by way of a circular concrete and steel staircase with cantilever treads. The study, positioned on the first floor, overlooks the double volume and rim-flow pool and commands exceptional views from its raised position. The desk and couch for the study were also part of the design brief and created an interesting opportunity to

extend the architectural concepts into the custom-designed furniture. The roof plane tilts up to increase the size of the west facing clerestory window over the double volume. This captures a ten minute episode of reflected light from the setting sun each day. During the winter months this transient experience is heightened due to the deep orange glow emitted from the setting sun.

On arrival at the house, one notices that the street numbering has been mounted on an iconic base designed as an extension to the building. This is linked to the house by a line of bricks on edge that extends from the street, aligning with a vertical cut-out on the south elevation. This line also defines the western edge of the visitor's parking area and provides

a threshold for those arriving at the house by car. The visitor's parking area was positioned adjacent to an existing tree to provide shade, and is spatially separated from the house by a water feature. The textures of water, natural tile and pebble infill create a varied and interesting forecourt to the main entrance of the house.

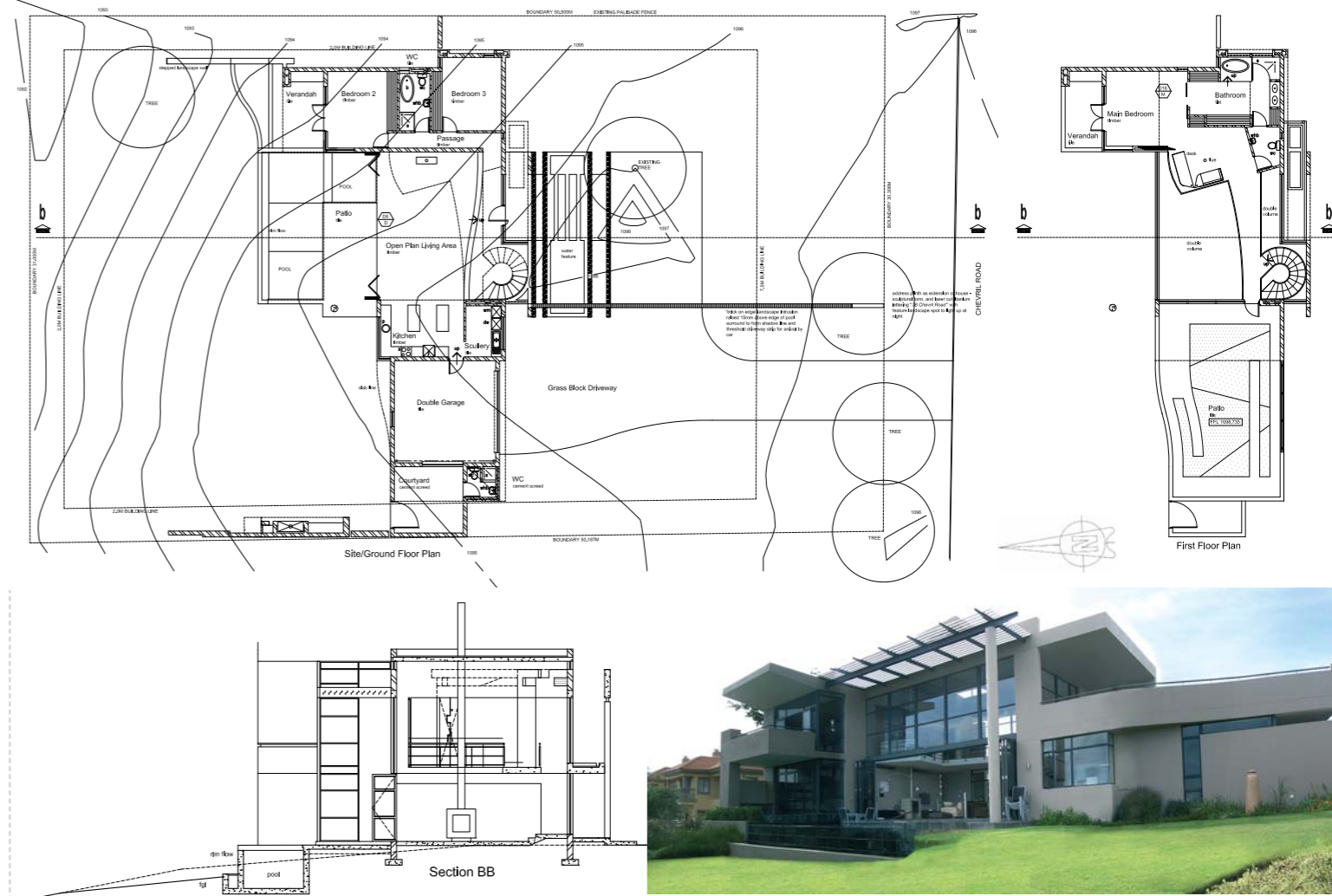
The external envelope of the house has been proportioned with recessed and protruding planes of brickwork. This articulation has created a bold and strong geometry that identifies the house within its setting.

The good working relationship between client, builder, engineer and architect has resulted in a most enjoyable process with the subsequent completion of a further three building projects including the building of seven new classrooms and the conversion of an existing house as the premises for a school. This conversion was completed in January 2008 and the school now has 85 enrolled learners. The brief for the next project currently underway is for the design of a residential building that explores aspects of public and private life, and is to be built further up on the highest part of Chevri Road. I look forward to working with the team again and to enjoy the process of ideas, discussion, design and building.

Greg Townsend

On graduating from the University of Natal in 1999 with the appellation cum laude, Greg gained experience working in various practices before embarking on his own in 2003 under the title Townsend Architects. The practice is based in Westville and is involved in residential, commercial, and more recently community work throughout KwaZulu- Natal. —Editor

Engineer: Sivest Hemingway  
Owner/Builder: M Cullen



News continued...



School of Architecture

At a graduation ceremony of the Faculty of Humanities, Development and Social Sciences held at Westville Campus on 21 April, four students graduated with degree M.Arch; one with B.Arch (Advanced) and 61 with BAS. Of the last, the degrees of Grant Prestedge and Stephanie Zangerle were awarded with appellation cum laude.

UIA Acknowledgements

The outcome of the inaugural Vassilis Sgoutas Prize of the International Union of Architects for architects working towards alleviating poverty, has seen two KZNIA members mentioned: Richard Dobson for the transformation of Warwick Junction as "...a vibrant socially and economically sustainable city market", and Rodney Harber for "...his role as a militant for a more sane built environment...[being] instrumental in increased community participation...and [his] widespread influence as a teacher...".

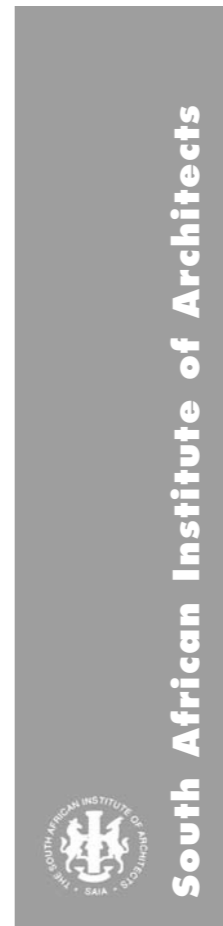
Well done! —Editor



2007 COROBRIK SAIA AWARDS OF MERIT



The above three KZ-NIA submissions have received 2007 Corobrik SAIA Awards of Merit: (clockwise, from bottom) EPA Studio—Elphick Proome Architects; Proud Heritage—sound space design cc; and Dock Point—Emmett:Emmett Architects.



### A Pilgrimage to the 88 Temples of Shikoku

The large island of Shikoku is situated within the Inland sea of Japan and is exposed to the Pacific Ocean on its southern edge. Inspired by a book written in the early eighties by Oliver Städler who had walked the pilgrimage route in sixty days, the inevitable decision to undertake the journey was finally realized.

The Shikoku Pilgrimage was established by the Buddhist Monk Kobo Daishi in the 9th century, but was only officially realized in the 17th century with the final establishment of the 88 temples. These are arranged in a clockwise direction, situated along the coastline of Shikoku, with some located inland on almost inaccessible mountaintops. Maps in English were not available, and we had to resort to guidebooks in Japanese, and graphic images for directions. The historical and traditional pilgrimage was done on foot and I quote a passage from a book by Jeffrey Hackler "If you think the walk is some romantic notion, please be advised that it is a painful experience. It is an arduous experience and not an excursion to be undertaken without



### A Travel Diary Shikoku



considerable thought and preparation. If your will is not strong you will not finish this pilgrimage". Today due to time constraints, few Shikoku pilgrims (Henro) walk the route, the majority consisting of elderly Japanese do it on organized tours by bus.

In our case we decided that the next best option was to cycle the route of some 1400km, expecting to do the trip in three to four weeks. Thus on the 8th of October 2003 my erstwhile Hong-Kong partner Alan Wright and myself set out on our bicycles on a journey into the unknown.

We were carrying our limited survival kits in pannier bags strapped to the bicycles, including cameras, guide books etc. to a total weight of some 10kg.

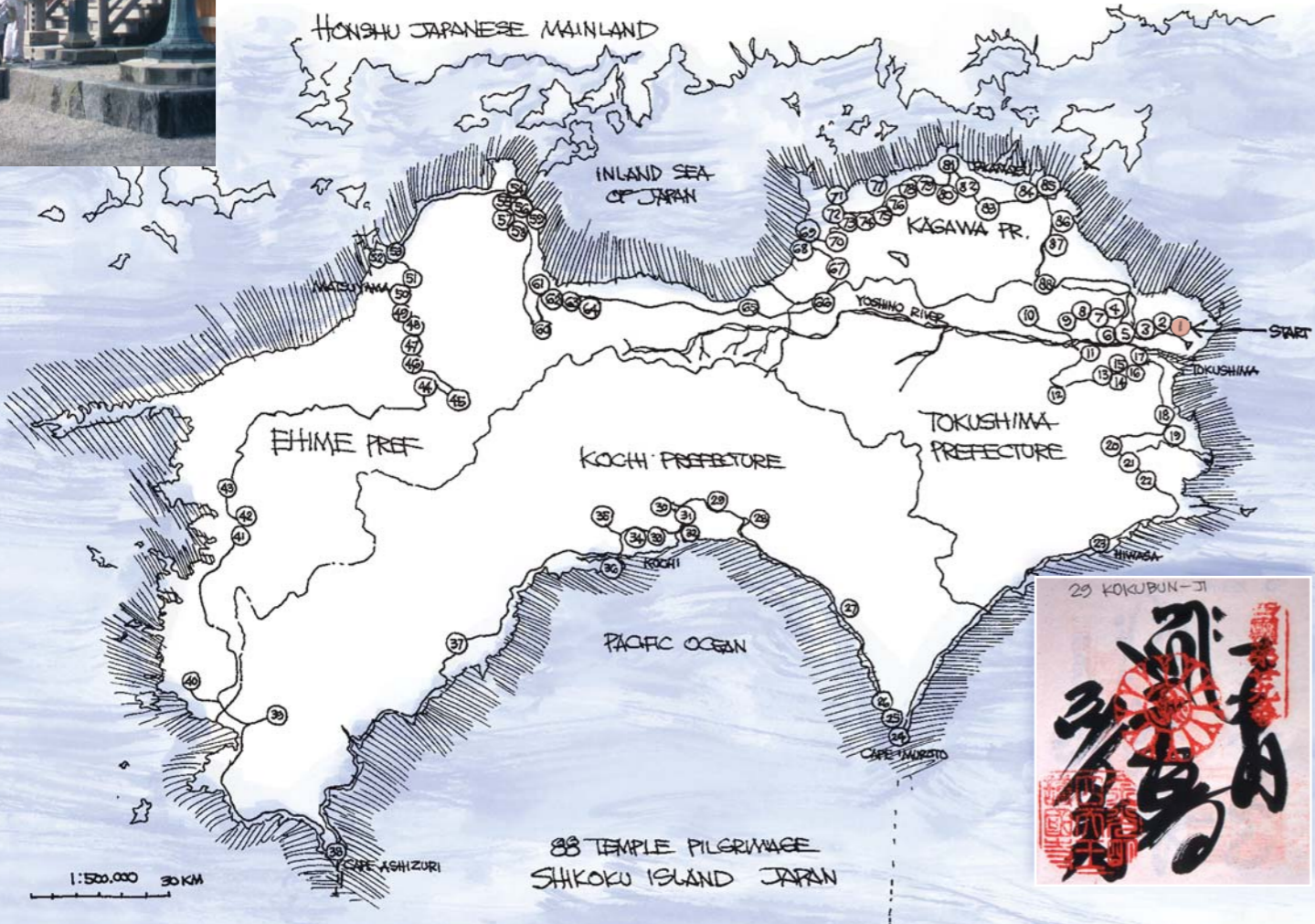
Every day was a journey into the unpredictable, the route to visit each of the 88 temples being the guideline extracted from our sketchy Japanese maps. The traditional rigor in visiting a temple culminated in receiving the Nokyosho stamp in our stamp books. This consisted of three red stamps with a final brush stroke from the Priest indicating the name of the temple visited.

Cycling to temples located at some 800-1000 meters above sea-level became an extremely physical and tough challenge, at times we resorted to pushing the fully-loaded bikes up never ending paths and zig-zagging up precipitous craggy mountains in order to reach these lofty temples.



Traditional Japanese inns, Minshukus or Ryokans provided accommodation and luckily we never had to resort to spending a single night out in the open. Upon arrival at the inn, usually in the late afternoon, a traditional Japanese bath "Ofuro", would be followed by dinner and bed. After a nourishing and early breakfast we were positively geared and challenged to reach the next temple.

My intellectual connection with Japan started in my fourth year at the University of Cape Town, doing the required personal research submission on the history of Japanese architecture. This exposure in 1963 culminated in a trip to Japan in late 1971, when I spent almost three months visiting architectural treasures in many locations throughout Japan. A month in the ancient city of Kyoto, miraculously saved from American bombings in World War II, allowed exposure to this extraordinary Japanese City.



Architectural and religious centres such as Ise and Izumo Taisha inspired an understanding of the architectural continuity integral to the traditional culture of buildings constructed entirely of wood.

In 1985 under the guidance of Julian Elliot, Hirsh Fish and myself, 33 South African architects visited Japan for three weeks, being exposed to its historic and contemporary architecture, and meeting architects such as Kenzo Tange, Tadao Ando, Kisho Kurokawa, Shin Takamatsu and others.

So the third visit to Japan, the Shikoku Pilgrimage, was directed to the religious and spiritual history of Japanese Buddhism, but especially the esoteric Shingon sect established by Kobo Daishi (774-835). The popularity of Kobo Daishi in modern Japan is extraordinary. He was a gifted "Renaissance" man, who established public education and introduced Chinese medicine to Japan. With his knowledge of civil engineering he was responsible for irrigation projects on the island of Shikoku

such as the huge Mannoike reservoir still in operation today. The systematic alphabet and the "Kana", a phonetic writing system is also attributed to him. What is impressive is that these contributions by Kobo Daishi to Japan and its extraordinary culture occurred in the 8th century. Although originally inspired by a visit to China by Kobo Daishi, these ideas were absorbed into Japan and transformed into its own and unique culture.

Exposure to the architecture of the Shikoku Temples convinces one of the consistent principles of architecture and place-making. The use of traditional materials and its essential timber structures exposed one to the magic of discovery of this ancient architecture.

Long hours of cycling allowed contemplative reflection on the essence of Japanese historic architecture and the critical status of architecture in the world today. The wise words of Renzo Piano direct one's thoughts towards the sense of sensibility and our responsibility as architects:

"I am opposed to the idea that a building should be tortured to get attention".

Why is the latest crop of attention-seeking architecture of fashion so expressionistic in its attention-seeking forms?

On reflection, the ancient architecture of the Shikoku temples has somehow retained and sustained their interest over more than a thousand years. There is no question of sharing the disastrous sell-by-date of so much of our contemporary architecture that still has to stand the test of time!

Francois Pienaar  
The practice co-founded by Francois Pienaar, Meyer Pienaar Architects, was restyled CO-ARC International, in 2007. It is based in Rosebank, Johannesburg. - Editor