

SAIA-KZN

Journal of the KwaZulu-Natal Region of the South African Institute of Architects



BUSINESS AND LIFE Office Building Architecture

NEWS

EDITORIAL

Paton Taylor Architects at 130!

The practice founded by William Street Wilson in Durban in 1887 marked its 130th birthday with a function held at the Institute on 8th November. Appropriately, the concomitant exhibition was entitled '130 years of pioneering architectural excellence'.



SAIA Officers

The one-year term of SAIA presidency of KZN member Kevin Bingham ends on 23rd November, when the incumbent, Maryke Cronje, will be inducted for 2018 in Pretoria with Luyanda Mpahlwa as vice-president. Incoming treasurer will be KZN member Lauren Haiden with Jan Ras as deputy.

UKZN

Camrin Plaatjies, won 3rd prize of R10 000 in the recent PG Bison competition for the design of a restaurant within an ailing building in one of Johannesburg's key parks. Both 1st and 2nd prizes went to students of the University of the Free State.

In Memoriam

SAIA-KZN Journal has learnt with regret of the sudden passing of Barry Upton (1947-2017). Before commencing on his own in 2002 as Overflow Design Architects, and teaching at both UKZN and DUT, Barry had spent a decade each in the offices of Stauch Vorster and FGG. May he rest in peace. *Editor*

BUSINESS and LIFE
Office building architecture

The focus of this editorial is on the transforming needs of commercial office spaces and how this informs the buildings that house these functions and the precincts in which they are sited, together with examples by KZN Architects.

With the shift of the city centre northward, office developments historically have been stand-alone buildings either on individual sites or as part of a secure office park development. These were designed to maximise bulk and development potential and to ensure maximum returns on investments.

How we use office spaces has evolved and continues to evolve with the social and technological demands and requirements of each generation. Millennials are 'looking for careers that offer a sense of purpose and contribute to the greater good' so that workspaces and the buildings housing them need to respond to recruit a younger more creative collaborative work force.

Office parks like La Lucia Ridge created indigenous park like environments in which office buildings were dispersed. Offices were sited within indigenous green belts with ocean vistas. Cars were restricted to basements thereby reducing the amount of exposed metal. The downside is that there is no interface or interaction between people working within these spaces. Any interaction is reduced to hand gestures whilst queuing at boom gates when leaving in the evening.

Silicon Valley leads the change from isolated corporate conglomerations to corporate campuses. The concept was to promote wellness whilst integrating and adding complementary services and amenities, combining non-office and office work together to drive sustainable work environments. Designs challenged what developers saw as leasable space with open common spaces being more desirable than buildings built to maximum capacity.

Corporate campuses, like Apple's new high tech sustainable head office by Norman Foster and Associates or Facebook's headquarters in California which is a collection of office buildings from a '90s office park, house a single entity within a campus arrangement of office spaces, providing a model for a more user-centric grouping of commercial spaces.

This grouping of "smaller" buildings as part of a development means:

- Corporates can take a portion of the available space whilst still retaining their identity and have the option to grow within a development.
- Smaller start-ups or established entities can benefit from

their association with larger corporates within the campus environment.

- Pressure to find large corporates to drive developments is reduced.
- Open communal casual spaces created by the buildings allow people to interact; "casual collisions" between people from different organisations provides for exchange of ideas and increased networking.
- Common spaces serve to soften and blur the hard edges and link "scattered" buildings.
- Shared communal facilities, such as coffee shops, encourage informal discourse.
- Physical and visual links to external spaces have positive impacts on those using office spaces. This well-being trend is partly responsible for biophilic design, which research has shown increases productivity and creativity due to links and exposure to natural light, plant material, tactile natural surfaces and views to external natural spaces.
- Increasing visual and physical interfaces means higher security within developments.

How this is adapted to the local context is the challenge. Historically **designworkshop : sa's Bellevue campus** incorporates four buildings which house galleries, a restaurant and various commercial office activities. These are all sited around a landscaped courtyard located in a parklike suburban environment. Future-proofed flexible spaces create 'a sense of working from home in a benign sub-tropical environment'. Passive cooling and appropriate materials make this an appropriate response for local office campus environments.



Bellevue campus, Kloof, by OMM Design Workshop, 2000. Originally the project was named Electric Ladyland, and received both KZN and SAIA Awards of Merit in 2001, and a SAIA Award for Excellence in 2002 (KZNIA Journal 2/2001, 3/2001 and 2/2002).

Non-existent public transport networks mean we rely extensively on private transport with the car, an unfortunate driver of developments. Durban's topography makes cycling to work unfeasible. A blurring of the interface between various developments needs to take place along with a relaxation of controls within existing office parks to encourage interaction between developments. Open plan flexible internal spaces on

large floor plates with external links creating open adaptable work environments are easily achieved. It's the external interface and urban model that needs a re-think.

A recent proposal by SLD and Bloc Architects attempts to transform the **Glass House** which comprises 'stand alone' office buildings typical of early La Lucia Ridge Developments into a high energy, diverse working environment. The proposal was to realign the parking and sense of arrival and with the introduction of pedestrianised landscaping and street art the spaces between the buildings became extensions of the work environments. The reclaiming of a swamp allowed for a mixed use public open space and together with other activity generators such as a gym, coffee shop etc would serve as a catalyst for public interface both during office hours for tenants and after hours for the public.



Glass House, La Lucia Ridge, was the first office building on La Lucia Ridge. It was designed by Hallen, Theron & Partners as Hulett's Head Office and won an Award of Merit in 1977.

The building has two main floors for administrative purposes atop a semi-basement mainly for services. The exterior is distinguished by the battered pre-cast concrete skirt, double-storey glass curtain wall with rounded corners and the oversailing cornice in the form of a giant-order half-pipe. Due to its classical underpinning, the building was dubbed "temple in the cane fields" (NPIA Newsletter 3/1977 & KZNIA Journal 3/2003). The building has since been re-conceptualised and the site has seen further developments as Glass House Office Park by Barry St Leger-Denny (SLD) Architects, and is currently being expanded for completion in 2018.

The projects selected explore various elements of the office campus environment with various levels of success.

Paul Nel guest editor

Paul Nel graduated from the University of Natal with B.Arch degree, and in 1999 with a PG Diploma, awarded with distinction. He joined Dean Jay Architects, which in due course became Jay & Nel Architects before in 2012 Paul Nel commenced practice on his own account. While with Dean, among others, Paul was project architect for a residence in Mamba Meander, Hawaan Forest, which landed a 2013 KZNIA Award for Architecture.

Guest editor Paul Nel (right) receiving the certificate of Award for the Residence in Mamba Meander, Hawaan Forest, from KZN-President Kevin Bingham, 2013.



Photograph by Roy Reed

Illovo and Growthpoint Ridgeview Offices, Ridgeside, Umhlanga

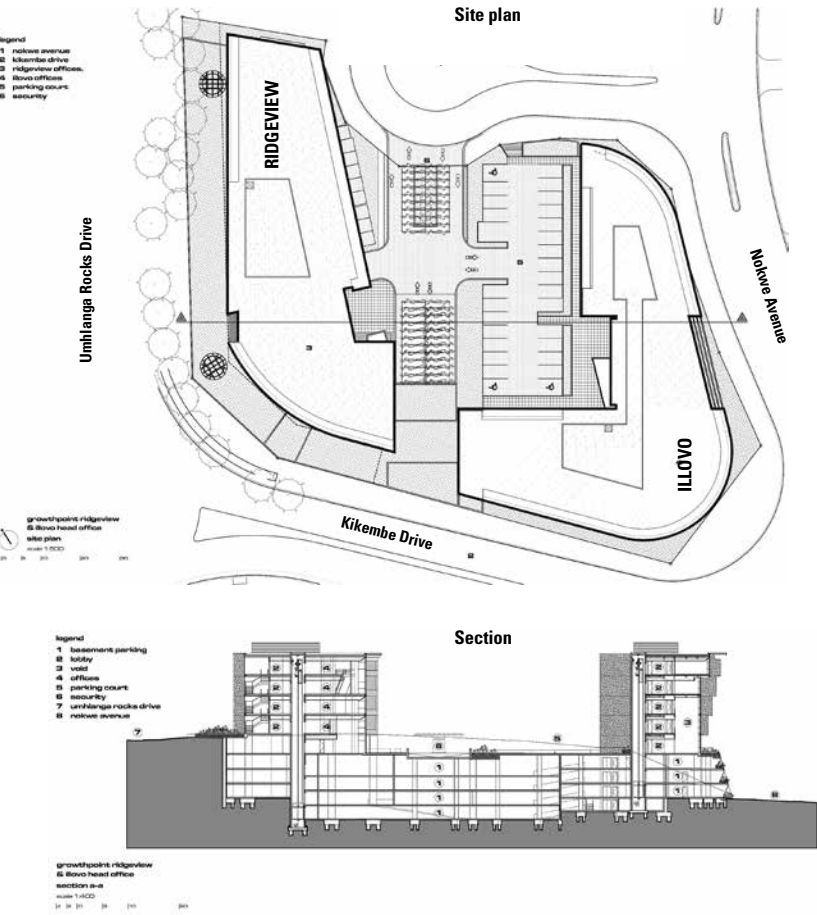
Architects: Elphick Proome Architects

This prominent office complex completed in 2016 is sited on Umhlanga Rocks Drive to the north and off a busy traffic circle serving Gateway shopping centre, forming a key piece of Umhlanga's new urbanism.

The development comprises two primary office blocks, being the Illovo building, a bespoke solution to the south-east, and Ridgeview a multi-tenanted building to the north-west, which are both sited around a landscaped court to form a consolidated campus. Entrance to both buildings is gained off this court space.

Open office plates with central circulation and service cores are situated over five levels which in turn are set over a stepped podium of four semi-basement parking levels that follow the site topography.

The inversely stepped façade over the office space to the south-west and north-west edge of the building creates larger floor plates and allows for more expansive views from the upper levels creating the buildings' iconic forms. Shaped and fritted glass solar fins to these façades are visually permeable and provide a functional and unique building skin. *PN*



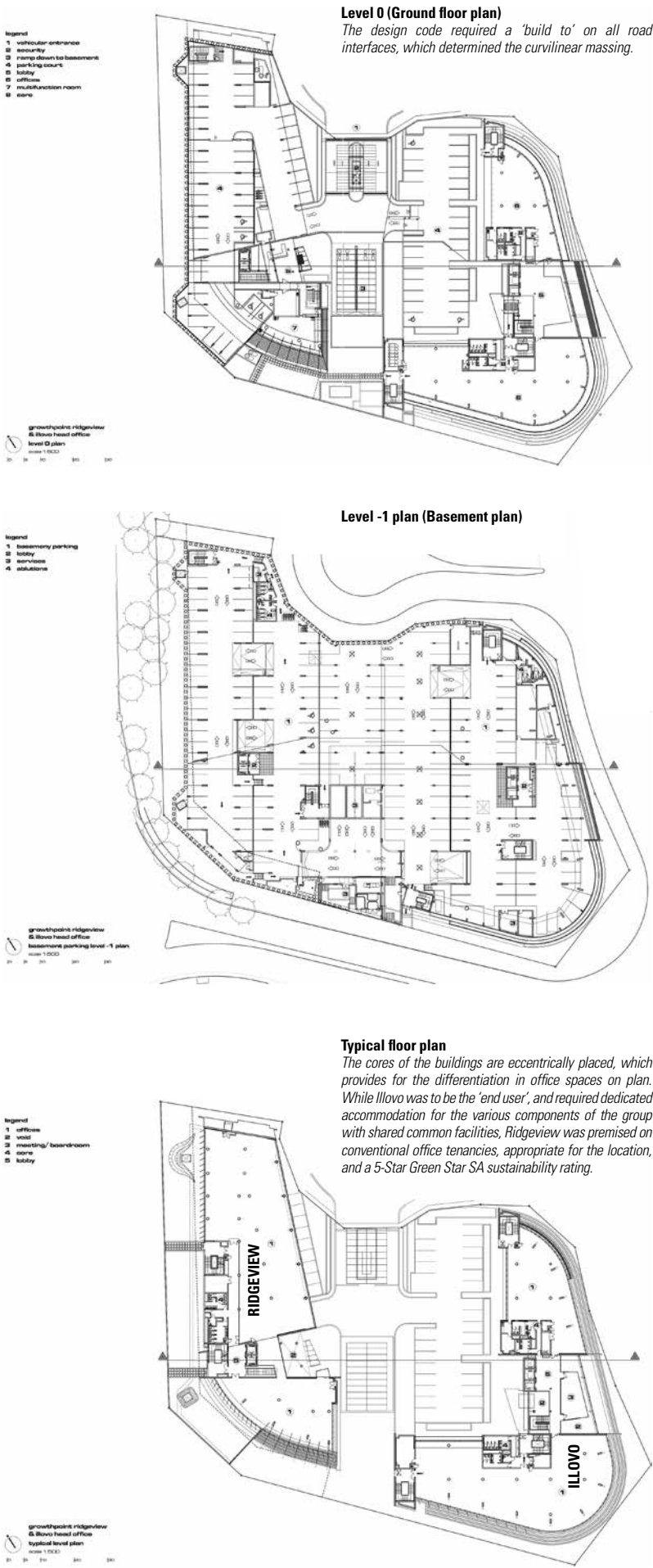
Ridgeview and Illovo on Kikembe Drive



Top of the triple volume of Illovo with gym at right.



The meeting or board room of Illovo, effectively suspended within the triple volume space.



Foyer of Ridgeview



Illovo staircase volume.



Details of the suspended stair flights.

Photographs by Karl Beath



Illovo corner Kikembe Drive and Nokwe Ave. The recessed portion contains the triple-volume space in which the lobby and board room are accommodated.



The effect of the inclement sun on Umhlanga Rocks and Kikembe Drives is mitigated by vertical baffles or fins of fritted glass. Editor



Detail of fins



The photograph from the cul-de-sac on Nokwe Ave clearly shows the deepening floorplates of ascending floors of Illovo. Across the shared court at right is Ridgeview.



Entrance of Illovo

Photographs by Karl Beath

JT Ross House and Lion Match Park, Durban

Architects: Dean Jay Architects

The Lion Match Park development has been an on-going development of what was originally a manufacturing facility for the Lion Match Company into a multi-use commercial campus precinct housing various organisations from building professionals, sport medicine professionals to Jonsson Workwear and JT Ross.

The original factory was built in 1925 in the Union Style and was home to the Lion Match Company for near 100 years. The site is bordered by Umgeni Road to the west and a railway reserve onto the iconic Kings Park Rugby Stadium to the east. Due to previous industrial zoning the developers were afforded the opportunity to fully develop to the boundaries. Ad hoc unplanned development over the years meant the site had become cluttered with buildings from various genres. Extensive

decluttering and demolition of certain buildings freed up the park for a more cohesive development whilst still maintaining an informal relationship between the various built forms.

The original building once sat within a tropical garden setting. This historical precedent was used to extensively re-green the site. Creating a park-like environment with cars parked beneath trees and landscaped elements linking buildings.

A contemporary clean-line modernist office and parking component for the developers JT Ross was constructed on the eastern corner of the site where extensive sea and city views are afforded. This development serves to complete the Lion Match Campus. *PN*



Site plan

- 1. The Old Factory
- 2. The Jonsson Building
- 3. JT Ross House
- 4. The Studio
- 5. The Terrace
- 6. The Stadium Building
- 7. The Umgeni Building



Aerial view from west. Lion Match Park is separated from Kings Park and Moses Madhiba stadiums by the railway lines. JT Ross House is the latest 'clean-line modernist' office and parking component at left.

Photograph by Andrew Griffin Photography



Evening shot looking north-east with JT Ross House in the context of the historical Lion Match Park. The 20m cantilever was prompted by the client's requirement for 2 500 sqm office space on one floor facing the Indian Ocean. This enables the spatial and view requirements without in any way infringing on the heritage protected abutting building.



Top floor interior with folded roof in profile.

Readers are also referred to KZNIA Journal 1/2015. Editor

Photographs by Andrew Griffin Photography

Milkwood Office Park, Umhlanga

Architects: Principal and design architects: Paul Nel Architects in association with Bloc Architects.

Milkwood Office Park comprises 11300m² of office space sited on the crest of La Lucia Ridge. Situated directly opposite the iconic ‘Glass House’ by Hallen, Theron & Partners, 1973-77, and bordered by Umhlanga Rocks and Douglas Saunders Drives to the north, the site affords tenants maximum exposure.

The development consists of 4 office blocks. The 3 primary office blocks, varying from 2 to 3 stories, are arranged around an open landscaped, common space criss-crossed with access ramps linking the buildings physically and visually. Limitations on height as determined by the planning guidelines were embraced to create a sympathetic interface with the adjoining residential developments and conservation zone to the south-west. The buildings have been orientated with their primary axis running east-west thereby maximising the north-south aspect. Southern façades are fully glazed taking advantage of the expansive city and ocean views.

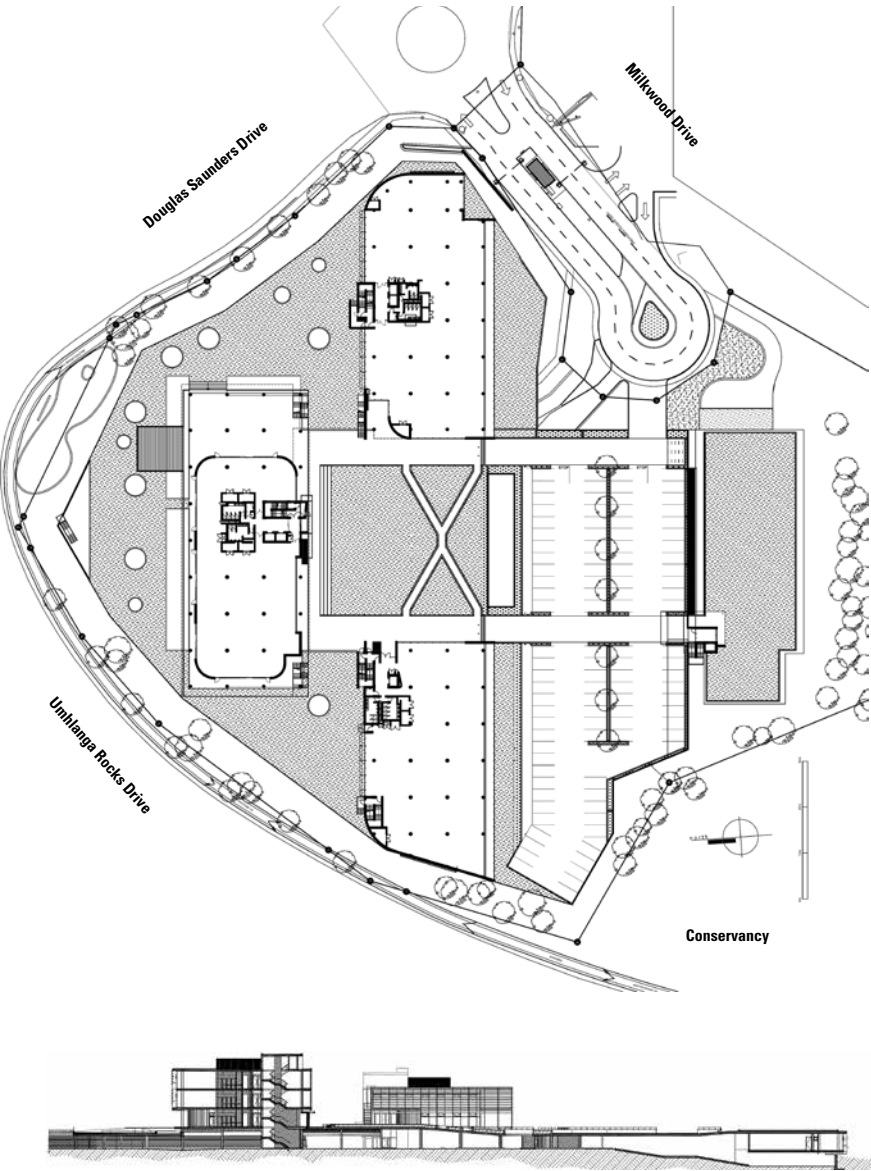
The northern façades, whilst also glazed floor to floor, are dressed with a system of deep aerofoil louvres set off the façades and angled to cut out solar gain throughout the year whilst affording occupants views inland. All blocks look onto the internal landscaped common space.

All the blocks are floated free of an indigenous landscaped roof slab that covers an extensive basement parking level. This raising of the office blocks and randomly placed ventilation voids within the planted slabs allows the parking level to be both naturally ventilated and lit.

The 4th block, on the south, is set at a lower level allowing views from the primary office spaces across its landscaped roof.

Large open floor plates with central service cores allow for maximum flexibility and growth.

A large covered outdoor space below the southern block allows tenants to interface with the landscaped garden spaces. *PV*



Aerial view from south-west. Huletts (Glass House) by Hallen, Theron & Partners, 1973-75, lies opposite on Umhlanga Rocks Drive, top left.

Site and ground floor plan and section
The office blocks are raised off the ground and the randomly placed circular ventilation voids within the planted slab allow the parking level to be both naturally ventilated and lit.



The northern façades, whilst also glazed floor to floor, are protected with a system of deep aerofoil louvres set off the façades and angled to cut out solar gain throughout the year whilst affording occupants views inland.



The three primary office blocks are arranged around an open landscaped space.



The southern façades are fully glazed to take advantage of the expansive city and ocean views. All the blocks float above the indigenous landscaped roof slab that covers an extensive basement parking level.



The landscaped common space is criss-crossed by ramps, which link the buildings.



The 4th block, on the south, is set at a lower level allowing views from the primary office spaces across the landscaped roof to the Indian Ocean.

Photographs by Peter Oravecz

Town Square, Umhlanga

Architects: MAP Architects (Pty) Ltd.
Project Architects: Charles Taylor, Jarryd Murray.

Town Square is a 4 star, green star-rated mixed-use commercial and retail development consisting of 40000 sqm commercial space with 6000sqm of retail on the ground floor, and the core theme of the campus is ‘business and life.’ The programming of the commercial and retail spaces is intended to create an inclusive mix of tenants from large corporates to opportunities for smaller start-ups and artisanal offerings.

The site is located in the heart of the Umhlanga Ridge new town centre adjacent to the Gateway shopping centre and Chris Saunders Park.

The large scale of the site did not support the development of a single building but rather a collection of individual blocks with separate identities. At an urban scale the development aims to maximize street interaction along all four road edges. Rather than creating a semi-public

internal courtyard - Town Square is opening up and creating a dynamic public square. This adaptable multi-use space is a result of the need for additional public space in the precinct. During the day the space will be populated by the large number of workers in the areas, restaurants will activate the space during the evenings along with other sporadic events, markets etc.

The ground level was conceptualized as an empty space with considerable retail infill to maximize public interaction. Pedestrian movement patterns were mapped and used to generate public corridors through the site. A 16m wide corridor links the popular Chris Saunders Park with the new public square. Corners are celebrated with higher volumes and deep shop fronts.

The dynamic façades of the buildings are intended to be animated by the inhabitants most noticeably by 100m long ramps connecting the various activities within the development. *PN*



View westward to the inland from Douglas Saunders Park in the foreground. On the left is Gateway on Centenary Boulevard, on the right Park Way. The Nedbank entrance is on the left.



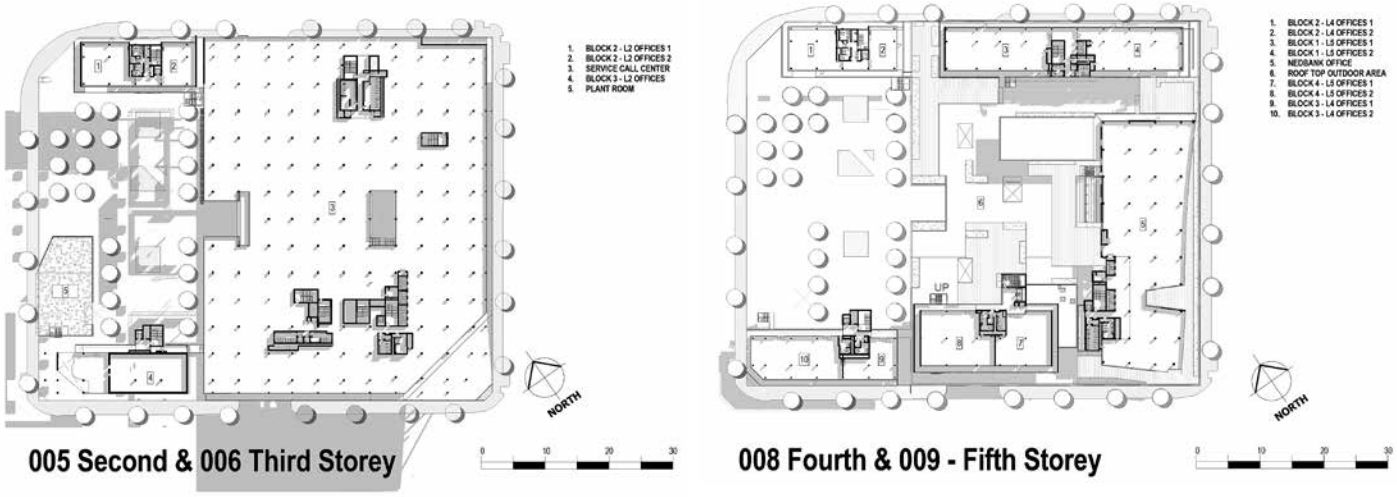
View from north with the public square in the foreground, right, on Twilight Drive. Park Ave is to the left and Douglas Saunders Park in the background at left.



The public square in use. During the day the space should be populated by the large number of people working in the area, which restaurants should activate during the evenings.



Town Square on Park Avenue facing Douglas Saunders Park. Nedbank entrance is under the elevated portion at left; the 16m wide arcade connecting to the public square is in the centre. The project is scheduled for completion in September/October 2018.



George Elphick and Nick Proome are 29th Sophia Gray laureates



George Elphick and Nick Proome in the foreground of an exhibition panel

On 31st August 2017 George Elphick and Nick Proome delivered the 29th Sophia Gray memorial lecture in Bloemfontein where a large crowd of the architectural fraternity of South Africa had converged. The venue was the Studentekerk alongside the campus of the University of the Free State and the laureates entitled their lecture ‘Evolution’, in which the work of Elphick Proome Architects (EPA) was presented thematically by project design. A shortened version of the lecture is available in *Architecture SA*, Nov-Dec 2017.

The EPA practice began in 1989 with ‘work at risk’. While this fact was immaterial to the submissions, in 1991 the Awards jury of the profession had already responded with the acknowledgement of both entries by EPA, Action Bolt factory in Springfield and House Elphick in Westville-North (*NIA Journal* 1/1992). The practice expanded and moved from rented premises at Overport to its own home at Tollgate, on a ‘left over’ site up against the Western Freeway. To the noise and motorists the building turned its back, solid and appropriately adorned with an EPA

billboard. Again, in 1993, the jury had no hesitation in making an Award for this contribution (*NIA Journal*, 3/1993).

Fifteen years later the practice had outgrown the Tollgate base and relocated to Westway Office Park opposite the Pavilion shopping centre in Westville where it had built its new home, EPA Studio. This time the regional jury issued an Award for Architecture (*KZNIA Journal* 2/2007) while the national responded with a 2008 *Corobrik* SAIA Award of Merit as well as an Award for Excellence, the highest accolade of the Institute. People judge architects by their buildings, but unusually here, these were their own practice bases. The EPA elevation continued when in 2012 Investec regional head office, Umhlanga, landed them another Corobrik SAIA Award for Excellence (*KZNIA Journal* 3/2012).

While most work is in KZN, as is to be expected, EPA has garnered awards for projects on the Vaal, at Rooiels in the Western Cape, and has delivered significant projects in Lesotho and elsewhere on the African continent.

George and Nick are near contemporaries and though both graduated at the University of Natal, their association stems not from their *alma mater* but from the real need for collaboration. On leaving Johnson Murray Architects where George was an associate, he commenced practice in 1987 for his own account, and now found himself ‘snowed under’. On learning of this situation, Sylvia Grobler, then executive officer of the KZN Institute, suggested George contact Nick. After a few years in employment, in 1988 Nick had just been made an associate of MLH & Hamlin; however, opportunity strikes but once! So the two established EPA in 1989, which is, interestingly, 29 years ago, the year in which the annual Sophia Gray Memorial lecture and exhibition was inaugurated, and George and Nick were this year declared 29th laureates.

Sophia Gray (1814-1871) was the wife of the first Anglican Archbishop of Cape Town. She had no training as an architect but learnt from observation, by sketching churches in England. On being despatched to South Africa in 1848 together with her husband, Robert, Sophy served as ‘diocesan architect’. Numerous Anglican churches to her designs



The EPA exhibition in Olievenhuis Art Gallery, Bloemfontein.

followed including in KZN St Peter’s cathedral in Pietermaritzburg (1851-57) and St Patrick’s church at Umzinto (1868).

Sophy Gray is considered South Africa’s first woman architect and, though she never built in the Free State, she prepared the designs for the Anglican cathedral in Bloemfontein, and is thus deemed the first architect, male or female, to have been professionally active in the province; hence her name was given the annual architectural celebration.

A few KZN architects are included in the list of Sophia Gray laureates. The 16th was Paul Mikula, who in 2004 chose for his title ‘My great big box called architecture’; 18th was design workshop : sa (Janina Masojada and Andrew Makin) with ‘Borrowing space and time’ (2006) ; and in 2009, the 21st was Walter Peters with ‘More ways of being an architect’.

The event in Bloemfontein is an honour and a privilege, an official item on the calendar of the University of the Free State and draws around 600 participants from various corners of the country. Following the evening’s memorial lecture, seldom presented in the same venue, is the opening of the exhibition at Olievenhuis Art Gallery. For theirs, EPA had prepared some 40 posters and 12 models, which were especially built for the occasion of laser cut perspex on cork bases, and all curation was delegated to one staffer, Pierre Roetz. Then the celebration in the outdoors of Olievenhuis, often at sub-zero temperatures around roaring fires, an experience this time fortunately spared. The exhibition was subsequently mounted at EPA Studio, to which opening all SAIA-KZN members were invited. *WP*



2018 Sophia Gray Memorial Lecture and Exhibition invitation



The work of EPA has adorned six covers of this journal, here illustrated.

2017 SAIA-KZN Awards ceremony

On Friday, 29th September, the biennial SAIA-KZN Awards ceremony took place at AHA Waterfront Hotel (formerly Dockpoint), Mahatma Gandhi Road, Durban. The ceremony was presided over by SAIA-KZN President Ruben

Reddy while the certificates of Award and Special Mention were presented to architects and clients by eThekweni deputy mayor, Cllr Fawzia Peer. Readers are referred to SAIA-KZN Journal 2/2017 for details of the projects.



SAIA-KZN President Ruben Reddy.



Among the representatives of the sponsors of the event, Corobrik, were managing director Dirk Meyer and Chris Mungle, Sales Manager, eThekweni.



Richard Stretton of Koop Design received a certificate of Award for Bluecrane residence at Curry's Post from deputy mayor Cllr Fawzia Peer



David Tyson, Steven Roberts and Patrick Hathorn collected the Award for K-RITH tower from Cllr Peer on behalf of FG&G Architects.



George Elphick and project architect Pim Artz received the certificate of Award for RCL Foods, Westway, from Cllr Peer.



At the bookends, Mark Horner and Andrew Makin of design workshop :sa, who collected an Award for Pixley House, Durban, with Cllr Peer and client representative Luke Maurel, General Manager of Property, Durban.



The certificate of Special Mention for the RBIDZ entrance gate at Richards Bay was presented to Jeremy Steere and Sphephelo Mhlongo.



A visibly delighted Dean Jay received the certificate of Special Mention for House Hoal in Hawaan Forest Estate from deputy mayor Cllr Fawzia Peer.



Client representative Mike Boule received the certificate of Special Mention for Ad Coelum, an intervention to a house in Durban North, together with the architects Chantal Pieterse and Martin Kluger of Architecture Fabrik.



A delighted team from the Architecture Department, eThekweni Municipality.

From left, Adrian Govindsamy, project architect of the Award-winning Hammarisdale Container Traders' Shelters, Gregory Evans, Head Engineering Unit, eThekweni Municipality, Deputy Mayor Cllr Fawzia Peer, Laura Hunt who with Nick Vinton on behalf of Michael Watts Architects received the Special Mention certificate for the Pre-cast yard and building services centre at Springfield, and Nina Saunders, Acting Deputy Head, Architecture Department.

Rodney Choromanski wins Africa Architecture Awards Grand Prix



The Africa Architecture Awards aim to recognise and acknowledge commendable projects across the African continent. To these ends Awards were available in four categories: Built, Speculative, Emerging Voices and Critical Dialogue, and each category carried a Trophy prize.

Of the total 309 entries for the inaugural Awards programme, the Built category attracted 139 of which the uMkhumbane Museum was short-listed before winning the Trophy prize. However, the ultimate accolade is the Grand Prix, selected from the 4 Trophy winners. At the Awards ceremony held on 28th September at Cape Town's newly opened Zeitz MOCAA museum, uMkhumbane Cultural Place by Choromanski Architects was announced winner of the Grand Prix, carrying a purse of US\$10 000!

The Awards jury comprised seven members from across the continent, chosen by the Steering Panel chaired by Prof Lesley Lokko, head of the graduate school of Architecture at the University of Johannesburg. The selected jury consisted of Anna Abengowe (Nigeria), Guillaume Koffi (Côte d'Ivoire), Professor Edgar Pieterse (University of Cape Town), Patti Anahory (Cape Verde), Professor Mark Olweny (Uganda), and Tanzeem Razak and Phill Mashabane (both of Johannesburg).

KZN entries fared well. In the 'Critical Dialogue' category which saw 34 entries, the submission by Richard Dobson 'The Journey of Design and Critical Dialogue. Securing the Presence of Urban Livelihoods' was short-listed.



An elated Rodney Choromanski (centre) holding the Grand Prix of the 2017 Africa Architecture Awards programme while embracing juror Guillaume Koffi. On the left is Evan Lockhart-Barker, Managing Director of Award sponsors, Saint-Gobain Retail.

uMkhumbane Cultural Place began as a design competition for an Interactive cultural centre held in 2003 and won by Rodney Choromanski, CNN Architects (KZNA Journal 3/2003).

The brief was to preserve the rich cultural and political heritage of Cato Manor while at the same time providing economic opportunities for the community. The area just outside of the historical boundary of Durban had been subjected to apartheid era removals.

The site at the confluence of two major arterials, Rick Turner (Francois) and Vusi Mzimele (Bellair) Roads, is crossed by the uMkhumbane River and is

included in the Durban Metropolitan Open Space System (DMOSS), but compromised by the flood plain and a gas pipeline servitude, leaving only the eastern half available for building.



uMkhumbane Museum. In the foreground, left, the monument of commemoration to Queen Thomazile.

The original brief called for a theatre, museum, studios and workshops, as well as commercial outlets and a landscaped hero's park. It was made clear that once the museum's 'story line' had firmed, the design development could be for a substantially changed brief.

While a decade passed, the intention of a Cultural Place was not forgotten and the redesigned building is now ready for museum curatorship. Contrary to the original, the new is a five-storey tower that provides the opportunity for contemporary culture and heritage to converge at a node, where it serves as a tool for social and ecological regeneration. As such, the master plan includes:

- a cultural park and public square;
- galleries for a permanent collection on forced removals with temporary collections dedicated to women and families in the struggle for freedom;
- dedicated space for community exhibitions;
- gathering areas for oral, performance and installation exhibits;
- social gathering areas for functions with concession areas including stalls for traders;
- a multi-purpose theatre;
- children's innovative facilities; and
- a linking of the development with tour routes through the community and surrounding areas.

The tower in the shape of a cylinder contains a crescent-shaped plan with an atrium at its heart and galleries spread over three floors. It is

constructed of a reinforced concrete frame on the south and a screen of perforated aluminium on the north, which should mitigate climate while promoting bird life. Significantly, the community was involved in the shaping of building materials and in construction.

The site includes a monument of commemoration for the mother of reigning Zulu monarch Goodwill Zwelithini, Queen Thomozile, who once was employed as a domestic worker in the area, and whose remains have recently been reinterred.

Using the museum as its subject, the paper 'uMkhumbane Cultural Place' presented jointly at the UIA (International Union of Architects) conference held in Seoul in September 2017 by Rodney Choromanski and eThekweni Area Based Manager for Cato Manor, Mhlengi Gumede, received the Outstanding Paper/Design Work Presentation Award. *Many congrats! Editor*

Environmental sustainability

The uMkhumbane Museum brings about an awareness of challenges facing not only the local communities but the region in general, as well as highlighting the polluted uMkhumbane River within the DMOSS (Durban Metropolitan Open Space System) area which needs to be rehabilitated.

The various stakeholders to the museum, which include UKZN and concerned members from the private sector, could hold a series of educational workshops and scientific investigations with the communities living along the river to care for/be environmentally sensitive to/ understand how to use the river to improve their quality of life.

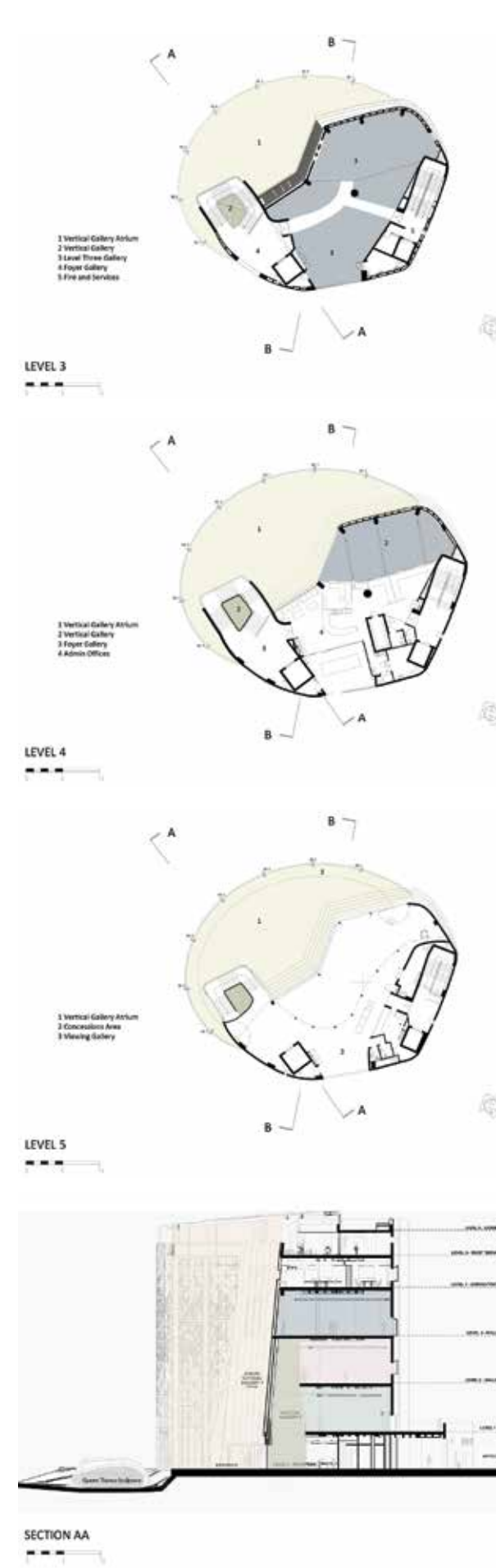
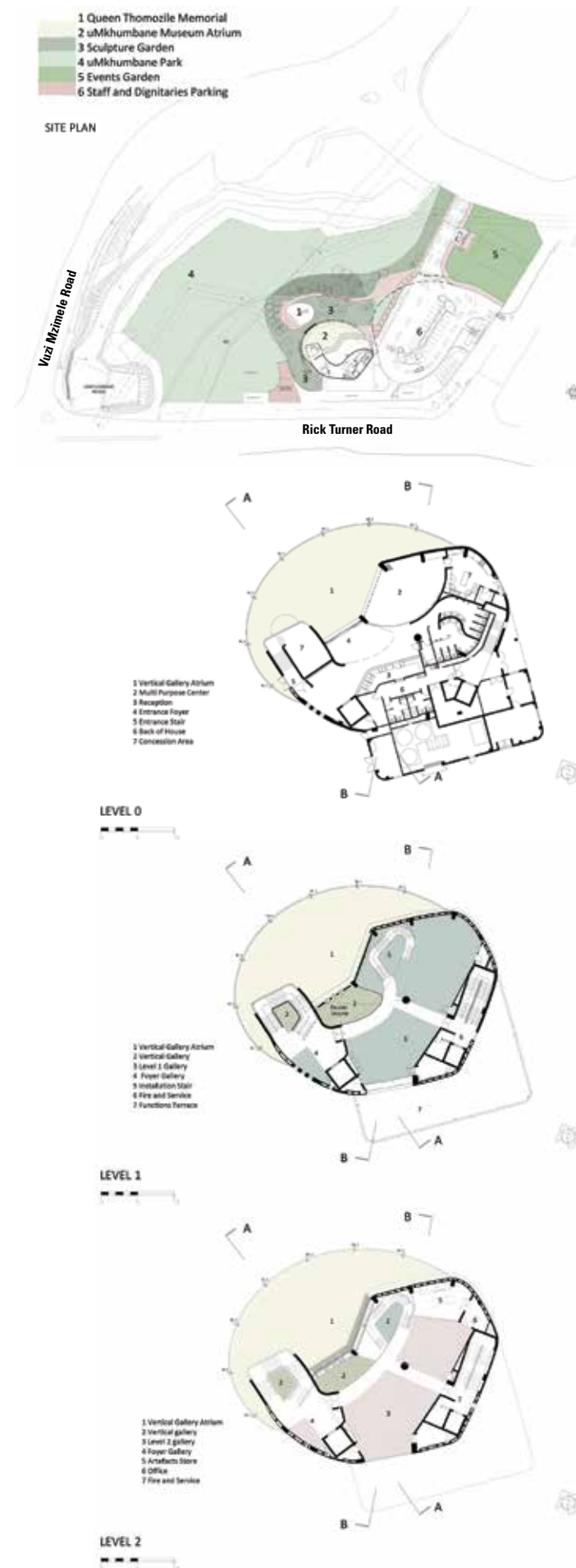
As part of the masterplan an eco-hub is envisaged on the site that will introduce visitors and communities to the birdlife and plants (fauna and flora) of the area. Also proposed are heritage trails and boardwalks that the community could be involved in constructing, maintaining and trained to serve as mini-tour guides on the ecological significance, providing an oral history of the area, as well as points of interest.

In the design development, the footprint of the building was reduced in acknowledgement to the sensitivity of the site. The perforated screen wall mitigates the effects of the north sun while clay brick walls, low in maintenance, inert and high in thermal mass, were used in the solid section on the remaining elevations where construction in diaphragm walls also reduced the amount of concrete needed for the frame.

The two stair cores on the east and west ends of the building are naturally ventilated and reduce heat gain to the central galleries. The HVAC (heating, ventilation and air conditioning) system makes use of ice storage tanks as the ice is created during off-peak energy consumption periods at night. The ice is formed by passing chilled water through the tanks with the chiller plant shutting off when this process is complete. During the day the chiller switches off and the water in the HVAC system is cooled by the melting ice. The construction of the external envelope creates thermal mass, reducing the load on the HVAC system.

UV (ultraviolet)-resistant glass was used in the windows, designed with deep reveals to reduce solar gain and glare. Materials were used in their natural state; where paint was required this was of eco-friendly quality with low VOC (Volatile organic compounds).

Dhiren Ramlal
Choromanski Architects



Looking down into the atrium space with the screen of perforated aluminium on the left.



View of a typical gallery.



The monument of commemoration to Queen Thomozile on its inauguration, 24th May 2017.



The grave containing the reinterred remains of the late Queen within a vaulted crypt lit from above.

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