

SAIA-KZN

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



WE DESIGN
Calling for a
National Spatial
Revolution

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EDITORIAL

WeDesign On Friday, 8th July 2016, SAIA-KZN hosted the We Design conference, the topic of this issue.

The event was prompted by the seemingly intractable problems South Africa is experiencing, low economic growth, increasing unemployment, deepening poverty and widening inequality. It was therefore deemed appropriate to summon to the Durban City Hall an assembly of South African 'urban-minded' speakers, including the South African Minister of Finance, Pravin Gordhan and from abroad Felipe Leal, head of Mexico City's department of urban design and housing, and Kelvin Campbell, chair of Smart Urbanism, London. What is captured herein is the gist of the presentations with, as examples, some issues locally being engaged with.

This issue also features some important KZN milestones including the delivery of another SAIA President; 40 years of sole and continuous sponsorship of this Journal by Corobrik; participation at the 2016 Venice Biennale; and the landing of another Afrisam-SAIA Award for minimising the environmental impact of buildings.

SAIA-KZN might not be the largest regional Institute but what's wrong with punching a little above one's weight?

Walter Peters, Editor

NEWS

SAIA-KZN and SAIA-KZN Journal

Following a restructuring, in 1996 the term South African Institute of Architects (SAIA) was the title adopted by the national Institute, of which, while remaining autonomous, the provincial or regional body, in our case KwaZulu-Natal Institute of Architects (KZNIA), had the power to affiliate with.

However, during the Presidency of Al Stratford, 2009-10, the 'Strat-Plan' was devised, specifically to reconstitute SAIA and the eleven regional institutes, and re-group these into a unified body. This would see SAIA with a National Board dealing with national matters

and the eleven regional institutes each managing matters of regional interest.

Consequently, a SAIA Constitutional Committee was established in 2013 to draft a new constitution, and this came into effect in 2015. Contingent thereon, the membership of KZNIA adopted a regional variant on 22nd January 2016. With this, it was appropriate to re-style our Institute SAIA-KZN.

To follow suit, this triannual publication, known since 1995 as KZNIA Journal, will now become SAIA-KZN Journal, or as defined in the sub-title, *Journal of the KwaZulu-Natal region of the South African Institute of Architects.*



Standing forward are Corobrik's managing director, Dirk Meyer, and chairman, Peter du Trevou, who is holding the certificate commemorating 40 years of sole and continuous sponsorship of SAIA-KZN Journal.

Back row from left: Journal editor Prof Walter Peters; SAIA-KZN past-President Kevin Bingham (2013-14); current KZN President Ruben Reddy, chair of the Editorial Committee and past KZN President Nina Saunders (2011-12); and past KZN Presidents Trish Emmett (1999-2002); Ivor Daniel (2007-08); and Prof Rodney Harber (1994-98).

40 YEARS SAIA-KZN JOURNAL

To commemorate four decades of sponsorship of the Journal of the KwaZulu-Natal region of the South African Institute of Architects by Corobrik, SAIA-KZN President Ruben Reddy presented a certificate to managing director, Dirk Meyer, and chairman, Peter du Trevou, in the Durban City Hall on 8th July 2016, concomitant with the WeDesign conference. The citation reads:

In 1976 Corobrik began sponsorship of KZNIA Journal and this year marks the 40th anniversary of the rapport between industry and the architectural profession.

In an age in which sustainability is the criteria, the brick remains as one of the most versatile and functional inventions in the history of Architecture. Bricks are modular, based on the dimensions and abilities of a single hand.

In the words of Mies van der Rohe, one of the most important architects of the 20th century, "Architecture starts when you carefully put two bricks together. There it begins".

If bricks are 'put together' in bonds, great structural stability is attainable, as is flexibility, thermal mass and durability.

This is akin to the relationship between Corobrik and SAIA-KZN. It began when brick-maker and profession 'carefully put two bricks together' to explore a rapport by way of a quality publication towards promoting the objectives of both parties, which demonstrates what can be achieved through an association such as this.

To commemorate the occasion of the 40th anniversary, the membership of KZNIA acknowledges and honours Corobrik for its generous, sole and continuous sponsorship of the KZNIA Journal, in providing the profession with the opportunity for reflection and the Institute for promoting a public understanding of the built environment.

SAIA President 2017: Kevin Bingham

After serving as KZN President 2013-14, on Thursday, 24th November 2016, Kevin Bingham was inducted as President of the South African Institute of Architects, 2017, at a function held at Durban's Hilton Hotel.

Kevin was born in Durban, matriculated at Northlands before studying Architecture at Technikon Natal, now DUT, and University of Natal, now UKZN, and holds a higher degree by research on the 'Impact of AIDS on building types in KZN' awarded by the latter institution in 2009. He began his professional career at FGG Architects Inc., but entered academia at UKZN, 1997-2007, before reverting to FGG where he is a partner.

However, Kevin balances Architecture and the Institute with sport. He is an avid jogger, having run 6 Comrades Marathons, and a yachtsman, having served as Rear Commodore of Point Yacht Club, and is now a national Race Officer. Kevin and his wife, Lynne, have two adult sons.

Kevin Bingham is the 12th KZN member to serve as SAIA president, the highest office of the SA Institute of Architects. His KZN predecessors are Trish Emmett, 2004-06; Brian Johnson, 1994-96; Gordon Small, 1980-81; Hans Hallen, 1974-75; Keith Gow, 1969-70; Ernest Hudson-Bennet, 1964-65; Jack Simpson, 1958-59; Sonny Tomkin, 1949-50; Ron Bartholemew, 1942-43; Ernest Powers, 1937-38; and Wilfred Payne, 1932-33.



Newly inducted SAIA-President Kevin Bingham, donning the presidential chain, being congratulated by outgoing President Sindile Ngonyama.



Guest speaker at the function was Nina Saunders.



Jan Ras of the Free State Institute, and SAIA-President, 2003-04, was installed as SAIA treasurer 2017.



SAIA Honorary Life Membership was conferred upon Trish Emmett, SAIA president 2004-06; Council member of Union of International Architects (UIA) 2003-08, and its 2nd vice-President 2008-11. Others to be so honoured were Herbert Prins, SAIA-President 1982-83; Hassan Asmal, KZN-born SAIA-President 2006-08; Ian Alexander and Eugene Barnard.



SAIA Deputy Treasurer, KZN-member Lauren Haiden with Maryke Cronje, Pretoria Institute-member and SAIA-Vice-President, 2017. Lauren was Corobrik KZN regional student of 2009 and is now a director of Paton Taylor Associates.



A SAIA Gold Medal of Distinction was awarded posthumously to Joan Seirlis (1936-2015), which honour was accepted by her son Ari and daughter Angela Bax.



Jan Ras addressing the gathering



A relieved guest editor, Karuni Naidoo (left) and (right) Dirk Meyer, Corobrik MD, and editorial collaborator, Prof Debbie Whelan, chuffed with the issue.

LAUNCH OF WOMEN IN ARCHITECTURE, ISSUE 2/2016.

Women in Architecture KZN, together with SAIA-KZN hosted a women's event on 12th August 2016. The SAIA-KZN building was dressed up (slightly ironically) in pink for the day. The day was sponsored jointly by Corobrik, SAIA, ArchiCAD and SAIA-KZN.

Six female professionals spoke about their journeys in architecture: Karuni Naidoo, Angela Baker, Jodi Davids-Harber, Christina Giampietri, Mandisa Daki and Nomagugu Mancini. The presentations showcased the rich and fascinating diversity of women in architecture, their backgrounds, their careers and their lives.

Prof. Rozena Maart, Director, Centre for Critical Research on Race and Identity, UKZN, delivered a talk 'Race, space and the city'. Nolita Mtati, a psychologist, inspired women about 'making changes'. Also speaking was the CEO of the Durban Chamber of Commerce and Industry, Dumile Cele. The guest speakers offered both inspiration and a challenge for women in architecture to work towards changing the status quo, strictly on their own terms.

The afternoon group discussions focussed on: Transformation & Diversity; Support; Life-Work Balance; and Advocacy Matters. Content of the report-back is being used as the basis for follow-up workshops. The workshop concluded with a 'take-home' self-reflection and prioritisation exercise.

During a lively evening public function, three exhibitions were opened, and the dedicated KZNIA Journal issue was officially launched, against the backdrop of a series of banners created from the material and excerpts collected for the journal. Prof Debbie Whelan outlined the background to the special edition KZNIA Journal, the first publication in South Africa to feature the lives and work of 48 women architectural professionals, presenting our work, the multiple roles we play, with insights into our lives. The issue is a celebration of our diversity and range, reflecting our accomplishments and the race and gender challenges that we face. Corobrik has been sponsoring KZNIA Journal for the last 40 years, and Dirk Meyer, MD Corobrik, was presented with a copy, before the issue was circulated amongst all those present.

The three winners of the 'Neutralising Spaces' student competition, were announced and prizes awarded to Treven Moodley, Lesego Tsatsimpe and Dashnee Chetty. The competition was initiated and co-ordinated by Adheema Davis to coincide with women's month, and it focussed on how students from both UKZN and DUT responded to campus spaces in terms of gender and transformation.

The work of Janina Masojada, one of only five woman Sophia Gray Laureates, and the only one from KZN, was exhibited. This was part of the original 2006 Sophia Gray exhibition, and includes three SAIA Awards of Merit.

The series of events and the journal launch consolidated a year of work by women in KZN. They have started a movement of women in the architectural profession, and are looking forward to working together with similar groups in other SAIA regions.

Karuni Naidoo, guest editor of KZNIA Journal issue 2/2016.

SAIA-KZN PRESIDENT, REGIONAL COMMITTEE & TASK TEAMS, 2017-18

The KZN regional committee for 2017-18 is: Andrew Makin; Carl Wright; Chantal Pieterse; Jodi Davids Harber; Ken Lever; Kyria van Soelen; Lauren Haiden; Lindsay Napier; Mandisa Daki; Michael Brunner; Ndabo Langa; Nomagugu Mancini; Patrick Smith; Ruben Reddy; Sbu Sithole and Sikhumbuzo Mtembu.

President and Vice-Presidents for their second term are, respectively, Ruben Reddy, Skura Mtembu and Lauren Haiden, with Patrick Smith and Jodi Davids-Harber joining them on the Executive Committee.

The following members will be chairing the various task teams:
Finance - Lauren Haiden; Practice - Patrick Smith (assisted by Ken Lever and Mandisa Daki); Events - Kyria Van Soelen / Michael Brunner; Heritage - Lindsay Napier; Premises - Lindsay Napier; Membership - Skura Mtembu; Youth - Skura Mtembu (assisted by Sbu Sithole); CPD - Carl Wright; Education - Sbu Sithole (assisted by Adheema Davis and Senzekile Mlambo); & Habitat - Chantal Pieterse (assisted by Adheema Davis).



Winner Jean-Pierre de Marigny flanked by Allin Dangers, Corobrik Director of Sales, KZN and Eastern Cape (left), and Lawrence Ogunsanya, Academic leader, Architecture, UKZN (right).]

2016 COROBRIK REGIONAL STUDENT OF THE YEAR

Jean-Pierre de Marigny was declared 29th KZN regional winner of this accolade for his design dissertation entitled Design for (bio-) diversity, a water research facility attached to a 440m long pedestrian bridge spanning the uMgeni River in Springfield Industrial Park. This announcement was made at a function held on 7th December at UKZN by Allin Dangers, Corobrik Director of Sales, KZN and Eastern Cape.

Second prize went to Frans Marx who explored alternative residential care facilities for the elderly in Warwick Triangle, and Third prize to Jean-Paul D'Ahl for his biodiversity project near Inanda Dam in Molweni. Michel Blumrick who repurposed an abandoned parking garage for mixed use, received the award for the best use of clay brick.

PIETERMARITZBURG HERITAGE SOCIETY

On 15th September 2016, Pietermaritzburg Heritage Society in association with *The Witness* conferred Heritage Awards on the following buildings:

Government House, now the administration building of UNISA campus, Langalibalele Str, begun 1848, restored by architect Robert JW Brusse, 2004-14 (see KZNIA Journal 1&2/2015);

Old Boys' Model School building by colonial engineer Peter Paterson, 1866;

Harvard school building, now Edendale Nursing College, Havelock Road, by colonial, later provincial, architect Walter Beall, 1910;

Supreme Court, now the offices of the Regional Commissioners of the Dept of Correctional Services, College Rd, by colonial architect AE Dainton, 1899;

Government Offices and Magistrate's Court, now Family Court, cnr Chief Albert Luthuli and Pietermaritz Streets, won in competition in 1934 by Moffat & Hirst, Durban;

Villa Sans Souci, by Albert Halder, 1884, now the headquarters of Ingonyama Trust; & in the New Build category,

Provincial offices of the Dept of Transport, Burger Street, by ICA Architects (see KZNIA Journal 1/2005).

Source: Haw, S Celebrating PMB's remarkable buildings. *Natal Witness*, 15 September 2016.

SOPHIA GRAY LAUREATES

Known to many KZN members for his work with the Urban Foundation and ZAI during the 1970s before making headlines with his *Winblok* products and later serving as SAIA-President, Al Stratford of East London was chosen as the 2016 Sophia Gray laureate.

The exhibition was held in Olievenhuis art gallery, Bloemfontein, and he presented his lecture 'Reductive Innovation in Architecture' in the adjacent Reservoir on Thursday, 25th August.

The 2017 Sophia Gray laureates are George Elphick and Nick Proome, and the memorial lecture is to be delivered in Bloemfontein on Thursday, 31st August.

COROBRIK SAIA AWARDS OF MERIT AND FOR EXCELLENCE

Of the 66 entries submitted for national adjudication, LIV Village, Verulam (*KZNIA Journal 2/2015*) landed designworkshop : sa a *Corobrik SAIA Commendation*, while the house at 8 Humewood Drive, La Lucia, won for the practice another *Corobrik SAIA Award of Merit* as well as its 6th *Corobrik SAIA Award for Excellence!*

The Excellence award is the highest architectural acknowledgement by SAIA and follows similar success by design workshop : sa for Electric Ladyland at Kloof (2002); Singita Lebombo Lodge, Kruger National Park (also 2002); Constitutional Court, Johannesburg (2006); Igoda View house, East London (2008); and DASH Apartments, Dunkirk Estate, Salt Rock (2014). This must be the national record. Many congratulations. Editor

Jurors were Kevin Bingham (convenor and then SAIA Vice-President); Mokena Makeka of Makeka Design Lab, Cape Town; Prof Paul Kotze, University of the Witwatersrand and editor, *Architecture SA*; layperson Ms Sumien Brink (editor, *VISI* magazine); and sponsor representative, Musa Shangase (commercial director, *Corobrik*).



House at 8 Humewood Drive, La Lucia, which won for designworkshop : sa another Corobrik SAIA Award of Merit as well as its 6th Corobrik SAIA Award for Excellence.

2016 Venice Biennale



Infrastructure discussants on the podium. From left: a representative of Grupo EPM of Colombia, who spoke on the urban transformation of Medellín, from one of the most violent and crime-ridden to perhaps, the most innovative city in the world through public projects; Joan Clos, executive director UN-Habitat and RIBA gold medallist, 1999, for transforming Barcelona while its mayor; Paola Baratta, President of the Venice Biennale; the Rt. Hon. Norman Foster holding the microphone; Andrew Makin and Rem Koolhaas.



Market Road pedestrian bridge, Warwick Junction, Durban, a structure which addresses and celebrates informal traders. Architects: OMM designworkshop : sa, 2000.

An invitation extended by the director of the 2016 Venice Architecture Biennale, Chilean architect and 2016 Pritzker laureate, Alejandro Aravena, saw designworkshop : sa produce an exhibition on Durban's Warwick Triangle urban renewal project, on view in the central pavilion May-November.

In addition, Andrew Makin, a principal of designworkshop : sa, participated in the session on Infrastructure, one of a series of talks called 'Meetings on Architecture' chaired by Aravena. Following on from Lord Foster who spoke on the Droneport project by his practice, Foster + Partners, Andrew discussed the work on the economic and social transformation of Warwick to contextualise the Market Road pedestrian bridges and stairs by designworkshop : sa (*KZNIA Journal 3/2001*).

IN MEMORIAM

Len Chiazzari (1919 – 2016)

William Leonard Chiazzari, known to all as Len, died in October aged 97, in Richmond, KZN, his town of birth, and is survived by his wife Laura and children.

Len's architectural studies at the University of the Witwatersrand were interrupted by the Second World War when he became a pilot for the South African Airforce. He was first stationed on the Transkei Wild Coast as part of the anti-submarine unit, before flying 'Liberators' in the North African desert where he was shot down and injured his ankle.

Len practised architecture from his offices in Pietermaritzburg from the time he qualified after WWII, and was at the time of his death SAIA-KZN's oldest registered architect. The original Sani-Pass Hotel and Winston Churchill Theatre in Pietermaritzburg are by him.

He was a painter (had bird paintings in the original Roberts Birds book), ornithologist, botanist and an historian. He was a collector of bird eggs and a volunteer fisheries officer. Len was one of the six founding members of the South African Association for Marine Biological Research which has grown to become Africa's foremost of such institutions and today operates from Ushaka Marine World. The original Durban Aquarium at the beach end of West Street was one of Len's buildings.

Len gave up flying at the age of 88, as the 2nd oldest man in the world to be an active pilot. *Jeremy Hathorn*

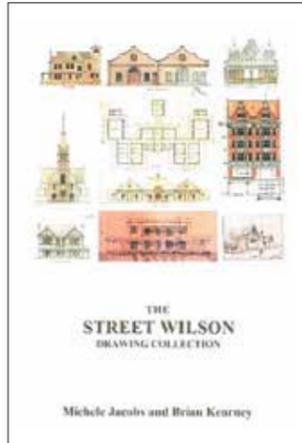
Patrick Holdcroft (1932 - 2016)

On graduating from the then University of Natal, Patrick Victor Holdcroft worked with Lewcock & Templer, a practice based in the School, before teaming up with John Frost at Interarc in downtown Durban. On moving to Pietermaritzburg Patrick joined Arthur Lees-Rolfe and then became a director of ZAI. "The salt of the earth would not be going too far" recalled Ron Lewcock; "a gentle man of integrity", wrote John Ferguson; while Rodney Harber mentioned Patrick's "deep interest in absolutely everything". Our thoughts go to Zilla, his wife, three sons and a bevy of grandchildren. *Editor*

Anton Aiello (1962 - 2017)

Anton Aiello was an architect (Natal class of 1988), urbanist, social and physical planner, and an individual who displayed the true meaning of what architects in South Africa need to embrace. As a contributor to numerous documents and position papers on integrated human settlements from a socio-political, economic, environmental and spatial perspective, Anton was the complete built environment professional packed in a single person. And, at the same time warm, generous, humorous, naughty, a cook of fine Italian pasta and a very dear friend..... we will miss this gentle soul. Our thoughts are particularly with Elena his daughter. *Ruben Reddy*

NEW PUBLICATIONS

**The Street Wilson drawing collection.**

Michele Jacobs and Brian Kearney.

Published by the Durban Heritage Trust and the authors, 2016.

During the 1970s, Paton Taylor Architects Inc presented the Barrie Biermann Architecture Library of UKZN with a large collection of drawings of projects and buildings by William Street Wilson (1856-1928) and his partners, the originators of the donor practice, begun in Durban in 1887. These drawings have now been scanned and digitised by librarian Michele Jacobs and curated by emeritus professor Brian Kearney.

Taken by the “exemplary draughtsmanship” and the possibility of the drawings providing “a window on the social, technological and environmental conditions of the period”, the intention of the authors was to create “the same sense of excitement and wonder at the history of our local built environment through images of the original drawings” (preface).

The narrative begins in Victorian England, more particularly with the early buildings of one William Wilson in Bedford Park. It appears William Wilson later chose his mother’s maiden name ‘Street’ as a prefix, changing his surname to Street Wilson, preceding Ludwig Mies who appended van der Rohe to his.

Interestingly, the opening chapter features works of Philip Dudgeon, as, according to the authors, there is a “strong possibility” that Street Wilson took over the practice of Dudgeon, “the foremost architect in the colony from 1877” on his repatriation in 1888. The seven successive chapters are structured both by building type and partnership, and distinguish the independent inputs of Street Wilson, Percy Barr and Arthur Fyfe from those collaboratives.

Wallace Paton had joined the practice as a sixteen year old pupil, was made a partner in 1905, and on the death of Street Wilson became the senior partner in the succeeding practice. Interestingly, Paton served as NIA (now SAIA-KZN) President on 3 occasions over 3 decades.

On studying the drawings, especially of the residential work, the authors detected that Street Wilson had at his disposal “a toolbox of ideas” which included “signature” elements, like double gables, which I prefer to call coupled gables; chimneys, which they concede were useful devices for “balancing a sculptural composition with numerous horizontal elements” rather than functional imperatives; and verandas, particular to the tropics.

It is interesting to note the inclusion of stables on Durban’s Berea, and the details for outbuildings. The client body included a platelayer,

bootmaker, sawyers, and churches of different denominations but there is only one commission won in competition, though, perhaps, the most important, Pietermaritzburg City Hall, by Street Wilson & Barr, 1889. What was revealing to me was the inclusion of large scale technical details, in particular the compositions with overlapping sections, plans and elevations.

This is a beautiful publication, well researched and historically contextualised to meet with its intentions. Copies are obtainable from Michele Jacobs (jacobsm1@ukzn.ac.za). WP

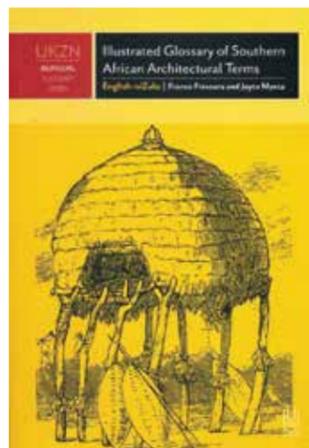
130 years Paton Taylor Architects

Paton Taylor Architects (PTA) this year marks its 130th anniversary, most likely the oldest practice in South Africa, founded 1887, and an achievement very few practices anywhere can equal.

Who does not know the Pietermaritzburg City Hall, the Durban train station or Emmanuel cathedral? That might be history, but vouches for the distinctive quality PTA is associated with.

Since the 1990s PTA has participated and won competitions and honours as Robertson’s building in La Lucia (see *KZNIA Journal 2/2003*), and nearby, Alexander Forbes (see *KZNIA Journal 2/2001*), which went even further to reach the finals in the World Architecture Awards. These are the lessons for continued rejuvenation.

The current directors have Ian Bell, at the helm, Lauren Haiden and Dennis-lee Stols, who carry on the legacy envisioned by William Street Wilson and nurtured by so many successive directors, committed to the highest standards of architecture, the training of future architects, and the Institute. WP

**Illustrated glossary of Southern African architectural terms. English - isiZulu.**

Franco Frescura and Joyce Myeza.

University of KwaZulu-Natal Press, 2016.

This Glossary is a welcome publication. The gestation period originates from Franco Frescura’s studies of indigenous architecture, going back four decades to the field work he carried out for his published Master’s

degree, *Rural shelter in southern Africa*, 1981. He subsequently published a glossary with some 400 terms, in 1987, but since making Durban his home in 2002, and UKZN in 2006 adopting the policy of equitable use of English and isiZulu, it was timeous to embark on an English–isiZulu edition.

For the task now encompassing some 1200 terms, let alone the linguistic challenge, Frescura enlisted the collaboration of Philisiwe Joyce Myeza, director of UKZN libraries, and together they produced the 220p Glossary at a handy A5-size.

It is richly illustrated with line drawings by a number of illustrators on almost every alternative page, and explanations in English, italicised in isiZulu. However, the caption and source of the exquisite cover illustration I could not find until I recognised it as ‘Zulu weapons’ store’ on p82, taken from an issue of *The Graphic* of 1979. Certainly this building typology belongs to distant history.

A glossary always makes for fascinating paging-through and, obviously, readers will want to check on this or that element or item important to them. I reached for the architecture of the Zulu, that of the people indigenous to KZN, with a view to checking the *indlu*, one of the most efficient and environmentally attuned dwellings anywhere.

To my surprise I found no reference to Barrie Biermann’s seminal ‘Indlu: the domed dwelling of the Zulu’, a chapter in Paul Oliver’s *Shelter in Africa*, 1971. Nevertheless, Biermann began with a map locating the *indlu* in southern Africa, something I miss in the Glossary, and concluded with his own glossary and cut-away perspective sketch of the elements *with their Zulu nomenclature*, which it would be interesting to compare.

While this is not the place for an in-depth discussion on the *indlu*, what Biermann simply calls ‘finial’, the Glossary refers to somewhat convolutedly as “decorative grass top-knot at roof apex”. But, the lintel of the supporting framework should be identified, and the fringe of thatch surrounding the entrance shown, together with the wicker door and its means of closing. These are unfortunate omissions as the *indlu* is rapidly passing into the realm of history.

Some of the illustrations could be more precise. For example, the illustration on p108, leg-of-mutton gable, appears more like a hipped gable. If ‘mutton’, it would be more organically curved as the explanation on p107. But, “Boer-style thatching” had me flawed. Firstly, thatching is not explained opposite the illustration on p162, but a few pages on, which is, unfortunately, often the case, and second, “Boer-style” is to be found under “smooth-style thatching”. Yet the profile of the illustration communicates stepped thatching. I was most intrigued by the term “levelcels” shown on a house sketch on p110, which we read on p107 is a term used to describe a projecting roof over a door, what I’ve always called a generic ‘hood’, a term unfortunately not included.

The brickwork illustration on p26 caught my attention. What is a ‘rowlock’ or a ‘soap’? The former is a brick-on-edge or roller course, the terms commonly used in South Africa; the latter is a brick cut in half along its length, usually referred to as a ‘queen closer’, illustrated on p143 and explained on p148. A small issue concerns contemporary practice. Among all the hinges illustrated, I find none ‘sinkless’, the preferred version today.

I have a passion for Karoo architecture and have been asked the origin of the term *brakdak*, which the Glossary explains is a ‘salt roof’. As I was to learn, bracken earth was sourced for the roof material, which is appropriate because it is naturally waterproof. But, I’ve yet to see a *brakdak* without its parapet as p24.

The Glossary begins with a few quotes, of which that by Dr Samuel Johnson is worth repeating here: *Dictionaries are like watches; the*

worst is better than none, and the best cannot be expected to go quite true. In that context, the term in the title ‘southern’ should perhaps more precisely read ‘South Africa’ and, having now set the example, further editions are warranted, hopefully regularly. I would then suggest full coverage of the terms pertaining especially to the Province of KZN, including the ‘hidden’ architecture of the Tembe in Maputaland, which Dennis Claude studied and so beautifully recorded (*The Journal of Architecture, Autumn 1999*). WP

**Architects’ stepping stones.**

Suren Indhul

Self-published, 2017.

This 100-page publication is authored by a self-taught practitioner apprenticed to, or what was formerly termed pupiled by the late Des Watkins over two decades, and to whose memory the book is dedicated (obituary *KZNIAJ 1/2009*). The author is now a Professional Architectural Technologist practising from Umhlanga New Town as i3LAB (laboratory for information, innovation and implementation), and holds as the gem of his varied portfolio the collaboration on the competition-winning Pan-African parliament (*KZNIAJ 3/2007*) and the KZNIA Award for Architecture he landed for his own house at Simbithi Eco Estate (see *KZNIAJ 2/2011*).

With over 40 years in the profession, Indhul decided that it was time to put to print his ‘life lessons’ that emerging practitioners can be better prepared for the journey. In short, his advice is to be passionate, be like a sponge for knowledge, incessantly read about architecture and visit buildings by masters.

The book is “unlike any other on the practice of architecture” writes SAIA-KZN President Ruben Reddy, in the preface. He further exposes “not one to fear controversy, Indhul has opinions on matters social, environmental and legal, on all of which he could be referred to as an expert” before summing up the book as a “simple but perfect read for those wanting to keep on those ‘stones’ of architectural practice without ever fearing the spaces between”.

Janina Masojada terms the book a “survival manual, enriching and educative” and points to the “broad range of skills required in practice”, for which “academic study leaves one unprepared to face”. “The reality is a world of politics and contractual minefields and this book gives advice on how to navigate”. Eminence grise, Ivor Daniel, sees the book as “an invaluable reminder of the qualities required for both aspirant and experienced architects”.

Copies are available from SAIA-KZN and the e-book on Amazon Kindle. WP

2016 Afrisam-SAIA Award for sustainable architecture

Gorgeous Green House in Durban North was one of the three 2016 Afrisam-SAIA category A award winners, and the only residence and KZN entry to land this coveted national acknowledgement for sustainable architecture and innovation*.

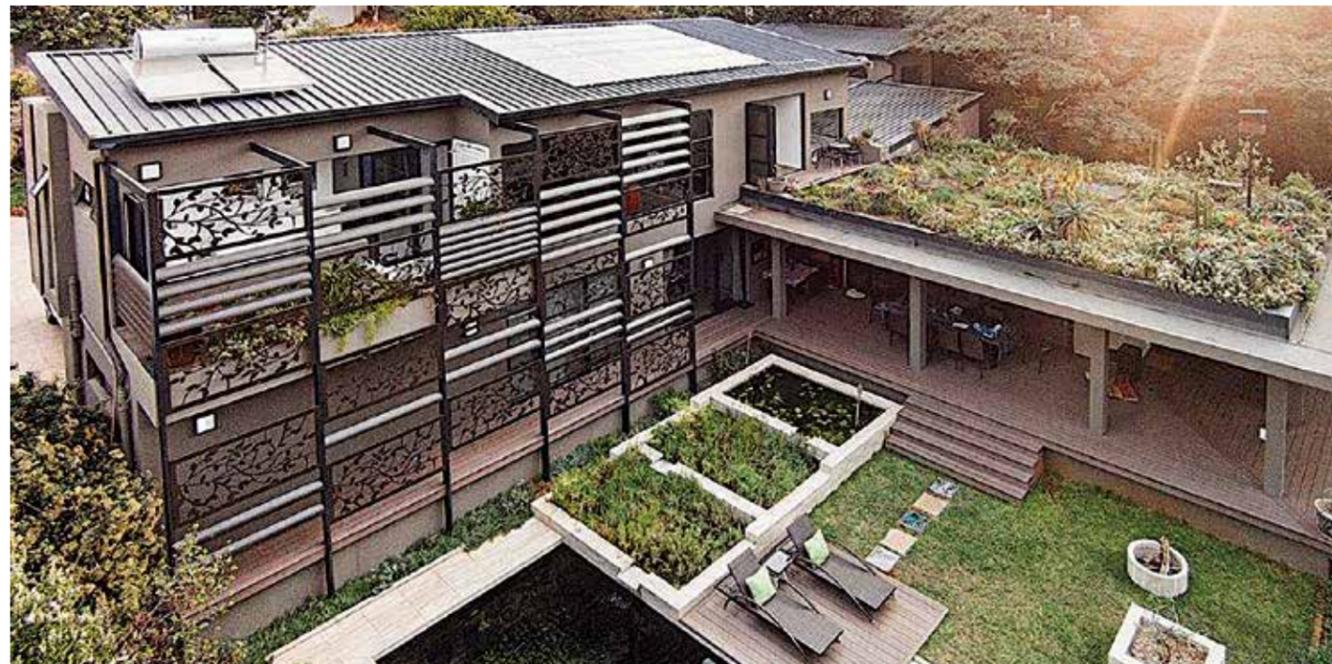
The architect, Chen Sagnelli, writes:

On our initial introduction to the project, which involved a site visit, we found an old 1940s Durban North house nestled amongst some amazing vegetation, a large proportion of which was indigenous as the previous owner had 10 years prior to the sale of the property to our clients started planting indigenous shrubs, trees and ground cover.

We were asked to take the existing foot print and work as close with it as possible to ensure their home became almost like a pavilion that was open on all sides so that the habitable spaces and the outdoors blended naturally together. What we decided to do was to do social spaces and the kids' bedrooms downstairs and to give the parents the master bedroom upstairs with a private lounge, study attached, indoor-outdoor bathroom all of which opened out onto roof gardens.



Green House from the north-east as found



Green House from the north-east

Our client gave us a clear directive to explore the opportunity and to design the building simple, modern and 'sexy'. Our concept was to simplify and evolve our plan and section to ensure large overhangs, screens, roof gardens along with recycled materials and reused bricks and blocks and blend the concept into the surrounding indigenous gardens. We spent a lot of time looking at shadows, 3-d perspectives with the actual greenery of the site to a point we felt the building 'nestled' in its surroundings.

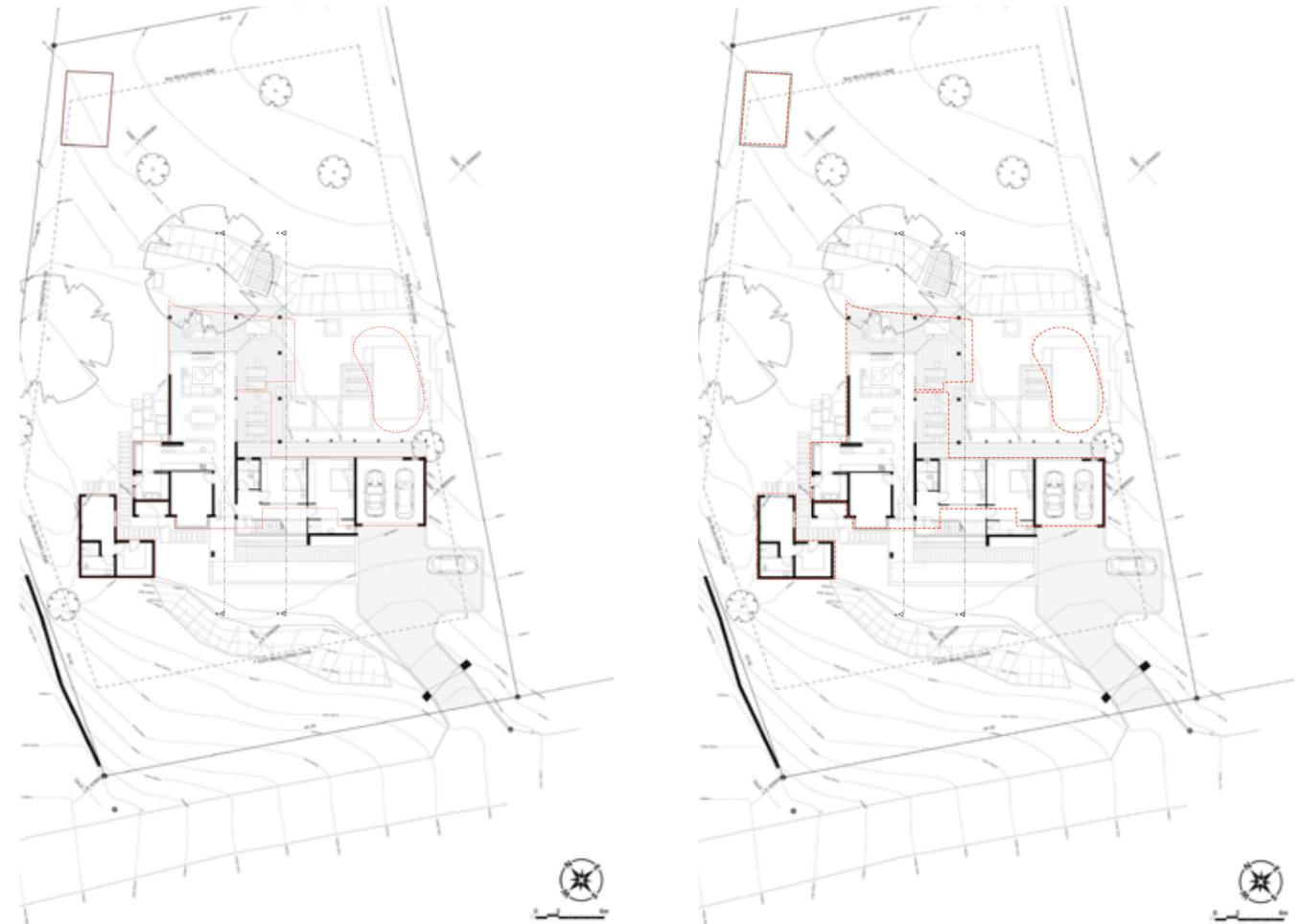
As mentioned already our passive design had large roof overhangs that screen glass. Double volume spaces with 'whirly bird' extractors on the roof sucking air which has passed over water hence giving cool air into the spaces. A notable point that this was on the south side where there was not much direct light. Screens were used on the northern façade to not only give shade but to create a fabric on which to plant plants and so enhance the screening effect of the home.

A skylight was situated on the first floor garden which gives natural lighting to the dining, lounge space which would normally be a lot darker because of the large verandas surrounding these spaces. The glass we used helped eliminate heat intake but had an amazing effect of reflecting the vegetation surrounding the home escalating the sense of lush, calm vegetation. Cross ventilation throughout the house was a major design generator as our clients specifically didn't want air conditioning. A notable effect can be felt in mid humid summer between standing in the garden and walking back into the house.

The house is completely off the grid electrically and water wise and only connects to municipal supplies in extreme circumstances. For me the design of this home is almost a synthesis of years of tuition and experience in designing in our sub-tropical climate to deal with heat, winds and sun control. The added aspects of solar panels and underground water tanks, filtering beds for the swimming pool and the grey water recycling add to the overall sustainability of the 'gorgeous green house'.

In response to many people who have said to me that sustainable architecture is too expensive, my comment is "it's too expensive not to have sustainable design".

*The inaugural award and only other KZN success went to Koop Design Studio for Dalton Compound in 2010, see KZNIA Journal 3/2010 and 1/2011. Editor

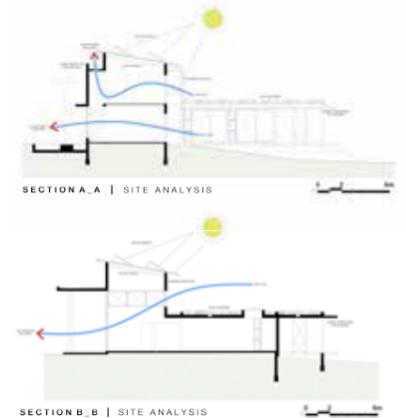


Green House Ground Floor with original footprint

Green House First Floor



Green House entrance



Green House Sections

Architects: Chen Sagnelli Associate Architects
Engineers: Becker Consulting
Quantity Surveyor: Peter Howse
Contractor: Bancamp
Photographer: Grant Pitcher

Proceedings of We Design Conference Calling for a National Spatial Revolution

Durban City Hall, Friday, 8th July 2016



From left, Dirk Meyer, Corobrik managing director, Mexican keynote speaker Felipe Leal, Peter du Treou, Corobrik chairman, and Musa Shangase, Corobrik commercial director.

Background to the Conference

Andrew Makin explains

“preserve the core and stimulate progress”

This phrase from C. Collins and Jerry I. Porras’ influential book *Built to Last* (HarperBus, 1994) is a key insight into “adapting and prospering in a changing and difficult world”. Perhaps it’s become a little clichéd. But its insight remains clear. To remain alive and prosper, we have to stay who we are and we also have to continuously change.

Perhaps South Africa’s 1994 transition is not the most globally profound in modern times, but it’s certainly among them. Almost every component of our ‘machine’ has been rearranged. And there is necessarily a lot more to come; not only that, but the very things that define us as a nation have also fundamentally changed. Both our mechanics and our nature have changed the latter from a false to a truer one.

This extent of comprehensive change in our environment also changes pretty much everything in our individual realities, including our professional one.

So too for a regional institute for architecture

Over the past few years, SAIA-KZN has hosted a bi-annual New Paradigms conference to connect with its membership, share ideas, explore current topics and enable mutual educational exchange. This is its core purpose.

To take this inward-facing core-purpose to another level, the Regional Committee, led by its President Ruben Reddy, saw an opportunity for the Institute to constructively engage outwardly, into the dramatically changed context within which its members now work and live.

The idea was provoked by trouble at the very centre of things in South Africa. The impact of our declining national and regional economy and our collective inability to push back against its consequences of growing joblessness, increasing poverty and widening wealth disparity, fundamentally affect the most important interests of our members.

Declining economic growth means less work for many members. And joblessness, poverty and wealth disparity translate into the corrosion of the day-to-day quality of life for all of us; from crime, racial and class tensions to the real prospect of social upheaval.

This leads directly to the question of whether we could do anything about this, and if we could, what it would be. How could architects impact on these macro challenges that seem so far from us and have proved so stubborn, and why would we think we could?

Spatial structure and the economy

We think the answer is in the demonstrably direct relationship between broad-based economic opportunity and productivity, and the physical environment that hosts it. In other words, while clearly complex and multifaceted, in large part the woes of our nation arise from the structure of our built environment.

Although an increasing proportion of total economic activity happens in the virtual reality enabled by the connectivity of the internet, the vast majority still happens in the spatial environment of physical reality.

In both the virtual and physical environments, the essential supply and demand nature of the economy depends on producers and consumers,

sellers and customers, whether of goods or services.

In both instances, there is no point in producing if there are no customers. But the way in which providers of goods and services make contact and interface with prospective customers in the virtual and physical environments differs considerably.

We are what we build, we reap what we sow

The reality is that a predominantly low density, functionally zoned economic geography like ours, exhibits a very particular system of economic exchange, equally echoed in the patterns of social and cultural exchange, or the absence of it (see also Fugita, M, Krugman, P & Venables, A *The spatial economy: cities, regions and international trade*, 1999).

At low densities where uses are zoned apart from each other, and customers are therefore generally far and few between, and tend to be isolated inside vehicles, a logistics-reliant corporate economy based on making these difficult connections and linkages emerges and tends to dominate. This also underlies the corporate nature of the global economy. Physical separation favours large scale business operations and restricts the potential of non-internet transacting smaller ones.

Although an essential element of the global economy, performance of the corporate economy typically achieves its relentless growth imperatives by vertical integration of supply chains, mergers and acquisitions, conglomeration of independents, product and services convergence and the disruption of specialisation, and increasing replacement of people with technology. Of course innovation is important too, but it’s generally a small element of corporate profitability.

All of which gathers to shift the control and concentrate the benefits upwardly in the pyramid with the masses at the bottom and the elites at the top. This is no more evident than in the food sector, where perhaps only five corporations control food supply to the full South African population of fifty five million people.

On the other hand, where densities are high and mixed land uses are the norm, the physical proximity and intensity of producers and consumers increases, broad-based access to the economy opens, supply chains are more matrixal (networked), independents thrive and prosper, product and service specialisation diverges and increases, and great numbers of people are economically engaged.

All of which gathers to flatten and spread the network of economic exchange, and with it social and cultural exchange also.

Because there is an abundance of customers moving through a pedestrian-dominated city street movement system, there is also a continuous and direct interface between supply and demand. Business opportunities spring from the city itself as an entrepreneurial incubator. Social cohesion happens in integrated transactionary and relational exchange and also in passing, and diverse cultural expression thrives.

We build what we know

These are not new insights. Far from it, they are now even embedded into policy at all three levels of government.

The conversation on the city is everywhere. From New York to Tokyo, Lagos, Mexico City or inner city Johannesburg, urban culture is increasingly defining contemporary collective and individual identity. The growing economy disruptors, with well-known examples like Air bnb and Uber, are fundamentally urban.

But because our fractured history is literally built into our predominantly low density fractured physical environment, we South Africans have limited day-to-day lived experience of dense, functional diversity, with high levels of non-motorised or public transport and proper public space of defined streets, squares and parks that is the physical, everyday life

game-board of all of this energy and possibility.

Many of us continue to view space and relative isolation as luxury. This continues to be true of emerging generations where the aspiration often remains for low density suburbs and the mobility bubble of the private car that goes with it. But the real luxury is perhaps the opposite. For those who want this, it’s being part of energising and inspiring vibrancy, feeling seen, feeling like we belong to something of which we are a part, feeling recognised by and recognising people we don’t even know because we share day to day rather than exceptional parts of life and space.

Why a conference?

The purpose of the 2016 We Design Conference was to combine the economic, social and cultural potential and necessity with existing policy, and present this in a one day conversation between the most qualified and diverse range of speakers SAIA-KZN had access to, and the widest spectrum of delegates it could reach, focusing on its members and those associated with the built environment.

In this sense it was part inspiring message communication, part information and experience sharing, and part getting together as a community of people with a more or less shared educational background and interest, shared potential to effect change, and shared investment in a successful future, as individuals and our families. But also as businesses that especially in these increasingly difficult times would benefit greatly.

Six speaker provocations

To immediately get under the surface and into substance, go from big ideas to implementation, and ensure a link across a diverse range of expertise, all speakers were invited to respond to six specific provocations:

1. Does a National Spatial Revolution (NSR) through the implementation of dense, diverse, connected cities, towns and villages, have the instrumental capacity to radically transform an economy and society by increasing job opportunities, reducing poverty, and narrowing wealth disparity?
2. If so, how could it be implemented, who are the main actors, and what could the main strategies and mechanisms be to achieve these strategies?
3. How does the proposition relate to and enhance the real interests of politicians and officials, all scales of business from the informal to the corporate, as well as the land ownership and property development sector?
4. What potentials does this proposition have for the total integration, expression and continuous evolution of indigenous social structures, economic practices, and cultural belief systems; and what fundamental influence can they have in the context of inherited colonial settlement patterns?
5. What specific and exact examples can we learn from to short-cut and fast-track the radical transformation of our physical environment so that we can see its tangible benefits in our lifetimes?
6. What could the main strategies be to inspire and disseminate this vision to increase its chances of traction and reaching the citizenry as a sustained and influential impulse in the political, business, cultural and social spheres?

All conference presentations are available for view on YouTube. Editor

Durban inner city Local Area Plan.

What needs to be transformed?

Paul Wygers

Change is the only constant in life (Heraclitus, Greek philosopher of the late 6th century BCE).

Rapid urbanization is a fact of life in both large and small conurbations across our world. The eThekweni city region is one of many places that is experiencing this phenomenon and will continue to do so for generations to come. Being able to adapt to constant change is something that most people unlearn as they mature. Children seem to have the ability to accept and embrace change, yet adults try to maintain a status quo for as long as possible.

The ability to observe and change is 'designed out' of most of the systems we use. The cities we inhabit today are a manifestation of ideas about what the future city could be, from when today's cities were the future city. The integration of the private car into all built-form decision-making has had a most profound impact on our city fabric. The design of the built environment has become a car numbers game rather than the exploration of how built form is determined for the benefit of all: the city of human interaction and exchange has been replaced by rivers of tarmac called mobility routes.

A new impetus towards 'city making' is leading agendas and policies across the globe, and the question posed to the team appointed to undertake a new inner city Local Area Plan (LAP) for Durban was simple:

Can the future inner city develop as a place that can accommodate a share of the rapidly urbanizing population of the region?

The answer is also simple. Yes it can, and it can successfully transform from a place that offers few choices and opportunities to a thriving, attractive inner city that allows a wide variety of opportunities.

Urbanisation is explicit in the growth of cities across the globe. The majority of cities only get bigger. Growth is what changes a village to a town to a city.

The State of South African Cities Report (2016) puts global, African and local urbanization rates into perspective:

World Population	
2003	6.3bn
2100	11.2 bn

Africa
By 2050 Africa's population will increase by 1.3bn or 50% of the world increase.
By 2100 Africa's population will be 4.4bn or 39% of the world population.

South Africa
2015 51.7m people
40.3m (78%) are urban dwellers
18.6m are residents of 4 metropolitan areas: Johannesburg and Cape Town metropolitan municipalities, Nelson Mandela Bay and eThekweni.

eThekweni Metro

2015	3.5m people
2040	5.5m (57% increase)
2115	14.4m (1,1m people every 10 years)

Durban inner city
The inner city is defined by the Umgeni River to the north, the edge of the bay to the south, the Indian Ocean edge to the east and the bottom of the Berea ridge to the west (incl. Greyville, Durban University of Technology and Warwick triangle).
Extent 1700 ha
Population 70k
Density 41 persons / ha (just enough to sustain a single bus route)

The eThekweni Inner City LAP proposes a transformation of these numbers.
Population 450k
Density 260 persons / ha
+/- 100 dwelling units / ha
The proposed inner city population increase amounts to 20% of the forecasted population increase for the entire metro.

Where do we go for guidance on this radical transformation?

National policy is a good start. The National Development Plan (NDP) is the guiding document for ideas about our future environments.

Chapter 8 gets specific about some of the development typologies that are anti-urban: it proposes that gated communities will no longer be allowed to be developed by 2030.

Where we live and work matters... the inefficiencies and inequities in South Africa's settlement patterns are deeply entrenched. Bold measures are needed to reshape them.

Many of the developmental goals set out in the NDP are included in the city's Integrated Development Plan (IDP). This plan covers an entire metro area and is revised in 5 year cycles. Stakeholder engagement is an intrinsic component of the IDP.

eThekweni IDP Vision: Africa's Caring and Liveable City
eThekweni Inner City LAP aims that by 2040 the inner city of Durban will be Africa's leading, most vibrant, liveable, walkable City Centre.

Both the NDP and IDP share a set of spatial development principles:

- Spatial justice** in overcoming past spatial patterns;
- Spatial sustainability** in which walkability is introduced as an idea;
- Spatial resilience** in which ecological systems require protection;
- Spatial quality** for the creation of vibrant liveable places; &
- Spatial efficiency** with production unhindered and commuting made easier.

National and local policies and frameworks promote so many good things, yet we seem to continue the same practices that hamper real integration and therefore real city-making.

The Inner City LAP has 3 cross-cutting themes:

Learning from the past. Observing the way the city works today and capturing how it has developed over time allows layers of history to be

incorporated into a future city vision. The natural systems of the original inner city site are still in existence. When the city floods these systems, which run from the Umgeni to the Bay, they should function as they did in the early 1800s. Warwick has always been a trading hub: a centre to access various parts of the metro region.

Economic drivers of regeneration. Trade and exchange happens where there are people. The street traders will always fail if they are located in the wrong place; successful public open spaces are active 24/7; a mix of land uses (at street level and above the street) provides variety and choice to all. Existing built fabric and the public realm is being used and adapted to suit the needs of a wide variety of businesses. Understanding the city and all its spaces will lead to new ways of promoting and sustaining development.

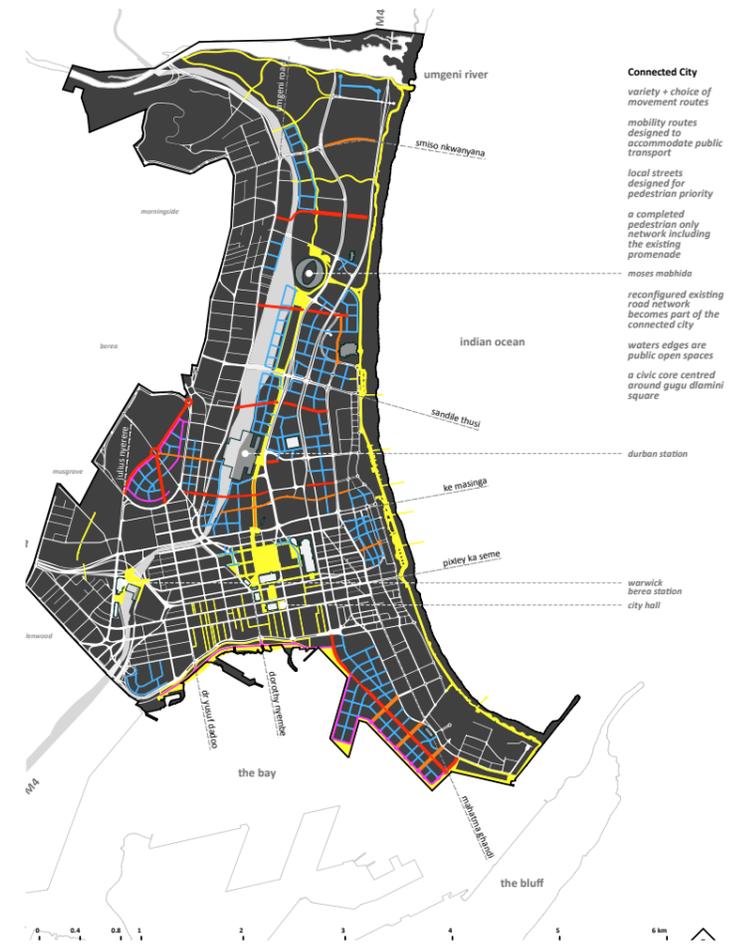
Resilient and sustainable development. The future city has to integrate both natural and man-made systems. Risk of disaster is heightened by the coastal location where flooding is a major concern. Provision of services such as water and power supply and waste management will require innovative solutions. The development of human capital should be built into the range of projects envisaged for the inner city. 'The truly sustainable environment promotes maximum exchange whilst minimising the resources necessary to do it' (after Engwicht, 1992).

The design focus of the LAP project is centred on four spatial principles.

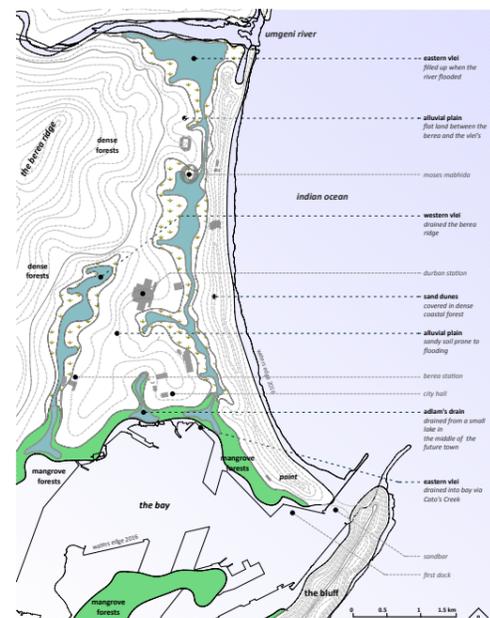
Principle 1: The Connected City

Apartheid planning institutionalised the idea of the disconnected city. Segregated townships designed to control the movement of people hung off the modernist planning theory of the time: a theory which promoted the separation of land uses and modes of transport so that the motor vehicle could be accommodated.

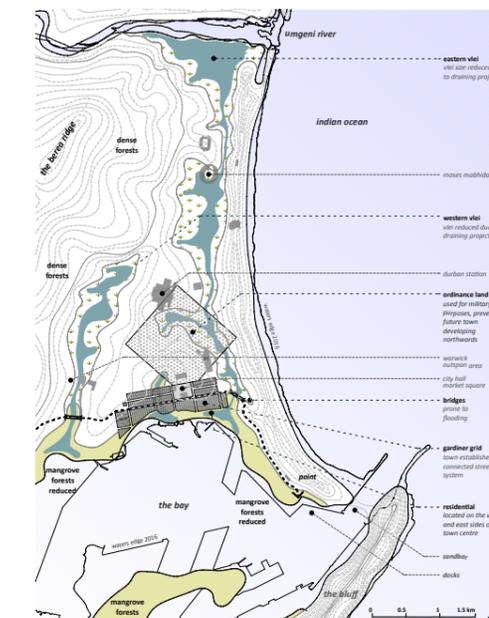
The city is a movement economy. Cities that are connected



1. The Connected City: reconfigured roads become streets, new streets connect north south and east west, a hierarchy of streets cater for all modes of transport designed for pedestrians first.



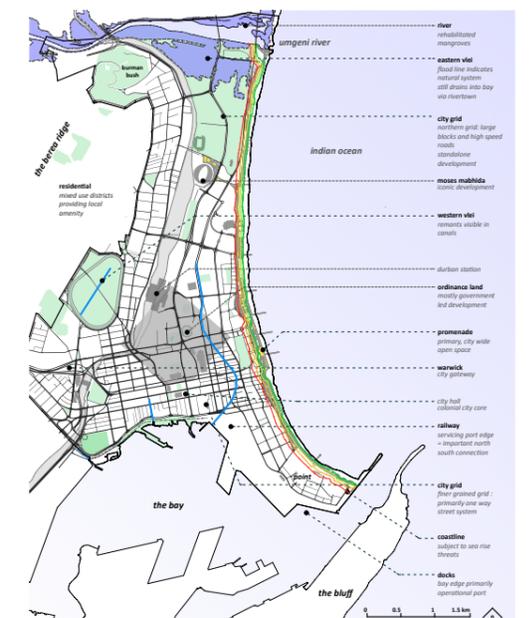
Durban 1823



Durban 1845



Durban 1898



Durban 2016

across scales with a wide range of transport choices are the most successful. Our city has a complete streets policy which promotes the integration of a variety of transport modes, pedestrians, cyclists, bus, rail, taxi and the private car.

Principle 2: The walkable city

We all know great places to walk in our city, to interact with others, to observe life passing by. The promenade is a prime example: 50% of the 24/7 accessible public realm in the inner city.

Residents and visitors of the future city should be able to access a variety of amenities within a five-minute walk. Access to public transport, shops, schools, healthcare and work opportunities abound in walkable cities. Tourism numbers increase exponentially in places that are walkable. Maximum exchange takes place.

Based on the proposed connections and the walkable structure of the existing city a new walkable city structure is proposed. Walkable neighbourhoods are connected to each other with a new grid of streets. Existing walkable places set a precedent for future places. The backbone of successful walkable places is a large and varied residential offering.

Principle 3: A city of land use intensities

The majority of land use categories are compatible. A crèche can happen next to or above a retail outlet, below an old aged home. Offices can happen above an art gallery with residential above (even parking can be shared over a 24-hour period). Successful land use mixtures are innumerable, yet we still practice land use specifics on individual even. The days of specific land use categories is numbered though; even Durban has over 100 special land use zones.

The LAP proposes a shift from traditional land use planning. Land use intensities related to both the connected city and the walkable city integrate these three fundamental elements of city-making. More intense land uses (a greater mix of uses horizontally and vertically) occurs at the centre of each walkable district. Greater intensity equals greater variety, choice and density. The city becomes a network of interconnected villages, places that are different from each other.

Greater density at the centre of each walkable district also allows for a varied built form response. Architectural responses to site, climate and brief have an added responsibility, a response to the urban condition is also required. The definition of the public realm is the city authority's responsibility; a relatively simple undertaking assessing development responses and contributions to the street, park or square.

Principle 4: Unleash the potential

A regeneration and expansion plan is being formulated to: define development potentials in the Inner City; define a range of small and large (many small making large) development projects; & explore institutional structures that can champion the development of the inner city.

Client: eThekweni Municipality
Professional Team: IPPU Joint Venture
 Iliso, TPI, PMSA, UrbanEcon, Urban Solutions, Lees & Short, Urban Earth, Cox Architecture and Joe Kitching



2. The Walkable City: Expanding the existing network of walkable districts across the inner city as a layer over the connected city



3. The Integrated City: Land Use Intensities aligned to both the connected and walkable city networks



4. LAP Vision Plan

Fostering Local Well-being (FLOW)

Joanne Lees

For the sake of debate, this presentation deliberately challenged the notion that all urban ills can be solved through good urbanism and spatial design. It does not disagree that the 'national spatial revolution' (NSR) as posited by the conference theme is needed. It is proven that decent urban environments contribute positively to issues of poverty, unemployment and inequality, and that bad environments create social issues.

The presentation talked to the need for a broader revolution that acknowledges some of the systemic challenges that undermine our ability to change the spatial paradigm even if we wanted to, and the limits of a purely spatial approach to improving urban life. The FLOW programme was an 'action research project' conceived as a series of interventions that could promote resilience and a transition to an (urban) commons approach. Importantly, it explored some ways in which to build the necessary transformation capacity on the ground.

What do we mean by revolution? Changing mind-sets and underlying systems can be slow. Radical disruptions can speed things up.

Who is the 'We' in We Design? I argue that 'We' is not us, as a professional community.

Can architects and urbanists presume to know what needs to be done? This is a call not just for consultation, but collaboration with all stakeholders. A real revolution would be more possible if we admitted that we did not know the answers and developed our enquiry and listening skills. The conference proposal asserts that we need density, diversity, and connection in order to transform our cities. This is partly true.

In our digital age we are more connected AND more disconnected than ever. The 'occupy' movements occurred in some of the most urbane cities in the world, but they are also some of the most unequal; recent global political events reinforce the problems in our (anti)- social, political and economic systems. We do need dense diverse connected cities and settlements, but this will not achieve transformation unless we simultaneously build the ideas of active citizenry, partner state and ethical economy.

The FLOW project proposed that building to transformative capacity could be achieved through fostering personal (and group) agency, building social cohesion, and re-connecting to life support systems.

Working with two groups of youth in two small towns, movie-making was used as a form of enquiry, a way of looking and interrogating entrenched perspectives; mapping as a way of seeing the systems and money or exchange as a way of building social cohesion and creating community assets or commons.

Can we re-frame this revolution as transformation to a commons approach? The Bologna Regulation on public collaboration for urban commons is an example of how this can work.

Readers are referred to www.flowafrica.org

FLOW was a two-year long research project of the UCT African Climate and Development Initiative, which focused on two municipalities, Kokstad, KZN, and Bergervier, Western Cape, during August 2014 to September 2016. Joanne was a member of the FLOW core team and project manager for Kokstad. Editor

"It starts by regarding the city as a collaborative social ecosystem. Instead of seeing the city simply as an inventory of resources to be administered by politicians and bureaucratic experts, the Bologna Regulation sees the city's residents as resourceful, imaginative agents in their own right. Citizen initiative and collaboration are regarded as under-leveraged energies that – with suitable government assistance – can be recognized and given space to work. Government is re-imagined as a hosting infrastructure for countless self-organized commons" (*Bollier, D Bologna, a Laboratory for Urban Commoning*).



The 10+10 Challenge

In his speech, the Hon Minister of Finance, Pravin Gordhan, said: "It would be very good if your discussions today can give us a list of ten things we must do in order to enhance the spatial revolution and ten things we must stop doing that act as inhibitors in advancing the spatial revolution".

Contributions to this summary were sourced from conference delegates and speakers through Twitter, Facebook and e-Mail proposals submitted at the close of the conference. What follows is an edited version.

10 x DOs

01 Make the National Spatial Revolution (NSR) our single national vision for all people in all places. Call it 'our way/izindlela' but make it work for the individual, the collective and the institution. Show how its benefits are quickly clear to everyone, and everyone can get behind it.

02 Focus public sector energy on inner city cores and connected places. Focus the greatest public sector efforts and investment exclusively on areas where the greatest potential of broad-based rapid economic access and growth can occur, where infrastructure already exists and where zones of change can be well connected – areas adjacent to urban cores, former industrial land, low-rise suburbs and along radial spines. Focus on walking and public transportation as the primary measures of urban accessibility.

03 Start by starting. Learn by doing. We do not need a new big cumbersome and protracted change-management strategy or more complex policies to make it happen – it just needs to start with our best shot and evolve. Get all metro mayors on board. Get them up to speed quickly so they start well. Start with a single action in each inner city core with a visibly and experientially radical impact on everyone.

04 Release the collective power of many small ideas and actions. Make many developers, many small builders and many community makers. A multitude of small, physically concentrated projects provides mega-scale, broad-based economic access and opportunity. Make housing a distributed system done by many; let it be incremental to make it even more affordable.

05 Establish a Neighbourhood Enabling Agency (NEA). Create a focused national agency with branches in all metropolitan authorities as the primary vehicles to coherently deliver the vision. Integrate departmental Silos toward strategic and coherent project delivery. Ensure officials deliver measurable broad-based economic growth through spatial instruments.

06 Target funding. Redirect all public sector housing funds and/or support across the three tiers of government from low-density sprawl to the inner cities. Inner city housing means access to immediate and long-term investment in efficiency and economic, social and cultural exchange opportunities. Target new investment, development and housing in these mixed use core areas.

07 Prepare, parcel and release land. Encourage dense, functionally diverse, well connected, mixed-use projects that include a quota of affordable housing, especially for rental. Such projects must be associated with proper public space, public transport and small-scale agricultural activity, often viable on topography that is difficult to settle.

08 Develop incentivised funding and revenue models to unlock maximum investment. Establish a land tax (rates) and utility services payment structure that heavily reflects the additional cost of the privilege for those who choose to live at low density, and equivalently favours those who choose to live at high density.

09 Create 'open building' platforms as a springboard for innovation. Develop and distribute a generic building code for adoption by municipalities as well as an open building standard and generic range of building typologies to mobilise the construction industry and reduce costs and approval times.

10 Establish catalysts to popularize the NSR, trigger and accelerate change (in mind sets as well as behaviour). Galvanise people's inherent creative abilities to solve their own urban problems. Build real catalytic projects – i.e. not mega projects but projects that actually unlock or facilitate the next set of actions – to benchmark development; provide exemplars and accelerate change. If implemented, there is global and local evidence to be confident that they would catalyse a radical change throughout the country.

10 x DON'Ts

01 Don't try to command and control every outcome. Don't continue with current deterministic practice of town planning as the driver of our spatial imagination, design and implementation. It is a discipline invented to serve the premise that functionally separated zoning has superior benefits, oversimplifying the realities within which economic, social and cultural exchange thrive. Focus on creating the simple, fundamental constraints within which creativity, innovation and responsive action will flourish.

02 Don't use reductionist practices. We must focus on the whole place not its parts. It is easy to see things in isolation and treat them accordingly. We must not be held to ransom by the car. Stop the dominant influence of roads engineering in municipal and metropolitan authorities. Many of their actions prevent good urbanism at the outset.

03 Don't allow exclusiveness. Build community. Stop, or severely tax, the construction of gated residential, office, retail, educational, health and recreation 'developments'. The gated response to real security concerns is more damaging and less successful than other alternatives. In the best traditions of urbanity we must foster inclusivity and build community in all its forms.

04 Don't continue the promise of housing as an entitlement. Authorities think they can solve the problems by building housing only. Let them focus on building catalytic projects that stimulate action and provide models for development. Everything they do must be directed at helping people realise their dreams. Give them every support in this process.

05 Don't get caught in the headlights of housing numbers. Housing must move from a problem to be solved to a potential to be realised. Widen the spectrum of housing players to include the individual, the collective and the institution. One-house-one-site and isolated un-integrated 'green-field' housing projects are sometimes cheaper up-front and less complex to build; however the total cost in infrastructure provision and maintenance, increased travel time for occupants, social isolation and the breakdown of community, dislocation of job-seeking opportunities, remoteness from social services etc is always exponentially more expensive in perpetuity.

06 Don't allow any more new towns. New towns focus on exclusivity and promise an antidote to urban problems, but in many ways just create a new set. They deflect us from our true goals of solving the problems in established urban places where they will make a big difference.

07 Don't be obsessed with risk. The best way of de-risking is to focus on many small players and provide simple rules for engagement, recognising that if a few fail we can rapidly learn from our experience and make suitable changes. Failure must be recognised as an important component of learning. It is feedback, essential to fostering a climate of innovation.

08 Don't see 'bigness' as a solution. A 'mega-project' is not a synonym for a 'catalytic project' and has the inherent capacity to become a 'mega-catastrophe'. Emerging and aspirant built environment professionals, suppliers and contractors can't succeed in an environment dominated by the 'big players', or where suitable scale projects tend to be remote.

09 Don't call it a pilot project. It is a start. We are in a state of permanent experimentation and learning. Many small experiments, by many actors are more likely to find us many viable solutions.

10 Don't give up too early. This call is for a paradigm shift. It is not easy, but there is no alternative. Don't be swayed by the big guys. They will always convince you that they can solve the problem. They never have.

Closure

We Design Conference: calling for a National Spatial Revolution (NSR). In conclusion, an interview conducted by Paloma Vera* with Andrew Makin.

1 – Why a Revolution?

Apart from the most common definition, a Revolution is also 'a dramatic and wide ranging change in the way something works or is organised or in people's ideas about it'. The word comes from the Latin *revolvere*: to 'roll back'.

The purpose of the We Design conference calling for a NSR is exactly that.

2 – What are the objectives?

To contribute to dramatically changing the fundamental way in which our spatial environment is arranged and organized, and to replace the ideas that underpin it with ones that work infinitely better for all of us in our everyday realities.

3 – Do you think the impact of the Spatial Revolution will change other areas of life of the inhabitants more than just the physical space?

The only reason to revolutionise physical space is to shift it from an economically, socially and culturally disabling environment, or one that benefits a few people a lot, to an enabling one that benefits everyone more or less equally.

The main area of benefit is economic because if we don't give the full population access to the economy we will, in some form or another, have a revolution of a much more disturbing kind. The final objective is the founding principles of our Constitution: freedom (economic and political), equality and dignity. It is our individual and collective responsibility to work toward making this real.

4 – Who needs to be involved to make this possible? Which actors through which actions?

Most architects practising in KZN and who graduated from UKZN studied the history of architecture from the Egyptians, through the Greeks and Romans and so on to today. We also studied the history of Meso-American and Oriental architectures. The history of African architecture taught us the same underlying facts: there is a direct and inalienable systemic link between the structures of urban space and the economic, social, cultural and political systems that emerge and live within it.

There are few if any other educations that specifically teach this. So all of us architects imbued with this invaluable knowledge can together and individually make this possible.

It is clear what can be done and why it can be done, but the main challenge is how to get it done.

If there's one positive thing to learn from current events in US politics, it's that mass communication of a clear message about things that people feel really matter to them has powerful potential to cause change.

Business people, politicians, other groupings of civil society are also key actors. But our profession is specifically trained to understand the importance of the physical environment on the other main parts of everyday life. We must take this responsibility.

5 – What are the main enemies or obstacles to fight against?

Perhaps because of the 'consciousness era' we come from, I believe that change is first constructed in thoughts, then articulated in words, then delivered in actions. This process of realisation is well explored in philosopher Hannah Arendt's book *The Human Condition* (1958).

So the first enemy is the belief that we are powerless, that we are victims of a reality determined by others, by ideologically defined politics represented by political parties, their interests and their leaders, or by big business, or organised labour, or by anyone but us.

Of course these are the primary sites of influence. But history has shown that civil society, of which we are a part, and which includes a multitude of organisations of one sort or another, of which we are one, is often the wellspring of real and meaningful change.

Secondly, that necessity is the mother of invention. We don't readily change unless we have to. The second enemy is the delusion of self-correction, that things have perhaps not yet become bad enough, or that if Minister Pravin Gordhan and his team can just stay in charge of the big directions, we'll be OK.

We won't. Even with the best macro-policies, the physical machine is built wrong for its purpose. It must be rebuilt or it won't produce the goods.

Third, that power is not given up voluntarily. The existing physical environment 'machine' has and continues to advantage many and will be defended from change. It doesn't make sense to set about tearing down these established structures that we have come to view as normal if not inevitable. The challenge is to show that if the ship sinks, it sinks with all of us on board. And the opportunity is to demonstrate that almost whatever our interests are, they are satisfied more deeply if everyone else's are also. A revolution in our spatial environment can do this.

The primary purpose of the conference was to demonstrate this with influential speakers from around the world, not least from KZN and other parts of South Africa.

6 – What is the main trigger for the NSR?

If there is one, it's perhaps the realisation of the critical relationship between spatial organisation and economic, social and cultural opportunity and prosperity; in other words, the relationship between spatial organisation and our future.

If this is realised, then it will take just one South African city making one serious intervention that, in one moment, demonstrates the enabling potential of reorganizing the physical environment.

Durban is a good place to do this because its inner city core is relatively compact, its population is both big and small enough, and it's a properly diverse African city. The potential push-back is that its politics are arguably too conservative and its bureaucracy too fragmented to pull it off.

In the final conference panel discussion Felipe Leal was asked *where* he would act first in this major catalytic way in Durban. He said right in the centre.

He was not asked *what* he would do. When subsequently asked he said he would repeat his first major urban action as Minister in Mexico City, transform the current main (street) inner city connector into its original and essential reason for being, which is the 24/7 safest, most pedestrian-appealing and functional, efficient public transport mobility route in the city, and therefore the most attractive place to work, live, shop, produce, socialise, recreate, and culturally express oneself.

In his experience, he said, when something in the centre works, firstly everyone attaches themselves to it and physically builds on its success, and secondly everyone else everywhere else replicates it. That's how the atom is split. We need to see and experience to believe.

7 – Do you think urban space reflects the social structure?

It's commonly accepted that urban space directly reflects the economic, social and cultural structures that build it, and conversely that structures are directly influenced by urban space.

Which comes first? Do we need social coherence before we can have coherent urban space as its embodiment? Or will coherent social structure be born of enabling urban space? Perhaps they emerge together, each influencing the other, evolving as a system.

Our twin challenge is that we have an urban structure built to serve the historically dominant racial elite, subsequently extended to serve the economic elite, and we have broken social relations inherited from an infamous exercise in social engineering. The unique potential of public space of the proper street, square and park is that it enables different people to engage with each other as they go about their daily lives.

The Durban beachfront is successful in this regard but because it's currently a leisure rather than productive environment; it's not an integrated part of everyday life so it's more of a shared than a mutually engaging space. An equivalent extent of a main street could have an even far greater consequence.

8 – Do you think it's possible to make transformations in social interactions and relations when people are already used to living in relative isolation from each other?

I think we pass through doors when they're opened for us, when it's clear what's on the other side, and when we see the direct benefit of entering. This requires leadership, the clear and inspiring articulation of the image of what it would be like to make this transformation, and how it would benefit us individually and in the distinct groups that our history has so emphasised.

We need reasons to believe it's worth it, reasons to trust 'the other' when our history has taught us not to. Perhaps this is what Nelson Mandela referred to as Nation Building and was successfully but temporarily able to make us see and believe was possible.

When there is a clearly defined shared and totally necessary goal that can only be achieved together, barriers can be replaced by bonds. Perhaps we need to get closer to the brink for this to happen. But even in that case, we'll need leadership to show us the way, or instead of building something magnificent we'll just fall off the edge.

9 – What is your evaluation of the conference, are there any results, real possibilities?

The primary purpose of the conference was to bring and increase awareness of the critical relationship between the disabling structure of our low density, dispersed, and functionally zoned settlement pattern, and the poor performance of our economy. And to explore the potential of the opposite kind of urban structure to enable high levels of vibrant, inclusive, broad-based economic activity.

That is the 'thought' part, which SAIA-KZN will, along with many other already active groupings, continue to fuel. The next step is to increasingly bring it into the widest range of conversations. From conversations come actions.

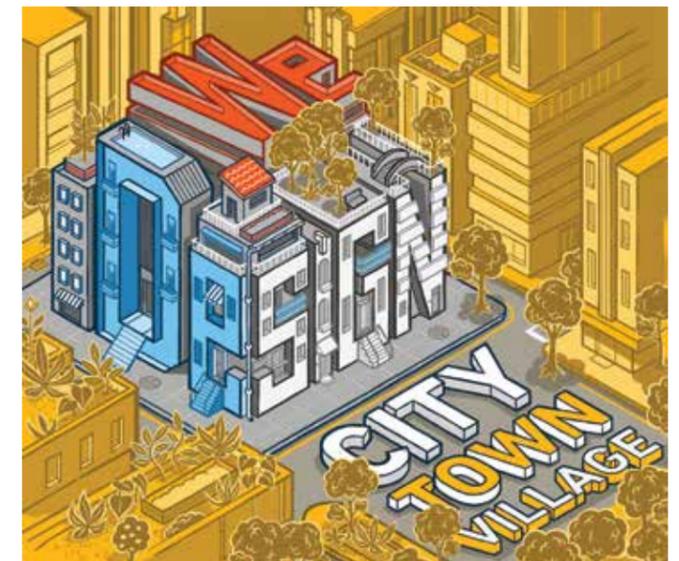
At the same time, the eThekweni government has approved an urban design plan as a framework and reference point for inner city densification, use diversity, mobility and public space. A range of catalytic projects are identified to trigger implementation.

At the same time, a few private developers have and are about to deliver another tranche of very interesting mixed-use and new typology inner city projects. So there are a range of initiatives approaching these questions in a range of ways.

As they say, 'Rome wasn't built in a day', nor was it built in twenty years. But there was an idea, there was a plan, and it was built.

10 – What are the scenarios that you dream of for South African Cities?

High residential populations of all kinds of South Africans and others living close to each other in an environment not much higher than six floors; active populated streets, squares and parks; working, being educated, getting our healthcare, and recreating close to where we live; spending a fraction of our income and time on mobility compared to what we currently do (about 40% on average); a wide range of independently owned social, retail and cultural amenities open 'till late at night; low levels of joblessness, high levels of self-employment, small businesses, and high levels of innovation; integrated and mutually beneficial formal and informal economies; high levels of cultural diversity, particularly from people from all over Africa, fueling new ideas and insights; inter-cultural integration in all its expressions; overwhelmingly safe and secure for everyone; constantly changing and inspiring, an engine of continuous newness; a place where being part of the urban tribe is a way more important definer of our collective and individual identities than being part of the other tribes we all come from.



*Paloma Vera, b.1973, is a Mexican architect. She graduated at the Universidad Iberoamericana (IBERO) in 1995 before attaining postgraduate degrees, MA and PhD, at Paris X Nanterre and Universidad Nacional Autónoma de México (UNAM) respectively. Paloma is a teacher at IBERO, feature writer and member of the editorial staff of *Arquine* magazine of *International Architecture*, and a partner in the practice *Canovera Arquitectura*, Mexico City.

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