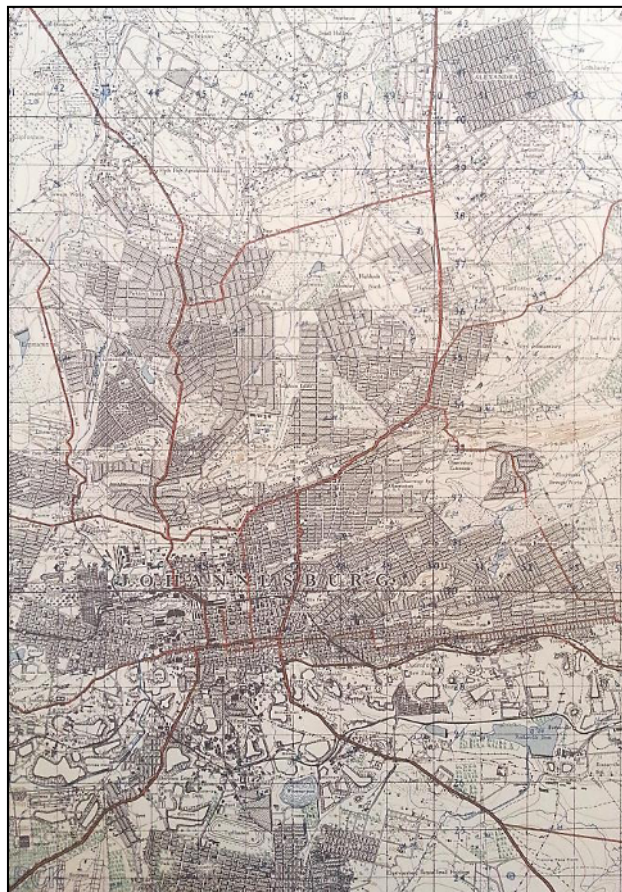


APPENDIX A_Historical overview of the Corridors of Freedom

By Clive Chipkin

Geology & Topography



GEOLOGY and the 19-century World Market determined the locality of Johannesburg. **TOPOGRAPHY** contributes significantly to the sense of place, the *genius loci*, in a region of low hills and linear ridges.

Gatsrand, 30 Km to the South; Suikerbosrand, 30 Km to the South East; the Klipriviersberg immediately to the South. In the foreground are the parallel East-West scarps and residue hills of the area magically named the Witwatersrand, looking northwards across a panorama of rolling country and gently sloping valleys to the Magaliesberg horizon – all part of the multiple Johannesburg immersion.

Fig. 168 Section of topographical map of Johannesburg.
(Source: Office of Surveyor General, Cape Town, surveyed in 1939)

The great plains of the continental plateau enters the town-lands: the Houghton-Saxonwold plain north of the ridges and Doornfontein to Turffontein plain occupying the space between the Braamfontein high ground and the Klipriviersberg.

The spaciousness – a word used by the visiting geographer JHG Lebon (1952:An Introduction to Human Geography) – of the landscape means that Johannesburg, unlike Durban and Cape Town can expand in almost any direction but after a century plus decades of urban growth, it is our delectable ridges that remain repositories of ancientness.

The north facing Parktown ridge with its extension on the Westcliff promontory and its continuation as the Houghton and Orange Grove escarpment to the east

form a decisive topographical feature defining the major portion of the Northern Suburbs as well and the ancient routes of the wagon roads to the north.

Olive Schreiner and her husband, Cronwright, had on a Sunday's outing on the as yet unnamed Parktown ridge, scrambled over this 'kopje' out of town as if there was no civilisation for thousands of miles (Martin 1987:338).

The Orange Grove escarpment is "one of those prized ridge sites that constitute the north-flowing watershed of the Witwatersrand region. In fact, the perennial springs and small cascades that were once a feature here helped give this region of hills its magical 19-century name. Both the seasonal creek that creates a donga hazard at the 4th hole of the Houghton Golf Course and then continues through Orchards, as well as the Lemoenplaats Spruit originate on the high ground nearby. Below the ridge is the line of the old wagon road to Pretoria via Halfway House."

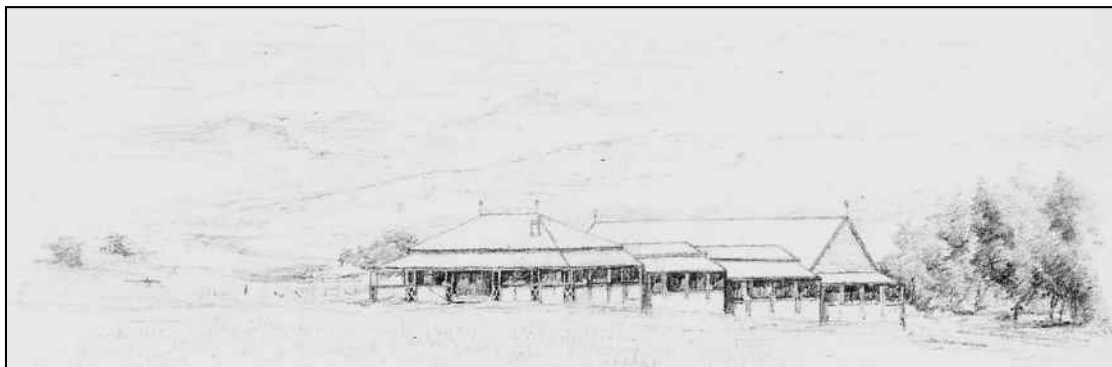


Fig. 169 Witwatersrand hills looking South from Halfway House 1889, Wagon Road: Johannesburg-Pretoria vaguely on left. The building was partly replaced by a 1930's modernistic hotel and the main tarmac road on the left in the 1930's – 1960's. (Source: Clive Chipkin architectural archive)

Spruits

Johannesburg is crossed with numerous small seasonal watercourses – either basically North to South or South to North from the original perennial springs of the Witwatersrand watershed. Many of our south spruits were blocked or diverted in marshy peripheries by the random placing of the gold tailings. These barely noticed irregular spruits are usually discounted except as donga, sloop or water hazards on our linear golf courses. These spruits – frequently canalized or in storm water pipes and culverts – that barely feature on our road maps but can be picked up as flood-plain gaps in our townscape as in the separation of Old Alex from the newer East Bank in Alexandra Township, off Louis Botha or as riverine servitudes in suburbs from Gardens to Craighall or in building gaps in City & Suburban where the origins of the south flowing Natalspruit occurs.

Only three of our spruits have entered our consciousness – the Jukskei in the east, the Braamfontein in the west (both north flowing) and the south flowing Klipspruit in the west.

The Klipspruit “as insignificant as it is, would become the locus of Johannesburg’s black locations”, the great marker of ‘otherness’ in both the pre-Apartheid and formal Apartheid eras.

Both the Braamfonteinspruit and Jukskei are marked on early maps and were prominent as settlement places. We can assume the granite stepping-stones on the Craighall branch of the Braamfonteinspruit are ancient trade crossing points. Upstream, van Onselen records the Amawasha presence at the San Souci hollow (Van Onselen 1982). An insignificant tributary (now partly canalized in Empire Road), fed by the flows off the Braamfontein ridge was “in the 1916 inundation a raging torrent”. This area was recorded in old maps “as the Sources of the Limpopo”, a designation that happily survives in the small Anglican chapel of St. Mary’s-on-the-Limpopo at Palmer Place adjacent to Clarendon Circle.

The river-eye of the Jukskei is in the long valley of the original Doornfontein farm extending between the Yeoville-Observatory ridge and Langerman’s Kop. The small stream explains the site of Bezuidenhout’s farm.

Game Trails

In his book, *The Ridge of White Waters*, WC Scully (1912) describes the migratory game herds crossing the Yeoville Ridge.

Terence Clarkson, a writer of Nature Notebook in the 1960s from a consciousness of place and recollection of conversations amongst his mother and old-timers wrote of game movements from the Empire Road tributary up the Twist Street rise and along Op de Bergen Street, Troyeville to the Jukskei spring in the long Doornfontein valley.

From family observations, I conclude that there were once elephant tracks in the kloof between The Wilds and the Houghton ridge – the route of the future Houghton Drive – leading to waterholes and succulent veld grasses in the valley below the Yeoville ridge.

Roads

There were early tracks and veld paths on the Witwatersrand hills before the opening up of the gold fields. Two wagon tracks converged on Pretoria. The first was on the S-N route Scully records. This was the early route described in *Johannesburg Style - Architecture & Society 1880s - 1960s* as “winding over the shoulder between the Parktown and the Westcliff promontory and on to the crossing of the Braamfonteinspruit below the Craighall kopje” via the nearby

hostelry, The Colony (Chipkin, C. 1993). This virtually follows the line of Jan Smuts Avenue today and dates from at least the “early seventies” (Scully 1912).

The road northwards from Booyens was in 1886/7 known as the Kimberley Road (according to Hunter McLea (Chipkin 1993:9)). This provides the South West entry point to the new town. The route Booyens – Market Square – Braamfontein linked up, I suggest, with the principal South – North route described above.

There was a main North-West wagon track Potchefstroom – Pretoria which skirted the Witwatersrand hills. In 1886 Sauer observed a rough turn-off from this route and “took a track leading North by East” to reach the farm Langlaagte on the Witwatersrand. This was the origin of the West entry to Johannesburg.

The second wagon track to Pretoria, along what became the Louis Botha Avenue axis has a more complicated history, as I read it.

There was an East wagon route from the port of Durban to Pretoria via Heidelberg and the hostelry that became Halfway House, which Leyds (1964) dates from 1878. This is the route shown on Thomas Baine’s map, 1876.

With the establishment of Johannesburg in 1886 the main West wagon track Potchefstroom – Pretoria and the main east route Heidelberg – Pretoria both became diverted through the Randjeslaagte Mining camp centred on Market Square.

To retrace our steps in 1886:

The entry point to the new town of Johannesburg from Pretoria in the North East was via the self same Halfway House inn and then onto Lemoenplaats below the Orange Grove hill where hoards of “vuilgoed” fortune seekers were scrambling to reach the Johannesburg gold fields.

A faded 1887 map showed a diagonal route North East from Market Square, labelled “Road to Pretoria”. This became the established route (using later names) Hospital Hill, Clarendon Circle – East Avenue – Louis Botha via ‘death bend’ and the famous Orange Grove Hotel (the heir to Lemoenplaats) thus North North East as the Pretoria Road reached Halfway House onto the capital at Pretoria.

This is the historic route of Louis Botha Avenue – Pretoria Road which partly dates from Johannesburg’s beginning and partly pre-dates those beginnings. A key destination was the establishment of Halfway House a decade earlier.

The Main Reef Road, the principal East-West artery after the gold discoveries, which linked the mining towns of the Witwatersrand end to end, entered

Johannesburg as Commissioner Street from Jeppestown to Fordsburg. Surprisingly, it may have pre-dated the mining revolution.

A southern East-West track skirted the Witwatersrand hills and traversed the plains between the Witwatersrand and the Klipriviersberg. This was the presumed wagon track used by Meyer on his farm Elandsfontein before the gold discoveries when he transported his heavy loads of mielies for crushing at Potchefstroom milling ready for the Kimberley Market. A secondary South-North track ran along the continuity of Oxford and Rivonia roads that reached the Boer farms of the northern periphery – if not beyond. The track West of Auckland Park is the rural track below the ridges to the rural landscape through Muldersdrift to pick up the main route Krugersdorp to Pretoria.

Terrain of the mind

“People have lived in the region as long as there have been people on Earth”

– The Cambridge History of SA Vol: (2012) – Ed: Carolyn Hamilton, Bernard K Mbenga, Robert Ross (Intro XI)

The Witwatersrand’s mainly quartzite ridges are our most momentous architecture. They were home to our first humanness. This is the “primordial landscape” that Hamilton (Ibid) talks about and the view from here confirms the observation of the historian John Stoye that “the world is neither simple or small”. If we turn from the early hominid hand-axe industries 45 minutes west from Johannesburg’s 19th century industrialization we can retrace our pre-Colonial (including near-Colonial and part-Colonial) past. The occupation of the Witwatersrand ridges – with icy winter winds and frost-belt slopes, patently less favourable for crop production than our mountain horizon of the Magaliesberg – nevertheless provide a key context for our urbanization.

Cattle and cereal farmers with stone kraals occupied the Orange Grove escarpment along the Linksfield and Mountain View terraces with homesteads in the adjacent Bezuidenhout Valley. Along the Northcliff high ground extending westwards. Gros in 1888 photographed village enclosures with veld-grass palisades on the Northcliff slopes.

Nineteenth century visitors to the interior reported the harvests of the ancestral Sotho-Tswana language people of millet, pumpkins, gourds, calabashes, sorghum – even exotic mielies and sugar-cane; enclosure pens for cattle, fat-tailed sheep, goats – nourished on the veld-grasses, supervised by the herd-boys with their calls and strumming instruments.

There was light industry of copper and iron products in the Pilanesberg and iron smelters on the Melville Koppies and at Lone Hill.

Fanuel Motsepe writes that his “family history lays claim to the late stone and iron age Tswana settlement ruins along the Baragwanath Koppies”

There were, too, ancestral stone walled villages thatched with tambotie grass from the vlei together with cattle kraals and sheep folds situated on the summits and slopes of the Klipriviersberg, dramatically poised, looking northwards to the Witwatersrand hills and towards the Vaal – the old kaGariep - in the south.

Villages were linked with well tramped down trading routes crossing the seasonal spruits on stepping stones such as the significant smooth granite outcrops on the Braamfonteinspruit at Craighall Park, a natural stopping venue with its pools and water-skimmed rocks.

Van Riet Lowe and BD Malan found implements indicating that San people had occupied strategic game-view sites on the Craighall Kopje and such high ground as the Parktown-Westcliff ridges and the Yeoville ridge. Juliet Marais Louw – sister of Eric Rosenthal – remembered the San shelter on the Yeoville ridge from 1914 before the embankments of Stewart Drive down to Doornfontein were constructed. (Marais 1991:2)

Modernism in Johannesburg

Pre-colonial and near colonial residues – from what Jacob Dlamini (Business Day, 2015) has described as complex societies – are essential components of Johannesburg’s urbanism.

Nomboniso Gasa (Business Day, 2015) refers to African cultural and customary systems distorted by colonialism but she indicates, too, that a plurality of voices have been part of “the way many African societies build and expand knowledge”.

In this context, it is important to recognize that Modernism is not a Euro-centric construct. It is part of the rich cultural awareness of Africa of the Magreb, of Dogon, of the historic modernism of Japan, of startling music from the Afro-American diasporas in the US, Caribbean and Brazil.

In South Africa during the 20s and 30s and post-war periods – the formative years of Oliver Tambo, Nelson Mandela and Walter Sisulu – many of those engaged with aspects of modernity were not in segregated white suburbia but in the black townships, absorbing new ideas in back rooms by candle-light, listening to jazz music on gramophone records, picking up attitudes, lyrics, riffs from the black diasporas. Part of a continual process of change leading to 1994.

In the same period, small coteries in the white suburbs were identified with the utopian Modern Movement in architecture. There was intermittent awareness between these groups and township intellectuals. A young architect like Kurt

Jonas was aware of the need that the new architecture and fundamental social change in South Africa should be complimentary.

Typologies

Suburban Gables

Curvilinear gables are suburban Semi-Dutch. They are sometimes referred to as Dutch gables but in fact, the provenance is more complex. Their impulse is essentially part of the Cape Dutch Revival that began with the Baker school and filtered down into suburbia from Edwardian times into the 20s and 30s. Like mock Tudor triangular gables, they form part of the eclectic diversity used by speculative builders, even incorporating Art Nouveau details and other fashionable oddities. In London Osbert Lancaster labelled an associated style Pont Street Dutch – all essentially part of the intricacies that filter down from upper middle class to petit bourgeois suburbia.



Fig. 170 Semi-Dutch gabled houses along Hillbrow Street from 1910-1920s
(Source: tsica heritage consultants, 2015)

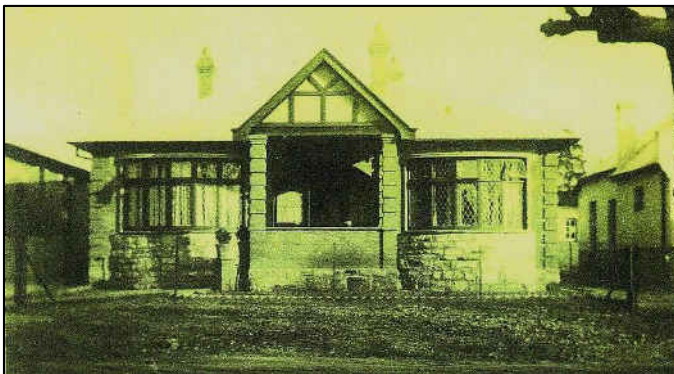


Fig. 171 House along St. Georges Street in Yeoville with projecting stoep, triangular half-timbered gable in mock Tudor and English bay windows
(Source: Clive Chipkin Archive)

Pavement Shop Fronts

In Johannesburg with sharp, sudden downpours and cloudbursts it was necessary to provide shop fronts with covered pavement canopies as protection for shoppers and passing pedestrians.

Four principal categories evolved and were in use throughout Johannesburg's town and suburbs.

a) Victorian

The typical use of roof afdakkies (pavement canopies) supported on cast iron columns and ornamental beam supports. These standardised cast iron components were selected from the pattern books and catalogues of British ironmongers.

“It was mainly the assemblage of cast iron balconies, balustrades and complete verandah fronts which, with their intricate silhouettes, gave Johannesburg its essentially provincial Victorian character.” (Aron (ed) 1972: 75)



Fig. 172 Corner shop built in 1905 along 7th Street and 3rd Avenue in Melville, cast iron columns supporting the roof structure (Source: Museum Africa)

Alternatively, there was the earlier tradition of machine cut standardised timber products from the saw and scroll mills of the Baltic countries and then the mass production of timberwork from the Pacific areas of Oregon and British Columbia.

**b) Edwardian & Post-Edwardian
1920s**

Cast iron became rapidly outmoded – and so Victorian – particularly as Baker influence spread. Baker strongly resented imported East Iron applique and sponsored a hand-made site bound architecture using predominantly local materials and skills.

For suburban and city shop-fronts this change of taste sponsored precast classical columns supported by roofing over the pavements. This was to sweep away the colonial Cast Iron verandah front and replace it with a simple and neat white Tuscan colonnade and classical parapet above the main building front.

1930s

Where the colonnade was used, now frequently supporting a concrete pavement canopy, the columns were redesigned with Art Deco classical capitals.



Fig. 173 Melville Mansions, 7th Street in Melville_example for reinforced concrete cantilever, for Art Deco buildings slabs were supported on brackets with stepped or rounded edge forms.

(Photograph: tsica heritage consultants, 2010)

But the advancement of reinforced concrete design also meant that the pavement colonnade was no longer necessary to provide vertical end support. This was superseded by the reinforced concrete cantilever. The pavement canopy now comprised a reinforced concrete slab cantilevered off the main building structure. In the case of Art Deco buildings these slabs were supported on brackets with stepped and rounded edge forms.

1930s – 1960s

In the case of Modern Movement design, the purism of the reinforced concrete cantilever remained intact without embellishment but elegantly shaped with the mathematical precision inherent in the brilliant structural principles of reinforced concrete design.

Modern Movement thinking became the norm in the post 1945 period but by instinct these architects did not like canopies as disruptive elements. Thus the Carlton Centre buildings are pure forms without the weather protection for pedestrians, until the giant glass roof over the concourse was subsequently erected.

The Carlton Centre also demonstrated building elements set back from the pavement boundary lines so as to create urban space and piazzettes. This avoided the blandness of Johannesburg's high corridor streets on the 1930's.

Johannesburg Prototypes for the future

Johannesburg has a long tradition of local architecture –

- Some superb
- Some mediocre
- Some bland

- Some pretentious
- Some appalling

There are good examples of climatic and regional architecture, many noticeable projects influenced by our rich African cultural environment; some influenced by a strong response to our local and sub-continental climate; some 'faux feudalism' in the old upper class precincts like Parktown; many seduced by a false Euro-centric identity as in the inappropriate but widespread Tuscan style influenced by a generalized Post Modernism, 1970 – 2000.

We can learn lessons from valuable prototypes for future nodal growth points in order to reinforce and articulate regional style.

Here are some invaluable precedents:

Prototype 1: Wits Student Housing, Junction Avenue – Boundary and Jubilee Roads, Parktown. Architect Planner: Ludwig Hansen 2009.

Medium to high-density 3 and 4 storey blocks incorporating surviving historical residences which were converted into social facilities. The planning has consistency, urbanity, green-belt space and historical resonance.



Fig. 174 High density 3 & 4 storey blocks with residue historic blocks_a system of domestic units that creates urbanity, communal space, civic quality and an awareness of history on sensitive topography.

(Drawings: Ludwig Hansen, 2009)

Prototype 2: African Star Housing – Bellavista Road, Turffontein (1949) by Douglas Cowin.

I have called this our first *Siedlung*.

The design flair of Douglass Cowin, with elegant, robust three storey row houses and separate semi-detached blocks, with green-belt open space and social facilities, is a planning exemplar.

Prototype 3: Walkways, Courtyards on Rothesay and Buckingham, Craighall Park by Michael Sutton (1970 – 1979).

Two storey, compact row houses with private gardens – a perfect example of high density living.



Fig. 175 Walkway courtyards_two storey compact row houses, Craighall Park, Michael Sutton (Photograph: Clive Chipkin)



Fig. 176 Interior view to private enclosed garden, Craighall Park, Michael Sutton (Photograph: Clive Chipkin)

Prototype 4: Yeoville – Bellevue Maisonettes

Beginning in 1920s but mainly in 1930s **FLATTED MAISONETTES** were developed in Yeoville-Bellevue spreading to other suburbs_a highly economic, comfortable, high density residential type of 2/3 (even 4) walk-up floors.

During the late 1920s but predominantly in the 1930s a 2 – 3 floor (even 4 floor) walk-up attached housing unit emerged, a Yeoville type that spread to other suburbs. This was a highly efficient and economic type with 2 attached flats per floor creating high density living. There were several iterations. In 1992 Clive Chipkin explored these prototypes and designed a high density housing scheme based on these Yeoville house-types.

This project was examined by Wits Quantity Surveying Department who confirmed unit price was equal to RDP housing types but at 4 – 5 times the population density and with congenial accommodation.

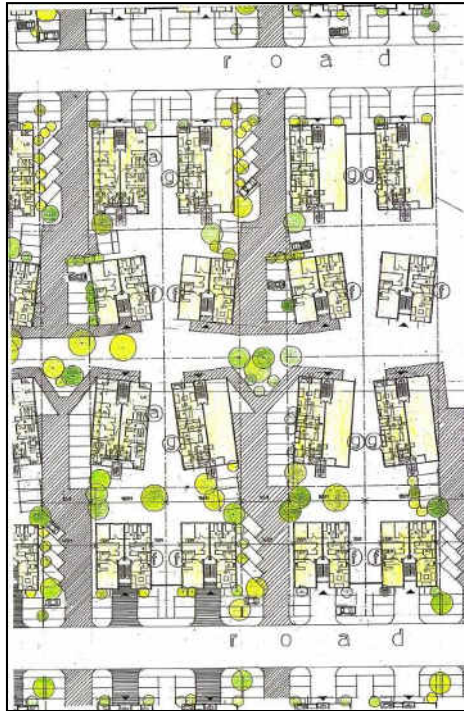


Fig. 177 Mass housing based on Yeoville type flatted maisonette.

(Source: Drawing by Clive Chipkin, 1993)

Prototype 5: Brookwood

This townhouse complex comprises two storey row houses providing medium-high density in a green-belt setting with mature trees and private gardens. The open space is more than generous and could be reduced. Habitat, trees, verdure – the Le Corbusier proposition realized.



Fig. 178 Hyde Close, Hyde Park designed by Helmut Stauch 1967

(Photograph: Clive Chipkin)

Prototype 6: Balconies

We can learn from balcony precedents where they are successful as valuable spatial extensions.

The design flair of Douglass Cowin, with elegant, robust three storey row houses and separate semi-detached blocks, with green-belt open space and social facilities, is a planning exemplar.



Fig. 179 Balconies as plant areas. Bosco Verticale, Milan. Architect: Boeri Studio. (Source: Earthworks journal, Issue 24/2015)



Fig. 180 (Left) University Gate, Braamfontein, 1961 by Clive Chipkin_large deep balconies with box food planting areas. Projections act as summer sun protection. (left)

Fig. 181 (Right) Reading Court on Louis Botha Avenue, Hillbrow, 1936 by Hanson, Tomkin & Finkelstein. Large balconies with sleeping porch. (Source: Clive Chipkin Archive)

Looking to urban precedents

It is not Euro-centric to examine urban forms elsewhere. London described as “the unique city” by Danish planner Rasmussen, has in over more than four centuries of urbanisation produced countless case studies for mass population housing, many of universal application. The German cultural attaché in London at the beginning of the 20th century, Herman Muthesius wrote *Das ‘Englische Haus’* to apply lessons for the fast growing new German cities. Marie Huchzermeyer’s *Tenement Cities* compares 19th century Berlin to 20th century Nairobi. Compare, learn, digest.

Prototype 7: Myddelton Square London

So unexceptional are these 2/3/4 storey examples in London’s vast townscape that Pevsner in his *London Guides* makes only brief mention of them. But to South African eyes, used to low density free-standing suburban housing with lack of social focus these examples are exhilarating.

Prototype 8: House Kganakga, Phokeng

These Highveld vernacular Sotho-Tswana dwellings linked into a spatial framework stir similar yearnings for architectural cohesion



Fig. 182 Kganakga family house_spotless, immaculate old courts built by the family's grandparents in 1930s_verandahs, rectangular & circular shapes, screen walls establishing habitat, residence, address (also see Fig. 48 and Fig. 49)
(Source: Clive Chipkin Archive, May 1963)

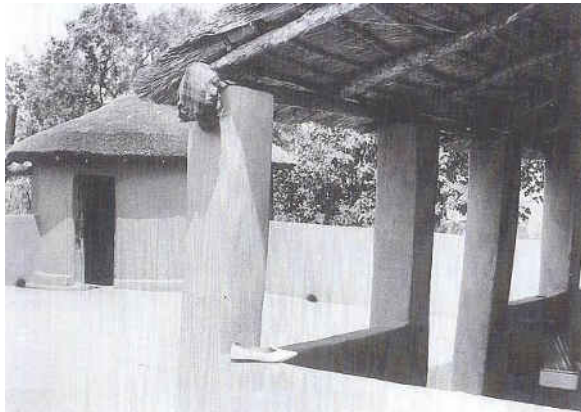


Fig. 183 Kganakga family house



Fig. 184 Kganakga family house

Concept drawing: The Corridors of Freedom

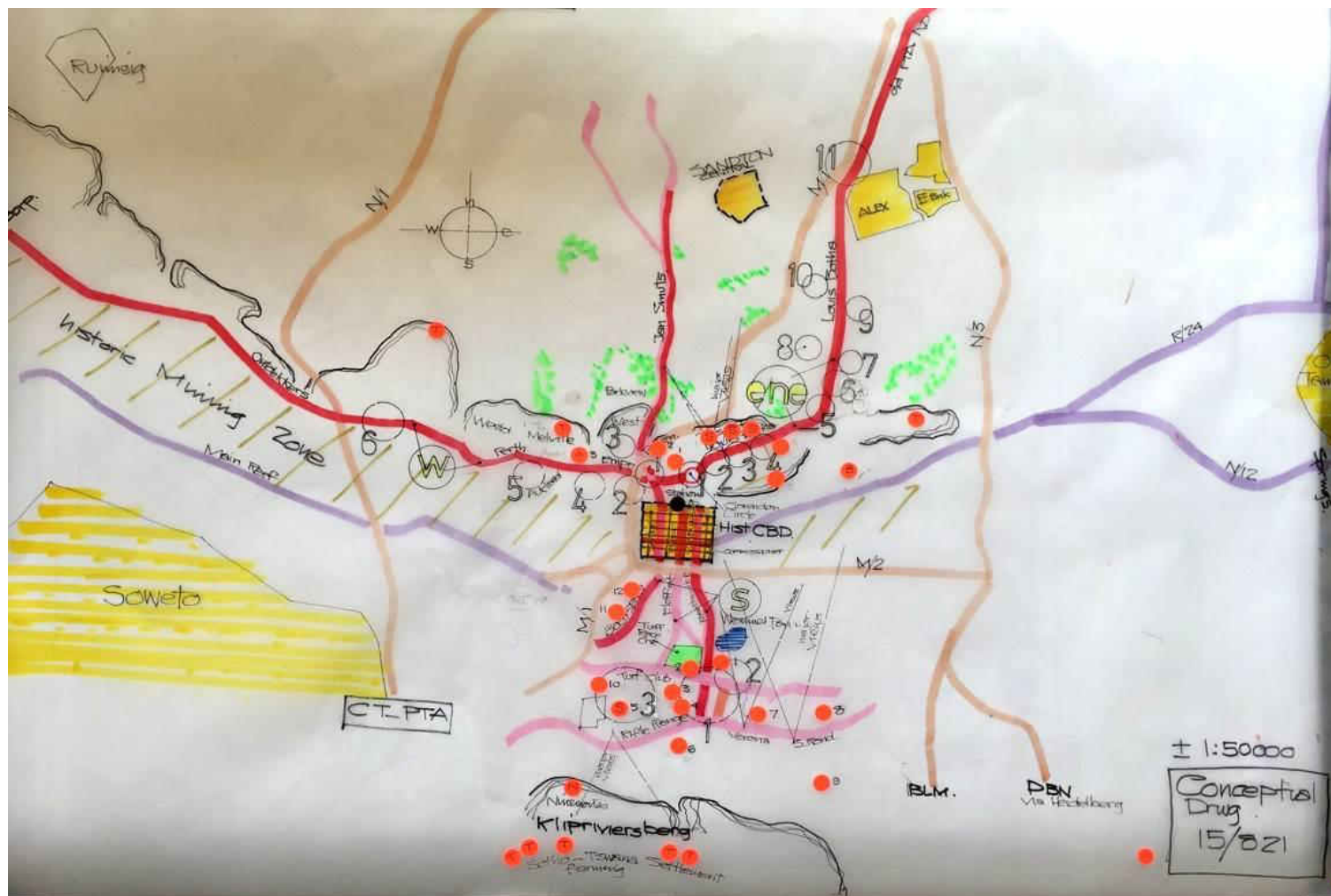


Fig. 185 Concept drawing 15/821
(Source: Drawn by Clive Chipkin; 2015)

Index to Concept Drawing 15/821: Louis Botha Corridor (northwards from Clarendon Circle)

1. Clarendon Circle Zone (Parktown/ Hillbrow)

This is the historic intersection of two major routes (East-West Empire-Perth route, North East Louis Botha corridor) with just sufficient remnants to recall its unrealised attempts at civic order and tour d'horizon.

- 1.1 Twist Street and Paul Nel streets are principal entry points into Hillbrow
- 1.2 The crossing of Banket and Paul Nel reveals the essence of the Hillbrow Vernacular. Hermanna Court is an iconic building of international importance
- 1.3 Palmer Place (West side) with St. Mary's-on-Limpopo
- 1.4 Circle Court: key Art deco Foyer
- 1.5 Majestic Mansions
- 1.6 Park Lane: adjacent to the Clarendon Circle hub



Fig. 186 & Fig. 187 Clarendon Circle – a hub of 1920s and 1930s blocks of flats. Majestic Mansions and Parktown Mansions are gone but Circle Court (1936), the essence of Clarendon Circle, remains. The Art Deco sub-theme reaches its full expression in an entrance foyer that is an Art Deco exemplar.
(Photograph: Clive Chipkin)



Fig. 188 Art Deco block on Louis Botha Avenue, on the east edge of Clarendon Circle.
(Photograph: Clive Chipkin)



Fig. 189 Park Lane_Lyndon Hall_1930s block of flats with authentic Art Deco flair. The period feel of the entrance name says it all with the strong impulse to be Deco modern. Secluded Park Land and Princess Place are behind the street frontage of the Louis Botha-Empire Road axis_once a residential enclave. (Photograph: Clive Chipkin)



Fig. 190 Park Lane_Victorian colonial residence with perimeter verandah and steep corrugated iron roofing. Once a prominent double storey landmark off the old wagon road to Pretoria, via Halfway House (Photograph: Clive Chipkin)

2. Architectural Enclave on Curve (Hillbrow/ Berea/ Houghton)

One of the best illustrations of Johannesburg architectural virtuosity:

- 1.7 Royal Crescent
- 1.8 Reading Court
- 1.9 Ridgeview Mansions
- 1.10 Clarendon Court
- 1.11 Fire Station
- 1.12 Victorian Terrace Housing (Banket Street)
- 1.13 Chapmans Peak (1 Mitchell Street)

These seven complexes, on or adjacent to the Louis Botha curve together raise the question of the mentality of 20th century architecture. I would call this a world heritage site with a beguiling concentration of sequential architecture 1910 – 1960.



Fig. 191 Louis Botha Corridor_Clarendon Place beads into Louis Botha Avenue_Fire station precinct consists of Royal Crescent, Reading Court, Ridgeview Mansions, Clarendon Court, Bera Fire Station, Victorian Terrace, Curvilinear Le Roith flat block
(Source: GIS map, City of Johannesburg)



Fig. 192 & Fig. 193 Bera Fire Station 1910; adjacent architecture with reference to Victorian terraces of a decade earlier
(Photographs: Clive Chipkin)



Fig. 194 Clarendon Circle 1938: Circle Court (LH); Bus shelter; Majestic Mansions (RH); Trolley Busses; Empire Exhibition; Street lighting
(Source: Museum Africa)



Fig. 195 Ridge View Corner Banket Street (left); Reading Court (right), Ridge View is a setback flat block from the 1920's which creates a memorable urban space
(Photograph: Clive Chipkin)



Fig. 196 Royal Crescent (right) on the curve; Reading Court (left) which is a major example of a Modern Movement building, restoration work is needed
(Photograph: Clive Chipkin)

3. Hillbrow Overview

Hillbrow, originally a low-density residential suburb mainly of separate garden houses; with 20s and 30s blocks of flats along or adjacent to the tram route, was converted in the immediate post-war period into a “high-rise, high density laissez-faire apartment zone”, seemingly overnight in the Johannesburg manner. When the architectural historian, Nicholas Pevsner visited this area in 1952 the new architecture was “extraordinarily consistent in its use of modern idiom”. He came up with the description “The Hillbrow Vernacular”.

Principal entry points into Hillbrow from the Louis Botha – East Avenue corridor are via the Banket Street, Paul Nel and Bruce Street portals.

Among the highest concentrations of buildings – the very essence of the vernacular – occur at the intersections of Banket and Paul Nel or Banket and Bruce. At the entrance to Bruce: Groot Drakenstein (1952), Clarendon Heights (1950). At the corners of Banket and Paul Nel: Stamford Hall (1948), Westbrook, Los Angeles – large blocks with evidence of the pilot of the Modern Movement.

Close-by is Plettenburg – an archetype example of the post-war style.

A classic Hillbrow block recognized as of international significance is Hermanna Court (1947) by the architects Cowin and Ellis, situated at the corner of Paul Nel and Claim, directly opposite the first Reform Synagogue referred to previously.

A visit to Hillbrow in 2015 creates 2 impressions:

Firstly, the embarrassment of street facing, west orientated window wall blocks in the most awful state of disrepair; secondly, the surprise of how many building representatives of the Hillbrow Vernacular have stood the test of time. Many of these Hillbrow prototypes have stood up to extreme dilapidation, stressful overcrowding, wear-and-tear over six and seven decades. They have ubiquitous face-brick cladding, sensible windows, robust detailing, rational planning with sun-trap balconies. All need major repairs and complete replacement of services but this may be achieved at half the costs of new buildings plus demolition of old.

- The Fire Station precinct at the north end of Banket Street (off Louis Botha) is described above
- East side of the Louis Botha – East Avenue corridor has some noteworthy examples of Johannesburg Architecture
- Sunny Ridge on Yettah Street is a residential block by H.H. Le Roith, an early 1960s block linked to modernism but demonstrating the waning of the Hillbrow Vernacular
- Both Royal Crescent on the Louis Botha corner curve – a work by Kallenbach, Kennedy & Furner (described as part of the Fire Station precinct) & King’s Langley, a large block on the Paul Nel Street corner are 1930s examples of cautious modernism

- At the corner of Paul Nel and Claim is the first Reform Synagogue opened in 1936 and designed by Kallenbach, Kennedy and Furner, modern in moderation with Art Deco infiltrations.

4. High Ground View Site Over Valley

Stone retaining wall creates this momentary spectacle. The bus shelter is intrinsic to wall.

Edwardian boarding house/residential hotel. During the war this was requisitioned for families of servicemen up north.

Intersection of Louis Botha and Bedford Road (the old tram terminus) forms a natural organic growth point of demographic significance.

Adjacent to a rich cultural and social infrastructure this is a key nodal point for high density mixed development with green belt views. e.g. street blocks between St. Georges and Dunbar: near major schools, major church establishments, libraries and sports facilities.

Suitable for four floor apartment blocks with five levels if duplex placed on upper level.



Fig. 197 Yeoville terminus node intersection of Louis Botha Avenue and Bedford Road. Medium to high density node

(Source: GIS map, City of Johannesburg)

5. Louis Botha Bend (Houghton)

Where the original wagon road from Pretoria via Halfway House turned away from the cliff face of the Orange Grove escarpment at Lemoenplaats and ramped up to the Yeoville plateau. This was the route taken by the “vuilgoed fortuinsoekers” (‘dirty’ fortune seekers) swarming to the new goldfields (Chipkin, C. 1993:7).

A British blockhouse on the high ground commanded the Lemoenplaats route.

In the 1930s a luxury apartment cluster was developed in this area prompted partly by the nearby position of the up-market Houghton Golf Course. This included the major blocks Lauriston Court, Roxdale, Houghton Heights and in the 1950s by North Berwick. Above the golf course is the damaged, un-occupied kopje where a high quality apartment block could be developed.

6. Orange Grove

A neat 1930s middle class suburb with some important landmarks such as the Methodist centre. West of Louis Botha is Sixth Street. The urban character is enhanced by street frontage greenery. Sixth Street begins with single storey early 20th century terrace houses and four neighbouring houses altered by the architect Mira Fassler Kamstra with urban flair.

The Radium Beer Hall (1929) at the corner of Louis Botha and Ninth Street is a noted landmark – an old colonial pub with its long counter – except we call it Bar-Kroeg, hard drinking without femininity.

7. Maryvale/ Rouxville/ Hawkins Estate

This is a key historic Catholic enclave with the important post war church of Our Lady of the Wayside.

- 7.1. Harrock Heights (1950) by HH Le Roith – an example of post-war street architecture with urbanity (Rouxville)
- 7.2. The Doll House on Louis Botha – one in Johannesburg and one in Durban: a US style roadhouse with American milkshakes, chocolate malted, hot dogs with chips and vinegar; trays clipped onto half open car windows. The neon sign read, ‘Flick Lights for Service’. Cute romanticism and drive-in venue for the US style automobile age. (Hawkins Estate)

8. Orchards Area

The Kraal (Satyagraha House) in Pine Street is the house occupied by MK Gandhi and designed by Hermann Kallenbach. Reinstated with additions by the architect Rocco Bosman – a major example of historical empathy and clarity.

9. Balfour Park & Randjeslaagte

Sculptured relief is by Edoardo Villa. The centre established the importance of this crossroad. Opposite is Randjeslaagte village, an exemplar of social housing and care centre.

10. Savoy Square/ Bramley

Capri Hotel and a natural high-density future nodal point.

Bramley House at No. 2 Forrest Road for the émigré sculptor Ernest Ullmann by the émigré Bauhaus architect Steffen Ahrends (late 1930's).

11. Alexandra

This is a well-documented poverty area. The area indicated is a natural interaction zone with the Sandton tax base to envisage condominium planning to take Alexandra out of the box.

Extensive research in *Changing Space, Changing City: Johannesburg After Apartheid*, (Todes et al. 2014; see p.342 onwards).

Proclaimed in 1912 – thus preceding the 1913 Land Act – for African and Coloured occupation. This is the origin of the new class of Black property owners that later so antagonized the Apartheid authorities.

The Alexandra Renewal Project (ARP) dates from December 2001 and Harrison et al (ibid) describes this as the largest area-based development project in South Africa, involved in de-densification as well as expansion across the flood plain of the Jukskei stream to the East Bank and Far East Bank.

Clearly, like Kliptown, there is evidence of a clash of interest between State, Province and City.

The authors – Philip Harrison, Adrian Masson and Luke Sinwell – come to the very strong conclusion that the “planning is not informed by deep analysis”.

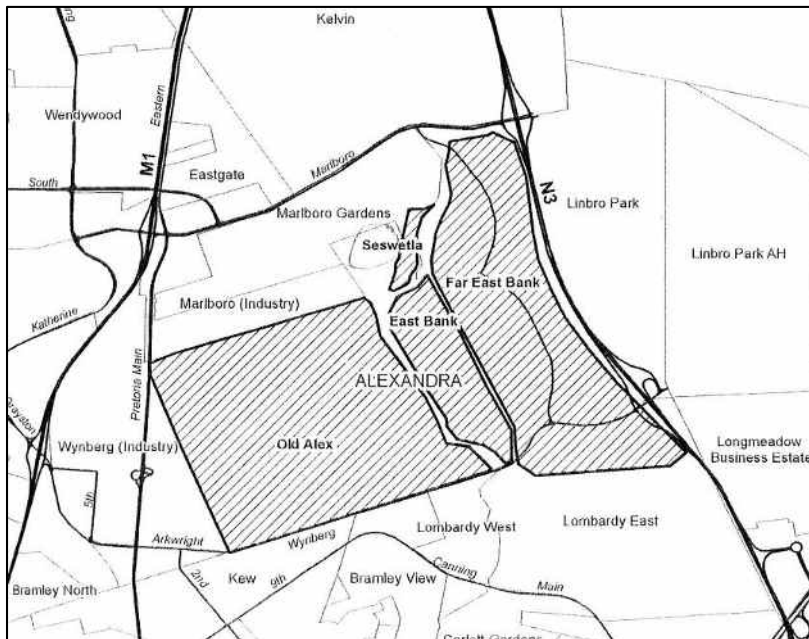


Fig. 198 Alexandra and its component parts, 2010.
(Source: Harrison, Masson and Sinwell, p.349)

The ARP has however assisted in bringing to light the social and political history of one of South Africa’s oldest townships. (See Bonner, P & Nieftagodien, N. 2008)

Index to Concept Drawing 15/821: Empire-Perth Corridor (westwards from Clarendon Circle (number 1))

2. Series of architectural precincts (Parktown)

- 2.1 Queensgate on the corner of Empire and Queens roads is a significant post-war apartment block.
- 2.2 Princess Place – a sequence of post-war apartment blocks, which provide precedents for high-density living adjacent to garden space in the Le Corbusier philosophical tradition. The entire precinct is of great importance.



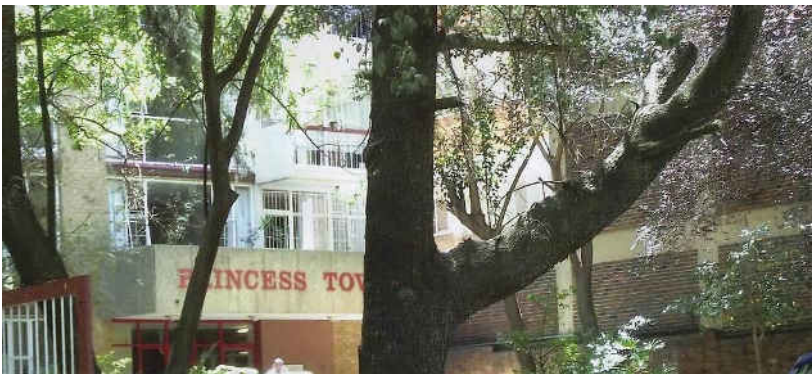
Fig. 199 Princess Place indicated in green_high density apartment block. Precinct with green-belt and private gardens
(Source: GIS map, City of Johannesburg)



Fig. 200 Princess Place precinct: a superb high density urban environment close to city life (Photograph: Clive Chipkin)



Fig. 201, Fig. 202 & Fig. 203 Generally 5 floors (including ground floor parking) with Princess Towers set back for eight floors (Photographs: Clive Chipkin)



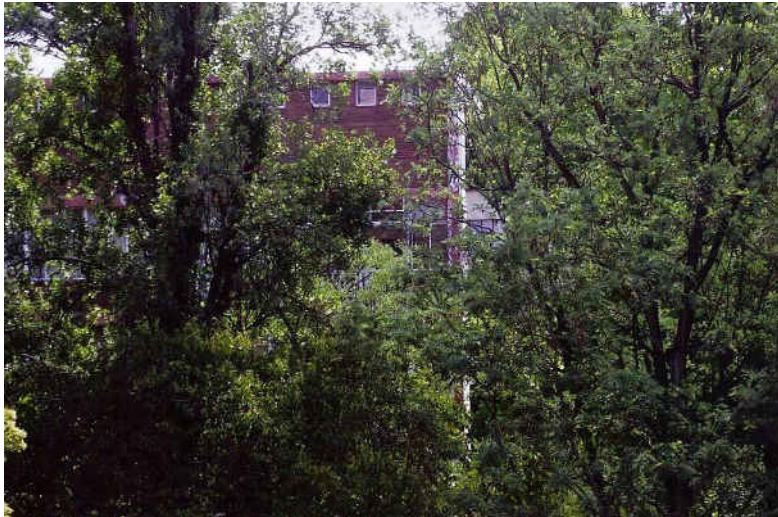
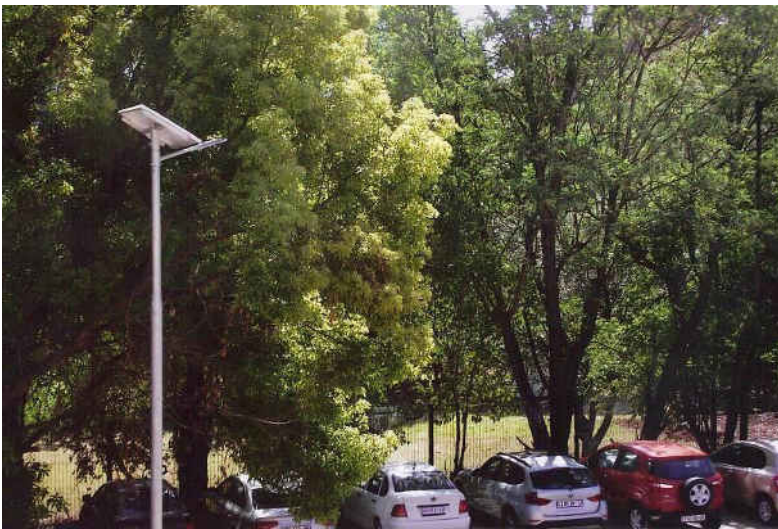


Fig. 204 & Fig. 205 Princess Place: the large apartment blocks, generally 4-5 storeys high, including ground floor parking have large internal green-belt gardens behind the street façades. Photos show mature trees lining the private garden as seen from Phoenix Place. (Photographs: Clive Chipkin)



3. WITS (East Campus & West Campus)

Besides being a historic centre of international learning there is an amazing depth of architectural types – many of international significance. The history of 20th century architecture can be studied here by analysing the extant standing examples and reading the ideological drives in the library collections.

4. Parktown & Westcliff

Suburbs that encapsulate Johannesburg's Big Houses in English Garden Suburb layouts. These were the properties of the owners of the means of gold production – romanticized in many histories as 'The Randlords'. Many houses in these exclusive reserves, designed for the rich, look over vast panoramic views of the African sub-continent (Aron & Benjamin, 1973:53).



Fig. 206 Interior of a Parktown Great House, Dolobran, in its heyday. Art Nouveau Fanlight_part of the “faux feudalism” on the Parktown Ridge 1892-1930
(Photograph: Clive Chipkin Archive)

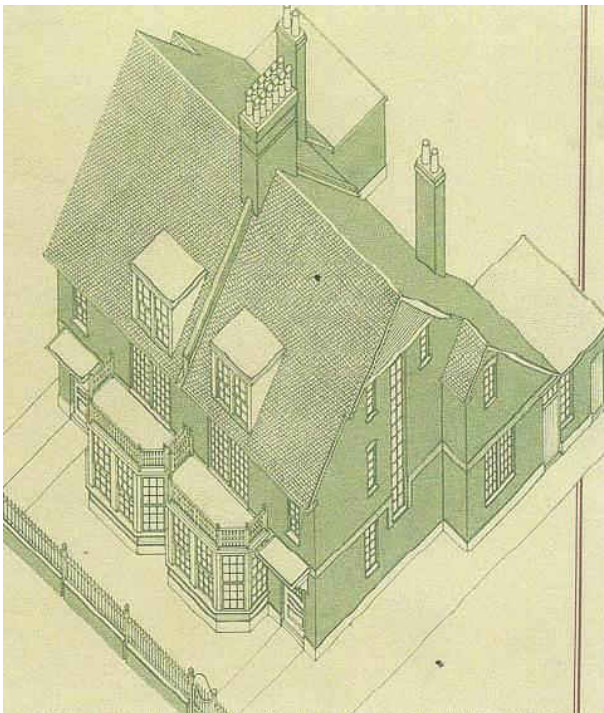


Fig. 207 Bedford Park, London (1875-1886)_prototype for Colonial Garden Suburbs
(Photograph: Clive Chipkin Archive)

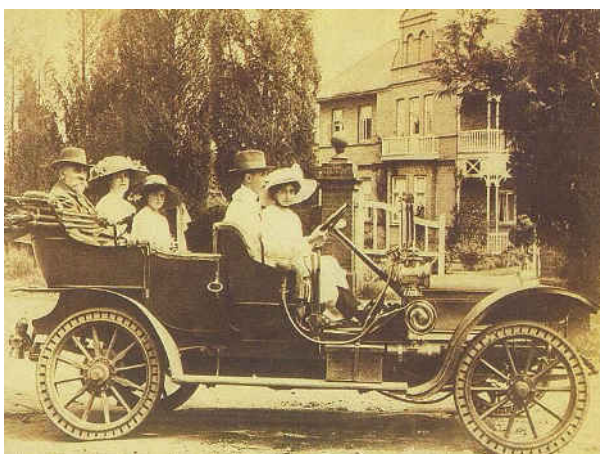


Fig. 208 Parktown, 1892 in its heyday. Bedford Lodge 1912_outside main gate. Loewenstein family in their new Talbot
(Photograph: Clive Chipkin Archive)

5. SABC Campus precinct

Once a centre of Apartheid ideology and also Apartheid's attempt to project the Image of a modern state. The growth of Melville's café-society is explained by the presence of a large number of intellectuals working at the SABC and RAU (the fore-runner of UJ).

The old Gasworks site is a huge example of dramatic industrial archaeology of the period when Britain was still the workshop of the world.

6. University of Johannesburg

This highly significant campus in Auckland Park was created as a single project over the period 1969 – 1975. The design was by Wilhelm Meyer and Partners, heavily influenced by the practice's mentor, Louis Kahn in Philadelphia. A major centre of learning and architecture.

7. Western Areas

All the urban forms in these areas are the constructs of the old pre-democratic South Africa – from the old white working class suburb of Westdene to the rigidly segregated townships of what in the 1950s were called the Western Areas comprising Western Native Township, Newclare and Martindale. The extraordinary history of Sophiatown is summarized in the name changes: Sophiatown – Triomf – Sophiatown. This area is overwhelmingly important in Johannesburg's urban history.

8. Sophiatown-Triomf- Sophiatown

The WESTERN AREAS on the Johannesburg periphery comprised Sophiatown, Martindale, Newclare and further south, Klipspruit – all areas adjacent to sewage sites.

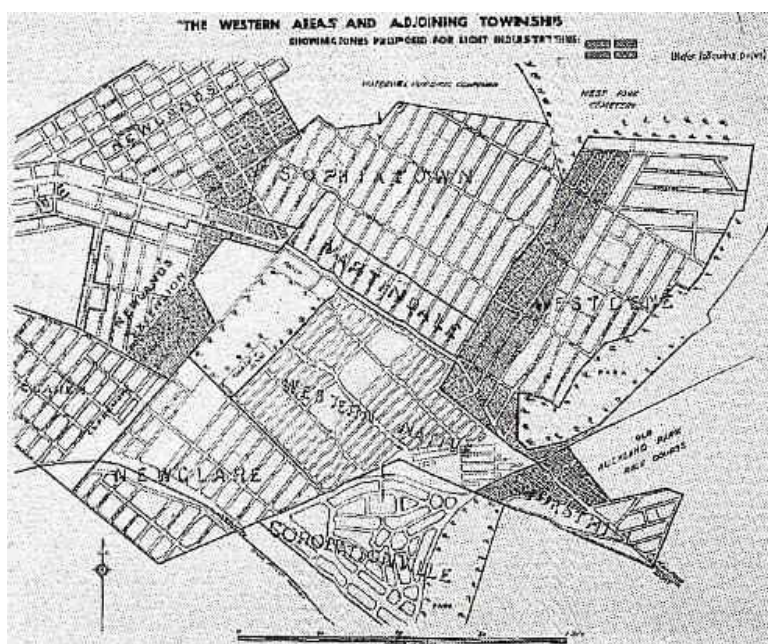


Fig. 209 The western areas and adjoining townships
(Source: Chipkin, C, Johannesburg Style 1993, p. 201)

The artist Gerard Sekoto arrived in Sophiatown in 1939 and his paintings do not show the subsequent over-crowding.

By the time writers like Casey Motsisi and Can Themba were writing in the post-war era Sophiatown, in Casey's words, was "always ticking – a time bomb area", grossly overcrowded with secret shanty booze-joints rich with jazz groups, literary culture, artists like Feni, Sithole, Matsoso, jazz at the Odin Cinema in Good Street, musicians like Dollar Brand, Kippie Moeketsi, Hugh Masekela.

Forced removals moved people to Meadowlands. By 1963 Sophiatown was a white area named Triomf.

Index to Concept Drawing 15/821: Turffontein Corridor (southwards from historic CBD)

1. Old South

The major Southern routes are summarized below:

- 1.1. The Sauer Street – Booyens Road Route. The South to South West route has been absorbed into the M1 motorway beyond Xavier Street
- 1.2. Eloff Street Extension was a natural addition leading southwards to the new suburb of Turffontein dominated by the large open space of the Turffontein Race Course. This route splits to accommodate the east and west boundaries of the racetrack
- 1.3. The route of von Weilligh Street and its southern extension was defined by active mining operations and the east perimeter of the Turffontein Race Course

It is the intersection at the South East corner of the Race Course, which became the nerve centre of the southern suburbs with the new suburb of Rosettenville occupying a crucial position to create one of those untidy traffic nubs that are typical of 19th century industrial cities.

This historic intersection forms a natural node for future developments. The general area has a busy urban layout with several important buildings to take note of.

We see this in a time of growth as the centre of a large Southern Node, the counterpart to the Northern Node at Sandton. Population and income levels will determine the future of what is essentially a geographically favourable area.

The core historic suburbs of La Rochelle and Regents Park will inevitably form part of the above nodal development. One day, we conclude, the economic benefits and financial possibilities of these urban areas will be discovered. When Johannesburg's population reaches 10 million this will be an area of fundamental importance.



Fig. 210 La Rochelle_hipped roof houses with stoeps facing street, disregarding climate orientation. There is no tradition of atriums or courts_only small, separate rectangular houses placed in the middle of the stand

(Source: GIS map, City of Johannesburg)

In summary:

La Rochelle: with the idiomatic hip-roofed rectangular houses; with parks and urban open spaces; with surviving Victorian verandah houses and Catholic institutions as landmarks and Lusophone cultural atmosphere that enriches urban life.

Regents Park: with crowded lower income entry-level houses (comparable to Soweto) with extensive open parks which are an invaluable resource.

An area with distinct possibilities. The presence of Forest High School provides distinctiveness to the area with post-Edwardian civic architecture. Some Victorian residue houses in the neighbourhood could contribute social amenities to new development.

To the west of Bellavista Road, near a residue slimes dam, is a housing estate for ex-servicemen in 1946. Its original name was Africa Star – a large complex with communal facilities. It is our first and only *Siedlung*, a term derived from pre-Hitler Germany. African Star presents itself as a prototype for purposeful new housing solutions in this area.

2. New South

Mondeor and Robertsham are post-war suburban developments dating from 1948. Similarly Linmeyer was laid out in 1948 but like its neighbouring suburb of Oakdene these rising middle-class suburbs are principally late 1950s and 1960s developments

on southern slopes below the South Rand Road. Johan Meyer Street, for example offers incredible views southwards towards the Klipriviersberg.

The higher property value suburbs of RIDGEWAY, MEREDALE, GLENVISTA, MULBARTON, BASSONIA began as 1970's speculative developments laid out by property investment companies like Corlett Drive Estates which after a spectacular rise on the curve of the property boom c. 1970 subsequently ended with a spectacular crash. Suburbs with Glen prefixes were products of Glen Anil Estates which became a household name in the 60s and 70s but ended in the same way.

These suburbs which “traverse the slopes of the Klipriviersberg” form the core of what Phillip Harrison & Tanya Zack have called the NEW SOUTH, mainly the product of the “25 township establishments in the 1970's” (Harrison & Zack, 2014).

APPENDIX B_Timeline and significant trends within Knowledge Precinct

14 th c.	Early groups of seTswana and seSotho people settle on the Highveld
1853	Gold prospecting along the Jukskei river
1858	Gerrit Bezuidenhout acquires Braamfontein farm
1886	George Harrison finds the main reef on Langlaagte farm Founding of Johannesburg
1887	JJ Lindique sells 526 morgen to the South African Republic
1888	First mostly unsuccessful sale of stands in Auckland Park advertised First house built in Auckland Park and blue gums planted ²
1893	Johannesburg & Auckland Park Estates, Ltd registered
1894	Hut and poll taxes force rural men to seek work on the mines
1895	Vrededorp proclaimed
1896	Melville and Richmond proclaimed
1898	'Eloffs Claims'/ 'Eloffstad' proclaimed on Braamfontein farm in what is today Cottesloe
1899	Outbreak of the South African War
1900	Johannesburg surrenders to the British
1902	Brixton surveyed on portion of Braamfontein farm, Auckland Park Real Estates, Ltd. Formed, Westdene surveyed for the Johannesburg Consolidated Investment Company
1903	First stands in Brixton go on sale Auckland Park surveyed
1905	Cottesloe surveyed and officially named Westdene laid out
1906	Country Club officially opened Melville tram route begins operations
1910	Westdene formally established
1912	Brixton cemetery laid out
1914	Hindu crematorium organised by Mahatma Gandhi shortly before his departure from South Africa

² Smith 1971:21

1917	Overhead tramways introduced linking CBD with Brixton via Vrededorp
1918	Hindu Crematorium completed
1922	Rand Revolt – 1500 rebels lay siege to 183 policemen in Brixton. Rebels bombed by the Union Defence Force and South African Air Force along Brixton ridge
1924	Council approves establishment of Rossmore
1925	Empire Road named by Mrs. O.E. Redwood “through love and regard for the British Empire” and extended by Proclamation No. 77 Rossmore formally gazetted
1928	New gas works built in Cottesloe
1936	Johannesburg hosts the Empire Exhibition Construction begins on Jan Hofmeyr housing scheme South African Broadcasting Corporation founded
1943	Fietas renamed Pageview after mayor JJ Page
1945	By 1945 the Melville tram route runs along Annet, Kingsway, Lothbury and 4 th Avenue
1959	Melville Koppies declared a Nature Reserve
1960	Cottesloe statement issued by the World Council of Churches
1962	Sentech tower completed (previously known as the Brixton Tower or Albert Hertzog Tower, respectively)
1967	Rand Afrikaanse Universiteit established (now UK Kingsway Campus) J.G. Strijdom Hospital opened with 80 beds
1968	Melville Koppies declared a historical monument
1976	The South African Broadcasting Corporation (SABC) introduces the country’s first televised broadcasts from its studios in Auckland Park
1981	Ann Latsky Nursing College opened
1985	Westdene bus disaster
1994	First Democratic Elections
2005	RAU merges with Technikon Witwatersrand and Vista University and renamed University of Johannesburg

Appendix C_Digitised map with heritage significant sites within Knowledge Precinct and Excel spreadsheet