In between

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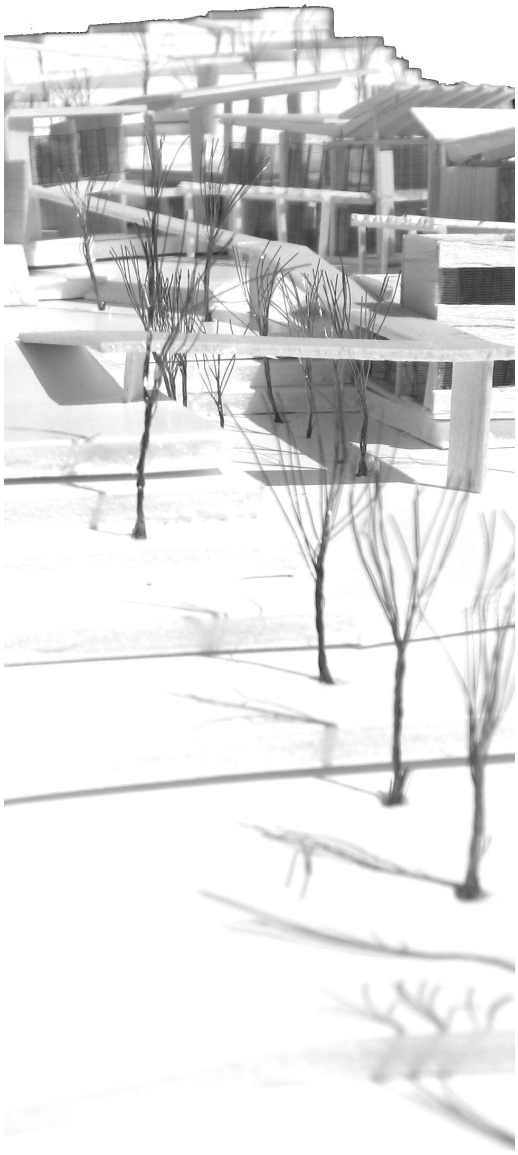
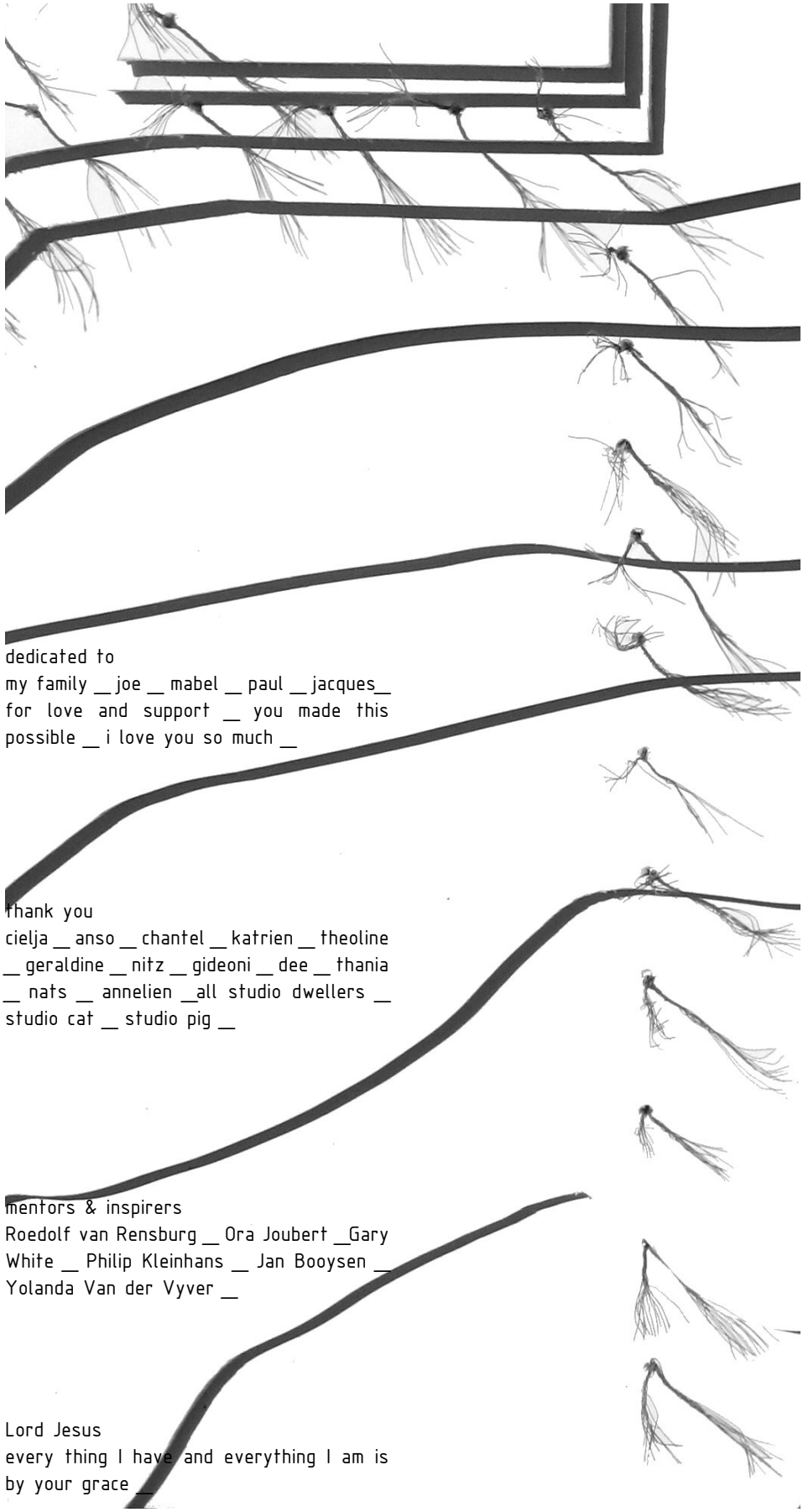
IN BETWEEN



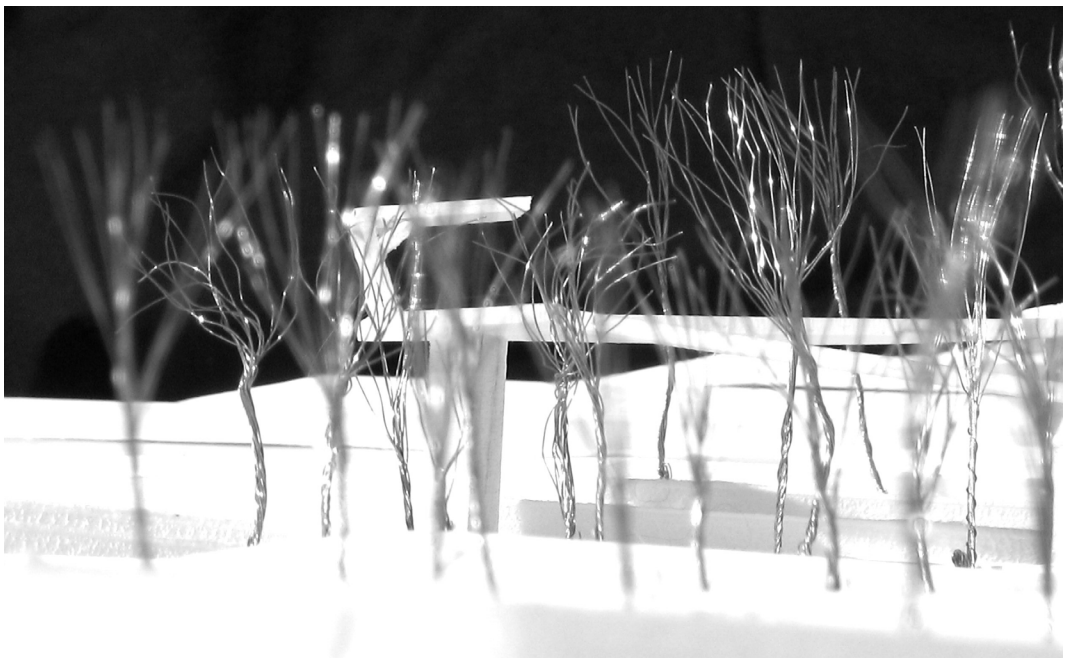


dedicated to
my family __ joe __ mabel __ paul __ jacques__ for love and support __ you made this possible __ i love you so much __

thank you
cielja __ anso __ chantel __ katrien __ theoline __ geraldine __ nitz __ gideoni __ dee __ thania __ nats __ annelien __all studio dwellers __ studio cat __ studio pig __

mentors & inspirers
Roedolf van Rensburg __ Ora Joubert __Gary White __ Philip Kleinhans __ Jan Booysen __ Yolanda Van der Vyver __

Lord Jesus
every thing I have and everything I am is by your grace __



SYNOPSIS

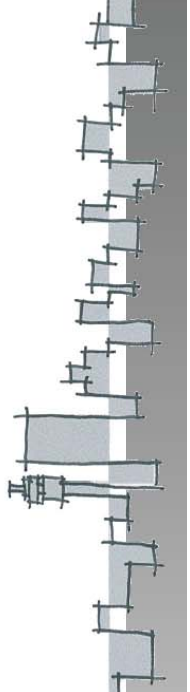
'The non-dialectical mean between which extremes are suspended constitutes something like an interface, which is the condition of the possibility and impossibility of seemingly seamless systems and structures. When radically conceived, this interface extends beyond every margin of difference to 'contaminate' opposites that once seemed fixed.' (Taylor 1997: 269)

The site is positioned at the juxtaposition of: poor opposite rich, inviting opposite closed, dense urban fabric opposite sprawling suburban, exclusive opposite inclusive. Therefore the question arise: when dealing with an island placed amidst these contradictions, how do you include and acknowledge all? By providing for the one inevitably leads to the exclusion of the other, yet again reinforcing the legacy apartheid left South African urban environments.

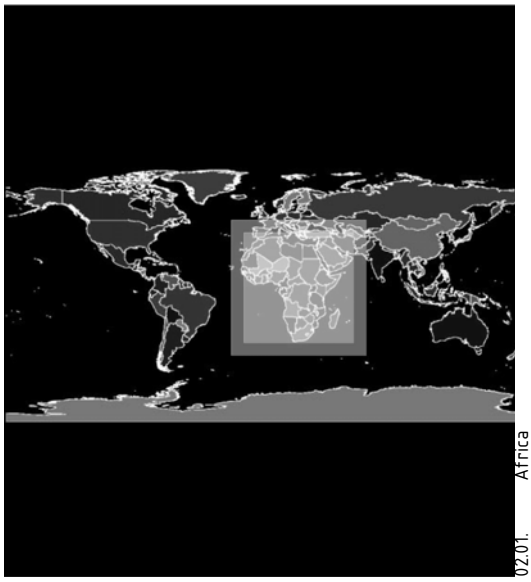
Therefore, the search for the INbetween informs the merging of these realms by means of a public park and recreational youth facility at the juxtaposition of these contrasting realms. The merge creates a dynamic tension between public / private, rich / poor, active / contemplative, movement / rest and inside / outside which informs the design philosophy. The architecture investigates the fading of boundaries.

The design problem is a youth facility with recreational, educational and counselling functions, for youth living within the inner city area of Hillbrow, Houghton, Berea and Parktown. It is part of the City of Johannesburg's Child Friendly City Initiative (CFCI) and will be managed by Non Governmental Organisations (NGO) operating in the area.

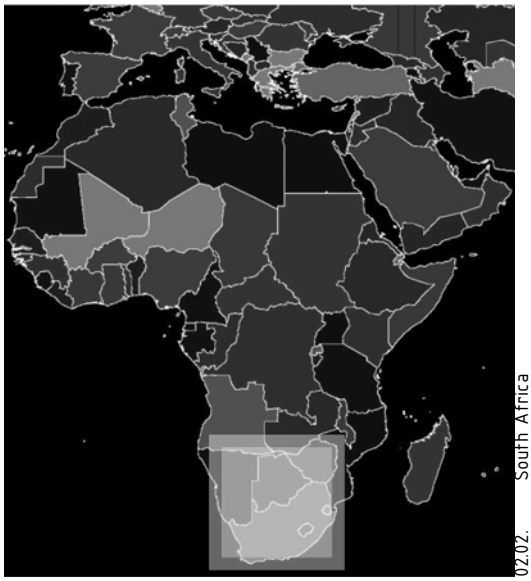
Therefore, the centre will be a facility of which youth can take ownership of. A platform for 'accidental' interaction between the people from these different communities. The centre needs to provide opportunities and facilities that would entice, intrigue and motivate in order to resist the attraction of street life and drugs, through the provision of recreational activities, entertainment, educational facilities in the form of skills and entrepreneurial training, counseling and medical assistance.



MACRO TO MICRO

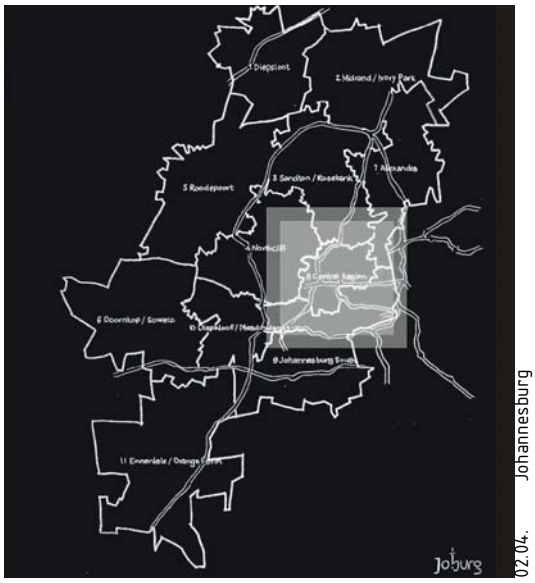


02.01. Africa



02.02. South Africa

02.03. Gauteng



02.04. Johannesburg

02.06. Norther edge of the inner city

02.07. Hillbrow, Houghton, Berea and Parktown

02.05. Johannesburg Inner City

02.08. The site

02.09. View of the Johannesburg inner city from Braamfontein

Situated at the heart of Gauteng, the Johannesburg inner city is considered to be the economic heart of Southern Africa. With a population estimated to grow from the current 211 000 to 256 000 in 2010, it is the golden city people flock to for opportunities and wealth. (City of Johannesburg 2001: 1).

At the moment, Johannesburg is a city in transition, scarred by the imprint apartheid left on its urban fabric and people. It is a city with an intricate history and a bright future. It is a city marked by dualisms.

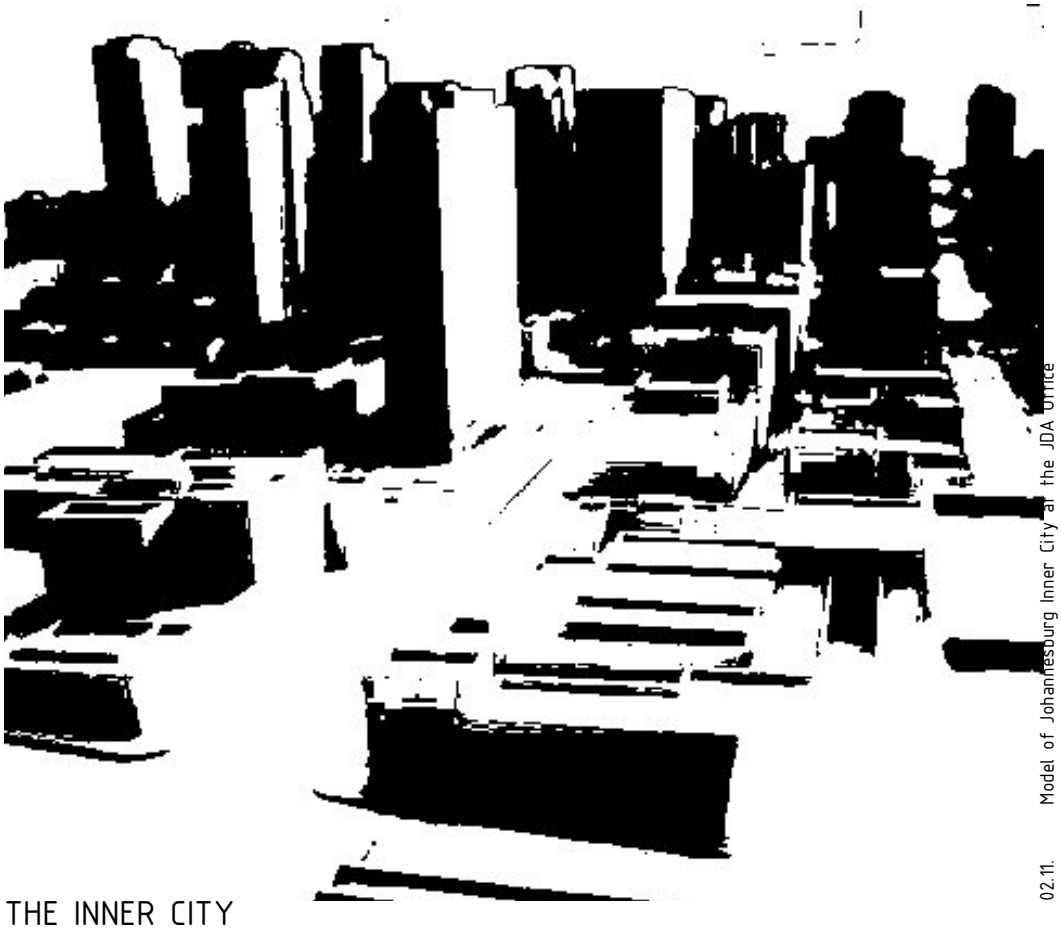
Beall (2002: 1) explains that Johannesburg has been provided with the extraordinary opportunity of reinventing itself in the wake of South Africa's transition from an apartheid regime to a liberal democracy in 1994. This reinvention includes the reformation of its policies and planning practises, and the reformation of its social and political institutions.

Contemporary Johannesburg is described by Bremmer (2004: 8) as 'a witness to both the intractable geographies of apartheid and the radical reassembling, re-mixing and re-visioning that have reshaped it. Johannesburg is a city of colliding worlds, moving in many directions at once.'

The vision for Johannesburg is:
The Golden Heartbeat of Africa
A dynamic city that works …
Livable, safe, well-managed and welcoming
People centered, accessible and celebrating cultural diversity
A vibrant 24 hour city
A city for residents, workers, tourists, entrepreneurs and learners
Focused on the 21st century,
Respecting its heritage and capitalizing on its position in South Africa,
Africa and the whole world, A truly global city
The trading hub of Africa thriving
Through participation, partnerships
And the spirit of UBUNTU!
(Inner city position paper: 2001)

02.10. Johannesburg inner city

"Cities were invented to facilitate exchange of information, friendship, material goods, culture, knowledge, insight, skills and also exchange of emotional, psychological and spiritual support. For a truly sustainable environment, we need to maximize this exchange whilst minimizing the travel necessary to do it." Engwicht: 1992



02.11. Model of Johannesburg Inner City at the JDA Office

THE INNER CITY

Before the discovery of diamonds and gold, the spatial fabric of settler towns in South Africa was generated by the church and market, which became the social space. For the Afrikaner, the church was the symbolic, functional and visual center of the settlement and its shared communality (Holm 1998: 66).

The 1880s

The discovery of gold on the Witwatersrand brought a new dynamism, a new form of existence, a cosmopolitan society with a new ethic and a contrasting modern way of urban settlement. Consequently, the search for wealth brought shaping factors such as commerce and trade which took the place of church and government. In a landscape where the rhythm of the seasons dictated time, the time value of money suddenly set the pace.

According to Holm (1998: 67) the original layout of what was to become Johannesburg was done by a state-registered surveyor on tender and it is suggested that the layout might have been orientated towards Pretoria rather than towards solar coordinates. Unlike Pretoria, which was clearly defined by mountain ranges and watercourses, Johannesburg largely lacked natural or artificial definition. The streets were traffic routes in the modern sense and did not serve as live-in urban spaces. Since Johannesburg was largely perceived and planned as a temporary settlement, the need for planting trees along traffic channels was not perceived as necessary.

The difference between farmers and gold diggers is evident in the way they perceive themselves within the environment. A farmer sees himself as custodian of a piece of earth to be handed down through the generations; it is the source of his or her survival. He relates to the earth in an intimate way, through dependence on the rain, sun and land for survival. The gold digger, on the other hand, owes nothing to the earth and takes from it without investing in it. He does not have to relate to it in a caring manner because fertilization, planting, and irrigation will not improve his harvest; only destruction pays. Therefore, mankind's relationship with the landscape dictates

its reconstruction of the urban landscape. The Johannesburg inner city is a clear example of this phenomenon.

Holm (1998: 69) explains that the layout soon developed along rational and functional lines. The area was subdivided into mining and living areas, which were again subdivided into the land of the living and the land of the dead (cemetery), and beyond these that of the 'kaffirs'. The Johannesburg plan of 1891 indicates that the subdivision of erven was not dimensioned to support the inhabitants but was designed to accommodate buildings.

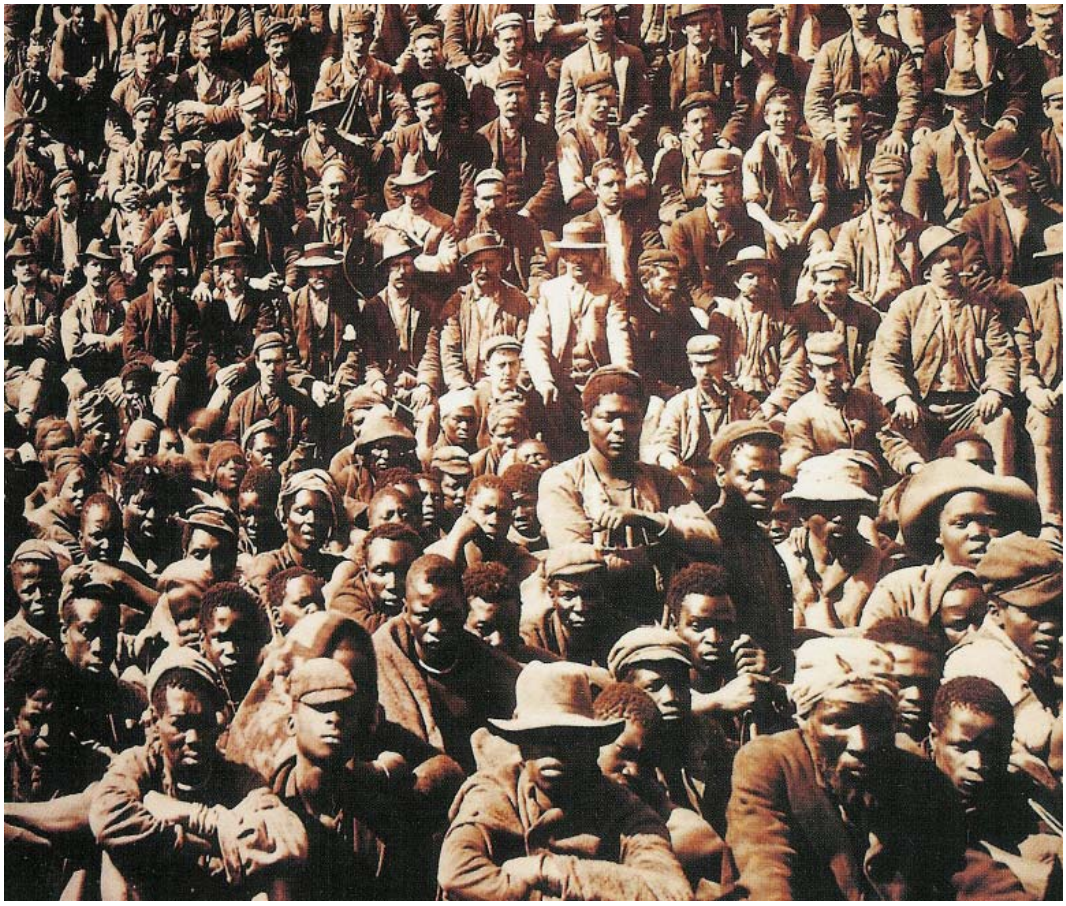
The 1890s

> Johannesburg did not go away as predicted; in fact, it prospered. Suddenly the mining settlement turned into a high-rise urban environment. 'After 1890, Johannesburg, a town without history and an inland town without a river, was transformed into the "most important town in South Africa"' (Holm 1998: 68).
>
> Driven by the energies of individual entrepreneurship in the modern sense, and curbing its ventures only in the interest of public health and safety, the mining camp soon developed into a city showing all the typical traits of the times: 'functionality and segregation of functional zones, resultant streets as traffic channels; the abandonment of urban form, meaning and hierarchy; withdrawal from civic life and privatization of living' (Holm 1998: 68).

The 1960s

The process of inner-city decline was driven by decentralisation with businesses fleeing to the northern suburbs. Contributing factors were the following:

> High land values and rentals in the CBD, congestion, lack of parking, and a restructuring in the office market that saw demand for office parks grow, and the subsequent



02.12. City miners

02.13. JDA add on The Florence building, Hillbrow

development of suburban shopping malls. The process of decentralisation was intensified by problems of crime and grime, unregulated street trading, and inadequate facilities for taxis. In turn, these factors lead to further symptoms of urban decay in the inner city: vacant buildings, badly maintained buildings, squatting, illegal conversions and overcrowding and poorly serviced, maintained and managed public areas. (City of Johannesburg 2001: 1)

The 1980s–1990s

Bernstein (2002: 94) explains that until the late 1980s Johannesburg was regarded as a fairly small colonial city centred on its CBD. 'Apartheid laws and residential segregation kept most black people away from the main commercial and residential areas.' She denotes the transformation of the image and the reality of the city to the desegregation of the mid- to late 1980s and the political democratisation of the 1990s. Johannesburg changed from an ordered and orderly city segregated colonial city into a much larger, bustling and disordered, developing world city. According to Bernstein (2002: 89) the focus is on the racial and symbolical integration of the city.

02.14. Johannesburg logo etched on a steel plate at Constitution Hill

02.15. Johannesburg inner city streetscape

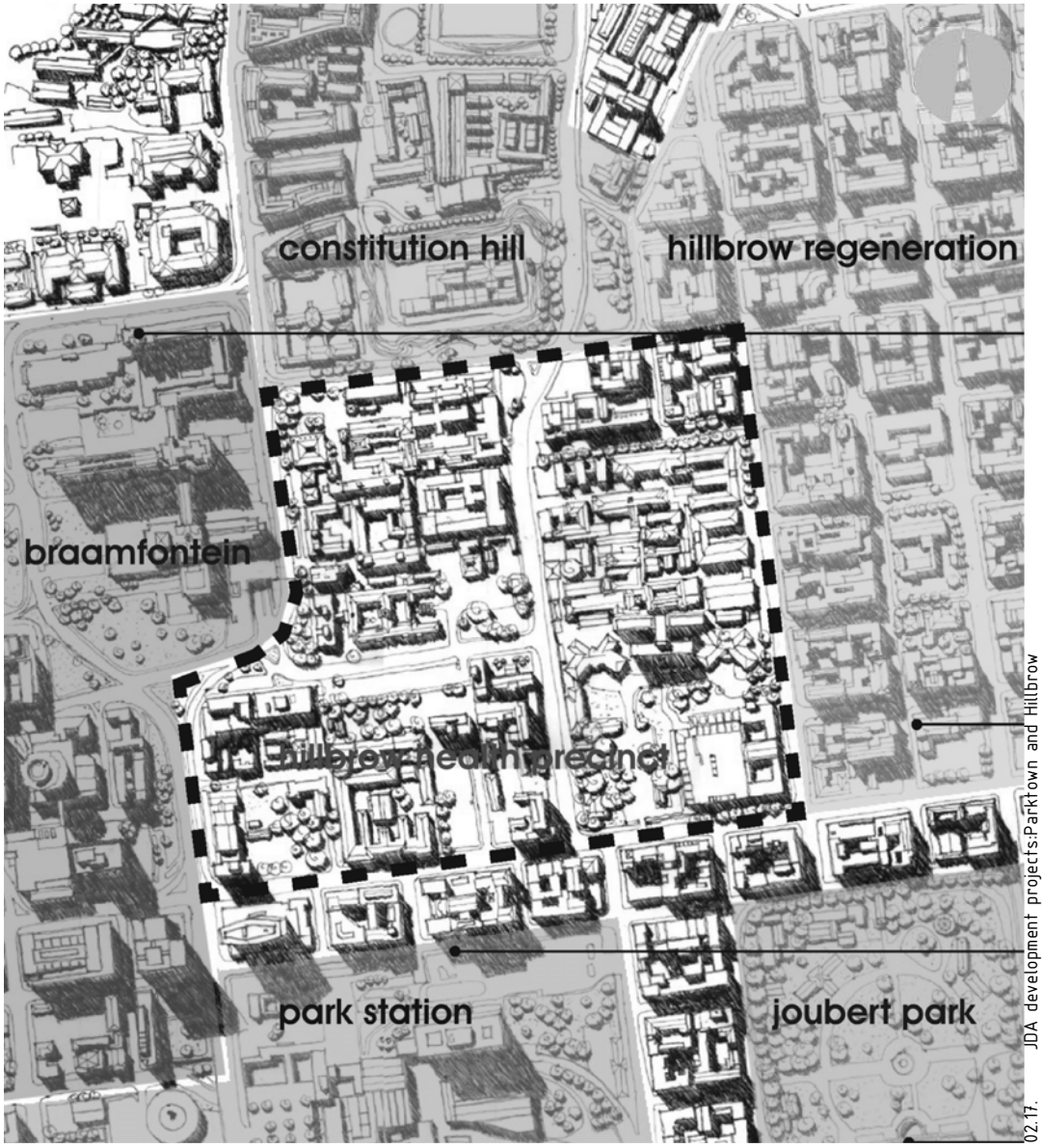
02.16. Hillbrow streetscape

JOHANNESBURG DEVELOPMENT AGENCY

The Johannesburg Development Agency (JDA) was established in April 2001 by the City of Johannesburg as an economic development agency to initiate, stimulate and support development projects aimed at rejuvenating economic activity throughout the vast Johannesburg metropolitan area. JDA's ultimate aim is to create an environment that will attract new investment opportunities to increase occupancy levels within the inner city. Improved cultural activities are envisioned to attract 'business tourism' to designated areas (JDA 2005).

Important nodes with development potential were identified around the inner city. Within these nodes, catalyst projects were identified for construction with the aim of

- stimulating regeneration in surrounding areas
- creating short-term construction jobs
- creating sustainable long-term jobs
- promoting tourism to the city



JDA development projects:Parktown and Hillbrow 02.17.

REGENERATION NODES AROUND BRAAMFONTEIN AND HILLBROW

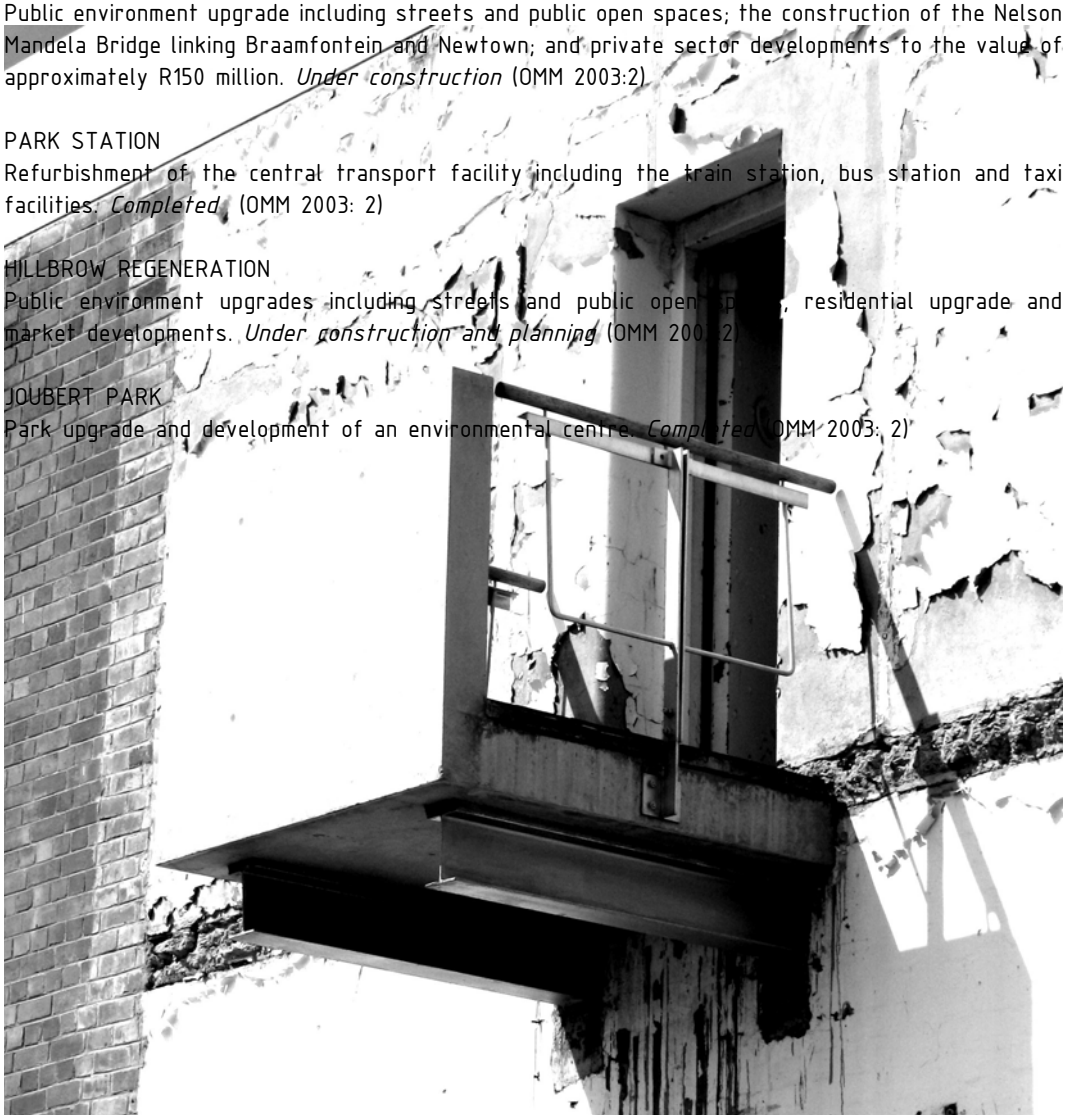
CONSTITUTION HILL
Redevelopment of an existing prison complex including the building of a new constitutional court building for South Africa, the upgrade of existing heritage buildings, the construction of a new super basement-parking structure, the upgrade of all surrounding streets and the construction of new buildings on top of the super basement structure. *Under construction* (OMM 2003:2)

BRAAMFONTEIN
Public environment upgrade including streets and public open spaces; the construction of the Nelson Mandela Bridge linking Braamfontein and Newtown; and private sector developments to the value of approximately R150 million. *Under construction* (OMM 2003:2)

PARK STATION
Refurbishment of the central transport facility including the train station, bus station and taxi facilities. *Completed* (OMM 2003: 2)

HILLBROW REGENERATION
Public environment upgrades including streets and public open spaces, residential upgrade and market developments. *Under construction and planning* (OMM 2003: 2)

JOUBERT PARK
Park upgrade and development of an environmental centre. *Completed* (OMM 2003: 2)



02.18. Fusion of old and new at Constitution Hill

02.19. JDA logo etched on steel

JOHANNESBURG INNER CITY

> Whether read from the macro, meso or micro scales, cities are not only sites of economic development, vibrant centers of social and cultural creativity or sites of political innovation. They are also places of disadvantage and division and can be divided along a range of axes, including class, race, ethnicity, gender, generation and length of urban residence. (Beall 2002: 24)

Beall (2002: 26) claims that migrants to cities are predominantly young and that this phenomenon inevitably contributes to the high rate of natural increase in numbers within urban centers. He also constitutes high rates of unemployment to youthful populations.

The social dysfunctionality in the inner-city residential areas is, according to Fraser (2004), due to the loss of control over increasingly crowded buildings. Factors that contribute to the current state of Hillbrow and Berea are said to be the increase in crime and the decline of the urban fabric and an increasing emotional detachment from context. The degradation of urban fabric is amplified by the absence of police presence and the greed of some landlords (or 'building highjackers') that saw an opportunity to maximize profit without delivering services and safety standards.

Neil Fraser, executive director of the Central Johannesburg Partnership (CJP), a non-profit organization dedicated to the revitalization of the inner city of Johannesburg, discloses that apartheid cities were built on spatial dislocation, social dysfunction, and economic inefficiency. This legacy remains deeply embedded not only in the physical imprint of the post-apartheid city but also in the mindset of those who live and work there.

02.20. Statue at Constitution Hill

Therefore, the regeneration of the inner city can only be sustained when it is implemented on all levels. The upgrading of the urban environment should go hand in hand with the upliftment of those using these environments. The view of the Johannesburg inner city as dangerous and deteriorating can only be effectively counteracted by prevention rather than cure.

At the moment, these residential areas are, according to Inspector Naidoo (personal communication 2005) infested with crime, drug dealing and prostitution; the fight against crime leads to overcrowded prisons' releasing more dangerous criminals than they admit.

Bernstein (2002: 199) suggests the strengthening of neighbourhoods for the social upliftment of the city. This will be achieved by setting up sustainable job criteria, enhancing environmental quality, reducing neighbourhood crime and improving local enterprise skills.

> Projects could range from labour intensive road maintenance projects through the establishment of neighbourhood youth enterprise / IT centres and area based crime reduction programmes to rehabilitation of degraded streams, and community maintenance of local parks and open spaces. (Bernstein 2002: 199)

To create the healthy urban street culture envisioned for the future Johannesburg, crime and other issues should be confronted at grassroots level, the most effective point of intervention. Therefore, the children and youth of the inner city should be the point of interception.

INNER CITY CHILDREN AND YOUTH

According to Patel (2004:78), young people are generally experiencing grave difficulties in making the transition from adolescence to adulthood and from school to work. Some are faced with having to accept premature responsibility for their families because of the HIV/AIDS pandemic. Teenage pregnancy is a significant barrier to the development and advancement of young women, and many are victims of sexual assault at an early age. Patel (Ibid.) explains that a lack of skills and work opportunities for the youth of the City is of grave concern, and for those who are unemployed for more than a year, the future is bleak as it could lead to long-term unemployment.

Unoccupied youth who lead unstructured lives tend to become involved with high-risk behaviour such as alcohol and drug abuse. Reddy (2003:15) reveals that the high-risk behaviours adopted by the youth during formative years often have a significant influence on their future.

These high-risk behaviours are strongly linked to crime. Youth are susceptible to pressure from their peers, and in communities where they are exposed to ongoing violence in the home and the community, many turn to crime and become involved with gangs and end up in the criminal justice system. Patel explains that the scenario outlined may sound simplistic, but many of the discussed risk factors pertaining to the social and economic situation of the City of Johannesburg's youth predispose them to high-risk behaviour (Patel 2004:78).

02.21. Streetchild in Hillbrow

CURRENT SITUATION

According to Statistics SA (1999), 15.1% of the population of the City of Johannesburg consists of youth between 18 and 24. The racial composition of this age cohort is African: 79%; Coloured: 6.4%; and Indian: 3.9%. White youth make up 10.3% of the city's population. 12.5% of the City of Johannesburg's youth population live in the inner city, also known as Region 8.

Life in a dilapidating urban environment with overcrowded flats and unsafe streets provides very little opportunity for growth. Abuse at home leads to youth taking to the street where drugs, prostitution and gangs await them. When abused, they have nowhere to turn; going to the police is not an option, and running away leads to worse living conditions. A need exists for facilities that will provide a safe, vibrant environment for the youth to socialize, exercise, learn skills, study and play (Van Wyk personal communication 2005).

In addition to the problem of children living in Hillbrow with parents or relatives, there is the very real one of children coming to the city in search of a better life and work and who end up living on the street. These children, usually between the ages of 11 and 18, run away from home because of poverty or abuse. They expect Johannesburg to be the city of gold, but the harsh reality of having to live on the street soon takes its toll. They usually end up living in worse conditions than at home and resort to crime, prostitution, gangs, drug dealing and abuse. According to Mrs. Delene van Wyk of the Uthandweni shelter for street children in Hillbrow, the AIDS pandemic will result in even more children ending up on the street at an even earlier age.

The problems surrounding street children and children living in terrible conditions have to be addressed to uplift and educate them and to create a better society. To prevent them from being sucked into a life of crime, the government needs to take a proactive approach of upliftment, education and motivation.

02.22. Jailcell door at Constitution Hill

INTERVENTION

"Umthente Uhlaba Usamila"

Umthente is an indigenous grass with a sharp, pointed apex. *Uhlaba usamila* means that this grass prickles one while it is in the early stages of development. *Umthente uhlaba usamila* is an Nguni idiom that means that engaging in high risk behaviour while still in the youthful stages of life does have consequences and is dangerous. These consequences have an impact on health, social roles, personal development and preparation for adulthood (Reddy 2003:7).

The United Nations Children's Fund (UNICEF) declares that 'cities have to commit themselves to become healthy and safe environments nurturing the development of children; guarantee them secure lives; provided access to quality basic services; and that pay special attention to street kids and traumatized children' (Russouw 2002).

Therefore, the City of Johannesburg and UNICEF are joining efforts through the implementation of the Child Friendly City Initiative (CFCI). According to Wandile Zwane, project coordinator of the CFCI, the initiative strives towards the building of communities or cities that offer healthy and safe environments to children and their families. These must be environments that nurture the development of all children. Zwane adds that the government is accountable for how it treats its children; Because more of the world's citizens are moving to cities, it is essential that cities be transformed into child-friendly domains. Evidence of urbanization is that Africa is believed to have the highest rate of urbanization in the world, and UNICEF estimates that by 2006, six out of ten children in developing countries will live in cities, and more than half of them will be poor and plagued by urban violence and social ailments (Zwane 2001).

The future of the world is unavoidably urban, and the well-being of the children will continue to be inextricably tied to that of the cities. Children who live in the midst of chronic urban violence are confronted by multiple risks. The absence of learning, play and recreation; inadequate social services; poor economic growth; and high unemployment rates are just a few of the risk factors. All these problems have serious implications for society as well as for the individuals affected. Thus the social context in which children are growing up, with violence and poverty being the two major factors, has been influenced by historical decisions, social and political policies, and economic realities that have compromised the quality of life for many of these children (Zwane 2000).

Patel (2004:25) explains that special focus needs to be given to targeting interventions for youth at risk of becoming chronically unemployable and says that co-operation between NGOs and community-based organizations and the youth is vital. The strategy should have a multi-pronged approach and should support labour-market skills, socialization and enterprise-based training; it should stress vocational skills and experience (not focusing on high skills only); apprenticeships, learnerships, self-employment and entrepreneurship; and the creation of direct employment. Enabling policies and programmes are needed to support community-based micro-development initiatives.

02.23. Steetchild in Hillbrow

02.24. The study area

The city of Johannesburg is landscape marked by the separation and contradictions imposed by political history. An urban environment where physical and psychological barriers keep communities on their side of the 'track'. The study area is at the convergence point of four urban realms; very different in their attitude towards public space, urban fabric, grain, scale, connectivity, socio-economic status and the creation of public space.

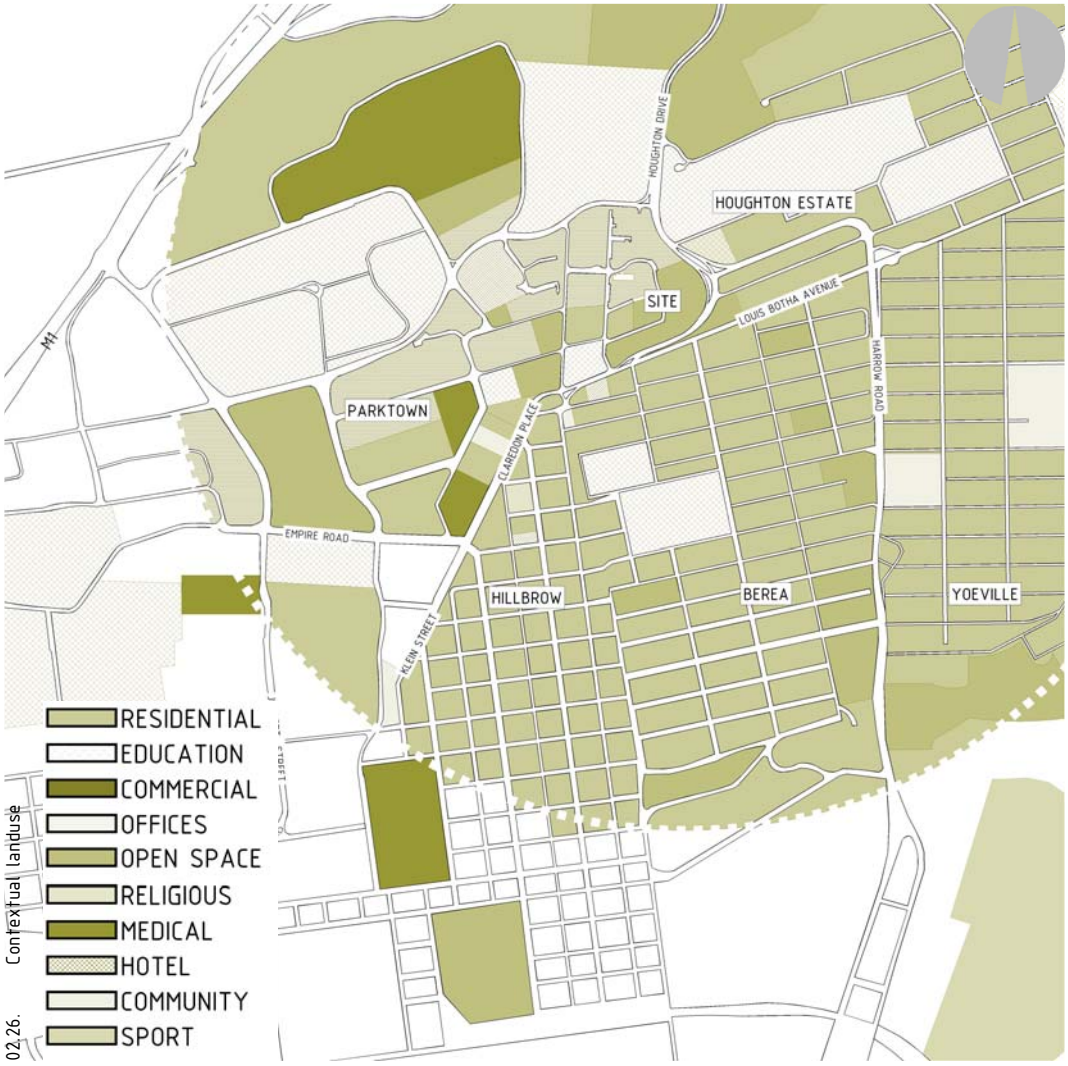
Namely

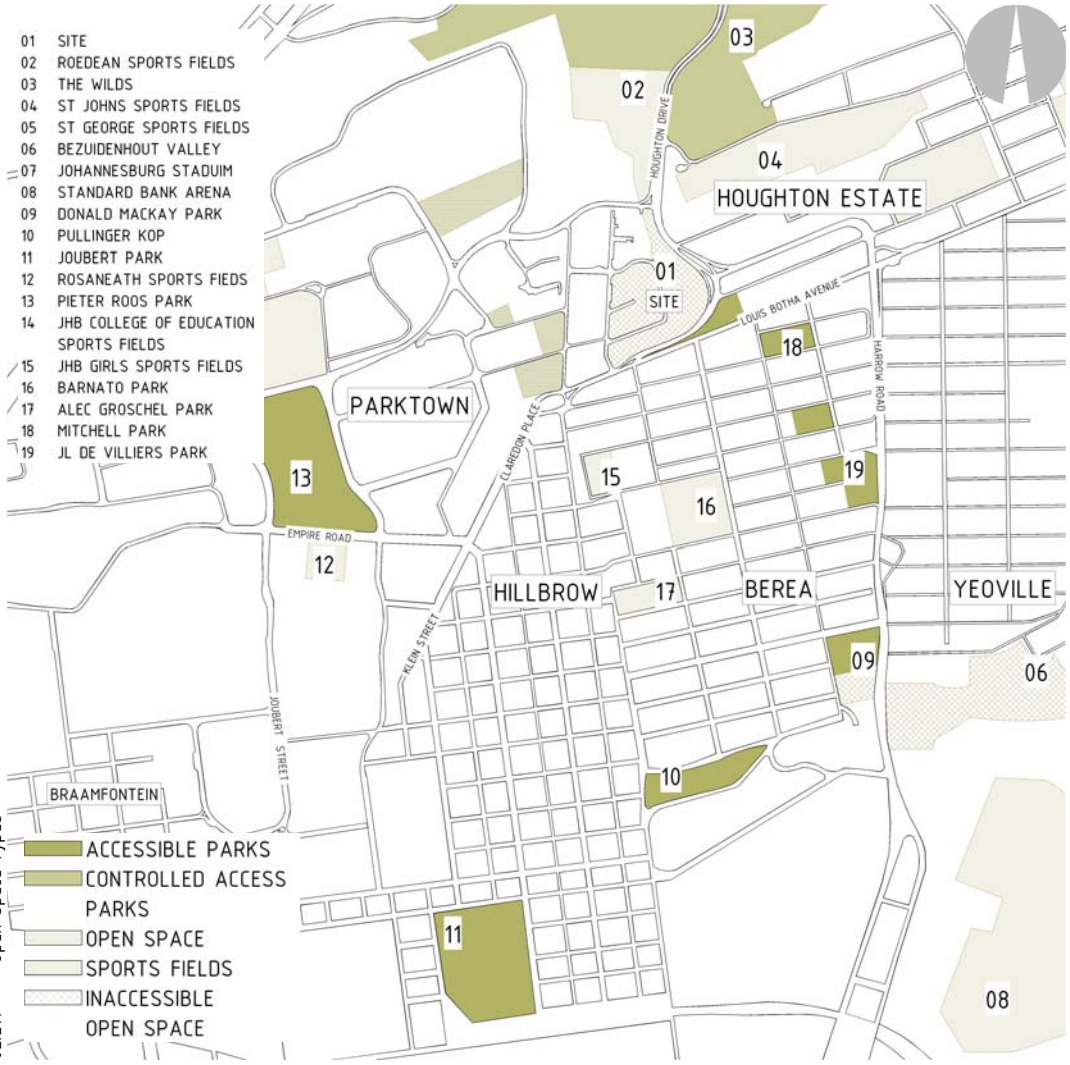
- Berea
- Houghton
- Hillbrow
- Parktown

The site is within a mixed-use belt, buffering the suburban residential areas to the north from the inner city to the south. Typically, this zone has an institutional flavour with a mixture of residential, medical, educational, office and light industrial functions.

02.25. The mixed use belt edging the inner city

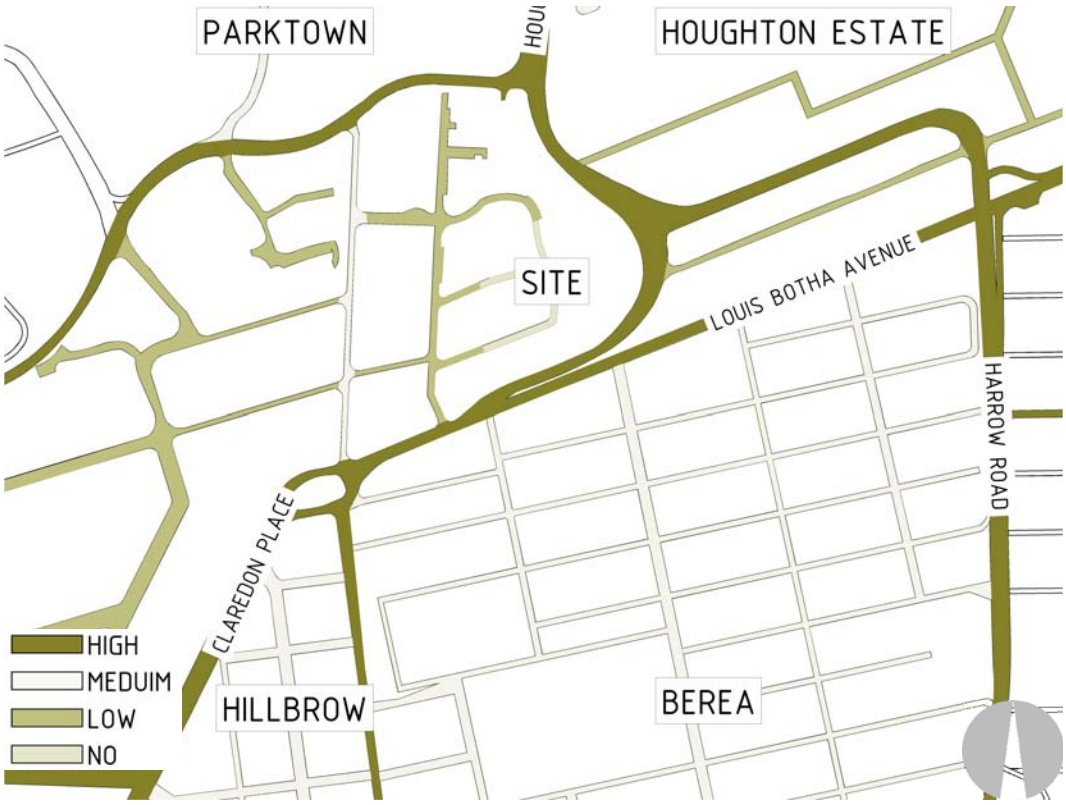
CONTEXTUAL LANDUSE





Open space types

02.27.



02.29. Noise and activity levels

02.30. Aerial photograph of Hillbrow

PUBLIC
LOUD
ACTIVE
STREET LIVING
CONTROL
NO OWNERSHIP
CHAOS
MULTI RACIAL
MULTI LINGUAL
MULTI LAYERED
INTERACTION
UNSAFE
LIVELY
SPEED
HARD EDGES
CONCRETE
TRAFFIC CHANNELS
COMMUNITY
XENOPHOBIA

Hillbrow is located on the southwestern side and Berea to the southeastern side of the site. These urban environments are marked by mainly high-rise residential structures with residents of a poor socio-economic status.

The dense urban fabric accommodates insufficient safe public open space according to Inspector Kriban Naidoo, public relations officer of the Hillbrow police service (Personal communication: 2005). The streets, which are mostly desolate channels for high-speed traffic, are used for interaction and play. In Hillbrow different families share small flats, therefore their living space is very limited and the street is perceived as the public social space; although it predominantly caters for the vehicle.

Described by Pearse (1994: 67) as Johannesburg's Manhattan and Bronx rolled in one, Hillbrow is the most densely populated area in South Africa, known for its clubs, drug trade, late night trading,

02.31. The view from the roof of the Hillbrow police station

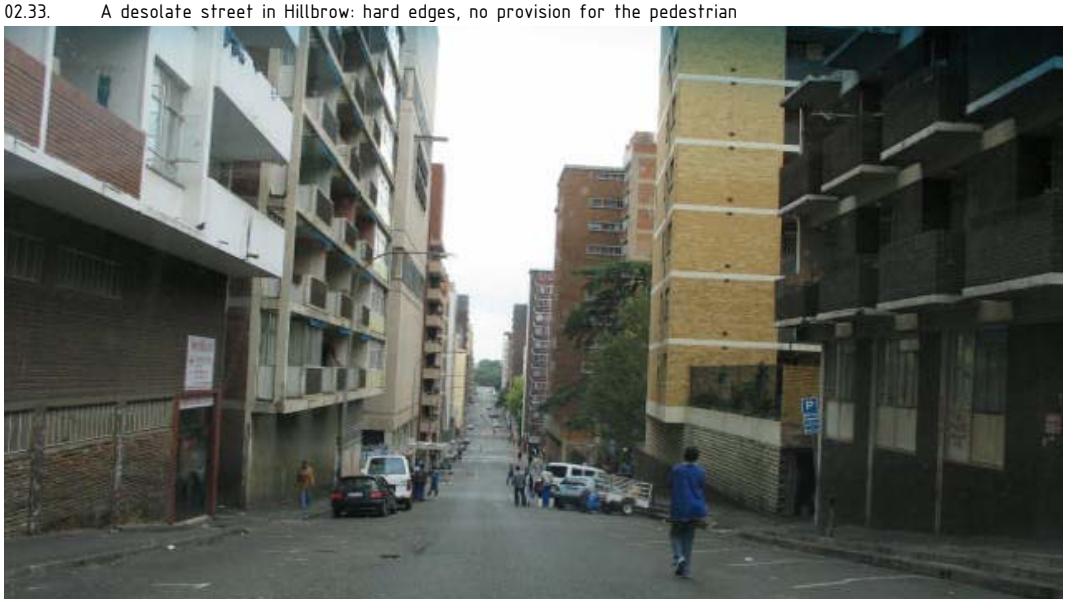
02.32. The Hillbrow communications tower

hookers, street kids and crime.

The Hillbrow Telecommunications Tower dominates the city skyline and is as potent a symbol of Johannesburg as Table Mountain is for Cape Town. For decades, Hillbrow has functioned as the holding lounge for a city of immigrants, be they from the *platteland* or from the other side of the world.

The tower blocks date from the era of white immigration in the 1950s and 1960s. In the 1980s, they became the first foothold in the city for black residents seeking alternatives to the townships. By this time, many whites were already moving out to the suburbs, and landlords were glad to have tenants of whichever color. Thus hard economics rendered the Groups Areas Act irrelevant years before the government saw it fit to scrap it. More recently, Hillbrow and its neighbour Berea have been the first jumping-off point for another wave of immigrants, this time from central Africa. During the 1990s, the population of Hillbrow became more transient than ever, and the owners of a large number of flats started renting by the day rather than by the month. The high-density, quick-turnover population enables criminals to operate with impunity (Pearse 1994: 67). Inspector Kriban

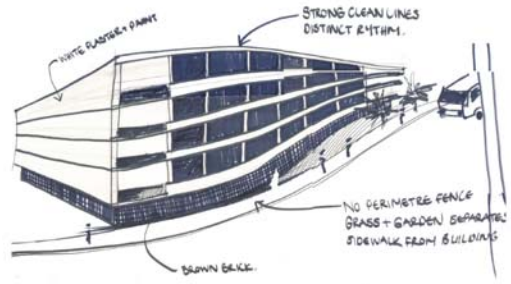
02.33. A desolate street in Hillbrow: hard edges, no provision for the pedestrian



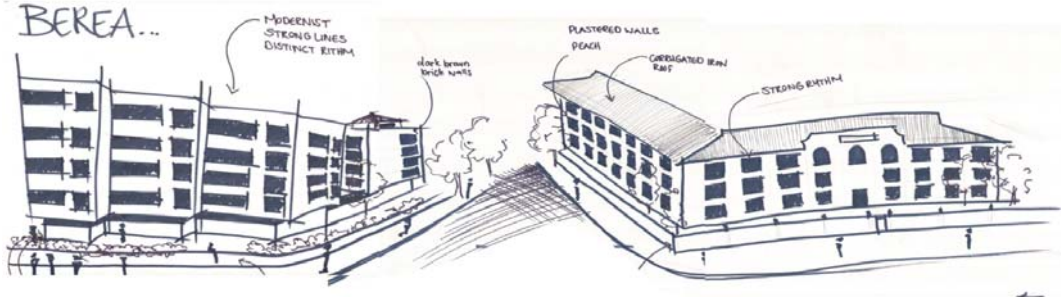
02.34. Desolate Hillbrow alley

Naidoo (personal communication 2005) explains that most flats in Hillbrow are dilapidated and lack basic services. Flats are also being *shack farmed*, which is where flats are partitioned and shared by different families.

It is said to be the place where
New drugs first appear on the street
Forged versions of new bank notes start circulating
Gunshots fill the night
The numerous pawnshops happily relieve criminals of stolen goods
Banks recoil from granting home loans to people wanting to buy in the area
Slumlords exploit residents and buildings deteriorate (Pearse 1994: 67).



02.35. Architectural style: Berea



02.36. Inside the Ponte tower: elevator shaft
02.37. Inside the Ponte tower

02.38. Aerial photograph: Houghton

PRIVATE
SAFE
STERILE
YARD LIVING
CONTROL
GREEN
OWNERSHIP
SANCTUARY
ISOLATION
NO COMMUNITY
QUIET
SLOW
SOFT EDGES
OPEN
TREES
MONO-FUNCTIONAL
XENOPHOBIA

02.40. Johannesburg College of Education

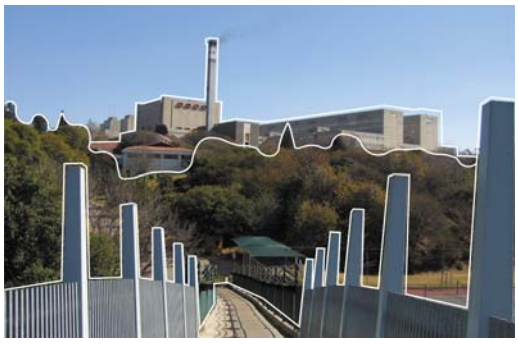
First established in 1892, Parktown and Houghton (north of the site) was originally a garden suburb for Johannesburg's rapidly emerging patrician classes. Slessor (1995: 60) describes the area as being perched on a north-facing ridge, symbolically elevated above the scrum of nineteenth century industrialization on the southern side. It is described as an adaptation of London's Bedford Park with handsome houses and great swatches of *rus in urbe*. This was the area where the 'proconsuls of the Empire' lived, and a few Herbert Baker structures grace the ridges. (Slessor 1995: 61)

From the 1980s Parktown became a business node, and today it is a mixed-use zone supporting business, educational and medical functions. The lack of residential functions makes it an area where commuters invade the area during office hours and leave it vacant during the evening. Structures surrounding the site are three to four storeys high, and the urban scale and grain becomes increasingly dense and higher towards the northwest.

Houghton, to the eastern side is marked by, exclusive private schools, old money, big stands, and lush, exotic gardens. There is no hierarchy and connectivity in the urban fabric since the scale and grain is small and dispersed

02.41. Sunnyside Hotel, a historical landmark

02.42. Johannesburg General Hospital



02.44. Isle of Houghton offices

02.43. Isle of Houghton offices

02.45. Bethesda Mission Methodist Church

02.46. St. Johns College

02.47. The Wilds

The American architect Jane Jacobs is an observer of urban spaces where life happens and, for that matter, also those where it has been lost. She explains that learning from the current situation and past mistakes is the only way to know what works and what does not.

Jacobs (1965: 85) contends that among the superstitions about urban planning and housing, a fantasy exists about the transformation of children. This is the tale:

> A population of children is condemned to play on the city streets. These children, in their sinister moral environment, are telling each other canards about sex, sniggering evilly, and learning new forms of corruption as efficiently as if they were in reform school. This situation is called "the moral and physical toll taken of our children by the streets" otherwise known as "the gutter". If only these deprived children can be got off the streets into parks and playgrounds with equipment on which to exercise, space on which to run, grass to lift their souls! Clean and happy places, filled with the laughter of children, responding to a wholesome environment.

So much for a happy fantasy, because Jacobs (Ibid: 99) describes urban parks as volatile places, either extremely popular or extremely unpopular. This phenomenon is perceived in the usage study of local parks. Underused parks are either fenced-off green fortresses or desolate, unused pockets.

Parks become dangerous grounds owing to the lack of activities, such as retail in and around the parks, to provide passive surveillance and a distribution of energy. The lack of all-round activity makes them dangerous places for children to play by themselves; because parents do not have the time to watch them play all day, they either send them off by themselves or forbid them to go to parks.

For this reason, the project aims at providing activities within the park that would ensure its maintenance and surveillance at all times. The public route crossing the site allows for a flow of energy and activity through the area without anyone's necessarily taking part in the activities.

A visit to Hillbrow and Berea on Saturday, March 19, 2005, revealed a vibrant atmosphere of activity, trading and socializing in the streets.

Most public parks and activity points were visited during a police-escorted tour of Berea, Hillbrow and Yeoville on Tuesday, March 22, 2005. Inspector Naidoo, the public relations officer of Hillbrow Police Service, shed light on the functioning of and life in Hillbrow. The combination of sunny weather and school holidays promised heightened activity in and around parks. Surprisingly, some parks were fenced off and quiet, with only security guards at the imposing gates. In contrast, streets in residential areas and commercial areas and parks supporting diverse functions were busy, vibrant spaces (figure on the right). The different parks and their surroundings have been investigated in an attempt to establish why the parks are underused and how public open spaces could be utilised better.

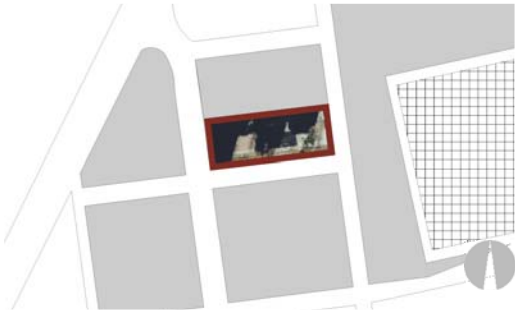
One of the most noticeable features of South African cities is the lack of public facilities for the citizens. Not only did apartheid planning ensure the removal of public gathering places such as town square, pavement cafes and city markets, which were so much a feature of public life, but this draining of the city's life blood continues today within our new democracy. (Van Wyk 1999:116)

02.49. Contextual parks and open spaces

PARKS / OPEN SPACE
ROADS
RESIDENTIAL
EDUCATIONAL
COMMERCIAL
BUSINESS
RELIGIOUS
MEDICAL
CULTURAL
TRANSPORTATION
OPEN SPACE
MUNICIPAL

02.50. Pieter Roos park

The park is situated on the southern side of high rise residential blocks, therefore the lack of sunlight and
the barren tar surface retracts from its character, despite of this it is very inviting being the only park in Hillbrow
and Berea not completely fenced in. Its unobstructed visibility and open inviting nature makes it a safe play ground



02.51. - 53. Jager street park

The park is well maintained and under security surveillance, but the residential surrounding area fails to provide a vibrant relaxing atmosphere.
It is a safe place for children to play, but do not cater for age groups. The well fenced park would be of better use if it was more inviting and offered more attractions.

02.54. - 55. Mitchell Park

The park supports a flow of pedestrians coming from Yeoville to Hillbrow. It has basketball courts which draws teenagers and students from the surrounding high-rise residential blocks. The park is well maintained, and is evidently well used, since informal traders sell sweets and snacks at the gate. No security guard was situated in the park, but the gate is locked at night.
The park would be of better use if it was more inviting and offered more attractions.

02.56. - 57. Donald Mackay Park

The park is wel maintained and secure. The dramatic topography gives a special character to the site.

02.58. - 60. Pullinger kop Park

Joubert Parks is a well used and lively park, this is due to its proximity to the innercity and the Joburg station. Diverse surrounding functions, such as commertial, residential and business, and functions within the park such as a kindergarden, medical facilities and the gallery add to the extensive use of the park.

02.61. - 63. Joubert Park

02.64. Civic centre

The Heath Precinct development framework repared by Urban Solutions (2002:8) describes the open spaces surrounding the Civic Center as intended to showcase the modernist segregated architecture of the complex, windswept and unfriendly it is therefore unused as public open space.

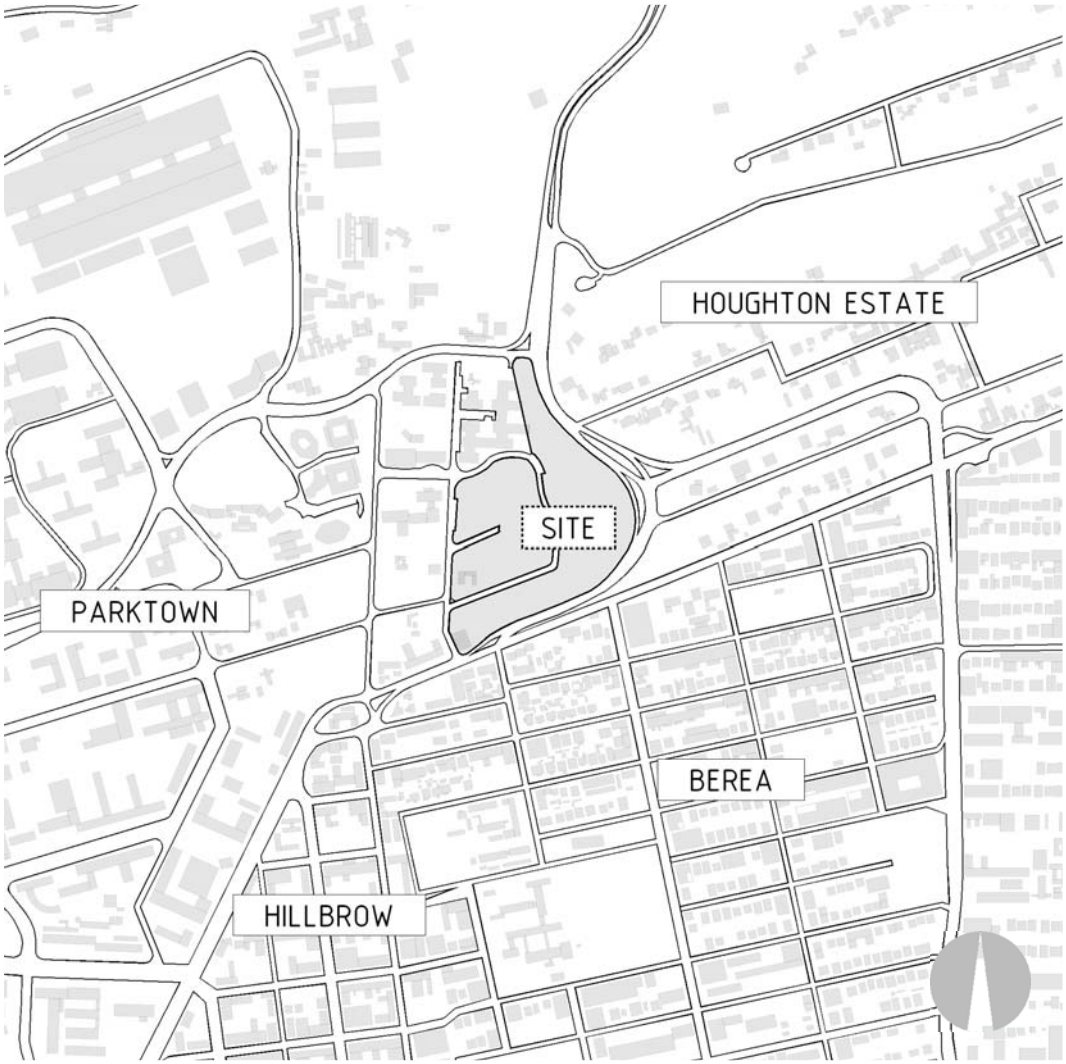
02.65. – 69. The Wilds

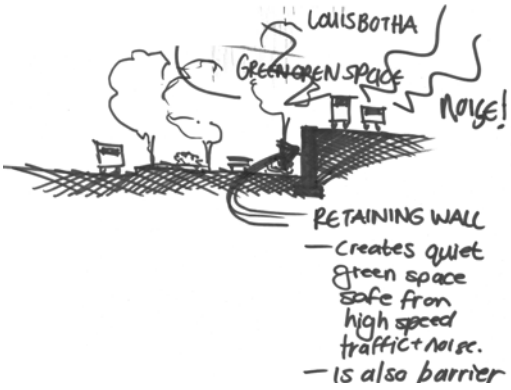
The wilds are conserved ridges linked with a pedestrian bridge over Houghton drive. The park supports a series of recreational and educational activities

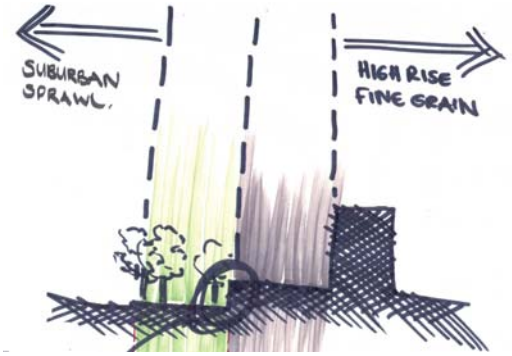
The site, a green, park-like environment, is situated at a point where four very different and severely separated urban environments meet. It is within a mixed-use belt, buffering the suburban residential areas to the north from the inner city to the south. Typically, this zone has an institutional flavour with a mixture of residential, medical, educational, office and light industrial functions.

Hillbrow and Berea are mainly high-rise, residential urban environments with a very poor socio-economic status. The dense urban fabric accommodates little safe public, open space. Houghton is a high-income suburban area, and Parktown houses mainly office, educational and medical functions.

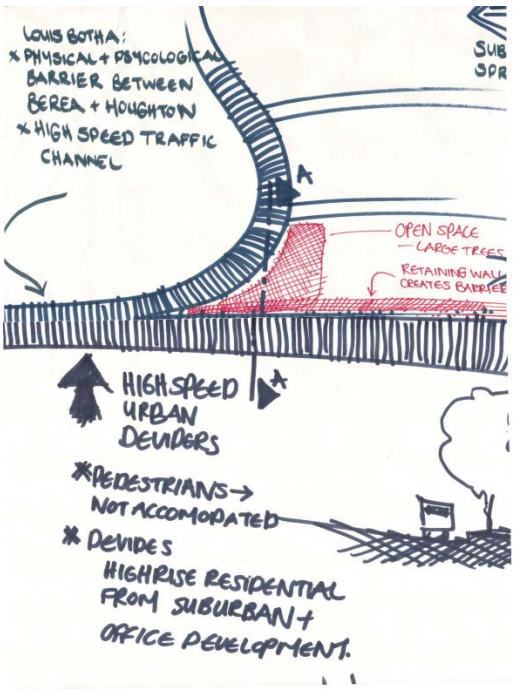
02.70. The site in context







02.71. – 73. The retaining wall segregating the South from the North



Although this site is currently under-used and inaccessible, and the proposal is to develop it into an inviting park development. The park will be developed in conjunction with Johannesburg City Parks, a self-contained business owned by the Johannesburg City Council. The company will be responsible for the development and maintenance of the park. Developmental objectives of the park are to ensure environmental conservation and awareness and to promote ecotourism.

Vegetation

The site has an intensely green character and personifies a green retreat on the edge of the urban environment. Most large trees on the site are exotic species.

Willow trees
Jacaranda Mimisofolia
Pinus species
Pride of India
Eucaluptus
Syringe trees (have to be removed)
Black wattle trees (have to be removed)

This situation is not ideal because of their water consumption and invasive nature, but deforestation of the site will lead to erosion and loss of top soil. The site is seen as part of the larger context, which is characterized by its lush, green vegetation and great number of large, exotic trees.

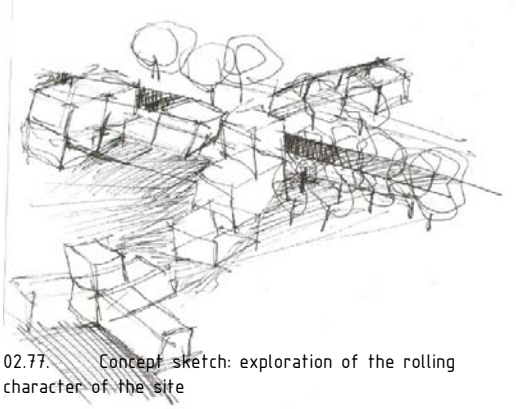
Therefore, an ecological management plan will be implemented to distinguish alien, invasive species from indigenous species and from exotic species with historical or aesthetic value. According to this plan, alien, invasive species will be removed over a period of time and be replaced with indigenous species like Cellis Africana, Canbretum erythrophyllum, Rhus lancea and Acacia Karroo.

Topography

The site has a 45% slope on the northern side next to Houghton Road, which flattens out to

02.75. The site: view towards Berea

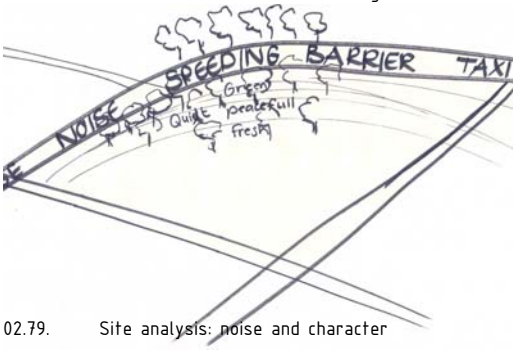
02.76. The site: the pine tree avenue



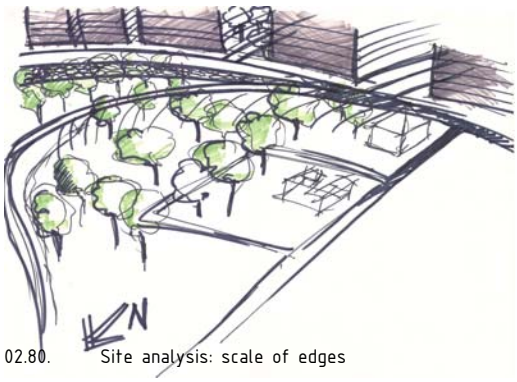
02.77. Concept sketch: exploration of the rolling character of the site

02.78. The site: The view towards Houghton drive

1% slope. The buildings are sensitive to the slope of the site to minimize disruption to the natural landscape. Pedestrian routes are placed relative to the slope and make use of the natural character by the provision of benches and small nooks for picnics and resting.



02.79. Site analysis: noise and character

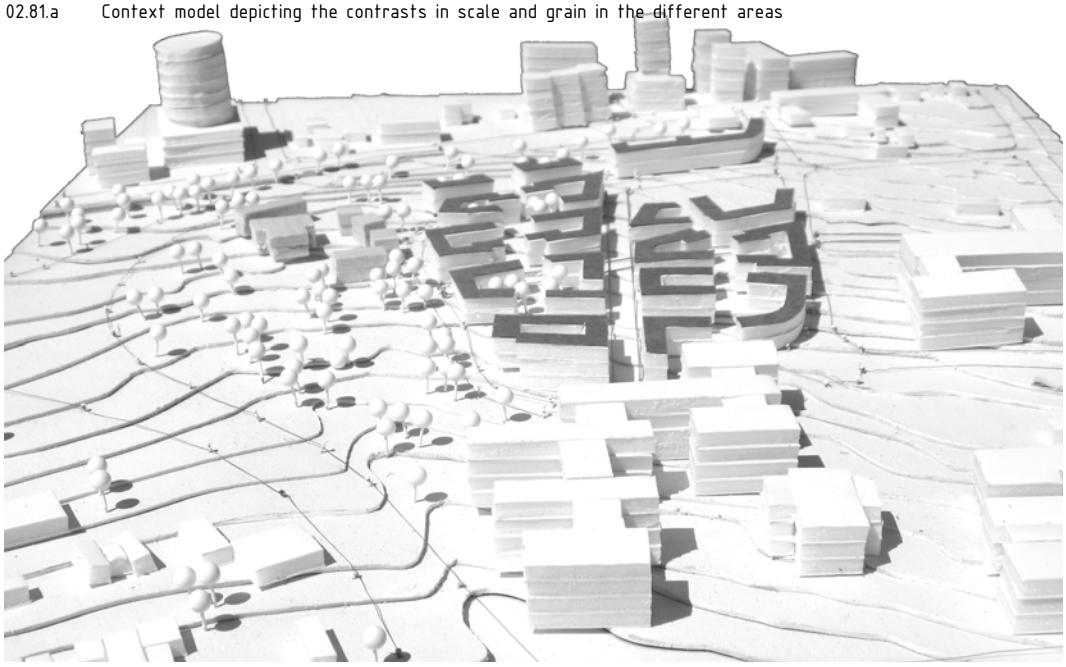


02.80. Site analysis: scale of edges

02.81. The site: exclusion

From the placement of poor opposite rich, inviting opposite closed, dense urban fabric opposite sprawling suburban, exclusive opposite inclusive; arise the question: when dealing with an island placed amidst these contradictions, how do you include and acknowledge all? By providing for the one inevitable leads to the exclusion of the other, yet again reinforcing the segregation inherited from political history.

02.81.a Context model depicting the contrasts in scale and grain in the different areas



02.81.b Context model depicting the site and its proposed development

BIO-PHYSICAL CONTEXT

Climate

Temperature

Average 11 K difference between day and night temperatures
Winter temperatures around 15 K below comfort levels
January temperatures: 20 – 25 °C
July temperatures: 10 – 15 °C
(Napier 2000: 9.8)

Rainfall

Distinct rainy and dry season
Summer rainfall: 125 – 375 mm
Winter rainfall: 62 – 250 mm (ibid)

Wind

Summer: northeast
Winter: northeast to northwest

Humidity

Summer: moderate
Winter: low (Holm 1996)

Climatic region

Temperate eastern plateau

Napier (2000: 9.8) describes the Highveld as predominantly grasslands with scattered trees. Summers are warm to hot, with fairly dry air, relieved by thunderstorms generated by thermal air movement. Winter days are pleasantly sunny with clear cold to very cold nights.

Microclimate

Vegetation

According to Joffe (2001: 27) few trees occur naturally in the Highveld, because South African trees need warmer temperatures to thrive. Although most of the trees on the site are exotic species, they form part of the larger vernacular urban landscape of exotic species in northern Johannesburg. Therefore the exotic species and add character to the site, and binds it with the context.

The trees effectively attenuate noise pollution, air pollution and radiation, provide shade and increase humidity levels. Therefore, mature trees will be preserved where possible.

Topography

The site is on a north-facing slope, maximizing solar radiation.

Sun angles and shading

Strong solar radiation
Sun angles: 26S 28E
Noon altitudes of the sun
Summer: 88°
Equinox: 64°
Winter: 40°
(Napier 2000: 4.6.1)

The constraints of the site are viewed as unique opportunities and design generators. Three of Trancik's theories are considered:

The *figure–ground* theory addresses spatial definition and the relationship between private and public space (Trancik 1986: 97); from these diagrams, the definition and hierarchy of spaces become evident.

From the figure–ground study of the area, it is evident that streets and social spaces in the urban fabric south of Louis Botha Avenue are well defined by a dense configuration of high-rise residential blocks. In contrast to the northern side, neither clear definition of streets nor hierarchy of spaces exists.

The *linkage* theory involves the organization of lines that connect parts of the city, the connective qualities of an urban settlement. By connecting parts of the city and relating buildings to spaces, an interface of interaction is created. The link can be described as a channel of movement. The spatial quality of the street determines its identity as a linkage (Trancik, 1986: 106).

02.82. Figure - ground study showing the difference in charactrer scale and density in the different surrounding nodes

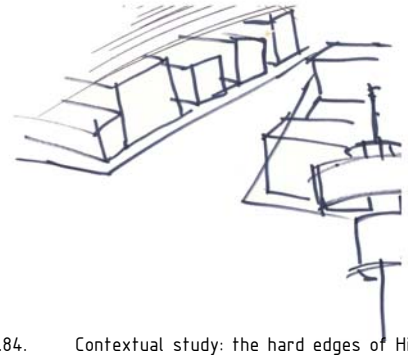
Louis Botha Avenue is a clear divider of urban fabric and is a barrier; the lack in north–south connection makes linkage between the different areas very difficult.
The barriers created by Louis Botha Avenue and Houghton Drive result in an expanse of lost space. If the space is utilized, it can achieve better integration with the existing city fabric.

The *place* theory addresses the social responsiveness of an urban settlement. The cultural and human characteristics of an area must be understood to turn the area into a place with contextual meaning (Trancik, 1986: 112).

> The essence of place in spatial design lies in understanding the cultural and human characteristics of a physical space. If in abstract, space is a bounded or purposeful void with the potential of physically linking things, it only becomes place when it is given a contextual meaning. Each place is unique and responding to the character of its surroundings
> Lynch 1992

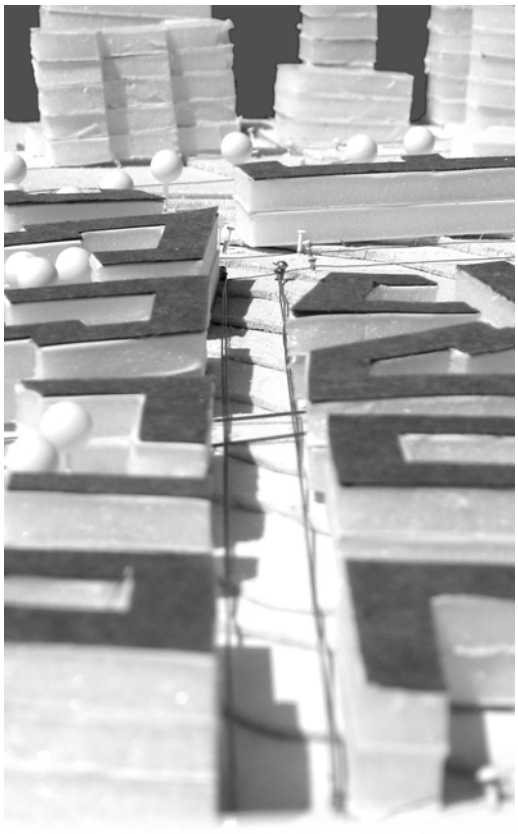
According to Trancik, a mixed or integrated use assures greater richness and vitality than mono functional spaces (Trancik, 1986: 220). The proximity between housing and employment is addressed, and a vibrant community that could function on its own is established.

02.83. Ground – figure study



02.84. Contextual study: the hard edges of Hillbrow

02.84.a Context model: edges proposed



Accessibility

According to Bently (1985: 10), 'only places accessible to people can offer them choice.' Therefore, additional pedestrian and vehicular access to the site is provided and existing access points will be improved.

Activity Systems

Dewar (1991: 80) describes linear activity systems as accommodating of most intensive economic and social activities and facilities. The establishment of these systems depends on a number of actions:

Compaction and densification of the city

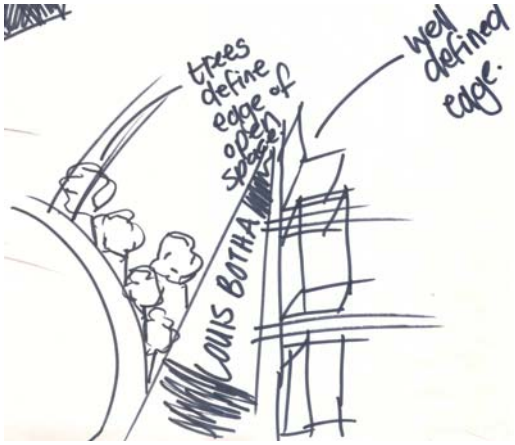
Hayward (1993) argues that the intensification of existing cities is necessary for them to become sustainable.

The site is located on the outer edge of the Johannesburg inner city within an institutional mixed-use strip separating the CBD from the suburban residential areas. Development of the area will therefore support the intensification of the city. High-density residential housing supports the incentive by the City of Johannesburg to promote inner-city living.

To assess the density of urban fabric, the figure-ground drawing of existing structures needs to be analyzed to illustrate the mass-void relationships of the urban fabric, thereby easily identifying problems in the urban fabric's spatial order (Hayward 1993).

The figure-ground study shows an expanse of lost space at the merging point of the urban fabrics of Houghton, Parktown, Hillbrow and Berea. The roads linking the site with the CBD to the north, Bedfordview to the east, and the M1 to the south need to be edged with a dense urban fabric to define street space and public squares along these systems. Louis Botha Avenue and Claredon Place Street are densely defined streets; in contrast, the urban fabric poorly defines Houghton Avenue.

'Create a grid of continuous, direct public transport, therefore maximizing the choice of the user. Channels should be reinforced by higher density housing, therefore benefiting the residents and contributing to the viability of the



02.85. Contextual study: the hard edges of Hillbrow and the soft edges of Houghton meets

02.86. Figure – ground study: lost space located around the chosen site

Louis Botha Avenue and Houghton Drive are high speed traffic channels, serves as physical and emotional urban dividers

Hillbrow and Berea
the figure ground study shows a clear hierachy of solids and voids.
High-rise residential blocks define high speed traffic channels

Houghton and Parktown
two to tree storey office blocks to the west and up market single to double storey houses to the east The Northern
side of Louis Botha avenue holds poorly defined urban fabric with undefined private open space. There is very little public open space.

transport system'
(Dewar et al 1991: 80).

Permeability
Permeability allows spaces to be easily reached in a number of different ways. The quality of permeability is the degree to which a street system is connected, integrated and intelligible (Hayward 1993: 86). According to Bently (1985: 10) permeability is where people can go and where not.
Permeability has been achieved in the framework by using a grid system with a clear hierarchy of streets.
All areas can easily be reached on foot or by automobile.
Establishing view lines and pedestrian walkways towards the public park encourage access to green open spaces.

Grid
According to Hayward (1993: 88), the global connection systems of a city are the main streets, which have to be well integrated into the existing urban fabric. These streets need to have active frontages; the majority of retail and office, and some residential, activity occurs here; the public transport systems are also focused here. Local connectors need to feed them at intervals.
According to Caltrope (1990: 48), 'clean formalized and interconnected street systems make destinations visible, provide the shortest and direct path to destinations and result in security through community, rather than isolation.'

Therefore, the sites connection to existing urban fabric is improved.
Retail and active street frontages need to be created in the area.
The area is on the mayor taxi and bus routes, but a lack of designated drop-off and pick-up points cause taxis to stop anywhere. Therefore, stops for these transportation systems need to be integrated into the development.
A hierarchical grid system makes the use and permeability of the site easier.

Legibility
The legibility of the area is increased through the use of channels of movement public squares. By establishing a hierarchy of roads, the legibility of the area is increased.
A hierarchy of roads provides:

02.87. The lively atmosphere of trading and transport in the inner city

A set of legible access points and major routes through the area
A second level of internal movement routes
A third level of more private, pedestrian-oriented streets
These levels are incorporated into the urban design through the establishment of vehicular roads and separate pedestrian walkways.

Public Transport

Van Der Ryn (1986: xiii) argues for urban sustainability through the use of diverse transit systems. He contends that modern technologies have deadened society to the natural world and that they have eliminated the common ground of communities. Because of the relatively cheap energy available in South Africa, the use of the automobile and of artificial climate control is encouraged. This factor is enforced by the lack of safe, affordable public transportation.

These issues cause the disbursement of urban life, with structures isolated from their environment. "Our cities are zoned black and white, private and public, my space and nobody's space" (ibid). The diversification of transportation options is necessary, but it is not feasible with South Africa's current forms of land use; the alternates are interdependent with clustering, densification and mixed-use planning.

Houghton and Parktown depend on private and public transport.
Hillbrow and Berea are low-income communities and mostly depend on public transport and walking.
According to the framework, a diversification of transport systems will be achieved through:

- The introduction of a taxi rank
- A pedestrian link with Berea
- The provision of bus stops to tap into the existing bus systems

02.88. The lively atmosphere of trading in the inner city

The availability of various kinds of public transportation allows the area to be developed with a greater emphasis on pedestrian activities.

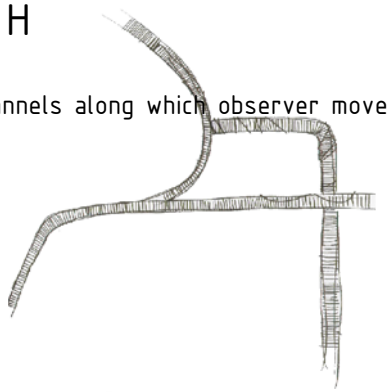
Pedestrian Activities: Variety, Concentration and Proximity

Because the area is close to Berea, Hillbrow and schools where most users do not have their own transportation, pedestrian activities will be emphasized. The streets will be more

LYNCH

paths

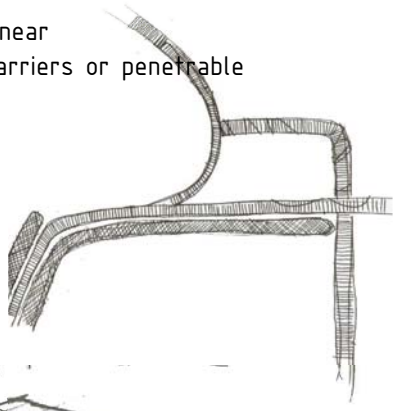
Channels along which observer move

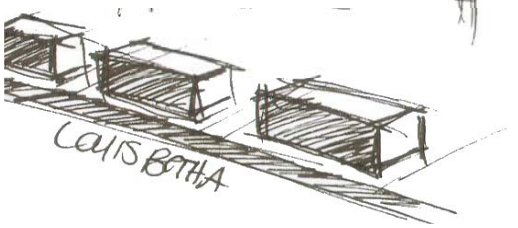


edges

Linear

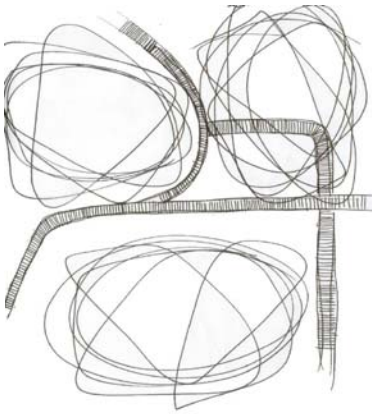
Barriers or penetrable





districts

Sections an observer move in and out of.



landmarks

Point of reference

02.89. Concept sketches of Lynch's theories applied to the site in its context

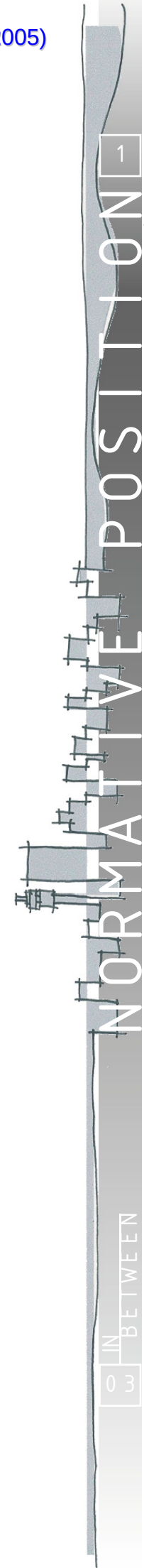
pedestrian-orientated through the design and enlargement of pavements.

According to Hayward (1993: 93), pedestrian proximity is a true measure of empowerment; therefore, because many uses and activities should be located within reasonable walking distance from where people live, a radius of 400 m is suggested.

The development is enfolded by residential blocks, providing an easily walk able neighbourhood with various uses, including residential and commercial activities and offices, resulting in a small, mixed-use community.

Hayward (Ibid) argues that the global connectors (main streets) will form the focal point for pedestrian activity, with public and commercial buildings, with a variety of functions within a 400 m radius around the focal place. The existing landscape will influence where focal places and districts will settle, as well as the location of major public spaces

The main streets have been indicated, and most of the functions and active frontages occur towards them. The main public transportation, such as buses and taxis, has been provided with stops at strategic points along the main streets for easy pedestrian filtering to the different functions.



L I F E D E A T H
U R B A N R U R A L
LITERATEILLITERATE
S O L I D V O I D
LANDSCAPEINTERIOR
C H I L D A D U L T
I N S I D E O U T S I D E
D Y N A M I C S T A T I C
H A R D S O F T
EMPLOYEDUNEMPLOYED
NATURALMAN-MADE
P A S T F U T U R E
CAPITALISMSOCIALISM
TEMPORARYPERMANENT
O R D E R C H A O S
MODERNISMREGIONALISM
PEDESTRIANVEHICLE
W E A L T H P O V E R T Y
O P E N C L O S E D
M O V E M E N T R E S T
C L E A R O B S C U R E
ACCESSIBLEINACCESSIBLE
P U B L I C P R I V A T E
L I G H T D A R K
EXPOSEDPROTECTED
R O U G H S M O O T H
S L O W F A S T
N I G H T D A Y
O R D E R C H A O S
S O L I D V O I D
U R B A N R U R A L

I am for richness of meaning rather than clarity of meaning, for the implicit function as well as the explicit function. I prefer 'both-and' to 'either-or', black and white and sometimes grey, to black or white. A valid architecture evokes many levels of meaning and combinations of focus: its space and elements becomes readable and workable in several ways at once. (Venturi 1977: 16)

Dualisms constitute the complexities and intrigues which give live colour.

Kurokawa (1991: 46) explains Suzuki Daisetz's philosophy of the identity of opposites as the fundamental principle by which the contradictory opposites are revealed as existing in relation to each other. Therefore, one can reason that the ability to distinguish between opposing concepts, such as publicprivate, insideoutside, blackwhite, apartheidintegration and EurocentricAfro-centric spatial thought, exists because of the differentiation in concepts. It is, therefore, the opposing force that brings a concept to life.

'Human beings exist as a part of the universe; at the same time, the universe is enfolded in the consciousness of human beings' (Kurokawa 1991: 46). For this reason, duals depend on each other for their existence because without darkness, no light would exist and without interior spaces, the concept of exterior space would exist.

Kurokawa (1991: 38) criticizes Modernism and Modern architecture for their preference for dualism and segregation. He explains that the 'essentially invisible chaos of life' (the complementary) has been lost through segregation and that ambiguity has been lost through clarity. In his book *Complexity and Contradiction,* Venturi (1977:16) reaffirms this approach. . He sets modernism's exclusive principle of 'either-or' against post-modernism's 'both-and' approach, and he reacts as follows:

'Contradictory levels of meaning and use in architecture involve the paradoxal contrast implied by the conjunctive "yet"' (Venturi 1977: 23).

'The non-dialectical mean between which extremes are suspended constitutes something like an interface, which is the condition of the possibility and impossibility of seemingly seamless systems and structures. When radically conceived, this interface extends beyond every margin of difference to 'contaminate' opposites that once seemed fixed.' (Taylor 1997: 269)

Venturi construes that the basis of the both-and phenomenon is contradiction, and that its basis is hierarchy, which yields several levels of meanings among elements of varying value.

> It can include elements that are both good and awkward, big and little, closed and open, continues and articulated, round and square, structural and spatial. An architecture which includes varying degree of meaning breeds ambiguity and tension. (Venturi 1977: 23)

This ambiguity of meaning is created through the simultaneous affirmation and rejection on a conceptual level (Kurokawa 1991: 38). When contrasting spheres merge, tension is created between the dualities. This tension allows the 'in-between' to exist. Consequently the acknowledgement of the one opposite will inevitably lead to the neglect of the other. Therefore, one can argue that providing for the in-between might suggest the acknowledgement and integration of both.

According to Berrizbeitia and Pollak (2003: 82), the dualistic interface, also called a threshold, can be explored as a psychological or an ecological phenomenon. A psychological threshold is the point at which a stimulus is of sufficient stimulation to begin to produce an effect. Ecological thresholds are the most important parts of a system; for instance, the place where the field meets the forest is more important than the forest or field.

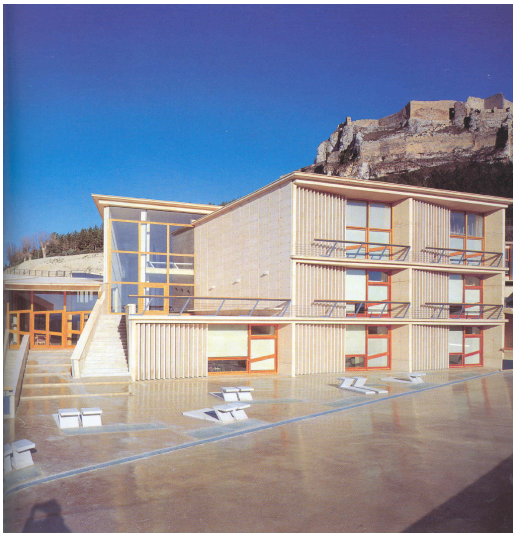
Berrizbeitia and Pollak (2003: 82) explain that thresholds are the points where transformations begin, where exchanges between unlikely things occur, and where identities are declared.
Because thresholds are the result of dynamic relations between architecture and landscape, public and private, and work and recreation, they resist closure in terms of meaning and space.
Thresholds have the potential of inclusive realms where the introduction and maintenance of difference are possible. Unlike an idea of inclusion as a melting pot where identities are blurred to create a compromised whole, a threshold as an operation entails the preservation of differences, while creating something new from the coexistence.

Alswang & Van Rensburg (1995: 709) defines *reciprocity* as 'the practice of giving and taking benefits to and from each other.' According to Berrizbeitia and Pollak (2003: 14), the insertion of a building disrupts the landscape,. This disruption offers an opportunity for the architecture to be an agent of the physical and conceptual reconstruction of the environment it has disrupted. Thereby, a reciprocal relationship is established with the landscape. He explains that one strategy of reconstruction is the physical and visual internalization of the topography of the surrounding landscape such as Carme Pinos and Eric Miralles accomplished in their design of a school at Morella, Spain.

Berrizbeitia & Pollak (2003: 14) states that ambiguity supports reciprocity; therefore, by assigning an equivalent status to two things through a strategy that renders their identity uncertain, the possibility for an own interpretation is established. This is evident in the manner interior and exterior spaces are dealt with in the school building. Outside visitors are made to feel protected from the elements, as if they were inside, while interior spaces are ripped open to expose the user to the setting.

Reciprocity depends on architecture that is made up of or broken down into multiple elements. 'This combination of fragmentation and multiplicity serves to open the architectural work in such a way as to be able to engage with the landscape, not as opposite but as elements of connection and use, similar in kind to elements of architecture' (Berrizbeitia & Pollak 2003: 14).

interior - exterior connections at the Metro Mall



03.01. View of the school

SCHOOL AT MORELLA, SPAIN

1986–1993, Carme Pinos and Eric Miralles

Ryan (1996: 44) describes this building as 'an enormous foyer, a public meeting place which is in turn expansive and enclosed.' The architects were extremely sensitive to the insertion of the building into the landscape. Their approach was to unveil ambiguities between inside and outside by

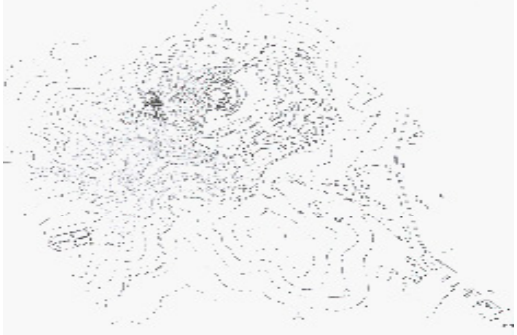
> The inversion of figure–ground relationship
> The use of movement as a device to initiate spatial and visual relationships between the architecture and the landscape
> Shifts in the relationship of subject to view (Berrizbeitia & Pollak 2003: 36)

The distribution of the program is analogous of the 'in-between' condition of the site. Ryan (1996: 44) notes that the repetitive constituents of the program (the school and the boarding school) both unfold down the site, allowing each its portion of natural light, and are aligned apart so that the upper entrance has a vertiginous slot open to the lower perimeter playground. He explains that this division enables each segment to develop its own language of form through its specific functional analysis.

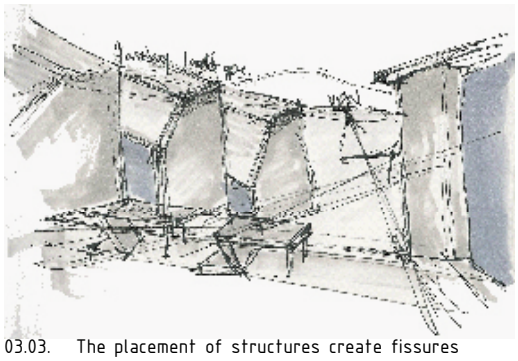
To fade the division between inside and outside, the left-over (in-between) spaces around buildings are not treated as the by-product of the figure. They are the generators of the building form. The terraces, ramps and private dormitory gardens are emphasized to become the figure. 'These grounds, usually the passive repositories of the buildings, are conceived as figured voids that actively function to fragment the volumes of the building, to create fissures, gaps, views and passages between and through, in order to provoke its relationship with the landscape (Berrizbeitia & Pollak 2003: 37).
The project is conceived as a series of trajectories that describe and delimit, without limiting. A territory in which inside and outside is visibly interwoven (Berrizbeitia & Pollak 2003: 15).
The figural and spatial prominence given to horizontal and vertical circulation, both inside and outside, breaks down the building's autonomy. Thereby substituting, for a purely architectural presence, one of which the experience is made of passing encounters between architecture and landscape.

Ambiguity is augmented by the inversion of

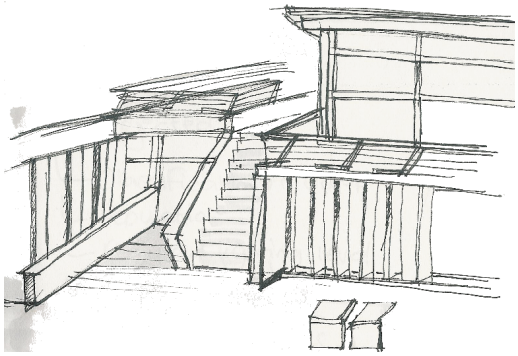
03.02. Site plan



03.03. Conceptual development of the plan



03.03. The placement of structures create fissures towards views



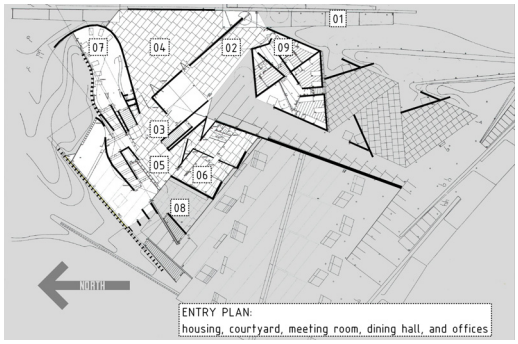
03.04. The emphasis is placed on the ground rather than the figure

commonly held expectations about exterior and interior space. Outside visitors are made to feel protected from the landscape, as if being inside. This impression is created by always positioning the visitor in relation to the building wall or roof overhang. Benches are not positioned in the conventional way but are placed at the outer edges or parapet or rail of a terrace. This impression of being at the edge of a view is, paradoxically, always reserved for the inside of a building, where the visitor is meant to feel as if he or she were outside, suspended in the landscape.

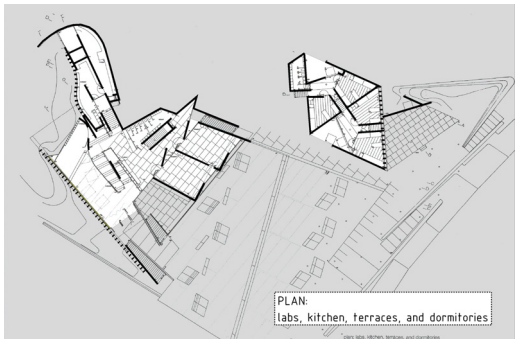
Inside, the visual experience is akin to that outside: no opaque walls interrupt vision; it is allowed to escape in all directions. Likewise, light comes in from all sides, as if outdoors, and is supplemented by additional artificial lighting, when needed, to emphasize a sense of being outside. Ryan (1996: 45) explains that this impression is achieved with the use of floor-to-ceiling glass with external grilles of thin, vertical ribs of in-situ concrete, creating a tectonic rhythm that is also, in the great Spanish tradition, a play on light and shade. These vertical ribs change the appearance of the building when the structure is experienced through movement.

The views from the architectural promenade are filtered, layered, fragmented and multiple: in the interior, they are always given in small amounts through the vertical fenestration; on the exterior, the emphasis is on views through the gaps between buildings. The traditional view over a silent, composed and passive landscape is transformed to allow a reciprocal exchange in which the landscape may not always benign, nor the viewer always dominant.

01_ACCESS RAMP
02_ENTRANCE COURT YARD
03_HALL
04_MULTI USE HALL
05_RECEPTION
06_OFFICES
07_VOID OF CAFETERIA
08_TERRACE
09_TEACHERS DWELLING

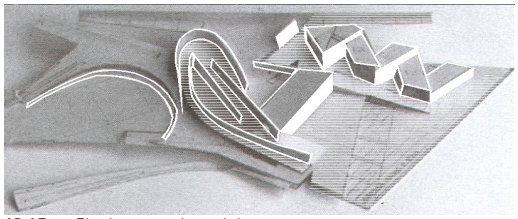


03.05. Entry Plan



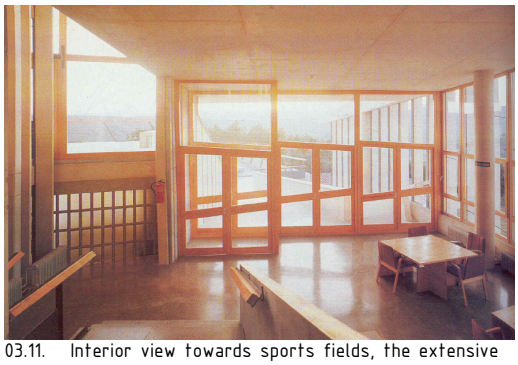
03.06. Plan of labs and dormitories

03.08. View of the dormitories following the ground line

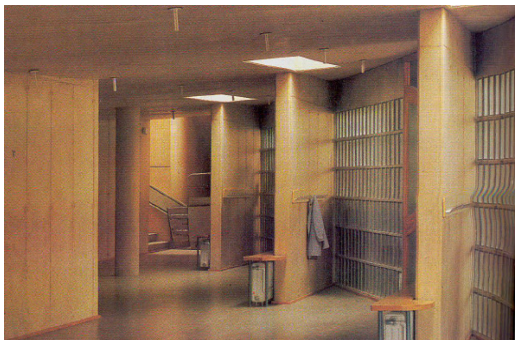


03.07. First concept model

03.10. Entrance hall



03.11. Interior view towards sports fields, the extensive use of glass enforces the notion of exposure to the surrounding while being indoors



03.12. The open yet private nature of classrooms

CONCLUSIONS

The site is a transitional zone at the juxtaposition of the contradictory contextual urban realms; therefore the *INbetween* condition of the site leads to the search for the *INbetween* in architecture

From the placement of

poor opposite rich,
inviting opposite closed,
dense urban fabric opposite sprawling suburban fabric, and
exclusive opposite inclusive,

arise the question: When dealing with an island placed amidst these contradictions, how does one include and acknowledge all? Providing for the one inevitably leads to the exclusion of the other, yet again reinforcing the legacy apartheid left South African society in our urban environments.

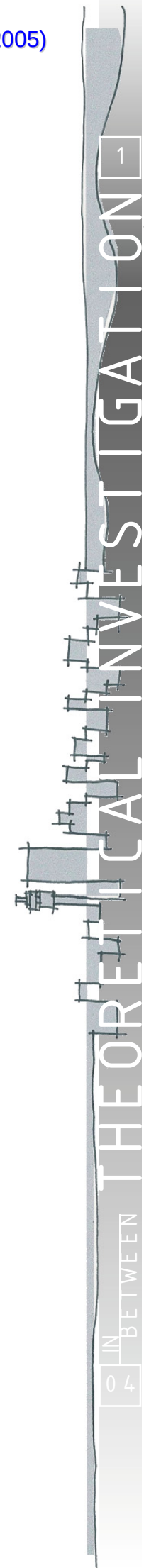
Thus the question remains: can the IN*between* be captured in the creation of a platform for integration? Is it possible to find relevance in the prevailing context and paradigm of contemporary South Africa? Now, ten years after apartheid, the merging of nationalities, languages, cultures, ideas, people and the built environment is set on the uncertain basis of difference. Hence the search for relevance continues. In retrospect, integration does not emerge in the elaborate architectural symbols of democracy such as Constitution Hill and the Apartheid Museum; however, from everyday needs and happenings, a rich integration of ideas and resources leads to co-dependent interactions.

Maybe addressing diversity and richness in the rainbow nation has lead to the loss of being South African. In the mindset of a nation trying to cope with so many opposing forces, often by borrowing from foreign cultures, the problem of the lack of a relevant local identity remains.

Therefore, the search is for the vibrant middle ground between rich and poor, inclusion and exclusion, and Eurocentric and Afro centric views in terms of space, division, security, defensibility and ownership.

The merging of ideas should not represent or imitate either the one or the other but should, rather, create a paradigm shift with reference to the merging concepts in unique way. The program is a development centre for urban youth and children. Similar to South Africa, youth are also in a state of IN*betweeness*; they are neither children nor adults. They are at a stage when their feelings toward responsibility are relatively unclear, this IN*between* condition is viewed as an appropriate point of intervention.

The search for the *INbetween* in architectural terms, aims at the acknowledgement and inclusion of both ends of the dualism. Therefore the architecture will be an investigation of the fading of boundaries. The physical boundaries between private and public, outside and inside, formal and informal, should weaken towards more suggested psychological boundaries



> 'Urban society in South Africa has two major cultural streams, overlaid by international "norms". Historically, colonial settlement in South Africa (as elsewhere) imposed a European, metropolitan culture of cities. This included exotic flora and fauna, but most important a very different view about space, division and landownership'. (Lloyd 2003: 105)

Lloyd explains that the urban racial demography is increasingly reflective of the country as a whole and that rapid urbanization is overlaid with serious social and physical pathologies and wide-spread alienation.

The proactive central-city densification, as a viable solution, requires a particular sensitivity towards people's physical and cultural values. He calls into question the lack of enquiry in this regard and acknowledges that normative planning still prevails while a synthesized urban system, responsive to an African urban society, has not been conceptualized. A city, being an invention of society, is that which a society believes it to be, in space and time. Lloyd (2003: 105) quotes Kant's view that 'all our consciousness is bound in space' and explains that humans have complex ways to feel and imagine space. While some spatial imagination is universal, more is learnt from growing up in specific social, cultural and physical environments. He believes that European cultural tradition is never free from 'ordering devices' and that validation comes through material and aesthetic experience. African culture validates itself through personal and humanist values.

European colonial culture was built on four symbiotic factors: religion, trade, law and order; the Western sensitivity towards being in Africa consisted of transforming indigenous land to replicate a 'quasi-metropolitan culture in every physical respect' (Lloyd 2003: 105); this de-africanization was evident in the strong stamp of structure; the delineation of the earth; the comfort of large, exotic trees; and the recording of the ownership they imposed.

Lloyd's 'rural dream' theory (2003: 107) best explains the difference between Eurocentric and Afrocentric thought. He maintains that many urban dwellers, of all races, have experience and memory of an unstructured, rural childhood. Moreover, these memories influence their view

04.01. Alexandra township

of life and survival.

In an African village, the 'rural dream' is seen as the treatment of all space as public, except for space defined as private by ritual. In this sense, architecture surpasses the boundaries of the building: the true edge lies beyond....

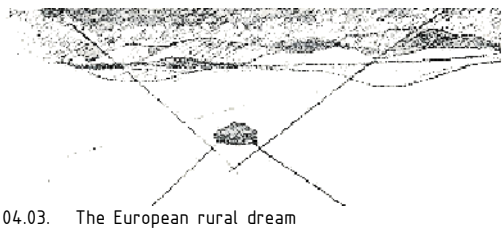
In contrast, the European 'rural dream' renders all space private, except for specifically designated and regulated public areas, defined through legal process, walls and fences.

An African response emphasizes human relationships (Lloyd 2003: 109). This notion is epitomized in the ancient Africa maxim *umuntu ngumuntu nga Bantu*, which means a person is a person only because of other people. In Southern Africa, this understanding is called *ubuntu, obuntu,* or *utu*:

> The concept of *ubuntu* describes this interconnectedness and turns it into a system of ethics. This includes one's relationship with Nature and with the spirit world, for what one does, dreams and thinks can have profound and unexpected repercussions on the entire network of life and energy. Therefore, great care is taken to maintain harmony between people and between the human world, the spirit world and nature. (Du Plessis, 2001: 376)

Therefore, the treatment of space is not bound to the boundaries of a structure. Du Plessis (2001: 374) emphasizes this concept when she states that the outlook of most African communities is holistic. All things are seen as interdependent and interrelated, including their architecture. The sense of interconnectedness is very much a spiritual understanding of life and leads to a reverence and respect for all of nature. This attitude is expressed not only in ritual but also in the placement of buildings and utilization resources. The Western tradition of urban form is captured in Plato's theory of idea and form through the search for a pure ideal for all function and form. Lloyd notes that current city design aims essentially to satisfy technical and economic efficiencies and, through tacit neglect, allows diverse human cultures to be suppressed or to mutate into a bland and universal city culture. Lloyd (2003: 107) remarks that spatial imagination in agrarian cultures

04.02. The African rural dream



04.03. The European rural dream

04.04. The noise and activity within Hillbrow business centre

04.05. A vibrant social atmosphere in Claim street, Hillbrow. The surrounding buildings are residential apartment blocks

is both complex and holistic and that urban systems do not necessarily require rigid and dominant geometries and highly defined edges to be understood. Equally, the African rural dream shows that, in a public realm, private space may be minimal and understood through ritual, therefore suggesting different systems of urban land settlement and delivery are both possible and necessary.

Therefore, the design focuses on transitional spaces; the in-between spaces usually treated as residual ground in a figure–ground study are treated as figure. These spaces, through psychological barriers and physical spatial indications (such as level differences, variations in texture, and extent of enclosure or protection), denote public or private, and inside or outside.

04.06. Hillbrow

'Architectural meaning resides in human experience. It is evoked in the acts of occupying and inhabiting space, in ones experience of space, matter, gravity, and light.'
(Pallasmaa 2000: 83)

'Architecture calls simultaneously for expression and restraint, innovation and a consciousness of history, courage, and modesty.'
(Pallasmaa 2001: 51)

'Architecture creates frames for action, thought, and emotion.'
(Pallasmaa 2000: 83)

TACTILE ARCHITECTURE

Wells (1981: 43) explains that the crisis in architectural aesthetics did not appear until the late nineteenth century. He believes that industrialization created a market for specialized designers. In this new era, the architect worked for the wealthy businessman or entrepreneur and prioritized his needs. The architect consequently lost touch with the common man and his needs. 'The result of the architect's isolation from his real client is the increasing prevalence of the abstract, the formal, and the platitudinous in architectural terms' (Ibid.)

Juhani Pallasmaa, a practicing architect and professor at the University of Helsinki, believes that architecture has become a shallow emphasis on 'image over essence'. It is an environment where masculine architecture seeks to overpower and impress with visual stimulation from afar, while leaving the surroundings and community uninvited. Buildings are believed to have lost their tectonic presence and material authority because of modern man's speed- and control-obsessed culture that favours the architecture of instantaneous imagery that is visible from afar (for instance, the MacDonald's chain and Las Vegas). 'Today the built environment is increasingly detached from its cultural context and collective soil … instead of structuring an integrating experience, our buildings frequently contribute to disorientation and meaninglessness' (Pallasmaa 2001: 51). The task of architecture is not to free buildings from anything, but to weave them into an existing cultural continuum that has collective significance.

'Architecture that focuses on aesthetic effects emphasizes the photogenic, instantaneous qualities of visual imagery detached from existential reality.' Our ocular-biased society is criticized for transforming architecture into an art form of instant visual image. Flatness of surfaces and materials, uniformity of illumination, and the elimination of micro-climatic differences further reinforce the uniformity of the experience. This standardization of environmental conditions causes buildings to loose their 'opacity and depth, sensory invitation and discovery, mystery and shadow.'

Therefore, Pallasmaa argues for fragile or tactile architecture: architecture of weak image

that promotes sensory interaction and intimacy and is comprehended and appreciated gradually. He reasons that perspectival space leaves viewers as outside observers, whereas simultaneous space encloses and enfolds them in its embrace. Such architecture is described as 'contextual and responsive', designed to include and inspire, to embrace and nurture, and to create identity and integrate (Pallasmaa 2000: 83).

According to Proshansky (1974: 73-4), environmental psychology is concerned with the relationship between the physical environment and the human behaviour and experience surrounding it. He stipulates that what is meant by 'physical environment' is not the physical stimuli of traditional psychology, that is light, sound and temperature or even the integration of these basic stimuli with others such as shape, colour and density into specific objects and spaces.

> The 'physical environment' means the complexity that constitutes any physical setting in which man live, interact, and engage in activities for either brief or extended periods of time … at the centre of the environment psychologists concern with the physical environment is the *built environment*: its design, content, organization, and meaning. (Proshansky 1974: 73-4)

The phenomenologist Norberg-Schulz describes the *structure of place* in terms of *landscape* and *settlement* analyzed by means of the categories *space* and *character*. Whereas *space* denotes the three-dimensional organization of elements that make up a place, *character* denotes the general atmosphere, which is the most comprehensive property of any place.

In *space*, two uses are distinguished: space as three-dimensional geometry and space as perceptual field.

Place-making theory

- *Existential space* is not a logical-mathematical term but comprises the basic relationships between humans and their environment.
- A place is a space that has a distinct character. While architecture is a means to visualize the 'spirit of the place', the task of the architect is to create meaningful places, whereby he helps mankind to dwell.
- *Phenomenology* is a qualitative understanding of architecture.
- The existential meaning is determined by the structures of humans' being-in-the-world. This is the functional and emotional dimension of architecture.
- The place is the concrete manifestation of a person's dwelling; humans' identity depends on their belonging to places.
- The architect's purpose is the concretization of *genius loci* (Norberg-Schulz 1976: 412).

In a joint venture, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Massachusetts Institute for Technology (MIT) performed studies on the spatial environment of adolescents living in varied urban conditions. The aim was to establish how children and teenagers perceive, understand and use the environments they live in (Lynch 1977: 13).

Lynch (1977: 13) remarks that universal similarities exist in the way thirteen- and fourteen-year-olds use the 'un-programmed spaces' near their dwellings: the streets, the courtyards and the apartment staircases. They talk and meet and walk about together; they play informal games, and they saunter about aimlessly. The street is the most important extension of the crowded home. According to Lynch (Ibid.), the studies show that when asked about the places they like to spend their time, children do not talk much about school, the playground or even their own private yards. They talk about the street or courtyard, their own room, if they have one, the sports facilities, the wastelands, the natural open spaces and the city centre:

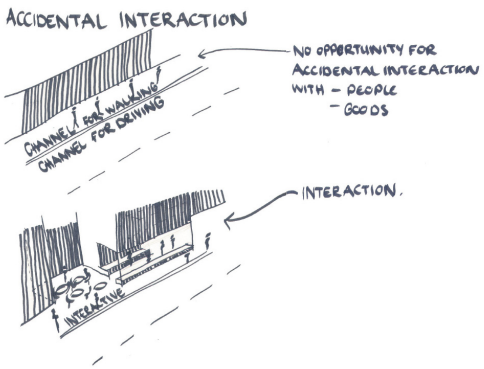
> The shape of the local streets, stairs, and courtyards is important to these children: the paving, the trees, the safety, the suitability for informal play, the corners, doorways, nooks, and benches they can meet their friends, the opportunities those places give them to slip away from the parental eye while still being thought safe and under control. (Lynch 1977: 13)

Lynch (Ibid.) suggests that children's community identity should be deepened and that their environments should have a clear social and spatial identity and be places they can understand and take pride in. Furthermore, taking part in community maintenance and celebrations should heighten children's participation in their neighbourhood and increase their sense of ownership of the area. Their sense of past and future should be connected to their locality and should relate to the conservation of natural resources and their historical heritage.

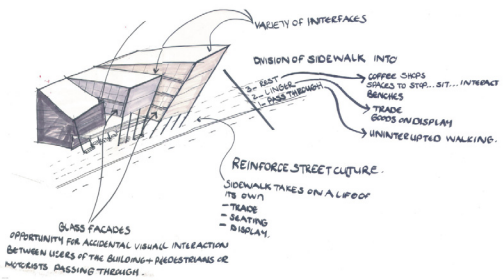
Conclusions

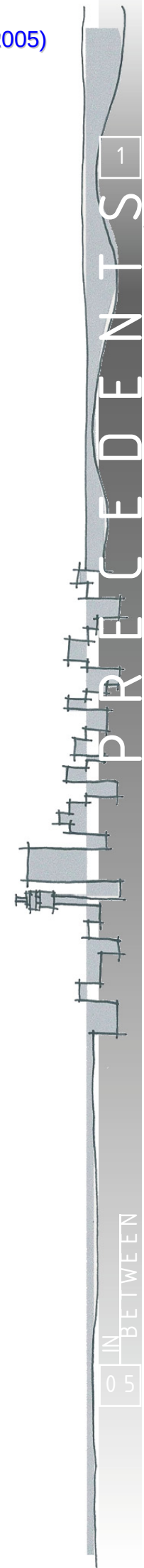
Design aim, therefore, is the creation of spaces that would incorporate accidental interaction. The aim is for unplanned activities to happen. To achieve this aim, the functional use of standard architectural elements has to be questioned and broadened. For instance, stairs should not only serve as vertical circulation elements but should also incorporate space for people to step out of the movement zone for a quick chat or to sit down or to slide down on a skateboard or bicycle. Similarly, ramps become movement and pause and rest spaces. Walls become pavilions, and roofs become terraces for resting and socializing. The stage becomes an exhibition box that is visible over the landscape, but it is also used as a pavilion for sports functions. Spaces such as the exhibition foyer are intended to accidentally expose the public to cultural activities and exhibitions.

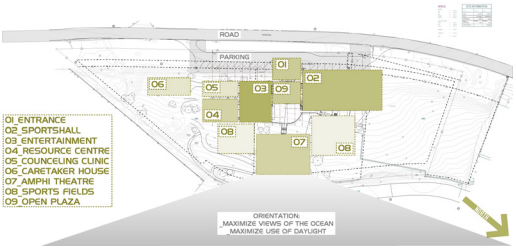
04.07. Concept sketches:
The pedestrian sidewalk used as a movement channel as opposed to its use as space for interaction



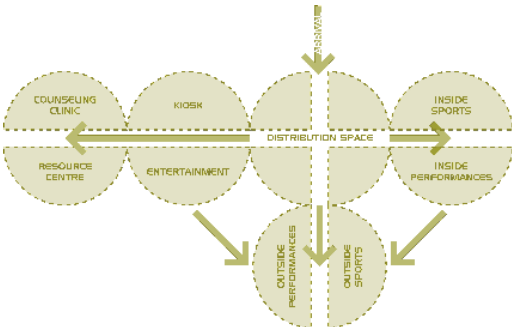
04.07. Concept sketch:
Interaction of the building and its users with the sidewalk and its activities







05.01. Site layout of functions



05.02. Functional distribution

05.03. View of the centre from the entrance road

PROJECT

The R12-million centre was built in response to the tragedy that struck the Chatsworth community in March 2000 when 13 teenagers died in a teargas attack at the Throb nightclub. It was built to help address the social problems that affect the Chatsworth community.

The design took into account the needs of the Chatsworth children who wanted the centre to be bright and cheerful, in contrast to the atmosphere of many institutional buildings. An open plaza, which features a Memorial Wall dedicated to the children lost in the tragedy, serves as the focal point of the plaza.

FUNDING

The funds were donated by Irvin and Johnson Foods; Nandos; Daimler Chrysler; and Debis Fleet Management.

MOTIVATION

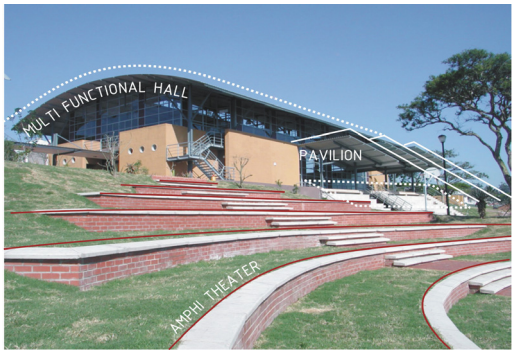
The youth in the area of Chatsworth are regularly exposed to shebeens, drug abuse, gambling and prostitution, and rape and domestic violence are regular occurrences. Therefore, the centre is a welcome commodity giving youth a safe space of which they can take ownership.

CONSIDERATIONS

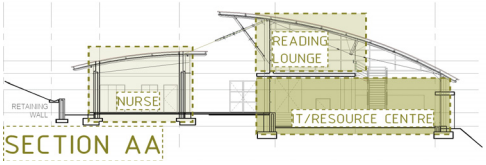
Principal architect Sue Clark (personal communication, 2005) explains that an important consideration when designing a youth centre is that it is not a school, so children are not obliged to use it. The facilities should attract them. The design team gathered from market investigations that the centre should provide entertainment facilities such as pool tables and arcade games; computers; and sporting amenities. It should be a bright, light-filled environment in which the youth experience a feeling of freedom and which they experience as a 'cool' place to 'hang out'. The aim was to create a space that would keep the youth from 'frequenting clubs and loitering around shopping centers'. In addition, it had to provide educational and counselling facilities to support a learning culture.

YOUTH CENTRE

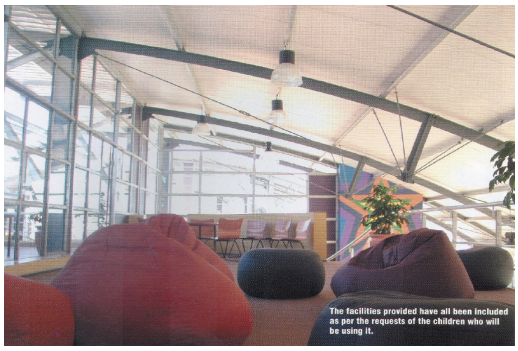
The centre occupies a conspicuous position on the side of a steep hill in Chatsworth, and it has a view of nearby Amanzimtoti and the sea. To exploit this view, steel and glass are the dominant materials used in the multi-use hall. The light and open design allows for generous day lighting and natural ventilation, thereby



05.04. View of the centre from the Amphi Theater

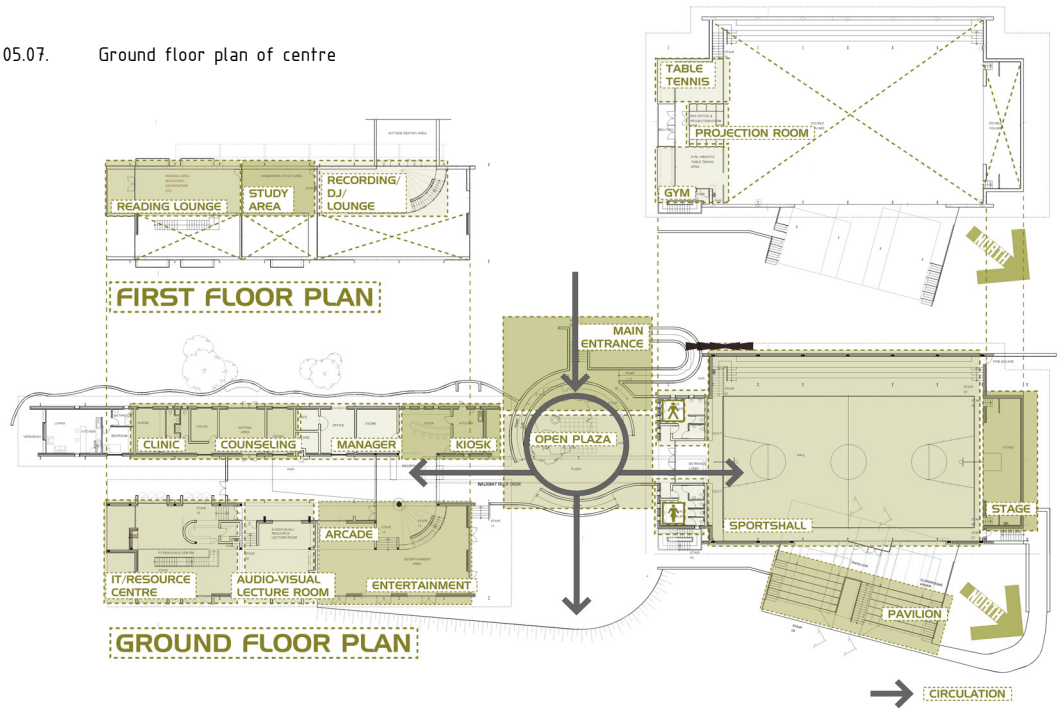


05.05. Section through resource centre



05.06. Interior of reading lounge

05.07. Ground floor plan of centre



minimising maintenance and costs.

STRUCTURE

Like a Meccano set, steel shop fronts bolt to the steel portal frame structure, creating an effect of transparency, openness and lightness. This structure assures easy dismantling and flexibility. The lightweight appearance of the building is enforced by the way roofs follow the contours of the site and to appear to be hovering over structures.

LAYOUT

'Attraction activities' surround the distribution space as depicted in fig. (bubble diagram) and fig. (siteplan). These are the sporting activities, gym, and entertainment games area. The resource centre and counselling clinic are placed further away. This layout ensures that people who visit the centre are exposed to the sports and lively activities, but are made aware of the less attractive resources the centre has to offer.

FLEXIBILITY

Spaces are designed for maximum flexibly. The multi-use hall can easily be used as a sports stadium or performance theatre.

05.08. Circulation zone

CONCLUSIONS

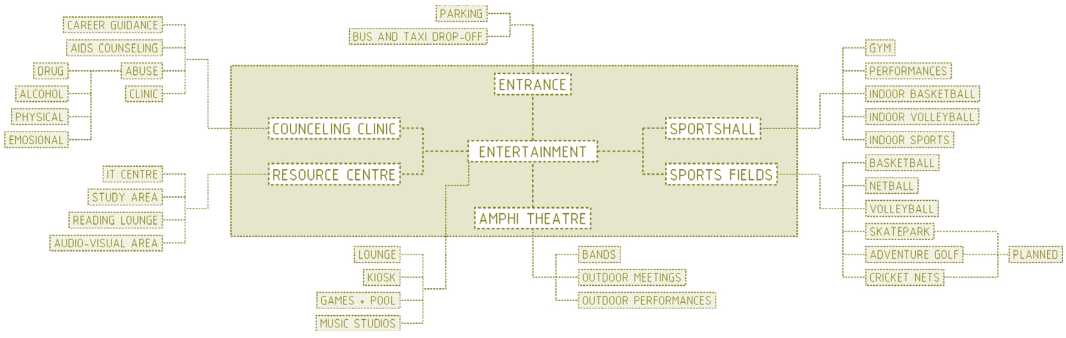
This typological precedent is relevant because of its setting and contextual problems similar to those of the target area. It gives an indication of the needs and wants of the youth of South Africa. The spatial relationship reveals how counselling and educational facilities are latched onto more vibrant and attractive spaces to make them accessible and user friendly, without detracting from the informal and playful nature of the environment.

05.09. Resource centre

PROFESSIONAL TEAM

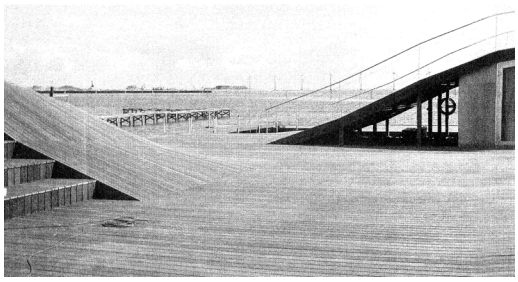
Architect and project manager
AUB Projects
Team: Sue Clarke and Jens Juterbock- Architects
Meyer Erlank - Project manager
Structural and Civil engineer
Ellmer Partnership
Wet services engineer
DSB consulting
Electrical engineer
Spoormaker and partners
Fire engineer
TDW International
Main contractor
DV cinstruction (Norvo/DNT joint venture)

05.10. Distribution of activities



05.11. The social facilities

05.12. The multi use hall. Photo by Sue Clarke, 2005



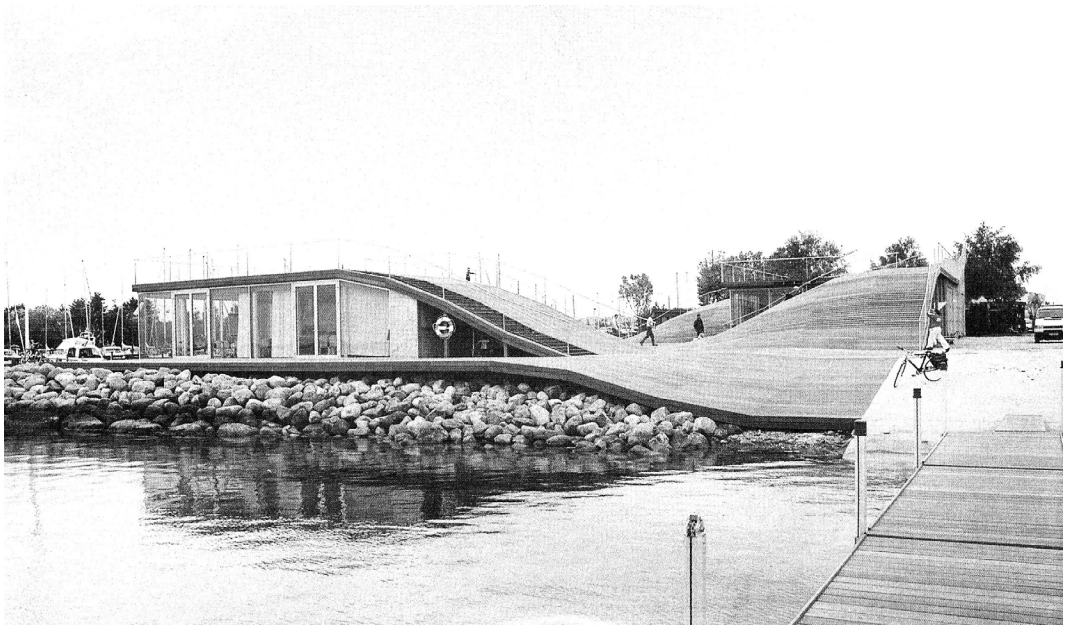
05.13. Undulated deck area

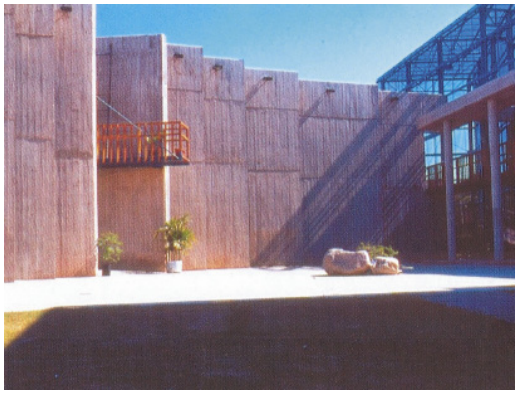
Youth centre, Amanger, Copenhagen, Denmark

The project, part of the community's Østamager improvement project, is set among abandoned industrial buildings and sheds, and is perceived as a landscape rather than a building. Because the ground is heavily polluted with heavy metals, and the cost of excavating the site, the architects decided to cover the site with a deck. The undulating surface both shelters the dinghies and provides eventful play surfaces. The separate single storey structures are enfolded by the deck. Facilities provided include social facilities such as the sailing club room and a general purpose space with kitchen, workshops, locker room and boat hall. Glass walls serve as entrance space, while the other surfaces are curved and sloped wood over which users can run, sit and play.

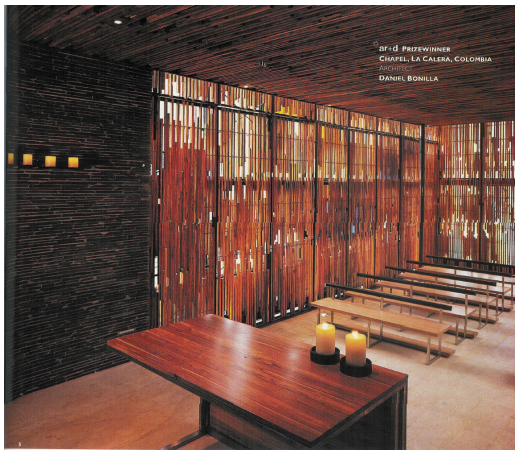
Architect
PLOT – Julien de Smedt, Bjarke Ingels
Project team
Julien de Smedt, Bjarke Ingels, Henning Strüben, Jørn Jensen, Annette Jensen, Marc Jay, Nina Ter-Borch

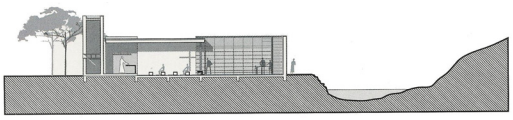
05.14. The Youth centre as a deck landscape



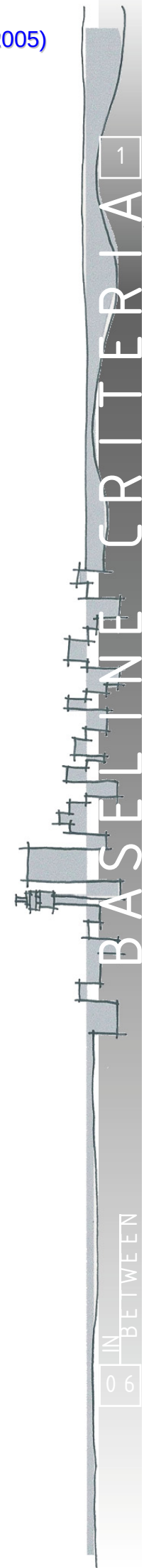


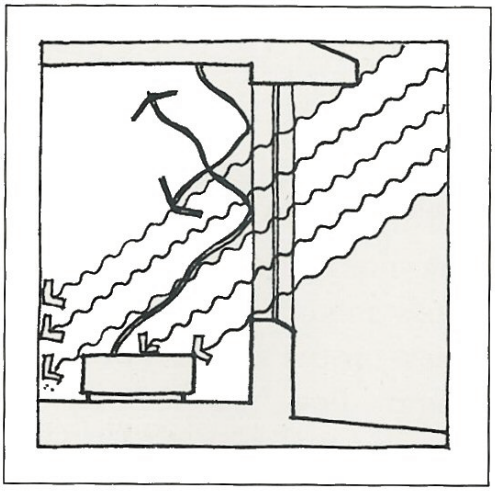
05.15. Jardin botanico – Cordoba, Argetina by Monica Bertolino and Carlos Barrado



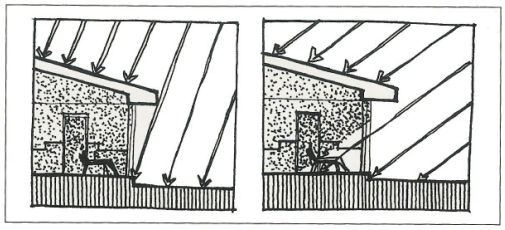


05.16. Chapel, la Calera, Colombia by Daniel Bonilla

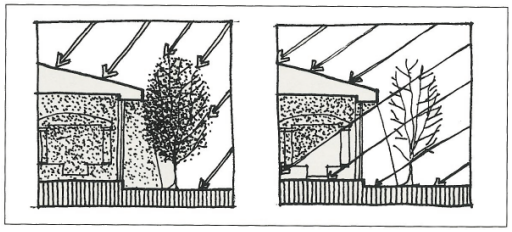




06.01. the greenhouse effect



06.02. Overhangs



06.03. Deciduous vegetation

OCCUPANT COMFORT

The objective is to create light and airy spaces reminiscent of exterior spaces. The spatial understanding of the project is intended to be in contrast to crowded, gloomy living conditions within the high-rise structures of Hillbrow and Berea.

For user quality people must feel physically comfortable; the building must not be too cold, too hot, dirty, dark or noisy. The building must be sufficiently in harmony with human perceptions (the way it looks, smells, sounds, and feels)

1.1. Thermal comfort

Maximum use is to be made of passive systems to eliminate the need for mechanical ventilation systems, thereby cutting on costs and maintenance. Exaggerated vertical dimensions improve thermal comfort by means of the stack effect's removing excessive heat from spaces.

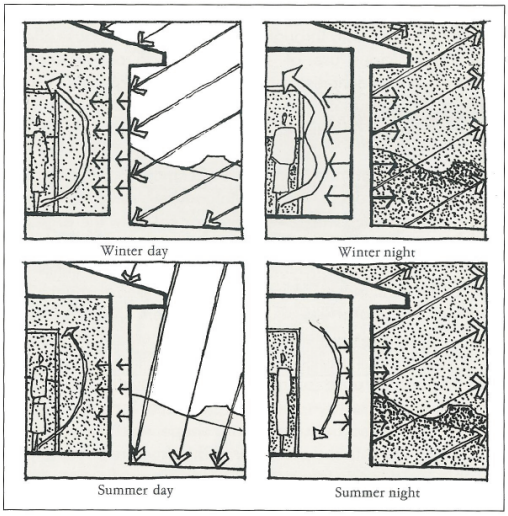
The greenhouse effect is illustrated in fig. 06.01. is the phenomenon where shortwave radiation (sunlight) penetrates glass and heats up interior spaces and objects, which, in turn, radiate long-wave radiation, most of which cannot pass through glass, leading to a heating effect (Marshall 2000: 78).

Marshall (2000: 78) explains that this can be prevented by means of large overhangs to north-facing structures (fig. 06.02). This allows for sun protection in summer and penetration in winter.

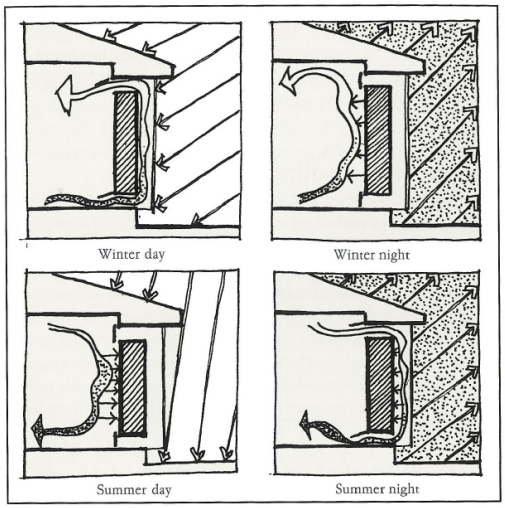
Fig. 06.03 illustrates how trees and plants may be used selectively to provide shade in summer and to permit sunlight in winter (Marshall 2000: 78).

The thermal flywheel effect, as illustrated in fig. 06.04 will be incorporated in the design, therefore the buildings are intended to have thick, well-insulated walls with high thermal mass. Thermal mass, which slows the transmission of heat, creates a thermal flywheel effect in the buildings. Roof overhangs should allow radiation to reach the walls during winter months and protect the walls during summer months.

In winter, the heating of the wall takes place during the day; after sunset, the wall continues to loose radiation both inwards



06.04. The thermal flywheel effect

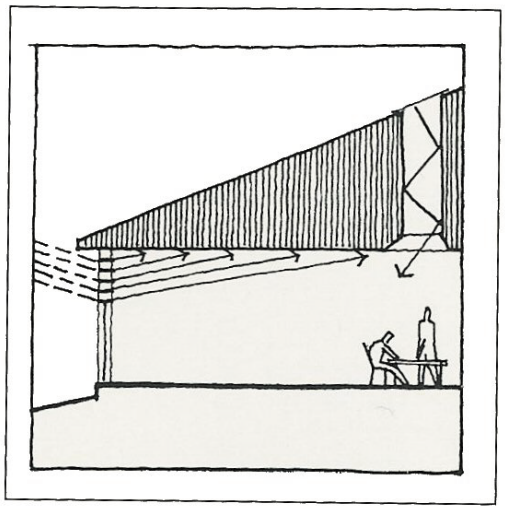


06.05. The Trombe-Michel wall system

and outwards, offsetting a drop in night time ambient temperature.

In summer, the same process takes place, but now the inward radiation may be problematic if the ambient temperature does not drop substantially, therefore roof overhangs should protect walls from excessive heat gain (Marshall 2000: 80).

Trombe-Michel wall system (fig. 06.05)
Solar radiation passes through a glass or translucent skin, and, by the greenhouse effect, heats up a heavyweight masonry wall behind it. Air from the interior is then drawn through the intervening space and across the warm surface and back into the interior for winter warming. The process may be reversed during summer nights to utilize ongoing radiation losses and to provide a source of cool air. It is basically a heat-pump system to draw warm air from large spaces (Marshall 2000: 84).



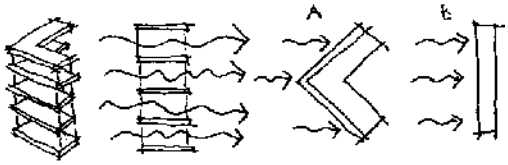
06.06. Day lighting

1.2. Visual comfort

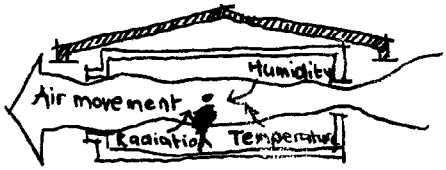
Visual comfort depends on sufficient light, avoidance of glare and visual contact with the exterior.

The building's northern orientation will maximize the use of day lighting. Adequate screening and roof overhangs will prevent unwanted heat gain and glare. To maximize the use of natural day lighting, direct lighting will be supported by diffused and reflected light to illuminate the entire space.

In accordance to SABS 0114 – 1973, artificial lighting will be provided where the necessary lighting levels are not achieved by means of day lighting.



06.07. The Givoni cross ventilation effect



06.08. Window opening sizes

1.3. Ventilation

Building placement and orientation will be according to the prevailing wind direction for optimal natural ventilation. Maximum building width will not exceed 12 m for ventilation. The stack effect is to be implemented for enhanced air movement throughout the building. The amount of ventilation is user-adaptable by means of moveable screens and windows.

According to the Givoni cross-ventilation, or suction, effect illustrated in Fig., airflow through a building is improved by placing openings under 45° to the wind direction. A vacuum is created on the leeward (southern) side of the building, which sucks in cool fresh air from the northern side, thereby increasing cross ventilation (Dierkx 2002: 145). Fig. 06.00 depicts the layout of airflow at 90° and 45°: in A, the suction effect is increased and indoor airflow is improved.

If the outlet openings are larger than the inlet openings, wind velocity will increase slightly as it moves through the space, therefore providing better through flow (Dierkx 2002: 145).

06.09. Acoustics: By author 2005

1.4. Acoustic comfort

Houghton Drive is a very busy road; vehicular noise is attenuated by means of topography and vegetation. The development is to be placed within the acoustic basin that is formed by the topography. The attenuation of traffic noise will enhance the sensation of a green sanctuary within the park. Structures will be placed in such a way that they screen the development even further from noisy roads.

Because functions are envisioned to be openly flowing into one another, acoustic isolation is not a critical aspect. The flow of music and noise from different facilities is encouraged to expose the functions and activities taking place both visually and audibly. The development should evolve from noisy and active spaces to the north, to quieter, contemplative functions to the south.

1.5. Views

Ramp

The ramp is viewed as an exhibition space, and the exhibition is the surrounding context. Viewpoints on the pedestrian ramp are placed in such a way that they frame views of the surrounding segregated urban fabric and visually link the site with its surroundings. The elevated position of the viewpoints should clear the treetops to provide unobstructed views.

From viewpoints, the view on certain landmarks and areas is framed, and a description of the area and landmarks should be supplied. This visual connection grounds the user to the context by means of education and exposure.

Buildings

Building occupants should always be within 6 m of windows to have a clear view of the park setting, play areas, sports facilities and exterior conditions. Building functions will be scattered to maximize exposure to the landscape, therefore creating fissures and openings towards the context.

1.6. Interior–exterior connection

Both visual and physical links with green outside spaces should exist.

The development is planned as a place of meeting and interaction with the landscape.

Therefore, permeable facades provide easy access to green spaces.

2. INCLUSIVE ENVIRONMENT

A democratic approach to the building is followed, and therefore the structure aims at being open and inviting.

2.1. Public transportation and routes

Louis Botha Avenue and Houghton Drive are well-used public transportation routes.

A transportation node is suggested on the corner of Louis Botha Avenue and Tudhope Avenue. Thereby creatina a gateway from urban to natural through a transportaion and trade node, from here users can easily move across the proposed pedestrian bridge into the park.

2.2. Parking

The number of users are foreseen to increase substantially over weekends and after hours; therefore, to avoid big, bleak paved parking facilities, the parking provision will be integrated into the residential development. Most of the time, a vast number of parking bays are not required, because the user base will mostly be using public transportation or arriving on foot or by bicycle.

However, enough parking facilities should be provided throughout the development to accommodate the demand during peak times. It is intended that the residential blocks be provided with basement parking, this will reduce need of surface parking, thereby allowing more park and public space. On street parking will be reserved for visitors and park users.

2.3. Building entrance

The building entrance and foyer should be open, legible and articulated. The entrance should have landmark qualities and thereby orientate users towards the access and information points.

2.4. Routes

All routes in and around buildings should have smooth surfaces and be handicap-friendly. Level changes are important considerations.

2.5. Circulation zones

Circulation zones within the development will be visually and physically well connected with different functions for legibility.

2.6. Toilets

Ablution facilities are placed centrally to achieve maximum usage. This implies that the facilities are placed in circulation zones to maximize usage and monitoring of the spaces. Ablution facilities will be placed within or near circulation zones to increase the numbers of the user group. The prominent position will ensure passive monitoring of the facility.

3. ACCESSIBILITY AND CIRCULATION

Building should appear accessible and inviting to the public. The entrance should be easily identifiable and accessible. Quick and easy exit is required in case of emergency. People must be able to see how parts of the building fit together and be able to find their way around

Psychological needs to be met:

- Need for privacy
- Social contact
- Freedom of choice
- Autonomy

3.1. Psychological accessibility

This term refers to the extent to which a building invites the user inside.

The cognitive legibility of the building should be increased by means of visual connection between functions and landmarks. Psychological barriers should distinguish between private and public domains instead of imposing physical barriers. Because this building is a social structure and not a bank or prison, it should be easily accessible and inviting.

3.2. Usability

This term refers to the ease with which people are able to move through the building and use the facilities.

3.3. Inclusivity

The built environment should be accessible to all, regardless of physical or mental capacity. Because of the topography, level changes are inevitable but these changes

should be executed with caution to ease and accessibility. All ramps will be at a 1: 12 inclination, and all spaces on all levels should be accessible to wheelchairs. The design should be user-friendly and ergonomically sound.

3.4. Circulation within development

Pathways through the park should be wide enough to accommodate a variety of users. The surfaces should be smooth, and levels changes should be appropriately addressed.

4. ACCESSIBILITY TO AMENITIES

4.1. Retail

Three retail nodes are located within 1,5 km of the site: Killarney Mall, Killarney; Kotze Street and Pretoria Street, Hillbrow; and Rockey Street, Yeoville. These facilities are easily accessible on account of the extensive public transport system servicing the area.

4.2. Residential

The densification of the inner city for the sustainability of the country's urban environments depends on the provision of inner-city living to reduce the vehicular dependency of South Africans. This leads to easier intensification of public transportation. Therefore, the development of the area needs to address the merging of urban working with urban living.

5. PARTICIPATION AND CONTROL

Spaces should allow the user control of ventilation, thermal comfort, lighting levels and visual exposure to surrounding functions. To allow for user adaptation of spaces, adjustable internal partitioning is provided.

Seating is to be provided along public routes and at circulation points. The creation of interaction spaces will allow users to sit and observe or to chat while enjoying the atmosphere.

6. PRIVACY

According to Van der Voort (2005, 188) the built environment plays an important role in maintaining or avoiding social contact. An environment can stimulate contact by providing favourable physical and social conditions. Although this is the aim of the project, caution should be placed to avoid spaces being perceived as too crowded or where too little contact generate feeling of isolation. Spaces can be perceived as 'sociopetal' (encouraging contact) of 'sociofugal' (encouraging contact-avoiding behaviour) (Ibid.).

In this Paris metro station the space between the seats literally distances people from one another (fig. 06.11.). Users create extra space by occupying alternate seats, a form of behaviour which illustrates an underlying need for privacy and territoriality. Conversely, the probability of contact decreases. (Van der Voort 2005, 189)

.

Design principals:

Recognisable distinction between Public, semi-public and private

Available spaces for private interaction

Private areas has sufficient visual and auditory and territorial screening without becoming unsafe

Private storage lockers

Meeting places for communal activities

Places whose design, location and arrangement encourage accidental, and spontaneous interaction

7. PERSONAL SPACE AND TERRITORIAL BEHAVIOUR

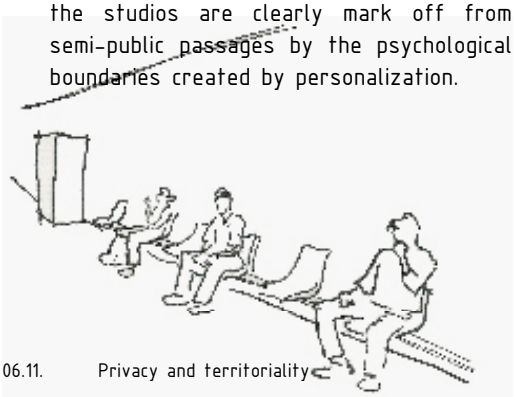
Territoriality and personal space is closely related. Territoriality is visible, reasonably static and tied to a location, while personal space is mobile and invisible.

Territorial behaviour is described as the regulation of the boundaries between one's own space and space belonging to another. An example of territorial behaviour the way studios in the Boukunde building, at the University of Pretoria main campus, are occupied, used, and taken ownership of by the students.

Although Boukunde is an open access building and the physical barriers (doors) to the studios are usually open, there are very strong psychological barriers keeping intruders out.

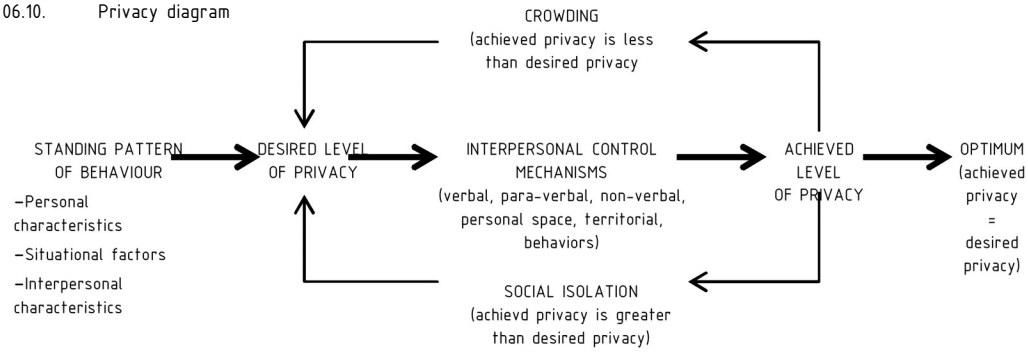
These studios are large open spaces with only structural and boundary fixtures; within these spaces students create smaller 'defendable' spaces by means of moveable boxes, screens, drawing boards and tables. These studios are claimed as private territories by the way the different year groups in the way they take ownership of their studios.

In addition to this private spaces within the studios are clearly mark off from semi-public passages by the psychological boundaries created by personalization.



06.11. Privacy and territoriality

06.10. Privacy diagram



8. EDUCATION, HEALTH AND SAFETY

Smoking areas should be provided outside. Natural materials should be used in the raw form to prevent harmful effects on the human condition.

8.1. Education

Clear signage and information boards should be provided.

8.2. Security

Security No dark alleys should exist around buildings.

8.3. Public safety

Presence of protective eyes (social control): Social control means the actual presence of people who take ownership of a space and would probably get involved if the need arises (Van der Voort 2005: 184). Therefore, increased visibility and activity throughout the park by means of the elevated ramp and the public route running through it, implies increased activity in and through the space. This provides passive surveillance of the area. Residential structures are orientated to face the park for 'eye-on-the-park' surveillance.

Visibility: Seeing and being seen increases the chances that offenders will be caught, therefore reducing the feeling of insecurity. Visual linkages are important for safe, monitored spaces.

According to Van der Voort (2005: 184) an attractive environment and the involvement of users in 'their' environment, are important factors in designing psychological thresholds.

Accessibility and escape routes relate to physical thresholds by restricting undesirables and creating escape routes for potential victims. This demands a careful balance between accessibility and enclosure (Van der Voort 2005: 184).

8.4. Fire protection

Fire regulations should comply with SABS 0400.

Prevention
Prevention of rapid spreading
Safe and quick escapes

8.5. Constructional safety: Load bearing structure has sufficient strength, rigidity and stability

1. LOCAL ECONOMY

Local economic development is to be supported by using local skills, expertise and materials and by employing local contractors. The reduction of transportation distance helps to reduce the embodied energy of a building. Maintenance will also be awarded to local contractors.

2. EFFICIENCY OF USE

Efficiency is the degree to which building serves its purpose The management of multi-use and shared spaces will ensure the maximum use of facilities by increasing the user base and by ensuring that spaces are adaptable; hereby, possible under-usage will be eliminated.

3. ADAPTABILITY AND FLEXIBILITY

The floor-to-ceiling height of spaces should be a minimum of 3 m to accommodate easy conversion of function. The minimum ceiling height in the multi-use hall should be 7 m to accommodate recreational basketball and gymnastics.

4. CAPITAL COSTS

Although capital costs should be limited, quality should not be compromised. To produce a robust, loose-fit building, high quality materials and detailing should be specified.

Promote environmental consciousness throughout the building.

1. WATER

1.1. Rainwater and water use

Water will be harvested from the corrugated iron roof and stored in rainwater tanks for use in toilets and for irrigation of the park.

Water will be filtered and used in the flushing systems of toilets during the rainy season. During the dry season, municipal water will be used as supplementary source. Overflow water will be directed to the green spaces.

1.2. Water usage

Water-efficient devices are to be used, for instance double-flush toilets.

1.3. Run off

The sites northward slope changes from a 45% (next to Houghton Drive) to a 1% (development site) therefore runoff can be considerable. Run-off after characteristic Highveld thundershowers will be minimized by means of pervious or absorbent surfaces within the development. This will minimize the loss of valuable topsoil and prevent erosion.

1.4. Vegetation

According to an environmental management plan established by the landscape architect, a sustainable approach will be taken in accordance to vegetation, top soil utilization and water consumption. Endemic species will replace invasive alien species, resulting in a reduction in water consumption by vegetation.

2. ENERGY

Use energy-efficient lighting and make effective use of day lighting. In addition, reduce the need for mechanical ventilation by means of passive climate systems.

Material choice should be environmentally conscious. Locally sourced or recycled materials are preferred. Materials with a relatively low embodied energy, such as rock, concrete, wood and steel, should be considered. Minimize the use of non-renewable materials. Construction processes and detailing should enable the re-use of components.

3. WASTE

3.1. inorganic waste

Recycle to reduce inorganic waste.

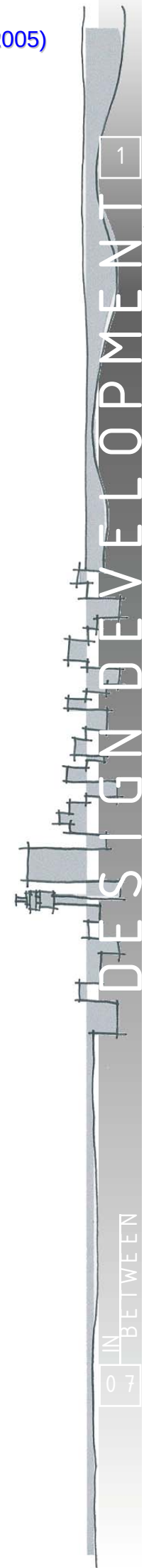
3.2. Organic waste

If possible, use site compost in the green areas of this urban environment.

3.3. Sewerage

Compost toilets would not be feasible in this urban environment because of possible tapping into the infrastructure surrounding the site.

Careful design and management should minimize waste. Where possible, materials will be re-used.



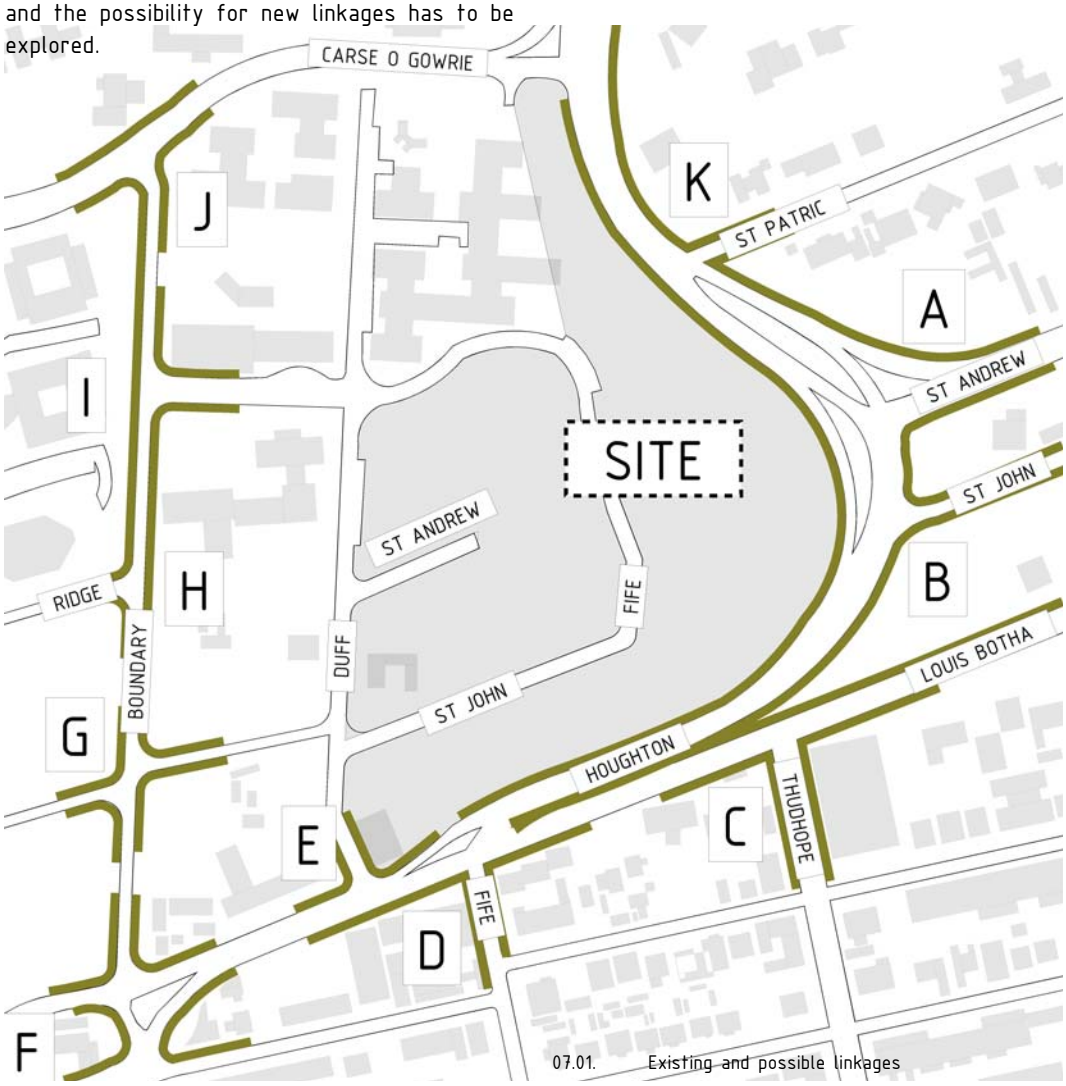
DESIGN AIMS

The development of such a large site so near the inner city will flame debate from both a commercial and an environmental point of view. The aim will be to create a responsive area that would support and enhance the existing functions in the area. Because the site is cut off from its surroundings, the proposal is to reintegrate it with the existing fabric and to create an environment that will draw in people from the very different and segregated surrounding spheres. The focus will be on the creation of platforms for 'accidental interaction' while nurturing the green character of the area. 'accidental interaction' is the creation of spaces and functions that promote exposure to activities which the user did not plan to do.

Looking at the site, one's first reaction would be to increase permeability to make the green space accessible to the surrounding communities. Therefore, existing linkages have to be analyzed and the possibility for new linkages has to be explored.

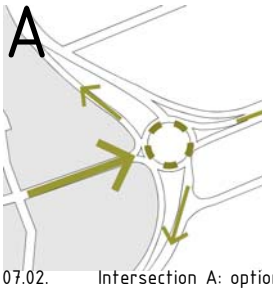
LINKS

The site is perceived as an island, and although accessibility should be increased, the character of the site should be conserved to retain the experience of an urban sanctuary.

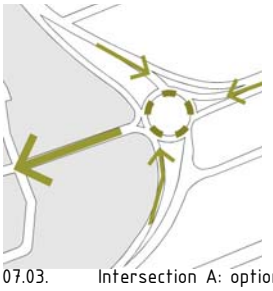


07.01. Existing and possible linkages

A

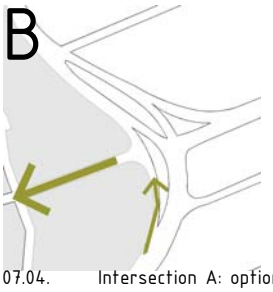


07.02. Intersection A: option 1

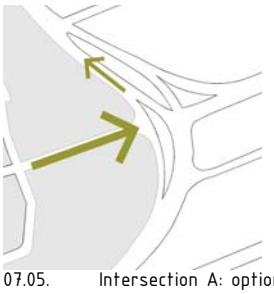


07.03. Intersection A: option 1

B

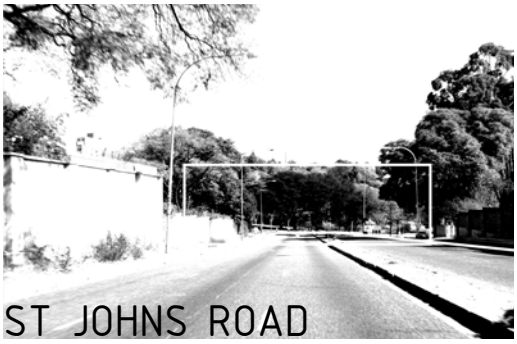


07.04. Intersection A: option 2



07.05. Intersection A: option 2

07.06. View of the site from St Johns Road



Linking Houghton Road with the site at this point would achieve optimum access to the site.

STRENGTHS: This link will give access from Houghton and St Andrews Street and slow down traffic on Houghton Drive.
WEAKNESSES: This link will diminish the existing tranquil, green-island character.
Because of the complexity of the existing intersection, two options were explored.

OPTION 1

Mr Louis Roodt (personal communication 2005), a traffic engineer at the University of Pretoria, suggested a traffic circle to link St. Andrew Street with the site (07.02. and 07.03.).
It would have the following advantages:

- The diversion from normal flow would slow speeding traffic.
- Linking the site with the existing road network through the use of a traffic circle allows for the best permeability and accessibility to the site.

Such a connection would create an elaborate gateway to the site which would have to be justified through the functions and density of the development.
Other considerations are the following:
Such a connection creates an elaborate gateway to the site, which would have to be justifiable through the functions and the density of the development.

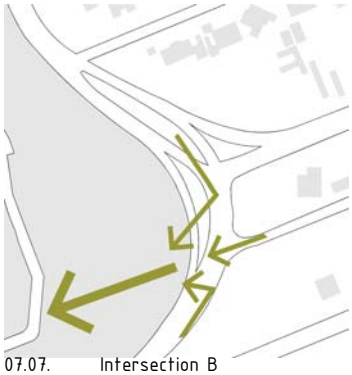
OPTION 2

This option is a connection that gives access only to traffic moving north on Houghton Drive(07.04. and 07.05.). It will create the least disruption to existing roads and traffic flow.

CONCLUSION

The site is a green retreat, a cut-off island, and this quality requires the intervention to be more sensitive to the character of the site. Although accessibility to the site should be increased to achieve the desired permeability from all sides, its character should be respected. Therefore, the brutalization of the site by the creation of inappropriate vehicular links is not the direction the project needs: in turn, such interventions require appropriate levels of commercial development to justify the links, thereby diminishing the character further. The investigation should therefore respect the site to find and reinforce its 'spirit of place'. For this reason, the site is kept as is on the eastern side to conserve the experience of an urban sanctuary.
Pedestrian flow along Houghton Drive will be diverted through the site and over the pedestrian bridge to Berea. Vehicular traffic will be directed by means of signage to vehicular access points.

B

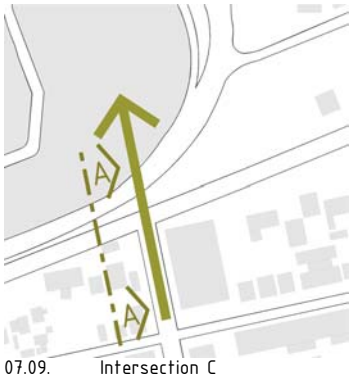


07.07. Intersection B

The conditions of this link is similar to those of intersection A. But St Johns Roads is a quiet residential road that is closed off for controlled access. Therefore a connection at his point would not be justified.

07.08. View of intersection B

C



07.09. Intersection C

Vehicular link impossible owing to topographical difficulty.

The topography allows for a pedestrian bridge to cross Houghton Drive easily, thereby linking Berea to the site. The existing traffic light will ease pedestrian flow.

07.10. Section AA

07.11. Louis Botha Stone retaining wall

D

07.12. Intersection D

Fife Street is a one-way street towards Berea.

At this point, Houghton Drive slips away from Louis Botha Avenue, and Mr Roodt (personal communication: 2005) remarked that such a connection would create too many traffic problems and should not be considered. The close proximity of existing traffic lights prevents the use of another set of lights at this point.

07.13. View from site down Fife Street

07.14.
Intersection E

At the moment only traffic driving east on Louis Botha Avenue can access Duff Road. Due to difficulty level of current intersection it will not be altered

07.15. View from Duff street towards Louis Botha

F

07.16.
Intersection F

At the moment only traffic driving east on Louis Botha Avenue can access Boundary Road. Therefore a traffic circle could give access to traffic driving west on Louis Botha and from Hillbrow as well.

07.17. View from boundary road towards Louis Botha

G

07.18.
Intersection G

This existing connection will be enhanced

07.19. View towards site

H

07.20.
Intersection H

Create a road linking Ridge Road with St. Andrews.

07.21.
Intersection I

Enhance existing connection

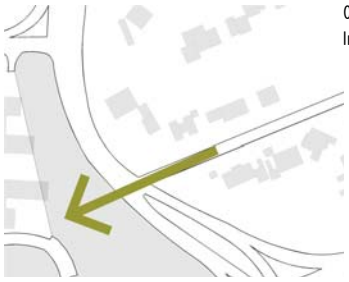
J

07.22.
Intersection J

Enhance existing connection to Parktown

07.23. The Isle of Houghton gatehouse

K



07.23.
Intersection K

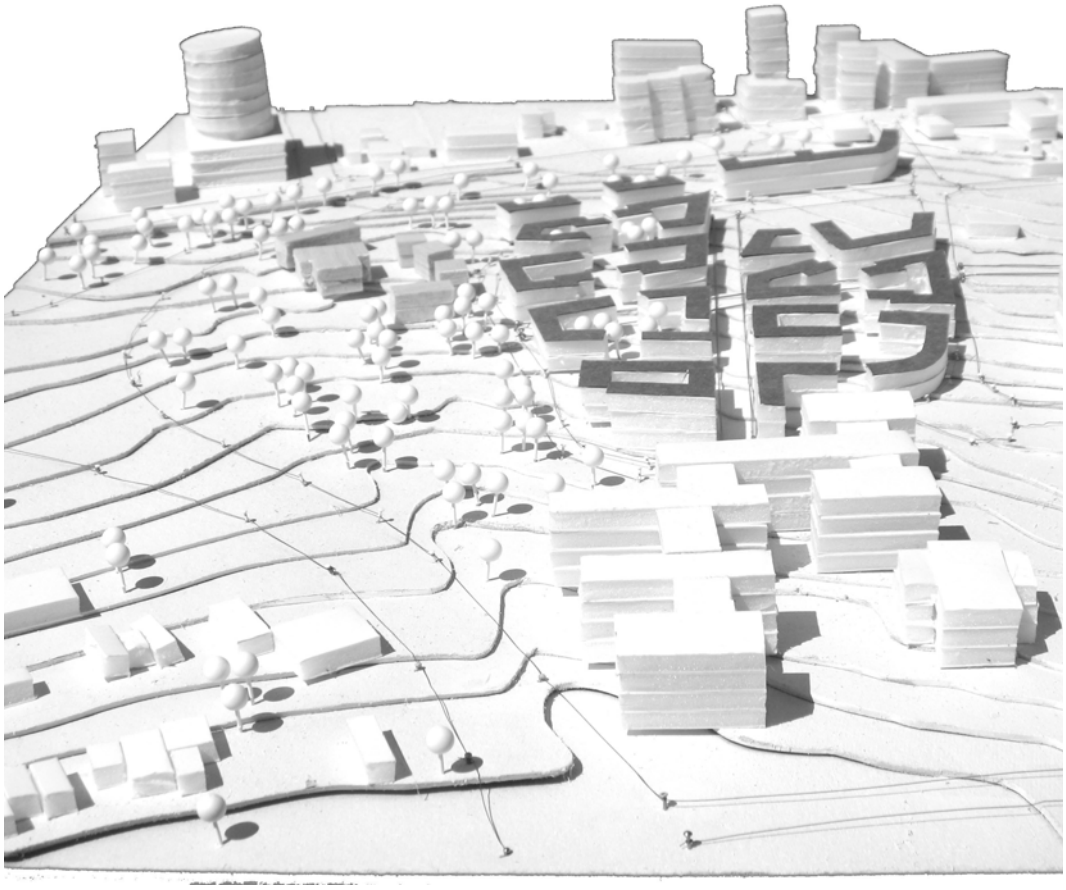
Topographical difficulty

07.24. View of intersection K

CONCLUSION

Because of its context and relationship with the segregated realms, the site presents the opportunity to be utilized to make the journey, both physically and emotionally, from urban to natural. This is evident in the way the site reaches from Berea and Hillbrow in the north towards The Wilds, a nature conservation zone, in the south. The proposed pedestrian link provides the opportunity to bridge the gap between inner-city living and outdoor recreation.

Therefore, the scale and density of the development on the eastern side should be appropriate to emphasize and celebrate the green link. The impact of the link should be intensified by upgrading the streetscape of Thudhope Avenue.



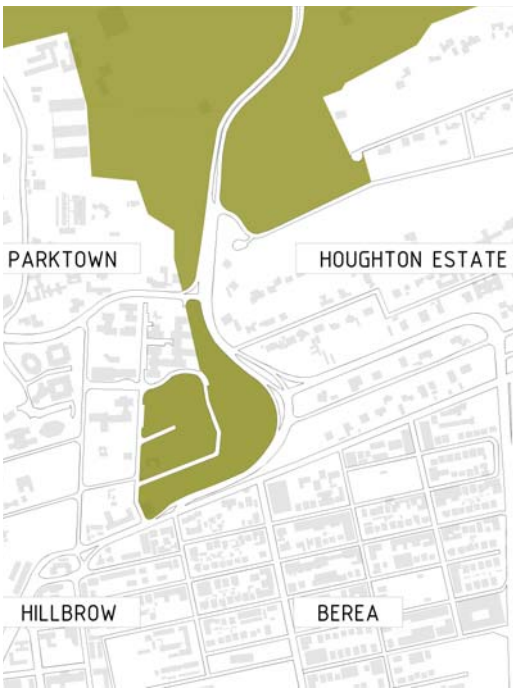
According to a recent SAPOA Office Vacancy Survey in the Killarney / Houghton there is 95,267m^2 of rentable 'A' grade office space, of which 8% is currently vacant, the trend is that the vacancy rate is continually decreasing. The median gross asking rental is R75.00 per m^2. This is an indication of a stable, up market office environment (Fernridge Consulting, 2005).

Because of the evident sufficient supply of offices and a need for housing for students and young working people, the development will focus on high-density housing and recreational facilities.

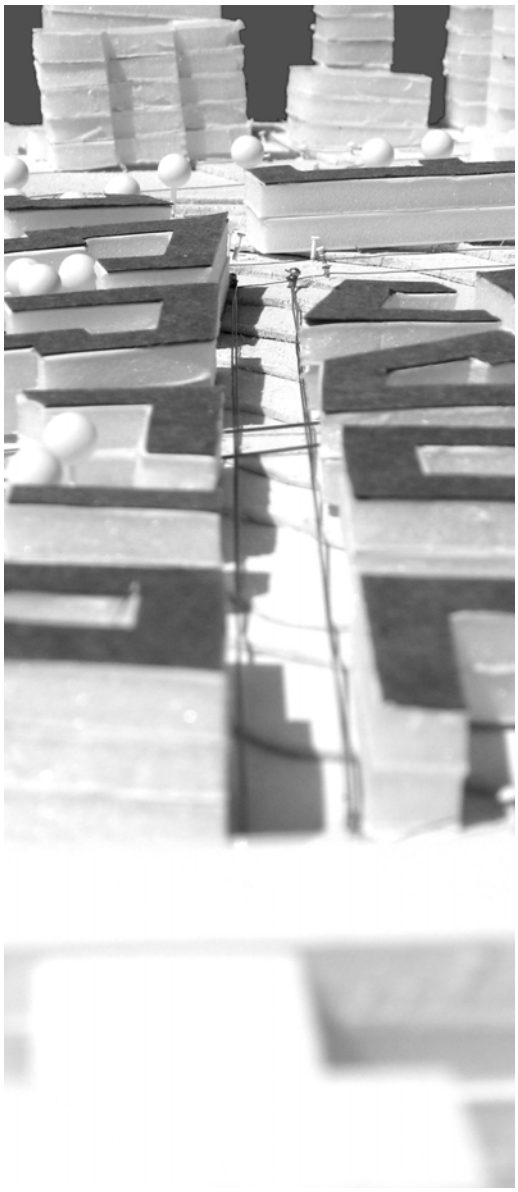
Figure 07.25 indicates current green and undeveloped areas. The aim is to render the western part of the site indicated in grey in figure 07.26 (the part of the project that is easily accessible by vehicles) appropriately dense to keep the western section (indicated in green) of the site's green park-like character and to reinforce pedestrian accessibility to the site. This accessible green space aims at linking the urban environment with The Wilds, a conserved ridge, to the north.

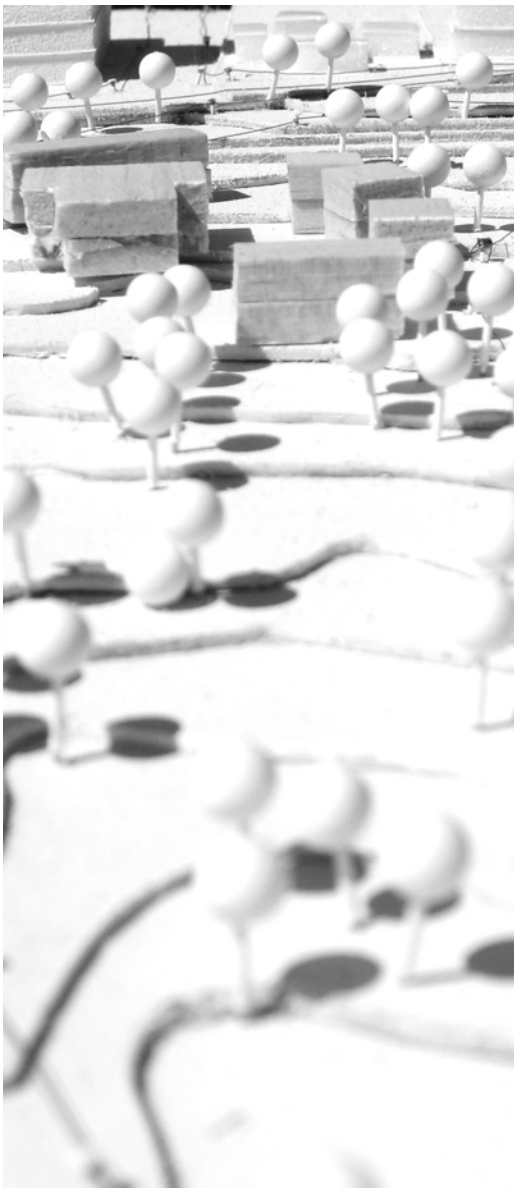
Within the public park section, the thesis project, a community facility aimed at youth and recreational activities, will be situated. The intensity of the development on the western side will, socially and financially, validate the development of public open space in the already lush eastern side.

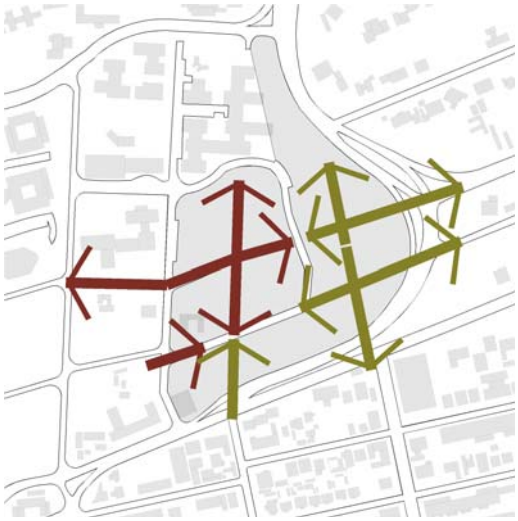
07.25. Green link towards the South



07.26. Develop Western side in order to preserve eastern side







07.27. Existing and possible linkages

PHYSICAL LINKS
VISUAL LINKS

07.28. Viewlines from development to preserved green link informs the pedestrian connections

HIGH DENSITY RESIDENTIAL BLOCKS
VIEW LINES

07.29. Proposed perimeter blocks

HIGH DENSITY RESIDENTIAL BLOCKS
VIEW LINES

07.30. Proposed development with connections to the green link

NEW PERIMETER BLOCKS

FROM URBAN TO NATURAL

The accessibility of the site is inhibited on account of the topographical difficulty of the area and the strong physical and emotional barrier between north and south created by Louis Botha Avenue. To increase accessibility, the barrier should be eradicated and rather serve as a threshold to the next. Therefore, a pedestrian link is proposed. Three options were explored:

1. A crossing on ground level

Although existing traffic light at the crossing of Louis Botha Avenue and Thudhope Road is fitting this option proved unattainable owing to the speed of traffic down the hill, and traffic engineer Louis Roodt (Personal communication: 2005) believes that another traffic light at this point would disrupt traffic flow too much.

2. A tunnel

People live in small, crowded flats and move through dark, dirty alleyways. Natural sunlight is blocked out by multi-storey buildings. A tunnel does not really improve the environment and could become a dangerous, depressing, stale, uninviting and dirty space. In relation to the theory of the 'in-between', a tunnel does not physically personify the bridging of the gap.

3. A bridge

A bridge is a recognisable landmark that dims physical and psychological barriers and embodies the convergence of diverse societies. The physical bridge supports the theoretical approach of searching for the in-between. It increases visibility and surveillance of the area and the park by the movement of people across the site. The bridge provides the opportunity to provide look-out points, which could frame the surroundings, to make people more aware of their environment.

on ground level

07.31.

a tunnel

07.32.

a bridge

07.33.

07.34. View from St Johns - Roedean pedestrian bridge

07.35. The Wilds pedestrian bridge

07.36. St Johns - Roedean pedestrian bridge

A bridge entails design difficulty (or opportunity) on account of the use of ramps to manage an all-inclusive environment; this challenge is further complicated by the steep fall of the site. However, this option was chosen because the opportunities outweighed the problems. The pedestrian bridge element is contextually used twice to link the east and west across Houghton drive. The one bridge links the ridges of The Wilds, the other, more recent structure links St. Johns College with Roedean High school.

The pedestrian bridge connects the urban to the natural environment through the site. The journey between the linear angularity of Berea and Hillbrow to the flowing organic nature of Parktown, Houghton and The Wilds is depicted in the way the bends of the ramp start fanning out at increasing angles, while pause or stop spaces are more detailed and emphasized towards the park. This design increasingly promotes rest and interaction. The route links with pedestrian routes that pass the site to invite pedestrians and cyclists into the site and through the park.

This pedestrian and cycle route is intertwined with the structures. Thereby, the boundaries between static and active, private and public, observer and observed, and inside and outside are blurred. The route moves over, through, next to, and under some of the functions, while maintaining a good visual of interior and exterior functions. The passer-by becomes part of the activities and of the energy exerted, but is still just a by-passer, an observer. The arrangement of functions supports the transition from urban to natural by placing the more physically active and noisy functions closer to the south and filtering the noise and activity levels in phases towards the north.

07.37. View of the Hillbrow telecommunications tower from Constitution Hill

The public route is incorporated into the design with the intention of increasing the safety and security of such an open-park development. By increasing and extending energy throughout the park, passive surveillance is achieved. The elevated position of the ramp gives users a clear view of the whole facility and of the park. In this way, building users passively survey the route while route users survey the park. Numerous exits from the elevated route give users escape routes. The provision of such a route through a park facilitates the need for adequate lighting, thereby increasing visibility and use at night.

The route, which consists of a series of move, pause and stop spaces in the form of ramps, platforms and stairs, is a sensory-enticing experience, which blurs the boundaries between interior and exterior, static and moving, and private and public. The route consciously directs the user from urban to natural.

On the northern side of Louis Botha Avenue, users are directed through hard-edged linear streets. Pedestrian spaces are either completely shaded by residential blocks towering over one another or are exposed to the African sun. Streets buzz with activity and noise, and taxis hoot while racing past. A mixture of smells of vehicle gasses, garbage dumps and dinners prepared in flats fill the air. Pedestrians are directed towards the pedestrian bridge across Houghton Drive, where they swiftly move over the busy road. The pedestrian bridge culminates in a view point from where the vast openness of the sky and the contours of the landscape can be appreciated. From this point the user is lead across a series of ramps descending down into the green retreat.

07.38. View of from st johns pedestrian bridge to johannesburg general hospital

07.39. View of hillbrow and berea landmarks from houghton

PASSIVE EDUCATION

The users are passively educated about the area, local landmarks (such as the Ponte City tower, Johannesburg General Hospital, The Wilds, and the Hillbrow Telecommunications Tower), and facts about the area and Johannesburg, bringing history and context to the wider community to invest a sense of ownership and pride in the area in which they live.

People know very little about their surroundings and its history; their attributes are often mentioned at tourist attractions only. Inspector Naidoo (personal communication: 2005) relates that such an ignorance is especially pertinent in this context towing to the transient quality of the area. People are not emotionally grounded in the area; it is perceived as a temporary stop. The aim here is to emphasise the landmarks, special features and qualities of the area by framing the view and noting features from viewing platforms on the ramp, where seating is provided next to the movement zone. Hereby, the man on the street, which has neither the time nor the interest in the attributes of his community, is (accidentally) exposed to and informed about the area. People are accidentally educated and made aware of their surroundings. The context specific information is intended to harvests a sense of being part of a greater community and history.

TEMPORARY EXHIBITION

The temporary exhibition includes the work of local Johannesburg artists and also pieces produced within the centre itself. The exhibition will be housed in the exhibition foyer and will be a space where people will be accidentally exposed to the work.

07.40. View of from the St Johns pedestrian bridge towards The Wilds

Being integrated into the development, the public route needs to be divided into areas depicting different movement and interaction patterns.

DYNAMIC SPACE (fast moving)

Movement through space creates a continuity of experiences derived from the nature and form through which the movement occurs' (Bacon 1975). Dynamic spaces create barriers needing some effort to cross, and little interaction occurs.

PAUSE SPACE (Slow moving)

'The social intercourse created when people rub shoulders in public is one of the most essential kinds of social "glue" in society' (Alexander 1977). Pause spaces enhance the experience of a space as people are given a chance to interact with each other and to interact with the space itself. Such spaces are inferred by the provision of niches and spaces where people can regress from a dynamic movement zone and sit on a bench or look at the merchandise of traders. The introduction of pause spaces slows down movement, resulting in increased interaction. Sheltered spaces, either natural or manmade, provide shaded gathering points.

STATIC SPACE (Non-moving)

'Together these two elements, the architecture of movement and the architecture of repose make up the city as a work of art, and this is the people's art' (Bacon 1975).
Static spaces create an opportunity for visitors to appreciate the space over time. These are spaces for contemplation and interaction; they are inferred by the creation of sheltered and shaded spaces with a degree of privacy and isolation, while remaining part of an active space. These spaces are differentiated from dynamic ones by means of changes in materials and textures, while increased detailing makes them spaces of interest.

The journey is perceived as a sensory experience in which one is made intently aware of the progression made from urban to natural and one is able to orientate oneself through senses other than sight.

The route supports a great deal of activities that should attract users with different athletic and mental abilities or interests. It should encourage jogging, cycling, skateboarding and roller-skating and other activities to take place along the route.

SENSES	URBAN	INTERVENTION	NATURAL
SEE	Cars, high-rise buildings, street vendors	Pedestrians, children playing	People strolling, picnicking, resting, playing
HEAR	Vehicle engines Taxis hooting	Music from the dance studios and music training rooms Children in play areas Teens shouting while playing basketball Differentiate between the sound of small and big wheels (bicycles and skateboards) on the surface	Birds Wind through the trees
FEEL	Cold smooth concrete Hot tar surface Hot exhaust fumes from vehicles Interplay between hot, full exposure to the sun and completely shaded, cool areas	Textured wood Sheltered spaces with a soft, filtering effect, providing cool spaces like those experienced under trees where warm rays filter through the dense leaves	The use of smooth textured materials such as concrete accentuating the paths and benches within the natural environment.
SMELL	Exhaust fumes	Trees, grass, food and refreshments served in the café, mealies braaied by vendors for people returning from work.	Trees, grass

07.41. View of the intersection of Houghton drive and Louis Botha Avenue

07.42. View of from st johns pedestrian bridge to johannesburg general hospital

07.43. View of the Hillbrow telecommunications tower from Constitution Hill

07.44. View of from the St Johns pedestrian bridge towards The Wilds

PHYSICAL JOURNEY

CROSSING THE BRIDGE

Dynamic space: space that provides an unobstructed continuation of movement.
Pause: An informal retail space gives an opportunity to pause.
Static space: Static space is provided by the proposed café, where people can sit.

FIRST VIEWING PLATFORM

Dynamic space: space that provides an uninterrupted movement towards the ramp.
Static space: space to stand or sit at the edge towards the vast openness to the south. The view entails the green character of Houghton, the profile of the ridges of The Wilds and the open sky. The position clears the treetops by a few metres; therefore, it as an uninterrupted view towards the vast openness.

SECOND VIEWING PLATFORM

Dynamic space: space that provides an unobstructed continuation of movement down the ramp.
Pause: significant elements in the area are framed or pointed at while supporting information can be read on a notice board.
Static space: space that provides seating and an unobstructed view.

The platform points towards the west; therefore, the south-western side of the static space is dedicated to Parktown and the north-western side to Hillbrow

THIRD VIEWING PLATFORM

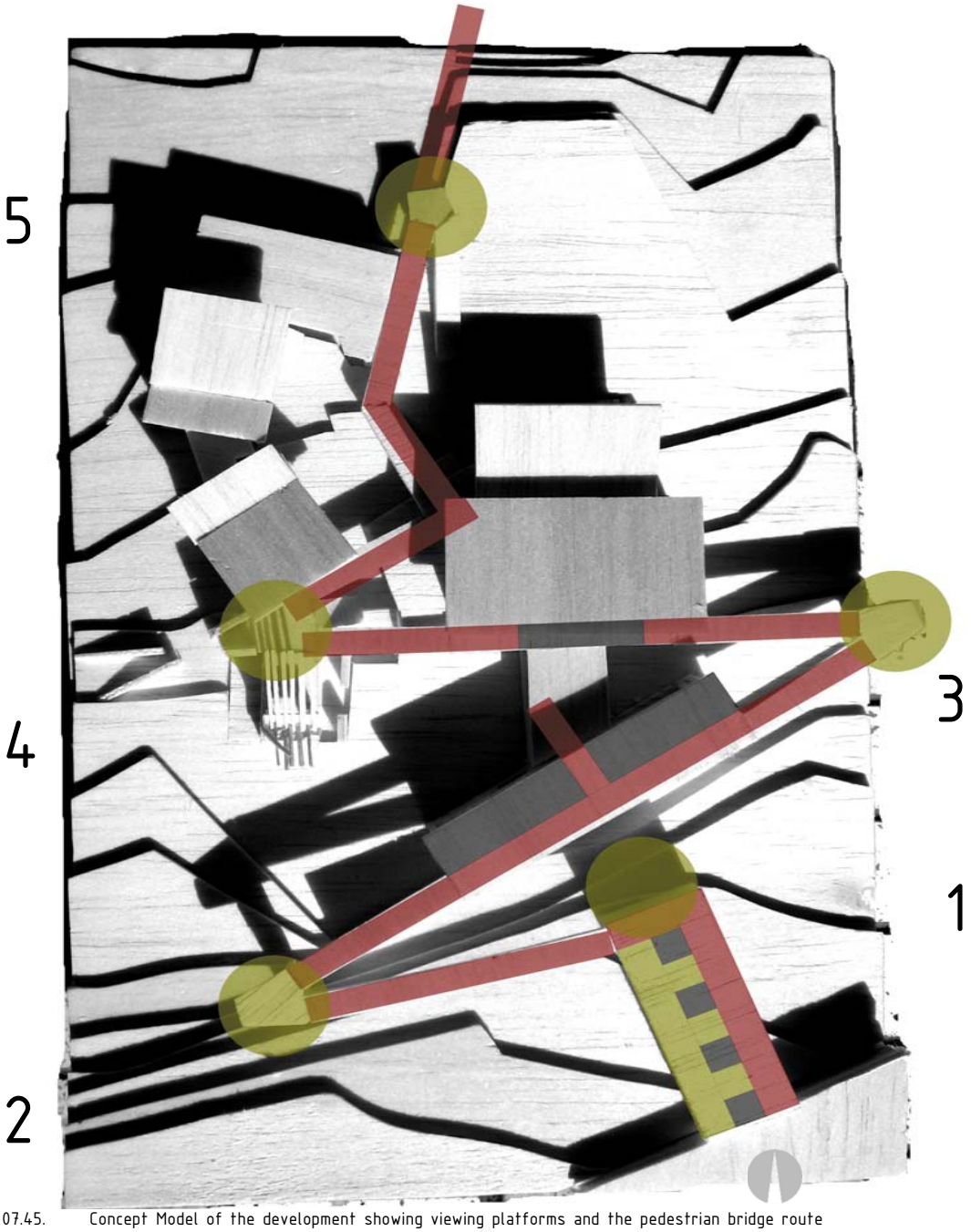
Dynamic space: space that provides an unobstructed continuation of movement down the ramp.
Pause: significant elements in the area are framed or pointed at while supporting information can be read on a notice board.
Static space: space that provides seating and an unobstructed view.

The platform points towards the east; therefore, the south-eastern side of the static space is dedicated to Houghton and the north-eastern side to Berea and Yeoville
The ramp cuts through the multi-use hall; spaces are provided next to the dynamic zone where people can sit and watch performances or games within the space

FOURTH VIEWING PLATFORM

The platform also serves as a landmark element signifying the entrance foyer, while the ramp itself demarcates perimeter of the foyer
Dynamic space: space providing an unobstructed continuation of movement down the ramp and stairs.
Pause: A notice board informs about events and happenings.
The open-volume foyer space is used as an exhibition space. With this arrangement, the wider public is 'accidentally' exposed to the arts.
Static space: space that provides seating and a view of people entering structure.

The route supports a great deal of activities that should attract users with different athletic and mental abilities or interests. It should encourage jogging, cycling, skateboarding and roller-skating and other activities to take place along the route.



07.45. Concept Model of the development showing viewing platforms and the pedestrian bridge route

According to Van der Ryn (1986: xiii), common (threshold) spaces are very important in buildings because of their role in the buildings' energy systems. They are the interface between outside and inside; therefore, they are a source of light; a buffer zone between inside and outside temperatures; and thermal storage zones.

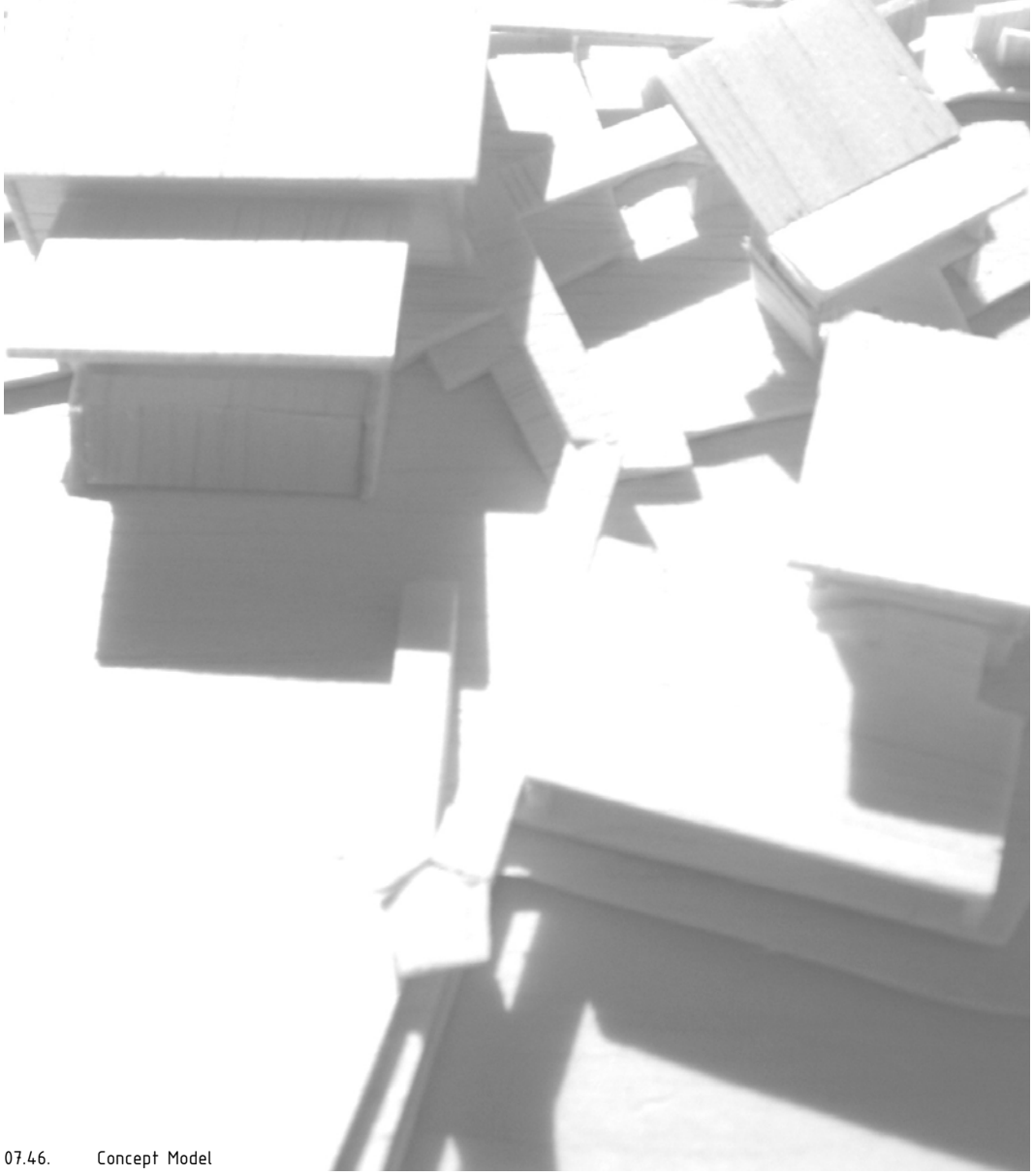
Physical thresholds are emphasized because they are the spaces where transformations between architecture and landscape; public and private; and inside and outside occur. According to Berrizbeitia (2003:82), these spaces are resistant to closure in terms of meaning of space.

The following elements can be distinguished:

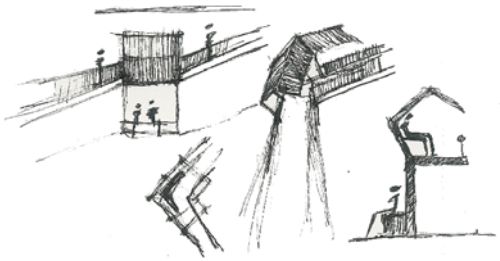
- The use of cantilever roofs increases the depth of the threshold.
- Stoeps are the threshold point where spaces are neither outside nor inside.
- Ramps are floating.

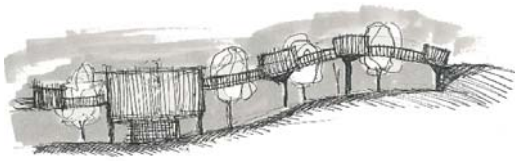
Flowing space: being outside while inside
Western solid facades need to have window penetrations to make it solid yet penetrated

'Contradictory levels of meaning and use in architecture involve the paradoxal contrast implied by the conjunctive "yet"' (Venturi 1977: 23).

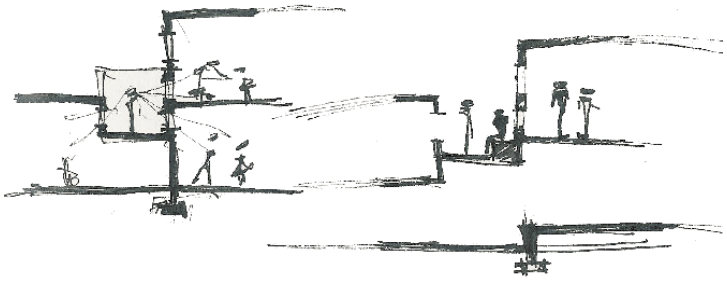


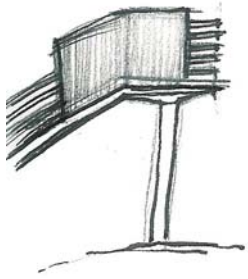
07.46. Concept Model



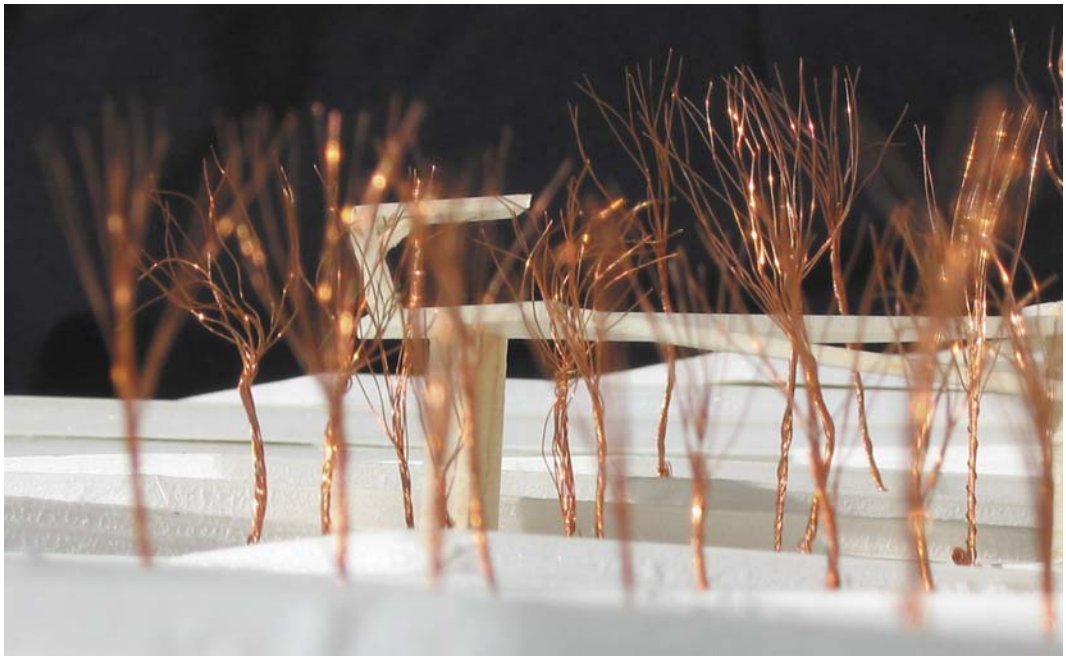


07.47. – 50. Concept development of the pedestrian bridge and its interaction with the structures





"EITHER – OR"		"BOTH – AND"
Security division	YET	Sunscreen
Roof	YET	Ramp
Public	YET	Private
Support	YET	Enclosure
Solid	YET	Penetrated
Inside	YET	Outside
Active	YET	Static



DESIGN PROPOSITIONS

The following ideas formed the basis of the design of the building.

The building is designed to accommodate a number of different functions, supporting recreational, educational and social activities. The selection of functions will attract different users and ensure the accidental interaction between these user groups.

01_ SITE

The site is densely vegetated and slopes from the north to the south. The building is positioned on the northern edge of the site in order to integrate the pedestrian bridge over Houghton drive with the development. This allows for a swift transition from urban to natural, and leaves a large section of the site preserved for the park. Although a reasonable amount of trees will have to be removed for the centre, the character of the rest of the site will be respected and enhanced.

St. Johns Road culminates in an avenue of Pine trees that will be preserved because of its cultural and spatial value it adds to the site. These trees become an integral part of the entrance and legibility of the development; at the same time they protect the exhibition foyer from harsh western light.

The development respects the slope of the site in the way distinct functions are placed on different levels.

02_ DESIGN STRATEGY AND ORDER

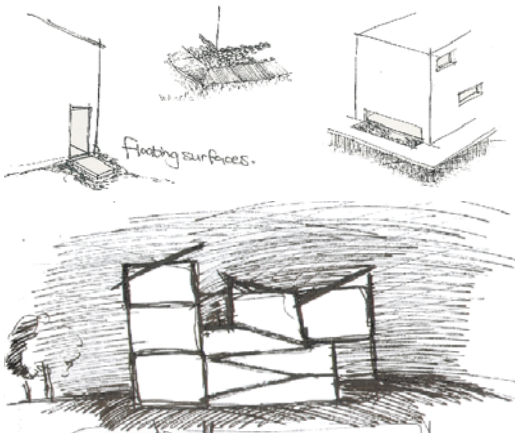
The elevated ramp system is used as an ordering device; it visually and physically binds the segregated functions. The route serves as a conduit that draw people through, past or into the building. Exits from the route occur by means of penetrations and stairs at designated points.

The ramp system runs through the development, and only then it touches the ground. From here users are dispersed towards the youth centre, the sports facilities, and the park or through the park towards the north, the M1 and Killarney Mall.

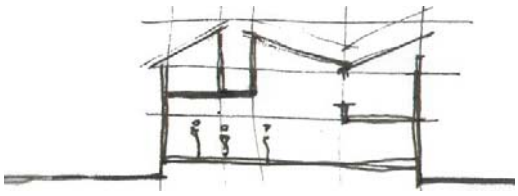
Functions are placed according to their anticipated noise and activity levels. The

07.51. Concept development: surfaces and textures at Constitution hill

07.52. Concept development: thresholds



07.53. – 54. Concept development: linkage between different functions and the roof structure



louder more active functions are placed on the northern edge and more quite contemplative functions flow into the park in the south.

The order of the structural steel grid is maintained throughout the building.

03_ EXTERNAL TREATMENT
The external façades of the buildings are treated in response to site, climate, daylight, views, use and acoustics.

The northern and southern façades are visually transparent to allow the landscape and exterior functions to become apart of the interior. These façades are permeable, transparent and sheltered from the sun by means of roof overhangs and sunscreens.

The ramp system running along, over or under structures acts as a transitional space between the structure and the landscape. It is a movement zone, which encourage the occurrence of accidental or informal social happenings.

Western and eastern elevations are more solid surfaces.

By off setting functions the building façade is broken up into penetrable sections which open up to the surroundings.

04_ SECTIONAL TREATMENT
The section comprises of a double storey structure on the southern side to a sunken single storey on the northern side

05_ NATURAL LIGHTING
The elevated floating roofs allow ample natural light to enter interiors, because 'the best light for a room is light form above: top light illuminates a room evenly and brings light from above like nature does' (Noero 1996: 21). Therefore the provision of daylighting from above fades the boundaries between inside and outside.

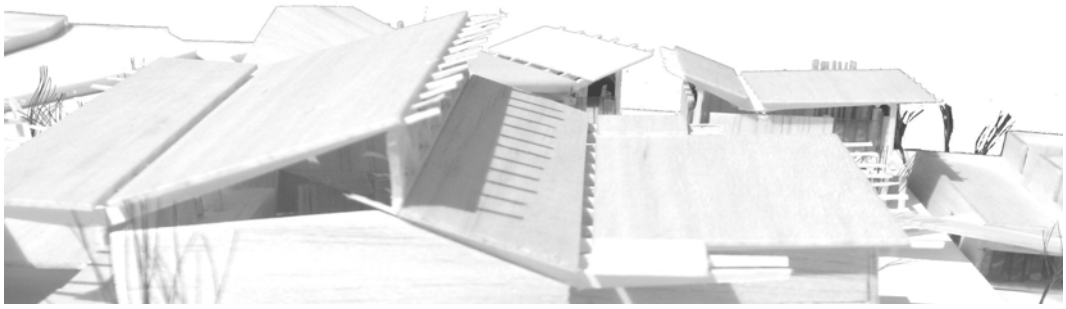
06_ SUN CONTROL AND VENTILATION
The fragmentation of functions, allows for the scattered placement and orientation of buildings. This allows for the ample natural ventilation and lighting.

07_ ARCHITECTURAL TREATMENT OF SPACES
The different functional spaces have different volumetric quality light intensity and materials are different to reflect.

08_ ROOF FORM
Roofs pitch towards the north and south in order to allow day lighting of altering light intensities into the interior. The roof form allows for easy harvesting of water towards a central gutter and storage unit. Boabab Toll plaza by Peter Mathews Architects.
The floating roof allows for visual connection to interior functions from the elevated ramp system, and reduce the appearance of large corrugated roof areas. The levitating roof plane enforce the perception of *INbetweenness* by not being bound to a solid structure to the ground.

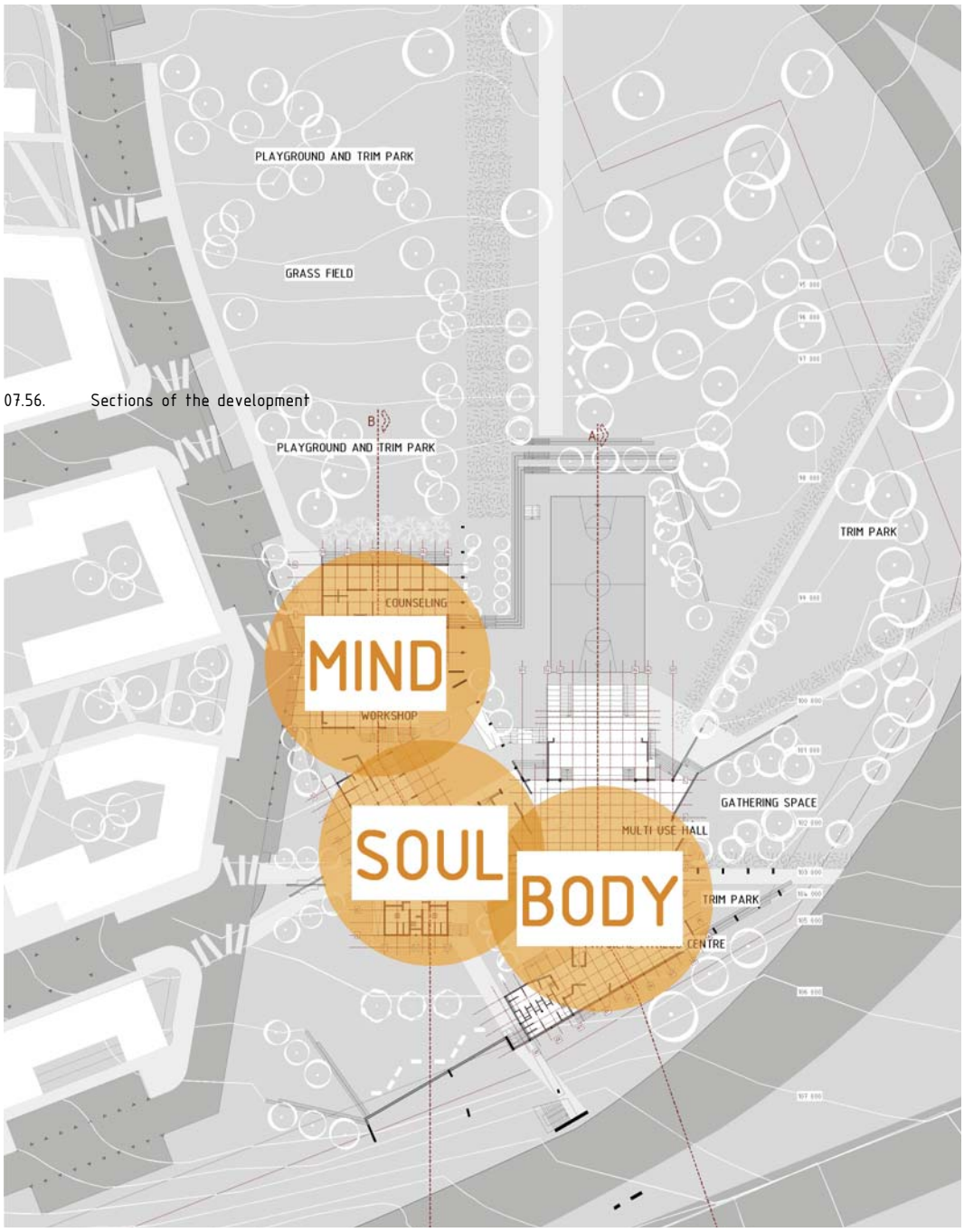
09_ MATERIAL USE AND DETAILING
Detailing should the current level of building skills. Therefore a robust approach to detailing accommodates the limited skill resources available to the construction industry at present. Materials are steel, brick, timber and concrete and left unfinished where possible.

Materials are expressed independent of the structural frame either as infill or freestanding form separate from the framing system. All structural steel connections are bolted.



Spaces are moulded around activities, and they are activated through the provision of opportunity and choice. Therefore multi-functionality within the development is a mayor design generator. As an exploration of the theoretical approach, the conventional arrangement of function and usage of spaces is drawn in question. The structure is fragmented in order to create positive exterior spaces. Functional boundaries are blurred by means of visual connection between different functions and user groups. In addition the over lapping of functions is explored, where spaces which attract sporadic use are placed in relation to more vibrant activities in order to activate the space.

In order to provide suitable amenities for an environment aimed at 'accidental interaction' the programme necessitates a diverse scope of facilities. Such a facility is complex in purpose in order to express the ambiguities of the experience. Although program functions seem to be divided into separate pavilions these pavilions flow out into ambiguous threshold spaces between specific functions. The centre is divided into three parts: body, soul and mind.



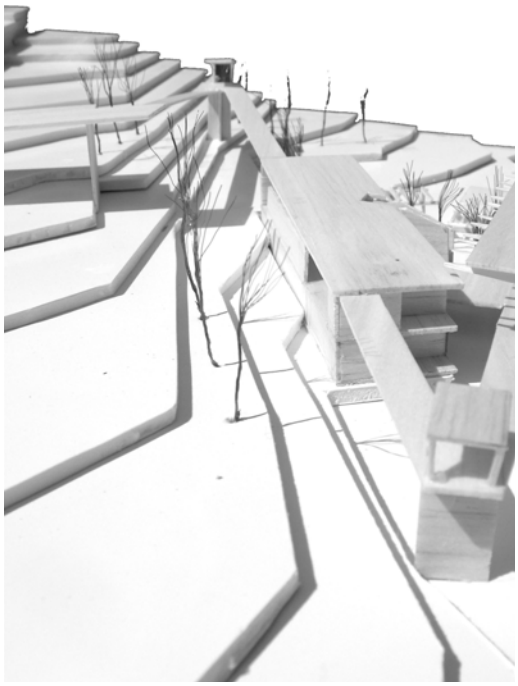
07.56. Sections of the development

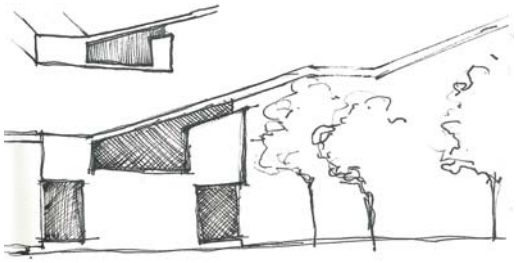
PHYSICAL FITNESS CENTRE

The physical fitness centre is removed from the multi use hall to accommodate the pedestrian ramp system and the topography. The building cuts into the slope therefore increased contact with the earth helps to achieve a constant average temperature within the structure. High placed southern windows allows for ample day lighting, and reserves wall space for mirrors and storing of training equipment.

The physical fitness centre is divided into three sections which can operate independent or in conjunction with each other.

1. The cardio, weight training and circuit section is located on ground floor and access is regulated at the reception desk.
2. The dance and aerobics studios are located on the first level. Large glass facades to Houghton drive allows for natural day lighting and the visibility of function from the road.
3. The centre is connected to the multi use hall via an open multi functional space, which operates as stretching area and space where boxing bags are hung.



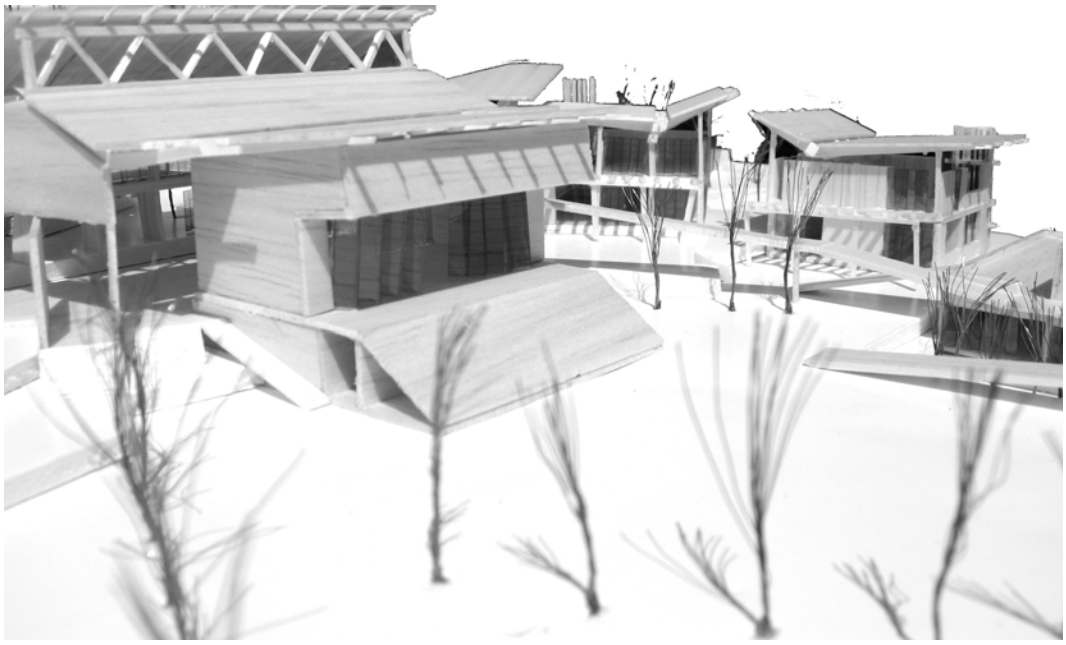


07.57. Concept sketch: the ramp becomes a roof for one of the structures

PHYSICAL FITNESS CENTRE	
Area	160 m^2
Projected use	Cardio, weight training, circuit training
Lighting	50-100 lux (SABS 0114: Part I – 1973)
Classification of occupancy	A2
Facilities	Control desk, consultation rooms, weight training, circuit training and cardio equipment, stretching and floor exercises, aerobics studio
Critical aspects	Disabled access Adequate ventilation Easy and direct access to changing rooms Minimum height 3.0m For optimum double row arrangement: >6m wide For clear supervision: <15m (Tutt & Adler: 1992)

DANCE STUDIO	
Area	160 m^2
Projected use	Dance, drama, aerobics
Lighting ventilation	250 lux (estimated)
Classification of occupancy	A2
Population	35
Critical aspects	Sprung floor 4250 m minimum head room adequate ventilation Visual exposure to Houghton Drive and pedestrian ramps for exhibition of function disabled access seating provided on ramp landing for viewing purposes

CHANGING ROOMS, TOILETS AND SHOWERS		
Area	68 m^2	
Projected users	Gym, dance studios, open spaces,	
Lighting	160 lux (SABS 0114)	
Ventilation	Ventilation required is 20 l/s per shower, wc pan, urinal or 600mm urinal space (SABS 0400 1990:112) part 007(b) of National Building Regulations	
Facilities required	Males	Females
WC	1	3
HWB	2	2
Showers	2	3
Urinals	4	
Disabled	Non (facilities provided within 25m)	
Critical aspects	Serves physical fitness centre, but should also operate separate from fitness centre for use by studio and skate park users without interference with gym security system.	



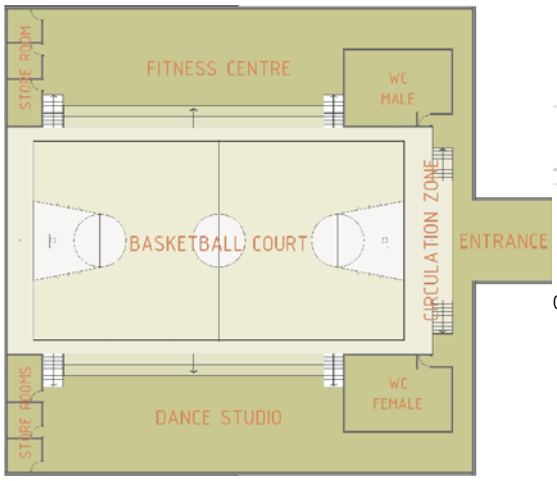
MULTI-USE HALL

On reassessment of proposal A, the realization was that contrary to the theoretical approach, the structure was still very conventional in its arrangement of functions and usage of spaces. The attempt to increase visual contact does not achieve satisfactory fading of boundaries between the discussed contradictions.

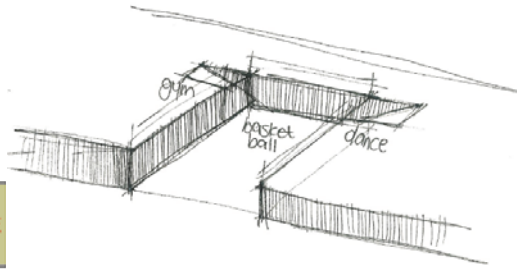
A larger multi-use area is needed for sport, performance and recreational activities. It should accommodate easy usage by small groups and larger gatherings. Owing to its size (on the basis of sizes of indoor basketball courts) such a space could seem too imposing and isolated for the use of small gatherings. Therefore, optimal use is not achieved. To prevent such a occurrence different activities are clustered in and around such a facilities, thereby increasing usage and interaction with the space.

From this viewpoint, the concept of the multi-use hall was drawn into question. How could such a space satisfy the need for dance, indoor sports and theatre performances, whilst maintaining activity levels and use the rest of the time? A potential solution is to make it approachable for smaller groups and activities by not segregating function-specific spaces from ambiguous spaces. Therefore, the proposal is to combine this large space with smaller, more specific spaces, such as a fitness centre and dance/aerobics studios. The multi-use hall is scaled to accommodate a recreational-sized basketball court.

The substantial level difference between the basketball court and the dance studio and fitness centre clearly defines the designated areas without completely segregating it from other functions. The advantage of such a division of functions in a space is that energy-exerted in one area spills over to other areas not used at the time; this benefit can be in the form of music playing in the gymnasium or studio, or the shouts of people playing basketball, or even the sound of the cleaner sweeping the floor, which gives life to a space. This arrangement encourage interaction between boys playing basketball and girls dancing or having an aerobics class, which would have been lost

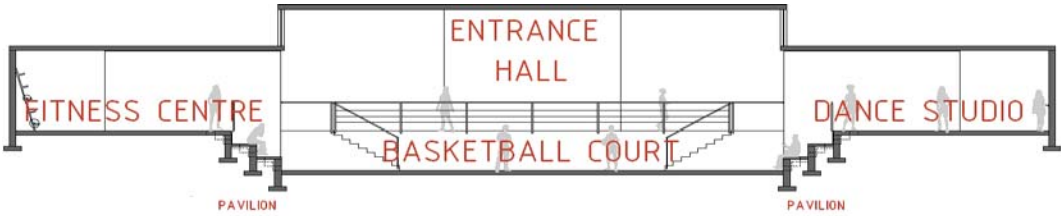


07.58. Concept plan: the integration of a basketball court with a dance studio and fitness centre



07.60. Concept sketch of integrated functions

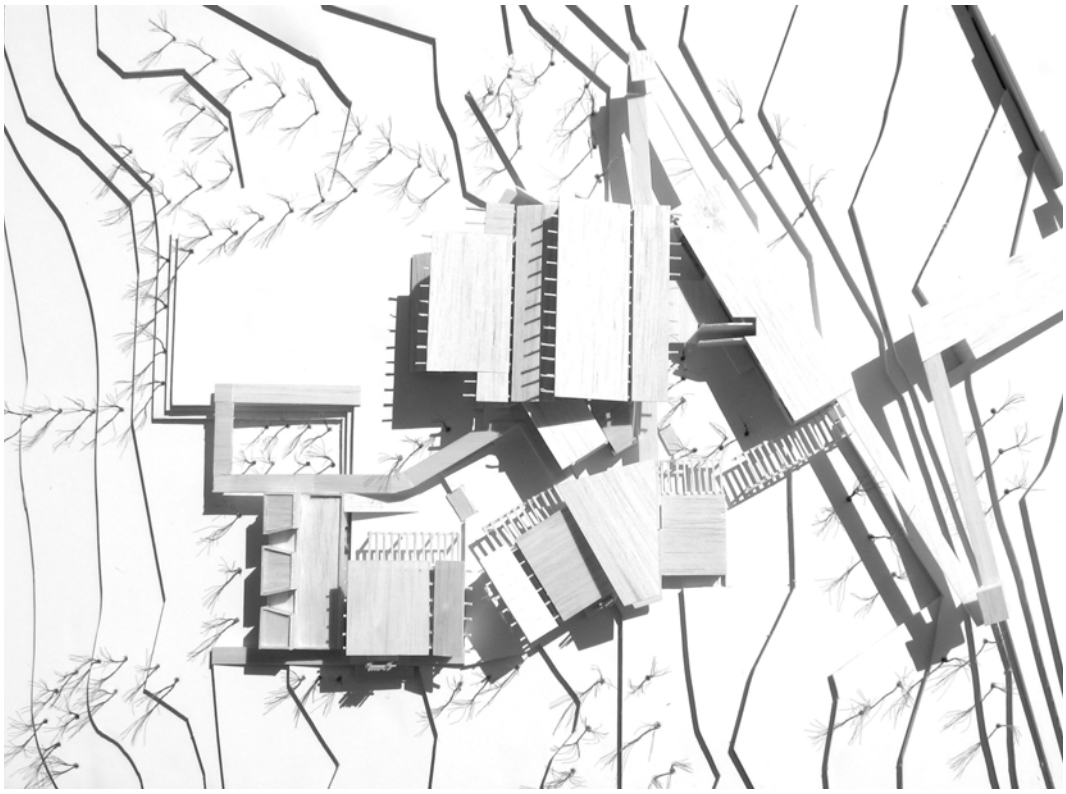
07.59. Concept section: the different functions are separated from each other via level difference



if these functions were separate.

Combining this layout with the site proves to be problematic on account of the scale of such a structure and the topography of the site and the integrated pedestrian bridge. Therefore, it is decided to segregate the functions somewhat more. This setting apart implies that the physical fitness centre is moved back into the slope and the space opened up is applied as an open, transitional space used for stretching.

Name of area	Multi use hall	
Area	370 m^2	
Projected use	LIVE PERFORMANCES:	Variety
	SCREEN PROJECTIONS:	
	SOCIAL EVENTS:	Dances, dinners
	PUBLIC GATHERING:	Meetings
	INDOOR SPORTS:	Gymnastics, basketball, boxing
Lighting and ventilation	250lux SABS 0114:npart I – 1973	
Classification of occupancy	A2	
Population	200	
Critical aspects	Disabled access Control able access Storage for props, chairs Allow for lockable individual storage space for different groups. Acoustics should accommodate large and small gatherings. Stage provided to the north. Pavilion seating on the southern side of the multi use space.	



STUDIO / STAGE

The studio, connected to the multi use hall is perceived as an exhibition box; from its elevated position, it is visible throughout the park. Openings and screens make the complete opening up or closing off of the space possible.

The studio is perceived as a generic space that is easily converted into a stage. This performance space should not turn out to be another dark stage that is only used during performances. Therefore, acoustic dividers are used to separate the performance space from the back stage during performances. These dividers are moved away after the show to provide an unobstructed dance studio.

The seating pavilions to the sides of the interior basketball court are ideal for choir performances. The development needs to accommodate large outside functions such as music festivals. Such activities need open space for spectators and a secure platform for performers and electrical equipment. Therefore, it is proposed that the multi-hall stage operate in both directions.

The combination of the elevated position of the stage and the fall of the site creates a space under the stage that is ideal for changing facilities with easy access to the stage/studio/interior and exterior basketball courts.

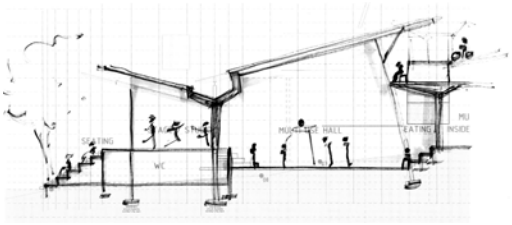
STAGE	
Area	130 m^2
Projected use	Stage performances
	Studio for dancing, aerobics, drama
Lighting	250lux (estimated)
Classification of occupancy	A2
Population	30 – 40
Critical aspects	Storage for props Adequate vertical dimension 4000 minimum Natural lighting Stage serves as exhibition box towards the exterior sports fields and towards the hall Sprung floor

CHANGING ROOMS, TOILETS AND SHOWERS		
Area	100 m^2	
Projected users	Changing room on lowest level of development to serve the outside activities, public park, basketball courts, resource centre, workshops, stage performers and public moving across route	
Lighting	160 lux (SABS 0114)	
Ventilation	Ventilation required is 20l/s per shower, wc pan, urinal or 600mm urinal space (SABS 0400 1990:112) part 007(b) of National Building Regulations	
Fire regulations	Class A1. 30 min. fire resistance for structural elements (SABS 0400: TT37.4) 1 portable fire fighter 4,5kg for 200 m^2 (SABS 0400:TT37.5) 2 escape routes (>25 people)	
Facilities required	Males	Females
WC	2	4
Hand wash basin	4	4
Showers	5	5

Urinals	3	
Disabled	1 disabled WC provided. According to SABS 0400 SS 5.1 (c) within 200m of facilities SS 5.2 (b) minimum area: 2,9 m^2; minimum plan dimension: 1,6m^2	
Critical aspects	Easy access to stage area Direct access to basketball playing area	

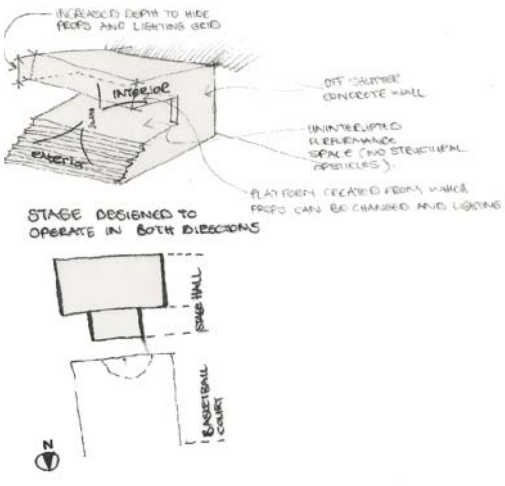
Changing facilities are located within a void formed due to the raising of the stage and the fall of the site. These facilities will serve users of the stage, Public Park, basketball fields and the resource centre. For that reason it has easy access from the park and from the sports field, and direct access from the stage is provided for its usage by performers. During performances visitors will be directed to the entrance foyer ablution facilities.

The roof slope of the multi use hall and stage / studio allows for easy rainwater harvesting. The stored water will be used in WC flushing systems.



07.61. Concept sketch of the integration of different functions in the multi purpose hall

07.62. Concept sketch: usage of the stage in both directions to insure greater usage of the space

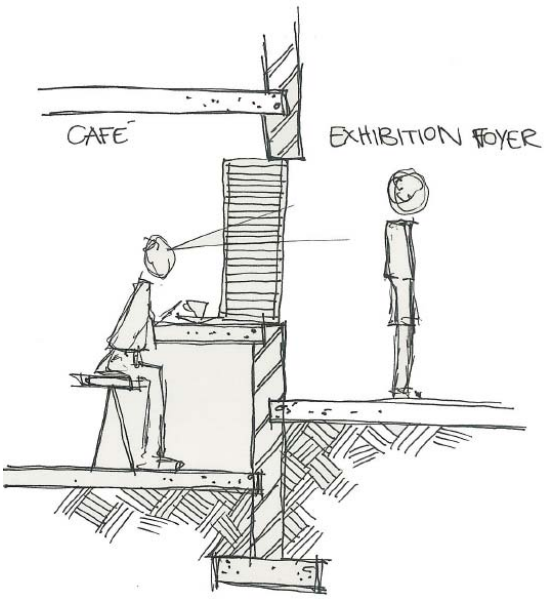


SOUL

EXHIBITION FOYER

This arrival and distribution zone serves as threshold to the facility and structures. This space will serve as exhibition zone, since passing public and users are guided through the open exhibition foyer, this will provide the opportunity for accidental interaction with art work of local artists or users of the facility. The interaction is either, directly, by moving across the space or from an elevated level.

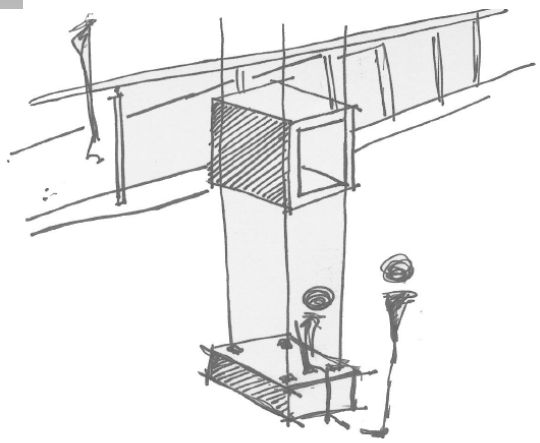
The exhibition foyer can be divided into two sections:



07.63. Concept sketch: threshold between inside of the cafe and the public exhibition foyer

A double volume covered space, which serves as threshold and circulation zone to the development. Its perimeter is demarcated by the elevated ramp. The space will have elevated exhibition boxes at different levels. These boxes will exhibit functions of the building, art work produced by users, they will also serve as information pods, onto which information and notices can be latched and hoisted to the desired level. The space is intended to expose users of the public route to the workings and functions of the facility.

07.64. Concept sketch: interaction between ramp and exhibition foyer with height adjustable exhibibion boxes



A circumscribed as apposed to closed off space which serves as entrance foyer the multi use hall. The space serves as a deepening of the level of threshold towards the multi use hall. This foyer is designed to be completely opened in order for people to walk through the interior space without deviating from their intended outside route. It can be completely closed off from the outside exhibition space by means of large swivel doors. These doors demarcate the interior space of the foyer, it directs flow of users when opened and serve as barriers when closed.

Area	50 m^2 interior exhibition space 200 m^2 exterior exhibition space
Projected use	Arrival and distribution zone with latched on exhibitions
Lighting and ventilation	50-100 lux (SABS 0114: Part I – 1973)
Classification of occupancy	A1
Critical aspects	Grandeur and grandeur Flexibility Disabled access Storage for exhibition boxes Exhibition boxes

CAFÉ AND GAMES ROOM

The café is placed next to the exhibition foyer – the source from which energy is distributed through the development. The café is envisioned as a vibrant place where people meet for a drink or a game of pool. The café becomes a club after dark, where local band perform.

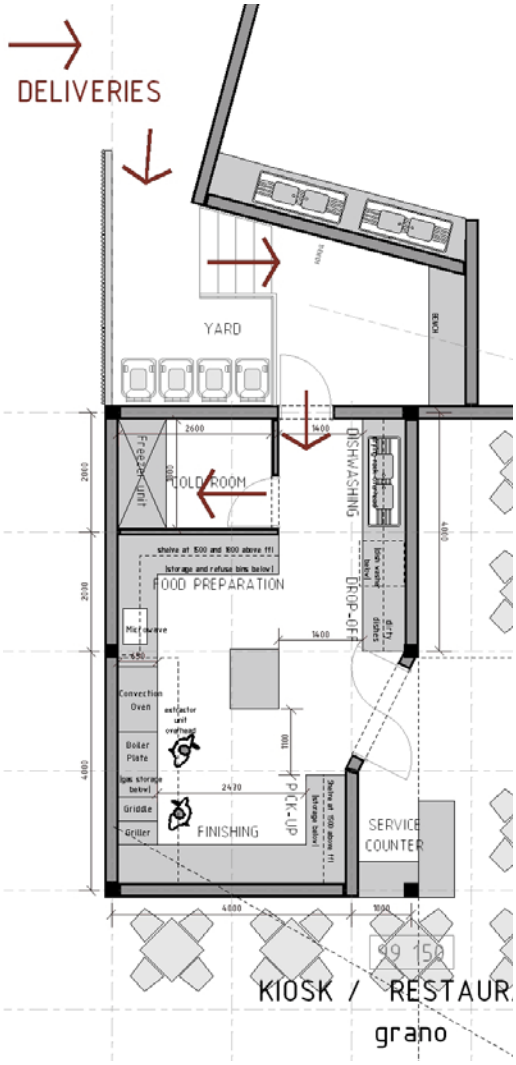
A counter and seating is provided at the threshold between the café and the exterior foyer. Single users at the counter have a view of the circulation of people on the ramp and through the foyer space.

The café overflows onto a raised terrace demarcated by the structure on the western side and the elevated ramp on the eastern side. From this position users are exposed to a view of the park and the studio / stage.

On the mezzanine level a games room / lounge area is located, this space flows to the south into an open games area on top of the ablution facilities and into the resource centre to the north. This ensures the exposure of the resource centre and the use thereof.

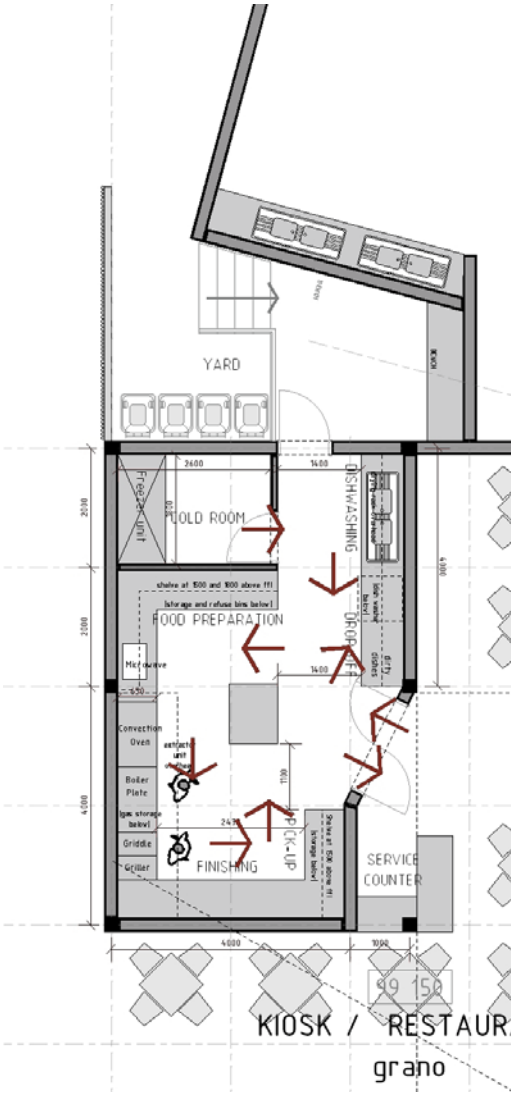
CAFÉ	
Area	85 m^2 indoor, 160 m^2 overflow
Projected use	Dining
Lighting	50lux (SABS 0114: Part I – 1973)
Ventilation	5.0 l /sec / person (SABS 0400)
Population	Indoors: 85m m^2 @ 1.5 m^2 pp = 56 Overflow: 160 m^2 @ 2 m^2 pp = 80
Fire regulations	Class A1. 30 min. fire resistance for structural elements (SABS 0400: TT37.4) 1 portable fire fighter 4,5kg for Kitchen and café (SABS 0400:TT37.5) 2 escape routes (>25 people)
Critical aspects	No smoking indoors Overflow onto outdoor terrace

KITCHEN	
Area	38 m^2 Kitchen 17 m^2 Yard and refuse area Based on the requirements for 75 meals served during main meal period (Lawson 1981) __deep freeze 1,9 m^2 __cold room 2,25 m^2 __dishwashing 3m (65 deep) m^2 __dry store 7,6m of shelving __griller 0,2 m^2 __griddle 0,25 m^2 __convection oven 0,135 m^2 __boiling table 0,7 m^2 worktop and sink height 900mm worktop depth 650mm easy access for refuse removal and deliveries
Projected use	Storage, preparation and serving of food
Lighting	200lux (SABS 0114: Part I – 1973)
Ventilation	7.5 l / sec / person (SABS 0400)
Fire regulations	Class G1. 30 min. fire resistance for structural elements (SABS 0400: TT37.4) 1 portable fire fighter 4,5kg for Kitchen and café (SABS 0400:TT37.5)
Critical aspects	Adequate ventilation Ergonomics Hygiene Kitchen used during events and meetings in multi use hall
Notes	No separate WC facilities are provided to café users and staff due to the proximity of public facilities.



KITCHEN LAYOUT.
Not to scale

07.65. Detail drawing: deliverage of goods to the kitchen



KITCHEN LAYOUT.
Not to scale

07.66. Detail drawing: movement patterns within kitchen

As implemented in the precedent, the Chatsworth Youth Centre, resource facilities are designed to latch onto more lively and exciting functions. Hereby, people using the recreational facility are 'accidentally' informed about workshops and courses given at the resource centre. This supports the facility's function as a lively, active, noisy environment that people freely use. Because recreational and social activities flow into educational activities, the boundaries between education and fun are blurred.

Having physical and visual connection between different functions such as the resource centre and the recreational activities would imply subsequent interaction and usage. This connection is challenging since such an environment would require an isolated and compact inward-looking structure and the setting requires an unfolding, dispersed arrangement; therefore, the result is the scattering and segregation of functions.

COMPUTER LAB / READING / LIBRARY

Area	125 m^2
Projected use	Access to internet, research and reading
Lighting	400 lux (SABS 0114)
Ventilation	5.0 l / sec / person (SABS 0400)
Fire regulations	Class A1. 30 min. fire resistance for structural elements (SABS 0400: TT37.4) 1 portable fire fighter 4,5kg for Kitchen and café (SABS 0400:TT37.5) 2 escape routes (>25 people)
Facilities required	Computer tables and chairs, computers, storage for computer parts and programs
Critical aspects	Needs controllable access and secure lockage.

LECTURE HALL / WORKSHOP / ART STUDIO

Area	125 m^2 sub-dividable into two 62,5 m^2 lecture spaces	
Projected use	Entrepreneurial workshops	
	Art and crafts workshops	Painting, clay modelling, pottery,
	Fine crafts	Clothes making
	Lectures	
Lighting	250 lux SABS 0114: Part I – 1973	
Fire regulations	Class A1. 30 min. fire resistance for structural elements (SABS 0400: TT37.4) 1 portable fire fighter 4,5kg for Kitchen and café (SABS 0400: TT37.5) 2 escape routes (> 25 people)	
Facilities required	Storage	Several secure storage spaces provided for separate institutions
	Sink	75mm diam outlet with same sized trap
Critical aspects	Acoustic screen to divide space. Overflow of activities onto outside courtyard. Visual exposure for exhibition of function	

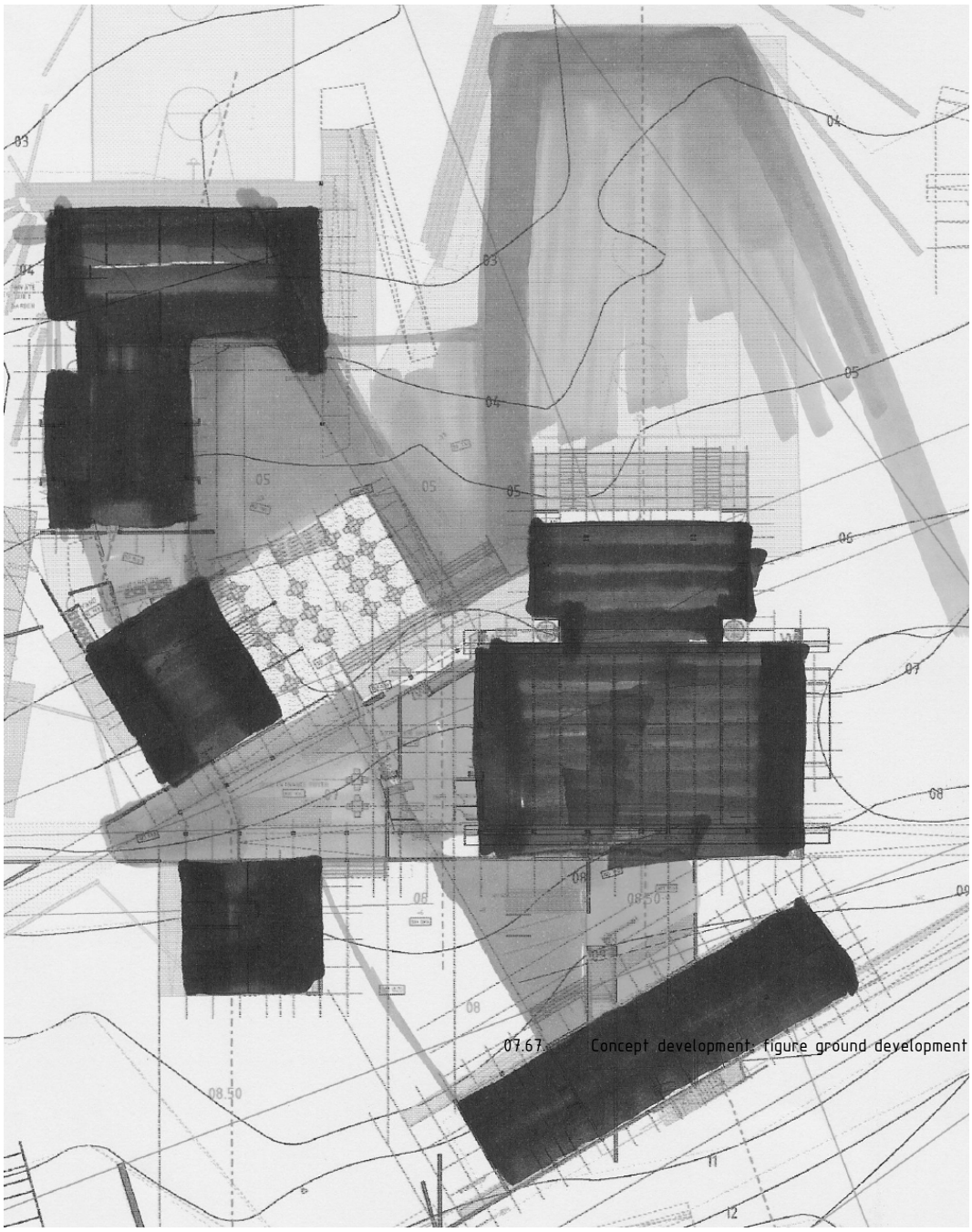
COUNSELLING FACILITIES / ADMINITRATIVE OFFICES

Keep visual contact with the facility, but blur the contact

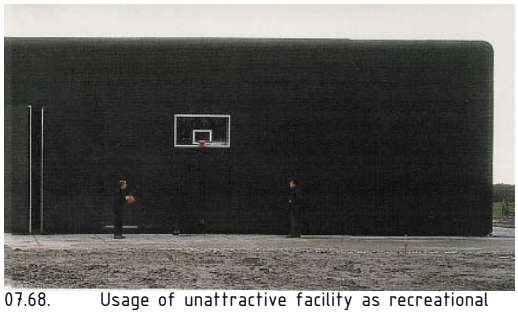
ADMINISTRATIVE OFFICES / COUNSELLING FACILITIES	
Area	210 m^2
Projected use	Office area from which management of the centre and different NGO's will operate.
Lighting	200 lux (SABS 0114: n part I – 1973)
Ventilation	5.0 l / sec (SABS 0400)
Classification of occupancy	Class G1. 30 min. fire resistance for structural elements (SABS 0400: TT37.4) 1 portable fire fighter 4,5kg for Kitchen and café (SABS 0400: TT37.5) 2 escape routes (> 25 people)
Facilities required	Kitchenette with sink WC and wash hand basin Wash hand basin with in the nurses consultation room
Critical aspects	Views of the park Natural lighting Prevention of glare on computers Disabled access

STUDY AREA

Area	m^2
Projected use	Quiet area for study or reading
Lighting	400 – 500 lux (SABS 0114)
Ventilation	5.0 l / sec / person (SABS 0400)
Fire regulations	Class A1. 30 min. fire resistance for structural elements (SABS 0400: TT37.4) 1 portable fire fighter 4,5kg for Kitchen and café (SABS 0400: TT37.5) 2 escape routes (> 25 people)
Facilities required	Tables and chairs Partitioning for different spaces: min 500 mm high
Critical aspects	Space should be accessible 24 hours / day, and be used separate from more secure spaces such as the computer labs. Placement does not require being completely separate from other activities, but there should be a psychological threshold which separates it as a more serious and quiet space.

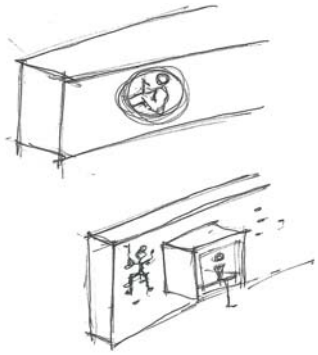


07.67 Concept development: figure ground development



07.68. Usage of unattractive facility as recreational space with different activities

07.69. The climbing wall



07.70. Concept sketches: usage of structural walls for recreational activities

RECREATIONAL ACTIVITIES

A climbing wall could be potentially dangerous if its use is unsupervised, but the aim of activities such as this is to attract people of different abilities. Therefore, the climbing wall, available to all, will have grips only to a height of 2,5 m,. thereby reducing the chance of users' sustaining serious injuries.

Basketball hoops placed at random spots encourage single or group play integrated with other activities.

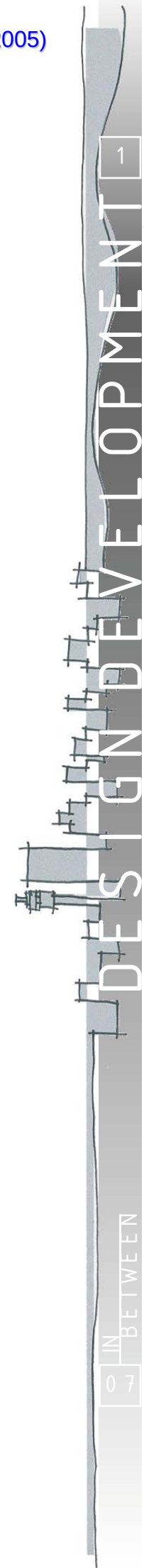
The ramps and route of the skate park is integrated with the ramp and development, thereby increasing spectator value and surveillance.

The fitness centre opens towards a hard-surfaced gathering space to the west; it supports activities such as using basketball hoops and skateboarding.

The fitness centre opens up towards the east and develops into a fitness trail laid out throughout the park. This trail will have facilities and equipment for use at anytime and by anyone. Facilities include benches for sit-ups, bars for pull-ups, and punchbags suspended from the ramp.

PARK

Benches placed along routes
Park-facilitated activities such as picnicking and games



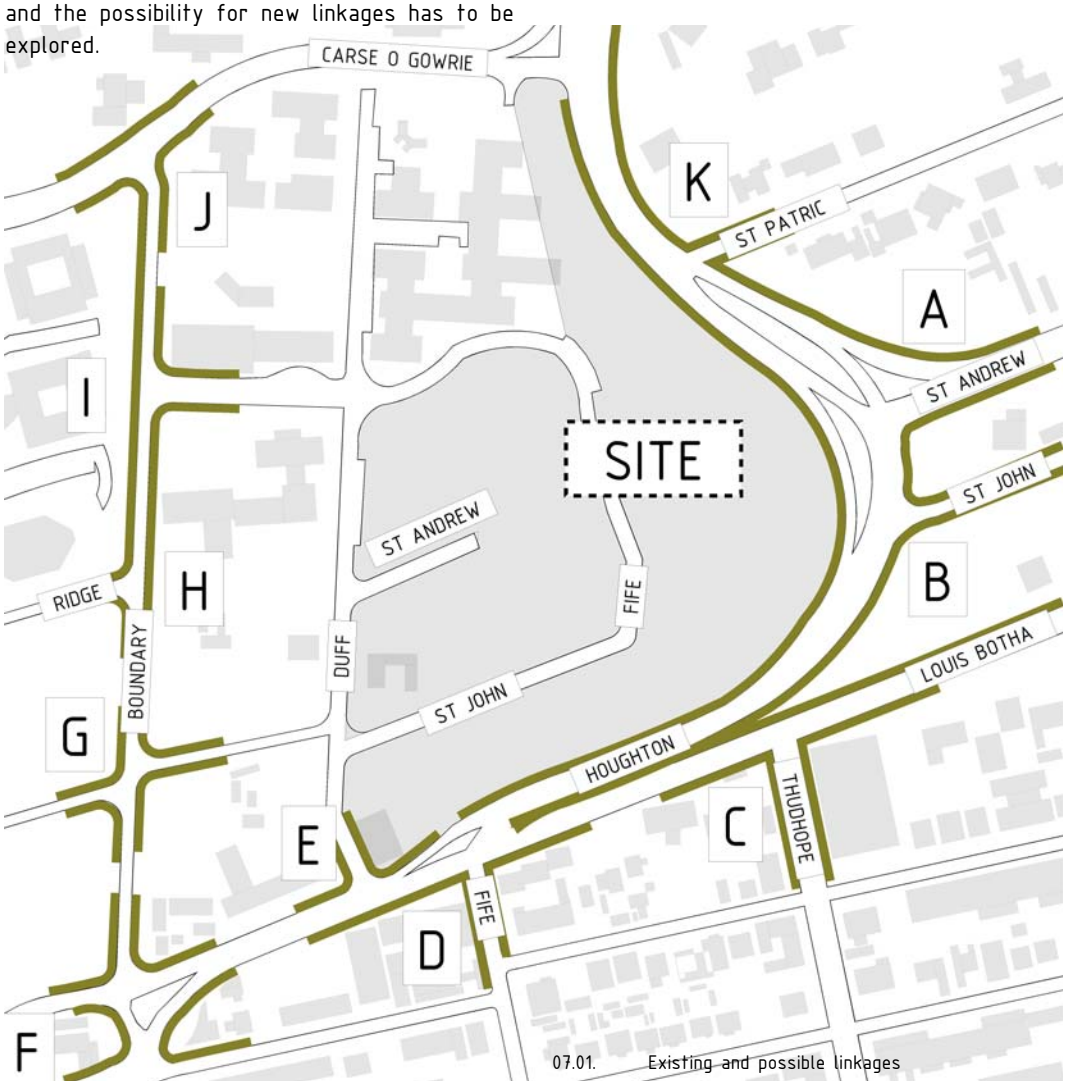
DESIGN AIMS

The development of such a large site so near the inner city will flame debate from both a commercial and an environmental point of view. The aim will be to create a responsive area that would support and enhance the existing functions in the area. Because the site is cut off from its surroundings, the proposal is to reintegrate it with the existing fabric and to create an environment that will draw in people from the very different and segregated surrounding spheres. The focus will be on the creation of platforms for 'accidental interaction' while nurturing the green character of the area. 'accidental interaction' is the creation of spaces and functions that promote exposure to activities which the user did not plan to do.

Looking at the site, one's first reaction would be to increase permeability to make the green space accessible to the surrounding communities. Therefore, existing linkages have to be analyzed and the possibility for new linkages has to be explored.

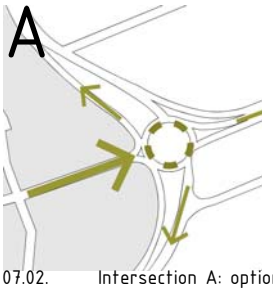
LINKS

The site is perceived as an island, and although accessibility should be increased, the character of the site should be conserved to retain the experience of an urban sanctuary.

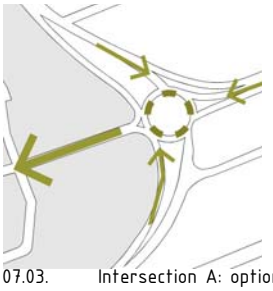


07.01. Existing and possible linkages

A

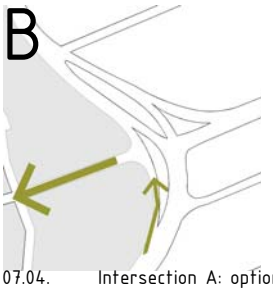


07.02. Intersection A: option 1

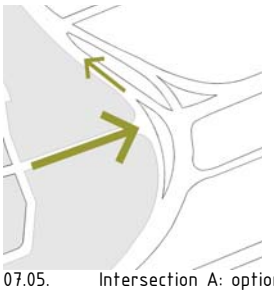


07.03. Intersection A: option 1

B

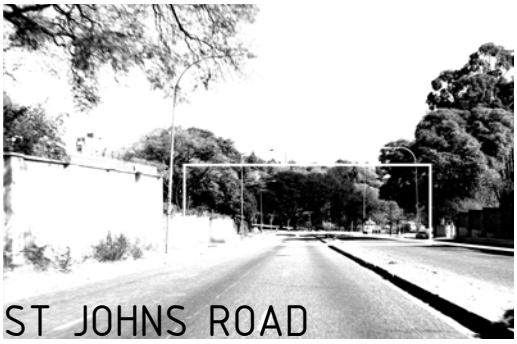


07.04. Intersection A: option 2



07.05. Intersection A: option 2

07.06. View of the site from St Johns Road



Linking Houghton Road with the site at this point would achieve optimum access to the site.

STRENGTHS: This link will give access from Houghton and St Andrews Street and slow down traffic on Houghton Drive.
WEAKNESSES: This link will diminish the existing tranquil, green-island character.
Because of the complexity of the existing intersection, two options were explored.

OPTION 1

Mr Louis Roodt (personal communication 2005), a traffic engineer at the University of Pretoria, suggested a traffic circle to link St. Andrew Street with the site (07.02. and 07.03.).
It would have the following advantages:

- The diversion from normal flow would slow speeding traffic.
- Linking the site with the existing road network through the use of a traffic circle allows for the best permeability and accessibility to the site.

Such a connection would create an elaborate gateway to the site which would have to be justified through the functions and density of the development.
Other considerations are the following:
Such a connection creates an elaborate gateway to the site, which would have to be justifiable through the functions and the density of the development.

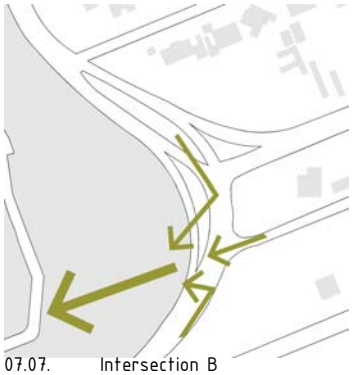
OPTION 2

This option is a connection that gives access only to traffic moving north on Houghton Drive(07.04. and 07.05.). It will create the least disruption to existing roads and traffic flow.

CONCLUSION

The site is a green retreat, a cut-off island, and this quality requires the intervention to be more sensitive to the character of the site. Although accessibility to the site should be increased to achieve the desired permeability from all sides, its character should be respected. Therefore, the brutalization of the site by the creation of inappropriate vehicular links is not the direction the project needs: in turn, such interventions require appropriate levels of commercial development to justify the links, thereby diminishing the character further. The investigation should therefore respect the site to find and reinforce its 'spirit of place'. For this reason, the site is kept as is on the eastern side to conserve the experience of an urban sanctuary.
Pedestrian flow along Houghton Drive will be diverted through the site and over the pedestrian bridge to Berea. Vehicular traffic will be directed by means of signage to vehicular access points.

B

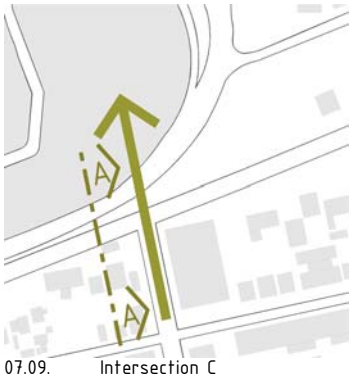


07.07. Intersection B

The conditions of this link is similar to those of intersection A. But St Johns Roads is a quiet residential road that is closed off for controlled access. Therefore a connection at his point would not be justified.

07.08. View of intersection B

C



07.09. Intersection C

Vehicular link impossible owing to topographical difficulty.

The topography allows for a pedestrian bridge to cross Houghton Drive easily, thereby linking Berea to the site. The existing traffic light will ease pedestrian flow.

07.10. Section AA

07.11. Louis Botha Stone retaining wall

D

07.12. Intersection D

Fife Street is a one-way street towards Berea.

At this point, Houghton Drive slips away from Louis Botha Avenue, and Mr Roodt (personal communication: 2005) remarked that such a connection would create too many traffic problems and should not be considered. The close proximity of existing traffic lights prevents the use of another set of lights at this point.

07.13. View from site down Fife Street

07.14.
Intersection E

At the moment only traffic driving east on Louis Botha Avenue can access Duff Road. Due to difficulty level of current intersection it will not be altered

07.15. View from Duff street towards Louis Botha

F

07.16.
Intersection F

At the moment only traffic driving east on Louis Botha Avenue can access Boundary Road. Therefore a traffic circle could give access to traffic driving west on Louis Botha and from Hillbrow as well.

07.17. View from boundary road towards Louis Botha

G

07.18.
Intersection G

This existing connection will be enhanced

07.19. View towards site

H

07.20.
Intersection H

Create a road linking Ridge Road with St. Andrews.

07.21.
Intersection I

Enhance existing connection

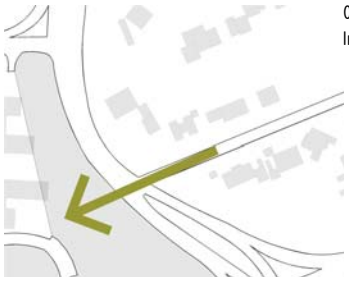
J

07.22.
Intersection J

Enhance existing connection to Parktown

07.23. The Isle of Houghton gatehouse

K



07.23.
Intersection K

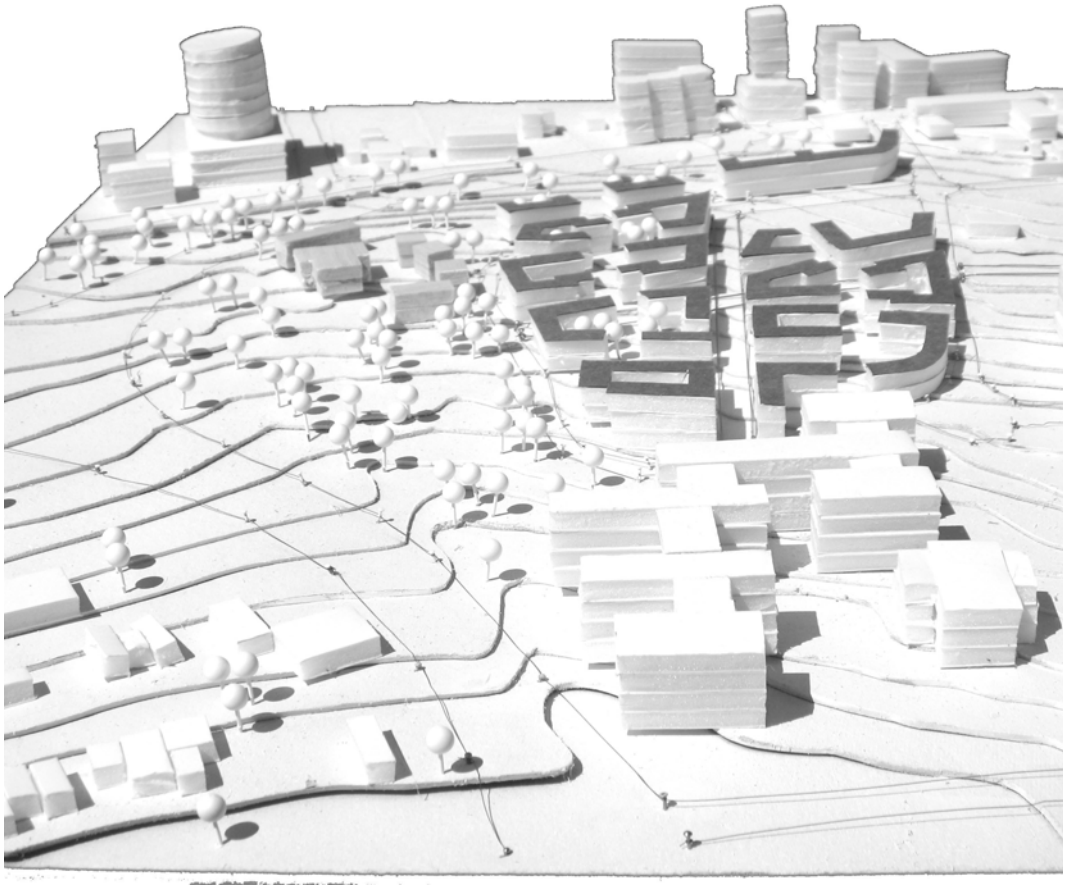
Topographical difficulty

07.24. View of intersection K

CONCLUSION

Because of its context and relationship with the segregated realms, the site presents the opportunity to be utilized to make the journey, both physically and emotionally, from urban to natural. This is evident in the way the site reaches from Berea and Hillbrow in the north towards The Wilds, a nature conservation zone, in the south. The proposed pedestrian link provides the opportunity to bridge the gap between inner-city living and outdoor recreation.

Therefore, the scale and density of the development on the eastern side should be appropriate to emphasize and celebrate the green link. The impact of the link should be intensified by upgrading the streetscape of Thudhope Avenue.



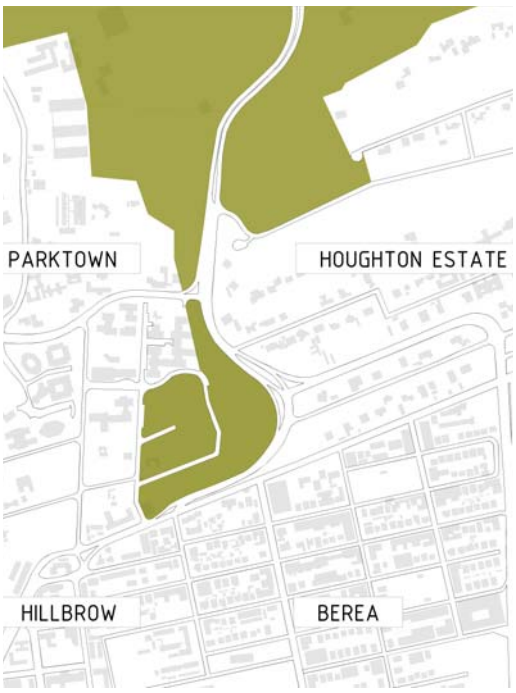
According to a recent SAPOA Office Vacancy Survey in the Killarney / Houghton there is 95,267m^2 of rentable 'A' grade office space, of which 8% is currently vacant, the trend is that the vacancy rate is continually decreasing. The median gross asking rental is R75.00 per m^2. This is an indication of a stable, up market office environment (Fernridge Consulting, 2005).

Because of the evident sufficient supply of offices and a need for housing for students and young working people, the development will focus on high-density housing and recreational facilities.

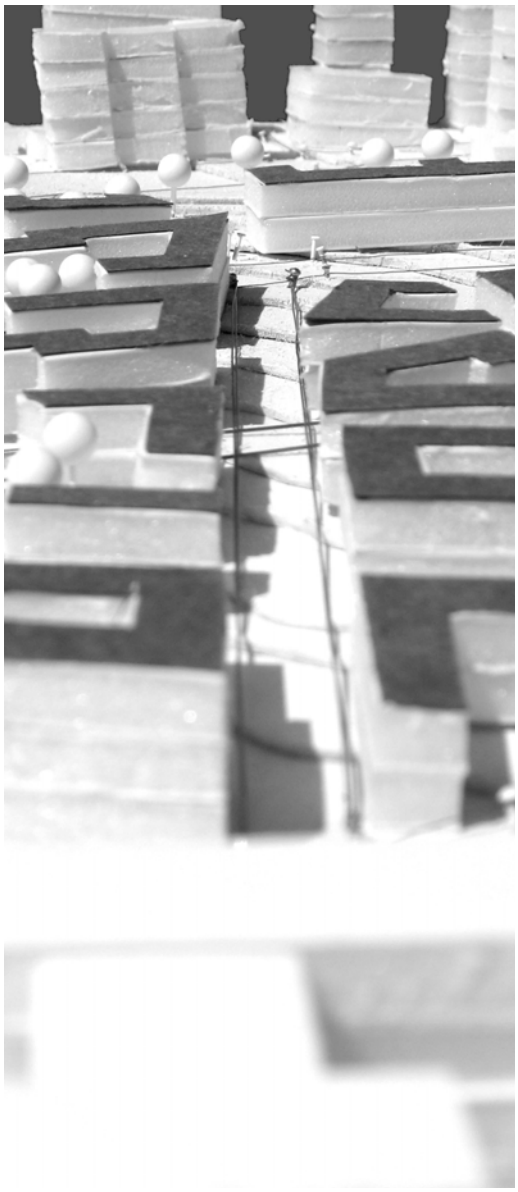
Figure 07.25 indicates current green and undeveloped areas. The aim is to render the western part of the site indicated in grey in figure 07.26 (the part of the project that is easily accessible by vehicles) appropriately dense to keep the western section (indicated in green) of the site's green park-like character and to reinforce pedestrian accessibility to the site. This accessible green space aims at linking the urban environment with The Wilds, a conserved ridge, to the north.

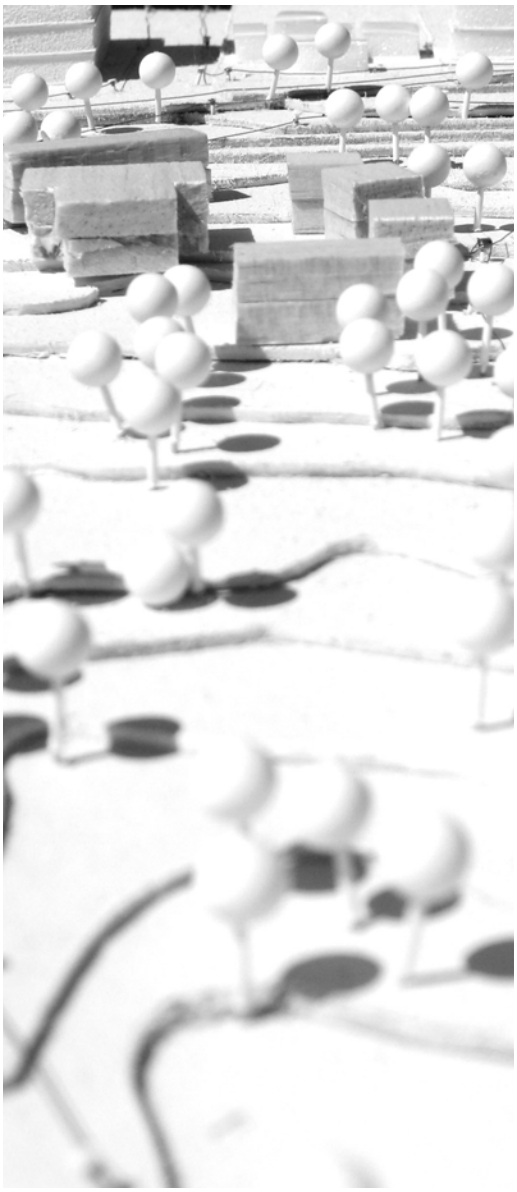
Within the public park section, the thesis project, a community facility aimed at youth and recreational activities, will be situated. The intensity of the development on the western side will, socially and financially, validate the development of public open space in the already lush eastern side.

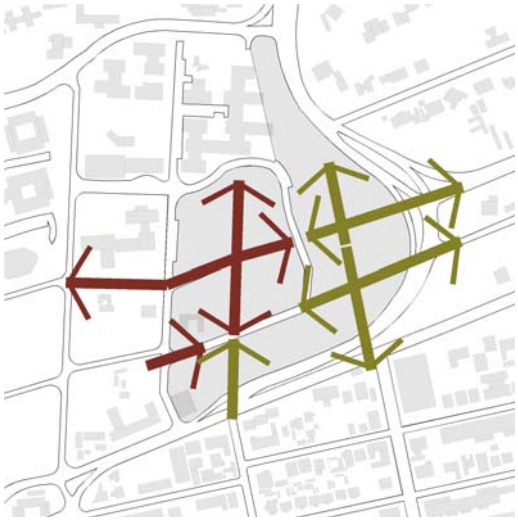
07.25. Green link towards the South



07.26. Develop Western side in order to preserve eastern side







07.27. Existing and possible linkages

PHYSICAL LINKS
VISUAL LINKS

07.28. Viewlines from development to preserved green link informs the pedestrian connections

HIGH DENSITY RESIDENTIAL BLOCKS
VIEW LINES

07.29. Proposed perimeter blocks

HIGH DENSITY RESIDENTIAL BLOCKS
VIEW LINES

07.30. Proposed development with connections to the green link

NEW PERIMETER BLOCKS

FROM URBAN TO NATURAL

The accessibility of the site is inhibited on account of the topographical difficulty of the area and the strong physical and emotional barrier between north and south created by Louis Botha Avenue. To increase accessibility, the barrier should be eradicated and rather serve as a threshold to the next. Therefore, a pedestrian link is proposed. Three options were explored:

1. A crossing on ground level

Although existing traffic light at the crossing of Louis Botha Avenue and Thudhope Road is fitting this option proved unattainable owing to the speed of traffic down the hill, and traffic engineer Louis Roodt (Personal communication: 2005) believes that another traffic light at this point would disrupt traffic flow too much.

2. A tunnel

People live in small, crowded flats and move through dark, dirty alleyways. Natural sunlight is blocked out by multi-storey buildings. A tunnel does not really improve the environment and could become a dangerous, depressing, stale, uninviting and dirty space. In relation to the theory of the 'in-between', a tunnel does not physically personify the bridging of the gap.

3. A bridge

A bridge is a recognisable landmark that dims physical and psychological barriers and embodies the convergence of diverse societies. The physical bridge supports the theoretical approach of searching for the in-between. It increases visibility and surveillance of the area and the park by the movement of people across the site. The bridge provides the opportunity to provide look-out points, which could frame the surroundings, to make people more aware of their environment.

on ground level

07.31.

a tunnel

07.32.

a bridge

07.33.

07.34. View from St Johns - Roedean pedestrian bridge

07.35. The Wilds pedestrian bridge

07.36. St Johns - Roedean pedestrian bridge

A bridge entails design difficulty (or opportunity) on account of the use of ramps to manage an all-inclusive environment; this challenge is further complicated by the steep fall of the site. However, this option was chosen because the opportunities outweighed the problems. The pedestrian bridge element is contextually used twice to link the east and west across Houghton drive. The one bridge links the ridges of The Wilds, the other, more recent structure links St. Johns College with Roedean High school.

The pedestrian bridge connects the urban to the natural environment through the site. The journey between the linear angularity of Berea and Hillbrow to the flowing organic nature of Parktown, Houghton and The Wilds is depicted in the way the bends of the ramp start fanning out at increasing angles, while pause or stop spaces are more detailed and emphasized towards the park. This design increasingly promotes rest and interaction. The route links with pedestrian routes that pass the site to invite pedestrians and cyclists into the site and through the park.

This pedestrian and cycle route is intertwined with the structures. Thereby, the boundaries between static and active, private and public, observer and observed, and inside and outside are blurred. The route moves over, through, next to, and under some of the functions, while maintaining a good visual of interior and exterior functions. The passer-by becomes part of the activities and of the energy exerted, but is still just a by-passer, an observer. The arrangement of functions supports the transition from urban to natural by placing the more physically active and noisy functions closer to the south and filtering the noise and activity levels in phases towards the north.

07.37. View of the Hillbrow telecommunications tower from Constitution Hill

The public route is incorporated into the design with the intention of increasing the safety and security of such an open-park development. By increasing and extending energy throughout the park, passive surveillance is achieved. The elevated position of the ramp gives users a clear view of the whole facility and of the park. In this way, building users passively survey the route while route users survey the park. Numerous exits from the elevated route give users escape routes. The provision of such a route through a park facilitates the need for adequate lighting, thereby increasing visibility and use at night.

The route, which consists of a series of move, pause and stop spaces in the form of ramps, platforms and stairs, is a sensory-enticing experience, which blurs the boundaries between interior and exterior, static and moving, and private and public. The route consciously directs the user from urban to natural.

On the northern side of Louis Botha Avenue, users are directed through hard-edged linear streets. Pedestrian spaces are either completely shaded by residential blocks towering over one another or are exposed to the African sun. Streets buzz with activity and noise, and taxis hoot while racing past. A mixture of smells of vehicle gasses, garbage dumps and dinners prepared in flats fill the air. Pedestrians are directed towards the pedestrian bridge across Houghton Drive, where they swiftly move over the busy road. The pedestrian bridge culminates in a view point from where the vast openness of the sky and the contours of the landscape can be appreciated. From this point the user is lead across a series of ramps descending down into the green retreat.

07.38. View of from st johns pedestrian bridge to johannesburg general hospital

07.39. View of hillbrow and berea landmarks from houghton

PASSIVE EDUCATION

The users are passively educated about the area, local landmarks (such as the Ponte City tower, Johannesburg General Hospital, The Wilds, and the Hillbrow Telecommunications Tower), and facts about the area and Johannesburg, bringing history and context to the wider community to invest a sense of ownership and pride in the area in which they live.

People know very little about their surroundings and its history; their attributes are often mentioned at tourist attractions only. Inspector Naidoo (personal communication: 2005) relates that such an ignorance is especially pertinent in this context towing to the transient quality of the area. People are not emotionally grounded in the area; it is perceived as a temporary stop. The aim here is to emphasise the landmarks, special features and qualities of the area by framing the view and noting features from viewing platforms on the ramp, where seating is provided next to the movement zone. Hereby, the man on the street, which has neither the time nor the interest in the attributes of his community, is (accidentally) exposed to and informed about the area. People are accidentally educated and made aware of their surroundings. The context specific information is intended to harvests a sense of being part of a greater community and history.

TEMPORARY EXHIBITION

The temporary exhibition includes the work of local Johannesburg artists and also pieces produced within the centre itself. The exhibition will be housed in the exhibition foyer and will be a space where people will be accidentally exposed to the work.

07.40. View of from the St Johns pedestrian bridge towards The Wilds

Being integrated into the development, the public route needs to be divided into areas depicting different movement and interaction patterns.

DYNAMIC SPACE (fast moving)

Movement through space creates a continuity of experiences derived from the nature and form through which the movement occurs' (Bacon 1975). Dynamic spaces create barriers needing some effort to cross, and little interaction occurs.

PAUSE SPACE (Slow moving)

'The social intercourse created when people rub shoulders in public is one of the most essential kinds of social "glue" in society' (Alexander 1977). Pause spaces enhance the experience of a space as people are given a chance to interact with each other and to interact with the space itself. Such spaces are inferred by the provision of niches and spaces where people can regress from a dynamic movement zone and sit on a bench or look at the merchandise of traders. The introduction of pause spaces slows down movement, resulting in increased interaction. Sheltered spaces, either natural or manmade, provide shaded gathering points.

STATIC SPACE (Non-moving)

'Together these two elements, the architecture of movement and the architecture of repose make up the city as a work of art, and this is the people's art' (Bacon 1975).
Static spaces create an opportunity for visitors to appreciate the space over time. These are spaces for contemplation and interaction; they are inferred by the creation of sheltered and shaded spaces with a degree of privacy and isolation, while remaining part of an active space. These spaces are differentiated from dynamic ones by means of changes in materials and textures, while increased detailing makes them spaces of interest.

The journey is perceived as a sensory experience in which one is made intently aware of the progression made from urban to natural and one is able to orientate oneself through senses other than sight.

The route supports a great deal of activities that should attract users with different athletic and mental abilities or interests. It should encourage jogging, cycling, skateboarding and roller-skating and other activities to take place along the route.

SENSES	URBAN	INTERVENTION	NATURAL
SEE	Cars, high-rise buildings, street vendors	Pedestrians, children playing	People strolling, picnicking, resting, playing
HEAR	Vehicle engines Taxis hooting	Music from the dance studios and music training rooms Children in play areas Teens shouting while playing basketball Differentiate between the sound of small and big wheels (bicycles and skateboards) on the surface	Birds Wind through the trees
FEEL	Cold smooth concrete Hot tar surface Hot exhaust fumes from vehicles Interplay between hot, full exposure to the sun and completely shaded, cool areas	Textured wood Sheltered spaces with a soft, filtering effect, providing cool spaces like those experienced under trees where warm rays filter through the dense leaves	The use of smooth textured materials such as concrete accentuating the paths and benches within the natural environment.
SMELL	Exhaust fumes	Trees, grass, food and refreshments served in the café, mealies braaied by vendors for people returning from work.	Trees, grass

07.41. View of the intersection of Houghton drive and Louis Botha Avenue

07.42. View of from st johns pedestrian bridge to johannesburg general hospital

07.43. View of the Hillbrow telecommunications tower from Constitution Hill

07.44. View of from the St Johns pedestrian bridge towards The Wilds

PHYSICAL JOURNEY

CROSSING THE BRIDGE

Dynamic space: space that provides an unobstructed continuation of movement.
Pause: An informal retail space gives an opportunity to pause.
Static space: Static space is provided by the proposed café, where people can sit.

FIRST VIEWING PLATFORM

Dynamic space: space that provides an uninterrupted movement towards the ramp.
Static space: space to stand or sit at the edge towards the vast openness to the south. The view entails the green character of Houghton, the profile of the ridges of The Wilds and the open sky. The position clears the treetops by a few metres; therefore, it as an uninterrupted view towards the vast openness.

SECOND VIEWING PLATFORM

Dynamic space: space that provides an unobstructed continuation of movement down the ramp.
Pause: significant elements in the area are framed or pointed at while supporting information can be read on a notice board.
Static space: space that provides seating and an unobstructed view.

The platform points towards the west; therefore, the south-western side of the static space is dedicated to Parktown and the north-western side to Hillbrow

THIRD VIEWING PLATFORM

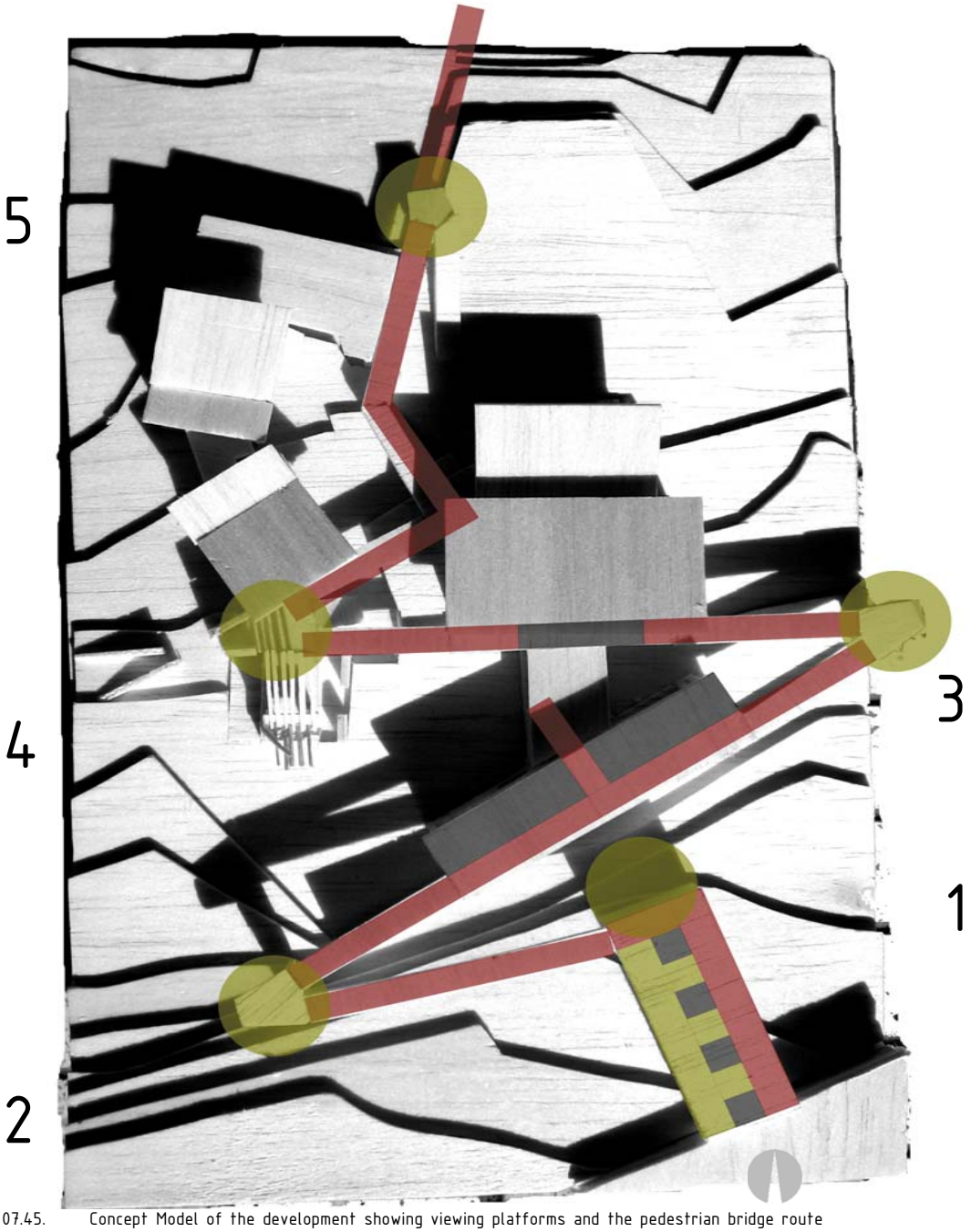
Dynamic space: space that provides an unobstructed continuation of movement down the ramp.
Pause: significant elements in the area are framed or pointed at while supporting information can be read on a notice board.
Static space: space that provides seating and an unobstructed view.

The platform points towards the east; therefore, the south-eastern side of the static space is dedicated to Houghton and the north-eastern side to Berea and Yeoville
The ramp cuts through the multi-use hall; spaces are provided next to the dynamic zone where people can sit and watch performances or games within the space

FOURTH VIEWING PLATFORM

The platform also serves as a landmark element signifying the entrance foyer, while the ramp itself demarcates perimeter of the foyer
Dynamic space: space providing an unobstructed continuation of movement down the ramp and stairs.
Pause: A notice board informs about events and happenings.
The open-volume foyer space is used as an exhibition space. With this arrangement, the wider public is 'accidentally' exposed to the arts.
Static space: space that provides seating and a view of people entering structure.

The route supports a great deal of activities that should attract users with different athletic and mental abilities or interests. It should encourage jogging, cycling, skateboarding and roller-skating and other activities to take place along the route.



07.45. Concept Model of the development showing viewing platforms and the pedestrian bridge route

According to Van der Ryn (1986: xiii), common (threshold) spaces are very important in buildings because of their role in the buildings' energy systems. They are the interface between outside and inside; therefore, they are a source of light; a buffer zone between inside and outside temperatures; and thermal storage zones.

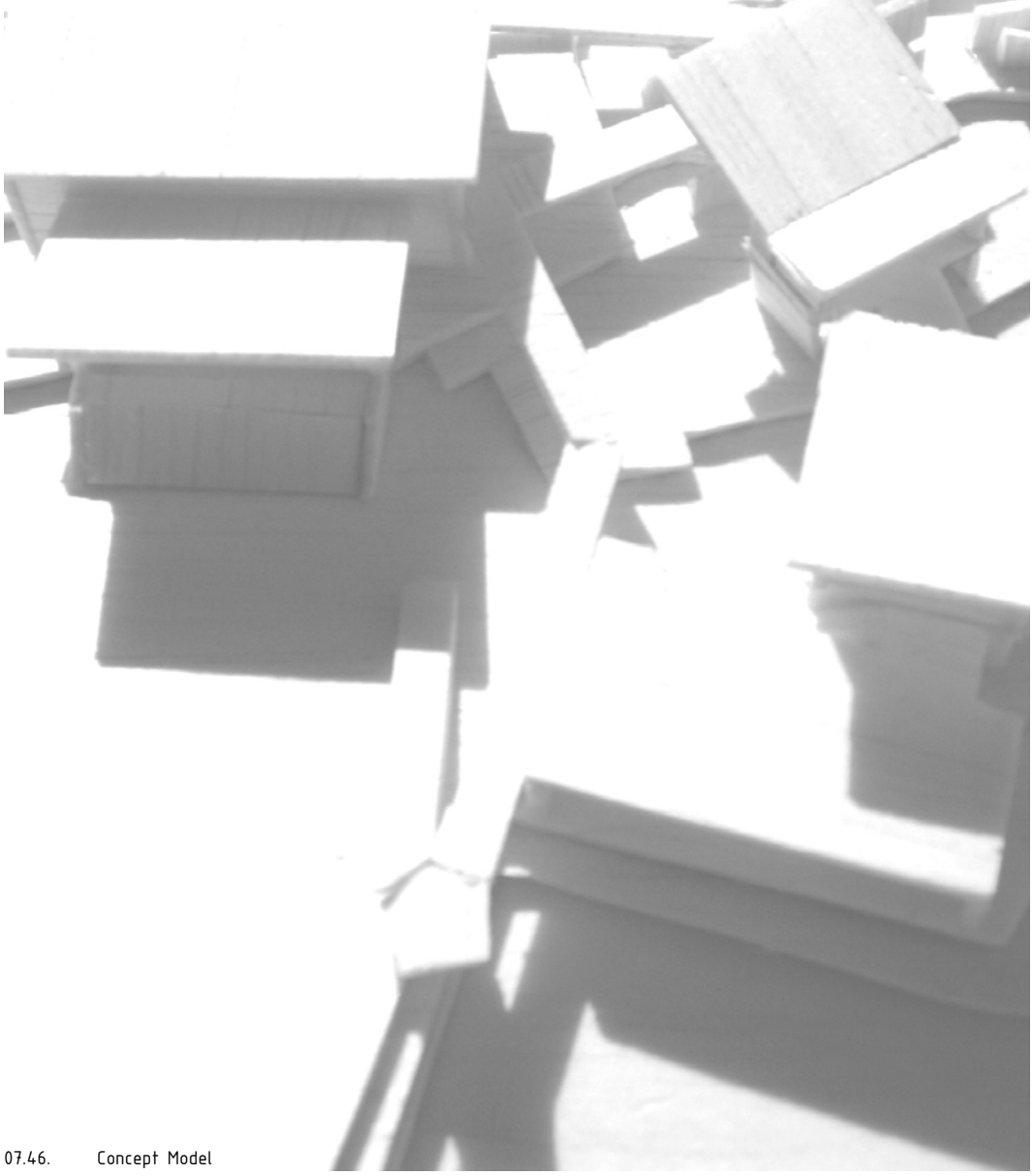
Physical thresholds are emphasized because they are the spaces where transformations between architecture and landscape; public and private; and inside and outside occur. According to Berrizbeitia (2003:82), these spaces are resistant to closure in terms of meaning of space.

The following elements can be distinguished:

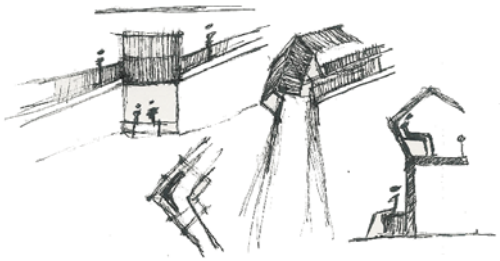
- The use of cantilever roofs increases the depth of the threshold.
- Stoeps are the threshold point where spaces are neither outside nor inside.
- Ramps are floating.

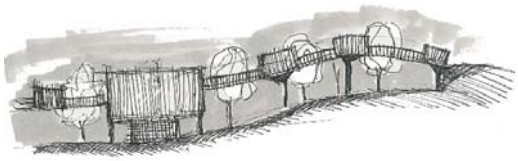
Flowing space: being outside while inside
Western solid facades need to have window penetrations to make it solid yet penetrated

'Contradictory levels of meaning and use in architecture involve the paradoxal contrast implied by the conjunctive "yet"' (Venturi 1977: 23).

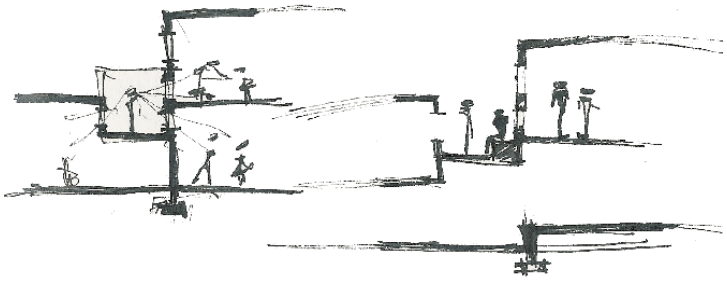


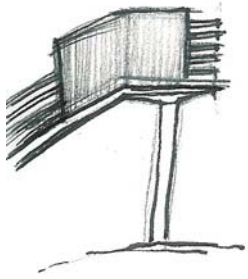
07.46. Concept Model



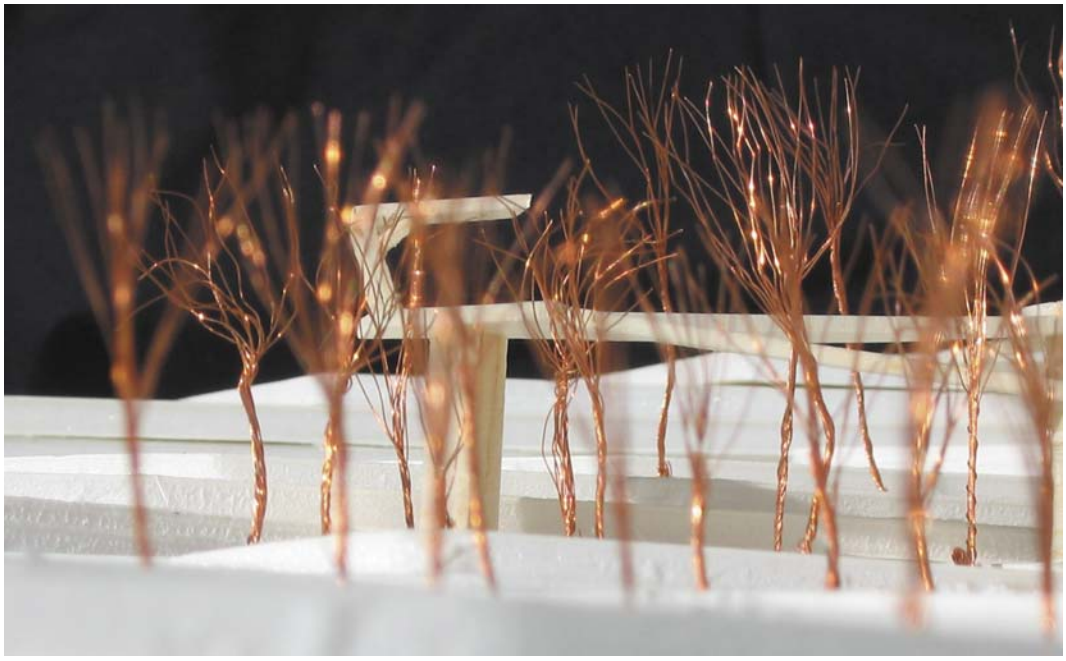


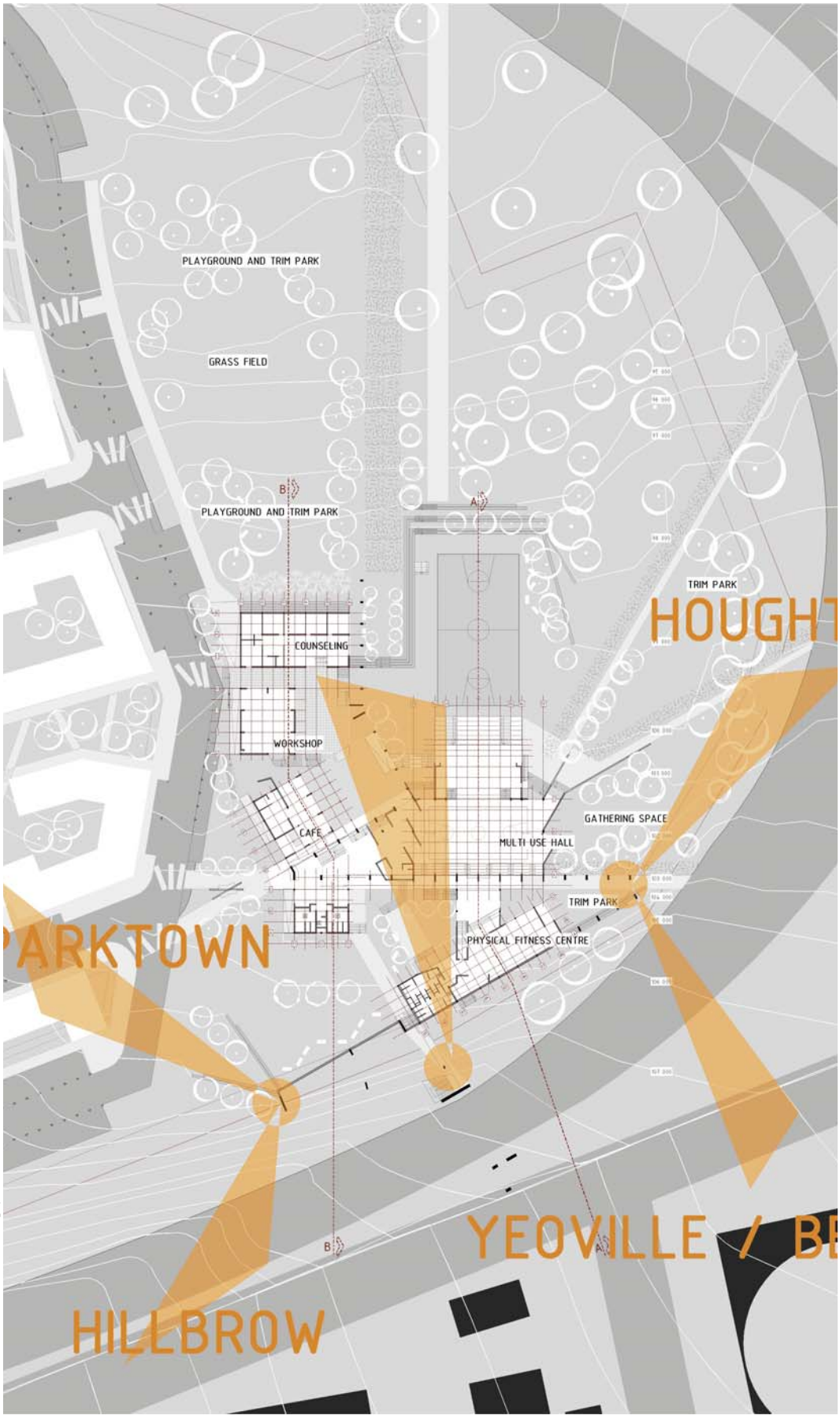
07.47. – 50. Concept development of the pedestrian bridge and its interaction with the structures





"EITHER – OR"		"BOTH – AND"
Security division	YET	Sunscreen
Roof	YET	Ramp
Public	YET	Private
Support	YET	Enclosure
Solid	YET	Penetrated
Inside	YET	Outside
Active	YET	Static





08.24. Views from viewing platforms

01_02 Water harvesting

The highest recorded 24 hour rainfall (mm/ hour) in Johannesburg is 188mm / 24 hours = 7.8mm / hour. This rate and the drainage area influence the sizing of gutters (addendum: rainfall statistics)

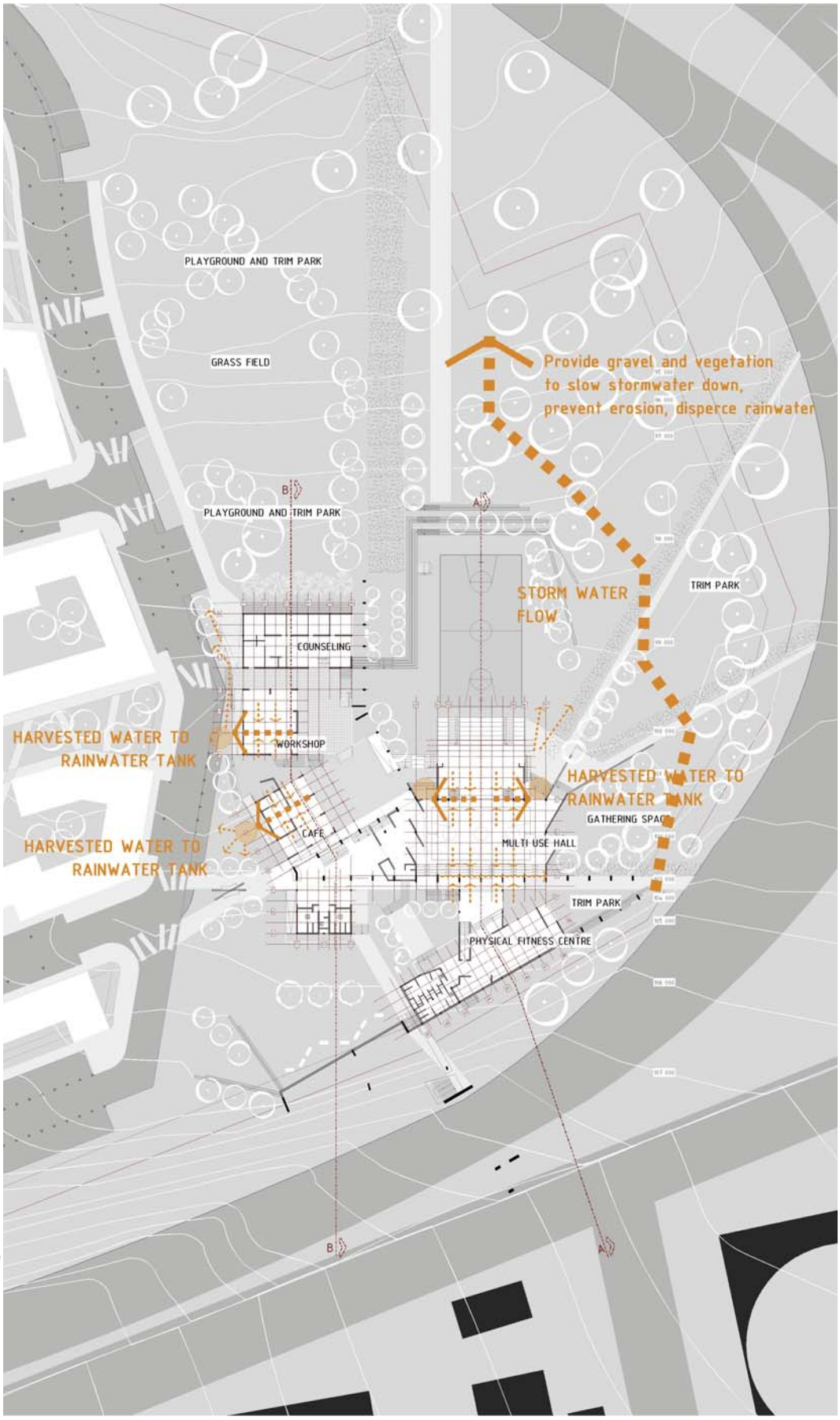
Total amount of rainwater collected from multi use hall roof:
Collected area x annual rainfall
507 m^2 x 713mm
361 491m^2/year

Size of H^2O storage
Collection area x highest month's rainfall
507 m^2 x 125mm (January)
63 375 m^3

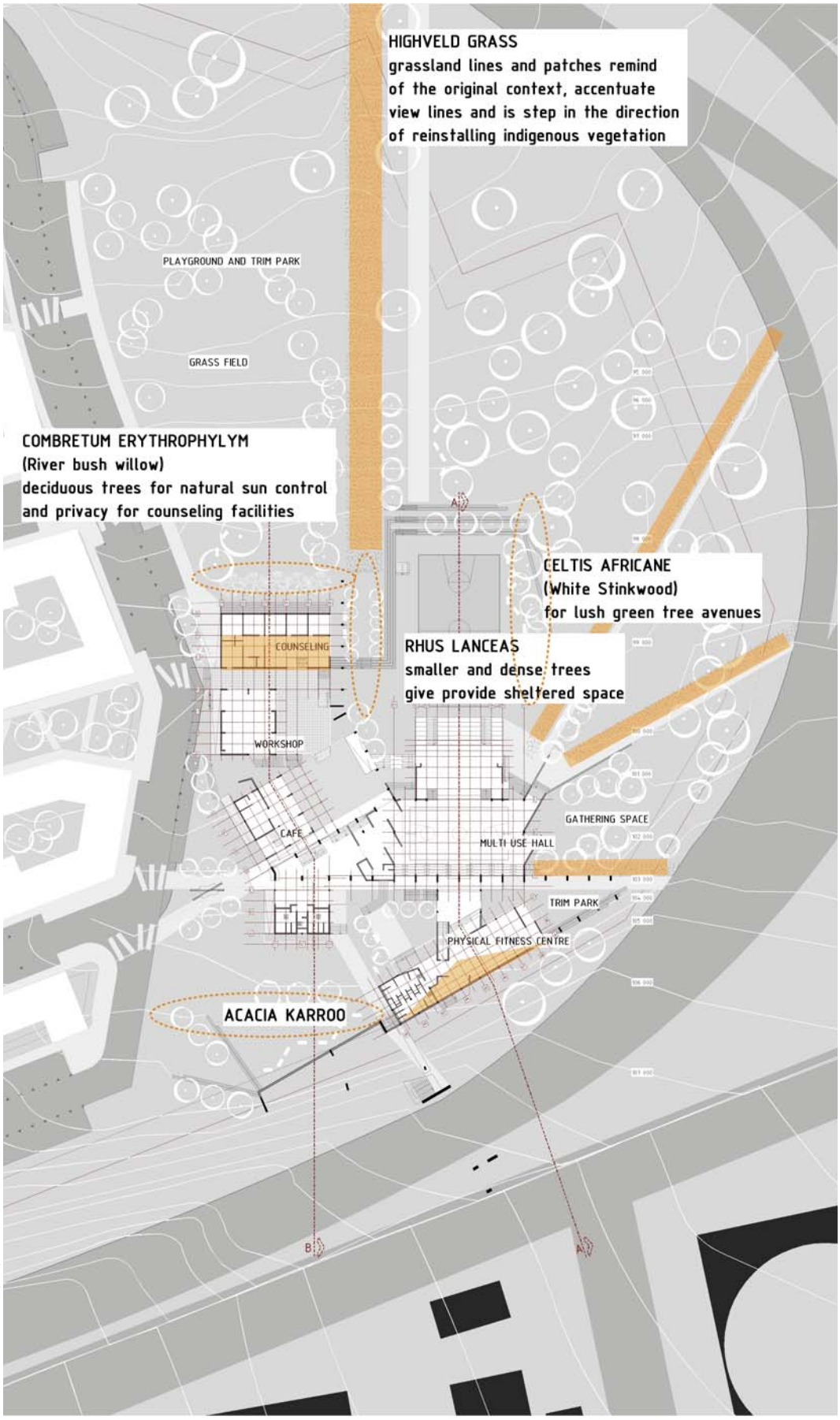
Sizing of rainwater tanks for multi use hall
R = rainfall rate = 7.8mm/hour
Litres/minute = area (m^2) x r (mm/hr)
507 m^2 x 7.8mm/hour
=3954.6 l

WATER NEEDED
150 PEOPLE @ 10 LITRES / WC = 1500 LITRES / DAY
360 000 LITRES / YEAR
90 000 LITRES / 3 MONTHS

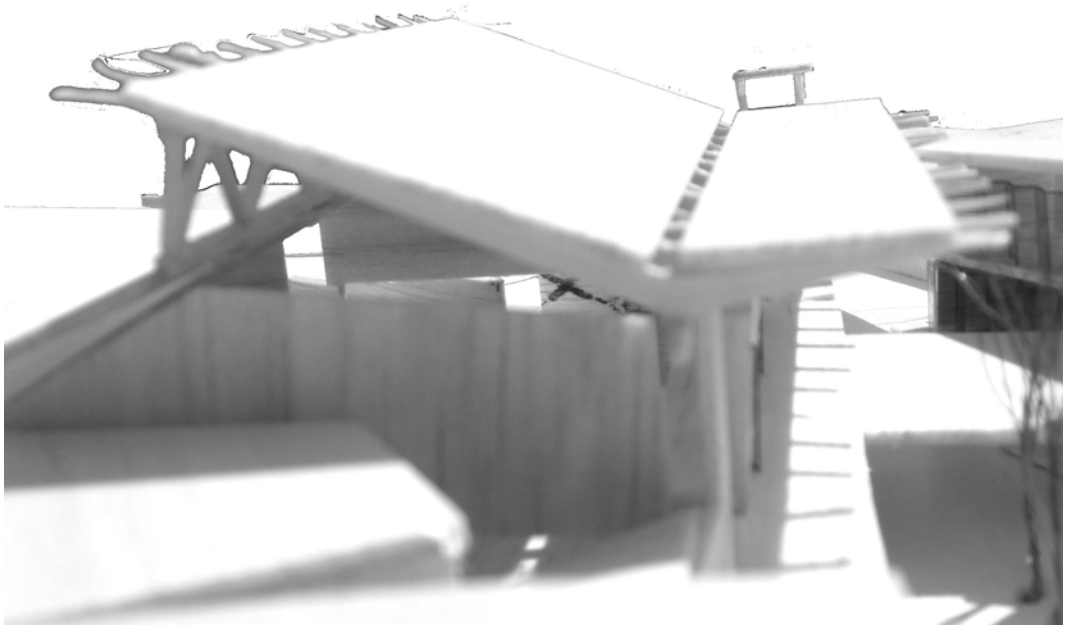
WATER STORAGE
01_03 Water storage / wc system
Harvested water is used to flush wc's for three months of the year. Water is harvested from roofs towards gutters from which it is filtered and stored in rainwater tanks. When water levels in the tank are insufficient, municipal water is let in by means of a float valve. Placements of tanks provide water to the flushing tanks via gravity.

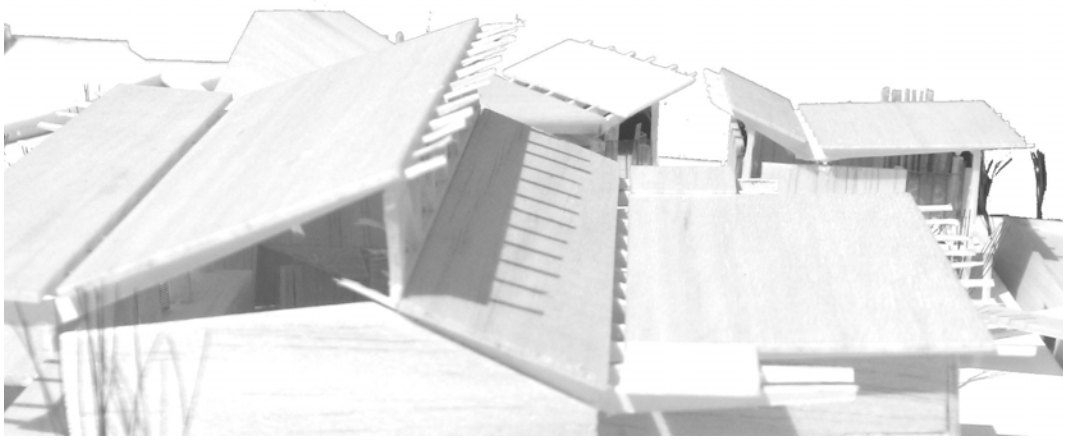


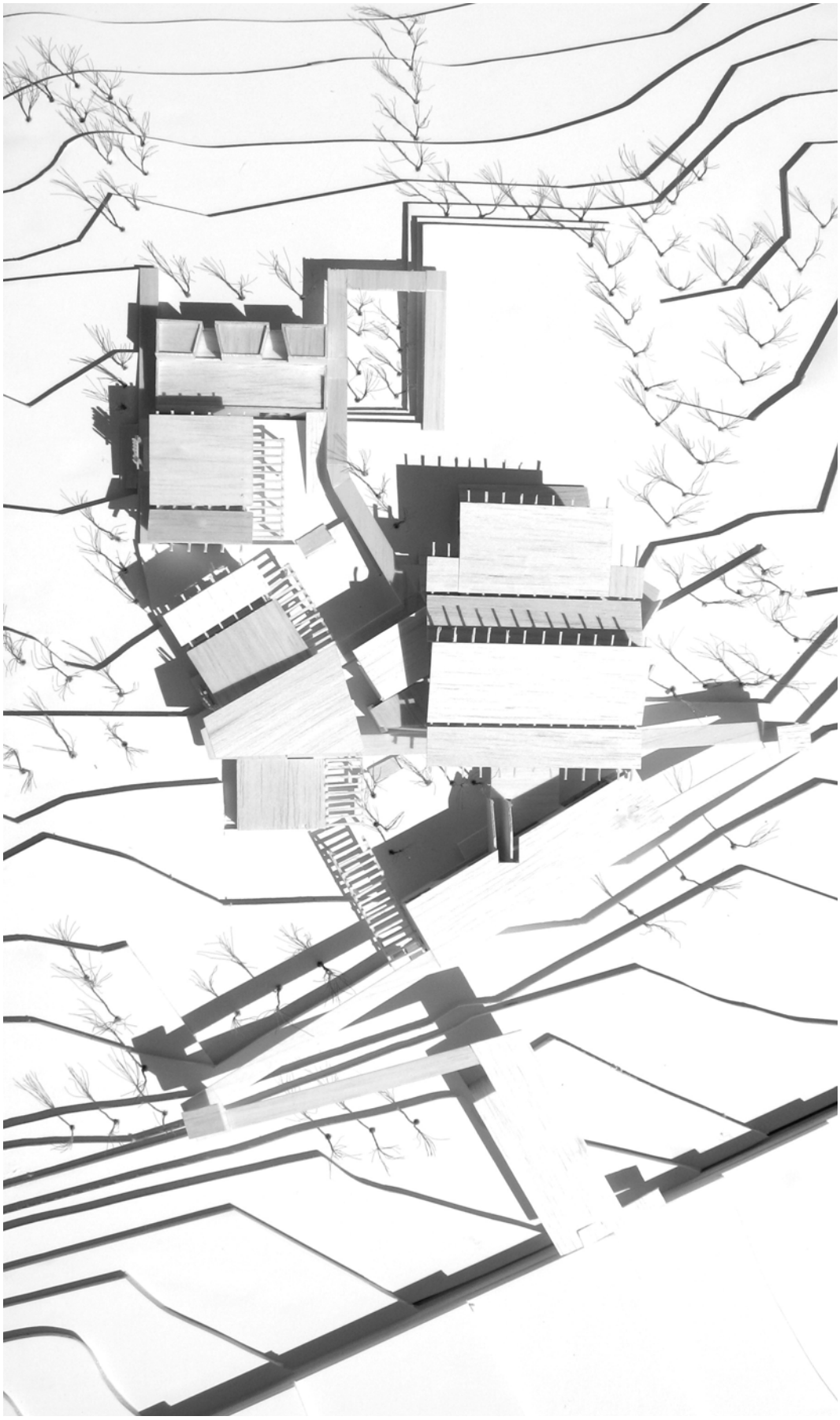
08.25. Water management

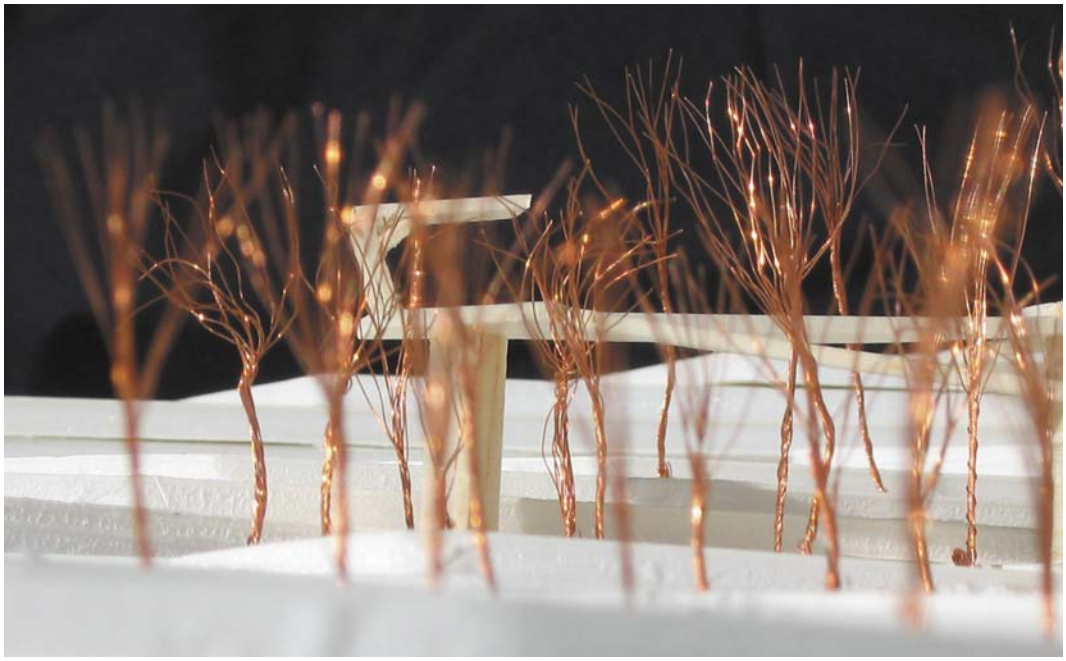


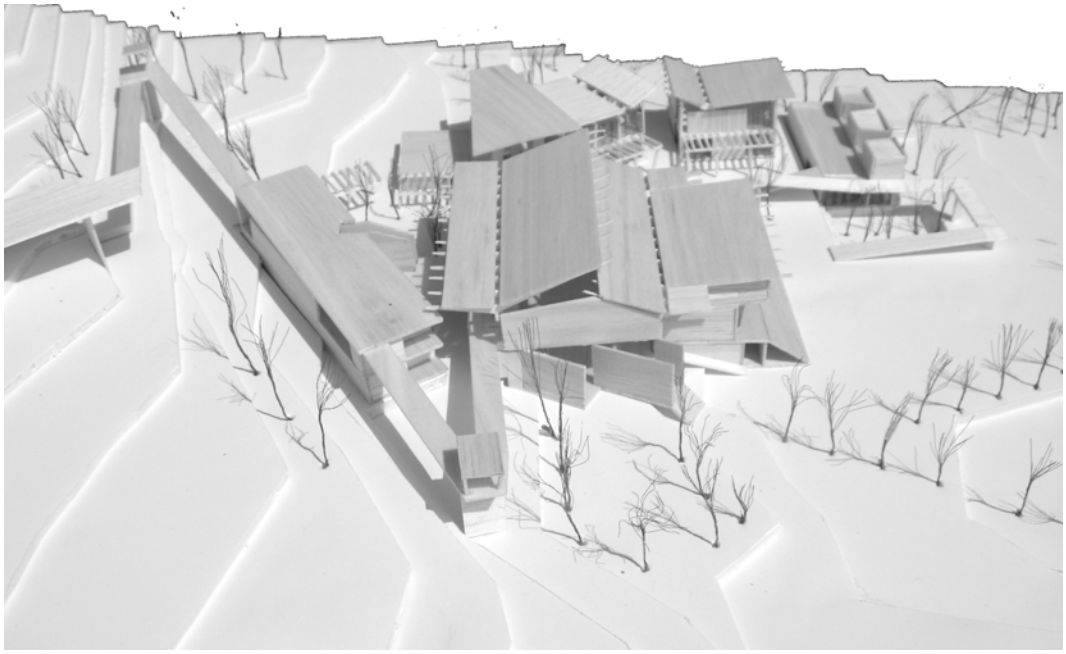
08.26. Landscape plan

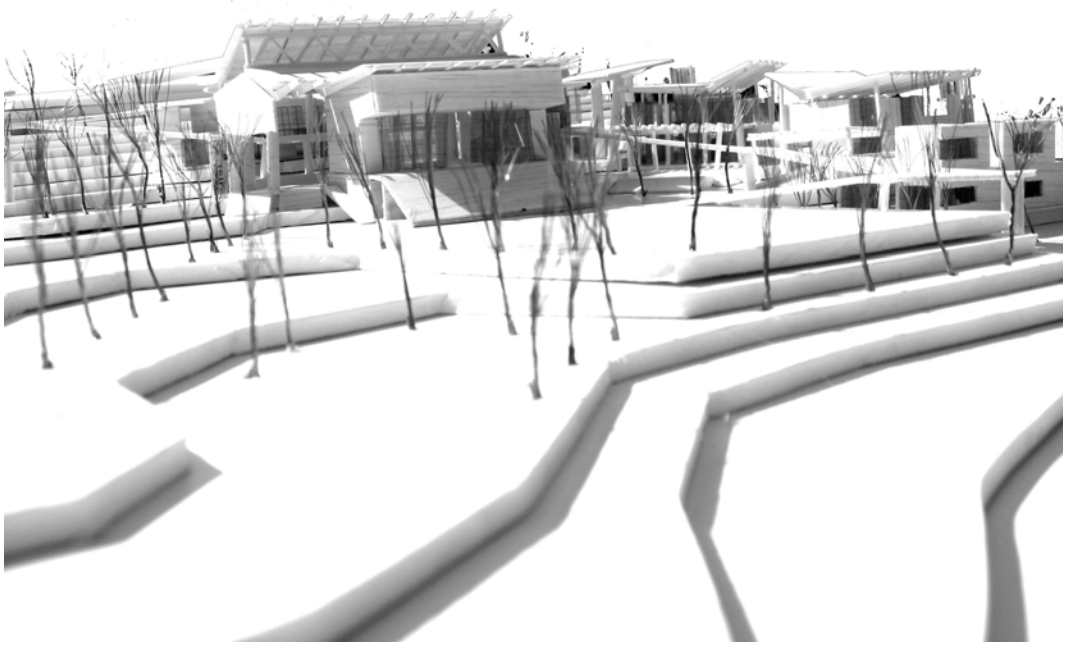


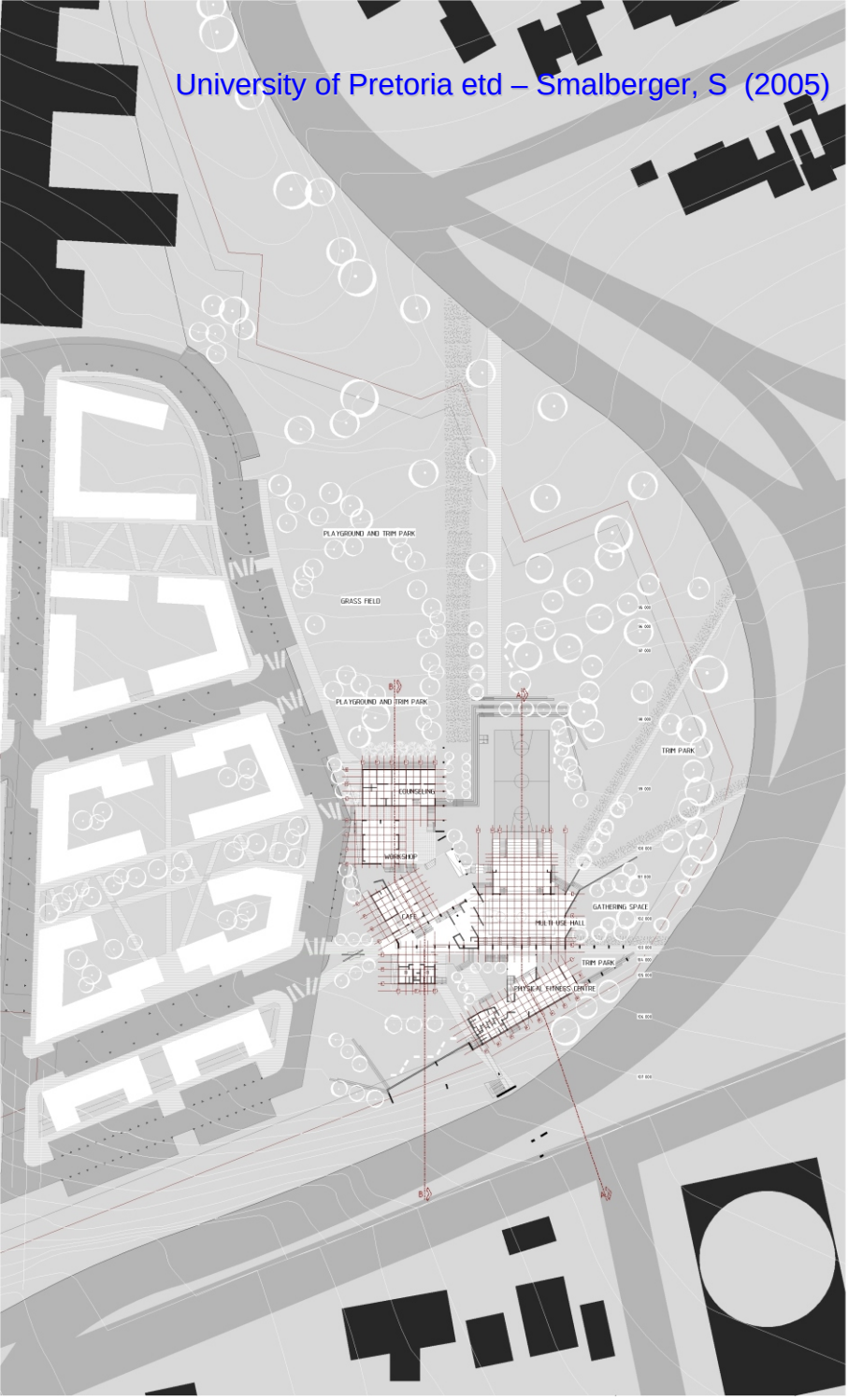




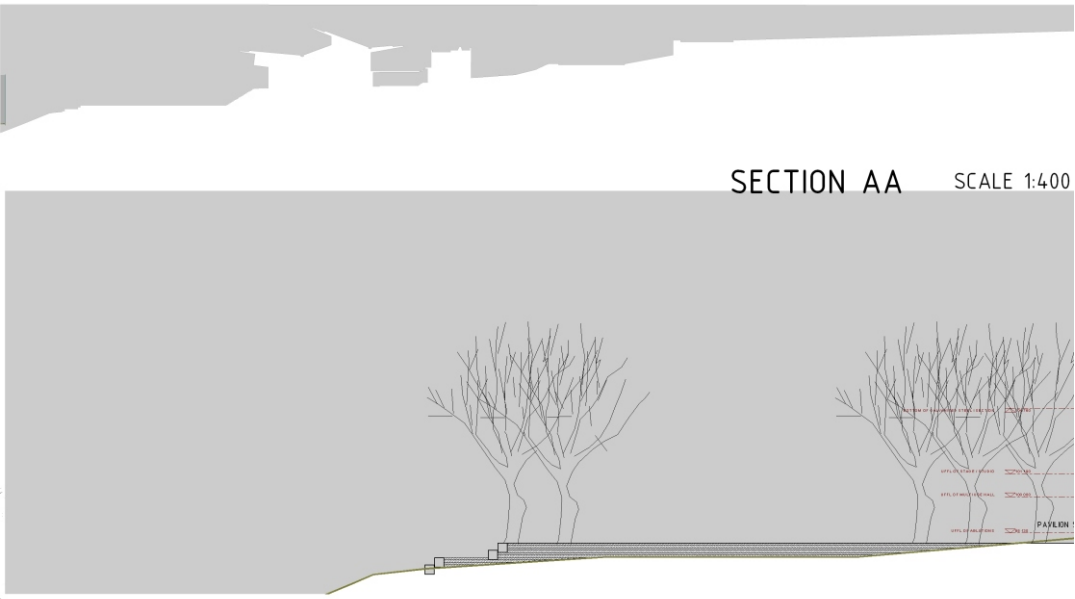








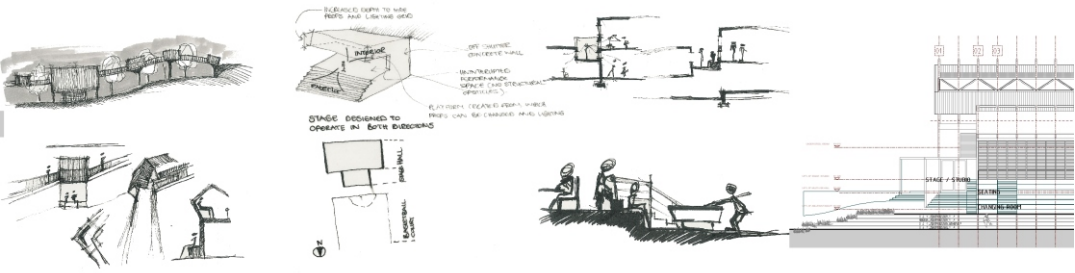
SITE PLAN SCALE 1:500

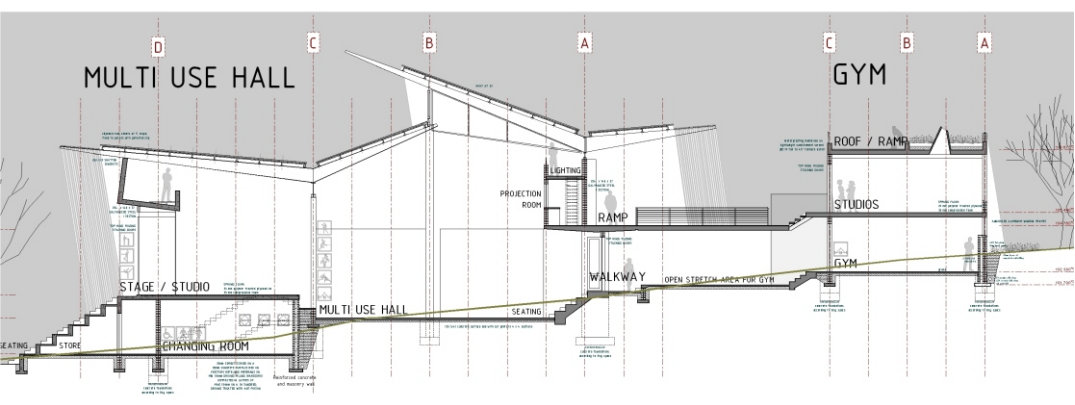


SECTION AA SCALE 1:400

LEVEL -01

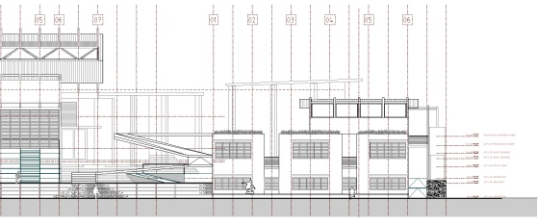
SCALE 1:200



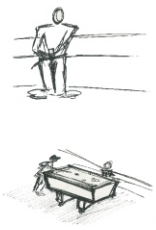


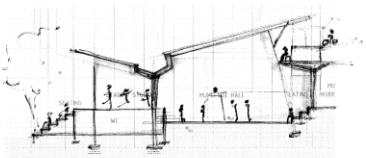
LEVEL 00

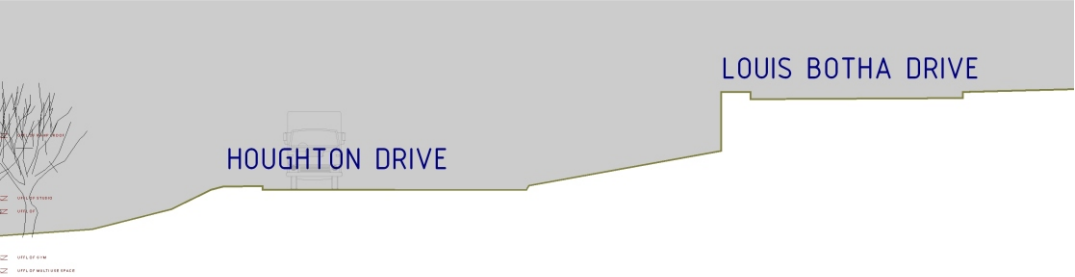
SCALE 1:200



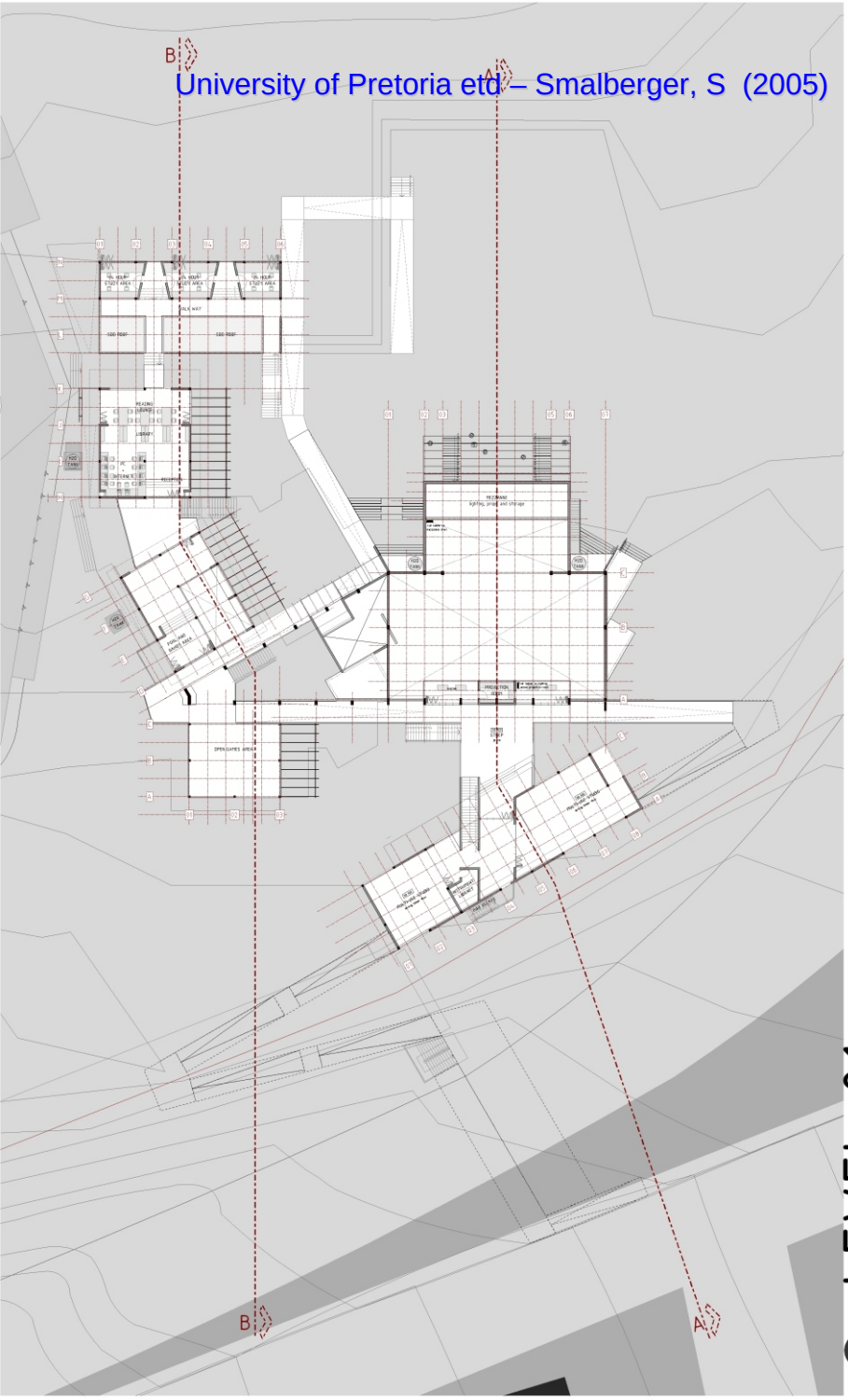
NORTH ELEVATION SCALE 1:200



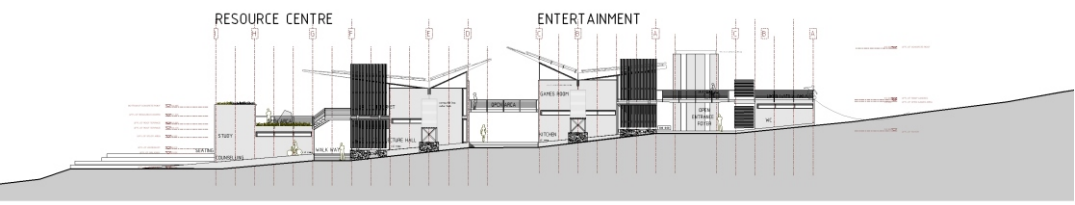




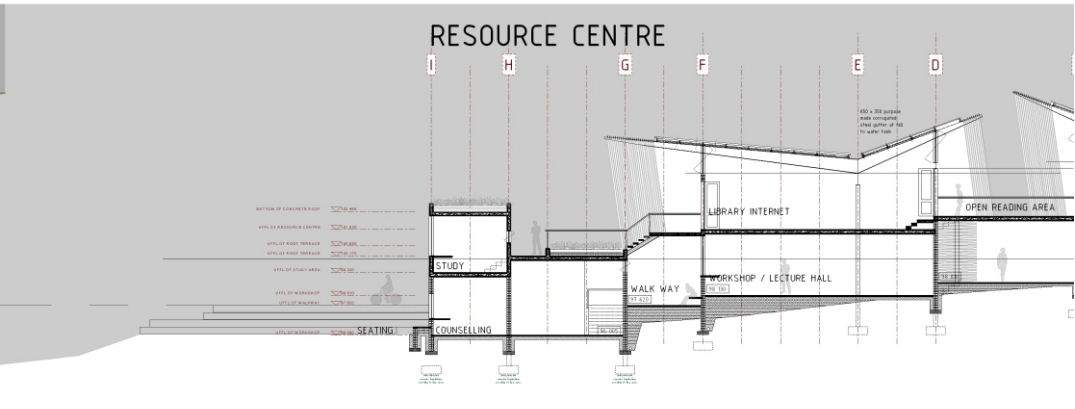
SECTION AA SCALE 1:100



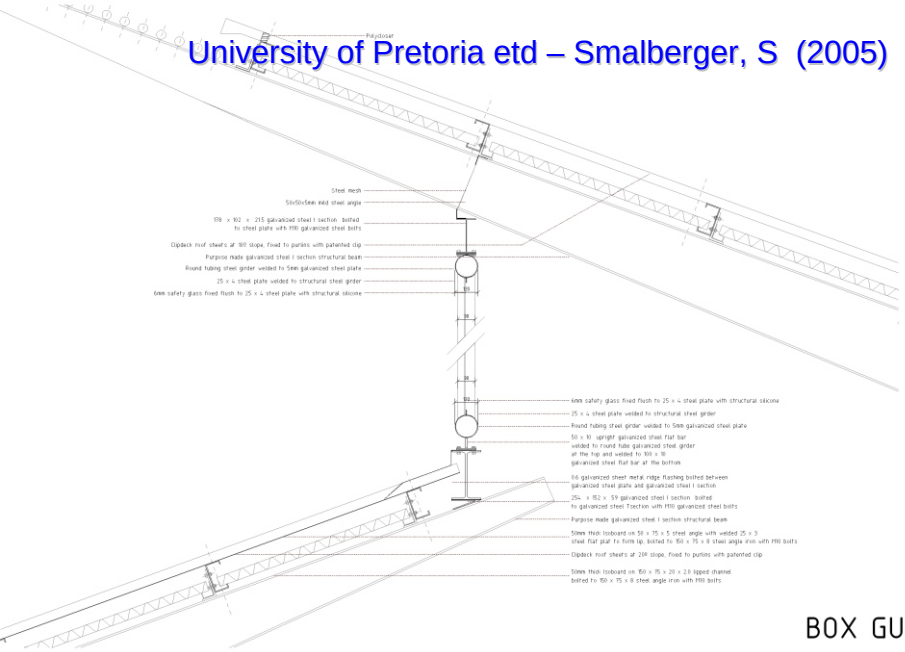
LEVEL 01 SCALE 1:200



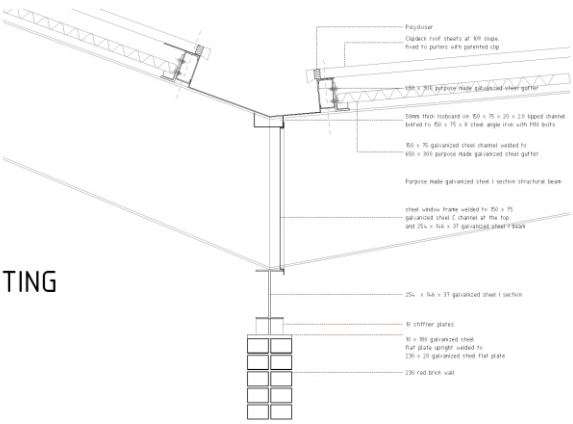
WEST ELEVATION SCALE 1:200



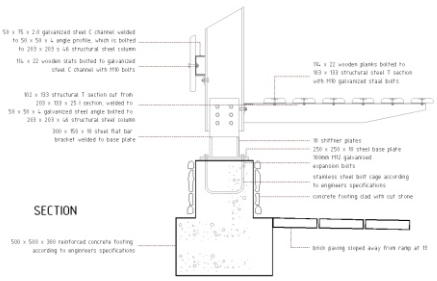
ROOF CONNECTION DETAIL
scale 1 : 10

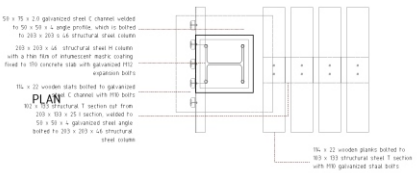


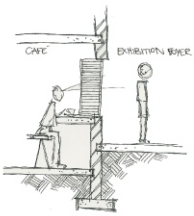
BOX GUTTER DETAIL
scale 1 : 10

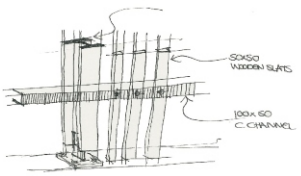


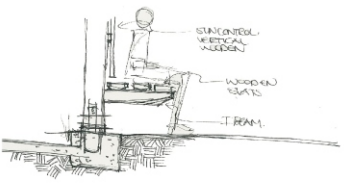
DETAIL OF SUNSCREEN AND SEATING
scale 1 : 10

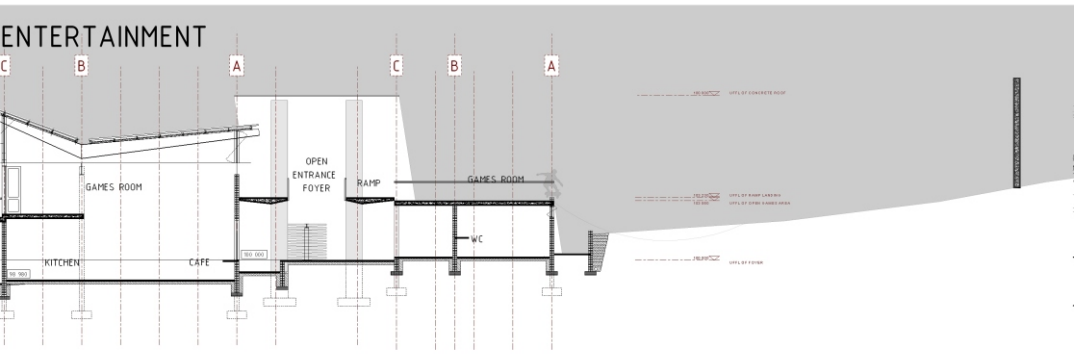






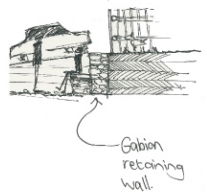


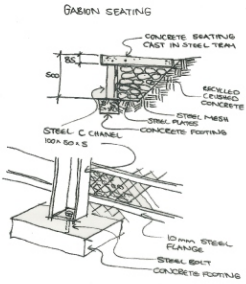




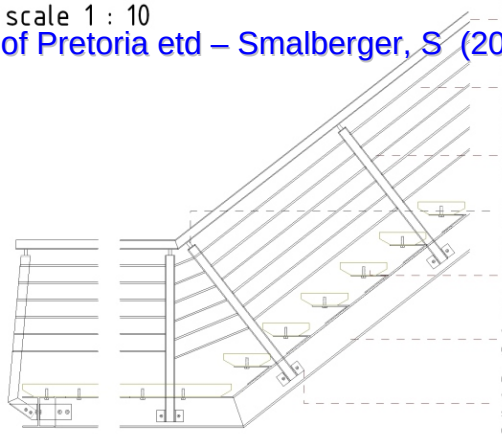
SECTION BB
SCALE 1:100

GABION SEATING
CONCEPT DETAIL

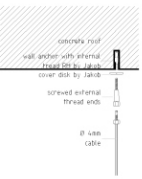


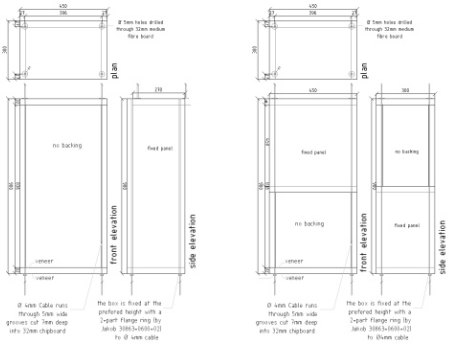


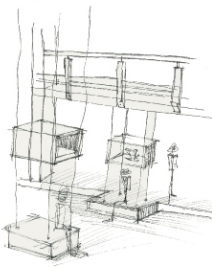
STEEL STAICASE DETAIL
scale 1 : 10

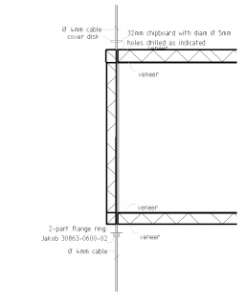


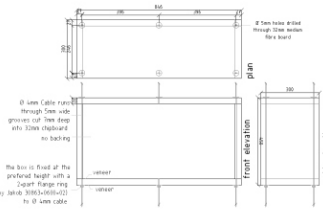
DETAILING AND FIXING OF HEIGHT ADJUSTABLE EXHIBITION BOXES IN EXHIBITION FOYER
scale 1:10

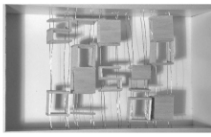


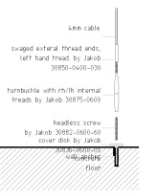


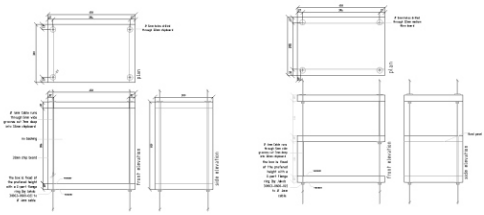


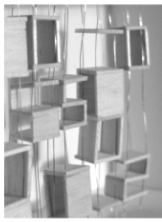




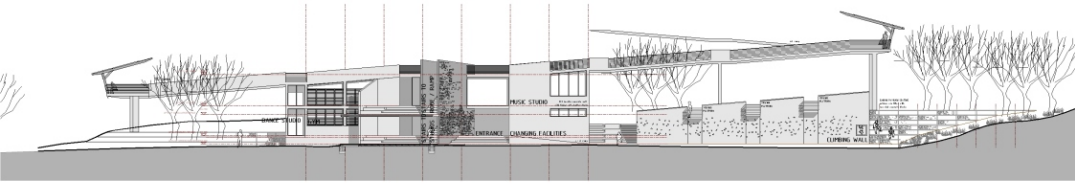




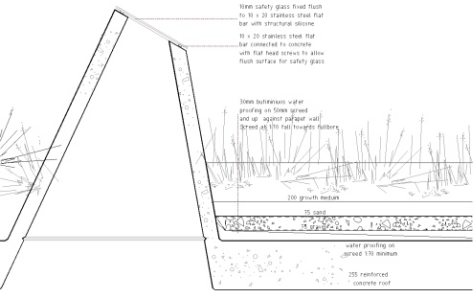




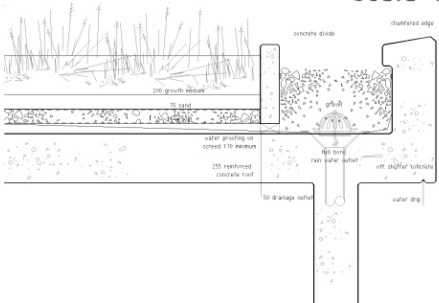
scale 1 : 5

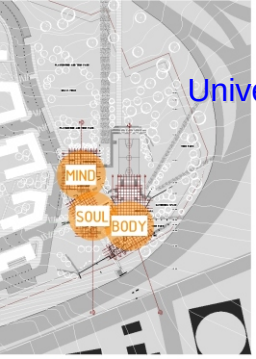


NORTH ELEVATION OF PHYSICAL FITNESS CENTRE SCALE 1:200

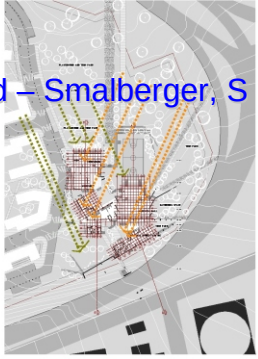


DETAIL OF SOD ROOF AND SKYLIGHT
scale 1 : 10

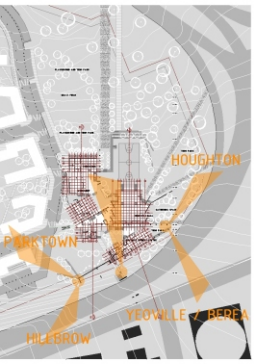




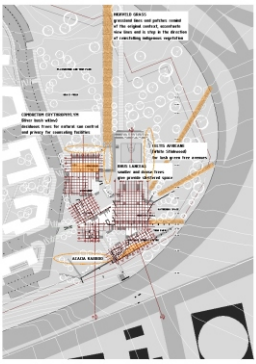
SECTIONS OF DEVELOPMENT



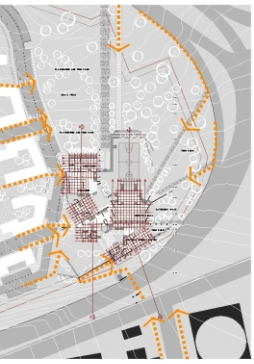
VENTILATION
BUILDINGS OPEN UP TOWARDS
[illegible] NORTH EASTERN
[illegible] AND BLOCK COLD
DRY NORTH WESTERN WINTER WIND



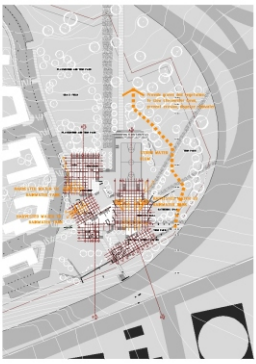
VIEW LINES FROM VIEWING
PLATFORMS OF THE
SURROUNDING CONTEXT



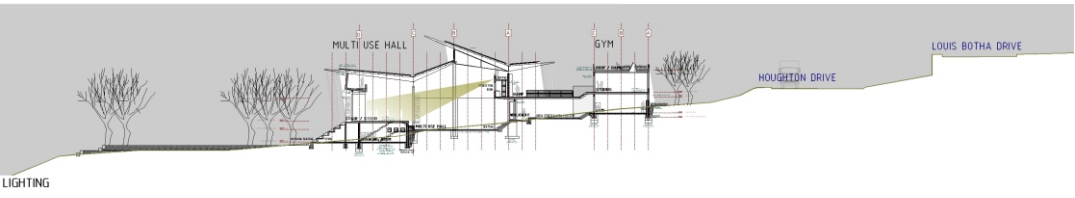
VEGETATION
OPEN SPACE
ACCESSIBLE PARKS
CONTROLLED ACCESS PARKS
OPEN SPACE
SPORTS FIELDS
INACCESSIBLE OPEN SPACE



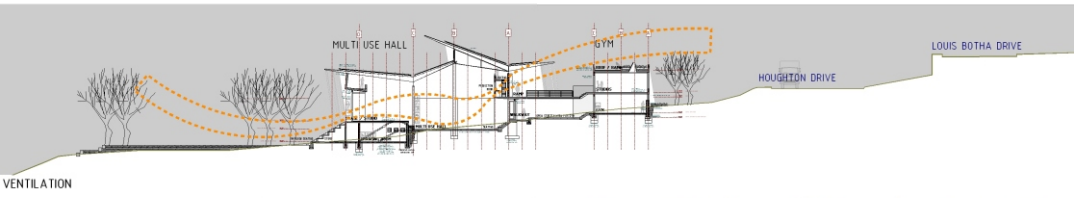
PEDESTRIAN LINKAGES
TO THE PARK FROM
SURROUNDING CONTEXT



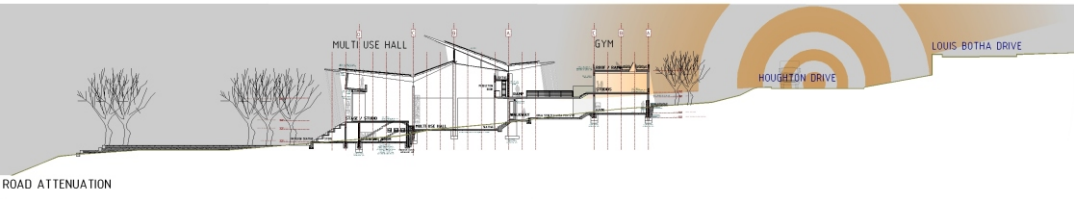
STORM WATER MANAGEMENT
AND WATER HARVESTING



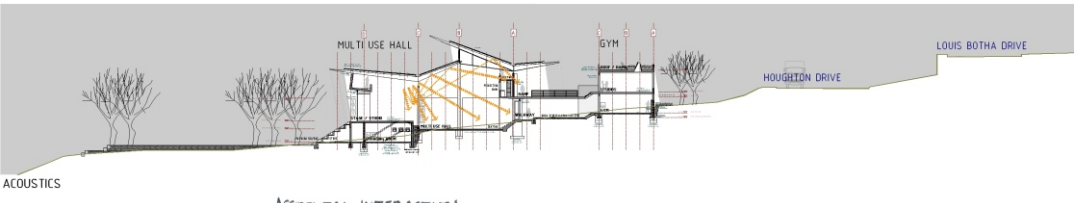
LIGHTING



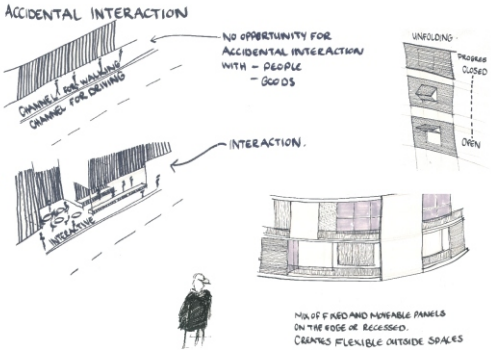
VENTILATION

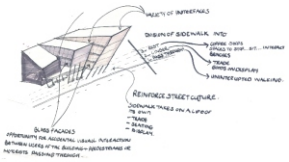


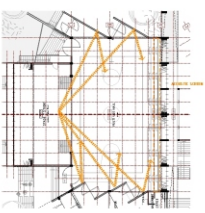
ROAD ATTENUATION



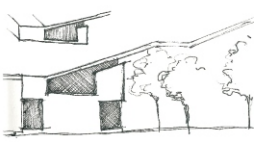
ACOUSTICS

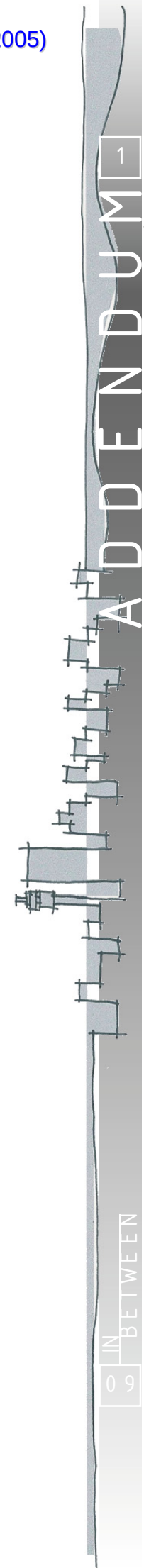






MIX OF FIXED AND MOVEABLE PANELS ON THE EDGE OR RECESSED. CREATES FLEXIBLE OUTSIDE SPACES





HISTORY OF HILLBROW AND BEREA

The history, rise and fall of Hillbrow and Berea can be divided into four distinct phase

PHASE 1: Late 1800-WW II

What began as a pioneer town, dusty, and with minimal services and makeshift shops and hotels, in the late 1800's spurred by the growing demand for middle-high income housing. Residential suburbs sprang up on the outskirts of the town, offering greener and more peaceful living environments to the town's elite.

1887 Joubert Park established; residential suburbs began to form around it.

1890 Berea laid out.

1894 Because of the overwhelming success of Berea, the land adjacent to Berea was bought from Transvaal Mortgage and Loan Company for development. Hillbrow residential estate was proclaimed in 1894 and marketed as "the wealthiest and most fashionable part of Johannesburg" (Clay 1982:18)

The suburb was initially zoned as residential only, and developed as detached houses with gardens. For twenty years Hillbrow remained a "clean air suburb where the children had room to play" (Ibid: 20)

1920 Technological developments in the building industry allowed, for the first time, the erections of multi-storey buildings. Hillbrow, located between the inner-city and the booming northern suburbs, proved to be the ideal location for the development of flats. The five to six storey blocks of flats provided reasonably priced one-room or modest flats. Hillbrow's proximity to Johannesburg station made it the ideal point of entry to the city. By the 1940s Hillbrow was already a place of transit; a stepping-stone to better housing elsewhere in the city. Prior to the Second World War the majority of accommodation in Hillbrow remained detached houses.

1946 Johannesburg City Council passes a revised town-planning scheme for Hillbrow, which removed building height restrictions, paving the way for high-rise development. (Morris 1999: 6)

PHASE 2: POST WWII – MID 1970s

1950-1960

In the 1950s and early 1960s, a surge of development took place in Hillbrow and surrounding suburbs, driven by both the economic boom and political stability which resulted from the strict enforcement of apartheid and the repression of opposition.

Residents were "…predominantly young, upwardly mobile people who are either single or living alone or with friends and relatives, and young married couples, few with kids" (Ibid.)

A number of immigrants (from England, Germany, France, Italy, Holland, and a large Jewish community) used Hillbrow as a transitory home before moving elsewhere in the city. (Morris 1999: 6)

1970 Morris (Ibid: 7) remarks that most blacks were housed in rooftop flats, or "locations in the sky"

In accordance to the 1923 Urban (Native Affairs) Act domestic workers could only reside on the employers' property if the employer provided accommodation. In the 1930s and 1940s an increase in the urban African population created a demand for housing. Roof top flats provided easy access to work opportunities, entertainment, shopping and transport, but the NP began to regulate the number of Africans living on rooftops in 1048. In 1955 a law was passed which restricted the number of Africans living on rooftops to five per building. 1956 saw the removal of these residents from rooftops and by 1962 an estimated 8000-10000 people had been removed. (Morris 1999:7)

By the early 1970s most detached houses in the area had been replaced with high-rise blocks of flats, but by 1973 the supply of fats in Hillbrow exceeded the demand.

PHASE 3: Mid 1970s to mid 1980s

1976 The exodus of foreigners due to the uprisings leaves a high vacancy rate. This is heightened by a drop in suburban house prices.
The high vacancy rate in Hillbrow set the stage for the multi-racialisation of the area
The exodus of whites from the area coincided with a shortage in housing for people classified as 'coloured', 'Indian', and 'black' under the apartheid laws. Landlords were able to exploit this situation by charging high rentals to 'illegal' tenants. These 'illegal' tenants were able to avoid the provisions of the Group Areas Act through the ruse of white people signing lease agreements, while the actual tenants were 'Indian' or 'Coloured'.
The process of deracialisation was spurred by the changes to rent control regulations in 1978, and the introduction of sectional title. Many residents could not afford to buy their homes, or pay rapidly increasing rent, were forced out of the area, while landlords were able to charge higher rents to 'illegal tenants'.

1979 Morris (1999:9) relates that these tenants were vulnerable to police raids and lived in constant fear of discovery and evictions. 'Illegal' tenants organised themselves into Actstop, a legal body which provided representation to tenants charged with contravening the Groups Areas Act.

1982 The ruling of a landmark court case, declares that tenants could not be evicted without the provision of suitable alternative accommodation. This hastened the segregation of Hillbrow since the Apartheid government lacked the fiscal capacity to provide alternative housing. They also faced political dilemma, as it would be difficult to conduct mass evictions in a neighbourhood prominent in the media, while trying to woo 'Indian' and 'Coloured' representation into the tri-cameral parliament (Morris 1999:9). Hillbrow came to represent government's unwillingness or inability to enforce strict racial segregation.

PHASE 4: mid 1980s to present

Demographic change

Until the mid 1980s there were relatively few Africans in Hillbrow, as they faced potential prosecution under influx control laws, which required they carry a pass. Violence in Johannesburg's African townships, an acute housing shortage, and scrapping of pass laws in 1986, resulted in a dramatic shift in the neighbourhood's population.

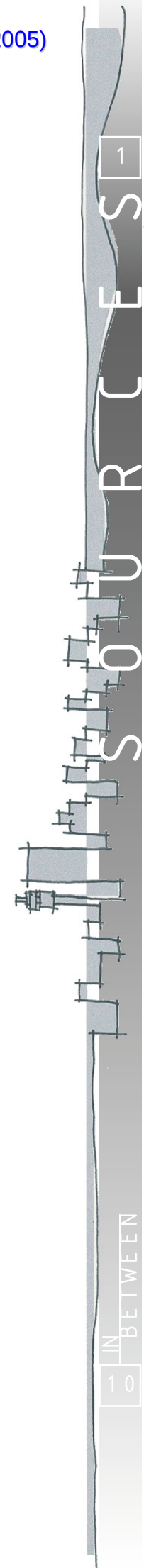
1985 Approximately 10% of Hillbrow's residents are African.

1993 The figure has risen to 62%

1996 over 80% of the Hillbrow's population is African.

According to inspector Naidoo (personal communication: 2005), public relations officer of the Hillbrow Police Service, Hillbrow remains to this day a doorway to the city and is still perceived as an transitional space, the only factor which changed is that it is currently the doorway to South Africa for illegal immigrants from Africa and not Europe.

The 84% of the areas population live in rented flats, others live in hotels or rooftops (initially built as domestic quarters), and a few live in the remaining detached houses, or on the streets. The population is relatively young, the majority of the 30 000 residents are aged between 18 and 39 years.
Approximately two thirds of the population are male.
Due to the prominence of illegal immigrants in the area it is difficult to estimate number of foreigners.
IsiZulu is the most common language (39%), followed by English (15%), but a wide variety of other South African and African languages are spoken by Hillbrow residents (Stats SA: 1996)



FIGURES

TECHNICAL INVESTIGATION

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