

COMMUNICATION RESEARCH CENTRE

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ABSTRACT

South African president Thabo Mbeki stated, while addressing the Corporate Council Summit in 1997, “*Those that have eyes to see, let them see. The African Renaissance is upon us*”.

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Leopold S. Senghor asserted, in his essay *L’Esprit de la Civilisation ou les Lois de la Culture Négro-Africaine* (1956), that “*The African Renaissance will depend largely on the work of African writers and artists, more so than on politicians. Political liberation is dependent on cultural liberation. Cultural liberation, in the spirit of ubuntu is only possible if contemporary African writers and artists make Africa herself their school; draw sustenance from their own soil*”.

The proposed development is a Communication Research Centre. A post-graduate design school that produce concrete communication projects, merging culture and industry. The underlying rationale of the proposed communication research centre is an attempt to initiate the cultural liberation of Tshwane and, being the administrative capital of South Africa, truly set the notion of an African Renaissance in motion.

The success of the proposed project will depend on the ability of the Communication Research Centre’s ability to transform Tshwane into its laboratory, constantly formulating image and enlightening the urban citizens on the collective identity.



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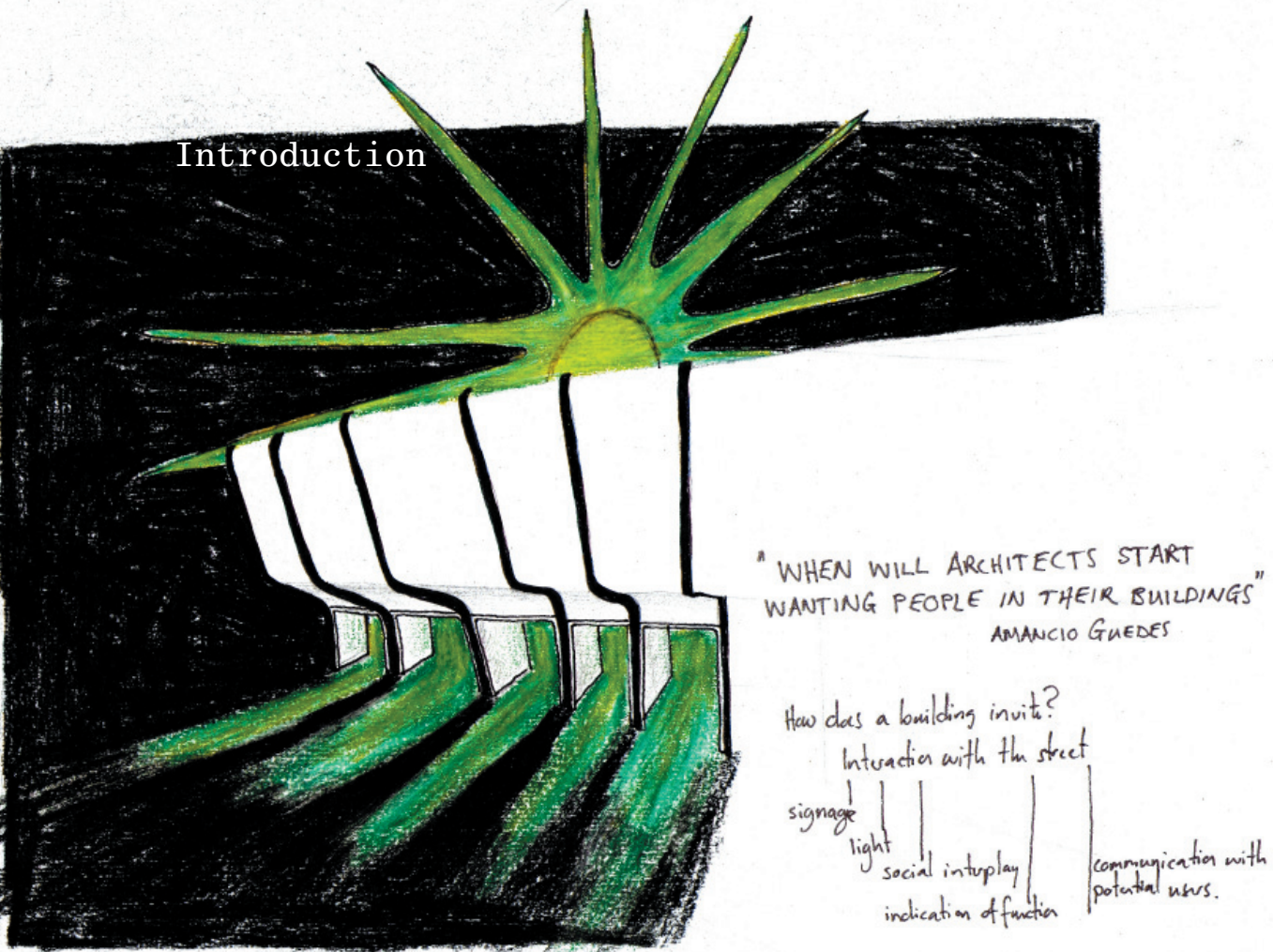
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## Introduction



Pretoria is a city fragmented by fear and the lack of social cohesion between the various cultural factions that constitute its urban population. Fear of the otherness from which our parents shielded our eyes in our youth; the otherness that we half-heartedly explored in adolescence; the otherness that we exuberantly defended as young adults; and the otherness from which we, despite of it all, protect our younger siblings.

If a city is compared with an organism, the different cultural factions are its organs. In order for an organism to continue living, it is vital for the organs to coexist in the body and function interdependently. The organs have its own individual identity in the same way that the organism has identity, but the organ collective composes organism identity. If Pretoria were to be compared to an organism, organ entropy will surely lead to a very sick organism. A city is rumoured to be a stage for social interplay, an opportunity to learn, experience, understand and be enlightened. In the case of Pretoria, the different cultural factions live their lives with a sense of transcendental pretence towards the other (almost unwittingly, we were brought

up this way); every organ is of greater relevance compared to the other. How do we heal this condition?

Awareness: the general rule of thumb is that, in order for any unfavourable condition to be resolved, people are to be made aware of its cause. Surely the most effective means of reaching the urban population of Pretoria would be by means of visual media: television, images and art. (If a strong image were to be created as a symbol of contemporary society [in a similar way The Thinker by Rodin symbolises the Italian Renaissance] it would be an image of a man sitting in front of a television, frozen in a moment of horror and disbelief, as a contractor [invisible to the sitting man] cuts the power cable.) Another hurdle: the director or artist inevitably gives physical manifestation to individual assumptions and biases in her/his work. In order to achieve plurality, the production(s) has to be co-produced by individuals from multiple cultural factions.

The proposed development is a communication research centre. A post-graduate design school that produces concrete communication projects, merging culture and

industry. A design school where participants are actively prepared for practice. The idea is that the city of Pretoria becomes the research centre's playground, formulating an image and making people aware of the collective identity. Image is used here as the reputation or persona of the city, as defined in the Oxford dictionary (2000).

Architect, sculptor and painter, Pancho Guedes, remarked that artists limiting themselves to only one medium of expression (be it sculpture, painting, design etc.) are crippled as if by amputation. "He reduces himself to a mere part in his attempts to suppress his contradictions, his confusions, his conflicts" (Guedes 2003: 20). The communication research centre will be an attempt to reunite the different mediums of expression, a multi-disciplinary school, which promotes the cross-pollination of a wide variety of creative disciplines in the production process. The research centre will admit participants that hold a degree or diploma in fields as wide as creative writing, cinema, music, graphic/industrial design, interactive media, fine art, architecture and photography.

In order to continually produce



projects that interpret contemporary society truthfully, the communication research centre will operate in a similar way to an artist residency (The Bag Factory in Johannesburg, for example). Participants admitted will be under the age of 27 and only allowed to study at the centre for a maximum duration of one year.

The aim of the research centre is twofold. Firstly, as a cultural hub in the Pretoria CBD, transforming the inner city's image through projects as diverse as bus stop shelters to legibility and film. Pretoria will, in time, be transformed into a city with a strong identity (visually and mentally) - a true African capital city. The visual media produced by the communication research centre will attempt to dissolve the fear of the unknown: the other.

Secondly, the programme includes a public-participant interface, by means of a gallery, theatre and café, where participants can express their ideas and exhibit and/or screen their productions for the general public to view and experience. In effect a fun place to frequent in Pretoria CBD, luring the "gated communities" back into the city centre, facilitating social interplay.

South African president, Thabo Mbeki, stated, while addressing the Corporate Council Summit in 1997, "Those that have eyes to see, let them see. The African Renaissance is upon us" (Lange 1998: 10). The underlying rationale behind the proposed development is an attempt to initiate the cultural liberation of Pretoria and, being the administrative capital of South Africa, truly set the notion of an African Renaissance in motion.

Leopold S. Senghor asserted, in his essay *L'Esprit de la Civilisation ou les Lois de la Culture Négro-Africaine* (1956), that "The African Renaissance will depend largely on the work of African writers and artists, more so than on politicians. Political liberation is dependent on cultural liberation. Cultural liberation, in the spirit of ubuntu, is only possible if contemporary African writers and artists make Africa herself their school; draw sustenance from their own soil" (Senghor 1965: 71).

The physical location of such a communication research centre is of immense importance, and the success of the project's aspirations depended, to a large extent, on the site selection. The chosen site had to comply with specific

predetermined criteria, or risk the success of the project's desired impact.

The site has to be located near an entrance node into the Pretoria CBD, in order for the research centre to communicate the desired image of a culturally perceptive city. Furthermore it is important for Pretoria to convey this image to visitors and its urban population alike.

Another important consideration is that the site has to be located in an area in need of urban regeneration, which is not threatening to the wealthier communities of Pretoria east. Preferably a site that do/did facilitate social interaction to which the communication research centre can add and strengthen.

Proximity to a large public transport node is crucial to facilitate the connectivity of the researchers to the city and simultaneously the general public to the research centre.

## PROBLEM STATEMENT

The city of Tshwane, the former capital and current administrative capital of South Africa has been, and still is, experiencing processes of change since the country's first democratic election in 1994. Tshwane has the potential of becoming the seed of African enlightenment and in effect the thrown for the African renaissance.

Unfortunately, the fall of apartheid led to a fragmentation of Tshwane's multifarious population, which resulted in island communities that dissociate themselves from each other. The city of Tshwane requires a unifying and articulate sense of identity, before it can become a African capital city of international measure.

Contemporary culture can be characterised as a visual culture and art, as a means of providing social commentary, becomes an important vehicle for social change. In order for art to reach urban dwellers and impart a strong, thought altering message, the different creative disciplines cannot function independently. A city-scale campaign demands a unification of creative disciplines in order to achieve a far-reaching effect.

These are the concerns which delimit this dissertation.

FIG. 1.1 Poster for teatri 90. 1999. Omar Vulpinari for Fabrica



#### PRECEDENT STUDY: FABRICA

Benetton Art School, Villorba, Treviso, Italy 1992- 1994 designed by Tadao Ando.

#### CORPORATION IN THE CLASSROOM

Fabrica is an applied creativity laboratory that follows in the tradition of the early 20th century European schools, including Hochschule fur Gestaltung and the Bauhaus, which were preoccupied with design solutions for the industrial society of the future. It is a multicultural, innovative and international entity that unites culture and industry. New forms of expression are researched that communicate "industrial culture" through means of design, music, cinema, photography and publishing, among others.

It is applied in the sense that students participate in the realisation of actual projects under the guidance of distinguished professionals – hands-on approach to training. Fabrica is all about cross-fertilisation and interactivity of disciplines and cultural identities in the "production" process. Fabrica is home to 30 participants from across the world that shapes the model for design schools of the future. (Triggs 2001: 151)

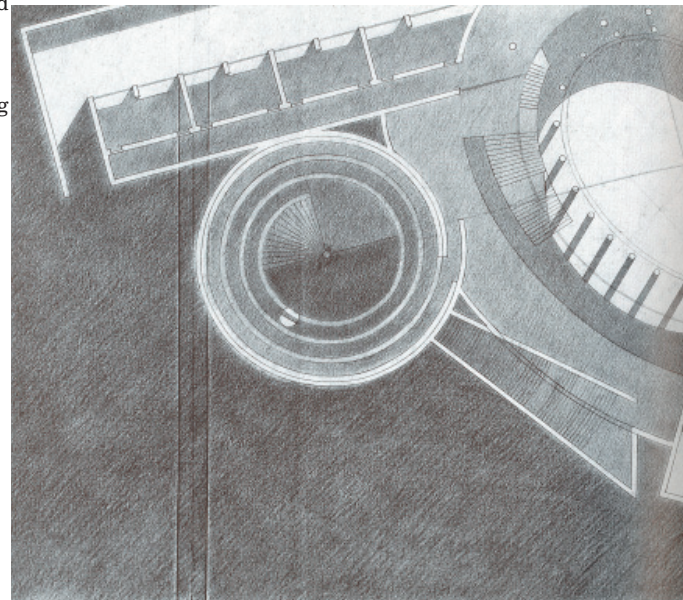
#### BUILDING

Fabrica is located 30 km from Venice and shares the site with a 17th century Palladian Villa. The old Villa was retained, with much of the design based on maintaining and revitalising it, and the greater part of the new structure was placed underground, opening into a sequence of sunken courts or plazas. The infusion and harmony of cultures anticipate dynamic interaction among the young people who study there, where the plazas become stages of varied interchange.

A colonnaded gallery penetrates the existing villa and extends over a pond before it. The introduction of the new architecture revitalises the villa and accentuates its charm. The building concept was to "accentuate the spirit of the new, producing creative energy from dialogue with the past and to realise the concept through an essentially practical programme", as stated by Tadao Ando. (Futagawa 1993: 218).

#### FACILITIES

Study rooms, studios, workshops, an art gallery, a lecture hall, a cafeteria, a restaurant, a library and an archive.



#### REACTION

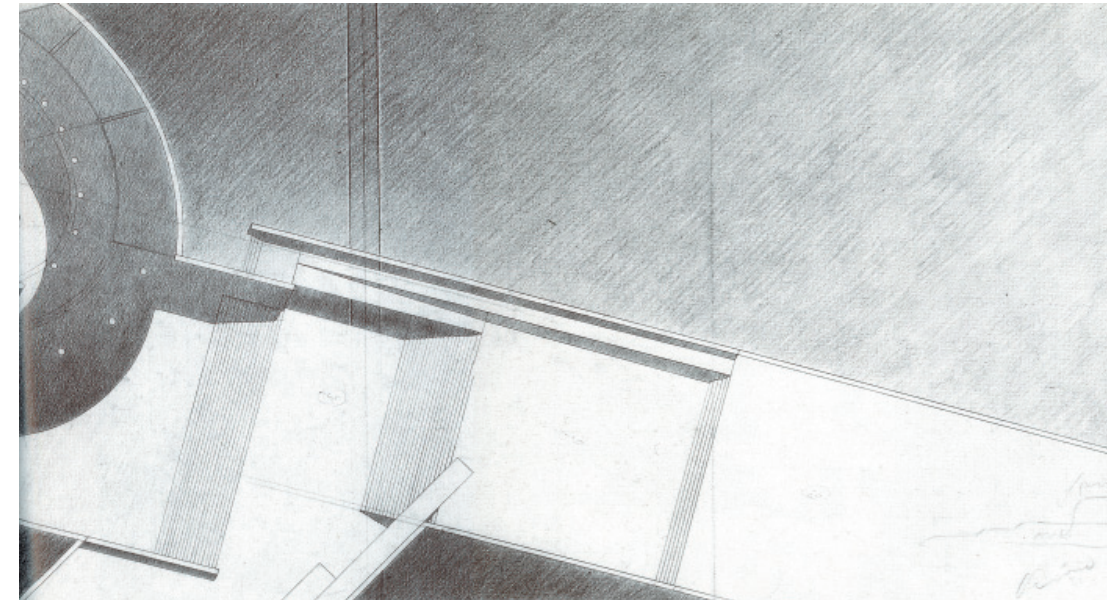
The design is very legible, with public, semi-public and semi-private space well articulated. Wide walkways and junctions are spaces designed to facilitate meetings between participants and public. As the visitor progresses from the entrance along a wide colonnaded walkway towards the gallery, he/she is educated in the inner workings of this culture-producing machine. He/she experiences where the old

(Palladian villa) and the new meet, passes a studio and bears witness to the design process, as well as experiences the product as he/she enters the gallery. The gallery opens up into the central colonnaded plaza, around which all the activity generators are located - a space designed for interaction.

The central plaza gives a strong sense of enclosure and, through the reiteration of ionic columns, makes reference to the historical

significance of the site, a reminder of Roman classical architecture. A sequence of open courts encourages meetings between cultures and disciplines.

Given that the greater part of the building is underground, the building proves sensitive towards the rural scenery of the region, as well as the Palladian villa. The old villa has also been restored to accommodate additional studio space.



The liberal, counter-culture character of Fabrica is somewhat subdued by the formal, blank architecture of the building. The building does not reflect the community that inhabits it - Fabrica is loud, colourful and in-your-face.

FIG. 1.2 FABRICA (Benetton Art School) plan

## CLIENT PROFILE

### DESIGN SOUTH AFRICA

Design South Africa is the recognised association representing a voice for professional designers in South Africa.

*The objectives of Design South Africa are to:*

- Enhance the awareness, understanding and appreciation of professional designers within the business community, government and the general public*
- Encourage and assist new designers, students and professional designers in the development of their design quality and professional practice*
- Assist buyers and users of design in identifying professional levels of design quality and professional practice and in working with professional designers*
- Improve the working relationships between practicing designers and suppliers to the design process*
- Provide educators with feedback on industry expectations of graduates, the impact of current curriculum's and changes to industry requirements*
- Promote social responsible design projects and programmes*
- Rigorously pursue and promote equity policies and principles within the industry*

### FUTURE PROSPECTS

*Whilst exploring our uniqueness, it is important to synergise leading edge technology and functional qualities, in keeping with the modern and progressing nature of indigenous design. Africa has a long and proud history of ingenious design. For centuries its people have intrigued humanity with creations that range from the great Egyptian pyramids, intricately designed textiles and jewellery up to the South African designed automatic pool cleaner and first wind up radio. However, Africa as a developing continent is still in the phase of transformation from being the source of inspiration, towards becoming a leading force in the design and production world. The impact of design of design is immense. Design influences every aspect of our daily lives and the responsibilities facing designers increases daily.*

*Challenges facing South Africa's designers in the future include developing a meaningful understanding and interpretation of all environments and cultures, mastering technological advances and an aggressive contribution to the national economy and job creation. (www.dsa.org.za)*

## FUNDING AGENCY

### JOHNNIC COMMUNICATIONS

Johnnic Communications is South Africa's leading media and entertainment agency, which reflects and celebrates the diversity of South African culture.

Johnnic Communications publishes newspapers (including: *The Sunday Times*, *Sowetan*, *Sunday World*, *Daily Dispatch*, *The Herald* and *Weekend Post*), magazines (including: *Elle*, *Longevity* and *SA Homeowner*), shareholder of music label *Gallo Music* and distributes movies and exhibits through Nu Metro.

### VISION

*To be an integrated entertainment and media group that is globally competitive and dominant in the African continent. (www.johncom.co.za)*



## ACCOMMODATION SCHEDULE

### COMMUNICATION RESEARCH CENTRE

Description: Administration

Function: Administering the Communication Research Centre

Room	Size	Standard
Reception & administration	46m <sup>2</sup>	
Offices (x2)	40m <sup>2</sup>	200 lux
Personel lounge	24m <sup>2</sup>	
School director's office & reception	60m <sup>2</sup>	200 lux
Conference Room (x2)	25m <sup>2</sup> each	10 persons each. With audio visual equipment.

Description: Studios

Function: The production of commissioned projects

Room	Size	Standard
Studios	680m <sup>2</sup> 24 partisipants, 28m <sup>2</sup> pp	Natural lighting is preferable Artificial lighting: 500-1000 lux Large windows: 1/3 - 1/4 of floor space
Plotter room	34m <sup>2</sup>	
Kitchen space for studios	70m <sup>2</sup> 24 patisipants & staff	
Storage	50m <sup>2</sup>	

Description: Workshop

Function: The production of commissioned projects

Room	Size	Standard
Workshop	150m <sup>2</sup>	Concrete or wood-block on concrete floor Good natural ventilation
Storage	70m <sup>2</sup>	
Locker room/sanitary	22m <sup>2</sup> staff and participants	
Loading/unloading	20m <sup>2</sup>	
Foundry yard	185m <sup>2</sup>	

Description: Music and recording studio

Function: The production of music as an expression of identity

Room	Size	Standard
Control room	40m <sup>2</sup>	All digital recording - 2x computer workstations + mixer (1 x 2m) 2 x sound engineers + client seating
Live room	68m <sup>2</sup>	Irregular shape, preferably no parallel walls Floating wooden floor, isolated from concrete flr. with rubber joint to prevent structural noise Reverberation time: R60 ( 1.2 seconds ) Midrange absorber acoustic tiles All glazed openings should be double glazing
Piano room	11m <sup>2</sup> (5 x 2.2m)	
Sampling studio	35m <sup>2</sup>	
Equiptment storage	18m <sup>2</sup>	

Description: Archive

Function: The storage of previously completed projects & for research purposes

Room	Size	Standard
Help desk & computer lab	40m <sup>2</sup>	9 computer stations
Archive	305m <sup>2</sup>	Open access book shelving Individual workstations Project storage: filing equipment

### RESEARCH CENTRE / PUBLIC INTERFACE

Description: Exhibition space

Function: Exhibition of projects done by the research centre's; Exhibition space for Design South Africa

Room	size	Standard
Lobby	64m <sup>2</sup>	
Information desk	10m <sup>2</sup>	
Exhibition space	760m <sup>2</sup>	
Audio visual exhibition space	40m <sup>2</sup>	
Loading / unloading	36m <sup>2</sup>	
Storage	68m <sup>2</sup>	

Description: Auditorium / small theatre

Function: Music performances; film screenings; lectures & discussions

Room	size	Standard
Auditorium	295m <sup>2</sup>	Mechanically ventilated Disabled access Type II vinyl wall coverings for 1/3 of the front of the sidewalls; Fabric covered acoustical panels for 2/3 of back sidewalls and rear walls. Raised floor-HVAC ducted supply through floor vents Ducted ceiling return air vents
	Stage 64m <sup>2</sup> Seating 180m <sup>2</sup>	142 seats at 1.1m <sup>2</sup> p/seat (1.22 x 0.9m)
Rear projection room	14m <sup>2</sup>	Manual & programmable lighting controls
Storage	30m <sup>2</sup>	
Cloakroom	6.6m <sup>2</sup>	

Description: Library

Function: Subject specific library for students and visitors

Room	size	Standard
Assistance desk/security check	22m <sup>2</sup> (2 x 11m <sup>2</sup> )	
Published space	320m <sup>2</sup>	Open stack system can accommodate between 17 030 - 26 780 books Internal climate: 18-22 degrees celcius
Reading space	58m <sup>2</sup>	1.5m <sup>2</sup> per visitor - 40 readers. 200 lux
Individual workstations	20 workstations at 2.2m <sup>2</sup> each	200 lux
Storage	10m <sup>2</sup>	

Description: Cafe that serves light lunches and meals

Function: Open to general public, partisipants and office workers - place for social interchange

Serves as spill-out area for the auditorium / theatre

Room	size	Standard
Seating - inside	30m <sup>2</sup>	45 patrons (1.3m <sup>2</sup> p/p)
Seating - outside	30m <sup>2</sup> - easily expandable	
loading/unloading	Cold storage - 6m <sup>2</sup> Dry storage - 36m <sup>2</sup>	
kitchen	90m <sup>2</sup>	100 lux. 45 patrons (2.0m <sup>2</sup> p/p)
Storage	35m <sup>2</sup>	
Bar	16.5m <sup>2</sup>	

CORPORATE COMPONENT

Description: Office space

Function: To attract companies involved in creatice disciplines.

Bringing the corporation and the classroom closer together

Room	size	Standard
Reception	6m <sup>2</sup>	
Corporate lounge/waiting area	20m <sup>2</sup>	
Rentable/adjustable office space	740m <sup>2</sup>	200 lux
Fixed office space	270m <sup>2</sup>	200 lux
Conference rooms	4 x 25m <sup>2</sup> each	200 lux
Fixed storage	50m <sup>2</sup> (2 x 25m <sup>2</sup> )	
kitchen space	60m <sup>2</sup> [2 x (12m <sup>2</sup> + 18m <sup>2</sup> )]	

Description: Basement

Function: Basement parking for corporate component and HVAC plant room

Room	size	Standard
Parking	700m <sup>2</sup>	29 parking bays + 1 disabled parking bay
Loading bay	170m <sup>2</sup>	Can accommodate medium wheel base delivery trucks
Plant room	80m <sup>2</sup> (68m <sup>2</sup> + 12m <sup>2</sup> )	

Description: Open parking

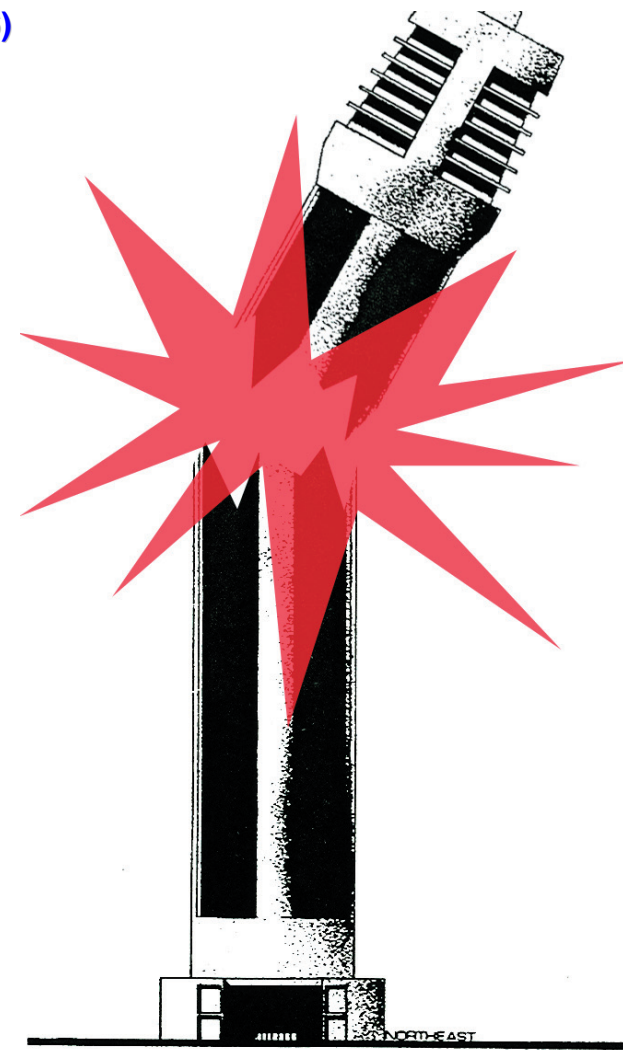
Function: Parking for visitors and partisipants

Room	size	Standard
Partisipant / visitor parking	640m <sup>2</sup>	25 parking bays including 2x disabled parking bays
Research centre admin parking	50m <sup>2</sup>	4 parking bays
Workshop loading zone	220m <sup>2</sup>	Can accommodate medium wheel base delivery trucks

Description: Circulation

Function: movement of people and goods

Room	size	Standard
Corridors	1.6m min. width	
Stairs	170mm risers 250mm, min. tread width	
Ramps	All ramps: min. gradient of 1:12	



THEORETICAL INVESTIGATION

# Afrocentrism in architecture

## INTRODUCTION

The purpose of this investigation is to establish whether African philosophical thought can inform a contemporary architectural language with real cross-cultural dialogue, in a global context.

Post-apartheid South Africa is currently in the process of formulating a new identity, which, due to the multifarious cultural context, is an arduous task indeed. Since national identity is still a theoretical concept with big ambitions, South Africa is currently stuck in a grey area with regard to identity. Urban space in post-apartheid South Africa is a direct reflection of this “identity crisis”, in that it may be characterised, according to Bert Olivier (2004: 63) as “variegated, unstable and precarious”, with reference to where “discourses of security, fortification and crime intersect with continuing practises of segregation”. The purpose of this dissertation is to prove that architecture has a major role to play in the cultural liberation of South Africa and as vehicle for social change, thus imparting enormous ethical responsibility on architects and urban planners

in designing urban landscapes that emanate real cross-cultural dialogue in order to have an effect on national consciousness. In failing to do so, South African urban space will continue to fragment, segregate and communicate socio-economic inequity.

Even though South African identity may still be a theoretical concept, in essence it is an identity born and firmly rooted in Africa - an African identity. It is important to note that national identity is the product of the search for subnational, personal and international identity. The purpose of this investigation is not an attempt to explore the concept of national identity beyond the notion that South African identity is inherently African, but also modern in the larger global context, thus not rejecting “western” vehicles of thought.

The dissertation will criticise contemporary South African architecture (“stylistically” foreign and uncontextual design) in proving that architecture is a signifier of meaning, a means for communicating identity and a possible vision for tomorrow. Subsequently, for architecture to be the physical embodiment of these concepts and serve as a vehicle for social change, it is important for South African architects to make Africa herself their school.

The dissertation will deduce that the African philosophical concept of ubuntu is, in essence, the foundation and edifice of African identity, and investigate how architecture, through the concept of ubuntu, is a concrete manifestation to the understanding of the forces that animate the world. In other words, it will investigate architecture’s duty in making visible

how the world touches us.

The dissertation will then explore the idea that abstraction in architecture, in an attempt to enlighten, has to give opportunity to hybrids of multiple readings to arise. As thus, as result, a contemporary architectural language of rich ambiguity, in the sense that it does not serve one specific cultural faction, or too impartial that it could exist anywhere. This idea will be explored by means of investigating the architectural projects of respected South African architect, Fanuel Motsepe, and internationally acclaimed Mozambican architect, Amancio Guedes. The investigation will then explore the importance of context-informed design as written by American architect, Steven Holl, in his widely acclaimed book *Anchoring* (1992), and the significance of this in the South African context.

## ARCHITECTURE IN CONVERSATION

“You employ stone, wood and concrete, and with these materials you build house and palaces. That is construction. Ingenuity is at work. But suddenly, you touched my heart, you do me good. I am happy and I say: ‘this is beautiful.’ This is architecture. Art enters in”.

LeCorbusier Towards a new architecture 1927

In proving that the possibility of designing meaningful architectural identity in a multifarious cultural context, which simultaneously reflects contemporary South African society and instils vision for the future does exist, the importance of proving that architecture signifies more than merely shelter cannot be overemphasised.

Architecture is a signifier of

meaning – it has associative values and symbolic content, subject to personal and cultural interpretation, which is a product of time, history and culture. Architecture does not merely facilitate purpose in combining form and space into a single essence – it also communicates meaning (Ching 1996: 374). South African settler architecture is associated with an excess of meaning for the Afrikaner culture, for example revealing the hardship, courage and desperation of a bygone era, reminder of the fight for independence and hard-won Africanity.

Architecture reflects identity – it is the silent testimony that verifies the personal, corporate and national character portrayed to the world. It reflects our ambitions, strengths and weaknesses, power or economic hardship – architecture reflects society. Colonialist architectural ideologies

served as an instrument of oppression and post colonialist nations often use architecture as a tool for formulating national identity and unity (FIG. 2.2) (Elleh 2001: 235). Contemporary South African architecture is in many instances a vehicle of bourgeois ambitions, in the sense that it represents the power, wealth and “good taste” of the client. Subsequently, in order for architecture to communicate identity, it becomes imperative for architectural language to be formulated from within the culture it represents.

Design professionals are ethically obligated to design buildings and urban landscapes that signify meaning to and reflect identity of the culture with which it is in conversation. In failing to meet this prerequisite, the urban landscape will become foreign and insignificant. Contemporary South African

urban architecture, for the most part, is removed and distant from the user – it is characterised by stylistic borrowings from foreign countries and cultures and has become pervasively banal. Walking through one of the many macro-scale housing or corporate park developments in the eastern suburbs of Pretoria reminds us of somewhere ... nowhere, rich in chic architectural fashions and fads – past identities of foreign contexts. South African architect Alan Lipman questions in his book, *Architecture on my mind: critical readings in design*, “Whose memories do such buildings stir, whose nostalgias do they gratify, whose cultural roots do they acknowledge?” These buildings are monuments to architectural individuality.

How do we escape this prevailing plethora of uncontextual placelessness, this architectural identity crisis? First, and foremost, it is imperative for architects and urban planners to become part of and understand contemporary South African (national) identity, where national identity may be seen as a product of local, personal and international identity. Pinpointing national identity in the multifarious cultural context of South Africa is a crucial, but daunting task indeed. Furthermore, “identity is a subject-

tive self-concept or social role and, as such, is often variable, overlapping and situational”, as Lawrence Vale (In Alsayyad 1992: 320) remarks. Identity in architecture is often the product of the identity bias of the client, the architect’s personal design agenda and the dominant/ruling cultural component (Ibid). In order to design architecture of meaning, in which South Africa’s diverse population can find identity, the most important factor influencing architectural identity should be the fact that South Africa is foremost an African country, and should epitomise that.

Secondly, it is important for South African designers to embrace the country’s history – meaning and identity is embedded in her urban and natural landscapes. It is important to note that (in formulating an architectural language with real cross-cultural dialogue, which acknowledges the diverse histories and cultures) architecture should never be a “return to the timeless tradition” of a golden age before the advent of colonialism (Wright 2001: 228, 230). On the other hand, if architecture is too far abstracted from known reference points, it might be rejected, or worse, ignored (Alsayyad 1992: 331).

Thirdly, architecture that signifies meaning and reflects identity should communicate possibilities for the future – of what might be. Such architecture is robust and able to change with the rapidly changing society around it, subsequently not becoming a frozen moment in political or cultural history. It is clear that architecture of meaning, in which a diverse culture can find identity while simultaneously communicating future possibilities, can be created. Architecture is more than merely shelter – it conveys meaning and represents the identity of its users and the society around it. The apparent architectural “identity crisis” in South Africa is merely a poor excuse for substandard, meaningless and foreign architecture.



FIG. 2.2 Tent-like forms of Jorn Utzon’s Kuwait National Assembly Building. Photo by Lawrence Vale (Alsayyad 1992: 319)

## I SMELL, I DANCE THE OTHER. I AM.

Traditional African art and architecture is a concrete manifestation to the understanding of the forces that animate the world; the physical embodiment of desires, motives and feelings (Senghor 1965: 83). (Okay, so what, how does this differ from the Western world view, do not all art convey messages of desires, motives and feelings?) African art and architecture is collective, it commits the person, not just the individual, through and in the community (Ibid). In order to form a better understanding of this notion, this investigation will explore the African philosophical concept of ubuntu and the way it manifested in traditional South African architecture. As mentioned in the introduction, the African philosophical concept of ubuntu is, essentially, the “foundation and edifice” of African identity (Ramose 2002: 230). Therefore it is important to explore this con-

cept in order to design contemporary urban space, which manifests South African identity. Due to the enormous diversity in architectural practices in pre-industrial South Africa, and in an attempt not to prove bias towards one specific cultural component, this investigation will explore certain characteristics that prove common to all traditional architectural practices in South Africa.

Yvonne Makgoro (in Lange 1998: 51) defines the concept of ubuntu, in its most basic sense, as being a metaphor in a society where “a human being is a human being because of other human beings”. The existence and well being of the individual is relative to that of the group. As mentioned previously, traditional African architecture is collective and aims to commit the person in and through the community (Senghor 1965: 83). Char-

acteristically, villages consisted of a collection of similar buildings linked together, which served as an outward manifestation of the community’s identity. Architecture was integral to the total social and spatial system of the community (Rapport 1965: 69).

Amancio D.M. Guedes (Gerneke in SA Architect 1999: 30) enquired, “What is the idea greater than the sight? When will architects start wanting people in their buildings?” Pre-industrial African art and architecture was characteristically functional, and art for art’s sake was a foreign concept (“all art is social”), as beauty is a product of “goodness and effectiveness” and imparts “the promise for happiness” (Senghor 1965: 83). Functional beauty. Functional in the sense that architecture was responsive to specific social needs reflected through supple conceptions of com-

position, interconnection and movement through space (Wright 2001: 228). The word “supple” is used here to describe the architecture’s adjustable and adaptive qualities in order to accommodate social needs; people-orientated design.

Ubuntu is in reality two words, where “ubu-“ is the essence of being, thus ontological, and “-ntu” the point in reference when being becomes a physical manifestation, thus epistemological. “Ubu-ntu” is the inseparable entirety of African ontology and epistemology (Ramose 2002: 231). As a result, in order for the concept of ubuntu to manifest in architecture (which is a physical embodiment of African identity), a spiritual response to the African context and an emotional connection to the land and its cultures are crucial (Du Plessis 2001: 49). Man and nature is interdependent due to the force vitale

or living force that links all animate and material phenomena (Murray 1991: 31). Pre-industrial South African architecture was characteristically unobtrusive and in balance with nature, as opposed to the “conquer and dominate” attitude of post-industrial western architecture towards the environment. As a result, traditional South African cultures lived lightly on the land; the land, an environment to live in and live with (Du Plessis 2001: 50).

A contemporary architectural language, which gives physical manifestation to the understanding of the South African identity, can only be formulated in and as a product of Africa. The philosophical concept of ubuntu may be seen as the essence of African identity and therefore crucial in the design of a pure South African architectural expression of cross-cultural

dialogue. Subsequently, the importance of this concept and its significance with regard to urban space cannot be overemphasised and, in failing to do so, may lead to blank architecture in African drag.

Key words: functional people-orientated; spiritual response to the land; beauty; collective; responsive; adjustable; contextual.



## FABRICATING PLURALISM

Abstraction in architecture, in an attempt to enlighten, has to give opportunity for hybrids of multiple readings to arise. The result: a contemporary architectural language of rich ambiguity, in the sense that it doesn't serve one specific cultural faction, or too impartial that it could exist anywhere (Alsayyad 1992: 331). This chapter will investigate the prospect of successfully designing hybrid architecture in which a multifarious society can relate identity, by means of studying contemporary projects by architects that attempted to manifest this notion through design (successfully and unsuccessfully). The investigation will explore the architectural projects by means of evaluating the degree to which the concept of ubuntu attains physical manifestation (by means of the abstract architectural concepts discussed in the previous chapter) in accordance

with modernity. Modernity refers to modern in the sense of "being western (in order to attain international relevance) without depending on the west" as quoted by Lawrence Vale (1992: 327).

**PRECEDENT STUDY:** Development proposal for the planned Gauteng provincial government precinct, Fanuel Motsepe (principle architect) in association with NOA Architects; Beyers Naude Square, Johannesburg CBD initiated in November 2003.

The purpose of the intended development is threefold. 1) The main objective is to centralise the Gauteng government's departments (presently scattered throughout the city) around a New Heritage Square. The proposed development will ensure that Johannesburg, as the financial powerhouse of South Africa, becomes a world class African city. 3) The proposed development will be

an architectural environment that fosters cultural integration and a space for shared exchanges (Davies 2004).

The controversial design proposal put forward by respected Johannesburg architect, Fanuel Motsepe, ignited heated debates regarding the intersection of cultural representation with post-apartheid space making in South Africa. The proposal for the New Heritage Square includes an urban entertainment hall that introduces elements and values of indigenous architecture expressed in a 21st century design that employs modern construction technology. This proposed an urban entertainment mall (FIG. 2.5), which has the additional function of grand gateway on to the square and from the underground parking, and symbolises a traditional Tswana homestead constructed of steel and

glass. A 13 storey high symbolic obelisk rising from a fountain (FIG 2.4) will serve as the central focal point of the square, and a vast paving grid across the entire square will orientate users with true north. The design further proposes the demolition of 10 existing buildings, five of which are more than 60 years old, leaving freestanding remnants of selected facades that symbolise the rebirth of the indigenous as the modern, rising out of the ruins of the colonial past. An orientation wall will serve as a link between the old and the new facades and symbolises a window of transparency of the government on to the urban community (Ibid).

The Kopanong Gauteng Government Precinct design proposal can be characterised as a certain African particularism, relating to the traditional Tswana culture before the advent of colonialism. According to the philosophy of ubuntu, architecture, as an art, commits the person in and through the community. This makes the design vulnerable to criticism, presenting an ideology of the authentic in returning to the traditional, ignoring the multifarious nature of the city and proves bias towards one specific cultural component. The design presents the possibil-

ity of becoming a frozen moment in cultural history.

The design proposal also does not provide a spiritual response to the land, in being insensitive to the context, ignoring the fact that there is already an existing, but dysfunctional, open public space in the sense that it is largely under-utilised. The design proposes that the square doubles in size by demolishing the 10 existing buildings and, in consequence, removing the already lacking intimacy and human scale altogether.

The design is eclectically post-modern with floating signifiers all over the place: the ruined facades of the buildings he demolishes, a colonial monument isolated by drawing a circle around it and obelisk etc., and the essentially functional beauty of African art and architecture is lost. The design is in fact an incoherent collection of ideological and symbolic references that draw from a pool of pre-modern and post-modern metaphors and images.

The design does not manifest the philosophy of ubuntu in relation to the key concepts abstracted from this enquiry.

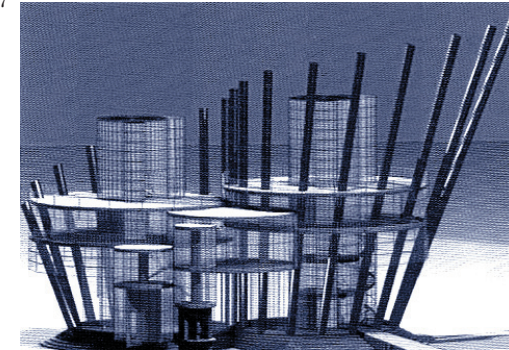


Fig. 2.3 Urban entertainment mall. architect: Fanuel Motsepe. 2005



Fig. 2.4 A thirteen storey high symbolic obelisk rising from a fountain. Architect: Fanuel Motsepe.2005

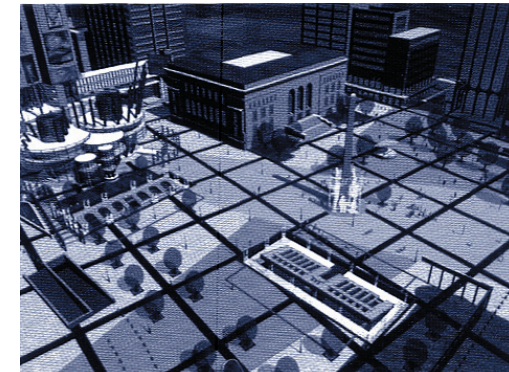


Fig. 2.5 Public Square. Architect: Fanuel Motsepe.2005

AMANCIO D'ALPOIM MIRANDA (PANCHO) GUEDES.

Pancho is considered, according to architectural historian, Udo Kultermann (2003: 21), one of the most prominent architects during the last decades in the shaping and determining of a new architecture in Africa. His work is a near perfect synthesis of modernism and Africanism, which were made manifest by a "brilliant amalgam of visionary projections and a fresh interpretation of the past" (Kultermann 2003: 20). Pancho's work included both the African culture and the possibilities that contemporary architecture provided. He understood the needs of the people he was building for. This study will include two buildings designed by Pancho Guedes, still breathing and in deep conversation with the people of Mozambique.

SMILING LION (FIG. 2.6 - 2.9), Maputo, Mozambique  
The Smiling Lion is a member of, in Pancho's words, "a bizarre and fantastic family of buildings with spikes and fangs, beams tearing into spaces around them, invented as if some parts are about to slip off and crash down, with convulsive walls and armoured lights" (Smithson 1982: 28). The Smiling Lion's programme includes six flats with

ground floor parking and servants quarters on the roof.

The floor plans can be described as uncomplicated, straightforward and functional. The sections, on the contrary, are characterised by fantastic exaggerations and triangulated geometric relief murals painted in soft oranges, whites and blacks. It is the sections and its reflections on the facades that are the architecture (Ibid). Pancho connected architecture with human emotions, giving every building an expression and character to be read by anyone who chose to be receptive. The Smiling Lion can be perceived as a supernatural being, a living personality (Ibid).

SWAZI ZIMBABWE (FIG. 2.9 & 2.10), nearly built near Nelspruit, 1960's

The design was informed by the pre-industrial tradition of Swaziland, and is a member of the family of buildings with "walls twisting and turning this way and that". The design is based on the ruins of Great Zimbabwe and consists of a number of circular units with the internal functions appropriated to the requirements of a contemporary family. With different functions of living, dining and kitchen, as well as terraces and servants rooms on the ground floor and bedrooms with

balconies on the first floor, he ingeniously reinterpreted the tradition of African architecture to a new level (Kultermann 2003: 21).

Pancho Guedes designed buildings that radiate Pan-African mysticism by uniting fantasy with a functional programme and by means of reinterpreting the African past in a new way. The specific site and every unique situation tied to it informed each project, relating to local traditions and communicating a kinship with the site's given past. The buildings are receptive to local climatic conditions and purposely allow nature to invade it, as Pancho remarked, "I have asked nature to invade architecture exuberantly as if it were a ruin" (Kultermann 2003: 21). He produced internationally acclaimed architecture with the limited materials, technology and skilled labour available.

*Building shall yet belong to the people, architecture shall yet become real and alive. and beauty shall yet be warm and convulsive.*

Pancho Guedes (Ibid).

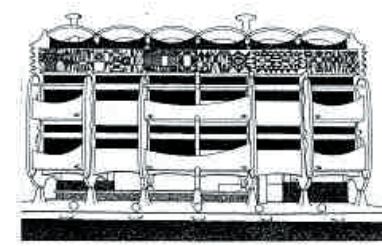


Fig. 2.6 Smiling Lion - Elevation



Fig. 2.7 Smiling Lion - Perspective

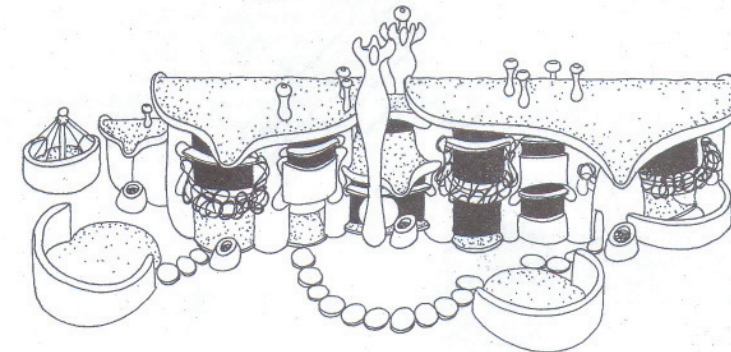


Fig. 2.9 Perspective of Swazi Zimbabwe, Goedegoen, nearly built in Nelspruit

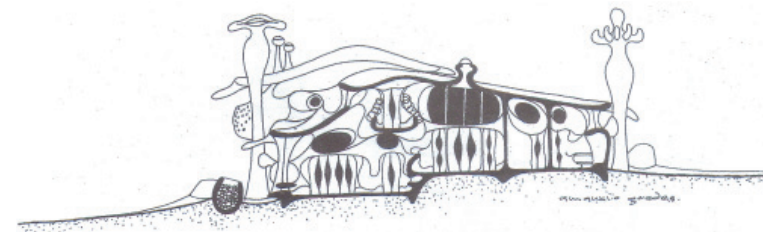


Fig. 2.10 Section of Swazi Zimbabwe, Goedegoen, nearly built in Nelspruit

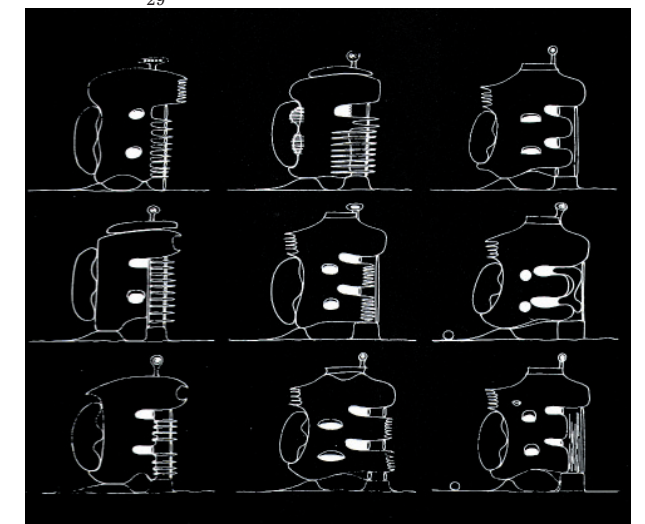


Fig. 2.8 Smiling Lion - Concept Development

*A foolish round house outside the world of money,  
My feathery hairy building.  
You, too, if you dream hard enough –  
You, too, can make half of your dream  
Come true.  
When is the building most real?  
When it is a bunch of ideas? A rough  
scribble?  
When it is many sheets of municipal  
linen prints?  
Is it when the bones are up?  
When the plastering is done?  
When the owners move in?  
When it catches fire?  
Or when the first owners move out?  
Is it not real exploding?  
Is it real riddled and shattered by  
bullets?  
Or faked new by a new owner?  
Or with broken window panes,  
haunted, in a wild and overgrown  
garden – a young gang's clubhouse.*

Poem by Pancho Guedes in an attempt to describe Swazi Zimbabwe



## ARCHITECTURE BOUND TO SITUATION

In an attempt to pinpoint the intersection of culture and building, it is important to create a hybrid with an identity unique to the circumstances of the project. These circumstances include the particulars of a given site, its history and its programme. A building's relationship with its site sets architecture apart as an art form. Site can be described as more than a mere component in the conception of a building - rather the physical and metaphysical foundation of architecture. The physical is the resolution of the functional spaces, which in turn requires the metaphysics in architecture. A building transcends physical and functional requirements by means of fusing with place and, in doing so, explains the meaning of the site. In order for architecture to explain the site, it is fundamental for the building to have an experiential connection

with its site (Holl 1991: 9).

Pre-colonial South African architecture illustrates the interdependence of building and site - being it unintentional through the use of locally available materials or an association of the landscape with historically significant events and myths. Architecture is then, according to American architect Steven Holl (Ibid), an extension establishing absolute meanings relative to a place.

The physics of architecture, the way architecture is aligned with the sun or specific views framed by an opening, enhance the experience of movement through a space that transcends architectural beauty. In effect, a phenomenological link between architecture and site is formed; architecture and nature are joined in metaphysics of place (Holl 1991: 10). Every site and

situation inherently hold the key to its own architectural language and unique materiality and form signifies meaning to a situation (Jefferson 2005: 83).

### PRECEDENT STUDY

Palazzo Del Cinema, Venice, Italy, 1990, architect: Steven Holl (FIG. 2.11)

The Venice Film Festival building proposal is situated on the Lido in Venice and celebrates the site's "watery" connection to the city by means of enlarging the lagoon to surge underneath the building. The space, homage to Venice and a place for the Lido community, is filled with diffused light from gaps in the cinemas above. This public space is intended to house retail functions along the arcade and guarantees public movement through the space during the months when there is no festival.

The design employs the notion of

time in its various abstractions to form a link between architecture and cinema. The project involves three interpretations of time and light in space.

1. Cinema has the ability to either collapse time (20 years into 1 minute) or extent time (4 seconds into 20 minutes). This collapsed or extended time is expressed in the warp and extended weave of the building.

2. Diaphanous time is expressed by means of diffused light reflected into the grand public lagoon space below the cinema.

3. Absolute time is measured in a projected beam of sunlight that inch its way through the lobby. Light in space, light in reflection and light in shadow are seen as programs to be achieved parallel to solving functional aspects. (Holl 1991: 156)

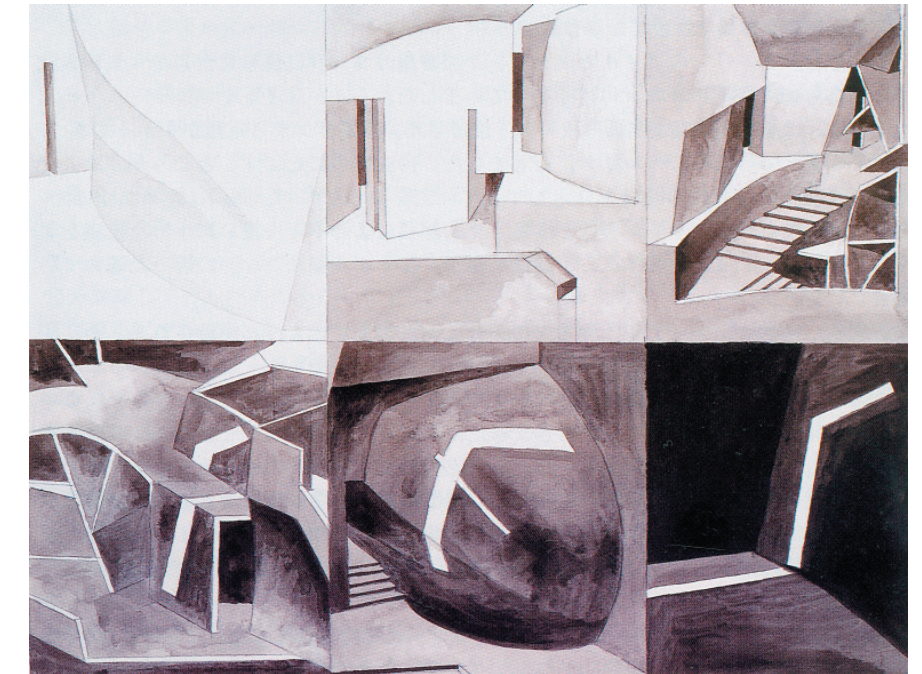


FIG 2.11 Palazzo Del Cinema - Light in time. Painting by S. Holl (1990)

## CONCLUSION

The intended purpose of the theoretical investigation set out to prove that, through the careful dissection of African philosophy, a true African architectural place theory could be formulated. It proved very difficult due to the limited amount of written records and the fact that theoreticians of western descent authored the majority of the researched material on African architectural theory. These authors are inclined to ascribe a romantic design ideology to African architecture that borders on the absurd (author's opinion). This published material either 'ascribes meaning' to elements, which does not necessarily possess inherent meaning aside from functional attributes (the philosophical significance of the tree in African culture for example) or written in colourful rhetoric<sup>1</sup>. Are our perceptions guided by these romantic illusions and does this romanticising of the exotic not

strengthen our perception of 'the other'?

Bush-architecture (light technology, adobe walls, thatch etc.) does have its merit in the South African context, but is it the only physical embodiment of a true African architectural design ideology? Is it not, in some precedents, merely a kitsch attempt to re-establish an architectural language of a golden age before the advent of colonialism? Is it not the precious vestiges of Africa ('the other') that Europeans admire and relish to explore?

The investigation attempted in isolating the facts from the romantic rhetoric. The African philosophical concept of ubuntu, the foundation and edifice of African philosophy, was applied to pre-industrial African art and architecture with the intention of abstracting a clear and defined ideological 'point of departure'

to be scrutinised, attacked and reconfigured. Furthermore, it attempted in formulating an architectural language that breaks away from 'bush-architecture' and architecture in African drag.

The application of the concept of ubuntu to pre-industrial art and architecture proved successful in the sense that certain key concepts were abstracted. These key concepts include:

Pre-industrial African society found merit in the functional beauty of art and architecture - functional beauty. Architecture was contextual and a spiritual response to the land. Art, architecture and urban design were people orientated. It related to the individual in- and through the community. Architecture was responsive, in the sense that it adapted and adjusted to occupant needs - robust.

In order for architecture to

communicate a spiritual response to the land, the importance of context (micro- and macro-) cannot be over-emphasised. Architecture is a physical manifestation of the architect's interpretation of the meaning of site; it explains the inherent meaning or metaphysics of the site to the observer.

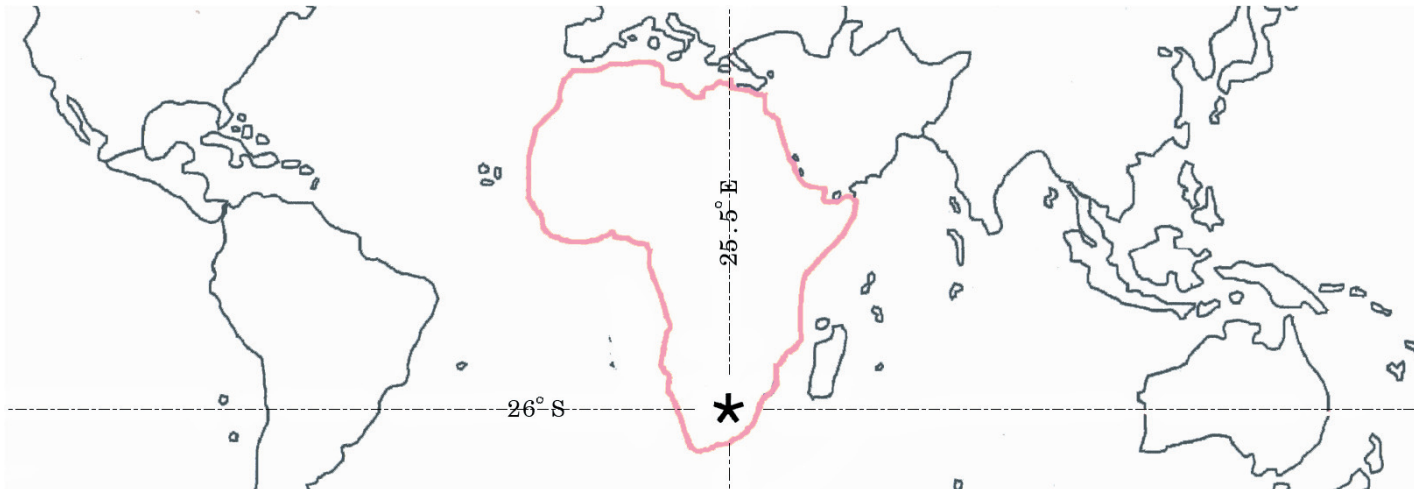
The architectural language of the proposed project will explore the above-mentioned concepts in order to relate to the South African context. But, architecture is not an isolated art and even less so in the globally connected society of today. As result, the architectural language of the proposed project will attempt to prove relevant in the broader global context.

### NOTES

<sup>1</sup> In describing a communal veranda of a impluvium house (West Africa) Jean-Paul Bourdier wrote in his essay entitled Dwelling

with Spirit (Dixon 1994: 98): " , which constitutes the site where regenerative interaction of air, earth, water and light is made manifest in the concept of building and dwelling. These are indeed the four fundamental elements of creation that account for the making not only of the 'earthborn and earthbound' habits of people, but also of the first human beings in West African cosmogonies".

PHYSICAL CONTEXT



TSHWANE/PRETORIA

Pretoria is the administrative capital city of South Africa and a postmodern city experiencing the symptoms of post colonialism (or post-apartheid). There is a simultaneous influx of the previously disadvantaged community from neighboring townships to the inner city and the subsequent retreat of the 'colonizer' to the safe and secure illusion of suburbia.



As a result, isolated island communities experience a volatile coexistence with their neighboring communities, which in turn led to the fragmentation of the urban fabric. Isolated mega-developments in the east are connected to the inner city with high-speed roads to prevent symptoms of 'the other' to infiltrate the enclosure of steel and tinted safety glass. Cars dominate the urban functions and pedestrians are moving obstacles and possible lawsuits.

Tshwane represents several aspects of an African city: impermanence of people and places and growth of the informal sector. As a result, the inner city has become alive, vibrant with pedestrian movement, social interaction and street vending. The CBD is multiracial and multicultural, neither traditionally African nor Western. The inner city is inhabited by a younger generation of students and low to middle income families. Employment, amenities and recreation are within walking distance from high-density residential nodes. The inner city is also rich with the monuments of history, which is sadly neglected since the new transcends the importance of the old, post modernity calls for cities to evolve.

The administrative capital city of South Africa envisions in becoming an internationally acclaimed African capital of excellence. A city that represents the nation state and radiates national identity to Africa and the world. This can only be achieved through: the provision of sustainable services and activities in order to better the lives of its citizens; the breakdown and integration of island communities in the east; and the formulation of a urban language that every inhabitant will find legible can find her/his own voice.

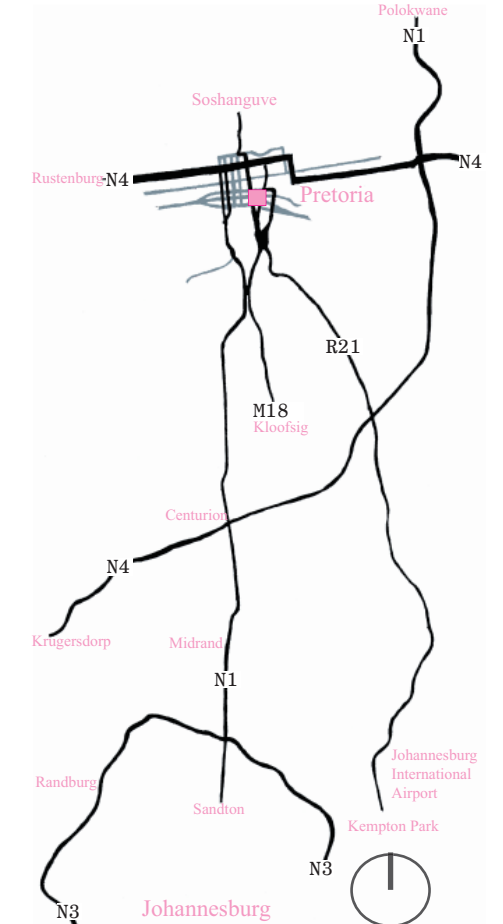


FIG. 3.1 (opposite) Tshwane in the global context.  
 FIG. 3.2 (Middle) Tuscan Estate  
 FIG. 3.3 (above) Major vehicular routes in Gauteng



## University of Pretoria etd, Lotz W. (2006)

FIG. 3.4 Aerial photograph illustrating the visual axis linking the Union Buildings and Freedom Park. FIG. 3.5 (opposite) Diagram illustrating major vehicular routes in Tshwane

### PHYSICAL LOCATION

Tshwane: Administrative Capital of South Africa  
south Berea , northwest corner of Nelson Mandela Boulevard (R21) and Railway Street.

### SITE DISCRIPTION

The site forms part of the Berea Sport grounds situated directly south and housed the ground's tennis courts. The tennis courts are currently derelict and dysfunctional. The site is Adjacent to the Apies River directly east and a commercial district on the western side

### SITE CHOICE MOTIVATION

Lost space on the periphery of Tshwane CBD and forms part of the southern gateway into the CBD.

It is located on the Apies river and forms part of the Nelson Mandela development Corridor.

It is located near (0.8 Km) the Tshwane Train Station and on-route to JHB International Airport: R21

The site is walking distance from UNISA and its adjacent sports ground.

The site is of Historical significance.

It is located near Gerhard Moerdyk St and the Bruytenbach theatre.

The site falls within the visual axis between Freedom Park and the Union Building.

### SOUTH BERIA

South Berea is the southern gateway to the inner city and CBD, and has the potential to become a landmark and statement as a gateway for the inner city. Berea Park can potentially serve as a major attraction to both visitors and investors, and due to its proximity to the Apies River, an important feature of the open space system of the inner city (Capitol Consortium 1999: 8, 37).

Currently the land use is in a transitional phase and the emergence of retail is replacing the previous low-density land use. South Berea is demarcated for mixed land use to include office space, retail, residential and institutional facilities. South Berea entertains major pedestrian activity due to the proximity of the Pretoria train station (Capitol Consortium 1999: 8).

### POTENTIAL AND OPPORTUNITIES

The mixed land use has to respond to the train station and gateway to the south by means of retail and tourist facilities. The parks are to be included in an integrated open space system along the Apies River and respond to the proposed Nelson Mandela corridor development framework (Capitol Consortium 1999: 12).

### SOCIO-ECONOMIC CONTEXT: SOUTH BERIA

South Berea is characterized by a high-density residential context with informal entertainment and commercial activities. The resident society are predominantly lower-middle class and of a multicultural nature. The resident society is divided into two distinct components: A conservative older white population (minority) relying on personal vehicular transport and a younger multiracial pedestrian orientated population that relies on public transport. The multiracial social component makes use of the train as a means of transport and a large majority is employed in the CBD. Street vending is commonplace and some residents are owners of informal trading stalls along busy streets. The students who attend the educational facilities in the area reside in the edge cities and rely on the train for transport.

The area is characterised by heavy pedestrian movement during peak hours to and from Pretoria Station on a daily basis. Commuters drop their children at the educational and remedial facilities in the vicinity and do their business en route between place of employment and the station. Nelson Mandela Blv. and Railway str. entertains heavy vehicular traffic during peak hours to and from the inner city.

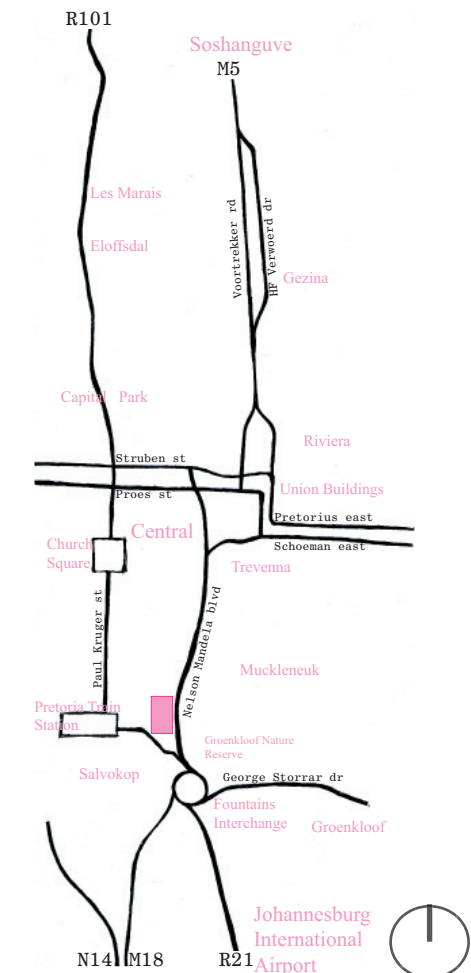






FIG. 3.6 Figure ground map of Tshwane.

#### TSHWANE INNER CITY SPATIAL DEVELOPMENT FRAMEWORK (TICP SDF)

The TICP SDF is a macro scale urban development framework with the intended aim of achieving sustainable urban renewal.

The first facet of the framework involves the strengthening of two important movement corridors, namely the Paul Kruger and the Church streets corridor, as well as the important Union Buildings-Freedom Park visual axis. The entire urban framework is based on the development of these three axes.

Pedestrian core – pedestrian-friendly environment supported by an upgraded inner city public transport core and periphery system. This will link regional transport nodes with bus/taxi activities.

Road network - maintenance of existing one-way couplet system and the introduction of parking garages to alleviate traffic flow in the inner city and in order to pedestrianise the inner city.

Public space - a series of hard surfaced public squares and parks. Protected green space enclosing the inner city and all along the Apies River and Walker Spruit (TICP SDF 3 February 2006 by GAPP).



FIG. 3.7 Tshwane CBD

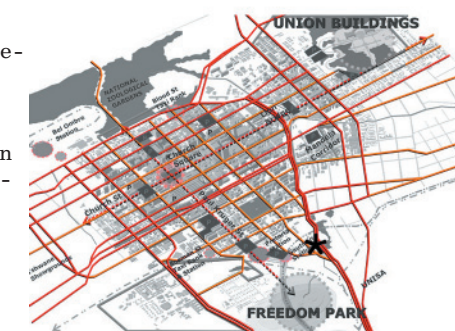


FIG. 3.9 Road network

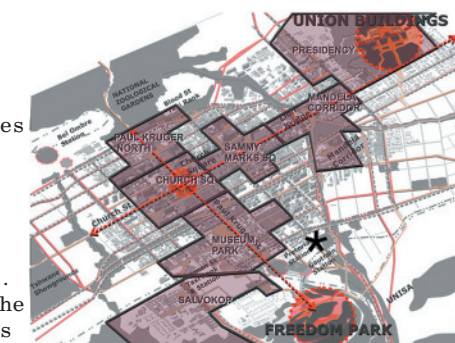


FIG. 3.11 The seven development precincts

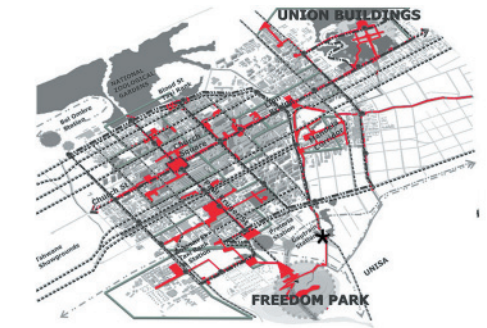


FIG. 3.8 Pedestrian space and link network



FIG. 3.10 Public space

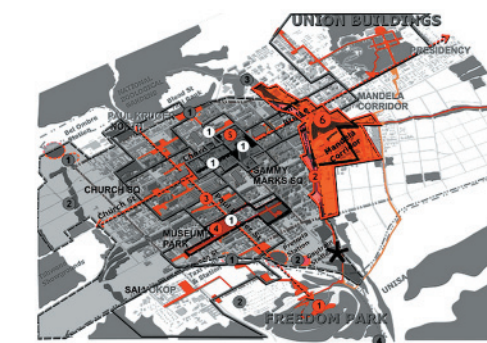


FIG. 3.12 Nelson Mandela Development corridor



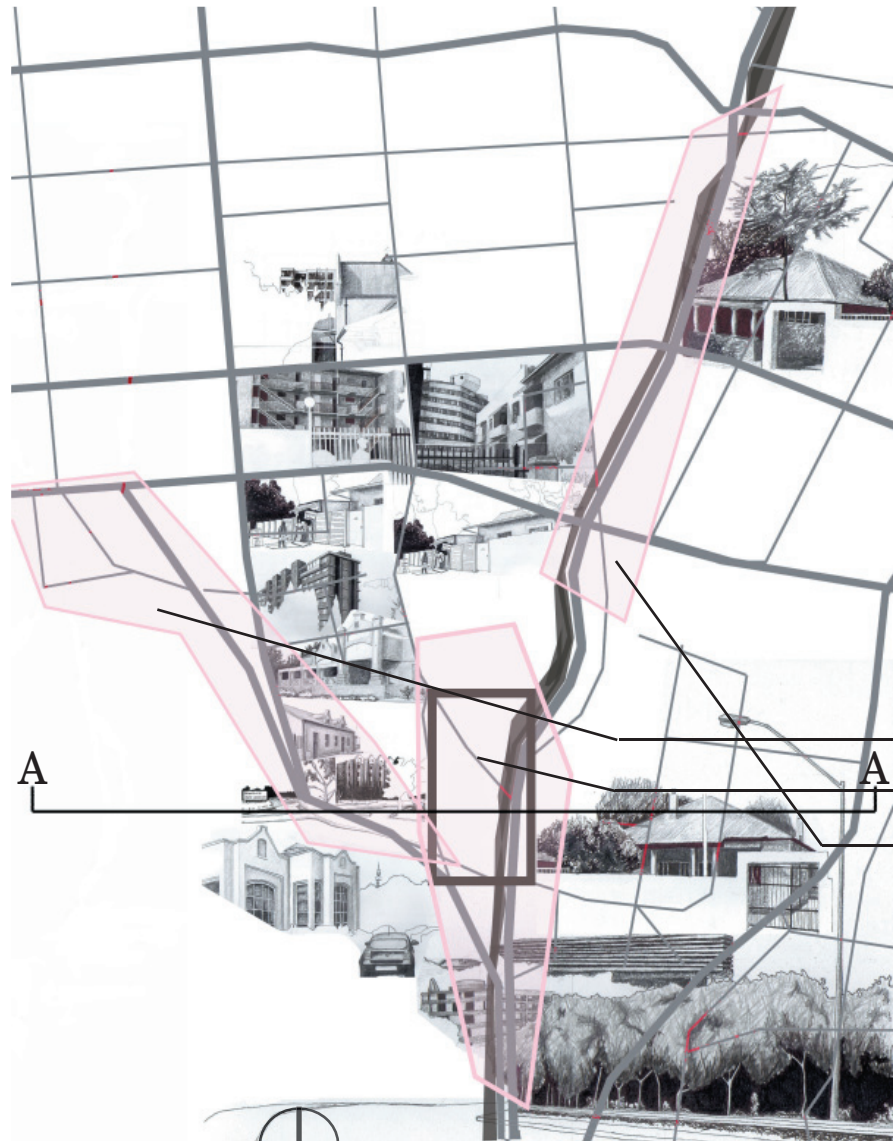


FIG. 3.13 Urban identity map



FIG. 3.14 East-west section A-A

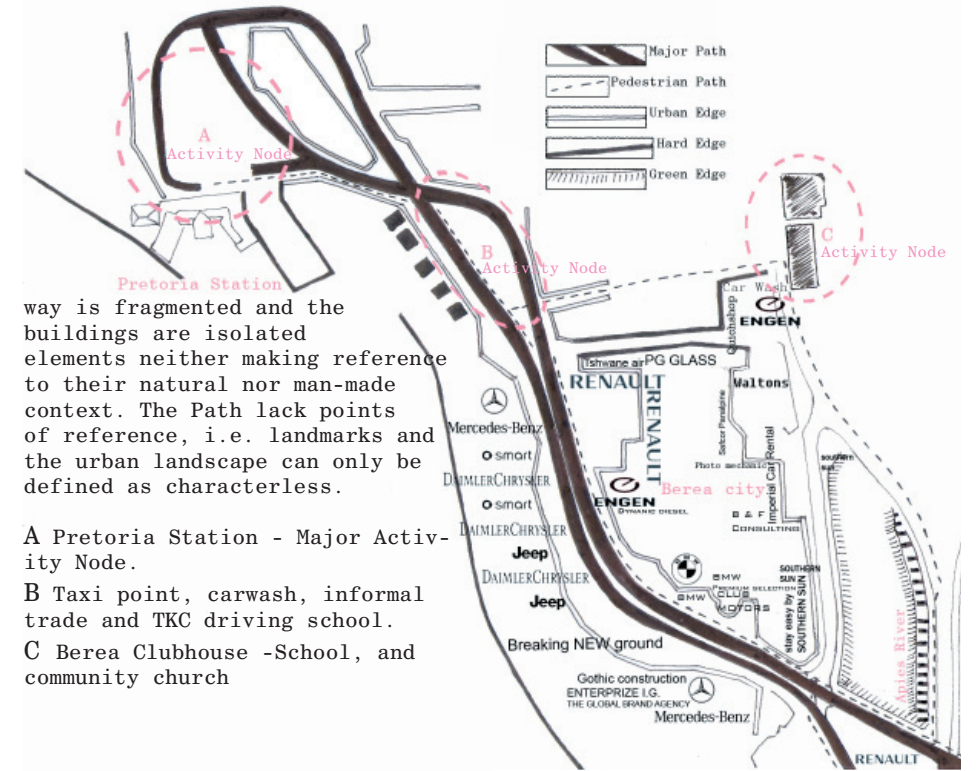
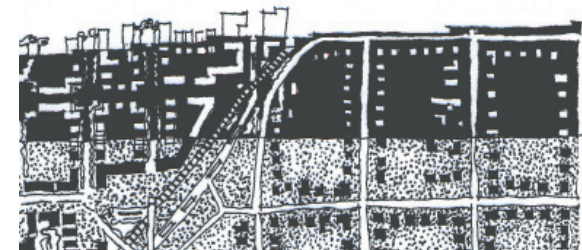


- Urban identity diagram A
- Urban identity diagram B
- Urban identity diagram C

**RAILWAY ST**  
This path links Pretoria Train Station with Nelson Mandela Blv.

The urban fabric along this path is un-defined and illegible due to the lack of character. Berea City is the commercial hub of the area, but communicates and serve only the vehicular traffic passing through. As result, Berea City has become alienated from the pedestrian orientated society in which it is located. Railway St can also be characterised as a fast moving vehicular route, which serves as a major barrier for pedestrian movement. Pedestrian crossings are few and undefined, which in effect discourage pedestrians from using this pathway.

The urban edge defining this path



way is fragmented and the buildings are isolated elements neither making reference to their natural nor man-made context. The Path lack points of reference, i.e. landmarks and the urban landscape can only be defined as characterless.

- A Pretoria Station - Major Activity Node.
- B Taxi point, carwash, informal trade and TKC driving school.
- C Berea Clubhouse -School, and community church

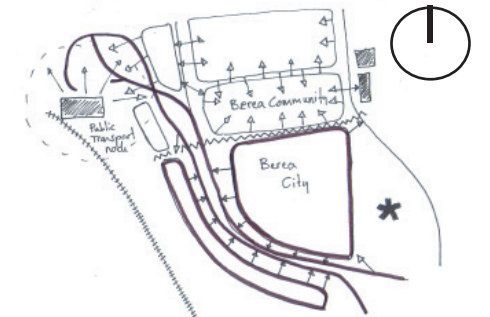


FIG. 3.15 (top) Urban identity diagram A. Railway road.  
FIG. 3.16 (bottom) Communication diagram between Berea city and the suburb of Berea.



### GREEN GATEWAY TO PRETORIA CBD

Nelson Mandela blvd. is the main feeder into Pretoria inner city in a north-south direction via links with the N14 and N1 in the south and is therefore the most prominent gateway into the city.

Nelson Mandela blvd. runs parallel with the Apies River, the most prominent natural feature of the inner city, and forms part of the inner city's open space system. Berea Park and the UNISA Sunnyside campus (both Sport grounds) form the current southern gateway into the city. The construction of Nelson Mandela blvd. resulted in large areas of urban wasteland along the route and large-scale streets, which intersect with Nelson Mandela blvd., resulted in a fractured urban fabric. Furthermore, existing natural features are mismanaged, mono-functional and poorly defined, that don't serve the intended purpose. All this enforces the lack of identity and vision for the area.

FIG. 3.17 (top) Urban indentity diagram B. Nelson Mandela Blvd.  
FIG. 3.18 (bottom) Communication diagram between the suburbs of Berea and Muckleneuk.

Nelson Mandela blvd. is dominated by vehicular traffic and peak-hour traffic has been the greatest spatial form giver during recent developments and the needs of pedestrians and urban citizens have been largely overlooked and neglected.

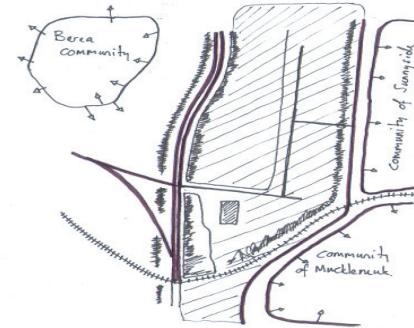
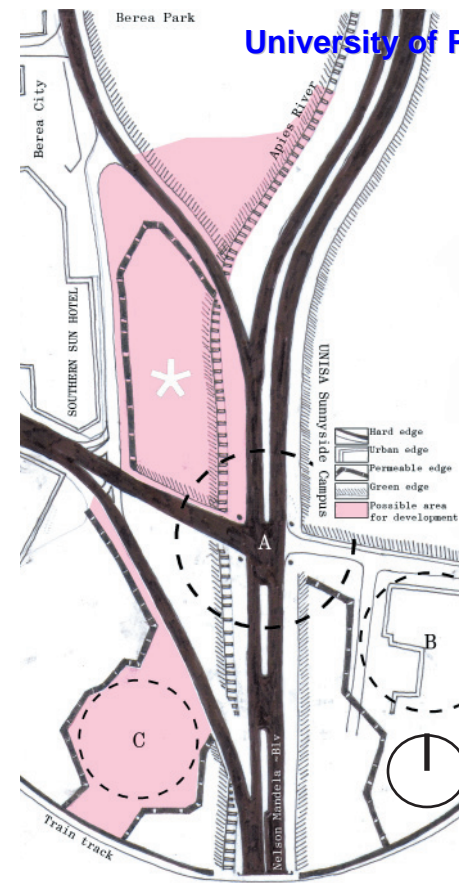
(MDC Urban Development Framework 2005: 3)

A Undefined activity node and major linkage between inner city citizens and the high income community of Mackleneuk

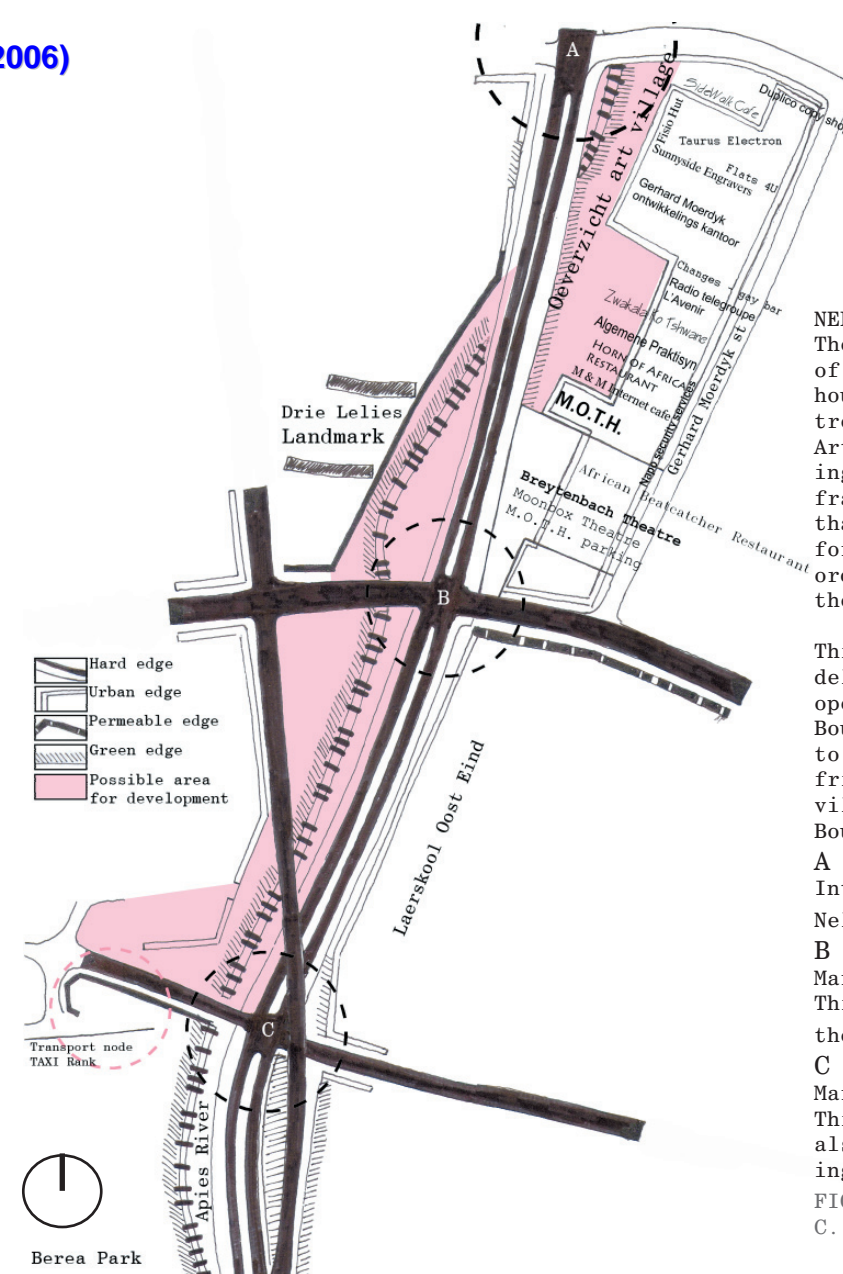
B Small scale formal commercial node

C Informal activity node: community soccer field on weekends.

Nelson Mandela blvd, UNISA Sunnyside campus, Elandspoort rd and the train track serve as a buffer zone between the communities of Mackleneuk and Berea. In effect, no social interaction occurs between these two communities. This lack of interaction contributes to the fracturing of urban fabric and loss of a holistic identity of the area. The urban open space is under utilised, mismanaged and derelict and the Apies River a hide out for criminals and the homeless.



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**NELSON MANDELA DEVELOPMENT CORRIDOR**  
The Oeverzicht art village consists of a variety of existing historical houses and the Bruytenbach Theatre, which becomes the focus of the Arts and Culture cluster according to the MDC urban development framework. The framework proposes that this area provides an outlet for arts and cultural activities in order to strengthen the existing theatres in this precinct.

This section of the Nelson Mandela Corridor is characterised by open wasteland on both sides of NM Boulevard, which does not relate to the Apies River in a pedestrian friendly manner. The Oeverzicht art village is barely visible from NM Boulevard.

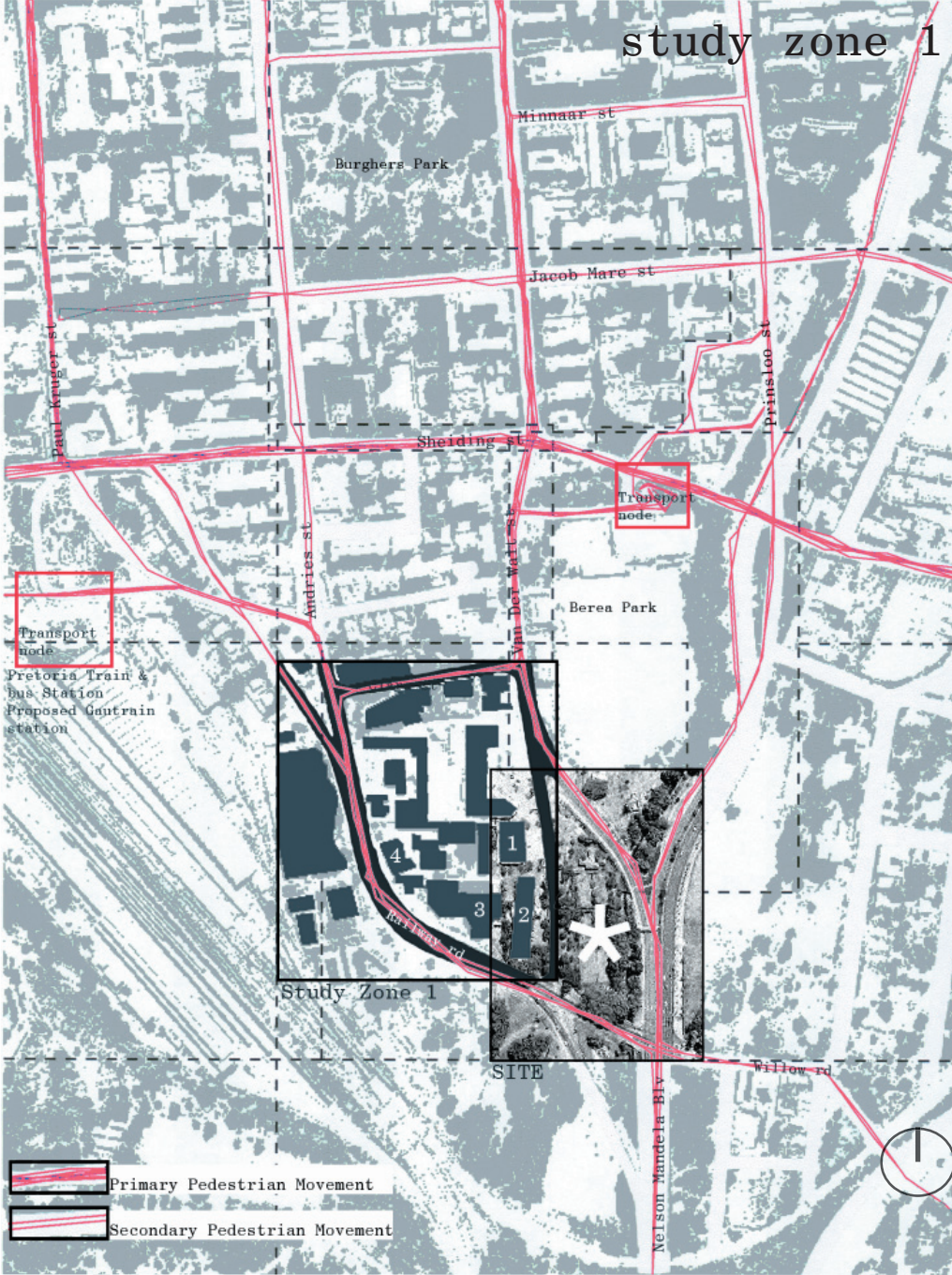
A Large vehicular intersection. Intersection between Kotze str. and Nelson Mandela Blvd.

B The intersection between Jacob Mare str. and Nelson Mandela Blvd. This vehicular interchange node is the current gateway into the CBD.

C The intersection between Jacob Mare str. and Nelson Mandela Blvd. This vehicular interchange node is also an important pedestrian crossing.

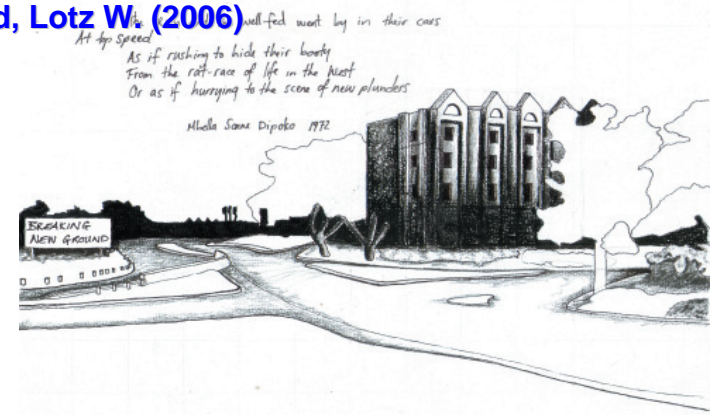
FIG. 3.19 Urban indentity diagram C. Oeverzicht art village.



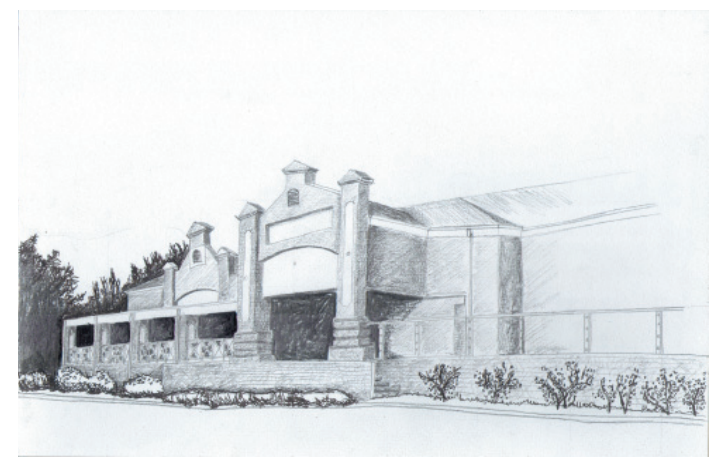


study zone 1

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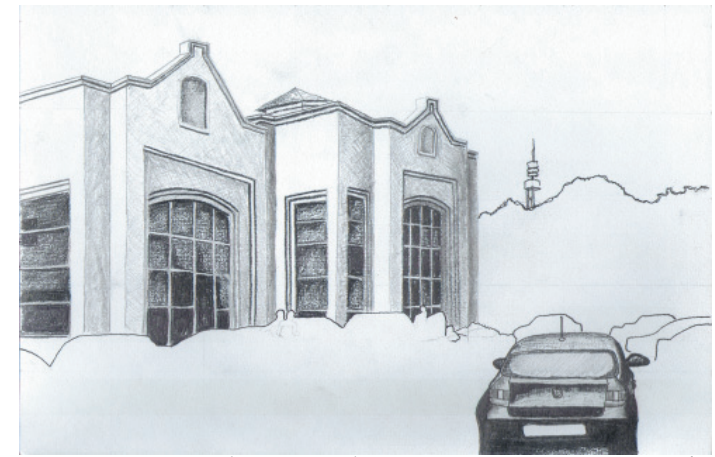
2. (FIG. 3.21) Southern Sun Hotel



1. (FIG. 3.22) Fountains Motown commercial centre

**Fig. 2 FOUNTAINS MOTOWN COMMERCIAL CENTRE**  
 This commercial development is a typical example of contemporary large-scale developments scattered throughout the urban context of Pretoria. The uninspired architectural language is characterised by solid volumes of plastered brickwork and large street facade windows that serve the sole purpose of advertising consumer goods. These developments are usually insensitive towards the landscape and the natural flora is replaced with large asphalt fields. Buildings that dominate their landscape.

The Fountains Motown development is more widely known as Berea city, even though not a single shop in the entire development serves the Berea community. One is left with the feeling that Berea city is inconvenienced by the financially weaker community of Berea and reaches out to the wealthier communities of the eastern suburbs.



3. (FIG. 3.23) Club Motors BMW Dealership

On closer inspection of Club Motors BMW dealership the author, surprisingly, found subtle references made to the architectural language of Berea Park clubhouse and Transnet depot. The straight gable of the Transnet depot were reinterpreted and the corbel repeated. In the case of the clubhouse, the louvered window reinterpreted in aluminium.

**Fig.4 TRANSNET DEPOT**  
 This is an important landmark to the southern entrance into Pretoria CBD. The building is a typical example of the characteristic NZASM architectural style of the settlement at Salvokop.

The building is a big single storey workshop built very close to the road with a corrugated steel roof.

It embodies functional simplicity expressed through exposed stone foundation walls, plasterwork and placement of openings on street facade. A large group of scattered outbuildings grace the backyard. (Le Roux 1990: 170)

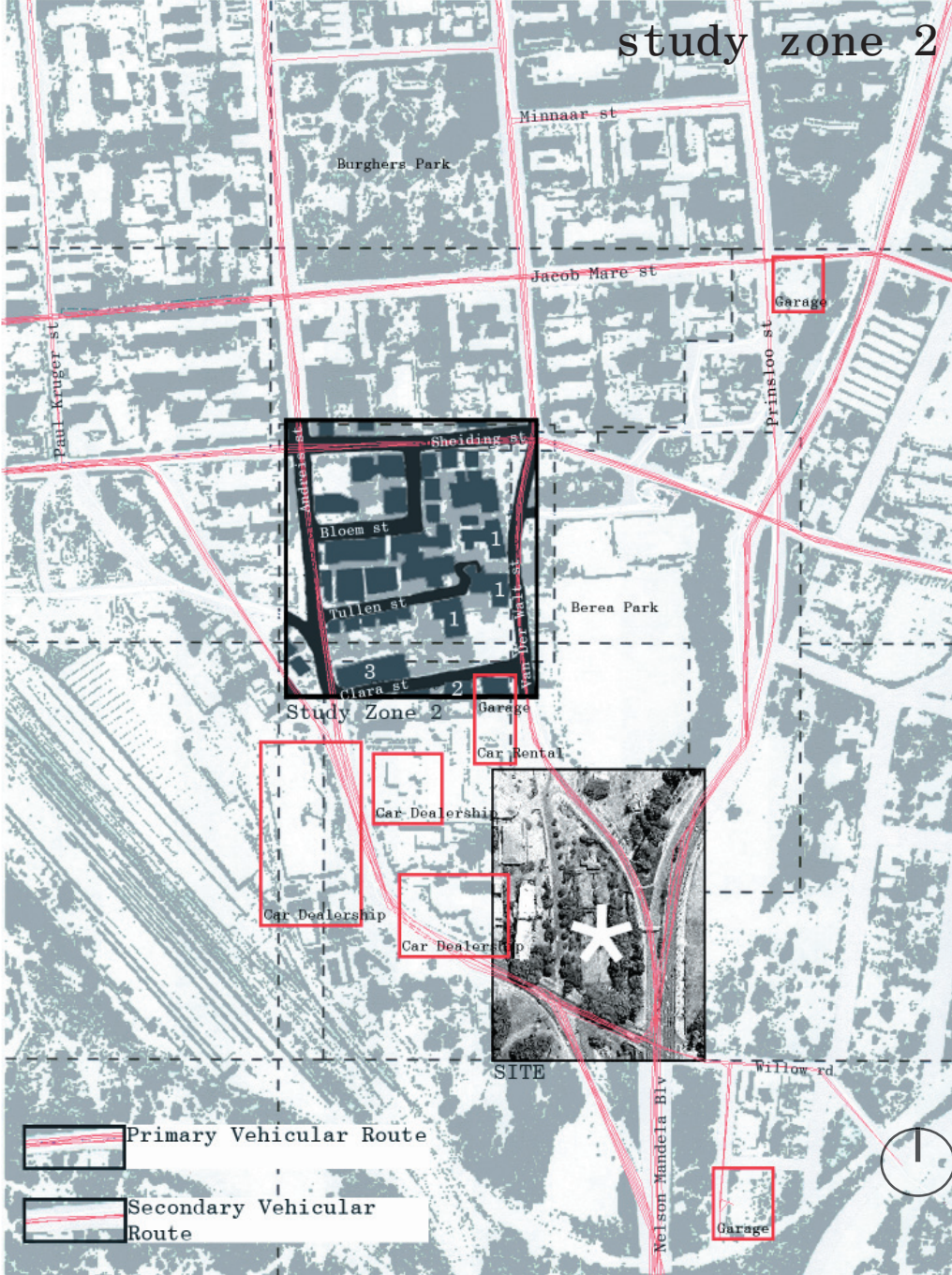
It is a representative example of the architecture of the ZAR, with a strong unity of material as well



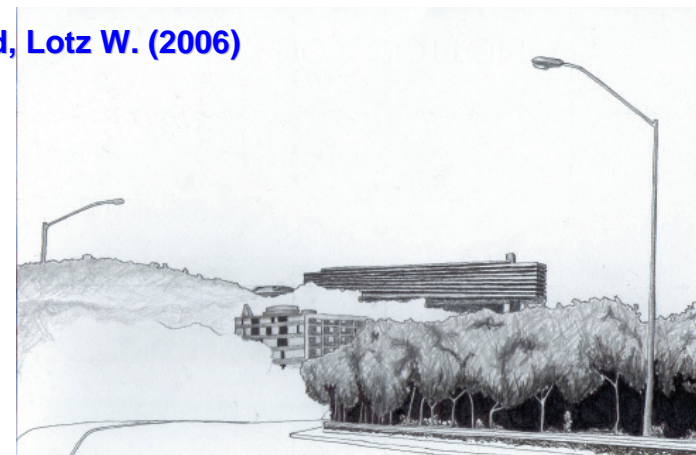
4. (FIG. 3.24) Transnet Offices

as architectural form language. The ZAR style aimed at establishing a unified design language for building groups, instead of individual masterpieces. (Holm 1998: 66)

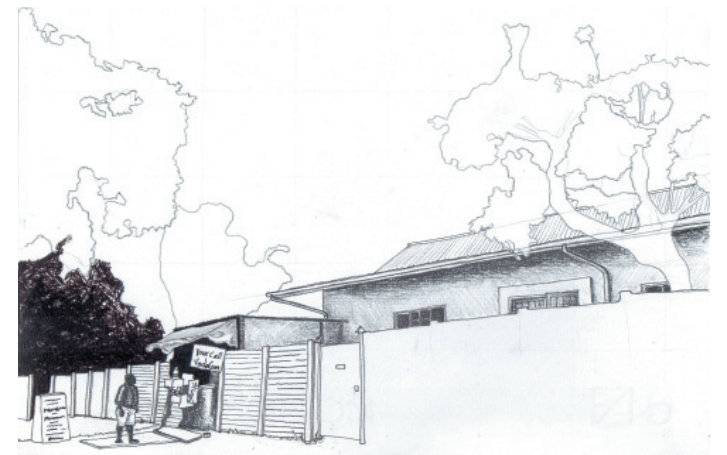




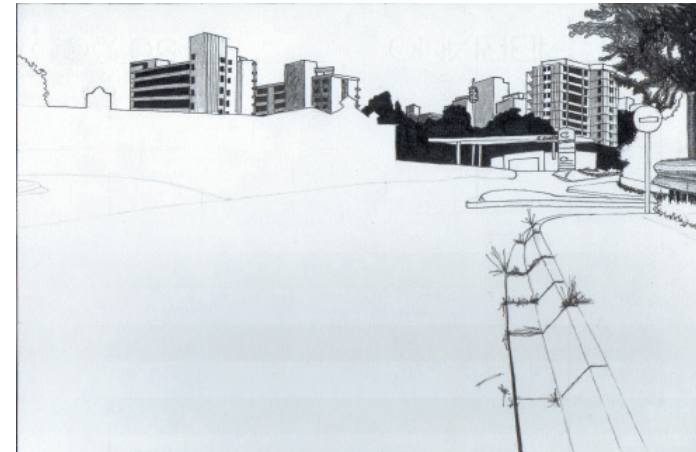
University of Pretoria etd, Lotz W. (2006)



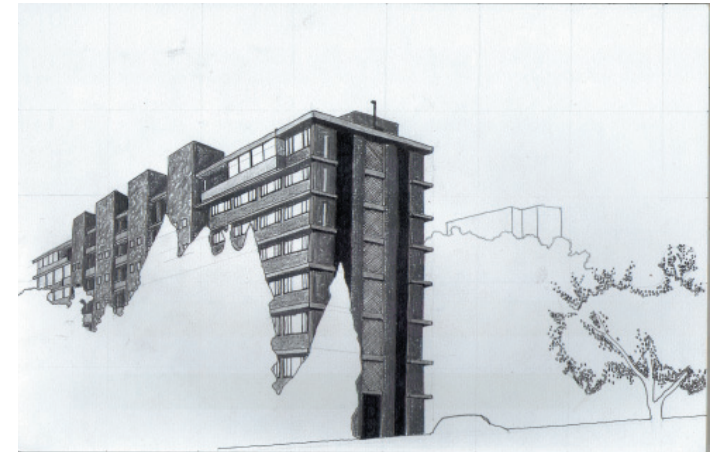
4. (FIG. 3.26) View of UNISA from the site



2. (FIG. 3.27) Pink House in Clara ST.



1. (FIG. 3.28) City View from site



3. (FIG. 3.29) Clara Berea Lodge

Fig.2 APPROPRIATION OF THE EXISTING  
The Appropriation of existing infrastructure in order to accommodate local needs is commonplace throughout post-colonial Africa. Pretoria is no exception and this house located near the site is a prime example of this phenomenon.

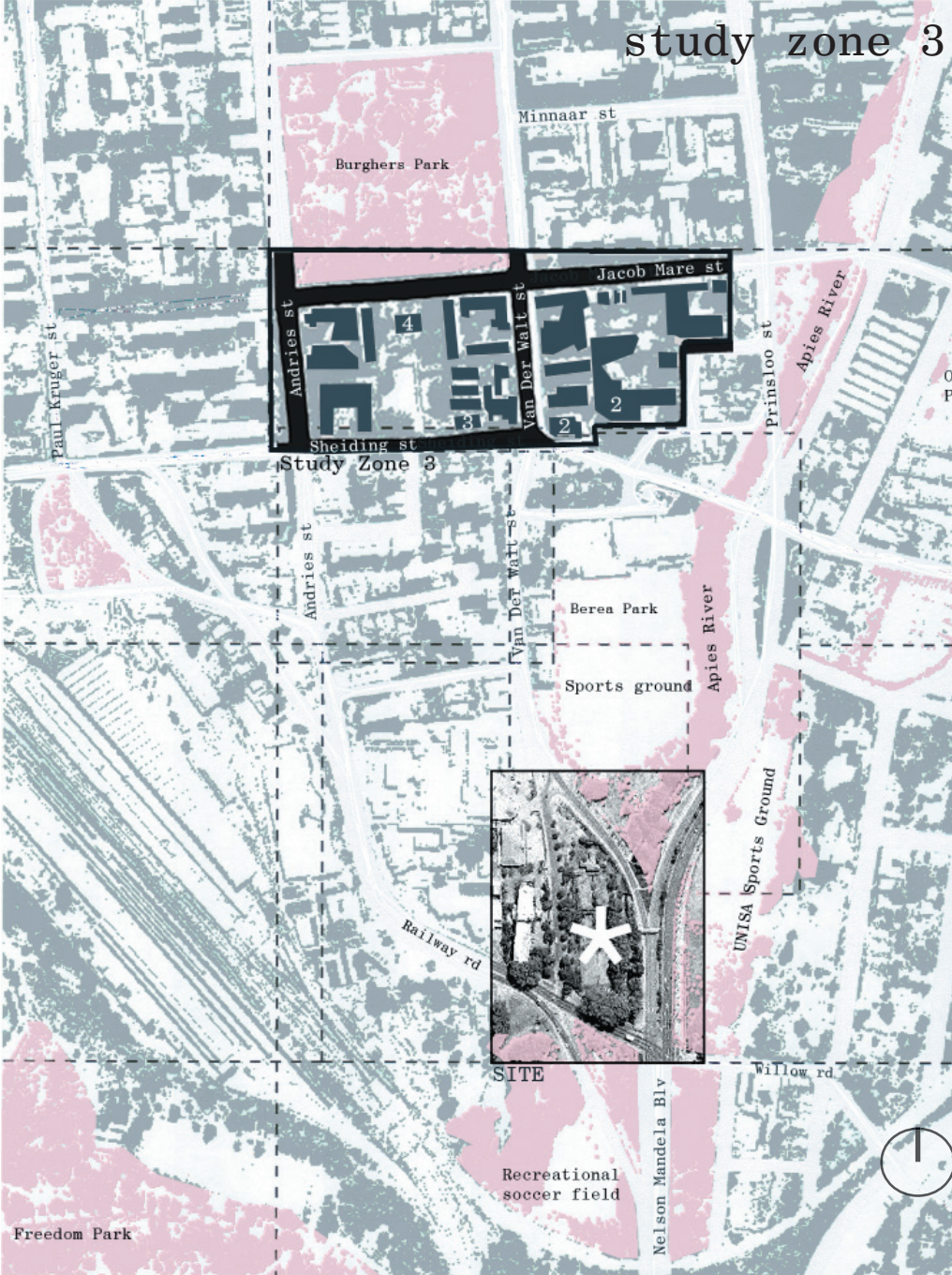
The owner, a Nigerian, appropriated his garden wall to accommodate

a small informal shop. This little business, among a few others in the area, flourishes due to the lack of supermarkets in South Berea.

The kiosk is built from discarded and recycled materials and sells goods varying from home appliances to cell phone airtime. The owner creates job opportunities by employing local woman from the area.

Furthermore, the kiosk adds vibrancy and colour to the previously dead streetscape.





study zone 3

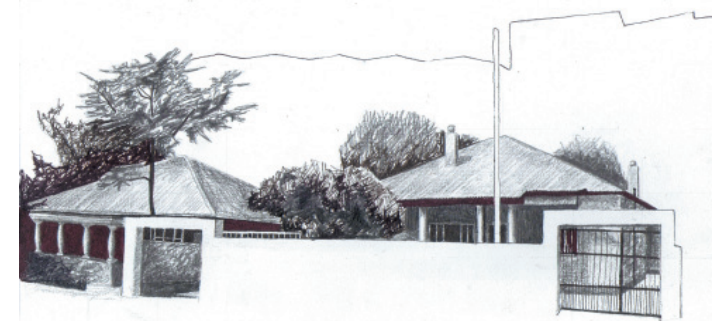
University of Pretoria etd, Lotz W. (2006)

**Fig.2 BEREHA MANSIONS**  
 Bereha Mansions is a typical example of the 'modernistic' architectural trend of the 1930's, a duel between art deco and modernism. Art Deco, with its characteristic block-shaped, geometric forms and decorations led the way for the acceptance of the modern movement in architecture. A double volume entrance portal and roof projections on the street facade are typical of this architectural movement.

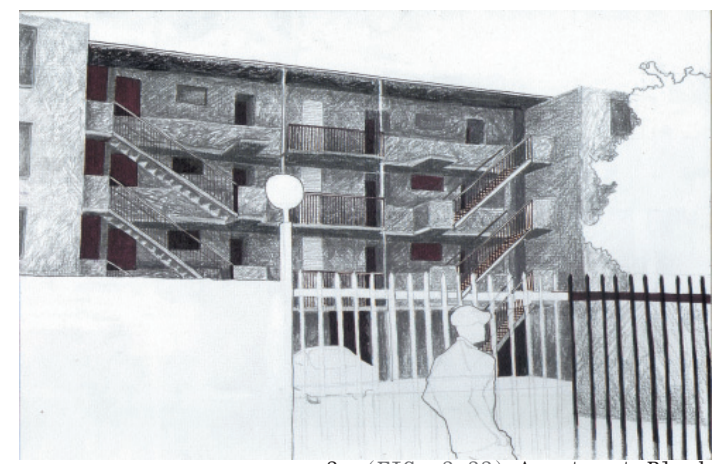
Art Deco, with its superficially modern features, was a style with a strongly associative character and expressed fashionable progressiveness and optimism. This universally popular style was harshly criticised by architects of the International style, who insisted on a functional and structural architecture, free of decoration.

Art deco was an art glorifying the machine and inspired by the speed of the automobile and plane - a faith in mechanised modernity wich celebrated glass, alumenium, polished steel and chrome. Mosaic floors, chrome-plated doors and decorated window-panes are characteristic features associated with art deco architecture.  
 (Fransen 1982: 235-236)

**Fig.4 MELROSE HOUSE 1886**  
 Eclectic Victorian of nature, this building reflects the lifestyle of a typical family of high financial standing during the late nineteenth century. The house is isolated in the middle of the garden, and



1. (FIG. 3.31) Doctor and Dentist



3. (FIG. 3.33) Apartment Block

detached from neighbours and the street, a retreat to the private world of the nuclear family.

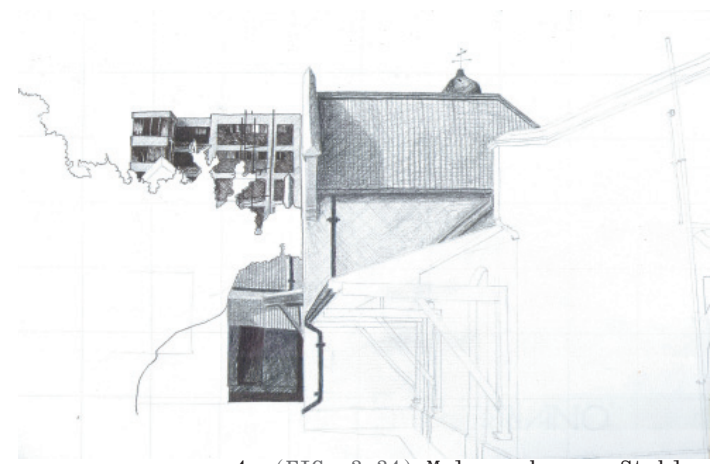
The Victorian house proclaims privacy through the structured progression from public to private spaces. Surface design transcends the importance of space design and the building's structure disappears in an outer layer of decorative

work serving as screens from which insiders are allowed to observe the street without being seen. The asymmetric design of the building allows for movement, adaptability and change.

The building is characterised by the elaborate use of imported pre-fabricated materials ordered and exported from England as per cata-



2. (FIG. 3.32) Bereha Mansions(right) and Prestige Park



4. (FIG. 3.34) Malrose house: Stables

The building has a veranda that serves as a climatic response to the fierce sunlight and serves as an effective shading device.

The building is of great historic and cultural value.  
 (Holm 1998: 70-71)



- automotive and commercial cluster
- sport and recreation cluster
- government and business cluster
- ARTS AND CULTURE CLUSTER

MANDELA DEVELOPMENT CORRIDOR (MDC) urban development framework : prepared by Urban Solutions Architects and uraban designers, January 2005.

The framework proposes a set of principles that guards the urban spatial expression and ensures an urban environment that is legible, coherent and easily understood. Its aim establishes a clear understanding of what the urban environment looks like and the way it reflects cultural identity. Furthermore, it aims at maximising social interchange through urban form, which will encourage and facilitate exchange between people. (MDC 2005: 1-2)

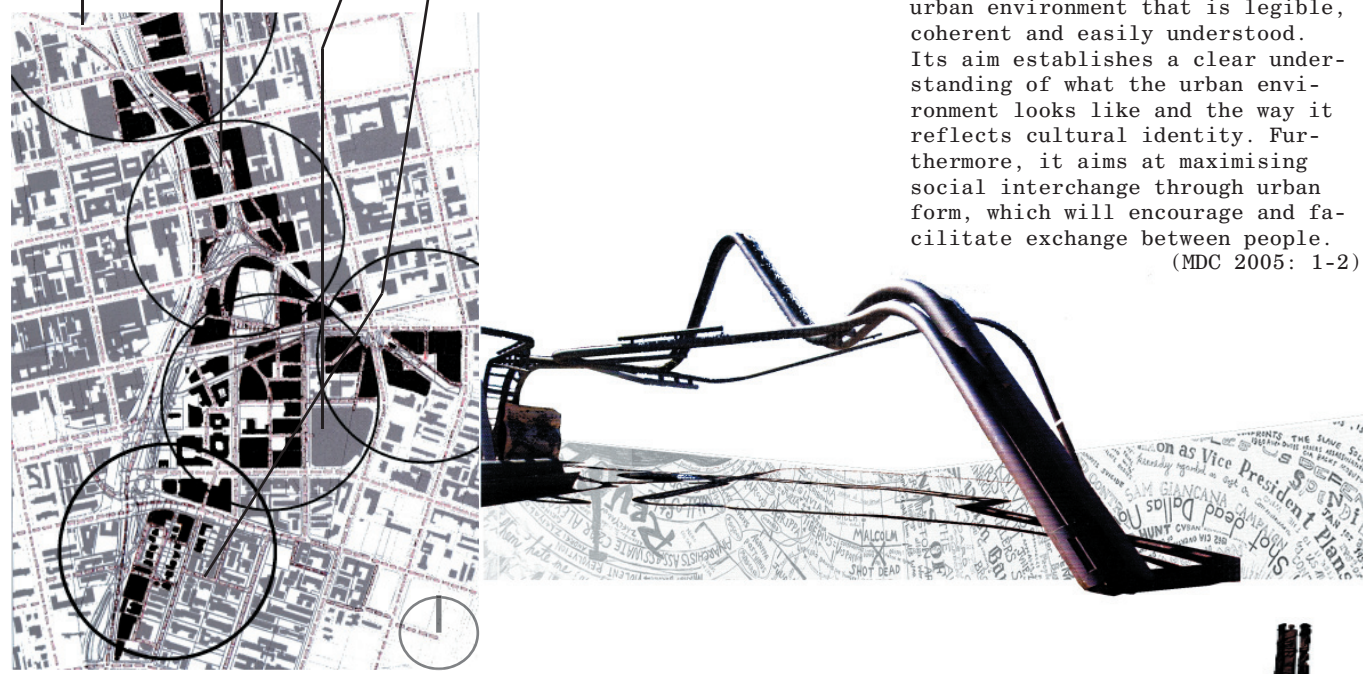


FIG. 3.35 Urban development proposal for the MDC as prepared by Urban solutions architects and urban planners.

The MDC proposes four development precincts: the automotive and commercial-; the sport and recreation-; government and business-; and the arts and culture cluster. The proposed development falls within the arts and culture cluster. The local district identity of the arts and culture cluster will serve as an outlet for arts and cultural activities and strengthen the existing theatres of this precinct. This dissertation will briefly discuss three design principles, which will visually communicate with visitors and urban dwellers alike. The three design principles are: signage; surfacing and; art and sculpture. (MDC 2005: 12)

Signage - Signage can contribute significantly to the overall appearance of the MDC. The signage system should address all general and individual needs and requirements in terms of locational, statutory and advertisement signage. In order for signage to be understandable it is important to group signs together to avoid clutter and confusion (MDC 2005: 19).

Surfacing - the hard surfaces of urban open spaces and pedestrian walkways along the Apies river should be firm, smooth, non-slippery and stable. The MDC framework proposes that African motifs

- geometric patterns of basket designs and the spatial sequences of traditional villages can be used as precedents to be reinterpreted as hard surface designs (Ibid).

Art and Sculpture - The MDC confirms that Art and Sculpture is an expression of a society's culture and values at a specific point in time. Urban art and sculpture will serve as focal points along a pathway and improves the legibility of a urban area by becoming small easily identifiable nodes that transform urban landscapes into interesting spaces and adds to the variety of routes (MDC 2005: 20).

FIG. 3.36 Photo montage illustrating urban art and sculpture.





University of Pretoria etd, Lotz W. (2006)

### URBAN PROPOSAL

The site is to be integrated with the Oeverzicht art village, which forms the central core of the Art and Culture Cluster as proposed by the MDC urban development framework. This integration can be established by means of a pedestrian friendly walkway that responds to the Apies River from the intersections of Visagie road (north) and Railway road (south) with Nelson Mandela Boulevard. This link should be strengthened through the introduction of urban sculpture on regular intervals, seating, lighting to illuminate the walkway at night, surface treatment that corresponds with the identity of the immediate urban context (to improve legibility) and a security network consisting of security guards patrolling on bicycles along the route.

Pedestrian friendly road crossings: different height and surface treatment of pedestrian crossings in order to slow vehicular traffic down, accessibility of crossings improved to facilitate the old and infirm.

Restoration of Berea Park to perform its intended use: The sport facilities should be upgraded to facilitate sporting events, including formalised and informal soccer matches, thus also made more accessible to the urban residents of Berea, Sunnyside and Muckleneuk. The current function, a primary and a high school, should remain and upgraded to ensure a quality education, which in turn will attract a wider economic spectrum of pupils.

Appropriation of Berea City: This retail development is unsuited and insensitive to Berea and should be appropriated / or preferably redeveloped to accommodate formal and informal retail facilities on ground floor, office space on second and third floor and residential on the fourth floor. This will ensure a variety of activities over a longer time of usage and the different activities and people will provide a rich perpetual mix, which increase choice and establish a wide variety of meanings.

Establish a link between Pretoria and the proposed Gautrain stations with Berea city and the site: the proximity of Berea City to the train station (7 minutes walk) should be exploited and the extremely pedestrian unfriendly environment appropriated. A large percentage of Berea residents rely on public transport and the train and the connecting route is undefined and characterless. The existing pavements should be upgraded and widened as well as the introduction of street lighting and tree lanes. Informative signage are to be provided in order to improve legibility.

Introduction of urban agriculture: a large component of the female residents of Berea are unemployed and the introduction of urban agriculture in lost space will economically empower this demographic component by means of selling the fresh produce. Furthermore, urban agriculture provide functional urban green space, it utilises urban lost space and restores the historic function of a fresh produce market to the area.

Establish a pedestrian connection between Freedom Park and the Nelson Mandela development corridor. Freedom Park will be a historically and culturally significant urban green space and the pedestrian connection will ensure the continuity of the urban open space system of the city.





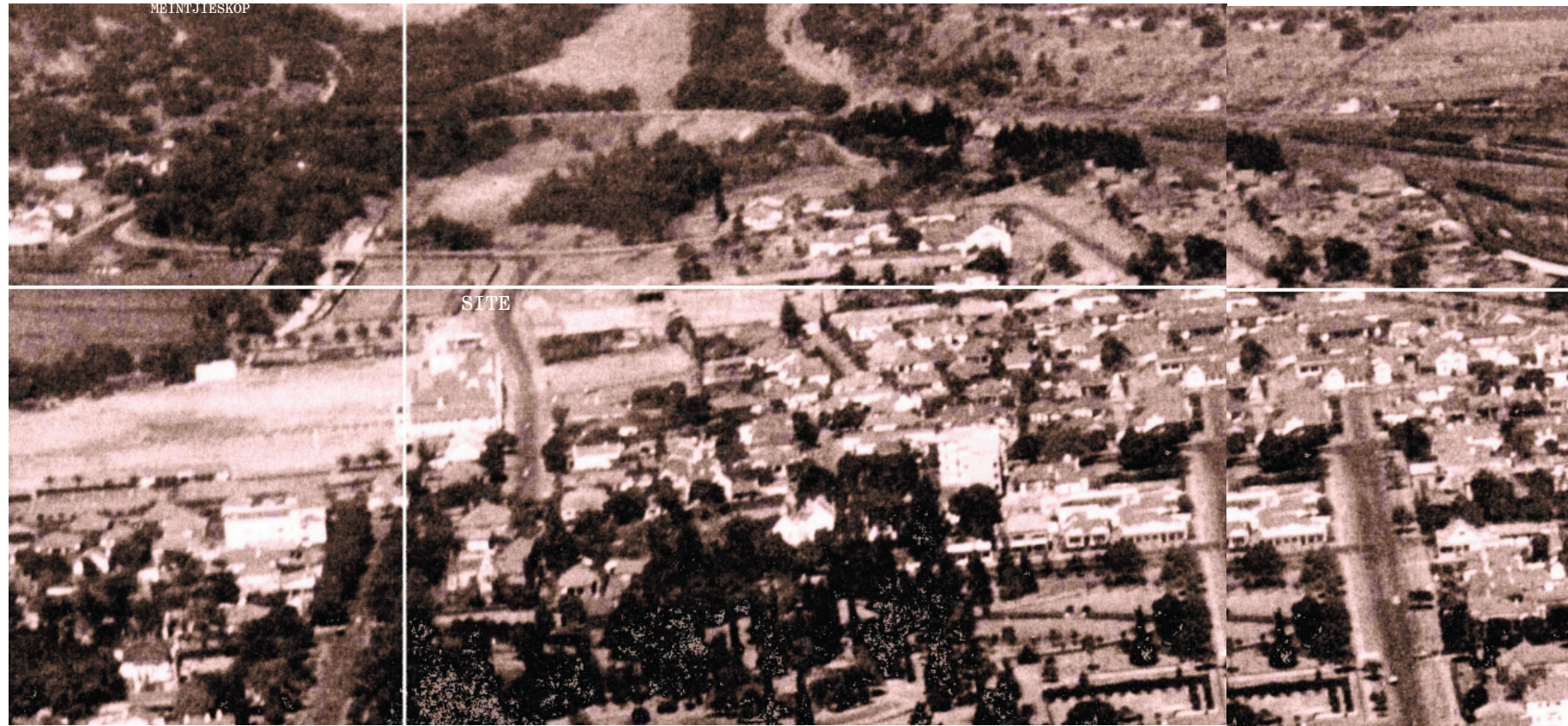


FIG. 3.38 Aerial photograph looking south S-west 1937 by SA airforce

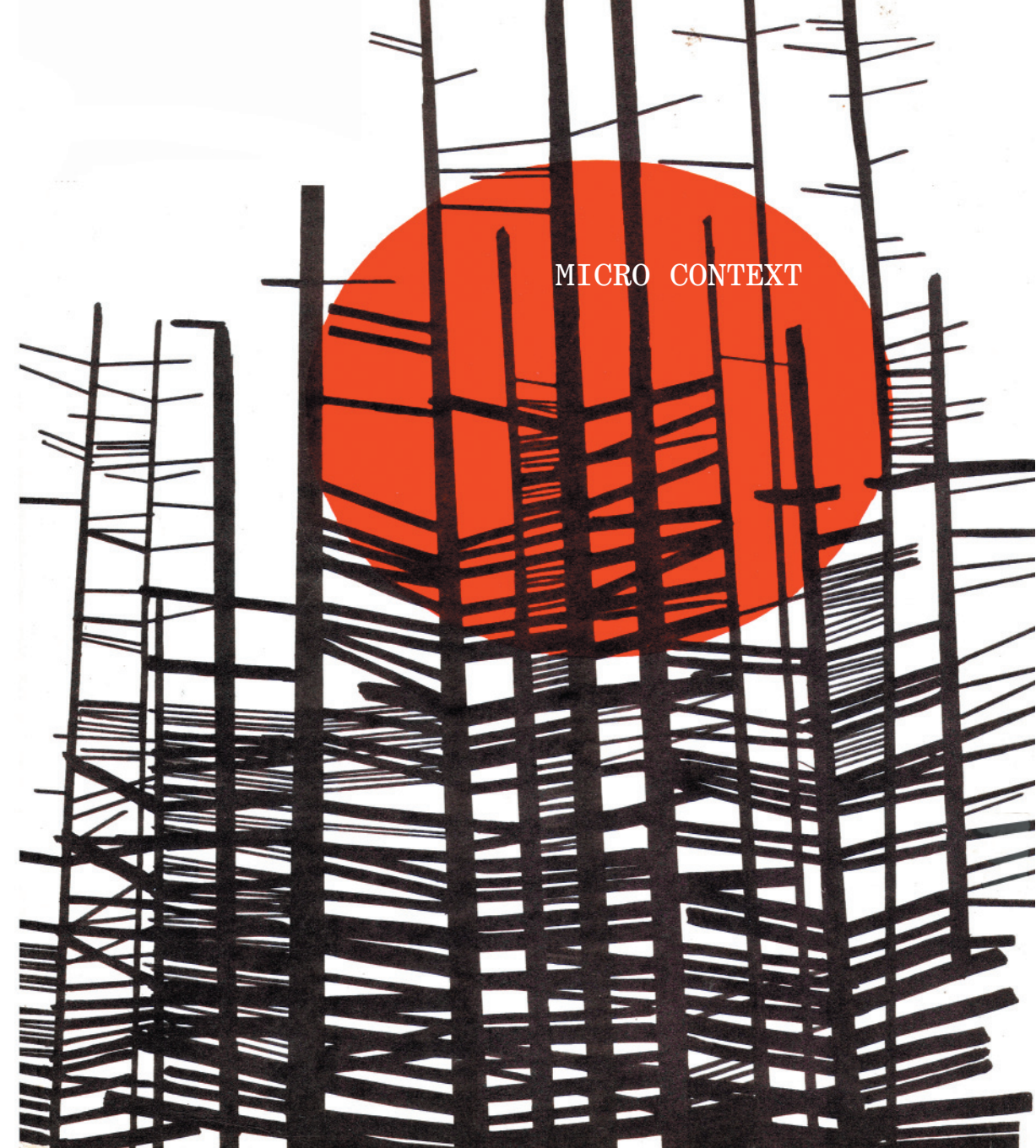


FIG. 3.39 Aerial photograph 1934

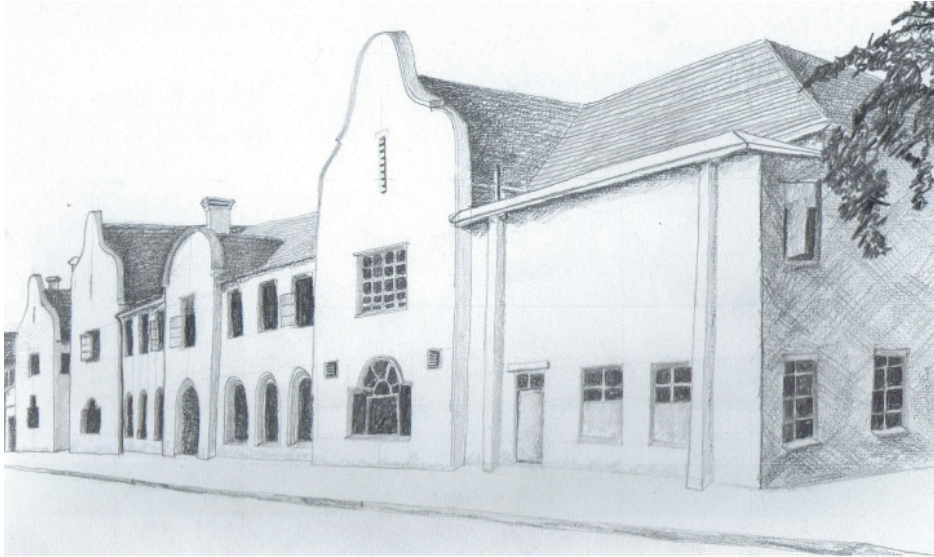


FIG. 3.40 Aerial photograph 1996





MICRO CONTEXT



### HISTORICAL CONTEXT

The Berea Club was developed in 1897 and sold to the South African Transport Services in 1903. The Southern clubhouse (pictured above) was built in 1907, designed by S.A.R & H. In 1913 the club had 1 200 members. The northern club hall was built in 1926 as a loose standing building, the same year in which the Berea Rugby Club was started. Berea Park was the only sports facility in the young Pretoria and provided a library, music room and bar to its members (Jansen 2001: 5). The first South African automobile was exhibited at Berea Park in 1897 (ARUDF 1999: 16). This landmark site and buildings

are of great cultural and historic value.

The construction of the Van der Walt Slipway leading off Nelson Mandela Blvd (R21) resulted in the Berea Sport Ground being cut in two: the tennis courts (south) severed from the main sport grounds.

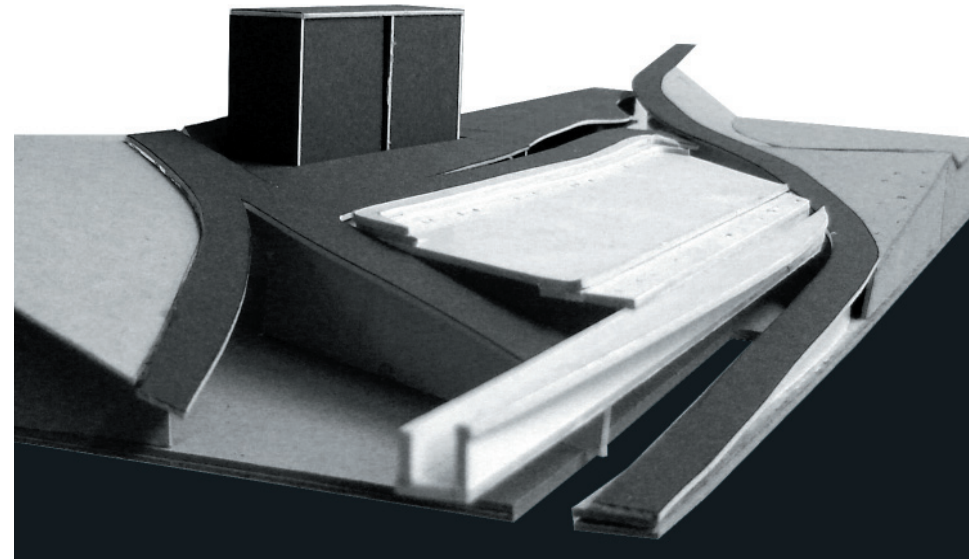
The tennis courts have fallen into disrepair and are currently overgrown, tree roots cracking and lifting the surface. Only ruins remain where the tennis clubhouse stood, and the site has become a rubbish dump.



FIG. 4.2 Drawing of Berea Clubhouse (2006).

FIG. 4.3 Aerial photograph of Berea Sport Grounds and the site (1934).

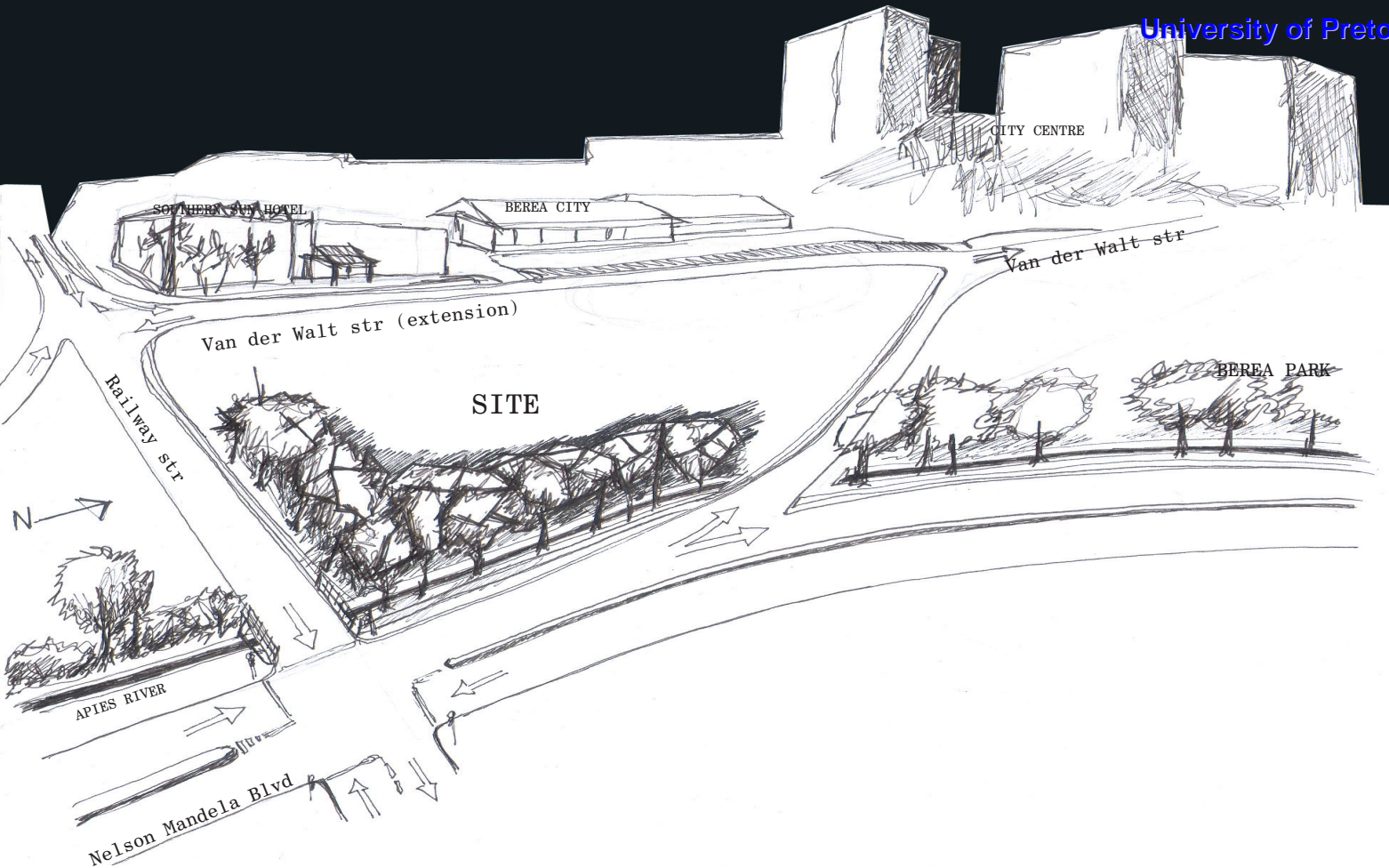
FIG. 4.4 (opposite) Photograph of the site exploration model (2006).



In architecture, context is much more than the building's immediate physical surroundings. Context is a representation of the self-image of the city, the aspirations of its politicians and the visions of architects. Context is the dirt and grime that soils polished metal and glass of a newly constructed building. It is the sound of a door slamming, a gunshot late at night and a dog barking 10, 20 years in the future.

A new building is brutal; it is shocking. It pokes a hole in city life. It forces people to change their habits, take new routes, look elsewhere to see the sky. It forces their bodies in contact with new materials - they must walk on new stones, hear their voices thrown back from new surfaces and meet their own eyes in new mirrors. And it forces them into contact with each other - across new counters, walking new corridors, facing strangers at new tables. This new hole in reality, before it starts to heal over, covered by the scar tissue of new habits, dust and dirt, briefly lets in light and fresh air through the heavy blanket of normality. Before it is conquered by familiarity, it represents new dreams, new possibilities; it prises open and challenges preconceptions (Almaas 1997: 68).





## ACCESSIBILITY

### VEHICULAR ACCESSIBILITY

Vehicular access to the site is a major constraint, due to the fact that three one-directional fast feeding roads flank it. Nelson Mandela Boulevard and the Apies River, as well as the Van der Walt slipway, form an impenetrable barrier on the eastern and north eastern edges of the site respectively. These two roads feed the inner city with vehicular traffic from the eastern suburbs, Centurion and Johannesburg International Airport via the Fountains circle.

Railway Street, a one-directional fast feeder, runs along the southern edge of the site, crossing the Apies River. Railway Street directly connects the site with Pretoria Station, which is 0.8km or seven minutes' walking distant. The site is accessible from the bi-directional extension of Van der Walt Street, which forms the western edge of the site, which currently serves the Southern Sun Hotel and Berea city. Access to the proposed development can only be attained from this road and the western edge of the site. This extension of Van der Walt Street is currently a quiet road and has the potential to become a bustling pedestrian walkway in light of the proposed development.

### PEDESTRIAN ACCESSIBILITY

The Nelson Mandela development corridor (MDC) framework proposes a pedestrian-friendly walkway all along the Apies River in order to utilise this open space system of Pretoria CBD. Heavy pedestrian movement occurs along Van der Walt Street, especially during the afternoon when students of Founders High Primary School (Berea Clubhouse) depart towards Pretoria Station. Pedestrians moving south avoid the site, due to its poor response to the Apies River, and move along the Van der Walt slipway across Nelson Mandela Boulevard. A steady flow of pedestrian movement to and from Pretoria station and the residential area of Muckleneuk

moves along Railway Street. The Pedestrian walkway along Nelson Mandela Boulevard, south of Scheiding Street, is rarely used and has become unsafe due to muggings.

In order to realise the future vision for the Nelson Mandela corridor, it is of paramount importance that the site responds to the Apies River in a pedestrian-friendly way. Pedestrian access to the site will be realised from the east along the Apies River, in accordance with the MDC guidelines, as well as from Berea City northwest of the site. It is furthermore important that the site regains its historically green recreational open space character.

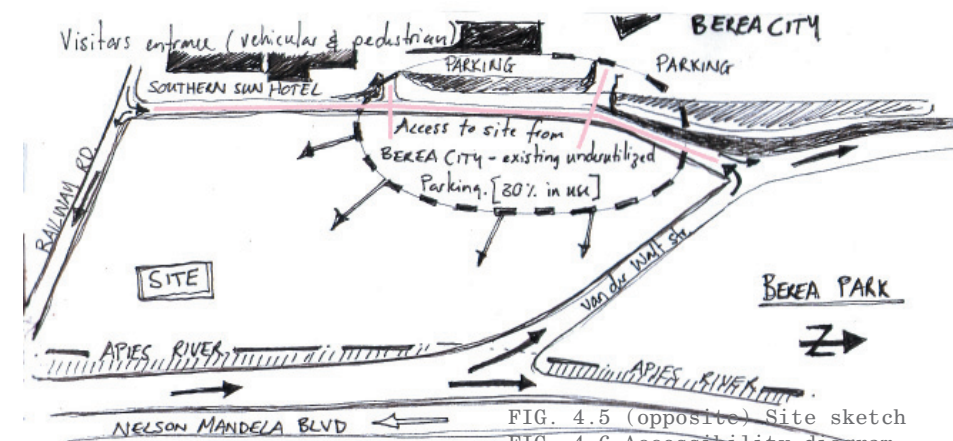


FIG. 4.5 (opposite) Site sketch  
FIG. 4.6 Accessibility diagram.

## BIO-PHYSICAL CONTEXT

### APIES RIVER

The Apies River finds its origin in the Fountains Valley, fed by two springs delivering up to 30 million litres of water per day (ARUDF 1999: 16). It is the most prominent natural feature in the city of Pretoria.

The river edge can be described as uninviting, mismanaged and neglected. It is canalised in a concrete lined culvert without a natural riverbed and has a 50-year flood line of 12m.

It flows along Nelson Mandela Blvd in a northern direction and is the binding element that runs through the entire length of the Mandela Development Corridor (MDC) urban development framework of 2005.

The Apies River culvert design principles as prepared by Urban Solutions architects and urban designers (MDC 2005: 16).

### URBAN FORM/ACTIVE EDGES

*Buildings along the river should provide a strong sense of enclosure for the river. Direct contact should exist between the built up area and the river edges. Active frontages onto the river edge to be promoted*

### LAND USES

*Intense and diverse development types on the embankment should be promoted. Groundfloor uses should be activity generators through a mix of land uses including entertainment, retail, offices and residential activities across a 24 hour period will be ensured.*

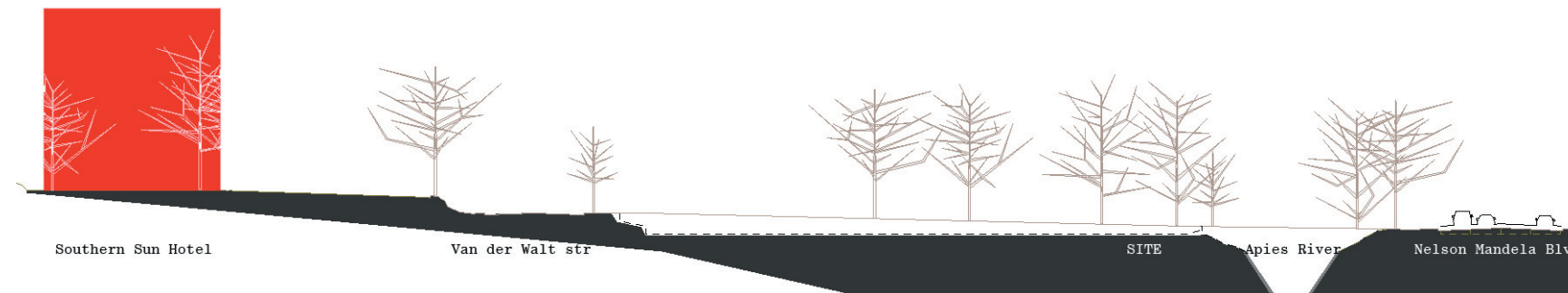
### MOVEMENT AND TRANSPORT

*Wide paved or decked areas (at least 7 meter wide usable area) should be provided all along the river to accommodate pedestrian and cycle movement.*

### SECURITY

*The river edge to be well lit and overseen by a security camera system to ensure maximum use as movement route over a 24 hour period.*

Through the integration and celebration of the Apies river, the quality of the urban fabric will be dramatically enhanced.



### SOIL

Hekpoort Andesite and Shaly Timeball hill formation underlie the site. In reaction to this, ordinary footings or slightly deeper strip foundations can be used. Subsurface pipes and drains have to be installed in order to prevent subsurface drainage, and drainage should divert rainwater away from foundations (Purnell 1984: 36).

### HYDROLOGY

The water table in andesites is six meters deep and strong inflows of water must be anticipated with deep excavation work (Purnell 1984:10). The topology has, as result, a natural flow of water to the north.

### METEOROLOGICAL ASPECTS

**MACROCLIMATE:** half dry and very warm intermediary savannah biome with 125 – 375mm summer rainfall and 62 – 250mm winter rainfall.  
**TEMPERATURE:** January: 20 to 38 degrees Celsius and July: 10 to 27 degrees Celsius. The average monthly diurnal variation is 13 degrees Celsius with a frost period of 120 days between May and September (Gouws et al 1989: 29)

The average relative humidity is 59%.

60 to 80% hour's sunshine p/year.  
**PREVAILING WINDS:** northeast, southeast in the summer and southwest, northeast in winter. (Gouws et al 1989: 69)

Summers are hot, with fairly dry air characterised by thunderstorms generated by thermal air movements. hail is not uncommon. Winter days are pleasantly sunny with clear cold to very cold nights. (Napier 2000: 9.8)

**MICROCLIMATE:** The site is tree rich and surrounded by roads, which results in extensive evaporation and transpiration. Due to the fact that the site is situated next to the Apies River there is less variation in daily temperatures and the site is cooler during daytime hours than the surrounding urban landscape.

**VEGETATION:** Riverbank - *Celtis Africana*, *Kiggelaria Africana*, *Halleria Lucida*, *Leocosidea sericea*, *Buddleja salvifolia*, *Cassinopsis ilicifolia*

FIG. 4.7 (top) East-west section through the site



FIG. 4.8 *Celtis Africana* (White Stinkwood)



Fig. 4.9 *Kiggelaria Africana* (Wild Peach)



Fig. 4.10 *Halleria Lucida* (Tree Fuchsia)



Fig. 4.11 *Acacia caffra* (Hook Thorn)



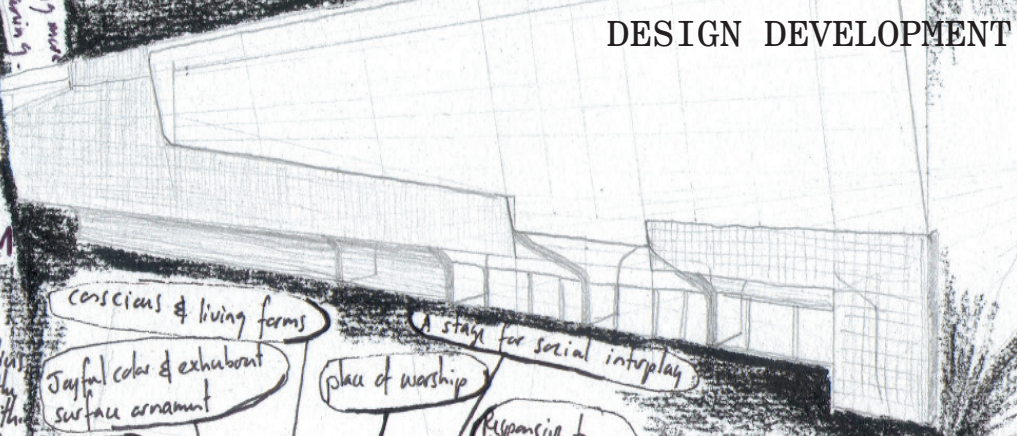
Building is:  
 tool: functional

Work of Art: aesthetically pleasing  
 functional in the African context  
 place of worship  
 Shelter from the elements  
 A tool for protection that prolongs  
 existence: education  
 A stage for social interplay  
 promote communion with ancestors &  
 deities. | Responds to forces of Nature  
 Building is an environment to live  
 in and live with. Jean Paul  
 Bourdieu.

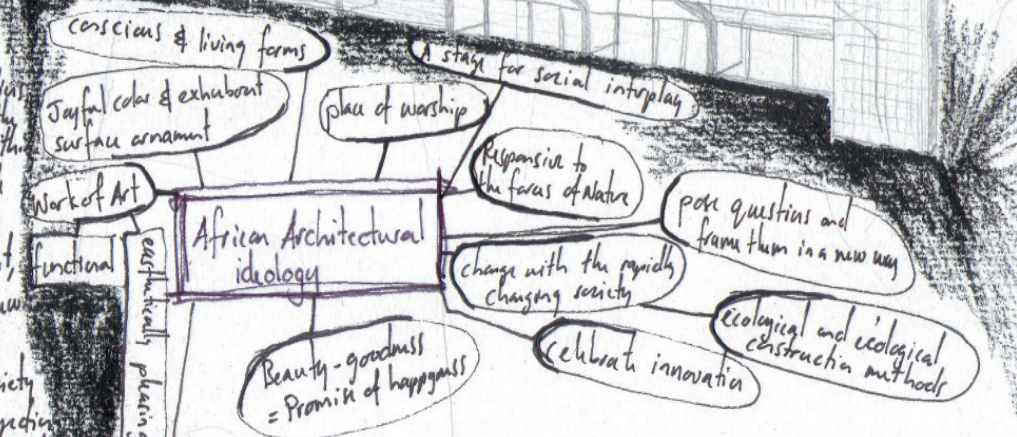
**MYSTICAL PAN-AFRICANISM**

Design: Designing National identity  
 every design solution is an idealization  
 of the political realm. multiple accretions  
 Symbolic building: graving with the  
 stature and the institution handed with  
 it. | The building need not provide  
 all the answers, but it must, to  
 be effective means to enlighten, to  
 Pose questions and frame them in a new  
 way. If a building is able to change  
 along with the rapidly changing society  
 around it can it avoid being the projection  
 of some frozen moment in a political and  
 cultural history. If a building is too  
 far abstracted from any known reference  
 points, it may be resisted, resented, or  
 worse still, ignored. The task is to a  
 Rich Ambiguity so that the building  
 nor be so neutral that it could  
 exist ANYwhere.

conscious and living forms are enriched through joyful color and exuberant  
 surface ornament which challenges viewers and passers by to celebrate innovation  
 as a symbol of Africa's hybrid cultural identities. I deal in traditional  
 exquisite sculptural forms, ecological and economical construction techniques, and community cohesion through a  
 project's symbolism and its process. This architecture is an **BUILDING**  
 amalgam. and  
 a return to timeless traditions.



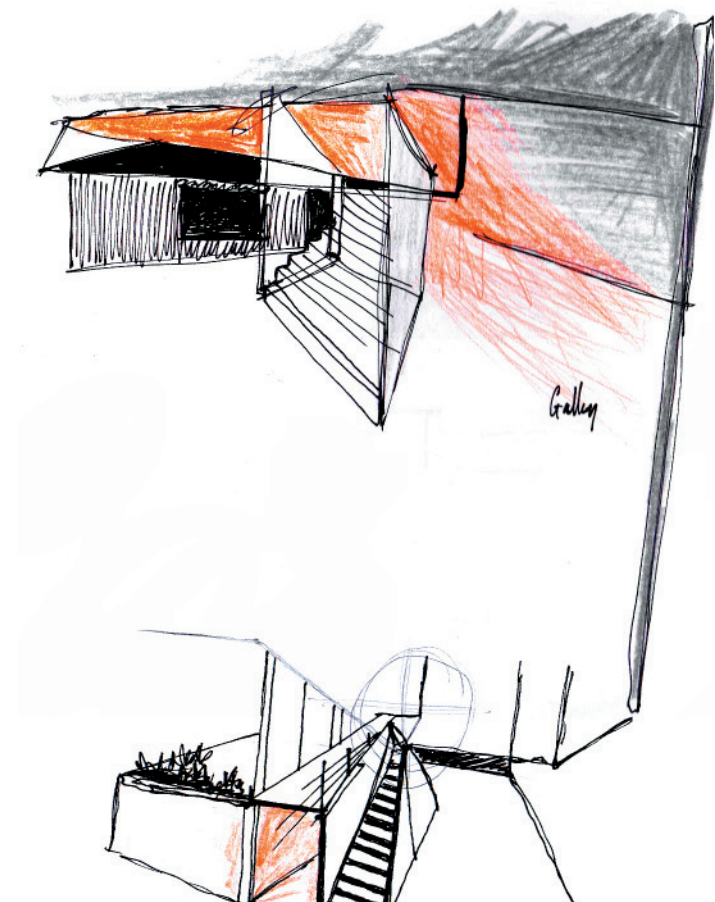
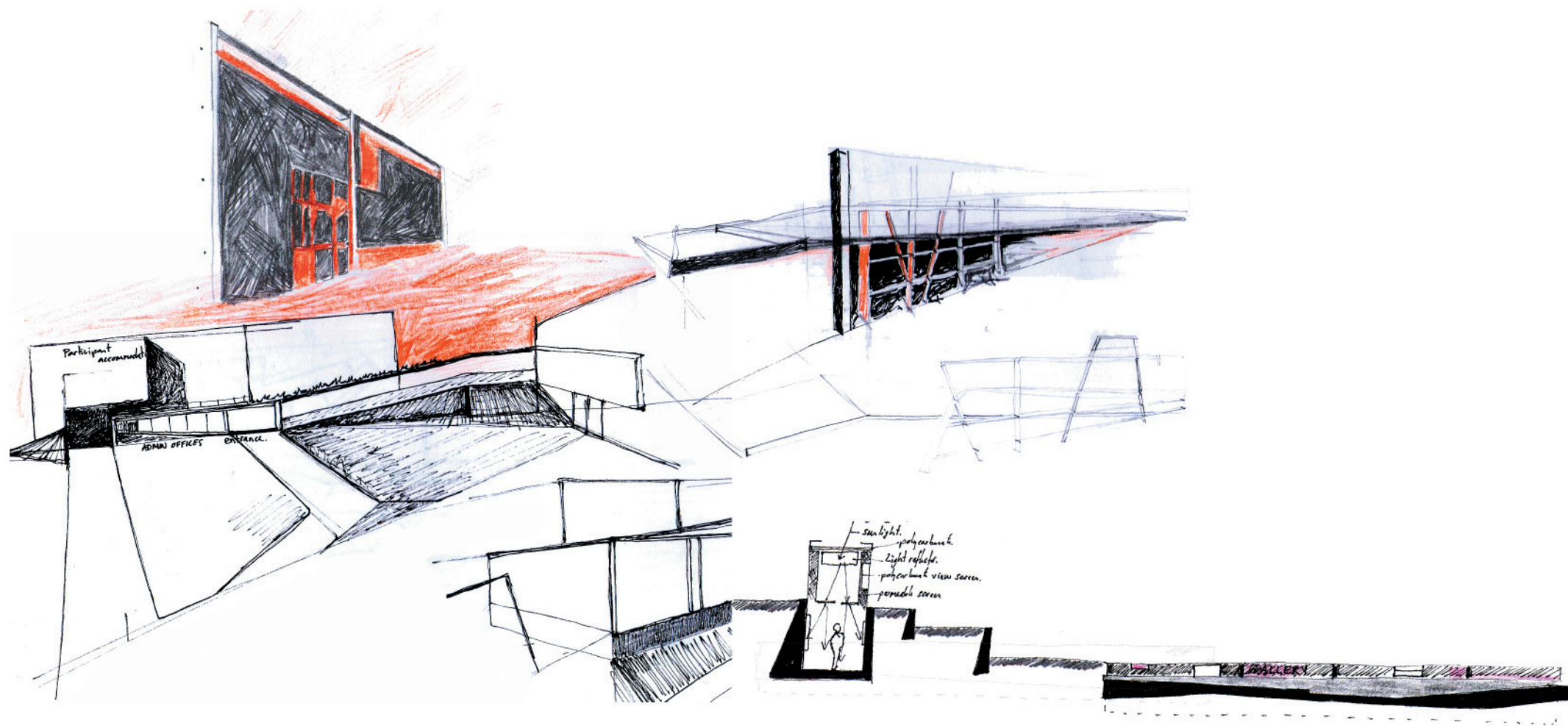
DESIGN DEVELOPMENT



African Art: functional & collective :: committed. they commit the person not  
 just the individual, through the community -> techniques of essentialism  
 uses materials that are at hand and the everyday things that  
 make up the texture of his life, and rejects that which does not commit  
 because it is without significance. In Africa, Art for Art's sake  
 does not exist. Art is social. The African assimilates beauty to  
 goodness, and especially to effectiveness: functional beauty - happiness

The African finds pleasure in becoming vitally acquainted with the  
 world through things and by them.









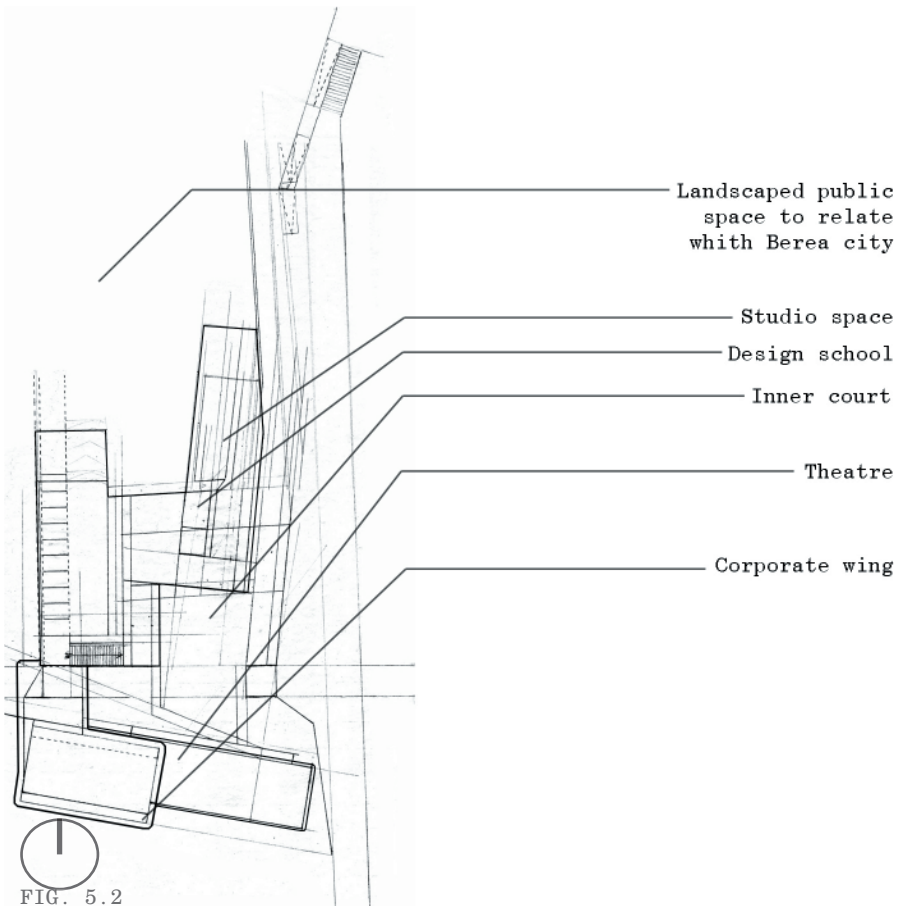


FIG. 5.2

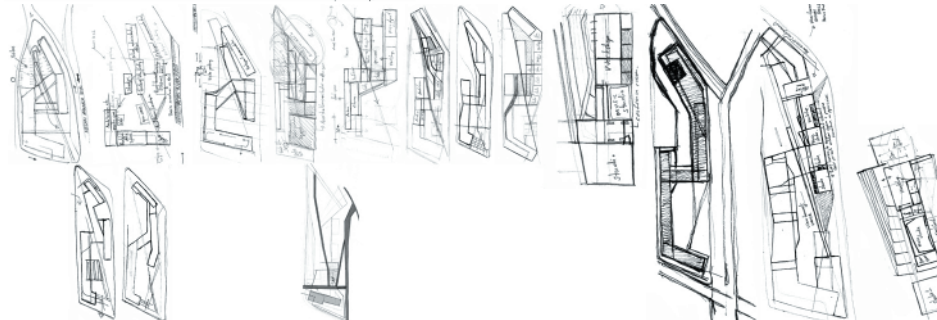


FIG. 5.3

**THE FIST CONCEPT**  
 The site analysis established that the south western corner of the site would be the most suitable location for the proposed project to announce its function, the image façade. This became the departure point of the design, which grew systematically from there. An architecture that does not dominate the site and its context was a very important underlying design consideration throughout the entire design process. This concept was made manifest through the introduction of perforated copper cladding with a bluish-green patina, which, in effect, would allow the southern façade to melt in with the existing tree growth. Furthermore, the façade diverges away from the Railway road (diverges from the West

towards the East) to strengthen the effect of subtlety.

The initial response to access focused on the visual axis towards the site along Railway Road in order to respond with Pretoria Station, as well as the proposed Gautrain station. The idea was to cut a two storey high six metre wide gap out of the building to strengthen this visual axis and to focus it on the inner court of the proposed project. The proposed main entrance was located on the southern façade to communicate with Railway Road and Nelson Mandela Boulevard alike. The southern wing of the building was to house the entrance foyer, office space, a theatre and the research centre's main studio space.

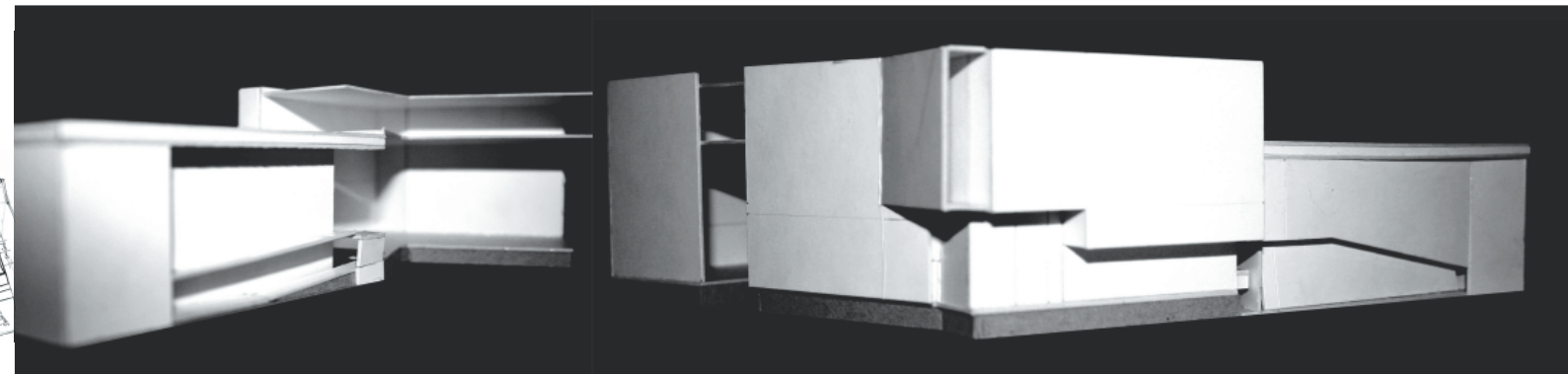
The theatre design component incorporated large glazed opening on the southern and elevations in order to communicate the African concept of a gathering under the trees to motorists driving along Railway Road and general public frequenting the open court respectively. Furthermore, the idea of a building that lives lightly on the land was exploited by recessing the glazed ground floor elevation under the perforated copper clad box, to emphasise the illusion that the solid form lightly levitates above the ground.

Critique on the first concept shed light on the fact that, apart from that the design only accommodated a third of the accommodation schedule, it sat awkwardly on one corner

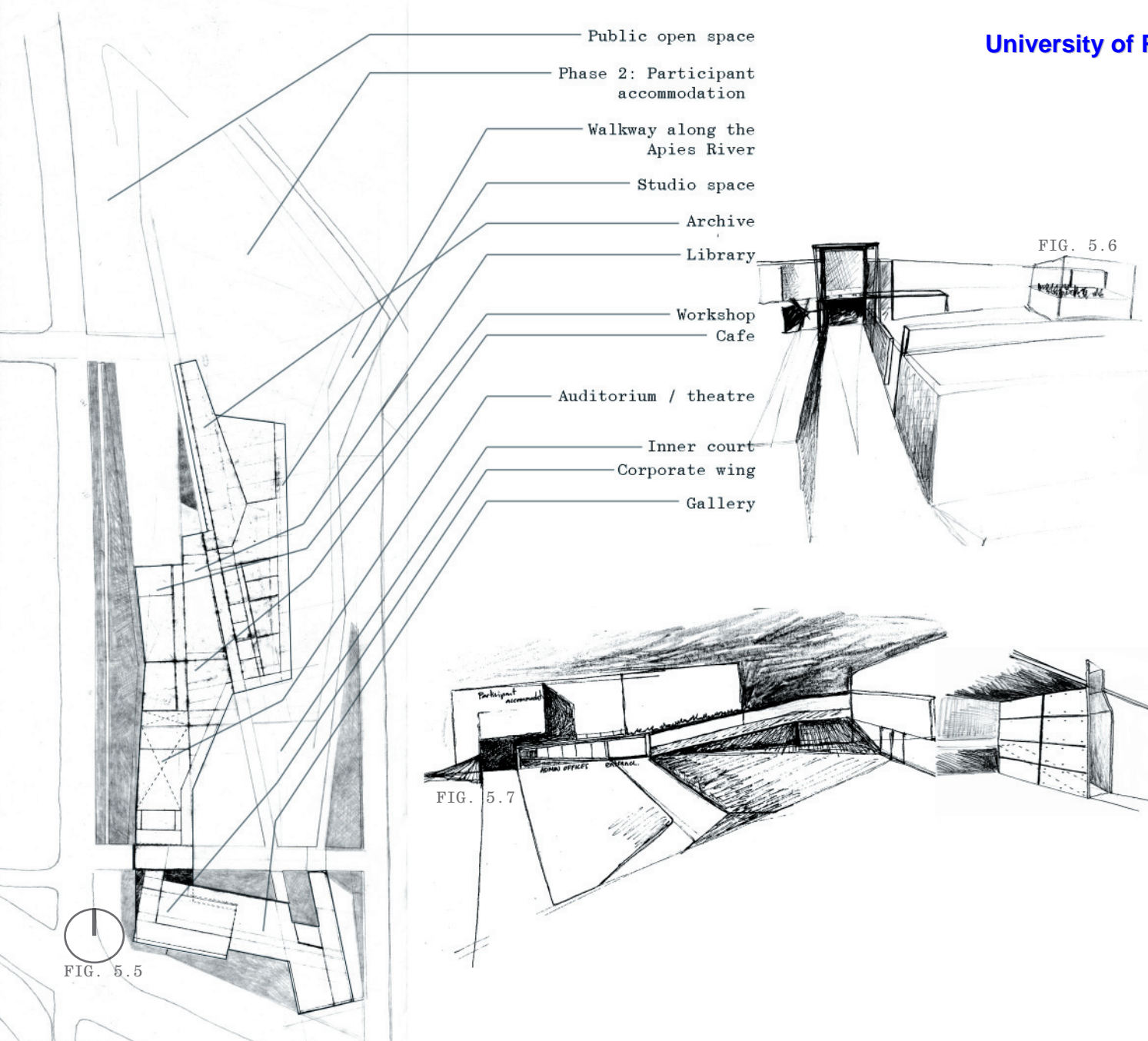
of the site, under-utilising the extensive opportunities that the site offers. It also became clear that the building did not offer any response to the Apies River and in a sense ignored the importance of this natural element. Neither did the design offer any response to the existing Berea city and functioned as an isolated entity, removed from its context.

It also became clear that the design has not solved any accessibility issues related to the site. Accessibility was one of the major issues to be resolved because of the isolated nature of the site. This included vehicular and pedestrian accessibility.

It was decided that the proposed project should respond to Van der Walt Street and the Apies River alike. Van der Walt Street lacks character, and the design could define the street edge, enhancing the character of the area. Another important consideration should be to establish a pedestrian-friendly route along the Apies River. Furthermore, it was decided that the building should communicate with Nelson Mandela Boulevard in a more legible and direct manner than a subtle copper clad box, advertising the Communication Research Centre's purpose and importance.







THE SECOND CONCEPT

The second design concept proposes a much more extensive exploitation of the site and offers a much better response to the immediate context. The accommodation schedule informed the design to a much greater extent than the first concept.

The design responds to Van der Walt Street through adjusting the eastern façade in order to follow the street edge, but also recessing the façade to provide for a wide landscaped pavement. The proposed project provides an eastern street edge and, in effect, enhances the streetscape through enhancing the street form and the feeling of enclosure.

The design responds to the Apies River by means of establishing pedestrian access from the Van der Walt Street slipway onto the site along the Apies River culvert edge. This pedestrian route is linked to the inner court of the project by means of a 1:12 ramp that cuts up and into the terraced landscape. The tree shaded Apies River-edge walkway functions independently from the site, but the site can be accessed via the ramped walkway during public events.

Further context study revealed an important visual axis, which forms a strong visual connection link-

ing Berea Clubhouse, a historically significant building, and the site. This visual axis became an important form generator and functions as both an important movement axis and visual axis. The building's main entrance is located on this axis.

The building is divided into three different user components, namely the corporate wing (the southern section), the communication research centre (the northern section), the corporate - research centre interface (central section) and the research centre - public interface (central section). The zoning improves the legibility of the project and allows for the provision of semi-private, semi-public and public space. Furthermore, the zoning enhances the security of the building that is situated in public open space.

The Research Centre's studios are located on the northeastern section of the site and enhance security along the Apies River through providing passive surveillance. The public accessible functions are clustered together, excluding the exhibition space, and live out onto the open courtyard.

Critique on the second concept again raised questions regarding vehicular accessibility, and the proposed solution of parallel

parking along Van der Walt Street and Railway Road was rejected due to the negative results generated regarding visitor approach to the main entrance, along with the aesthetic eyesore of vehicles parked in front of the visually prominent southern façade.

The theatre/auditorium did not have adequate spill-out space, and it was recommended to combine the café and the auditorium spill-out spaces. The studios were also too far removed from the Apies River-edge walkway, and the semi-public space (accessible to participants of the Research Centre alone) provided in front of the studio space is to be scrapped.

Even though the design responded to the site, it still seemed too cluttered with a still conservative allocation of space to certain accommodated functions. The corporate entrance situated on Railway Street is to be scrapped and the main entrance moved to the northern section of the site in order to respond to the vehicular entrance to the site, Berea city and the movement/visual axis connecting Berea Park and the site.

The earlier proposed basement parking, an idea abandoned in an earlier phase, was to be reintroduced in order to accommodate corporate parking associated with the office space.

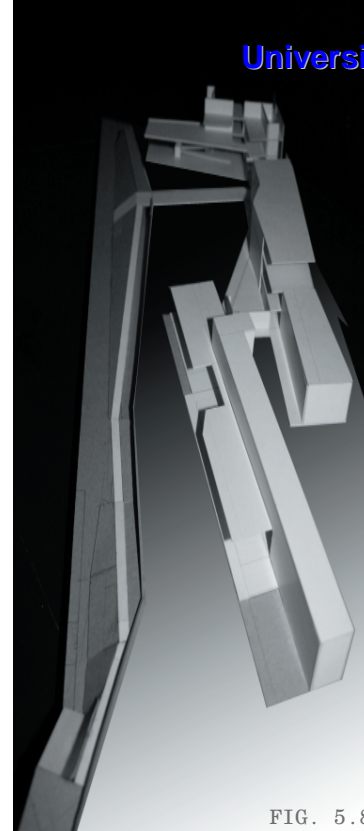


FIG. 5.8

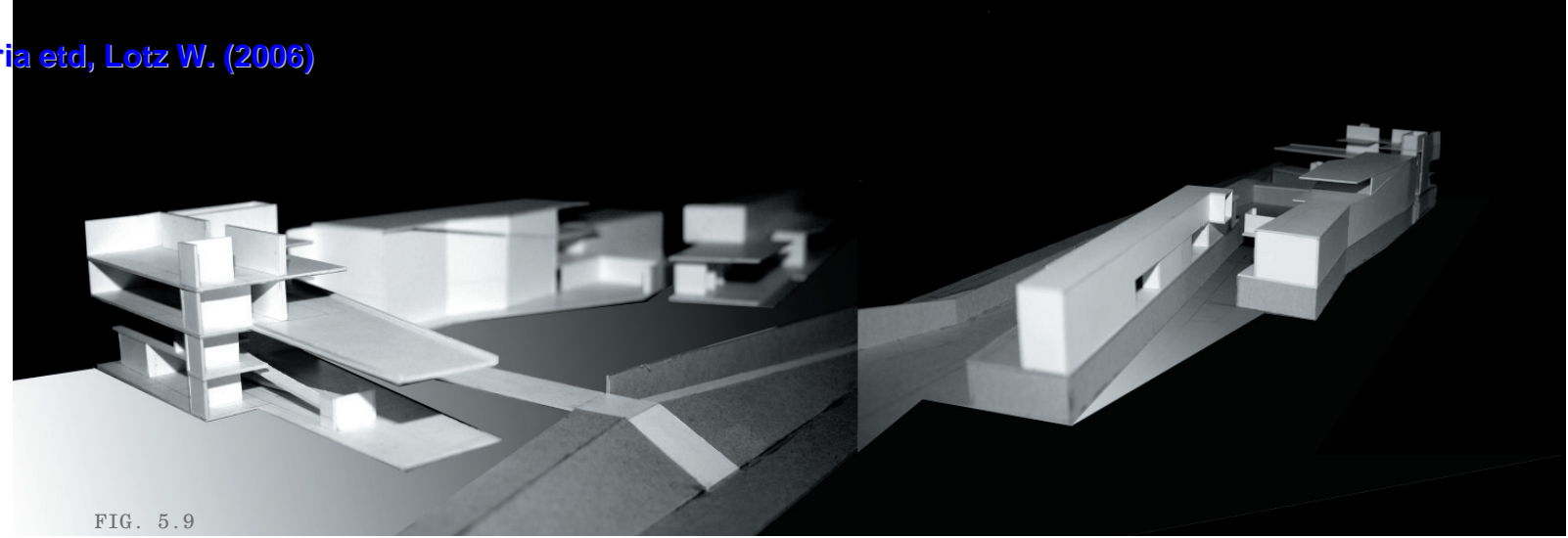


FIG. 5.9

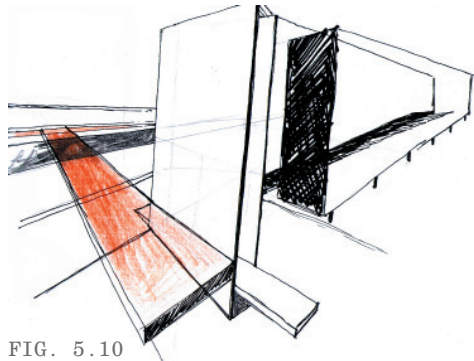


FIG. 5.10

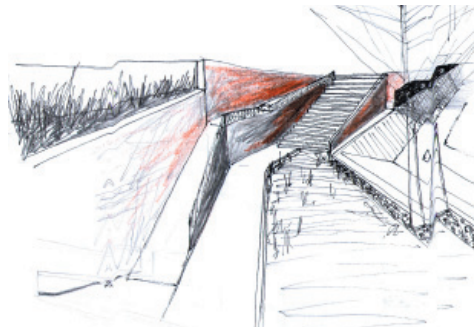


FIG. 5.11 Route along the Apies River

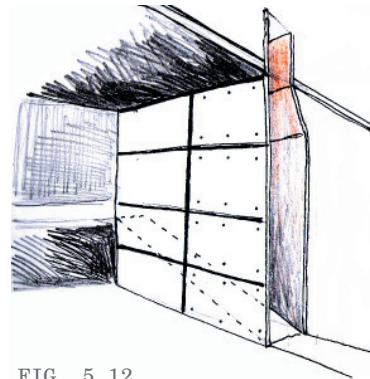


FIG. 5.12

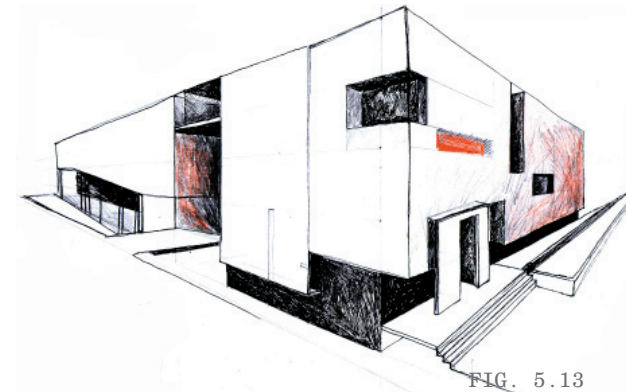


FIG. 5.13



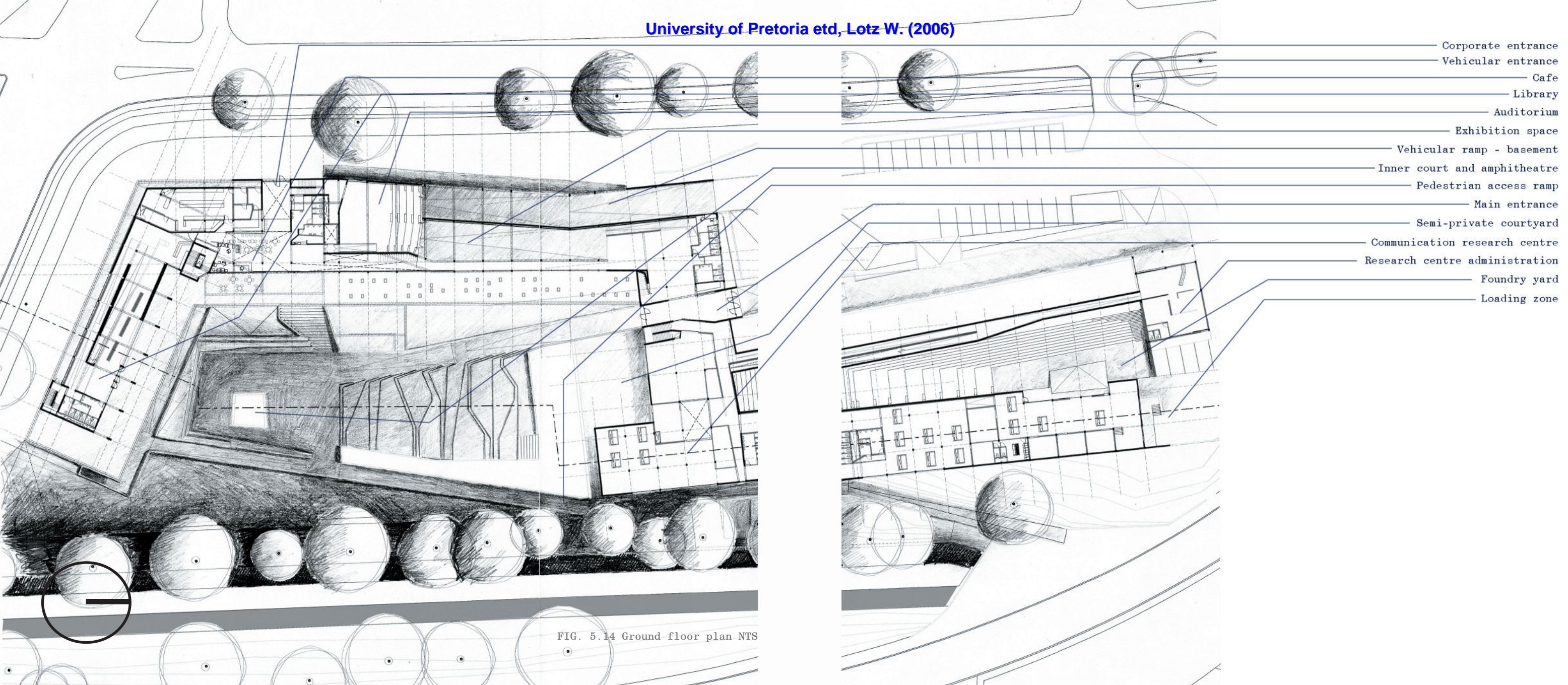


FIG. 5.14 Ground floor plan NTS



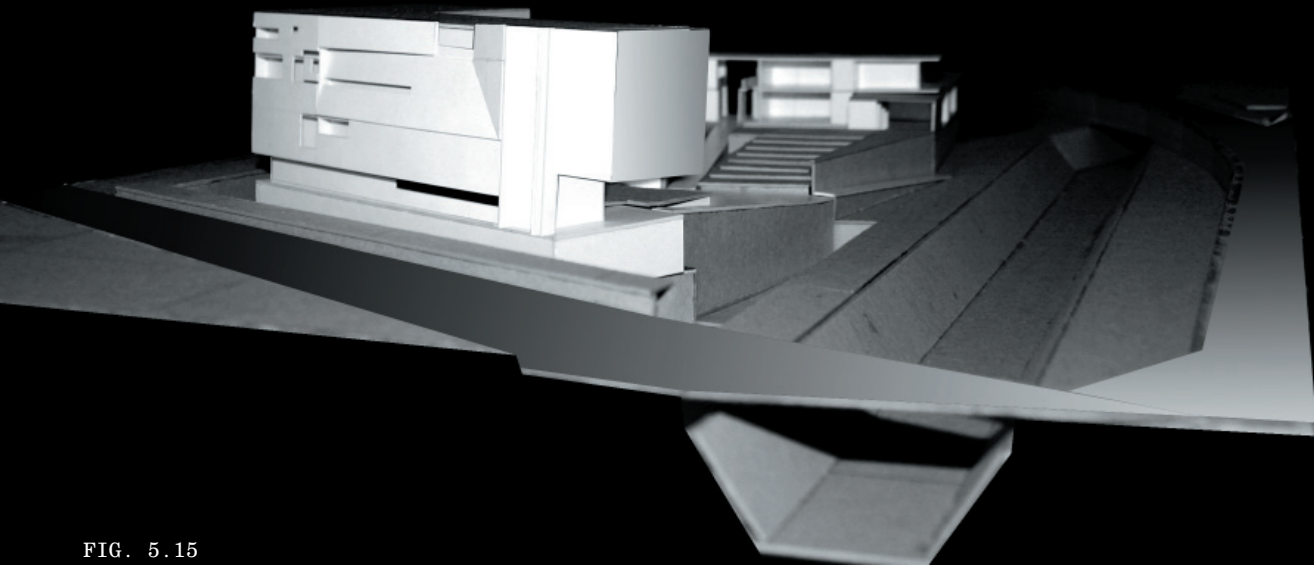


FIG. 5.15

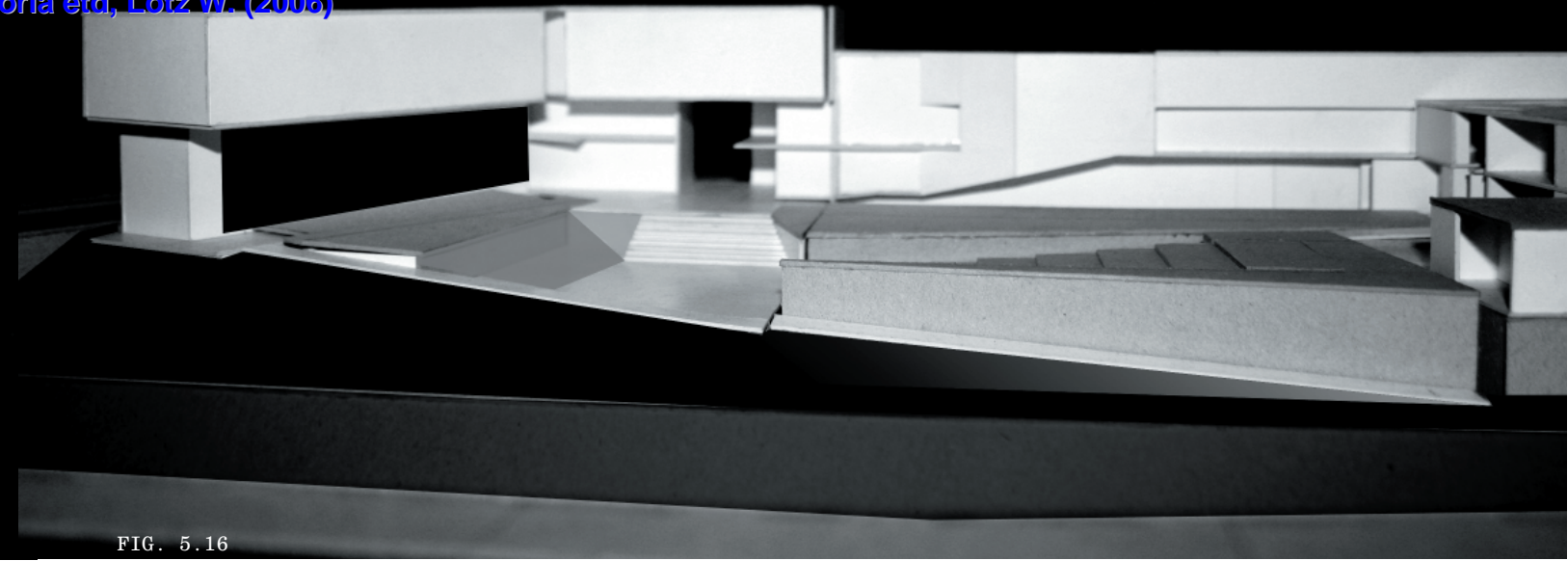


FIG. 5.16

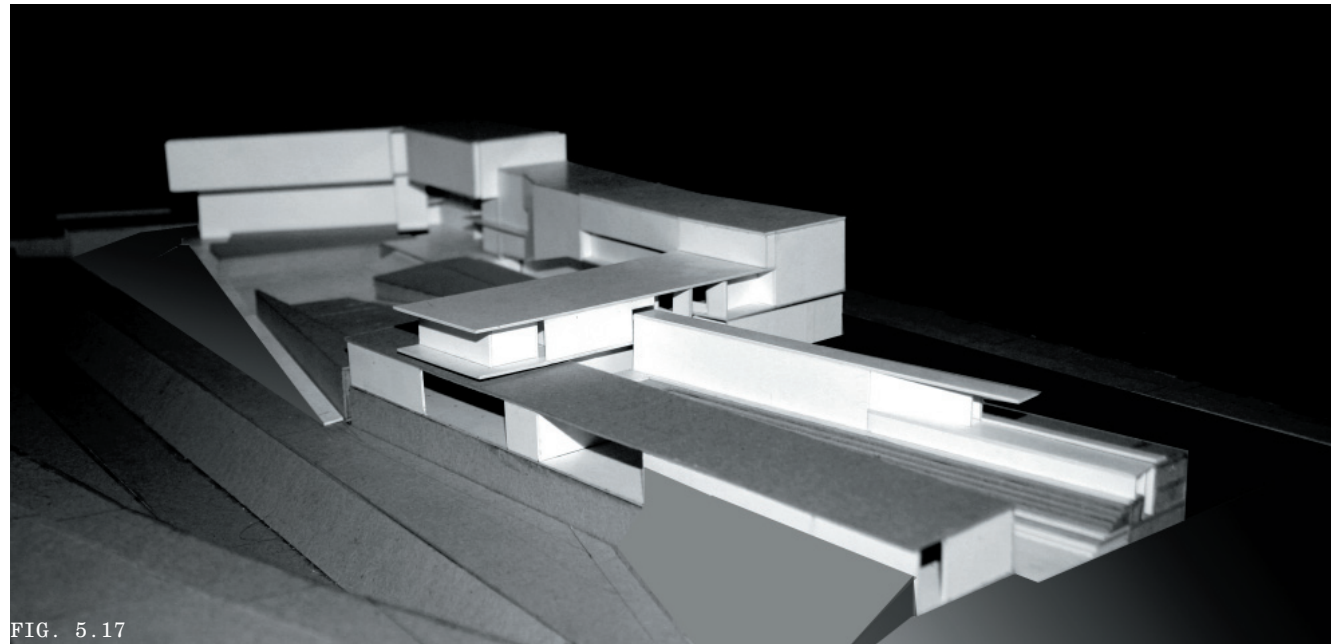


FIG. 5.17





FIG. 5.18 Public opinion. Tshwane.

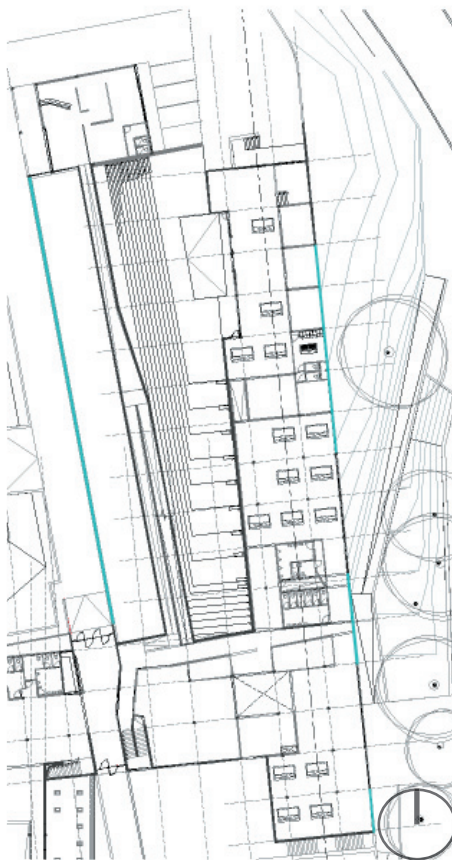


FIG. 5.19 Ground floor plan locating the expression walls.

The theoretical investigation concentrated on pinpointing the intersection between cultural identity and architecture in an attempt to formulate an architectural language that relates to the African and global contexts alike. This component of the design development will evaluate the practical implications of a hybrid architectural language, which forms an amalgam between a western architectural education and the concepts abstracted from an African philosophical approach. These abstract concepts include functional beauty, collective, responsive, adjustable, contextual, people-orientated and a spiritual response to the land.

## PEOPLE SHOULD BE PUBLISHED

**ARCHITECTURE REFLECTS SOCIETY**  
Informed by the theoretical investigation, the architectural language of the building to facilitate the Communication Research Centre has to communicate a reflection of society. Society, according to the Concise Oxford dictionary, means "the customs and organization of a civilised community". A society has a collective identity that defines it from other societies, which brings me to the question of which society's identity should be made manifest in the architecture? The first and most obvious answer would be the identity of the institution to occupy the building. The second and more daunting answer is a Pretoria identity, which (more specifically) is an African identity. The last-mentioned would be evaluated throughout the concept development in order to reach a conclusion.

The project consists of two distinctly different components,



FIG. 5.20



FIG. 5.21



FIG. 5.22

namely the Communication Research Centre and a corporate sector that consequently requires an architectural language that communicates both identities.

The architectural language of the Communication Research Centre reflects the fluctuating identities of the participants who immerse themselves in contemporary culture and is therefore ever changing. Subsequently, the architecture accommodates the expression of social identity by means of canvas walls. These initially blank canvasses are to be positioned in such a way as to visually intrigue pedestrians and motorists alike, moving along the Nelson Mandela Corridor (Fig.5.19). The canvass walls serve another important function in that it communicates the image of Pretoria to foreign/out-of-town visitors, as one of a culturally sensitive and enlightened society.



FIG. 5.23 Southern facade

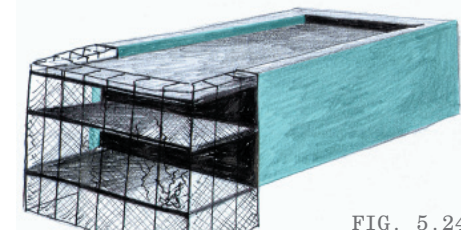
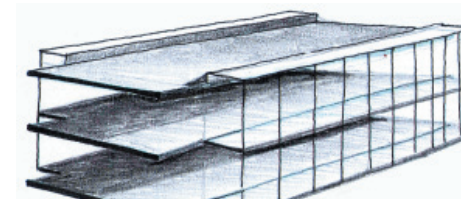
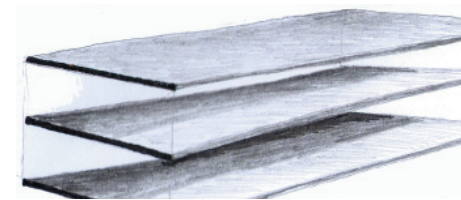


FIG. 5.24

The Communication Research Centre can be described as an identity reproduction machine to which the design responds by playing a game of reveal-and-conceal, allowing the visitor glimpses of its inner workings through openings of clarity cut out of massive concrete walls (FIG. 5.19). The purpose of these openings is to establish a direct relationship between the represented (the individual in and through the community) and the institution that visually makes manifest the city's identity.

The corporate component of the design emanates a different identity than the Communication Research Centre. A corporation, as an institution, is bound to rules and regulations and consequently much more static in comparison to the Communication Research Centre. The word corporation brings to mind something set in steel, sleek and shimmering. The corporate component of the building is a two-sto-

rey high, perforated copper clad box (FIG. 5.24). View holes are cut from the perforated copper screen in order to frame views of the Union Buildings, UNISA and Freedom Park from the interior (FIG. 5.23). The southern façade is the most prominent due to the fact that it is the first visible connection to the inner city from Fountains valley along Nelson Mandela Boulevard. The copper screen develops a bluish-green patina that melts in with the existing trees on the site, which partly conceal a third of the southern façade. Neon pink and yellow wall claddings behind the perforated copper screen allow the building to make a subtle statement without dominating the naturally green character of the site.

The design communicates both a strong corporate and yet an ever changing, playful identity of a culturally significant institution that does not attempt to dictate and over-power.

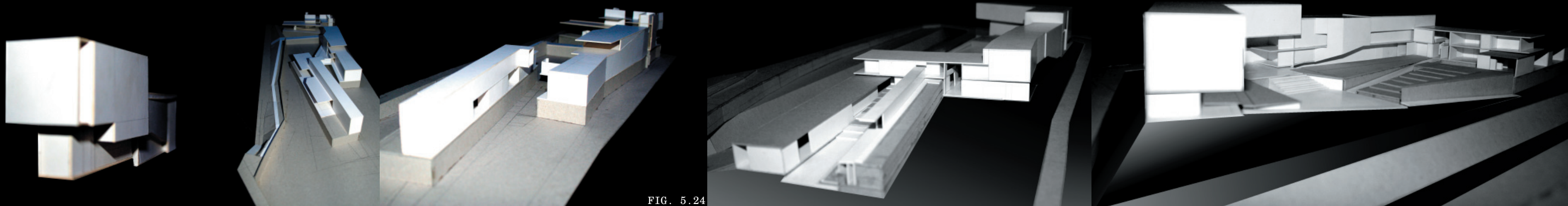


FIG. 5.24

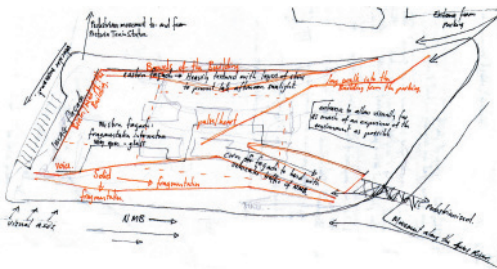


FIG. 5.25 Site development diagram

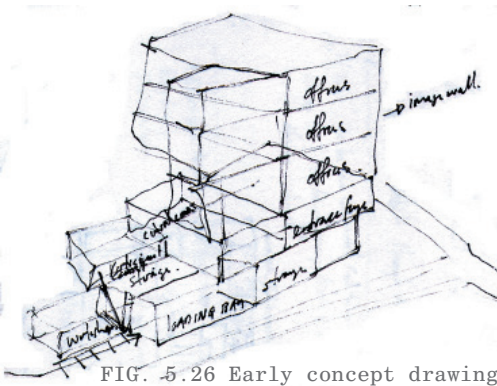


FIG. 5.26 Early concept drawing

#### FUNCTIONAL BEAUTY

The design can be characterised as sculpturally brutalistic. The program informed the sculptural features of the design; function-generated form. The design process started at a simple diagram, which led to an abstract form model according to which the design was generated from program.

The width of the building is determined in order to gain maximum results from passive ventilation and natural daylight. The perforated copper screen protects the eastern and northern façade of the corporate component of the building from direct radiation, with the previously mentioned canvass walls situated on the long Western and Eastern facades. The effect gained from the perforated copper screens will animate the interior and enrich the experience of space.

#### SPIRITUAL CONNECTION TO THE LAND

A spiritual connection with the site is established by means of natural light, natural vegetation, the way the building inhabits the site and the way the building makes reference to the original (historic) character of the site.

The perforated copper cladding makes reference to the green character of the site and the perforations are between the abstract and the naturalistic. It plays with the notion of the naturally occurring shadows found in the existing Acacia trees' canopy. The natural light passing through the perforated screens animates the interior in the same way that the shadows, cast by the trees, change as time passes during the daytime.

Natural daylight is introduced into the underground exhibition space through light wells, which along with the pattern cut plywood ceiling

(illuminated from above) will result in a space of constantly shifting light, changing its mood along with the weather conditions. This establishes an emotional connection with the South African context.

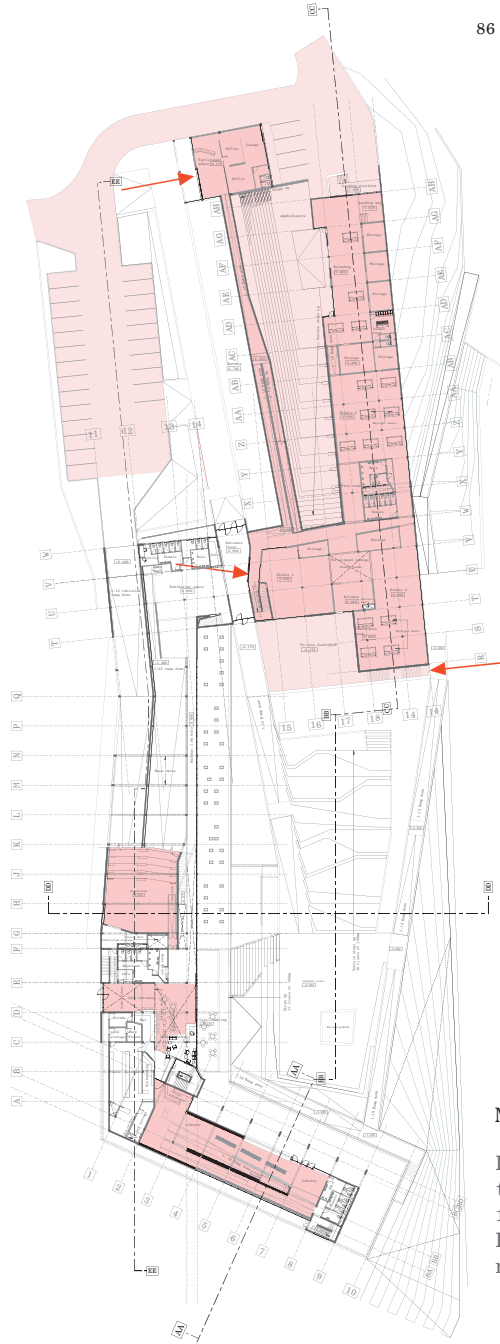
The building lives lightly on the site in that it does not dominate, but rather coexist with, the site. The project retains all the existing trees on the site and utilises its dominating presence as place-making elements. The building al-

lows nature to grow over it, hiding the presence of the studios and workshop.

Historically the site was a place of social interaction, open to urban dwellers for recreational purposes. The design is more a building located in a public open space than allowing the general public to enter from time to time. This is a place for people to grow to love their identities, culture and knowledge.

The building does not employ mud brick walls, weaving basket pattern plaster reliefs or colourful geometric patterns to communicate an African identity. The design is based on abstract African architectural concepts made manifest in the building's relation to its site, the intended function of the Communication Research Centre, The building's sensitivity toward the site's existing vegetation and historically social significance and finally a reflection of the society that will occupy the building.





MOVEMENT DIAGRAMS

FIG. 5.28 (left) communication research centre. Ground floor plan. NTS

FIG. 5.29 Corporate component. Ground floor plan. NTS



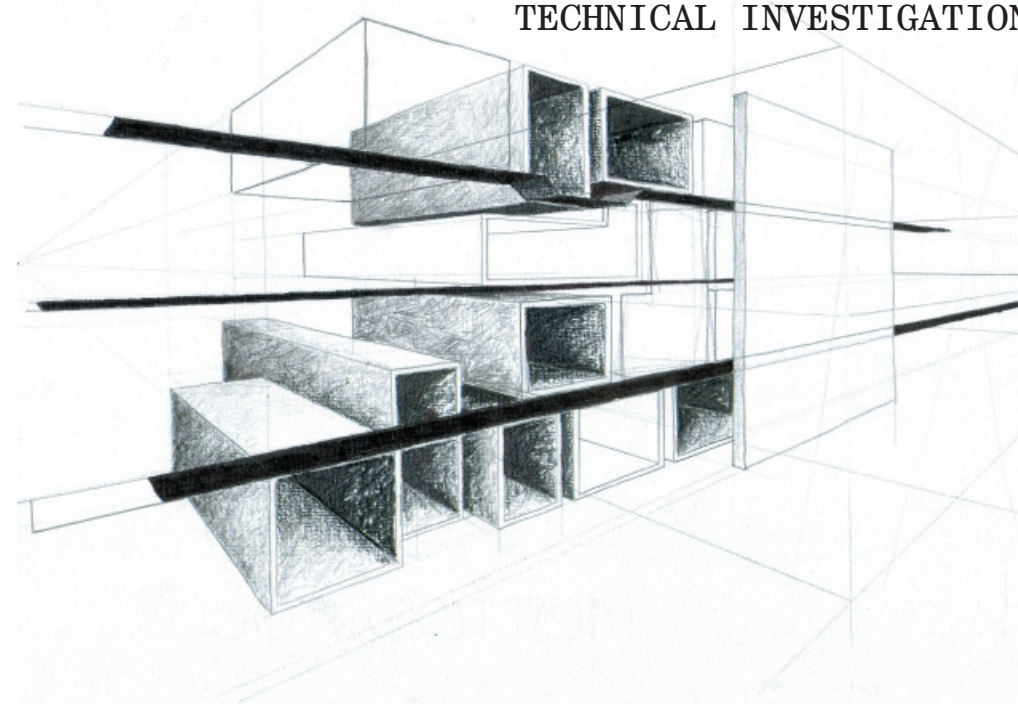
MOVEMENT DIAGRAMS

FIG. 5.30 Open to general public. Ground floor plan. NTS

FIG. 5.31 Public and Research centre interface. Ground floor plan. NTS



TECHNICAL INVESTIGATION





## DESIGN INFLUENCES

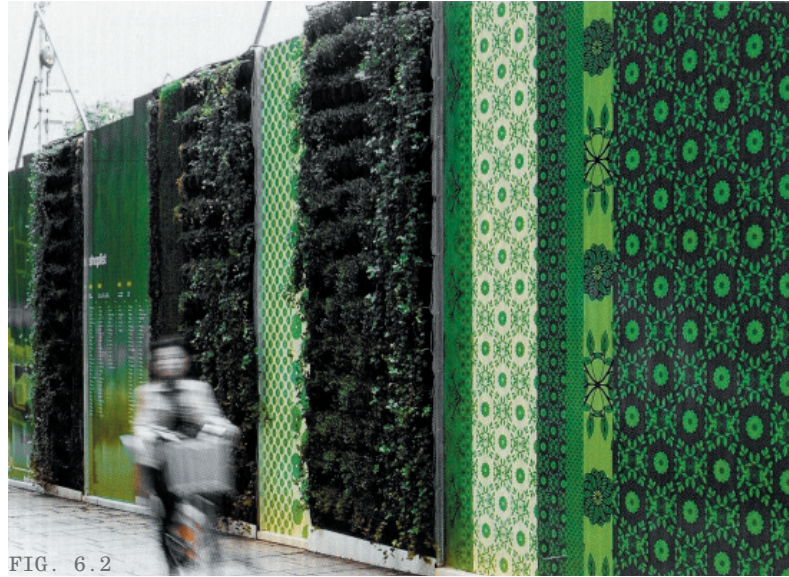


FIG. 6.2

Green Green Screen, Tokyo, Japan, 2003. Architect: Klein Dytham Architecture.

This is a temporary work of architecture, which consists of a facade - a wall of plants. This temporary enclosure is a hybrid that integrates vegetation and printed graphics of abstract floral motifs. As result, a rich texture filled facade that communicates with pedestrians, which is somewhere between the naturalistic and the artificial.

(Aymonino 2006: 308)



FIG. 6.3

Extension in Marseille, Marseilles, France, 2001. Architect: Remy Marciano

The project provides an open-air patio for an existing building. It consists of one element, perforated sheet metal cladding which serves as an all-enveloping facing that provides an intimate setting for the existing enclosure within.

The project is set adjacent to a park and attempts to find a synthesis between the building and its natural surroundings, becoming the point where building and nature meets. The perforations are a repeated pattern that resembles something between the abstract and naturalistic.

(Aymonino 2006: 308)



FIG. 6.4

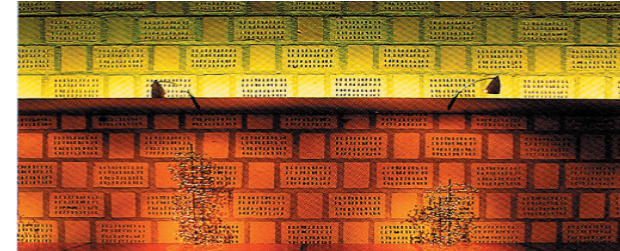
## MATERIAL SELECTION

### CONCRETE

The superstructure of the proposed development is a reinforced column and slab structure, including reinforced concrete shear walls, concrete roof and some exterior / interior walls.

The advantages of concrete construction is numerous and include:  
 Good thermal mass due to high density  
 It can achieve large spans.  
 Concrete is easily moulded and cast in-situ on site.  
 Concrete can have various finishes and textures, depending on the formwork and through adding iron oxide pigments.  
 New advances in technology allows for the production of translucent concrete, by adding crushed fibre optics, illustrated below (FIG. 6.6).

The proposed project requires the reinforced concrete walls to be cast with rough-sawn timber formwork shuttering on the exterior and plywood formwork shuttering on the interior. Furthermore, the project requires that dark blue-grey, iron oxide pigment be added to the concrete mix. Steven Holl beautifully illustrates the desired effect in the concrete finishes in the lobby of Simmons Hall (2002), MIT, above (FIG.6.5). The cost of pigmented concrete can be justified through robustness of the finish compared to plaster and paint.



### BRICK

Pretoria does have a brick aesthetic and many buildings in the CBD are characteristically concrete frame structures with brick infill, as is the case of the proposed development.

Brick has low embodied energy and is produced locally. The erection of brick structures in South Africa relies on cheap and intensive labour carried out by local bricklayers, empowering the local labour force. Brick has good thermal mass and load-bearing/structural properties. Furthermore, brick is recyclable and easily reused.

The proposed project requires two different types of bricks: stock brick that will be hidden by cladding and purely serve the function of adding thermal mass, and acoustic bricks to be used as face brick in the interior of the building. The aesthetic appeal of the acoustic bricks is illustrated by the interior of the Cambridge Crystallographic Data Centre in Cambridge, England (FIG. 6.6, above), designed by Eric Sorensen (1992). It serves the additional function of reducing traffic noise (Campbell & Pryce 2003: 285).



## STEEL

The proposed project use steel sparingly and only in places where the effect of lightness are to be communicated, for example the suspended floor of the library and as glazing support system. Steel is also utilised for its tensile qualities.

The advantages of steel include the following:  
Steel can be recycled and reused, has good structural properties and; requires very little maintenance. The project requires standard steel sections and will be assembled on site in order to decrease discrepancies.

Steel, on the other hand is a non-renewable resource.



Silk-screened glass (FIG. 6.7, above): the proposed project makes use of a silk-screened glass wall on the northern facade of the library. Silk-screen glass is produced by means of screen-printing a ceramic frit onto the surface of the glass. Jean Nouvel employs this technique of silk screening glass in the Quai Branly Museum (2006) in Paris, France. The effect gained transforms the interior space of the museum, allowing the visitor to experience the feeling of being enclosed by trees and foliage as if in a forest.

## GLASS

Glass introduces natural light into the building, merging interior and exterior space. The proposed project utilizes glass in order to communicate a feeling of weightlessness, institutional transparency and illuminating the courtyard at night from within the interior of the building.

The advantages of glass include the following:  
Allows natural light into the building's interior.  
Glass can be recycled and reused.  
Glass establishes a visual connection between the interior and exterior adding to occupant comfort.

The proposed project uses 19mm insulvue glass with a low emissivity outer layer in order to reduce heat loss at night, due to the low thermal insulation value of glass. The proposed project relies on shading devices on the northern and western facades of the building, reducing the most disadvantages associated with glass.

## COPPER

Copper develops a blue-green patina in ordinary atmosphere and is very resistant to most corrosion agents, making it suitable as a cladding or roofing material. Annealed copper is a relatively strong and ductile material and can be joined by welding, brazing or soldering. Copper can be recycled relatively cheaply and 40 percent of all production is from recycled metal.

The proposed project employs perforated copper sheets as a shading screen. The perforations are an abstract pattern between the abstract and naturalistic. The wished

effect communicates a merging of the building with its natural surroundings.

Remy Marciano employs perforated sheet metal cladding (FIG. 6.9, bottom middle) to the same effect in his design for the extension in Marseille (2001), France.

The perforations in the copper cladding used in the proposed project will be weld-cut on site according to a designed pattern, but allowing for variations to occur.

## PERFORATED PLYWOOD

Perforated plywood ceilings and wall panels are employed in the proposed project in order to improve the legibility of interior spaces, announcing the threshold, as well as for acoustic purposes. Lacy grille-work ceiling and wall panels are installed in the exhibition space to hide and vent service ducts.

FIG. 6.8 (bottom left) Paisley perforated ceiling of the Walker Art Centre (2005), Herzog & de Meuron.

FIG. 6.10 (bottom right). Wrapped perforated plywood music hall of the Casa da Musica (2005), OMA.



## STRUCTURE

The off-shutter reinforced concrete columns are 260 x 300mm and 260 x 400mm (bigger column dimensions to support the auditorium, between the Gallery and the vehicular ramp leading down to the basement level. All columns to have 20mm chamfered edges and cast in storey heights. Concrete to be cast with vertical movement joints at 10,6 m intervals and must be a clean break through the entire structure. Vertical movement joints in the reinforced concrete walls of 10mm bitumen-impregnated soft board. The reinforced concrete slabs are 340mm thick with a maximum span of 8,6 meters. All reinforced concrete shear walls are 200mm thick.

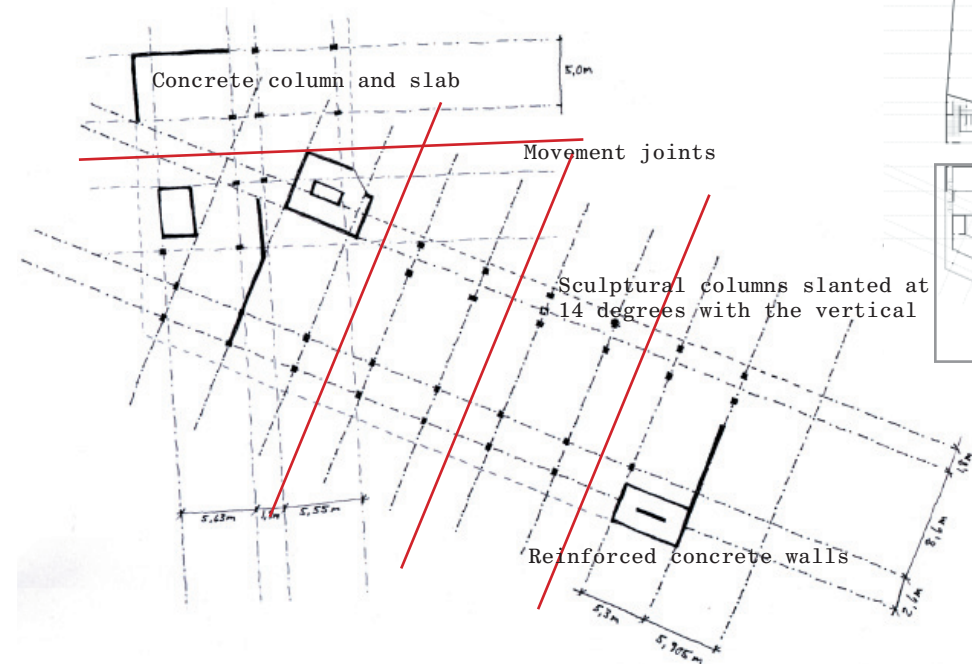


FIG. 6.11 (bottom) Structural layout and materials  
 FIG. 6.12 (top) First floor plan.



FIG. 6.11 (bottom) Structural layout and materials  
 FIG. 6.12 (top) First floor plan.

## ROOF CONSTRUCTION

### ROOF CONSTRUCTION

The roof construction of the proposed project consists of a reinforced concrete roof, either a simple concrete construction or a planted concrete roof (FIG. 6.13).

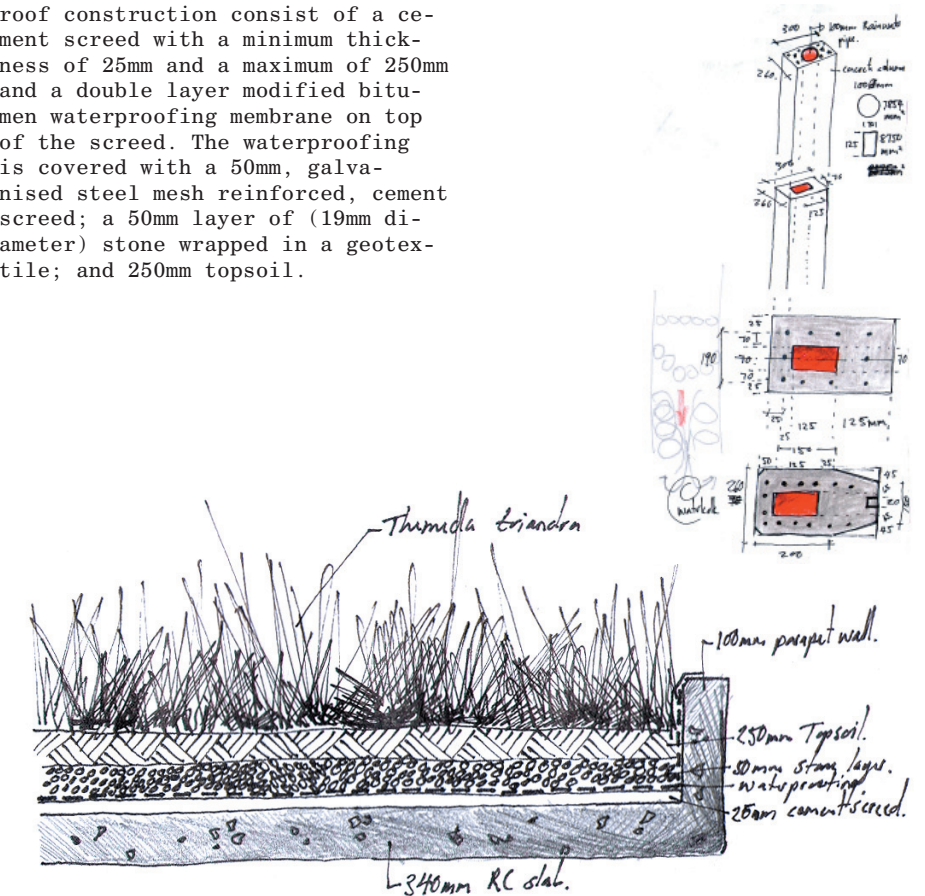
The concrete roof construction requires a minimum screed thickness of 40mm along with a minimum gradient of 1:50 according to the NBR L5.3. The reinforced concrete roof slabs are 255mm / 340mm thick, with 255mm to 510mm high parapet walls.

Waterproofing of the concrete roof consist of a cement screed with a minimum thickness of 40mm with a 1:50 gradient; a double layer 4mm modified bitumen membrane with 100mm side laps and 150mm end laps, sealed by means of torch-on fusion; The waterproofing membrane is then covered with dry stacked 500 x 500 x 80mm precast concrete cover tile. The waterproofing membrane are taken up 200mm against parapet walls and protected with galvanised steel flashing.

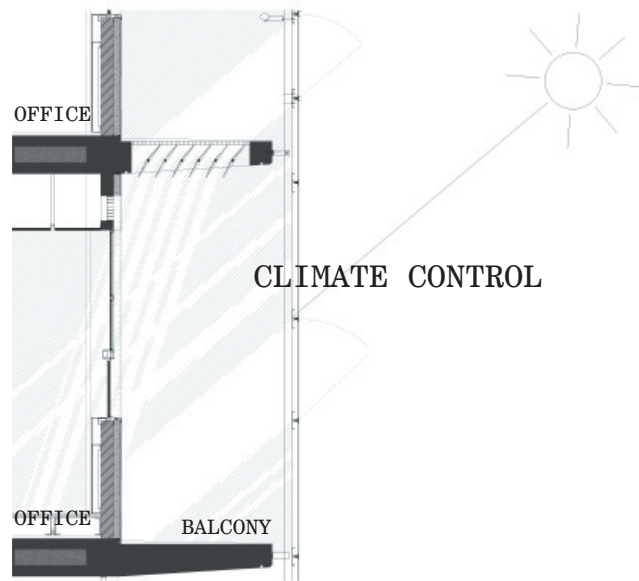
100mm diameter PVC down pipes is cast into the reinforced concrete end columns at 5.3m & 5m intervals.

The planted reinforced concrete

roof construction consist of a cement screed with a minimum thickness of 25mm and a maximum of 250mm and a double layer modified bitumen waterproofing membrane on top of the screed. The waterproofing is covered with a 50mm, galvanised steel mesh reinforced, cement screed; a 50mm layer of (19mm diameter) stone wrapped in a geotextile; and 250mm topsoil.







CLIMATE CONTROL

## ORIENTATION, SOLAR CONTROL AND NATURAL LIGHT (FIG. 6.14).

The site is long (280m) and thin (64m) with the long edges being the eastern and western boundaries. As result the design, being informed by the site and its context, has long east and west facing facades.

Making use of natural daylight was an important objective during the design process and incorporates many roof-lights and light-wells in order to let natural daylight into the building. Northern facade preference was given to office space and studios of which sufficient natural lighting levels are a minimum requirement. The 1.8m roof overhang, The perforated copper screen, louver system and the 6m recessed silk screened glass facade of the library prevents direct solar radiation into the north facing rooms during summer. Adjustable screen windows in the perforated copper screen allow light into the building during winter.

The long western facade is protected from the late afternoon sun by means of the perforated copper screen, small openings with shading screens that reflect northern light into the archive and by employing air-brick with glass-block glazing on the western wall of the southern wheelchair ramp.

The glazed eastern facade is protected from low-level eastern sun by the large and dense existing tree growth along the Apies River. The southern facade's has large glazed openings in order to make full use of southern light.

## THERMAL MASS

Thermal mass is provided by the flat concrete roofs, exterior concrete walls on the western facade of the auditorium and the archive - the two spaces that will be used at night. These facades absorb direct and indirect solar radiation during the day and radiate the heat at night. This delay period is determined by the density and thickness of the materials. The thickness of the concrete walls and roofs, which range between 200mm and 340mm, provides a sufficient delay to ensure that interior temperatures are effectively cool during the day and cool at night.

FIG. 6.14

## VENTILATION

Passive ventilation was an important consideration from the outset of the design process, in order to reduce the amount of energy used. The design incorporates thermal towers to vent rising hot air out of the building. All windows, except for the glass curtain wall of the eastern elevation, can be manually opened and closed to maximise occupant comfort.

FIG. 6.15 illustrates passive air-flow through the building.

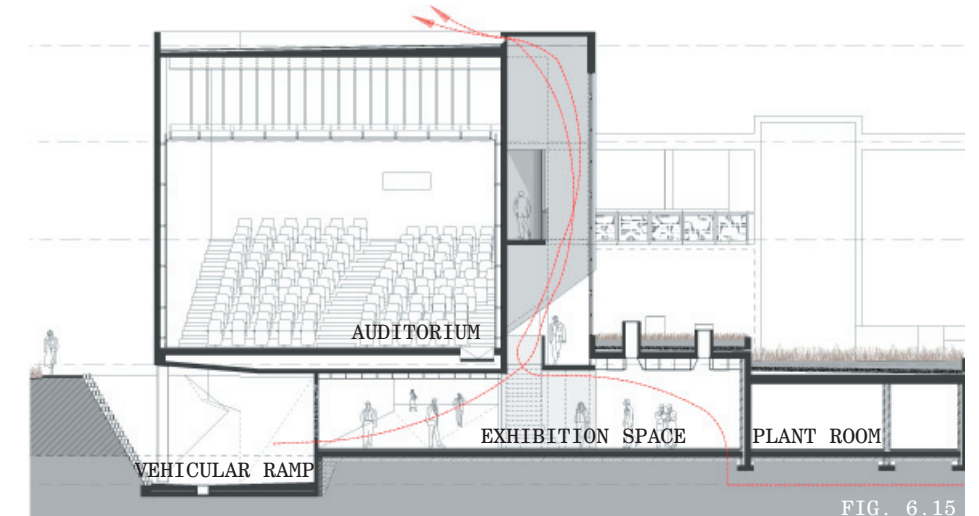
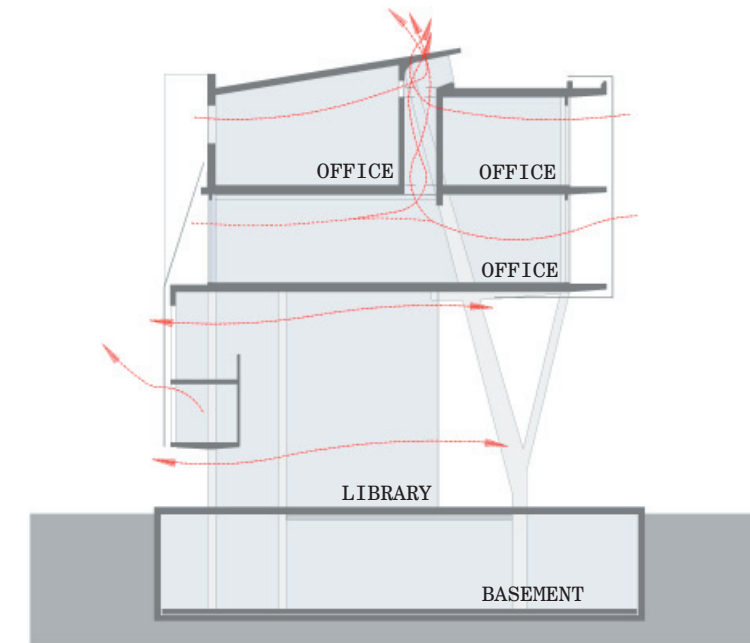
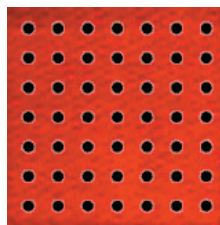
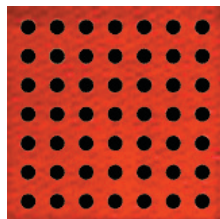


FIG. 6.15

## ACOUSTICS



The auditorium (FIG. 6.16) is a concrete box overhanging the vehicular ramp leading down into the basement. The shape of the auditorium was designed to prevent the occurrence of standing waves (standing waves occur when sound waves are trapped between two parallel walls). No walls are parallel to one another and the floor and ceiling differ in gradient. The walls are 200mm thick reinforced concrete.



Both access points to the auditorium have double wooden doors with a cavity between them and the doorjamb sealed with a 25mm neoprene seal. All glazed openings to

be double-glazed and not parallel to one another. The cavity is supplied with copper sulphite in order to absorb moisture between the two laminated glass panes.

The wall construction consists of a 200mm reinforced concrete wall; 50mm mineral wool blanket with a black fabric covering fixed to the wall; a

76 x 38 x 2.0 mild steel RHS frame fixed to the concrete columns (with 5000mm centres) but isolated from the concrete structure with 10mm neoprene seals in order to prevent structural noise; 8mm x 1750 x 1080 red stained perforated plywood panels fixed to steel structure. The cavity between the concrete wall and the plywood panels is 130mm.

The front third of the side walls and ceiling are covered by red stained plywood with  $\varnothing 3$  holes at a 13.5mm pitch which allows for a 21.1% open area and functions as a sound reflector (Fig.) The remaining two thirds of the side walls, ceiling and rear wall are covered by perforated plywood with  $\varnothing 7$  hole @13.5mm pitch which allows for a 11% open area and functions as absorber of low frequencies and prevent echoes (Fig.). The front wall serves as a acoustic reflector and has a fairfaced concrete finish.

The success of a recording studio depends solely on its acoustic efficiency. The recording studio consists of three important spaces: The live room, the control booth and the piano room. The recording studio is situated right next (north) to the auditorium.

None of the live room's walls are parallel to one another as is the case with the floor and ceiling to prevent the occurrence of standing waves. The construction consists of 510mm thick cavity walls with a 50mm cavity. The floating timber floor's construction consist of 32mm thick tongue and groove timber floor planks nailed to 94 x 44mm timber battens, which is isolated from the concrete floor with 10mm neoprene seals (alternating between RC floor - timber batten and Timber floor plank - timber batten) in order to prevent structural

noise. The live room has a 12mm plywood veneer hanging ceiling hiding HVAC ducts (with incorporated acoustic absorbers).

The access doors to the live room from the control room and to the equipment storage are double timber doors with a cavity between them, sealed with 25mm Sondor neoprene seals all along the doorjamb. All glazed openings (view panel between the live- and control room) are double-glazed and not parallel to one another. The bigger the cavity between the two laminate glass panels, the better the acoustic isolation. Copper sulphate should be inserted into the cavity to absorb any moisture.

The glass sliding door of the piano room is a 45dB sound proof door and consist of two sliding doors.

The piano room wall construction consist of 510mm cavity walls with a 50mm cavity; 32 x 69mm timber battens fixed to brick wall with 50mm mineral wool blanket with fabric covering in the cavity and fixed to the wall, perforated plywood veneer panels screwed to the timber battens. A similar wall construction will be employed for the control room.

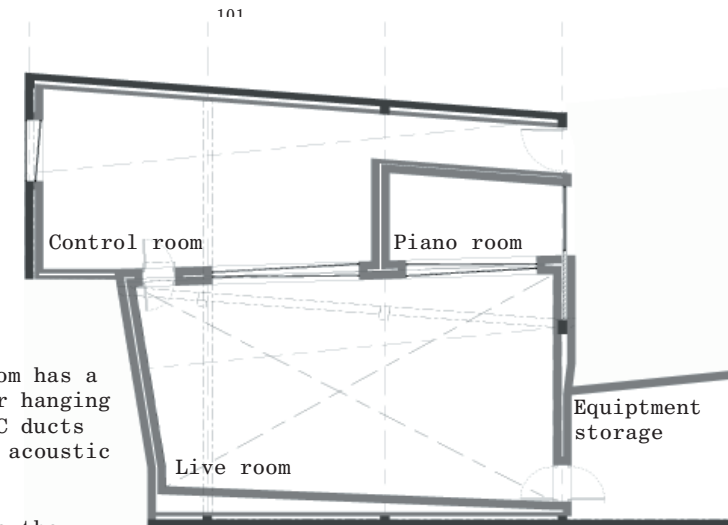


FIG. 6.16 Auditorium



## INCLUSIVITY

The Communication Research Centre as well as the public amenities provide for the old and infirm. Wheelchair ramps, to provide disabled access to the first floor from ground floor level, are provided in the library, exhibition space and the southern wing of the design school that links the school administration with the studios on ground and first floor levels. The entrance to the archive, which is two levels high, is on the first floor level with a wheelchair ramp giving access to the upper level. The auditorium has wheelchair access on ground level as well as on the first floor level. The courtyard can be accessed by ramps leading up from the Apies River level, down from the library and the entrance foyer respectively.

All ramps have a maximum gradient of 1:12 with resting platforms every two meters of vertical rise.

The ground floor level as well as the first floor level has toilets for use by disabled persons that comply with the requirements set by section S of the National building regulations.

## FIRE STRATEGY

The National building regulations stipulates in section TT 16.2 that a building with three or less storeys in height is not required to include an emergency escape route.

The NBR further specifies that the travel distance, measured to the nearest escape door, must not exceed 45m. The corporate wing of the proposed project is four storeys high and requires two emergency escape routes (FIG. 6.17).

The NBR further requires, section TT 7, that structural elements are to have a fire resistance as follows:

The restaurant, recording studio, auditorium and workshop – 60 minutes

The exhibition space – 90 minutes  
Offices and art studios – 60 minutes

The concrete structure will provide sufficient fire resistance. The structural steel members of glass curtain wall on the eastern façade requires an intumescent mastic fire resistant coating thinly painted on the members after a coat of steel primer has been applied.

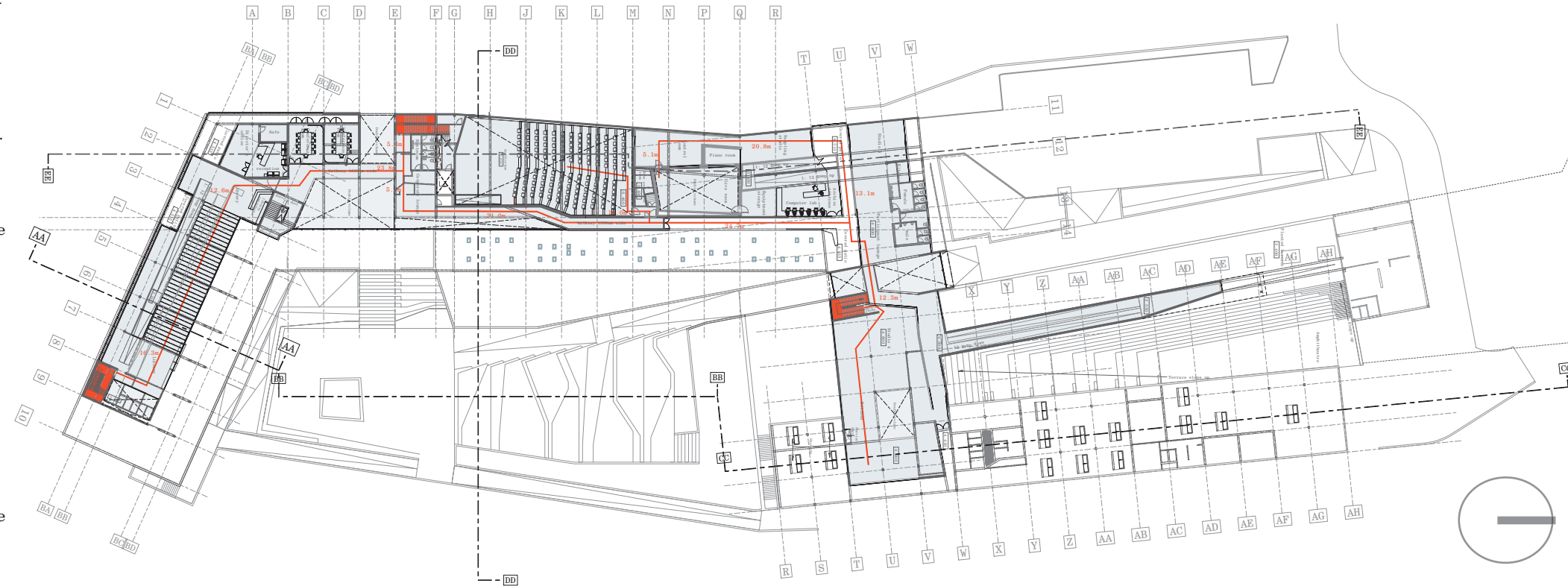


FIG. 6.17 Second floor plan. NTS

TECHNICAL DOCUMENTATION



University of Pretoria etd, Lotz W. (2006)

1339  
1338  
1337  
1336

SOUTHERN SUN HOTEL

VAN DER WALT

1335  
1334

RAILWAY ROAD

1336 1335 1334 1333

NELSON MANDELA BLVD

NELSON MANDELA BLVD

LOCALITY PLAN scale NTS

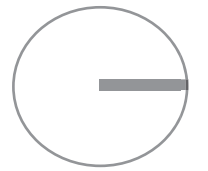
FOUNTAINS  
MOTOWN

University of Pretoria etd, Lotz W. (2006)

BEREA CLUBHOUSE

BEREA PARK

ER WALT

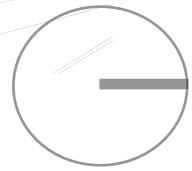
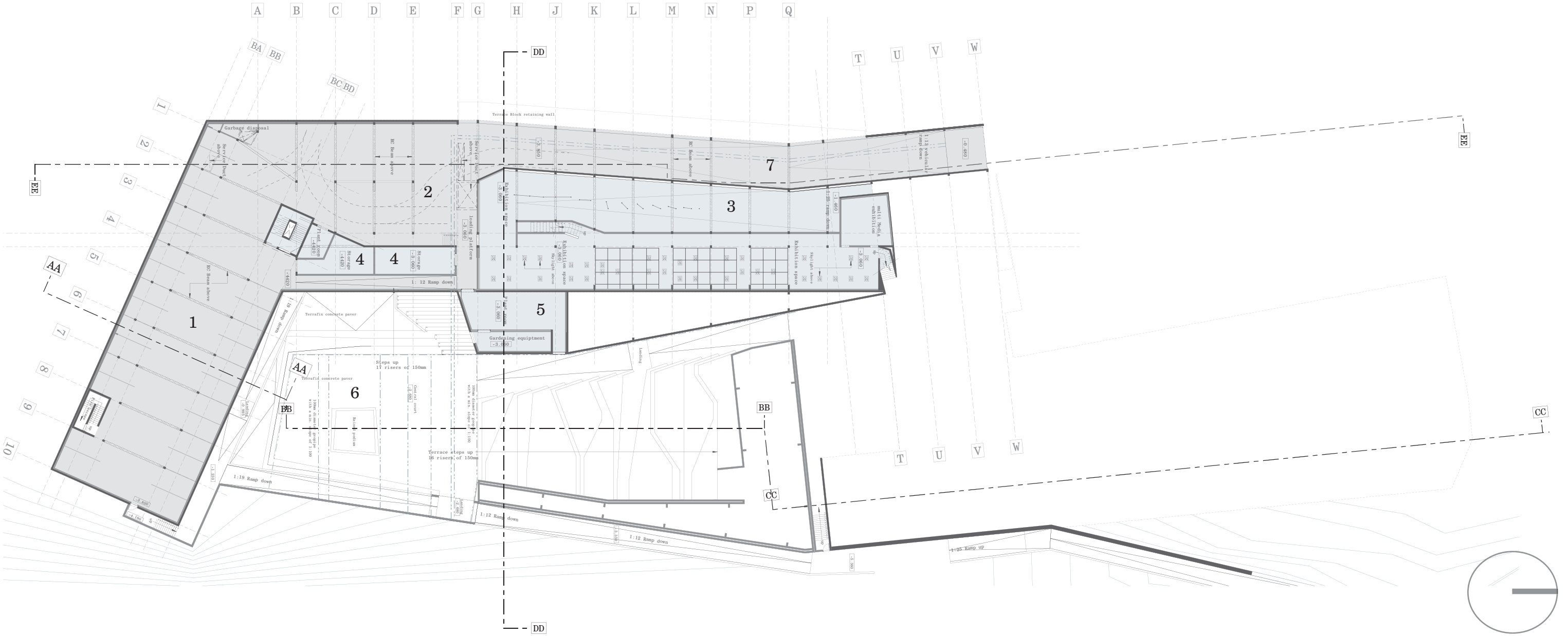




BASEMENT FLOOR PLAN scale 1:500

1. Basement parking
2. Loading bay
3. Exhibition space
4. Storage
5. Plant room
6. Hard surfaced open court
7. Vehicular ramp to basement

University of Pretoria etd, Lotz W. (2006)

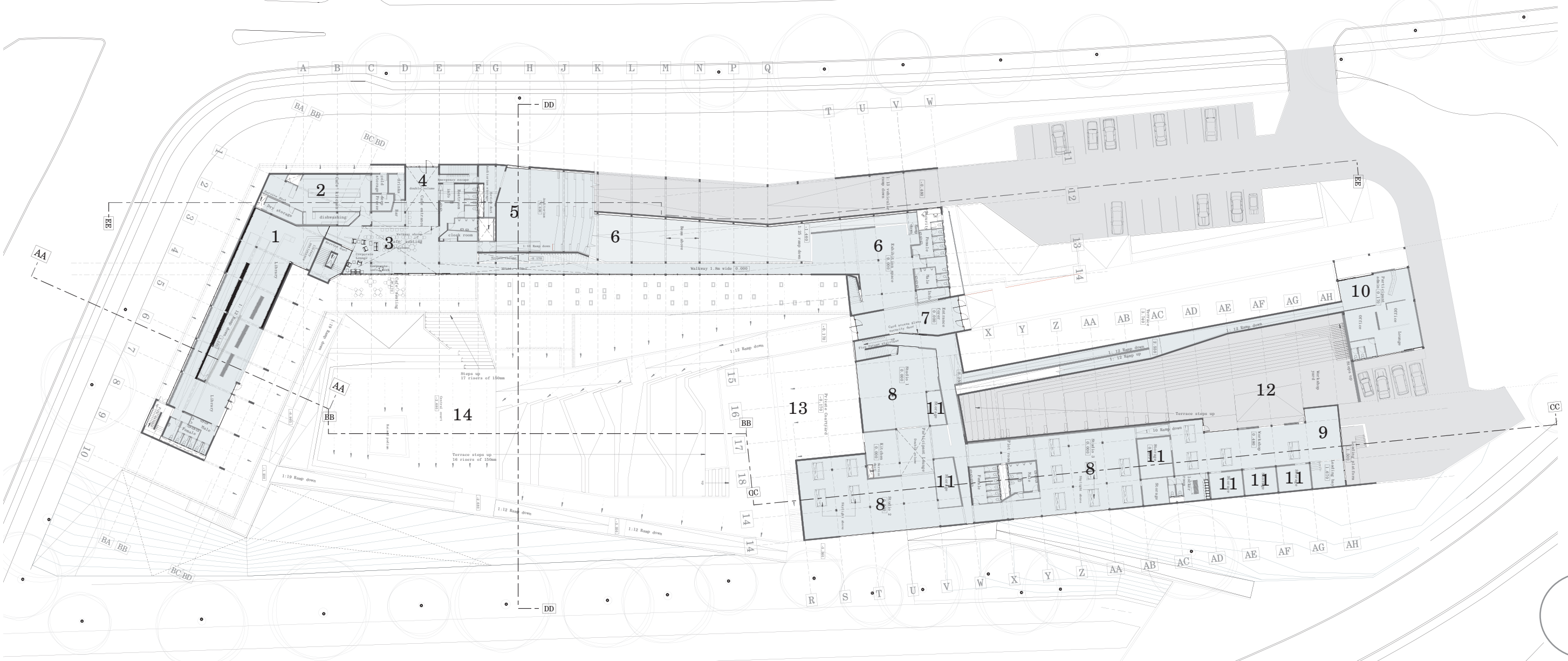




GROUND FLOOR PLAN scale 1:600

- |                       |                            |
|-----------------------|----------------------------|
| 1. Library            | 11. Storage                |
| 2. Cafe kitchen       | 12. Foundry yard           |
| 3. Cafe seating       | 13. Semi-private courtyard |
| 4. Corporate entrance | 14. Amphitheatre           |
| 5. Auditorium         |                            |
| 6. Exhibition space   |                            |
| 7. Main entrance      |                            |
| 8. Studio             |                            |
| 9. Workshop           |                            |
| 10. Administration    |                            |

University of Pretoria etd, Lotz W. (2006)

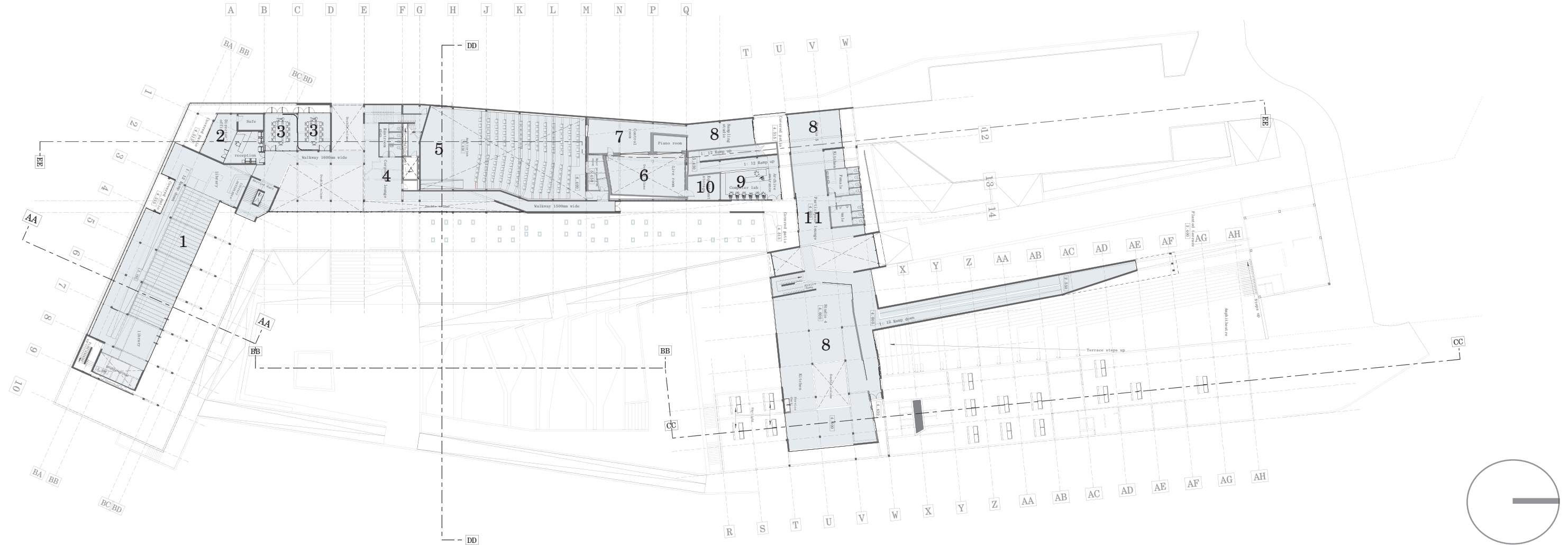




FIRST FLOOR PLAN scale 1:600

1. Library
2. Director's office
3. Conference room
4. Corporate lounge
5. Auditorium
6. Live room
7. Control booth
8. Studio
9. Archive entrance
10. Storage
11. Participant lounge

University of Pretoria etd, Lotz W. (2006)

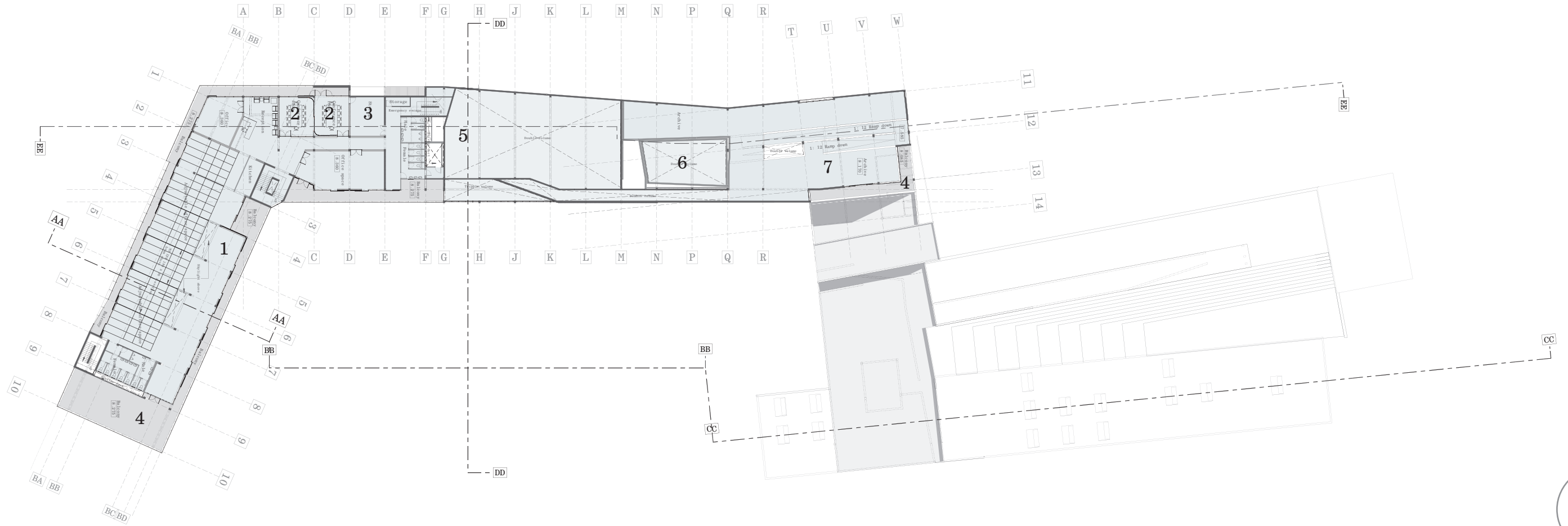




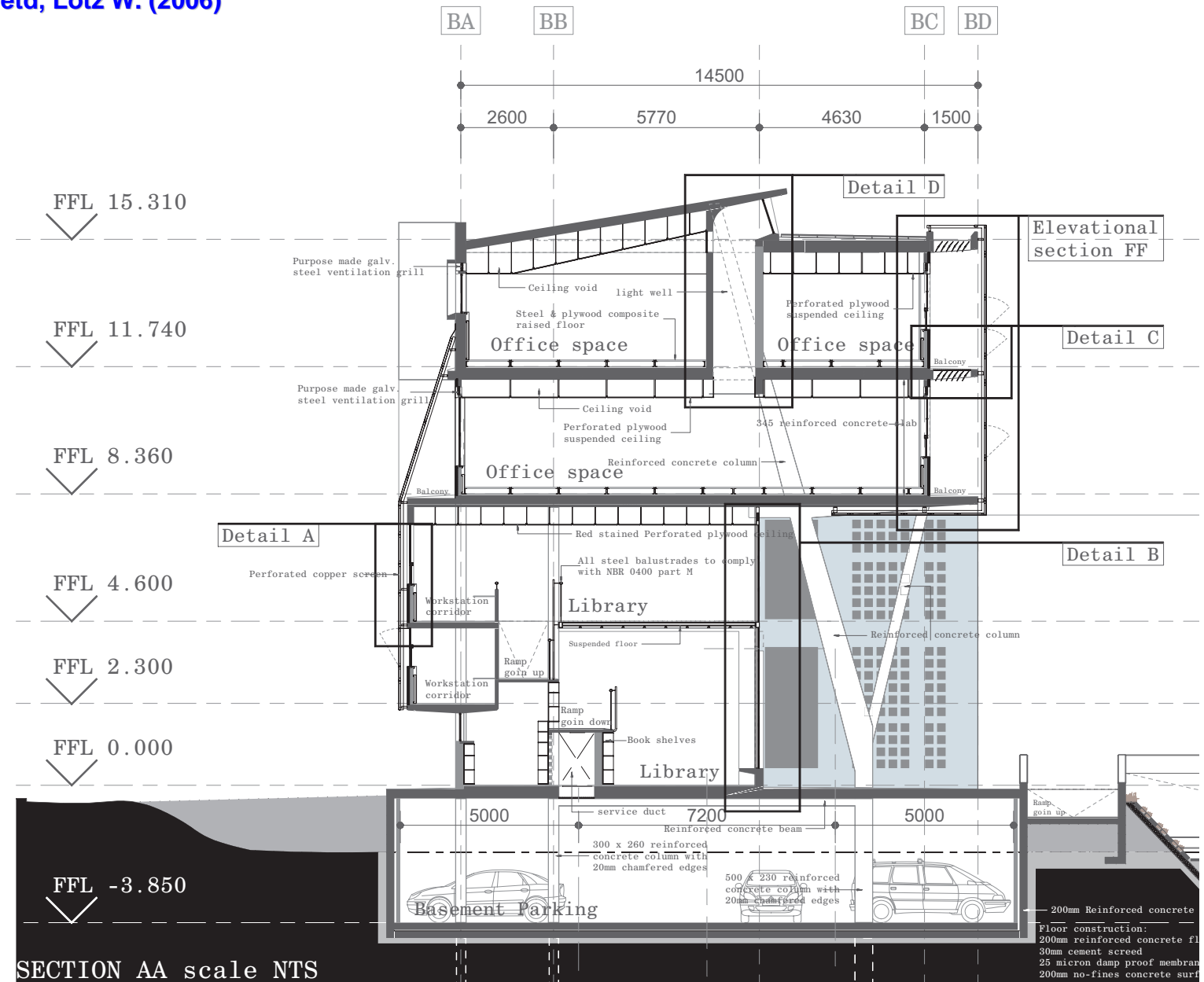
SECOND FLOOR PLAN scale 1:600

1. Office space
2. Conference room
3. Storage
4. Balcony
5. Auditorium
6. Live room
7. Archive

University of Pretoria etd, Lotz W. (2006)

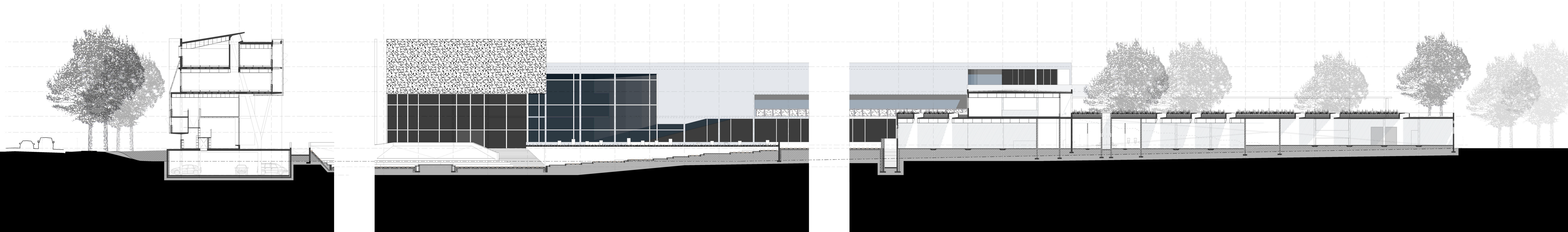






SECTION AA scale NTS

200mm Reinforced concrete  
 Floor construction:  
 200mm reinforced concrete fl  
 30mm cement screed  
 25 micron damp proof membran  
 200mm no-fines concrete surf





FFL 15.310

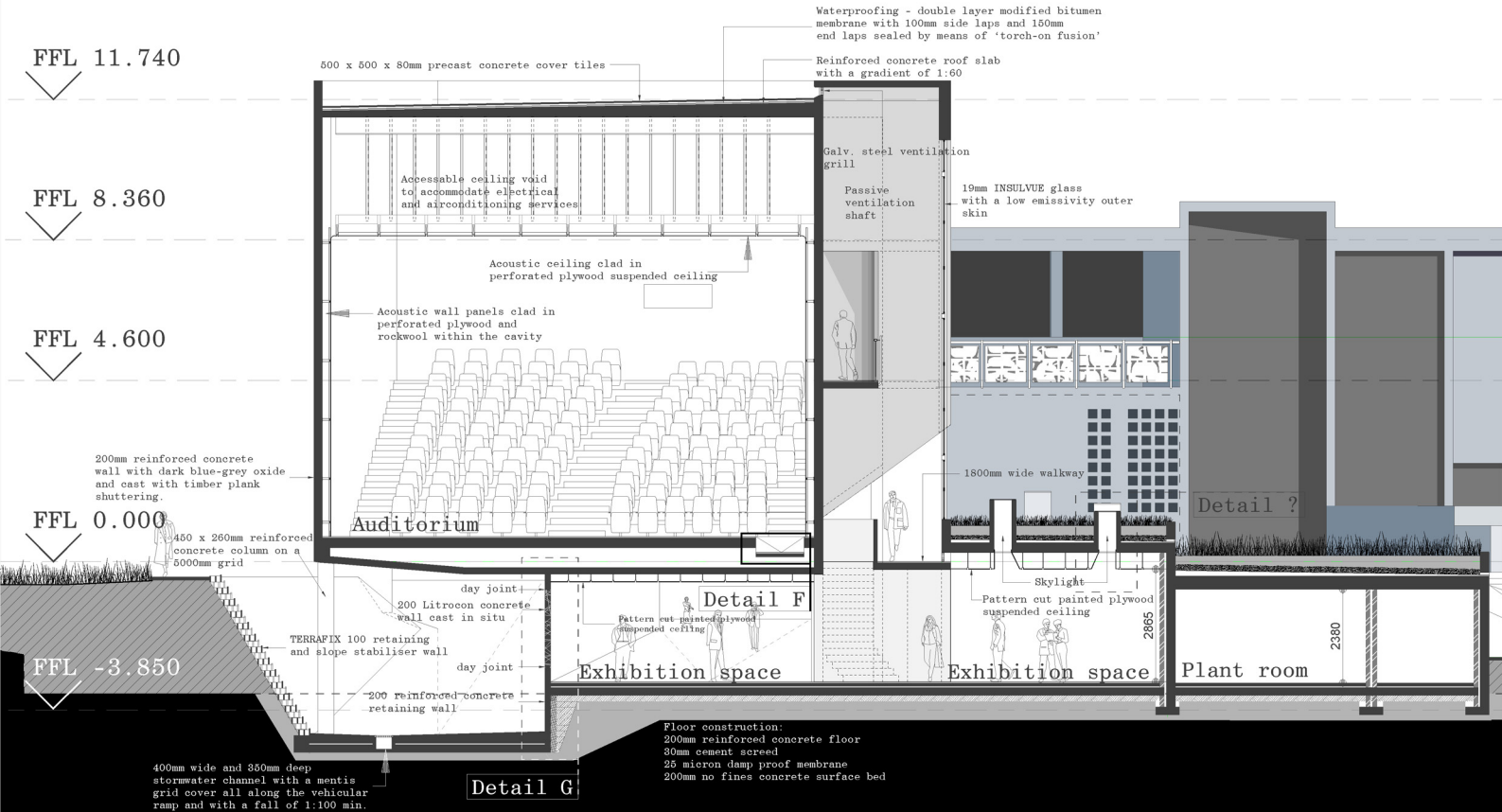
FFL 11.740

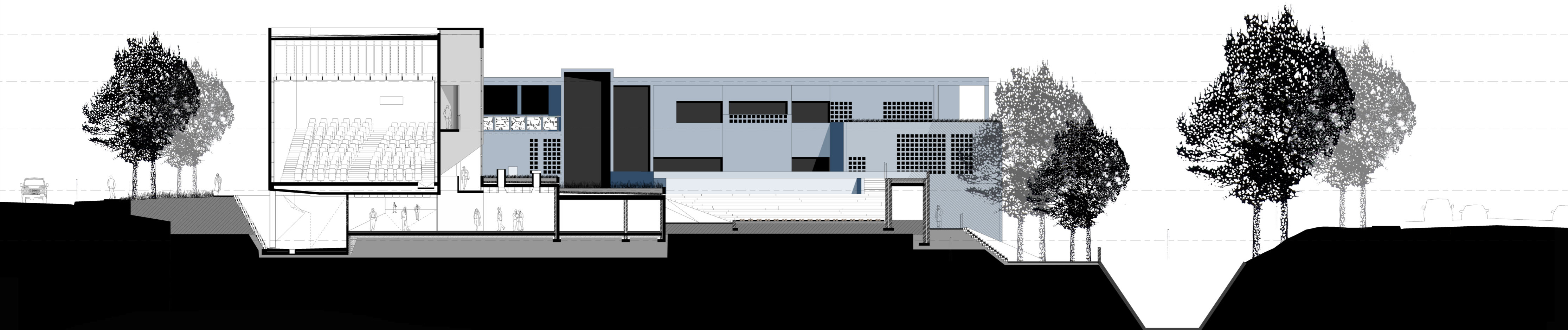
FFL 8.360

FFL 4.600

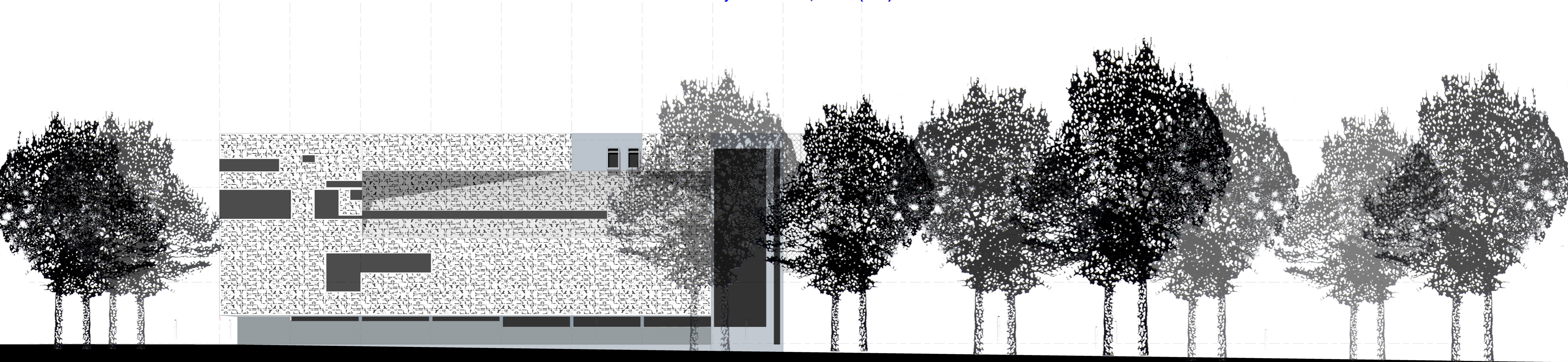
FFL 0.000

FFL -3.850

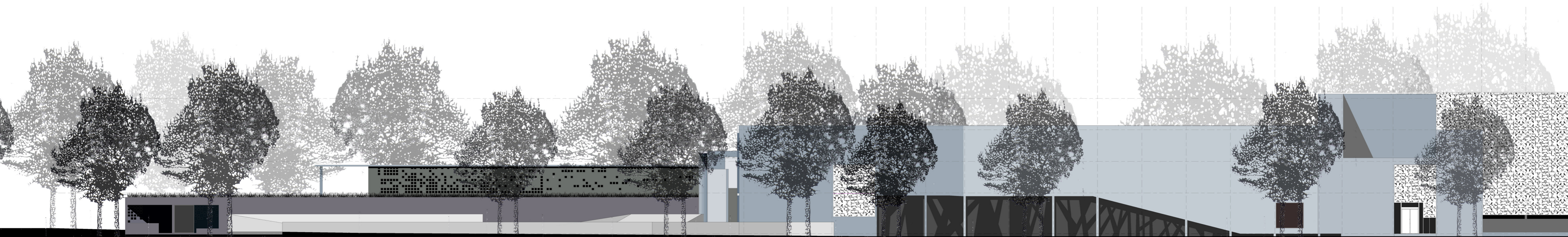
















## Performance Criteria (after Gibbert 2004)

Criteria	Target set (ideals)	Design performance	Achieved Y/N
1 Sence of place			4.4
1.1 legibility	Function and movement patterns well articulated and material use denote function	Movement articulated through surface treatment and scale denotes importance to some extent	0.5
1.2 Imageability	Landmarks should be placed on critical nodes easily percieved by motorists and pedestrians along Nelson Mandela BLVD	Corporate façade and expression walls adds to the imageability of Berea	1
1.3 structure	A descending scale of detail from micro to macro scale	Recessed building edges on street level with inner courtyard to increase public open space	1
1.4 Contextual meaning	Design relates to context on a national, regional and local scale	Design makes reference to Pretoria Brick aesthetic, but communicates a contemporary architectural language	1
2 Contextual dialogue			4.4
2.1 Visual appropriateness	Aesthetic to add to the charater of the site	The design is sensitive to the site and building height is sensitive to historically significant Berea Clubhouse	1
2.2 Historic retention	A historic site should be preserved based, among others, on its distinctiveness in time	The site does have some historic value and the design makes reference to it to some extent	0.5
2.3 Continuity	The developmental process should manifest through built form	The project was designed from a practical approach from the beginning and makes reference to the developmental process	1
2.4 Street retention	Priorities should be given to pedestrianization of van der Walt street and pedestrian access to site along the Apies River	Building height and recess from street level creates an intimate streetscape for van der Walt street and access along the Apies River has been established	1
3 Mixed use			5
3.1 Variety	More than two functions accommodated for on the site	The site accommodates five functions inc. a design school, office space, a Café, a medium sized auditorium / theatre and public open space	1
3.2 Choice	The project should bring variety to Berea in order to increase choice	The intended purpose of the project is to innitiate a process of city regeneration which will add to the variety and allow for an increase of choice	1

4 Scale	4.5		
4.1 Context Appropriate	Program and use appropriate scale throughout	Height does not detract from the importance of the historically significant Berea Clubhouse and appropriate hight in order not to dominate immediate context	1
4.2 Human scale	Public spaces and circulation should be psychologically pleasing to the user	The exhibition space, library and entrance foyers were designed in order to psychologically please the user. Indigenous planting incorporated	1
4.3 Enclosure	public space to building height ratio of 1:4	the inner courtyard correlates to the ratio of 1:4	1
4.4 urban morphology	Building scale should correlate to and fit within the composition of the city	The area consist of high density residential apartment blocks of 8 storeys high and single storey commercial buildings. The building is 4 storey's high and fits the urban morphology	1
4.5 program appropriate	Building should make a statement because of the importance of the site, but the importance of the function should be almost understated	The building projects the importance of the function beyond program requirements	0.5
5 Permeability			4.3
5.1 Access	Due to the difficulty relating to access, the building requires more than one entrance and separate entrance to the open public space	The building does have to separate entrances for allocated specifically users and a separate entrance into the public open space along the Apies River	1
5.2 Circulation	Pedestrian circulation should be uncumbered by vehicular activity	Vehicular access to the site provided some difficulties and goal was only partly met	0.5
5.3 Public space	The historical public space function of the site has to be retained	The proposed development does incorporate a public coartyard and retains its original purpose	1
5.4 transitions	Transition spaces from one space to another should act as primers for legibility. Transition spaces between interior and exterior should be confused.	pattern perforated ceilings and floor surface treatment allows for better legibility and exterior floor treatments penetrate the building	1
5.5 control	Building should be designed in order to promote passive surveillance.	Passive surveillance on Apies River, Railway Road and towards Berea Park, but limited passive surveillance on van der Walt	0.75

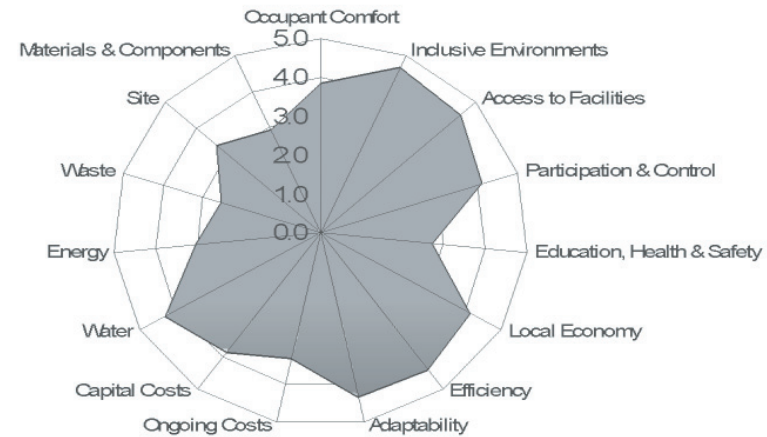


Criteria	Target set (ideals)	Design performance	Achieved Y/N
6 Ligibility			4.6
6.1 Hierarchy	Space and scale of urban fabric should serve to orientate users	The visual axis along the van der Walt slipway towards Berea Cluhouse as visual refernece point is retained. The existing hierarchy is respected.	1
6.2 connectivity	Urban fabric should serve to enhance path finding ability	The proposed development emphasises the end of the Nelson Mandela development corridor and entrance into the CBD along Nelson Mandela Blvd	1
6.3 Function articulation	The building should communicate the accommodated function to motorists and pedestrians moving along NM Blvd., van der Walt and Railway road respectively	The building communicates function by means of expression walls and transparency	0.75
7 Adaptability			4.0
7.1 Case	building should be able to absorb future programmatic and ideological change	yes, Office space and studios	0.6
7.2 Megastructure	bulk service should be easily accessible and designed to accommodate future expansion	Motor room with surplus space and suspended ceilings allow for future additions	0.8
7.3 Infill	Infill materials should be easily altered and re-used	Concrete structure with brick infill and perforated steel cladding. Steel cladding can be removed at will	1
8 Visual richness			5
8.1 Material	Tactile, hardwearing, vandal resistant, context appropriate materials	Yes, concrete framed building with infill brickwork that requires very little maintenance	1
8.2 variety	Make use of materials with inherent surface variety	Materials were chosen for textures. Concrete cast with woodplank shuttering in order to add to the visual richness of the project	1
8.3 function	Enhance general legibility and imeagability of the urban fabric	Purpose of the building - over time	1
8.4 Quality	balance between built and natural environments	yes	1
9 Growth			3.8
9.1 Initiation	Market based economy and socially responsive	An amalgam of an educational and corporate based developent. Public amenities include cultural and educational	1
9.2 control	Private sector corporate controlled innitiative	Innitiative to perform as working model for design schools of the future.	1
9.3 Economic oppertunities	Self sustaining economic development	The project will be dependent upon private and governmental commissions in order to become selfsustaining	0.5
9.4 Carrying capacity	Growth of design school in the future	Growth is intended to happen in other cities, but the site specific development will only be able to sustain a certain amount of participants.	0.5

Criteria	Target set (ideals)	Design performance	Achieved Y/N
10 Security and comfort			3.3
10.1 Surveillance	Building fabric designed to allow for passive surveillance	Passive surveillance on Apies River, Railway Road and towards Berea Park, but limited passive surveillance on van der Walt.	0.75
10.2 Control	Environmental comfort should be inherent qualities of the design and allow for occupant participation	Functions to accommodate permanent occupation allows for occupant participation, but public spaces rely on controlled thermal comford	0.5
10.3 Shelter	Public spaces should include elements which moderates the effects of inclement weather.	No, except for a visual connection from the int Building is weelchair accessible and has good security measures to protect the private domain	0
10.4 Accessibility	Full access for the disabled and heightened security measures for the private domain	Public circulation routes lead to the inner courtyard and aphitheatre	1
10.5 Movement	Circulation routes should be well lit, ventilated and destination orientated		1
11 Efficiency			3.4
11.1 Economic viability	Financial resources should be applied in such a manner that maximum benefit is obtained	The innitial cost of the building would be high, but the goal of the proposed development intends to self sustaining and benefits will be reaped over large part of the demographic constituency	0.5
11.2 Social resources	Social resources should be tapped in order to stimulate existing skills reseviors	The project will stimulate urban regeneration in the area and allow for new investment oppertunities, which will generate work oppertunities	0.75
11.3 Biophysical resources	Biophysical resources should be applied in a sustainable, democratic and socially responsible manner	Planting of indigenous plan species will enhance the biophysical resources on the site and immediate area.	0.5
11.4 Urban organ	Compositional elements of the city should act together in order to improve the overall function of the whole	The project will link up with existing educational systems and function within, thus not a separate entity	1
12 Social responsibility			4
12.1 Inclusive	Representative demographic	The design school will incorporate students from the entire cultural spectrum. The Project will enhance the quality of Berea and stimulate social interaction	1
12.2 Democratic	Spaces which cater for all forms of use	The public space will cater for a wide array of uses, from recreation to music performances to political rallies	1
12.3 Economic upliftment	Urban intervention should take place in such a manner as to encoarage the creation of independent economic activity	Not directly	0
12.4 Education	The environment should act as a stimulating and challenging teaching platform	Yes	1
12.5 Recreation	Adequate recreation space that enhance the environmental quality and social stability of the city	Yes	1

## PERFORMANCE

Criteria	Priority x/5
1. Sense of place	4.4
2. Contextual dialogue	4.4
3. Mixed use	5.0
4. Scale	4.5
5. Permeability	4.3
6. Legibility	4.6
7. Adaptability	4.0
8. Visual richness	5.0
9. Growth	3.8
10. Security and comfort	3.3
11. Efficiency	3.4
12. Social responsibility	4.0



S-BAT tool (after Gibbert 2004): indication of the performance of the design in terms of sustainability



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