



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

IDENTITY IN TRANSFORMATION

re-programming pretorius square

Submitted by : Radhia Khan

Study Leader : Barbara Jekot

Studio Master : Arthur Barker

Research Field : Heritage and Cultural Landscapes

Submitted in partial fulfilment of the requirements for the degree of Magister in Architecture (Professional)
in the Faculty of Engineering, Built Environment and Information Technology

University of Pretoria

November 2010



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

To my parents
For their everlasting love and support

TABLE OF CONTENTS

	LIST OF FIGURES	v		
	ABSTRACT	1		
1	INTRODUCTION	5	5	URBAN FRAMEWORK
	Project Goals	7		Introduction
	Schedule of Accommodation	8		Adopted Strategies
	Client	9		Phases 1 - 3
				Phase 4 : PLUG-In Festival Framework
2	CONTEXT	11		
	Pretoria : An Architecture of Icons	15		
	Site Analysis	16		
3	THEORETICAL INVESTIGATIONS	29	6	DESIGN OBJECTIVES
	Utopian Beginnings	30		Goal 1: From Icon to Catalyst
	Modernist Misgivings	32		Conceptual Informant 1 : Recycle
	South African Perspective	36		Conceptual Informant 2 : Interactive Boundaries
	Conclusion	38		
				Goal 2: Identity In Transformation
				Conceptual Informant 3 : Dialogue
				Conceptual Informant 4 : Pocket Activity
4	PRECEDENT STUDIES	41	7	TECHNICAL RESOLUTION
	Architecture Must Blaze	42		Conceptual Informant 5 : Protective Shell
	People and Place	44		Conceptual Informant 6 :Adaptable Skeleton
	The Neutral line	48		Conceptual Informant 7 :Temporary Filters
	Transformation	50		
	Conclusion	54		
				REFERENCES
				123

LIST OF FIGURES

1 . ABSTRACT AND INTRODUCTION

Figure 1.1 A Visual Collage of Memorials in the Inner City - 2010, Author

Figure 1.2 Frames of Mind: Memory Matrix by Vibeke Sorensen – Sorensen: <http://visualmusic.org/Biography/VS-LivingArch.html>

Figure 1.3 Introduction to Research Proposal

2 . CONTEXT

Figure 2.1 Study Area in geographic context - Author, 2010

Figure 2.2 Unpicking the Icons of Pretoria - Author, 2010

Figure 2.3 Pretoria's Architectural Narrative: a disrupted time line - Author, 2010

Figure 2.4 Interface between pedestrian and urban fabric - Author, 2010

Figure 2.5 Vendors lined against Lilian Ngoyi Square attract a wide range of age groups, local and foreign - Author, 2010

Figure 2.5 North-south axial link - Author, 2010

Figure 2.6 East-west axial link - Author, 2010

Figure 2.7 Amalgamation of Spines with relation to Pretorius Square Author - 2010

Figure 2.8 Basement Level -1: ventilation and daylight - Author, 2010

Figure 2.9 View from north western corner of the site looking east toward Paul Kruger Street and the Transvaal Museum - Author, 2010

Figure 2.10 Symmetrical Axes - Author, 2010

Figure 2.11 Example of brick pavers on paths along axes - Author, 2010

Figure 2.12 Looking east from City Hall to along Visagie Street edge - Author, 2010

Figure 2.13 Symmetrical facade, emphasized by fountain and position of Chief Tshwane about the central axis in the foreground - Author, 2010

Figure 2.14 Looking about the same axis, eastward toward the Transvaal Museum - Author, 2010

3 . THEORETICAL INVESTIGATIONS

Figure 3.1 The Beginning of A city - Jordaan (1989:27)

Figure 3.2 Pretoria's successive Utopia's – 2010, Author

Figure 3.3 Current day street-scape of Church Street looking west – 2010, Author

Figure 3.4 Transformation of Church Street – University of Pretoria, Various Collections

Figure 3.5 Architecture largely representative of Western classic and Modern Influences - 2010, Author

Figure 3.6 The influence of African art on Picasso – Sudan.Net Discussion Board: <http://www.sudanforum.net/showthread.php?t=50389>

Figure 3.7 Gauguin's bold, untamed landscapes influenced by the people and lifestyle in Tahiti – Musée d'Orsay, Paris

Figure 3.8 Helmut Stauch - Marchie Mansions - University of Pretoria, Van der Waal Collection: <http://hdl.handle.net/2263/9981>

Figure 3.9 Eaton - Netherlands Bank of South Africa Main Office

(a) Recessed facade to provide shading over fenestration - 2010, Author

(b) Overhang detail on roof - University of Pretoria, Norman Eaton Collection : <http://hdl.handle.net/2263/9541>

Figure 3.10 Examples of Guedes' work, drawing on both African and Western traditions : Maputo, Mozambique

(a) http://farm3.static.flickr.com/2194/3615261002_0cf2ca5e14.jpg?v=0

(b) http://farm4.static.flickr.com/3388/3615213034_b66b60584e.jpg

Figure 3.11 Preservation without Interaction - Costonis (1989:114)

4 . PRECEDENT STUDIES

Figure 4.1 Cathedral City - Utopia Foundation: www.utopia.ru/english

Figure 4.2 A Glass Tower - The Architectural Association (1988:40)

Figure 4.3 Works of Coop Himmelblau – Himmelblau, C (various pages)

Figure 4.4 Traditional Dwelling

(a) Zulu Homestead by Ntuli, J – University of KwaZulu-Natal, The Campbell Collection: <http://campbell.ukzn.ac.za/?q=node/52>

(b) Zulu huts in varying stages of construction – 2010, Author

Figure 4.5 Veranda mural overlooking the Durban harbour: a mix of contemporary and indigenous traditional art - Marschall (2000:55)

Figure 4.6 Courtyard detail of Bartel Arts Centre - Marschall (2000:185)

Figure 4.7 Facade detail showing the layered screen as sun-shading and implementation of locally available material - ARCHI-technology Sep 2009

Figure 4.8 Section through tower and entrance - ARCHI-technology Sep 2009

Figure 4.9 The building provides for visual access into public areas - ARCHI-technology Sep 2009

Figure 4.10 Murals convey the community identity and involvement in the construction of the centre - ARCHI-technology Sep 2009

Figure 4.11 Street view of the Gallery (www.nsagallery.co.za)

Figure 4.12 Exhibition Layout drawn from (www.nsagallery.co.za)

Figure 4.13 Section through the new museum with the Palcio Royal behind - Thompson (2006:173)

Figure 4.14 Frieze translated as: 'for the German People' (<http://www.fosterandpartners.com>)

Figure 4.15 Mass Rally held in 1919 (http://germanhistorydocs.ghi-dc.org/sub_imglist.cfm?sub_id=99§ion_id=12)

Figure 4.16 Soviet Union soldiers raising the flag on the roof of Reichstag - May, 1945 (Photographer: Yevgeny Khaldei)

Figure 4.17 View of the Renovated Building as a Contemporary Icon (<http://www.fosterandpartners.com>)

Figure 4.18 Restaurant with View over Berlin (<http://www.fosterandpartners.com>)

Figure 4.19 Glass dome in cupola allows visual access to chamber below (<http://www.fosterandpartners.com>)

Figure 4.20 Graffiti left by Soviet soldiers during occupation of Berlin (<http://www.fosterandpartners.com>)

Figure 4.21 Interior of Cupola with Light reflector (<http://www.fosterandpartners.com>)

Figure 4.22 The Reichstag at night as an icon of Berlin's skyline (<http://www.fosterandpartners.com>)

5 . URBAN FRAMEWORK

Figure 5.1 Focus Area (PLUG-In Group Framework, 2010)

Figure 5.2 Influences of existing Proposals considered by the Tshwane Municipality (PLUG-In Group Framework, 2010)

Figure 5.3 The identification of existing and potential open spaces for recreation (PLUG-In Group Framework, 2010)

Figure 5.4 Streets target for renewal and intensification of pedestrian orientated activities.(PLUG-In Group Framework, 2010)

Figure 5.5 Threshold Beacons (PLUG-In Group Framework, 2010)

Figure 5.7 Walking radii from Church Square (PLUG-In Group Framework, 2010)

Figure 5.6 Framework concept- Celebrating the City (PLUG-In Group Framework, 2010)

Figure 5.8 Existing attractions within the festival boundaries (PLUG-In Group Framework, 2010)

Figure 5.9 Utilizing existing and proposed attractions during festival (PLUG-In Group Framework, 2010)

6 . CONCEPTUAL DEVELOPMENT

Figure 6.1 Conceptual diagram of an icon's transition into catalyst - Author 2010

Figure 6.4 Conceptual sketch showing the early approach of the square as a series of platforms for public interaction - Author, 2010

Figure 6.3 Boundaries and Movement - Author 2010

Figure 6.4 Model determining which heritage aspects to preserve as a neutral line - Author 2010

Figure 6.5 Conceptual approach - maintaining the axis at original ground level - Author 2010

Figure 6.6 Conceptual sketch showing the early approach of maintaining a ceremonial axis at existing ground level - Author 2010

Figure 6.7 Exhibition Platform acts as concourse overlooking recreation park on the right and providing views into the transparent gallery to left - Author 2010

Figure 6.8 Site Plan - Author, 2010

Figure 6.9 Images from the latest design development employing an organic approach to forms linked to the axial path - Author, 2010

7 . RESOLUTION

Figure 7.1 Abstract diagram of architectural intentions - Author 2010

Figure 7.2 Conceptual Approach - Transformation from solid to light structure - Author 2010

Figure 7.3 Site Plan with organization according to activity zones - Author, 2010

Figure 7.4 Site Section A with statues in original positions - Author, 2010

- Figure 7.5 Site Section B with City Hall in background - Author, 2010
- Figure 7.6 Basement Level -1 - Author, 2010
- Figure 7.7 Basement Plan Level -1 A - Author, 2010
- Figure 7.8 Basement Plan Level -1 B - Author, 2010
- Figure 7.9 Basement Plan Level -1 C - Author - 2010
- Figure 7.10 Basement Level -2 - Author, 2010
- Figure 7.11 Basement Level -2 A - Author, 2010
- Figure 7.12 Basement Level -2 B - Author, 2010
- Figure 7.13 Basement Level -2 C - Author, 2010
- Figure 7.14 Section B 1 - Author, 2010
- Figure 7.15 Section B 2 - Author, 2010
- Figure 7.16 Basement Level -1: ventilation and daylight
- Figure 7.17 Basement Level -2: ventilation and daylight - Author, 2010
- Figure 7.19 Basement Level -2: water and access - Author, 2010
- Figure 7.18 Basement Level -1: water and access - Author, 2010
- Figure 7.20 Detail A - Integration of services and pedestrian interface - Author 2010
- Figure 7.21 Detail B - Axonometric projection of the concrete structure and retaining wall - Author 2010
- Figure 7.22 Detail C - Lightweight steel and timber pergola rising from solid masonry base - Author 2010
- Figure 7.23 Detail - Planted roof and ventilated service cavity introduce pedestrian activity with the structure and site - Author 2010
- Figure 7.24 New Site Plan - Author, 2010
- Figure 7.25 New Ground floor Plan - Author, 2010
- Figure 7.26 New Basement Plan -1 - Author, 2010
- Figure 7.27 New Basement Plan -2 - Author, 2010
- Figure 7.27 New Section B - Author, 2010
- Figure 7.28 New Detail E - Author, 2010
- Figure 7.29 New Detail E continued - Author, 2010
- Figure 7.30 (Below) Ground floor Ceiling Layout of Building 1 - Author
- Figure 7.31 (Opposite) Basement -1 Ceiling Layout of Building 1 - Author, 2010
- Figure 7.32 (Below) Ground floor Ceiling Layout of Building 2 -Author, 2010
- Figure 7.33 (Opposite Left) Basement -1 Ceiling Layout - Author, 2010
- Figure 7.34 (Opposite Right) Basement -2 Ceiling Layout - Author, 2010
- Figure 7.35 An abstract conclusion to the architectural scheme's adherence to social consideration within the historic fabric - Author, 2010

ABSTRACT

‘ the city is the best organ of memory man has yet created ’ (Mumford in Costonis, 1989:111)

An urban landscape is the tangible expression of social values and identity representative of past achievements and future aspirations of a society. Iconic buildings remain long after the ideals they represent have changed. However, heritage icons can hold negative connotations to future generations if they remain as markers of a controversial history. South African social history is strongly representative of an identity under transformation. As the capital city and seat of government, Pretoria is a nationally significant symbol of this identity of change.

The architectural landscape of Pretoria is already rich in well-preserved historic fabric and icons to past figures of political power. However, there remains a lack in opportunity for current citizens to engage with this historic fabric and little opportunity for new expressions of social identity. Figure 1.1 is a collage of well-known architectural objects which make up the visual identity of Pretoria. The historic symbols have an ever diminishing relevance to the current inhabitants of Pretoria’s inner city.

Sorensen’s *Frame of Mind: Memory Matrix* (Figure 1.2) represents the experiential aspect of architecture as a medium for narrative. The spaces and landscapes hold meaning tied to personal memory strongly associated with identity in a dynamic or liquid state.

The importance of memory in the establishment of a collective or social identity and the preservation of this memory for future generations is imperative to any civilization that wishes to progress from the past. Architecture transcends physical structure as the aesthetic representation of identity. The architecture of public buildings specifically, embody intangible elements such as memory, meaning, culture and value.

The experiences of the past can serve to enrich the knowledge of the present and progression to future generations. As such architecture should be viewed in accordance with literature, music, art and film as a collective depiction of the transition from past ideals to the contemporary values and future aspirations of a living city. Sites of historic importance within the Central Business District (CBD) will be investigated as qualitative research to determine the significance of these sites to current citizens. This will be used to determine the best location and manifestation of an intervention that will create a dialogue between the citizens of today and the urban landscape, encapsulating Pretoria’s history of social transition which indicates heritage as a living time line.

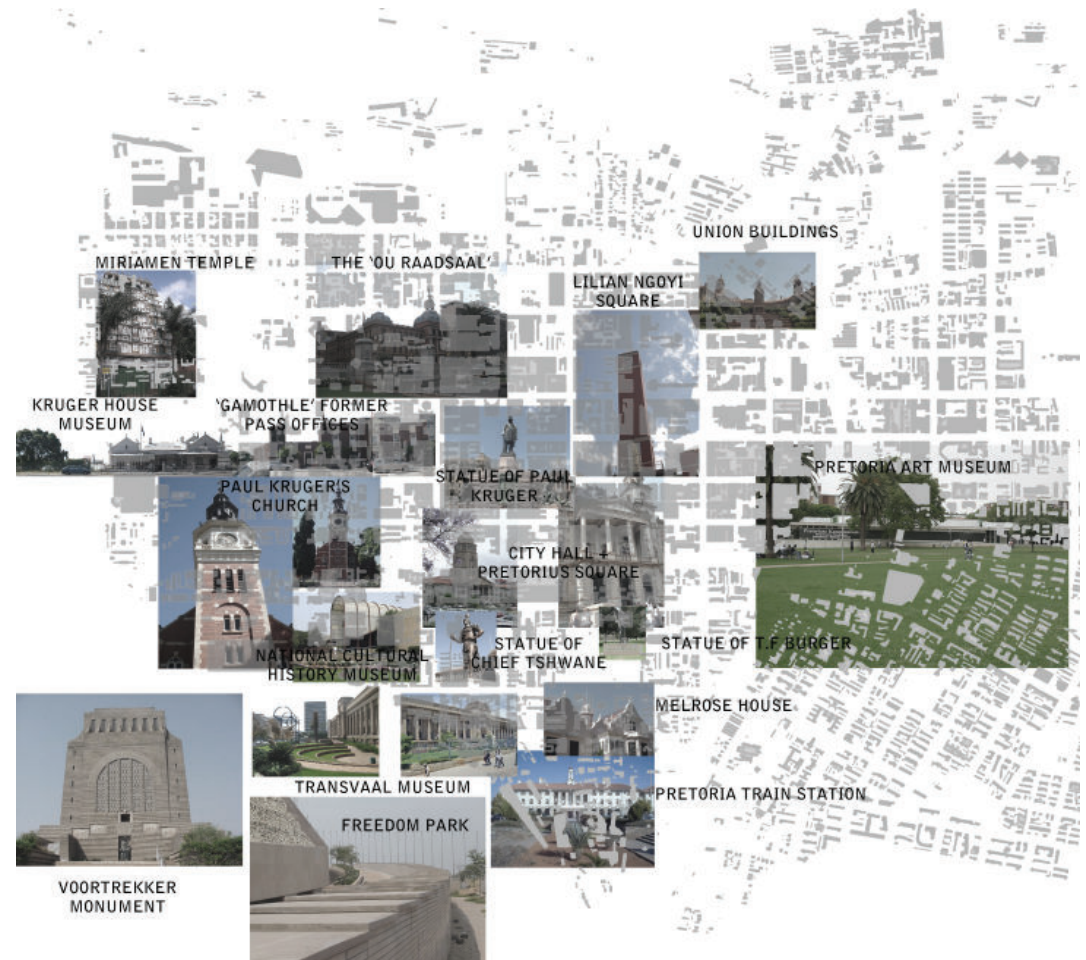


Figure 1.1: A Visual Collage of Pretoria's inner city icons
Author, 2010



Figure 1.2: (Right) *Frames of Mind: Memory Matrix*,
Vibeke Sorensen
(<http://visualmusic.org/Biography/VS-LivingArch.html>)



1 INTRODUCTION

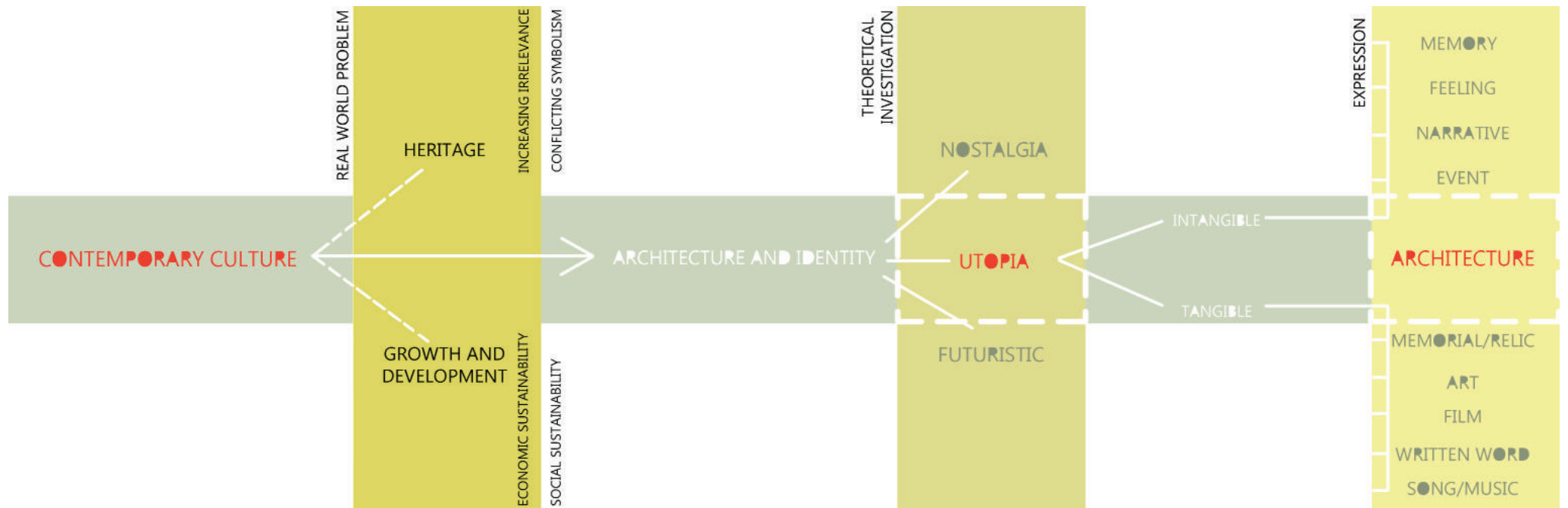
Project Goals

Schedule of Accommodation

Client

Figure 1.3 : Introduction to Research Proposal

The following image diagrams the development of the proposal and its relationship to the theoretical and real world issues. The flow from left to right shows the relationship between the initial objective, **architecture as an expression of contemporary culture** with the contextual issues of Pretoria intersecting this process and highlighted in vertical streams. These issues and opportunities for expression will be investigated and add to the objective in order to establish the true role and manifestation of civic architecture in the Pretorian context.



project goals

FROM ICON TO CATALYST

This urban scaled intention involves the identification of 'lost opportunities' existing within the city realm and to employ strategies to re-integrate these both socially and economically with the CBD. This will be achieved architecturally by **adapting and adding to the existing fabric** in order to allow rejuvenation of ignored areas.

This will include identifying target areas within the greater municipality of Tshwane using memorials to thread the narrative of the social development of Pretoria. By making the preserved heritage accessible, the relevance of these memorials to current city users, can be readdressed and perhaps allow for a new level of appreciation.

Conservation activities will be paired with new projects focused on contemporary cultural expression. These conservation and cultural points will be linked by routes specifically marketed for the tourist, recreational or economic opportunities they possess and is further discussed as part of the group framework, PLUG-In Festival. New tourist events will serve to encourage relevance and ownership by contemporary citizens as sites of historical importance are re-appropriated to address current social needs.

IDENTITY IN TRANSFORMATION

The primary aim of this project will be the development of a Cultural Centre programmed to establish a dialogue between the tangible architectural heritage with the intangible voices of current citizens.

Reaction to the Monument will investigate the linkages between Pretoria's historic fabric and the citizens who inhabit the city today. The City Hall and Pretorius Square site has recently been exhibiting some trend towards a changing identity with the erection of the statue of Chief Tshwane in 2006. However, the erection of new memorials does not serve to change or engage with the symbolism of the old. This involves the investigation of a relevant architectural response that would achieve the goal of both **respecting the existing heritage** of South Africa while fulfilling the **needs of a contemporary Pretorian society**.

The product of this goal is to achieve architecturally a democratic platform for living heritage. In order to sustain the city as a place of cultural value, heritage icons must be approached as part of a living time line. The Cultural Centre developed on the forecourt to the City Hall will be an expression of the reaction to the memorialized traditions on which Pretoria was based as well as those which were disregarded in the past.

program

COMMUNICATION

The primary focus of the project is the redevelopment of Pretorius Square as a Cultural Centre and new civic space that will serve to enrich the context of Museum Mall by promoting the exhibition of local culture and tradition. The proposal aims to facilitate a dialogue between existing heritage and new cultural concerns by providing a platform for the public exhibition of local literature, art, music and film.

EDUCATION

A component of the square will be used to house a new cultural centre, supported by the surrounding museums, which will showcase and provide workshops for the production of art and preservation of artifacts. Through providing relevant needs in terms of education and skills development, the centre will promote economic and employment opportunity while bridging the gap between citizens and the city's dispossessed heritage.

EXHIBITION

A component to the project will focus on marketing the city's heritage as a tourist attraction. The new cultural centre will function as the nodal point for the organization and management of walking city tours. Various points along the routes will be targeted for temporary contemporary interventions that will actively promote the city of Pretoria as a living cultural exhibition.

The centre will be a symbol of contemporary Pretorian culture, exhibiting works of art related to the identity and development of the city and country in order to showcase the social transition between past and present. As such it will follow the principles of adaptable and flexible spaces in order to allow changes for future accommodation and for spontaneous or temporary social events.

CLIENT AND USER

The Department of Arts and Culture will provide the funding for what will be a local icon and communication centre. The associated temporary exhibition installations will be managed by the centre and can draw on sponsorship from the existing Tshwane Municipality's heritage and cultural organisations.

Daily users are comprise of participants from the workshop component including learners, guest lecturers, artists and general public.

The exhibition components which vary in scale and duration will be a local and foreign tourist attraction, accessible to the general public.



2 CONTEXT

Pretoria : An Architecture of Icons
Site Analysis

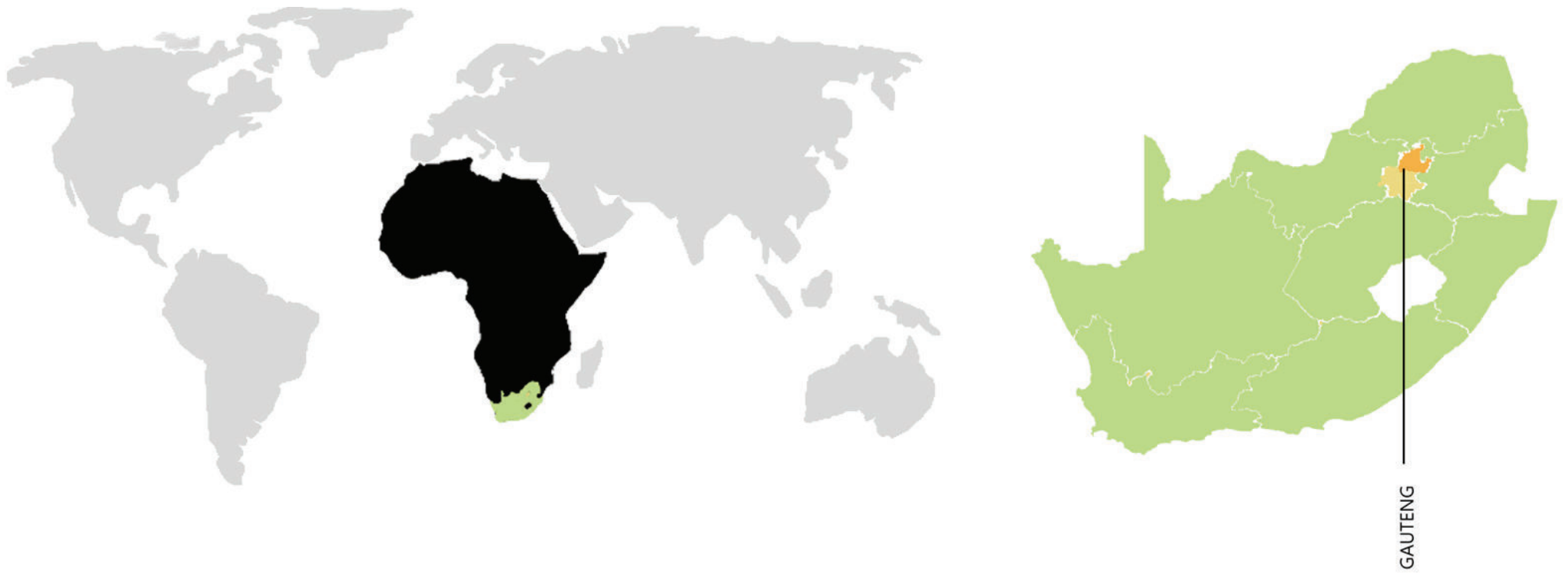
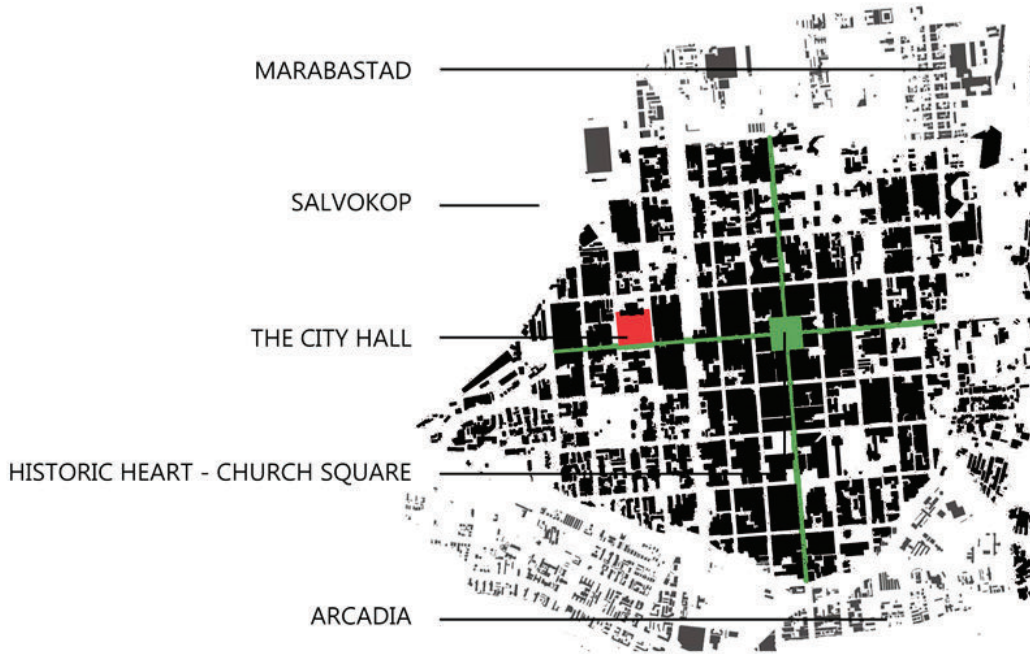
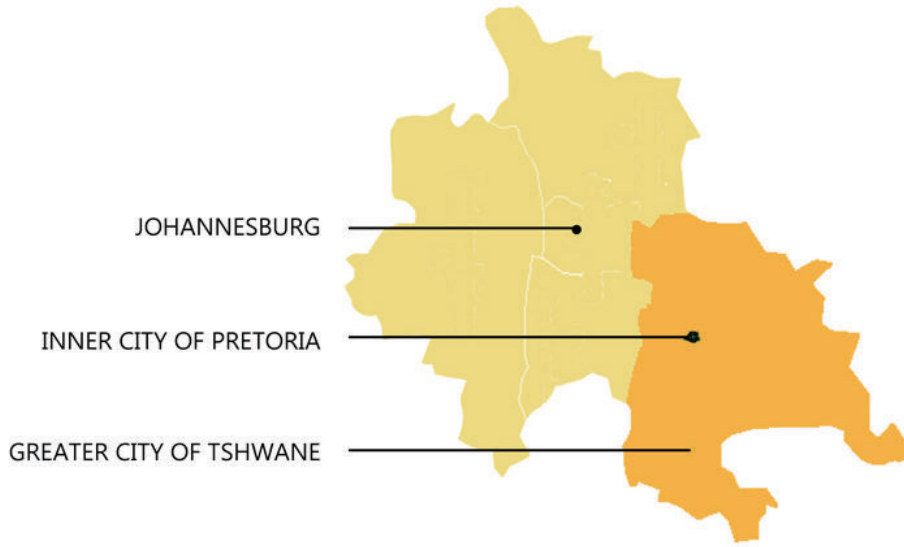
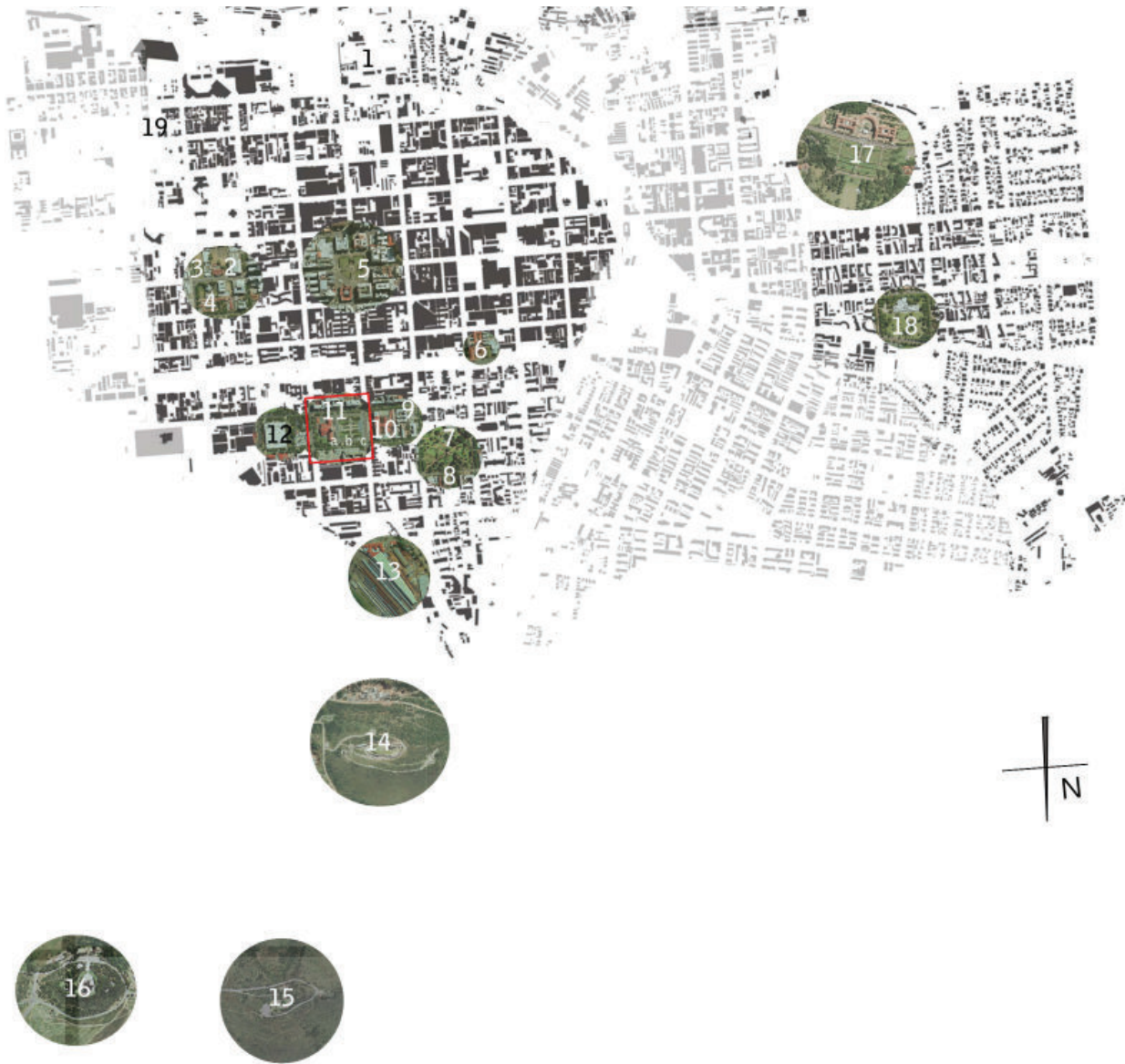
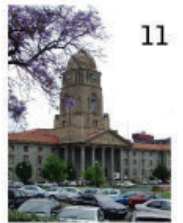


Figure 2.1: Study Area in geographic context
Author, 2010





1. NATIONAL ZOOLOGICAL GARDENS
2. 'GAMOTHE' FORMER PASS OFFICES
3. KRUGER HOUSE MUSEUM
4. PAUL KRUGER'S CHURCH
5. CHURCH SQUARE
STATUE OF PAUL KRUGER
6. STATE MODEL SCHOOL MUSEUM
7. BURGER'S PARK
STATUE OF T.F BURGER
8. MELROSE HOUSE
9. MUSEUM OF SCIENCE AND TECHNOLOGY
10. TRANSSVAAL MUSEUM
11. CITY HALL + PRETORIUS SQUARE
a STATUE OF CHIEF TSHWANE
b STATUE OF ANDRIES W.J PRETORIUS
c STATUE OF MARTINUS W PRETORIUS
12. NATIONAL CULTURAL HISTORY MUSEUM
13. PRETORIA TRAIN STATION
14. FREEDOM PARK
15. SKANSKOP FORT
16. VOORTREKKER MONUMENT
17. UNION BUILDINGS
STATUE OF LOUIS BOTHA
18. PRETORIA ART MUSEUM
19. MIRIAMMEN TEMPLE



pretoria: an architecture of icons

There is a fracture which exists between the memorialized past of South African cities and the living culture of people today. Due to the mandatory removal and racial separation laws enforced under the Apartheid government, the majority of non-white citizens had little cultural representation in the urban environment before the first democratic presidential election in 1994.

The historic monuments preserved as icons in the contemporary urban environment, shown in Figure 2.1, still hold some negative connotations to the current multi-racial inhabitants of Pretoria. When conducting an informal verbal survey on the significance of Pretoria's icons, the majority of current city users between the ages 15-25 responded that the depiction of past political figures bears no relevance on their impression of the city, responding more to issues of safety, commercial branding and accessibility to services. Older non-white citizens had a more negative attitude towards institutes as well as statues and strongly denied any cultural or patriotic ownership of the heritage represented by the memorials.

This dissociation and negative impression has extended to include museums and other older cultural institutes to be perceived as representative of Western and colonial ideals, which disregard the influence of African and eastern cultures.

The preservation of objects of debatable relevance within a changed context has led to an ever-growing disparity between the past and living cultures of Pretoria. It is apparent that the significance of Pretoria's architectural heritage is becoming ever more intangible to future societies as many current citizens feel no ownership over the symbols of the past. The fractures evident in the capital city are symptomatic of the South African situation in which citizens, indifferent to the past events which have shaped their environment, are subsequently indifferent to the cultural wealth and development of their cities. This is a matter of concern as it is only by viewing heritage as a living time line, by acknowledging and learning from the past, that present generations can continue to evolve and progress into the future.

Figure 2.2: Unpicking the Icons of Pretoria
Author, 2010

What is needed in Pretoria is a **reaction to the architecture of monuments**. The social context of South African cities has been informed by both indigenous African traditions as well as the customs of European and Asian settlers forming **a triple heritage cultural legacy**. However, the architectural representation of South Africa's identity as a nation of dynamic transition has yet to be realized.

The disparity between people and place is not limited to the social or psychological realm as this fragmentation is manifested even within the urban fabric of the Pretoria's CBD. Certain districts are deemed as successful economic or culturally rich zones and are therefore targeted for development while other areas are left to degrade into the peri-urban and scattered landscape reminiscent of land acts enforced during apartheid rule.

As cultural institutions, **Pretorian museums fail to address the contemporary needs of the public and give little back to surrounding communities** adding to the degradation of a city that is 'no longer "consummated" but only "observed"..."the city [is] only an empty, not even functioning shell for our everyday banality" (Günther Feuerstein in Himmelblau 1984:6).

It is apparent that to continue marking cultural and historic value with monuments is socially unsustainable and sealing displaced artifacts in exclusive museums has led to the further **separation of past, present and future social interests**.

The architectural development of Pretoria's city centre has been heavily influenced by European colonial and later Modern ideals while links to indigenous traditions have slowly disappeared further isolating the people of today from the city as an object of cultural manifestation. *Reprogramming Pretorius Square* serves to embrace the existing urban complexity and inhabitants of South Africa's capital by promoting an exciting and stimulating environment representative of a true public space.

site analysis

Places of cultural significance that exist within the heart of the city as well as the surrounding urban context are isolated from the needs of current inhabitants. Even those museums which advertise a celebration of diverse cultural roots are irrelevant in contemporary South African society as they fail to relate past values to present day concerns. Museums themselves are strongly associated with an exclusive culture whose target market does not include the majority of city users.

Determining what constitutes as significant heritage is a controversial issue in a country such as South Africa which draws on the identities of multiple cultures referred to earlier as 'a triple heritage', often contradictory in values and expression. The last widespread cultural influence on the architecture of Pretoria was that of Modernism. Since then, Pretoria has largely remained as a city of monuments lacking in architecture that contextualises the influence of the past simultaneously with the search for current and future architectural identity.

Disregarding the heritage of past ideals has weakened the diversity and progression of architectural style which should be evident in all cities. Lipman's criticism of the post-Apartheid architecture of South Africa is that 'since 1994, poverty has become worse; not better. And the poverty of architecture has become worse; not better. Not only is this culture decadent but the society is decadent around it' Lipman (ARCHI-technology September 2009:8)

As a post-colonialist and post-Apartheid nation, the common thread that is woven into the fabric of our shared heritage is that of a society undergoing transformation. It is imperative that as South Africa's capital, **Pretoria should be expressive of the transformative identity inherent in all South African cities while providing opportunity for the interaction between the existing, preserved historic context and the users of today.**

The following sites of cultural and national significance were examined as potential catalytic nodes for the expression of the concept Identity In Transformation. The study area was further delimited to the inner city as this is the historic heart of Pretoria. The potential heritage and cultural value of each zone was examined against personal perception as well as the perception of passers-by in order to determine a site for the development of a new cultural centre focussed on aspects of communication and exhibition of the preserved heritage to citizens of Pretoria.



Figure 2.3: Pretoria's Architectural Narrative: a disrupted time line
Author, 2010

ARCHITECTURAL SIGNIFICANCE	STRENGTHS	WEAKNESSES	OPPORTUNITIES
<p>Paul Kruger House Museum (1899) Heritage Structure Significant space Symbol of Zuid-Afrikaansche Republiek (ZAR) leader, Paul Kruger</p>	<p>Close proximity to CBD and supportive infrastructure. Recognizable route in and out of city, Church Street as historic east-west axis</p>	<p>Barren plots Dangerous streets - opportunistic crime Museum exists in isolation from current residential context</p>	<p>Revive museum Renovation Interactive functions</p>
<p>GaMothle (1932) Heritage Structure Former Pass Office Former Police Station and Holding cells</p>		<p>Buildings have poor interface with public street, often mono-functional Negative connotation toward museum being celebrated as a cultural institute</p>	<p>Connect Church Street west to highly successful economic and social activity in eastern district Densify existing fabric by utilising barren plots</p>
<p>Paul Kruger Church (1890) Heritage Structure Replaced original church away from Church Square Religious symbol Symbolic of ZAR</p>			<p>Uplift local residential areas by providing social and economic opportunity Re-establish ceremonial importance by connecting Museum to Church and Church Square</p>
<p>Heroe's Acre War Monument</p>			
<p>Dunlop Factory + Tobacco Factory Heritage Structures Industrial symbol</p>			

SITE B : MUSEUM MALL

ARCHITECTURAL SIGNIFICANCE	STRENGTHS	WEAKNESSES	OPPORTUNITIES
<p>National Cultural History Museum</p> <ul style="list-style-type: none"> Preservation of cultural artefacts National relevance Icon of Pretoria 	<p>Cultural activities located in one landmark district</p> <p>Ease of accessibility from the inner city by rail (south) or vehicle.</p>	<p>Museums can be inaccessible</p> <p>Monofunctional approach to museums do not attract repeat visitors</p>	<p>New intervention promoting public interface</p> <p>Utilise existing pedestrian activity on Paul Kruger Street and engage with this site boundary</p>
<p>Transvaal Museum (1892)</p> <ul style="list-style-type: none"> Natural artefacts Heritage value Icon of Pretoria National relevance 	<p>Provides recreation and educational facilities to the people of Pretoria.</p>	<p>Local citizens deem the museum buildings as 'elitist' and non-inclusive</p>	<p>Revive museums and exhibits</p> <p>Promote the Museum Mall District as a brand</p>
<p>Science and Technology Museum</p> <ul style="list-style-type: none"> Scientific objects and enterprise Icon of Pretoria 			<p>Connect the heritage of open space to the preserved icons around the city as a walkable route</p>
<p>City Hall (1935)</p> <ul style="list-style-type: none"> Built in honour of Pretoria's achievement of city status-1931 Political symbol Once housed the city council's art collection until moved to the Pretoria Art Museum 			
<p>Pretorius Square</p> <ul style="list-style-type: none"> Recreational value Ceremonial collective space before City Hall 			

ARCHITECTURAL SIGNIFICANCE	STRENGTHS	WEAKNESSES	OPPORTUNITIES
Recreational value and heritage as an urban park.	Aesthetically pleasing park and building	Park is dangerous at night	Link park to open space network
Statue of T F Burger Political symbol	Close proximity to residential and business zones- can provide a variety of users	Monument has little meaning to current citizens or park users	New functions on edges will allow for passive surveillance at all hours
Melrose House 1886 Historic architecture Museum artefacts Icon of Pretoria War office in 1900's Signing of peace treaty to end Boer War		Fast moving traffic around park isolate the site from the outside rather than provide surveillance Melrose house is not accessible to general public	Link to city's heritage structures as part of an urban tour route.

Among the potential sites within the inner city, Pretorius Square and the adjoining City Hall was chosen as the target for reprogramming and development. The site offers excellent opportunities as a catalytic node for new activity. This is largely due to its location along Paul Kruger Street and subsequent access to high pedestrian activity as city workers use the street to travel between the taxi point at Church Square and the train station directly south.

Other opportunities inherent in the chosen site, is the potential to explore the architectural manifestation of the concept 'identity through transformation'. Reprogramming the square as a contemporary public space will afford the opportunity to react to the existing historic fabric and create new meaning for current inhabitants.

site description

Pretoria's inner city is steeped in cultural significance as it is the oldest development within the greater City of Tshwane which is currently the capital of South Africa. The city of Pretoria was established as the capital of the independent Boer republic or the Zuid-Afrikaansche Republiek (ZAR) in 1852. The orthogonal city grid pattern determined by the width of an ox-wagon and large inner city plots once occupied with low density housing remain as testament to Pretoria's rural foundation as a frontier settlement.

Over the years Pretoria has transformed from village to urban landscape aided in 1886 by the discovery of gold. Since then the city itself has been the seat of power for the British in 1910 following the Boer War and then the capital of the apartheid regime when it was re-established after 1961 as the capital of the ZAR.

Figure 2.4 is a generalised map of areas where public, social engagement occurs regularly between users of the city, in the form of commercial, recreation or cultural activity. Superimposed upon this is the map of major urban icons and cultural institutes. Public activities are not necessarily constrained to the established cultural facilities of the city. The most successful public area occurs along Church Street, east of Church Square. This area is used as a platform for social exchange and trade, supported by local residents and daily workers.



Figure 2.4: Interface between pedestrian and urban fabric
Author, 2010



Figure 2.5: (a) and (b)

Vendors lined against Lilian Ngoyi Square attract a wide range of age groups, local and foreign

Author, 2010

axial development to link cultural nodes

Pretorius Square and the City Hall form a nexus between two major cultural zones within the city. The first, shown in Figure 2.5, is the historic north-south axis of Paul Kruger Street. The street forms one of the major access routes into Pretoria, connecting the National Zoo, Church Square, the Transvaal Museum, City Hall and Pretorius Square and the Pretoria Railway Station (Figure 2.5). The National Zoo and Pretoria Station act as the northern and southern city gateways respectively, defining the boundaries of the historic precinct within Tshwane.

The second zone (Figure 2.6) is currently less defined than the Paul Kruger Street route yet is a potentially significant urban axis. The cultural precinct, termed in Tshwane city development proposals as 'Museum Mall', defines the area between the National Cultural History Museum to the west and the Museum of Science and Technology to the east. The area has been targeted for future urban development in order to market the 'Mall' as a cultural node. This thesis proposes an eastward extension of the 'Museum Mall' target area to include Burger's Park, Melrose House, Caledonian Stadium and the Pretoria Art Museum as part of a greater cultural and recreation spine reaching into the residential areas of Sunnyside.

Figure 2.6 is the amalgamation of the two spines with the proposed site marked in red. The future cultural centre on the site will be enhanced by the development of the spines as activity orientated streets. The spines, once established as stimulating routes, will act as channels drawing public activity from the periphery residential zones back into the CBD.

The target of this spine strategy is derived from the early design goal of **Icon to Catalyst**. By linking the function of a new public centre with existing cultural institute and areas of potential development, the result will be a city-wide regeneration. Integration of primarily residential areas aims at achieving a multi-purpose urban environment in which recreational and cultural activities can occur. The result of this strategy would be to re-establish the CBD as more than an exclusive working environment.



Figure 2.5: North-south axial link
Author, 2010



Figure 2.6: East-west axial link
Author, 2010

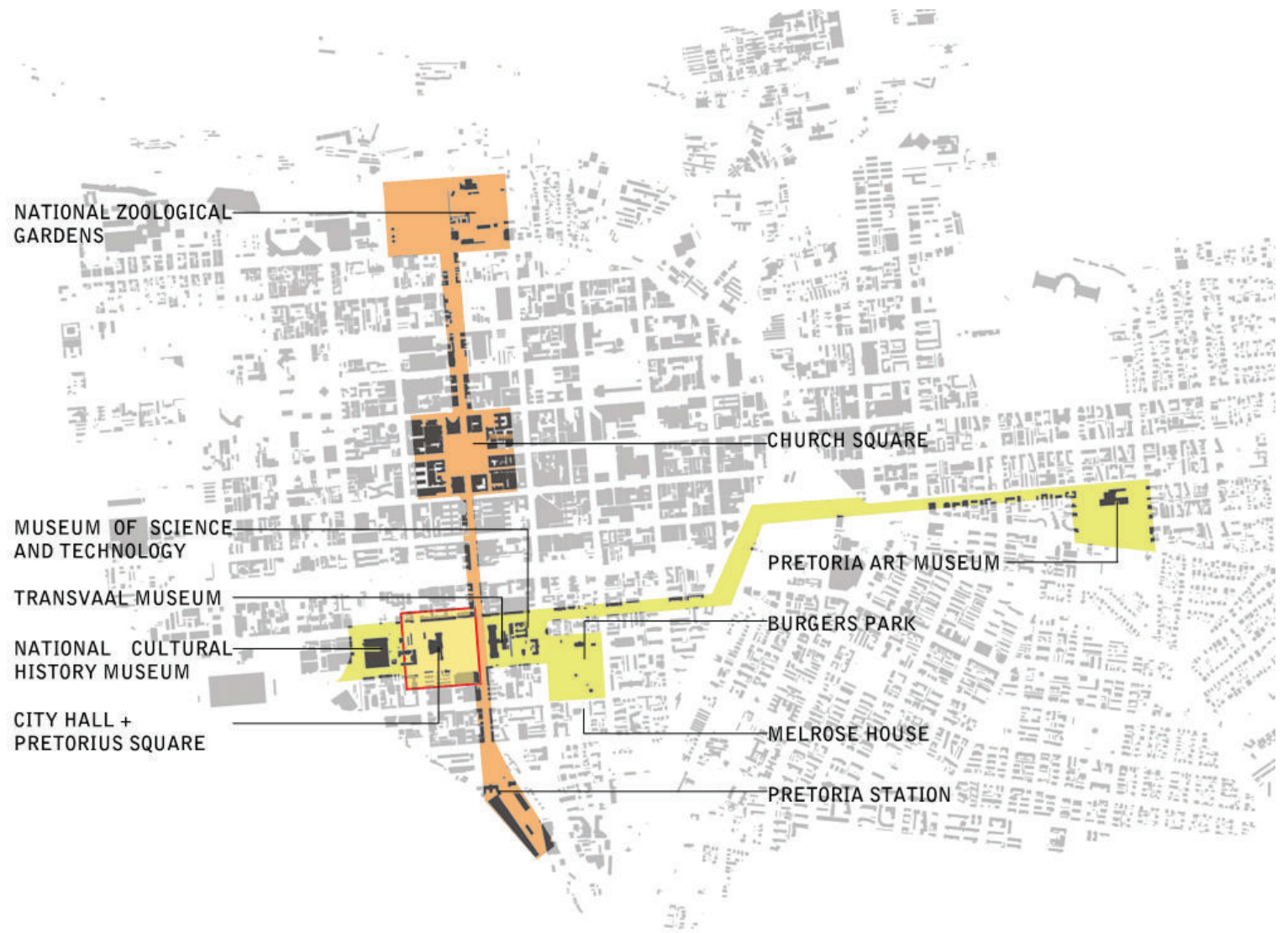


Figure 2.7: Amalgamation of Spines with relation to Pretorius Square
 Author, 2010

site analysis : pretorius square



Figure 2.8: Basement Level -1: ventilation and daylight
Author, 2010

The urban block under investigation currently houses the Pretoria City Hall and its forecourt, Pretorius Square. Objects of significance on the site include the statue of Martinus Pretorius, former president of the ZAR and founder of Pretoria, the statue of Andries Pretorius, after whom Pretoria is named and the most recent addition of the statue of Chief Tshwane, past leader of the Tshwane people, who were early settlers of the region (Figure 2.8).

The square belongs to one of only two open landscapes along the historical axis of Paul Kruger Street, the other being Church Square. It is integral to the urban fabric as a green public space. (Figure 2.9)

The square is an open urban park with a strong east west axis connecting the City Hall on western front to the Transvaal Museum on the east. (Figure 2.10) There is little hierarchy or special definition within the garden apart from the central axes. Furniture placement is not directed at any single view and visitors use the grass lawns as much as bench seating

A public parking lot borders the edge of the square separating pedestrian street activity from the north and southern roads of Visagie and Minnaar, respectively. (Figure 2.11)

Although containing significant historical and urban value, the existing context is in need of regeneration with regard to public and pedestrian interface. There is opportunity to rejuvenate the garden as a public space by reprogramming the square with new activities. The new Cultural Centre will serve as a true public space in which the civic function of the City Hall can spill out onto, lending a less formal counterpart to the highly programmed activities contained within the City Hall.

Figure 2.9: View from north western corner of the site looking east toward Paul Kruger Street and the Transvaal Museum
 Author, 2010



Figure 2.10: Symmetrical Axes
 Author, 2010



Figure 2.11: Example of brick pavers on paths along axes. Gardens are terraced and physically accessible from only certain points.
 Author, 2010



Figure 2.12: Looking east from City Hall to along Visagie Street edge
 Author, 2010

site analysis : the city hall

The architecture of the City Hall is strongly representative of the Western ideals of democracy and power. Also significant, is the rigidity of the structure both as a massive, load bearing masonry construction as well as a preserved political and historic monument.

Architectural influences include colonial and classic elements both represented in the order and symmetry of the hall and square. Neoclassic elements are expressed with the use of a Corinthian entablature and pediment composed of Ionic columns and Corinthian capitals (Figure 2.13). The sculpture pediment by Anton van Wouw serves as a memorial to the development of Pretoria itself between 1855-1935 (Jansen, 2006).

'In addition...there are Art Deco fittings and chandeliers and hand crafted window and door frames that reveal an influence from the Arts and Crafts Movement together with a Neo-Cape Dutch Architecture' (da Costa, 2007)

The site is historically significant as a public space, specifically in the exhibition of the identity and ambitions of Pretorian citizens. Following the addition of the statue of Chief Tshwane in 2006, the City Hall is symbolic of a place that is equally representative of existing memorials as well as the previously overlooked contribution of the traditions of indigenous people. The site is therefore important in representing those people whose cultural expression was excluded from the urban landscape in the past. As such it is a fitting stage to continue the narrative of Pretoria's transformation of social identity and as a city growing in cultural wealth.

The high density office buildings to the north and south blocks are enclosed with impermeable walls and diminish the character of the street as a pedestrian route.

There is opportunity to articulate the branding and cultural significance of the Museum Mall District on a pedestrian scale. This will include the larger urban strategy discussed in the framework chapter 5: PLUG-In Festival/

The pedestrian movement on Visagie and Minnaar Streets could be enhanced with appropriate ground floor accessible programming and upgraded public walkway including public street furniture and interactive boundaries.

The square itself will be treated as an expression in contrast to the existing historic and modern context. By using the elements of juxtaposition, transparency, flexibility, transformation and neutral representation, a reaction to the existing icons will be achieved. The reaction must negotiate the conflicting representations of the Apartheid and colonial past with the culturally inclusive identity of citizens today. However, in order to successfully represent the growth and development of the Pretorian society, the contributions of heritage, visible and intangible, must be expressed with techniques later explored in chapter 4: precedent studies.

site analysis : modern context



Figure 2.13: Symmetrical facade, emphasized by fountain and position of Chief Tshwane about the central axis in the foreground

Author, 2010

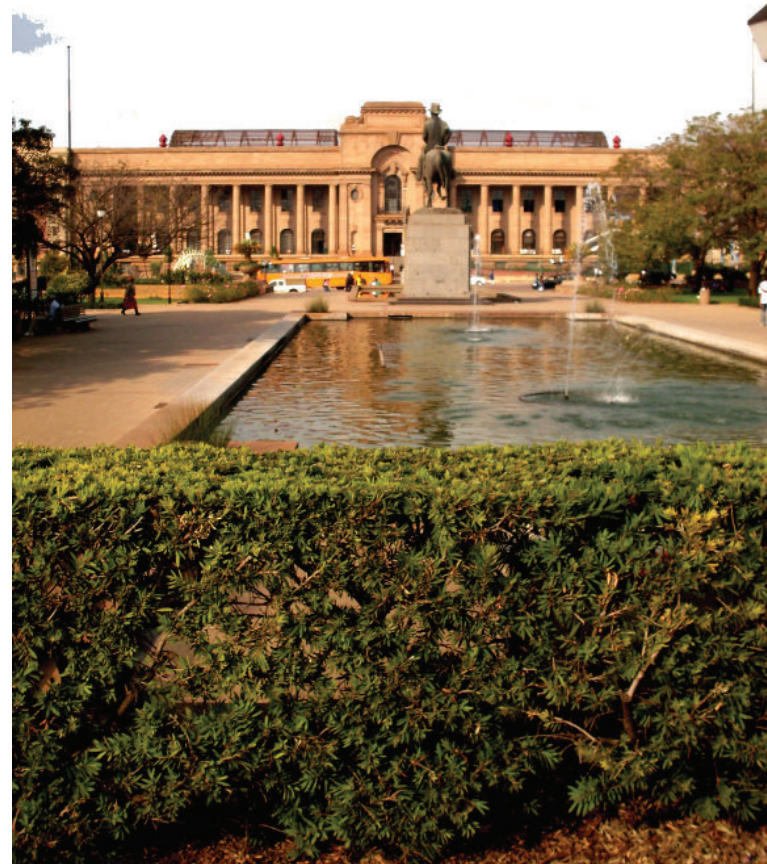


Figure 2.14: Looking about the same axis, eastward toward the Transvaal Museum

Author, 2010



3 THEORETICAL INVESTIGATION

Utopian Beginnings

Modernist Misgivings

South African Perspective

Conclusion

utopian beginnings

Like many pioneer cities, Pretoria was established on the utopian principles of the Voortrekkers who looked to create a place where their ideals would be expressed eternally. The mountains and rivers provided natural borders which offered a defensible space for the creation of a new settlement (Figure 3.1).

Figure 3.2 represents the various identities of Pretoria given by Lipman (2003:114) as 'the *nagmaal* village, the capital of the Zuid-Afrikaansche Republiek (ZAR), the seat of British occupation, the early nineteenth century town growing into city status.' Although the initial ZAR and subsequent periods of political power failed, the citizens of Pretoria merely traded a current utopia for the next, creating a series of historic societies each with its own set of values and traditions iconified by a different architectural style.

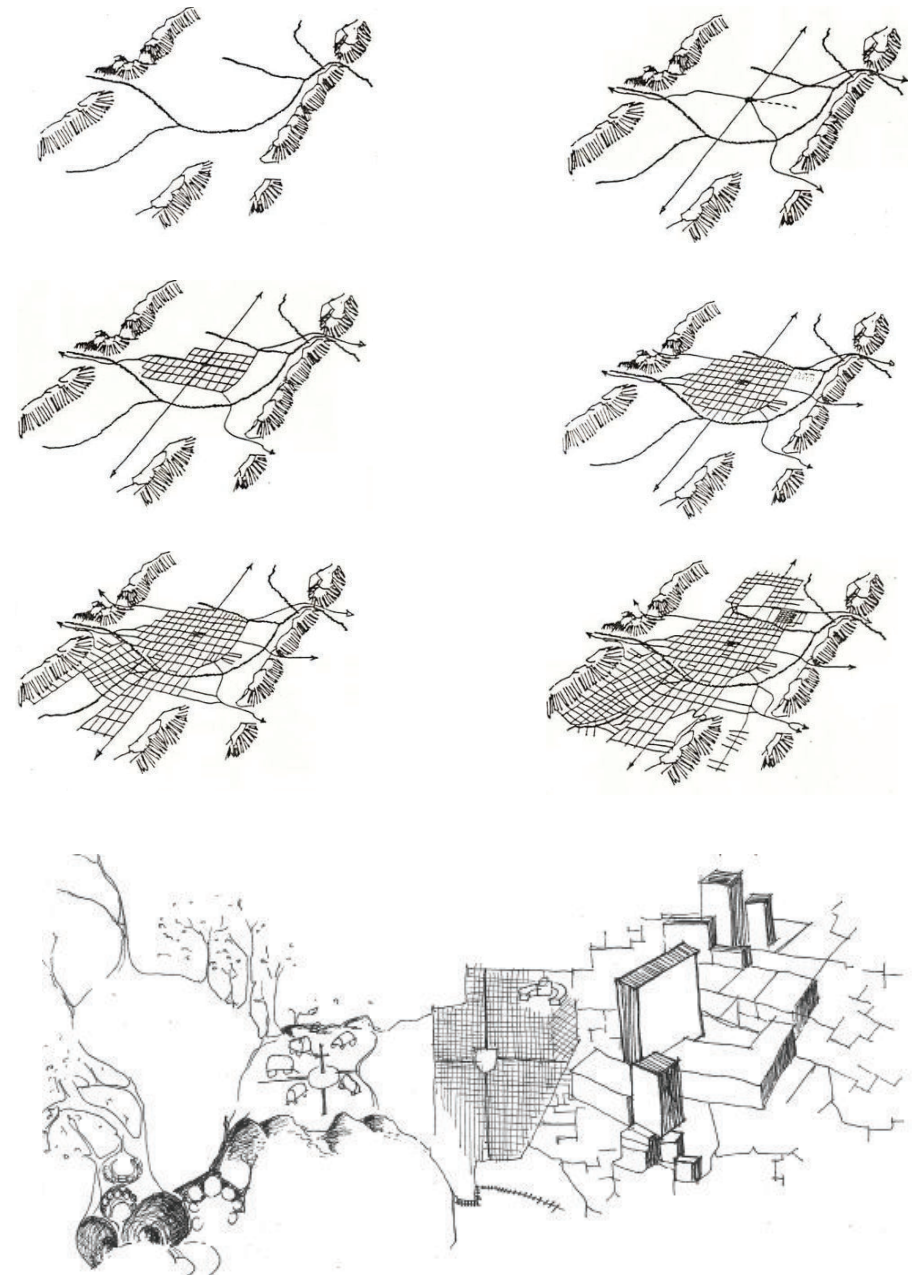
These utopias follow one another but exist in isolation, thereby dividing the associated cultures as separated periods. Today the icons of past political figures have a selective representation to the inhabitants of the city, adding to the further separation of past and present values although the heritage of an identity under transformation is something which can connect today's social concerns to that of Pioneer settlers.

The preserved presence of memorials to a volatile history could be what Mumford cautions against when talking about the creation of 'totems' which become, 'completely irrelevant to our beliefs and demands' (in Costonis 1989:111).

Similarly, Lynch cautions that the 'preservation of the environment (may) encapsulate some image of the past...that may in time prove to be mythical or irrelevant (because) preservation is not simply the saving of old things but the maintaining of a response to those things.' (in Costonis 1989:111)

Figures 3.3 and 3.4 depict the transformation of Church Street over time and provide an example of 'totem' heritage in the context of Pretoria. Church Street, a historic east-west axis and once major processional route (Figure 3.3), has been vastly modernized, with little regard for the past ceremonial importance it once represented.

Figure 3.4 shows the current context of Church Street west as a primarily vehicular route. There is also little regard to maintain the pedestrian orientated scale of the heritage structures or their relation to the civic activities they represented in the past.

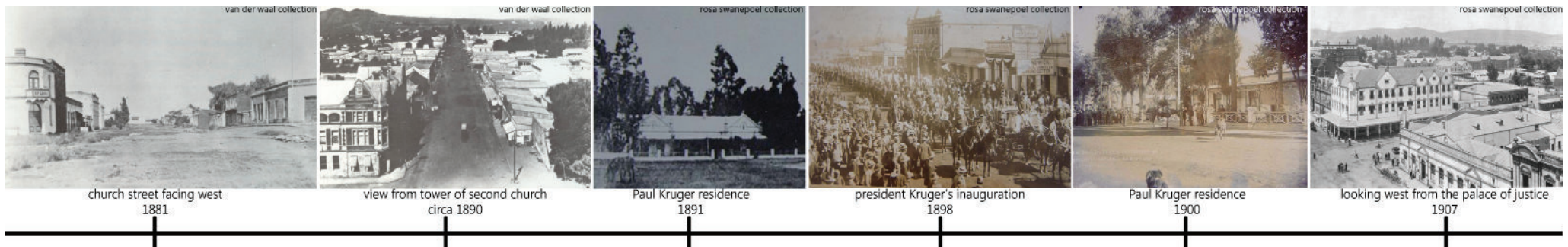


Previous Page-
 Figure 3.1: (Top)
 The Beginning of A City
 images from : Jordaan 1989:27

Figure 3.2: (Bottom)
 Pretoria's successive Utopia's,
 modelled after Lipman 2003:114
 2010, Author

Current Page-
 Figure 3.3 (Top)
 Current day street-scape of Church
 Street looking west
 2010, Author

Figure 3.4 (Bottom)
 Transformation of Church Street
 University of Pretoria, various
 collections



modernist misgivings

The modern movement is one such isolated utopia of Pretoria's development yet still largely represents the city's architectural identity today. Pretoria's landscape is a museum of Modernism, with historic buildings preserved as isolated markers of colonial heritage. Figure 3.5 shows the progression of colonial heritage structures to the modernist landscape which continues to dominate Pretoria's inner city today.

Amongst these influences, there is little opportunity for expression of non-western built heritage. However, it was Modernism itself which iconified the human ambition for progress. Early Modern architects were celebrated for originality and the pure implementation of technology without ornament.

In its conception, Modernists used the movement to challenge traditional forms of thought, prizing 'experimentation, radicalism, and primitivism in disregard of conventional expectations.' (Jekot, B 2009:1) Renowned artists of the early twentieth century such as Picasso (Figure 3.6) and Gauguin (Figure 3.7) sought inspiration from non-Western cultures to find new means of expression.

Despite the clear parallels between 'primitive' tribal expressionism and the work of European artists, this influence often '[disregarded] the fact these African objects were born of age-old traditions themselves' (Jekot, B 2009:2) leading to the false notion of Modernism being synonymous with unprecedented innovation.

Internationally, this Afro-centric inspiration on modern architecture was belatedly translated in the late work of Corbusier and Niemeyer as buildings began exhibiting the influence of elementary and expressive forms found in traditional architecture and regional art.

The advent of modern architecture, specifically that of the International Style in African colonies was associated with the response to the search for new identity while at the same time, often negating the heritage of indigenous space making. Although Modernist art drew inspiration from expressionism and the search for identity through creativity, Modern architecture became gradually ever more ornamental. By replacing traditional buildings and making ancient construction techniques redundant, Modern buildings became less concerned with the user or context, relying on a wide-scaled reaction to general social behaviour.

Africa itself is a diverse continent with multiple cultural influences as well as geographic and economic diversity. As such Modern architecture, with its agenda to solve large-scaled social problems, failed to adequately represent the needs of a nation of people with conflicting social behaviour, ethnicity and desires. An stylistic approach to building, dictated by fashion rather than design proved Louis Sullivan's warning that:

'...formulas are dangerous things. They are apt to prove the end of a genuine art, however hopeful they may be in the beginning to the individual. The formula of an art remains and becomes more and more dry, rigid and shrivelled with time while the spirit of the art escapes, and vanishes forever,' (in Costonis 1989:113).

Figure 3.6

(a) Tribal Dan Mask

Origin Unkown - (<http://www.sudanforum.net/showthread.php?t=50389>)

(b) Picasso - *Head of a Woman*

1907 - (<http://www.sudanforum.net/showthread.php?t=50389>)

(c) Picasso - *Les Demoiselles d' Avignon*

1907 - Housed in Museum of Modern Art, New York

Figure 3.7

(a) Gauguin - *Arearea (Joyousness)*

1892 - Housed in Musée d'Orsay, Paris

(b) Gauguin - *Femmes de Tahiti [Sur la plage] (Tahitian Women [On the Beach])*

1891 - Housed in Musée d'Orsay, Paris



Figure 3.5: Architecture largely representative of Western classic and Modern Influences
2010, Author



Figure 3.6: Influence of African art on Picasso



Figure 3.7: Gauguin's bold, untamed landscapes inspired by the people and lifestyle of Tahiti

south african perspective

By the early twentieth century, Africa had been divided between European super-powers; Britain, France and Portugal and to a lesser extent, Germany, Italy, Spain and Belgium. There was little opportunity for modern buildings to translate the previously contextually and socially relevant forms and spaces using new materials and technology. The architectural influence of these conquering nations was termed as the International Style and sought to represent architecture in strong contrast to the indigenous precedent while at the same time representing a new post-colonial political situation.

Apart from North African countries, which assimilated Western technologies to the existing Islamic and African built heritage, the role of modernism in colonial Africa 'was credited with the salvation of the underdeveloped- no room was left for dialogue to take place. Only in later accounts did Modernist pieces become bridges from the West to "approved" non-western architects' (Jekot, B 2009:2).

The first architecture school in South Africa opened in 1923 in Wits, Johannesburg. Before this, South African architects were trained in European or American traditions, which were applied to the South African landscape as a testament to colonial power. (Jekot, B 2009:3) Modernist architects working in South Africa were heavily influenced by the Western world. Striving to emulate the architectural products of Berlin, Philadelphia and New York, the stylistically motivated designs failed as a socially appropriate response to the Apartheid context unique to South Africa. The unchanged high-rise Modern buildings which remain in Pretoria today are synonymous with the ideals of the time, representing the oppression of the elitist white-only neighbourhoods.

Pretorian designers Helmut Stauch (Figure 3.8), Norman Eaton (Figure 3.9) and McIntosh sought an architectural expression unmotivated by colonial ideals. The examples of a regional approach to Modernism are typified by the work of 'the Transvaal Group'. The name, first coined by Le Corbusier, applies to the Modern designs erected around the 1940s in Pretoria and Johannesburg. The new vernacular was an amalgamation of local material with European Modern influences to form architecture of Critical Regionalism, representative of the local context. The photographs in Figures 3.9 (a) and (b) convey the architectural response towards climatic concerns. These buildings are typical examples of the stylistic inspiration of Expressionist Modernism, heavily influenced by the environmentally responsive architecture of Brazil in use of shading and passive cooling devices. (Jekot, B 2009:4).



Figure 3.8: Helmut Stauch - Marchie Mansions, built 1935
Schoeman Street, Pretoria

University of Pretoria - Van der Waal Collection
(<http://hdl.handle.net/2263/9981>)



Figure 3.9: Eaton - Netherlands Bank of South Africa Main Office, built 1953
Church and Andries Street, Pretoria

(a) Recessed facade to provide shading over fenestration
Author, 2010



(b) Overhang detail on roof
University of Pretoria - Norman Eaton Collection
(<http://hdl.handle.net/2263/9541>)

Manifestations of the African influence in Modernism can be seen elsewhere in the work of Mozambican architect, Pancho Guedes (Figure 3.10). These unique buildings have a strong contextual approach and cultural influence, using the African traditions of applied relief, earthen texture as well as non-linear forms and spaces unique to each project. These characteristics can be seen in the traditional vernacular houses built and conceived by home-owners often suited to specific family needs.

Modernism's conception as a solution to social disparity led to its inevitable and eventual global failure, culminating in the disbandment of the Congrès International d'Architecture Moderne (CIAM) in 1959, founded thirty one years earlier. 'The grand narratives of social and historical changes were rejected as part of machinery of domination of an enlightenment seen through tinted glasses' Lipman in Architecture SA, (January 2007:95)

The cultural concerns of Pretoria's citizens have moved on from the 1960's, yet the urban environment remains predominantly expressive of a Modern world. Subsequently, **the city's architectural development reflects the ideals of European colonial and Modernist eras** while further isolating the people of today from the city as a cultural manifestation. Similarly when talking about Pretoria's historic and cultural value, it is clear that the very idea of significance is subjective as selective aspects of history are memorialised while others ignored so that shared relevance or heritage of a united public is an illusion.

As the capital of a developing democracy, Pretoria's architectural heritage, strongly representative of the West, needs to be more inclusive of the intangible historic landscape and current social situations in order to be truly expressive of the continued cultural development of its citizens. Le Roux suggests a historical dichotomy of space-making which occurred in the past as 'within apartheid thinking, architecture and the programmes behind it were designed to separate social and cultural differences. In contrast, political resistance happened through ephemeral activities that used space in mobile and tactical ways.' (Le Roux in Art South Africa Dec 2005).

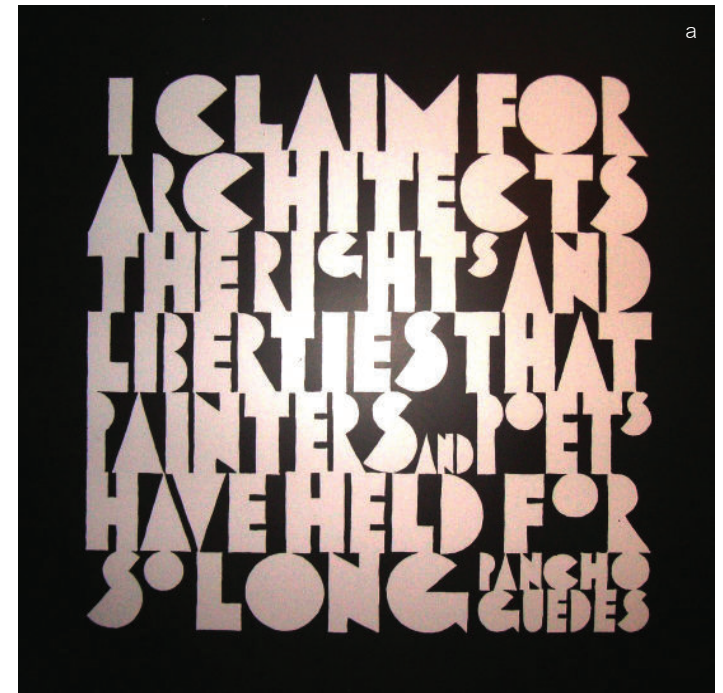


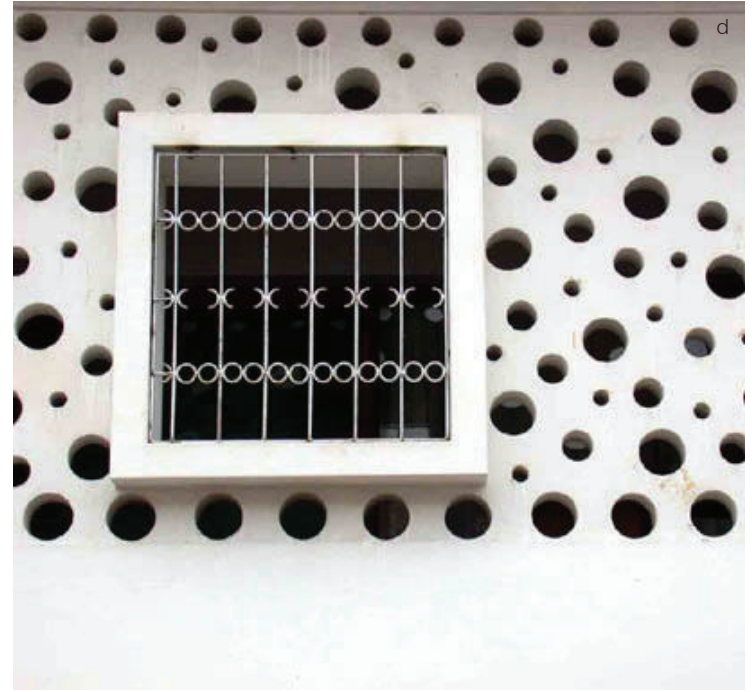
Figure 3.10: Examples of Guedes' work, drawing on both African and Western traditions Maputo, Mozambique

(a) Manifesto declaring architecture as art
(http://www.archiafrika.org/files/Pancho_Guedes)

(b) (http://farm3.static.flickr.com/2194/3615261002_0cf2ca5e14.jpg?v=0)

(c) (http://farm4.static.flickr.com/3388/3615213034_b66b60584e.jpg)

(d) (http://www.archiafrika.org/files/Pancho_Guedes_02.jpg)



conclusion

The redevelopment of Pretorius Square aims to achieve a common ground between the search for an expression of contemporary design whilst maintaining the link to the historic fabric. The architectural heritage of Pretoria is based on utopian principles with the icons of each phase existing as preserved monuments to a past era. Pretoria's architectural identity is representative of the modern utopia, which often disregards the significance of heritage.

Traditionally Modernism has been the symbol of new power in Africa, representing ideals of colonial or European society. The Modernist attitude to built heritage can be symbolized by Figure 3.11 which depicts the conserved façade of the nineteenth century Pennsylvania Fire Insurance Company overshadowed by the twentieth century Penn Mutual Tower. The historic layer may be visible in its preserved state but the representation and meaning is lost when treated as a 'Paste-on Solution' (Costonis 1989:114).

The once innovative architectural approach of the early twentieth century has become a stylistic approach to city building and has led to the city dwellers' separation from the heritage of the built environment and without much opportunity for contemporary creative stimulation or expression.

This notion suggests a need for a collective approach to public space, using both the heritage of formal and informal social spaces to allow for the freedom of spontaneous public interaction. The anti-functional aspect of a civic space will provide rather than impose 'places of encounter across social divides' (Le Roux in Art South Africa Dec 2005).

There is potential for re-interpretation of the old to create new, socially relevant platforms for civic life without destroying the memory of existing heritage. It is clear that the concept of an 'African aesthetic' is meaningless without the context of time and place. Good civic architecture should allow for the change in user identity rather than to typify it by establishing a style which may become irrelevant for future generations.

The re-interpretation of Pretorius Square will embody the notion of improving and adding to the urban fabric. This will involve creating a space that can inform user interaction with the existing heritage thereby initiating a dialogue between the memorials and users of today. The result will be to **introduce new thoughts of historic relevance and ownership**. In this way, the intangible symbolism of the icons to the past will remain open to individual perception and the creation of new memories, rather than be ignored, destroyed or overridden.

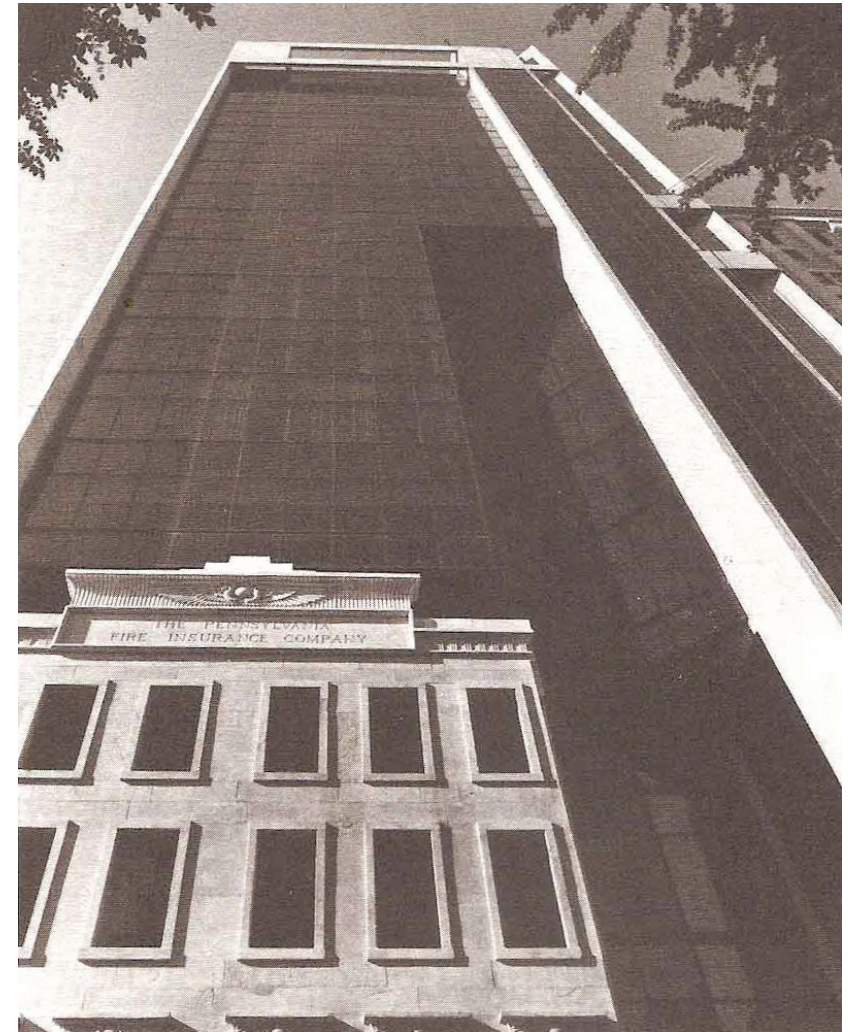


Figure 3.11: Preservation without Interaction
Costonis 1989:114



4 PRECEDENT STUDIES

Architecture Must Blaze

People and Place

The Neutral Line

Transformation

architecture must blaze

‘ art and architecture would only survive “where they would retain their substance only by relinquishing their traditional form and thereby rejecting appeasement; where they become surrealistic and atonal ” (Herbert Marcuse in Himmelblau 1984:6)



Figure 4.1: Cathedral City
(www.utopia.ru/english)



Figure 4.2: A Brodsky & I Utkin - *A Glass Tower*
The Architectural Association 1988:40

The goal of early Modernists was to create a non-conformist architecture of habitable spaces. This was not intended to be the formalistic dogma that shapes our contemporary environment and as such, the principles of early Modernists used as a post-modernist reaction is still highly relevant today.

In the 1980's a group of Russian architects used conceptual fantasy projects stimulated through design competitions, shown in Figures 4.1 and 4.2, in order to revive the cultural content of their profession. The portfolio of work from this period varied extensively in the approach to both futuristic and heritage architecture yet it was the search for architectural meaning in post-modern Russian which drove the movement.

‘Some look hyper-forward, seeking to raise modernist stakes to a further plane of projective abstraction; others look backward to retrieve lost wisdom, soul, and the gift of encompassing the void a cosmos of symbols.’ (Brian Hatton in The Architectural Association 1988:47)

The projects dubbed ‘paper architecture’ were a reaction to the visionary or utopian creations of 1920's and 1960's modernism prevalent in Russia. The main difference between past utopian and the reactionary paper architecture is that the latter opposes the reality of its context in that ‘fantasy does not pretend to discover historical or metaphysical necessity.’ (Rappaport on Galimov in The Architectural Association 1988:9)

Russian post colonial and post-modern expression of new power in and the meaning of heritage can be compared with Pretoria today. Both cities emerge from a past of failed utopias to struggle in search of expressions for the intangible identity and past culture.

The fantasy projects provide an a-contextual yet nostalgic perspective and are a tempting response to the post-utopian designer as the theory remains free from the dogma of preceding architectural viewpoints. However the expression of identity, specifically that of the contemporary Russian urban environment, remains the key generator of these fantastical designs as with the work of Iskander Galimov, shown in figure 4.2.



Similarly, it is the notion of an anti-functional, sensory approach to urban life that dominates the work of Coop Himmelblau:

'We want architecture to have more. Architecture that bleeds, that exhausts, that whirls and even breaks. Architecture that lights up, that stings, that rips, and under stress tears. Architecture should be cavernous, fiery, smooth, hard, angular, brutal, round, delicate, colourful, obscene, voluptuous, dreamy, alluring, repelling, wet, dry and throbbing. Alive or dead.
Cold – then cold as a block of ice.
Hot – then hot as a blazing wing.
Architecture must blaze.' (Himmelblau 1984:90)

The spontaneous nature of the Coop Himmelblau exhibitions will be translated in a permanent structure as an adaptable form and spatial arrangement. *The design will follow the principle of a building as a product that can be moulded over time in order to physically adapt and reflect the change in function or needs of its users.*

The works, represented in Figure 4.3, are often temporary and publicly engaging. This notion encapsulates the architecture of impermanence which will be explored in the Pretorian context as a reaction to the city of monuments. The notion of an anti-functional approach towards the public buildings of Pretoria is applicable to the current project which seeks to advocate innovative, relevant South African architecture.

Figure 4.3: Works of Coop Himmelblau
Himmelblau 1984

people and place

'Relevant architecture' is defined from a reference to Albie Sachs's address during the ArchAfrica Congress 1998 as, 'architectural expression that is determined by the specific and unique parameters of its place...an architecture that affirms Africa – its climate, its landscape, its people – rather than negating it.'(Marschall 2000:1)

The heritage sites that exist preserved within the heart of the Pretoria as well as the surrounding urban context have a debatable relevance to those living as well as the descendents of the previously excluded non-white users of the city today. Lipman suggests that architecture should portray 'the successful negotiations in time, space, economic interest and personality' (Lipman, 2003:vii).

This approach advocates the **merging of social and cultural interests** and is the motivation for recycling places of lost opportunities in order to facilitate the true function of a public space. A true public forum will allow for users to interact with each other in order to form communities of shared interest.

It is the African idea of space as a 'communal world's view' (Marschall 2000:169) which is evident in Figure 4.4 (a) and (b) by the arrangement and use of space not only within an indigenous built structure but also between forms, affecting the placement and relationship of adjacent structures. The Zulu homestead pictured here, embodies the social, cultural and environmental responses to the specific context of rural KwaZulu-Natal.

The proposal to redevelop Pretorius Square as a new plaza will use this concept to examine whether architecture can serve as both a physical and social space in which users are able to express contemporary values and attitudes while instilling a renewed respect of past culture.



Figure 4.4: Traditional Dwelling

(a) Ntuli - *Zulu Homestead*
University of KwaZulu-Natal : The Campbell Collection
(<http://campbell.ukzn.ac.za/?q=node/52>)



(b) Zulu huts in various stages of construction
Author, 2010

Bartel Arts Trust (BAT) Centre
Architects Collaborative - 1995
Durban

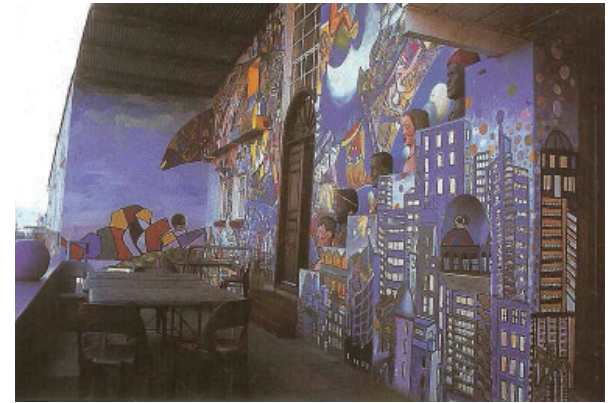
An example of non-stylistic community orientated architecture is that of the Durban BAT centre. The building has a unique, eclectic aesthetic that is linked to the creative identity of its users and its function as a performing arts centre. Renovations were made with available recycled components with spaces arranged according to the social needs and comfort of the users.

The success of the building lies with the relationship of internal and external spaces as a passive response to environment control. The outdoor areas provide cool, shaded courtyards (Figure 4.5) in the sub-tropical climate and serve as nodes of informal social interaction (Figure 4.6)

Architecturally, the centre uses the aesthetic image of its function and context as a representation of the social desires of a community of diverse cultures. Each space is reflective of its function and users, characterised by the recycled objects integrated within the structure. For instance, 'industrial windows are aptly used for the workshops, a beautifully detailed wood-frame bay window lends dignity to the more formal meeting room, and portholes collected from old ships are suitably placed along the gangway-like bridge' (Marschall 2000:55). Old portholes and gun racks now used for windows and bookshelves respectively, further connect the building to its harbour and past military context. Instead of aligning with any one user group, or avoiding overt displays of identity, the BAT centre negotiates between the two options and creates opportunity for new meaning defined by collective interest in creative arts by re-appropriating the existing historical elements and contextualising these for new uses.

Figure 4.5: (Above)
Veranda mural overlooking the Durban harbour: a mix of contemporary and indigenous traditional art
Marschall 2000:55

Figure 4.6: (Below)
Courtyard detail of Bartel Arts Centre
Marschall 2000:185



Africa Centre for Health & Population Studies

East Coast Architects – 2004

Somkhele, KwaZulu-Natal

Africa Centre in rural KwaZulu-Natal embodies both aspects of the high-tech, institutionalized function of the facility as well as the spirit of local identity and community ownership.

The project is a successful example of integrated social and environmentally conscious design. Using regional materials and construction technologies such as gum poles, earth walls and 'zenzela' reed screens (Figure 4.7), the building utilizes local resources thereby emulating the vernacular of rural African architecture.

The architects used the knowledge of the neighbouring community and promoted new skills with on-site training in order to promote community participation and ownership of the project.

A large portion of the facility is accessible as public space with legible entrances and internal orientation. This follows the ethos of community-based architecture as the resources provided will add to the community and achieve long-term social upliftment.

Steve Kinsler of East Coast Architects describes the firm's work as 'a social rather than a Green firm: 'A great deal of our work is with communities, and most projects are community based. We design our buildings so communities participate, become empowered, and take ownership. Obviously, environmental issues are just as important, and usually there's a strong connection between the two. If you're saving energy planet-wise, you're also saving a community's small resources.' (The Property Magazine, April 2008)



Figure 4.7: Facade detail showing the layered screen as sun-shading and implementation of locally available material
ARCHI-technology Sep 2009

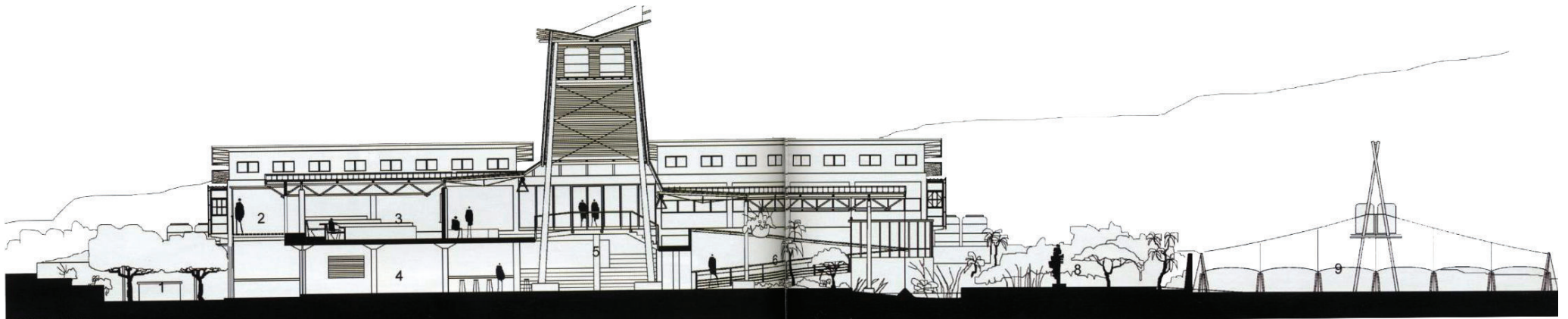


Figure 4.8 (Top) - Section through tower and entrance

Figure 4.9 (Bottom Left) - The building provides for visual access into public areas

Figure 4.10 (Bottom Right) - Murals convey community identity and involvement in the construction of the centre

All images on this page from : *ARCHI-technology* Sep 2009

the neutral line

KwaZulu-Natal Society of Arts Gallery
Durban

The KZNSA Gallery offers a neutral non-cultural space for the exhibition of local artists. The gallery is visited daily by a variety of users with a restaurant component that draws regular customers.

The building is aesthetically simple, thereby non-intimidating or associated with an elitist culture like most art institutions. The main feature of the gallery is the northern, longitudinal façade which is simple transparent glazed wall to allow visual communication between the internal circulation corridor and outside restaurant seating area. This façade also allows pedestrians and passers-by from the street to engage with the visual display inside the gallery.

The **relationship with the natural environment** is extended to the **passive ventilation** and solar control strategies integrated with the building envelope. The success of the gallery as a public centre is due to the good public interface between the commercial component and the street as well as the **diversity of internal spaces** to allow for a variety of exhibitions to occur simultaneously.

The gallery is a good example of an inclusive space that does not attempt to mimic what Marschall describes as an 'African aesthetic' that is usually 'focused on recognisable imagery and the superficial incorporation of visual references to familiar forms of traditional architecture and well-known historical monuments – an approach that carries the danger of a lapse into banal clichés and...architectural expression devoid of authenticity and meaning.' (Marschall 2000:167)

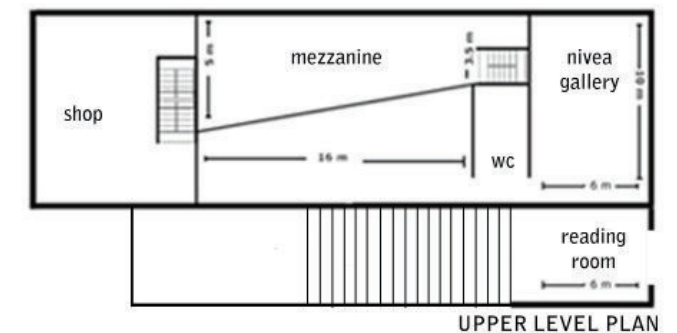
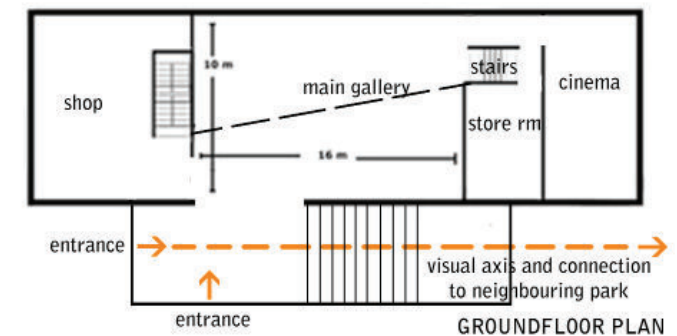


Figure 4.11: (Top)
Street view of the Gallery (www.nsagallery.co.za)

Figure 4.12: (Bottom)
Exhibition Layout drawn from (www.nsagallery.co.za)

Museum for the Royal Collections

Estudio Cano Lasso - 2000

Madrid

The proposal for the exhibition and housing of Spain's Royal art collection resulted in studio Cano Lasso's creation of a new intervention, amidst the existing historic fabric. The project sits between the Almudena Cathedral and the Palacio Royal, two of Madrid's most famous landmarks.

The new structure adopts the 'neutral' attitude in order to respect the built heritage. The building itself is described as a 'void' tensed between the two blocks' of the Palace and Cathedral (Thompson 2006:173). The roof is comprised of a lattice structure allowing natural light to filter through into the vaulted spaces below. Instead of adding visibly to the existing structures, the museum roof acts as a simple platform on ground level with the collection housed underground. In this way the dual function of a stepped square as well as a grand-scale building can be achieved without negatively impacting on the historic space.



Figure 4.13: Section through the new Museum with the Palacio Real behind
Thompson 2006:173

transformation

Reichstag : New German Parliament

Foster + Partners 1992-1999

Berlin

The Reichstag, a controversial symbol of Germany's Nazi past, was targeted for renewal and transformation by the city of Berlin following the fall of the Berlin Wall. Up until 1992 this icon was left disfigured by warfare and careless renovation and retained much of the scars left by past conflicts.

Since its creation as a political symbol of German pride, the Reichstag has undergone various changes. This has been characterised as four separate phases each symbolising a specific political era and subsequently the social transformation of the German people.

The design of the new cupola departed from the original to provide a dramatic contradiction of form. The new dome is a transparent structure, providing light to interior spaces as well as allowing public visual accessibility into the heart of the building.

The political discord of Berlin's history and the conflicting representation of its heritage structures are comparable to Pretoria's own utopian heritage. Both the Reichstag and Pretoria's City Hall have withstood transformation of social behaviour and cultural change. While Berlin's Reichstag was physically affected by the destructive effects of war, Pretoria's City Hall and the Pretorius Square has remained intact. The negative implication of an unchanged civic structure is that it remains symbolic only of the past, providing little opportunity for forced reflection and representation of current social needs.

Pretorius Square will be reprogrammed following the principles of the Reichstag's latest renovation by Foster and Partners. The proposal will aim for the simultaneous approach of creating additional layers to the historic complex while symbolically excavating the existing fabric to reveal the intangible or hidden relevance of the heritage of the square.

PHASE 1 ORIGINAL

The building effectively conveys the passage of time as the four phases of the Reichstag's history are each preserved and memorialised for the interpretation and reflection of current and future visitors. The original Reichstag was a neo-renaissance building, symbolising the then newly established German empire and built between 1884 and 1894. The load bearing masonry structure and frieze (Figure 4.14) was a symbol of the German people's pride as a nation.



Figure 4.14: Frieze translated as: 'for the German People'
(<http://www.fosterandpartners.com>)

PHASE 2 NAZI POWER

Following a suspicious fire in 1933, the Reichstag was used as an icon for the rise of the Nationalsozialistische Deutsche Arbeiterpartei (Nazi Party). The attack of an iconic German symbol was used to stir up opposition to the communist party at the time. In order to further propagate the patriotic feeling stirred by its destruction, the Nazi Party allowed the building to remain partially destroyed and was not repaired until only after World War II.



Figure 4.15: Mass Rally held in 1919
(http://germanhistorydocs.ghi-dc.org/sub_imglist.cfm?sub_id=99§ion_id=12)

PHASE 3 RUIN

The third period encapsulates the fall of the Nazi regime. The Reichstag building was bombed, looted and left in a vandalized state following the Soviet invasion of Berlin. The physical destruction of the structure also symbolises the political defeat of the Nazi power and as such is as powerful a memorial as the original complete structure.



Figure 4.16: Soviet Union soldiers raising the flag on the roof of Reichstag
May, 1945 (Photographer: Yevgeny Khaldei)

PHASE 4 TRANSPARENCY

When Germany became a reunited democracy in 1990, the Reichstag was chosen to once again represent the seat of parliament. New additions and alterations to the structure by Foster and Partners would not only repair the physical damage but also serve to alter the negative perceptions surrounding a once controversial political symbol.

The attitude adopted by Foster and Partners targeted the renovation on four points, the most notable of which was the addition of a new transparent cupola.



Figure 4.17: View of the Renovated Building as a Contemporary Icon
(<http://www.fosterandpartners.com>)

a

PEOPLE AND GOVERNMENT

The heritage of the Bundestag (parliament) as a democratic forum

The new cupola, a high-tech glass and steel structure, is symbolic of the democratic philosophy of transparency between the people and German government. The main aim of the alterations was to achieve public accessibility into the innermost chambers. Following this concept, the main entrance is used by both general public and politicians. Figure 1.8 is a view of the restaurant showing the extension and integration of the public realm even onto the roof terrace.



Figure 4.18: Restaurant with View over Berlin
(<http://www.fosterandpartners.com>)

b

TRANSPARENCY

Transparency between parliament and the people of Germany

The glazed cupola in memory of the original which was destroyed, emphasizes Foster and Partners' values of clarity and transparency. The new landmark for Berlin is also a symbol of the newly revived democratic process. The cupola acts as platform for 360 degree views over the city as well as into the Parliamentary chambers below. The helical ramps shown in Figure 1.9 allow public access onto the observation deck and is also symbolic of the people's importance over their governmental representatives in the court below.
(<http://www.fosterandpartners.com>)



Figure 4.19: Glass dome in cupola allows visual access to chamber below
(<http://www.fosterandpartners.com>)

c

EXPOSE LAYERED PAST

A sensitive approach to the multi-layered history

Some aspects of the original building were preserved and repaired such as the *piano nobile* and courtyards in order to retain the essence of the historical building. The interior of the building was peeled away in sections to reveal the layers of past renovations as well as graffiti from Soviet soldiers, preserved beneath the plaster (Figure 4.20). The exposed vandalism is an important testament to the role of the Reichstag in past conflicts. Preserving the visible past allows the Reichstag to become a living museum of German history.



Figure 4.20: Graffiti left by Soviet soldiers during occupation of Berlin
(<http://www.fosterandpartners.com>)

d

ENVIRONMENTAL CONCERN

A rigorous environmental agenda

Current technological processes are used to convey the progress of cultural concerns towards the relationship of the environment. These high-tech developments are expressed in contrast to the original masonry and load bearing structure.

The cupola acts as a lighting tool, with solar reflectors transmitting daylight into the lower chambers. A 'light sculptor' (Figure 4.21) and adjustable sun-shield, reduces glare and prevents solar gain. At night the lit cupola acts as a torch (Figure 4.22), 'signalling the strength and

vigour of the German democratic process.' (<http://www.fosterandpartners.com>)

These modest energy requirements allow the building to perform as a power station for the new government quarter. Environmentally conscious features include the use of refined vegetable oil as renewable bio-fuel to produce electricity, resulting in a 94% reduction of carbon dioxide emissions. Surplus heat, stored in aquifers 300 m below ground, can be pumped up to heat the building or to drive an absorption cooling plant to produce chilled water. (<http://www.fosterandpartners.com>)



Figure 4.21: Interior of Cupola with Light reflector
(<http://www.fosterandpartners.com>)



Figure 4.22: The Raichstag at night as an icon of Berlin's skyline
(<http://www.fosterandpartners.com>)

conclusion

The City Hall has always represented Western ideals of government and power with classic expressions of order, geometry and ornamentation. To mirror these ideals with indigenous African expressions would involve negotiating a diverse array of traditional built heritage. However, to copy or reflect the past in as a superficial exercise degrades the original meaning of the object and of the people who came before. This will only result in further separation between the living and past. For this reason, the processes of mirroring or copying the past was negated as solutions to a reactive approach to the site. The most suitable architectural responses to the expression of identity and heritage for the proposal were investigated using both international and South African examples and fell into four reactive categories:

Architecture Must Blaze

People and Place

The Neutral Line

Transformation

The proposal for a new and accessible cultural centre in a historic district negotiates between the different manifestations represented by these groups in order to achieve a relevant response to the historic context and people of Pretoria today.



5 URBAN GROUP FRAMEWORK

Introduction

Adopted Strategies

Phase 1

Phase 2

Phase 3

Phase 4 : PLUG-In Festival Framework

introduction to the framework

RELATIONSHIP BETWEEN FRAMEWORK AND DESIGN PROPOSAL

As part of the project's original design goal of a catalytic scheme, a group framework was developed in studio and was used to investigate and target specific sites of potential intervention. The PLUG-In Festival framework and accompanying images discussed in this chapter are property of the urban framework group. The Cultural Centre proposed for Pretorius Square was developed solely by this author and fits into the group framework as one of the potential sites for catalytic opportunity. The development of Pretorius Square an open public space will serve to revitalize the historic significance of Paul Kruger Street as a ceremonial procession way into the city. In the framework, the Cultural Centre will also act as a venue for the activities along the tour routes discussed further under the ACTIVITIES and INTERVENTION sections.

According to the Tshwane Inner City Development and Regeneration Strategy (2006), the inner city is identified as a strategic focus area. The inner city acts as the functional and symbolical heart of the greater Tshwane and deserves attention to encourage regeneration. Therefore the Plug-in festival Framework's location shown in Figure 5.1 is of strategic significance, placed within the heart of the CBD of Pretoria.

The aim of the PLUG-In framework is to develop Pretoria's CBD through collective intervention in a vision of understanding and branding. This is achieved by the creation of a Festival in the city with a wide target market to include residents from the suburbs. This will increase the legibility and accessibility of the city by promoting regional identity and thereby using this identity as branding for the city of Pretoria.

The framework draws primarily on the existing city schemes of the spatial development framework for the central western region, The Mandela Corridor Urban Development Framework, Tshwane Inner City Spatial Development (ICSD) Framework (2007) and the Re Kgabisa. Most important of these were the Tshwane ICSD and Re Kgabisa both of which recognise the importance of creating linkages between places of cultural value for a wider appreciation of the City of Tshwane. (Figure 5.2)

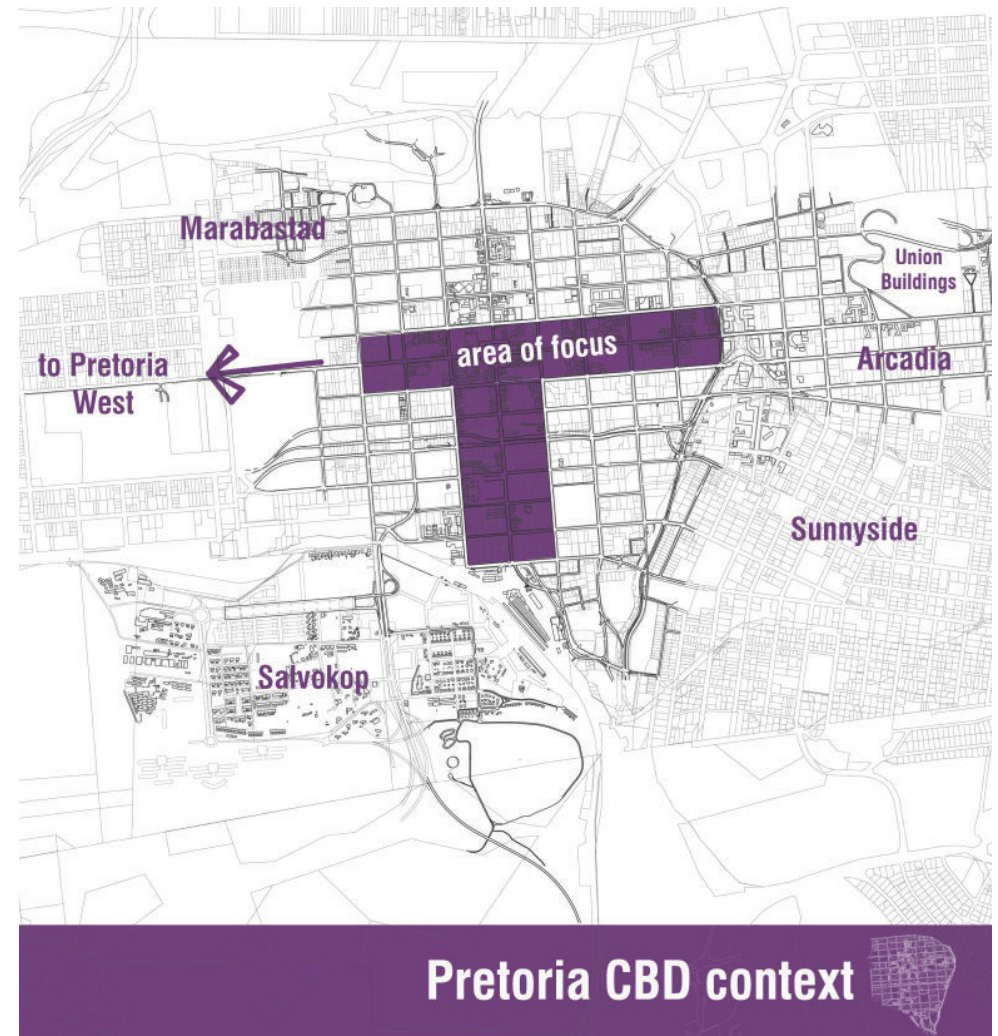


Figure 5.1: Focus Area
(PLUG-In Group Framework, 2010)

PLUG-IN FRAMEWORK ADOPTED STRATEGIES

The scope of the framework involves the whole extent of the CBD in order to connect the existing and proposed activity nodes. With specific focus area on the core which includes Church Street as the eastern and western gateway and Paul Kruger as the southern gateway to the city. The individual projects are driven by a holistic approach to integrate the city's identity and in providing the public with better access and awareness of the respective activity nodes.

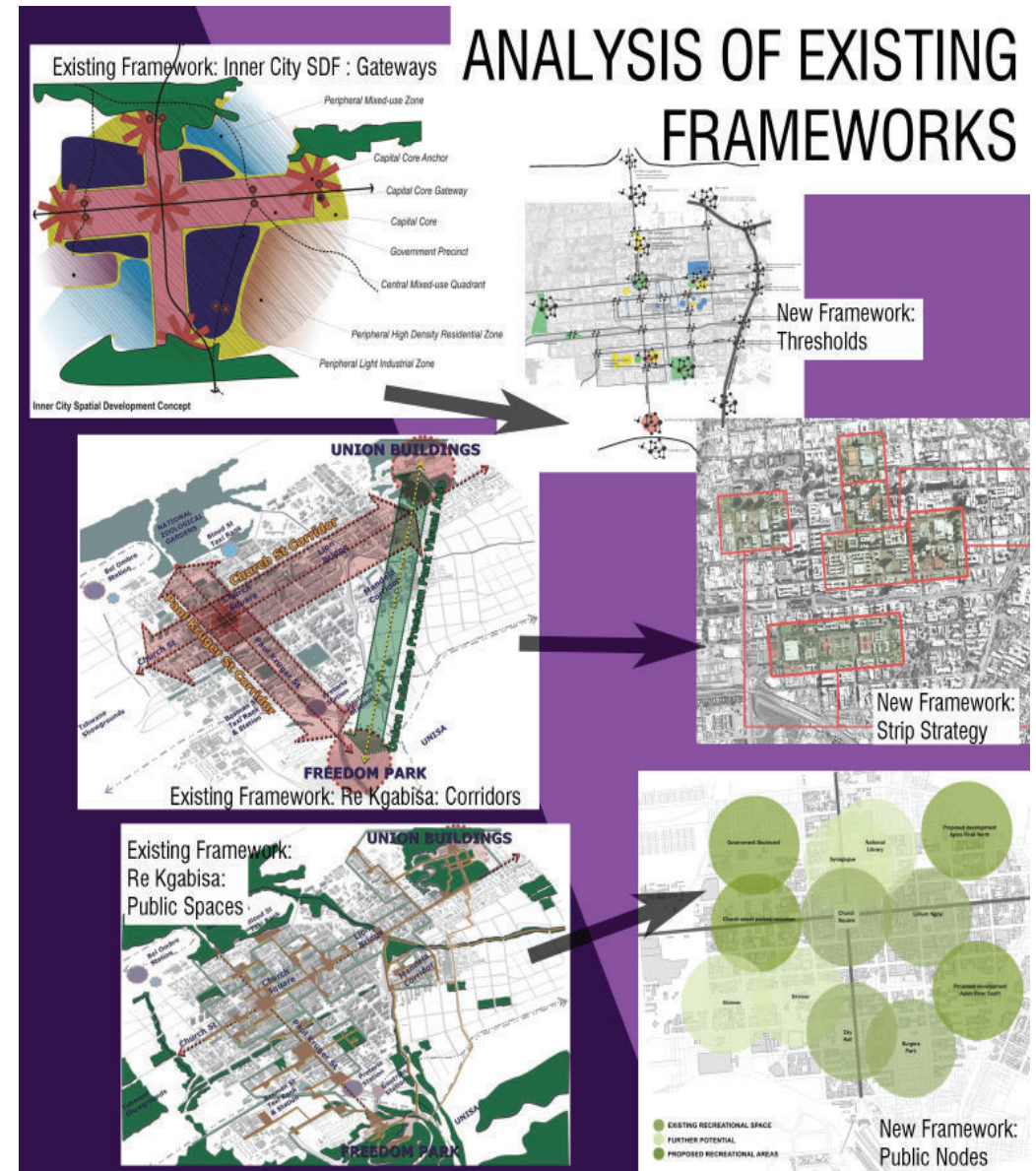
As a response to this, the framework proposes Church Street as a vibrant spine of public space with Vermeulen, Pretorius and Paul Kruger Streets supplementing the public activity. Zoning of this area is divided into commercial (North-western half), multifunctional buildings with retail on the ground floor (South-eastern half) and residential buildings in the broader context.

Furthermore the Church Street core provides for additional opportunity for increased social spaces mostly to the west of Church Square. These opportunities include:

- Increase in informal trading around church square
- Pedestrianization of street edges along Vermeulen and Pretorius Street
- The development of vacant land to act as catalyst for positive regeneration.

The Re Kgabisa Tshwane Framework recognises the value of a network of public spaces throughout the city. Similarly the new inner city framework locates green public nodes within walking distance from each other. The Re Kgabisa Tshwane Framework also identifies main streets acting as corridors connecting important sites. The PLUG-In framework implements a similar strip strategy that entails the corridor development of the identity of certain streets according to the identification of both open spaces and cultural institutes.

Figure 5.2: Influences of existing Proposals considered by the Tshwane Municipality (PLUG-In Group Framework, 2010)



IMPLEMENTATION : PHASE 1

To promote awareness to these spaces a paving and planting strategy will be employed. Within a fifty metre proximity radius, a distinct planting strategy along street edges should be implemented and the paving materials changed.

The four phase implementation aims to increase the legibility and accessibility of the city to all users, harnessing the grassroots' daily impact of pedestrian experience whilst emphasizing and exploring the individual components of the city. The phases connect these elements through collage and event and consider the experience from a variety of scales.

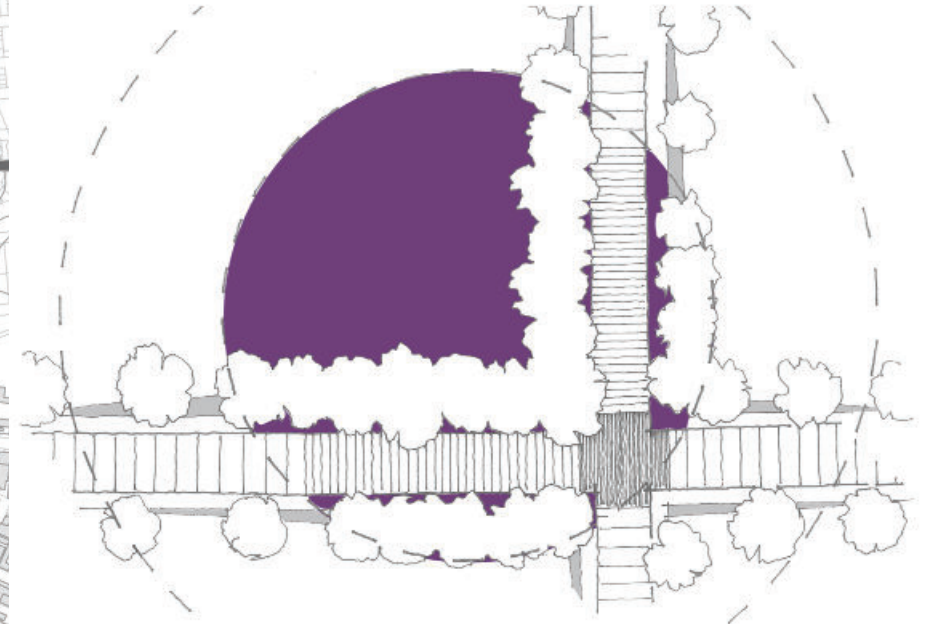
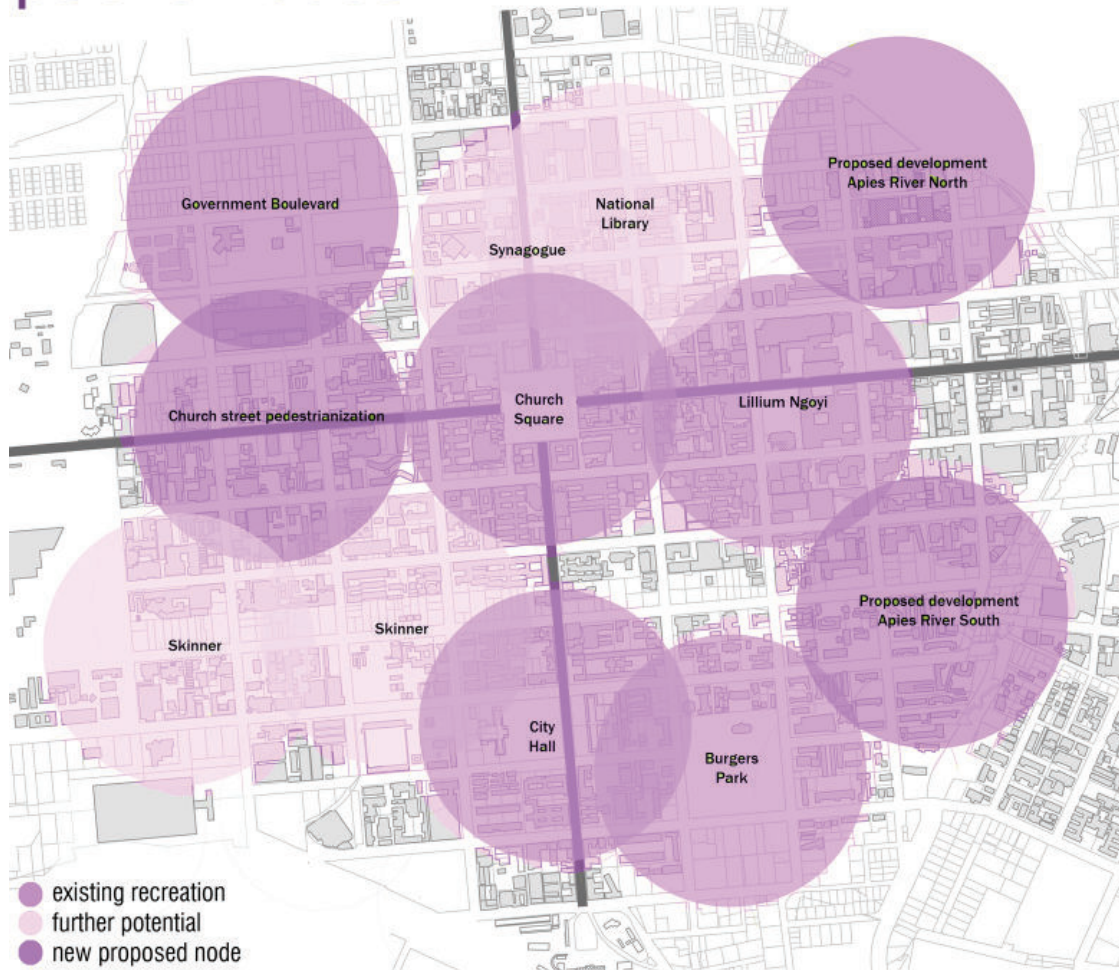
The first phase is the identification of potential within the city and their development as a node. Existing focal points (activity nodes) include Lillian Ngoyi Square, Church Square, the State Theatre, Sammy Marks Square, City Hall, Kruger House and various arcade systems. Pedestrian activity is ample to the east of Church Street, conflicting with the other routes predominantly due to the fact that vehicular movement is generally restricted which allows for more informal interaction space along this spine.

The development of nodes is identified through existing, potential and new areas of recreation. These new nodes include the rehabilitation of public terraces, squares and lost spaces so that the office worker and resident will have access to a green calm space within a five minute walk. This system of quick access responds to the position that the city's population will grow, the existing buildings be occupied and the demand for public infrastructure will increase.

Figure 5.3: The identification of existing and potential open spaces for recreation
(PLUG-In Group Framework, 2010)

1 public nodes

vision
inner city green spaces
identification of existing nodes
new proposed areas of **recreation**
accessible to residents and workers



IMPLEMENTATION : PHASE 2

Phase two links the established nodes by corridor developments shown in Figure 5.6, aiming to strengthen the existing commercial and residential sectors. These corridors are proposed in line with the 2007 Pretoria Inner City Integrated Spatial Development Framework and their associated transport route proposals. These new corridor developments will supplement the historic axes of the city and aim to heighten a sense of precinct identity.

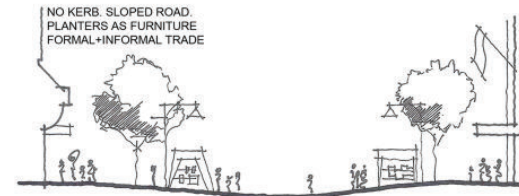
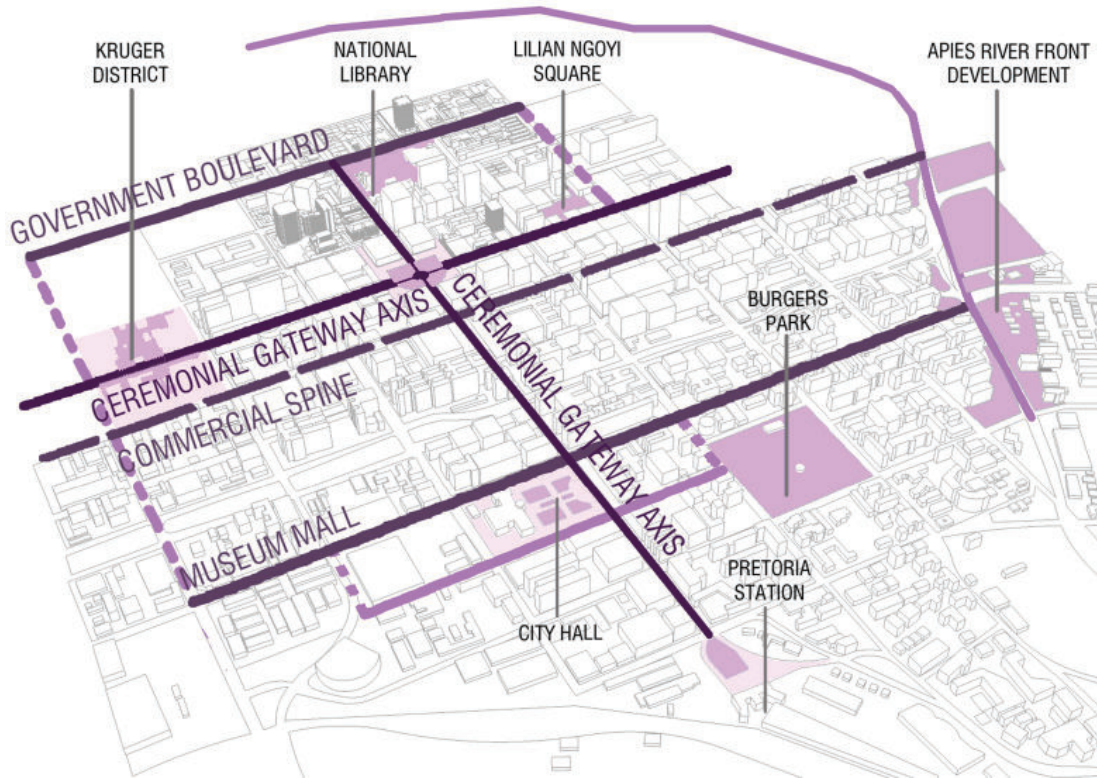
Economic densification related to the corridors propose that the existing office and retail spaces are to be occupied in phase one. The heritage buildings should be maintained or their uses adapted, such the narrative of Pretoria remains and demands cognisance. Only subsequent to a citywide densification, should the open lots and boundaries of the central business district be explored and newly developed.

Church Street and Paul Kruger Street are seen as the most important image-building streets in the Capital Core. The framework identifies six tourism theme routes that link identified cultural historic sites. In the Inner City Spatial Framework mentioned previously, Church Street and Paul Kruger Street are important for the ceremonial and historic axes they provide. Five festival routes are created that connects the design intervention sites and motivates people to explore the city on a pedestrian scale.

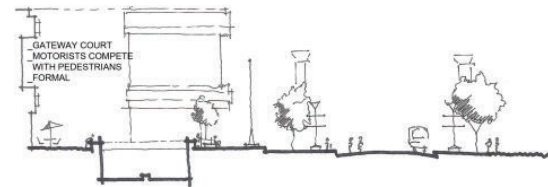
Figure 5.4: Streets target for renewal and intensification of pedestrian orientated activities.
(PLUG-In Group Framework, 2010)

2 corridors

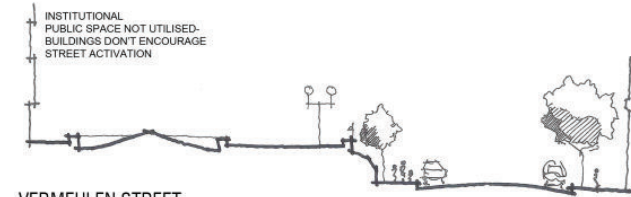
vision
interactive public routes with focus
 on **street edge**
 strip development between public nodes
connect and encompass existing
 commercial and recreation activities
 use existing transport routes and
 events to enhance
pedestrian experience



CHURCH STREET (EAST)



CHURCH STREET (OPERA)



VERMEULEN STREET



LILIAN NGOYI SQUARE



IMPLEMENTATION : PHASE 3

Phase three of the framework uses thresholds as points to indicate the currently concealed aspects in the city, harnessing identity, street essence and branding. These would be integrated into street furniture, surfacing, lighting and signage shown as conceptual 'beacons' in Figure 5.7. This new sculptural layer of signage aims to improve the existing pedestrian conditions whilst highlighting the important commercial, cultural, communal and transport routes.

The principal thresholds are located on major transport routes and at primary intersections. Acting as beacons and directional markers, the thresholds expose the depths of the city which, in combination with the four phase approach can expand upon a cultural expression. The aim is that the first three phases continually support each other and form the context for the temporary activities of the festival in phase four.

Figure 5.5: Threshold Beacons
(PLUG-In Group Framework, 2010)

thresholds 3

vision
 orientation and **information**
 formalise thresholds into and within city
 increase legibility of existing **significant spaces** by branding certain zones
 promote **underutilised resources**



- >threshold beacons
- >node of concentrated activity/ branding map site/ sculptural reference beacon

- COMMUNAL nodes
- CULTURAL nodes
- COMMERCIAL nodes
- TRANSPORT nodes



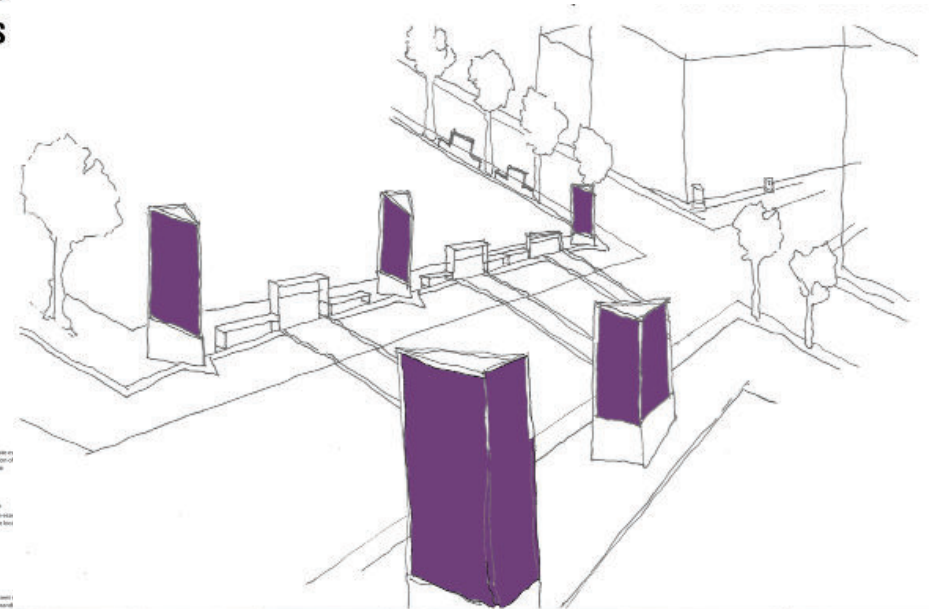
- >intermediate map locators (integrated into street furniture, lighting and sculpture)
- >new sculptural signage layer
- >indicates most direct route to various
- >pedestrians and vehicles



- >linear branding channel
- >path to branded sites
- >lines connecting thresholds



- >define thresholds of arcades and innerblock malls



IMPLEMENTATION : PHASE 4

In order to express the diverse character of Pretoria's inner city in the framework, *Collage City* was used to inform the framework theoretically. *Collage City*, written by Colin Rowe and Fred Koetter, was published in 1978. The theory emerged as a response to the problems of modern urbanism. The study involved looking at figure ground drawings which emphasize the role of public and private space in determining the character of the city.

Collage is both a fragmentary technique and a state of mind that aims to address the difficulties of both Utopia and tradition in an urban context. The idea of collage is used to identify the problem of composite presence in the city. *Collage City* promotes an anti-totalitarian approach: one should rather think of a sum total of small and opposing set pieces than to continue the search for total and perfect solutions.

The theory is applied in the framework as focused site specific interventions (acting as fragments) that are initiated with a common vision. Each intervention functions a catalyst on its own, thus creating points of rejuvenation throughout the city. When the interventions are viewed on a larger scale, a collage is created, revealing the diverse and pluralistic character of Pretoria's inner city.

The four phase implementation aims to increase the legibility and accessibility of the city to all users, harnessing the grassroots' daily impact of pedestrian experience whilst emphasizing and exploring the individual components of the city. The culmination of the first three phases result in the concept of phase 4, as shown by Figure 5.6. The separate elements of node, corridor and threshold are connected through a collage of events, some permanent such as this thesis proposal for the development of a Cultural Centre on Pretorius Square, while some are temporary such as the PLUG-In Festival.

Pretoria **PLUGIN** festival

PHASE 4 CELEBRATE THE CITY

'Architecture should be seen as an interaction of space and events instead of an object, as a human activity or open-ended text'
Bernard Tschumi



Figure 5.6: Framework concept- Celebrating the City
(PLUG-In Group Framework, 2010)

Following the concept of collage, the framework proposes a cultural festival in the inner city. The Jacaranda festival, a once famous Pretorian event, was held on Church Square during the nineties. Building on this heritage the framework proposes a new cultural festival called the Pretoria PlugIn festival with Church Square at its centre. The boundaries of the festival were determined by measuring walking distances from Church Square and the existing points of interest surrounding the square (Figure 5.7)

The vision on the Pretoria PlugIn festival is to create a local identity and recreational attraction in the city, generate an income for the city and to establish a framework for community involvement, collaboration and skills transfer sparking future incentives.

The festival suggests that the following forms of art be included:

- Digital, film, photographic and animation art
- Experimental art with recycled media
- Performance arts
- Architectural and industrial design
- Fashion and textile design
- Location specific performances & installation art
- Cultural walks
- And workshops

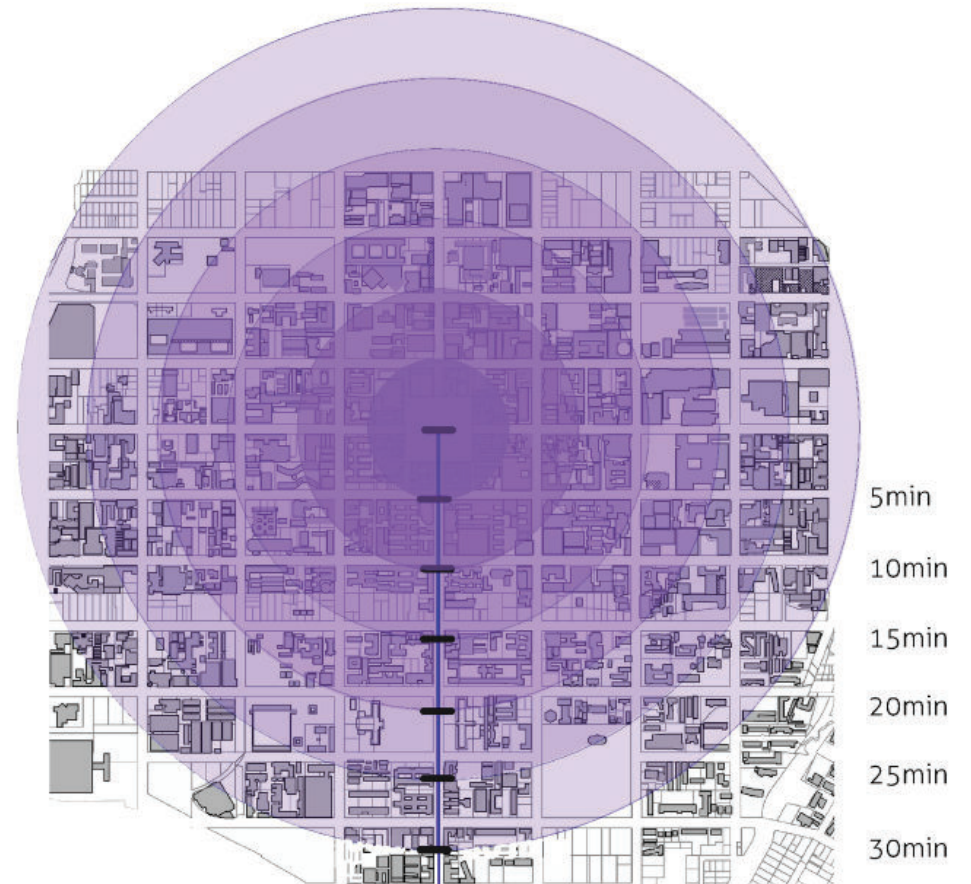


Figure 5.7: Walking radii from Church Square
(PLUG-In Group Framework, 2010)

The proposal is a city wide approach in which existing places of cultural importance can be linked as shown in figure 5.9. This will allow a visitor to follow the thread of history which has led to the existence of Pretoria and its people by using existing cultural institutes as experiential nodes along a walking or cycling heritage route.

The routes proposed by the PLUG-In framework follow five themes and encompass the existing social institutes as activities along each route. The routes follow the themes of conservation, cultural, market, recreational parks and educational.

The map shown in Figure 5.9 will form the basic festival route in which a programmed event will connect the isolated venues shown as (v). The objective of the PLUG-In Festival framework is to rejuvenate existing museums by programming interesting arts and cultural events and to allow inhabitants and tourists to view the city's cultural and heritage value.

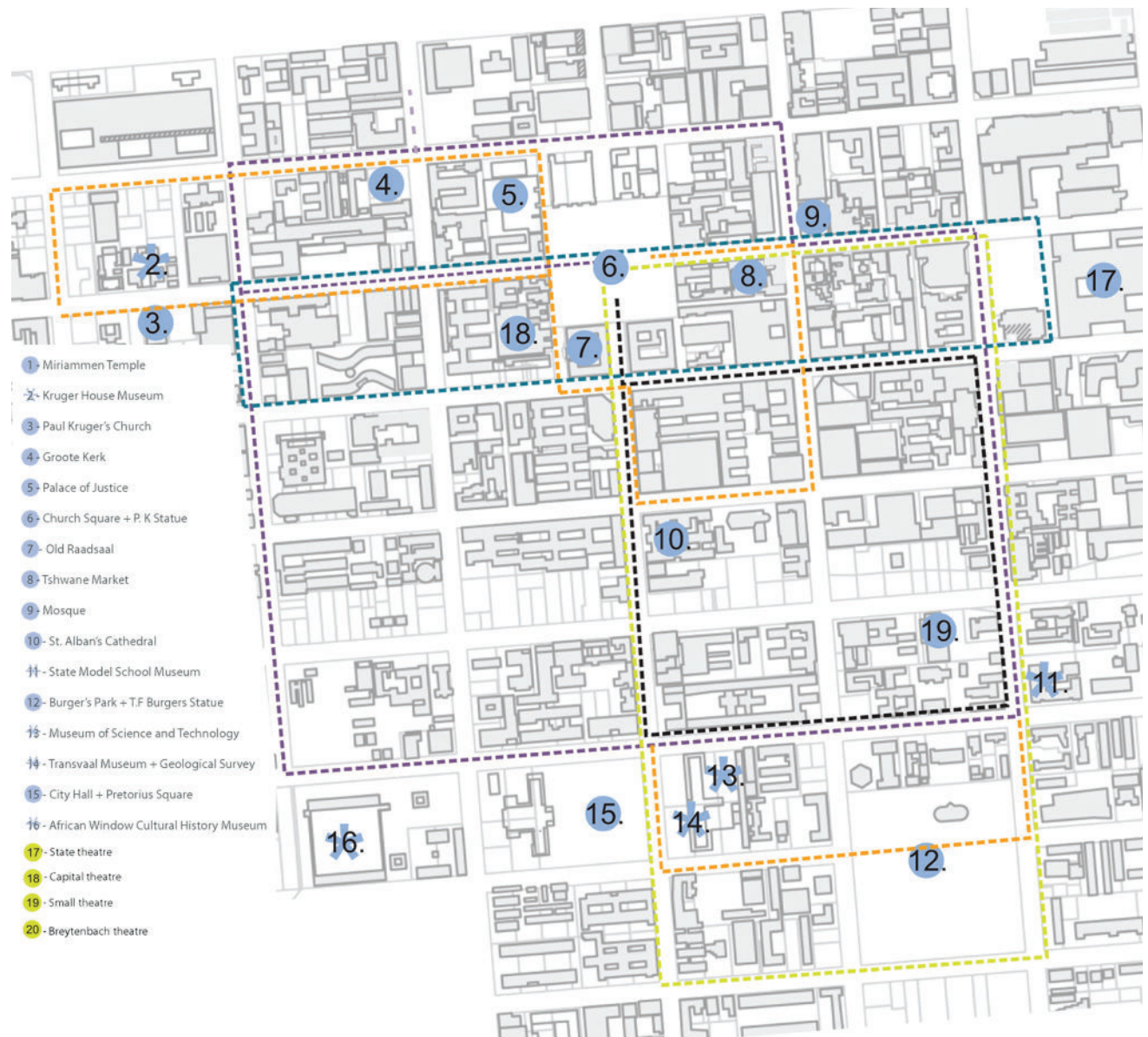


Figure 5.8: Existing attractions within the festival boundaries (PLUG-In Group Framework, 2010)

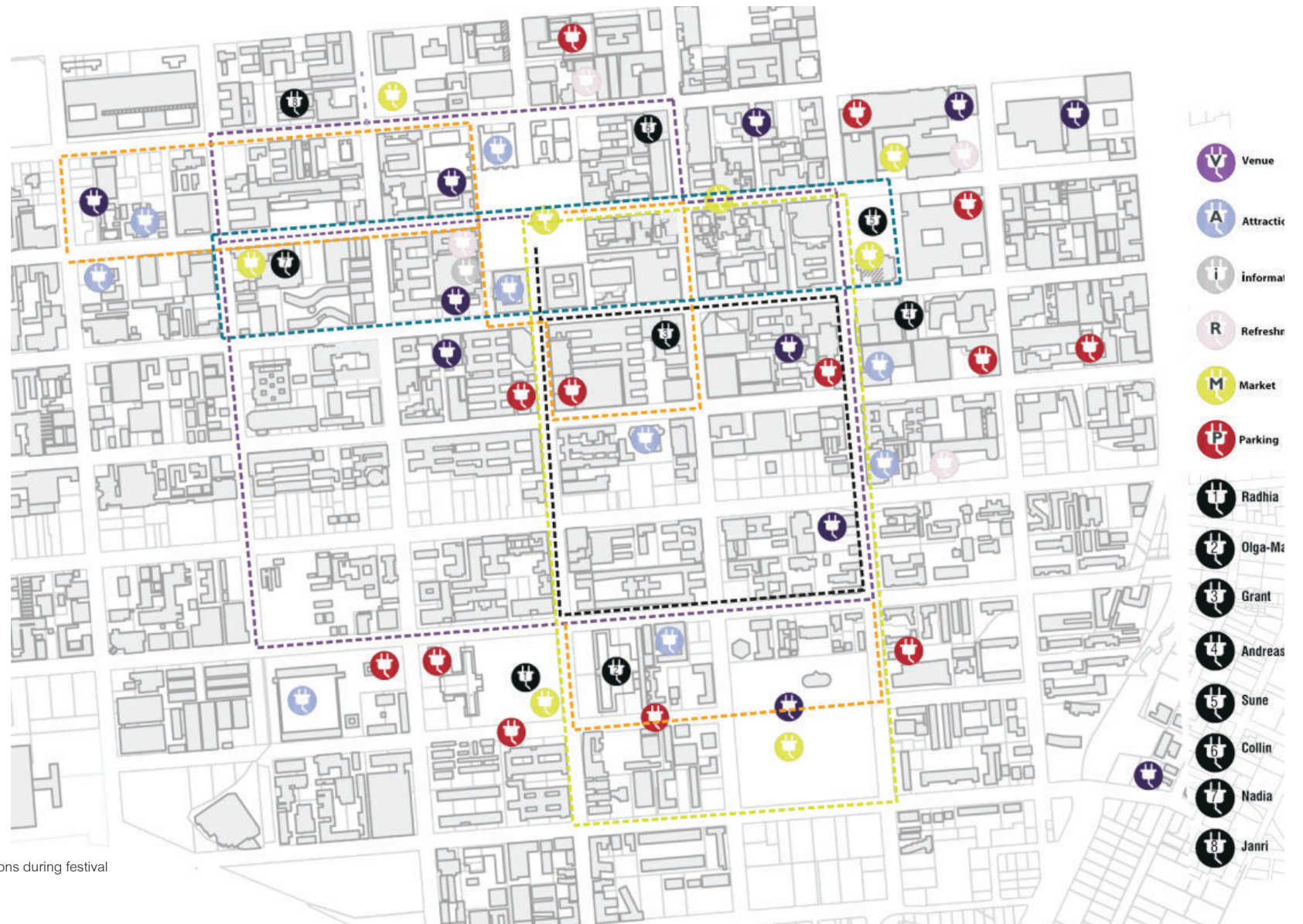


Figure 5.9: Utilizing existing and proposed attractions during festival (PLUG-In Group Framework, 2010)

6 DESIGN DEVELOPMENT

Goal 1: Architecture Must Blaze

Goal 2: People and Place

Goal 3: The Neutral Line

Goal 4: Transformation

goal 1 : architecture must blaze

FROM ICON TO CATALYST

The underlying principle for this goal is to **renew interest and interaction** with the surrounding existing cultural institutes so that a greater appreciation of South Africa's unique identity of a nation under transformation can be achieved. This approach involves the use of the PLUG-In festival to form a series of smaller, temporary interventions to be paired with heritage icons. The festival framework will serve to engage the public with existing places of cultural value.

The diagram (Figure 6.1) conveys the concept of 'recycling' the intangible significance of a heritage site by providing opportunity for new relevance without demolishing the existing structure. Previously static icons such as the statues of political leaders currently on the site as well as the City Hall itself are used as focal points around which new programmed activities or unprogrammed resting places are created. The addition of a mix of functions and user participation activity will lend a wide range of users to the site. The multi-functional approach and arrangement of spaces is aimed at including and integrating the icons as objects within a dynamic landscape. The objects themselves remain as they were originally created as the tangible connection to the ideals and achievements of the past, while the redevelopment of Pretorius Square provides a juxtaposition expressive of contemporary and future development.

The new Cultural Centre is programmed in order to induce an outflow of activity from users. This is achieved by including publicly engaging activities such as, multi-purpose communication and workshop rooms, a gallery showcasing samples of the larger museum institutes as well as contemporary art and a tour management office to run the centre and organise educational tours stipulated previously in the framework.

The new function of Pretorius Square as a Cultural Centre serves to **promote the Museum Mall** as a marketable district and to strengthen public participation and awareness of this cultural component of the city. The new tourist and allied exhibition facilities will involve both local and foreign tourists in the visible expression of Pretorian identity by **showcasing both heritage and contemporary art as accessible cultural activities**.

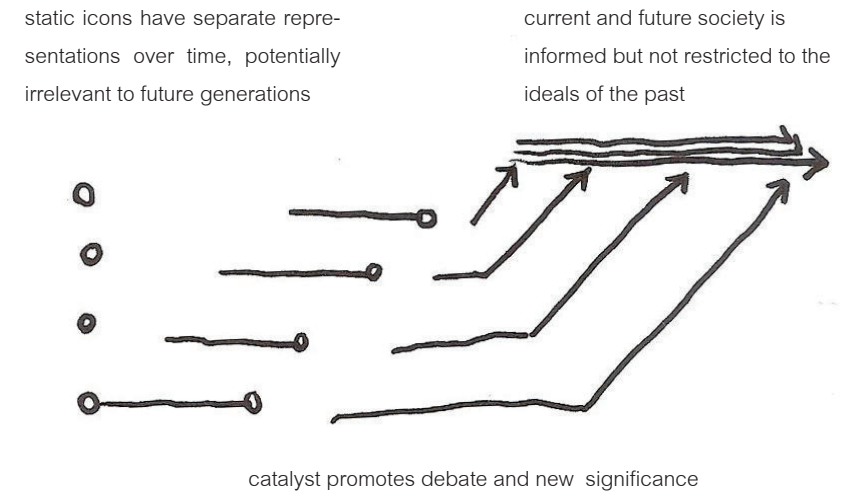


Figure 6.1: Conceptual diagram of an icon's transition into catalyst
Author 2010

goal 2 : people and place

CREATING OPPORTUNITY FOR DIALOGUE

Due to Land Acts passed during the apartheid regime, communities of people were excluded from living in the inner city. Today the scars of the segregated past are visible as derelict sites bordering the city edge, separating adjacent residential areas from the inner city. The principle of this informant is to seek out excluded neighbourhoods of Sunnyside and Marabastad in order to re-integrate the residential aspect with the economic and social structure of the CBD. In this way the voices of the contemporary citizens can find cultural expression and ownership over the city's historic fabric.

The initial concept for the proposal was to develop Pretorius Square as a series of platforms (Figure 6.3). These platforms would serve as the more accessible counterpart to the ideals of democracy expressed in the neoclassical aesthetic of City Hall. As the square is currently one of only two open spaces along the major axis of Paul Kruger Street, the main focus of this concept was to maintain the heritage of an outdoor arena for public gathering.

The injection of programming into the current recreational public space of Pretorius Square will serve as a platform for public engagement with the heritage and cultural institutes of the Museum Mall district. These include the Museum of Science and Technology, the Transvaal Museum and the National Cultural History Museum all situated along Visagie Street.

The City Hall once housed the City Council of Pretoria's art collection, before being moved to the Pretoria Art Museum in 1964. By reclaiming Pretorius Square as a platform for art exhibition, a link to the heritage of the site as a gallery can be renewed. The program will also provide opportunity for sustainable social development through education workshops hosted by local artists and heritage associations on the creation, value and maintenance of cultural artifacts.

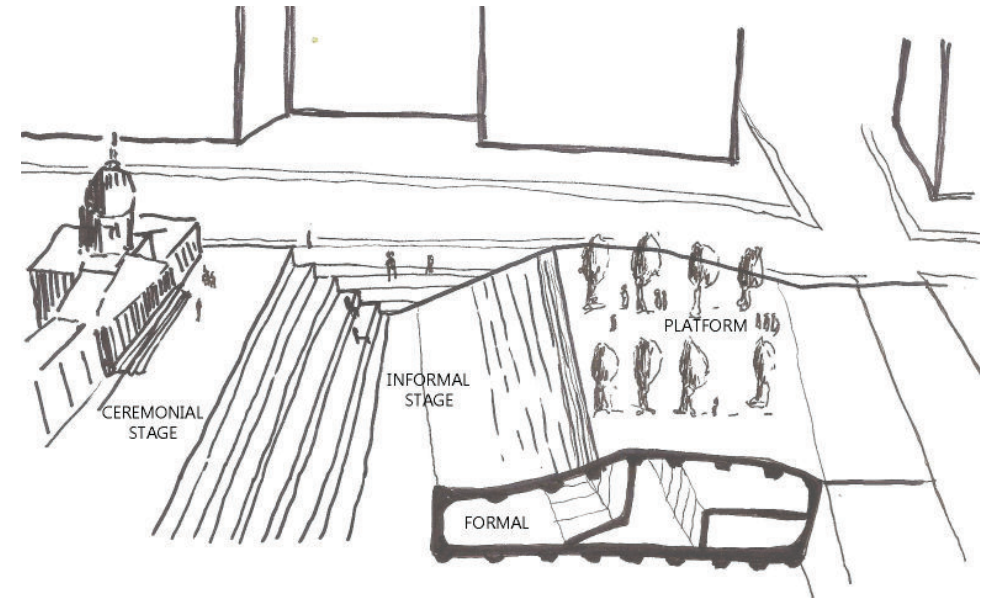


Figure 6.2: Conceptual sketch showing the early approach of the square as a series of platforms for public interaction
Author, 2010

goal 3 : neutral line

INTERACTIVE BOUNDARIES

The street edges of Minnaar and Visagie function as a parking lot, currently separating the street from the park. In order to provide total accessibility to the pedestrian, these lots are removed and boundaries treated as thresholds rather than barriers. The street edge now belongs completely to the public domain and is programmed with activities grouped into the three categories of **COMMUNICATION, EXHIBITION** and **EDUCATION**.

Figure 6.3 conveys the conceptual approach to the idea of the boundaries created by the adjacent streets of Visagie (north), Paul Kruger (east) and Minnaar (south). In phase A, the high pedestrian interface with Paul Kruger Street is pulled across the road to connect with the Transvaal Museum directly opposite. This will be achieved by creating new paving following the original granite pattern on the Pretorius Square site. The edge currently acts as an entrance threshold to the square, sometimes occupied by vendors catering to the movement of pedestrians between the Pretoria Station in the south and Church Square in the north.

New developments along Minnaar and Visagie will include the removal of the public parking facility as this activity separates the pedestrian access from the inner site. The increased interface on Visagie to north of the site will be carried across Paul Kruger Street in order to establish a pedestrian orientated route connecting the museums along this major road.

Phase B shows the continuation of the increased interface through the primary axis of the site. This will include reclaiming and reactivating the once ceremonial entrance space now tarred and used as a vehicle parking lot.

Phase C explores the idea of multiple new pedestrian public access points in relation to the major dividing axis of the site. With the implementation of many intersecting paths providing uninhibited access, the site is once again reclaimed by the pedestrian and user. Between the paths are spaces of low movement and each can be programmed as a smaller part of the complex. The promotion of mobility by pedestrians speaks of a truly inviting space, with the programming of inner areas explored further later as **POCKETS OF ACTIVITY**. This concept involves the further stimulation of the circulation of pedestrians in and through the site.

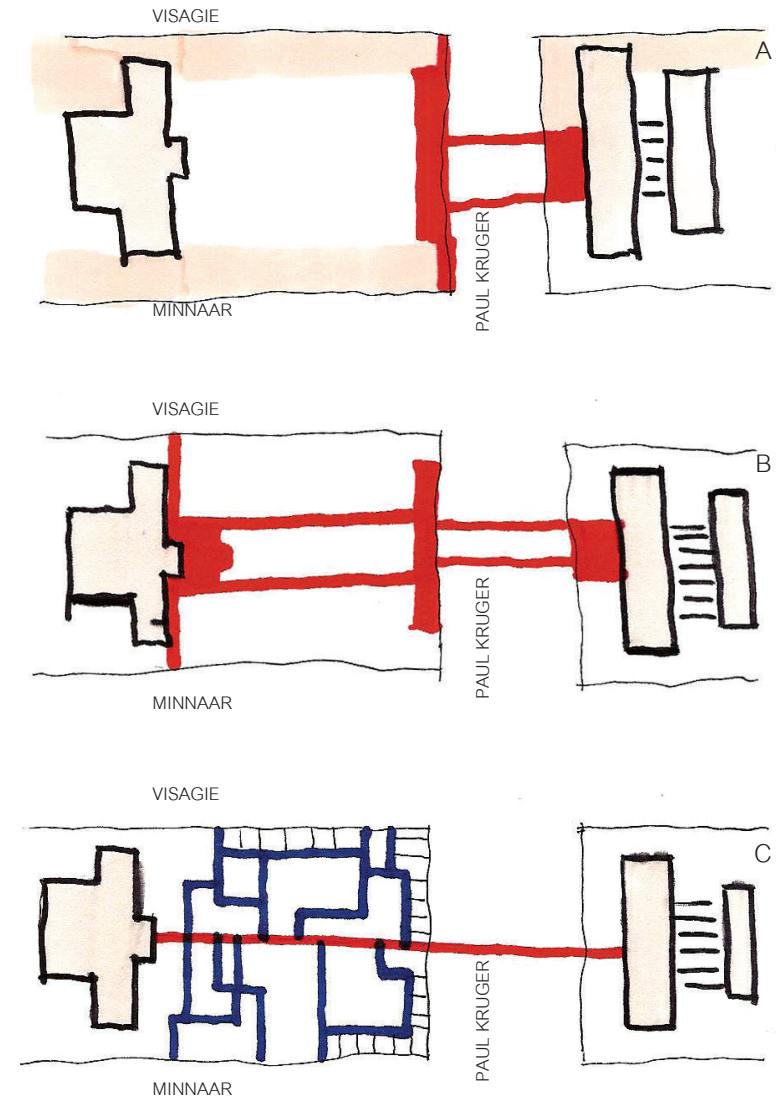


Figure 6.3: Boundaries and Movement
Author 2010

m a y

CONCEPT DEVELOPMENT

Activate boundary streets with pedestrian related activity supportive of existing recreational function.

Maintaining the original east west axis on existing ground level to be used as a point of departure for new development.

Maintain the forecourt to the City Hall as a rally point for major events.

Create a new line of access juxtaposed to the strong axis, indicative of the freedom of pedestrian motion across the site.

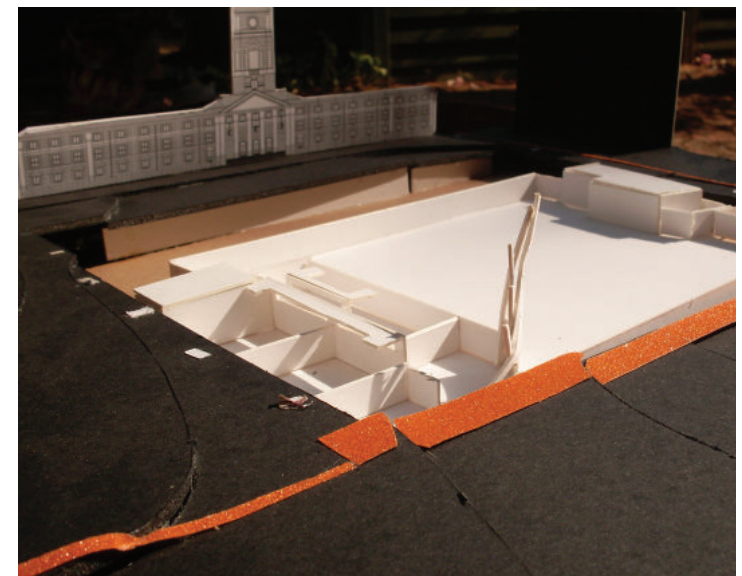
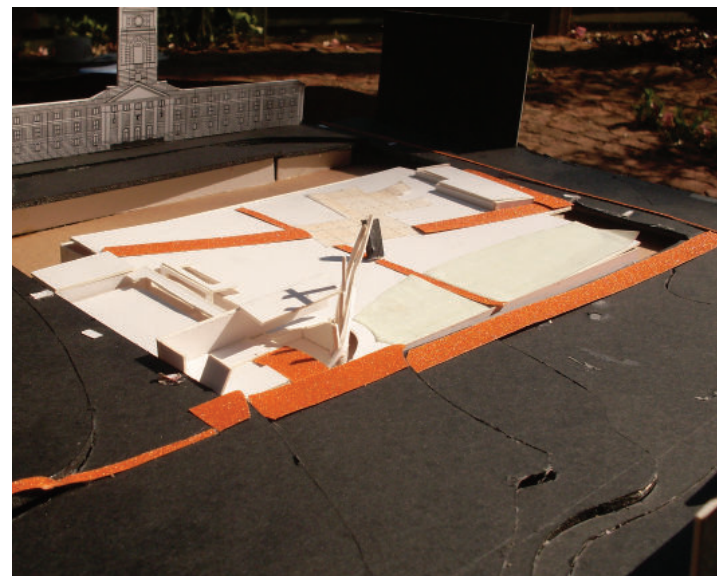
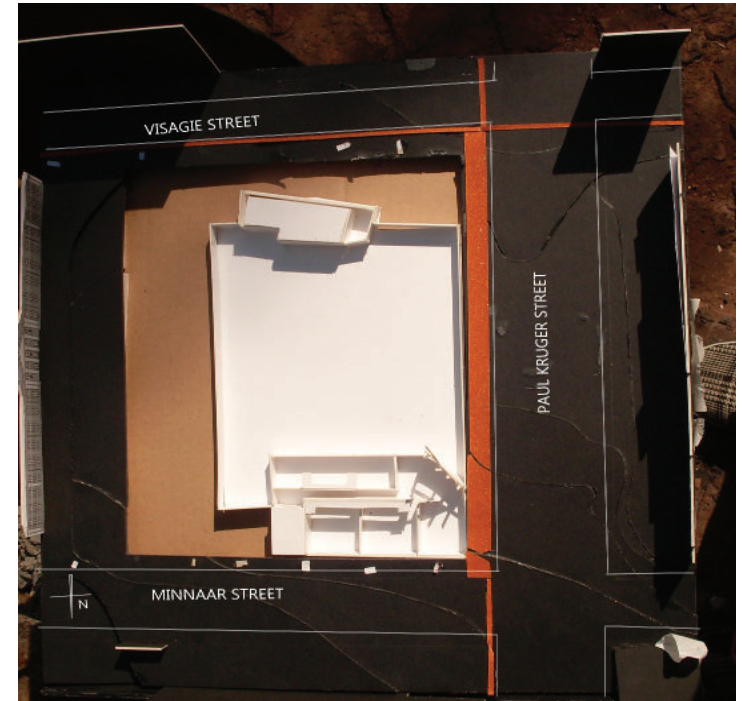
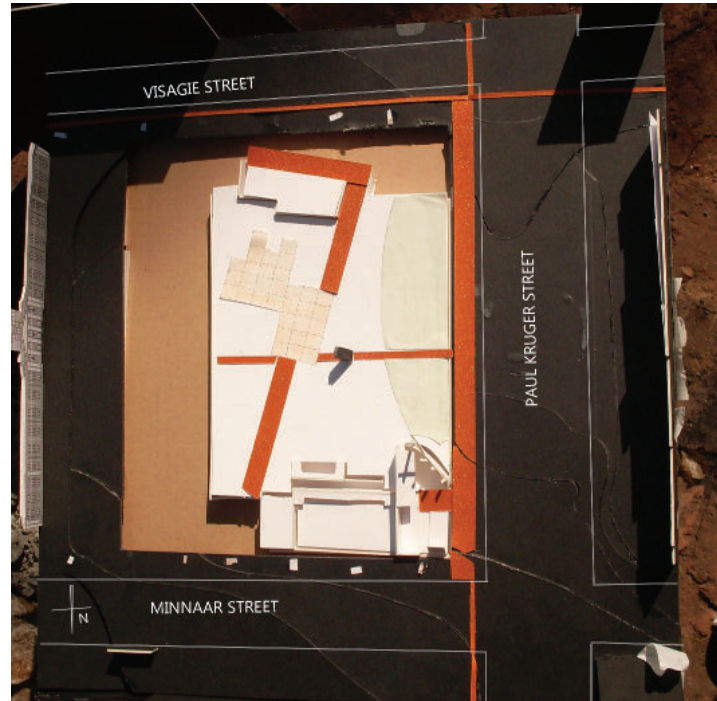


Figure 6.4: Model determining which heritage aspects to preserve as the NEUTRAL LINE
Author 2010

POCKET ACTIVITY

In order to remain widely accessible, the centre itself embodies the notions of **NEUTRALITY** and **TRANSPARENCY**. The program is not static however and is aimed at inducing experiential and interactive activities in order to stimulate the engagement with both objects on exhibit and between visitors themselves.

The new Cultural Centre has been sunken below street level with the main approach maintained off Paul Kruger Street. The decision to submerge the Cultural Centre underground was based partly on the respect for the vista between the City Hall and Transvaal Museum and partly on the importance of maintaining the heritage of Pretorius Square as a public open space.

A large portion of the site remains as an open space as Pretorius Square remains an important gathering space in times of political activism today. However, instead of remaining as a mono-planar surface, the site has been excavated and new levels created in order to induce dynamic flow of people into the new voids and enclosures created within the square.

An aspect integral to the concept of juxtaposition is the retention of certain forms in order to give context to the new design. In the case of Pretorius square, the question of how to respond to the strong central axis of the site resulted in an experimentation of level and form.

Earlier concepts maintained the axis as a ceremonial concourse connecting the Transvaal Museum and City Hall at ground level (Figure 6.5 and 6.6). However this solution was abandoned as it only served to restrict the development of the site as a fluid, inviting space.

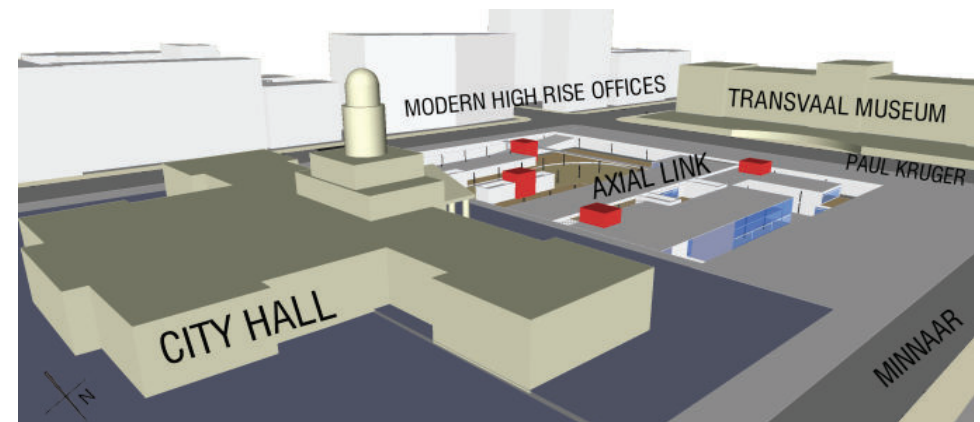


Figure 6.5: Conceptual approach - maintaining the axis at original ground level
Author 2010

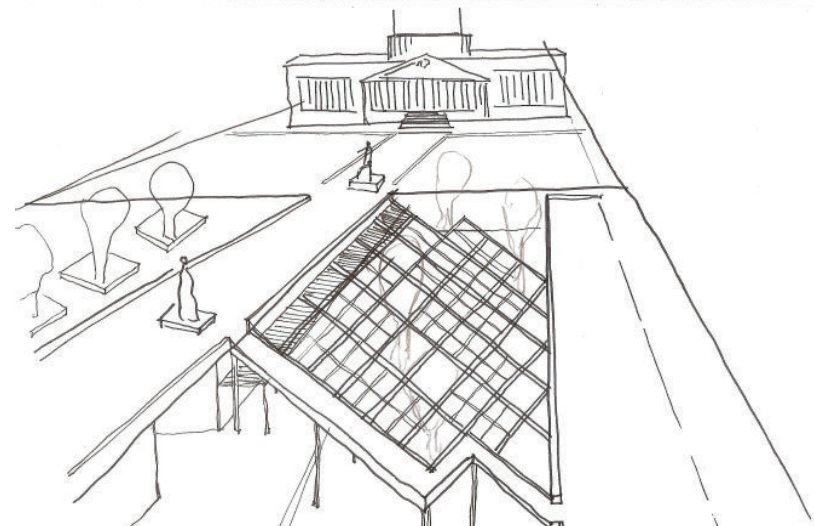


Figure 6.6: Conceptual sketch showing the early approach of maintaining a ceremonial axis at existing ground level
Author 2010

ROOF OF BUILDING ACTS AS LANDSCAPED SURFACE, ACCESSIBLE FROM STREET LEVEL WITH PROGRAMMED EVENTS BELOW

PEDESTRIAN MOBILITY OVER THE SITE AS A SIGNIFICANT ASPECT OF CONCEPTS TRANSPARENCY AND ENGAGING DIALOGUE

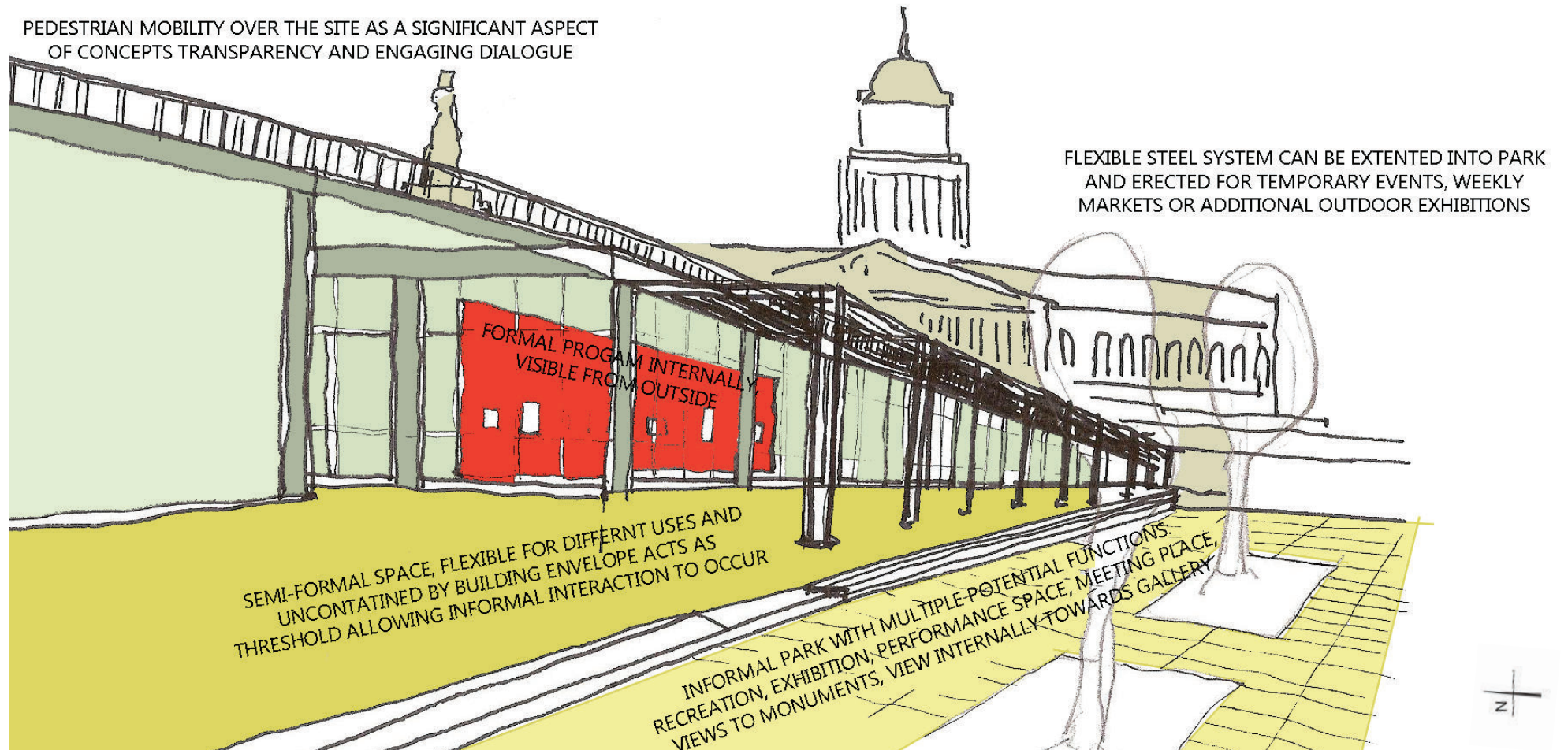


Figure 6.7: Exhibition Platform acts as concourse overlooking recreation park on the right and providing views into the transparent gallery to left
Author 2010

COMMUNICATION

The ground floor level of the site is the landscaped roof surface of the Cultural Centre. The site is accessible from the street level while all programmed activities occur on Basement Level -1 or Basement Level -2. The northern portion of the site has been organized and developed along the principles of transparency and public debate. Clusters of planted trees will be used as focal points for activity zoning while all visible structures are publicly accessible and lend to the recreation and social functions of the new plaza.

The formality of the historic context is echoed in the design of new seating stairs as access to the centre below ground level. The gradual level change with use of low rise stairs allows for the visual communication between passers-by and the activities occurring below. These stairs act as viewing platforms for the landmarks of City Hall, Transvaal Museum and statues on the site. The stairs also serve as outdoor auditoriums which can function as a rally point or informal outdoor meeting place for the city's residents and workers.

EXHIBITION

As many Pretorians deem existing galleries 'inaccessible' or perceive the institutes as exclusive, the new Cultural Centre provides an exhibition space as an introduction gallery to the existing museums of the district. This will act as a free 'sample gallery' supported by the local museums and contemporary artists and serve to make the current cultural district more accessible to local citizens.

The functions housed in Basement Level -1 (Figure 6.6) are the exhibition gallery run by the tourist office. The space can be subdivided to form smaller meeting rooms for hire or can be opened and extended into the outdoor space to form an outdoor exhibitions or an artist trade market on weekends. The exhibition rooms will be used in conjunction with local artists during the framework festival, during which time the artists themselves will occupy the rooms and showcase the production process off their work. The galleries will encourage participation of local and foreign tourists and stimulate economic development to outlying regions with creative skills development workshops and by providing new trade opportunity.

EDUCATION

The southern half of the site is to be used by a tour management and promotional office occupied and run by the Tshwane's tourism department. The space is centered on the goals of information exchange and will primarily manage the routes marked out in the urban framework for group tours such as schools and cultural associations. A subdivision of the promotional office is the management of workshops located on Basement Level -2 (Figure 6.7). These workshops are multi-purpose work and creative production spaces used to support local artists. The workshops are open to public viewing and act as an exhibition of the process of the creative processes of artists.

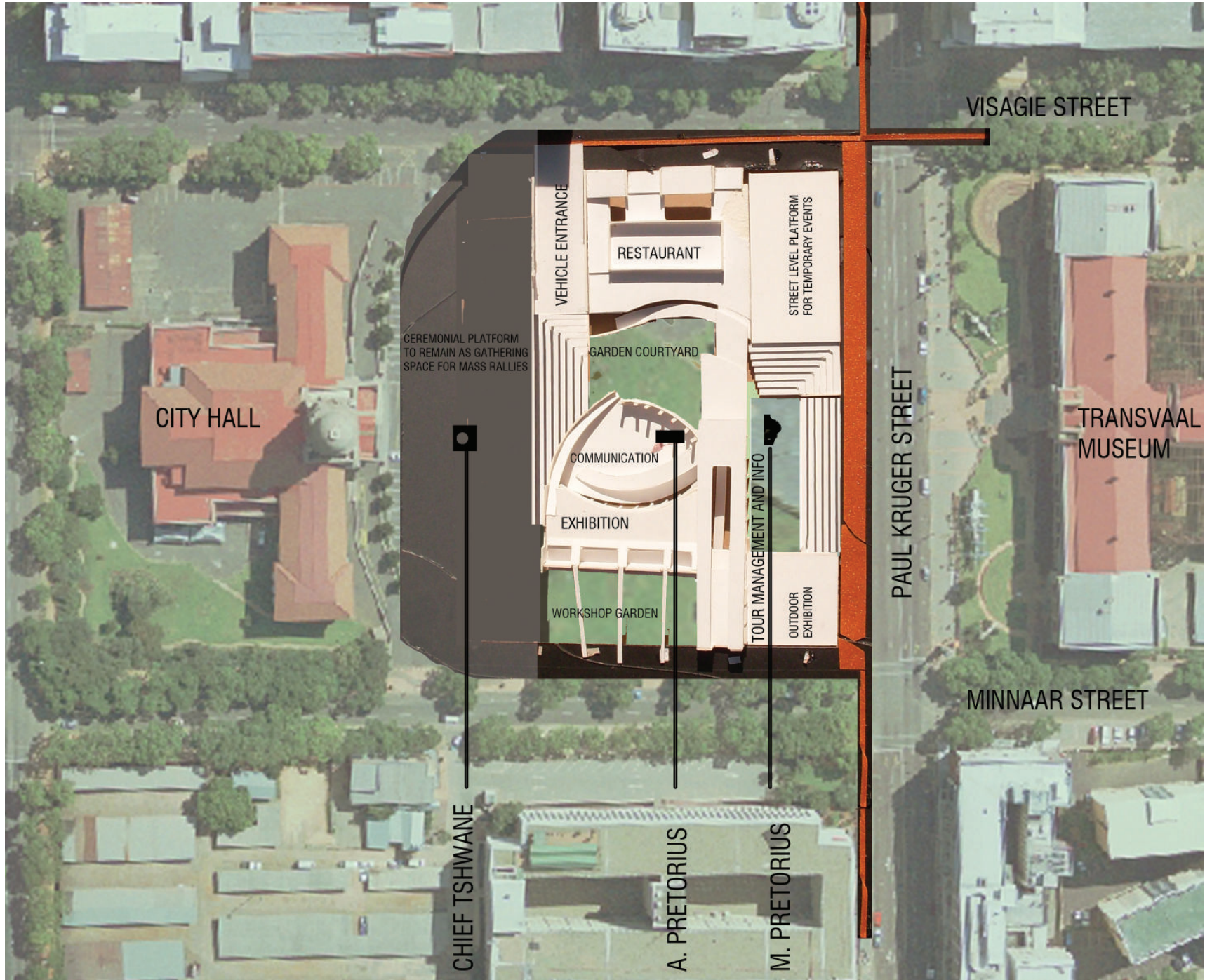
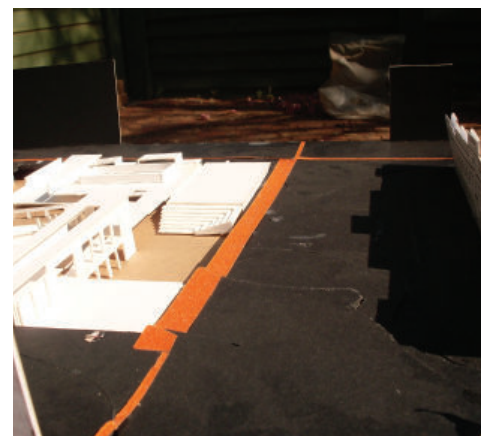
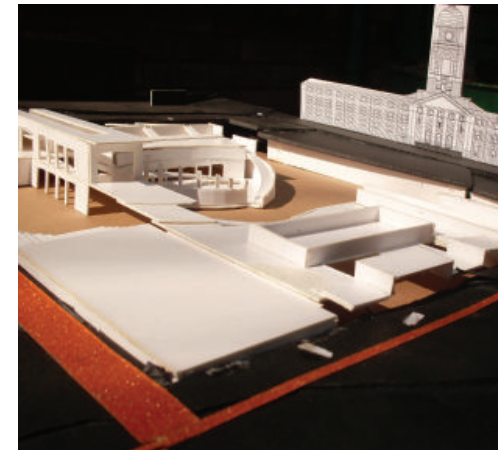
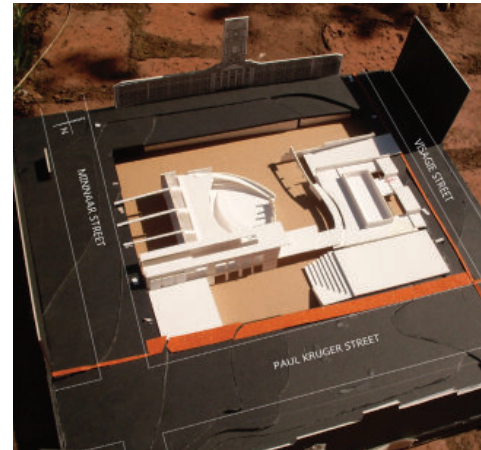


Figure 6.8: Site Plan
 (Reduced scale to fit)
 Author, 2010

The central axis has been re-examined and developed as a point of departure from the classic form rather than a preservation of the original. This east-west axis, once a strong division line in the proposal, is now memorialized as a negative space that forms a public path connecting the City Hall to Paul Kruger Street. The line thereby becomes an expression of the fluid motion of public activity around and through the centre, connecting the **pockets of activity**. The path is modulated with tactile paving, created by artists in the Centre workshops. The paving is representative of the motion along the new winding axis, hard in high traffic areas, permeable in low activity zones and dissolved into planting and water features in places of rest. The main axial route now connects the open air auditorium off Paul Kruger Street, the main entrance to the multi-purpose communication rooms on Basement Level-2 and finally curves gently around the outdoor informal performance space to rise once again onto the 'ceremonial stage' preserved as the entrance to City Hall.

This deviation is aimed at inducing the movement of pedestrians even further into the voids representative of the 'lost narrative' of people previously excluded from the city. It also represents an organic response to the intuitive motion of pedestrians and the activation of flexible spaces. The juxtaposition of the rigid symmetry of the City Hall and Transvaal Museum with the new Cultural Centre, effectively conveys the transition of old to new, making the Centre expressive of a multifunctional approach to public space. The organic form is representative of the non-functional social aspect that a public park represents in the urban environment.

In treating the functioning of the building as a transparent process, the central void serves to provide visual access from levels above into the communication and workshop rooms below (Figure 6.11). Visual access can also be acquired from the roof level above as integrated landscape bench and skylight elements modulate the surface of the gallery roof. The courtyard acts an informal stage, a potential meeting space, platform for creative expression and an opportunity for group debate. It embodies the African heritage of communal space discussed in **PEOPLE AND PLACE** as it remains flexible to many functions and is unconfined by conventional forms. The space acts as a threshold between the fluid external environment and the programmed internal spaces.



o c t o b e r



Figure 6.9: Images from the latest design development employing an organic approach to forms linked to the axial path
Author, 2010



7 TECHNICAL DEVELOPMENT

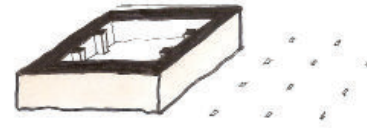
goal 4 : transformation

It has been discussed earlier that architecture is as much an integral part of expressing living culture as art, film, music and creative speech. The technological development of the project embodies the representation of **TRANSFORMATION** as seen in Figure 7.1. As the structure is sunken below ground, a masonry construction was chosen to represent the heavy, load bearing nature of the retaining function of the boundary walls (Figure 7.2). The use of masonry is also reminiscent of the existing technologies used in the heritage structures bordering the site and serves as a point of departure from the historic sandstone buildings. The outer shell is comprised of off-shutter concrete as a protective retaining feature with embedded services.

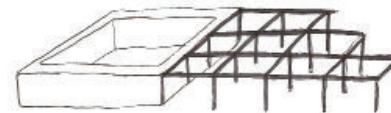
This shell disintegrates into a lightweight steel skeleton, expressed outside the building. The steel structure used for shading and flexible or temporal spaces represents an open support system which allows for user manipulation to suit changing needs. Where the building may function as programmed most of the time, there is opportunity to construct temporary shelter using the steel framework in order to extend into auxiliary gallery or conference spaces. The structure can also be manipulated to form a stage or multiple smaller spaces to cater for the existing vendors as a weekly market.

The filtering of spaces embodies the concept of layering and **EXHIBITION**. Pedestrian entrances are through gardens and widely accessible spaces, becoming increasingly formal and culminating in the programmed internal space of the building. Much of the first basement level is shaded from above by timber and steel pergola sections. The pergola is also used to differentiate between different qualities of the outdoor space in order to provide some sense of scale and hierarchy to the public realm. Several screens between the external and internal environments are created in order to modulate the sensory experience of the succession from open public space to more intimate enclosed areas. By manipulating light, visual access, and volumes, the notion of transparency becomes dynamic as a pedestrian moves around and through the structure.

The exposed concrete and steel structure, separate from the building envelope, serves to modulate the facades by creating diverse materiality. Services to basement levels below are housed within the retaining wall structure and expressed on ground floor level as urban landscaping, providing seating, lighting and planting on street interface (Figure 7.4). A lightweight skin on the gallery wall is comprised of panels made by artists of the area. This ever changing skin represents the transformation of social concerns and also forms another aspect of exhibition to passers by.



PROTECTIVE SHELL



ADAPTABLE SKELETON



TEMPORARY FILTERS

Figure 7.1: Abstract diagram of architectural intentions
Author 2010

j u n e

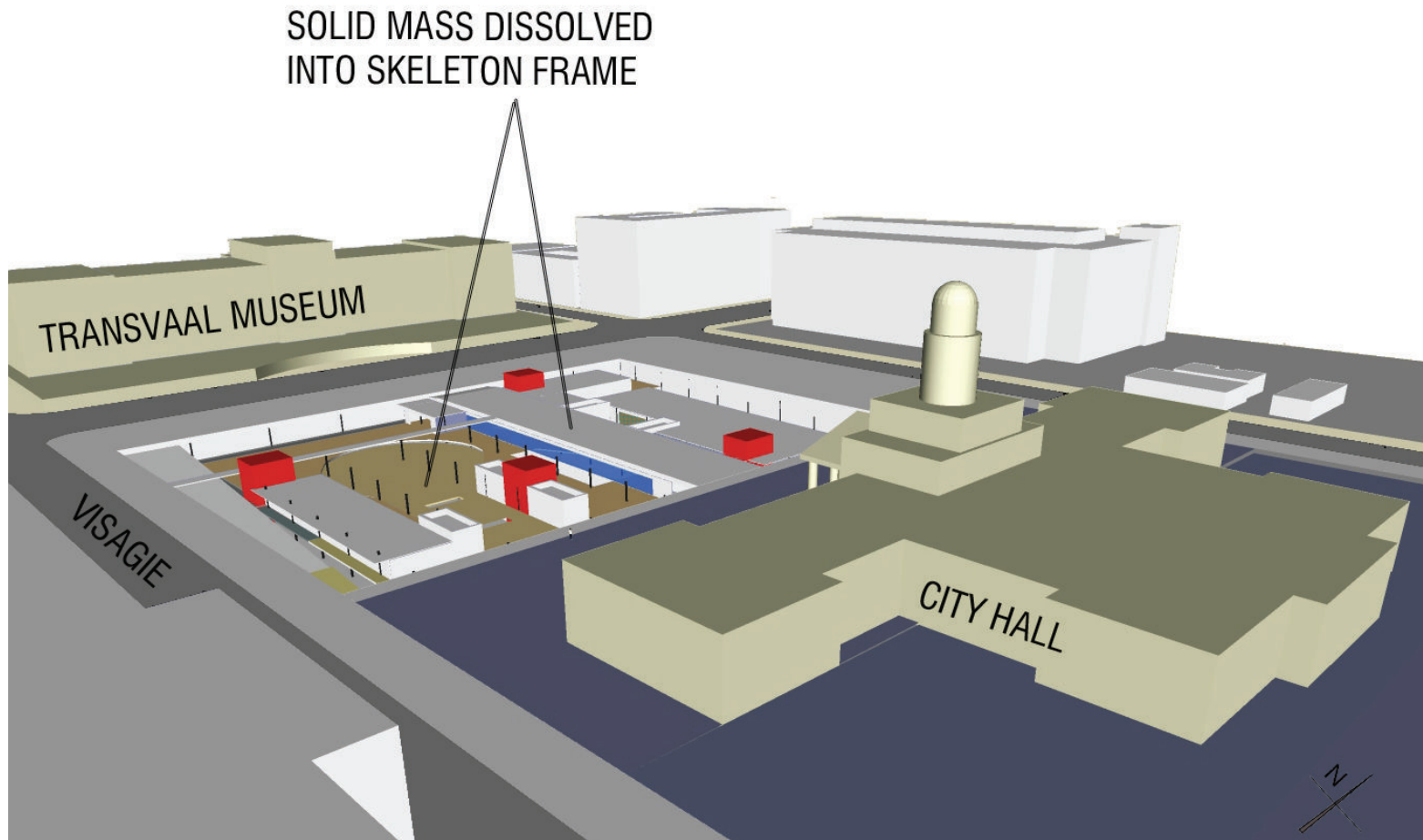


Figure 7.2: Conceptual Approach - Transformation from solid to light structure

Author 2010

august

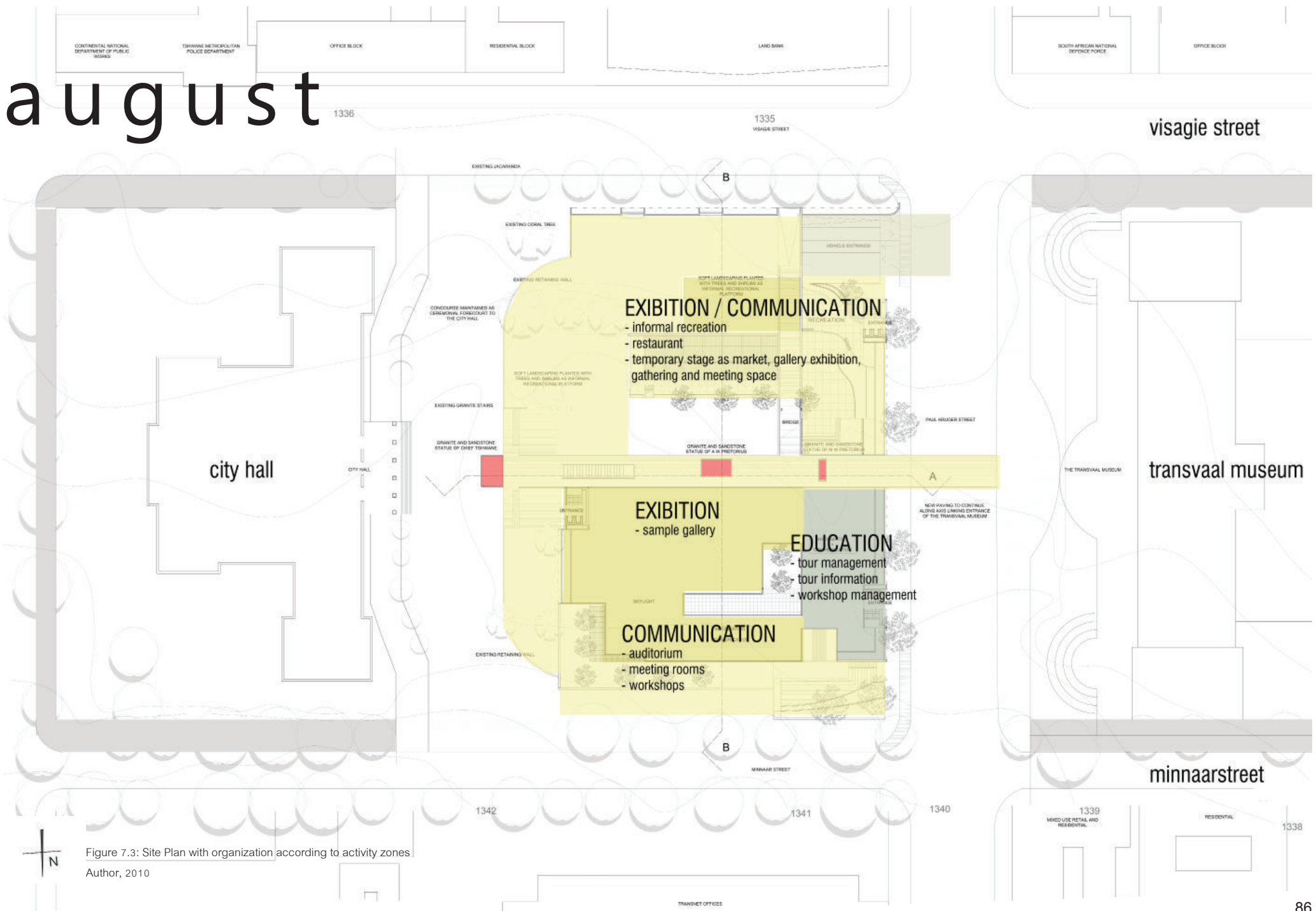


Figure 7.3: Site Plan with organization according to activity zones
 Author, 2010

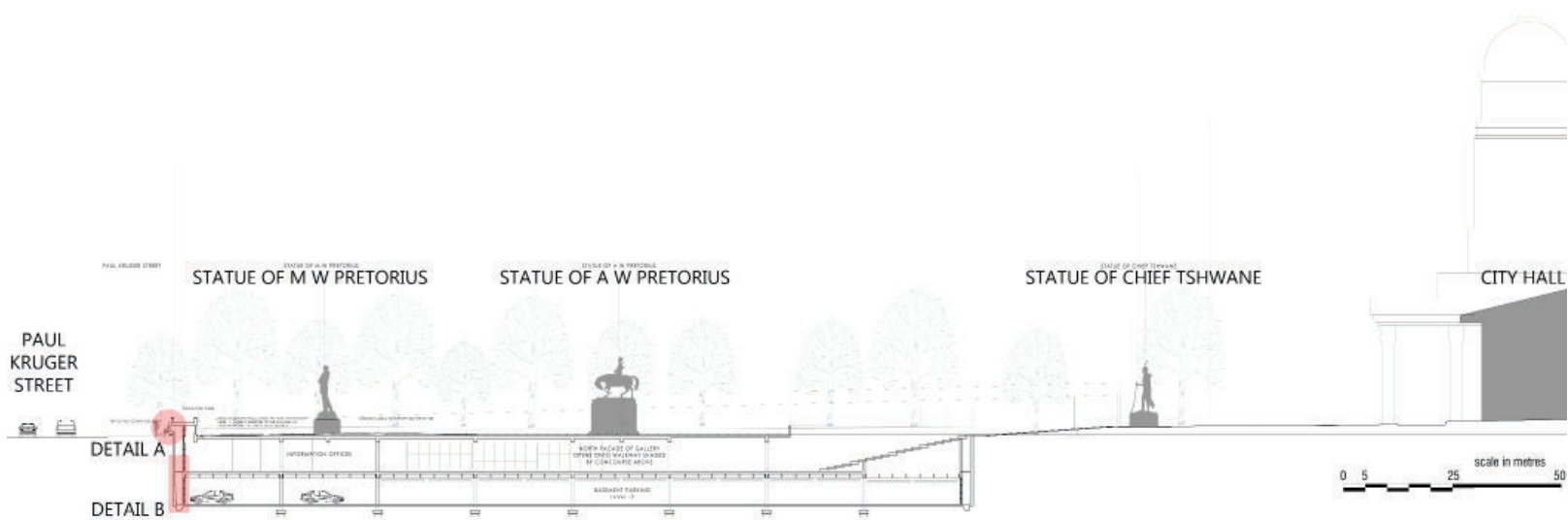


Figure 7.4: Site Section A with statues in original positions
 Author, 2010

The site organization shown in Figure 7.5 and 7.6 conveys the relationship between the existing solid and new void. Public access onto the roof of the building allows for the unrestricted movement connected street level, indicative of the original square as a public space. The original parking lot once housed on ground level has been moved to Basement -2 in order to reclaim the space for pedestrian activity.

The central courtyard allows visual access from the ground floor level into activities housed in Basement Level -2. Integrated skylight and seating benches over the gallery roof provide transparency into the activities below.

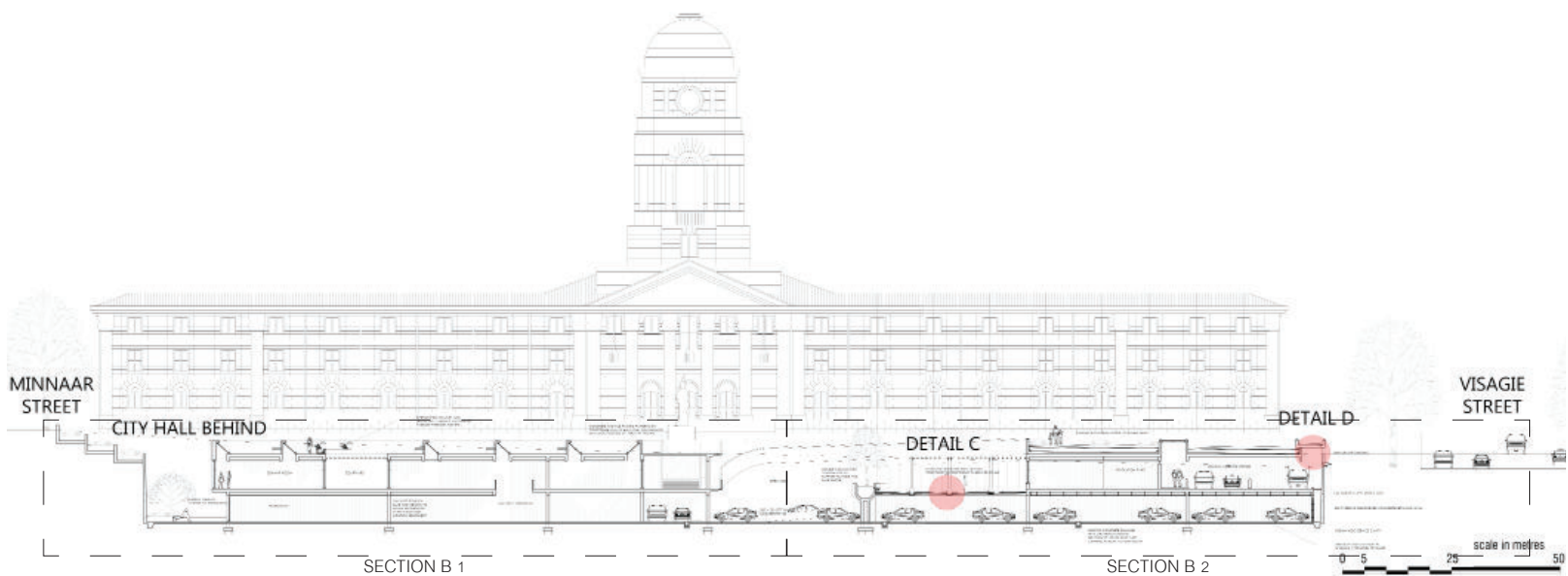


Figure 7.5: Site Section B with City Hall in background
 Author, 2010

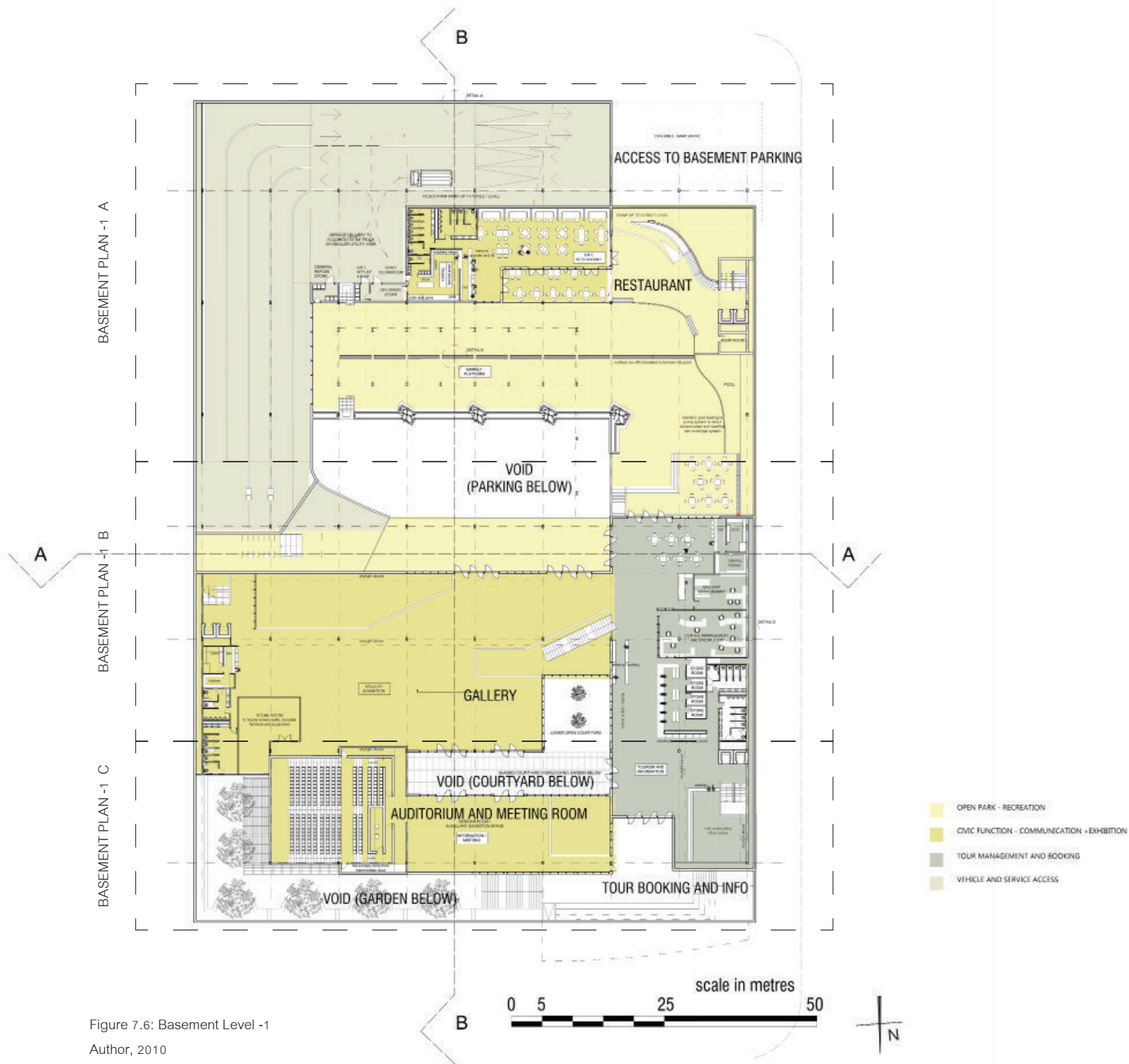


Figure 7.6: Basement Level -1
 Author, 2010

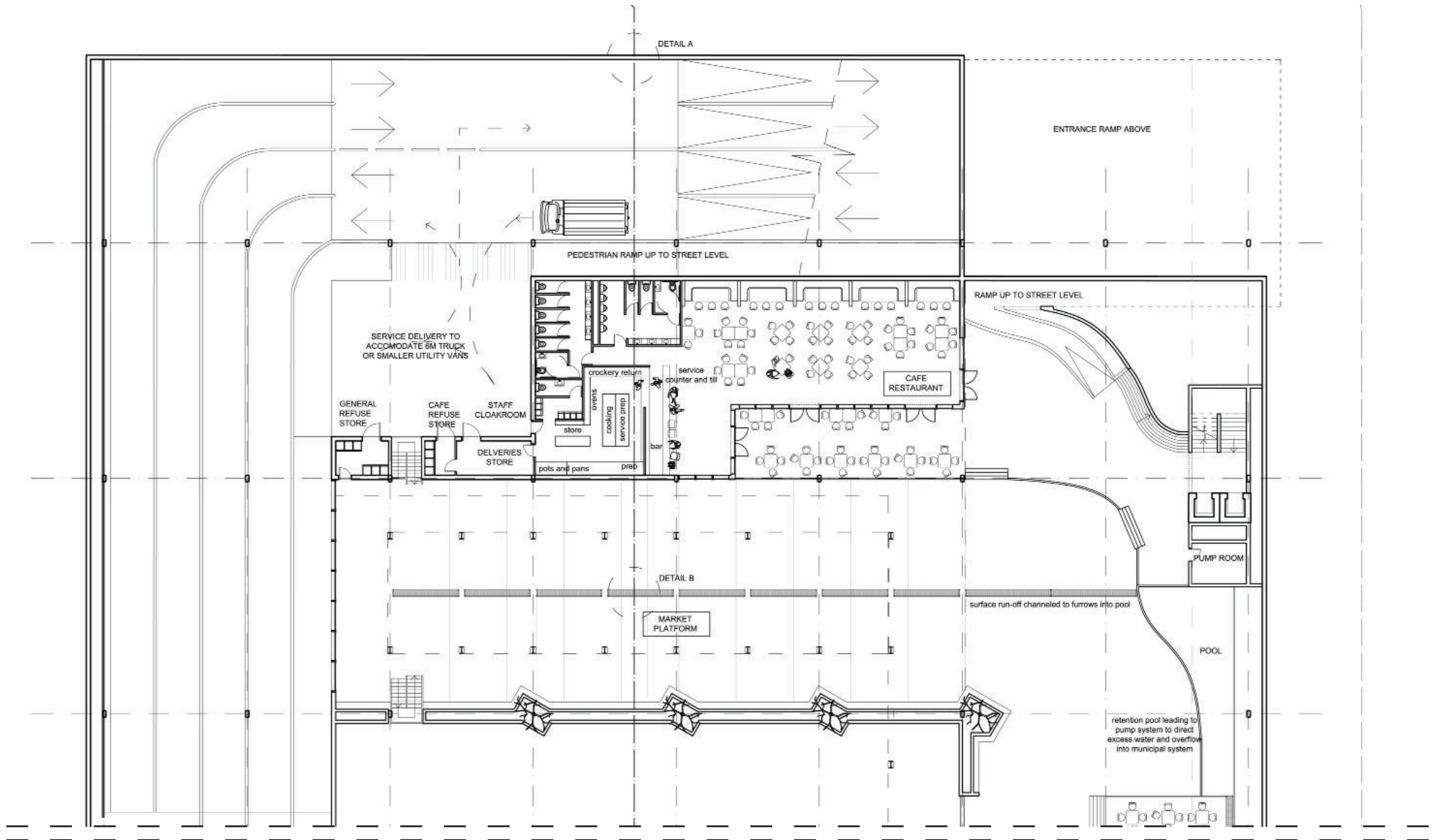
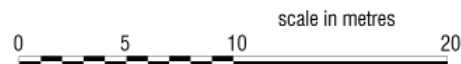


Figure 7.7: Basement Level -1 : Plan A
 Author, 2010



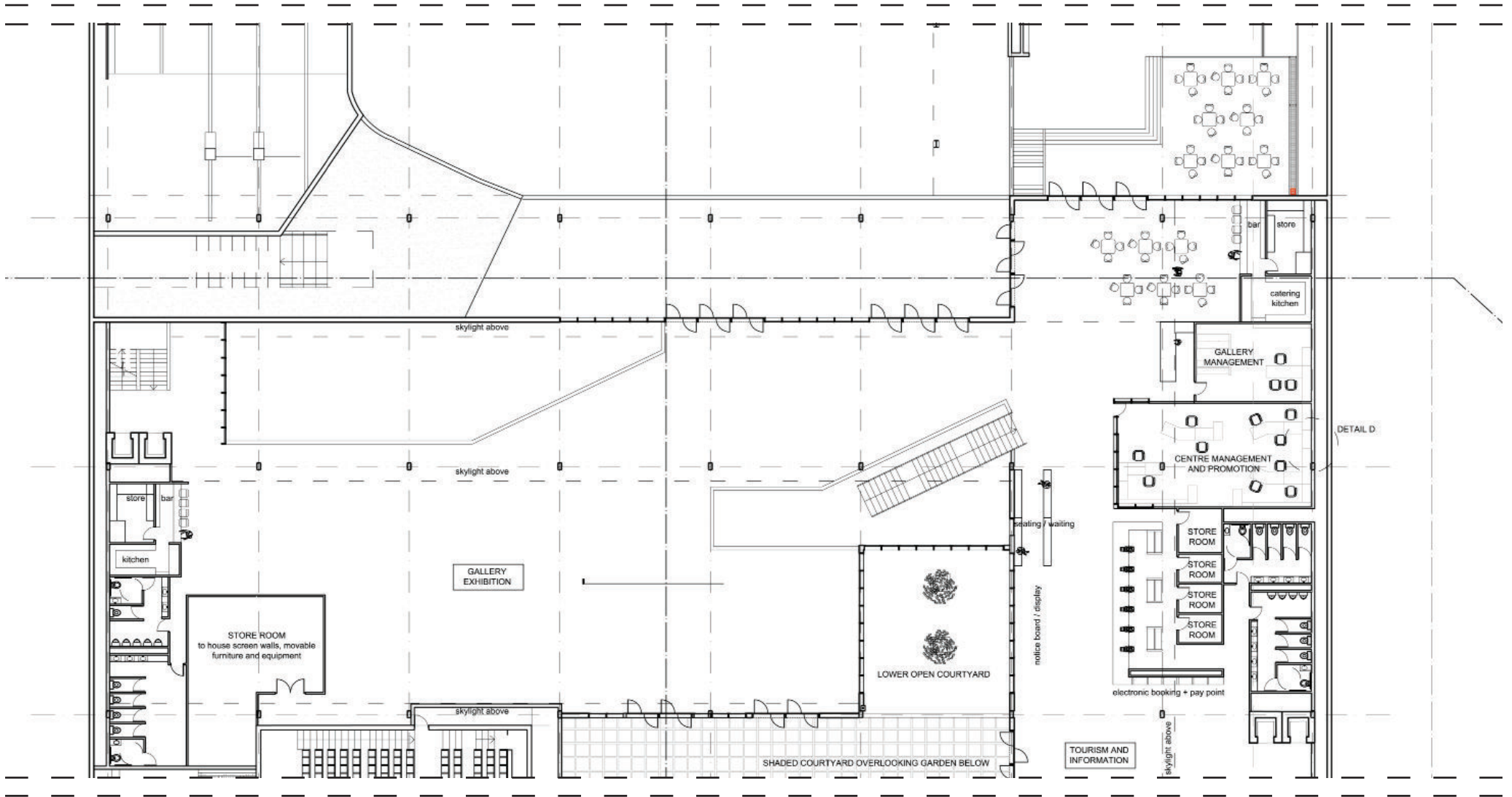
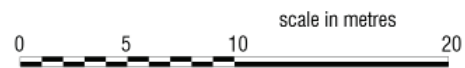
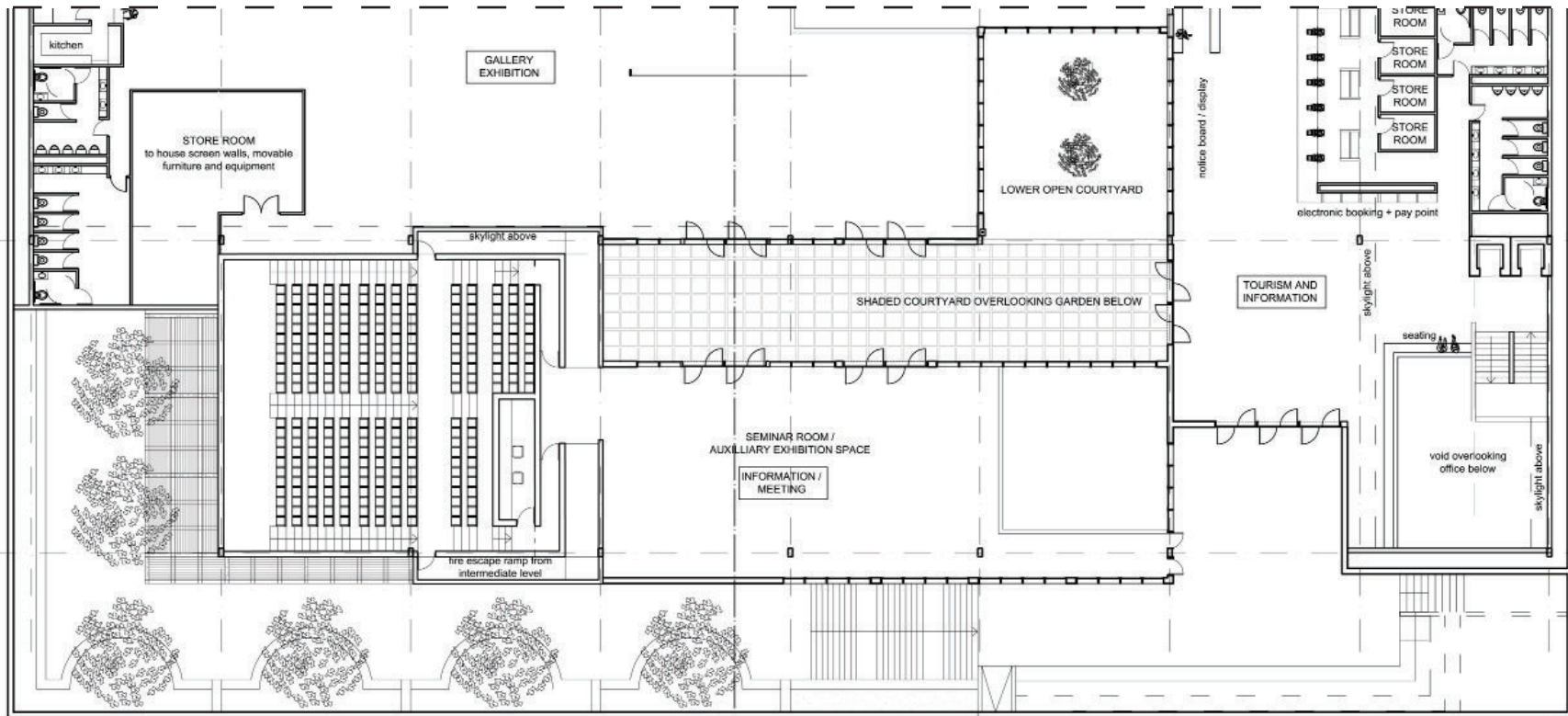


Figure 7.8: Basement Level -1 : Plan B
 Author, 2010





B

scale in metres

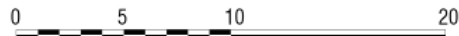


Figure 7.8: Basement Level -1 : Plan C
 Author, 2010

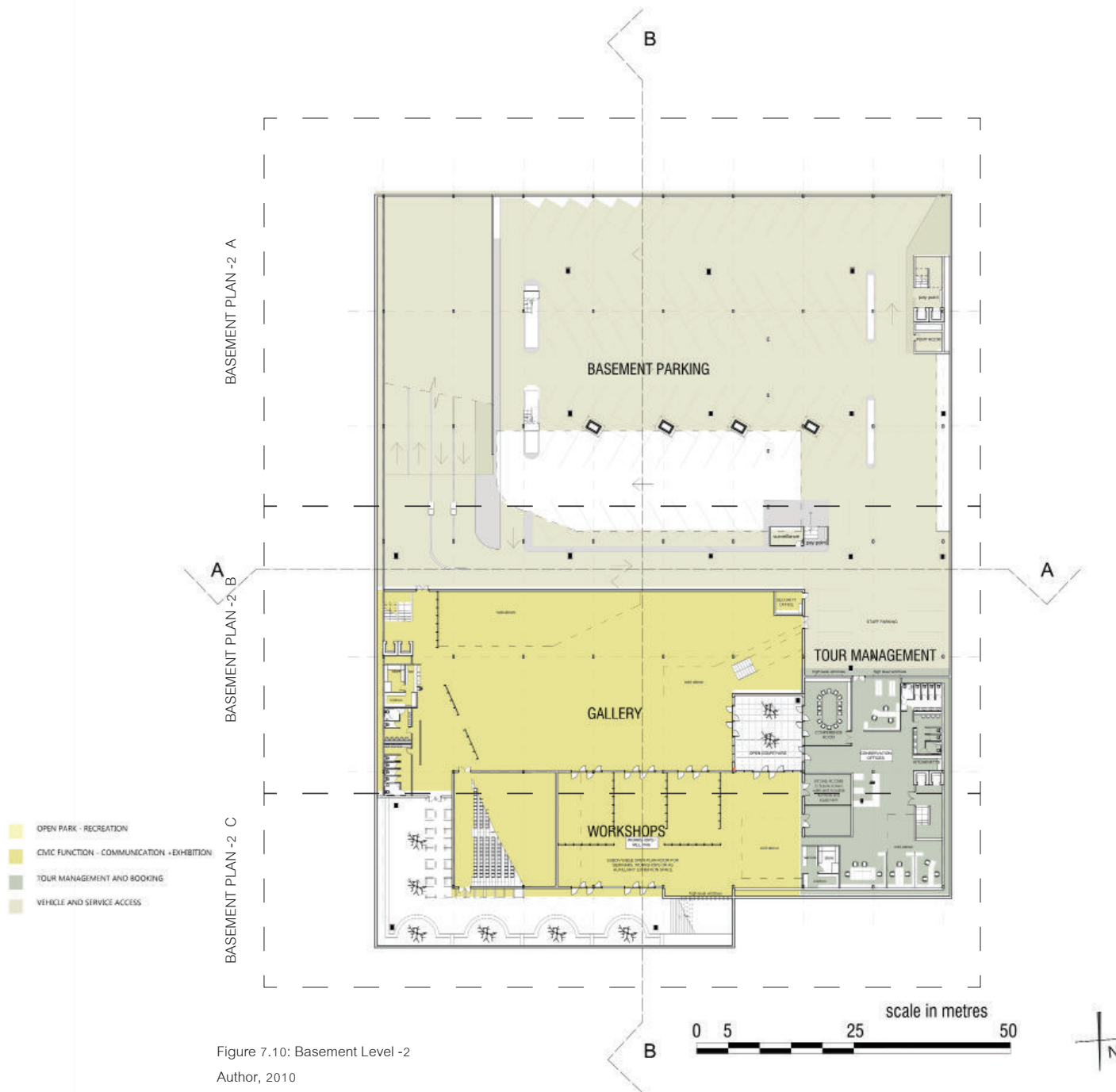


Figure 7.10: Basement Level -2
 Author, 2010

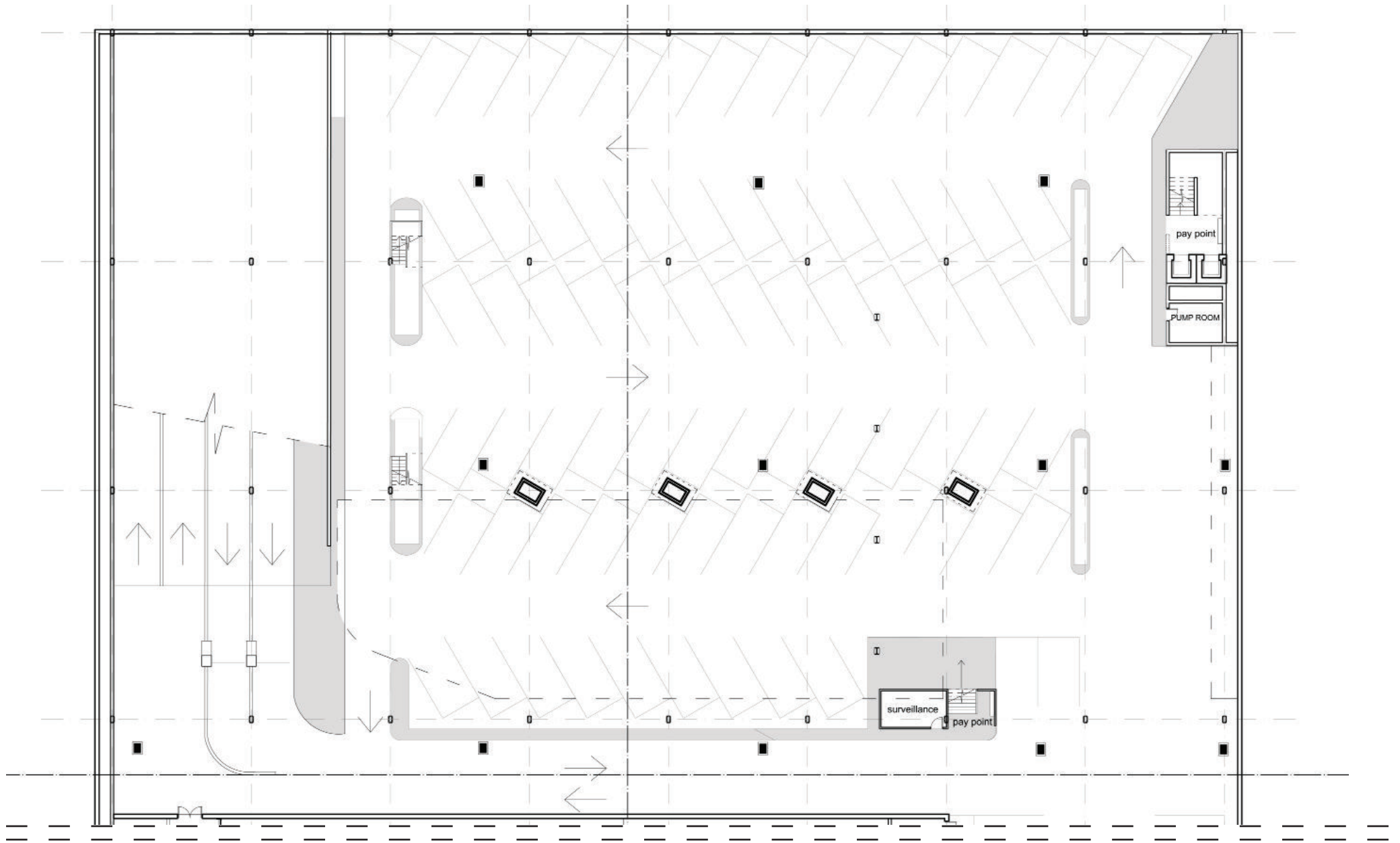
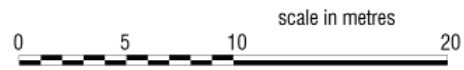


Figure 7.11: Basement Level -2 : Plan A
 Author, 2010



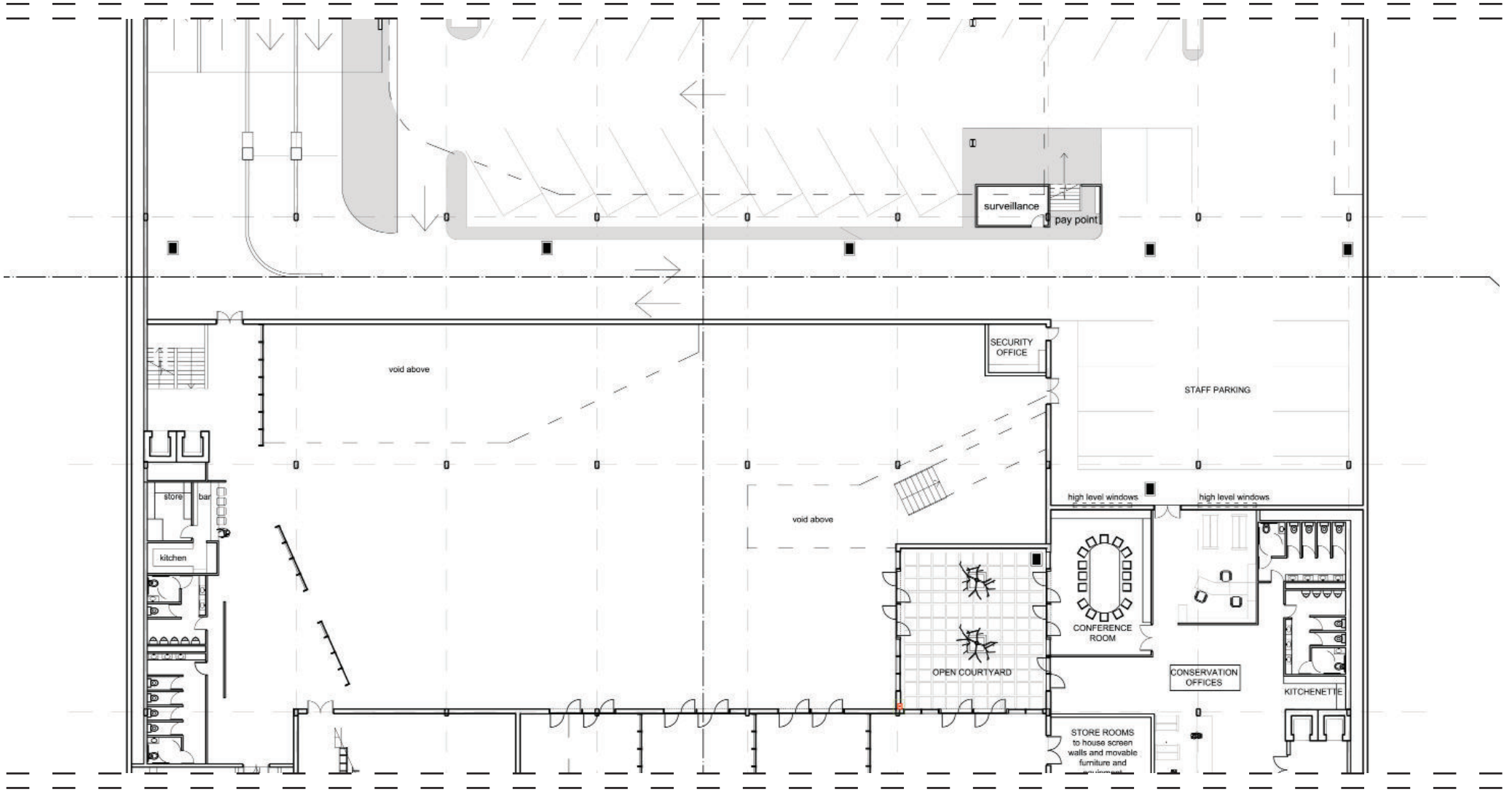
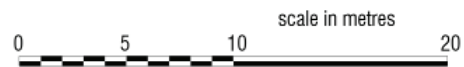


Figure 7.12: Basement Level -2 : Plan B
 Author, 2010



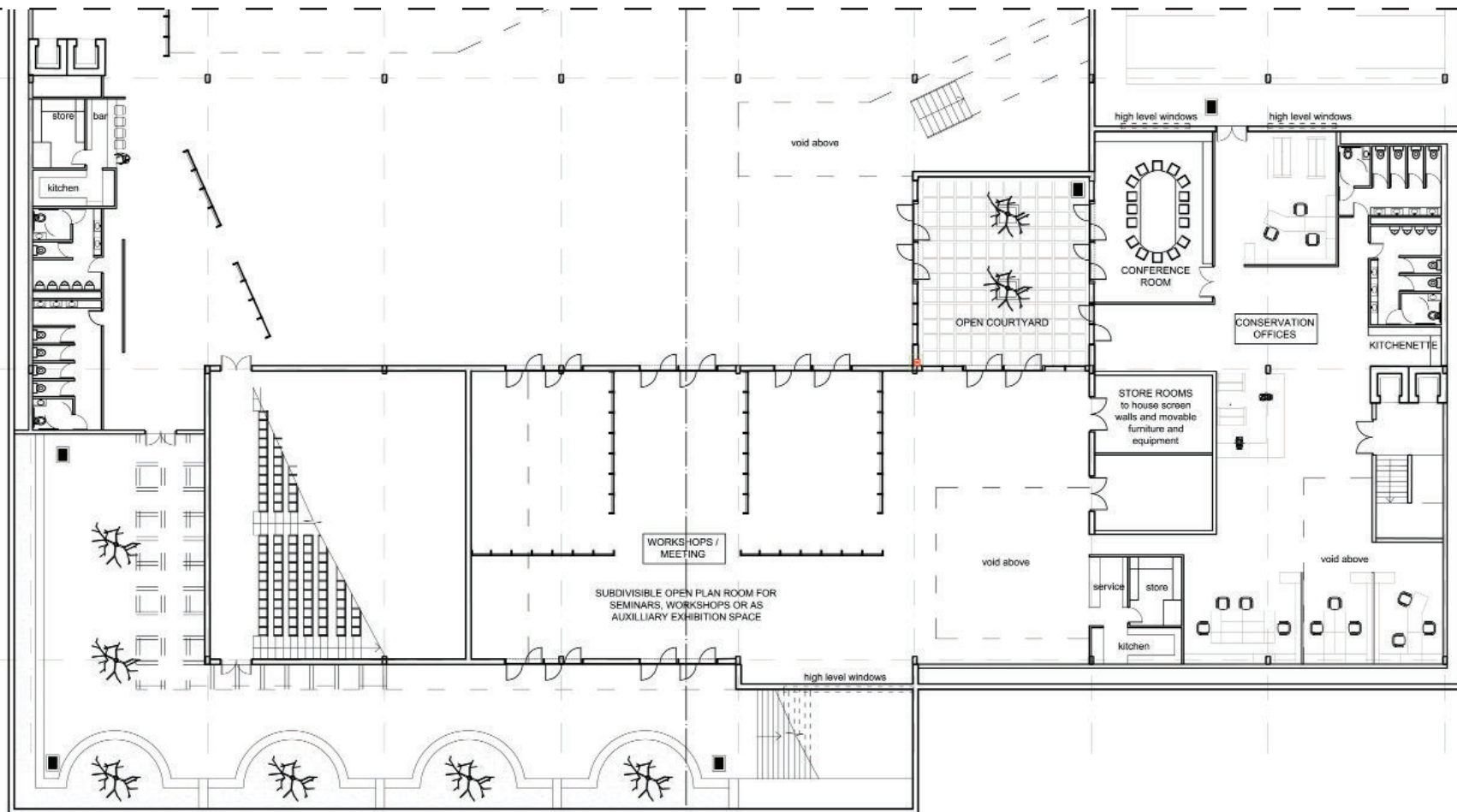
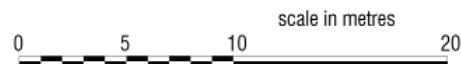


Figure 7.13: Basement Level -2 : Plan C
 Author, 2010



september

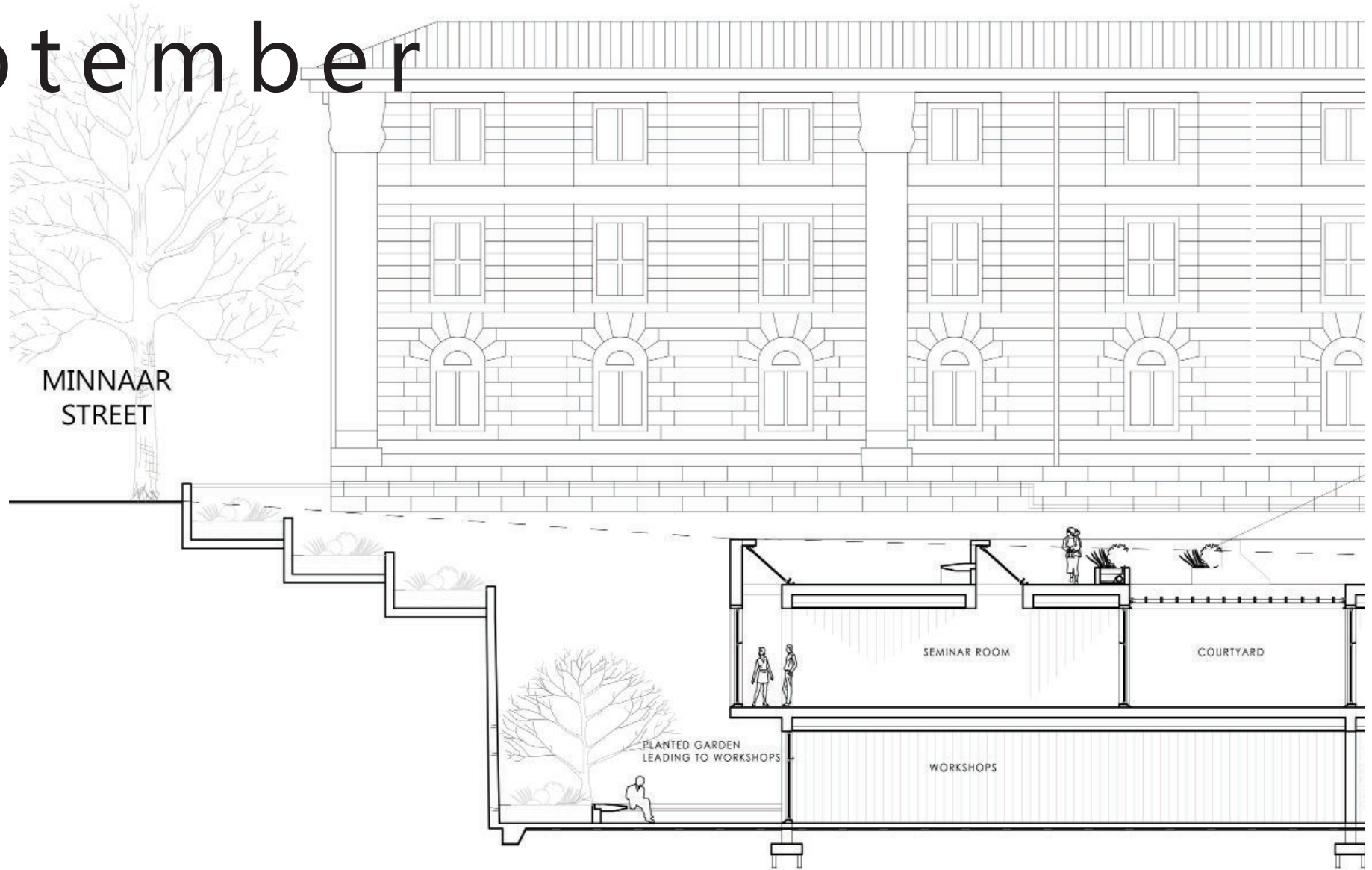
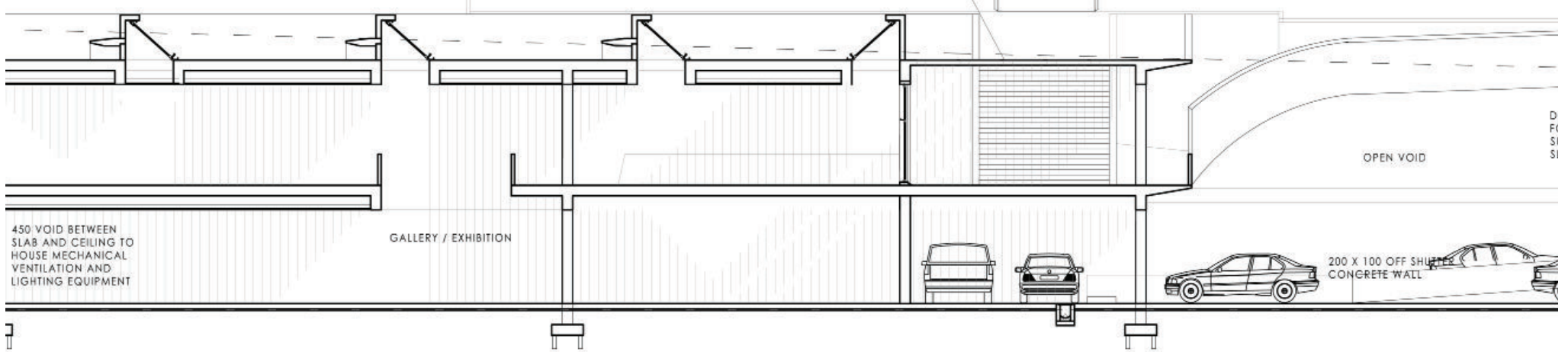


Figure 7.14: Section B 1
Scaled to Fit
Author, 2010



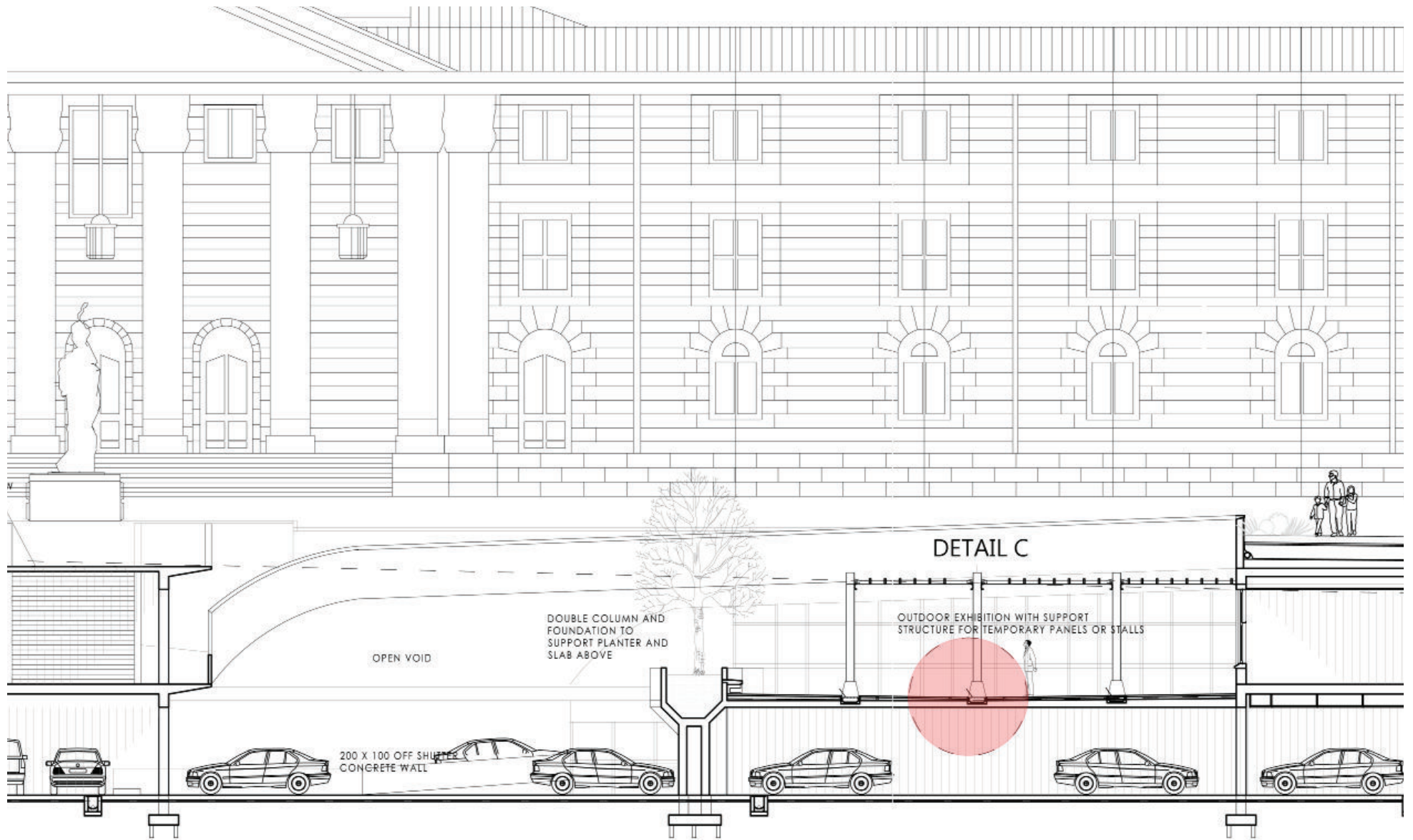
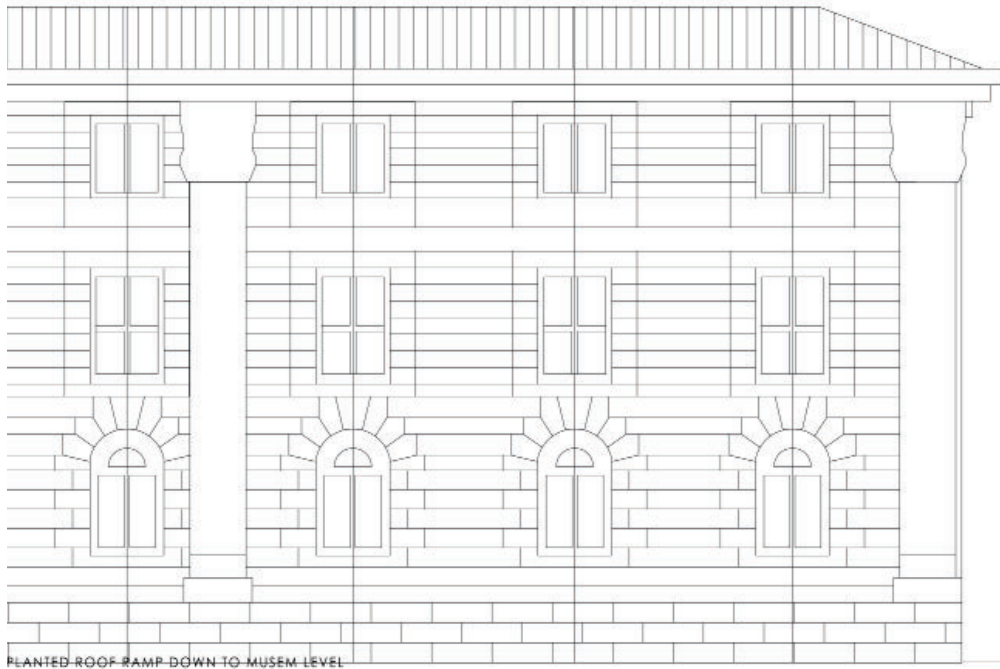
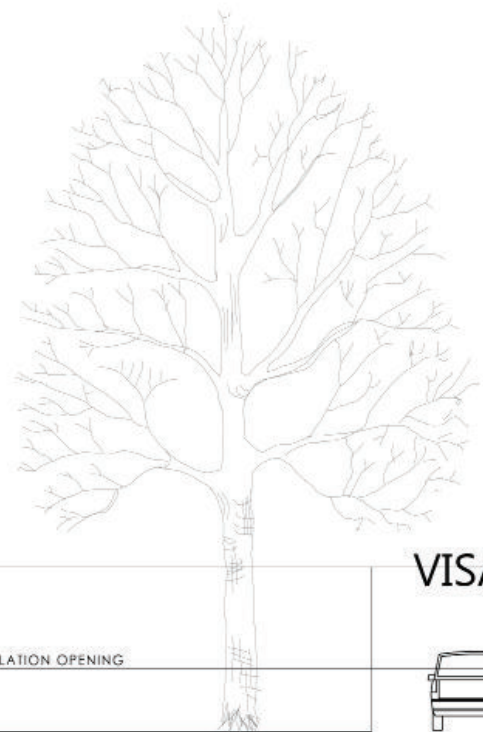


Figure 7.15: Section B 2
 Scaled to fit
 Author, 2010

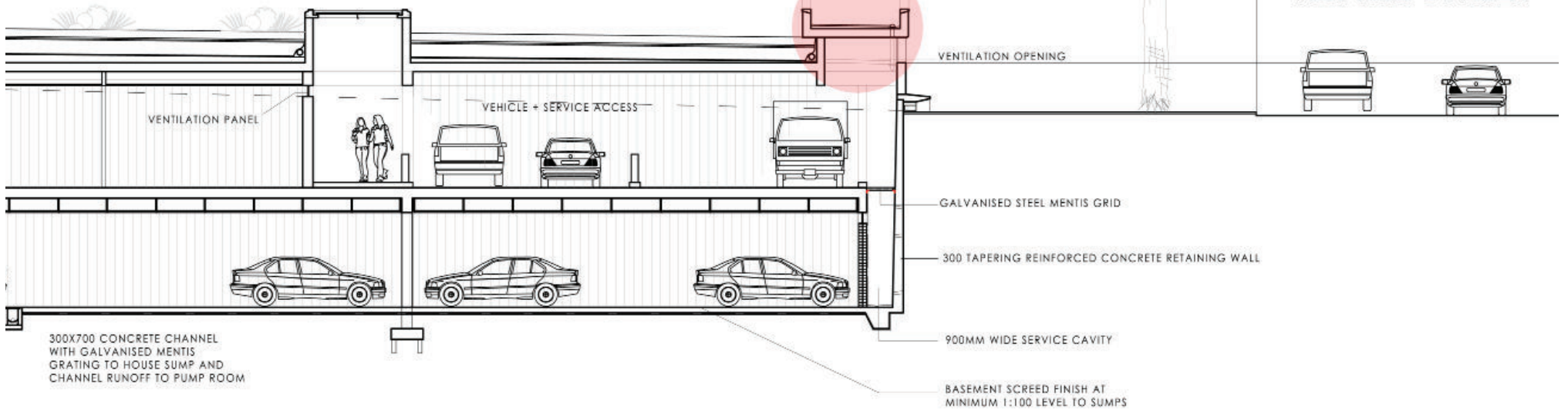


PLANTED ROOF RAMP DOWN TO MUSEM LEVEL

DETAIL D



VISAGIE STREET



VENTILATION PANEL

VEHICLE + SERVICE ACCESS

VENTILATION OPENING

GALVANISED STEEL MENTIS GRID

300 TAPERING REINFORCED CONCRETE RETAINING WALL

900MM WIDE SERVICE CAVITY

BASEMENT SCREED FINISH AT MINIMUM 1:100 LEVEL TO SUMPS

300X700 CONCRETE CHANNEL WITH GALVANISED MENTIS GRATING TO HOUSE SUMP AND CHANNEL RUNOFF TO PUMP ROOM

systems : ventilation and daylighting

The Cultural Centre's systems and services have been implemented to require as little mechanical aid as possible. This is due to a low maintenance approach to the building and is also beneficial to the environment as a sustainable option instead of complete mechanical lighting, ventilation, heating and cooling. The retaining wall system is embedded with vents drawing air from street level. Distribution occurs across the ceiling void to deep internal spaces or closed systems where it is needed.

Most internal spaces are passively lit diurnally and rooms have a linear orientation to receive north or south day light. The use of an internal courtyard to light the adjoining office, workshop and gallery space on Basement Level -2 also provides users access to natural ventilation. Similarly, the void between the recreational park and gallery platform of Basement Level -1 allows for natural daylighting of the basement parking below.

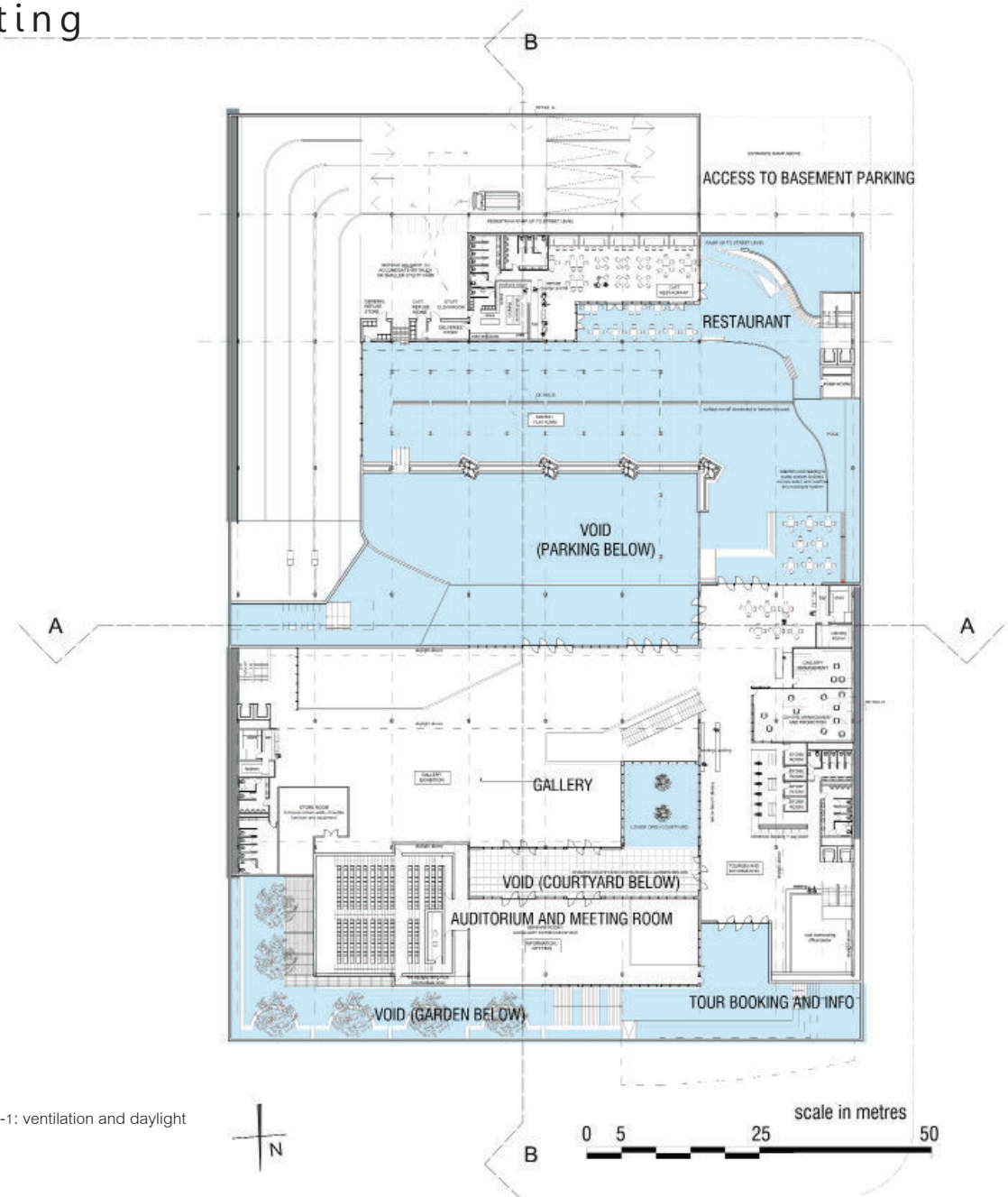


Figure 7.16: Basement Level -1: ventilation and daylight
Author, 2010

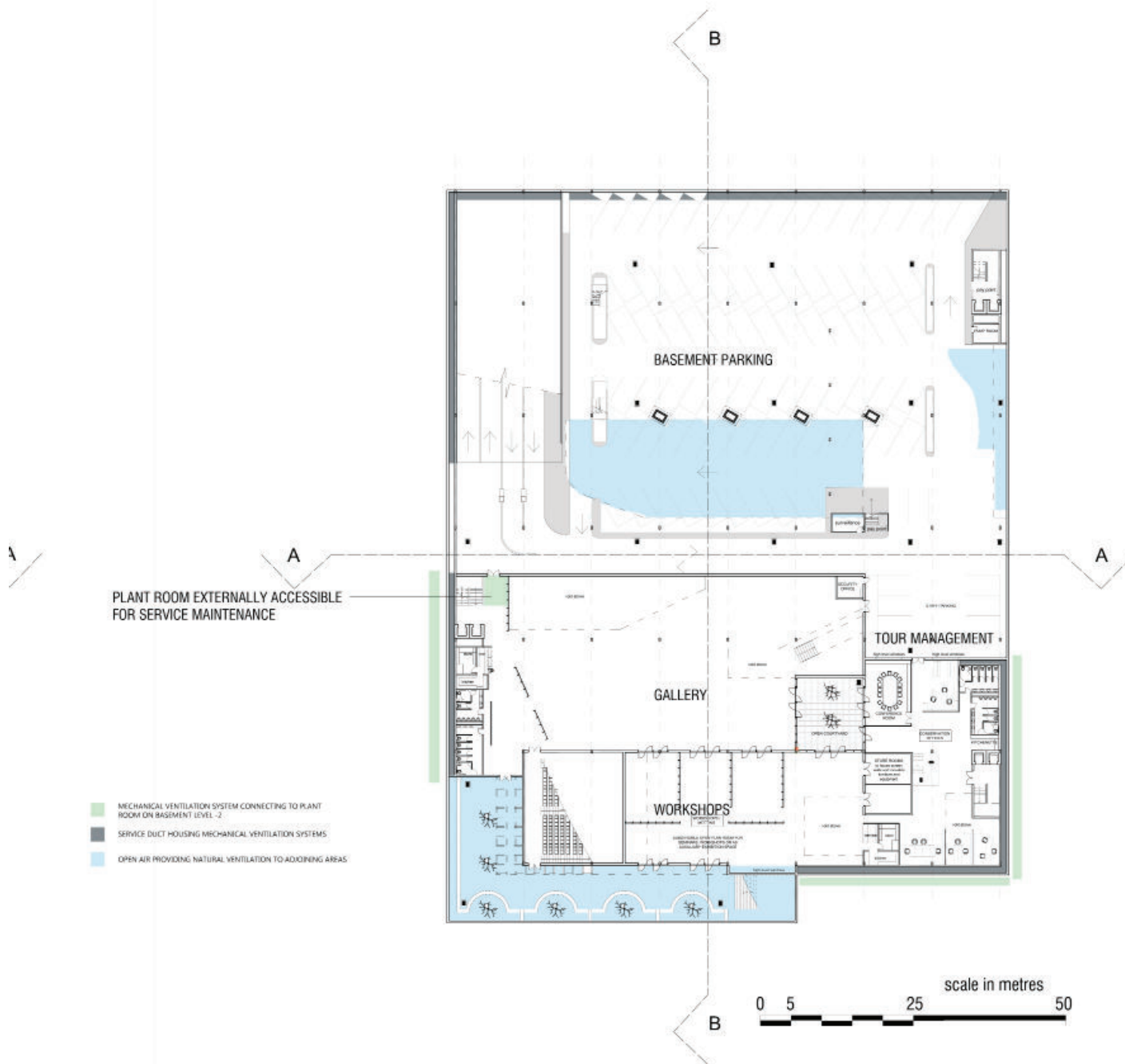


Figure 7.17: Basement Level -2: ventilation and daylight
Author, 2010

systems : water and service access

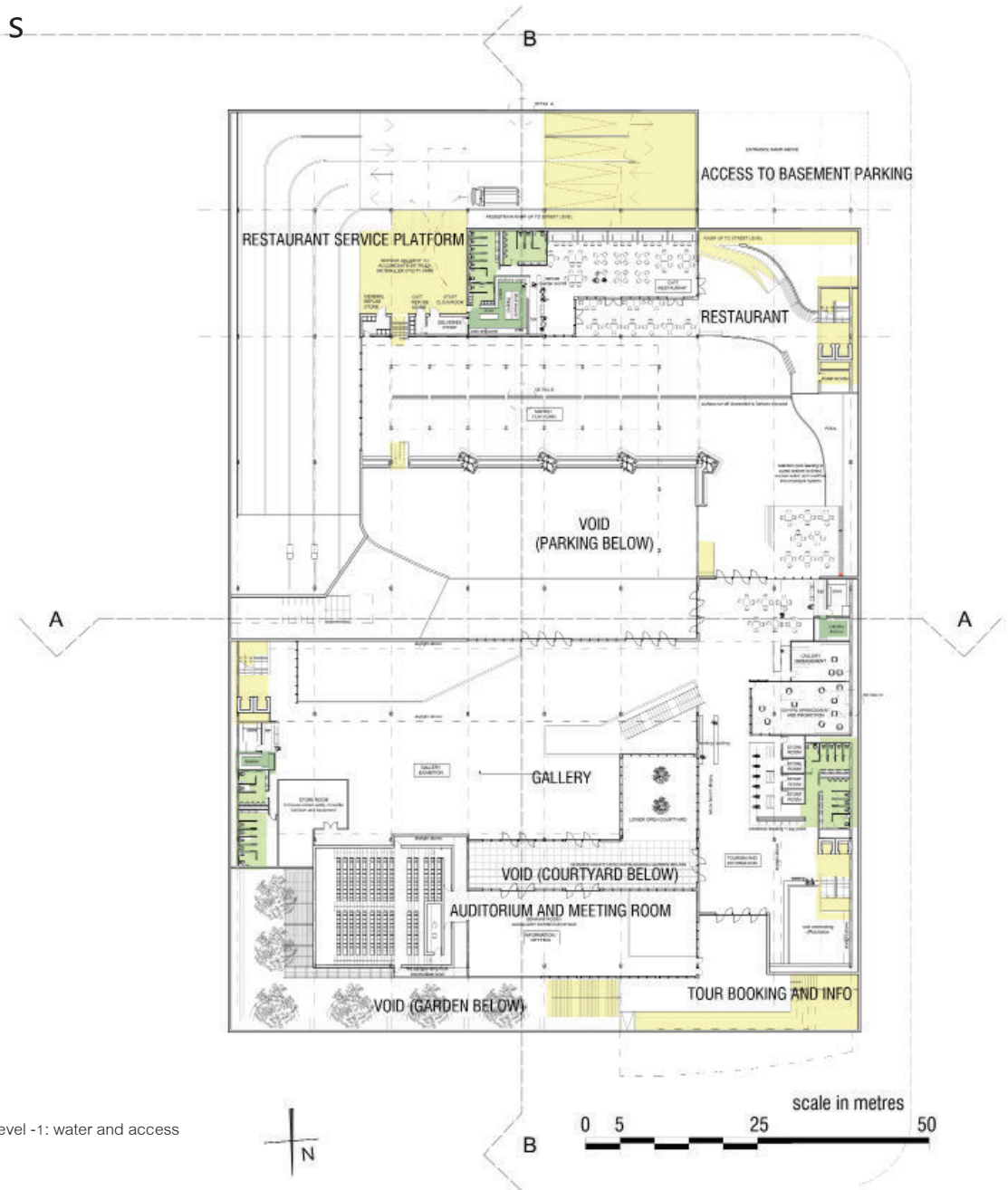


Figure 7.18: Basement Level -1: water and access
Author, 2010

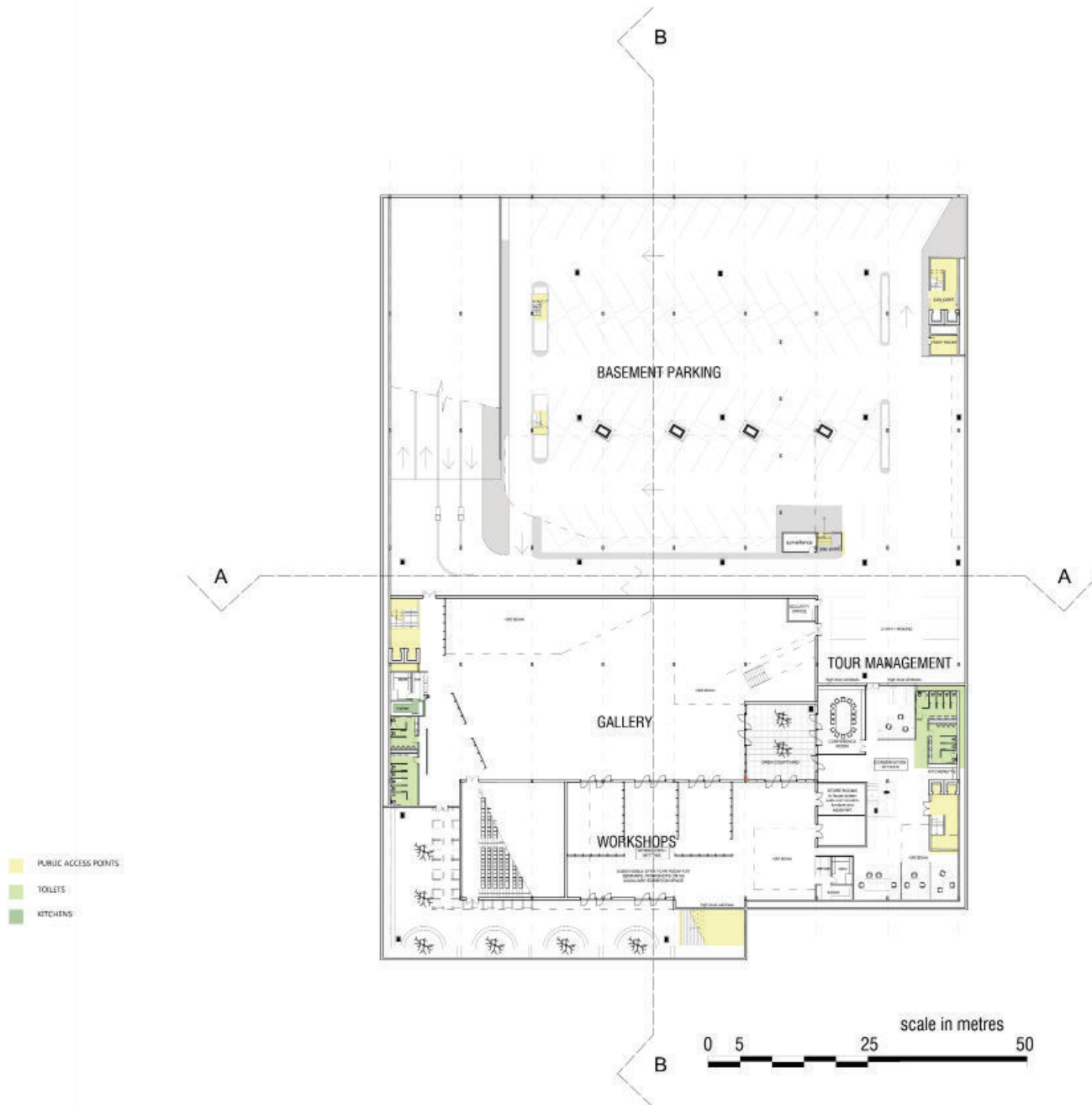


Figure 7.19: Basement Level -2: water and access
 Author, 2010

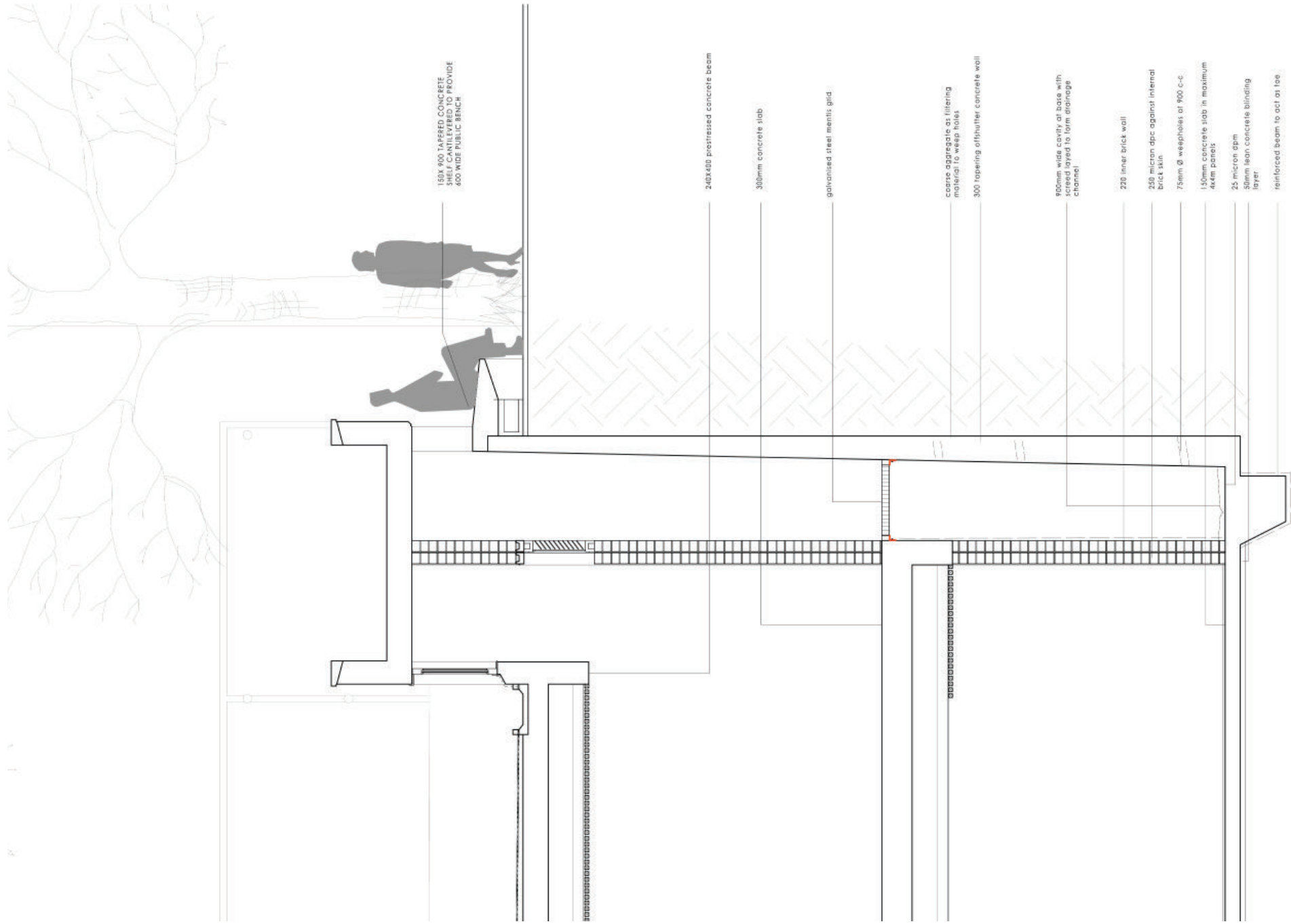


Figure 7.20: Detail A - Integration of services and pedestrian interface
 (Reduced scale to fit)
 Author 2010

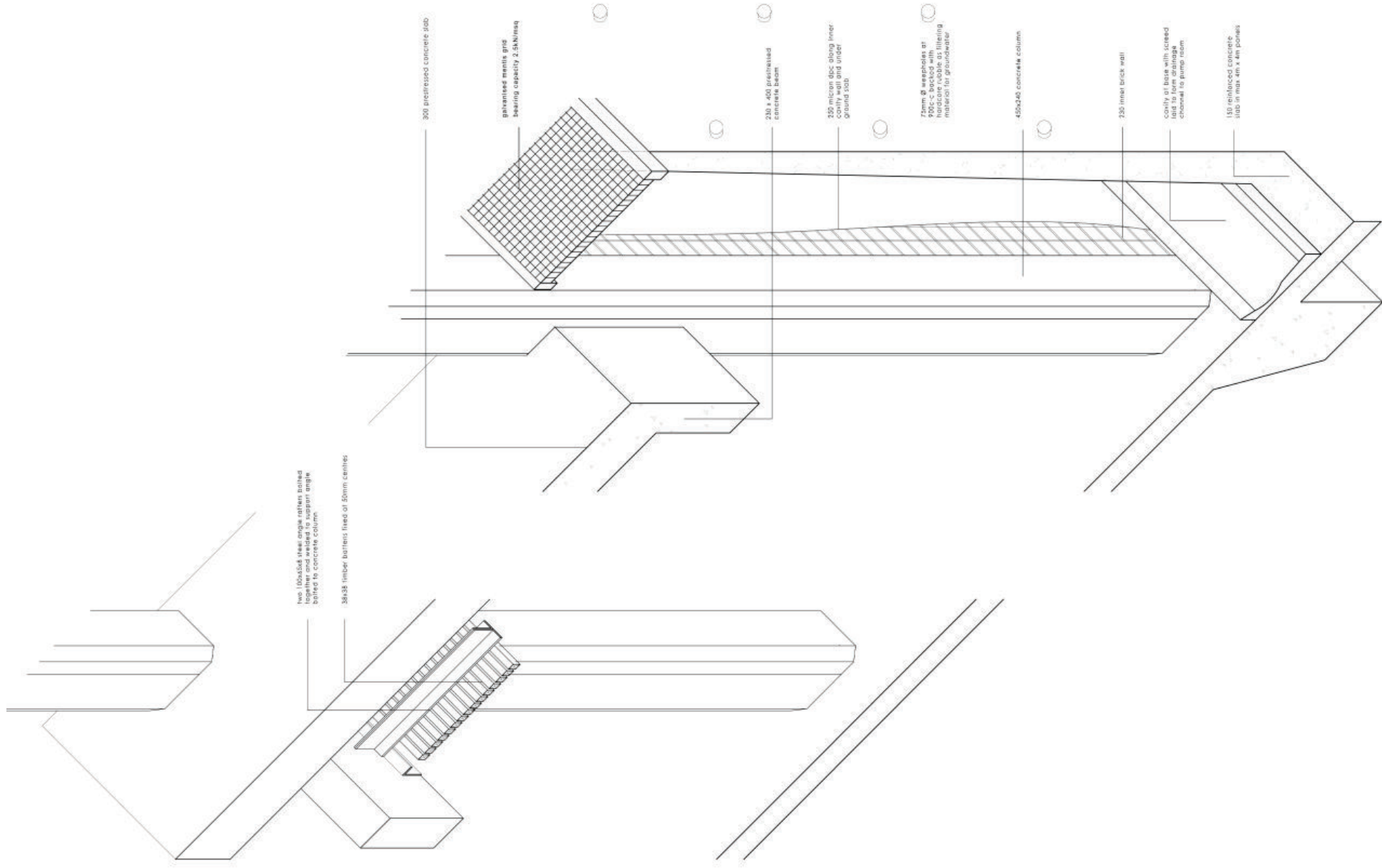


Figure 7.21: Detail B - Axonometric projection of the concrete structure and retaining wall (Reduced scale to fit)
 Author 2010

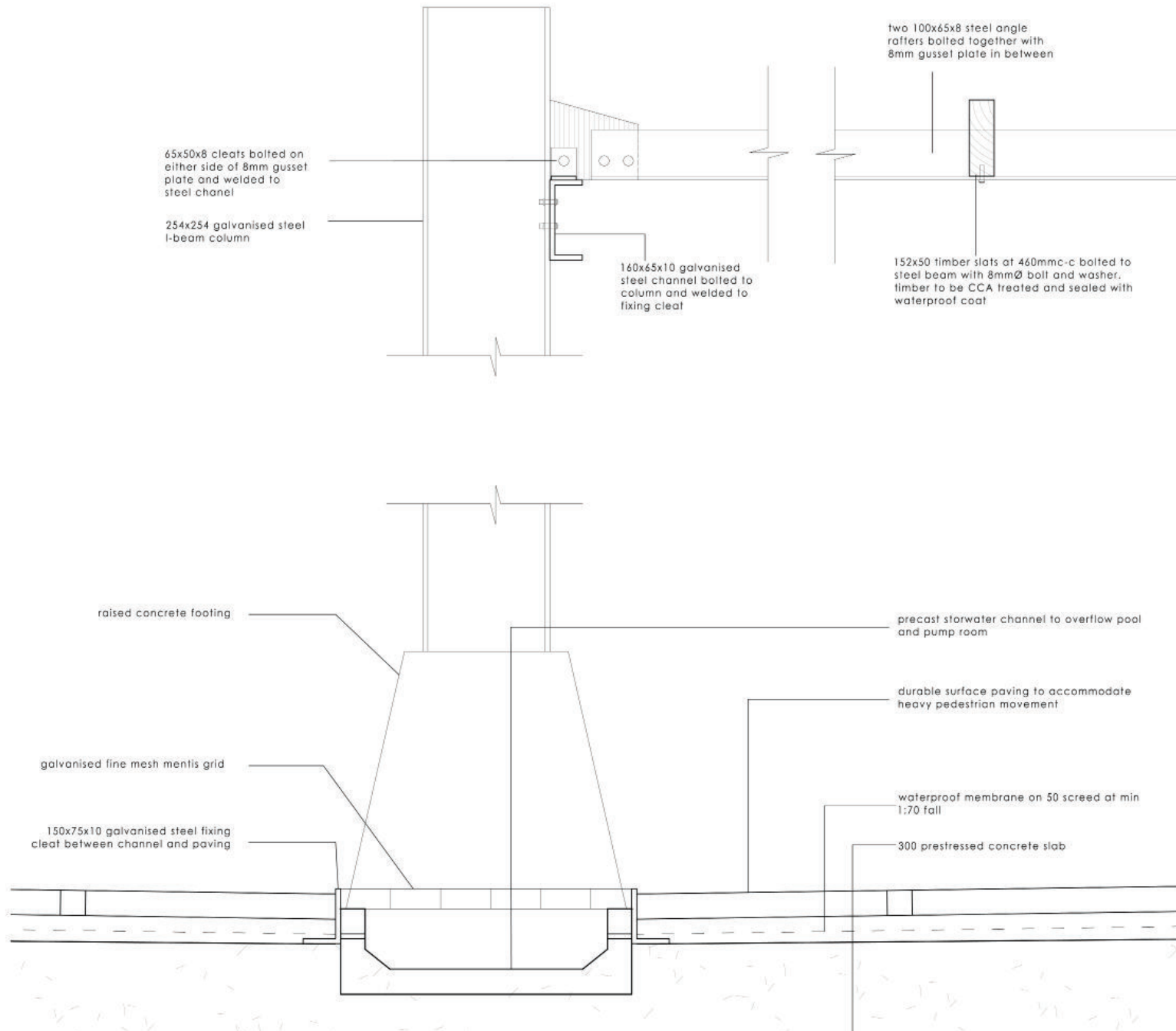


Figure 7.22: Detail C - Lightweight steel and timber pergola rising from solid masonry base (Reduced scale to fit) Author 2010

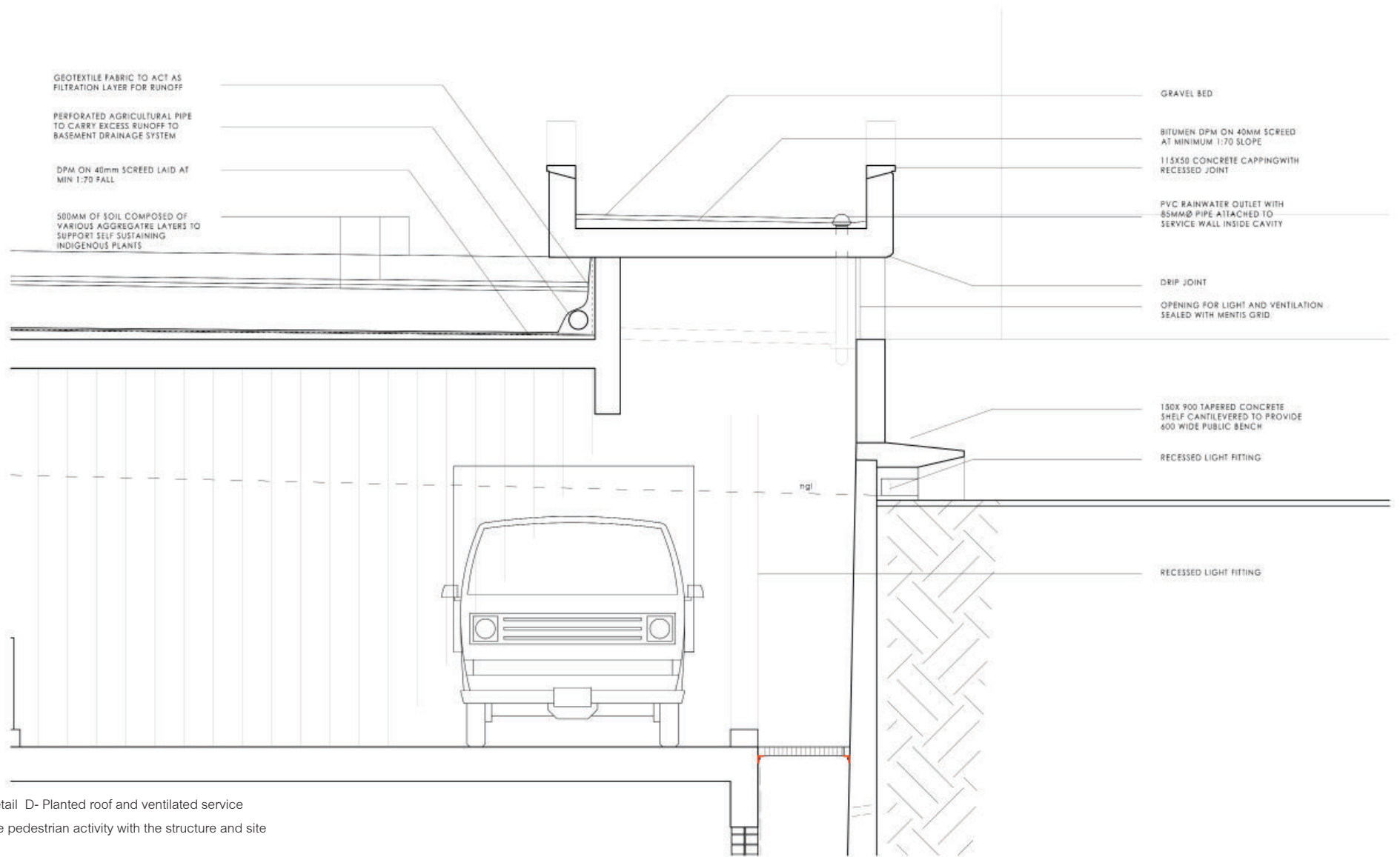


Figure 7.23: Detail D- Planted roof and ventilated service cavity introduce pedestrian activity with the structure and site
 Author, 2010

REFERENCES

ArchiAfrika, *Pancho Guedes Exhibition – Vitruvius Mozambicanus*, viewed 06-06-2010
(www.archiafrika.org/en/node/1054)

Bremner, L 1998, *Freedom Square: A site investigation of Freedom Square, Kliptown, Soweto*, University of Witwatersrand, Johannesburg

Costonis, J 1989, *Icons and Aliens: law, aesthetics, and environmental change*, University of Illinois, Chicago

Eicker, K in *ARCHI-technology*, September 2009, *Alan Lipman: Motivated by Humanity*

Green, C in *Lisboscopio: Catalogue of the official Portuguese representation at the 10th International Architecture Exhibition 2006*, The Portuguese Institute of Arts, Venice

Himmelblau, C 1984, *Architecture Is Now*, Thames & Hudson Ltd. London

Jekot, B 2009, *The Multiple Faces of: Inspiration, Domination and Identity- African Bites of Modernism*, University of Pretoria

Jordaan, G.J in *Architecture SA*, May/June 1989, *Pretoria as Urbs Quadrata*

Le Roux, H in *Art South Africa*, December 2005, *Encounters with Architecture*, viewed 02-06-2010
(<http://www.artsouthafrica.com/?article=254>)

Lipman, A 2003, *Architecture on My Mind: Critical Readings In Design*, Unisa Press, Pretoria

Lipman, A in *Architecture SA*, Jan/Feb 2007, *The 20th Century Seen by Dim Candlelight*

Marschall, S & Kearney, B 2000, *Opportunities for Relevance: Architecture in the New South Africa*, Unisa Press, Pretoria

Mola, F.M 2009, *Eduardo Souto de Moura: Architect*, Loft Publications, New York

Niemeyer, O interview in *Metropolis Observed*, June 2006, *The Last of the Modernists*, viewed 15-09-2010
(www.metropolismag.com/story/20060515/the-last-of-the-modernists)

Ogbechie, S in *Critical Interventions*, May 2007, *Interrogating African Modernity: Art, Cultural Politics and Global Identities*, viewed 15-09-2010
(www.aachron.com/editions/critical_interventions/index.php?option=com_content&view=article&id=51&Itemid=20)

Russia Travel Guide, *Moscow Life*, viewed 20-08-2010
(www.moscow-life.com/moscow/red-square)

Solar Navigator, *Africa*, viewed 24-08-2010
(<http://www.solarnavigator.net/geography/africa.htm>)

Sorensen, V 2000, *Identity, Poetry, Memory, Nature*, viewed 02-06-2010
(<http://visualmusic.org/Biography/VS-LivingArch.html>)

South African Architectural Record vol.20, no.11

Sudan.Net Discussion Board, *Tribal, Ritual, Ethnic, Ethnographic, Classical, Traditional, Antique, 'Primitive': Art from Africa*, viewed 06-08-2010
(<http://www.sudanforum.net/showthread.php?t=50389>)

The Architectural Association 1988, *Nostalgia of Culture: Contemporary Soviet Visionary Architecture*, E.G. Bond Ltd, London

The Property Magazine, April 2008, *Architects Profile: East Coast Architects*

Thompson J.C 2006, *40 Architects around 40*, Tachen, Cologne

University of KwaZulu-Natal online library, *The Campbell Collection*, viewed 20-10-2010
(<http://campbell.ukzn.ac.za/?q=node/52>)

University of Pretoria online library, *General Architecture Archive*, viewed 07-05-2010
(<https://www.up.ac.za/dspace/handle/2263/2402>)

University of Texas online library, *Historical Maps of Africa*, viewed 07-07-2010
(http://www.lib.utexas.edu/maps/historical/history_africa.html)

Utopia Foundation, *Russian Utopia: Depository*, viewed 15-02-2010
(www.utopia.ru/english/item.phtml?id=185&type=graphics&sortby=title&start=50)

Visit Pretoria Website Guide, *Pretoria City Hall*, viewed 19-03-2010 (<http://www.visitpretoria.co.za/what-to-do/city-hall>)