

CAPITAL EXCHANGE

a place for everyday

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2013



Visual Exploration: Study of Significant Sites & Site Selection.

CAPITAL EXCHANGE: *a place for everyday*

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Submitted in partial fulfilment of the requirements for the degree:

Magister of Architecture [Professional]

Department of Architecture

Faculty of Engineering, Built Environment and
Information Technology.

University of Pretoria

Pretoria, Republic of South Africa
2013

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Volksstem Building,

Erf R/456- Block 5

159 Pretorius Street

c/o Volkstem Avenue,

SW of Church Square,

Pretoria/ Tshwane CBD

SAHRA ID: 9/2/258/0037

25°44'53.45"S 28°11'12.40"E

“...sincere thanks to those that made possible this and other aspects of my vocation...”

Heritage and Cultural Landscapes

Cultural Exchange, Museum, Adaptive Re-use.

Architectural Theoretical Premise:

Activating Historically Significant Architecture for a Contemporary South African city.

Architectural Approach:

Cross-Cultural buildings for the daily city-user.



Several encounters with fellow South Africans have revealed misconceptions regarding principal monuments and historic sites in Pretoria. This is particularly true of the Voortrekker Monument, with some non-whites referring to it as “that apartheid monument”, and others even calling for its demolition. Some display ignorance or indifference towards it.

This problem is not unique to the Voortrekker Monument, as recently witnessed during a visit there on 16 December 2012 in order to observe the commemoration of the Day of the Vow. Here, an Afrikaner family was observed studying the Pretoria CBD and its surrounds from the doorway of the crowded monument, where the father pointed his family in the direction of the Union Buildings, referring to it as Parliament, and then pointed to Freedom Park saying that it is an entity that “the Blacks have built for themselves”.

This led to the realisation that much needs to be done in South Africa to remedy such misconception, and laid the foundation for the dissertation that follows, which proposes cross-cultural integration during the enactment of daily activities as a remedy.

Samevatting

Die doelstelling van hierdie projek is gegrond op die feit dat daar algemene wanopvattinge ten opsigte van belangrike geskiedkundige terreine in Pretoria bestaan. Dié verskynsel kan hoofsaaklik toegeskryf word aan die gebrek aan kulturele integrasie tussen verskillende gemeenskappe.

Die voorgestelde ontwerp, getiteld Capital Exchange [Hoofstedelike Wisselwerking] het ten doel om sosiale interaksie tussen verdeelde gemeenskappe in te lei deur middel van die ontwerp van 'n stadsvriendelike en kontemporêre platform vir kulturele uitruiling, wat ontwerp is in ooreenkoms met Reconciliation Road [die Pad van Versoening] wat onlangs ingelyf is. Die ontwerp dien as 'n raamwerk vir die verryking van die stedelike konteks.

Die algemene doelstelling van die ontwerp is om kulturele wisselwerking as 'n daaglikse aktiwiteit vir stadsbewoners moontlik te maak. Deur die samesmelting van verskeie aktiwiteite in die hand te werk word sosiale integrasie genereer en bevorder as 'n medium om sosiale samehörigheid aan te moedig.

Abstract

This project is based on the realisation that there are gross misconceptions surrounding significant sites in Pretoria, stemming from the lack of cultural integration amongst differing communities.

The proposed design of the Capital Exchange aims to initiate social redress amongst a divided people, through the design of an urban-friendly and contemporary **Platform and Place for Cross-Cultural Exchange**, developed along the idea of the recently inaugurated Reconciliation Road.

The visualisation of the place as a **Cross-Cultural Mediator** draws on the day-to-day activities of the city dwellers, to generate an ensemble of actions that foster social cohesion.

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“Architecture is the Book of Humanity”

-Unknown

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De Volksstem

VELDTOCHT-EDITIE

EENDRACHT MAAKT MACHT.

No. 18. ELANDSLAAGTE, NATAL, WOENSDAG, 13 DECEMBER 1899.

KENNISGEVING

Van elke uitgave dezer Veldtocht-Editie wordt een groot aantal voozonden aan de Postmeester, Leden, smid-Hoofdlager, die op zich heftig gevoelen de verspreiding daarvan van de „Volksstem“ te voorzien.

£50 BELOFING

De „Volksstem“-redacteur heeft £500000 gestort. Al. Kommandant-Generaal in kennis gesteld dat hij een bedrag van Vijftig Ponden (£500) heeft belooft om in te zetten in behoeve van degenen die aan wie het zal galkken om de dade van deders van een overtuide aanslag op de spoorwaggen tussen New castle en het Lydenburg-Hoofdlager van dood of leed in handen te stellen van onze krijgs-antagonisten. Het wijze van overbrenging en de verdeling van gemiddelde beloning, alsmede de behouding of inderdaad van een aanslag, spreke te spreken, weet door de „Volksstem“-redacteur overzichten aan de krijgs-antagonisten te worden.

DE STORMBERG VELDTOCHT.

Zoals onze lezers weten, van Generaal Buller's leed en leed om met Oor. Eindhoven als opzet basis — van Quenston, Mollens en Bergedorp over de Oranjerivier de Vrijstaat binnen te vallen en zich daar te vestigen met Generaal Buller's macht, welke van de Aar en Kimberley onze zuster-Republiek zou gevallen.

Generaal Buller heeft het beter gevonden om zijn aandacht te wijden aan de krijgsverrichtingen in Natal en zood Generaal Lord Methuen tot ontzet van Kimberley, dat nog steeds niet gekon door de Afrikaners omringeld gehouden wordt.

De laatste berichten over de situatie van Generaal Gatacre's troepen hebben ongemotig... voor die troepen, doch gunstig voor onze wapenen. De volgende telegrammen vermelden dat een troep heeft plaats gevonden te Stormberg Junie 11, d. s. n. op een plek waar de Oor. Eindhoven en de Post Elizabeth spoor-

lijnen door een aardbeving aan mekaar verbroken zijn. Dit troefden heeft geleid tot een volkomen terdoring der Britse troepen. 172 En gebouwen werden gevallen getoetst, en zijn reeds naar de Vrijstaat opgetoetst. Het aantal der Engelsgetroepen en dode is nog niet met zekerheid bekend. De Vrijstaat's kommandanten Swainpad en Dwyer hebben de overwinning bevestigd, welke van groot belang is over onze zaak, omdat daardoor de Oor. Eindhoven niet naar de Engelsgetroepen is afgevoerd.

De indruk welke deze overwinning zal maken op de Afrikaners der Kaapkolonie, zal zeer waarschijnlijk de versterking naar Krugerland ten goede komen.

ZES LANCERS

Ontrent het geslacht van onze handgeschied, met een patriottische Lanceren bij Madagascari, want men wij teg de volgende beschouwen.

Zes Lancers kwamen lang. Die vier drie werke in zood als die van ons, welke, in een hand, veld, de twee andere zijn waar schijnlijk verhooren. Men vond hun hooftedrijvende op het water terzijde de paarden in de moedert waterhoofden.

De kapitein die wiedereijers ging later achter de regegepante van twee ren aan, tot dat er twaalf Eindhoven kwamen, toen slokten hij later vingen onze mensen drie spantzen.

ALLERLEI

Het grote kansen dat verleden week te van dicht bij door de Eindhoven is bekeken, is gister naar Pretoria verspreid om te bevestigen van de publieke gevoelens der Britse inwonersgezindheid.

Grote deernis wordt in het leger gevoeld voor de familie betrekkingen der vier gestorvene leden van het. Pretoria korps met zeker naam linden waarvan Mevr. Nieuwe, geb. Mevr. de Villiers, en de van Zijl de bevestigingen aan van d'op-sym pathen in het verlies dat hun getroefde heeft. Het. Pretoria, die vol zal dankbare de name in die indoe

long gesa'ten tempus Hlyvo gedanken, want hie doof verhoef de nationale leevensmacht hmitte maanen.

Vrijdag 11 werden twee kaffers, kapitein Hine, Westling en zijn onder Beierenberg, Mahe van de stans van Maple naar Pretoria overgevoerd, waar zij zullen worden aangehouden. Beide leeren hiezoen nize en maaken die uit, door hen kaffers tegen elk van te laten verhoef. Een van deze onregelmaten een eind te maken heeft. Bunge-voester Polgater van Pretoria doof indoe hie hie vinder de kaffers in dat distrikt. Beide onregelmaten kaffers hiezoen overhoegen naar onze heidende.

Het is nu zeker dat Generaal Buller in Pretoria is, want doof, lezer van het kamp d'hoor, steeg aan twee Transvaal-sapporistogeste, die een brief van Generaal Buller overzichten, of zij de Generaal persoonlijk moesten zien.

Magistraat Jackson en edelgasten, leevens 21 ongewenste inwoners in een lange spoorweg, beaanden van New Castle, hiezoen een paaspoort gekregen om New Castle te verlaten en naar Delagoa baai voor in Engels gebied te komen.

Het gemiddelde als zooden kaffers, kapitein van Eindhoven gebouwen hiezoen met onregelmaten bevestigingen, want Goev. Kapitein Dumezied, de regegepante Veld kapitein en kaffers bestelden hiezoen te zellen zijn, hiezoen de munitie revere voor goed uit Natal wendb verhoef.

De Hollandsche en Duitse ambassades zijn Vrijdag 11 te Pretoria aangekomen. Zij werden de volgende dag aan President Kruger voorgesteld. Alvoerst naar Tzanebaad te vertrekken maaken een bepaling van de Duitse ambassades naar omzending bij de Duitse Keizer.

Behoevenaardig zal de Botsch Kruis Afeling, zooden aan de hiezoen Eindhoven van het Nieuwlandsche veld van regegegeend het hiezoen Eindhoven bekeken. Deze afeling staar onder de leiding van De. Keizer, v'hoeren gemoevde te Pretoria.

Tear here

Volksstem Newspaper, No. 18. [Dutch version]
Veldtocht-Editie. Eendracht Maakt Macht.
[Campaign Edition — Unity is Strength]
Wed 13 Dec 1899. Elandslaagte, Natal.
Articles on the Anglo-Boer War
[Single sheet printed on both sides. 320x200mm].
[Source: antiquarianauctions, 2013].

The investigated building that follows was constructed in 1898 to serve the needs of the newspaper company De Volksstem

Tear here



The year of the construction, 1898, marked the 25th anniversary of the newspaper, and was commemorated with the publication of a seal.

[Source: De Volksstem]



Daily expenses, De Volksstem [Afrikaans version]. (Friday 9 October 1925).

[Source: De Volksstem]

Tear here



A special supplement on the late former President Paul Kruger [1825-1904], commemorating his birth a century earlier.

De Volkstem, Friday 9 October 1925.

[Source: De Volkstem]

Disambiguation:

Volksstem: The name of the Dutch Language newspaper and the building built for it in Pretorius Street.

Volkstem: The name of the Afrikaans version of the newspaper, and the Alley renamed in recognition of it.

The investigated building that follows was constructed in 1898 to serve the needs of the newspaper company De Volksstem, est. 1873.

a. introduction

Capital Exchange

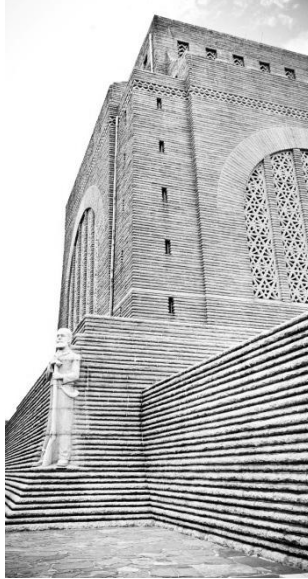
Final Edition

Vol 1,2013

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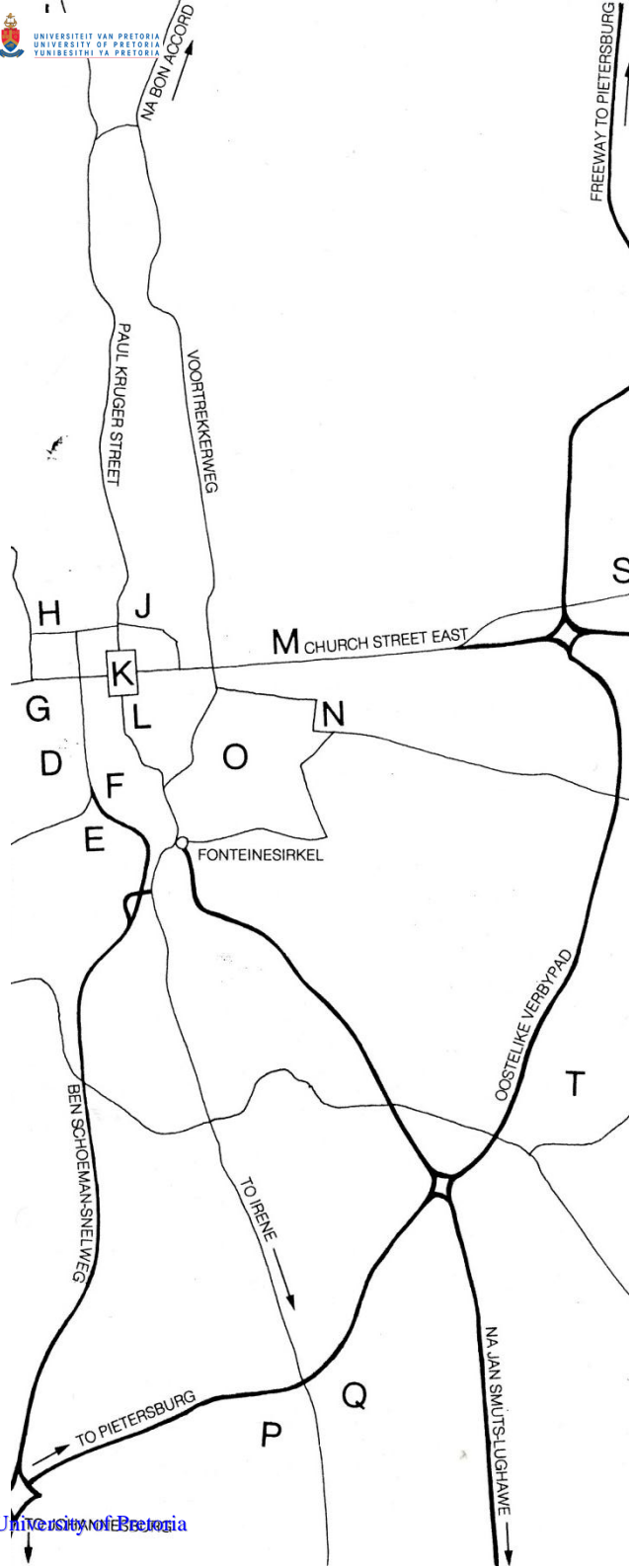
A. Introduction

A place where events and people of the past are, through cross-cultural and social engagement in the present, in order to foster a future that sees a people unified.



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A. Introduction

1. Project Background

The issues of cultural misconception surrounding significant sites in Pretoria instigated the study into the impression and impact of these and other sites of significance in general, with a particular focus on Pretoria and its surrounds. The need to keep the focus on the city stems from the intention to develop a proposal from regional informants, rather than generic typologies, resulting in a scheme that best suits the city and its people. The envisioned direction of the project aims to incorporate socio-cultural aspects of community and culture, as these are vital in creating places of meaning. Also relevant is the status of Pretoria as the *de facto* capital of the nation, where it houses the majority of the embassies or consulates of various nations to South Africa.

Figure 1: Pretoria Map/ Kaart

[Source:

2. Issues

2.1. General Issue

The misconceptions mentioned above stem from insufficient knowledge about pre-apartheid, apartheid, and post-apartheid South Africa. This results in uninformed statements and judgements being made. An example of this is seen in figure 2.1a below, which was the frontispiece of a paper presented at the University of the Witwatersrand in 1992 on the definition and meaning of monuments in South Africa.

The image represents a possible outcome of such sentiments, which are enhanced by the construction of other public amenities such as the recent Freedom Park in Salvokop. This Park address many aspects of South African history, but seemingly ignores the presence of the neighbouring Voortrekker Monument and that which it represents, with only a slight reference to the Great Trek being made at the '*Uitspanplek*' [Fig. 2.1b].

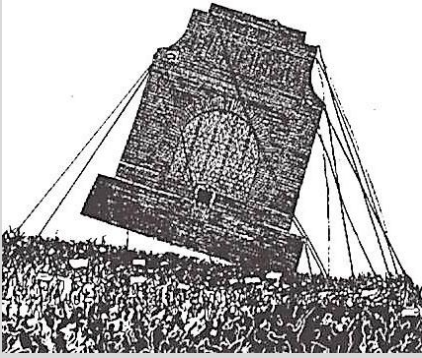


Figure 2.1a: Myths, Monuments, Museums. [Hall & Lillie, 1: 1992].



Figure 2.1b: Uitspanplek

This creates a divide between fervent admirers of the monument [some of whom consider aspects of the design to be deeply religious], and detractors, [some of whom believe that its construction by the former government makes it an apartheid relic].

Though there are several examples of new approaches to museums in South Africa that utilise less conventional methods, such as the Nelson Mandela Museum Pavilions [Eastern Cape] or the Hector Peterson Museum [Soweto], these are either remote or not fully engaging with the public or their respective contexts. In the case of the former example, the museum pavilions are intended to serve the people of their localities, though their sometimes remote location implies that their impact is limited.

[Figure 2.1c Mvezo Pavilion

[Source: Lewis, 2001]



The Hector Peterson Museum in Soweto is by and large a successful project, in that it manages to convey its message about the 1976 Soweto uprising through mixed-media, and a design that references its context [fig 2.1d].

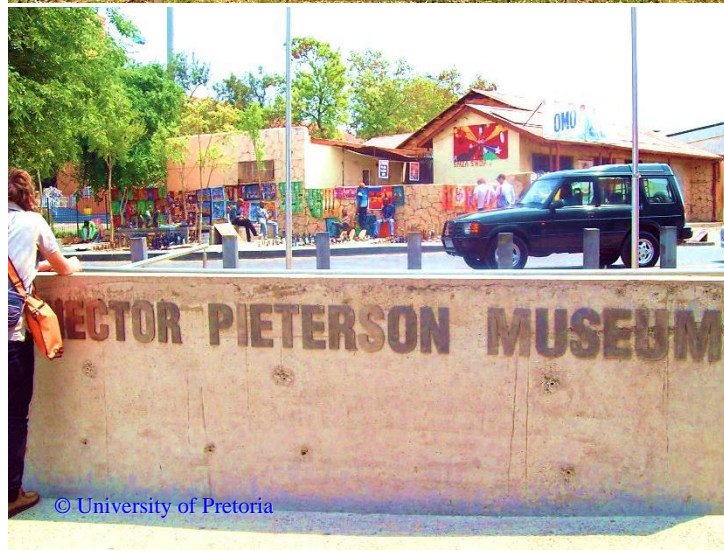
There is however a disjuncture between the museum and the people in its context. The Soweto residents in the vicinity of the museum [many who were active in the uprising against Apartheid] are neither found within, nor on the museum grounds, but are instead relegated to the sidewalks across the road from the precinct, from where they attempt to trade with tourists. The museum also fences off some of the adjacent properties that have a potential for engagement or carry meaningful histories of their own.

Only recently has the realisation dawned that the urban fabric of Vilakazi Street, the place of cultural exchange, should be included as a component of the Museum

[Bakker, KA & Müller, L. 2010., 48-56]

These two contemporary examples were selected as they represent two typologies in the same architectural genre. That is, within the context of museums, one represents a working pavilion intended to bring benefit to the immediate community, whilst the other is an example of an exhibition space, where events of the past are displayed for a broader audience.

Fig.2.1d: Hector Pieteron Museum



In the context of the general issue, the afore-mentioned sites were not intended to directly benefit the surrounding communities, nor were they intended as a platform for socio-cultural exchange. In some instances, this may still be possible [eg as per ICOMOS Ename Charter].

Freedom Park perhaps comes closest to fulfilling the latter, though this is through specific planned events, and not through daily activity or programming. Here especially, like with many other cases, an entrance fee is payable on most days in order to tour the site, whilst an invitation by a paying lessee is needed to attend an event at its prestigious function venue. Occasionally, entry is free-of-charge when the park plays host to an event of national significance.

The summation of the above presents the undertone for the proposal that follows, i.e. **a place where people and events of the past are acknowledged, through cross-cultural and social engagement in the present, in order to foster a future that sees a people unified in their diversity.**

2.2. Urban Issue

The abundance of places of interest, or of cultural/ heritage significance, museums, centres of interpretation, and monuments that serve South Africa, and particularly Pretoria, are largely based on a colonial or apartheid system of urban and architectural design. Though many projects have been commissioned post-1994, Pretoria has seen few of these within the limits of the CBD or areas where a maximum number of people can visit these without relying on private or public transport. These new projects are not placed within the daily commuter routes and activity zones, and call for a deviation from daily patterns to visit them. In addition to this, several of these projects require the visitor to pay an entrance fee, thereby making it less accessible or appealing.

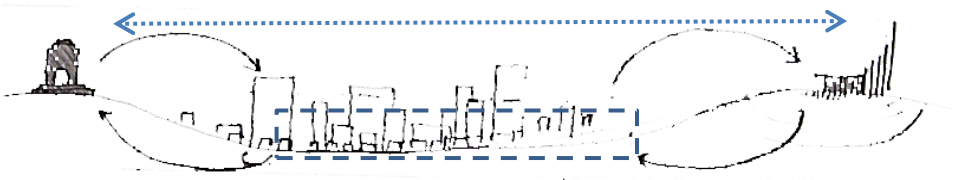


Figure 2.2a: Isolation from CBD.

A major concern with existing amenities is the lack of opportunity for social cohesion across various cultures, and economic groups. Where buildings exist that intend to address cultural issues, these are either located within reach of particular economic groups, or do not include in their programme some form of social development scheme to improve the condition of those around it.

Freedom Park is a place of memory, a place that allows us to remember without rancour, and quietly to celebrate the noble achievements of the human spirit. It is an island of peace that invites us to reflect and contemplate, allowing us to descend this hill refreshed, ready further to contribute to a future whose humanism is the very core of the abiding prayer of all South Africans...

The Freedom Park project again serves as an example, as it excludes the impoverished community living at the foot of the development on Salvokop Hill. Recent proposals include the erection of a fence to cut off from the site those homes adjacent to the new museum '///hapo' [Dream] [Fig. 2.2b]. This despite the museum being a tribute to the country's pre-colonial, colonial, apartheid, and post-apartheid

history, and a symbol of South Africa's heritage. As with many cities nationally, several claims to the Right-to-Heritage exists from people of diverse cultures.

Such can be found in Bloemfontein, in the Free State, where the recent unveiling of a statue of Nelson Mandela at the top of Naval Hill, east of the city, signifies the Government's commitment to unify people of diverse backgrounds.



Figure 2.2b: Excluding Communities.

President Thabo Mbeki's Freedom Park *Isikhumbuto* hand-over speech on Reconciliation Day, 16 Dec, 2006.

-The Presidency, 2006



Figure 2.2c: Horse Sculpture.
[Source: The Bloemfonteinblog, 2013.]

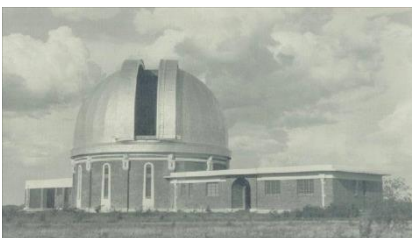


Figure 2.2d: Observatory-Theatre
[Source: Mynhardt, J, 2013]

The east face of Naval Hill is marked by two British naval guns and contains a flat, white-painted rock formation representing a horse [fig 2.2c].

This served as a landmark for the British cavalry returning to a weapons depot during the South-African War [1899-1902]. The sculpture is considered by some Sotho people to resemble a horse belonging to King Moshoeshe I [r. 1822-1870].

The hill is part of the 250 hectare Franklin Game Reserve [est.1930] which is the only nature reserve worldwide that is located within a city. On the hill is an abandoned observatory-theatre and also a communications tower lit up in the form of a cross, intended to ward off evil following alleged satanic rituals enacted in the hill in recent years.



The Mandela statue, erected on the opposing face looking west towards the city, and according to the National Heritage Council is part of a plan to develop the hill as part of the Liberation Heritage Route which aims to:

...identify, document, research, present and develop a series of liberation sites with localised, provincial and national significance. The sites that form a route present evidence of a common narrative, memory and experience associated with liberation history and struggle for emancipation against multiple expressive forms of oppression in South Africa.

-[Liberation Heritage Route, 2013].

These factors allow for several claims of cultural ownership of the hill to be made by differing communities in and around Bloemfontein. The on-going developments supporting the statue have made the hill safer for and easily accessible to all interested parties.

Figure 2.2e: Mandela Statue, Naval Hill, Bloemfontein

In Pretoria, the social chasm between such monuments has been recognised by the government, and resulted in the inauguration of a route linking the Voortrekker Monument and Freedom Park This occurred on the Day of Reconciliation, 16 December 2012, and was officiated by the President of the Republic, Jacob Zuma, who stated that:

”from business, labour, religious sectors and indeed all communities, black and white, working towards uplifting our communities and developing our country is our responsibility— all of us”.

-Mail&Guardian, 2013.

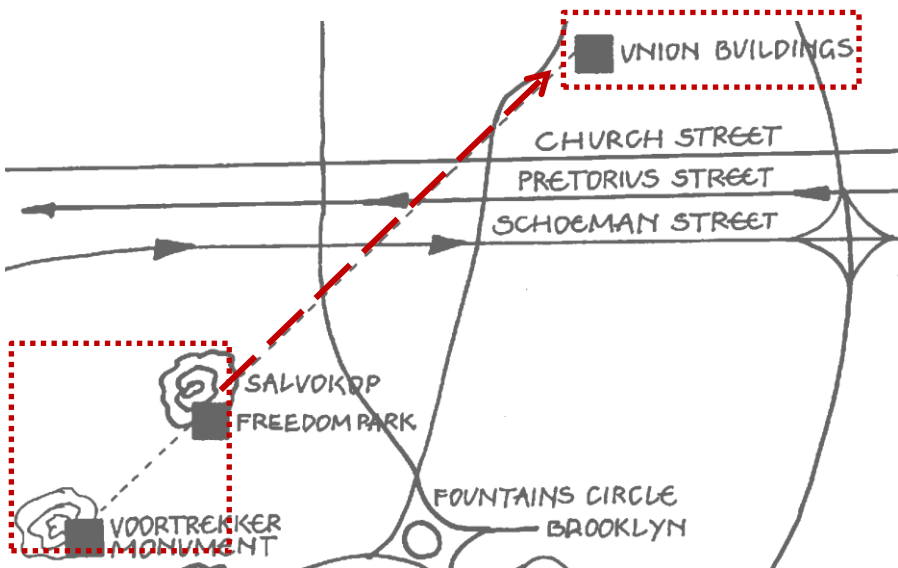


Figure 2.2f: Reconciliation Road: Pretoria.

[Labuschagne, 118: 2010].

34 | Introduction

This route, referred to as Reconciliation Road, aims to provide a catalyst for socio-political exchange. This link however is remote in relation to the CBD where it can have maximum impact, and possible interventions call for an extension of this idea into the city where there is a wealthy *cultural capital* [Fig 2.2f]

This problem of a remote location is not unique to these two examples, as shown with the museum pavilions. It should also be noted that certain monuments such as the Voortrekker Monument rely on a context that is removed from the city.

The journey to the monument site, up the hill towards the structure, up the steps to the door of the monument, and again up the steps within the monument, speaks of the journey that was the

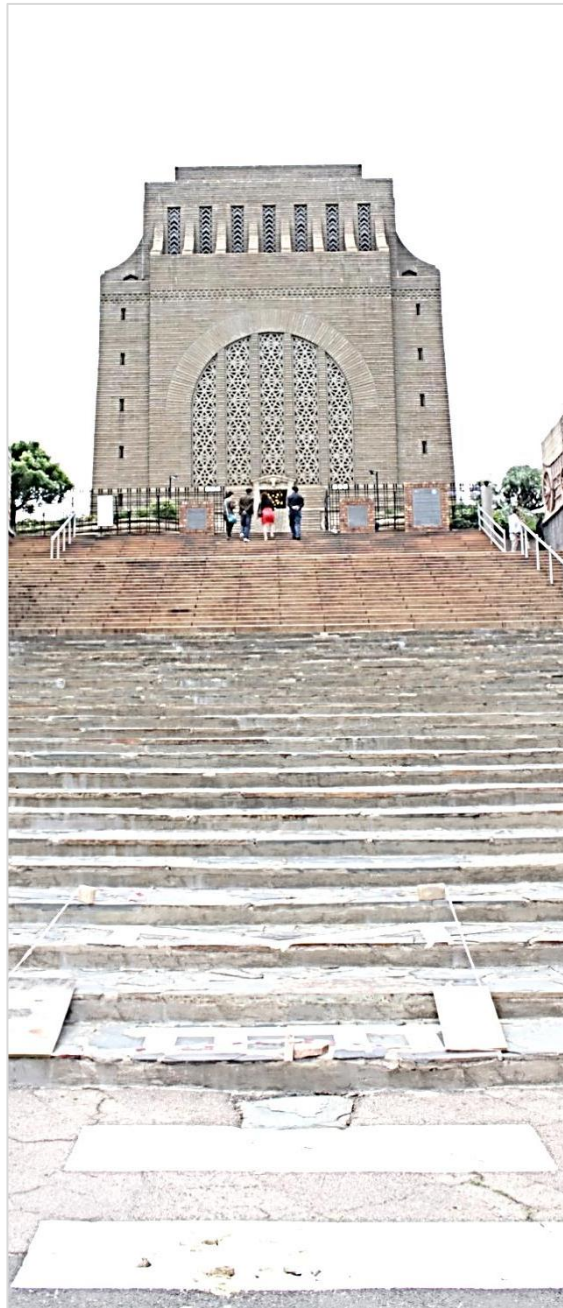


Figure 2.2g: Voortrekker Monument Steps

Great Trek, and is reminiscent of the journey up the Acropolis of Athens.

In both instances, the setting on a hill also creates an iconic impression to the viewer, bolstering the impact of the object in the landscape. Although these principles are effective, its outcome is not that which is desired for a new project of socio-cultural value, where the occupants and users are the feature. The intention thus is not primarily an 'object building'.

Another example is that of the Apartheid Museum in Ormonde, south of Johannesburg CBD. Located between the CBD and the township of Soweto, this museum's setting places it out of reach of many. Access is either by bus or private vehicle, with the bigger cost being that of entering the museum. A benefactor of the

Apartheid Museum is the neighbouring Gold Reef City Casino and Theme Park, whose visitors often return to see the Museum.

Apart from travel into or through the city, **people use the city as a destination, whether randomly, in diurnal patterns, or permanently. Such activities often leave the user with little time to spare to visit places at the city limits.**

The building is a triumph of design, space and landscape fused into creating a building of international significance.

–John Kani, Apartheid Museum Board Chairman.

[Source: GAPP Architects, 2013.]

In the context of this proposal, city users may be classified as any of the following:

- The occasional city-visitor
- The flâneur: an urban explorer or stroller
- Pedestrians on the daily task of urban living
- A worker travelling to and from the City
- Casual-events visitors
- The seasoned museum-goer

There remains also the issue that several State-run museums and sites are accessible only during weekdays, and often not until the evenings. This is true of the intended site selected for this proposal, which is an existing museum that does not charge an entry fee, and operates weekdays from 07:00am until 15:30pm. Precincts where such institutions occur are usually void of activity over weekends, leaving many working-class city dwellers without the opportunity to benefit from them. This informs the decision to locate an intervention within the grasp of the daily user of Pretoria. This is particularly beneficial to pedestrians, who arrive in the city using public transport systems, or who live within the city. In order to develop an inclusive project, a building should be designed for most city users, which includes pedestrians, vehicular travellers and the occasional cyclist.

2.3. Architectural Issue

As the issues already stated are also of an anthropological nature, they do not necessarily require an architectural solution. However, as potential social solutions often result in place-making whilst simultaneously requiring a platform for exchange, **there exists both the potential for and the need of 'place'**. Architecturally this means that any proposed building should look to anthropological solutions and informants, as well as simple platforms conducive to cross-cultural exchange. Again, the part of the city of Pretoria where most of the cross-cultural exchange could occur is within the CBD, as it is host to a plethora of activity, including amongst others; trade, commute, diplomatic missions, industry, accommodation and recreation.

This project supports the notion that a new approach to architecture for people should avoid monumental or grand forms, reminiscent of past monuments and buildings. There is a need to tangibly represent the issues discussed, without proposing forms that are permanent representations of particular cultures or events. A building for the everyday needs flexibility of programming and a neutral palette that does not take away from the content exhibited within, be it human or inanimate. Such a building should be dynamic in its functionality, without the monotony of uniform spaces, i.e. individual spaces in the building should have unique spatial resolutions relevant to the type of content within, whilst the ensemble of spaces should come together to form a holistic project.



3. Problem Statement

Several visits to key monuments in Pretoria have revealed that an overwhelming number of visitors are foreign tourists. Whilst this is encouraging, more needs to be done to invite locals; particularly from communities that relate directly to the event/s depicted or memorialised therein, but whom often cannot afford the commute to, nor fee payable at, these places.

Another problem raised by members of the public is their inability to visit such places/spaces over the weekend as they live afar, as well as their inability to visit CBD-based places during the week owing to the lack of time during work hours.

There exists a trend to commercialise heritage projects in South Africa, as well as the tendency to moth-ball significant/ historic projects and buildings. In Pretoria, such buildings include the Ditsong National Museums of Cultural History and of Natural History [formerly Transvaal Museum]. This limits a site's potential for progressive functioning or re-use, and is especially evident in buildings of heritage value due to age or architectural style, as shown hereinafter.



4. Project Intent

Through design exploration, the aim is to produce a model for new projects that does not result in yet another monument or museum for tourists, but instead a new building typology to be experienced by the everyday city user.

Through this building, city dwellers, workers and visitors can experience various aspects of contemporary and historic multi-cultural issues, at differing levels of interaction. This occurs either by passing by or through the site, or through engaging and interacting with people and cultural wares within.

Whilst this model promotes an interactive method of exhibition, it recognises the position of the formal museum exhibit that appeals to some. The above criteria calls for a programmatically multi-layered building that has ease of access to some components, with the more formal aspects taking a backseat.

In response to the stagnation of buildings and programmes, the selected project site is that of a museum building of heritage value, with a fixed exhibition. This allows for a design to respond to layers of history or heritage, in conjunction with socio-cultural issues. In doing so, the aim is to prove that historic buildings need not be wholly preserved, but instead could be transformed into the armature for day-to-day social activities.

The overall intention is the proposal of a contemporary model for the development of places of cultural significance in a democratic South Africa, where the focus is on people rather than on objects, in order to foster cultural interaction and ideally civic unity in diversity.

b. context analysis



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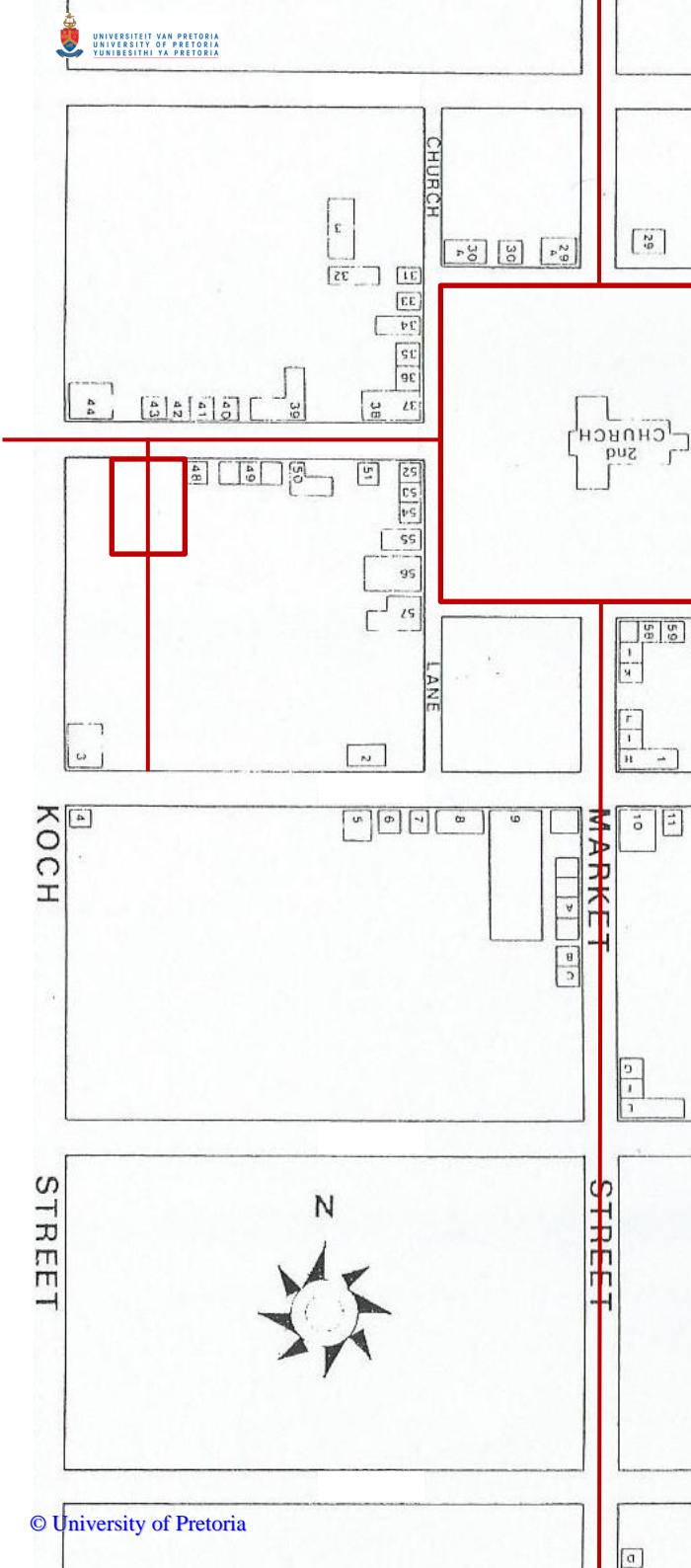
B. Context Analysis

Located within a typical sized Pretoria city block, with Volkstem Avenue separating it from its neighbour to the east, it is one of the few remaining single storey structures close to the city-centre, and rare in that it has an open courtyard.



Chapter B

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B. Context Analysis

5. Macro-Mapping

A study of the CBD of Pretoria was conducted in an attempt to locate a possible location for an intervention as outlined above. Various methods and layers of mapping were conducted to show specific and general information useful to this project.

A macro-analysis of the city and its surrounds provided an understanding of where to focus for site selection. Figures 5.1[a-f] highlights the following:

- those elements that define the fabric of the CBD [figure-ground showing mass/ open space, transport routes, landmarks],
- those elements that outline the city spatially [rivers, entry points, green spaces] and
- those elements that relate to the project issue [landmarks, heritage].

Figure-Ground

Figure-ground of Pretoria showing central business district with Church Square indicated in the centre of the densification. The setting out can be discerned in the *cardo-decumanus* fashion, with the square being the origin or crosspoint.



Figure 5a: Figure-ground

The landmarks indicated below include those relevant to this study, as well as significant heritage/ historic sites surrounding the square. These include transport nodes, museums and civic buildings



Figure 5b: Landmarks.

Entry Points

This image shows the east-west arterial routes through the city, as well as the major train routes. The north-south link represents a highly pedestrianised link between Pretoria station and the rest of the city. These inform the 'gateways' into the city and begin to inform the locale for site selection



Figure 5c: Entry Points.

The identification of natural features surrounding the city help identify a link between these spaces and possible sites for the design proposal. These spaces are seen as ideal and opportune destinations for leisurely activities.

Green Spaces & Rivers

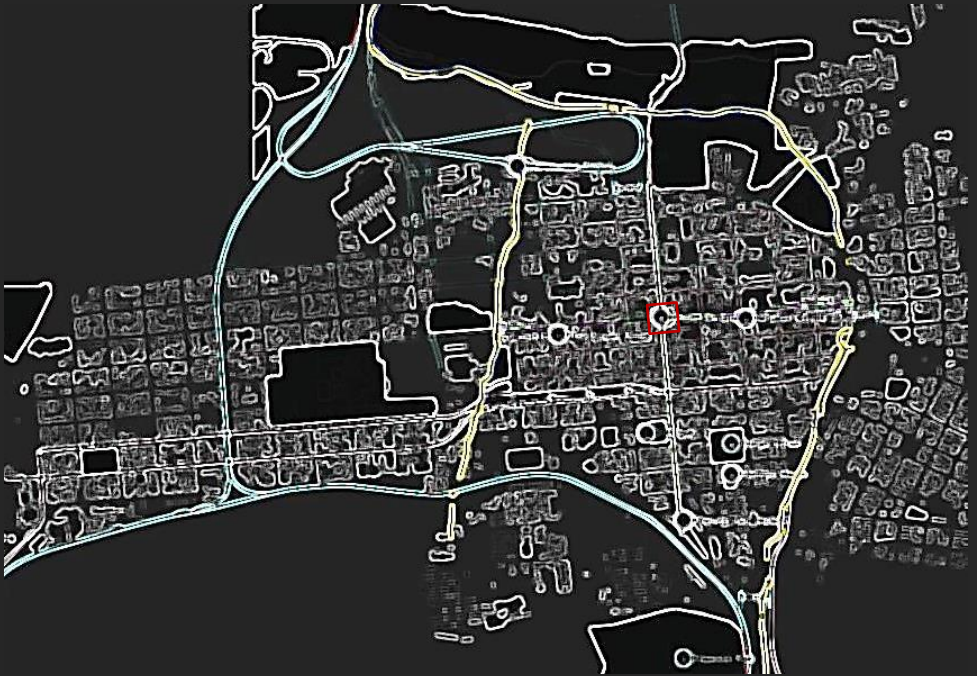


Figure 5d: Green Spaces & Rivers.

Heritage Points

Each of the individual rings below represents possible site locations having some heritage or historic meaning. Such sites suit the project intention in that they provide the physical built fabric and form to which a design may respond.



Figure 5e: Heritage Points.

Superimposed onto this drawing is a set of concentric radii, originating from Church Square. These show the square itself, and radiate out into the rest of the city. The ring closest to the epicentre shows the zone with high pedestrian traffic, informal urban trade, and a comfortable walking distance from the square. The outer rings show the spread of these activities, filtering down further away from the centre. That implies that the fourth ring indicates the furthest leisurely walking distance, with a reduction in the scale of informal trade and pedestrian activity. This is in no way reflective of the maximum walking distance by city users, as some walk to the CBD from areas outside that shown below. Beyond this point however, the walking speed of the pedestrians increase as the attractions and distractions decrease.



Figure 5f: City Centre.

Overview

The field indicated below indicates the target area for selection of a site, based on the need for a site having links to transport, heritage, landmarks, urban amenities and proximity to green space.

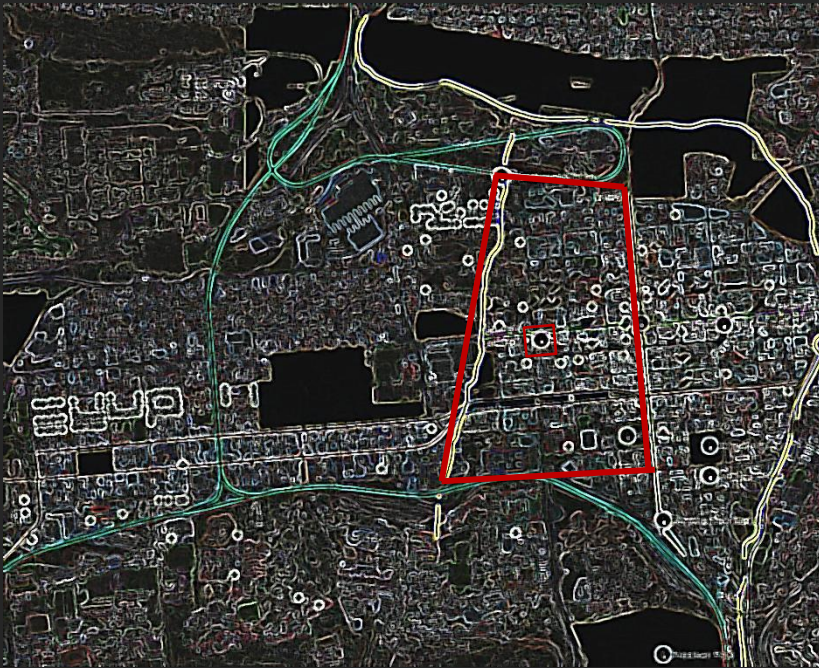


Figure 5g: City Centre.

6. Site

6.1 Site Selection

The approach to site selection calls for a CBD location, with a steady stream of passers-by, including pedestrians, vehicular traffic, and alternate methods of transport. A walking tour of the city revealed potential locations for an intervention, with the final selection being close to Church Square at the heart of the city.

A focus on the proximal area of the square revealed various layers, with the built-up edges that form the square as the primary focus. Analysis of these revealed their importance whilst noting minimal opportunity for intervention.

With Church Square as the epicentre, the focus shifted to buildings within various radii, from mobility [walking, cycling, bus/taxi, vehicular], to activity nodes [commerce, trade, finance] and various governmental institutions [national, provincial, municipal]. This resulted in the selection of a site with significant heritage, at the intersection of Pretorius Street and Volkstem Avenue. The portion of Pretorius Street emphasised in figure 6.1 indicates the strong presence of Police departments, beginning at the Compol building and continuing west until Pretoria Central Police Station, terminating at the currently derelict Magistrate's Court.

6.2. Context

Physical Context- This site, selected for its proximity to Church Square and major transport nodes, has several layers of history. The existing use as a static museum has a stagnant effect on the site. This provides the opportunity for an intervention based on the principles stated above.

Located within a typical sized Pretoria city block, with an alley [Volkstem Ave] separating it from its neighbour to the east, it is one of the few remaining single-storey structures close to the city centre, and rare in that much of its site remains un-built. Several trees occupy the site, one of which is mature and predates the restoration when new trees were planted. Presently the site favours an introverted approach, where the L-shaped building lies along the external edge, forming a sheltered courtyard around which the planning is focused [Fig. 6.2a].

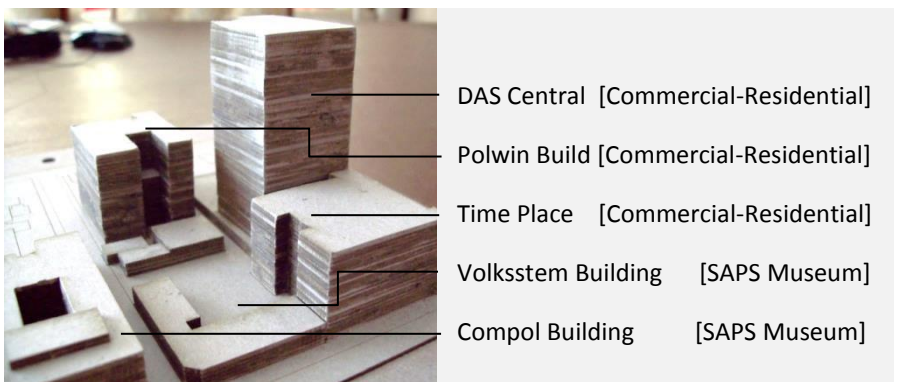


Figure 6.2a: Site Precinct.

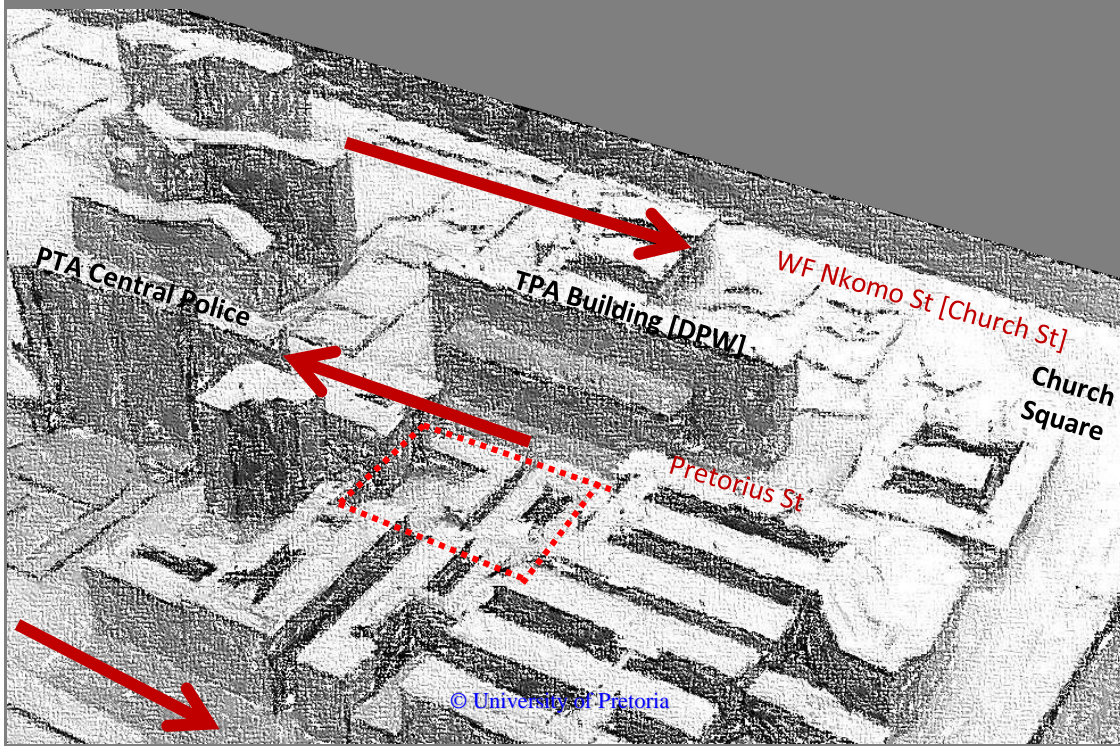
Urban Context – The placement of the buildings on site, with the L-shaped offices along the street edges, and the workshop at the back of the site maximises on-site usage such that minimal space on the boundary is left vacant. This presents a solid barrier to the streets, defining a harsh urban condition. This is typical of most CBD buildings, particularly those found around the site.

The condition of Pretorius Street is such that owing to the nature of government and police buildings, many of the street frontages are impermeable to the average city user. As described before, a number of similarly programmed buildings occur along Pretorius Street, between Paul Kruger Ave and Sophie de Bruyn Street [Schubart St]. This allows for an opportunity to link these buildings

along the street edges using an urban upgrade scheme starting with these city blocks on either side of Pretorius Street. This is in order to improve the on-street conditions for both the Officers of the SAPS, as well as for members of the public who make this precinct a destination or pass-through space.

The street has high traffic volumes largely due to the following:

- Pretorius Street is an east-west arterial route into the city
- the partial pedestrianising of Church Street around the Square results in traffic being diverted to the parallel streets,
- and the mono-directionality of many of the CBD streets, where traffic directions alternate along the north-south and the east-west roads, with Pretorius Street heading west, and serving some of the returning traffic from adjacent east-going street.



Socio-cultural Context - urban-friendly design with

The undertone for this project is largely cultural and socio-political, with historic reference being a strong informant. As the purpose of the design is that of an everyday building for ordinary people, social and cultural benefit becomes a strong determining factor. This suggests that whenever possible, design decisions should aim to support or improve people-based activities.

Such opportunities arise when resolving dedicated spaces in buildings, as well as at transitional spaces. Dedicated places include those for public interaction, gathering or platforms for voicing opinions, displaying notices, etc., whilst transitional spaces relevant to the proposed scheme include thresholds of privacy, security and use zones. These stem from the cross-programming of a public,

community workshops and meeting spaces, that envelopes an otherwise intimate exhibition component with support services such as a library, seminar rooms and multi-media installations.

The origin of the building as the new home for the Volkstem newspaper factors in this culturally, as it was the first Afrikaans language newspaper for Pretoria. Politically, it was significant as the paper became the mouth piece of the then ruling party who briefly owned it. This political thread continued through the buildings use by the pre-1994 South African Police [SAP].

These contexts are amongst the informants necessary for a successful project and thus inform part of the programmatic criteria.



6.3. Existing Buildings

The selection process resulted in the identification of two buildings with potential for development according to the envisioned programme. This includes the Volksstem Building outlined before as the principal site, and the adjacent Compol Building across the predominantly pedestrian lane as a support site [Fig 6.3a]. Both buildings are owned by the Department of Public Works and accommodate the South African Police Service Museums.

Having Provincial Heritage Status, museum programmes, and a long history in Pretoria dating from 1897/8, they have remained unchanged except for the southern additions to the original U-shaped Compol Building. Their restoration in 1999 ensured that the buildings remained static. It is partly for this reason that these sites were selected, as a reaction to the ideology of ‘mothballing’ buildings rather than breathing new life into them.

The details of the heritage status, and the Historic and Cultural Significance are discussed later, in Chapter C.

Figure 6.3: Aerial view
[AfriGIS]



Figure 6.3.1a: Volksstem Building.

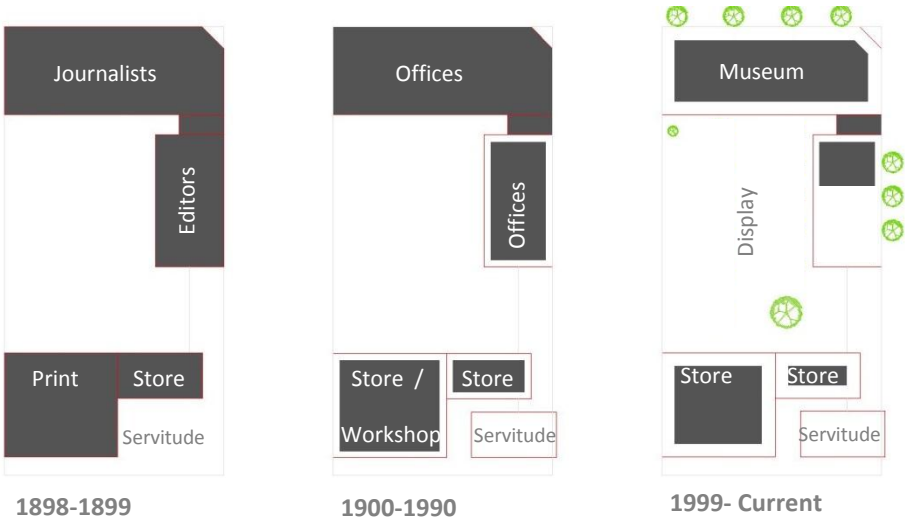


Figure 6.3.1b: Volksstem Building Re-Use.

6.3.1. Volksstem Building

This building, designed by F.A. Bodde, opened in 1898, and first housed 'De Volksstem' newspaper [est. 1873] but was soon inhabited by various departments of the Police. It was scheduled for demolition in 1961, though this never happened. The building remained in use and was declared as a heritage building owing to it being the only remaining newspaper building

from the 19th century, and for its blend of Provincial and Victorian classicism [Fig 6.3.1a]. Its use over the past 115 years has digressed in terms of efficiency of re-programming. This is shown in figure 6.3.1b, where physically the group of buildings on site remain intact, but the extent to which individual spaces were re-occupied diminished with successive re-programming.

A brief history of the building is as follows:

- 1898 | Built for Volksstem Newspaper
- 1899 | Civil Commissioner's Office
Registration office for illegal immigrants
- South African Police:
 - Office of the District Surgeon
 - Strong-room, Workshops & Storage
- 1962 | South African Police:
 - Lecture rooms & Library
 - Parking, Storage & Workshop
- 1990 | Declared Provincial Heritage II
- 1999 | Refurbished for use as a Museum
- 2003- | Police Transport Museum.



Figure 6.3.1: Volksstem Staff, 1898.

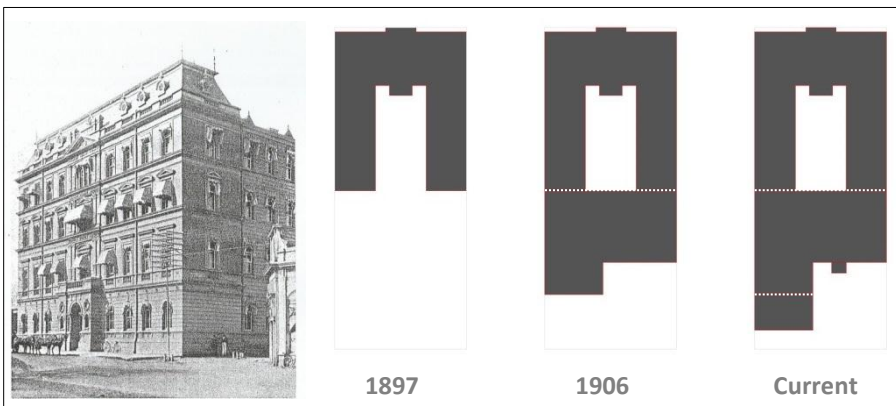
[Source: Meiring, 1980:]

6.3.2. *Compol Building*

This four-storey Wilhelmine style building was built in 1897 as additional offices for the former City Hall at Church Square [Fig 6.3.2a]. Also known as the ‘Regeringsgebou’, it was design by the influential architect and city-planner Sytze Wierda of the Departement Openbare Werken of the ZAR. The building was taken over by the South African Police in 1913, and served as its headquarters until 1959 after which it was adopted as the Police Museum.

The intangible history of this building is also linked to political issues, as officially it fronted as a Museum, though the second and third floors were secretly used to interrogate and torture political prisoners, with some being hung upside down or thrown out from the top floor.

Although this building has been extended several times such that little remains undeveloped on site, its history and existing programme provide an opportunity to link the two sites, utilising Volkstem Avenue as the connector. Figure 6.3.2b shows the site development over time.



Figures 6.3.2a&b: Compol Building and Development.
 [photograph source: Meiring, 1980:]

6.4. Micro-mapping

A preliminary analysis of the Volksstem Building highlights its introverted nature with a number of openings facing the courtyard and only a few facing the street. This creates the opportunity to link the existing building to a new development within and respond to the imperviousness nature of its outer skin.

At an urban level, the salient features of the site include:

- A number of trees on the sidewalks of the Volksstem building, as well as affronting the adjacent Compol Building .
- The pronounced corner-entry of the main access, orientated towards Church Square, and facing oncoming traffic.
- The paved, pedestrian-friendly nature of Volksstem Avenue. This is essentially a lane splitting the length of the CBD block[Fig. 6.4a]
- The intimate scale of the building in its surrounding context, where the high volume single-storey building is enveloped by multi-storey structures.
- A north-facing façade, which ensures steady solar gain, and a pleasurable sidewalk owing to deciduous trees for summer shading and winter heat gain.

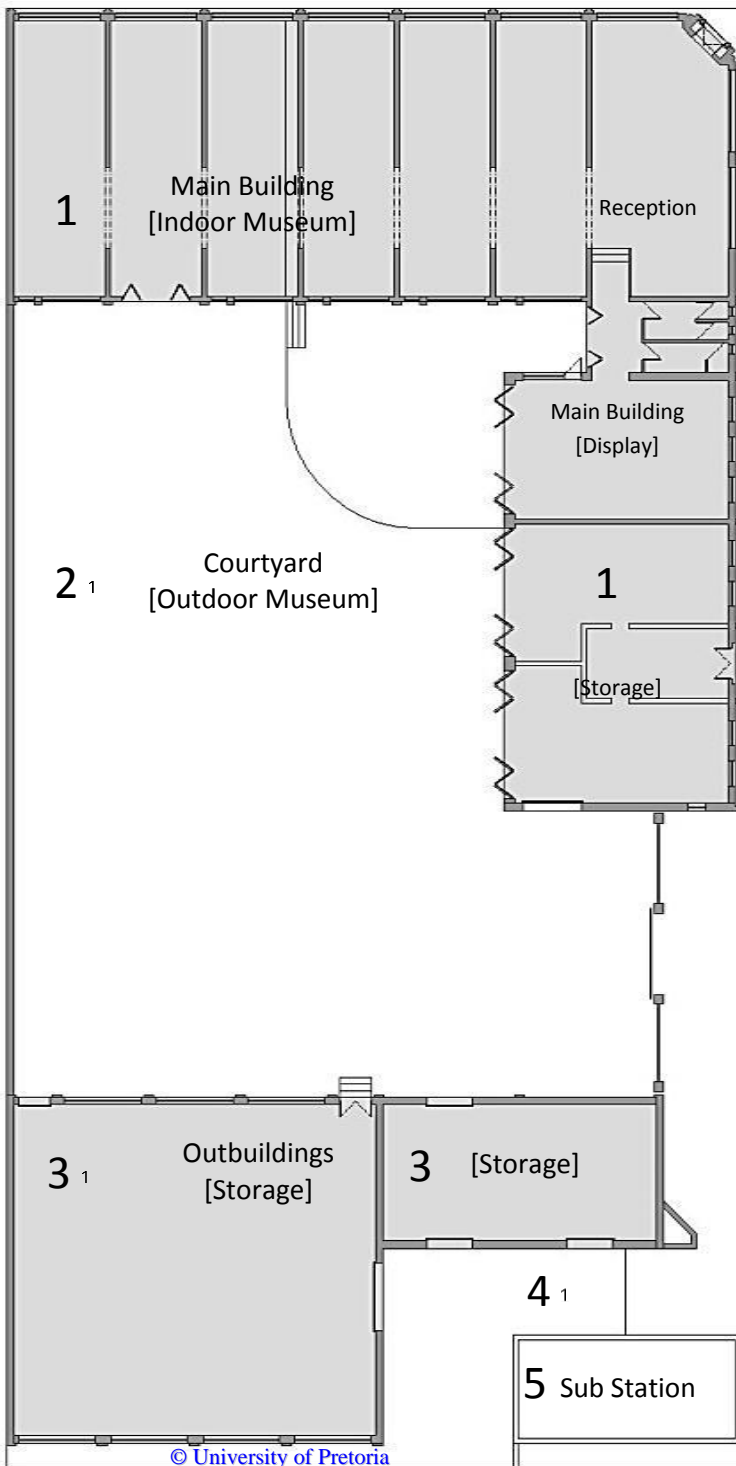
The schedule in Table 1 and the accompanying plan in figure 6.4b indicate the current uses of space. The highlighted cells in the table indicate zones with maximum potential for redevelopment, along with the remainder of the site and buildings.

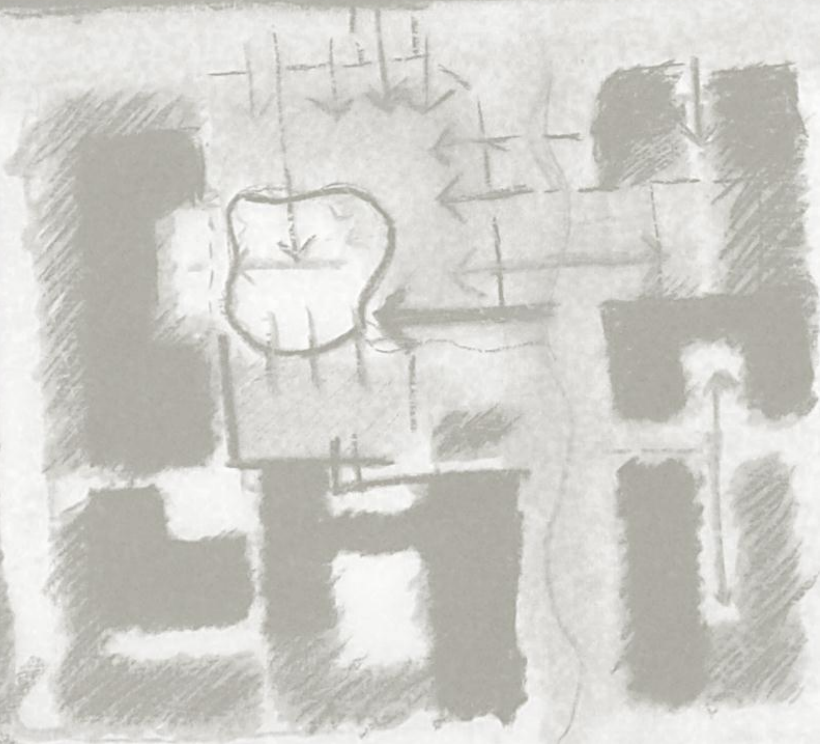
The study of these two buildings continues to the following chapter.

Table 1: Schedule of Areas

Zone	Designation	Area	Coverage	Redevelopment
	Site	2260m²	100%	
1	Main Buildings	698m ²	31%	
2	Courtyard	920m ²	41%	1482m ² [= 65%]
3	Outbuildings	367m ²	16%	
4	Exterior	195m ²	8%	
5	Servitude & Substation	80m ²	4%	

Figure6.4b: Current Schedule





C. theory & Heritage



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C. Theory & Heritage

The response to the Problem Statement and the Project Intent is that of a multi-programmed building that becomes a working model for future heritage and cultural projects.



Chapter C

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C. Theoretical & Heritage

7. Theoretical Approach

7.1. Theoretical Focus

...the pursuit of national unity, the well-being of all South African citizens, and peace, require reconciliation between the people of South Africa, and the reconstruction of society.

– postscript of TRC hearings, quoted in Noble, 2011:214.

The above citation concurs with the premise of this project that national unity is dependent on societal reconstruction and reconciliation. This calls for an understanding of social values and related architectural theories. These are however in-depth fields of study, the architectural application of which may

be suited to heritage charters outlining the response and handling of culturally and socially relevant sites.

The purpose of such guidelines and charters is to ensure that the ‘Right to Cultural Heritage’ of any individual or peoples is not usurped. This may sometimes occur through overlooking or under-valuing any aspect of a site, location, building, monument or similar object bearing any form of importance to any individual or group.

7.2. Right-to-Cultural-Heritage

Whilst often, monuments and dedications are attributed to singular ideals or values, a location may have more than one symbolic meaning, depending on the vested interests of individuals or groups [as indicated with Naval Hill in 2.2: Urban Issue]. Where there is no dispute surrounding any heritage object, the cultural right to that object often goes unchallenged. When multiple claims of rightful heritage occur, this may be for joint or exclusive rights.

Prior to the democratisation of South Africa, architectural commissions were State-controlled, with the aim of exclusive heritage conferred to selected communities. This was the case with a number of pro-Nationalist projects that sought to convey a message of dominance of the ruling minority over the suppressed majority.

This was the case with the aforementioned Voortrekker Monument that until 1994 was funded by the Nationalist Government. The Voortrekker Monument Trust is now a Section-21 [non-profit] company that relies largely on income derived from paying tourists, with some contribution from the new Government.

In 1999, the ANC led democratic government afforded this once nationalist icon a National Heritage status, in a bid to include the Monument and the Nature Reserve wherein it sits amongst the list of culturally significant national assets. This action by the Government led to the quelling of requests for the Monument's demolition, granting it national protection.

The aim is to encourage non-whites to visit the site, citing the re-emergence of the monument as a reminder of the defiance and triumph of the people over oppression, rather than the symbol of superiority that it once represented. This sentiment is shared in part by persons of Afrikaner descent, many of whom shun the doctrines of the former Nationalist governments and the atrocities occurred in the name of racial and cultural superiority, as revealed in the Truth and Reconciliation Commission hearings.

The decision to inaugurate Reconciliation Road that links the Monument with Freedom Park, aims to extend and this new-found heritage status, so that it may be readily accepted. Freedom Park, on the other end of this Road, is intended to represent the various histories of the country,

with an Afrocentric undertone [Fig. 7.2]. The envisioned combination is that of a uniformly accepted greater heritage zone that encompasses these histories, and promotes positive futures.



The influence of these case-studies on the proposed project is that of a multi-faceted scheme which aims to bring together South Africans from all walks of life. For this to occur successfully, no part of the scheme should favour one group of people over another. The need for autonomy is paramount, where influence from biased factions should not sway decisions or the contents of the scheme.

Political neutrality, an aesthetic quality independent of a particular culture, and an inclusive programme are fundamental to the scheme's success in garnering a heritage that can be claimed by all.

It is important to note that the aim is not architecture for monumentality, but rather circadian activity.

In promoting a sense of cultural heritage through a new scheme that targets universal spectators, a sense of Right-to-Heritage needs to be instilled into a project in order for it to be readily acceptable by all.

It is not sufficient to claim heritage value through branding or marketing, but rather achieving this by means of progressive activities and an inherent sense of pride in users/

occupants. A sense of ownership by various categories of users is one way of promoting a heritage that has appeal to all.

The anticipated method of attaining this is by responding to the numerous layers of tangible and intangible history and heritage pertaining to both the site and the Issues elucidated. In this manner, several potential layers may be harnessed or exploited, to bring to the fore attractive elements that appeal to a broad spectrum of city users.

7.3. Heritage Charters

When considering a site with an existing building to respond to, several decisions need to be taken in terms of the extent of change to the existing, the significance of each part of the site, and the relevant by-laws applicable. The approach of Conservation is favoured over that of Preservation, to afford the site the privilege of being used in a manner that benefits its visitors. Where applicable, heritage charters and developed guidelines shall be used to facilitate the design process.

The intended site has heritage significance owing to its age and use, and has already undergone a refurbishment whereby it was restored to a near original state. This however has neither bolstered its use nor stature in the public eye, for whom, as a museum it is intended.

This allows for the proposal that it be converted, albeit sensitively, along the lines of Progressive Conservation which according to Jo Noero “*sees architecture as a dynamic process of tradition wherein buildings are given new life by continually being re-adapted to suit new uses in response to new requirements...*” [Cooke, 2012:24].

With regards to the handling of specific heritage aspects of the site, these charters of the International Council on Monuments and Sites [ICOMOS] were adopted:

- **The Burra Charter** [*Charter for the Conservation of Places of Cultural Significance*]
- **The Xi'an Charter** [*Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas*].

The Burra Charter identifies various methods of responding to heritage sites, including preservation, conservation, maintenance, and adaptation. The aptness of this charter to South Africa is expressed in its implementation in the Conservation Management Plan for the Robben Island Museum.

The following is a summation of The Burra Charter (Australia ICOMOS Inc., 1999) as it applies to the project: The Charter identifies conservation as the process of retaining the cultural significance of any place. This can be seen as a means of

changing as much as necessary, but taking away as little as possible.

Adaptation refers to the process of changing a place to keep the essence of its current use, or to develop a new use.

The Charter explains that “*Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations*”.

It recommends the process for determining cultural significance by collecting and analysing information in order to make informed decisions, to be used in developing a heritage policy and management plan.

The **Xi'an Charter** was adopted when the need to protect the authenticity of a particular setting or context was realised. The aim of this declaration is for regulation that keeps both the cultural and physical setting intact yet still incorporates change.

This resulted from the realisation that whilst heritage buildings often enjoy protective status, sites and surrounding contexts may not always be so privileged.

The declaration expounds on this in urban scenarios, where Heritage buildings may go unchanged, but the specific character of the adjacent structures, sidewalks, roads and public infrastructure and amenities become significantly changed from the original.

Often, these elements visually support or frame a significant building, monument or object, and their loss from the built fabric is a discredit to the larger physical context.

The Xi'an Charter defines the “setting of a heritage structure, site or area as the immediate and extended environment that is part of, or contributes to, its significance and distinctive character”.

It further calls for Heritage Impact Assessments for all new developments impacting on the significance of heritage structures, sites and areas, and on their settings. Where change to the setting of heritage structures, sites and areas should be managed to retain cultural significance and distinctive character.

8. Heritage Significance

8.1. Classification of Heritage

The heritage status of the Volksstem and Compol Buildings are of joint significance, as they represent an urban ensemble from the late 19th century. The Compol Building predates the Volksstem Building by one year, and is reputedly a significant reason for the latter's survival and heritage protection. This is owing to the occupation of both buildings by the South African Police [SAP], beginning with the Compol building.

8.1.1. Compol Building

This building, formerly known as 'Regeringsgebou', originated in 1897 as additional offices for the old City Hall [Raadsaal] which was located south of Church Square. It is believed to be the last building in Pretoria that was commissioned by the ZAR Government, with famed architect and city planner Sytze Wierda being credited with its planning.

Designed in the Wilhelmine style with a Neo-classic facade, and a Mansard roof [French four-sided gambrel/curb style hip-roof], the building's entrance façade with its use of architraves and a central pediment has a composition typical of many French buildings of the second Napoleonic Era [figure 8.1.1a]. At the time of its construction, the design was considered simplistic, yet sophisticated.



Figure 8.1.1a: Château de Dampierre, c.1683, by Jules Hardouin-Mansart.

[Source: wikipedia.org]

The use of sandstone typical of ZAR buildings of the time was limited, substituted in part by red-brickwork. Some design features were also not built as designed, including a dome and tower atop the central pediment as shown in the blue-prints alongside [Figure 8.1.1b]. The upper three storeys of this pediment were also not built as designed, where it was to align with the ground floor egression. Instead, these appear as mild protrusions from the façade, as shown in the image on page 64.

These changes in no way detract from the aesthetic of the building, nor its apparent architectural style. Instead, it lends the building a unique character, distinguishing it from its European predecessors.

Owing to its age, the building is classified under Section 34 of the National Heritage Resources Agency (25 of 1999) because the building is older than 60 years.

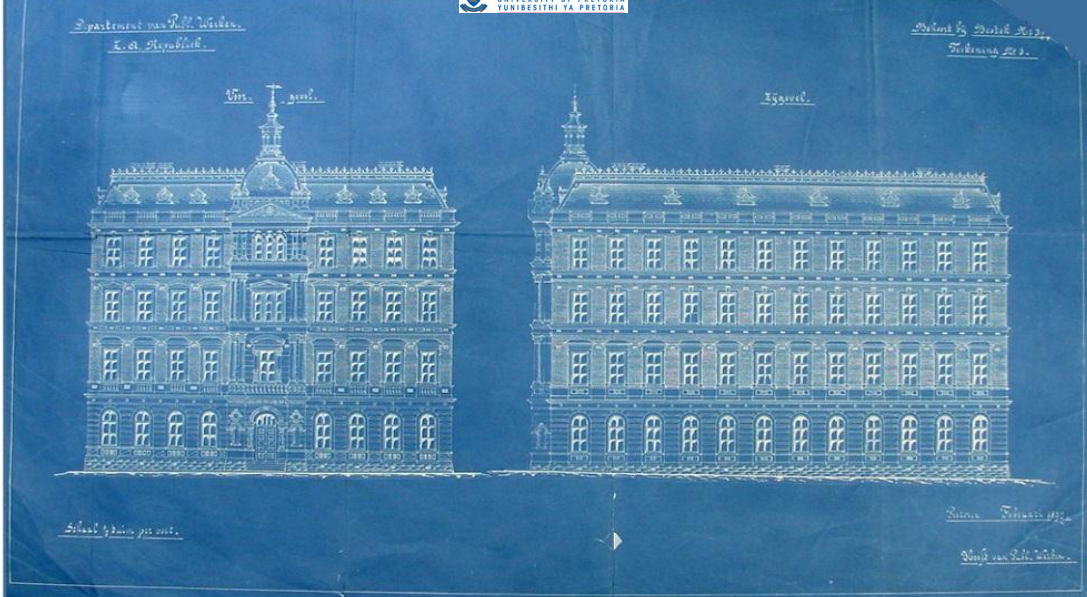
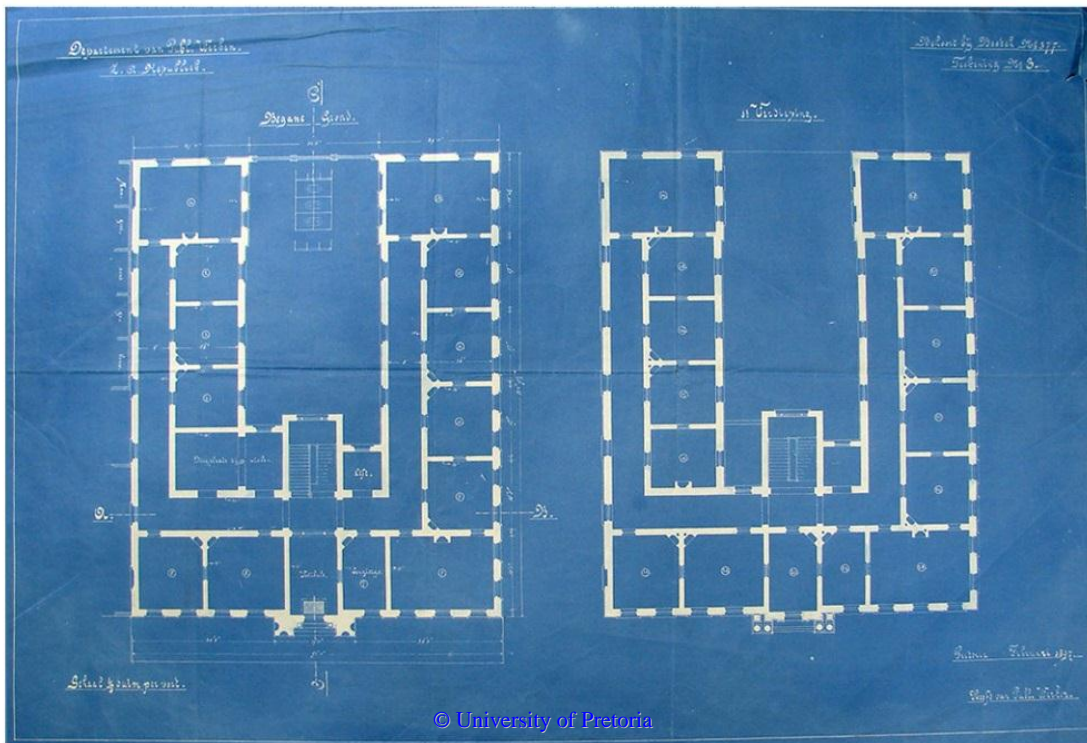


Figure 8.1.1b: Original drawings for Regeringsgebou, 1897.
[Source: Ablewiki, 2013]



8.1.2. Volksstem Building

This building was commissioned for the Dutch newspaper *De Volksstem*, and built in 1898. Intended for commercial use as offices for journalists and editors, with a print workshop and storage facility, its architectural detail was muted in comparison to State commissioned buildings of the time. It is however significant as **it is the only known example of a 19th C newspaper building still in existence. It is also the only known remaining South African example of a blend of Provincial and Victorian Classicism.**

It is for this reason that in 1990 it was granted National Monument Status, though this has since been changed with the amendment of the National Monuments Act into the National Heritage Resources Act [1999]. The building is currently listed under this Act as Provincial Heritage II, and any alteration is subject to approval by the Provincial Heritage Resources Agency [PHRAG].

The pronouncement of the main entrance on the corner of the building allows for the opportunity to make it expressive. This is achieved by cutting back the corner, at an angle of 45°, and increasing the height of the corner parapet. It is embellished with a double-columned portal that leads into a deep recess towards the double entrance doors.

A pediment supported by corbel leaves rests atop the portal. Above this is an entablature bearing the buildings name, with the frieze and cornice continuing along the length of the building. Super-imposed on all this is a panel with an inset bearing the establishment date of De Volkstem newspaper [1873].

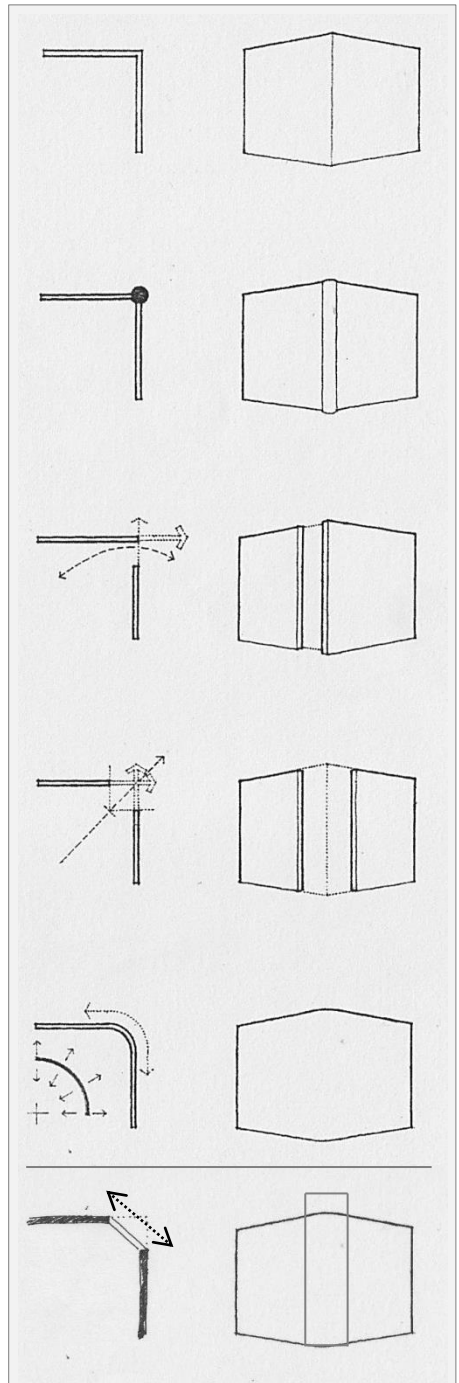


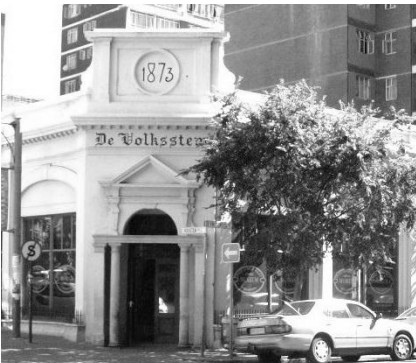
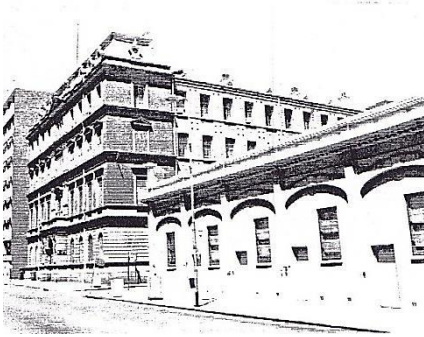
The development of the corner is explained in the adjacent diagram [Figure 8.1.2.b] [Ching,].

As the corner carries high attention to detail, its significance is paramount.

At an urban street level, the benefit of cutting back the building's corner is improved sightlines. This allows a pedestrian a view of the adjacent sidewalk and street condition, improving the experience of the street.

Figure 8.1.2d [overleaf] is a drawing of the street facades flattened about the corner. The diagram shows the significance of elements within these facades. It suggests the retention of the corner entry and adjacent bays, as their presence give it credence by framing it.





The repetitive bays of the Pretorius Street façade have remained intact since inception, although the windows have changed several times [figure 8.1.2e]. The original windows were shop-front styled and included doors to some bays.

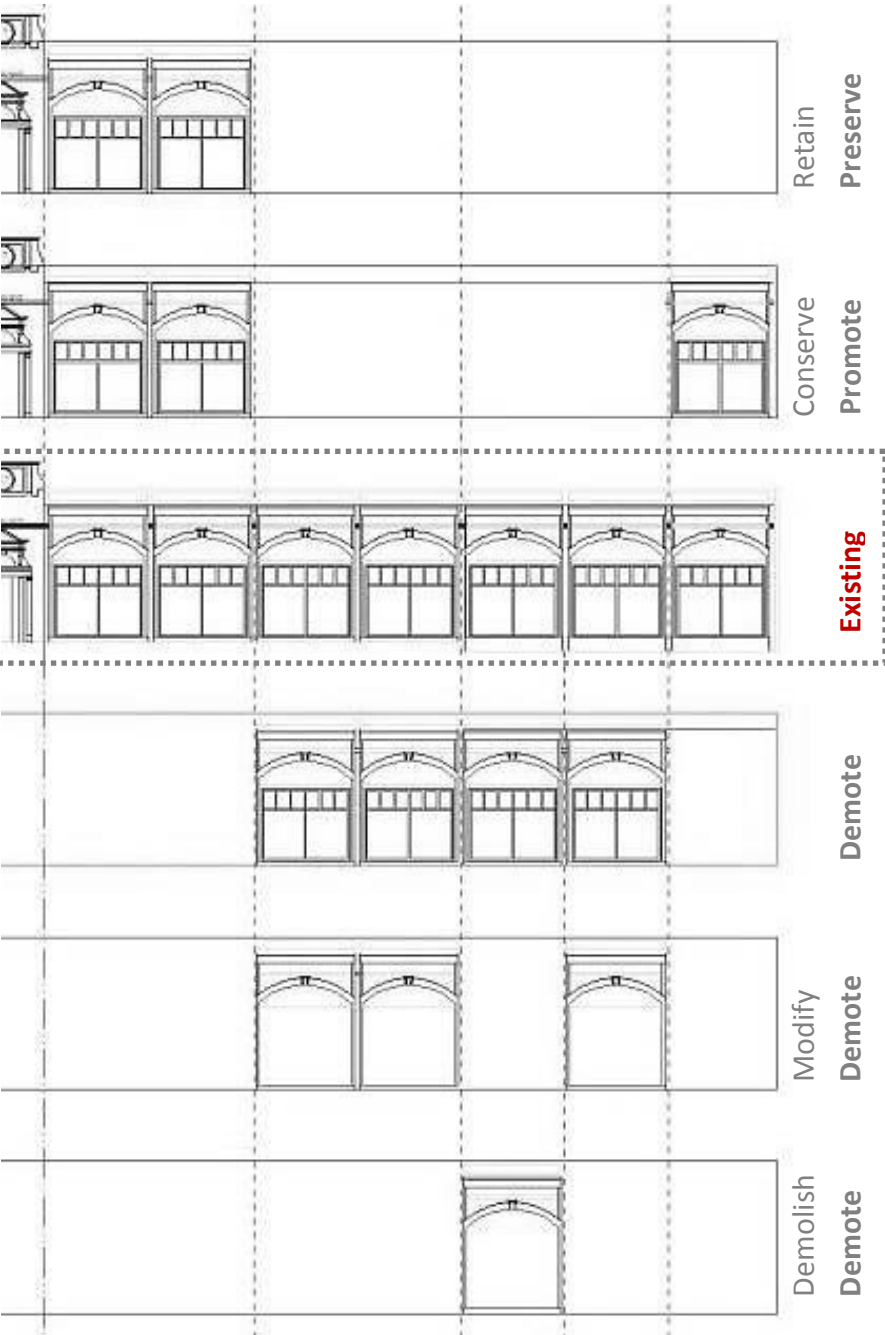
During occupation by the South African Police, the large windows were removed and replaced with smaller units. This afforded a sense of privacy to the building, which then housed the District Surgeon, as well as other Police Divisions.

During the restoration in 2000, these were replaced by large timber-framed windows that resembled the original type, sans the side doors.

Fig. 8.1.2c: Street-front windows



Volkstem Avenue



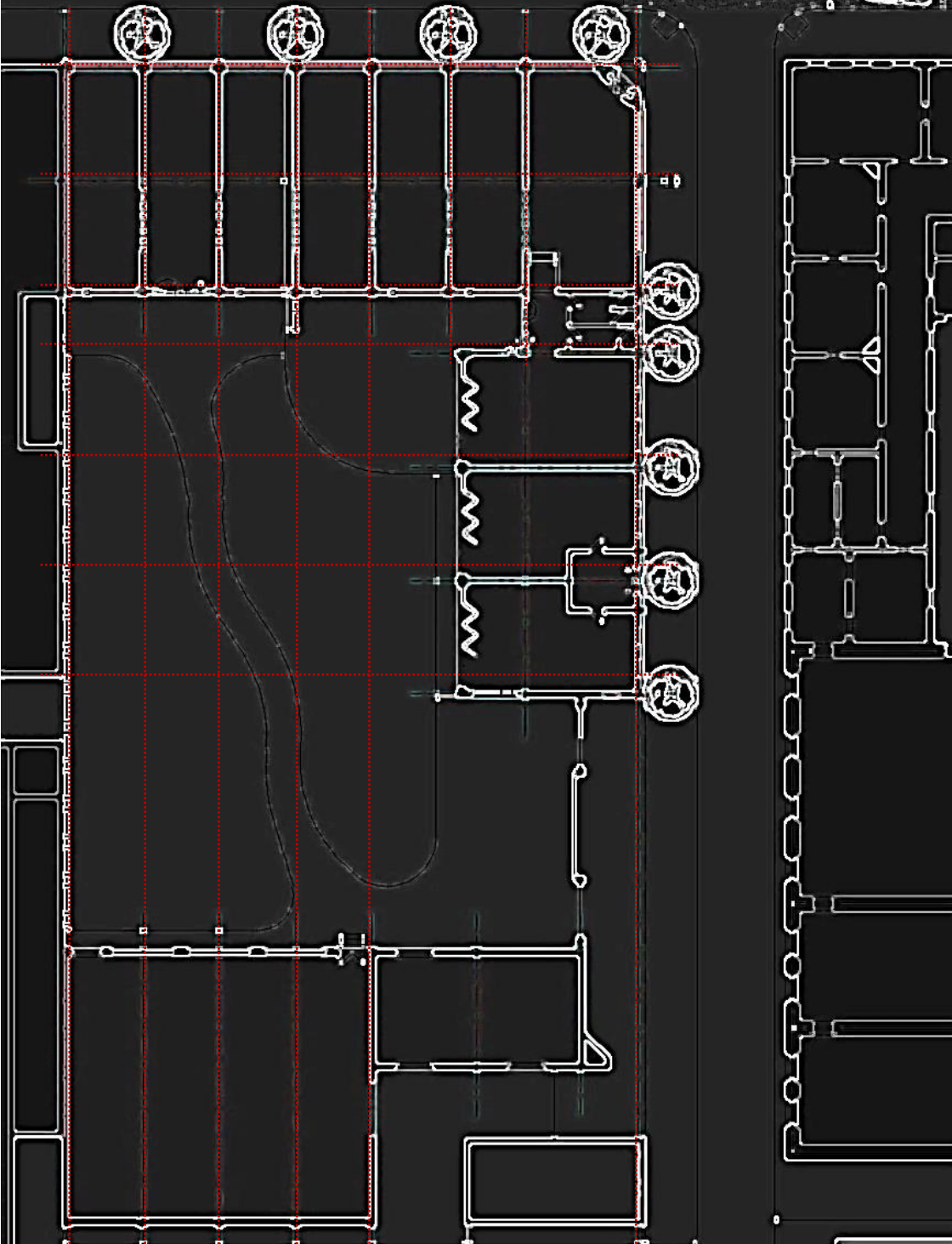
Pretorius Street

This building has a simple layout, based on an L-shaped plan that dominates the corner. A stereotomic structure of plastered brickwork is based on a grid determining the position of most elements on site. This is particularly true of the openings that surround the high windows and openings.

This corner block, and the adjacent east office block have timber-framed large-expanse windows, based on the rhythm of the grid. The uniformity of the bays is interrupted where the plan accommodates entryways [Figure 8.1.2a]. The main reception lobby widens out, such that the grid extends to accommodate the corner entry.

The entrance to the east block is such that the door is placed on the gridline, where a column is expected to be. This reoccurs at the entrance façade of the workshop, where half-bays are introduced for doors on either end of the façade, resulting in windows being placed on the gridline.

Fig. 8.1.2e: Existing Grid.



A highlighting factor of the interior space is the repetitive arched openings in the dividing walls that break the building into uniform bays. This internal arcade forms the central circulation spine of the current museum, against which objects are exhibited [Figure 8.1.2b].

Large windows to either side of the buildings bathe the interior spaces in natural light. This is beneficial for a gallery or exhibition spaces, although the awnings that once shaded the north facades, as seen in old photographs, are no longer present.

The courtyard shown above is an exceptional feature of the site. With an area equivalent to 40 per cent of the stand, it presents an opportunity for outdoor exhibits or events. This is currently the case, with a number of SAP transport vehicles displayed within it. There are some trees in the courtyard, planted at the time of the 2000 restoration. Where possible these will be kept, though as they are not of intrinsic heritage value, they may be removed to suit an appropriate design proposal. The courtyard is earmarked as a central aspect of the proposed design development, and will be treated as such.



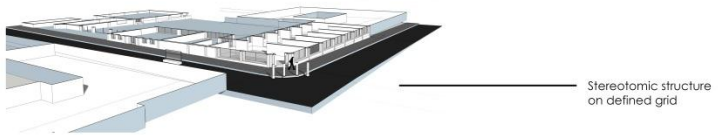
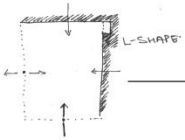
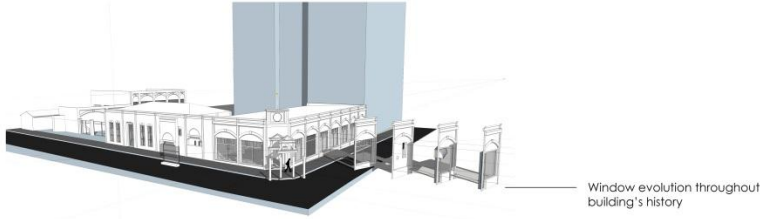
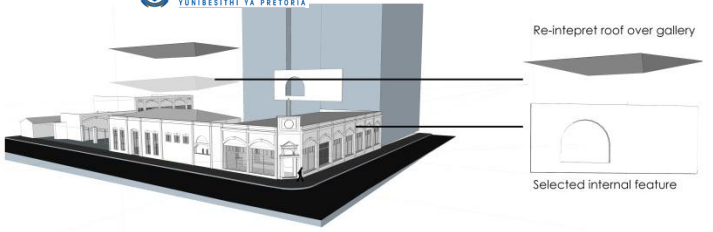
Figure 8.1.2b: Display Bays .



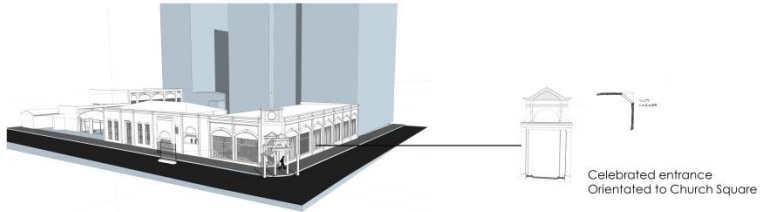
Figure 8.1.2c: Courtyard.

[Source:

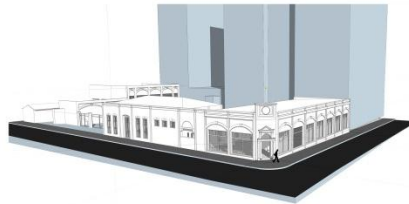




Alley renamed from
Matthysen Laan to
Fountain Avenue and then
Volkstem Avenue



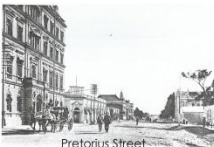
Victorian & Provincial Classicism
Volkstem Avenue



New Residential Building



Victorian & Provincial Classicism
Pretorius Street





8.2. Statement of Significance

The following is a Statement of the Heritage Significance of the Volksstem Building: “The building is a symbol in the annals of South African history, and should be recognised as such. Developments on site should be to the benefit of the community, in terms of social and cultural values, whilst respecting the history and existing fabric of the site.



Buildings and spaces tell stories through their physical and metaphysical qualities, through not only the tangible elements, but the intangible..."

8.3. Heritage Guidelines

The following guideline has been determined as design principles in order to ensure the preservation of the character of the site and the two buildings as a collective:

- Any new massing shall be receded from the street frontages, ensuring the dominance of the existing heritage façades along the streetscape.
- The height[s] of such new street-front massing shall not exceed that of the existing double-volume workshop located on the south of the site.
- The structure of the existing facades must be retained.
- Where new work is carried out, it should be of such a nature that the relationship between the existing and new is discernible, and if possible, removable if no longer necessary.

Figure 8.4a: Police museum in need [Poster].

[Source: Tshwane Beeld, 2013]

Beeld Tshwane

POLISIE- MUSEUM IN NOOD

Woensdag 10 April 2013

Police Museum in Need

-S van Zyl & M. Batt

The adjacent article, published on the 10 April 2013, appeared in the Tshwane Beeld newspaper, and occurred after the conception of this project. It confirms the concerns of the General Issue that the mono-functionality of some museum programmes may result in their stagnation.

Whilst the focus of the article is the SAPS Museum [Compol], it extends to the adjacent SAPS Transport Museum [Volksstem building], as these are jointly managed by Col. Smal, whose office is located on the ground floor of the Compol Building, with the two museums forming a common precinct.

The article outlines the plight of the museum, citing a lack of new skilled personnel and the decrease in visitor numbers. Just as the exhibits have largely remained unchanged in recent years, so too has the number of professional staff working at the Museum.

As evident during repeat visits to the precinct and building[s], few people visit the museums, with researchers frequenting them the most.

Figure 8.4b: Police museum in need [Article].

[Source: v Zyl, 2013:1]

9. Normative Position

The proposal to remedy such social misconceptions is developed on the premise of an intervention that serves everyday users. The overarching criterion is that this should neither be another monument nor a ‘Centre of Interpretation’, but instead a platform that services the various activities in Pretoria.

Through this development, users can experience or witness the activities of persons of other cultures and communities, thereby expanding the individual’s knowledge and acceptance of others.

Architecturally, a building should result that addresses the manner in which monuments and significant sites are developed in a post-apartheid society. This can be done through skilful composition of existing elements with new forms, drawing on the history of the site and its intended users for inspiration.

10. Guerrilla Urbanism

The periphery of the site is to undergo a transformation that favours ‘guerrilla urbanism’, i.e. it allows for utilisation in unconventional ways through sometimes temporary occupation by city users, to create places of interest, platforms of protest or simply for casual use. Such insurgence in the way we utilise everyday space is intended to question the way public place and space are defined [Hou, 1:2010].

Although this contrasts some aspects of heritage such as preservation, this approach to the urban resolution of the precinct aims to bolster the site’s use through use-defined spaces.

It follows the mantra that *“a space is not a place until it is used for a purpose other than that for which it was designed”*. [unknown]

The application of this is through the provision of urban/ street furniture, building niches and free-standing elements that are subject to the uses determined by a passer-by or side-walk occupant.



d. programme

Capital Exchange

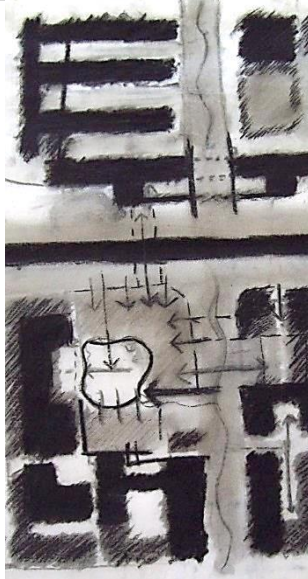
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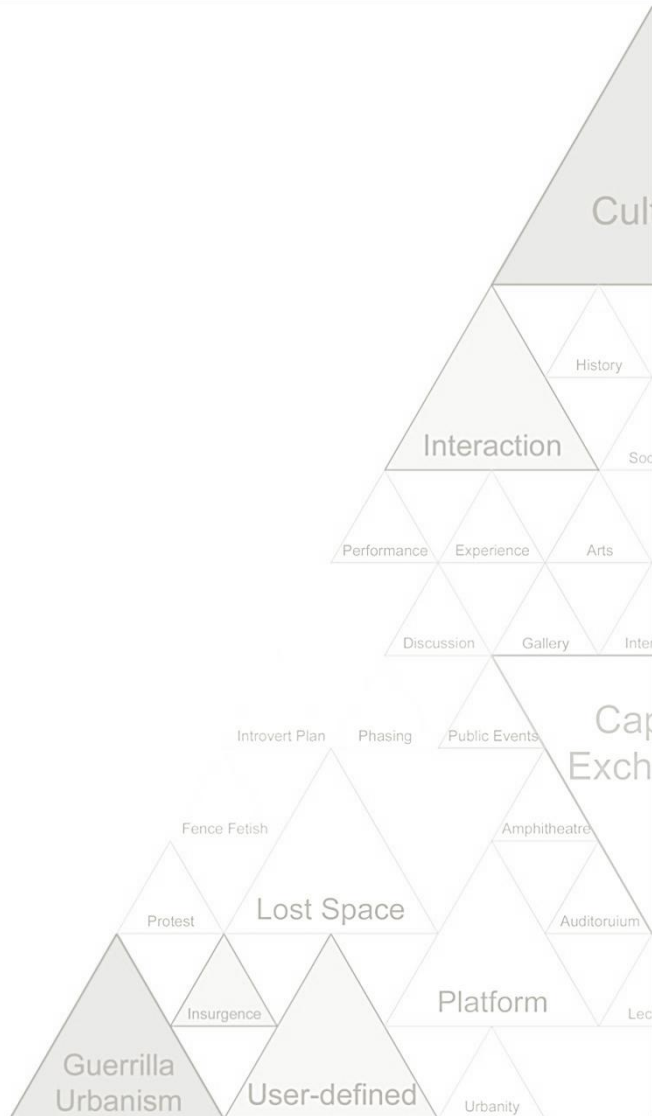
D. Programme

The intention is to include elements, activities and functions that inform, attract or influence the user who happens by, whilst on the daily journey of life.



Chapter D

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“Louis Kahn once asked, what does it want to be?
The answer is hidden in the understanding of the
existing fabric”.

[Quinn, 2003:4]

D. Programme

11. Programme Informants

11.1. General Informants

The aspiration to resolve cultural misconceptions will drive the programming of the building to a large extent, over that of the physical/site-generated informants. For this to occur, a list of potential functions was garnered from select post-1994 projects of socio-cultural or political significance. These are displayed in the accompanying Table 2, with the highlighted functions representing those conducive to this project.

Table 2: Precedent Analysis

Project									
No	Function	Alex. Heritage Centre	Apartheid Museum	Constitution Hill	Drill Hall	Freedom Park	Hector Peterson	Red Location Museum	Walter Sisulu Square
1	Archive								
2	Auditorium								
3	Book shop								
4	Cinema								
5	Exhibition								
6	Food Court								
7	Gallery								
8	Garden								
9	Hall								
10	Market								
11	Memorial								
12	Office								
13	Retail								
14	Square								
15	Training								

These elements, collated from various precedents, act as informants of the programme:

- Amphitheatre/ Outdoor Cinema
- Archive
- Auditorium
- Courtyard/ Garden
- Exhibition space/ Route/ Hall
- Food court
- Gallery
- International Food Court
- Internet Café
- Literature/ Book Store
- Offices
- Platform/ Public square/ Plaza
- Training Centre/ Workshops
- Vendor Stalls

From physical and historical analysis, various layers of mapping revealed the functions that were translated as the following informants:

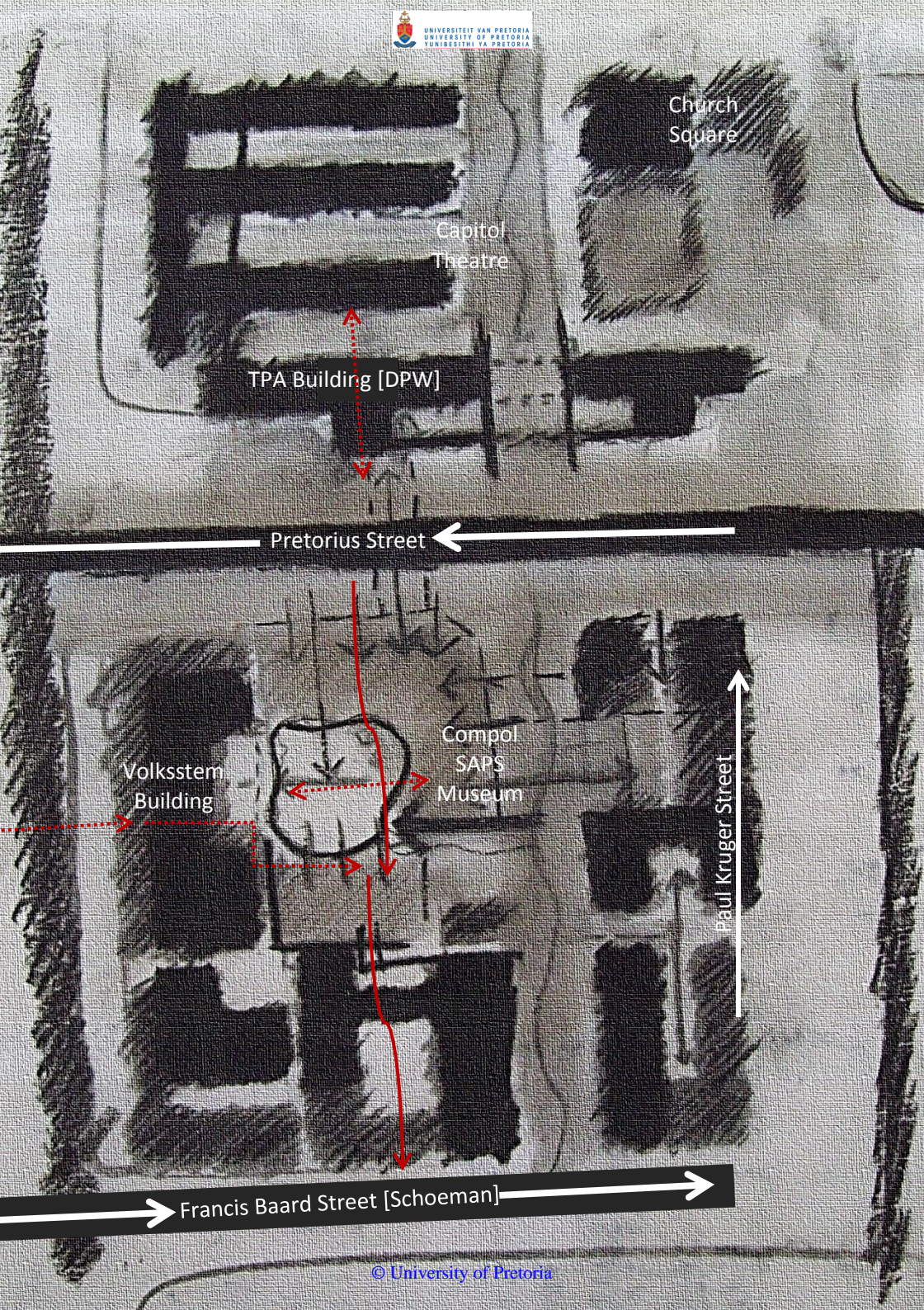
▪ Newspaper	=	Multi-media/ Information
▪ Immigration Registration.	=	Tourist/ Foreigners
▪ South African Police	=	Police-Precinct Upgrade
▪ Training Workshops	=	Trade skill / Activity
▪ Library & Archive	=	Literary Exchange
▪ Lecture	=	Auditorium/ Amphi.
▪ Offices	=	Office Pods [Daily Rental]
▪ Museum	=	Cultural Centre
▪ Volkstem Ave	=	Link with Compol
▪ CBD Location	=	Pop-up Stores/ Trade
▪ Strongroom	=	Cultural Treasury

11.2. Site Informants

Parts of the existing building will bring to mind its use as a museum, and more specifically its origin as a home for the *Volkstem* newspaper, the first Afrikaans paper of the then Transvaal. The programme does not seek to re-establish the now defunct newspaper, but rather use aspects of news media to inform the general public of past events.

This will occur through digital/electronic information platforms, hard-print media and interactive exhibition and displays. Another issue to be addressed is the single-medium [language] of nearly all local newspapers. The intention here is to make printed information available in various languages [upon request so as not to print unnecessary copies].

To keep interest in the building sparking, the events will be kept current, changing in response to public sentiment and current affairs. This calls for a building with flexible services and utilities, and the ability to accommodate heavy equipment/ displays. Additionally, there is potential to raise the building height vertically as the surrounding CBD buildings are at least four storeys in height. This allows for high volume spaces to be incorporated, as well as additional programming. The inner portions of the site, particularly those that are vacant, will receive new structures to form a building that deals with the issue of the misrepresentation of existing monuments and museums, by becoming a model for contemporary cultural exhibition place-making.



Church
Square

Capitol
Theatre

TPA Building [DPW]

Pretorius Street

Volksstem
Building

Compol
SAPS
Museum

Paul Kruger Street

Francis Baard Street [Schoeman]

11.3. Urban Informants

With the arrival points intended to be insurgent spaces where the use is non-prescribed, the need for flexibility is evident. The intention is to include elements, activities and functions that inform, attract or influence the user who happens by, whilst on the daily journey of life. The intended outcome is to provide a platform through which the diverse cultures and ways of South Africans may be displayed and taught to each other.

Such a platform should be conducive to activities such as performance and protest.

The urban infrastructure concerning this site is already in place for this to happen, and includes the proximity to the Square. This is significant as an extension of the once bustling Church Square, which is now subdued.


At a network level, the busy Pretorius Street with a bus service and the pedestrian-friendly Volkstem Avenue that connects the southern edge of the CBD with its centre ensures accessibility to all. Additionally, there exists the potential to continue an alley from Bosman Street to the West, into the courtyard of the site. Figure 10.3 shows these links.

11.4. Programme Outline

The precedent-based and site generated informants were organised into Table 3, to distinguish a hierarchy of influence, as well as to interpret into the envisioned project. A synthesis of the various informants resulted in the development of a programme. Collectively, these form the essence of cultural wealth [capital] = **Capital Exchange**.

Table 3: Programme Generation

		Programme Derived Informants	
No	Class	General Informants	Site Informants
1	Primary	Square	Courtyard
2		Amphitheatre	
3		Exhibition/ Gallery	Museum
4		Skills Development	Workshops
5		Auditorium	Lecture
6	Secondary	Information	Literature/ Library
7		Vendor	Trade
8		Archive	Archive
9		Offices	Offices
10	Additional	Protest Platform	
11		Food court	
12			Immigrants/ Foreigners


 - Decreasing scale of influence of informants

Influence		Capital Exchange [Project Application]	
High	Med	Result	Interpretation
●		Peoples' Square	Peoples' / Public Theatre
●		Amphitheatre	
●		Exhibition	
	○	Workshops	Industrial Craft
	○	Auditorium	Auditorium
○		Library	Info Café
○		Trade stalls	
	○	Archive	
	○	Offices	Offices
○		Protest Platform	Protest Wall [Urban]
	●	Food court	Food court
	●		Hotel / Accommodation

12. Programme Definition

The Informants above were plugged into an organisational structure based on a system of triangular components [Fig. 12a].

Developed as a result of the three primary categories, the system shows the inter-relationship between the various tiers, as depicted in the legend.

The three principle informants [red], as detailed previously include:

- Cultural Issues
- Site Informants
- Guerrilla Urbanism

These are broken down into defining categories that impact on the project, as shown in the second tier triangles [blue]. Subsequent layers expound on these to specify the characteristics of the individual informants [green].

Figures 12b-d are analyses of the diagram to illustrate the system.

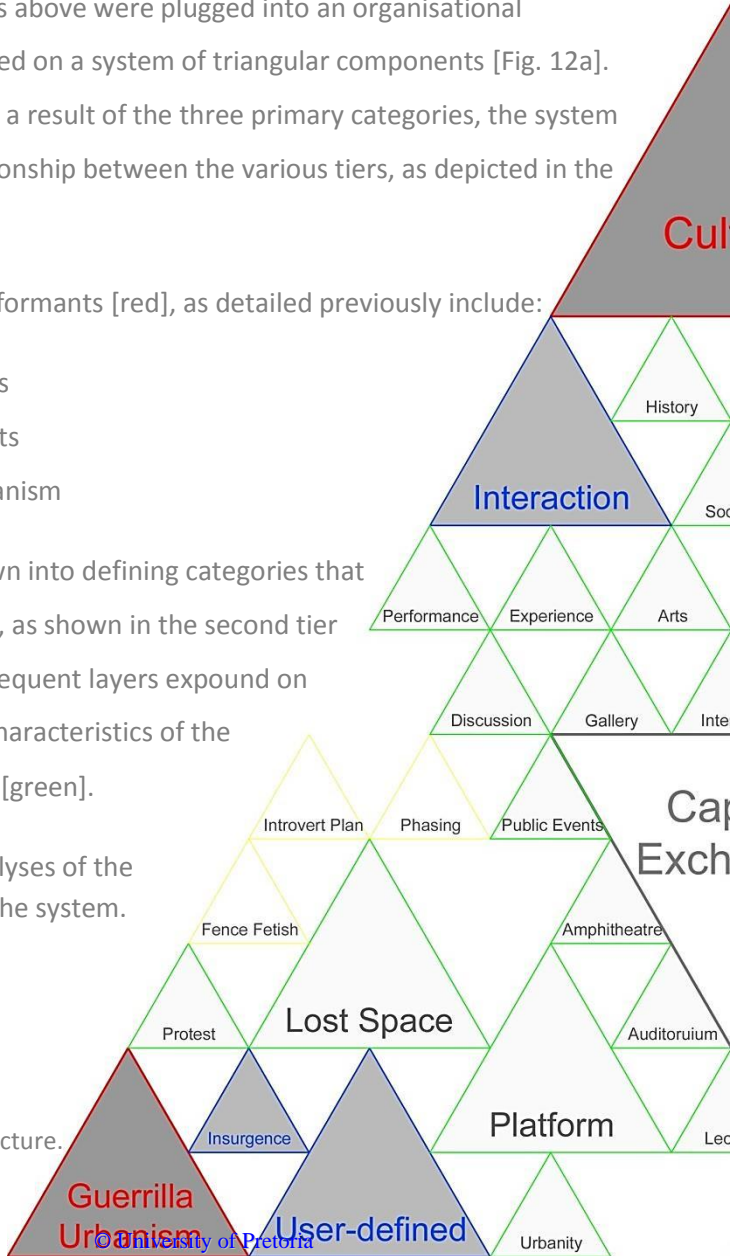
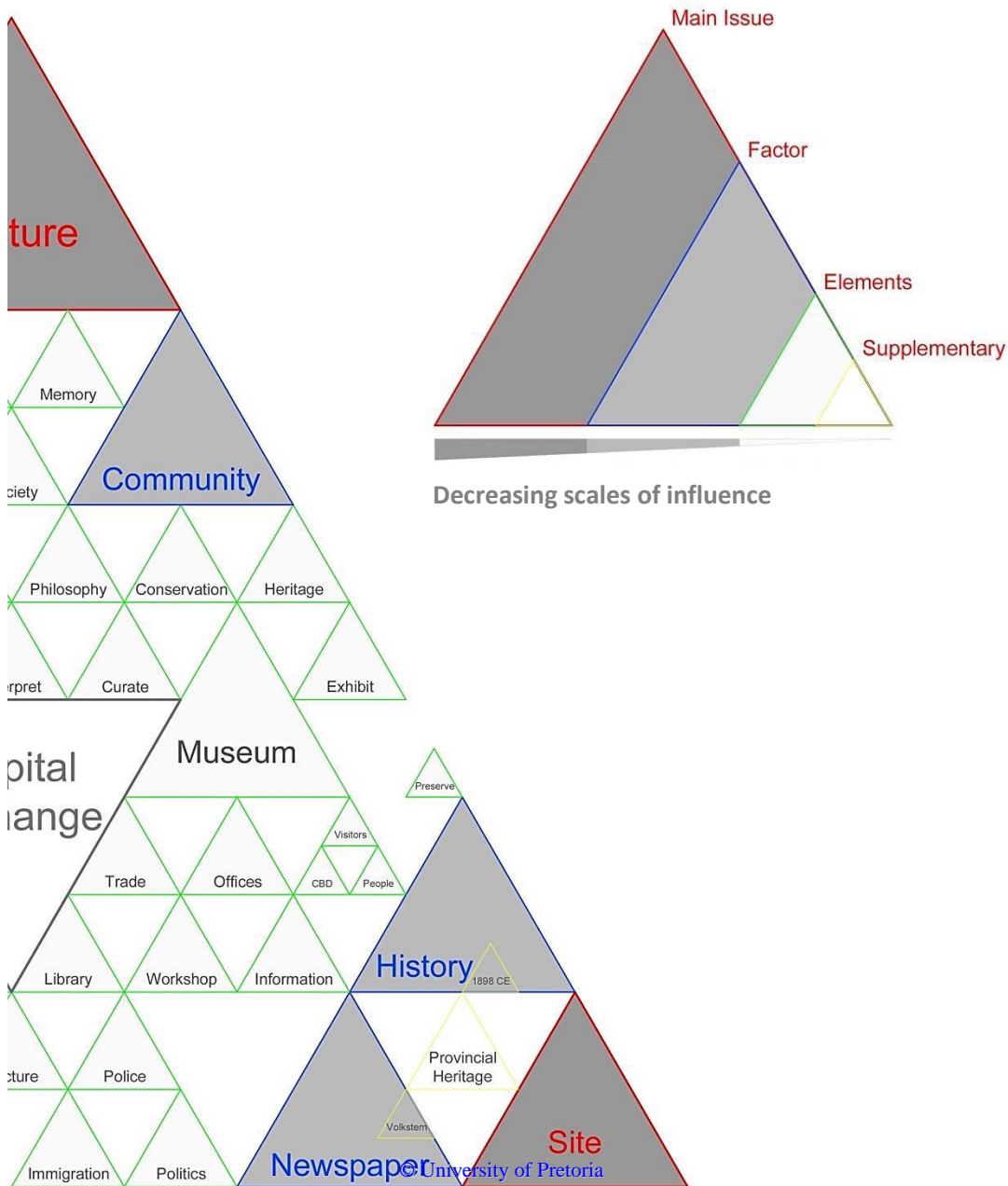
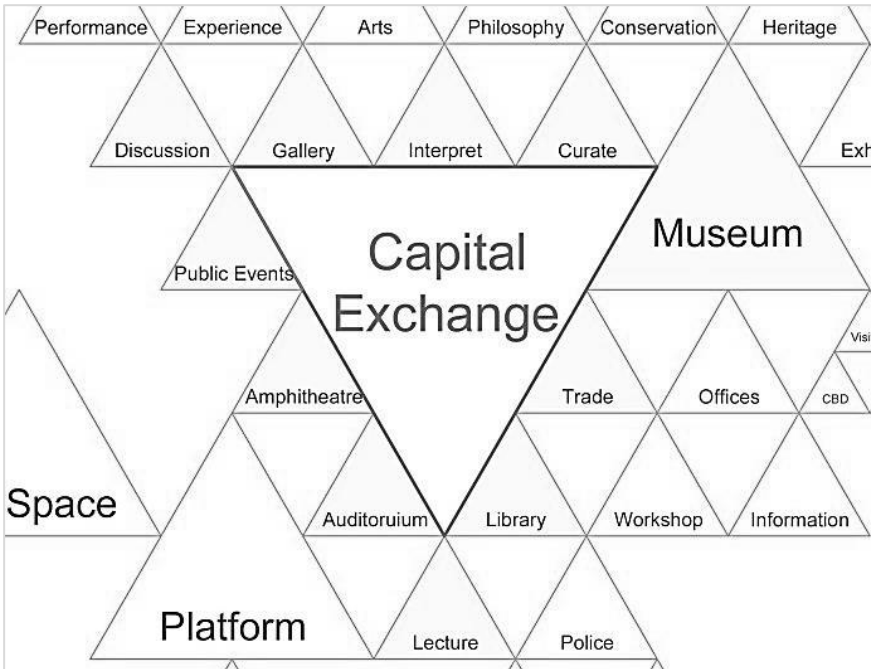


Figure 12a: Tri-Grid Structure.



The development of the programme over the course of the project since inception as a new typology for Contemporary South African museums, to less formal building functions such as an Amphitheatre and Bazaar is shown in the diagram in figure 12d. This development is aligned with the overarching intent to design a place of significance that is user- defined, rather than a prescriptive. Ultimately, the building should curate diverse Peoples, rather than objects as is the case presently.



Tier 4 – Programme Definition

Figure 12b: Programme Outline.

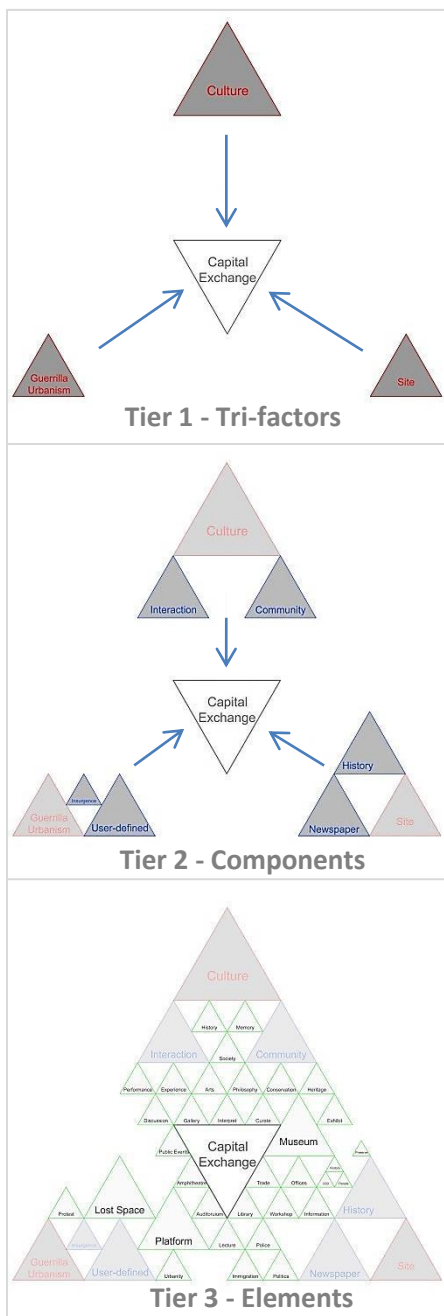
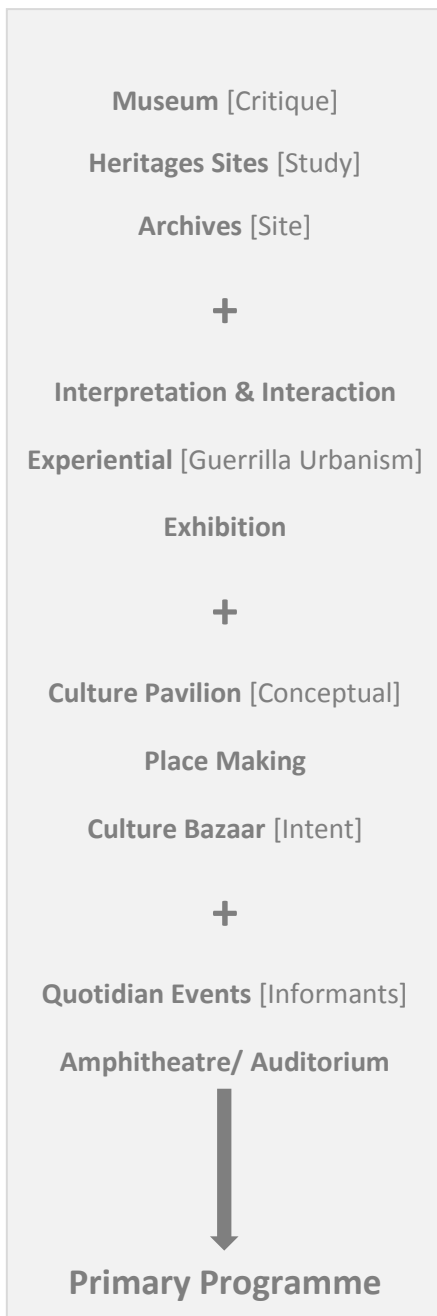


Figure 12c: Tri-Grid Analysis.



12d: Programme Development.

12.1. Programme Resolution

In an attempt to produce a programme that meets the requirements set out as the Project Intent, the elements above were synthesised to form a Primary Programme. This programme aims to foster equality amongst the users of the site, regardless of language, race or creed. As a means to achieve this, a Theatre for daily activity is proposed, supported by a Cultural Bazaar. This bazaar is a place where typical CBD activities can occur, in a casual manner that allows the user an experience of Pretoria on a day-to-day basis.

The theatre represents that component of the design that assumes the role of the Curator of Peoples. This is done physically as a place where people congregate, and is achieved socially/ culturally as a venue where information, ideas, opinions and protests are staged. This will be done in the context of the daily routine of the dwellers, visitors and workers of the Pretoria CBD.

As the typical role of a museum curator to select or pre-determine the content of an exhibition falls out of favour with the goal of a user-defined use-schedule, aspects of the design will allow for insurgent activity that favours the site and without destroying its heritage value. This can be achieved through the addition of urban/ street interventions that allow for quick engagement with the site whilst on a daily routine, or in depth experience through entering the site and becoming an active participant in the drama of social life.

The graphic below is a summary of the development of the proposed programme, based on the aforementioned information.

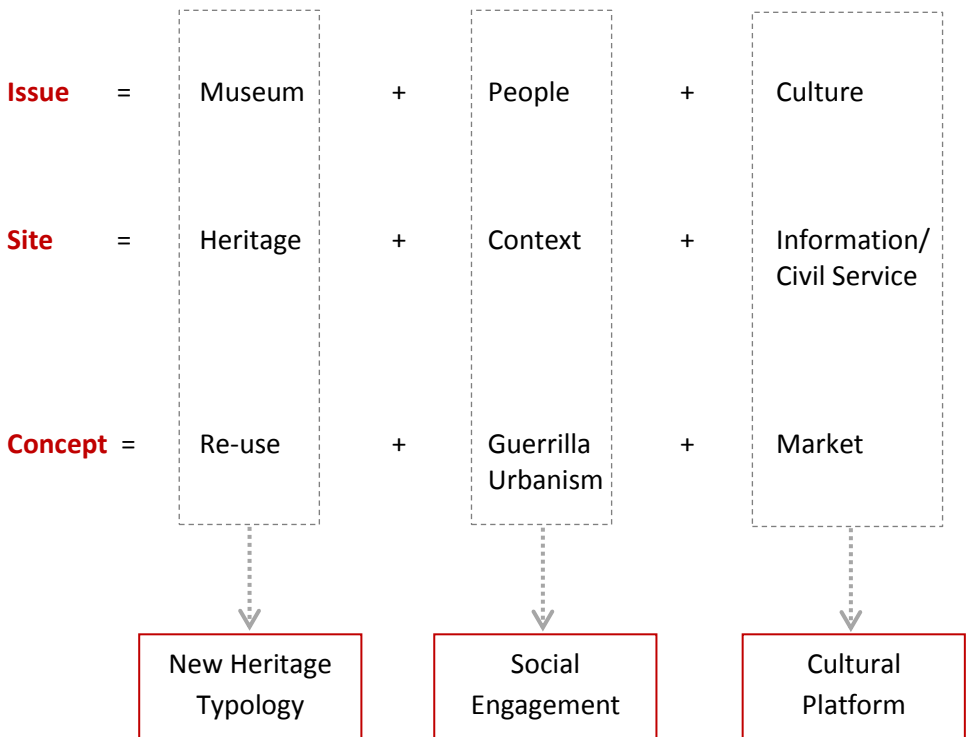
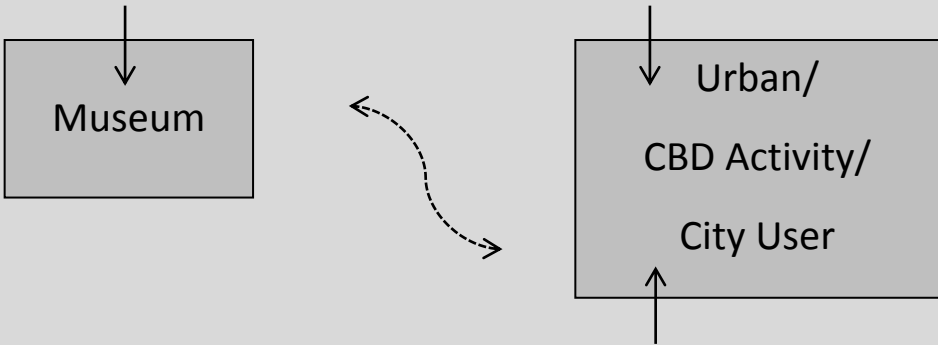


Figure 12.1a: Programme Synopsis.

The summation, perceived weighting and implementation of this programme can be illustrated as follows:



Diagrams indicating the existing isolated conditions with low interaction [above], and the proposed integrated cross-programming scheme [below].

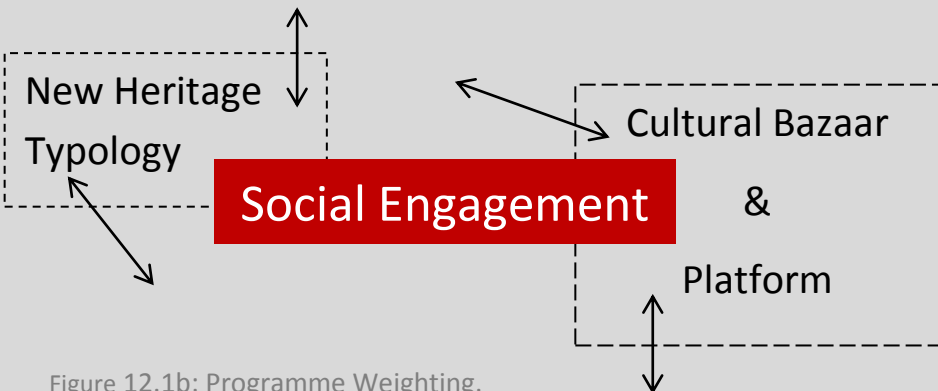


Figure 12.1b: Programme Weighting.

e. precedent study



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E. Precedent Study



Chapter E

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E. Precedent Study

13. Design Precedents

A range of precedents selected as informants for the design proposal were based on their relevant applications. These represent urban/ contextual, heritage, aesthetic, and structural categories, and were selected based on preconceived ideas for the design.

The study assesses the merits of these projects, drawing on the lessons learnt in order to guide the development of the design process.



Category: **Heritage**

Description: **Capital Information Centre**,
Ottawa, Ontario, Canada, 1996.
Diamond Schmitt Architects.

Designation:

Interpretation & Orientation Centre for
Ottawa, the Canadian national capital.

Recognition:

Award of Excellence from the Ontario
Association of Architects

Restoration of a fire-damaged historic building on Parliament Hill incorporating a new side entrance and expressive first floor projection into the public space alongside.

Fig13a: Capital Information Centre.

[Source: Diamond Schmitt Architects].

Application:

**Urban/ Volkstem Ave/ Compol
Building**

As part of the urban upgrade of the Pretorius Street Police Precinct, the west face of Compol is to receive a similar intervention, including a protruding display box and new side entrance that links the existing Police Museum and the new Capital Exchange Project.

The roads surrounding the site will form part of the proposed upgrade, and include the addition of bicycle lanes and improved pedestrian walkways and branded signage.

[Fig. 13b: Volkstem Avenue].





Category: Urban Interaction / Technical
Description: The Storefront Renovation /
Wall Machine,
New York , USA, 1993.
Acconci Studio and Stephen Holl

Description:

A narrow triangular space for an alternative gallery, constructed from white-painted plaster board on the inside, with supra-board forming the outer panels.

The wall is separated into segments with panels that pivot horizontally or vertically, to form doors, windows, shelves, tables and benches. When opened, these form a connection between inside and outside, extending the gallery to the street. It becomes part of the sidewalk, whilst it is designed to be variably adjusted to suit different exhibitions.

Fig. 13c: Wall Machine.

[Source: Architonic, 2013].

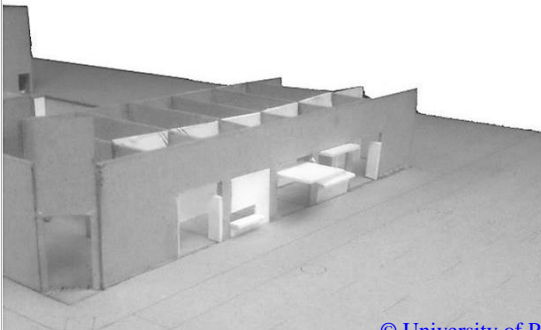
Application:

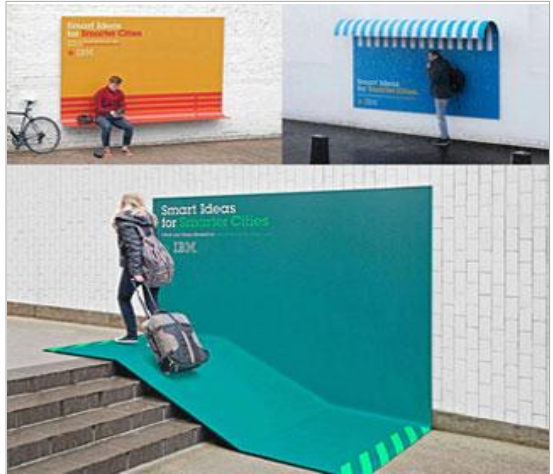
Volksstem Building North Façade

To improve the building's relation with the street in terms of visual and public access and interaction, the large tinted windows are to be replaced by a series of doors, windows, and other mobile panels that allow for ingress, views and utilisation as street furniture. The implementation of this new fabric into the heritage façade is justified in that the existing windows do not represent continuum in the building's historic significance, as shown in figure 8.1.2c.

The application of this idea to the Capital Exchange Project requires a study of the previous incarnations of the windows as a design driver, merging contemporary uses into the overall formation, morphing it into a contextually appropriate response to the heritage and urban conditions.

Figure 13.d: Test model showing new door/window typology.





Category: **Urban Advertising Furniture**

Description: **People for Smarter Cities**

Project Global, current

IBM

Designation:

“...a ramp for your luggage (or bike), or a shelter from a sudden downpour, or a place to sit down and tie your shoe...”

Technology and Consulting firm IBM has taken the idea of utility and applied it to typical outdoor advertisements. The company has installed a number of advertisements that have dual functional surfaces. This is in line with the campaign.

Fig. 13e: IBM Advertising.

[Source feeldesain.com, 2013].

Application:

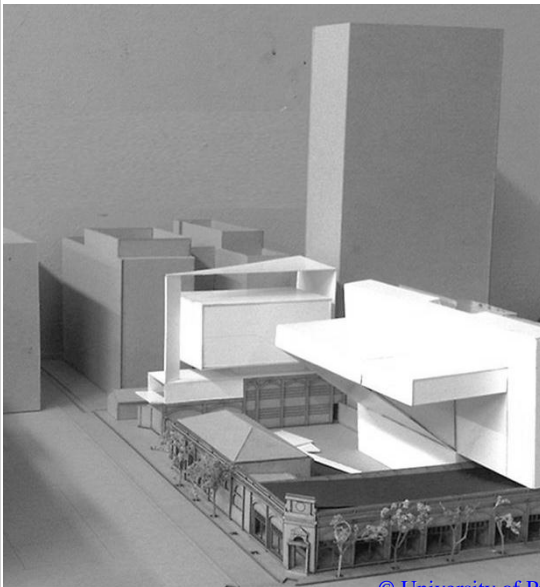
Sidewalk Installations

The approach to the urban condition, and particularly that of Volkstem Avenue, looks to the concept of Guerrilla Urbanism and contemporary solutions.

Though not prescriptive or permanent, these are perceived as 'pop-up' installations that aim to support the general building programme, thereby garnering additional interest in the scheme.

Additional features include phone booth mini-libraries that operate from modified telephone booths, on a system of 'bring a book, take a book, read a book'.

Fig. 13f: Street Setting.





Category: **Urban Eating**

Description: **Kitchain,**

Festival Belluard Bollwerk Int.
Fribourg, Switzerland 2009 &
Leuven, Belgium 2012,
MOOV Project Studio, Lisbon

Designation:

The annual project focusses on the ritual of cooking and eating as a great detonator of socialization and idea exchange. The interaction between the community members, artists, technicians and visitors is enhanced by implementing an open system, inviting people to turn the space into a communal kitchen.

'Kitchain' is a modular table-based open system that can be easily assembled into a structure, becoming a place to eat, cook, or relax in one of two ways. The first is passive, where people observe professionals, and taste their delicacies. The second is active, where visitors have the opportunity to make their own meals.

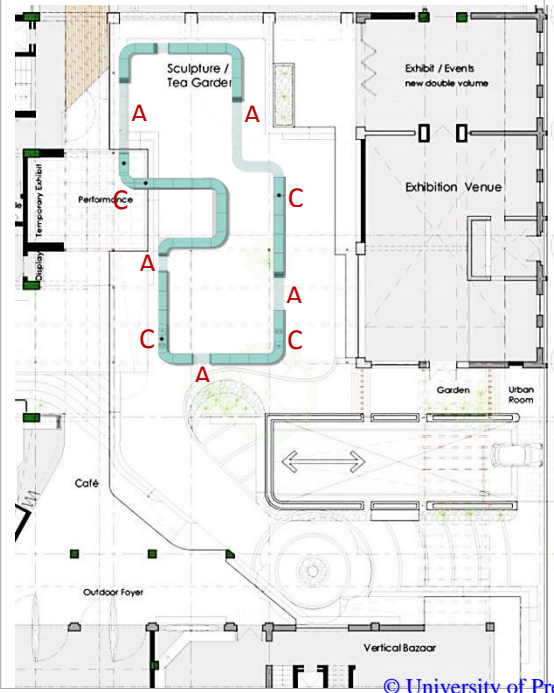
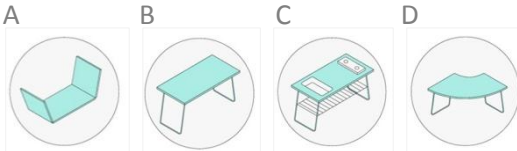
Fig. 12g: *Kitchain* [Source: designboom.com]

Application:
Urban Dining

The suitability of this concept to the project is seen as viable, and aims to foster an environment of unity through diversity.

The intended locations for this to happen include the courtyard, basement and the hall space to the south depending on the specific event or weather [Fig. 12h].

entrance table cook corner





Category: **Structure – Glass**

Description: **Broadfield House Glass Museum,**

Kingswinford, West Midlands, UK,
Design Antenna , 1994

Size: 63m² [5.7x11x3.5m]

Designation: This all-glass extension to a historic building dating from 1830 functions as a reception area, shop and display. The transparency of the structure allows the historic building behind to retain pride of place, whilst the use of glass references the original building's function as the museum of glass and hot glass studio.

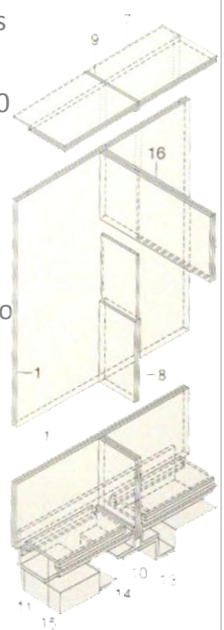


Fig. 12i&j: Glass structure.
[Source: Superstock.com].

Application:

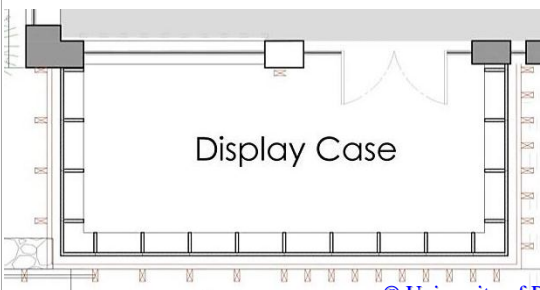
Display Case [Exhibit Room]

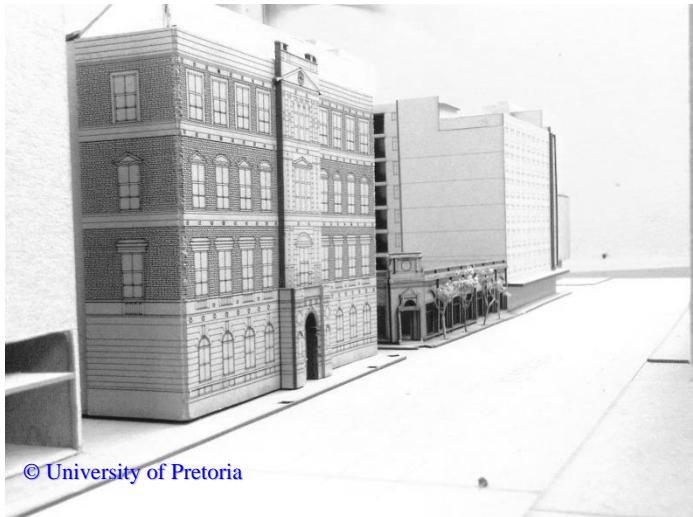
The requirements of the programme and the response to the existing buildings call for an addition to the south end of the east block fronting Volkstem Avenue.

The massing of this former office block is such that its aesthetic relies on its purity of form defined by its rectangular massing, expressed corners and symmetrical composition.

This calls for an insertion that does not serve to detract from its host, but rather compliment it. The glass box, though visible as an independent form, will allow the existing fabric to remain discernible. On the whole, the glass box will visually merge the exhibition space with the outdoor areas.

[Fig. 12k: Glass Box Insertion.]





f. design development



Capital Exchange

Final Edition

Vol 6,2013

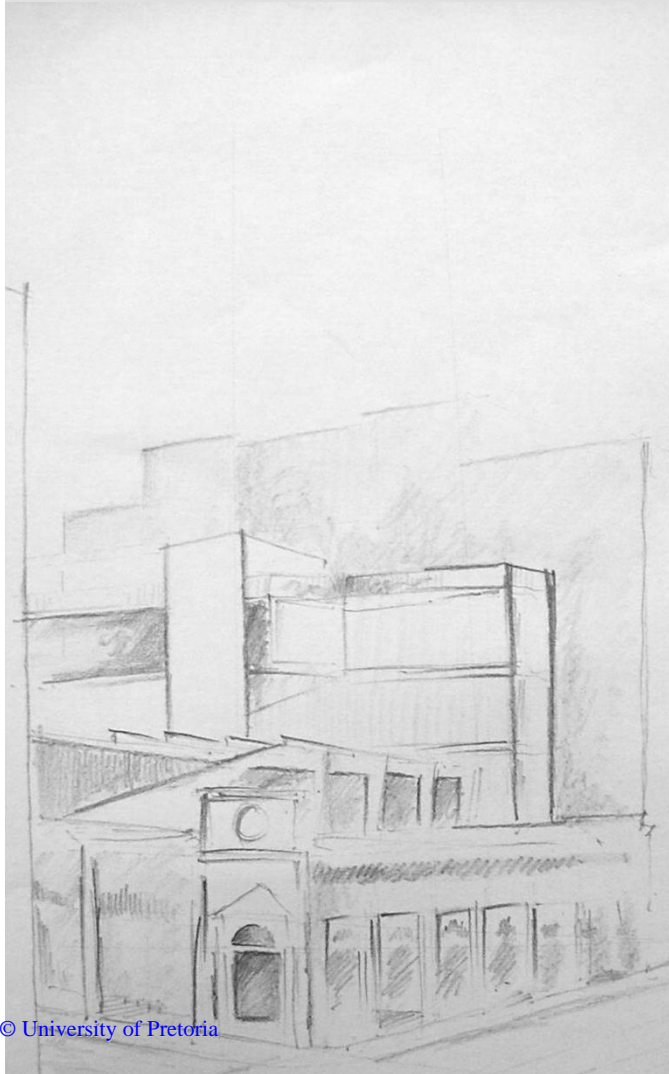
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F. Design Development



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F. Design

14. Design Development

14.1. Conceptual Approach

With the formulation of a programme, the project development requires a conceptual approach to guide the design from form-making to detail resolution.

As the primary intention of the project is the unification of peoples of diverse backgrounds, this factors highly in the formulation of a concept. The general issue and the programme suggest a new museum typology in an urban environment, interlaced with socially and culturally beneficial elements.

This is translated into the notion of:

**‘Exchange as a
Curator of Culture’.**

This plays on the idea of a curator tasked with assimilating, assembling, responding to, and selecting from artefacts of intrinsic or inherent value, with the aim of displaying or sharing it with others.

The 'platform for exchange' is a key aspect of the programme, forming an armature for the scheme's development, both spatially and functionally.

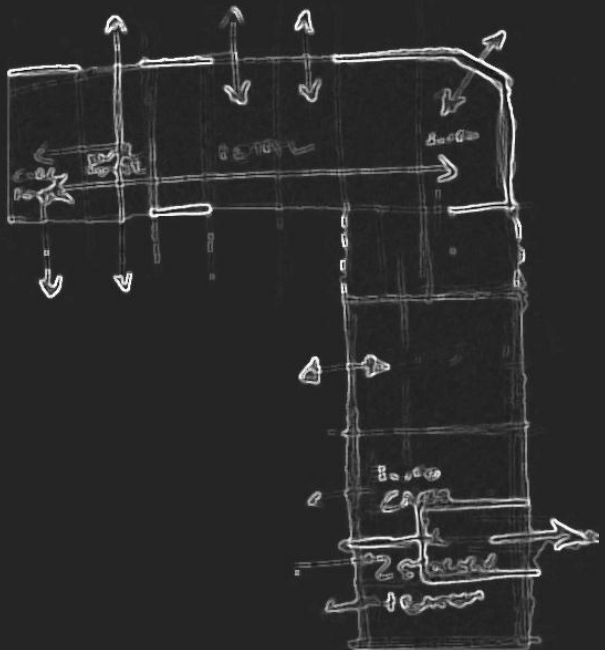


Fig 14.1a: Building as Exchange.

14.2. Concept Resolution

The extension of the idea of a **Platform for Exchange as a Curator of Cultures** brings to the fore several aspects of the design that need attention. These include a response to the aesthetic, form, and technical resolution of the design.

Taking into account the heritage significance and stereotomic structure of the existing buildings on site, and the urban context, a visual concept supporting these was developed for the design phase of the project.

With this new typology for an Exhibition and Cultural Exchange Centre branded as the ‘Capital Exchange’ project, this visual concept serves to express that theoretical approach.


Decisions on junctions between existing fabric and new forms are based on this visual concept, and extend to massing, tectonics and detailing. This Visual Concept is that of expressing the building as a symbol of unity in diversity, where elements are expressed in their individuality, whilst coming together to form a holistic project in their totality.

The application of this is where massing is placed above the bays in the north block. Here, the expression of the existing arched openings is of paramount importance as these represent the internal characteristic of the original building.

The achievement of this is through purpose-made 'gaps' between contrasting elements. Where a new column or wall meets an existing wall or feature, it shall be placed such that there remains a physical gap between the two. These gaps are to be glazed, in a manner that suggests lightness of structure.

Where possible, these are formed into light boxes or roof lights. This separation of elements continues into parts of the design that are based immediately above the existing ground floor, or those whose layouts are determined by the





original grid layout. The aim of this is the utilisation of natural or artificial light to define the building, rather than relying solely on tangible building material. With this being achieved, the final design should be expressed as series of seemingly disjointed segments or bays, held together by light.

During the day, natural light passing through such slits will illuminate the building's interior with a dramatic, changing light. At night, artificial light from within will be expressed externally, creating alternating patterns of light and shadow. The light and the boxes from which it emanates should read externally as beacons. The symbolism of this is the integration of disjointed communities being brought together so that they may recognise each other's positive traits.

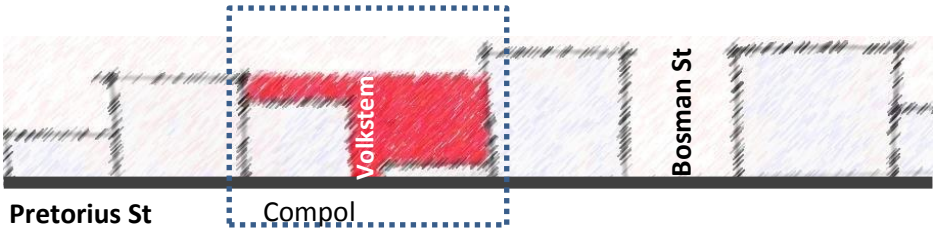


Figure 15.1a: Streetscape.

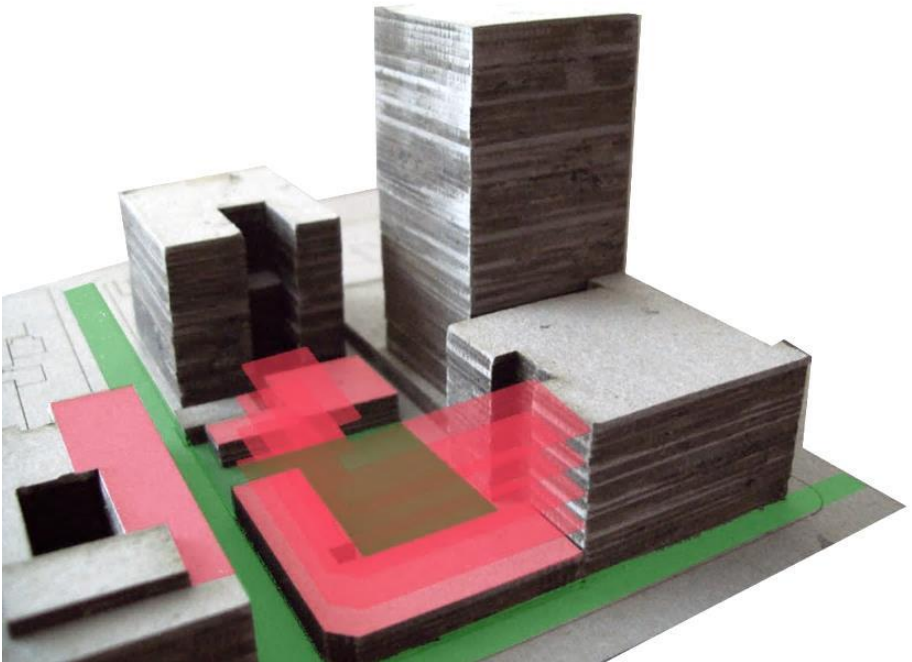


Figure 15.1b: Potential Massing.

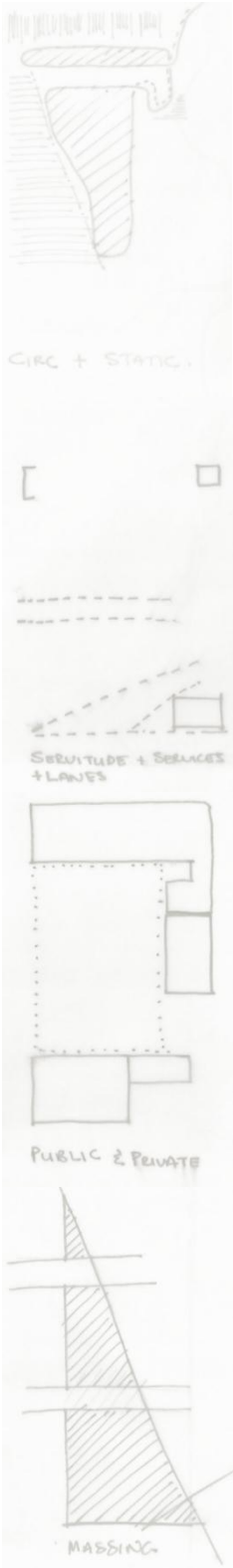
15.1. Form Making

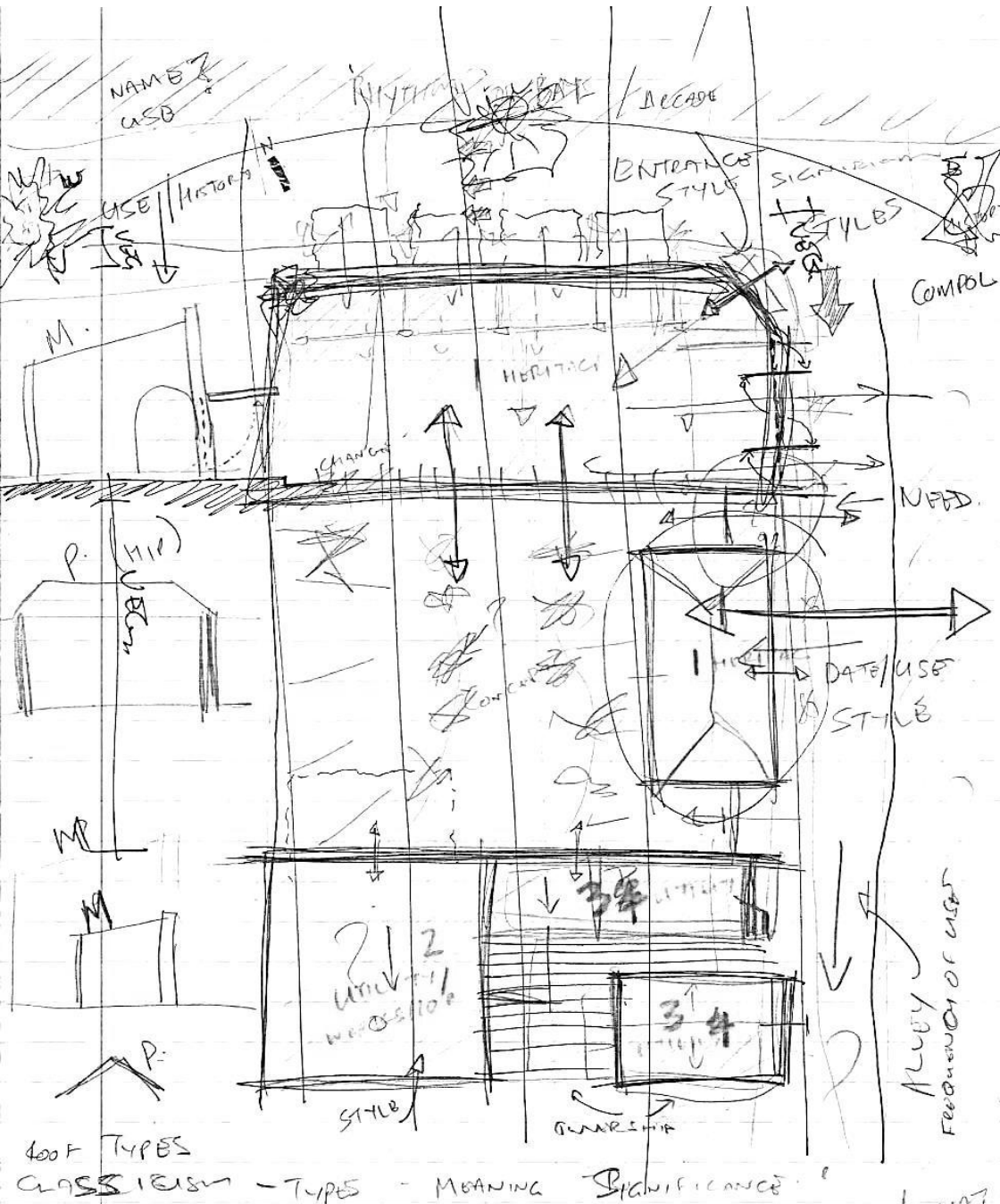
A study of the existing forms and massing surrounding the site was conducted in an attempt to determine the appropriate scale and layout of the design. This is necessary, as the site and its context are of heritage significance and any new form should aim to enhance the existing qualities, instead of compete with them.

The outline of the streetscape along the site's northern façade revealed a gap in the urban fabric where the Volkstem Building and Avenue occur. There is a discrepancy in building heights, from the single storey Volkstem building, to the four-storey Compol Building and the multi-storey residential blocks in the locality. The shaded area between the Volkstem and Compol buildings and over Volkstem Avenue shows potential for vertical development and a possible link with the alley. This opening presents an opportunity for the design, and suggests the extent of fabric that may be added. Figure 15.1a illustrates this streetscape, as well as the possible infill area.

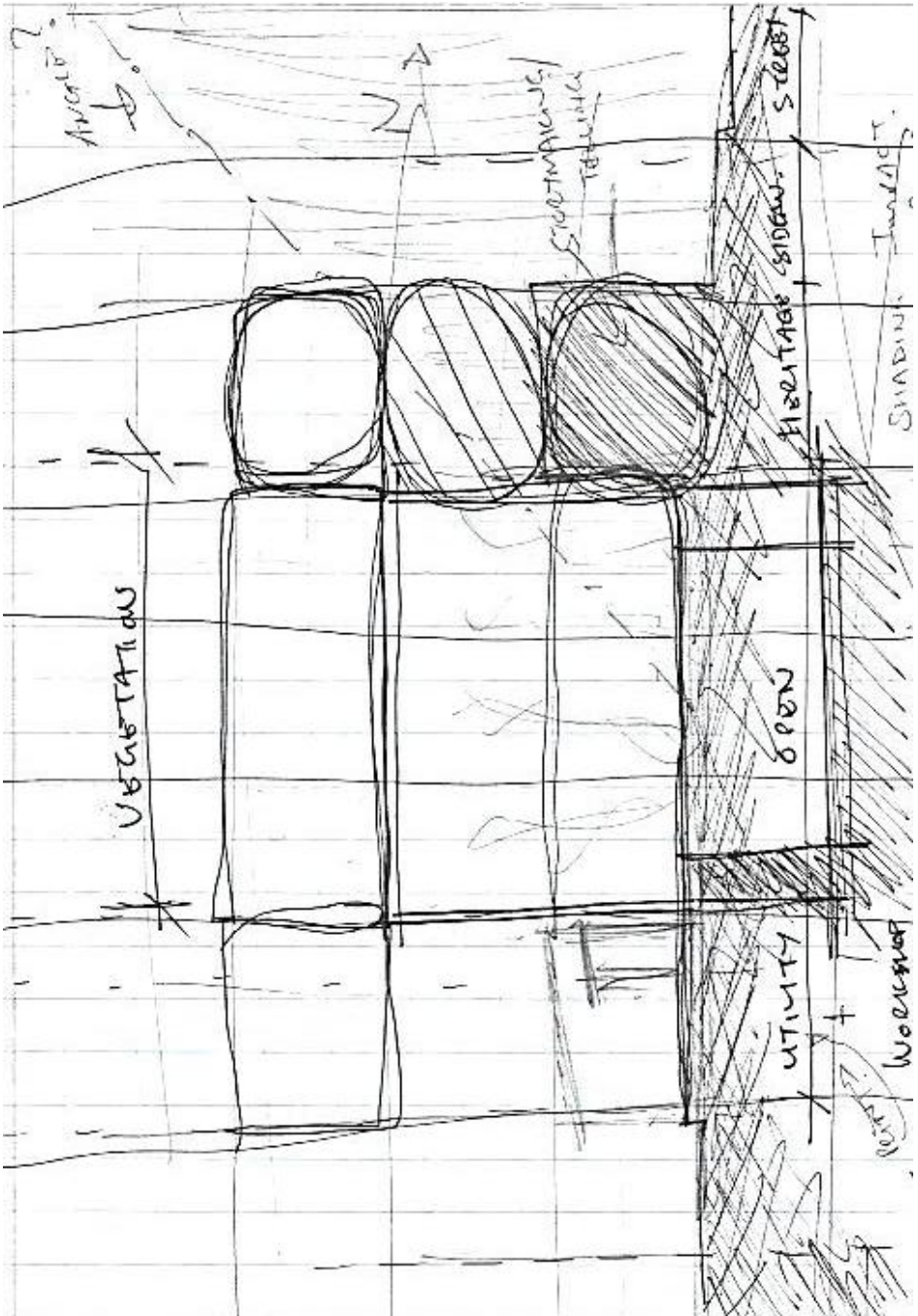
A model of the context was developed, and shows the refinement of the infill in terms of number of storeys, placement on site, and the opportunity for urban interventions along the streets [Figure 15.1.b].

The images on the following pages show additional early mapping and zoning, used to determine the afore-mentioned.

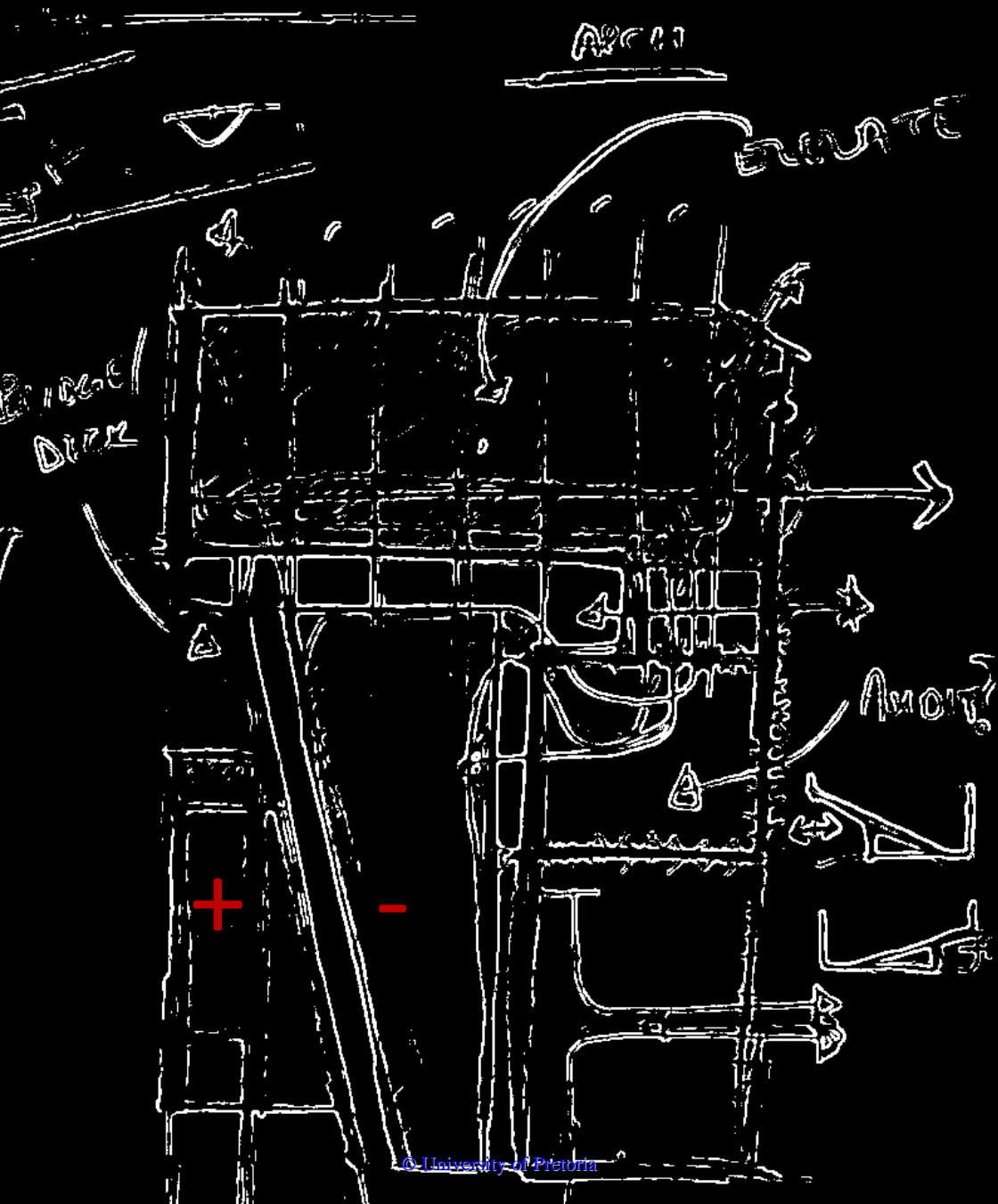




Site Layout Plan



Site Layout Section

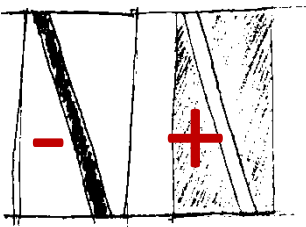


15.2. Form Development

15.2.1. Positive vs. Negative

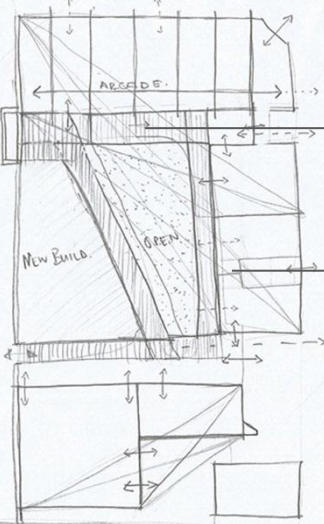
The identification of the site in terms of positive and negative zones determined the basic shape of the new design. The sketch at the top of figure 15.2.1a shows the identification of these zones about the existing courtyard.

The positive [+] segment shows the suitable location for a new building on site that links the north and south blocks through the courtyard. The negative [-] space is that aspect of the courtyard that must remain intact, from a heritage standpoint. It forms a 'bounding' plane that defines the internal 'L-shape' of the building. The skewed line dividing the two fields originates from a pathway through the existing courtyard.



The images that follow indicate these zones in relation to access points through the site and buildings thereon. Additionally, sight and setting-out lines are shown the drawing.

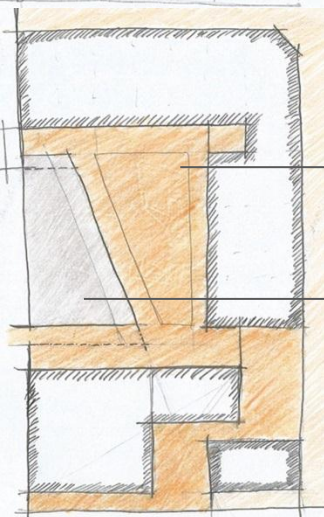
[overleaf] Figure 15.2.1a-c: New Massing.



[1] Heritage set-back lines
defining the façades at the
street corner

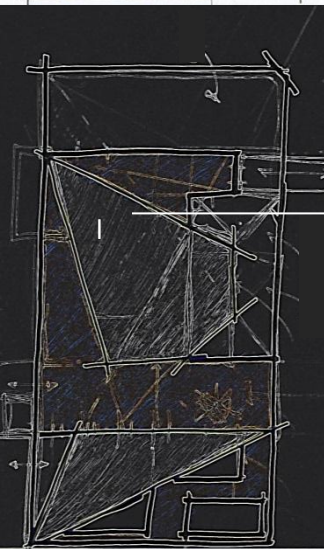
Courtyard sight-lines

Servitude set-back.



[2] Courtyard retained at inside
corner

Possible location of new massing



[3] Additional options for
massing and courtyard.

15.2.2. Massing Refinement

In addition to the above form development, the following series determined possibilities of form.

[a] The existing massing [shown at the top]

[b] Current extent of use

[c] Setting back the building for heritage reasons

[d] Cutting away from the massing in response to urban lines.

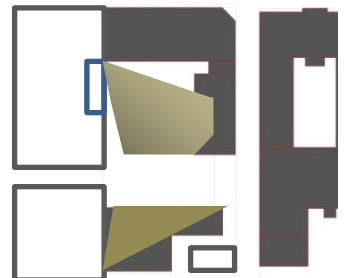
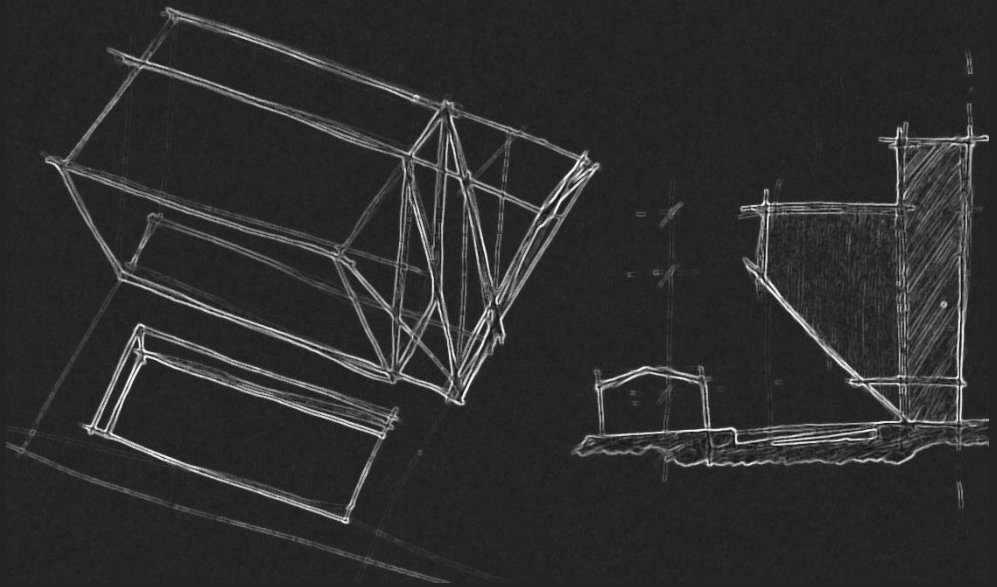


Figure 15.2.2: Form Refinement.

The following images show the application of the aforementioned studies in an attempt to develop a form conducive to the programme and project.

Of particular importance is the easy ingress of people from the side-walk, into the building, and through the site. This weighs heavily on the form making process, with the layout of the courtyard as a central circulation and assembly space becoming an important component of the design.



15.2.3. Form Development

The suggested form for the new building was seemingly overbearing in relation to the low-scale of the existing buildings on site. This contradicted the heritage guidelines for the site's development, and consumed much of the original courtyard.

This resulted in the decision to recede the lower floors of the tower, creating a cantilevered effect as shown below. The benefit of this is the liberation of more of the courtyard, and sensitivity to the heritage buildings. Figure 15.2.3b b shows the testing of this idea.

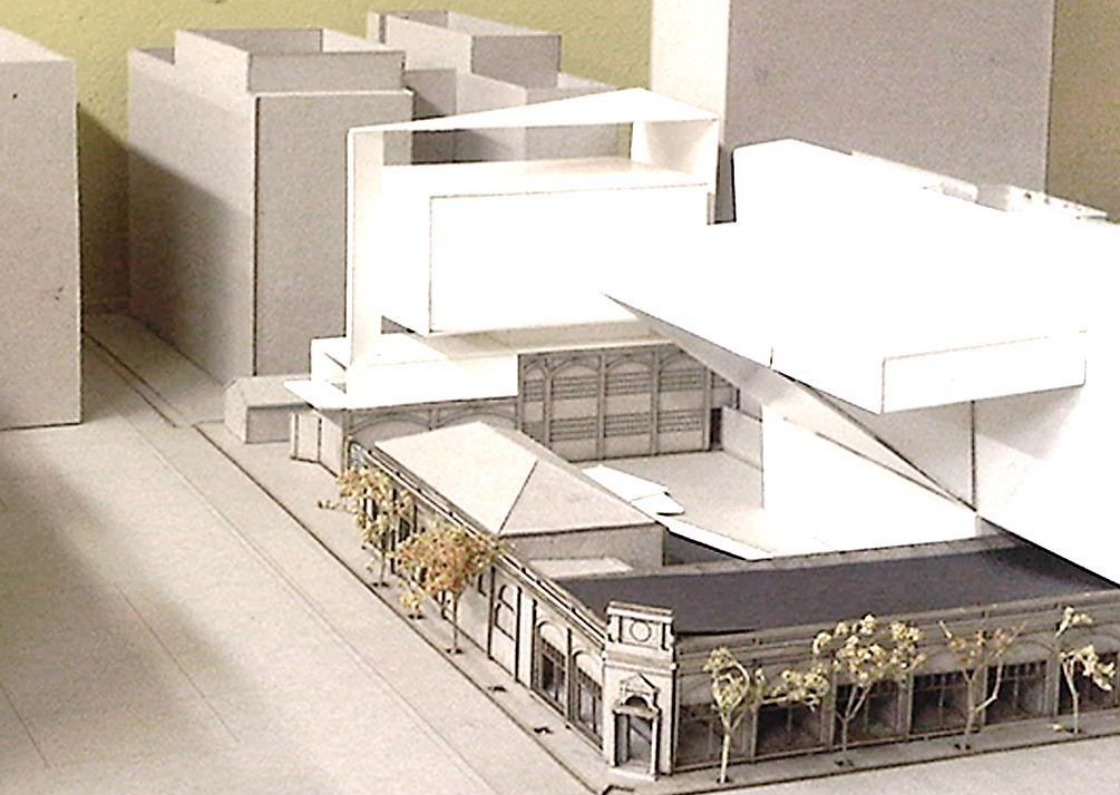
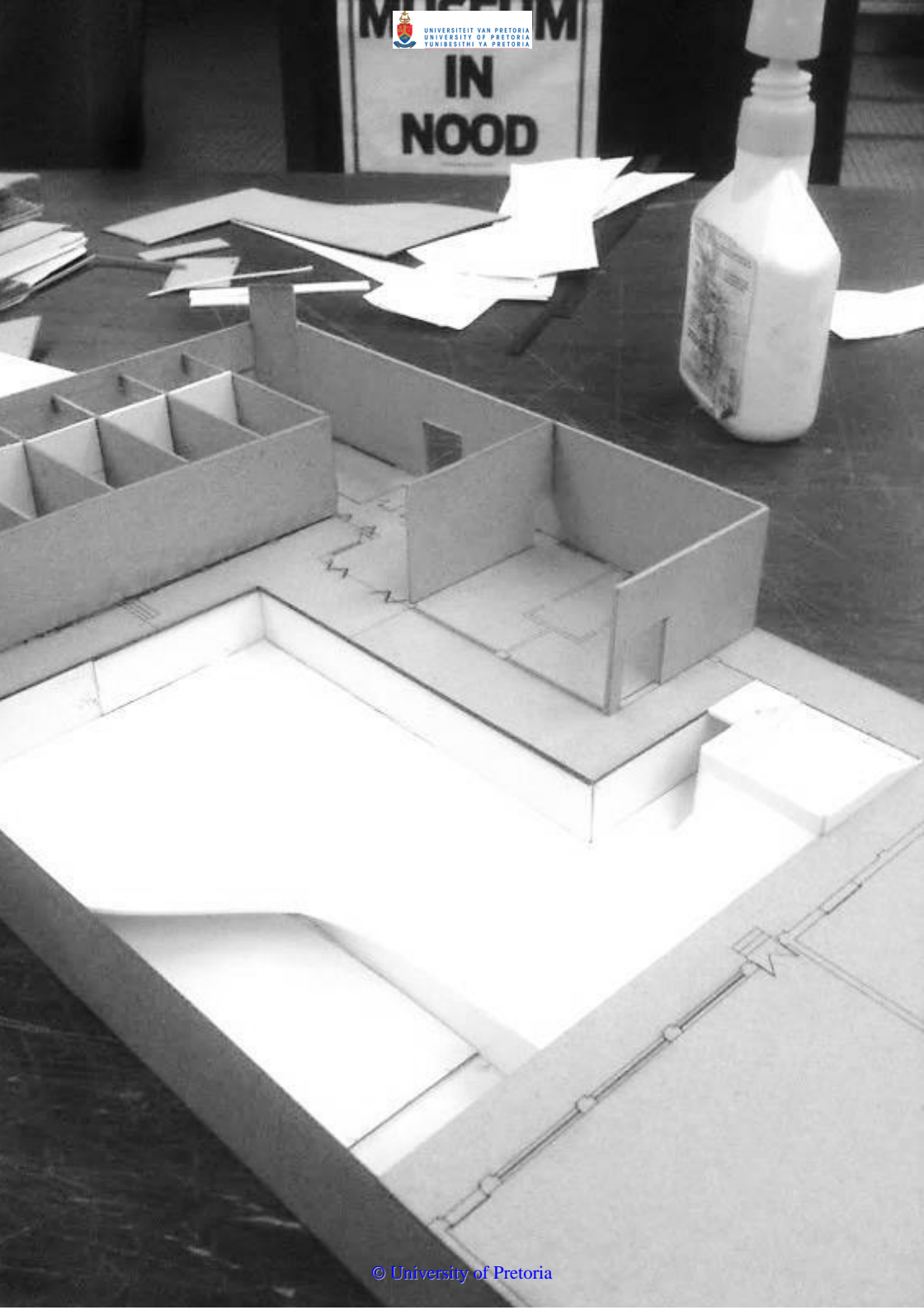


Figure 15.2.3a&b: Cantilevered Form.



16. Founding Structure

The resultant form was iterated several times, factoring in external informants and programmatic requirements, as presented.

One of the earliest decisions in the design process was the inclusion of a basement occupying the extent of the existing courtyard. This was based on the need for parking for a building in the CBD, as well fulfilling programmatic requirements for the project. This includes building and environmental services.

Additionally, the basement affords the building an additional storey, without increasing its height above ground. As the courtyard is of little historic significance in terms of use, this decision conforms to the Heritage Guidelines determined for this project.

The final version is complete with a ramp to SANS specifications, and the basement is also intended to serve as an additional urban events gathering space. The technical details of this are explored in the following chapter.

Figure 16a: Early Basement Development.

With practical and legislative requirements governing the setting out of a basement parking structure in terms of access, safety and security, bay widths and manoeuvring spaces, paraplegic accessibility and fire-safety, a provisional layout and structural grid was determined. The grid, as shown in the drawings in Appendix A, is based on a combination of parking requirements and the existing heritage grid, set perpendicular to each other.

A split level roof covers the basement, and forms the levels of the new courtyard. The importance of fixing the basement grid is evident as shown in the subsequent plans, where the structural system emerges from it to define the superstructures in relation to the suggested forms.

Early explorations of the basement in section considered split-levels, in order to obtain a sub-terranean mezzanine for use as additional storage and/ or urban space [Fig. 16b].

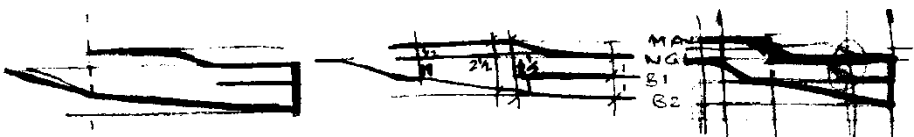


Figure 16b: Split-level Basement.

This idea proved to be unfeasible in terms of light and air quality, cost of construction and the inability to produce an access ramp that meets the minimum required standards.

The final basement is a single-storied structure that defines the setting out of the west tower overhead, as well as the courtyard layout and columns of the new first floor over the existing museum.

The following series of images [Fig. 16c] show the development of the basement, of which the final rendition will be specified in

the following chapter on Technical Resolution. The basement started as a carpark of 13 bays including a paraplegic bay and an amphitheatre like space with a partial void over [version A], and changed to include storage and a tunnel link to the Compol Building [B], additional parking [D], toilets [E], and eventually becoming a 14 bay carpark, plus two paraplegic bays, bicycle parking, storage units, utility and machine rooms for HVAC systems & a stand-by Generator, as well as sump water pump and overflow tanks .

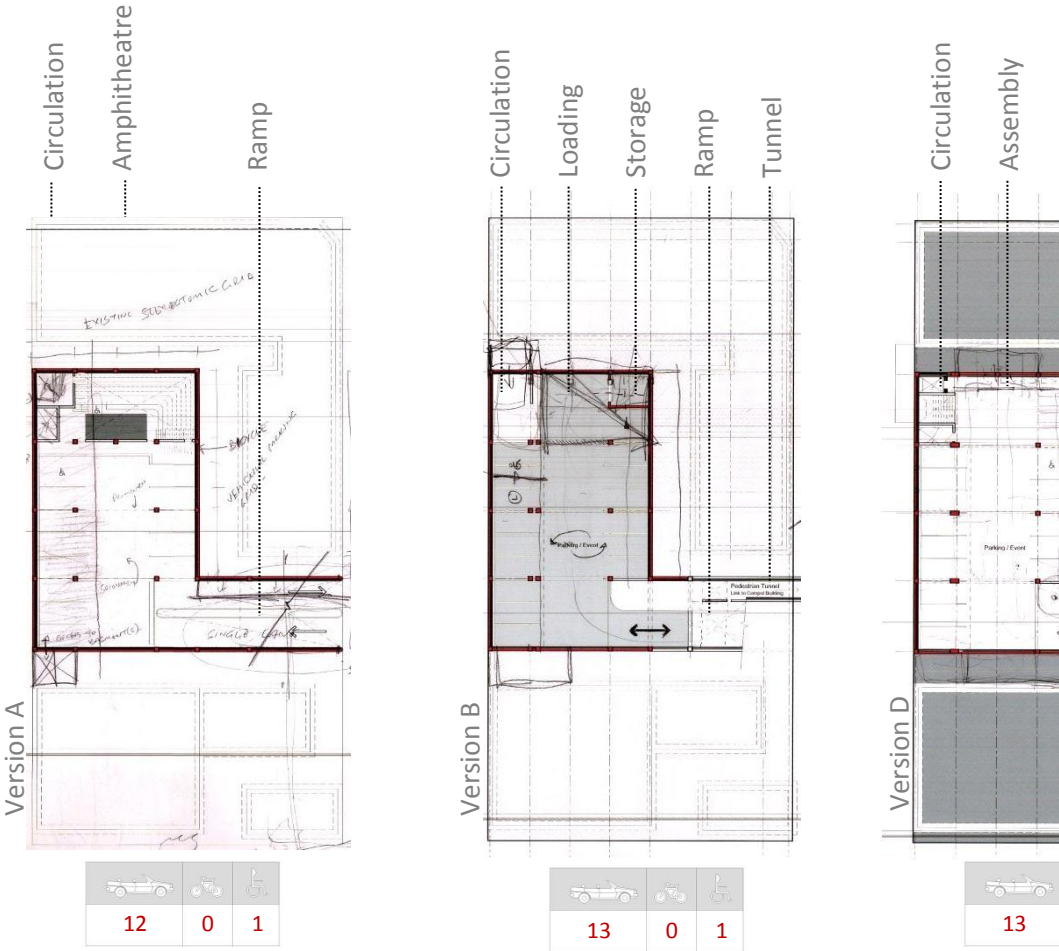
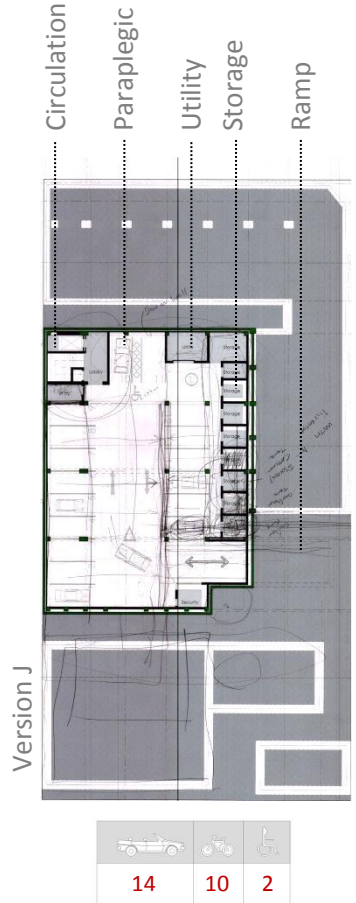
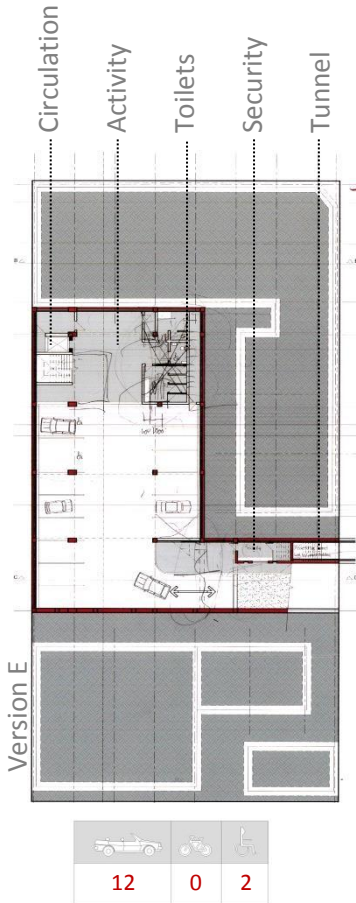
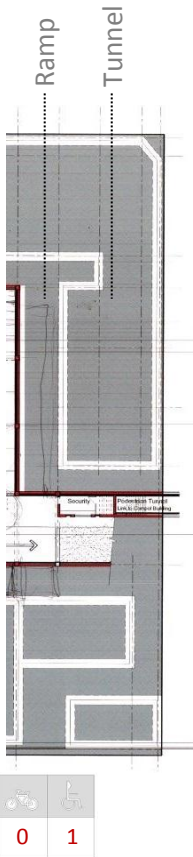


Fig. 16c: Basement Development [NTS].



17. Design Iteration

As presented above, the initial approach to the design followed the path of form-making. Though this presents challenges and questions of efficiency of design and appropriate response to external stimuli and regional criteria, that approach was deemed necessary as a response to the significance of the existing building.

With a base form at hand, the development of the design subsequently relies on influences such as building function, movement and routes, flexibility for events, spatial qualities, and user-comfort. In addition to this, the structural, material and technical configurations play a role in the resolution and refinement of the final design.

As the aim of the project is to foster social cohesion in a context close to Church Square, the design surrounding the courtyard becomes important as an extension of the ideals of the original square. That is, the courtyard is intended to act as a place of gathering, for social and culturally inspired activities.

This idea is presented in the chalk sketch shown in 11.2: Site Informants [p118], whilst an early approach to the possible spatial arrangements of the existing buildings on site is mapped below [Fig. 17.a].

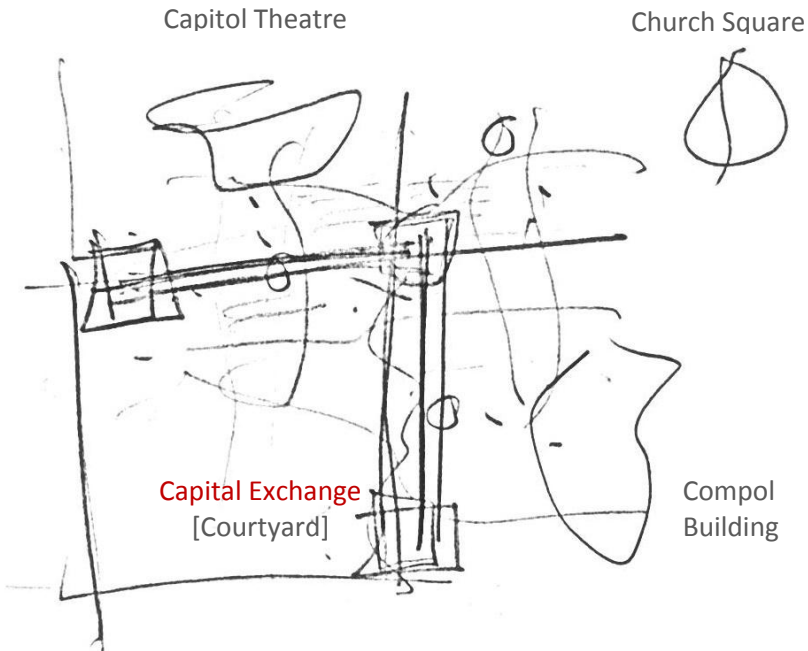


Figure17b: Courtyard concept.

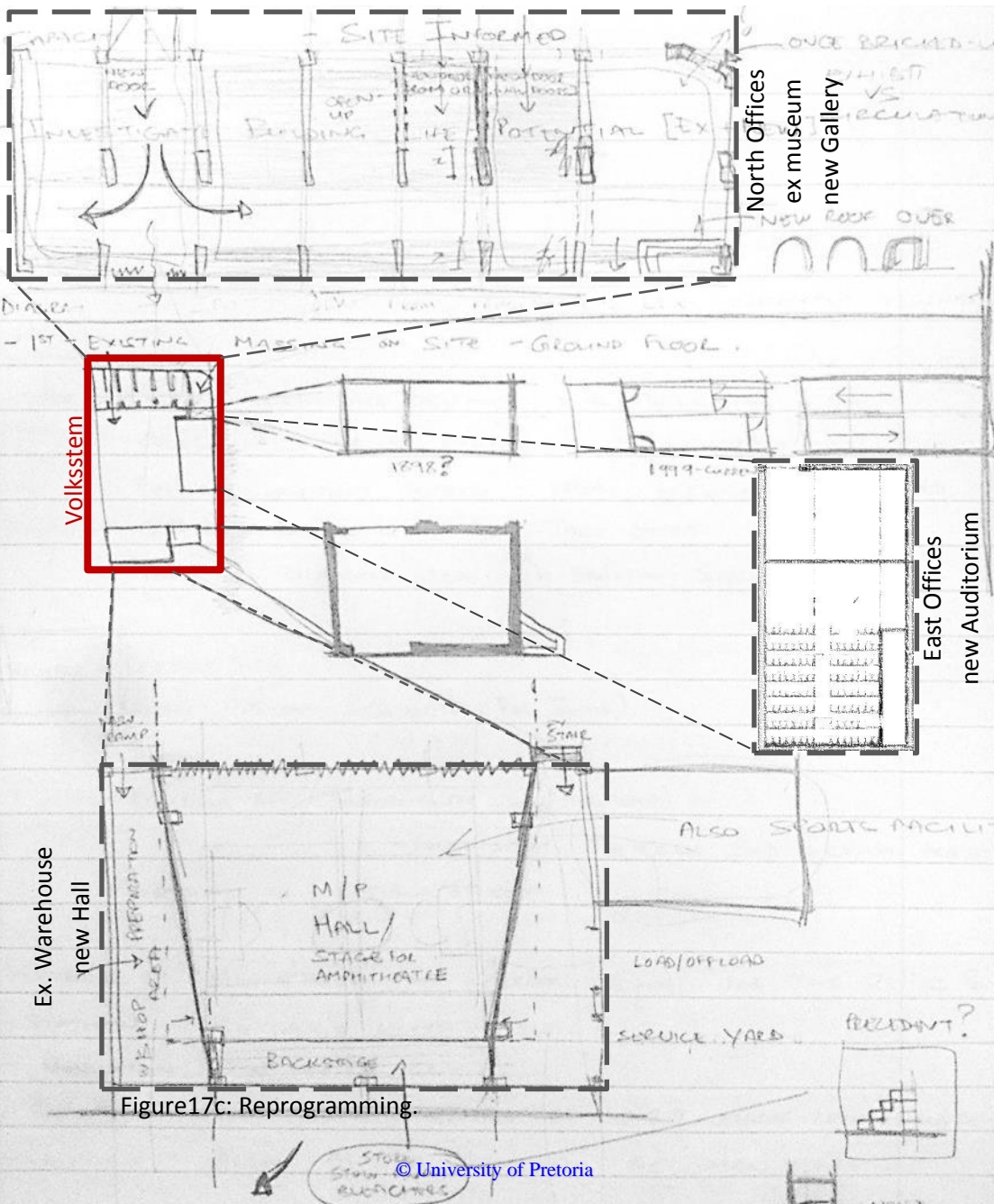
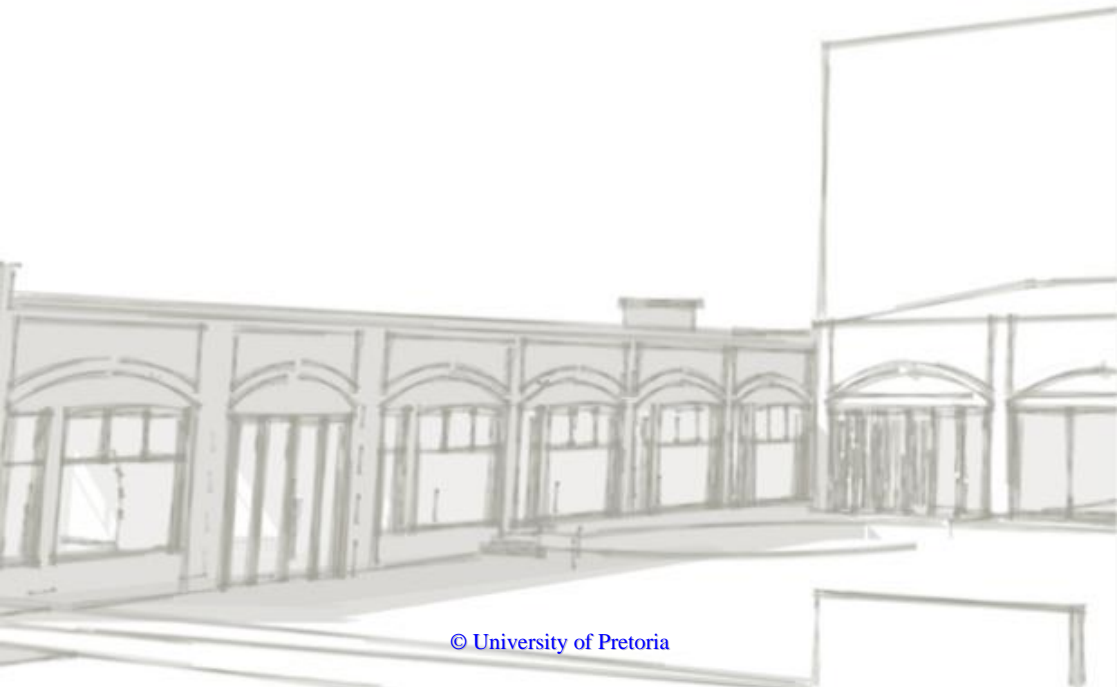


Figure 17c: Reprogramming.



17.1. Courtyard Layout

The resolution of the basement allowed for the design of the superstructures to commence. With preconceived ideas of form and programming in place, the primary task was the suitable re-programming of the existing spaces within the building, in order to retain the essence of the historic components, whilst merging it with more flexible and contemporary functions.

Concurrent to the development of the existing and new built forms was the development of the courtyard. The relationship between the courtyard, identified as an armature of the scheme, and the built fabric that defines it is seen as endosymbiotically mutualistic. That is, the courtyard [as viewed from its western neighbour, Time Place building, in figure 17.a below] exists only because of the 'L-shaped' buildings along the street edges, and is bound by the workshop and storage buildings to the south, with the western boundary wall forming the fourth defining edge. The buildings on site all have dual façades as a result of this relationship, 'fronting' the street and courtyard edges, where the courtyard serves to enhance the character of their spaces.

Figure 17.1a: Volksstem Courtyard from west boundary.

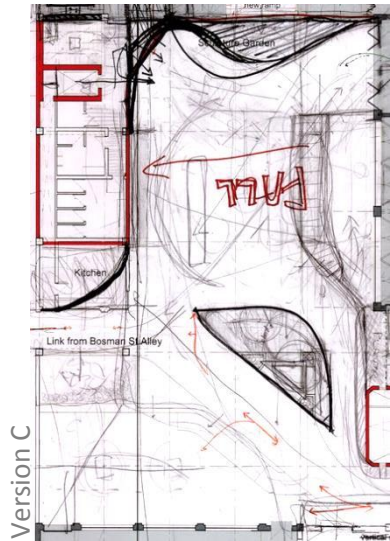
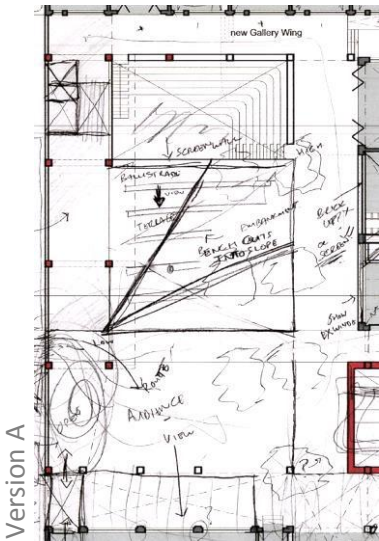
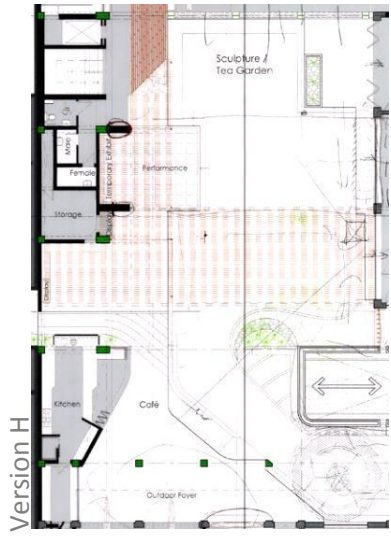
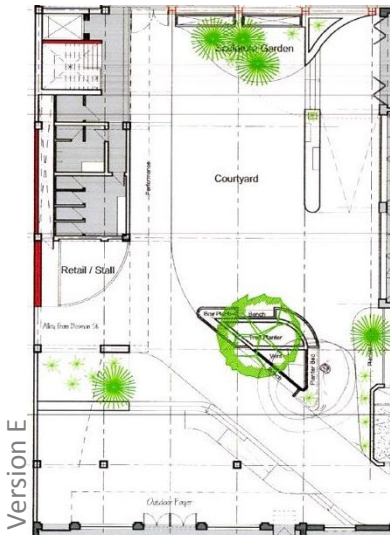
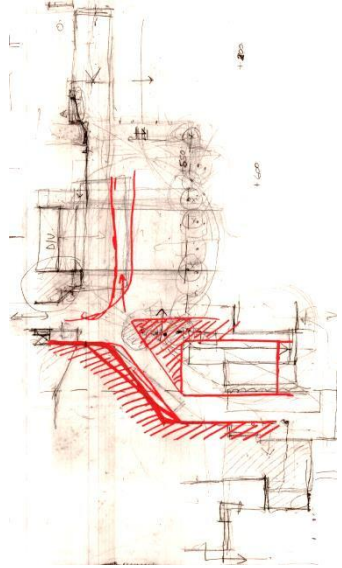
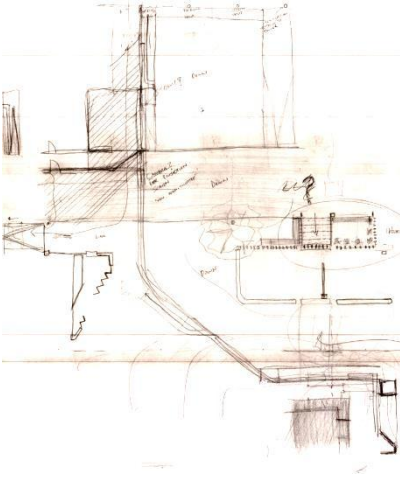


Figure 17.1b: Courtyard Development.



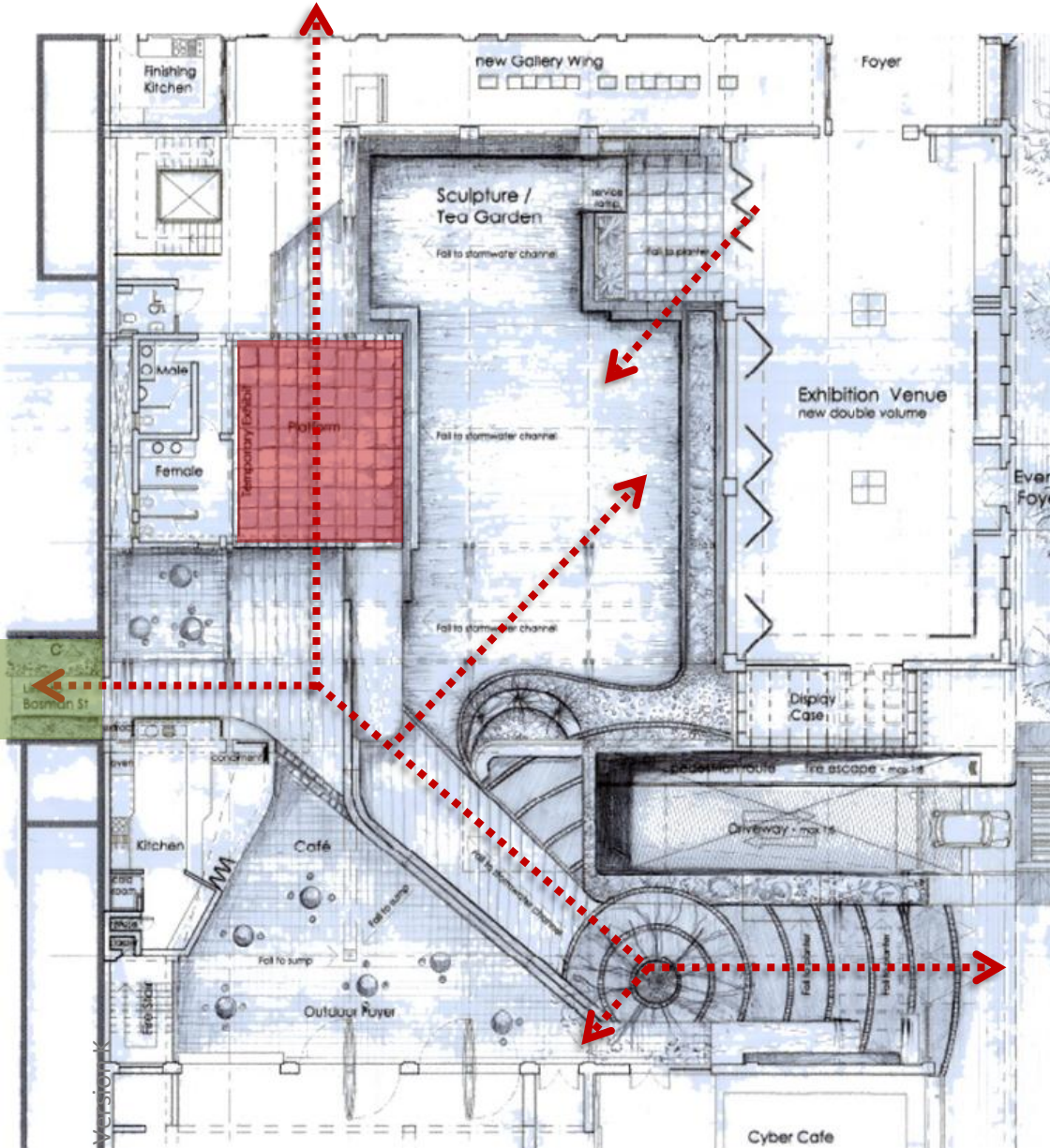


Figure 17.1c: Final Courtyard Layout.

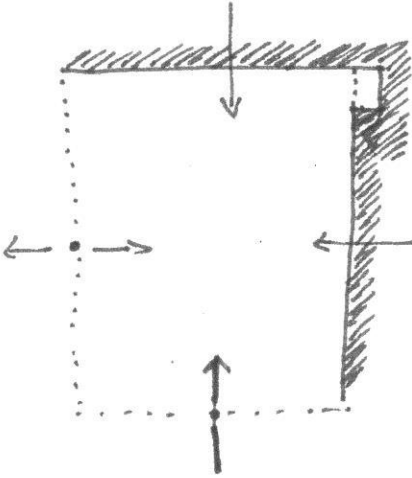


Figure 17.1d: Courtyard Concept.

The layout of the courtyard reflects the intention to maintain the essence of the original courtyard whilst developing parts of it. The preceding image, Version K of the project design, shows the proposal of a route that links:

- the Gallery to the north,
- Volkstem Avenue to the east,
- the Hall to the south and
- the Lane to Bosman Street to the west.

Also shown is the location of the Performance Platform / Temporary Exhibition plane along the northern path, leading into the building. The backdrop of this stage-like element conceals the building services located behind it.

The raised section of the courtyard links the Outdoor Foyer and the new west building to the northern massing. This split level draws from the original 1m fall of the site from the south east down to the north west corner of the site, and is necessary in order to meet the existing threshold levels of the various doors to the buildings surrounding the courtyard.

The planted areas of the courtyard serve to provide a green island amidst the surrounding building massing. This aims to retain the idea of the young trees planted after the restoration of 2000.

The existing trees, though not conducive to the proposed scheme, nor of historic significance, lend a pleasant atmosphere to the current courtyard. Those trees that will be retained include that of the sidewalks, as well as a mature tree located north of the storage building, adjacent to the proposed vehicular ramp.

More importantly, the position of the vegetation within the courtyard aims to function as stormwater gardens, for the detention of rain water, to be either stored or slowly discharged into the municipal stormwater system, as detailed later. The formation of zones along the courtyard, including covered sections aims to lend flexibility to the space, allowing for multiple, simultaneous activities including eating, gathering and events.

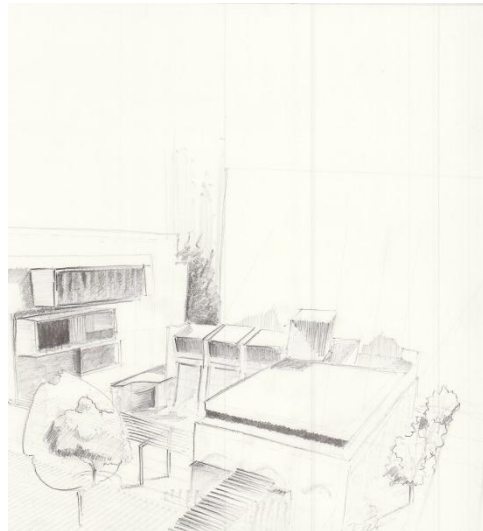


Figure 17.1e: Sketch Exploration.

17.2 Building Design

The decision to house conflicting programmes is intentional, and is intended to be a means of bringing different users of the building together visually, physically and intellectually.

The expansion of the project into the urban context includes elements as shown in the precedents chapter, and more importantly links with the west archive room of the Compol Building. This link, developed visually, is a necessary response to the Problem Statement as it promotes integration and interaction between the new proposed scheme and the adjacent historic building and museum.

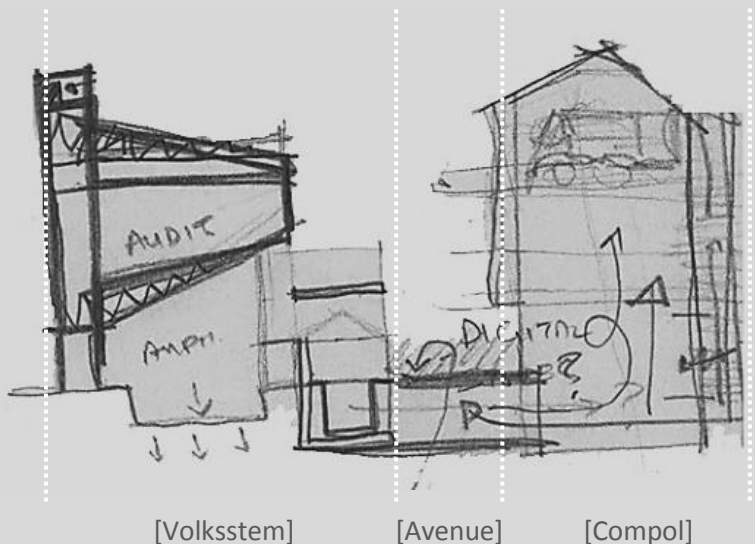


Figure 17.2: Compol Link.

17.2.1. Gallery Layout

The northern gallery block, currently housing the transport museum, is the basis for the incursion of an urban corridor into part of the former exhibition space, as well as the addition of a new enclosed wing along the northern edge of the courtyard.

With multiple points of entry into the urban corridor, there is a need for careful attention to security and privacy thresholds between conflicting programmes. The junctions here express the coming together of existing and new elements, as well as a high level of cross-programming that demands attention. The testing and development of this idea occurred as indicated below, where the major issues were the manner of cutting away parts of the arched walls and adding columns to support a new first floor.

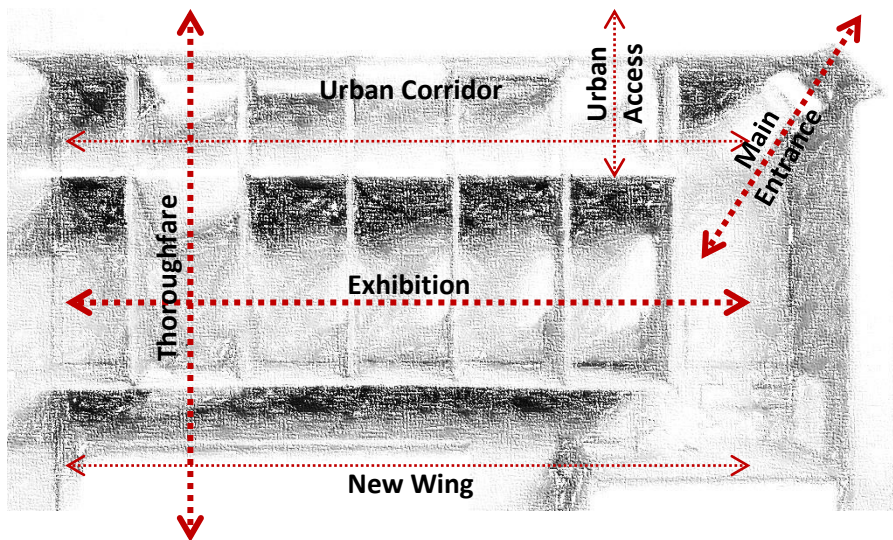


Figure 17.2a&b: Urban Incursion.



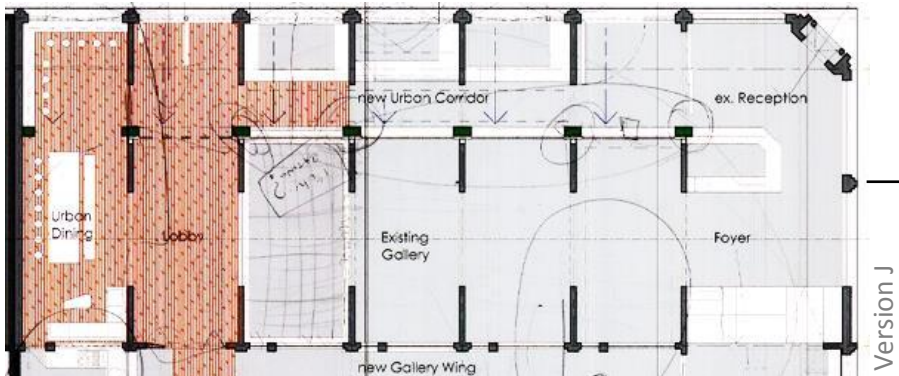
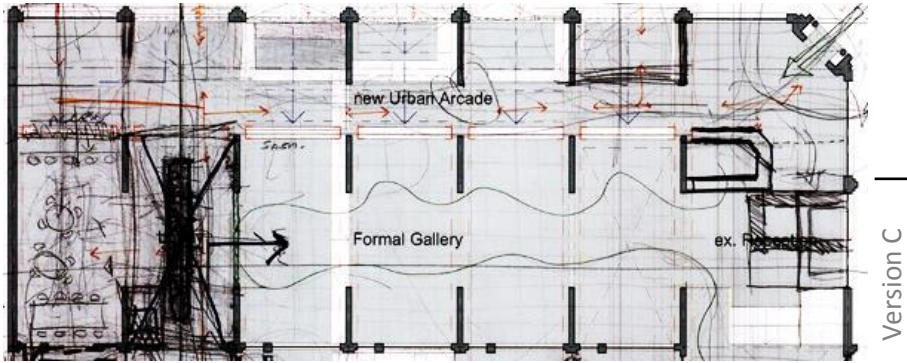
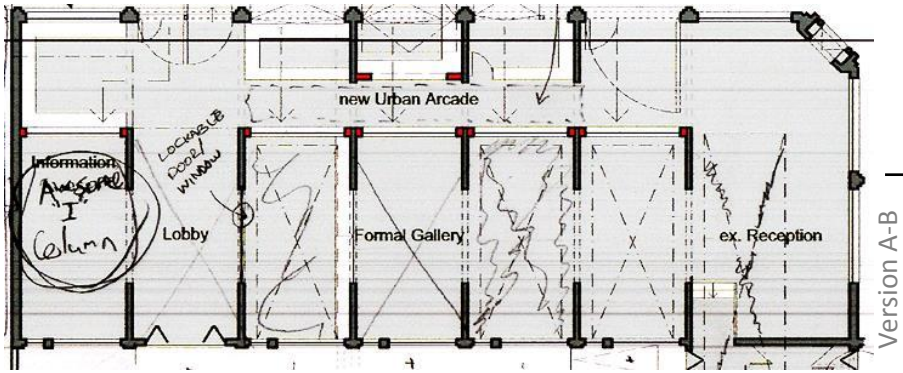
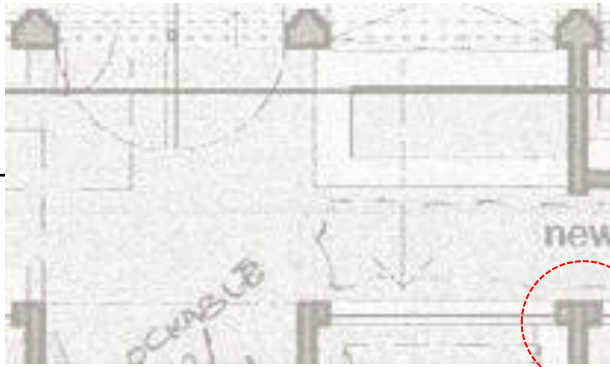


Figure 17.1d: New Structure.



Brick

The testing of the bay configuration in terms of the dividing structure/ connecting walls commenced with brickwork as a compliment to the existing masonry structure.



Steel

The need to define the old structure from the new, and the structural requirements for supporting a new first floor resulted in steel columns being tested in the design.



Concrete

For concerns of fire safety, the steel columns were replaced with concrete. This option was short-lived as it detracted from the design ethos of enhancing the existing fabric.

17.2.2 General Layout

The remainder of the plan is handled in a similar fashion, where the juncture between existing and new elements is expressed such that they can be distinguished from each other. The east building, initially planned for a seminar room, is resolved as an exhibition and events venue as shown in revision K of the plan development, figure 17c. The southern edge of this block is continued into the courtyard by means of the glass box extension highlighted in the Precedent Study. Following light and heat gain studies, this box has been reduced, such that only the part that is constantly shaded throughout the year remains.

The buildings on the southern end of the site are reprogrammed as a multi-purpose hall that is accommodated in the original print workshop, and urban retail that is fitted into the street fronting storage building.

The hall, branded as the Newsroom, brings to mind the origin of the building as the home for the newspaper, and specifically the workshop as the place where the paper was printed, and documents also bound. Envisioned as the indoor component of the platform for information exchange, the hall continues to serve as a medium for information output. The western building which is entirely new, serves as a largely overhead link between the north and south buildings, framing the courtyard, and overlooking the site.

B



Ground Floor Plan
1:100

190 | design

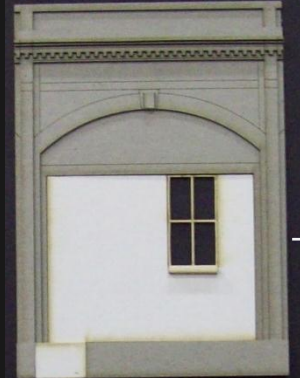
The treatment of the north façade bays follows the development of the windows over the course of the building's history. This ties in with the need to develop an urban friendly façade.

1898-1902



1902-1960

1961-1999



2004-
Current



proposed



Figure 17d: Window Evolution

The original building had shop-front styled doors to some bays. Retractable awnings were later added to each of the six bays

The occupation of the building by the police resulted in the sealing off of a significant part of each window with small windows replacing these.

The restoration of the building between 2000 and 2004 resulted in the replacement of the windows in a fashion similar to that of 1898 where the fixed windows were used to inspire the new timber-framed type.

The result of the study overlaid with the precedent study of the Acconci Studio/Stephen Holl intervention for the Storefront Renovation/ Wall Machine (1993) resulted in a proposal of an interactive façade that brings together the idea of a shop-front, trade booths, solar shading, and worktops that pack away to provide a solid impenetrable façade that satisfies security requirements and re-instates a blank surface to the façade at the end of each day.

17.2.3 First Floor

The programmatic requirement for a library calls for additional massing above the existing gallery structure. This location is suited to a library as a response to the heritage, as it is again an extension of the original function of the building.

A sensitive approach was taken to the formation of the library, following the conceptual approach of using light to define elements. This dictates that individual ‘fingers’ protrude vertically from each of the arched ground floor bays. This brings to mind the Persian maxim:

‘All five fingers are not the same’

This loosely implies that individuals have unique traits and characteristics that define them. This is especially true of varying cultural and social communities. The value of this saying is realised in the drawing together of the fingers of a hand, as if to lift an object. In doing so, all five fingers meet at one point, symbolising unity [figure 17.2.3a, overleaf].

This is echoed in the motto of the Republic of South Africa since 2000:

!ke e: /xarra //ke

[diverse people unite] [Khoisan]

This follows the version used since by the Union of South Africa, 1910:

Ex unitate vires

[unity is strength] [Latin]

Similarly, this slogan was used by the Volksstem newspaper, as shown in the introduction to this dissertation. Here, the Dutch phrase was used:

Eendracht Maakt Mach

[strength is unity] [Dutch]



Fig. 17.2.3a: Hand Study
[Source: Raven-Scribbles, 2012]

Figure 17.2.3b shows the puncturing of this new structure along the lines of the existing grid. The slits between the rooftop boxes and the extended tower originate from the concept resolution of the building as a beacon. The development of the new first floor follows the concept stated above and is of high importance here. This part of the design represents an important part of the scheme, and is to be developed as such.

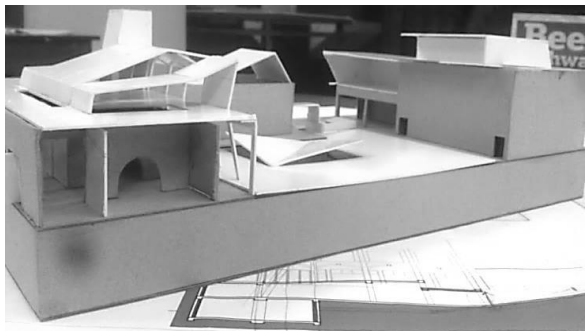
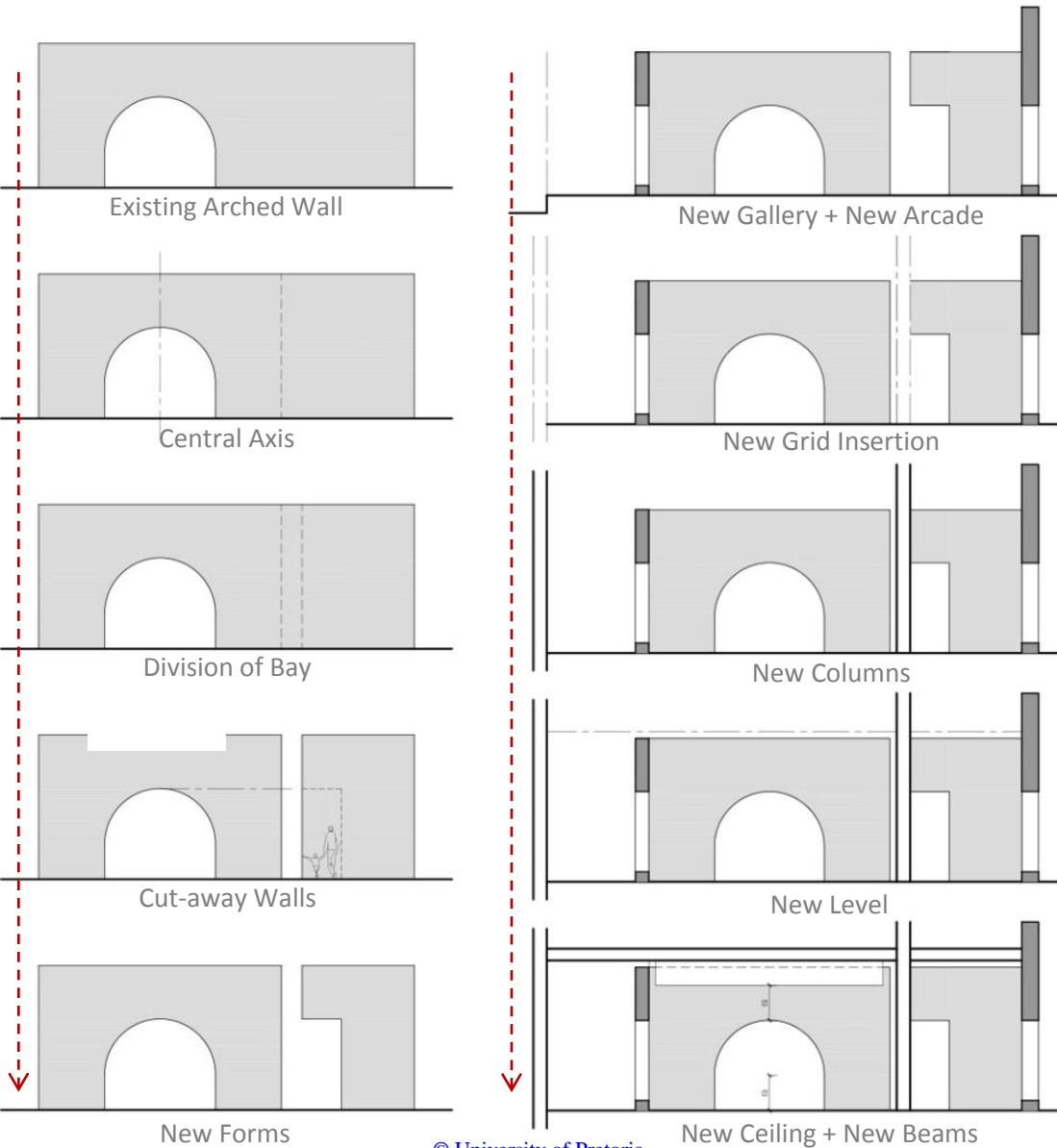


Figure 17.2.3b: Gallery Block.

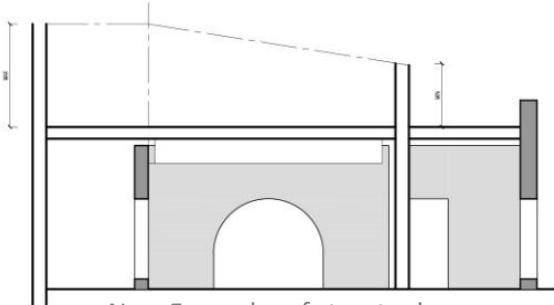
The image above shows the columns that protrude from the basement to support the new first floor over the gallery. Test options were modelled to determine the aesthetic and viability of these boxes, and is shown in the series that follows.

The series shows the process of cutting away parts of the existing structure, and sequentially adding new elements to form a building that is conducive to the intended scheme.

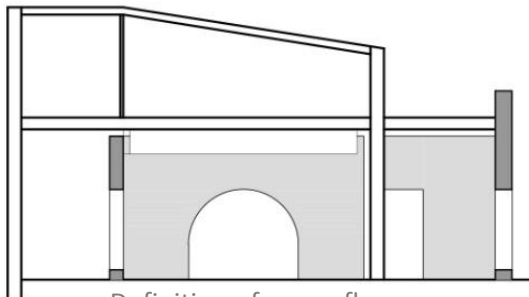




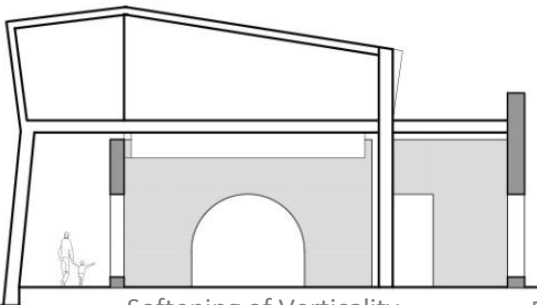
Street sight-line over existing



New Form shy of street edge



Definition of upper floor



Softening of Verticality

Figure 17.2.3c: Form Series

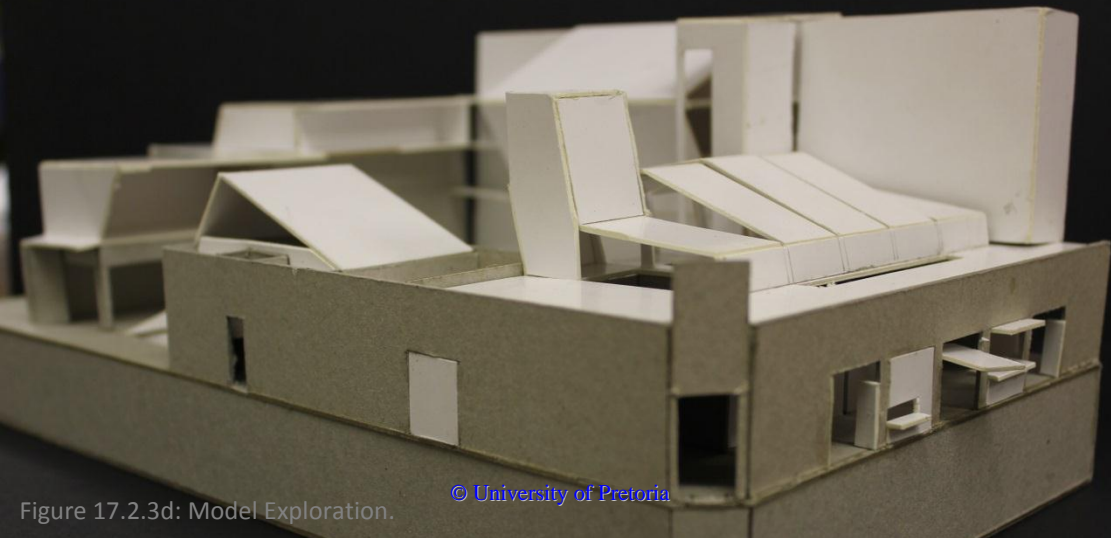
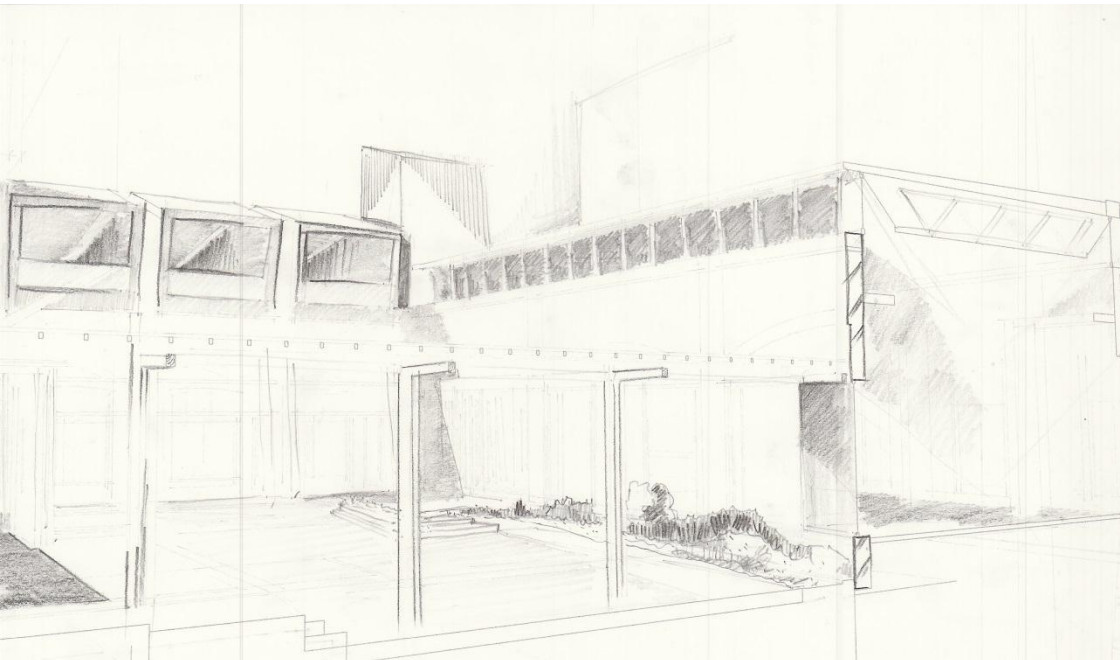


Figure 17.2.3d: Model Exploration.





Figure 17.2.3e: Sketch Explorations.



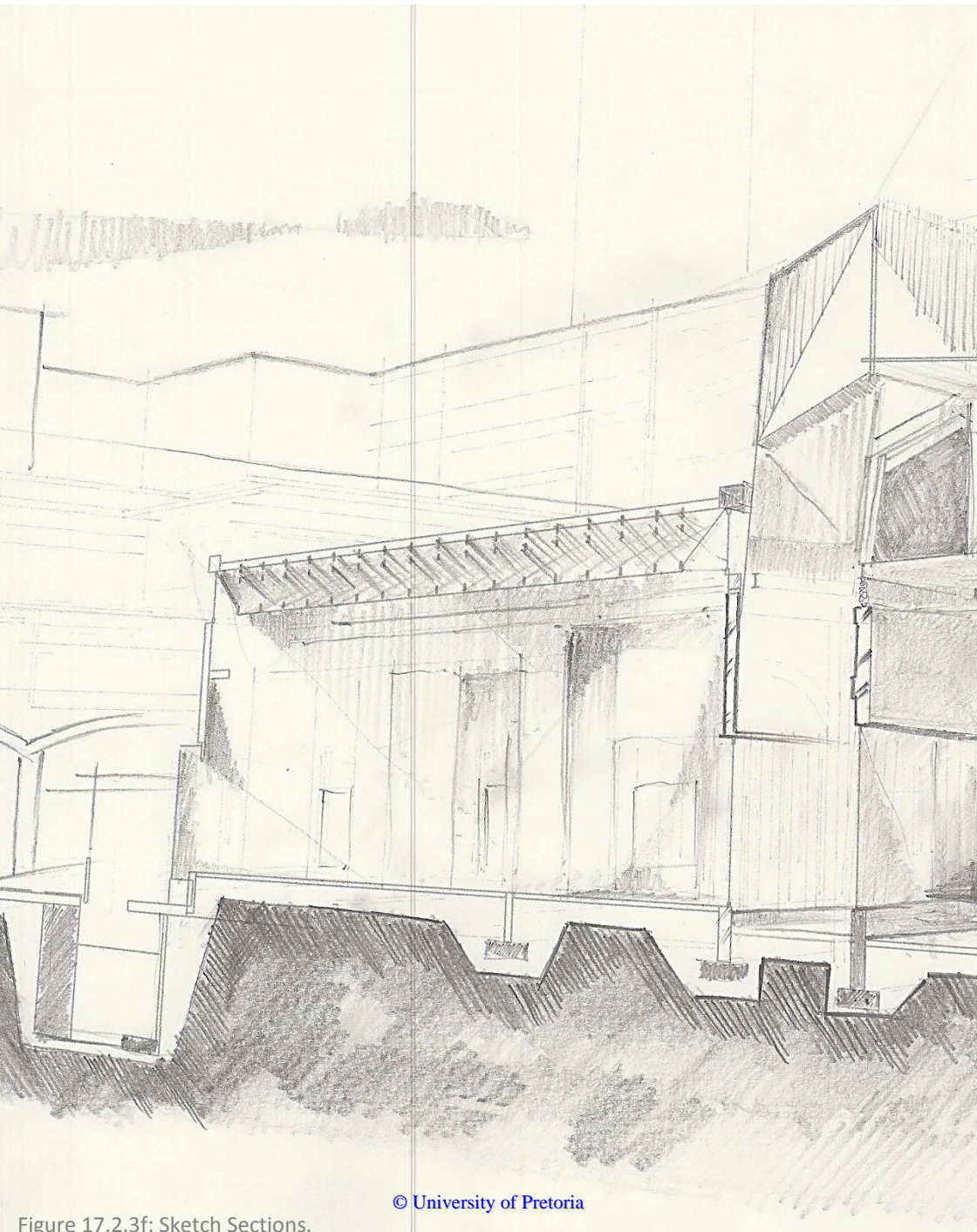
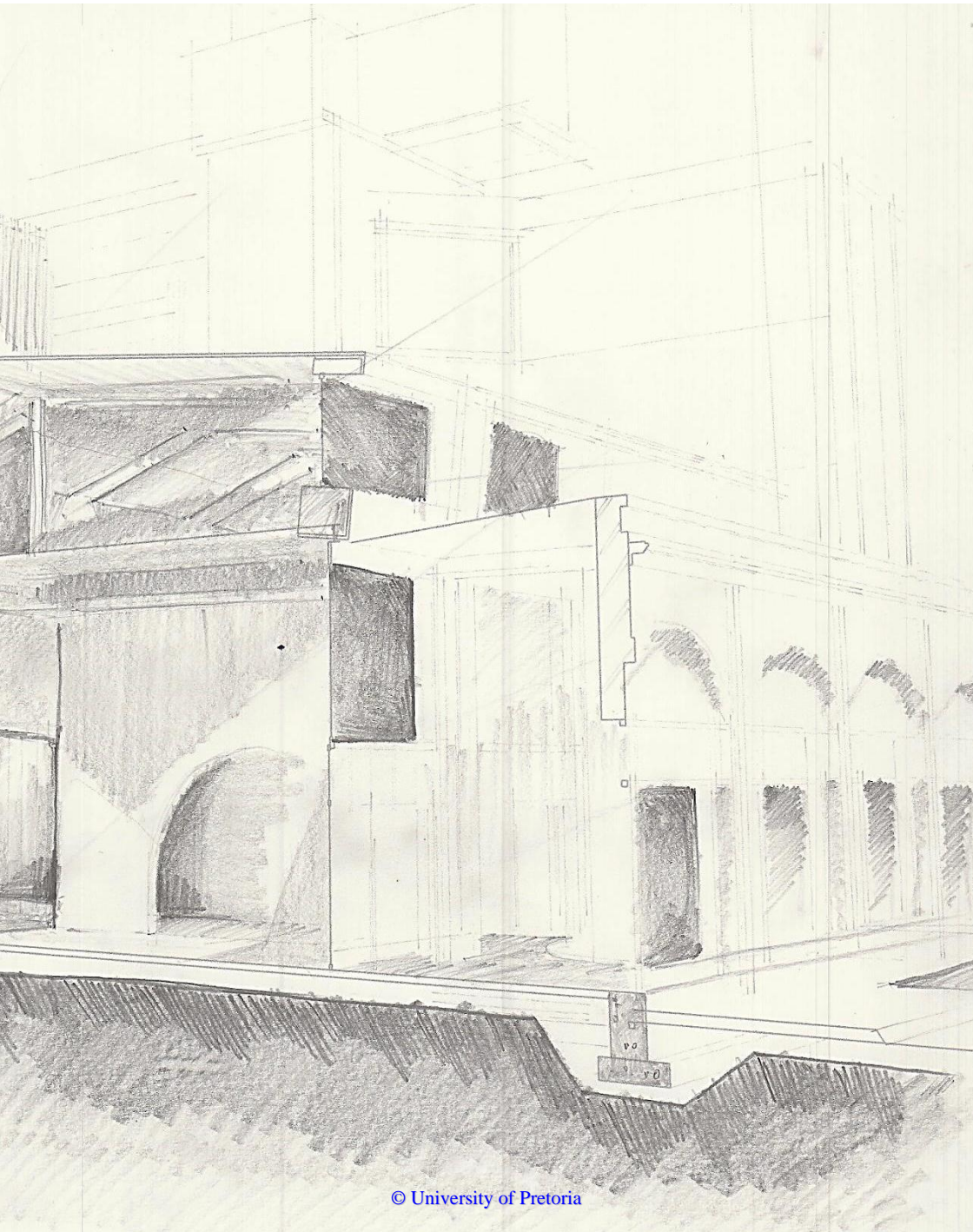


Figure 17.2.3f: Sketch Sections.



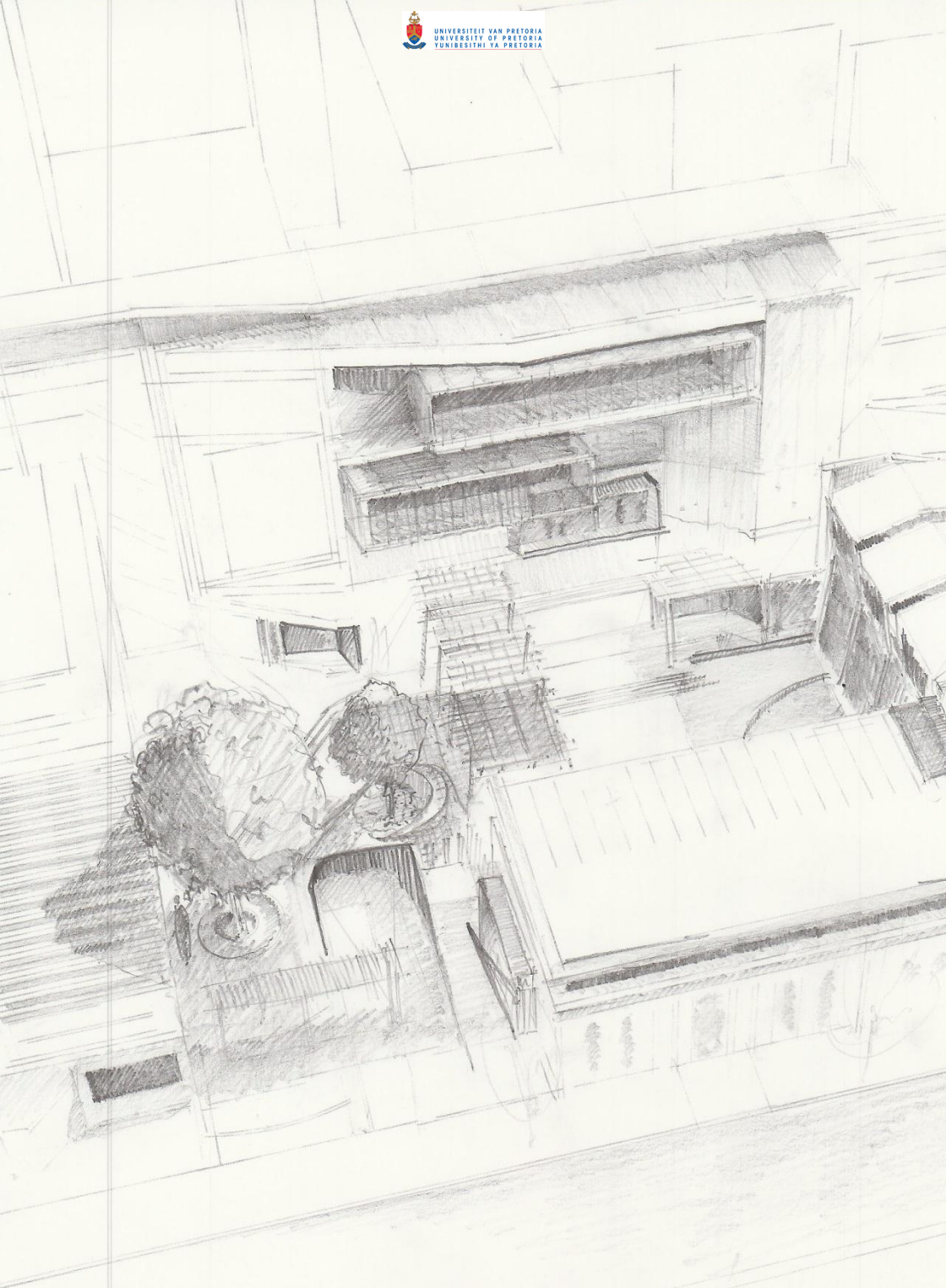
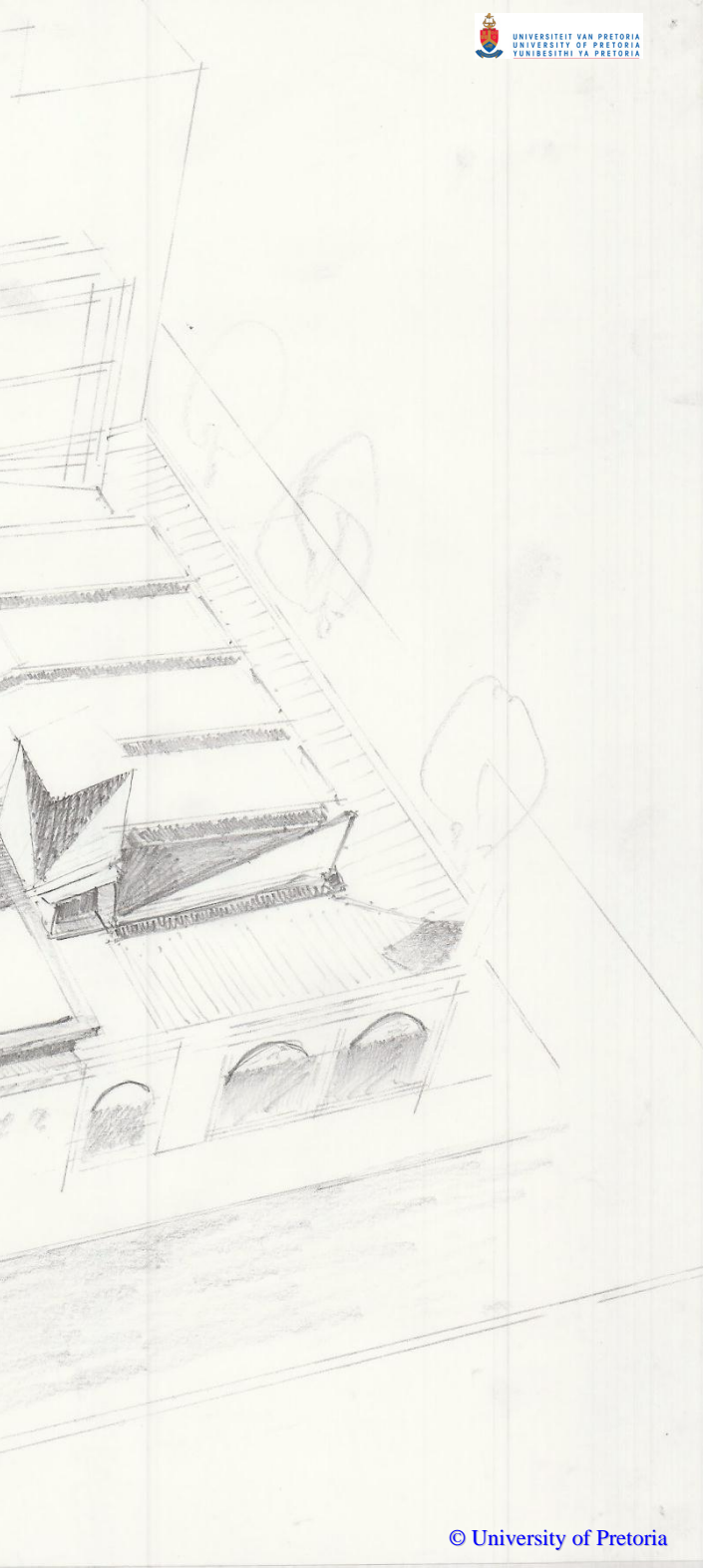


Figure 17.2.3g: Design Overview.



The sketch alongside shows the placement of the new first floor structure over the northern gallery and urban arcade.

The roof over the existing eastern building aims to provide a visually light element that is a reinterpretation of the original hip roof over that building.

As shown in the heritage analysis, this is achieved through the inversion of the roof to form a light-reflective element as detailed in the following chapter.

The new building to the west forms a link between the north and south block, with its form being suggested by the original grid. This is shown in the plan development. The horizontal boxes are derived as an extension of the cantilever from the concept development in a manner that is realistic and sensitive to the courtyard and the remainder of the built fabric.

The form of the boxes are reminiscent of the existing horizontal bays of the north building and function as pods or rooms where the occupants are themselves on display.

Figure 17.2.3e: Structural Design Exploration



g.technical

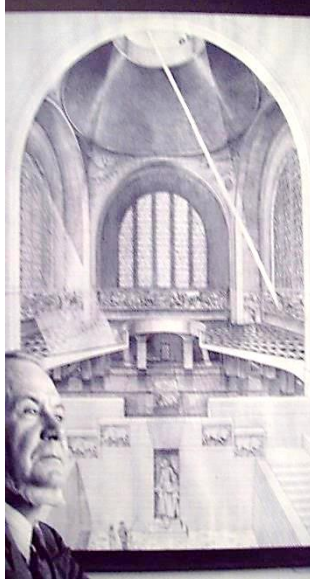
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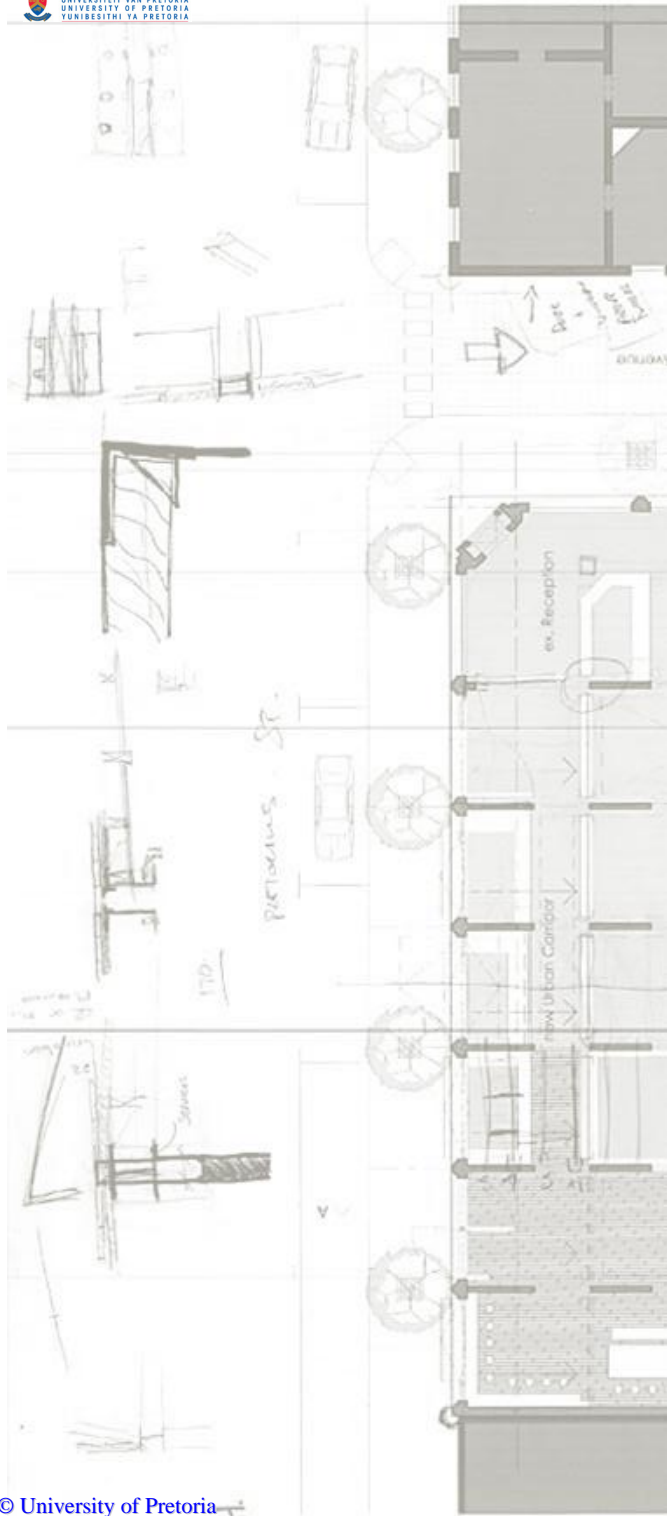
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G. Technical



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G. Technical

15. Technical Development

15.1. Technic Concept

As explained in the conceptual approach, the structural configuration and detailing of the design is aimed at formulating a building that utilises light in various ways. The implication of this is both the structural articulation and technical resolution of lighting.

The base structure utilises a system of paired components, such that a gap is formed between elements. These gaps as explained before, will allow natural and/or artificial light to pass through, depending on the application and time of day

15.2. SBAT Analysis

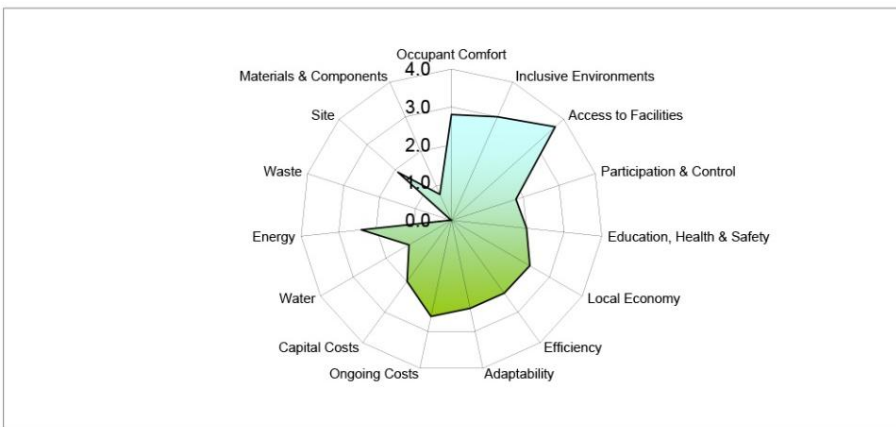
The following assessment was done in order to gauge the strengths and weaknesses of the existing building and the museum housed within it.

The assessment was done using some of the historic factors of the building and is thus a distorted reflection of the current building's status.

It nevertheless highlights factors that need attention or that may be enhanced.

SUSTAINABLE BUILDING ASSESSMENT TOOL (SBAT- P) V1

PROJECT		ASSESSMENT	
Project title:	Capital Exchange	Date:	2013/04/17
Location:	Pretoria CBD	Undertaken by:	O Horzook
Building type (specify):	Community /Institutional	Project:	
Internal area (m2):		Report No:	1
Number of users:	50	Design Project:	
Building life cycle stage:	Design /Construction/Operation	Comment:	



Social 2.7

Economic 2.4

Environmental 1.3

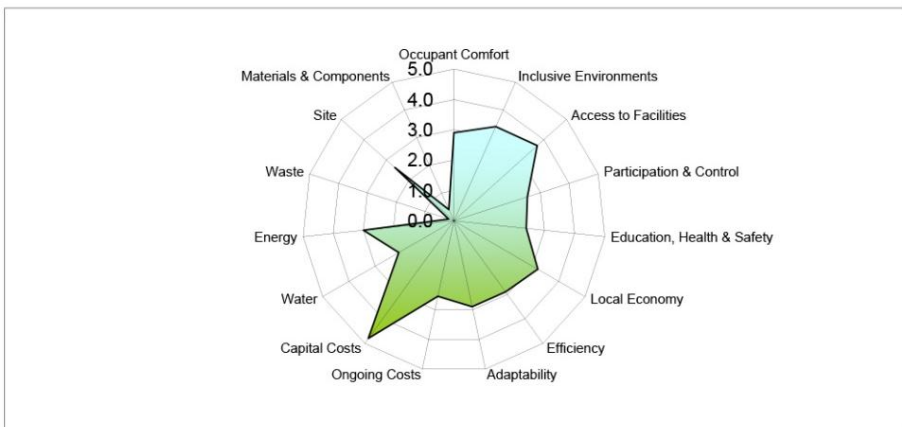
Overall 2.1

Following the findings of the first assessment and the development of a programme and base design, a second SBAT assessment was undertaken. As the present and projected programmes share similarities, including the limits defined by the heritage fabric, the two graphs show common results, highlighting areas for concern.

These include environmental services and systems such as water harvesting & use, energy budgets, site use, and material & component resolution. These factors were taken into account during the design development and technical resolution stages.

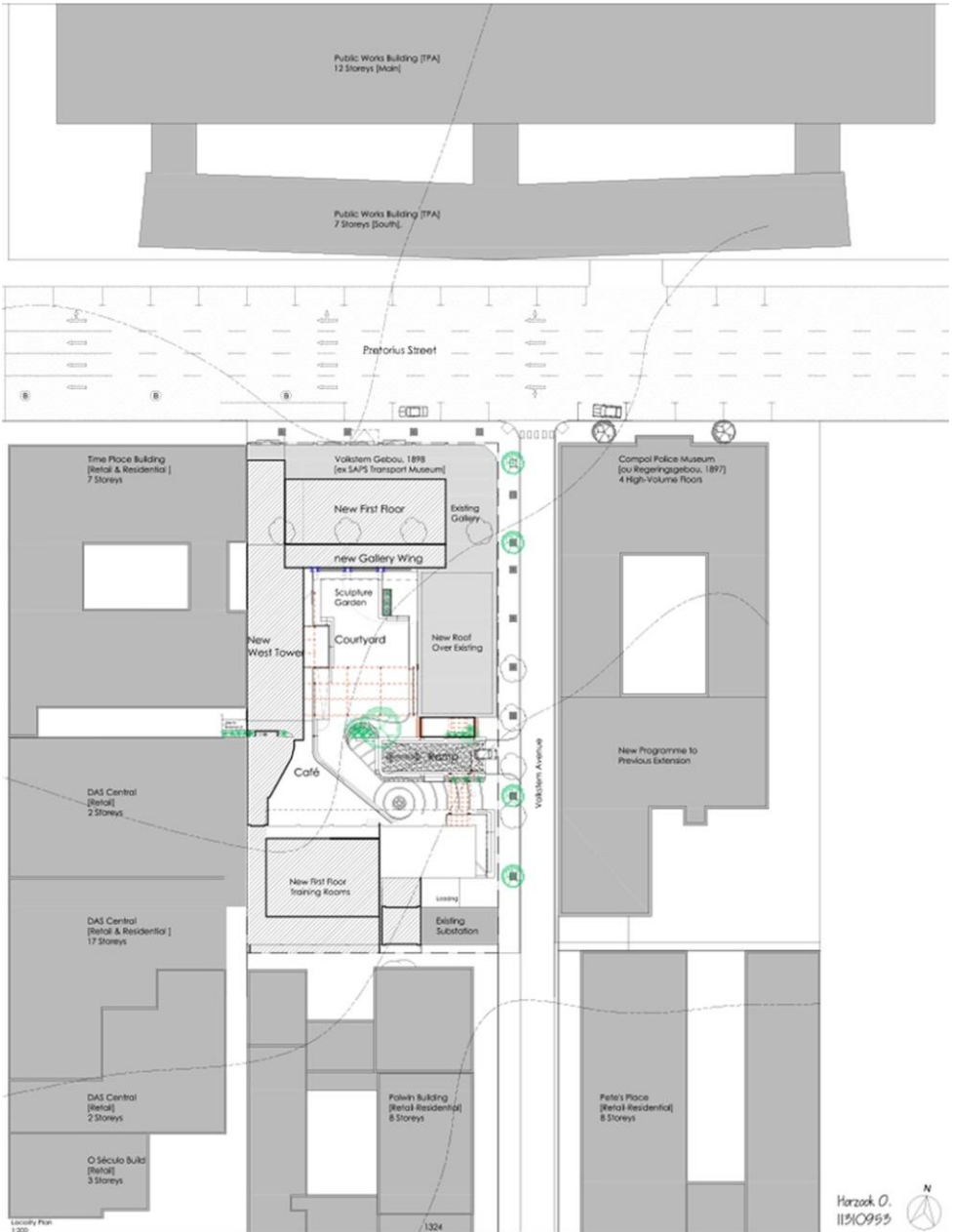
SUSTAINABLE BUILDING ASSESSMENT TOOL (SBAT- P) V1

PROJECT		ASSESSMENT	
Project title:	Capital Exchange	Date:	2013/06/19
Location:	Pretoria CBD	Undertaken by:	O Horzook
Building type (specify):	Community /Institutional	Project:	
Internal area (m2):		Report No:	2
Number of users:	50	Design Project:	
Building life cycle stage:	Design /Construction/Operation	Comment:	

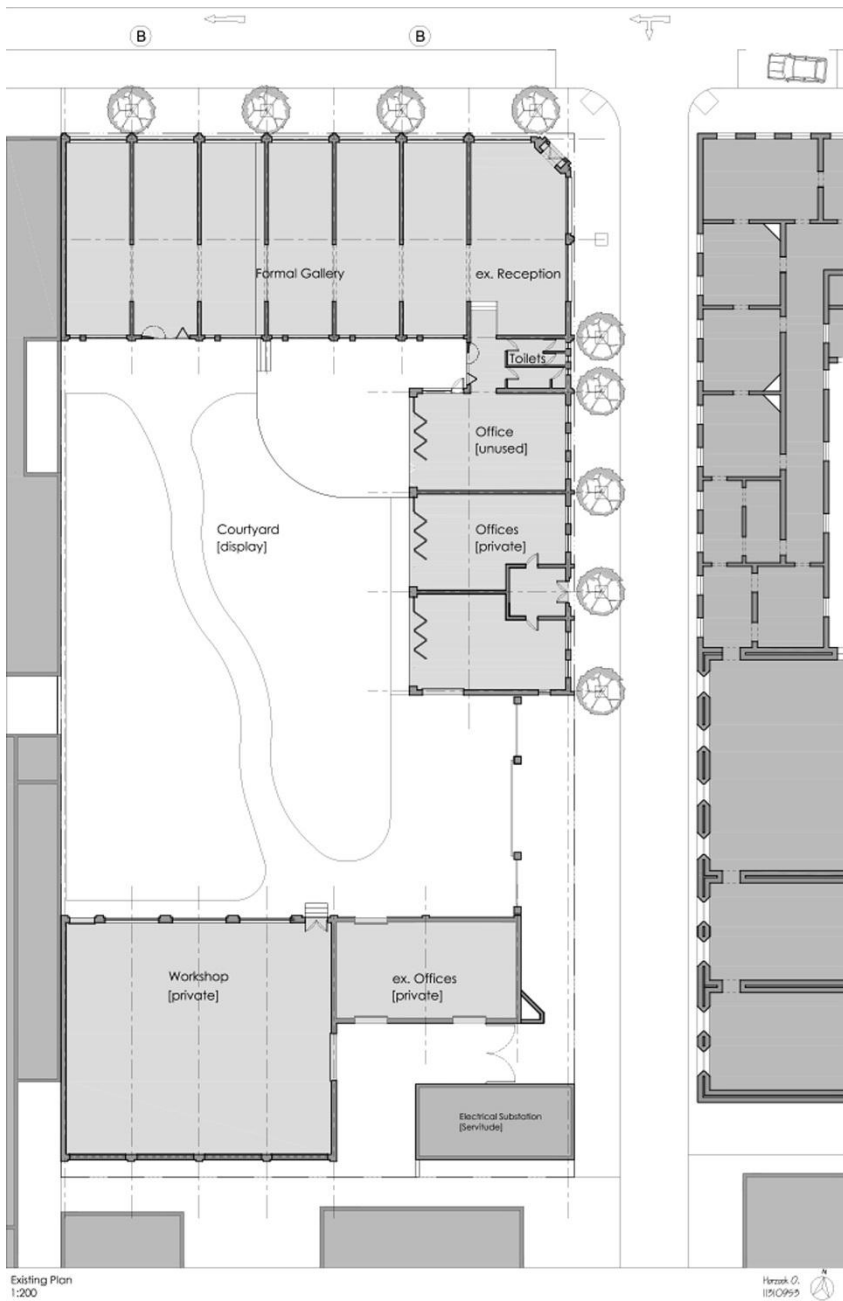


Social	3.0	Economic	3.3	Environmental	1.7
Overall		2.6			

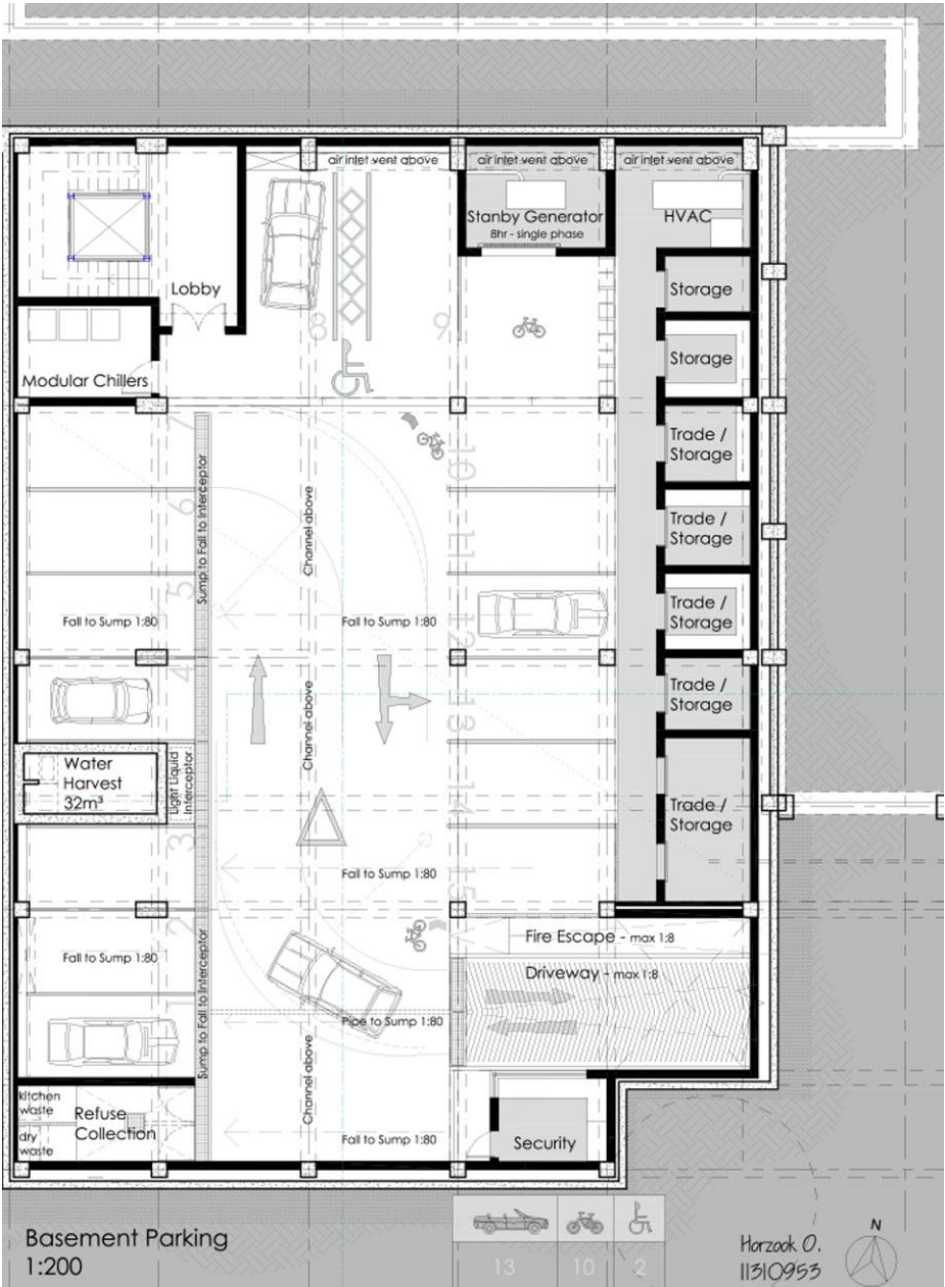
15.3. Technical Resolution



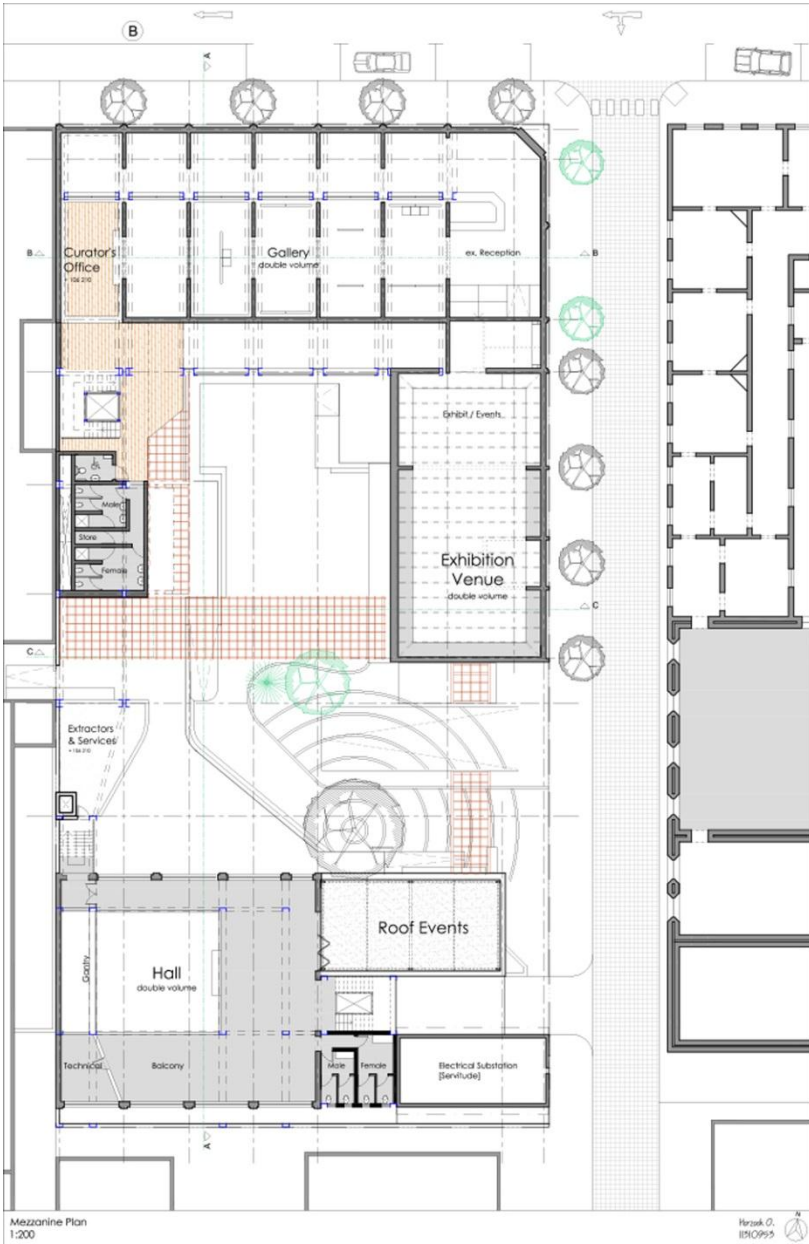
Site Plan 1:500 [A2]



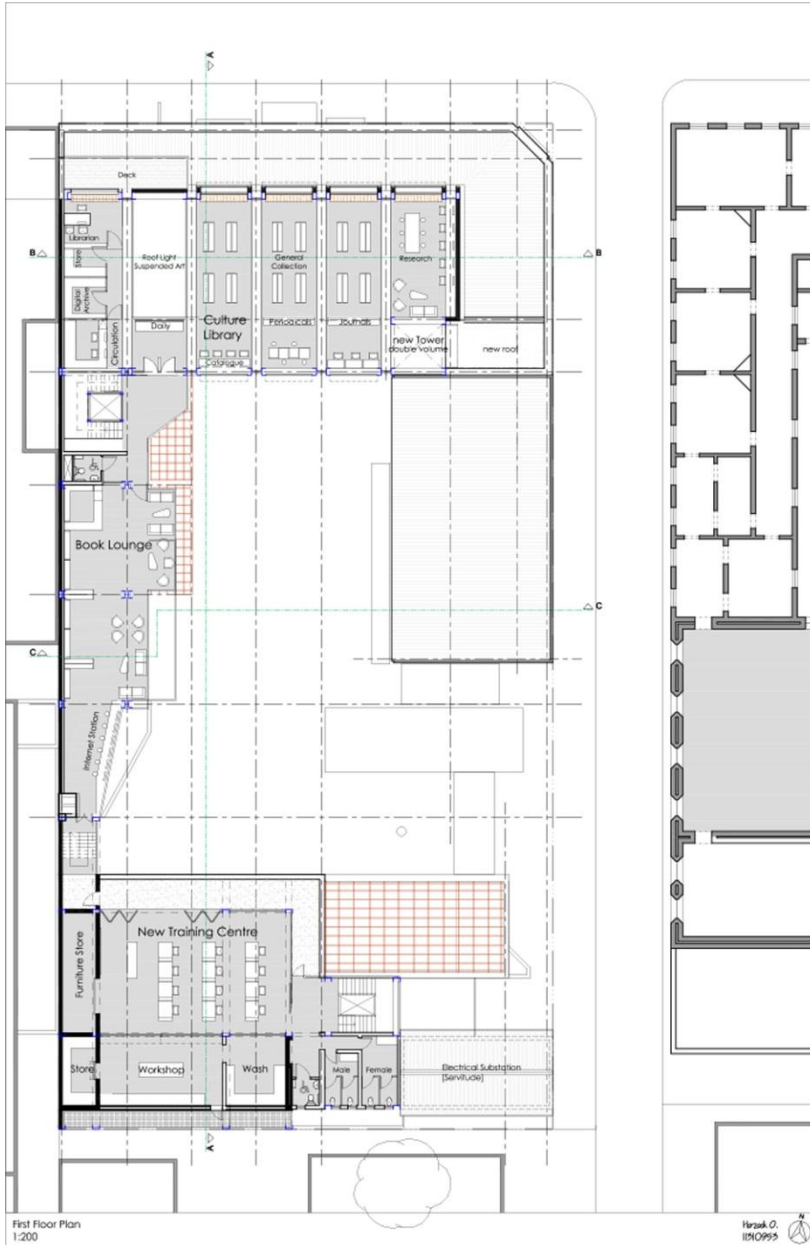
Existing Plan 1:200 [A3]



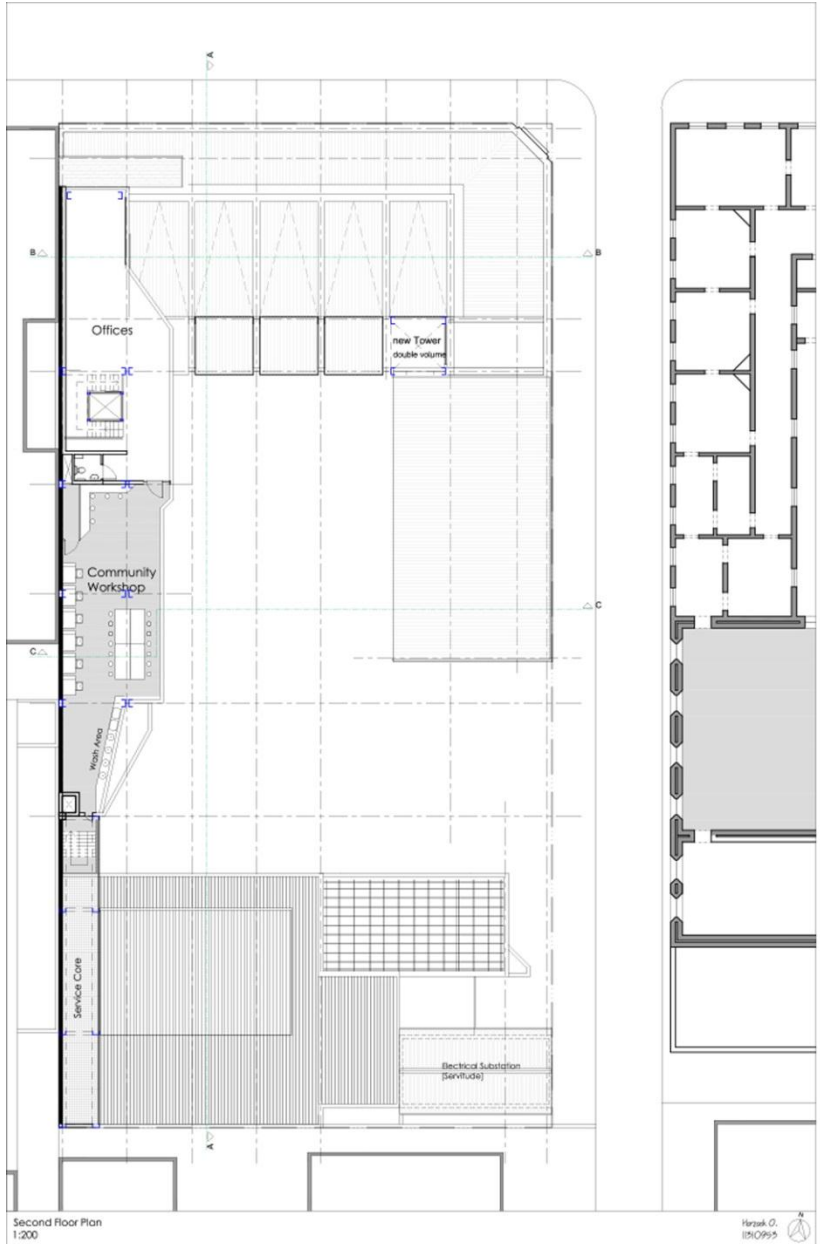
Basement Plan 1:100 [A3]



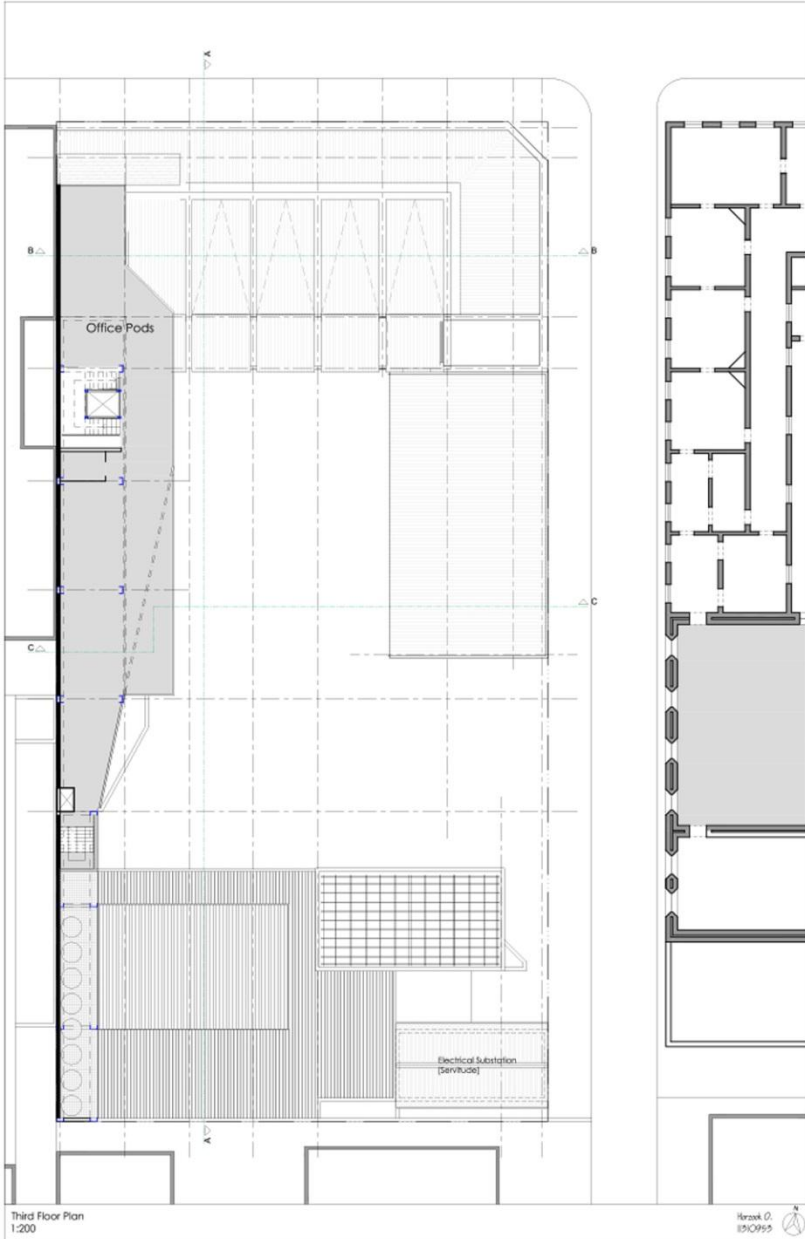
Mezzanine Floor Plan 1:100 [A3]



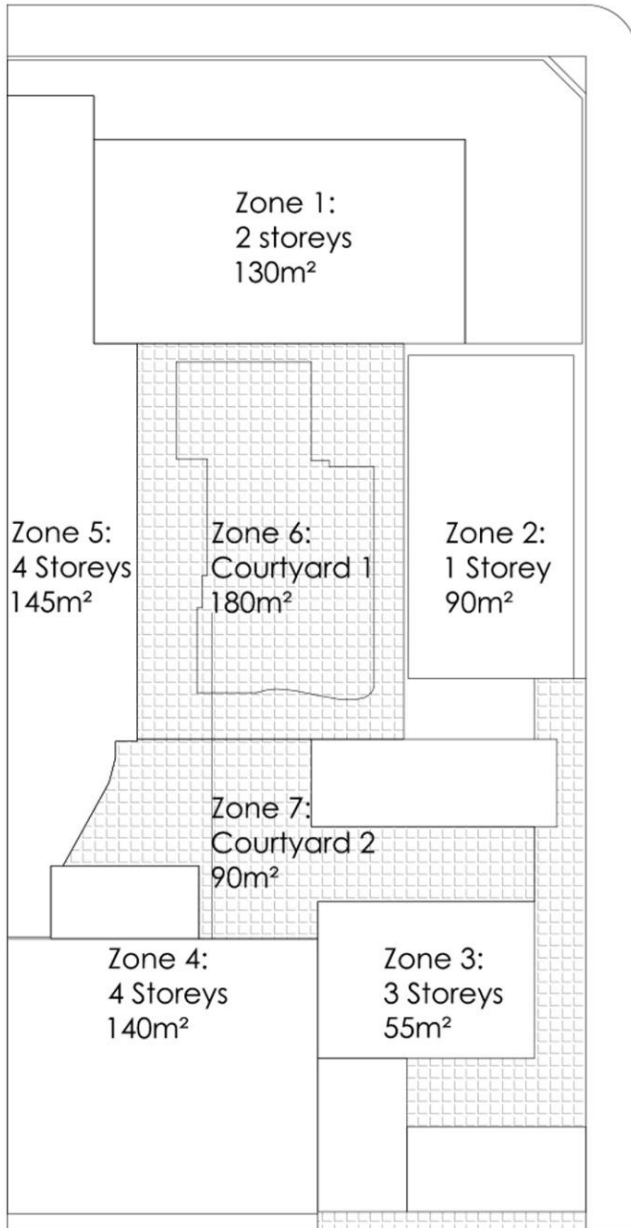
First Floor Plan 1:100 [A3]



Second Floor Plan 1:100 [A3]



Third Floor Plan 1:100 [A3]

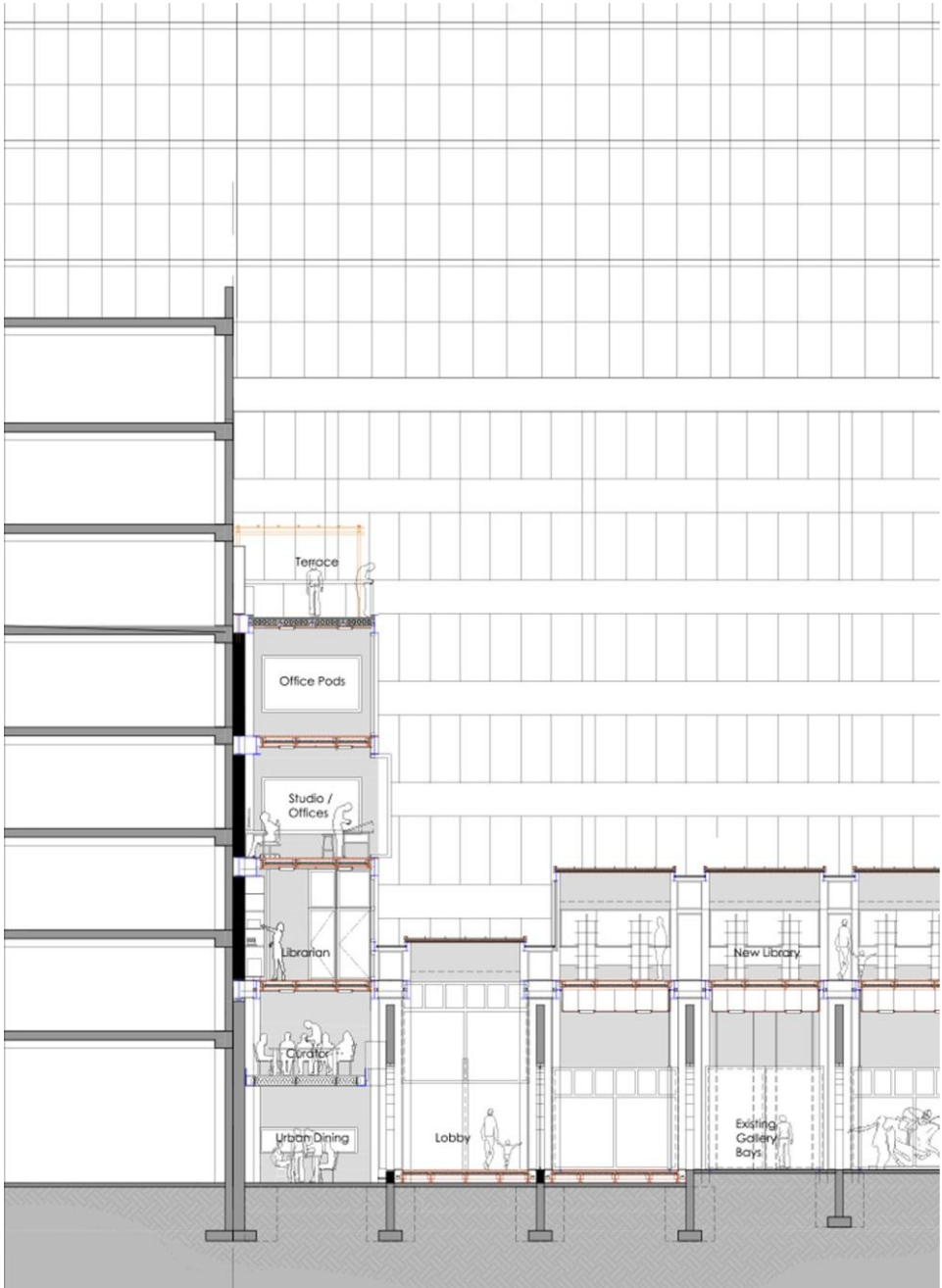


Rainwater Collection Zones

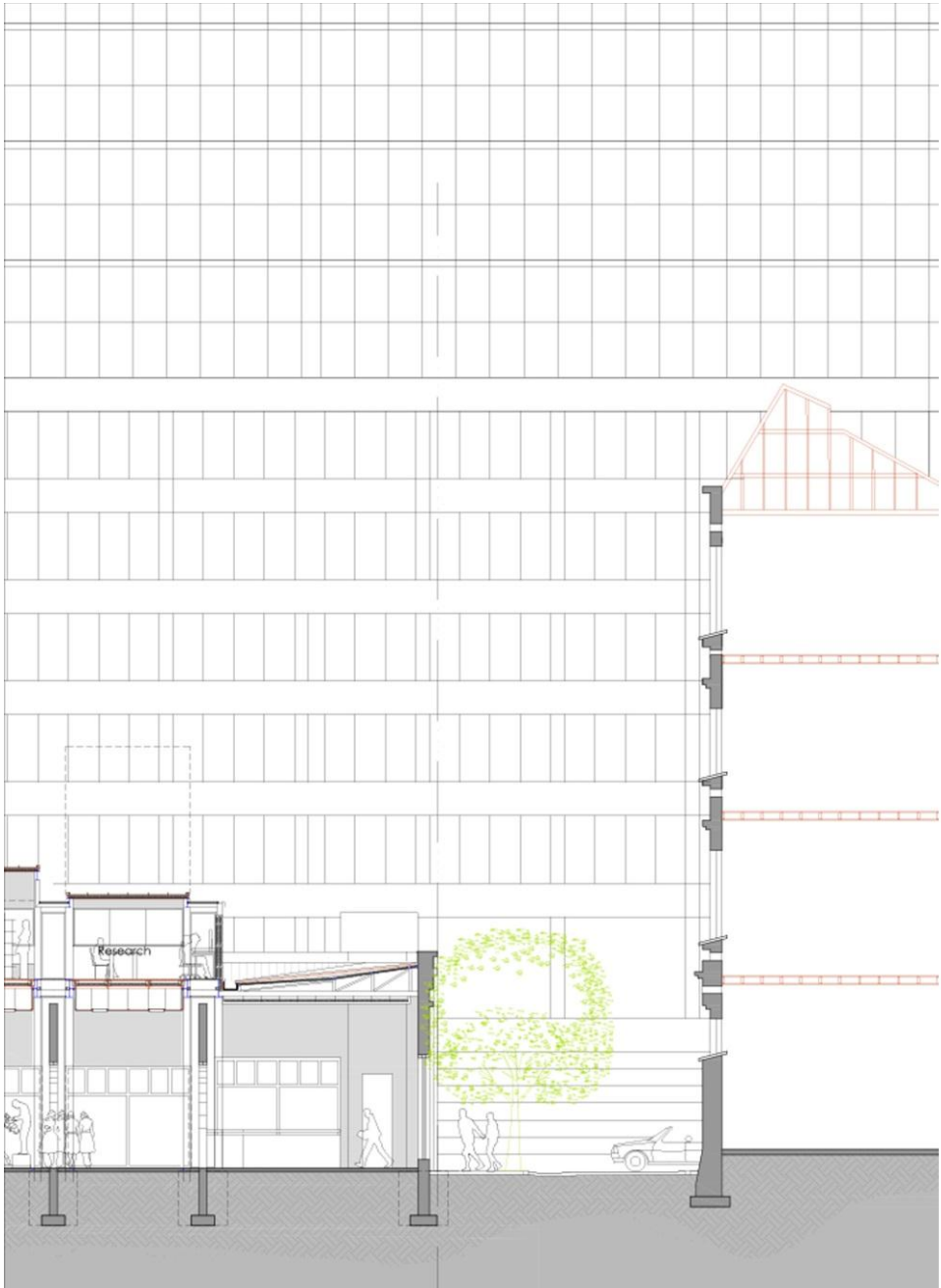


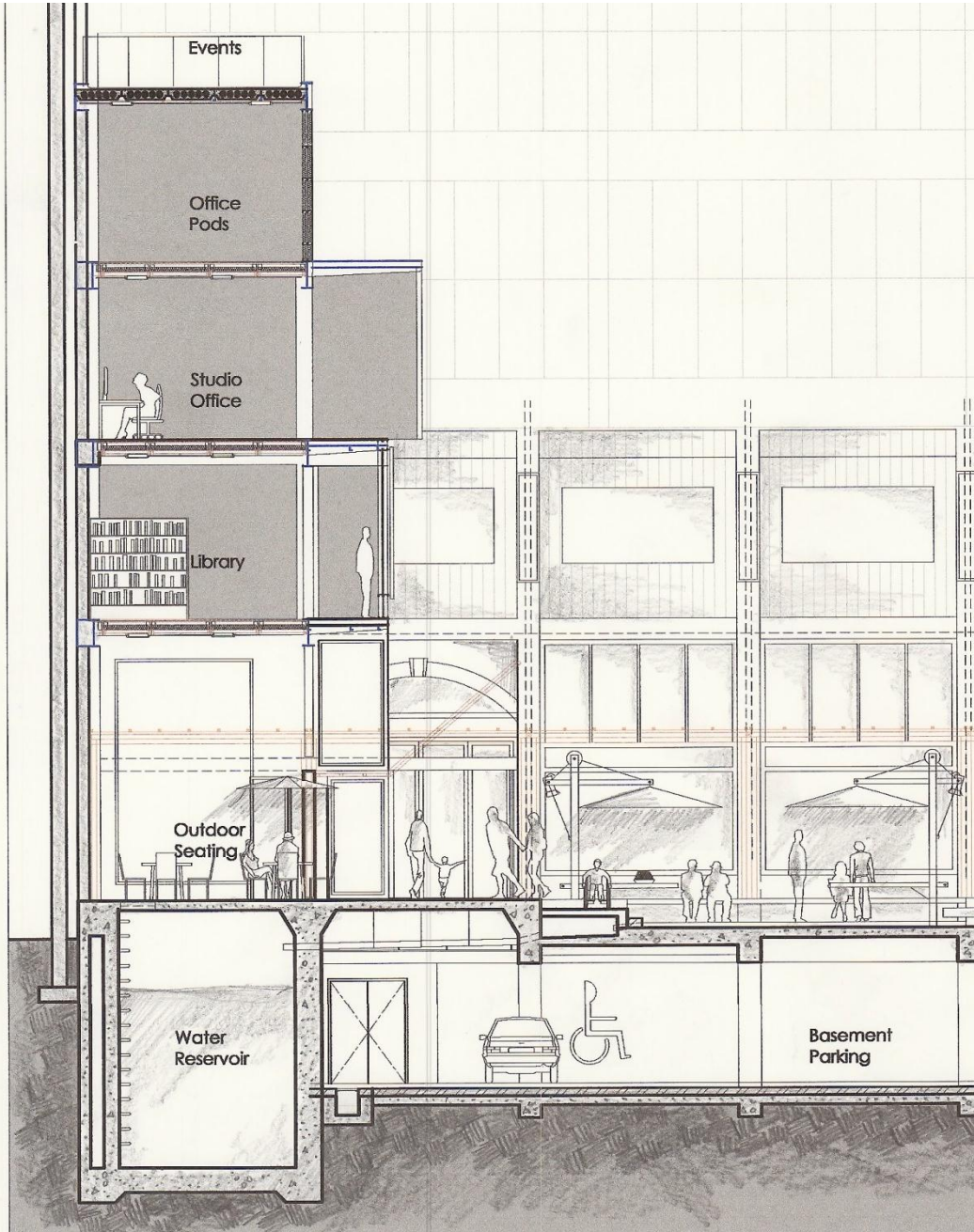
Section A-A 1:50 [3xA1]





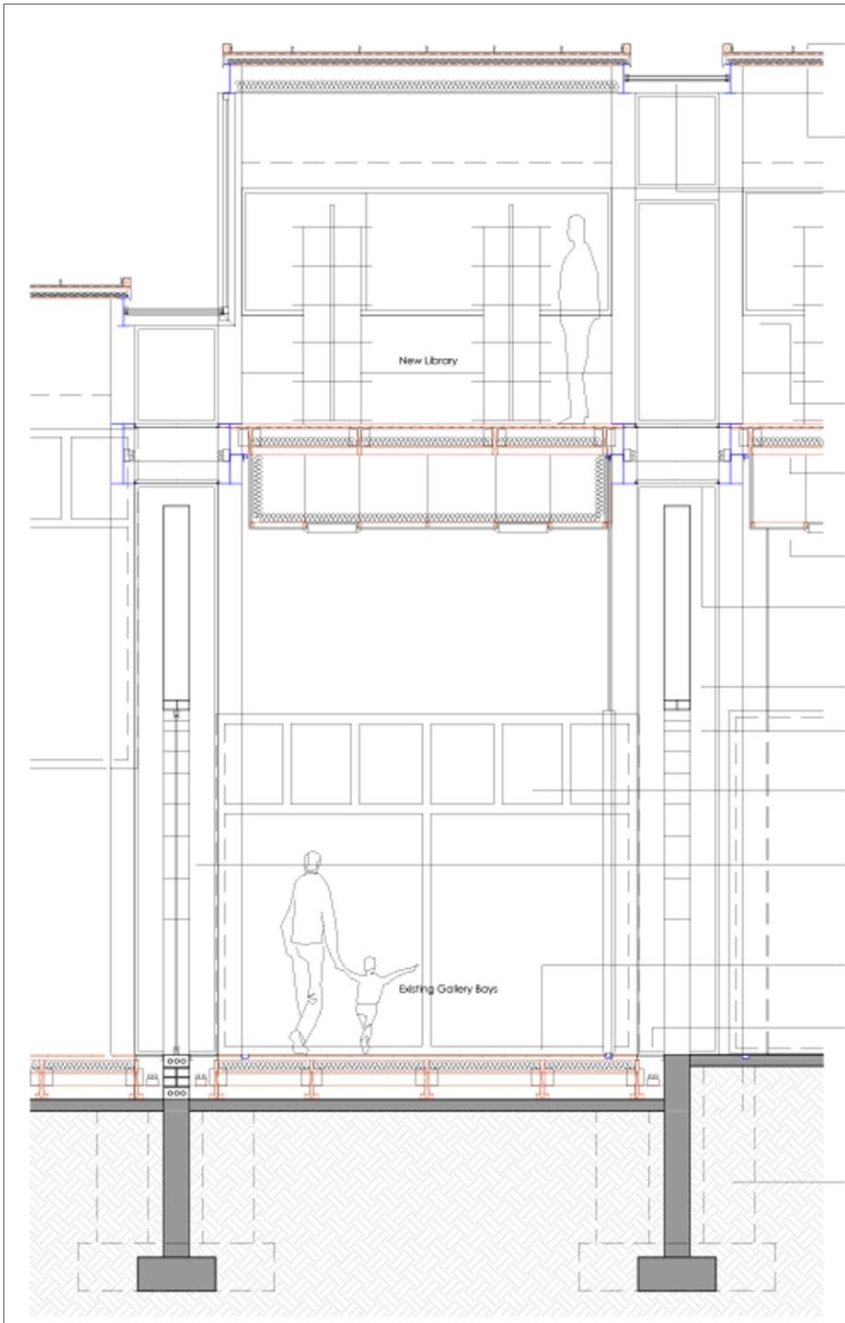
Section B-B 1:50 [2xA1]





Section C-C 1:100 [A1]





Detail Section 1:20 [A1]

- Reinforce double standing seam on southern insulation on 18mm SA pine faced on 75x50mm cold-formed galvanized channel on 305x102x20 m/s profile parallel flange on steel portal frame

- 30mm hoardboard on
- Three 2x40mm lag-screws lead to bottom flange of rns roller with 24x24x2mm equal angle

- Double sheet acrylic glazing with absorption cutlens in all-in aluminium frame
- Fixed on 50x750mm rectangular hollow section with 16 m20x160 sliding clip all fixed to rns portal frame

- Warmed facade system: 120x200mm angled standing seam on southern sheet insulation (buffer) fixed to 120x75mm gms cold formed (speed channel) wing metal brackets with thermoplast on 30mm hoardboard

- Clivity window (ex): open bottomed aluminium facade system secured with metal brackets on 30x200mm equal angle rns welded frame secured to rns portal frame

- Two coats Placcor primer (eggshell on murec finishing plaster on
- Murec base plaster on
- Murec MUREC medium density foil sheet secured to 20x75mm gms cold formed (speed channel) (jwalk) with 2,5x2,5mm chipboard joints

- 30x200mm timber SA pine floor panels on
- 10x130mm SA pine joists of 750mm centres on 30x200mm SA pine beams of 300mm centres fixed to rns portal frame structure to engineers specification

- Suspended bulkhead ceiling
- Two coats acrylic paint on
- one coat universal primer on
- 15mm in-situ plaster on
- 19mm gypsum ceiling board fixed to 30x200mm frame suspended from flat floor pine beams above

- 15mm safety glass on compressible foam cushion in-lead to 25x25x4mm m/s equal angle frame on 10mm m/s silicone putty welded between 2 x 53x21x40 m/s section parallel flange beams bolted to 40x210 parallel flange m/s channel to form portal frame structure to engineers specification

- Existing 200mm plastered brick arched walls on strip footings

- New timber framed window to later schedule on
- 100x200mm SA pine timber beam bolted portal frame

- Relocated existing timber framed window with new sashes to fit
- Shop welded guide track secured to mid steel 180x70x22 parallel flange m/s channel (s/s welded to rns portal frame with sliding and rapping mechanism to later detail

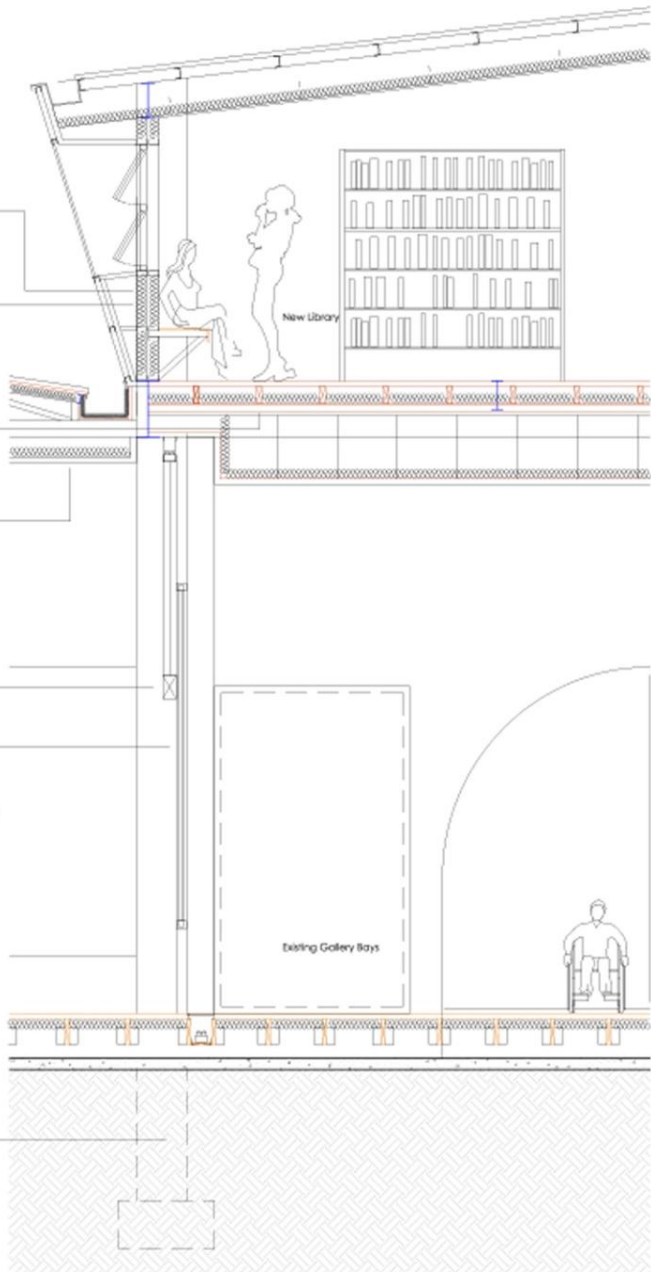
- 10mm toughened safety glass panels to fit existing arched opening with
- structural glazing brackets secured to existing arch with 50mm expansion bolt
- new 200mm plastered brick footing to reached finished floor height

- 30x200mm timber SA pine floor panels on
- 10x130mm SA pine joists of 750mm centres on 30x200mm SA pine beams of 300mm centres fixed to existing surface beam

- 15mm safety glass on compressible foam cushion in-lead to
- 25x25x4mm m/s equal angle frame secured to adjacent (reuse floor system or 300mm brick wall

- 2x 40x210 parallel flange rns channels columns fixed secured to
- concrete slab on
- combined r/c and footing all to engineer's specification

1:20 Detail: Bay Resolution





Exploration Model





h. models

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H. Model Exploration



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5-Final Design	1:200	246
6-Window Evolution	1:50	248
7-Bay Design	1:50	249
8-Detail Model	1-20	250

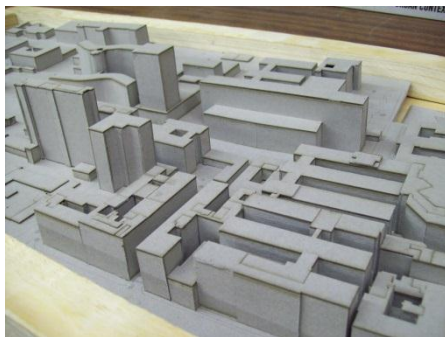
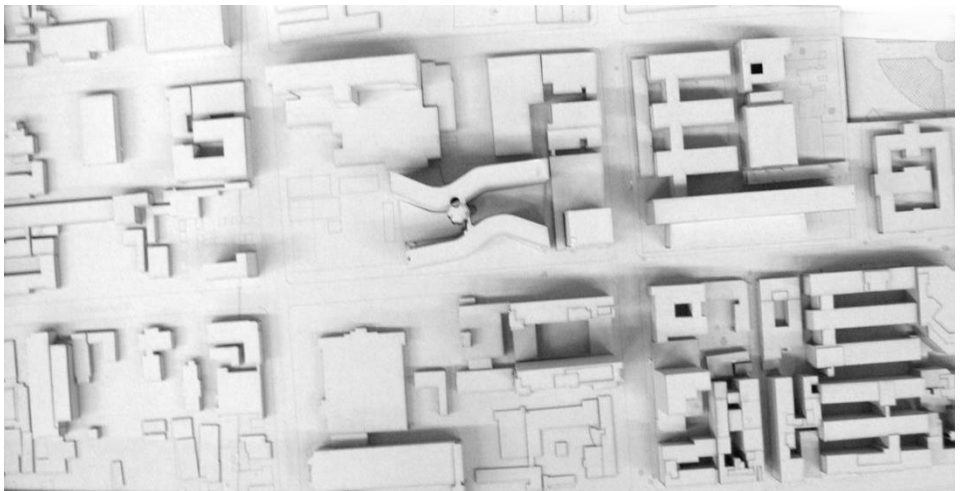
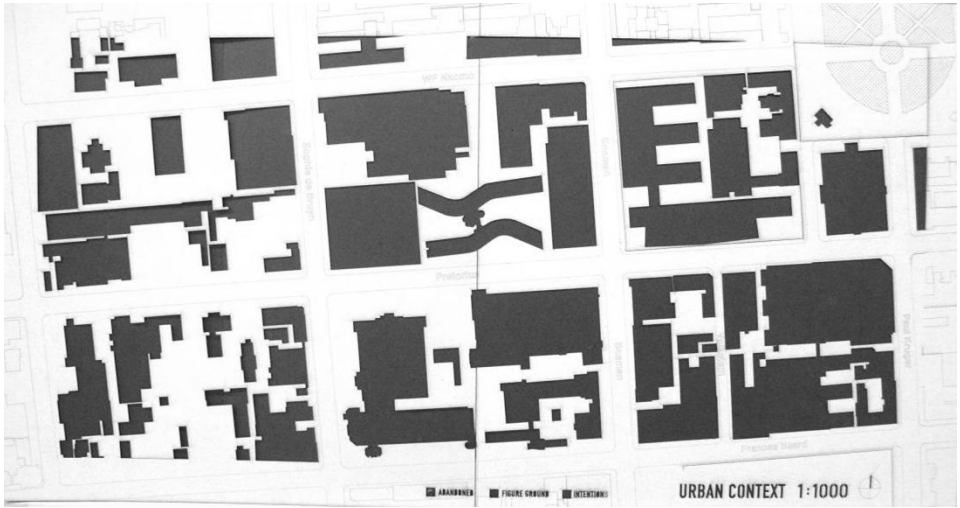


H. Models

The use of models in this project was vital in understanding the relationship between the site and its surrounds, as well as the existing massing and that which was proposed.

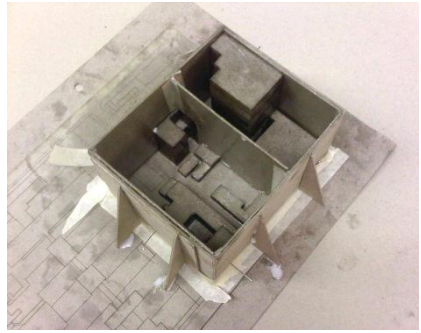
The models also proved instrumental in the refinement of detail aspects of the design, from massing & form, through to detail resolution.

The images that follow are of models built for this project, ranging from the macro scale of the city, to the micro scale of the proposed design and detail resolution.

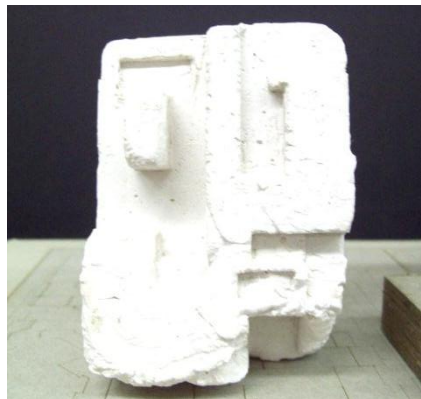


1:1000 Context Model & Figure-ground. O. Horzook & Y. Viljoen 2013.

A study of the Pretoria CBD and the vicinity of Church Square concluded the search for a site through the selection of an appropriate Heritage-listed building with low density and high potential for development.



A subsequent study into the site's potential lead to the production of a plaster cast of the space surrounding the buildings/ massing on site. This exercise yielded the likely volume for any new development, with the limits being defined by the site boundaries, as well as the height of the adjacent buildings.

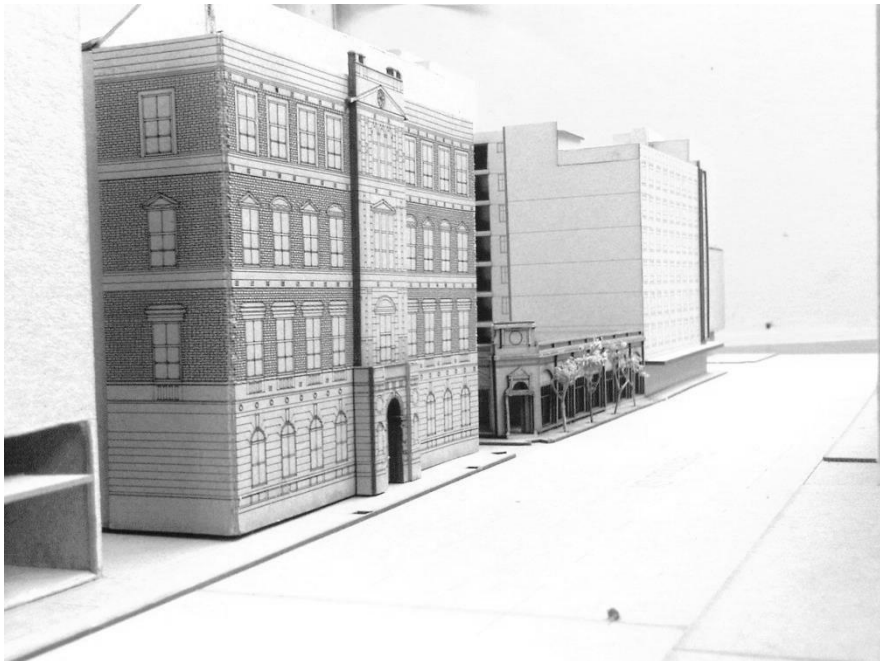
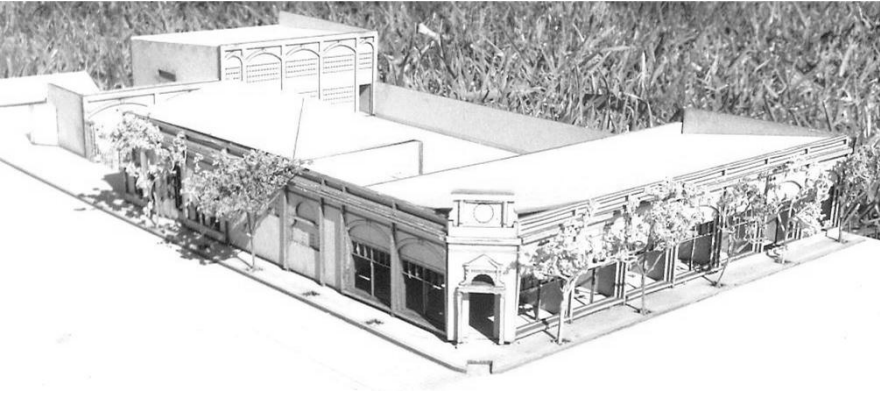


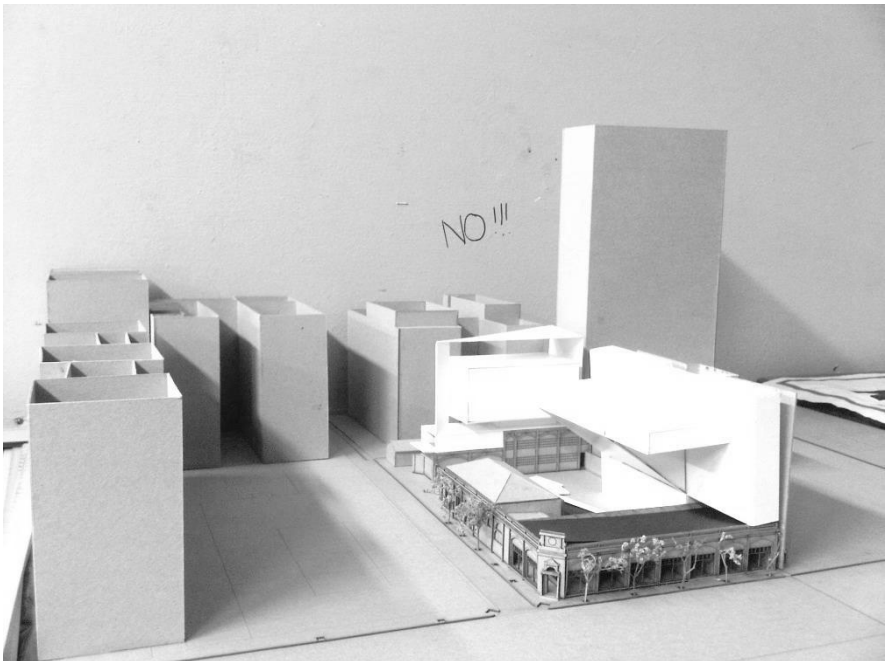
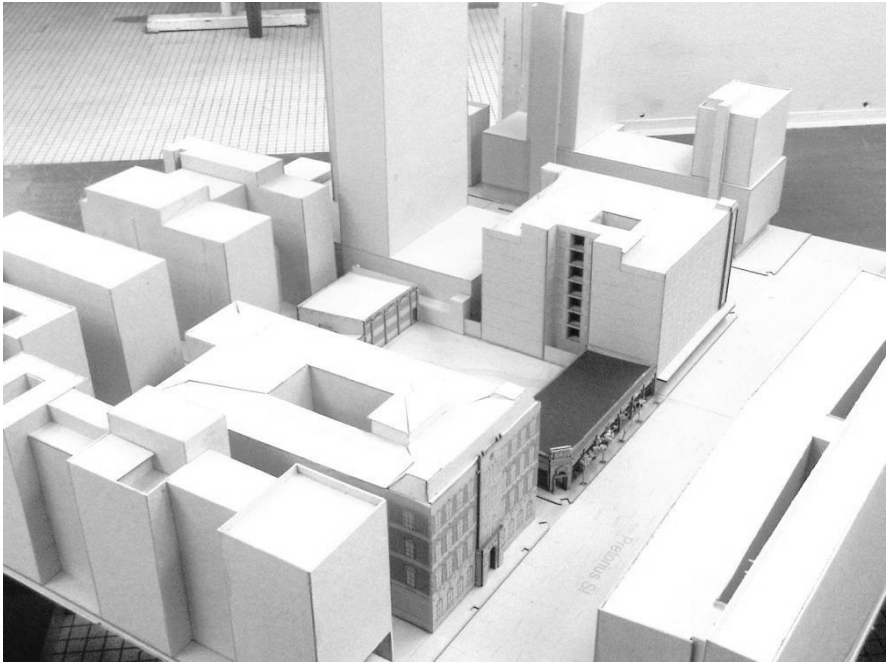
1-1000 Plaster Negative Model + Mould

242 | models

This model proved vital in ensuring an appropriate design response to the existing fabric in terms of aesthetic, scale and density. The focus of the model was the surrounding massing/ volume and the detail of the adjacent buildings in addition to that of the selected site.

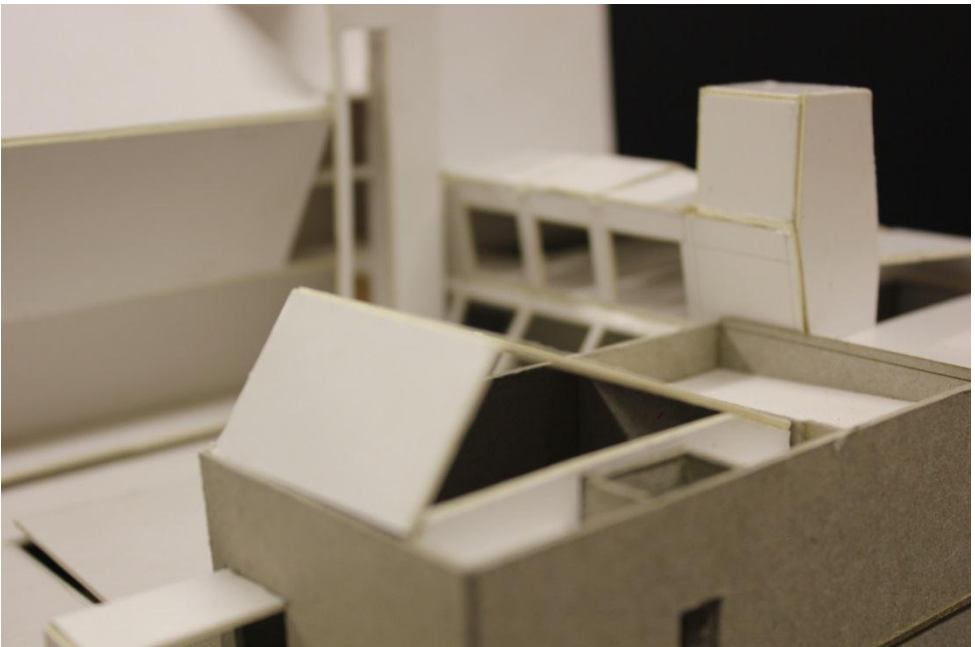
An early concept model was placed on the model to study the scale and suitability of the conceptual design.

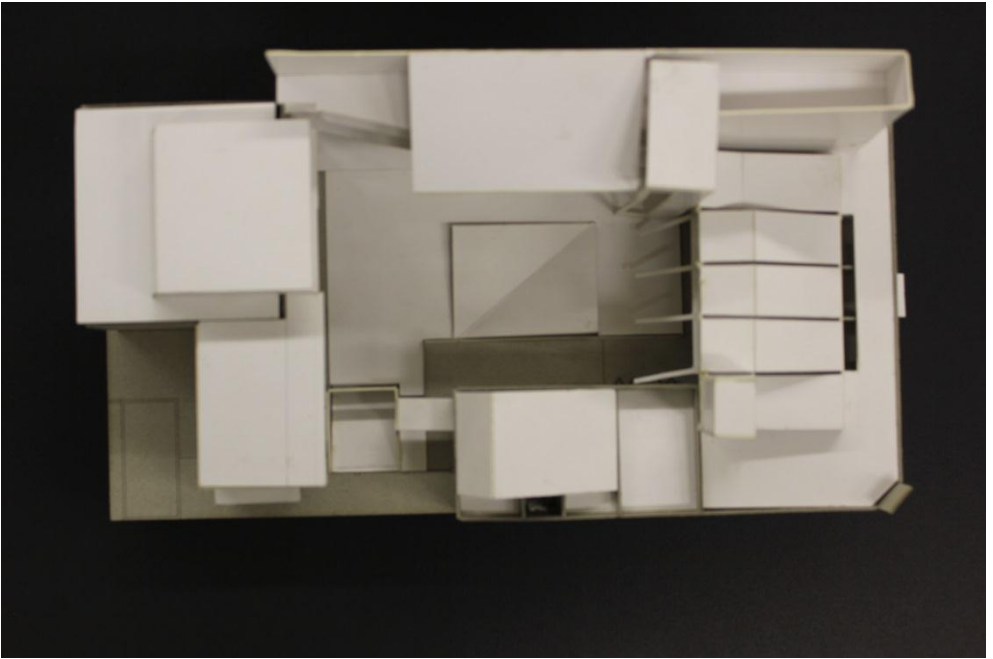




1-200 Existing [context] + Concept .

The test models allowed for the removal and replacement of individual elements during the Design Development and Resolution phases. Here the focus was on the new forms and massing, with the existing fabric modelled as planes with a little or no detail.





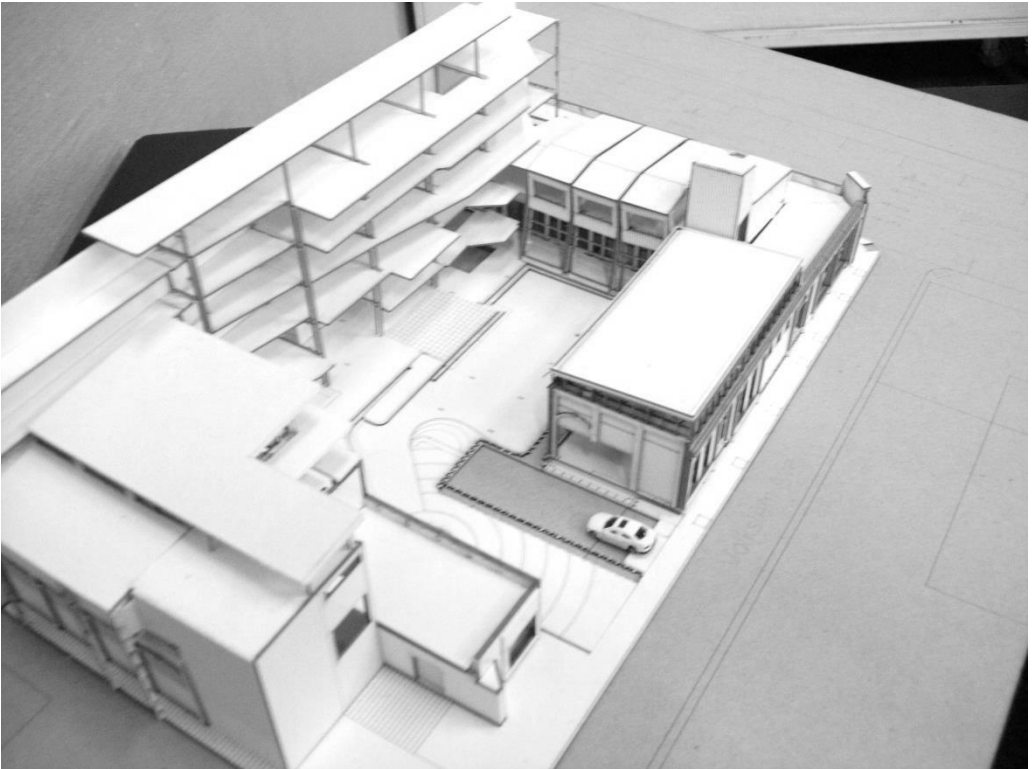
1-200 Design Test Models

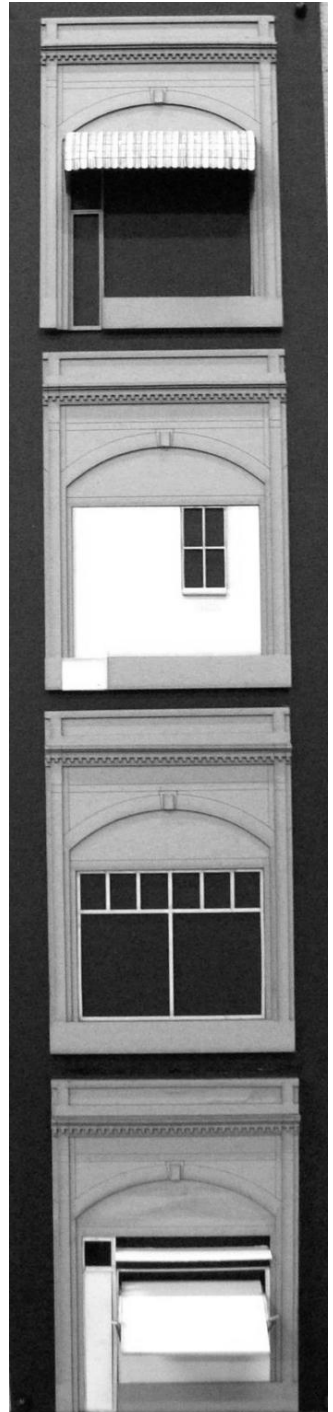
The final model reflects the project holistically, with no distinction between the existing and proposed new fabric. The structures to the west reflect the steel framework that forms the new building, with the floor plates indicating the translation of the conceptual idea of the cantilever.

The basement access and courtyard layout is discernible, and aims to reflect and maintain the open-nature of the original courtyard.

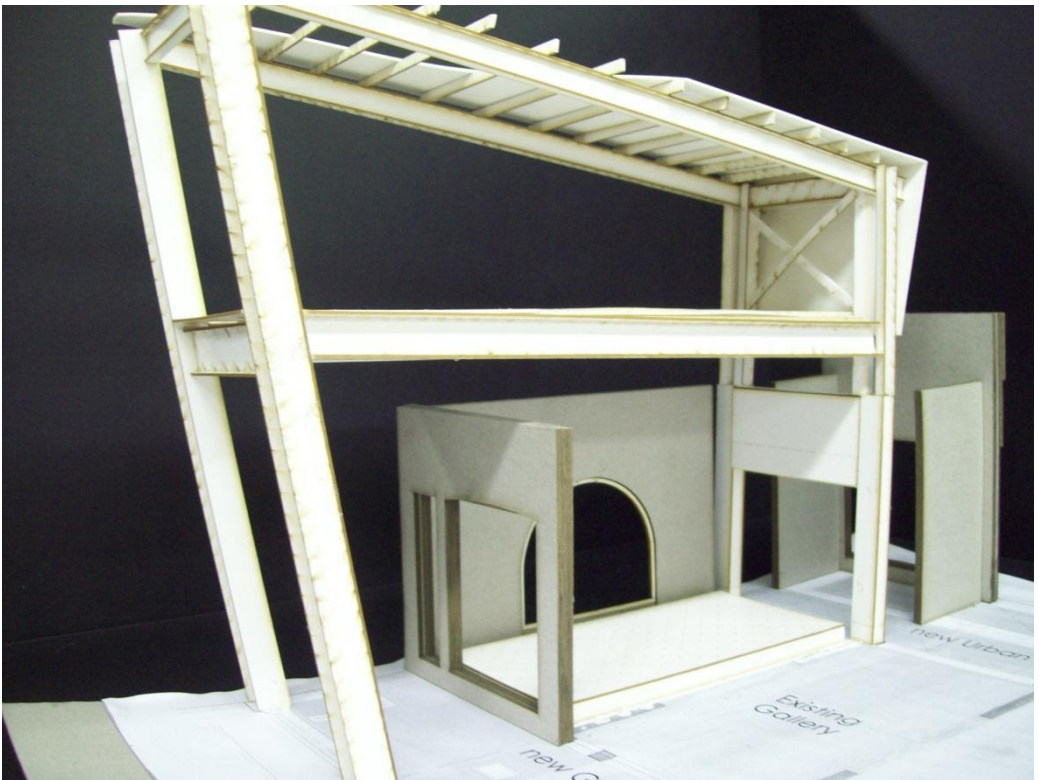


1-200 Final Model

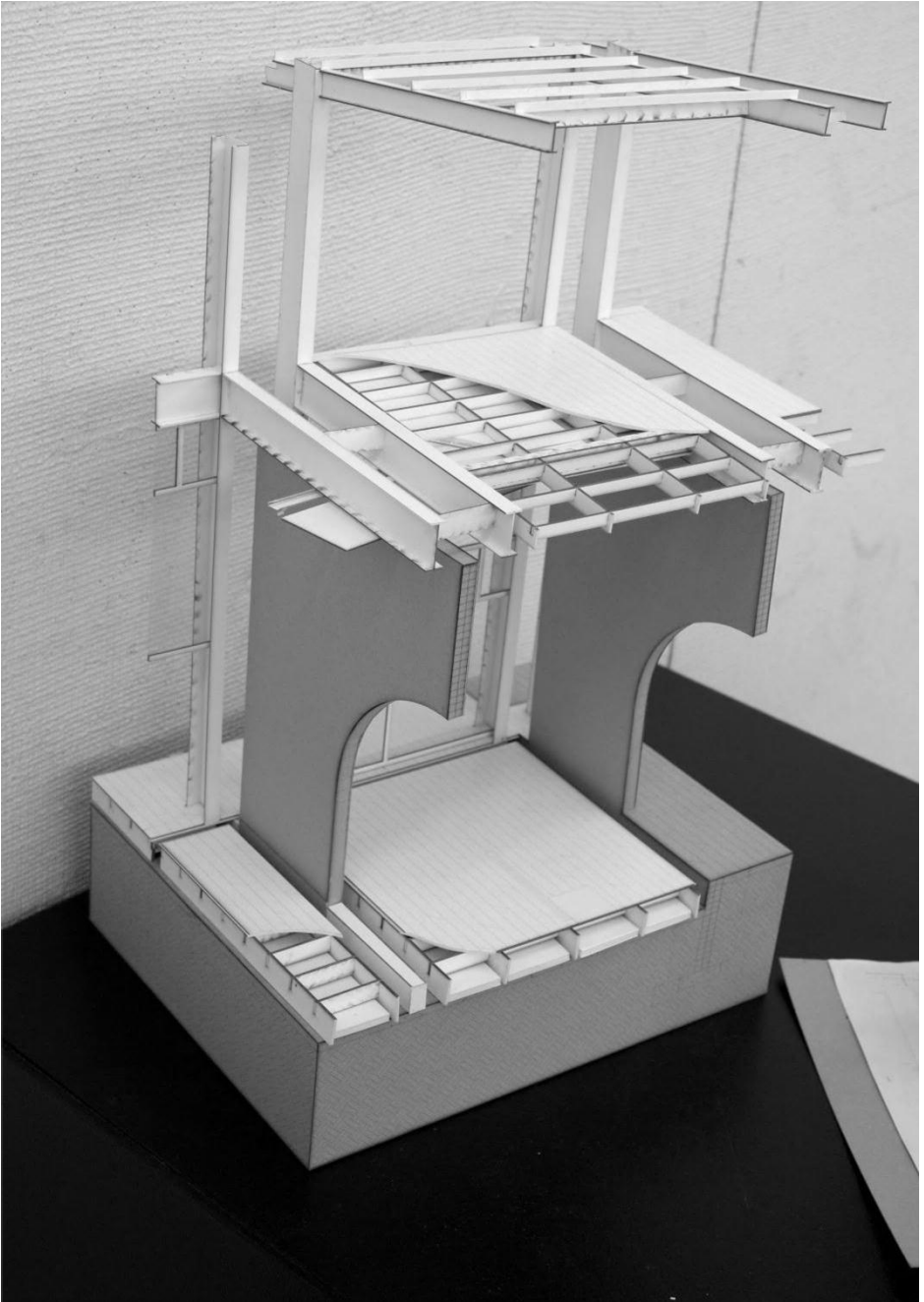




1-50 Window Evolution



1-50 Bay Resolution [October 2013]



1-20 Detail Model

i. conclusion



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I. Conclusion



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Declaration

Acknowledgement



I. Conclusion

This dissertation is the result of an attempt to understand and propose a remedy for the apparent and obvious state of cultural misunderstandings and the lack of cohesive cross-societal bonds in South Africa.

The aim to produce a design prototype for places of cross-cultural and poly-social integration, married with the task of suggesting contemporary ways of re-using historic and culturally significant buildings and sites resulted in the design proposal for a new exhibition and gathering space where peoples from all walks of life could, at their choosing, become a part of a cultural display and interchange, where knowledge, skills and traditions are traded. The programme allows for the acting out of general and culturally specific quotidian activities to occur, such that they may be witnessed by others, facilitating possible small scale interactions that would foster improved social and cultural understanding.



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I further state that no part of my Dissertation has already been, or is currently being, submitted for any such degree, diploma or other qualification.

I further declare that this dissertation is substantially my own work. Where reference is made to the works of others, the extent to which the work has been used is indicated and fully acknowledged in the text and list of references.

Omar Horzook
2013

With gratitude to the following for making all this possible:

My family, for their support and care over the years and without whom this would not have materialised.

My friends for their advice and patience and for lending a hand to bring all this together:

Duane Comins
Yolandi Viljoen
Tialise Taljaard
Riki Papaspyrou
Ali K. Sadiq
Warwick Vlantis
Stephane van Rooyen
Ilze Labuschagne
Kiana Martins
Nick Randall
Tuliza Sindi

UP staff who went beyond their call of duty, especially:

Mpho Petlele
Karlien van Niekerk