PUBLIC
CULTURE
INTERTWINED

N RANDALL
10088343

UNIVERSITY OF PRETORIA
M(PROF) ARCH 2017

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LOCATION:
**FRANCIS BAARD ST & WESSELS ST, ARCADIA, PRETORIA, 0007
25°44'53.1"S
28°12'48.7"E**

FUNCTION:
A MELDING OF CULTURAL & PUBLIC RITUALS THROUGH ARCHITECTURE

RESEARCH FIELDS:
**HERITAGE & CULTURAL LANDSCAPES
ENVIRONMENTAL POTENTIAL**

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IDENTITY MEMORY LEGACY
BRICK   CRAFT**

MPROF(ARCH) YEAR CO-ORDINATOR:
PROF. ARTHUR BARKER

STUDY LEADER:
DERICK DE BRUYN

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My deepest thanks to my friends, family & mentors for the overwhelming support I've received throughout this journey:

To Hugh Randall for supporting me in chasing my passion

To Christine Randall for always believing in me, even when I didn't

To Stephen Randall for bringing me back to reality in the best of ways

To Derick de Bruyn, for always challenging norms, especially my own

To Suzette van der Walt for questioning everything?

To Chalrdon & Cari for unforgetable memories

& Lastly, to Ursula Kotze, I couldn't dream of doing any of this without you, my alles

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You say to a brick, 'What do you want, brick?'

The brick says to you, 'I like an arch.'

& you say to brick, 'Look, I want one, too, but arches are expensive and I can use a concrete lintel.'

& then you say: 'What do you think of that, brick?'

Brick says: 'I like an arch.'

Louis Kahn

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ABSTRACT
- ENGLISH -

This dissertation grapples with the making of identity in contemporary Tshwane, South Africa. Through this discourse, a number of issues, informants & responses are identified & developed as means of extracting identity from a cosmopolitan society.

This extropolation is undertaken as a means of reinvigorating the chosen study area as active public space, playing a role in informing both public & cultural discourse.

At this dissertations conclusion, a unique architectural response will be presented, dealing with issues such as identity, memory, globalisation, & context. In grappling with these issues, this dissertation will add to a contextual architectural discourse concerning the public realm, & cultural interactions in South Africa.

ABSTRAKT:
– DEUTSCH –

Diese Dissertation beschäftigt sich mit der Identitätsfindung im zeitgenössischen Tshwane, Südafrika. Durch diesen Diskurs werden eine Reihe von Themen, Informanten und Antworten identifiziert und als Mittel entwickelt, um Identität aus einer kosmopolitischen Gesellschaft herauszuholen.

Diese Extrapolation dient der Wiederbelebung des gewählten Untersuchungsgebietes als aktiver öffentlicher Raum und spielt in dem Sinne eine Rolle den öffentlichen und kulturellen Diskurs zu informieren.

Am Ende dieser Dissertation wird eine einzigartige architektonische Antwort präsentiert, die sich mit Themen wie Identität, Gedächtnis, Globalisierung und Kontext befasst. Diese Dissertation wird zu einem kontextuellen architektonischen Diskurs über den öffentlichen Bereich und kulturelle Interaktionen in Südafrika beitragen.

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ABSTRAK:
- AFRIKAANS -

Die skripsie probeer die kwessie rondom die skepping van identiteit in kontemporêre Tshwane, Suid Afrika, behandel. Deur die ondersoek van die bogenoemde kwessie, word veeltallige probleme, insigte en reaksies geidentifiseer en ontwikkel, om deur sulke wyse identiteit vanuit die kosmopolitaanse gemeenskap te identifiseer.

Deur wyse van hierdie ekstrapolasie word die heraktivering van die verkose studie area as n aktiewe publieke ruimte ondersoek, asook die rol wat dit speel daarin om publike en kulturele ruimtes te beinvloed deur verhandeling.

Die slot van hierdie skripsie sal n unieke argitektoniese reaksie uitbeeld, wat die kwessies van identiteit, nagedagtenis, globalisering en kontektualiteit aanspreek. Deur die verhandeling van die bogenoemde kwessies, sal die skripsie n bydrae lewer tot die kontektuele argitektoniese gesprek rondom die publieke ryk en kulturele wisselwerking en interaksie in hedendaagse Suid Afrika.

01

This Chapter sets out the current state of Arcadia Park & the Pretoria Art Museum, through exploring a number of relationships.

Through setting out issues in terms of General, Architectural, Urban, & Sustainable, the study area is introduced as a interpretation of its informants

-

Slowly deteriorating in a seemingly forgotten as well as embraced manner, making use of the park, around the museum.

Lastly, the pragmatic requirements & academic rigour will be laid out, setting out Research Questions, Delimitations & Research Methodology.

01

INTRODUCTION

1
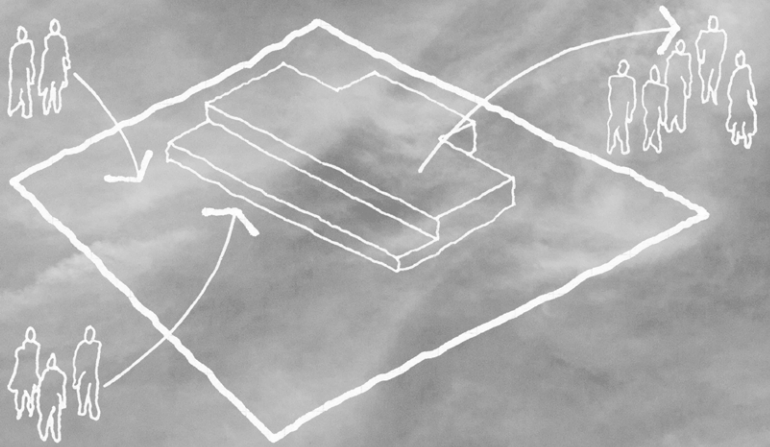
1.1
ARCHITECTURE OF AGENCY:
INVESTIGATING THE PUBLIC DETERIORATION OF THE PRETORIA ART MUSEUM & ARCADIA PARK

The Pretoria Art Museum finds itself in a precarious point within its unsure continuum.

Gone are the days of revellers baking in the Highveld sun, waiting to enter the Picasso exhibition taking place within the Museum's halls, instead the museum has become an object in the landscape. The park the museum finds itself in currently fulfils a public role far more open-ended than the museum itself, filled almost entirely by programs brought forth by the park users.

At its inception, the Pretoria Art Museum was intended to fulfil a gaping hole in the representation of South African Art, left by the vast European collections of Museums of Cape Town & Johannesburg. With a generous donation from Lady Michaelis at the beginning of the 20th century, the City of Pretoria soon held the largest collection of South African art in the country (AbleWiki, 2012).

A collection of such magnitude soon warranted a museum to house it, a building in line with the driving international style of the time, to be designed by architects Burg, Lodge, & Burg, in collaboration with Gordon McIntosh (AbleWiki, 2012).

The Museum placed itself on a plinth of its own making, donating the rest of its city block site to a public park, ironically separated from the museum by its own plinth as a pedestal.

Today the museum continues to pander to the needs of an exclusive society, one that has entirely disassociated itself from the physical context of the park housing the museum. This stands in stark contrast to the park, which has never seen more use, uses never generated by the museum, rather generated around it.

This neglect of the museum from the public, has in turn led to neglect from the municipality - along with a number of other influences - which has led to an entropy of the relationship between public & cultural spaces on site.

In the grander context, what is the lose of a single modernist building in what is considered to be Africa's largest city?

While the physical lose remains minuscule, the lose to Tshwane's - & indeed South Africa's - collective arts & cultures cannot be so easily quantified. Museums serve as vessels, housing collective creativity, & their existence should therefore be protected, though that isn't to say they should not be adapted to suit changing needs of societies grappling with both immediate issues, as well as some more philosophical.

Fig. 1.1.   Page Opposite - *Society Out, Society In (Author,2017)*

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RELATIONSHIPS BETWEEN THE TANGIBLE & INTANGIBLE:
GENERAL ISSUE

The reasons for the fall of the Museum, & subsequent rise of it's park are as varied as they are many. The context the museum finds itself in differs across scales, from a global level, to local, each is unique, & yet has still been working hand-in-hand in creating the state of entropy the museum currently finds itself in.

In a global context, public interaction with art is in a state of flux. While technology is the basis for global connection, it also serves to negate our interactions with the physical world (Wilmer, H Et Al. 2017).

What is an art gallery in a physical world while every smart phone can contain almost every piece of art ever created?

The physical productions of society's creative processes are at a distinct disadvantage to the constant march of technology. This current disadvantage stands in severe contrast to the course of history, which has had a western bias toward physical by-products of cultural processes, manifestations which traditionally have been infinitely easier to exhibit & archive than the often ephemeral rituals associated with the cultures of the Global South.

This shift in power gives the ephemeral nature of culture & ritual a proverbial foot in the door. In a context where art is always accessible, ritual & experience become far more attractive exactly because of their ephemeral natures.

In a local context, South Africa's society has been in a protracted state of self discovery. The crimes of the past have undoubtedly been difficult to right.

Over time, the more traditionally affluent members of society have shifted from Pretoria's CBD & surrounds, further east, leaving a spatial vacuum in Arcadia, Sunnyside, & the other surrounding suburbs (StatsSA, 2011).

Filled by necessity, Arcadia & its surrounding suburbs have become home to a rising middle class, a far more cosmopolitan, African society, a society uncatered for by the aging Museum & its collection of art belonging to others.

Fig. 1.2. Above - *Physical to Digital Interactions (Author, 2017)*
Fig. 1.3. Page Opposite - *Globalisation of Identity (Author, 2017)*

1.3
IDENTITY OF SPACE:
ARCHITECTURAL ISSUE

Cities are undoubtedly living organisms, developing at rates never before experienced, though seemingly at the cost of local identity in a global context (Bonnemaison, 2008).

This homogenization brings about questions of what is a relevant African identity, on a continent steeped in cultural practices. What makes this difficult to define is the constantly contested history of the continent both as a whole as well as in its parts. Countless exterior & interior influences have slowly whipped away any notion of African identity in an architectural sense (Cantz, 2014).

While this loss of identity is not new to Africa, globalisation, following on from colonialisation is slowly moulding a world image with a heavy western bias.

In this context it would be almost useless to force an African spatial identity using ideology & bygone nations as points of departure. Instead the programs devised by the citizens of Africa's bustling metropolises should be the drivers for forming contemporary identity.

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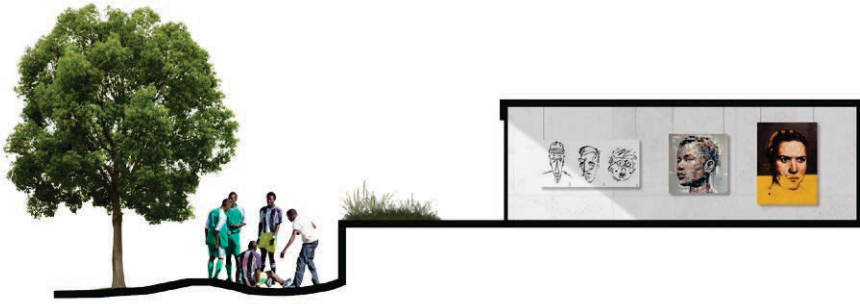
1.4
SEPARATELY INTERTWINED:
URBAN ISSUE

Agency in public space can manifest in an infinite number of possibilities, from simply enjoying the afternoon sun, to sorting plastic bottles from cardboard boxes after a day of refuse collection.

The chosen study area represents the duality of South African urban life. In what is one of the most unequal of countries in the world, South Africa's citizens are thrown together in its cities on a daily basis, with varying degrees of interaction & separation taking place across all facets of public life (World bank, 2017).

The Pretoria Art Museum & its park represent these interactions & non-interactions better than most, conceived for a society now disassociated from the CBD & its surrounds in many regards, the museum has lost its progenitors. This stands in stark contrast to the park, which houses a plethora of rituals brought about by almost every portion of South African urban society.

Perplexity, these interactions & disassociations remain thoroughly intertwined, none more so than between the museum & park itself, where one struggles while the other revels. While the park has in recent years drawn far more use, its existence is entirely dependent on the continued existence of the museum.

The negating of current practices on site, to make way for new programs would ultimately alienate the public as a whole. A synthesis between the existing & proposed programs would be necessary in ensuring that both the cultural & public of the study area improve collectively.

From this cross-pollination of program, spatial identity & concept will be drawn, in an attempt to find a create a truly reflective architecture for the cosmopolitan society of Arcadia, standing in contrast to the International Style of the Museum itself.

Fig. 1.4.   Above - *Relationship Between Park & Museum (Author, 2017)*
Fig. 1.5.   Page Opposite - *Existing Programs Observed on Site (Author, 2017)*

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S M T W T F S
DAY / NIGHT

FRIENDS & FAMILY:
The most traditional of
park-goers, this element of the
public seem to enjoy the park
purely because it is public space,
allowing for a range of activi-
ties, their attendence of the
park is limited to weekends &
day light hours, inferring a
severe lack of perceived safety.

S M T W T F S
DAY / NIGHT

SPAZA SHOPS:
Situated mostly on street cor-
ners, these small scale shops
offer on the go items to pass-
ers-by. Located close to estab-
lished shops, these ventures do
not directly compete with their
larger compatriots, rather focus-
ing on small offerings to clien-
tele on foot.

S M T W T F S
DAY / NIGHT

WASHING LINES:
While the agency of these ele-
ments is unclear, they do repre-
sent a certain program the park
fulfills. Dotted around the vari-
ous outbuildings & fence lines,
these make-shift wash lines
these wash lines make use of
water not readily available for
those without formal housing.

S M T W T F S
DAY / NIGHT

THE HOMELESS:
The most continuous of the
public realm, Pretoria's Home-
less fill the in-between. With
few places to take agency of,
parks, streets, & canals become
places of privacy during differ-
ent parts of the day, treating the
city in its entirety as their
home, & different public ele-
ments as individual rooms.

S M T W T F S
DAY / NIGHT

SOCCER STARS:
Open spaces are a luxury in
density. Even more so when
much of it is pay to play.
Seemingly unable to access
nearby sports clubs, theses avid
sportsmen make use of the only
open, unprogrammed space in
within Arcadia.

S M T W T F S
DAY / NIGHT

SECURITY / SAPS:
Often found in the parking lot
of the museum, security guards
& SAPS seem to enjoy long
breaks observing the public
park, whether this is intentional
or a by-product of the allure of
the park is unknown, similarly
whether or not this observation
is continued into the the night
is a mystery.

S M T W T F S
DAY / NIGHT

THE JOBLESS:
whiling the day away under
Pretoria's sun, these men &
women either have piece-work,
or inactive inseeking for it. On
the border of falling out of the
formal element of society, they
appear to be entirely dispon-
dent concerning their fate,
choosing to forget it in the ano-
nymity of the park.

S M T W T F S
DAY / NIGHT

PASSERS-BY:
Often spending as little time in
& around the park as possible,
the feet moving through this
public space are mostly drawn
to work opportunities in the
CBD & Hatfield, and trudge
back home in the early eve-
nings, tired & only thinking of
being at their destination al-
ready.

S M T W T F S
DAY / NIGHT

RECYCLERS:
Enjoying the shade under the
copse of trees toward the north-
er, quieter side of the park.
These invisible members of so-
ciety take a moment in their
continuous trek around the city
to sort through what they have
gathered, partaking in their
own way in public life.

S M T W T F S
DAY / NIGHT

METERED TAXIS:
Parked along the North/South
streets during off-peak times,
the Metered Taxi drivers use
their time to wash their cars &
to commune with their fellow
drivers. Facing directly onto the
park, the offer good passive se-
curity during the middle of the
day.

S M T W T F S
DAY / NIGHT

MUSEUM-GOERS:
Remnants of a by-gone era,
those who attend the museum
are few & far between... Con-
sidered a simple object in space
by the Park-Goers, the museum
has become entirely disassociat-
ed from its surrounds, & sepa-
rated from its interested parties.
It's halls no stand full, though
only of art.

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AUG, 2001 | SEP, 2016

1.5
PUBLIC ENTROPY:
SUSTAINABLITY ISSUE

At the time of this dissertation, the Pretoria Art Museum has stood for 53 years, with Arcadia Park around it being of a indeterminate age. In recent years though, the apparent health of the museum & park have seemingly taken a turn for the worse.

After a brief investigation, the ailing state of the site became immediately apparent. 15 years & 1 month apart, the study area has lost much of its traditional greenery, the rolling lawns the museum once surveyed over have given way to dirt patches trodden bare by local soccer teams. Many of the trees defining the edge of the park have lost their leaves to better days, making shade in the park prime real estate. Similarly the museum itself has not escaped this process of entropy. From above, the building could use a good dusting. In person, much of its deterioration is in the detail, with broken windows being boarded up rather than replaced, & roof leaks persisting in the archives far longer than what would be acceptable.

The reasons for this state of decay are many, & some even understandable. Following the change of regimes in 1994, there was a change of focus, away from maintaining the already impressive infrastructure of South African cities, to addressing the most basic of needs of South African Townships. This shift in focus has public spaces such as Arcadia Park listless, left to a life of constant use & little regard for maintenance, let alone improvement.

On a large scale, water shortages have slowly been sneaking up on South African society, meaning the once grandiose imported lawns of modernist buildings such as this are adopting a state of being more natural to a South African climate. & Of course, this goes hand-in-hand with the ever-warming global climate, slowly changing dreams of utopian green cities to plans of how to prevent any further damage.

For the Pretoria Art Museum & its park, help is seemingly a long way off, if the degradation of one of Arcadia's - even Tshwane's prime public spaces is to be stopped - let alone improved, spaces such as this need to become entirely self reliant, moving away from dependencies on dwindling care & changing interests.

Fig. 1.6.   Page Opposite - *Arcadia Park August 2001 vs September 2016 (Google Earth, 2017)*

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1.6
RESEARCH QUESTIONS:

The requirements of an art museum & exhibition space, in comparison with that of public outdoor space, within a South African context are somewhat polar, though their aims remain largely similar, to create meaningful, varied, & unique public life for the city of Tshwane & its inhabitants.

The dichotomies between the museum & its park, the site & its context, between art & culture, Modernist public architecture & contemporary Arcadian society, about a varied set of research questions to be addressed:

- How can the boundaries of agency in public space be blurred meaningfully, allowing for a multitude of uses, without negating agency entirely?

- How can formal & informal public space effectively interact to fulfil the needs of Tshwane's public?

- What role can architecture play in nurturing culture & the protection thereof?

- How can buildings currently disinherited by society be brought back into the fold meaningfully?

- Where is architectural identity in South Africa drawn from to best represent contemporary urban societies?

- How do architects deal with the built remnants of Apartheid society to better suit present society?

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The study area represents a confluence between number of contextual issues for present day South Africa, including interactions & clashes between; cultural & public elements of society, contemporary identities & remnants of Apartheid's spatial legacy. This dissertation intends to grapple with issues of identity in a Post-Transition South Africa, along with dealing with the bitter memories brought forward with the city of Tshwane's built environment. Following a process of contextual & theoretical investigations, combined with the application of relevant precedent studies, the designing of a bespoke concept & design solution will be proposed, a solution which would then be iterated, & technified to create a contextual, sensitive response to the identified issues & informants.
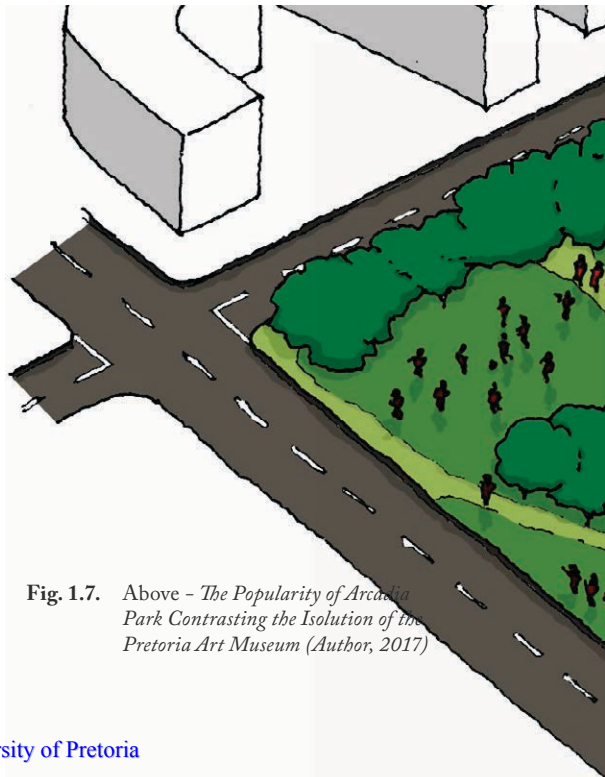
Fig. 1.7. Above – *The Popularity of Arcadia Park Contrasting the Isolution of the Pretoria Art Museum (Author, 2017)*

The study area of this dissertation is confined to the boundaries of Arcadia Park, with an urban vision & contextual approach suggesting solutions for the wider context that would aide the scheme & anchor it sufficiently in the continuum of South African architectural discourse. If possible, the study area will be included into greater urban frameworks, as a means of preventing the dissertation from becoming a purely urban design scheme instead of an architectural response.

The dissertation takes the context of Arcadia Park as it is from the beginning of 2017. Drastic changes to this context may be included as necessary, though will be clearly indicated as being a new point of departure.

A number of theoretical premises are to be researched during the course of the project. These will only be taken as far as their ability to inform the sensitivity of the projects response. Grappling with esoteric issues such as overall architectural identity in contemporary South Africa along with the informants of vernacular architecture & the relevance thereof fall outside the proposed scope of this dissertation.

Lastly, this dissertation will attempt to remain within the realm of an architectural response, pitfalls of social engineering & political opinions will be avoided at all costs.

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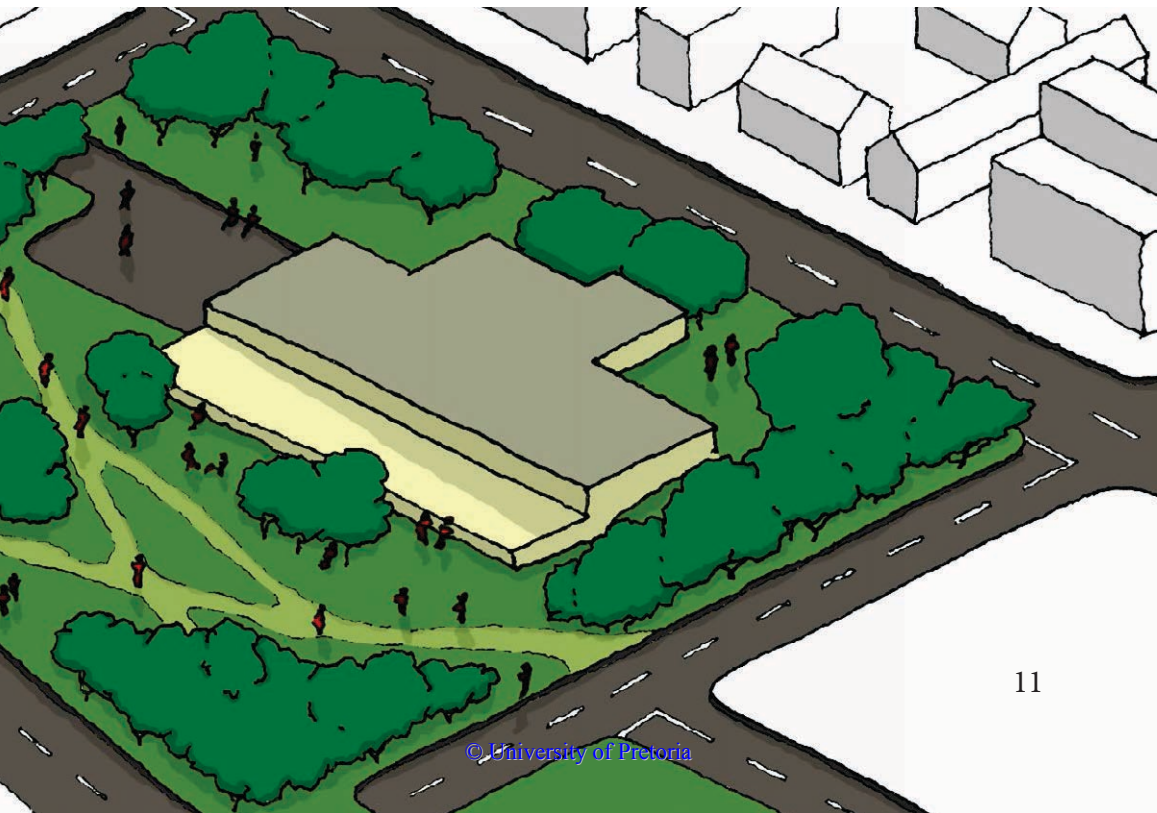
In attempting to understand the layered nature of public & cultural space in & around the Pretoria Art Museum as the chosen study area, a number of research methods were undertaken to eventually form a coherent response to the identified issues, informants & intentions. This research methodology was undertaken as follows:

PARTICIPANT OBSERVATION:

A number of site visits were undertaken, beginning with understanding the greater context of Arcadia & its surrounds, interacting with the collection of public spaces spread throughout the area, & eventually enjoying the sun & shade of Arcadia Park, & the culture & quiet of the Pretoria Art Museum.

During these site visits, objective observations were made concerning the daily rituals practiced within the study area, in conjunction with subjective interpretations of relationships made by the author as well as through informal interviews undertaken on site.

Many visits were made throughout the year, at varying times as to better understand the use of both the park as well as the museum by a myriad of peoples.

DESK TOP STUDIES:

A varied desk top study was undertaken to better understand the context the study area finds itself in, politically, geographically, & temporally. These studies included: quantitative research undertaken on the area of Arcadia & its surrounds through the study of Census data, mapping of relevant public space, opportunities & risks affecting the site, & finally the gleaning of varying opinions on the state of the study area, past, present, & future.

These studies were undertaken to formulate a contextual framework to anchor the chosen site, as well as to craft a sensitive response to both the urban public space, as well as the existing built fabric of the museum.

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THEORETICAL BASIS:

From the outset, a number of theories were investigated, with a view of explaining the current state of the study area, a possible solution, an approach to heritage, & the role of the architect in the making of a representative architectural identity in contemporary South Africa. This would be undertaken through a number of literature studies, both international as well as local. From this basis, the making of a sensitive, & more importantly responsive design proposal could be created.

PRECEDENT STUDIES:

Following on from the theoretical base, a number of precedent studies will be undertaken, each with a specific influence on the final product. These precedent studies will take the form of contextual, formal, technological, & programmatic projects, locally & internationally.

APPLIED TO RESPONSE:

From this research basis, the identified issues, informants, & intentions will be applied to the forming of a conceptual approach, design development, & a technological realisation of the project intentions. This process will be undertaken in an iterative manner, as to ensure a sensitive response as discussed previously. This response will deal with the urban context of the study area, the existing fabric of the museum, & the esoteric requirements of the society of Arcadia & Tshwane as a whole.

To conclude, the application of this research will result in the making of an architectural response in the form of proposed additions to the study area, programmatically, spatially, & technically.

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02

This Chapter investigates the events as well as contextual circumstances that have informed the development of the Pretoria Art Museum & Arcadia Park. Subsequently, the current relationship between the Museum & the Park it finds itself in will be critiqued, through the examination of relationships between Public Space in & Around Arcadia, between Public Practices & Cultural Rituals, & between Existing Legacy Architecture & Contemporary Society in Tshwane.

Lastly, the development of the Pretoria Art Museum as a historic Modernist building in South Africa will be discussed, serving as a lens through which the museum as it stands can be understood, culminating in a Statement of Significance.

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02

BACKGROUND & CONTEXT

2.1
FORMING CONTEXT:
DEALING WITH THE SCARS OF
THE APARTHEID SPATIAL LEGACY

South Africa is made up of a melting pot of cultural backgrounds, which was dominated by a Western – in some cases individualist – bias until the fall of Apartheid (Jacobs, 1961, Noble, 2011). Pre-1994, beginning with Sir Herbert Baker & Gerhard Moerdyk, architecture in Pretoria specifically had begun to be employed as a structure around which an "Afrikaner" & "Colonial Biased" national identity could be built, culminating in monumental constructs such as the Voortrekker Monument (Moerdyk , 1949) & the Union Buildings (Baker, 1910) (Pienaar, 2013). Following on from this, with the rise of the Modern Movement's International Style, cohesive South African identities continued to develop in a conscious direction, although still strongly influenced by international bias's. This evolution was mostly based on principles of Modernism in South Africa's various climates, with 'regional' vernaculars evolving from this integration of style & vernacular (Nouvel, 2008).

With the fall of Apartheid –beginning on the 11th of February, 1990 - early into the rise of a new democratic South Africa, the need for a new Architectural Identity in then Deputy President, Thabo Mbeki's *African Renaissance* was

required (Mbeki, 1998). This politically led direction resulted in tenders being sent out from a number of public & political institutions including the constitutional court (Radebe, 1999, Sachs, 1998, Bremner, 2008).

Nearly two decades on, with one national identity being built on the rubble of the last, South Africa sits with a case of "Architectural Blight", in a context in which the seemingly crumbling foundations of a national identity are being tested (Barker, 2015, Pambo, 2015).

This premise will be underpinned through the selection of a case study site, seated both firmly in the public realm as well as being seemingly forgotten or unacknowledged to members of the public. The aforementioned case study will then be analysed critically across a number of scales, identifying issues affecting both the built fabric of the public realm, as well as the society which comprises it. Possible solutions will then be discussed within the ambit of what architects can & cannot influence. From here, appropriate theories will be outlined to offer an explanation as to why "oblivious" public architecture finds itself in the state it is currently in. Following this, a way forward

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will be examined through the study of the architect's role in decolonizing South Africa's architectural & urban environment as well as the architect's role in forming a new "Acknowledged" collective identity in context.

From this point of departure, possible solutions will be suggested to address the examined case study. These hypothetical solutions will be applied & tested through vessels such as proposed programs, clients & interventions to the existing fabric, thereby possibly re-animating the building through new & reactivated engagements, interactions & discourse.

As a means to further understand public architectural conditions – along with the applications of agency & identity as they are, precedent studies will be examined & critiqued, both local & international, stretching over a vast time line of historical undertakings to more recent initiatives. It is vital for the proposed case study to be cognitive of its own historic fabric & to use this existing as a barometer throughout the investigation so that any addition can be successfully gauged.

1928 - 2017

1902 - 1928

1889 - 1902

1879 - 1889

1857 - 1879

1855 - 1857
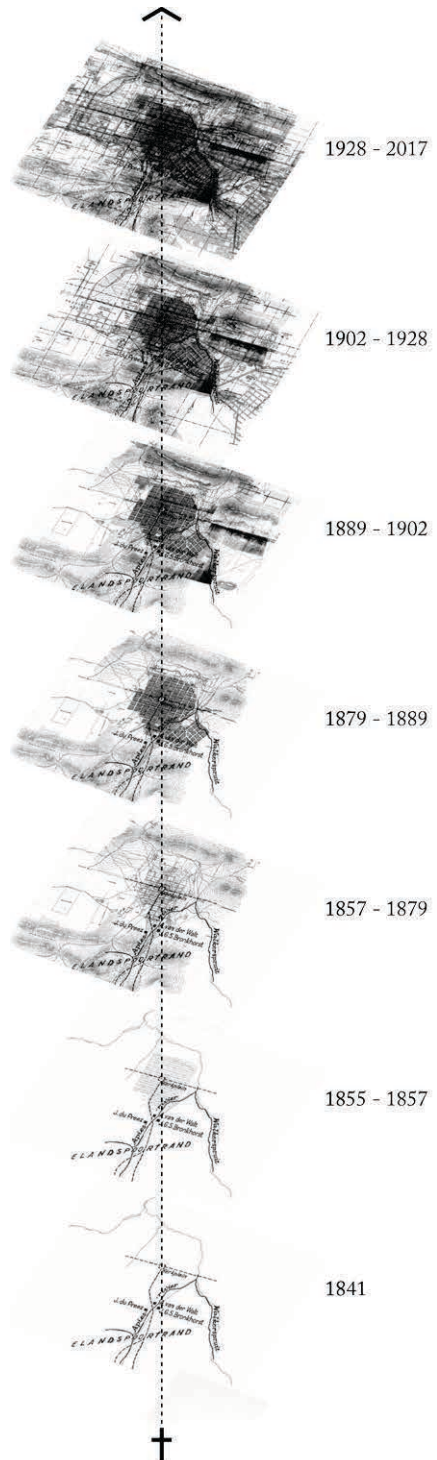
1841

Fig. 2.1. Right – *The Development of Pretoria around Church Square 1841-2017 (Author, 2017)*

17

HISTORY
SPACE
IDENTITY
CONTEXT
CONSTESTED

Having been demarcated as Pretoria's first suburb in 1889, Arcadia benefited from a system weighted in its favour for more than a century (SA History Online, 2011).

Intended as a middle-class suburb from the outset, Arcadia took on politicized overtures with *Native Urban Areas Act of 1923* (Act 21 of 1923), only allowing the country's white demographic to own land in the area. This political favouritism saw the area becoming decidedly gregarious, playing host to a number of public parks & services, of which the national seat of power in Sir Herbert Baker's Union Buildings is undoubtedly the most recognisable (Keath, 1996).

Over the years, architects & town & regional planners attempted to mould Pretoria into a Eurocentric Utopian city, South Africa's crowning capital of social engineering. Plans where developed for civil & museum precincts, defined & intersected by governmental & ceremonial boulevards, the latter of which would pass through the leafy suburb of Arcadia heading east down what was known as Church Street.

While the CBD & surrounds of Pretoria flourished, this came at a heavy social & moral cost to the disenfranchised, brutalized majority, which had been pushed to the peripheries of Pretoria's urban fabric, converting social disenfranchisement to physical disenfranchisement.

Finally, following a long awaited unravelling in 1994 with the abolishment of Apartheid & the beginnings of a new democratic dispensation, the Rainbow Nation began to be discussed (Harvey, 2001).

While this peaceful revolution held much promise for the previously oppressed, it was met with trepidation by the privileged few, with an exodus en-mass of both business & residents leaving South Africa's collective CBD's deserted (Harvey, 2001). This vacuum was however soon filled by many black Africans, who previously didn't have access to the services & amenities offered in the city (Bremner, 2008).

Following this transition in many facets of politics & society, the new regime became seized with the task of maintaining the country's gregarious metro's & leafy suburbs while also attempting to complete service delivery

Fig. 2.2. Page Opposite - *Contesting History & Spatial Identity in Tshwane(Author, 2017)*

Fig. 2.3. Right - *Varying Spatial Uses by Varying Societies Sketch (Author, 2017)*
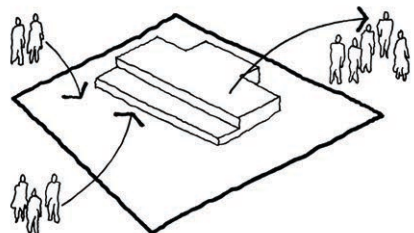
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in areas previously neglected. This, hand-in-hand with divergent focuses of the new inhabitants of areas such as Arcadia became a perfect storm of neglect & mismanagement of many of the public spaces created during the Apartheid era (IOL, 2012).

Contemporary Arcadia is now vastly different to the suburb settled in 1889. Following the vacuum created by the pre- '94 exodus, Arcadia has become an area in constant transition, where passers-by are as likely to hear the Nigerian language of 'Igbo', or Congolese French as they are to hear Tswana or Afrikaans (Stats SA Census, 2011).

Similarly, the economic situation for many of Arcadia's citizens has shifted as drastically, meaning that interests would have been adapted too, with less & less time is spent engaging in constructive public interactions (Stats SA Census, 2011).

In bygone years, the public parks dotted around Arcadia were a boon for the area's residents, providing an array of leisure activities to partake in. While the physical infrastructure has remained, the uses thereof have changed considerably.

Arcadia's public realm is constructed from both formal & informal public space, linear & expansive, large scale & fine grain. Though in a context of expediency & efficiency public interactions have become limited to chance encounters along Tshwane's eroding sidewalks, or in the crammed seats of mini-bus taxis.

While public parks have not (yet) been subsumed by indifferent development, they have become lost to a collective public conscious that speeds passed from point A to B & back again on their daily treks.

This lack of collective agency & inherent security required in public space has

**UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA**

1. ARCADIA & BLACKMOOR:-

AREA: 2.94KM²
POPULATION: 23 404
DENSITY: 7 954.77/KM²
HOUSEHOLDS: 9 613
LIVING DENSITY: 3 267.36/KM²
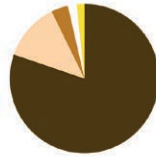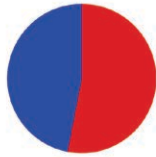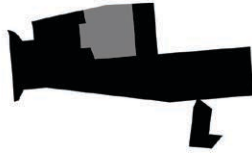
FEMALE (12 411 - 53.03%)
MALE (10 992 - 46.97%)

BLACK AFRICAN (18 774 - 80.22%)
WHITE (2 936 - 12.54%)
COLOURED (852 - 3.64%)
OTHER (439 - 1.88%)
INDIAN / ASIAN (403 - 1.72%)

ENGLISH (3 570 - 18.55%)
SEPEDI (2700 - 14.03%)
SETSWANA (2 231 - 11.59%)
OTHER (2 105 - 10.94%)
AFRIKAANS (1 847 - 9.60%)
ISIZULU (1 634 - 8.49%)
ISIXHOSA (1 131 - 5.88%)

SESOTHO (1 130 - 5.87%)
TSHIVENDA (985 - 5.12%)
XITSONGA (864 - 4.49%)
ISINDEBELE (561 - 2.92%)
SISWATI (449 - 2.33%)
UNDEFINED (0.19%)

Fig. 2.4. Page Opposite – *Pretoria Ward Aerial Photograph(Author, 2017)*
Fig. 2.5. Above – *Arcadia Ward Information Breakdown (Author, 2017)*
Fig. 2.6. Below – *Breakdown for Relevant Tshwane Wards (Author, 2017)*

2. TREVENNA:-

3. SUNNYSIDE:-

4. MUCKLENEUK:-

5. PRETORIA CENTRAL:-

6. ASIATIC BIZAAR :-

7. SALVOKOP:-

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2.4
POST-TRANSITION SPATIAL PERSPECTIVES:
SOCIETAL IDENTITY IN DEMOCRATIC SOUTH AFRICA

left parks such as Springbok, Venning, Arcadia Parks open to fulfil new, divergent needs. Informal recyclers now sort their pickings under the shade of trees, the jobless slowly shift from sun to shade & back again, while policemen & women, along with metered taxi drivers nap their lunch breaks away in their vehicles.

This is not to say these spaces have not retained some traditional semblances of public activities, *spaza* shops construct & de-construct on a daily basis along the street edge, & amateur footballers hone their skills on patches of dirt worn away from one goal post to the other.

On the rare occasion, a stereotypical park-goer can be spotted enjoying Tshwane's mid-morning sun. In some ways, Tshwane's public spaces have adapted to the needs of a fledgling democratic society, in others they haven't.

The ambiguous nature of many of these public parks allows them to adapt with relative ease to programs & functions created by a variety of users. This does not imply that each of these user-brought functions is collectively productive, or even conducive to allowing others to make use of the same space (Cooper Marcus et al, 1997).

At present, current programs underway on a daily basis on sites such as Arcadia Park, which plays host to the Pretoria Art Museum, are unformed, & hostile

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to most rituals of public life. It appears to be difficult to create user driven agency in a situation where agency is ambiguous or unclaimed entirely. The same lens can be applied to much of the architecture dominating Arcadia's urban landscape. While South African society was able to transition into a democratic dispensation without bloodshed, much of the existing architecture has remained stagnated in colonially thinking. The unrepresentative state of Arcadia's built environment bristles its residents from attaching value to their surrounds; houses fail to become homes (Bevan, 2016).

In a context in which no ownership, let alone pride are taken in shared space, the value & eventual improvement thereof is negated.

Seated towards the Northern edge of Arcadia Park, the Pretoria Art Museum is the quintessential object in space, doing little to inform or interact with the park that surrounds it. The Pretoria Art Museum was commissioned in 1954 by the city of Pretoria to house what had become a large collection of South African art following a generous donation by a Lady Michaelis some 20 years prior (South African History Online, Date Unknown).

Keeping with the intentions of building an "Afrikaner" (Pienaar, 2013) national identity, the Pretoria Art museum was to become the largest collection of locally produced art, to stand in contrast to Johannesburg & Cape Town's 18th & 19th European collections (AbleWiki, 2012). The tender was awarded to the acclaimed architecture firm of Burg, Lodge & Doherty (currently Bild Architects) in collaboration with WG

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McIntosh, which were commissioned to design a monument to innovation, in line with the late, technically driven International style of modernism (Doherty, 1966).

Construction on the museum was completed on the 20th of May, 1964, at a total cost of R400 000-00 (over R5.3 mil. by current rates). According to the architects, "*The intention was to create a building to house an organisation devoted to integrating its experience with the life of the community & not to create a series of archives for preservation of the works of artists of established fame.*" (Doherty, 1966).

The Pretoria Art Museum had taken on a form & technology typical to the late modernist era, being defined by a low-slung flat roof building on a plinth, surrounded by the rolling lawns of Arcadia Park. Constructed from a grid of steel columns, with glass, granite, & Hessian in-fill, the museum was intended to further elevate the status of the well-to-do Arcadia suburb.

The museum enjoyed its place of status for more than 30 years, playing host to exhibitions as renowned as Pablo Picasso, who had visitors baking in queues snaking through the park to get a glimpse of Picasso's mind (South African History Online, Date Unknown).

This civic mindedness has changed over the years however. The queues that snaked through the park slowly shortened, & the grand international exhibitions became fewer & further between. While there is a strong argument for contextual changes in South Africa being the cause of this, it is not the only reason, as the ways in which society at large engages with the world around it continues to change (Virgin, 2015).

Globally, interactions are shifting on contextual & personal levels. Smart phones, tablets & everything in between have drastically changed the lens through which the world is viewed. This immediacy of information has the added benefit of longevity, making interactions with the real world readily accessible from the comfort of a favourite coffee shop, 5 days after the happenings of an event. While this torrent of information & second-hand experiences is engaging, museums & galleries that are not constantly producing new, appealing content to be hash-tagged & tweeted are relegated to the second page of a Google search, no-man's land in a digital world.

Interestingly, this effect manifests in the physical world too, where this lack of momentum & allure is carried over, creating a vicious cycle of waning interest.

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At present, the Pretoria Art Museum is owned & managed by the city of Tshwane municipality, which is the largest city region on the continent (Stats SA, 2011). As previously stated, the city is still dealing with many of the ramifications of Apartheid, meaning existing public infrastructure is not getting the attention it requires.

The museum is apparently severely underfunded, without the requisite budget to address issues with damp in the private sections of the museum (du Plessis, 2017). This lack of maintenance is also reflected in the continuing deterioration of the park grounds, with an immediately noticeable change in the landscape of the park from 2001 to 2016.

Interest in the collection of art held by the museum has waned over time, with pieces by Pierneef, van Wouw, Stern, & Laubser, & more recently Sithole, Sekota & Mason left unnoticed (PELMAMA Collection, 2017).

While the contents of the museum hide away in the structures white box interior, the building itself – visually at least – is far more accessible, though only up to the darken glass façade. The museum is defined by its legible linearity from the Southern side of the park, establishing the main façade with a regulated rhythm of steel columns – which in turn form the structural system of the building – with glass infill for the most part. Raised off of the natural ground level of the park by a stereotomic plinth, this celebration is exaggerated by the under appreciated fall of the park around it, placing the museum significantly higher than the user on approach. With stairs traversing the plinth from the south & west, the museum entrance dissects the gallery wings, with the original main exhibition hall to the left & what had previously been an open-air sculpture courtyard to the right, which has since been filled in with replication of the skylights over the original exhibition hall to the west. The value of this addition in architectural terms is unclear, since it has not been established when this addition was undertaken, or by whom (Scott, 2007). The museum staff has remained – to a certain extent – stoic on the physical structure & layout of the museum following a robbery in 2012, meaning no information has been forthcoming (EWN, 2012).

In spite of this, it is likely safe to say that the value of this addition is low, due to lack of clear differentiation between the addition of this skylight & the existing fabric the eastern exhibition space currently accommodates a revolving portion of the museum's permanent collection (Scott, 2007). The hall terminates in what was originally the tea room - which is currently being used as a small gallery space for short term exhibitions (Doherty, 1964).

The Western exhibition halls are divided into 3 sections, with a Hessian display wall separating the spaces along the museums longitudinal access. This display wall serves to hide a number of elements, including the steel structure,

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Fig. 2.7. Above – *Pretoria Art Museum Southern Façade & Fountain (Photographer Unknown, Date Unknown)*

Fig. 2.8. Below – *Pretoria Art Museum South Western Exhibition Hall stands Near Empty (Author, 2017)*

Fig. 2.9. Opposite Above – *A Single Piece of Art in the North Wester Exhibition Space of the Museum (Author, 2017)*

Fig. 2.10. Opposite Below Left – *Still Life from the Museum's Permanent Collection (Author, 2017)*

Fig. 2.11. Opposite Below Right – *Permanent Collection Exhibition (Author, 2017)*

APPROACH TOWARD EASTERN
SIDE OF THE MUSEUM PLINTH

CORRIDOR TO EXTERIOR
SCULPTURE COURTYARD

SCULPTURE COURTYARD ON
SOUTHERN SIDE OF MUSEUM

NORTH WESTERN CORNER
OF MUSEUM & PLINTH

Fig. 2.12. Above - *Pretoria Art Museum
Original Photographs (Photographer
Unknown, Date Unknown)*
Fig. 2.13. Page Opposite - *Site / Survey / Plinth
/ Object Vignette Set (Author, 2017)*

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electrical conduits & rainwater downpipes.

Undoubtedly, the original skylights dominating the western gallery spaces form a large portion of the museum value architecturally. In an awards submission letter sent to the Pretoria Institute for Architects, design architect Anthony Doherty of the project firm of Burg, Lodge & Doherty (now Bild Architects), mentions the length to which the architects went to bring natural Southern light into the gallery spaces, to best present the art on display while also reducing what was termed 'Museum Fatigue" (Doherty, 1966).

The original museum was somewhat reminiscent of Mies van der Rohe's Barcelona Pavilion (1929), both being defined by a steel structural system, planar architectural elements extending beyond the building envelop, stone clad walls, & exterior reflection ponds. While the realization of the Pretoria Art Museum was not as iconic as what the Barcelona Pavilion was, there was definitely value in the sculpture courtyard & reflection pond spatially, along with the granite panel wall & exhibition skylights, which both still exist, defining the western galleries. Unfortunately, the reflection pond & sculpture courtyard were subsumed by an addition to the museum in the early to mid-1990's, which included a bulbous workspace addition to the western façade of the northern wing, again in a replicative manner, with no immediate differentiation between the addition & the existing (De Beer, 1999).

As an example of high-tech modernism in a South African context, the Pretoria Art Museum's statement of significance is as follows:

2.7
STATEMENT OF SIGNIFICANCE:
THE HISTORICAL VALUE & CURRENT STATE OF THE PRETORIA ART MUSEUM

"Located in the most historic of Pretoria's suburbs, Arcadia, the Pretoria Art Museum was completed in 1964 by the architecture firm of Burg, Lodge & Doherty, at behest of the city council of Pretoria (now Tshwane municipality). The museum was commissioned to house the city's then burgeoning collection of South African art – the largest in the country at the time.

Having been designed in the then popular modernist style, the museum represented the pinnacle of technology & culture in Apartheid South Africa. Before subsequent additions & alterations the museum found a balance between interior exhibition halls & the public park to the south, negotiated through a sculpture courtyard, reflection pond, & fountain (Doherty, 1964).

At present, the museum is protected under the National Heritage Res Act of 1999, Section 32 (act 25 of 1999), as a structure with architectural merit. That said, the museum has fallen into disuse which is beginning to threaten its continued existence, along with that of Arcadia Park. The museum holds value as a local precedent of modernism's international style, though this means little to society at large."

29
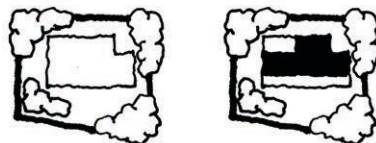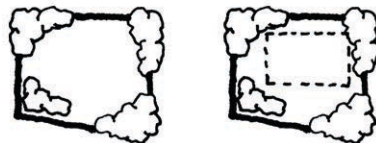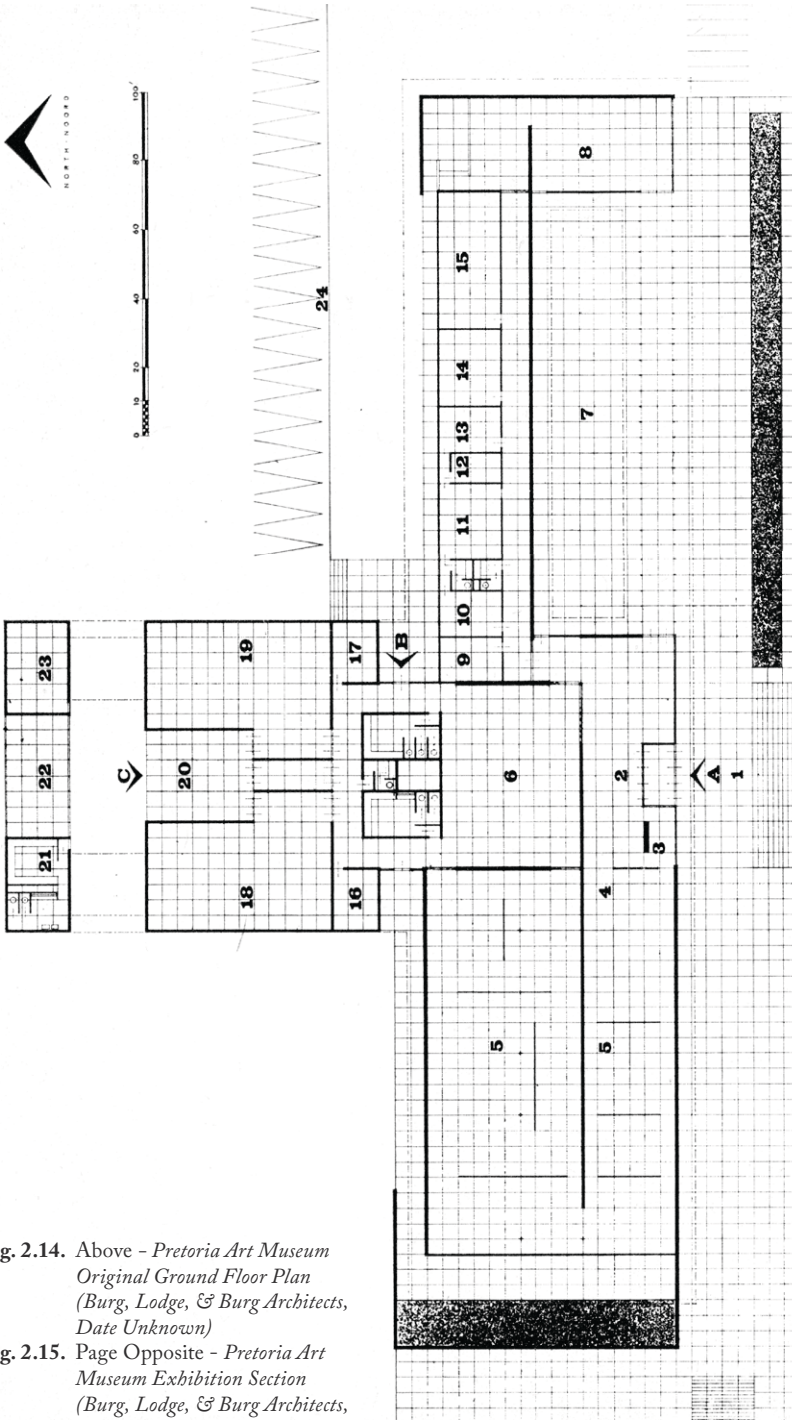
Fig. 2.14. Above - *Pretoria Art Museum Original Ground Floor Plan (Burg, Lodge, & Burg Architects, Date Unknown)*

Fig. 2.15. Page Opposite - *Pretoria Art Museum Exhibition Section (Burg, Lodge, & Burg Architects, Date Unknown)*

Scale: 16' — 1"
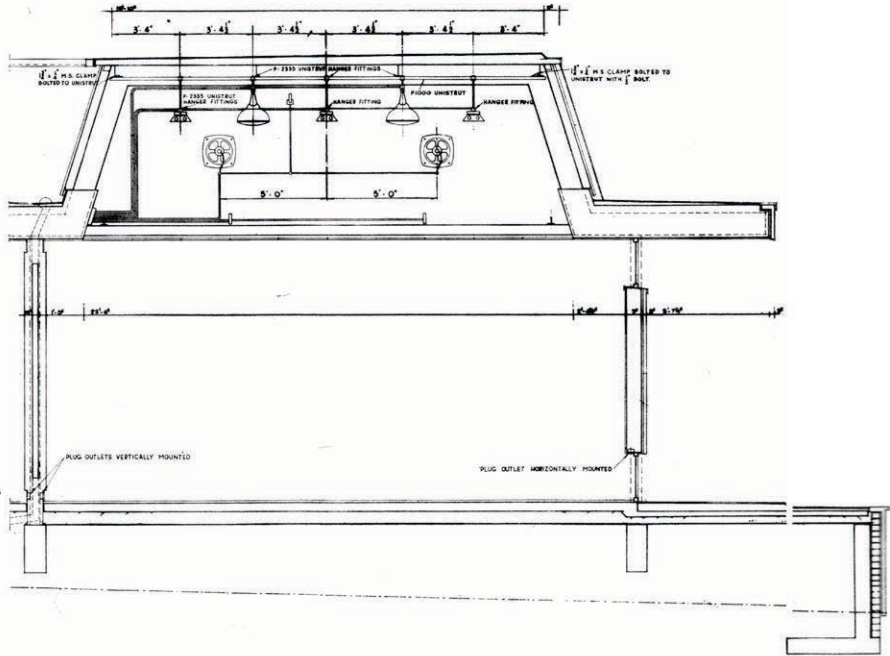
LEGEND:

1. Podium
2. Temporary Exhibition
3. Enquiries
4. Gallery
5. Gallery
6. Temporary Exhibitions
7. Sculpture Court
8. Tea Room
9. Typist
10. Secretary
11. Director
12. Strong Room
13. Restoration
14. Work Room
15. Library & Prints
16. Fan Room
17. Cleaners' Room
18. Picture Store
19. Workshop & Store
20. Loading Platform
21. Non-European Rest Room
22. Transformer Room
23. Store Room
24. Staff Parking
A. Main Entrance
B. Staff Entrance
C. Loading
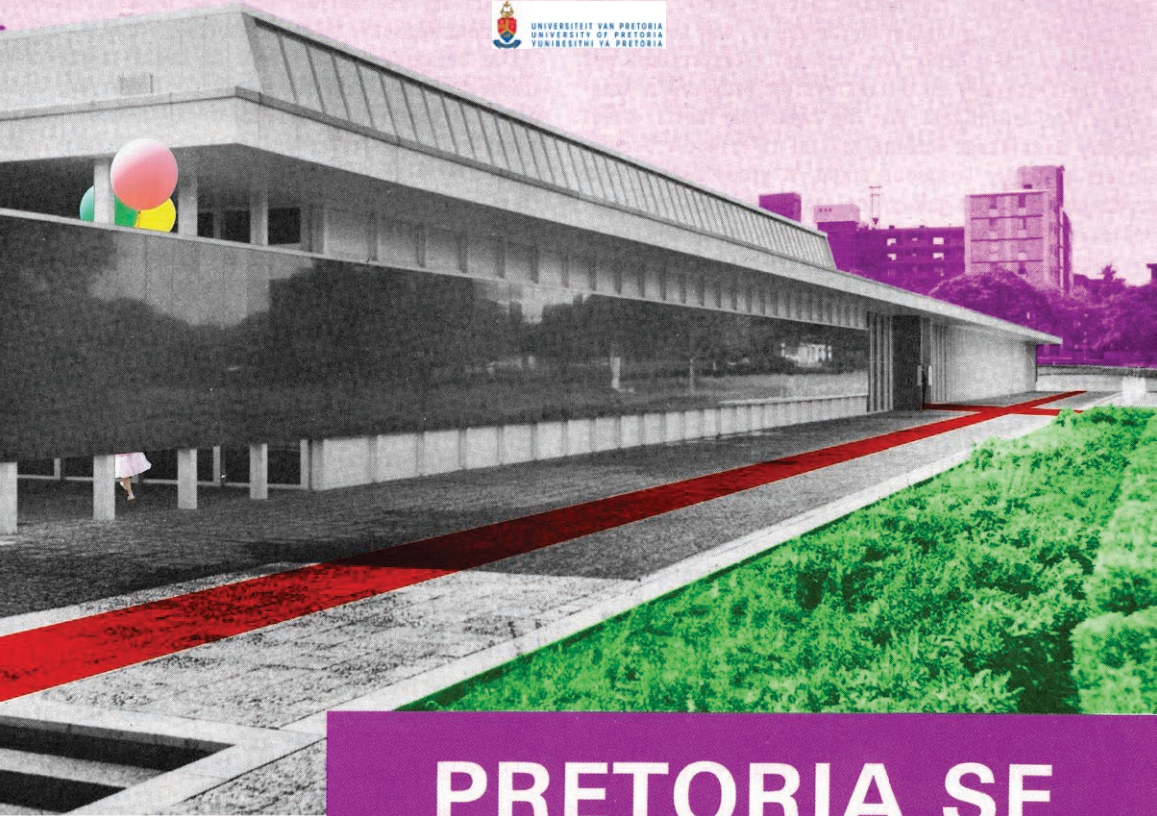
PRETORIA SE
KUNSMUSEUM

DEUR KATINKA KEMPFF

Fig. 2.16. Above – *Pretoria Art Museum
South Western Approach (Photographer
Unknown, Date Unknown)*
Fig. 2.17. Opposite Above - *Pretoria Art
Museum South Western Corner
(Photographer Unknown,
Date Unknown)*
Fig. 2.18. Opposite Mid - *Pretoria Art
Museum Main Entrance
(Photographer Unknown,
Date Unknown)*
Fig. 2.19. Opposite Below - *Pretoria Art
Museum South Eastern Corner
(Photographer Unknown,
Date Unknown)*

33
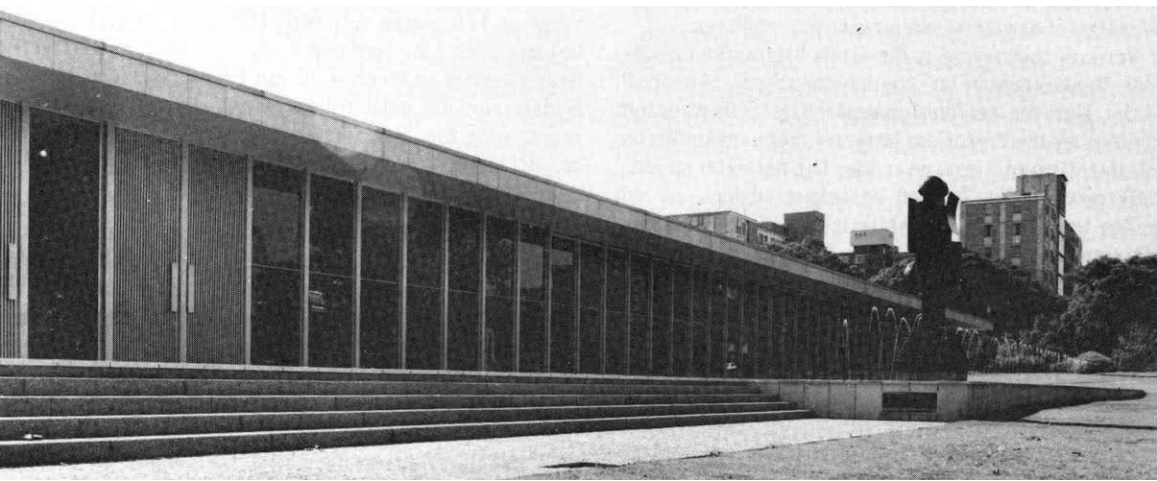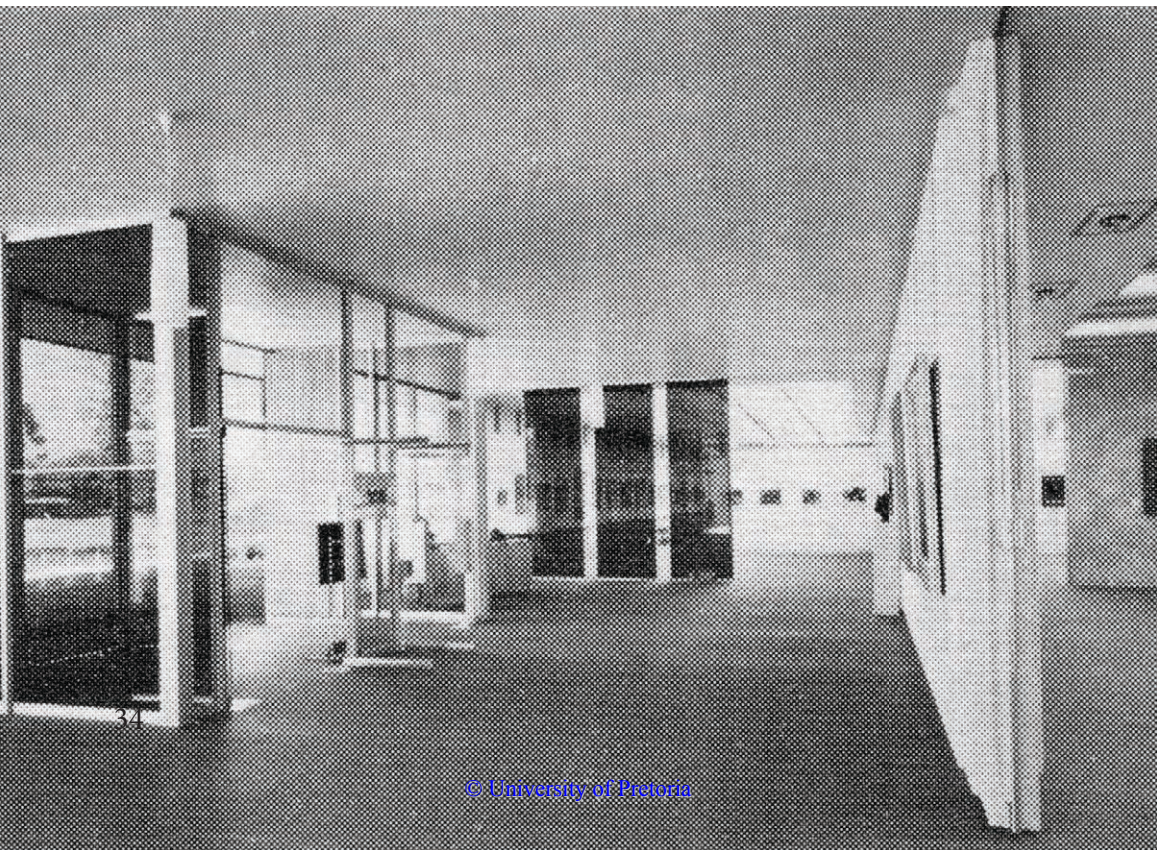
Fig. 2.20. Left – *Pretoria Art Museum Henry Preiss Gallery Interior (Photographer Unknown, Date Unknown)*

Fig. 2.21. Opposite Below - *Pretoria Art Museum Reception Interior (Photographer Unknown, Date Unknown)*

Fig. 2.22. Below - *Pretoria Art Museum Exhibition Hall (Photographer Unknown, Date Unknown)*
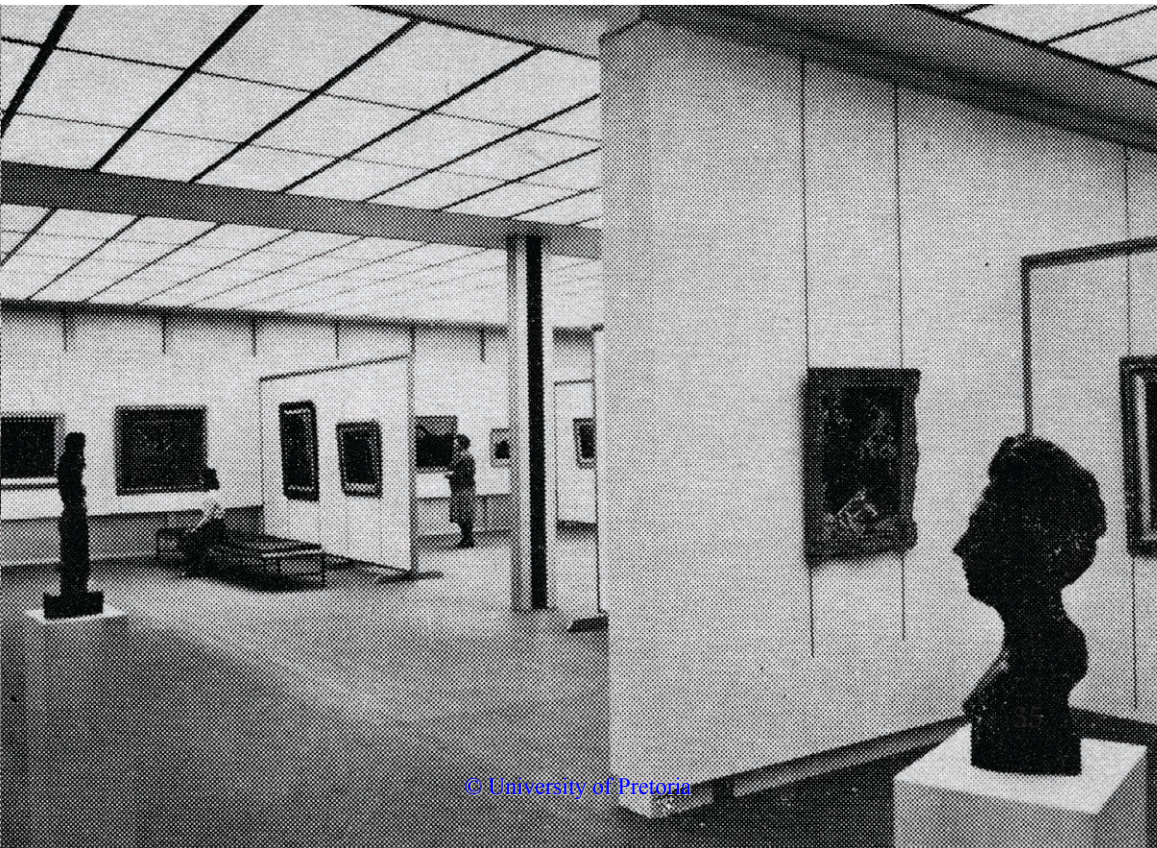
03

Following on from the previous Chapters, this chapter will place this dissertation into a number of Contextual Frameworks, intended to site identify opportunities this dissertation can respond to, while also delimiting design decisions outside of the chosen study area, that may still have an effect on the site.

This will be undertaken across a number of scales, ranging from the larger urban requirements of the City of Tshwane, to area of Arcadia & surrounds, & finally dealing with the chosen study area as a public, urban asset.

A number of issues will be addressed in this undertaking, such as basic requirements for public space in contemporary South Africa, as well as more abstract issues such as agency & identity in public spaces.

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03

CONTEXTUAL FRAMEWORK

CHURCH SQUARE

BURGERS PARK

3.1
INTERCONNECTED PUBLICNESS:
UNDERSTANDING THE INTERCONNECTED NATURE OF PUBLIC SPACE
IN THE CITY OF TSHWANE

As with every city, public space does not begin with one node, & end again before the next, rather public space is made up of a litany of varying typologies crashing & flowing into one another (Rambert, F. 2016).

This interconnected nature often creates knock-on effects from park to street to square, where one element becomes congested or unsafe, the next feels the effects thereof. As part of its geographic character, the development of Pretoria was heavily influenced by the path of the Apies River & Walker Spruit which diverge just north of what is currently Caledonian Sports Club. These estuaries form a large part of Tshwane's informal public space, which has been claimed by the city's homeless & nomadic portion of the population.

This agency over the areas surrounding the spruits & canal has made it almost

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impossible for any other activities to take place, leading to the neglect of the city's estuary system. This state of affairs is unfortunate, considering that Tshwane's river system creates a link all the way from Brooklyn Mall (to the South East of the CBD) to the Pretoria Zoo.

This connection serves as the basis of the greater urban framework, which focuses on better utilizing the city's

collection of urban space. The intention is to improve the quality of the collective by addressing the between spaces.

Through addressing Tshwane's interconnected between spaces, it is intended that congestion on traditional modes of transport would lighten, while also serving to improve the security & subsequent quality of the spaces currently forgotten by society at public.

Fig. 3.1.   Above Full - *Interactions between Formal & Informal Public Space around Tshwane CBD (Author, 2017)*

Fig. 3.2.   Above - *'Publicness Formula (Author, 2017)*

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3.2
SPARKING SPATIAL RITUALS:
ADDRESSING SOCIETAL ISSUES THROUGH
ADDRESSING PUBLIC SPACE

The remnants of South Africa's Apartheid legacy can still be felt today, in the daily heaving of cities such as Tshwane. Much of South Africa's black – including Black South Africans & Africans, Indians, & Coloureds - populations still toil under the *Native Land Act of 1913* (Act 27 of 1913, repealed 30 June 1991) & the subsequent *Native Urban Areas Act of 1923* (Act 21 of 1923, repealed on 23 July 1986) (StatsSA, 2011, SAhistory.org.za, 2011). This dispossession translates into many citizens undertaking daily treks from the outskirts of Tshwane into the CBD & its satellite areas.

While the main aim of this daily transportation is efficiency, it carries with it the release of public potential which could be better harnessed to reinvigorate public space, rather than simply dissipating in centres of streets & roads as these energies do with the current BRT system. Rather the releasing of these energies should occur on the edges of breathable public space.

In the context of a society nurturing slow development, public spaces should begin to house public services, including Wi-Fi hot spots, public bicycles, economic infrastructure for small scale business to launch from, as well as a range of linkages for public transport. In doing so, energies would begin to congregate in & around public spaces, making use of these public services.

CHURCH SQUARE

BURGER'S PARK

CALADONIAN SPORTS GROUND

UNION BUILDINGS

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In reactivating public spaces that have been neglected, new palimpsests of identity could begin to find agency, brought about by continued use. Through drawing public transport toward public parks, foot traffic would inherently increase, giving rising need for goods & services en-route so many undertake daily.

Distilling identity in the context of contemporary South Africa cities & urban spaces is not the role of the Architect alone. Sadly still, for many South Africans, the rituals of the day-to-day hustle & bustle does not leave much time to consider importance of collective identity regardless of how sorely needed it is. One means

of addressing this is to ease collective congestion on time, allowing for periods of reflection to be taken.

In addressing everyday requirement such as transportation, access to goods & services, & easy access to information through s such as the Internet, it is hoped that esoteric pursuits such as defining collective identity in cities such as Tshwane could be addressed.

Fig. 3.3.   Below - *Arcadian Family of Public Parks(Author, 2017)*
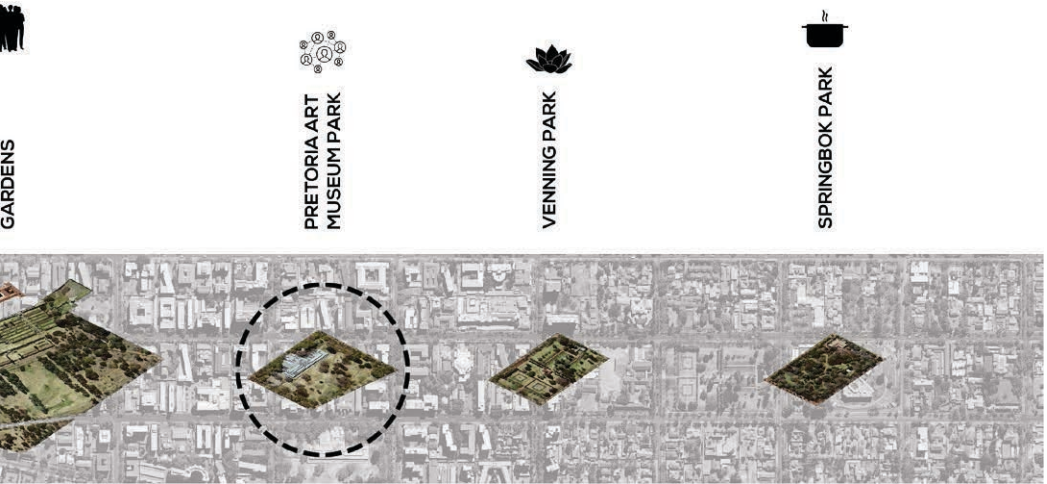
DEALING WITH A FAMILY OF PUBLIC PARKS:
TREATING THE STUDY AREA AS A PART OF A COLLECTION
OF PUBLIC SPACE

As it stands, Arcadia is an ocean of private space, interspersed with islands of public parks, ranging from the Union Buildings Gardens (H Baker, 1913) to Arcadia Park (1889), Venning Park (M. Naudé, 1932) & Springbok Park (Repton, 1905). While these parks are well dispersed throughout Arcadia & the surrounding areas - along with a smattering of smaller public spaces - the programs offered by these spaces, are monotone &/or ambiguous. Often the ability of these public spaces to inform & Shape public life is minimal.

Outside of the formal landscape design bestowed on some of these examples, much of the city's public park spaces are wholly ambiguous, failing to manage the activities of some users, to maintain the agency of the majority of the public collective. Meanwhile the formalized public spaces as seen in Venning Park have become so rigid, that they no longer has the ability to entice new, contemporary uses.

The inclusion of new, contextually driven programs could possibly serve as an activating agent, drawing new energies back to these public spaces. Interestingly, while much of the character of Arcadia's public parks is ambiguous, each instance carries undertones of unique practices & offerings taking place at each location. In accentuating these programs & features – for instance the conversion of Arcadia Park into a cultural precinct centred around the Pretoria Art Museum, or the

establishment of a restaurant complex in springbok park, serving the burgeoning student population to its south – they could serve as programmatic anchors for public space, providing activity, interest, & passive security.

Arcadia & the surrounding suburbs enjoy an abundance of open, public spaces, meaning each could be given a bespoke treatment responding to a variety of wants & needs; this would in turn prevent the same monotony that has currently taken hold, as well as not over stimulating a single spaces with the civic requirements of thousands of citizens. Through the inclusion of programs such as eateries, cultural areas, sports activities & events infrastructure throughout the area of Arcadia, sustained use of these space would be nurtured.

The approach to address public & cultural spaces in this dissertation takes place across a number of scales, ranging from:

1.   Greater Urban Framework
2.   Urban Areas Concept
3.   Families of Public Parks
4.   Immediate Context Design

Fig. 3.4.   Page Opposite – *Scales of Urban Frameworks & Interventions Aerial Photos (Author, 2017)*

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ARCADIA PARK
PRETORIA ART MUSEUM

4

3.

2.

1.

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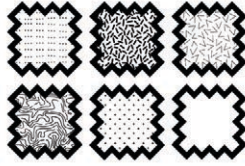
3.4
URBAN CONCEPT:
STITCHING TOGETHER CULTURAL QUALITIES
&
SPATIAL IDENTITIES

Cities are collections of people from every creed, culture, & class, the balance of which gives every city unique cultural qualities, qualities that vary nearly as much within the cities themselves.

While the stones of our buildings do not retain memory in a Jung sense, they are rather points around which memory & narrative are created, serving as anchors for our collective cultures (Jung, 2011). For this reason the unique spatial qualities spread throughout the city should be maintained, & amplified to retain cultural narratives.

From this, a concept of a cultural patchwork is brought about.

While cultural & spatial identity is core to this, it cannot stand in the way of the unstoppable march of the densifying of our cities, which will be home to 50% of the continent's population by 2050 (United Nations, 2014).

A specific focus on public space would allow enough room for cultural narratives & spatial identity to be improved into the future, while also allowing it to inform how African cities should be densified.

Fig. 3.5. Above – *Patchwork Panels (Author, 2017)*

Fig. 3.6. Opposite Above – *Traditional Cultural Melting Pot(Author, 2017)*

Fig. 3.7. Opposite Below - *Proposed Spatial Patchwork Approach(Author, 2017)*

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CULTURAL MELTING POT:

The term Cultural Melting Pot often refers to a common ground in which culturally diverse groups of people find commonalities on a journey slowly moving towards unification.

This isn't to say that this unification is Utopian, but rather that cultural identity can slowly be lost in cosmopolitan societies.

This creates spaces & places, devoid of culture & character, where one area blends into the next without spatial distinction.

CULTURAL PATCHWORK APPROACH:

The spatial quality & culture of Pretoria West is worlds apart from Arcadia or Silver Lakes.

For this reason the treatment of a post-industrial context in comparison to the densely-forested suburbs of Arcadia should consider rather amplifying their unique cultural qualities.

Embarrassing individuality, strengthening the collective.

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3.5
EARTHWORLD ARCHITECTS'
REJUV-A-NATION **PROPOSAL:**
CONTEXTUALISING THE STUDY
AREA AS PART OF A LARGER
URBAN VISION

Fig. 3.8. Above Upper - *Apies River Existing & Proposed Interventions (Earthworld, 2017)*

Fig. 3.9. Above Lower - *Walkerspruit Existing & Proposed Interventions (Earthworld, 2017)*

The basis of this dissertation's approach to improving Tshwane's collective public space is established on an existing proposal for the Apies River & Walk Spruit system, compiled by the Pretoria-based Earthworld Architects & Inside Interiors (Earthworld, 2016). The firm aims to address the city's existing estuary system, converting it from a purely functional asset, to one serving the needs of the public. Through creating safe alternative transportation routes along these canals, the city's grid could easily be bisected, beginning from

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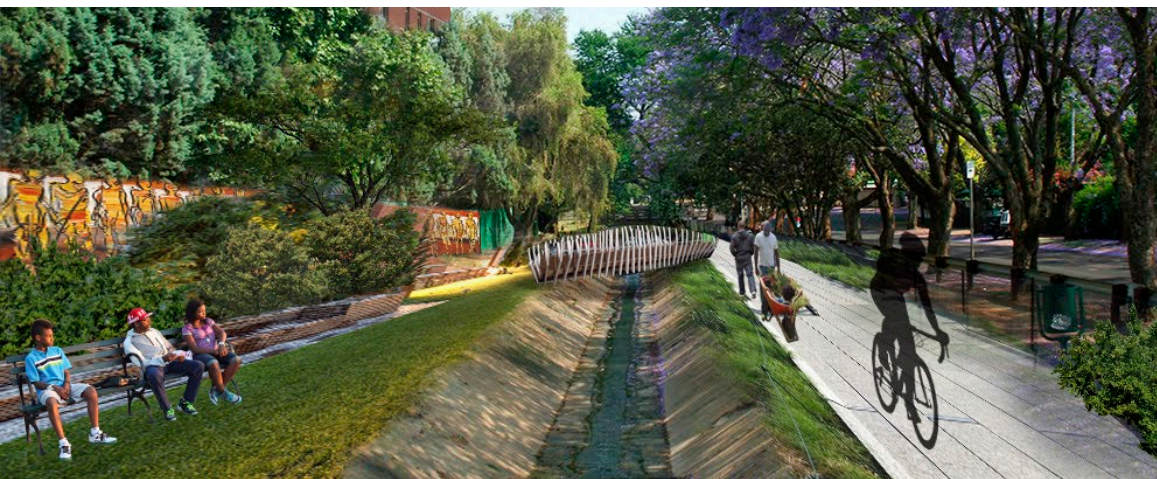
Pretoria National Zoo north of the CBD, connecting all the way through to Brooklyn Mall to the south east.

While the initial steps address the quality & usability of the city's canals, the project then intends convert forgotten & neglected public parks into nodes, celebrating Tshwane's cultural heritage. Parks such as Magnolia Dell & Myrtle Park are proposed art precincts & recycling drop-offs, surrounded by proposed social housing, allowing the parks to serve as intermediate spaces between traditional park-goers & the city's refuse recyclers & the forgotten portions of the city's population (Earthworld, 2016).

South African cities in general are strangled by private transportation & unusable sidewalks. The project proposed by Earthworld Architects & Interiors would serve to relieve stresses placed on Tshwane through daily migrations, while also making a larger portion of varied public space usable to a larger percentage of Tshwane population.

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LEGEND:

1. National Zoological Gardens of South Africa - Terminus of the proposed alternative transport route.

2. Apies River Route - Inner City Cultural route connecting Pretoria Zoo to Caledonian Sports Grounds.

3. Union Buildings Gardens - Mass gathering public space connected to the alternative transport route along Arcadia Park axis.

4. Caledonian Sports Grounds - Just south of the divergence of the Apies River from Walker Spruit, possible connection for traditional transport services.

5. Arcadia Park - A nexus point between culture & public, the Park could mediate between alternative & traditional transport means, while also acting as the cultural hub of the route.

6. Walkerspruit Route - Connecting the CBD to Hatfield & Brooklyn, the route would include a Walter Batiss Community Park along with a number of recycling points.

7. Southern CBD Gateway - The Apies River Route follows the length of Nelson Mandela Drive, a main route out of Pretoria, creating opportunities for change over points between traditional & alternative transport methods.

This dissertation suggests including parks such as Arcadia Park as an extension of this urban vision. Arcadia Park is centrally in-between; to its north a major route out of Tshwane along the N4 (Francis Baard St), to the south, a main connector between the CBD & the Hatfield Satellite District. On a larger scale, the park aligns itself directly with the Union Buildings Gardens, creating a route from the Gardens, to Arcadia Park, to Walker Spruit, crossing two arterial routes connecting the CBD to its surrounds. Lastly the park also serves as a terminus point for Arcadia St, which begins directly outside of the Hatfield Gautrain Station.

As part of this extended framework, Arcadia Park is seen as a mediator between traditional means of transportation & the proposed alternative route along the Walker & Apies Spruits. The site would also further improve the cultural aspect of the base urban framework. The framework proposes emphasizing a cultural aspect in informing public space, for these reasons the inclusion of Arcadia Park would be well suited to this scheme, both practically & esoterically.

Fig. 3.10. Page Opposite – *Placing this Dissertation into the Earthworld Architects Urban Vision for Tshwane (Author, 2017)*

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3.6
INTERCONNECTED PUBLICNESS:
CONNECTING PUBLIC SPACE THROUGHOUT THE CITY, TREATING EACH AS A NODE FULFILLING THE NEEDS OF PUBLIC LIFE ACROSS BOTH CLASS & CULTURE

INTRODUCTION OF EAST/WEST BRT ROUTES:

PUBLIC WIFI HOTSPOTS:

ALLOWANCE FOR ECONOMIC NODES ON CORNERS:

50
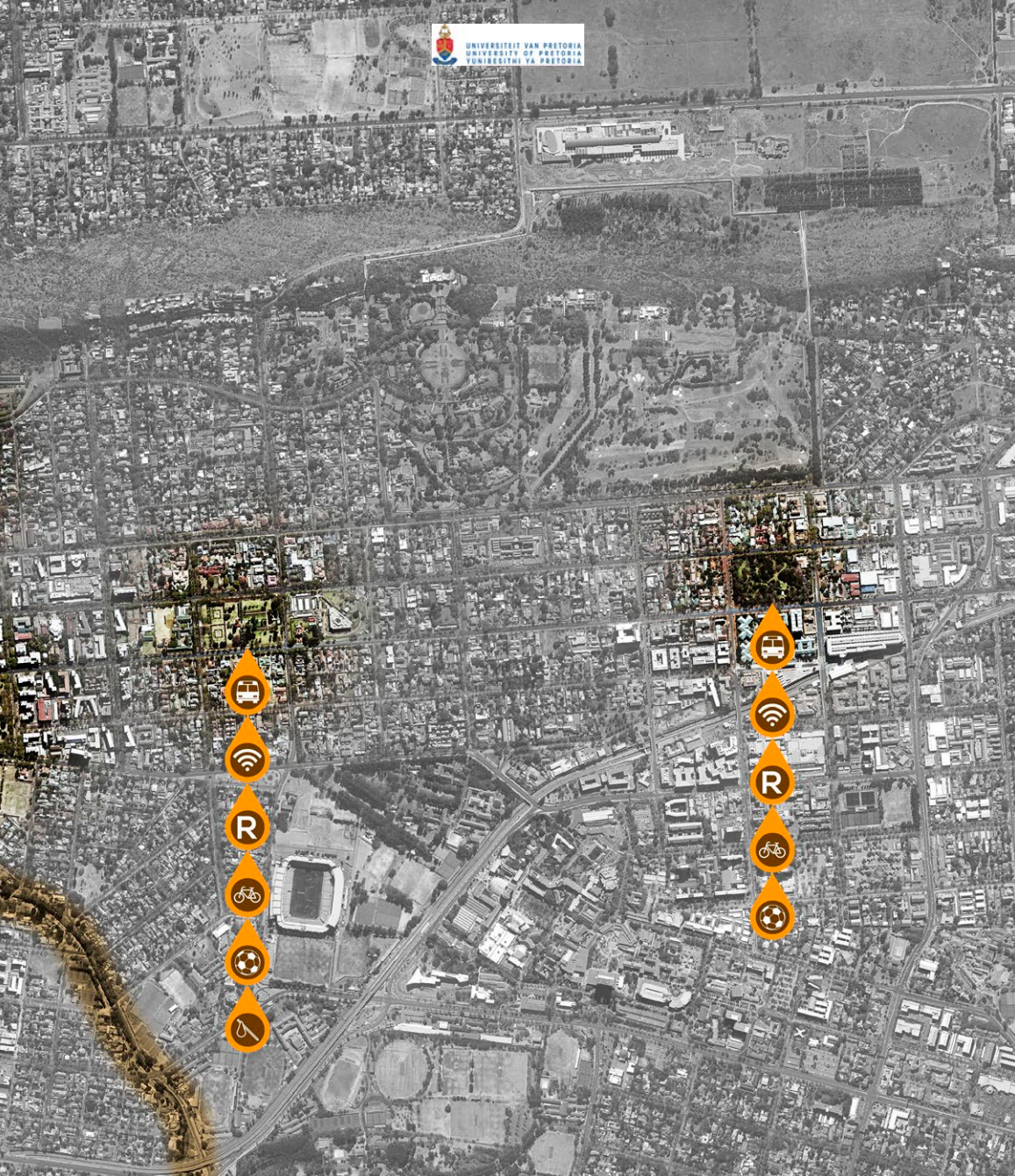
PUBLIC BICYCLES & ROUTES:

COMMUNITY EVENT SPACE:

INCLUSIVE PUBLIC AGENCY:

51

3.7
URBAN DESIGN INFORMANTS:
ISSUES ON SITE VARY FROM PUBLIC TO
CULTURAL. ADDRESSING BASIC ISSUES INITIALLY
SHOULD SERVE AS A CATALYST, ALLOWING MORE
ESOTERIC ISSUES CAN BE ADDRESSED

PUBLICNESS BEGINS WITH PUBLIC TRANSPORT:
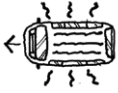
A city is a living, breathing, organism, defined by the movement of its people, in, out, & through its streets on a daily basis. Publicness begins in public transport, bringing people from every creed & culture together at random. While often small, these interactions are

the very beginnings of public life.
SCALING MODES OF TRANSPORT:

Due to a shared spatial legacy, some citizens have to complete the great trek from Hammanskraal to the CBD on a daily basis, while others are privileged enough to enjoy a short walk from Sunnyside to work. Scaling public transport would better serve our public needs,

easing congestion & creating varying movements through the city.
ENCOURAGING PUBLIC TRANSPORT:

Private vehicles, while being a privilege, cause congested cities. Widened roads to attempt to solve this create urban canyons, impasses between blocks & suburbs. Implementing road reserves dedicated to public transport along the East/West grid of Pretoria would serve to

soften this condition, while also creating a speed buffer for sidewalks.
EXTENDING SIDEWALKS:

As the name implies, sidewalks have adopted a secondary role in city scapes, negating the movement of feet. Extending these edge conditions to included other means of unpowered transport would bring life back to movement corridors, improving passive security &

softening road reserves.
PUBLIC TRANSPORT AT PUBLIC PLACES:
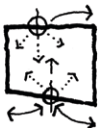
Public Transport on a daily basis delivers explosions of public movement, though this is negated through poor placement of stations. Focusing these energies at public nodes would improve movement through public spaces, & thus the quality & security of these areas.

52
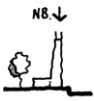
LANDMARKS AS SPATIAL LOCATOR'S:

Civitas calls for a different treatment for public spaces, allowing them to stand out from overriding *Res Privata* conditions, the introduction of landmark towers at points of interest or publicness serves to help members of the public to locate themselves in relation to these points.
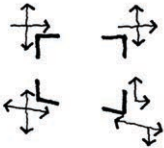
CORNERS AS ACTIVATED CONFLUENCES:

Pretoria's city grids is defined by bustling East/West routes, & quieter North/South connectors. This gives rise to different edge conditions, flowing together on city corners. Corners of public spaces are intended to be economic nodes, points through which a large amount of foot traffic pass on a daily basis in & out of the CBD.

CONNECTING FORMAL & GUERRILLA SPACES:
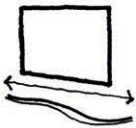
Public space is often an interaction between formal & informal elements, where parks & squares meet pavements & river banks. Treating these spaces as being connected rather as separate could serve to ease strain on the formalised public elements, while hopefully improving the quality of the more informal areas of public life.

PUBLIC INTERCHANGE/EXCHANGE:
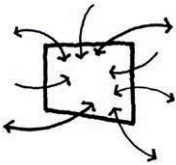
Through drawing greater movement through public places, it is intended that these spaces are reinvigorated to the point that agrarian public life is more accessible. This should in turn allow for indeterminate interactions across culture & class; the beginnings of publicness.

OPENING BUILT PUBLIC SPACES & PLACES:

Due to the deteriorated qualities of public spaces, many public buildings have developed a hardness toward the societies they were intended to serve. Through addressing the issues concerning public space, a knock-on effect could ensue, reopening public buildings. 53

SITE RESPONSE:
SITE SPECIFIC STRARTEGIES ADDRESSING
THE ISSUES IN & AROUND ARCADIA PARK

A number of issues & informants requires a variety of response as to deal with the current state of Arcadia Park & the Pretoria Art Museum. Simply adding to the museum would be rendered useless if the park were to remain unsafe to use. Similarly, addressing the issues of the park would not necessarily make the cultural elements of the museum more readily available, as profound issues such as cultural identity & Western Bias toward art would prevent any meaningful engagement with the Pretoria Art Museum.

Using this understanding as a base to identify issues to be address & programs to be added - both on a macro as well as specific scale - could be developed:

A. TRANSPORTATION:
Due to its prominent location between Hatfield Satellite District & Pretoria CBD, Arcadia Park serves as a link between a number of transportation methods, ranging from along street parking for private vehicles, extended sidewalks, a Long Distance Bus Station, a direct link to the Hatfield Gautrain Station, a proposed BRT Station, a connection to the Walkerspruit Cultural Route, as well as proposed Public Bicycles.

Focusing on improving collective & connective transportation would bring more foot traffic through Arcadia Park, improving passive security as well as use of public & cultural assets. Economic opportunities would also be created through the movement of feet.

B. SPATIAL RELATIONSHIPS:
The Pretoria Art Museum plays a central role in the entropy that has taken hold of both the museum as well as the park. The museum seats itself awkwardly, segregating public remnants on the Northern edge of the park. These spaces have become separated from the rest of public space to the South, through the shear bulk of the museum itself. This has also served to harden the thresholds of the museum, further separating it from the public it is intended to serve.

A drastic, yet sensitive opening of the existing built fabric is suggested as per this dissertation's Heritage Approach. Lastly placing any proposed additions between Francis Baard St & the Pretoria Art Museum would serve to reactivate these lost spaces, while also leaving the bulk of the park free to members of the public.

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Fig. 3.12. Opposite Left – *Various Means of Transportation to be allowed for (The Noun Project, 2017)*

Fig. 3.13. Opposite Right – *Public & Cultural Interactions(The Noun Project, 2017)*

Fig. 3.14. Below Left - *Sustainable Self-Reliance (The Noun Project, 2017)*

Fig. 3.15. Below Right - *Various Scales of Public (The Noun Project, 2017)*

C. SUSTAINABILITY:

In recent years, Arcadia Park has suffered under mismanagement, changing climates, & severe rain & water shortages, causing the park to noticeably deteriorate over the last two decades. At present the park is entirely reliant on water from the municipality to maintain some semblance of its imported rolling lawns.

This dissertation proposes converting a large portion of the park to natural vegetation, replacing the existing water-heavy lawns with natural Highveld grasses. Furthermore, the South Eastern portion of the park would be terraced with a set of Bioswales to catch any site run-off & re-use it to water the park. Hard surfaces would also serve as catchment area, using the water in ablutions & irrigation.

D. PUBLICNESS:

With a lack of scalability, passive security, & continuous use, Arcadia Park becomes easily seized by users & programmes preventing positive public interactions. There have been numerous reports of the park being unsafe for those looking to enjoy a lazy day lounging in the sun while their children entertain themselves endlessly.

Through terracing the South Eastern portion of the park, various events & rituals can take place in spaces more defensible the bulk of the park to the West. Proposed programs such as a Sculpture Garden, Installation Terrace, Shaded Lawns, & new public bathrooms are proposed, while leaving the South Western portion open for large scale events & programs such as rallies & informal soccer games.

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FRANCIS BAARD ST (N4)

NEGATE PLINTH

EXISTING MEMORIAL

EXISTING MEMORIAL

WESSELS ST

PARK ST

O1

EXISTI

+4.50

O2

+3.00

O3

+1.50

O4

+0.00

LEGEND:

1. Opening Existing Built Fabric
2. Removal of Superfluous Fabric
3. Long Distance Bus Station
4. Reactivate smaller Public Spaces
5. Gautrain Rapid Bus Route
6. Events & Water Catchment Terraces
7. Shifting of Traditional Museum Axis
8. Bioswales
9. Below Ground Water Storage Tanks
10. New Proposed Public Bathrooms
11. Park St BRT Station
12. Pedestrian Entrance to Sports Club
13. Taxi Drop-Off / Pick-Up
14. Public Bicycle
15. Meter Taxi Parking
16. Large Scale Public Gathering Space
17. Formalised Street Edge Parking
18. Reconnecting Severed Public Spaces
19. Proposed Economic Infrastructure
20. Side Walk pushed deeper into Park
21. Union Buildings / Walkerspruit Axis
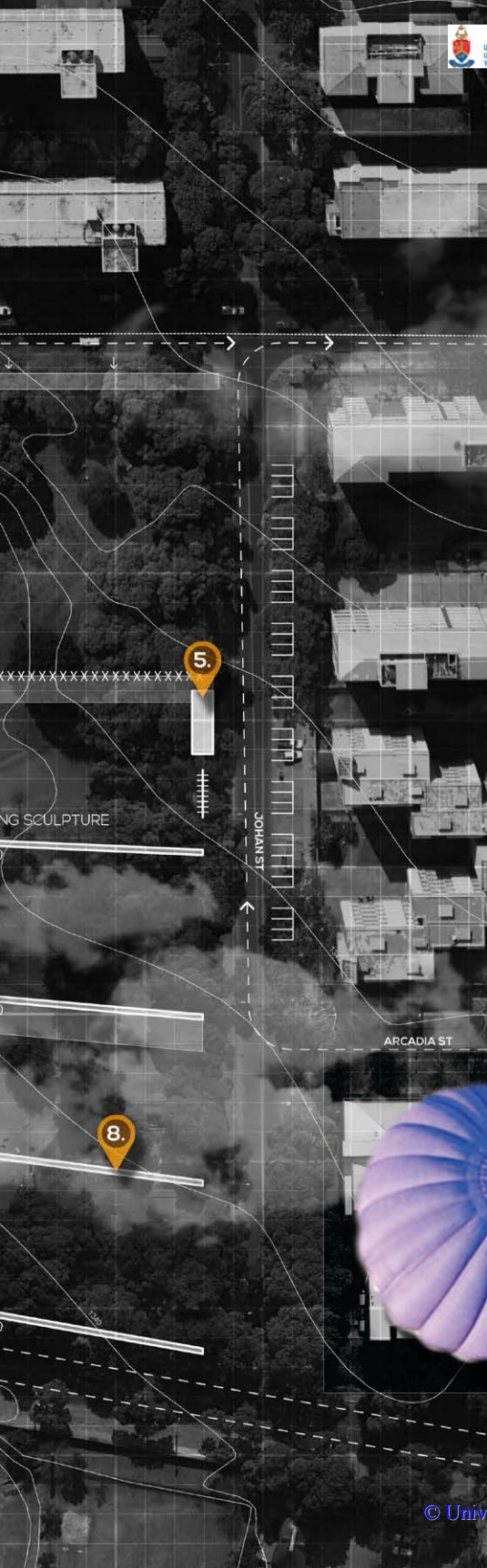
Fig. 3.16. Left - *Proposed Responses to the Selected Study Area (Author, 2017)*
Fig. 3.17. Below - *Walter Batiss' Hot Air Balloon (Author, 2017)*

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04

A number of theoretical discourses are employed in this dissertation to contend with various issues to be addressed & approaches to be undertaken.

Firstly, a theoretical understanding of the causes for the disregarded state of the Pretoria Art Museum is developed through a reading of Robert Bevan's concept of *Pyschogeographies*.

From this understanding, Sigmund Freud's *Mystic Writing Pad* thought experiment informs the makings of proposed programs & interactions on site & around it.

This is then tempered through establishing means from which identity in architecture can be created - through understanding the role of the architect in Post-Transition Society.

Finally, a manifesto discussing approaches to Historic Fabric will be discussed as it informs this dissertations dealings with the Pretoria Art Museum.

04

THEORETICAL
APPROACH

REAL
CONTEXT:

PERCEIVED
CONTEXT:

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UNDERSTANDING SOUTH AFRICAN *PSYCHOGEOGRAPHIES*:
AN EXPLANATION FOR THE FALL OF THE PRETORIA ART MUSEUM

The Pretoria Art Museum is quintessentially Modernist, immediately defining itself as a low-slung object on a plinth of its own making, surveying over rolling lawns to the south.

The positioning of the museum, along with its sharp thresholds does little to inform the park around it, outside of dividing the remnants of the park behind the museum to the North from the open landscape of the majority of the park to the South.

While celebrated in its physical form, the Pretoria Art Museum seems somewhat absent to the society which surrounds it. This is seemingly not the only modernist example in Africa that holds little value for the people meant to interact with it (Bennett, 2012). Throughout the continent, modernism was employed as a manifestation around which national identities could be constructed following emancipation from colonial oppression in the majority of African states (Lepik, 2014).

In South Africa specifically, the ends were nefarious & the means far more sinister. The Apartheid governments attempted to engineer a Utopian society on the backs of a racially, geographically, & in many case physically oppressed society. Having been freed at last with the final abolishment of Apartheid in 1994, the future became brighter for many. Unfortunately, segregation had been laid into the very brick & mortar of the country's built environment, making the application of inclusive agency hard to apply.

The social theorist & architectural journalist, Robert Bevan theorizes that an architectural mirror-world exists in the collective minds of society at large, though this *psychogeography* can become vastly different to the original manifestation it represents. Bevan suggests that collective memories & perceptions are anchored in society's built fabric (Bevan, 2016). The theory he puts forth then continues to say that the destruction of this built fabric results in the slow destruction of collective memories, eventually resulting in a loss of cultural identity. While seemingly fanciful, Bevan supports this stance through the examining the methodical destruction of Jewish history & culture in & by Nazi Germany during the Second World War, as well as the denied existence of the Muslim faith & people during the Bosnian War of the 1990's (Bevan, 2016).

It therefore follows that the application of agency over Apartheid architectural remnants is not a simple thing to apply or maintain for a society with no connection to the countries extant fabric, as there is a little cultural value associated with these spaces.

This theory eludes to why building such as the Pretoria Art Museum have fallen into disuse, constructs such as the museum hold little or no value to societies across Africa constantly looking to define identity both internationally & locally. While South African society has slowly transitioned into democracy, this has by no means begun to solidify the direction of South African identities both socially & architecturally.

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This fluidity of identity presents a challenge to the creation of responsive, inclusive architecture, which has traditionally stagnated in certain styles & societal approaches. Sigmund Freud's concept of a *Mystic Writing Pad* (1925) presents a possible approach to address these diametrically opposed states of being.

In a short essay, Freud laments the failings of memory, that in his later years he required the use of mnemonic devices such as writing pads or chalk boards to keep track of his thoughts over time. Through this exasperation for lack of a perfect mnemonic device, Freud creates the concept of the *Mystic Writing Pad*, an object that combines the best qualities of both a writing pad & a chalkboard.

Constructed from a gelatin writing surface, a wax paper transfer layer, & a resin recording base, the writing pad would combine the incongruous attributes of permanence of a writing pad with the inexhaustible nature of the chalkboard, creating an instrument continuously able to receive new thoughts while still maintaining record of these thoughts over time (Freud, 2008).

Developing Freud's concept of a construct both permanent & inexhaustible, the converse state of transience & determinate use could also exist. While useless to Freud's *Mystic Writing Pad*, both states of being hold some value architecturally.

This continuation of thought suggests that architecture should better consider the influences of sustained use over time, designing constructs tailored to permanent status with inexhaustible use, or conversely, an ephemeral nature responding to an exhaustible program & requirements of use. Existing fabric such as the Pretoria Art Museum has been slow to respond to the changing circumstances it currently finds itself in. Hence any adaptions or additions to this fabric should do more than simply add to the museum's square meters of gallery space. The stagnant nature of the museum should be addressed; either solidifying its place in society through guaranteeing continued use, or making it more adaptable to new, yet unimagined uses. Most likely any proposals concerning public architecture should have some semblance of both, creating an anchor to latch onto while leaving room for sufficient growth & adaption.

Fig. 4.2. Page Opposite - *Sigmund Freud Struggling to Adequetely Contain his Musings(Author, 2017)*

INEXHAUSTABILITY

1.

2.

3.
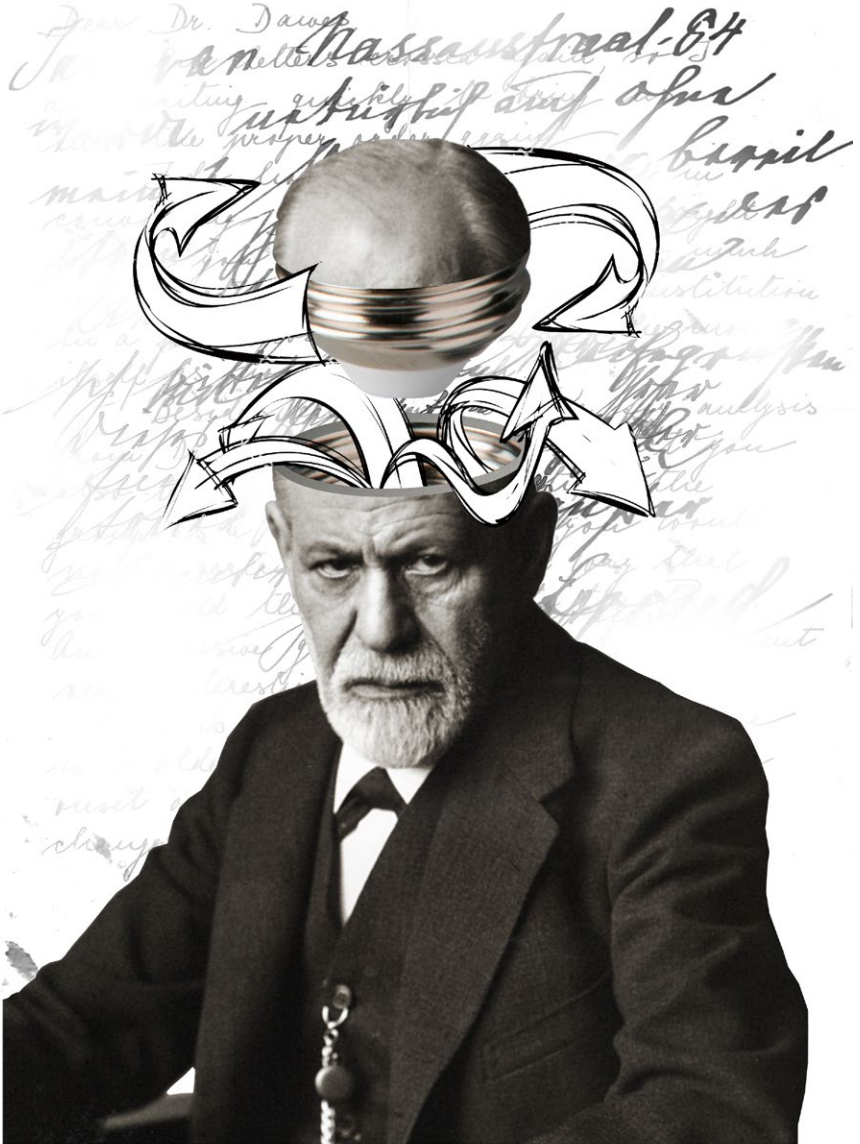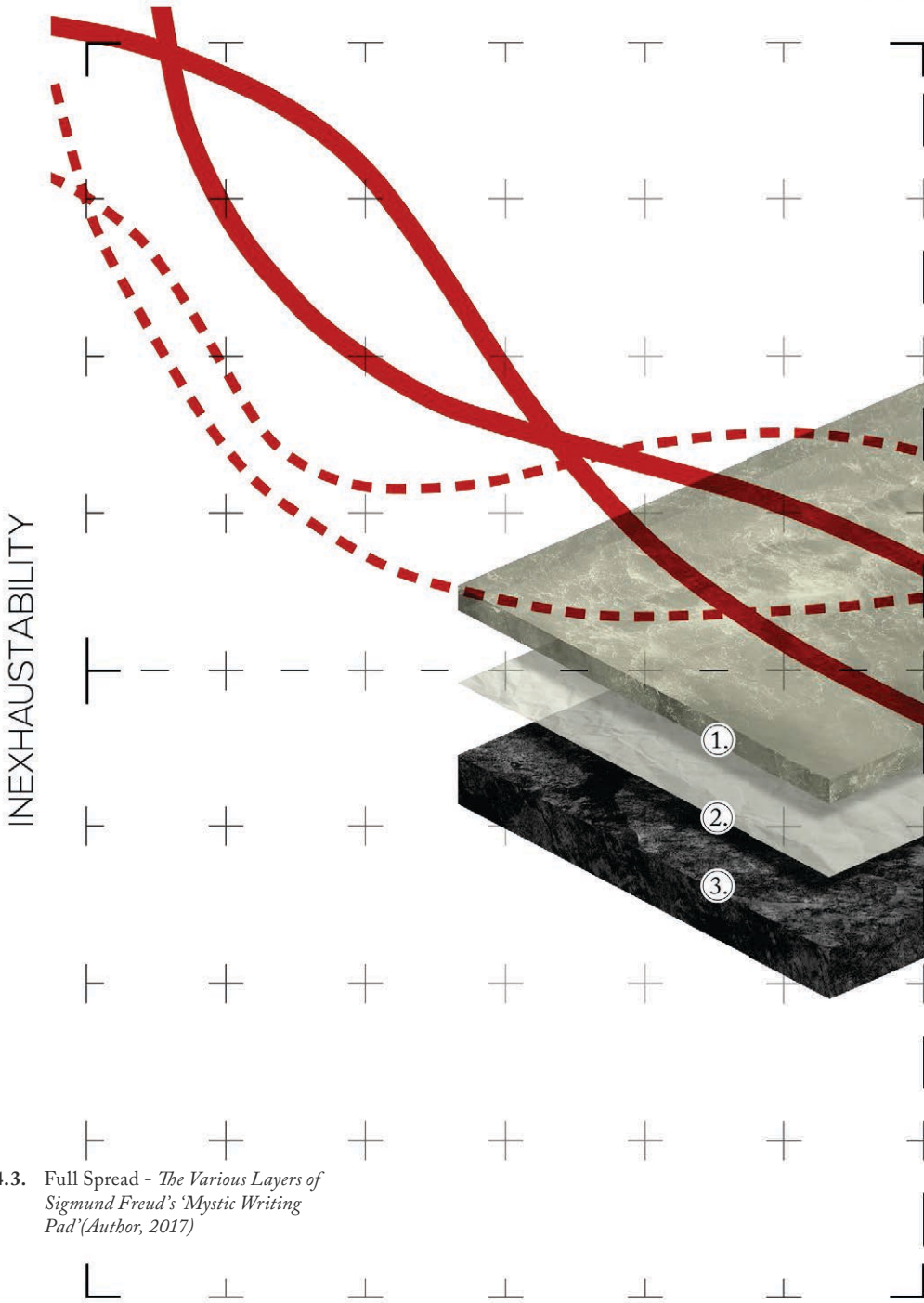
Fig. 4.3. Full Spread - *The Various Layers of Sigmund Freud's 'Mystic Writing Pad'(Author, 2017)*
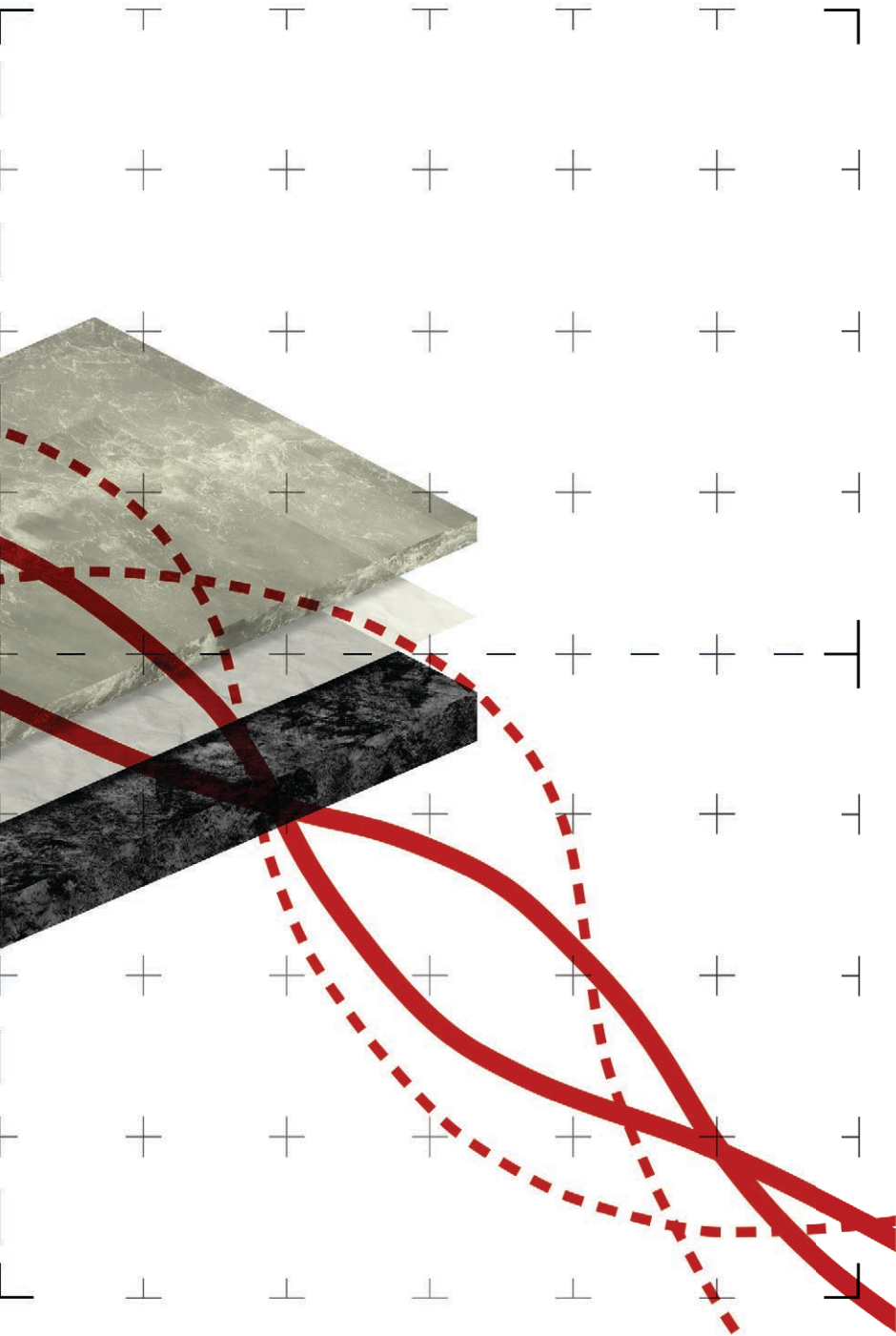
RALITY

EXHAUSTABILITY

4.3
DRAWING IDENTITY:
THE ROLE OF THE ARCHITECT IN POST-TRANISTION SOUTH AFRICA

Having dealt with the reasons as to why no clear architectural identity has yet been discerned in Post-Transition South Africa, as well as then proposing a combination of stability & fluidity in the making of future architecture, it now becomes necessary to discuss possible s from which architectural identity can be drawn as to aide sustained use of public architecture.

Some years into South Africa's democratic dispensation, then Deputy President, Thabo Mbeki gave a speech on his concept of an 'African Renaissance", challenging the continent as a collective to take hold of their own destiny following the end of Colonization & Apartheid (Mbeki, 1998).

Architecturally, this translated into a number of competitions & tenders being sent out for public buildings & spaces. In 1999, the minister of public works remarked, *"it is therefore more than appropriate that in this period where so much is said about emerging African Renaissance that we turn our attention to the real meaning of African Architecture.*

The soul of Africa needs to return to our architectural drawing boards" (Radebe, 1999).

This new challenge to find *"the real meaning of African Architectures"* proved to be difficult in a context of an architectural profession still dominated by white males, grappling with a different crisis in identity to what the majority of the country was contending with at the time (Noble, 2008). According to architectural theorist

Jonathan Noble, a *black mask* had to be applied to the *white skin* of South African Architecture, as a means of better understanding the requirements the majority of South Africans may have for architecture, ranging from the architect, to concept, to realisation of buildings.

As a vehicle for achieving this, architects of the period latched onto politicized ideologies, along with various Pre-Colonial Regional African identities, to create an architecture merged with an almost post-modern aesthetic & spatial rationale (Noble, 2011).

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Fig. 4.4.   Page Opposite - *Villa Mahlangu*
        (Author, 2017)

In Noble's book *"African Identity in Post-Apartheid Public Architecture: White Skin, Black Masks* (Noble, 2011), the author critically examines several pieces of public architecture completed in the early 2000's ranged from projects tackling contested space & justice such as the South African Constitutional Court (OMM DESIGN Workshop, 2004), to urban memorials like the Walter Sisulu Square in Kliptown (StudioMAS, 2005) & new seats of legislative power in Mpumalanga's provincial legislature (Meyer, Pienaar, Tayob, Schnepel Inc., 1999)

The projects examined vary greatly in their approach to defining architectural identity for a post-Apartheid society (Noble, 2008). Each project drew from local informants in creating said identities, interestingly; the success of each project in creating agency for the members of the public they were intended for was hit-or-miss. It seems the scenography chose to represent each instance had little bearing in the project's success or failure, with socially engagement playing a far larger, more informative role (Noble, 2008).

Creating architectural identity around which public agency can be built has been undertaken in varying instances, to varying degrees of success. Whether these projects were undertaken by despots or architects mean little, as does the use of African scenography or a Western International Style. It appears that successful identity comes about from engaging with the societal requirements a collective has for public architecture.

In fast paced world of information, societal requirements for architecture are changing. The 60-year life expectancy of many buildings casts many structures into a singular mould, not always flexible enough to change with times. Unfortunately, the economics of construction does not make ephemeral constructs feasible.

A new approach to forming architectural identity needs to be undertaken, in a manner fluid enough to be adaptive over time, without becoming devoid of identity to begin with.

Through an understanding that sustained use over time is what often defines a successful building, the approach to immediate & future programs needs to be as flexible.

In many ways, architectural identity can have an effect on the perceived identity of a society, as the architectural movement of modernism had on mid-20th century Europe. Conversely, it is paradoxically also a representation of the society from which it is created, both being influenced by as well as influencing society (Rohn, Date Unknown).
Public architecture in post-transition South Africa needs to respond to the requirements of society at present as well as understanding that those requirements will change. *"Each new situation requires a new architecture"* (Nouvel, 2008).

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4.4
HARDCORE HERITAGE:
A MANIFESTO FOR ACTIVATING EXISTING BUILT FABRIC

In dealing with new forms of identity, former identities must be clearly addressed, either sympathetically, or in a form of antithesis (Scott, 2007). In the context of South Africa's oppressive past, architectural remnants can stand as a stark reminder of the inequalities of Apartheid, & for this reason, have to dealt with decisively. Similarly, with limited pubic resources, existing public spaces & buildings will have to play a far wider, more active role in shaping & aiding in the daily lives of Tshwane's residents.

Considering the case study of the Pretoria Art Museum & Arcadia Park as an example of contentious, existing public space in a state of disrepair, reactivating its functions, as well as architectural language cannot be undertaken in a subtle approach.

As set out by the Netherlands-based architectural firm of Rietveld-Architecture-Art-Affordances (RAAAF, 2016) in their Manifesto titled Hardcore Heritage, the collective sets out what they consider to be a radical approach to re-appropriating architectural fabric in a manner which attempts to make it culturally useful once again (RAAAF, 2016).

In tackling projects such as Bunker 599 (2013), a World War 2 reinforced concrete military pillbox, located in the Dutch landscape overlooking a small dam & railway line, the architect exemplified this approach. Through opening the stereotomic concrete structure with an approximately 900mm wide cut through the entirety of the pillbox. The firm managed to reveal the cramped quality of the interiors spaces, while also taking a piece of contested history, which had over time become nothing more than an object in the landscape, & convert it into a once again relevant structure, adding to an already extensive body of knowledge in a new, & engaging manner (Artemel, 2016).

Following this manifesto, a radical approach to addressing many of the similarities between Bunker 599 & the Pretoria Art Museum is suggested. The Pretoria Art Museum, like Bunker 599 has over time become but an object in its landscape, unengaging & on the verge of being forgotten. RAAAF's approach to architectural heritage would serve as a mirror in which dealing with the Museum's current state can be compared against. The intention is not to add more square meters to the building as was done in the 1990's with the original additions, but rather to deal with the failings that have become inherent in the museums' inflexibility. This could be achieved through firstly removing the incongruous additions, following which the hardened skin of the museum would be broken open, in an attempt to make what has become latent, patent again (Bennett, 2012).

While this approach initially addresses the lack of interaction between the museum & park, it would serve arguably a far greater purpose in reconnecting the southern majority of the park with the remnants to the north the museum has

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'HARDCORE HERITAGE':
a built manifesto for the preservation of architectural heritage

In the practice of historic preservation, there is often a temptation to turn a building into an object on display—meticulously restored, unchanging, physically isolated—in order to remove it from the flow of history. The multidisciplinary Amsterdam-based studio Rietveld-Architecture-Art-Affordances (RAAAF) situates itself in opposition to this method of dealing with architectural remnants. Instead, it proposes to make history tangible by altering these decaying structures in a way that makes their stories plainly visible. The practice has a name for this approach—"hardcore heritage."

(RAAAF, 2017)

BUNKER 599

Fig. 4.5.   Full Page - *RAAAF's 'Bunker 599'
(RAAAF, 2016)*

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served to castrate. In removing a large section of the existing fabric, essentially breaking open the museum, forming two separated wings, the northern area of the park would become reconnected, with the main thoroughfare - taking place between the newly opened wings of the museum,

thus creating an open-air foyer, reinvigorating both the museum & the park.

The application of RAAAF's Manifesto addresses a number of contextual issues, dealing with them with them in a single brush stroke.

4.5
IDENTITY BASED ON A COLLECTION OF RITUAL:
DEFINING ARCHITECTURAL IDENTITY FOR A CONTEMPORARY SOUTH AFRICAN SOCIETY

The existing functions of Pretoria Art Museum are singular, standing in stark contrast to the continuously reinvented Arcadia Park which surrounds it. Where the programs hosted in the museum are entirely top down, dictated by architect, curator & tradition, the programs developed in the park is a constantly changing depiction the needs of those – currently - making use of it.

Neither of these polar approaches is conductive in the creation & use of public buildings & space, where the

museum is prescriptive in its possible uses, the park can easily become dominated by certain activities which prevent other functions from taking place. This apparent failure in program is undoubtedly linked to the inability of the museum & park to adapt to the changing needs of Arcadia & Tshwane society as previously discussed. Though this remains only a part of the disassociation the park & museum suffer from. There seems to have been a breakdown in communications between these two public elements. Over time, a

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non-relationship has developed, where members of the public while often are found resting against the side of museums plinth, but rarely on top of it (Bennett, 2012).

This non-relationship is further strained by a clear boundary between the reserved admission to the museum & the free, flowing nature of the park.

Any proposed additions to the museum as well as the park should primarily address this connection between the pair, blurring thresholds between public & cultural spaces, allowing the new thoroughfare to inform both spheres equally.

For this reason, as well as having been informed by the selected theories, it is proposed to move the Pretoria Art Museum away from the stand-alone function of exhibiting & preserving existing pieces of art within a white box interior. Instead the functions of exhibiting & preserving would become part of a larger cultural precinct which would focus on the creation & practice of cultural rituals, while simultaneously involving the public realm both active & passively. The intention of this is primarily to make that which is latent, patent, thus using cultural rituals & objects of a contemporary society to kick start this deteriorated relationship. It is intended that through this reactivation of use, flowing both through the cultural precinct as well as the park, identity could begin to be applied by the public themselves, defined by the rituals, practices & events these reinvigorated spaces offer.

Similarly, expanding the ownership

of the precinct to include cultural stakeholders would create a public partnership, reducing the burden currently held by the city. This would also serve to inform the programs offered in the precinct, through including patrons such as art departments from the University of Pretoria, UNISA, & Tshwane University of Technology, the Pretoria Technical High School to the South West of the park, the Arts Association of Pretoria, the newly formed Tshwane Arts Union, as well as non-profit organisations such as the Little Artists which teacher's art as a skill to underprivileged children.

While much of the program would be devoted to creating interest in art from the public & more specifically the community surrounding the park, a portion would also be dedicated to artist workshop residencies. In doing this, established artists would serve as revolving informants for aspiring creatives taking part in other activities offered in the precinct, as well as the larger communities.

In expanding the ambit of the museum, the suggest precinct would be able to accommodate larger traveling exhibits, through the expansion of gallery spaces across varying scales, as well as a variety of presentations & participation spaces with varying volumes & haptic qualities. Similarly, the addition of both formal & informal lecture spaces would introduce an educational component which could be would further expand the offerings of the precinct for specific events as well as daily rituals.

Fig. 4.6. Page Opposite - *Culturally Biased Public Programs (Author, 2017)*

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05

This chapter investigates a number of precedents investigated before crafting a design response.

These precedents are divided into a number of categories, based on their perceived influences. These categories range from Contextual, Formal, Technological, & Programmatic.

These precedents are investigated, & a collective conclusion is drawn as an approach to forming contextual identity in South African Public Space.

05

PRECEDENTS

THE COLLECTIVE WORKS OF NORMAN EATON:
A MANIFESTO FOR ACTIVATING EXISTING BUILT FABRIC

Precedent: Contextual
Architect: Norman Eaton
Project: Collective Works
Location: Pretoria, South Africa
Function: Various

Considered by many to be the archetypal Pretoria School Architect, Norman Eaton eventually became a personified nexus point between Modernism & South African vernacular architecture, bringing about what Professor Roger Fisher dubbed the "Third Vernacular" of Pretoria Regionalism (Fisher, 1998).

Eaton's body of work consisted of three distinct periods, each influenced by a number of informants, drastically changing his approach to architecture, while still managing to maintain colloquial undertones throughout (Pienaar, 2013).

In Eaton's earliest years in Practice starting in 1930, his architectural language was heavily influenced by the Cape-Dutch vernacular, & the international Arts & Crafts movement, both of which he studied at the University of the Witwatersrand before the advent of Modernism & its subsequent influence on the school (Pienaar, 2013). Eaton's early works were often iterations of Cape Dutch farm houses, transplanted into Pretoria's climate, reflected in many versions of H-Plans topped with thatch roofs, & entered into through traditional loggia, providing much needed shade in Pretoria's warm, dry climate (Fisher, 1998).

While Eaton's contemporaries - such as Rex Martienssen, one of the then influential members of the Johannesburg Zero Hour group- were undoubtedly followers of Le Corbusier, Eaton leaned more toward the architectural language of Frank Lloyd-Wright, incorporating elements such as softly pointed gables & corner bay windows into his early work (Pienaar, 2013).

Eaton appeared to have flirtations with Modernism, while at the same time creating projects still heavily influenced by the Cape Dutch vernacular, both most likely being dependent on his relationships with individual clients. This almost schizophrenic development of Eaton's own architectural language undoubtedly had an influence on what become his more seminal works later on.

With the explosion of the Second World War, restrictions were placed on materials & costs, meaning architects had to devise more inventive ways of producing architecture. For many then Modernist local architects, this meant adapting the flat concrete roofs of consistent with the style, & instead specifying low pitch roofs hidden behind parapets. Eaton however took this one step further, reducing the white box finishes often associated

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Fig. 5.1. Right - *'Brick Floor "Carpets" & Pavings Etc.' (Eaton, N. 1961)*

with Modernism & instead creating structures defined by brick construction, often becoming built-in furniture & shelving, as well as blurring the thresholds between interior & exterior, treating the later as an extension to spaces such as living rooms, as seen in his House Greenwood project (1949).

Following the end of the Second World War, Eaton's work once again went through a transformation, this time heavily influenced by architects such as Brazil's Oscar Niemeyer, including "sinuous lines" into his designs, constructed from a number of tile & brick patterns (Pienaar, 2013).

Throughout his work, Eaton maintained a respect for climatic conditions, shading glass elements where possible, & respecting basic principles of orientation & room depth.

As seems to be the case more often than not, influences of identity in architecture are muddied, with little control over s of inspiration. Much of Eaton's work borrowed heavily from other architects, periods, & even continents. In situations such as this, the means of creating identity mean little, as long as the production thereof creates a fitting response that is both contextual, climatically & socially.
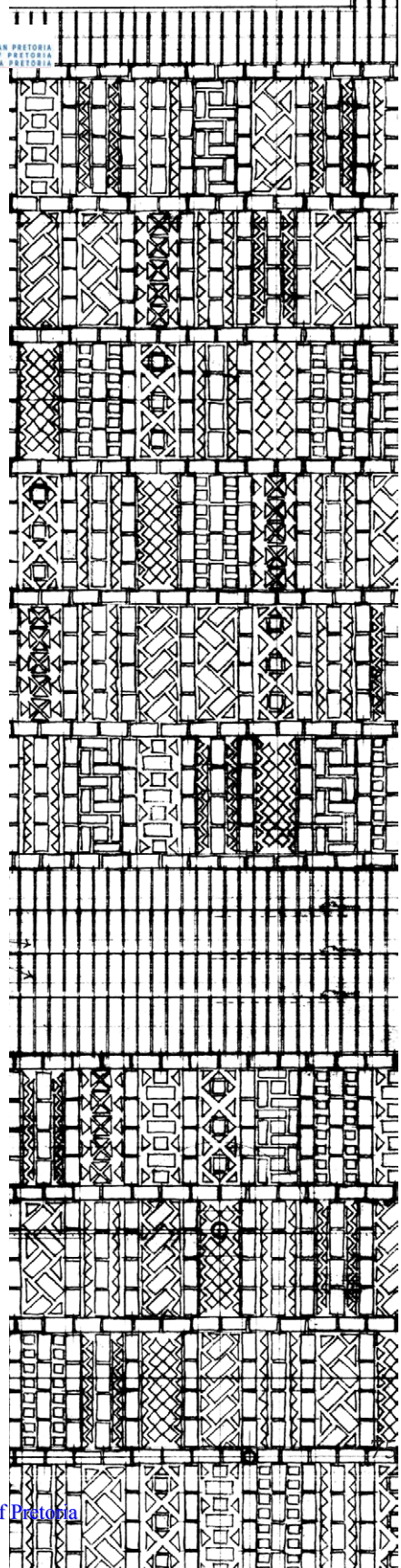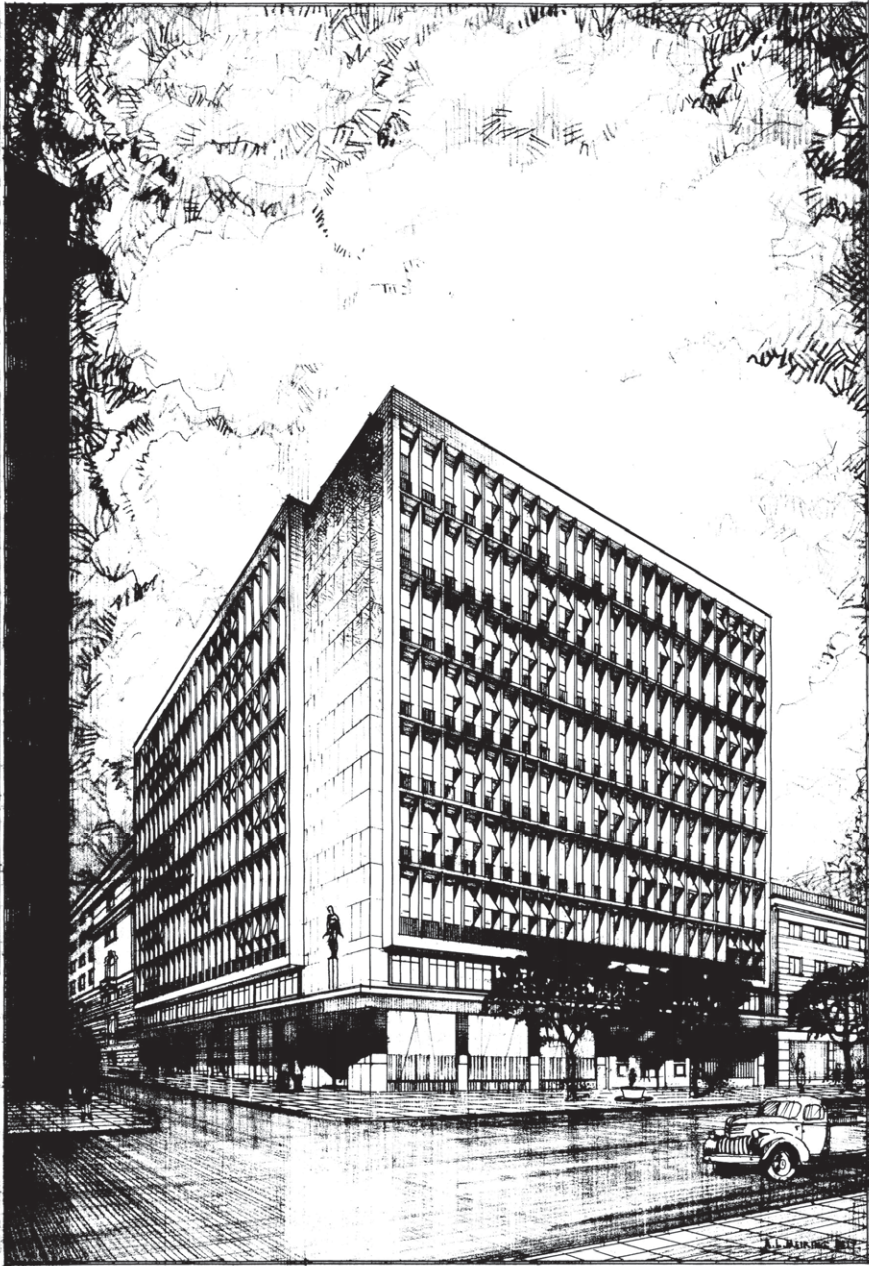
NEW S.A. MUTUAL BLDG. PRETORIA · VIEW FROM VERMEULEN STREET UP MUTUAL STREET

Fig. 5.2. Above - *'Mutual Building, Pretoria'*
Perspective Sketch(Eaton, N. 1946)
Fig. 5.3. *Page Opposite – Sketch Plans for House*
Greenwood (Eaton, N. 1949)

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- NORTH · FRONT · ·
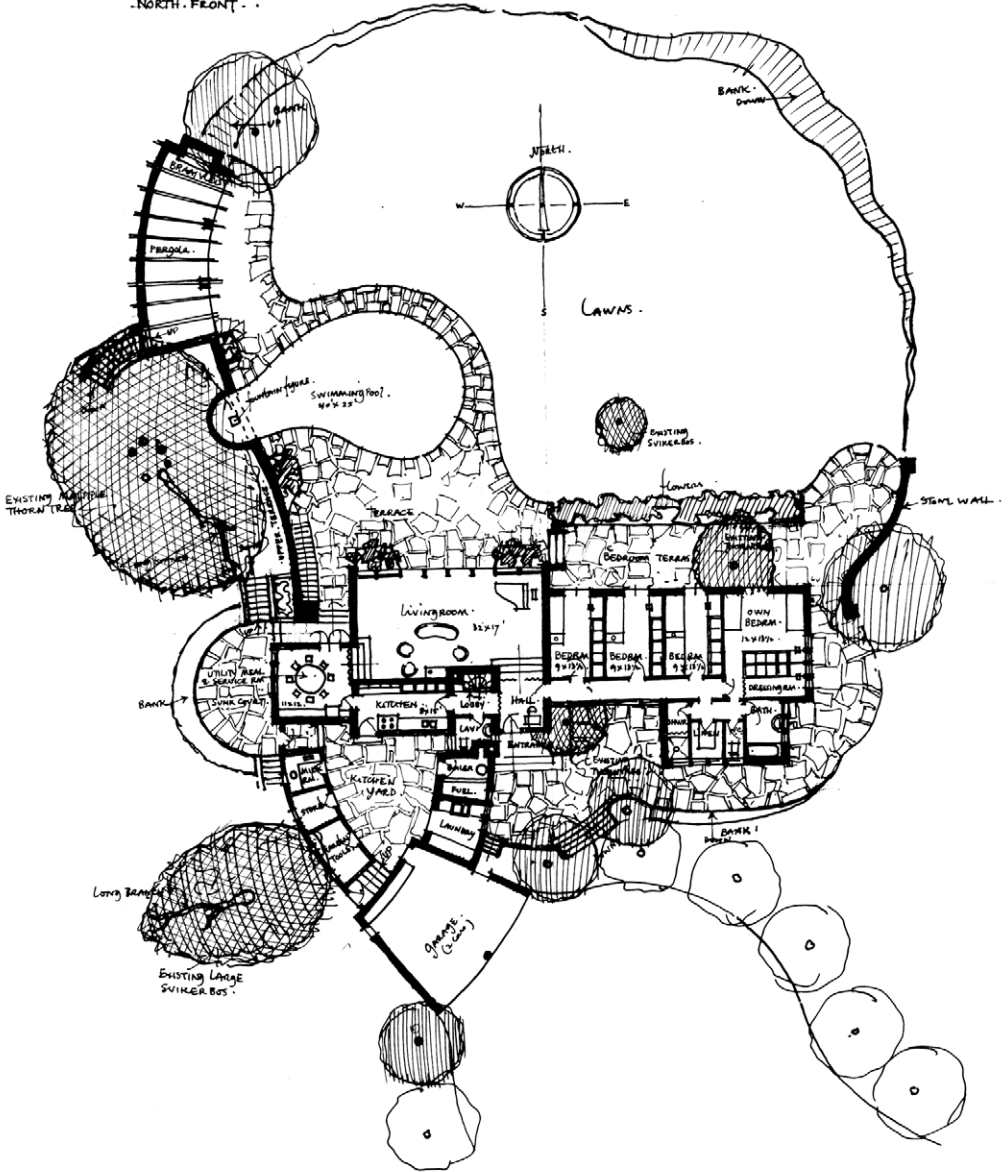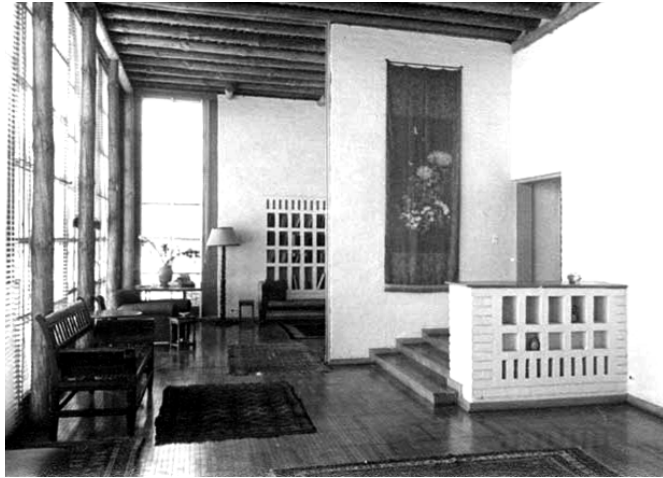
In a clockwise fashion starting on this page, top left:

Fig. 5.4. Top Left - *House Anderson Interior Photograph 1 (Photographer Unknown, Date Unknown)*

Fig. 5.5. Top Right - *House Anderson Interior Photograph 2 (Photographer Unknown, Date Unknown)*

Fig. 5.6. Mid Right - *House Anderson Exterior Photograph 2 (Photographer Unknown, Date Unknown)*

Fig. 5.7. Mid Left - *House Anderson Exterior Photograph 1 (Photographer Unknown, Date Unknown)*

In a clockwise fashion starting on the opposite page, top left:

Fig. 5.8. Opposite Top Left - *House Anderson Exterior Photograph 3 (Photographer Unknown, Date Unknown)*

Fig. 5.9. Opposite Top Right - *Polly's Arcade Central Atrium (Photographer Unknown, Date Unknown)*

Fig. 5.10. Opposite Mid Left - *House Anderson Exterior Photograph 4 (Photographer Unknown, Date Unknown)*

Fig. 5.11. Opposite Bottom Left - *Polly's Arcade Central Atrium Tiling Pattern(Photographer Unknown, Date Unknown)*

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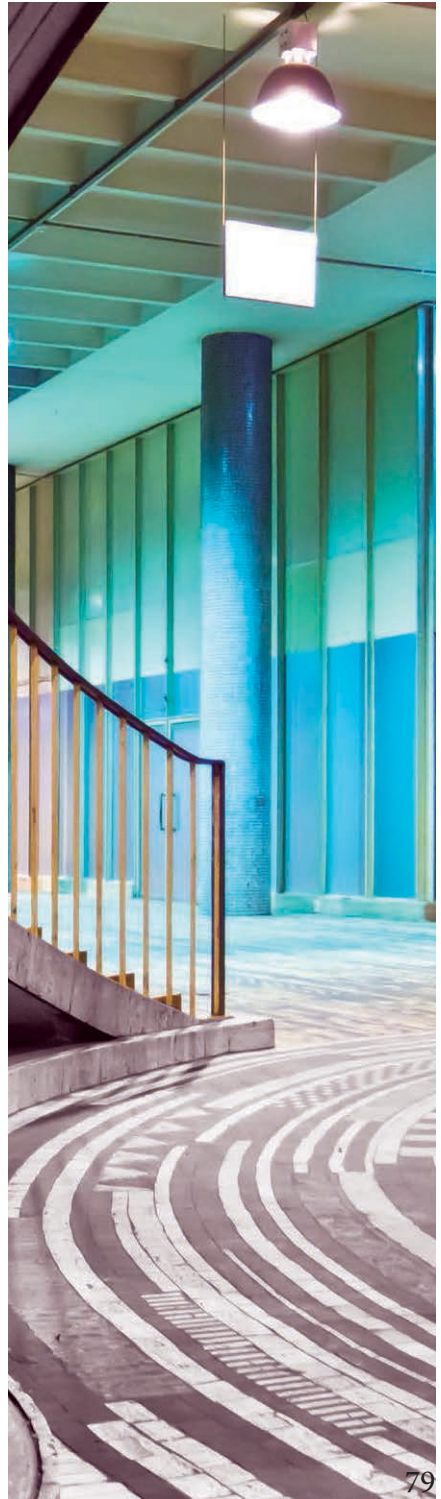
I CLAIM FOR ARCHITECTS THE RIGHTS AND LIBERTIES THAT PAINTERS AND POETS HAVE HELD FOR SO LONG PANCHO GUEDES

saipal
pão de cidade

deposito

5.2
PANCHO GUEDES' SAIPAL BAKERY:
SPACE FORMED TO PROGRAM

Precedent: Formal
Architect: Pancho Guedes
Project: Saipal Bakery
Location: Maputo, Mozambique
Function: Bakery

"I claim for architects the rights & liberties that painters & poets have held for so long. Architecture is not apprehended as intellectual experience but as sensation - an emotion. Buildings must become presences - be like vast apocalyptic monsters or gently floating albatrosses. Buildings should be so invented as to be remembered forever like the temples of India & the pyramids of Egypt." (Guedes, Date Unknown)

Pancho Guedes was a prolific Portuguese architect, having designed over 500 buildings across Southern & Eastern Africa. Having admitted to sometimes becoming lost somewhere between Art, Sculpture & Architecture, Guedes brought a playful freedom to the Structuralism Movement as a member of Team X, a group of architects attempting to find equilibrium between structural forces & the creation of space (Bienart, 2012).

Many of Guedes' projects were composed of relatively functional, rational plans; with sections & elevations reflecting the Architect's wild imagination & flare for joining architecture & art at will (Bienart, 2012).

Guedes' Saipal Bakery, completed in 1954 was a natural expression of structure, innovatively mixed with raw building techniques & skill levels endemic to Mozambique at the time (Cook, 2012). While the architect in partnership with the project's structural engineer attempted to find harmony in form & material, realised in concrete work requiring – theoretically at least – no reinforcement, the reading of the completed building by the men working in the bakery would be entirely different. The building soon garnered much appreciation from the bakers, who saw the building as a large Portuguese roll – defined by the concrete roof sensuously folding in on itself. While this was not Guedes' intention, he did carry the belief that form is defined by function, in that space should be created to maximise its use, not only in efficiency, but also in the poetics of daily rituals. Guedes didn't believe work to be a drudge, but rather business people doing exciting things, & the spaces in which these rituals should occur should reflect that (Datum Antique, 2015).

While Guedes' architectural language was a true reflection of his indomitable imagination, the identity attached to his buildings became a spark of imagination & possibility for those making use of spaces he imagined. His buildings stood out as unique in the context of a Maputo defined by economy of construction & economic returns (Cook, 2012).

In Guedes' constructs such as the Saipal Bakery, as well as the Pretoria Art Museum, the interpretations of the architecture over time is beyond the control of the architect, identity applied to these constructs are as fluid as the societies applying them.

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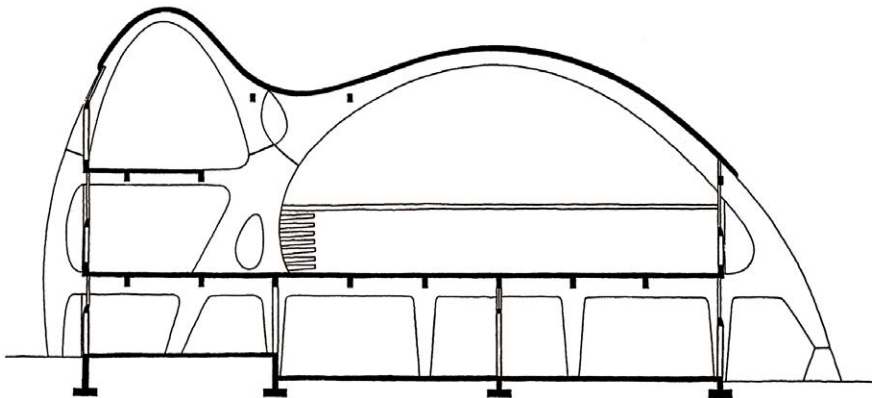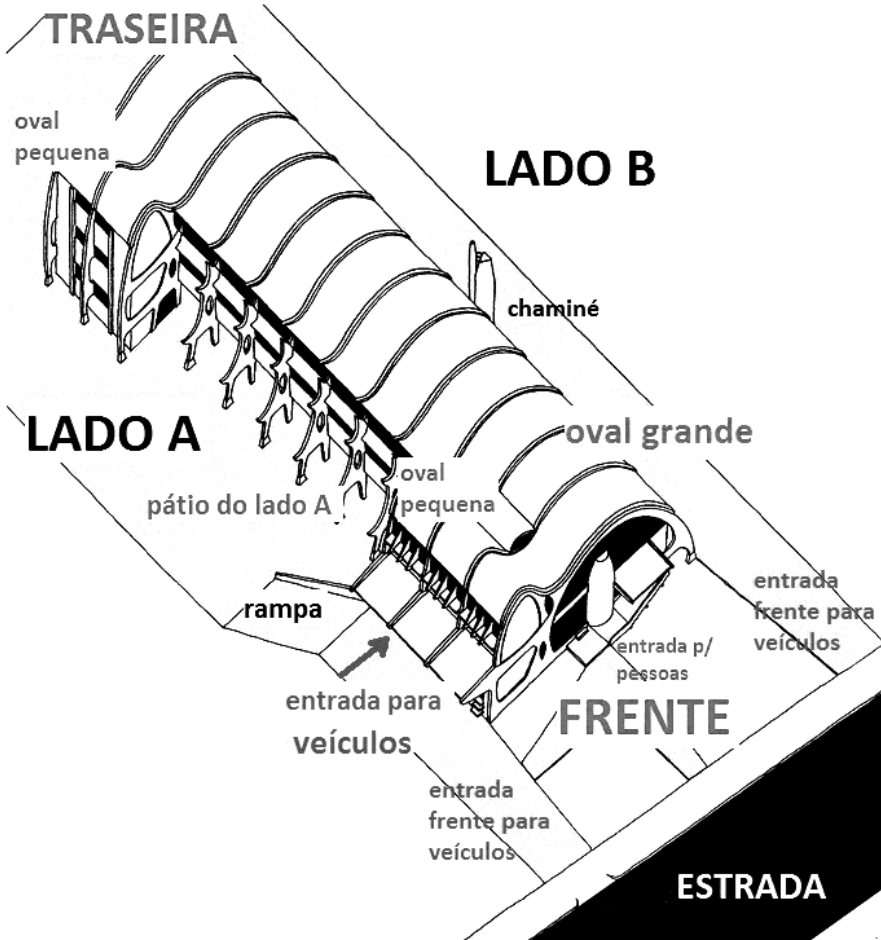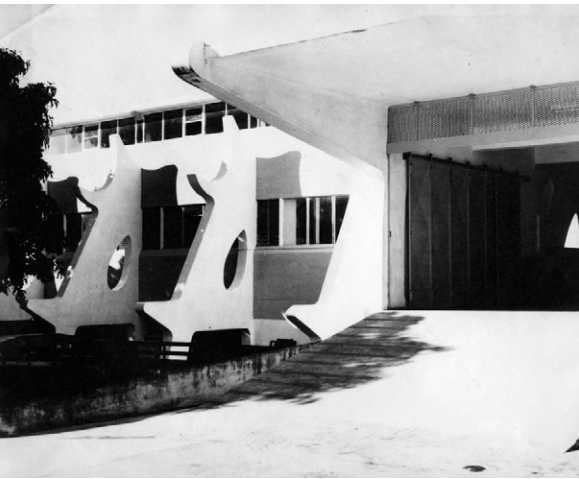
Fig. 5.12. Previous Spread - *'Pancho' Guedes' Manifesto for Architects (Guedes, A. 1955)*

Fig. 5.13. Opposite Above - *Saipal Bakery Axonometric Drawing (Guedes, A. 1955)*

Fig. 5.14. Opposite Below - *Saipal Bakery Typical Section (Guedes, A. 1955)*

Fig. 5.15. Above - *Saipal Bakery Exterior Photograph 1 (Guedes, A. 1955)*

Fig. 5.16. Middle - *Saipal Bakery Exterior Photograph 1 (Guedes, A. 1955)*

Fig. 5.17. Below - *Saipal Bakery Exterior Photograph 1 (Guedes, A. 1955)*

5.3
SOLANO BENITEZ'S TELETON SPINAL
INJURY REHABILITATION CENTRE:
MATERIAL AS DESIGN GENERATOR

Precedent: Technological
Architect: Solano Benitez
Project: Teleton Spinal Clinic
Location: Asunción, Paraguay
Function: Specialist Clinic

The Paraguayan architect Solano Benitez pushes the boundaries of materiality through his beautifully innovative use of brick & mortar. Working under the idea that brick is the most universally accessible construction material on the planet, Benitez attempts to recreate the material in every project undertaken as a part of Gabinete de Arquitectura, an architectural collective he forms part of. Having recently won the Golden Lion Award at the 2016 Venice Architecture Biennale – Titled Reporting from the Front by 2016 Pritzker Prize winner, Alejandro Aravena – Benitez designed & built a tessellating masonry arch from brick & mortar alone, something many regard as being impossible. The jury for the award were succinct in their sublimation of the exhibit, stating "harnessing simple materials, structural ingenuity, & unskilled labour to bring architecture to undeserved (sic)

communities." (Designboom, 2016).

While this is the most renowned of Benitez's projects, his Spinal Injury Rehabilitation Centre in Asunción, Paraguay incorporates bricks – both new & reused in an addition to the existing fabric, using the chosen material in a myriad of innovative techniques.

In doing so, Benitez makes a strong case for honesty in materiality, moving away from over designed façadisms, in a return to more economic means of construction, though in a manner strongly influencing haptic qualities of space in a number of ways.

The additions to the Spinal Injury Rehabilitation Centre were undertaken with a meagre budget, much of which was comprised of donations from the community. In lieu of this, the architect

intended to stretch the design as far as possible (Kliwadenko Novas, 2016). The realisation of this brought about an interesting interplay of stereotomic as well as tectonic spaces, all of which were defined by the same materiality though in various techniques & compositions. Most strikingly, the exterior wheelchair access ramps enjoy a dappled light quality, brought about from as similar tessellate structure as what was perfected later at the Venice Architecture Biennale.

This spatial quality stands in contrast to the far heavier treatment of the Rehabilitation Swimming Centre, which is articulated by the roof structure – also masonry – jutting down into the swimming pools, serving as large rainwater catchments. The walls of the centre serve as a mediating element, constructed with an undeniable presence, while still managing to bring strong natural light into the centre, a feat normally associated with far finer building components.

Benitez attempts to make his work accessible as precedent to more than architect's traditional clientele does. He believes that architecture is not in the ambit of the wealthy few, & it should be made obtainable for the masses, both in materiality, & technique – though this does not make the mundane acceptable.

The creation of structures that leaves an imprint on those that interact with them should be a core tenant in approach to the Pretoria Art Museum, keeping in line with the concept of society being able to inform architecture, so that it can in turn inform society.

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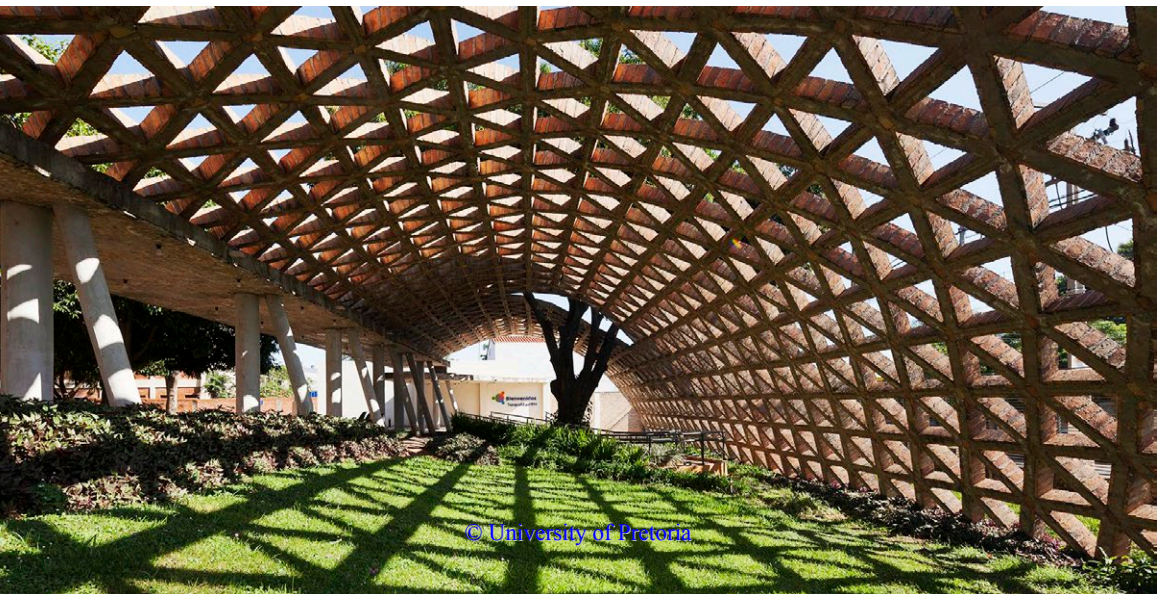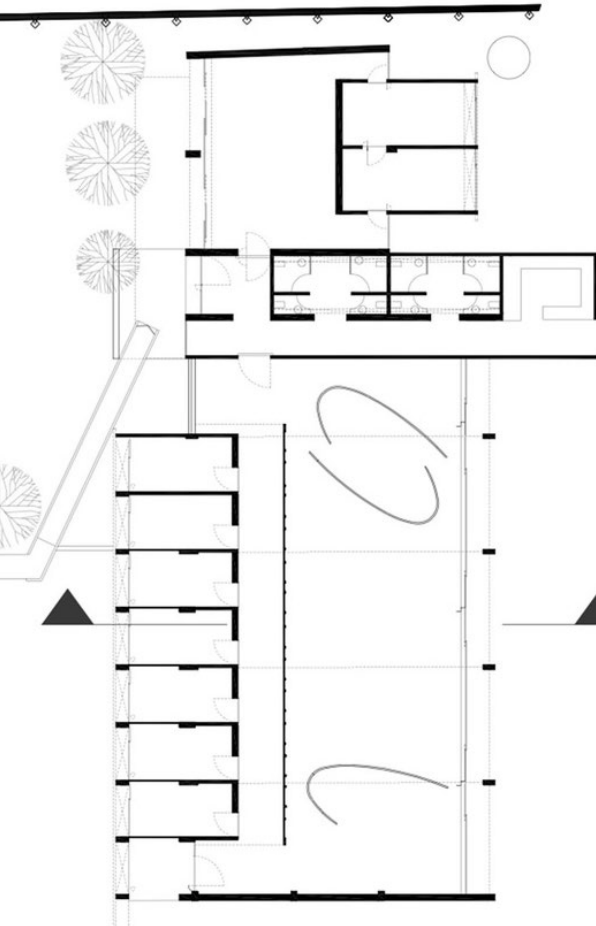
Fig. 5.18. Previous Spread - *Self Supporting Brick Tesselated Arch Construction (Benitez, S. 2010)*

Fig. 5.19. Opposite Top Left – *Teleton Leftover Brick Arch Construction (Benitez, S. 2010)*

Fig. 5.20. Opposite Top Right - *Teleton Water Catchment Funnel Construction (Benitez, S. 2010)*

Fig. 5.21. Right - *Teleton Spinal Injury Rehablilitation Centre Floor Plan (Benitez, S. 2010)*

Fig. 5.22. Below - *Teleton Spinal Injury Rehablilitation Centre Typical Sections (Benitez, S. 2010)*

Fig. 5.23. Bottom - *Teleton Spinal Injury Rehablilitation Centre Interior (Benitez, 2010)*

Fig. 5.24. Bottom Left - *Teleton Spinal Injury Rehablilitation Centre Brick Arch (Benitez, 2010)*

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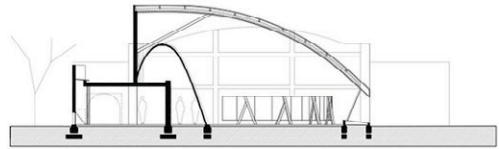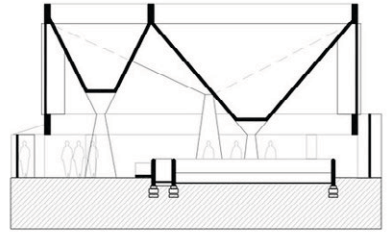
5.4
TOSHOKO MORI'S THREAD ARTIST RESIDENCY:
CULTURE CREATING COMMUNITY UPLIFTMENT

Precedent: Programmatic
Architect: Toshiko Mori
Project: Thread Artist Residency
Location: Sinthian, Senegal
Function: Cultural Centre

Located in the small rural village of Sinthian in Senegal, the Artist Residency & Cultural Centre referred to as Thread serves multiple roles in the community it is situated in (Thread, 2017).

The function of the centre is twofold, giving artists applying for residency new inspirations & materials to go about creating art with, while also offering services to aid the local community in their agricultural projects. Beyond these stated functions, the building also plays host to a large amount of unprogrammed spaces that are often appropriated by the community as gathering & celebration spaces. This trifecta of program, in partnership with a uniquely manifested architectural identity serves to link the small rural village with the rest of the world, drawing attention to the everyday struggles – as well as staggering beauty – communities such as Sinthian deal with from day to day (Thread, 2017).

The program of the centre is as bespoke as the architecture is, having been generated by the ethos of the client

foundation - The Josef & Anni Albers Foundation – that was founded by two Bauhaus School trained artists, who professed values such as "starting from zero" & expressed desires such as "to open eyes" (Thread, 2017).

The manifestation of Thread's architecture is one that exemplifies this equilibrium between cultural & pragmatic requirements, defined by its white bagged brick walls, carrying an undulating thatch roof structure, opening over communal event spaces.

Having been designed pro bono by Toshiko Mori as part of community upliftment in the rural areas of Senegal, the centre is described as being at a crossroads of functions, serving as "(inter)national artist residency, agricultural hub, community farm, water , exhibition and performance venue, cultural centre, local library, children's play gym and village cell phone charger. The success of its atypical plurality proves why art and architecture should be the right of all people." (Aga Khan Development Network, 2016).

Fig. 5.25. Opposite Page - *Thread Residency Central Gathering Space (Baan, I. 2015)*

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Fig. 5.26. Opposite Top Left - *'Thread Artist Residency & Community Centre (Baan, I. 2015)*

Fig. 5.27. Above - *'Thread Artist Residency & Community Centre Courtyard (Baan, I. 2015)*

1	FLEXIBLE WORKSHOP
2	BREAKOUT SPACE
3	KITCHEN
4	BEDROOM
5	BATHROOM
6	GATHERING SPACE
7	WATER CANAL
8	COURTYARD
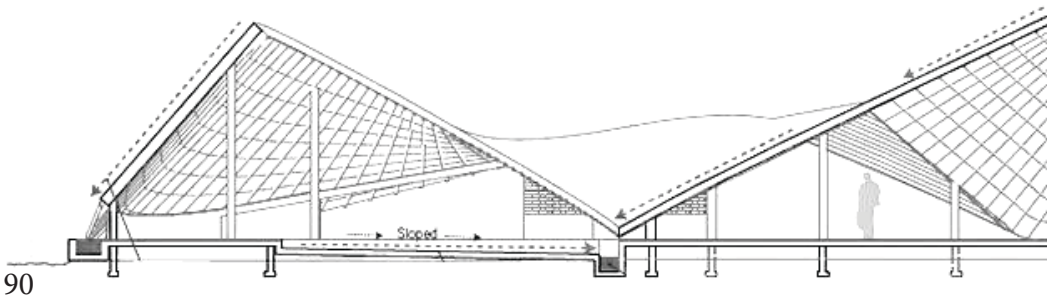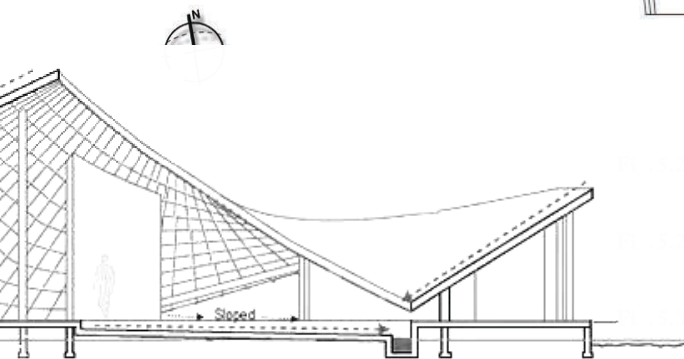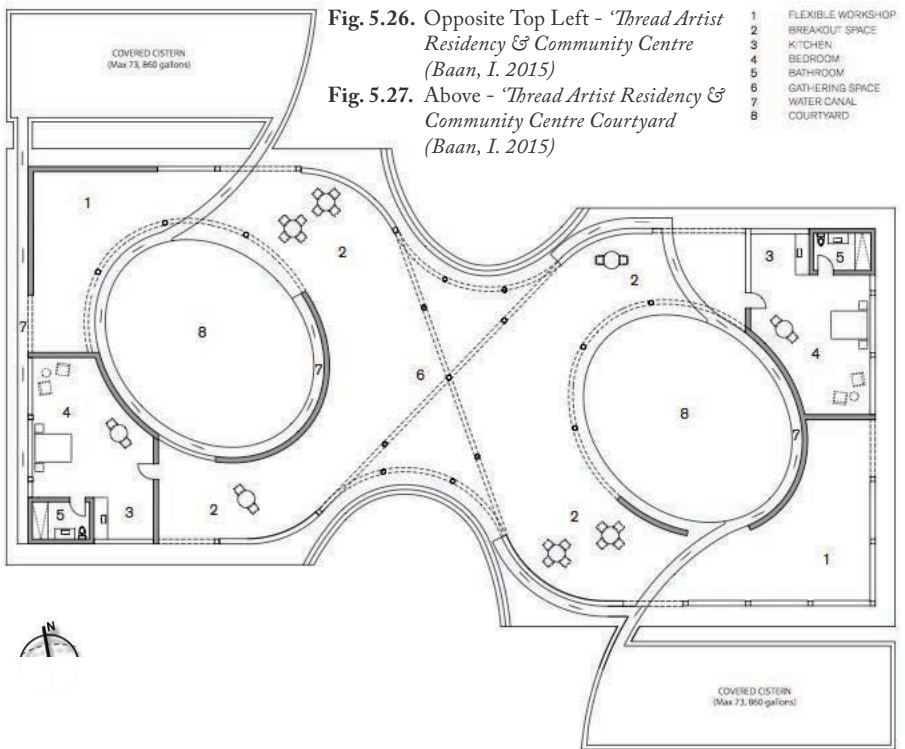
Top - *'Thread Artist Residency & Community Centre (Baan, I. 2015)*
Middle - *'Thread Artist Residency & Community Centre Floor Plan (Mori, T. 2015)*
Bottom - *'Thread Artist Residency & Community Centre Typical Section (Mori, T. 2015)*

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PRECEDENT FORMING IDENTITY:
DRAWING INFORMANTS FROM A PLETHORA OF SOURCES FOR A
COSMOPOLITAN SOCIETY

While none of these precedent studies is overtly public in an urban setting, each of them deals with identity in architecture at the very core of their various approaches. In many regards, architects have little choice in what may influence their individual approaches. For instance, students & architects alike have repeatedly questioned Eaton for his blatant insertions of Brazil Build & Frank Lloyd Wright elements & principles into his designs (Pienaar, 2013). However, many have also continued to defend these insertions as being wholly suitable for the context, climate, & period they occurred in (Pienaar, 2013).

There often seems to be a temptation to apply cultural aesthetic liberally to designs as an attempt to make them immediately identifiable to members of the public as belonging to that society. As discussed earlier in the paper, this was rife in the late 1990's & early 2000's, which has created a collection of public buildings unadopted by public they were intended for, many of these buildings & spaces still grapple with the meaning behind their identities, which were so strongly defined by their architects (Noble, 2011).

Architecture is a myriad of informants, problems, & solutions coalesced into a physical manifestation, that serves pragmatic, as well as cultural & societal needs. With what is possibly the practice's Shakespearean flaw, buildings are not always able to keep up with the rapidly changing demands of the societies they are intended to serve. Coupled with the far faster pace of changing technology, the lifespan of buildings, needs to be addressed, not necessarily in lengthening or shortening that lifespan, but rather adapting designs to be adaptable in themselves (Freud, 2008).

South Africa's urban landscape remains a hostile environment for a large portion of the country's inhabitants, both local as well as those from the rest of the continent. While this is due largely to geographic separation brought about by Apartheid city planning, the city itself can be passively hostile, making residents' strangers in their own country (Bevan, 2016).

While many architects & contemporaries have grappled with the contention of making spaces & places that are more representative, & accessible both physically & culturally, few have truly stood out as being of the people. From the studies undertaken of such projects, it becomes clear that accessibility in physical & cultural terms is inseparably significant in the

Fig. 5.31. Opposite Page - *Graphic Designer's Typographical Interpretations of Pancho Guedes' Design Approaches (Amores, M. 2015)*

makings of architectural identity based on continued use.

Alone, function & aesthetic matter little. In continuing Franz Fanon's analogy of skin & mask, further adapted by Jonathan Noble for a contemporary South African context, the mask as an aesthetic applied to a building matters little if skin as function holds no value, similarly the inverse also holds true, skin as function with merit can depreciate immensely if an aesthetic mask is applied incongruously.

A holistic approach to architecture in Post-Transition South Africa needs to be taken when dealing with public architecture, one in which identity & function work hand-in-hand in creating an architecture that is representative of societies needs pragmatically as well as culturally.

Many well-known architects have quipped over years about whether it is the chicken, or the egg, which comes first, whether form follows function, or vice versa. Perhaps the irrepressible Pancho Guedes said it best in stating verbatim:

'FORM = FUNCTION'

WORK
BUSINESS PEOPLE
DOING EXCITING THINGS

MEET &TALK
LOUNGE

THINK& DISPLAY
GALLERY

SHOP
CONCEPT
& DESIGN STORE

93

06

This chapter serves to synthesis the original project intentions with the identified issues & the researched informants such as contextual frameworks, theories & precedents. This is undertaken as an iterative process, translating qualitative & quantitative information into a design approach.

By the end of this chapter, the final concept will be discussed, as a synthesis of the iterations & informants.

06

CONCEPT

"

Surely some revelation is at hand;
Surely the Second Coming is at hand.
The Second Coming! Hardly are those words out
When a vast image out of **Spiritus Mundi**
Troubles my sight: somewhere in sands of the desert
A shape with lion body and the head of a man,
A gaze blank and pitiless as the sun,
Is moving its slow thighs, while all about it
Reel shadows of the indignant desert birds.
The darkness drops again; but now I know
That twenty centuries of stony sleep
Were vexed to nightmare by a rocking cradle,
And what rough beast, its hour come round at last,
Slouches towards Bethlehem to be born?

"

- An excerpt from William Yeats' poem
The Second Coming

Fig. 6.1. Left - *Daniele Sepe's 'Spiritus Mundi' Album Cover (Artist Unknown, 1995)*

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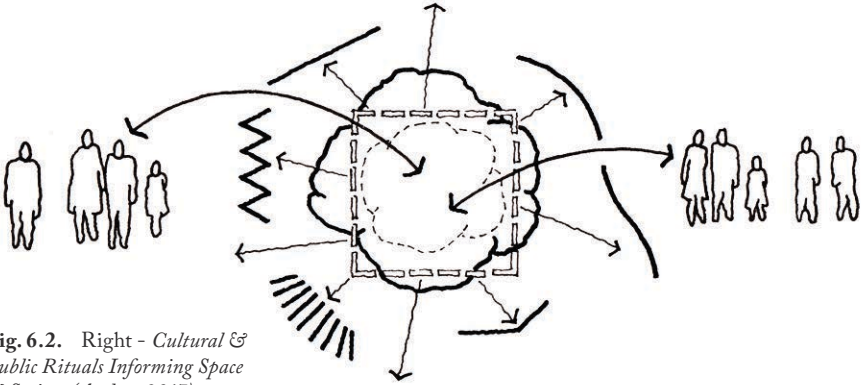
Fig. 6.2. Right - *Cultural & Public Rituals Informing Space & Society (Author, 2017)*

6.1
GIVING FORM TO THE FORMLESS:
MANIFESTING THE RELATIONSHIP BETWEEN CULTURE & PUBLIC

Culture ripples & changes, differing from one collective of people to the next. Similarities can be found between two absolute strangers, or even millions.

Spatially, cultural requirements are seemingly ambiguous, & yet can be so rigorous as to immediately make certain spaces ineffective. For the purpose of this dissertation, culture is seen as existing in a *spiritus mundi* - a formless, locationless collective of human ideas & consciousness - constantly informing the makings of culture. The cultural practices & rituals informed by this invisible hand in turn inform space, in turn informing culture in a never-ending, constantly adapting closed loop system.

Unfortunately South Africa is a melting pot of cultural collectives, with a history of a single cultural collective subjugating & oppressing the rest (Noble, 2011).

Free at last, following the fall of Apartheid, cultural emancipation went hand-in-hand with the end of oppression. While social & democratic justice have changed with the times, spatial justice has yet to pick up the slack. Many physical cultural territories still only provide for the cultural singular in South Africa's *Spiritus Mundi* diaspora, while those intended to be more representative since the fall of Apartheid are based on premises outdated in urban contexts (de la Porte, 2014).

While it is true that society informs architecture & architecture in turn informs society, this becomes severely muted in a context where architectural drive is firmly located in the private sector, while public places & spaces are left in the cold (PIA Awards, 2017).

While much of this is outside of the ambit of an architect, it does place emphasis on creating public architecture that attempts to create public & cultural spaces accessible enough to all, while still specific enough as not to become irrelevant.

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In a society as diverse as that of Arcadia at present, the intention should be to create architecture that is responsive to changing societal needs, both public as well as cultural.

Attempting to draw informants from a singular culture in such a diverse context would only serve to segregate those not of that culture. Similarly drawing on the informants of many sects of society could muddle the intended impact of a nexus between public & cultural interactions.

Rather than muddling architectural languages between that of perceived society, with that of real society, along with the preconceived ideas of the designer as mediator. The intention of this dissertation is to create a vessel in which public practices & cultural rituals become patent.

Where the existing Pretoria Art Museum stands as a collection of cultural manifestations as products representing various histories & stories

in the development of South Africa, any addition to the existing structure & program should focus on the idea of ritual & practice. The intention of this dissertation is to allow the opportunity for the Pretoria Art Museum to play a role in informing as well as forming cultural manifestations such as the ones it already houses. Further, a shift in bias should also be permitted for, moving away from only housing products of a western approach to archiving & presenting culture, toward spaces that allow for & encourage ephemeral cultural rituals to take place.

From this, informants for a conceptual approach to any addition to the park & museum can be drawn, an approach that is human-centric, in both public & cultural practices, moves away from traditional biases about the representation of said practices, & takes a clear approach to new & existing architectural language on site as having an influence on the society it is intended to serve.
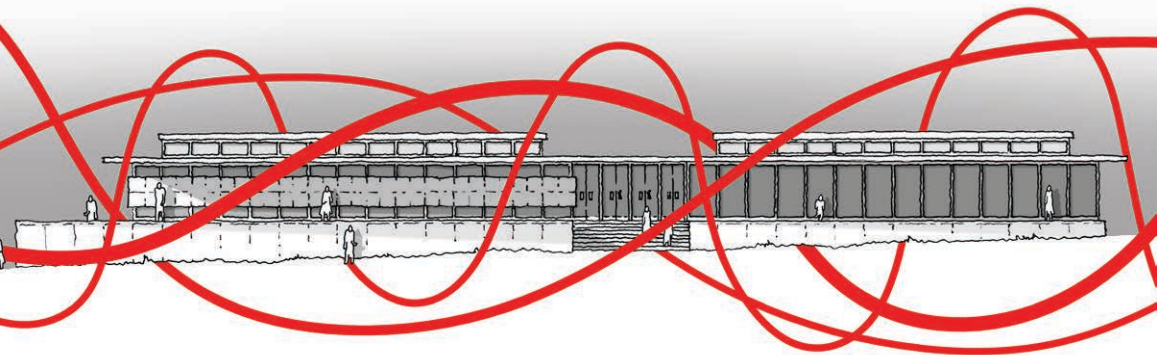
6.3
BINDING TANGIBLE / INTANGIBLE:
MEDIATING BETWEEN PRAGMATIC & ABSTRACT REQUIREMENTS

The chosen site represents a coming together of many - often diverging - influences. The building itself stands as a testament to a society of a bygone age, both locally as well as internationally, while the park the museum is situated in displays an astounding variety of public interactions. Where one element houses the products of cultural machinations, the other allows for the most ephemeral of user-driven practices to occur.

In response, a concept with the ability to address both the tangible & intangible becomes necessary, one that can inform every decision concerning from spatial layouts, to form, to detail.

Above & beyond these requirements, the conceptual approach would also have to be able to inform interactions with both the urban as well as landscape elements of Arcadia Park, along with an appropriate manner in which the existing museum can be addressed.

Initially, preconceived ideas were ventilated & thoroughly worked through as a litmus test, as well as a means of immediately removing responses that wouldn't be useful to addressing the project.

This process was undertaking as an initial workshop of rough charcoal sketches, each responding to a single informant as a layer in what would become a greater palimpsest from which a concept could be gleaned from this initial response.

Both tangible as well as intangible informants were responded to, ranging from the pragmatic such as relationships between hard & natural public spaces, to the ethereal such as introverted / extroverted interactions on site.

Fig. 6.3. Page Opposite - *Intertwining Contrast around the Existing Fabric (Author, 2017)*

Fig. 6.4. Below - *Intertwining Contrast around Opened Existing Fabric (Author, 2017)*

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NATURAL / HARD
PUBLIC SPACE

PUBLIC / PRIVATE
BOUNDARIES

INTROVERT / EXTROVERT
INTERACTIONS
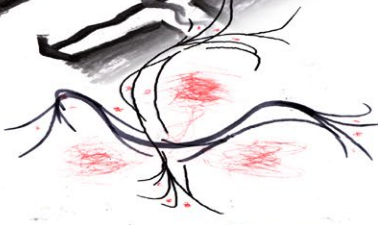
SPATIAL IDENTITY
DIAGRAM

INITIAL CONCEPT
DIAGRAM

SPATIAL CONCEPT
DIAGRAM

100
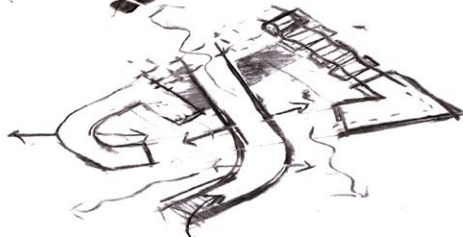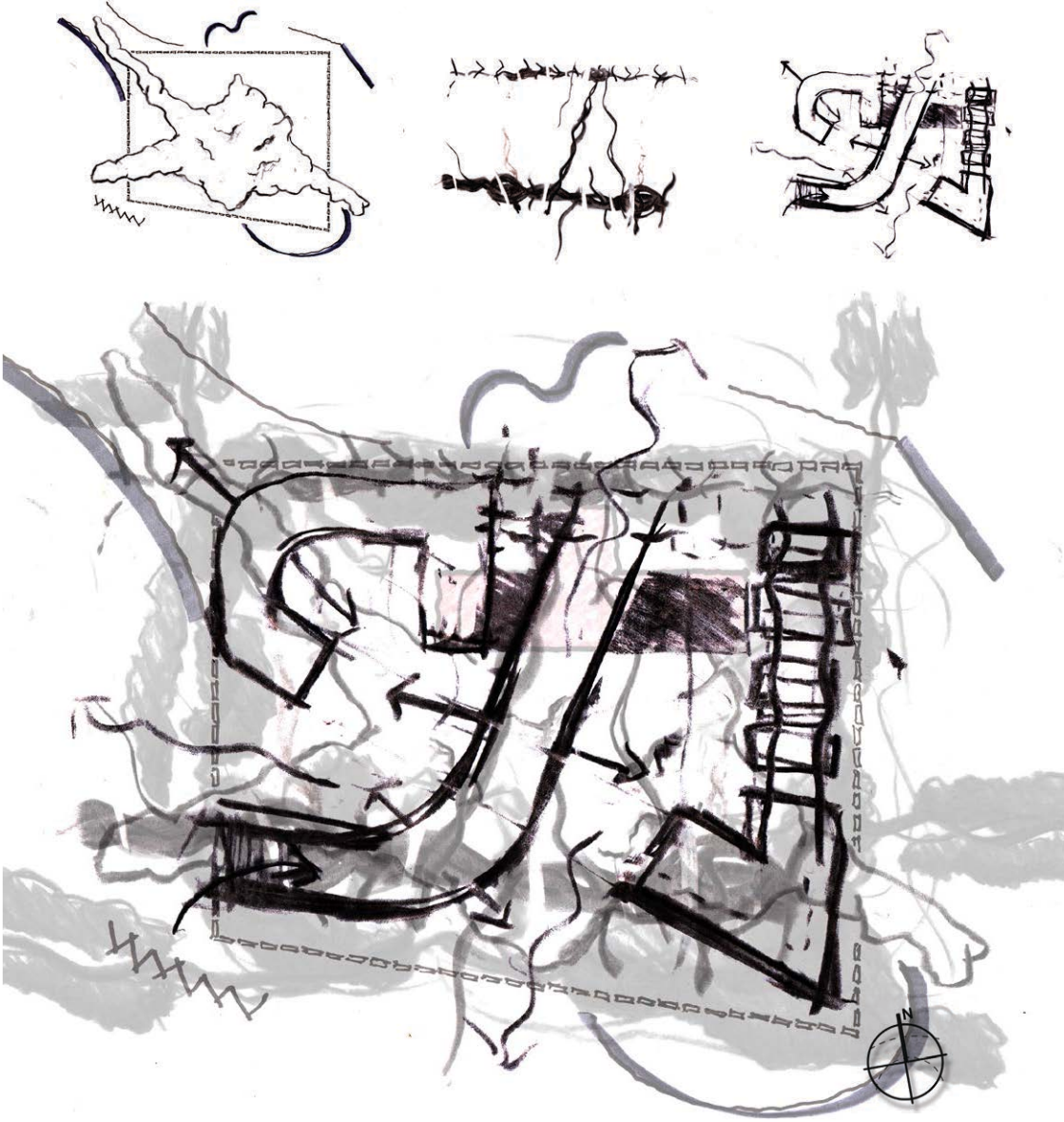
Fig. 6.5. Page Opposite - *Concept Workshopping Layers (Author, 2017)*

Fig. 6.6. Top Left - *Spatial Identity Diagram From Concept Workshop (Author, 2017)*

Fig. 6.7. Top Mid - *Initial Concept Diagram From Concept Workshop (Author, 2017)*

Fig. 6.8. Top Right - *Spatial Concept Diagram From Concept Workshop (Author, 2017)*

Fig. 6.9. Mid Above - *Concept Workshop Diagrams Palimpsest (Author, 2017)*

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Messy as always, the design process is often made up jumping from one scale / stage to another & back again.

Following the initial concept development a subsequent re-understanding of site & context was undertaken. The original concept development intended to pay more attention to the southern half of the park, focusing on the relationship between the museum as a cultural space, & the park as its public antithesis.

Through reiterating an analysis of the site, it became clear that the museum has served to separate the majority of the park to the south, from leftover spaces to the north. Coupled with a better understanding of the various programs already taking place in the park, the proposed siting of the dissertation moved from addressing what is - for the most part - positive public interactions to the south of the museum, to addressing the remnants of public space crammed between the museum's 'back of house' & the boundary of Francis Baard Street.

While the bulk of the architectural response would now leave the majority of Arcadia Park open to collective public interpretation, it would still be included in a proposed framework for site, addressing issues such as unsafe areas, lack of maintenance & improving public facilities.

The new siting gave way to new opportunities, allowing for the museum to become a gateway through which the park could be reconnected, rather than the impediment that the museum currently creates. Similarly, locating any architectural solution to the north of the museum would allow for more intimate interactions with the existing fabric, creating a scale of public spaces in contrast to the vastness of the rest of the park.

102
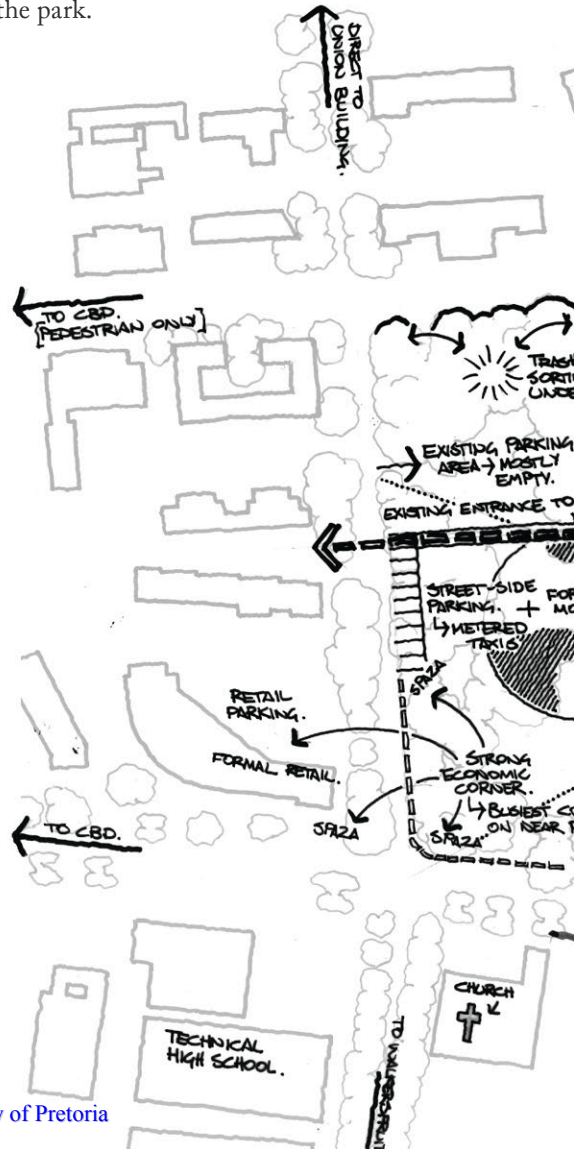
Fig. 6.10. Below - *Site Understanding*
(Author, 2017)

VEGETATION FORMING VISUAL BARRIER.

COLLECTORS
PICKINGS
SHADE.

PALLISADE FENCE
USED TO DAY WET
CLOTHES.

PAM.

NO INTERACTION FROM
PAM WITH NORTHERN
REMNANTS.

PAM
STAFF PARKING.

LEFTOVER
PARK.
↳ SEPARATED
BY PAM.

FORMAL AXIS ACROSS PAM PLINTH.

LITTLE TO NO INTERACTION
OR MOVEMENT.
↳ CONSIDERED TO BE
UNSAFE BY PARK GOERS.

TOWARD TSHWANE
OUTLYING AREAS.
↳ N4.

FORGOTTEN
MONUMENT.

WEEK DAY
LOUNGERS.
↳ PEOPLE
WITHOUT JOBS.

INFORMAL IMAGINED
FOOTBALL FIELD.

FORMAL AXIS FROM PAM ENTRANCE.

INFORMAL.

CORNER
PARK.

OBSERVED PARK
GOERS.
↳ CLOSE TO PAM
SECURITY FOOT
TRAFFIC THROUGH
PARK.

UNSAFE BELOW
N.G.L.
↳ W.C.

TRANSITION.

SPAZA.

EXISTING
WORKSHOP.
↳ DISUSED FENCED OFF.

DEAD END.

NON-
CORNER.

GAUTRAIN
STATION AXIS.

N

MOST PROMINENT
VIEW OF PAM

VEGETATION FORMING
VISUAL BARRIER.

HARD BOUNDARY WALL.
↳ NO VIEW FROM STREET.

TO HATFIELD.

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SPORTS
CLUB.

CONNECTING BOULEVARD FROM UNION BUILDINGS TO WALKERS STREET.

LONG DISTANCE BUS STATION TO SERVE CITY SURROUNDS.

EXISTING WORKSHOP

NEW ECONOMIC AREA PROPOSED ON EXISTING ACTIVE CORNER, LINKED TO MUSEUM + PROPOSED RESTAURANT.

PROPOSED RESTAURANT.

RECONNECTING SPATIAL REMNANTS TO THE REST OF THE PARK.

THROUGH THE MOS

LANDMARK TO PROVIDE VISUAL SECURITY.

ECONOMIC ACTIVITY TO BE PULLED/DEEPER INTO PARK THROUGH PROVIDING ACCESSIBLE INFRASTRUCTURE.

LANDMARK

EXISTING FOOTBALL FIELD TO BE RETAINED.

INDE SPACE MO WITH A

104

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

REPURPOSED TO ACTIVATE REMNANT.

PUBLIC ACCESS GALLERY PROPOSED.

NEW PAVILION TO BE REPURPOSED FOR PUBLIC PROGRAMS.

GAUTRAIN RAPID BUS CIRCUIT.

...UM.

...ENSIBLE ...DE SECURE ...DDITION.

EXISTING LARGE OPEN SPACE TO BE RETAINED.

PROPOSED PUBLIC SERVICES ACCESS.

HATFIELD / CBD BRT.

...ROPOSED SOFTENING ...F SPORTS CLUB ...OUNDARY.

Fig. 6.11. Full Spread - *Site Response*
(*Author, 2017*)

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Fig. 6.12. Left & Below - *Concept Model Opening Site & Fabric Intertwining New (Author, 2017)*

For the purposes of this exercise, the museum was seen as being entirely part of the landscape, a rock to be removed, cut through, or possibly made a feature of.

As part of a conceptual response to the heritage manifesto undertaken, the drastic opening of the museum should translate into a comparative opening of the park itself. These respective openings are intended to allow for a kaleidoscope of opportunities between

6.6
BREAK TO BOND:
CONCEPTUAL APPROACH TO
EXISTING BUILDING & SITE

Fig. 6.13. Below - *Concept Model Iterations (Author, 2017)*
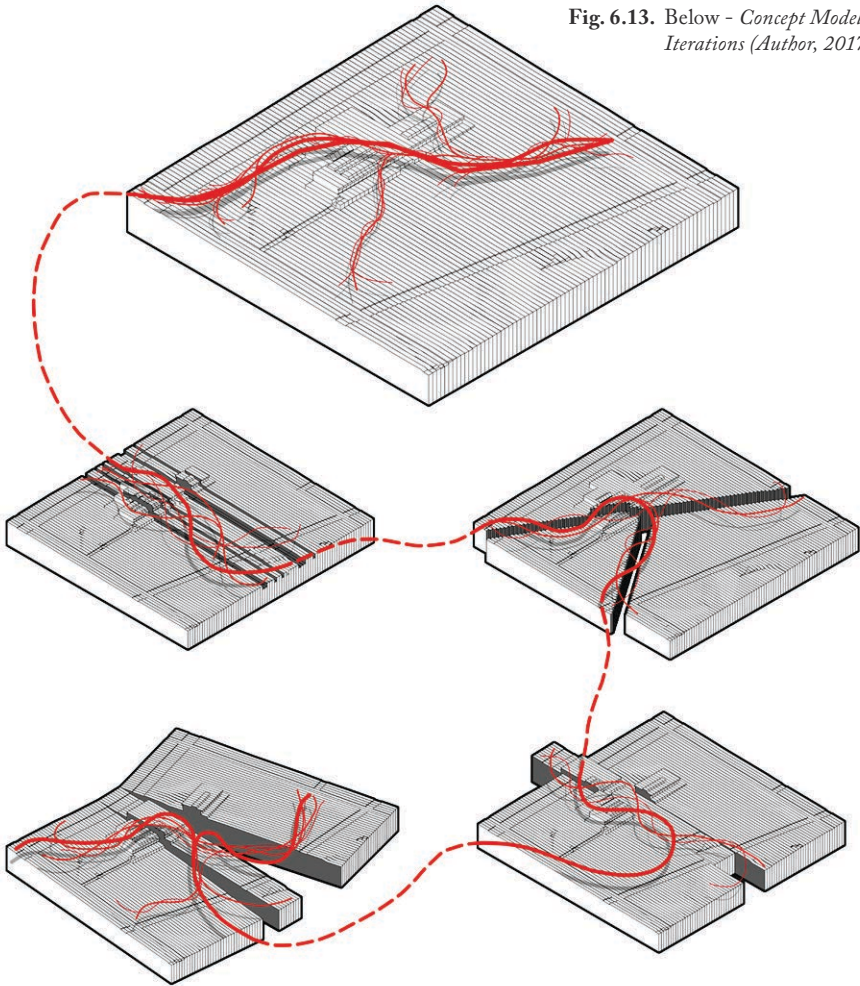
the houses of culture & public. A number of iterations were undertaken as a means of exploring the possible relationships between the park & the museum, in turn informing the makings of a final conceptual approach.

Following on from a number of explorations, the conceptual informants remained the same, with the intention of binding together the tangible & intangible aspects of public interactions & cultural rituals remaining a continuous thread woven into the approach taken in the formation of an architectural response.

Having developed a better understanding of existing interaction on site, both cultural as well as public, & having explored a contextual response to binding together the project intentions with the fabric of the site, both tangibly & intangibly, development of a conceptual driver could be undertaken.

107
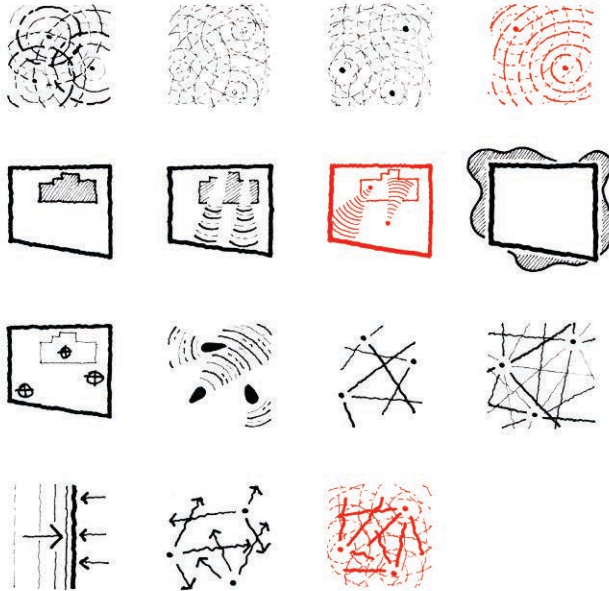
6.7
CONCEPTUAL VIGNETTES:
PROTOTYPING CONTEXTUAL CONCEPTUAL RESPONSES

The concept of binding together a myriad of conditions to combat the current separation of culture as ritual & public as practitioners remained constant throughout the development toward a concept. As a means of further testing the veracity of 'binding' as a conceptual approach, a number of prototype vignettes were undertaken, exploring a number of variations of weaving together conditions.

These vignettes explored the possibilities created through binding,

weaving, intertwining, fraying, & knotting together various elements & interactions on site, countered through the exploration of 'cataclysms & ripples' as a yardstick for comparison.

While the idea of creating nodes of engagement, creating subsequent interactions beyond the control of the architect was appealing - in that it responds well to user-driven programs rather than a fully top down approach - the concept of 'cataclysms & ripples' left too much of the project opening to wild

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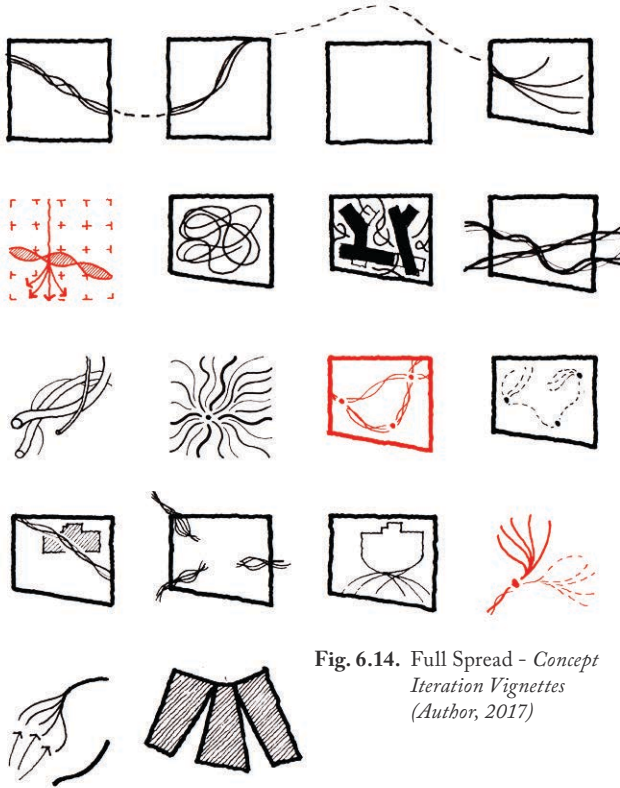
Fig. 6.14. Full Spread - *Concept Iteration Vignettes (Author, 2017)*

interpretations, hinging the success of the proposal on the interactions brought by the user, rather than informing those interactions & rituals.

The concept of 'Knotting, Fraying, & Intertwining' seemingly allowed for a response to many possibilities that the project would create. It also allowed for the more organic approach the project had been searching for from the outset, while still allowing for a certain amount of control over the design process to follow.

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6.8

CONTRAST INTERTWINED:

FINAL CONCEPTUAL APPROACH

Culture isn't static, the making of art isn't as clinical as the white boxes it is so often presented in.

The Pretoria Art Museum stands as a beautiful example of Modernist principles transplanted into a South African condition, & while that may mean something to architects & artists, the role the museum plays in furthering cultural pursuits & public necessities in Tshwane is becoming mute.

Any addition to the museum would have to be undertaking in a manner celebrating the important history of culture in South Africa that the museum houses, while also playing a role in forwarding the pursuits of creatives yet to come.

The concept of **Contrast Intertwined** began as the knotting, fraying, & intertwining of thread, with each action intended to inform various approaches to the making of space & form. While this approach has the possibility of aiding in the making of design decisions, it also carries the danger of becoming a literal interpretation of the concept, creating a building that is formed into nothing more than an architectural section of rope. It also failed to suggest possibilities in which to address the existing fabric of the museum.

Intertwining Contrast suggests possibilities across a plethora of scales & interactions, ranging from; spatial, to the formal, to the programmatic, to material, to *techné* responses.

The conceptual approach makes its position on the existing fabric of the museum & the park clear from the outset. Any addition should wrap over, under, around, & through the existing museum, breaking it open & restitching it in a manner contrasting the heavy nature of the museum as it is.

Spatially, a range & scale of cultural & public opportunities are envisioned as spilling into & out of both the park as well as the museum, contrasting the hardened thresholds of the existing structure through removing defined boundaries almost entirely, allowing exterior spaces to flow into interiors freely, & vice versa.

Formally the museum makes such a bold statement in terms of its architectural language that it becomes almost a necessity to contrast its clean horizontality with a myriad of more organic forms, wrapping through & around the existing structure.

From the outset one of the core intentions was to address the monochromatic program of the existing museum, along with the embedded - sometimes dangerous - ambiguity of Arcadia Park. Intertwining a large variety of cultural & public spaces focusing specifically one nurturing ritual & fostering interactions could serve as a catalyst for both the museum & the park. A range of economic programs both formal as well as informal could also serve as a boon for both the museum as well as the cosmopolitan society of Arcadia surrounding it.

Fig. 6.15. This Page -
Concept Expanded &
Explored (Author, 2017)

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There is a messiness to intertwining, an organic nature to the forms it creates, a similar process of freedom to what one would expect to find in many art studios or other creative spaces. *Contrast Intertwined* suggests solutions for specific challenges embedded in the fabric of the Pretoria Art Museum, Arcadia Park, as well as the context the site finds itself in as a collective, both tangibly as well as intangibly, culturally, as well as publicly.

The action of 'intertwining' suggests an inherent movement in the concept focusing on space informed by ephemeral programs & actions as much as it is by materiality & layout. This concept is intended to address the ephemeral as much as it does the permanent, informing program, form, materiality, techné & technification.

In contrasting the existing museum & park, the movement inherent in the concept begins to suggest an journey, rather than a destination, moving through a variety of spaces, rather than arriving in an exhibition hall, or a large public park.

This concept is intended to be carried through from design development, to resolution, & finally to technification, affecting every scale of the project. This is done with the understanding that design & technification do not happen in separate stages, but are rather intertwined in the same manner that the concept suggests.

Fig. 6.16. Opposite Page - '*Contrast Intertwined' Parti Diagram (Author, 2017)*

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CONTRAST
INTERTWINED

07

In the forming of a contextual design response, a number of iterations were undertaken, some responding to the intentions as a whole, while other iterations developed specific response intended to inform a larger picture.

Lastly, a final response will be discussed & critiqued, attempting to synthesis urban requirements for public space, societal needs in forming architectural identity, & dealing with monumental historic fabric.

07

DESIGN DEVELOPMENT

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7.1
ESTABLISHING A POSITION:
CONSTRUCTING A BASE RESPONSE TO SITE INFORMANTS

From the outset the project intention was to adopt a strong position in dealing with existing fabric that had fallen into disuse in a public realm struggling to successfully fulfil the needs of the growing society it serves. This identified problem was further compounded by two divergent conditions in South Africa's public spaces at large: two divergent conditions both suffering from a lack of public interest.

As discussed, much of South Africa's existing public fabric does not fulfil the needs of much of society, having being built under conditions vastly different to the requirements of contemporary society. Many buildings, spaces, & places across the country have become unrepresentative of a society contending with issues of collective identity, allowing built public fabric to fall into disuse & eventually disrepair (Bevan, 2016. Noble, 2011).

Conversely, much of the public architecture undertaken post-1994 is representative of a society grappling with identity, forcing the undertakings of architects to latch onto bygone scenography as an attempt to create familiarity (Noble, 2011). Unfortunately this often liberal application of Ndebele patterns & Kraal layouts has seemingly alienated many members of the public from any creating meaningful interactions with such public places (Noble, 2011. Bremner, 2012).

In response to these informants, a unique architectural identity would be attempted, one not biased toward a specific culture, but one rather standing in contrast to the existing museum, an identity attempting mirror the evolving identity of a greater Southern African collective. The tenants of this approach are centred around the making of a building accessible to all, regardless of race, creed, or culture, while still attempting to create a unique response to the unique set of circumstance existing in area of Arcadia & greater Tshwane.

The initial design intention was to wrap new additions to the museum & park through & around both elements, while

Fig. 7.1. Below - *Initial Section Development Contrasting the Existing Museum (Author, 2017)*

still respecting the important aspects of both the museum & park.

An interesting interplay of program exists between the Pretoria Art Museum & Arcadia Park, with the former allowing for a singular top-down purpose, while the latter is entirely driven by individual & collective users.

As part of addressing a perceived 'Western Bias' of only storing & representing the manifestations of cultural rituals, i.e.. Paintings, drawings, Installations, the proposed additions intend to create a varied set of programs, allowing for a number of interactions with a variety of cultural practices & by-products. Similarly, in an attempt to create another entirely top-down driven program, a number of unprogrammed spaces would be allowed for, allowing both curator, practitioner, & user to make use of them as they seen fit.

The proposed additions would also deal with the imposing threshold between public & culture, represented by the park & museum. Through 'opening' the museum as per the heritage approach, the remnants of the park to the north could be reconnected to the bulk of the public space to the south, through the museum rather than around it. This in turn would create a central courtyard space between the remaining structure of the museum, serving as a nexus between the public & cultural elements in the project. This approach would also serve to soften the boundaries between the two informants, allowing one to flow seamlessly into the other.

Subsequent to this, the additions to the north would focus on informing exterior open space, as much as they do interior specific place. A set of courtyards are suggested from the outset, creating defensible spaces on a smaller scale to the large, ambiguous nature of the rest of the public park.
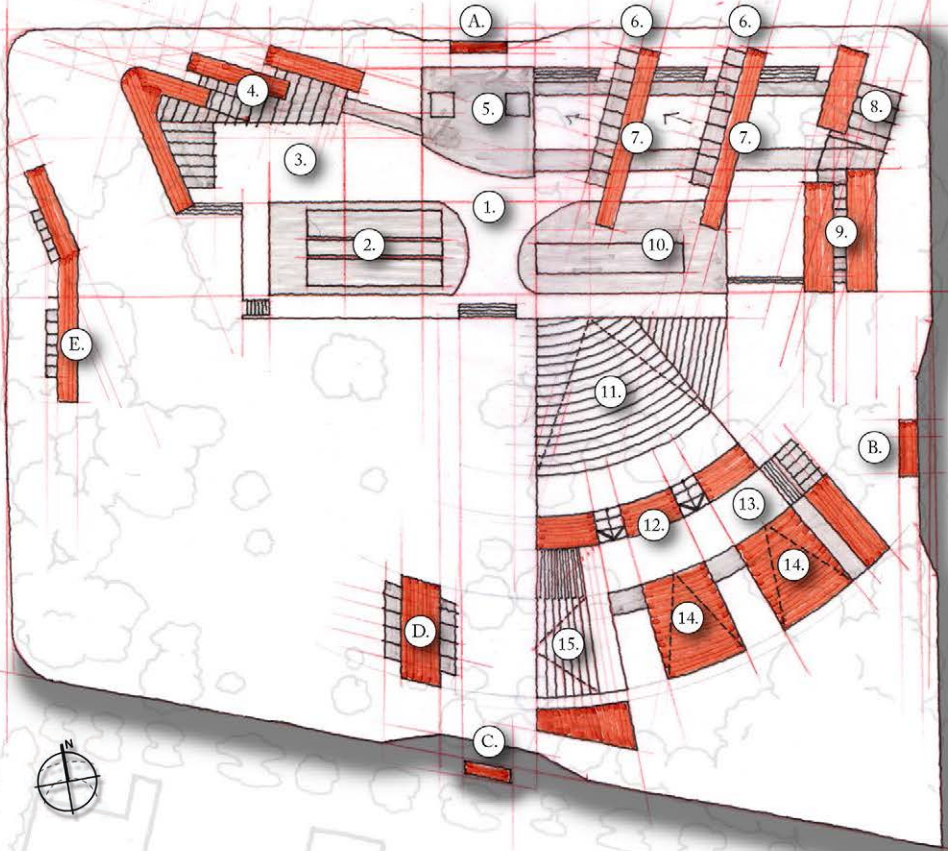
117

Fig. 7.2. Above - *Initial Design Response to the Identified Issues & Informants (Author, 2017)*

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7.3
RESPONSE I:
INITIAL DESIGN RESPONSE TO PRAGMATIC & ABSTRACT REQUIREMENTS

The initial response to the project intentions focused specifically on trying to address the issues identified in & around the site, such as reconnecting the northern edge of the park with the majority of the public space to the south, addressing the unsafe circumstances of the south eastern corner of the site, as well as creating a scale of public spaces in & around the proposed cultural spaces.

The existing reception, Albert Preiss Hall, Service Core, & a portion of the Admin Offices were to be removed to

LEGEND:

A.   Long Distance Bus Station
B.   Gautrain Rapid Turn Around
C.   CBD / Hatfield BRT
D.   Public Services
E.   Alt. Transport / Economics

1.   Culture / Public Interface
2.   Permanent Collection Hall
3.   Exhibit Courtyard
4.   Exhibition Halls
5.   Accessible Archives
6.   Residency Gallery
7.   Residency Workshop
8.   Precinct Admin
9.   Participation Workshops
10.   Unprogrammed Exhibit
11.   Amphitheatre
12.   Presentation Spaces
13.   Public Walkway
14.   Lecture Hall
15.   Soap Box

make way for a new outdoor exhibition space, as an attempt at taking advantage of Tshwane's amicable climate. This space would serve as a interface between the public & cultural aspects of the project, flowing from the large scale park to smaller scale courtyards, sculpture gardens, & spill out spaces.

While the intention was to thicken the threshold between public & cultural spaces through breaking open the existing museum, the execution thereof was still clumsy in retrospect, paying little attention to the consequences of such an organic approach. Though this was considered secondary to the reforming of the relationship between the museum & the park.

The terminus of this breaking open would culminate in the existing workshop & archive spaces being converted into an accessible archive, acting as an interface between members of the public, & the proposed exhibition & production wings.

The approach to the production spaces was to create a meandering experience, in which users could filter between galleries & workshops from a variety of perspectives. A set of residency workshops & galleries were suggested to run perpendicular to the corridors, creating sculpture gardens along the northern edge of the park between the public access galleries, along with spill-out courtyards as extensions of the workshops.

The suggested meandering through

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the residencies would culminate in participation workshops, in which it was intended that artists could make use of mass public participation the making of art. This would double as an informative ritual for the users engaging in the creative processes of the artists, again attempting to make the latent, patent.

Opposite from the Production wing, the proposed exhibition halls would create a scale of presentation spaces, across quality, light, size, & interval. The exhibits would mediate between the street edge to the north & the large spill-out courtyard to the south. Each exhibit was rotated slightly as to create this mediation, allowing for visual access into & through the exhibits from the street. This would be achieved through the lifting of the stereotomic elements through the use of a steel portal structure, & a tectonic in-fill. The proposed building would then

return to the west, hugging the edge of the proposed courtyard.

As part of wrapping together the park & the museum through the proposed addition, presentation & ritual spaces were suggested, moving south from the south eastern half of the museum toward the south eastern corner of the park. These ritual spaces would again make use of Tshwane's amenable climate, being entirely open, allowing park-goers to flow through the precinct, from amphitheatre, to soapbox, to lecture hall, interacting with a variety of rituals, discussions & practices, both cultural as well as public.

While the intentions of this iteration were set, the response became extremely formal, a top-down planning exercise. The manner in which the existing fabric was addressed was clumsy, & the amphitheatre, lecture halls & soapbox were entirely acontextual, fanning out
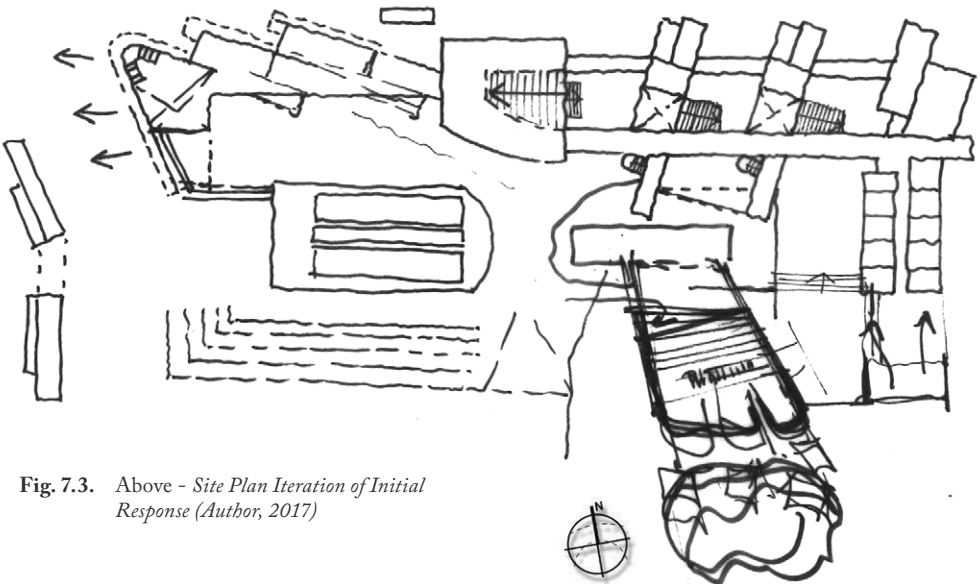

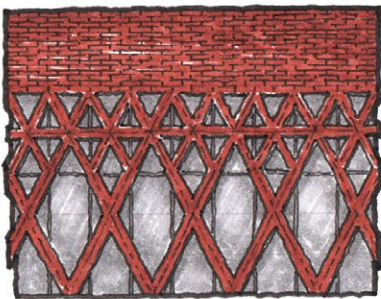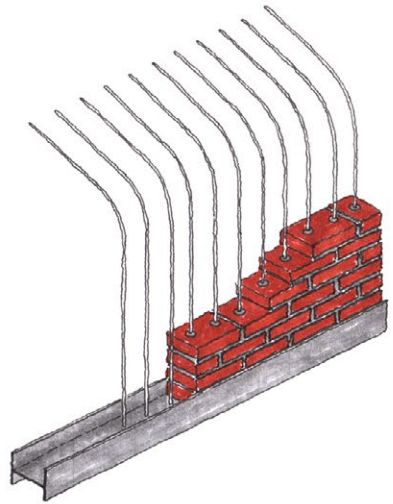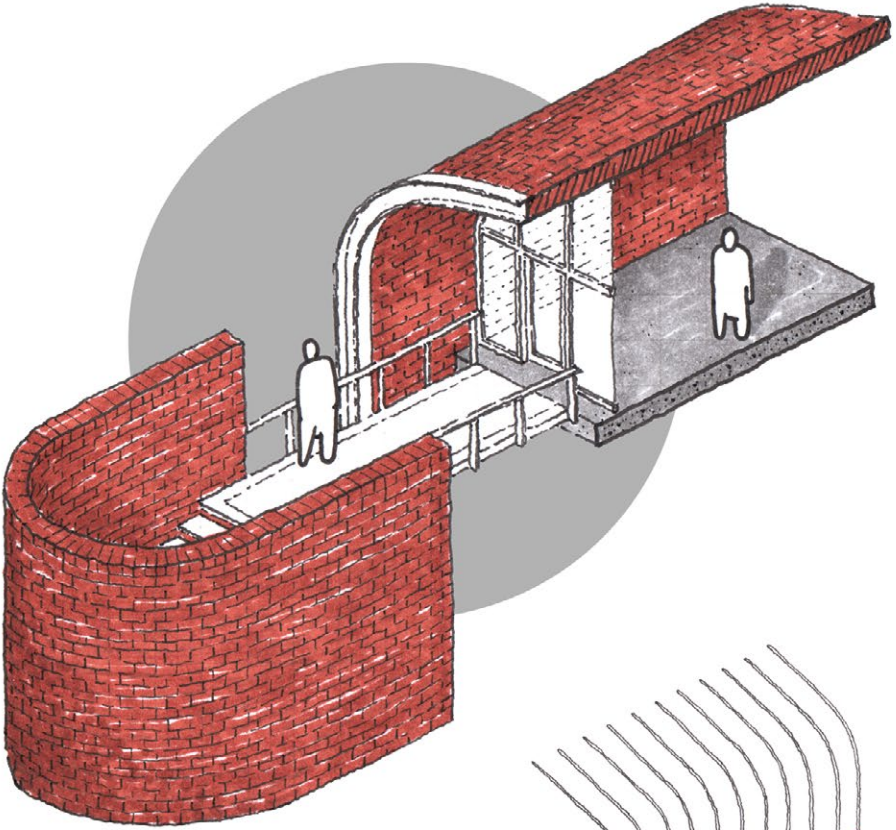**Fig. 7.3.** Above - *Site Plan Iteration of Initial Response (Author, 2017)*

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Fig. 7.4. Top Left - *'Wrapping' of Form to Influence Space (Author, 2017)*

Fig. 7.5. Mid Left - *Masonry Skin / Screen Elevation Development Sketch (Author, 2017)*

Fig. 7.6. Mid Right - *Investigating Construction Medthods For Free-Form Masonry Structures (Author, 2017)*

Fig. 7.7. Bottom Left - *Varying Degrees of Privacy & Transparency (Author, 2017)*

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to address a corner of the park perceived as needing attention.

While this formally-driven iteration was admittedly weak, the layout of the production & exhibition wings were considered to be stronger responses, both creating a range of spaces addressing the northern edge of the precinct, as well as allowing for the intended range of interior as well as exterior spaces addressing both public & cultural interactions.

Moving forward, special attention would be given to reducing the bulk of the building, which was becoming cumbersome. Similarly, space making would be driven by programmatic needs, rather than programs being crammed into formal spaces. Lastly, interactions with the south eastern portion of the park would be entirely reconsidered, in an attempt to avoid similar top-down approaches as that which had taken root in this iteration.

7.4
RESPONSE II:
DEVELOPING A MORE CONTEXTUAL RESPONSE IN CONTRAST TO THE FORMAL PREVIOUS ITERATION

Where the initial response was clumsy & formulaic, this iteration intended to be more contextual, focusing on the making of site-specific spaces, while also attempting a more subtle interaction with the landscape.

Keeping the previous programmatic layout, the design focused on the design of the 'destination' spaces, placing less emphasis on the between spaces such as corridor galleries & service spines, which had become overbearing during the previous attempt. The Exhibition Halls, Residency Galleries, Residency Workshops, & Participation Spaces were kept off-axis as an attempt at creating intrigue from Francis Baard St, which is a one-way moving eastward. The reason for this was to allow the buildings to be opened visually to members of the public passing by, though this did create extremely awkward junctions between areas such as the Residency Galleries, & their Workshop Spaces.

In addressing the park to the south, the proposed additions were greatly reduced, limiting the presentation space to an auditorium space latching onto the eastern façade of the existing museum. This new placement served to concentrate programs slightly more, forming a tighter cultural precinct rather than a collection of loosely-knitted buildings. It also brought the overall design into line in terms the intention of creating a experiential walk-through, in which a multitude of cultural rituals, makings, & by-products could be interacted with.

As for the park itself, a number of terraces were suggested following the significantly under estimated fall of across the diagonal length of the park - with the lowest point seated on the south western corner. These terraces would allow for the implementation of bioswales, adding in catching & cleaning site run off as a means of addressing the maintenance of the park grounds. These terraces would

LEGEND:

1. ATRIUM
2. PARTICIPATION SPACE
3. GALLERY
4. SERVICES
5. LONG DISTANCE TRANSPORT
6. GALLERY
7. CORRIDOR GALLERY

8. ACCESSIBLE ARCHIVES
9. INTERFACE

10. CORRIDOR GALLERY
11. COURTYARD
12. WORKSHOP & STUDIO
13. SELLING GALLERY
14. CORRIDOR GALLERY
15. COURTYARD
16. WORKSHOPS & STUDIOS
17. SELLING GALLERY
18. CORRIDOR GALLERY

19. RECYCLING DEPOT
20. INFORMAL LECTURE HALL
21. LECTURE HALL
22. UN-PROGRAMMED GALLERY
23. PUBLIC/CULTURE INTERFACE
24. PERMANENT COLLECTION

25. RESTAURANT
26. LANDSCAPED SEATING
27. SOCCER FIELD
28. LANDSCAPED TERRACE
29. GAUTRAIN BUS STOP
30. SPATIAL INSTALLATION
31. SCULPTURE GARDEN
32. PUBLIC WATER POINTS
33. BRT BUS STOP

Fig. 7.8. Opposite Page - *Site Plan of Response II (Author, 2017)*

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eventually terminate along the southern edge of the park in public bathrooms, replacing the existing below-ground bathrooms on site which had become exceedingly unsafe. Underground water storage tanks would be placed just north of these bathrooms as storage tanks for the run-off catchment from the terraces. The south western portion of the site was left specifically open & ambiguous, allowing for the variety of user-driven programs to still take place unhindered, though the terraces would at least create some semblance of small, more defensible public space which is lacking in the park's current state.

As for the outdoor spaces created between the existing museum & proposed additions, masonry pergola structure was introduced as a means of signifying the importance of this central space, while also making it more useful for any events the precinct may want to hold outside of the confines of interior spaces. The design of this central space took on a specifically organic layout, attempting to indicate hierarchy of entrance & movement between the park, museum & additions.

Again, this iteration was weighed down by more a huge portion of ill-conceived solutions to a complex web of issues & informants. The shear scale of the project was becoming a block in making decisions concerning individual spaces & qualities, especially in a cohesive, articulated manner. This is immediately obvious (in retrospect) in the clashing of a number of different geometries, with organic hexagons patterns meeting curves & off-axis additions.

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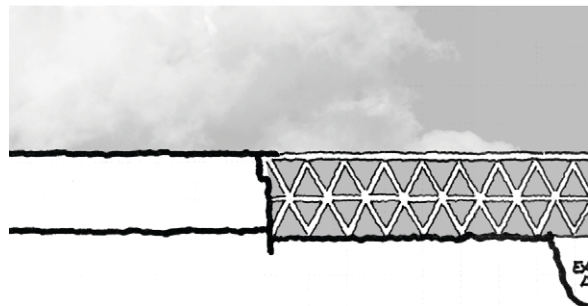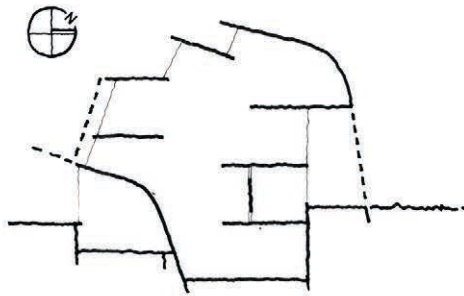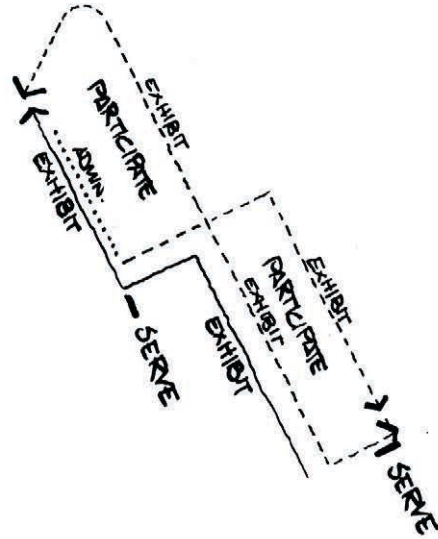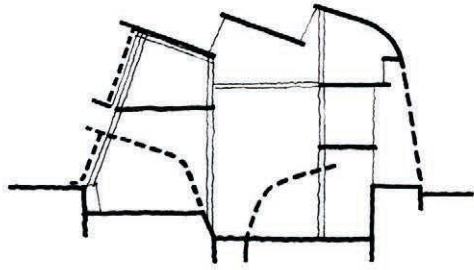
Where the organising of space was still in early developmental stages, the making of a contrasting architectural language was developing well with regards to materiality, form, & haptic qualities. Keeping in line with the initial sketches, the Workshops began to invert traditional stereotomic & tectonic relationships, wrapping heavy masonry skins over double volume workshops, slowly fading into masonry screens as the skins meet the ground.

Conversely, on the eastern side of the structures steel sheeting wrapped around & down the building, allowing roof to meet ground, in a inverse of the same challenging of conventions.

These contrasting materials & perceived 'weight' would overlap between the workshops & service spaces - including Private Studios, Tool Libraries, W.C.'s, & Kitchenettes - which would in turn create a clerestory light, ventilating & lighting the workshops below.

Similarly to the Workshops & Residency Galleries, the Exhibition Halls the idea of space being wrapped by the heavier elements, lifted above the ground floor, maintaining easy accessibility & legibility continued to be developed.

Unfortunately in attempting to define an architectural language unique to the context of Arcadia rather than being based on cultural scenographies, the design became overly complicated, as the old adage says; "too much architecture per square". At the same time the chosen material palette can easily become industrial in aesthetic.

A simplification would be required, from plan, to section, to elevation, one which would synthesis the project intentions once again.

Fig. 7.9. Opposite Top Left - *Sectional Development of Proposed Exhibition Space (Author, 2017)*

Fig. 7.10. Opposite Mid - *Experiential Layout Development of Exhibition Spaces (Author, 2017)*

Fig. 7.11. Opposite Bottom - *Sectional Development of Proposed Exhibition Space (Author, 2017)*

Fig. 7.12. Bottom - *Sectional Development of Proposed Workshop & Courtyard Spaces (Author, 2017)*
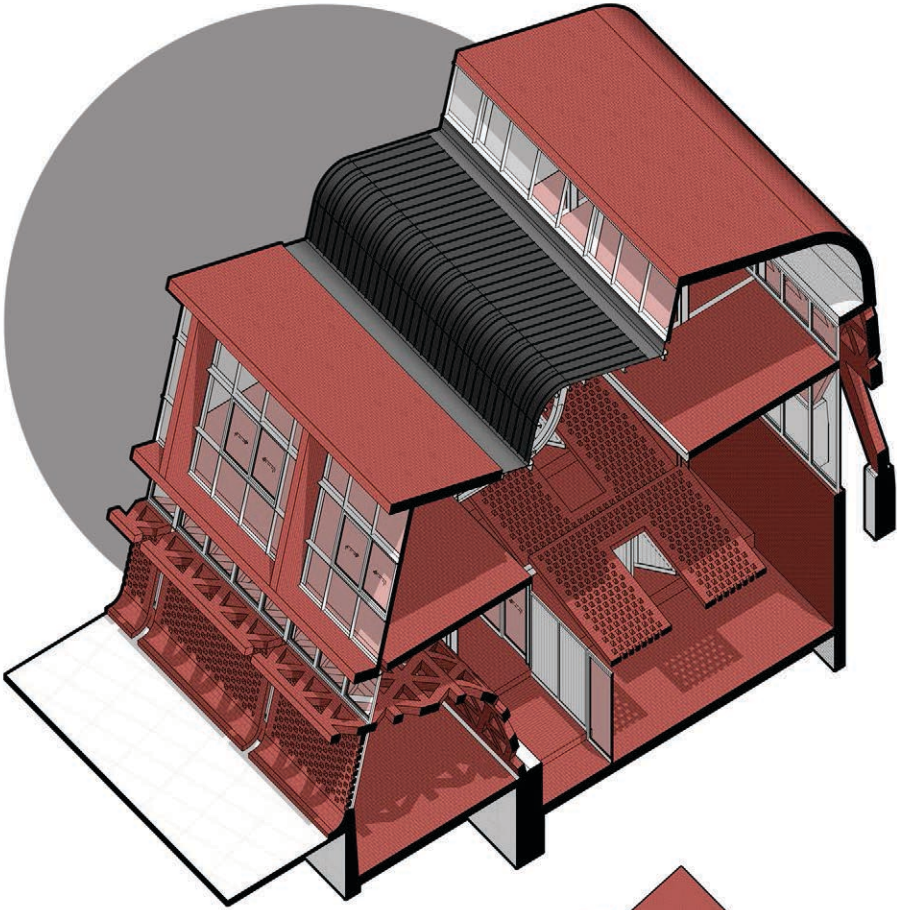

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Fig. 7.13. Above - *Sectional Axonometric Development 1 of Proposed Exhibition Space (Author, 2017)*

Fig. 7.14. Right - *Sectional Axonometric Development 2 of Proposed Exhibition Space (Author, 2017)*

Fig. 7.15. Opposite Top - *Tesselate Brick Structure Supporting Polycarbonate Roofing Axonometric Sketch (Author, 2017)*

Fig. 7.16. Opposite Mid Left - *Stereotomic as Tectonic Masonry Structure above Cultural Interface & Accessible Archives (Author, 2017)*

Fig. 7.17. Opposite Mid Right - *Stereotomic as Tectonic Masonry Structure Corner Junction (Author, 2017)*

Fig. 7.18. Opposite Lower - *Stereotomic as Tectonic Masonry Structure Pergola (Author, 2017)*
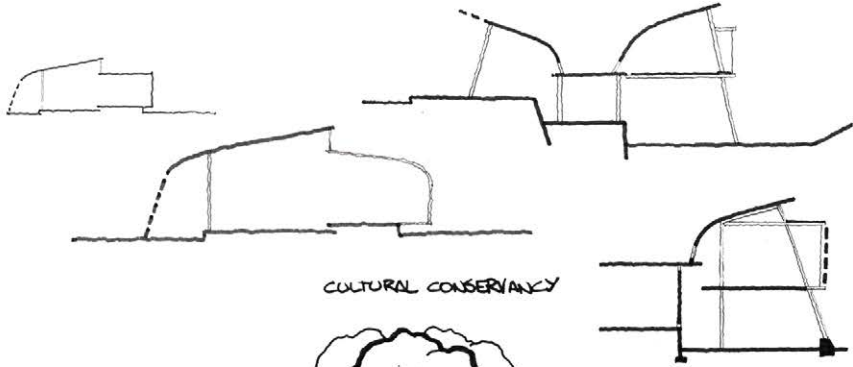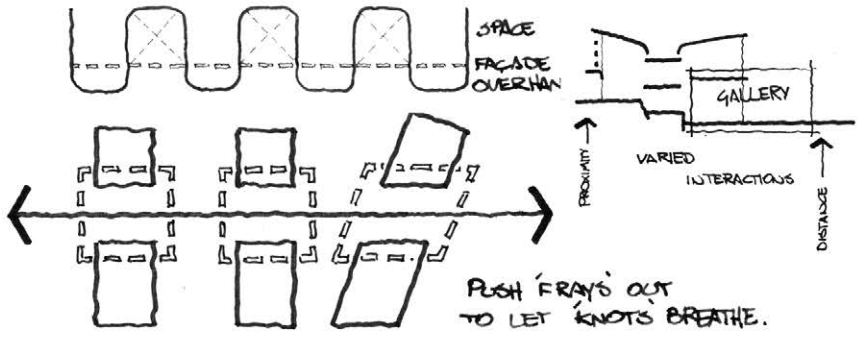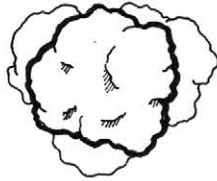
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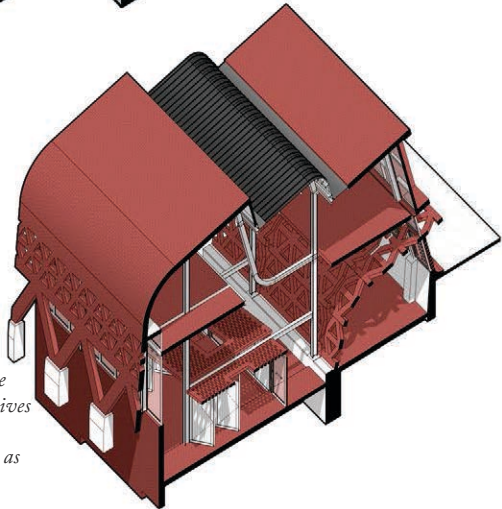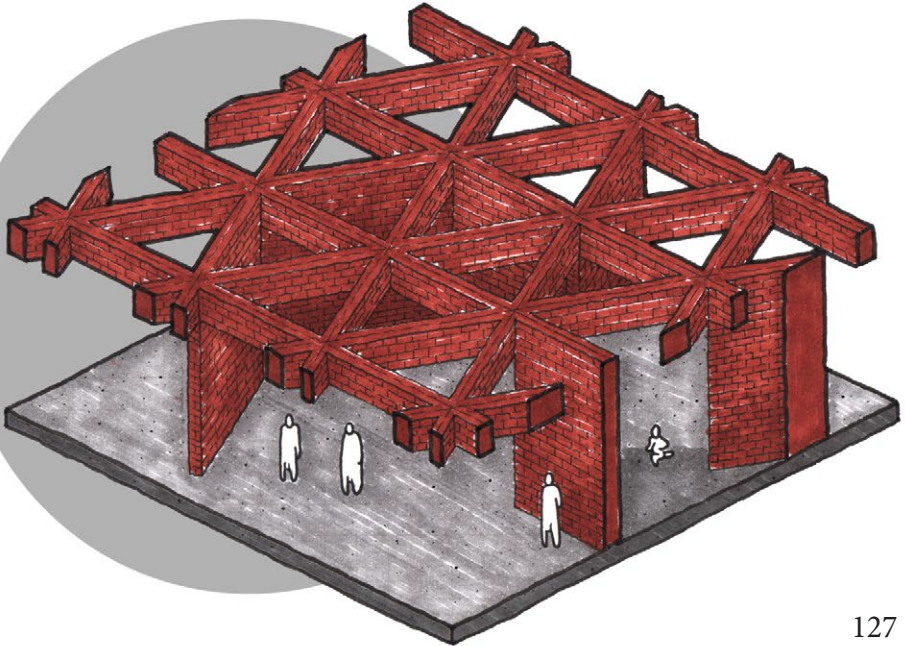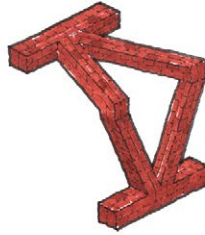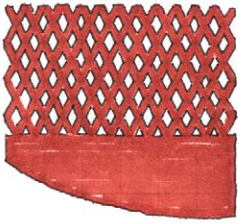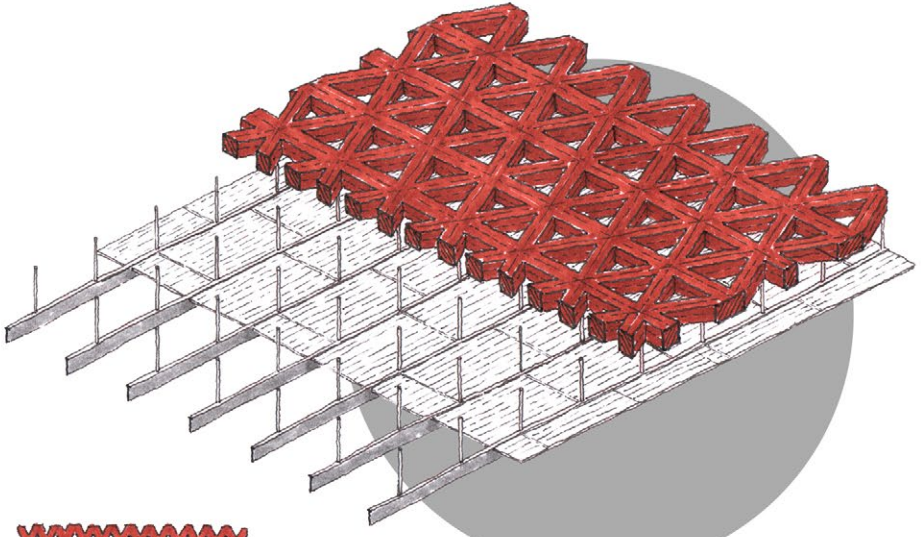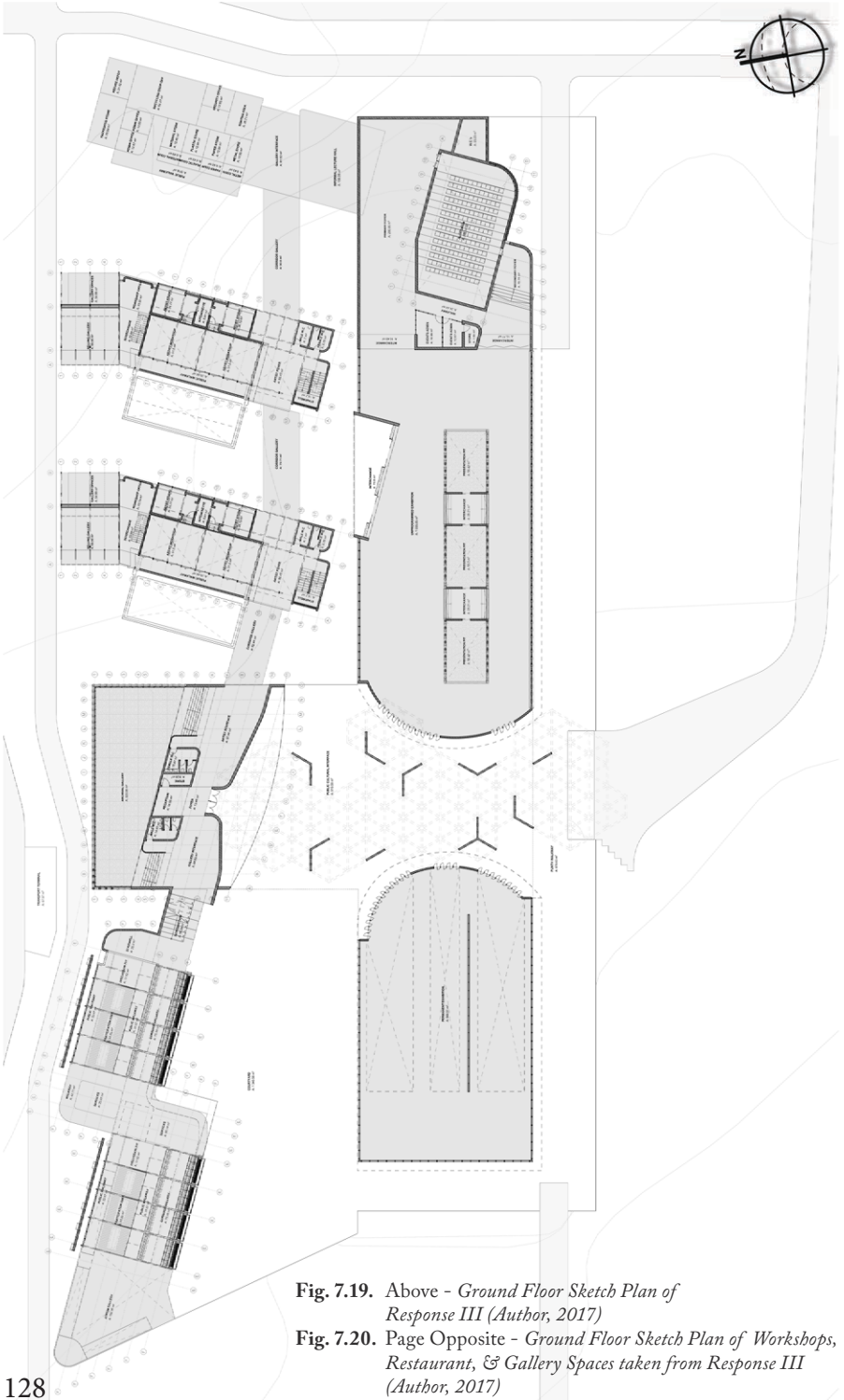
Fig. 7.19. Above - *Ground Floor Sketch Plan of Response III (Author, 2017)*

Fig. 7.20. Page Opposite - *Ground Floor Sketch Plan of Workshops, Restaurant, & Gallery Spaces taken from Response III (Author, 2017)*
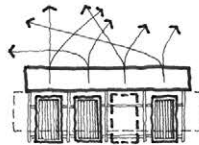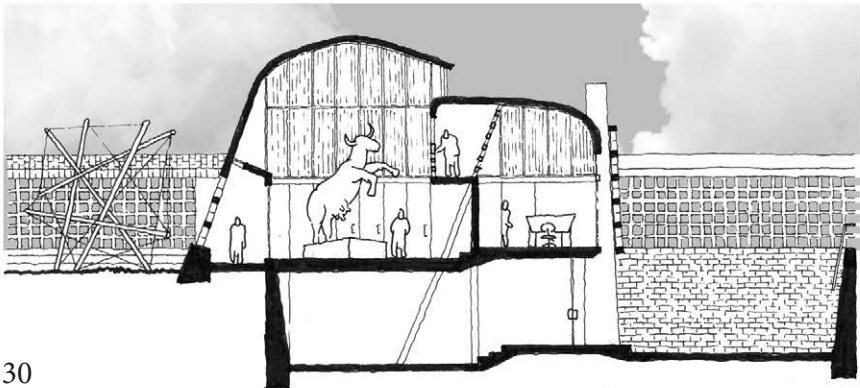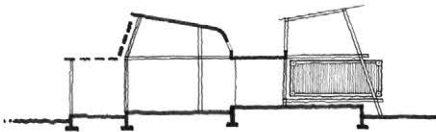
128

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SPACE

FACADE OVERHAN

GALLERY

PROXIMITY

VARIED INTERACTIONS

DISTANCE

PUSH 'FRAY'S OUT TO LET 'KNOTS' BREATHE.

CULTURAL CONSERVANCY

INFORMAL ⟶ ⟵ FORMAL

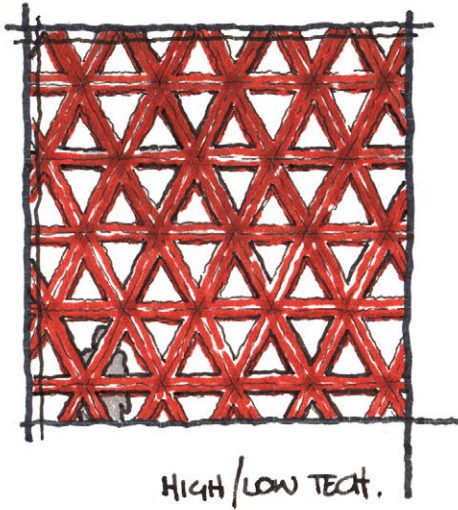ROLLING MATERIAL SUPPLY.

130

HIGH/LOW TECH.

Fig. 7.21. Opposite Top - *Proposed Exhibition Halls Design Development (Author, 2017)*

Fig. 7.22. Opposite Mid Upper - *Sectional Development of Residency Galleries & Exhibition Halls (Author, 2017)*

Fig. 7.23. Opposite Mid - *Informing Ever Changing Cultural Rituals (Author, 2017)*

Fig. 7.24. Opposite Mid Lower - *Sectional Development of Developmental Workshops & Recycling Depot (Author, 2017)*

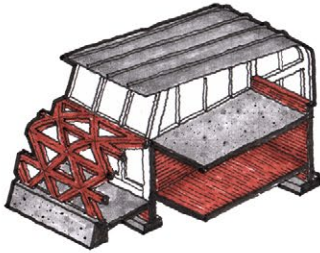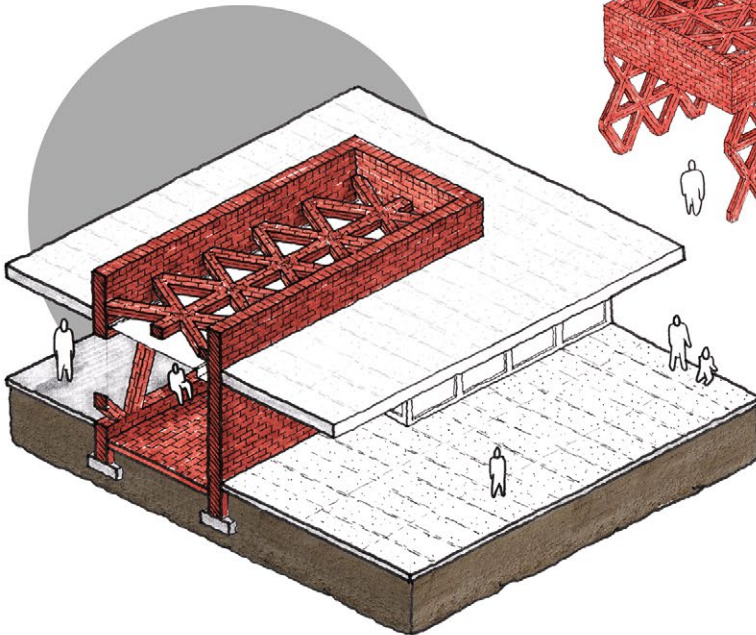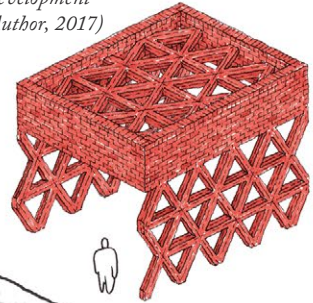**Fig. 7.25.** Opposite Lower - *Sectional Development of Residency Workshop (Author, 2017)*
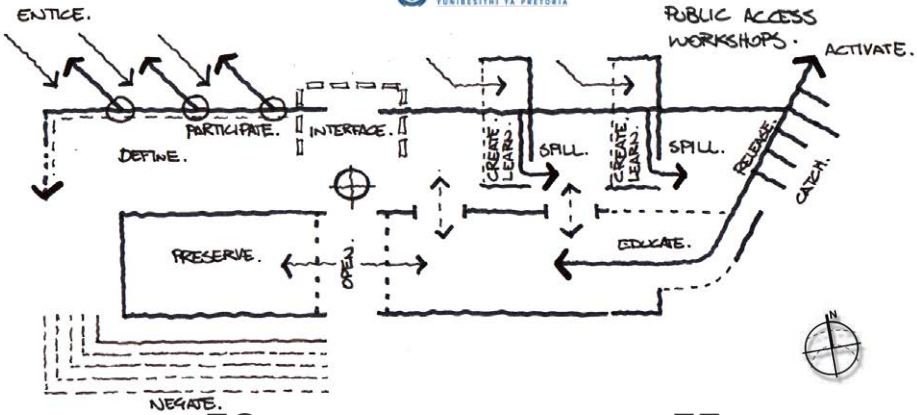
Fig. 7.26. Above - *Brick Tesselate – Low Tech Parametrics (Author, 2017)*

Fig. 7.27. Left - *Residency Gallery Architectural Language Axonometric (Author, 2017)*

Fig. 7.28. Lower Left - *Unprogrammed Exhibit Space inserted into Existing Fabric (Author, 2017)*

Fig. 7.29. Lower Right - *Unprogrammed Exhibit Space Construction Development (Author, 2017)*

ENTICE.
PARTICIPATE.
DEFINE.
INTERFACE.
NEGATE.
PRESERVE.
OPEN.
CREATE. LEARN.
SPILL.
CREATE. LEARN.
SPILL.
EDUCATE.
PUBLIC ACCESS WORKSHOPS.
ACTIVATE.
RELEASE.
CATCH.

7.6
KNITTING EXISTING FABRIC:
REFINING AN APPROACH TO HISTORIC FABRIC

Up to this point, the proposed additions skirted around the existing museum, only opening the central space in attempt to make it a part of the park rather than apart from it. In this iteration, the auditorium was intended to become a connection between the production spaces & the existing exhibits. This was undertaken as completing a cultural journey, allowing users to experience both the processes & products of culture. This still felt clumsy, an intuitive response requiring a lighter touch.

As per the developed Statement of Significance, the most important aspects of the existing museum was identified as being the southern façade & skylights above the western galleries. Furthermore, the horizontality of the museum would have to be maintained, meaning any additions would either have to touch the existing fabric lightly, or set itself back respectfully.

The connections to the museum felt forced, detracting from both the existing & the proposed as the crashed into one another.

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7.7
FINAL RESPONSE DEVELOPMENT:
FUSING SENSITIVITY WITH REACTIVATION

Mistakes are a tool, a means of understanding where to start anew, & where to retain happy accidents.

The previous iterations were no where near perfect, they were at least enlightening as to mistakes that were made over & again, as well as late night doodles that changed the lens through which the design was viewed entirely.

With each fresh iteration of the design process, the design was taken all the way back to the projects intentions, sketching simplified response as a skeleton to be fleshed out. From this point, these sketches were compared to the previous design, allowing for decisions to be made as to what should be retained, tweaked, & thrown out. This process had evolved since the beginning of this dissertation, where early attempts focused heavily on the formal aspects of the design, later analysis became far broader, willing to address form, question program, investigate technology, review haptic qualities, & reconsider materialities. This doesn't imply that, every aspect of the previous iteration was entirely
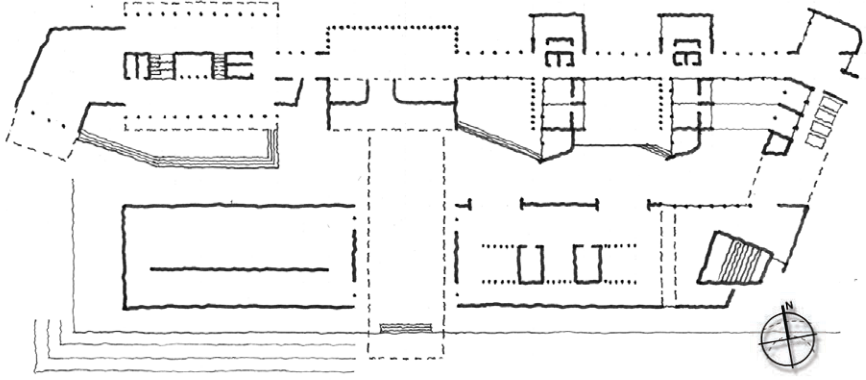
7.8
RESPONSE INTENTIONS:
CLARIFYING THE INITIAL
PROJECT INTENTIONS

disregarded, often certain aspects required only a strengthening before moving on.

During the previous response process, it became clear that there was no defining singular approach in every aspect of the project. The approach to materiality & form began to develop a succinct architectural language, the approaches to site design, street edges, & relationships with extant fabric was still pastiche, requiring further development.

The newest iteration began with distilling intentions for each aspect of the proposed precinct, attempting to better understand what was required of each space contextually, programmatically, & haptically.
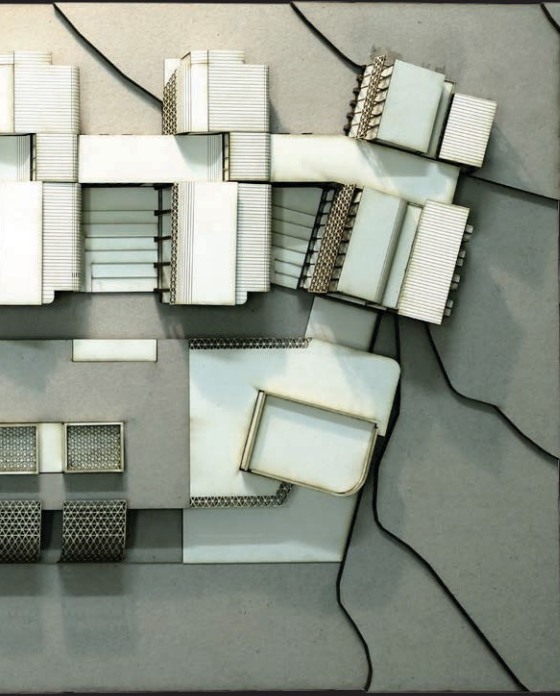
The intentions of the proposed additions to the Pretoria Art Museum & Arcadia Park have been clear from the outset, with each response attempting to propose iterative solutions to the identified issues. This dissertation grapples with a number of contextual issues, some applying to the Global South as a whole, while others remain unique to South Africa, & specifically the city of Tshwane.

In dealing with an existing building, slowly deteriorating in full view of the public, issues of usability had to be dealt with on both a pragmatic as well as esoteric level. At the same time a contrasting architectural language was core to the dissertation, bringing about issues of how to connect to the existing, somewhat iconic museum without the contrasting aesthetics & spaces clashing with one another. Another issue that developed during the course of the design process was the hard barriers between informal & formal activities in & around the site. From the outset the proposed additions were intended to benefit the surrounding community of Arcadia, culturally, publicly, &

Fig. 7.30. Page Opposite - *Distilling Project Intentions Diagrammatically (Author, 2017)*

Fig. 7.31. Above - *Expanding on Project Intention Diagram (Author, 2017)*

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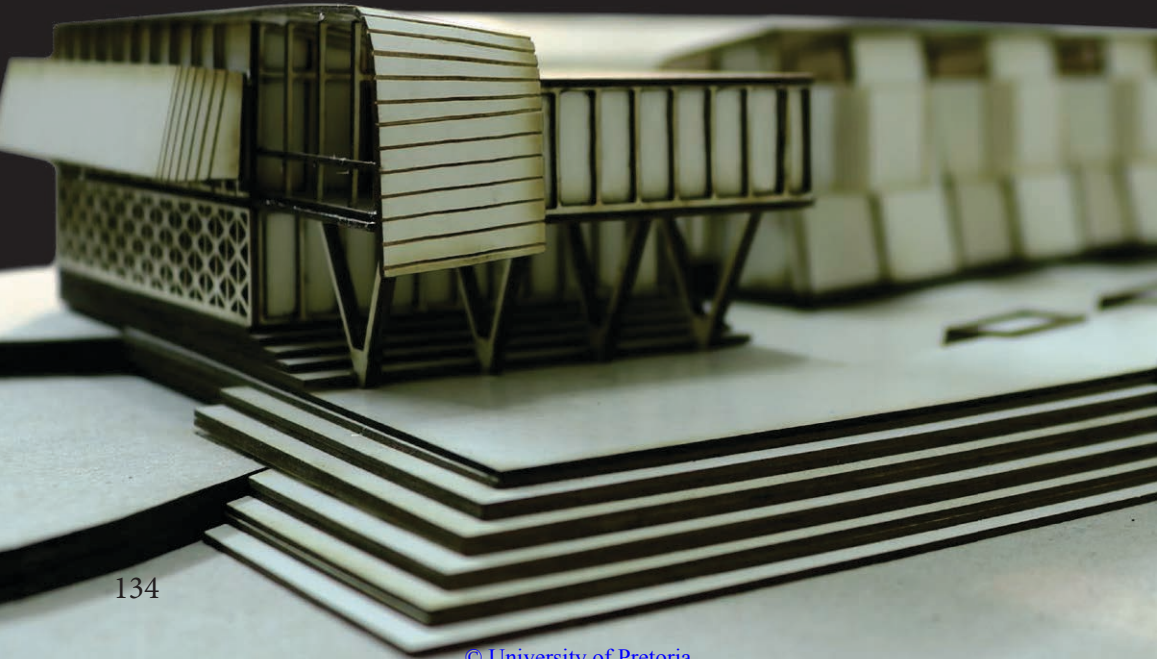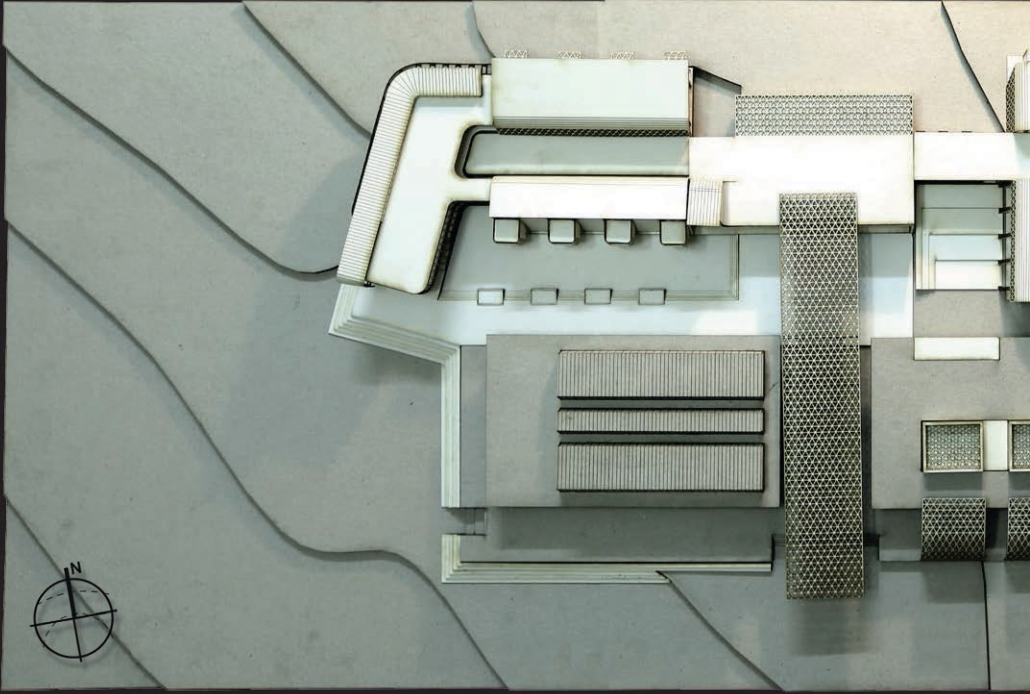
economically, while still being adaptable enough for members of that community to make their own way.

Lastly the proposed additions were intended to deal with the ambiguity of Arcadia Park, which could easily become dominated by illicit activities in its current state. While this ambiguity could be useful in allowing user-driven programs to take root, the scale of the park & indefensible nature made positive public interactions difficult at times. The proposed precinct sited between the existing museum & Francis Baard Street intended to create a scalability of public space, spilling out of & making its way into the buildings of the precinct, rather than creating a definitive boundary between the two.

Fig. 7.32. Left - *Aerial View of Design Development Response IV Model (Author, 2017)*

Fig. 7.33. Below - *Perspective View of Design Development Response IV Model (Author, 2017)*
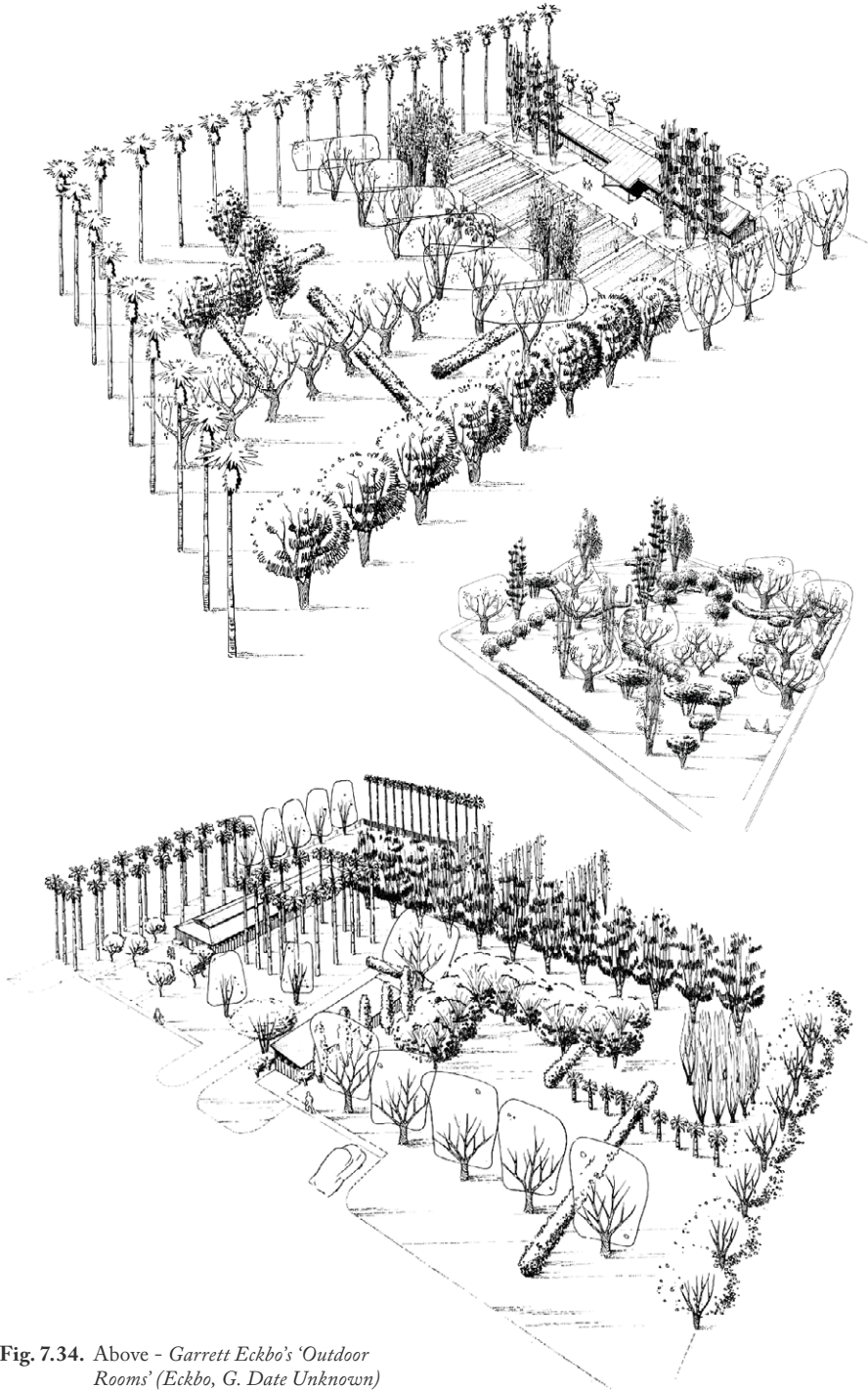
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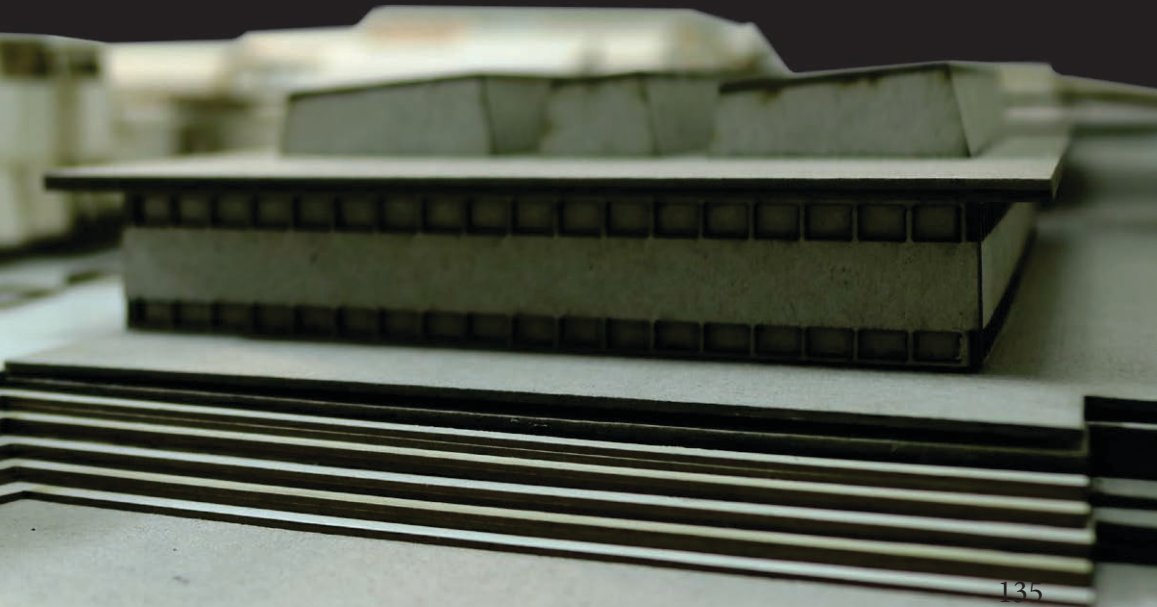
Fig. 7.34. Above - *Garrett Eckbo's 'Outdoor Rooms' (Eckbo, G. Date Unknown)*

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RESPONSE IV - HARDCORE HERITAGE & OUTSIDE ROOMS:
APPLYING A RADICAL HERITAGE APPROACH IN CONJUCTION
WITH LANDSCAPE AS CONTINUATION OF BUILDING

Initially, the Heritage Manifesto - termed *Hardcore Heritage* - drove the projects approach to dealing with the existing museum, which has been carried through right to the final design. In previous iterations, the proposed additions latched onto the existing museum in various ways - though none in a manner complimenting or improving the existing museum. Hence during the latest iteration, the proposed additions pulled back from the museum almost entirely, rather allowing the concept of *Hardcore Heritage* to be the main driver.

Due to the iconic nature of the Pretoria Art Museum - as being somewhat reminiscent of the Barcelona Pavilion - any additions or alterations to the exaggerated horizontality of the structure only detracted from it. While the intention of Netherlands-based RAAAF was not to necessarily address how to add to an existing building - rather only to state architects should be bold in how they deal with them - the firms *Bunker 599* project had an inadvertent influence over this dissertation. Through cutting a meter wide slit through an existing World War Two German Bunker, the firm intended to show the shear bulk if the structure, along with making patent the cramped conditions of the interior spaces. While this was done as a means of making latent, patent, the same principles could be applied to almost every building in a South African climate.

Through the direct opening of existing fabric, new outdoor spaces are created around, & specifically between the existing building - an approach particularly useful for the Pretoria Art Museum - whose exaggerated horizontality creates a hardened façade with sharpened thresholds.

In leaving the existing structure free of additions latching onto it, it is intended that these new between spaces, both between the now opened museum as well as the proposed additions take on characteristics of *Outdoor Rooms* - a concept developed by Garrett Eckbo for dealing with landscape architecture.

Again, while not what the original designer may have had in mind - the idea of treating exterior spaces as part of the program schedule played a huge role in informing the approach to both the site design as well as dealing with the historical aspects of the project.

Combined, the manifesto of *Hardcore Heritage* & the concept of *Outdoor Rooms* when applied to the Pretoria Art Museum & Arcadia Park creates a sensitive historical approach to the existing fabric of an iconic building, while also making the most of exterior spaces around the museum itself. Further improving public space, as well as the relationship between museum & park.

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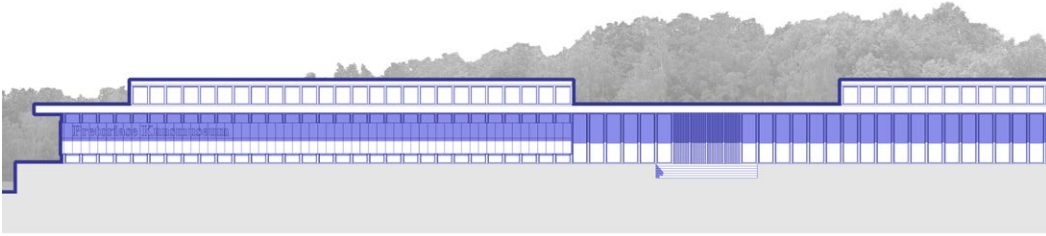
01 EXISTING

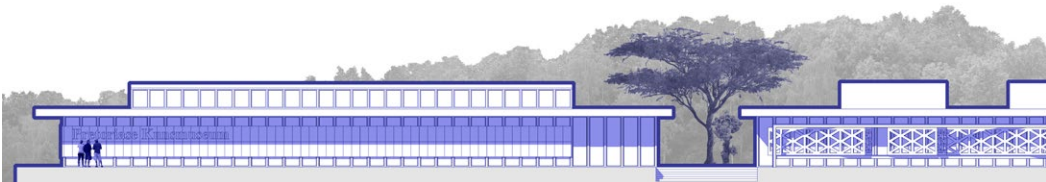## 02 OPENING

03 ADDITIONS

138
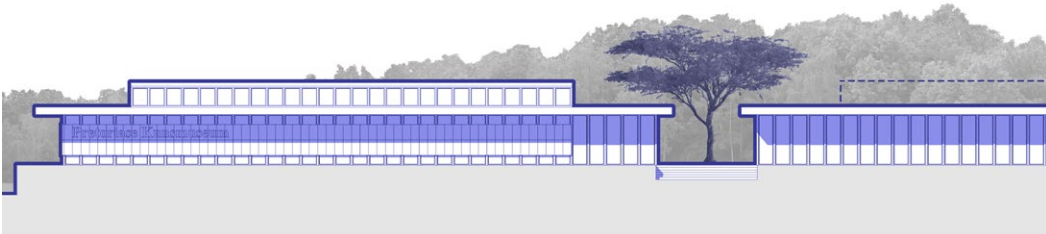
Fig. 7.35. Top - *'Existing' – Diagram Illustrating the Significant Fabric of the Existing Pretoria Art Museum*
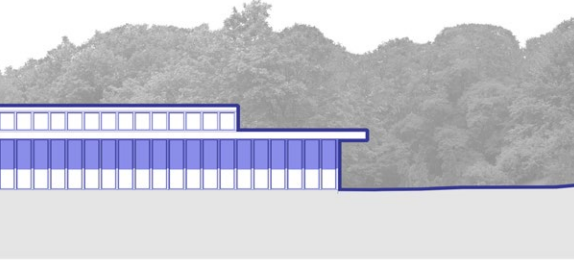*(Author, 2017)*

Fig. 7.36. Mid - *'Opening' – Removal of Identified Material to Reactivate Historic Fabric*
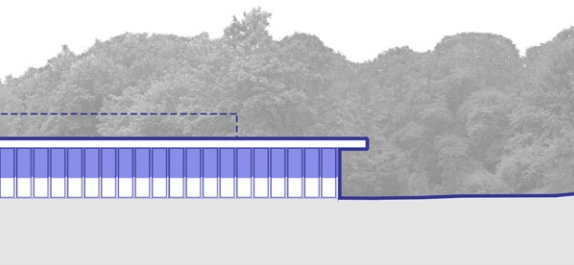*(Author, 2017)*

Fig. 7.37. Top - *'Existing' – Diagram Illustrating the Significant Fabric of the Existing Pretoria Art Museum*
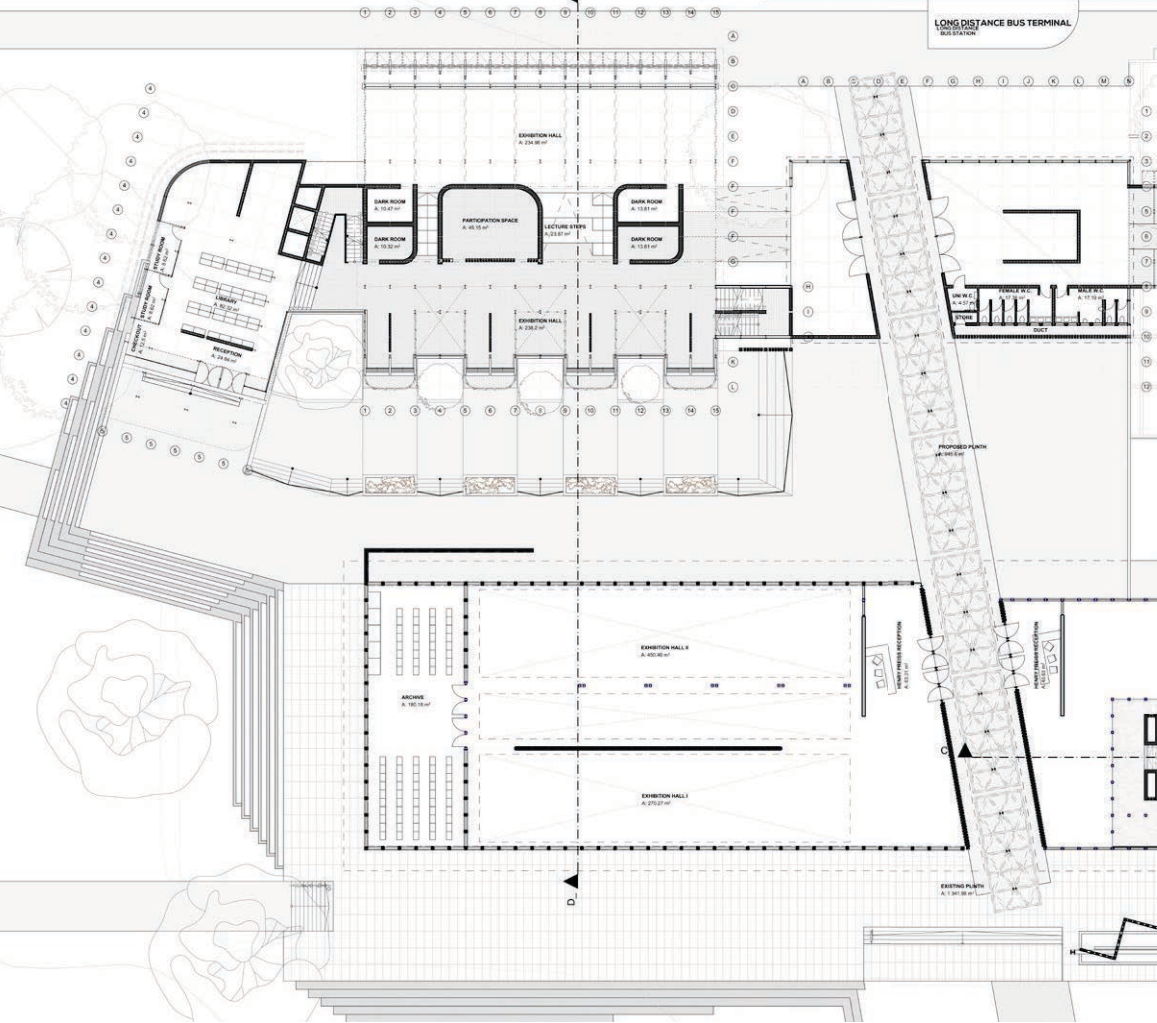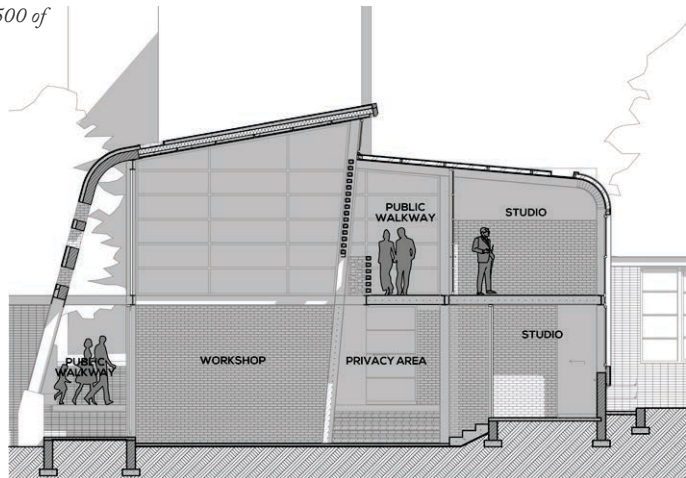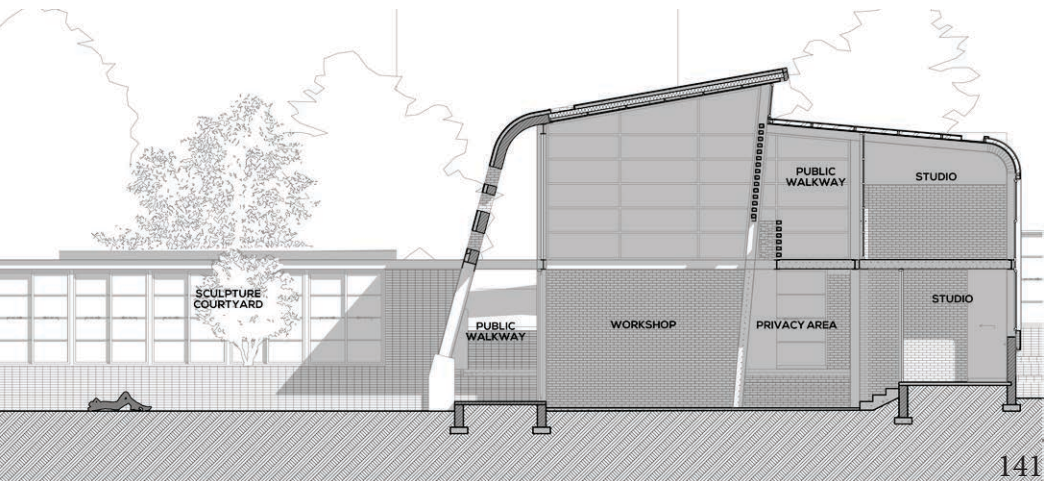*(Author, 2017)*

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Fig. 7.38. Above - *Ground Floor Plan 1:500 of Final Response at writing (Author, 2017)*

Fig. 7.39. Right - *Section A-A 1:200 of Final Response at writing (Author, 2017)*

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PUBLIC
WALKWAY

STUDIO

PUBLIC
WALKWAY

WORKSHOP

PRIVACY AREA

STUDIO

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PUBLIC WALKWAY
A: 20.2 m²

GALLERY STAIRS
A: 33.3 m²

CORRIDOR GALLERY
A: 116.64 m²

GALLERY INTERFACE
A: 85.7 m²

INTERFACE
A: 34.28 m²

W.C.
A: 6.72 m²

FABRICATION FLOOR
A: 37.49 m²

CHANGE ROOM
A: 6.72 m²

B

KITCHENETTE
A: 15.74 m²

PUBLIC WALKWAY
A: 35.97 m²

WORK BENCHES
A: 37.49 m²

TOOL LIBRARY
A: 21.45 m²

STAIRWELL
A: 11.03 m²

FOOD

143
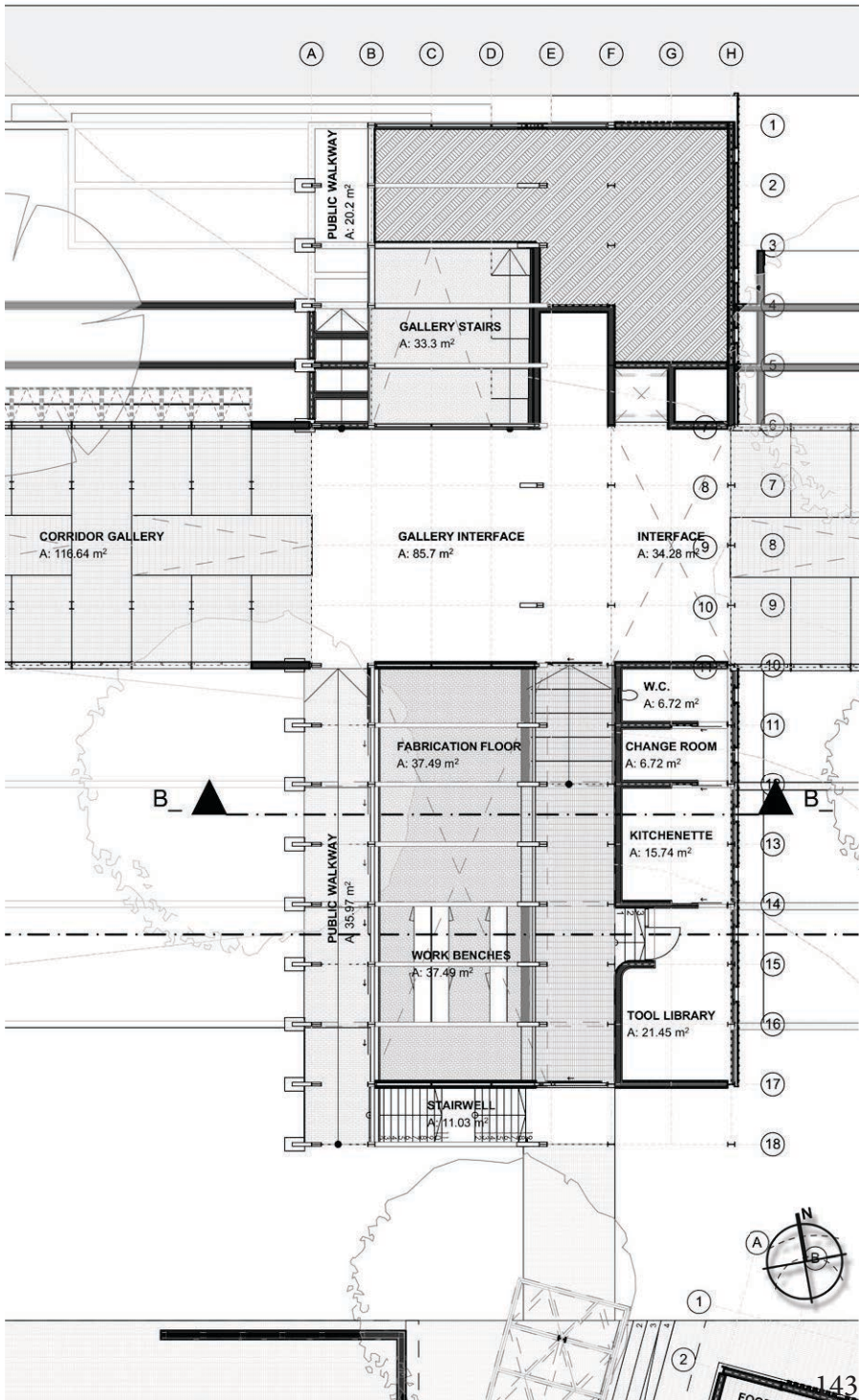
EXISTING MUSEUM:

Weather Foyer
Reception
Corobrik Ceramic Collection [1]
Exhibition Hall I
Exhibition Hall II
Projection Room [2]
Library & Catalogs [3]
Children's Gallery [4]
Curator's Office [5]
Archives [6]
Fan Room
Picture Store
Change room [7]
Transformer Room
Store Room
Workshop & Store
W.C.'s
Custodian Store
Albert Preiss Hall
Staff Office [8]
Secretary Office
Curator's Office
Strong Room
Staff Office [9]
Board Room [10]
Private Library & Prints
Store Room [11]
Temporary Gallery [12]
Permanent Collection Hall [13]

Legend:

[•] Programs Removed
[•] Programs Adapted
[1] Inquiries
[2] Unknown Later Addition
[3] Reflection Pond
[4] Unknown Later Addition
[5] Secondary Entrance
[6] Unknown Later Addition
[7] Non-European W.C.'s
[8] Typist Office
[9] Restoration
[10] Work Room
[11] Unknown Later Addition
[12] Team Room
[13] Sculpture Courtyard

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EXISTING PARK:

Museum Walkway
Plinth
Museum Parking
Sculpture Garden
Park
Male Public W.C's
Female Public W.C's
Workshop

PROPOSED PUBLIC:

FORMAL:
Coffee Shop
Sculpture Garden
Architectural Installation Platform
Amphitheatre Seating
Male Public W.C.'s
Femal Public W.C.'s
Public Water Access
Wi-Fi Hotspots
Gautrain Bus Loop Station
Park Street BRT Station
Francis Baard Long Distance Station
Public Bicycles
Bioswales

INFORMAL:
Art Spaza Shops
Economic Infrastructure
Fountain
Sport Field

PROPOSED CULTURAL:

PRODUCTION:
Workshop Interface
Residency Galleries
Residency Workshops
Residency Studios
Tool Libraries
Kitchenettes
Change Rooms
Unisex W.C.'s
Corridor Galleries
Curator Offices
Goods Lifts
Public Walkways

UPLIFTMENT:
Harrie's Pancakes
Interior Seating
Service Counter
Show Kitchen
Restaurant Gallery + Shop
Shared Workshops
Shared Studios
Public Walkway

PRESENTATION:
Auditorium
Foyer
Noise Foyer
Discussion Room
Coffee Shop Service Counter
Interior Seating Area

CONVERTED:
Unprogrammed Exhibition Hall
Presentation Pits
Reception
Permanent Collection Exhibition
Accessible Archives

EXHIBIT:
Exhibit Interface
Exhibition Halls
Participation Spaces
Dark Rooms
Lecture Steps
Gallery Collectives
Library
Study Rooms
Curator Offices
Admin Offices
Study Rooms
Archives
Catalogs

SERVICES:
Unisex W.C.'s
Kitchenettes
Change Rooms
Goods Lifts
Work Kitchens
Scullery
Dry Stores
Cold Stores
General Stores
Custodian Office
Manager's Office
Female W.C.'s
Male W.C.'s
Universal Access W.C.
Machine Rooms
Security Offices
Loading Area
Vertical Circulation
Precinct Admin Offices

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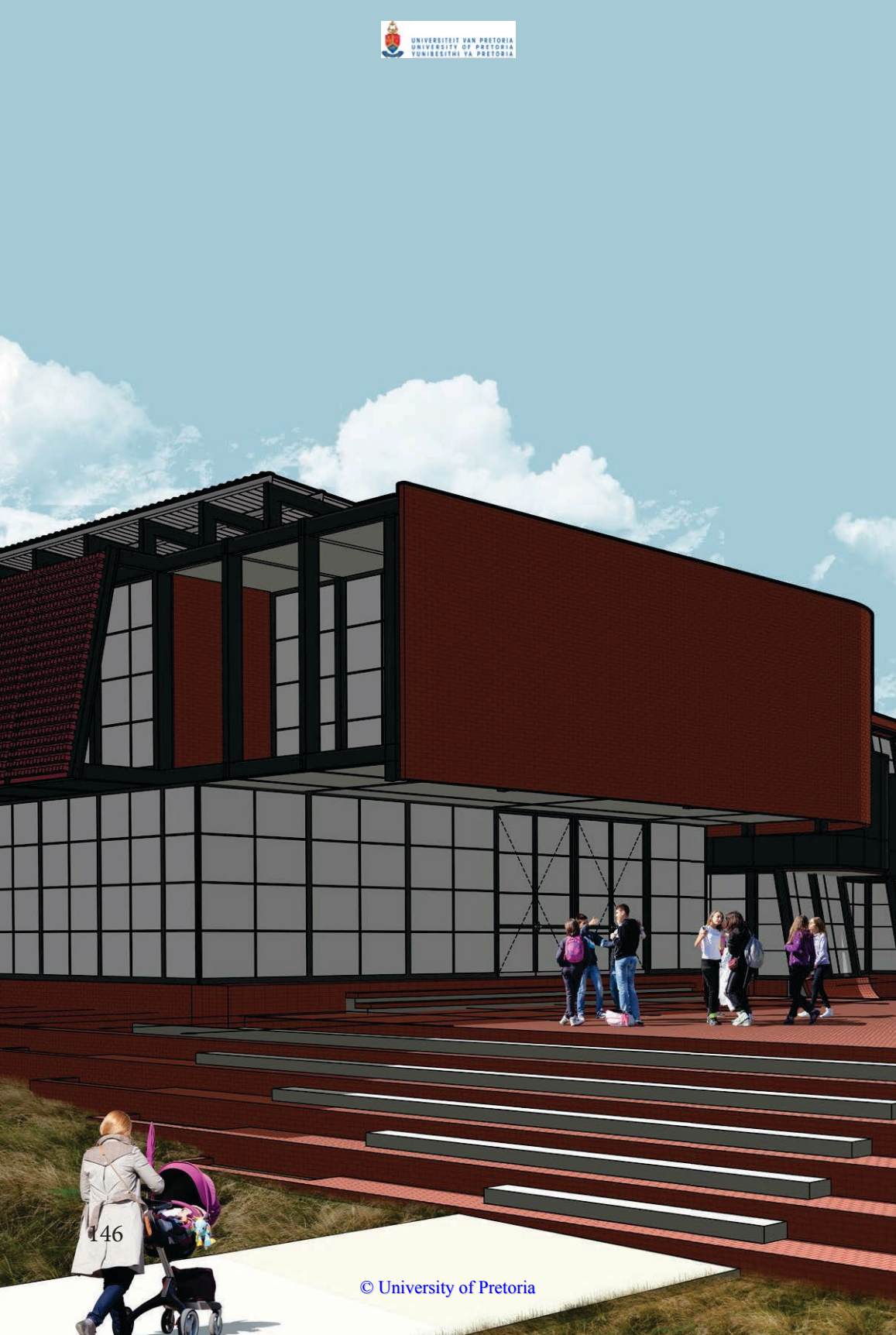
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Fig. 7.42. Full Spread - *Tshwane Arts Precinct Perspective 1 – Library / Gallery Courtyard / New Exhibit Halls / Existing Museum (Author, 2017)*
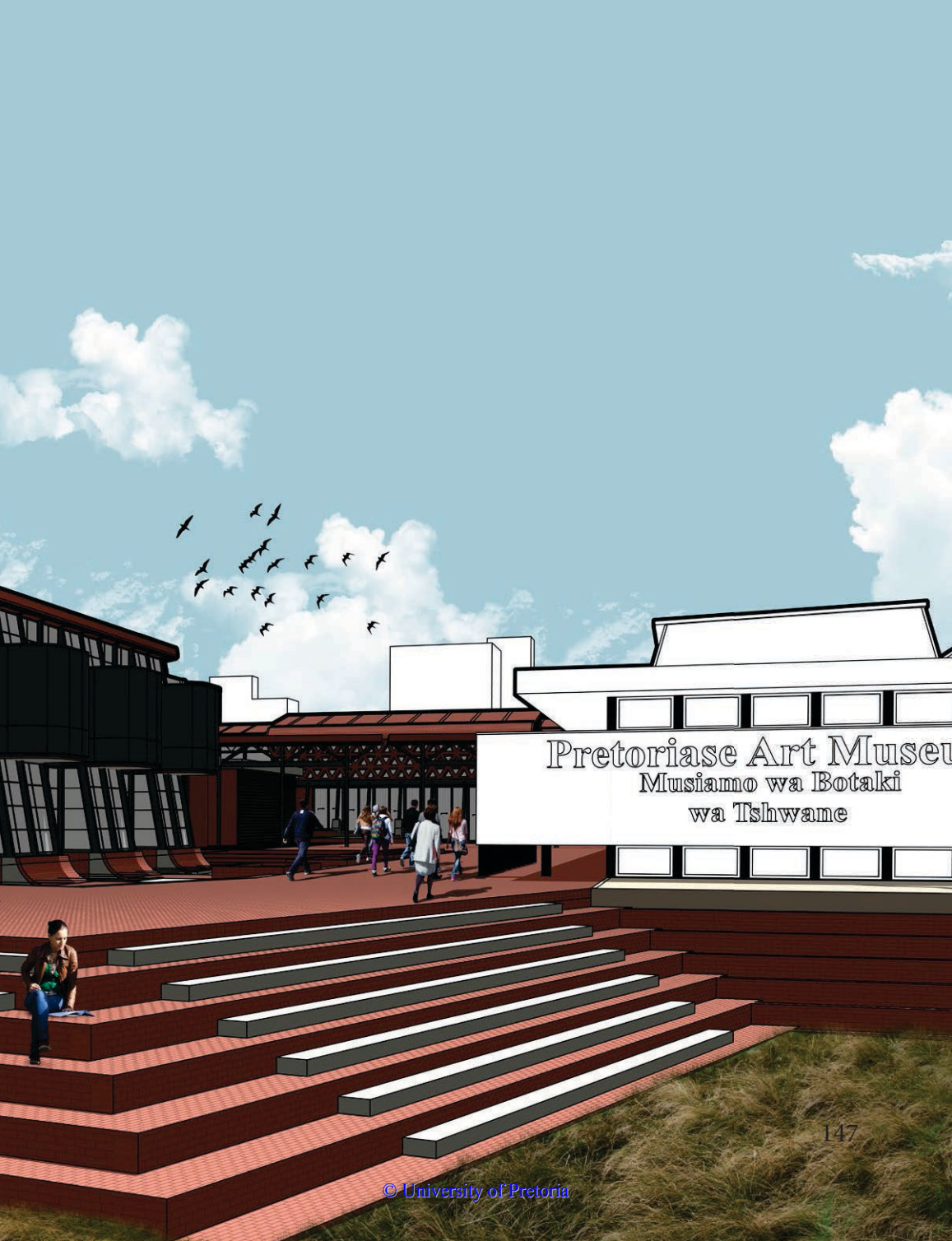
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Fig. 7.43. Full Spread - *Tshwane Arts Precinct Perspective 2 – Residency Workshop / Residency / Gallery / Corridor Gallery / Workshop Courtyard (Author, 2017)*
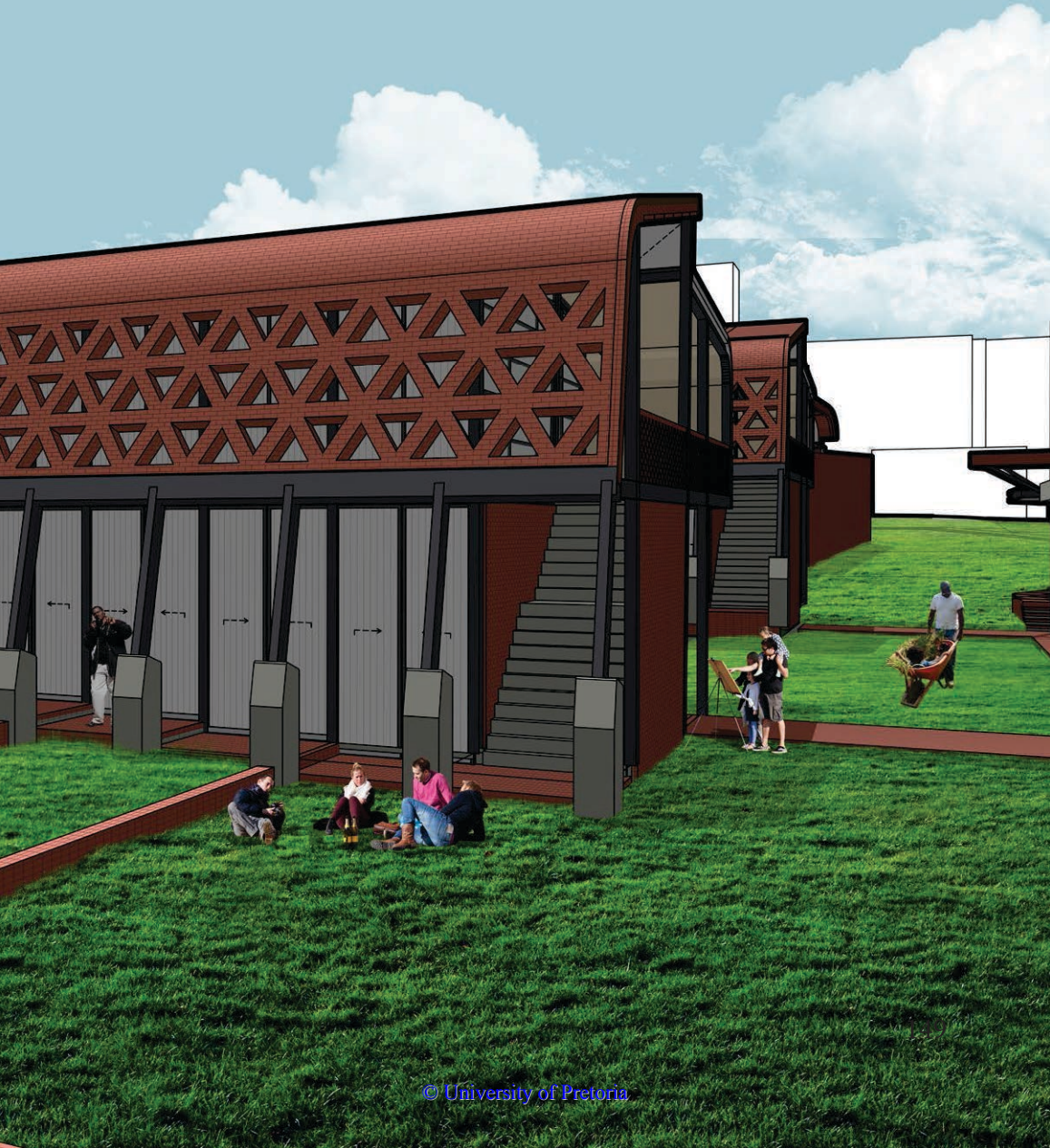
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Fig. 7.44. Full Spread - *Tshwane Arts Precinct Perspective 3 – Francis Baard St Side Walk / Residency Galleries / Sculpture Gardens (Author, 2017)*

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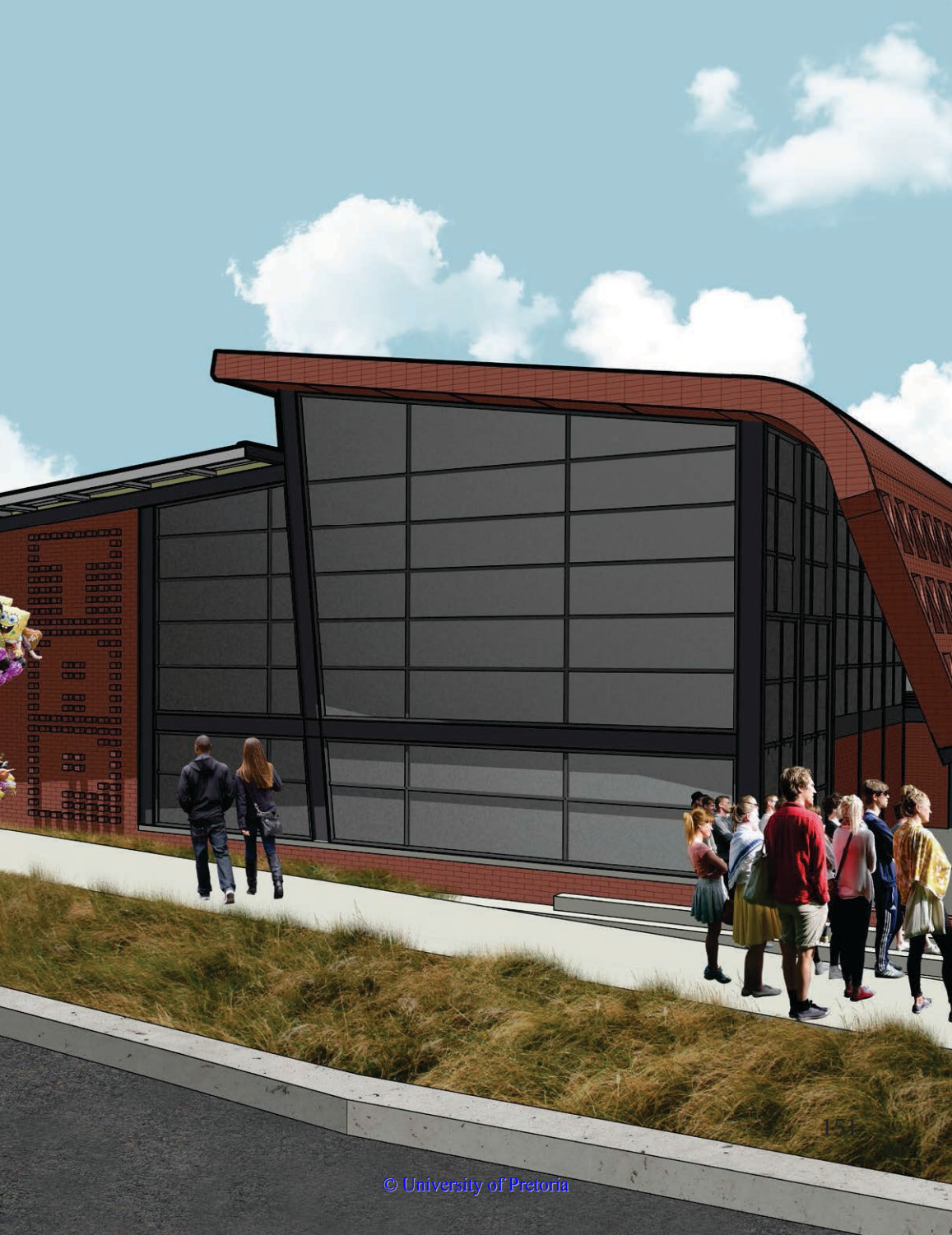
08

This chapter explains the resolution of the technical as well as poetic elements inherent in the crafting of a building - through the exploration of approach, tectonic concept, structure & skin, materiality, & systems & services.

Furthermore this chapter will delve into the crafting of a building as a direct response to issues, informants, & intentions, with the construction of the proposals serving as a manifestation of this synthesis.

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08

TECHNÉ
& TECHNICAL

8.1
TECTONIC APPROACH:
DEFINING METHODS TO CONVEY INTENTIONS THROUGH
TECHNÉ & TECHNICAL RESOLUTION

As with the design process, the development of the technical resolution of this project was undertaken in response to the existing park & museum, forming a number of requirements from the proposed additions in terms of: tectonic / stereotomic relationships, materiality, systems, & structure.

From the outset the intention was to proposed additions to the site that would stand in contrast to the existing museum for a number of reasons, most important of which was that the additions had to mend the relationship between the park & the museum - & thus between cultural & public realms - as well as attempt to address the

relationship between the architectural language of the existing museum & that of the developing societal language of Arcadia around it.

In beginning to form the response of the additions, the museum itself had to be investigated technologically, to better understand its strengths & weaknesses.

Designed as a local reinterpretation of the Barcelona Pavilion (designed & completed by Mies van der Rohe in 1929 - Barcelona, Spain), the architects of the Pretoria Art Museum undertook extensive research visits to museums across Europe as to better understand the importance of correct

Fig. 8.1. Below - *Pretoria Art Museum v.*
Barcelona Pavilion (Author, 2017)

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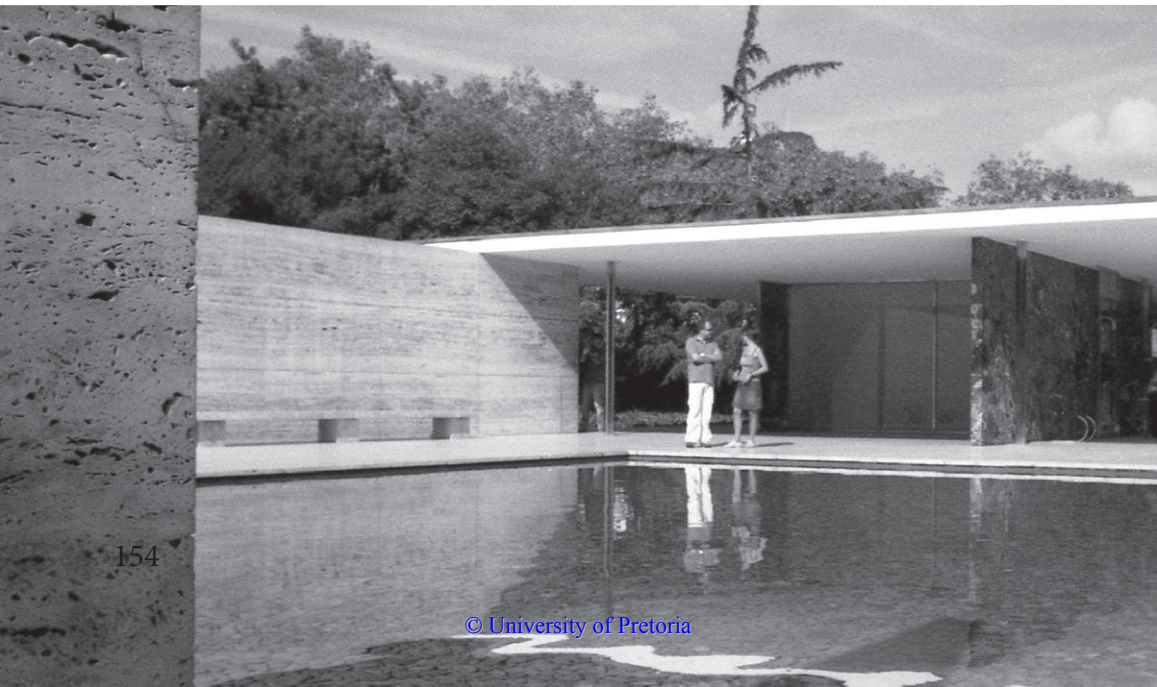
lighting for artworks, as well as to investigate how 'museum fatigue' can be negated (Doherty, 1964). The technical development of the museums exhibition sky lights was considered to be particularly effective in addressing the original intentions. This resolution - along with the granite cladding - led to a highly technical building being constructed, a building in line with the urbane middle class society said building was intended for.

Unfortunately this architectural language eventually became a barrier to a new society hoping to transition into the middle class after the fall of Apartheid (Census, 2011).

This change in understanding of the museum's architectural language is the basis for the approach to the technical resolution for this dissertation, as an investigation into how form, structure, technology & materiality can influence how architecture is received in the public realm.

In the resolution of the design, the intention is to leave the architectural language of the museum intact, as per the heritage approach. The resolution of both the technical as well as techné elements of the projects should convey a sense of accessibility in the crafting of every aspect.

8.2
TECTONIC CONCEPT:
INTERTWINING CONSTRUCTION & DESIGN
TO FORM A *TECHNÉ* RESPONSE

The tectonic concept was developed as a continuation of the design concept: *Contrast Intertwined.* Similar to the design approach, the technical resolution was intended to be a mirror to that of the existing museum, where structure, systems, & services are implemented seamlessly, the proposed additions would join & separate the various elements of building in an effort to make their individual contribution to the making of space & shelter patent.

As per the design concept, the design & technical resolution became deeply intertwined, with both resolutions developing simultaneously. This meant that the approach to the construction of the project has gone through almost as many iterations as the design itself.

Separating the concept into parts, the effects of 'Contrast', & 'Intertwining' are intended to be made patent in every aspect of the proposed additions. Where the wrapping of Masonry skins exudes

an idea of craft, the prefabricated steel portal structure contrasts this craft in its expediency & accuracy, contrasting building techniques. The intention is to intertwine the various elements of a building across all means, through skin, structure, form, material, services & systems, making each varyingly latent, & then patent to emphasis the concept where necessary.

In the intertwining of 'contrast' elements such as crafted skin & prefabricated structure, this dissertation looks to intertwine the poetics & pragmatics of construction. In doing so, the forming of an architectural language as a representation of Arcadia & its society would be one of mediation, between technological drive & cultural yearning.

The use of material, structure, & envelope in this regard would go against convention, hopefully igniting curiosity for users to do the same .

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Fig. 8.2. Below - *Roof / Wall Junction Detail Development (Author, 2017)*
Fig. 8.3. Bottom - *Intertwining Crafted Identity (Author, 2017)*
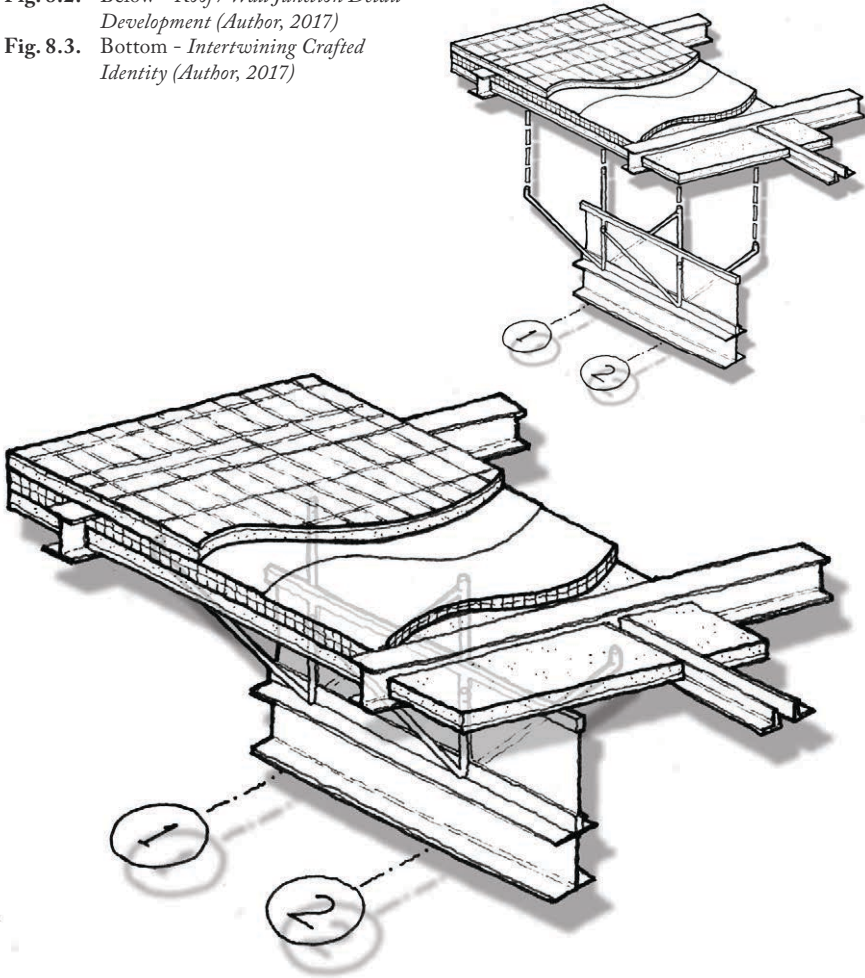
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Masonry units are the most used building material in the world, employed by every context, culture, & class (Benitez, 2014).

This quantity of use unfortunately does not translate into quality of innovation. Day in, day out, one brick is stacked on another in the same manner, plastered over, & rarely celebrated.

The architect Solano Benitez suggests that the manners in which brick is employed by architects should serve as examples of what can be done with a material requiring almost no construction skills or finishes. Many of the buildings erected throughout the world never pass through the hands of a trained architect, Benitez therefore argues that every structure that does should stand as precedent for what can be achieved even with the simplest of materials.

This approach to materiality defines the basis of this dissertation's materiality manifesto. As a part of the Global South, a large portion of South Africa's construction labour force remains low in terms of skill levels, with roughly 50% of labourers on site being unskilled (CIDB, 2007).

"There is an incredible way of building that we have forgotten and my adventure was to understand and rectify that, which lead me back to authenticity." (Rich, 2016)

Fig. 8.4. Page Opposite - *Bricked-In Window, Joe Slovo Informal Settlement, Johannesburg (Author, 2013)*

In the making of the Mapungubwe Interpretation Centre, architect Peter Rich revived traditional timbrel vaulting systems in conjunction with local produced masonry tiles in the forming of a sensitive vernacular building, mirroring the granite koppies of the surrounding area (Archdaily, 2010). In doing so, Rich challenged what had become conventional approaches to masonry construction in a South African context. In the making of this building, the architect went a step further, employing the raw materials of the site along with the skills of the surrounding rural communities to produce the handmade masonry tiles required in the vaulting systems. While this was undertaken due to the isolated nature of the site, it also allowed for skills development in the surrounding communities to be undertaken.

There is an inherent understanding of the versatility of brick in South Africa society - as seen in Fig. 8.4 opposite - , this dissertation aims to make use of this versatility, incorporating it into the very crafting of the *techné* of the proposed buildings. Similarly, the technical resolution of the building should also aim to innovate in the process of masonry construction, employing the material in every possible manner, both insitu as well as off-site, in structural elements, as well as finishes.

"Even A Brick Wants To Be Something." (Khan, Date Unknown)

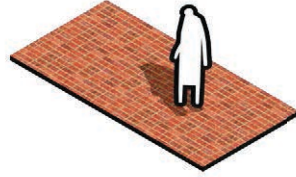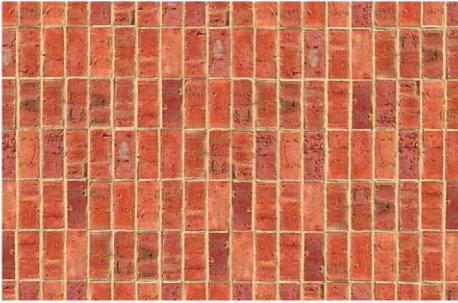159

Fig. 8.5. Below - *Soldier Bond Language*
(Author, 2017)

Fig. 8.6. Below - *Stack Bond Language*
(Author, 2017)

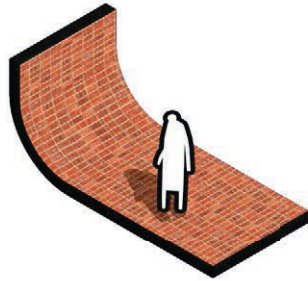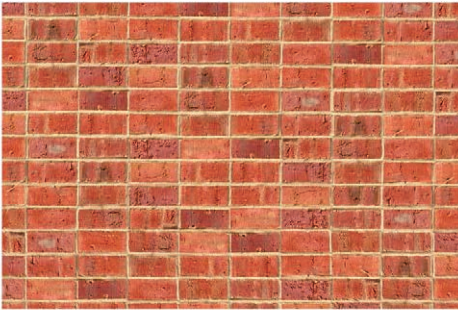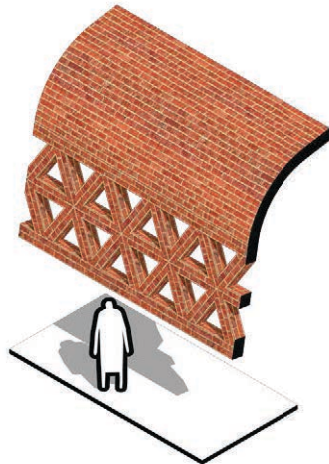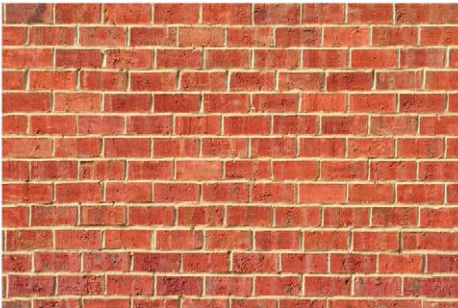**Fig. 8.7.** Below - *Running Bond Language*
(Author, 2017)

160

8.4
LANGUAGE OF BRICKS:
SPATIAL APPROACHES DEFINED THROUGH MATERIAL PATTERNS

SOLDIER BOND:
Defining movement areas, both internal & external. This is done to suggest paths to follow, without compelling organic movement & interaction.

STACK BOND:
Used as a transition between wall & floor. Following soft curves, this bond lends itself to continuity of surface.

RUNNING BOND:
Structural elements retaining a traditional running bond to maintain interlocking strength.

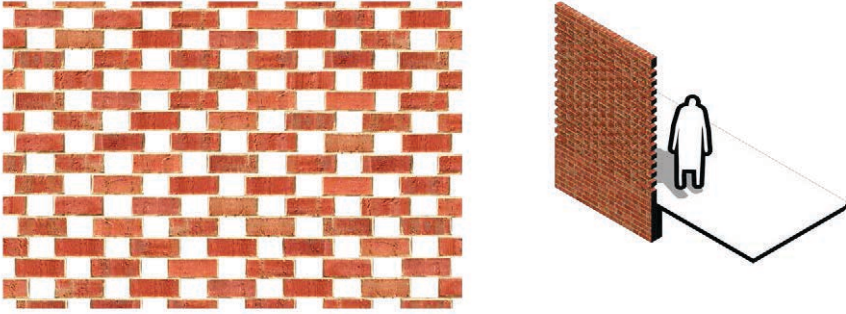161

Fig. 8.8. Below - *Flemish Screen Language*
(*Author, 2017*)

Fig. 8.9. Below - *Flemish Bond Language*
(*Author, 2017*)
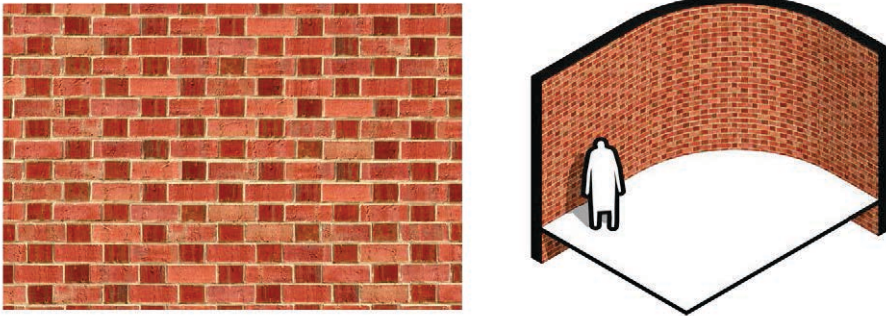
Fig. 8.10. Below - *Basket Weave Pattern Language*
(*Author, 2017*)

162
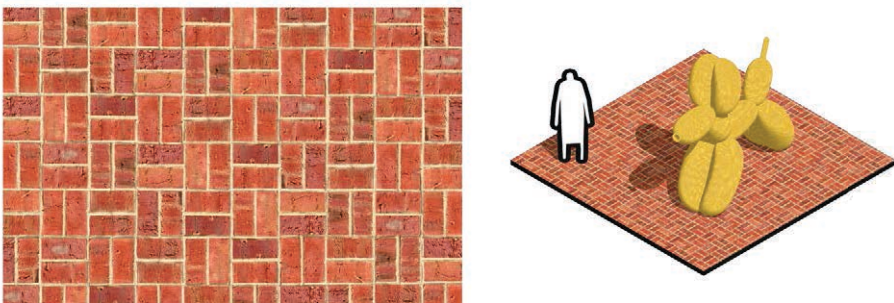
FLEMISH SCREEN:
Used as protection from solar gain on exterior surfaces, this screen doubles as a visual link between seprarated interior spaces.

FLEMISH BOND:
Through specifiying a darker brick for the interlocking bond, the vertical surfaces gain emphasis of material through both colour & bond.

BASKET WEAVE BOND:
Spaces requiring pause are manifested through a Basket Weave paving representing a certain spatial hierachy.

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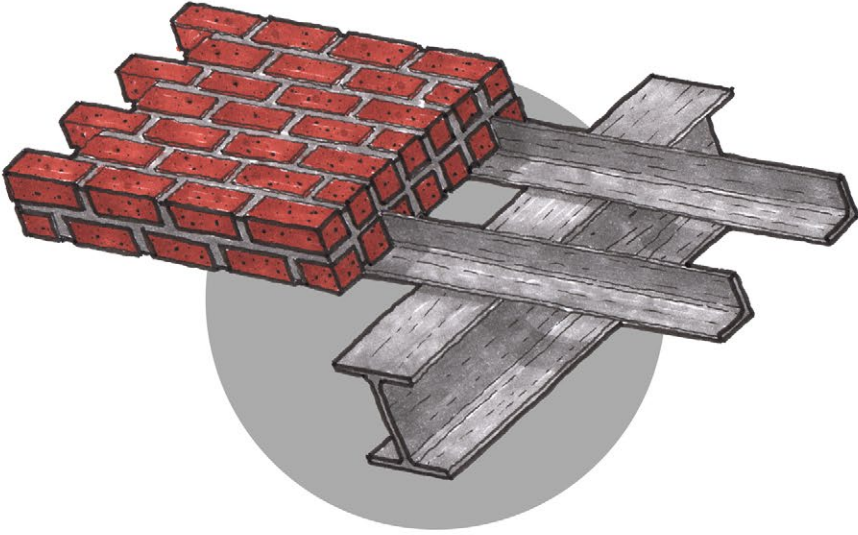
Fig. 8.11. Above - *Masonry Roof Detail Development Axonometric Sketch (Author, 2017)*

Fig. 8.12. Below - *Masonry Skin Detail Development Axonometric Sketch (Author, 2017)*

Fig. 8.13. Opposite Top - *Masonry Roof Skin Layout Development Axonometric Sketch (Author, 2017)*

Fig. 8.14. Opposite Mid Left - *Masonry Screen I Development Axonometric Sketch (Author, 2017)*

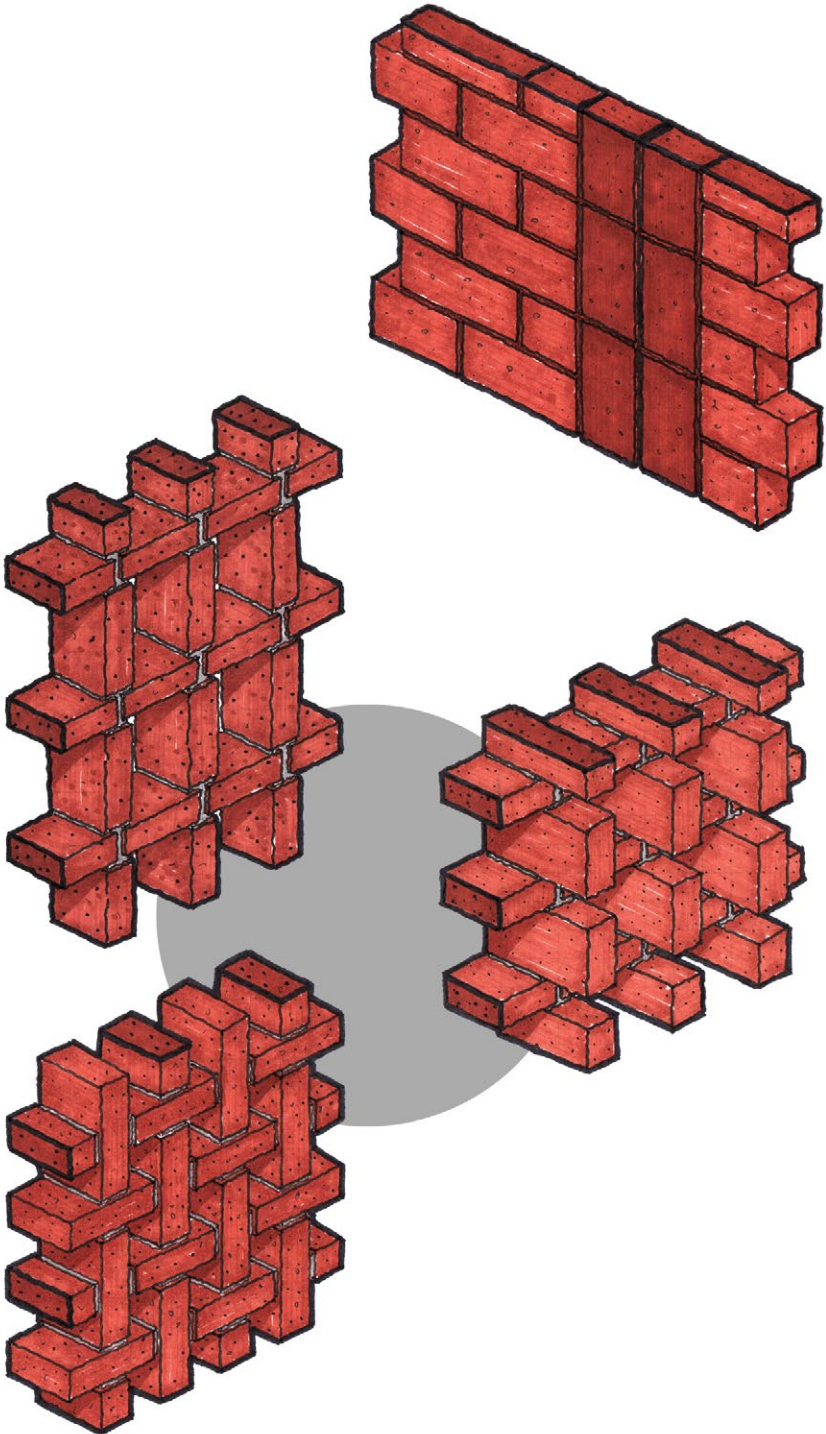**Fig. 8.15.** Opposite Mid Right - *Masonry Screen II Development Axonometric Sketch (Author, 2017)*

Fig. 8.16. Opposite Bottom - *Masonry Screen III Development Axonometric Sketch (Author, 2017)*
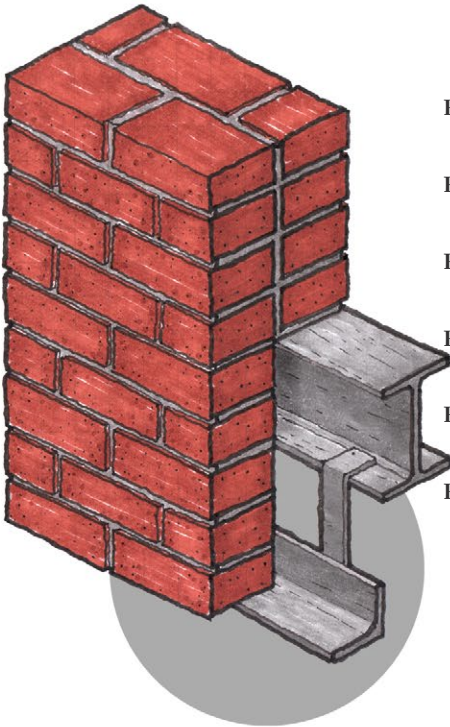
164

165

From the most pragmatic standpoint, structures often tend toward a pyramid of weight, beginning with the heaviest elements at the base, supporting subsequently lighter structures above. Architecturally, this concept can be far more interpretative, in which traditionally lighter elements can take on more stereotomic qualities. The treatment of material becomes important in this regard, the intentions of the design should be accentuated in the crafting of the project's construction.

The intention of this dissertation's design development was to improve the accessibility of culture to the public, through blurring boundaries of interior & exterior thresholds, as a contrast to the existing Pretoria Art Museum. In the development of these intentions, a wrapping of the projects stereotomic elements was investigated, lifted off of the ground plane, allowing for lighter, movable panels to blur the transition between indoor & outdoor spaces. This inversion of perceived weights would connect cultural & public spheres, while still giving gravitas to cultural rituals & artistic by-products.

As a means of realising these intentions, a number of steel portal frame structures were employed, which dealt with the organic form of the masonry skins with ease. These portal frames developed as a set of 254x146mm I-Profile sections, as being the most accessible steel profile, while also the most effective in loading capacity to weight per square meter ratio. As part of the techné resolution, I-Profiles were chosen instead of H-Sections, as a means of minimising the visual impact of the structure, instead drawing more attention to the masonry skin floating above spaces such as the workshops & exhibition halls.

Inherent to these masonry skins is the crafting of the exterior layers, working hand-in-hand with the efficiency of the interior layers & the portal structures. The use of brick in the forming of these skins intends to make use of a number of masonry construction techniques, as a means of showcasing screens, bond variations, precast elements, as well as interactions with other elements.

In using masonry as a ceiling finish throughout the building, special attention had to be given to how this intention would be achieved. Similarly, employing brick in conjunction with a portal structure would require the use of shuttering, a process that can quickly become cumbersome & time consuming. These issues would need to be addressed sufficiently to make the use of such a seemingly complicated design possible. The answer to this issue was found in the pre-fabricated construction of the steel portal frames, which already reduces cost, construction time, as well as damage to site. The need for shuttering for the skins would be addressed through the casting of the ceiling layer as a precast panel. In doing so, the need for shuttering would be immediately addressed, with the construction of the steel portal being followed with the installation of precast concrete panels -with masonry inlays-resting on equal unequal angle purlins.

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From this permanent shuttering finish, the subsequent layers could be added:

- Initially, a 100mm layer of insulation would address concerns of heat lag affecting the interiors of the building.
- Subsequently, a layer of torch-on Derbigum SP4 would be applied.
- A slip sheet would then be laid over the waterproofing.
- A 100mm layer of reinforced concrete would then be cast.
- Finally, the exterior skin of Face Brick Extra would be laid on top of the concrete.

This layering of building techniques & materials would achieve the desired effects, both in terms of reducing the time as well as showcasing a variety of masonry construction techniques.

Unfortunately, the inverting of stereotomic elements has draw backs. In order to minimise thermal lag, & to ensure the waterproofing of the building envelope, the thickness of the skin became overbearing, meaning the supporting steel structure would have to increase to accommodate the skin weight. The mass of the skin meant the portal structure would have to increase from 254x146mm I-Profiles to a massive 457x191mm.

Bricks come in all shapes & sizes. One such size provided the solution to reducing the size of the masonry skin, & subsequently the size of the steel portals. The use of a brick 'shale' size would reduce the combined per square meter weight from ~350kg/m^2 to a third of the weight of ~115kg/m^2. This thinning of material meant that the portal structure could return to employing the original 254x146mm I-Profile Sections.

Fig. 8.17. Below - *Aesthetic Permanent Shuttering Development (Author, 2017)*
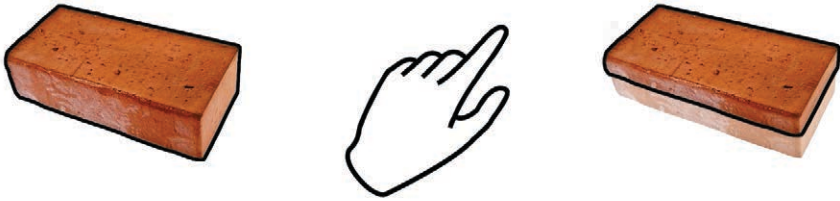

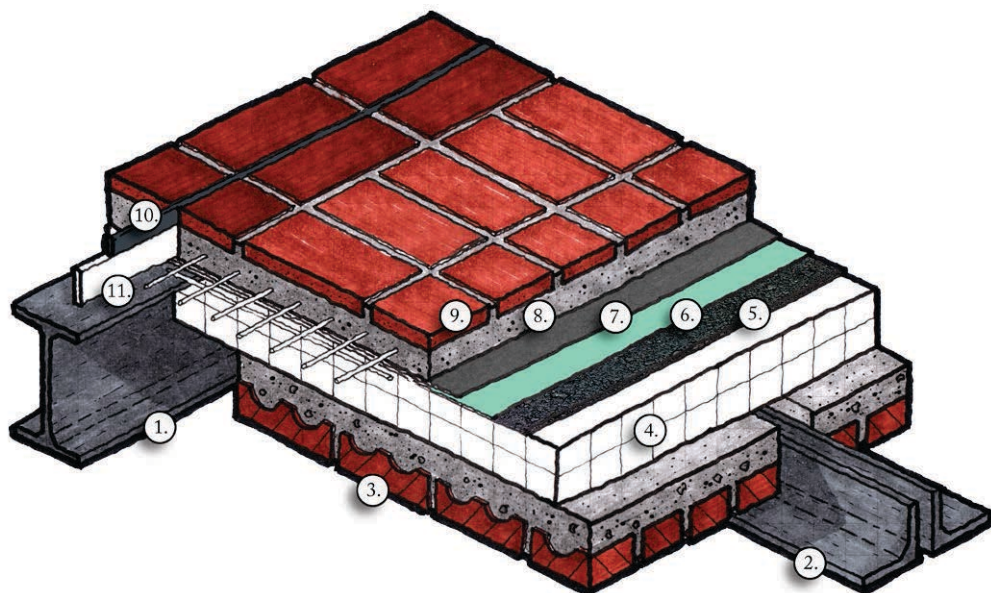Concrete Panel
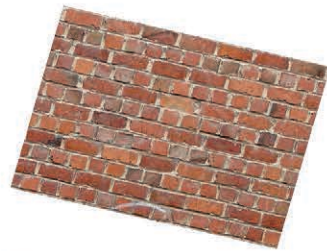
Brickwork

Permanent Shuttering

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8.6
DEEP VS. SHEER SKIN
CONTRASTING HIERACHY OF SPACE THROUGH
MATERIAL & CONSTRUCTION

Keeping the inversion of the proposed stereotomic treatment in mind, a similar inversion had to be applied to the tectonic elements, as to redefine the traditional relationships between the two elements. Where the Masonry Skin is to be suspended overhead, profiled steel sheeting would be introduced to contrast this, both in perceived weight, as well as in the positioning of this contrast. Where the stereotomic would be suspended, the tectonic would be grounded. Both of these elements would receive various treatments throughout the proposed additions, wrapping spaces to either shelter, or present them. This forming of introverted & extroverted relationships to form, material & tectonics would be based on programmatic requirements, both haptically as well as programmatically.

To contrast the weight of the Masonry Skin, Rheinzink sheeting would wrap the service or secondary spaces, emphasising the perceived heaviness of the stereotomic elements. Similarly, the construction of the contrasting skins would be carried through to the making of each element, with the masonry being crafted & rough, the Rheinzink would be accurate & delicate. Finally, the concept of 'contrasting' would be applied to the proposed finishes for each material, where brick would be rough & warm, the Rheinzink would be galvanised - keeping the tectonics lighter in comparison to the brick. While Galvanising would not be the most uniform finish for the sheeting, it is the most honest, & therefore more in line with the intentions of being material honest, in comparison to the highly-refined materials seen today around the world.

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LEGEND:

1. 254x146mm I-Profile Steel Portal Frame @ 2070mm c/c, Intumescent Paint Finish.
2. 90x90mm Equal Angle Section Purlins @ 1135mm c/c, Intumescent Paint Finish.
3. Queen Closer Brick in Precast Concrete Panel, resting on ELA Sections, Varnished.
4. 100mm IsoBoard Rigid Insulation resting on Permanent Shuttering.
5. Torch-On Derbigum SP4 Waterproofing.
6. Waterproof Memebrane.
7. Slip Sheet.
8. 100mm Reinforced Concrete cast insitu.
9. 25mm Shale Pavers mortared onto concrete base, Vertical Joints Raked, Horizontal Joints Flush.
10. Silicone Sealant Movement Joint above Steel Portals, @ 2070mm c/c.
11. Polystyrene Filler under Silicone Sealant.

Fig. 8.18. Page Opposite - *Reconsidering Material to Lighten Masonry Skin (Author, 2017)*

Fig. 8.19. Above - *Masonry Skin Detail Development (Author, 2017)*

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Following on the intention of creating an experiential corridor through the various rituals, & productions of cultural & public practices, the most continuously inhabited spaces, the Residency Workshops, Residency Galleries, Up & Coming Workshops & Restaurant had to deal with a east/west orientation, rather than a more conventional north/south facing. While far from ideal, the reason for this orientation was to allow the workshop & gallery spaces to face onto a set of courtyards & sculpture gardens, with the corridor galleries between each wing creating a sense of rhythm & indicating a variation of cultural interpretations by each artist or performer.

A conventional response to this pragmatic concern would be to minimise glazed surfaces along the east & west walls & to maximise glazing to the north & south, to allow for heating & cooling for the interior spaces as well as a constant light quality.

This approach stood in contrast to the haptic need for the workshops & galleries to open up to their exterior programs, intending to blur the definition between indoor & outdoor spaces. Through reconsidering the manner in which the brick footings were to meet the ground - which had been an extension of the steel portal structure, the skin would peter out to

Fig. 8.20. Page Opposite - *Masonry Skin / Screen Elevation Development Sketch (Author, 2017)*
Fig. 8.21. Full Spread - *Masonry Skin / Screen Material Palette (Author, 2017)*

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a masonry screen, tessellated into a self supporting structural element, growing more porous as it nears the ground.

This screen was adapted from the forms generated by Solano Benitez, entirely due to its ability to give a sense of stereotomic lightness while maintaining its structural qualities.

In doing so, the glazing along the western façades specifically could be maintained & shaded, allowing the masonry screen to bare the brunt of the western solar gain.

This protection of the glazed elements was further aided by placing the screen on the exterior of the building, defining an exterior walkway, mediating between the interiors & exterior programs.

This construction technique became a main driver for this dissertations *techné* response, with tessellated masonry screens beginning to defining points of mediation between building thresholds, while also dealing with the western orientation of much of the production spaces.
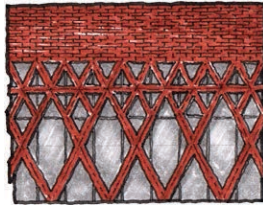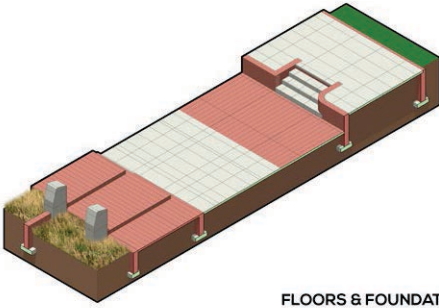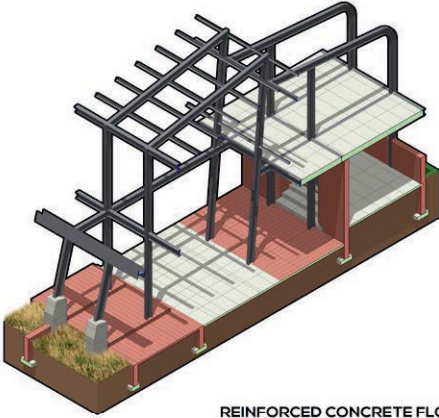
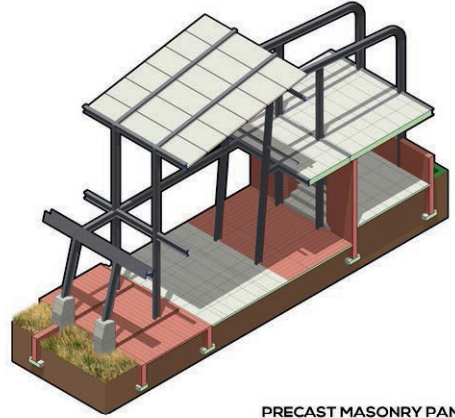**FLOORS & FOUNDATIONS**
AXONOMETRIC
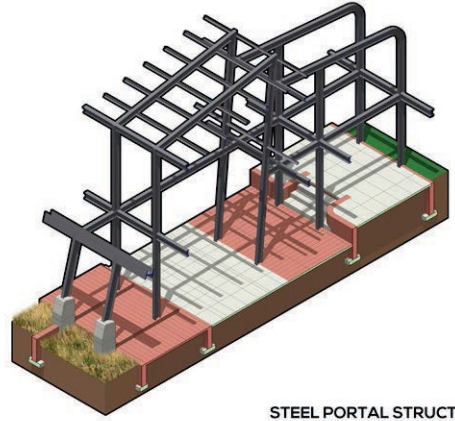
STEEL PORTAL STRUCTURE
AXONOMETRIC

REINFORCED CONCRETE FLOORS
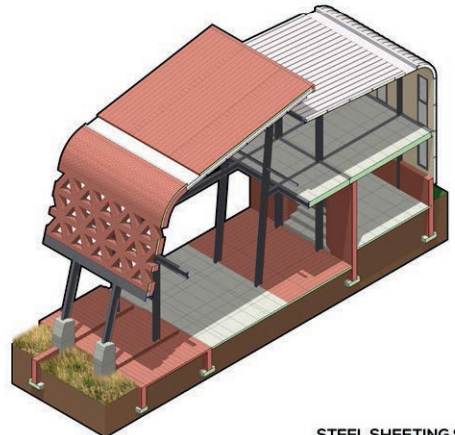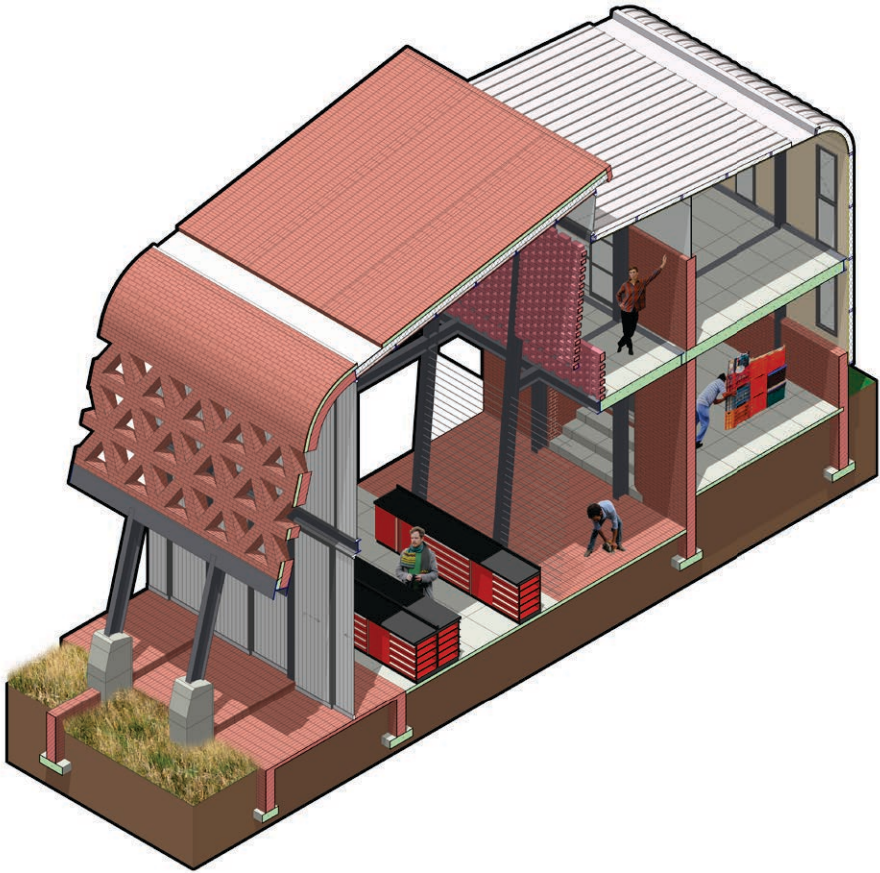AXONOMETRIC

PRECAST MASONRY PANELS
AXONOMETRIC
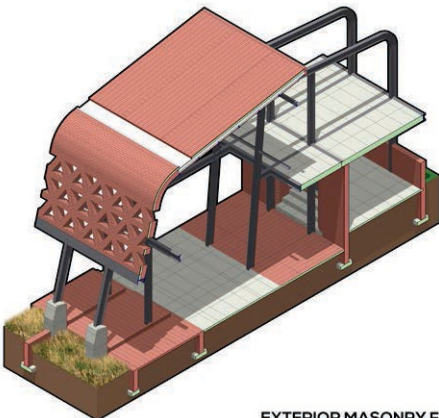
EXTERIOR MASONRY FINISH
AXONOMETRIC

STEEL SHEETING SKIN
AXONOMETRIC 1:50

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TSHWANE ART PRECINCT WORKSHOP
AXONOMETRIC

Fig. 8.22. Page Opposite - *Residency Workshop*
Construcion Stages Axonometric Set
(Author, 2017)
Fig. 8.23. Above - *Residency Workshop*
Construcion Completed Axonometric
(Author, 2017)

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ACTIVE CONTROL LEGEND:

1. Exhibit Interface
2. Exhibition Halls
3. Library, Archive, & Catalogue
4. Permanent Collection & Archive
5. Unprogrammed Exhibition Space
6. Auditorium

PASSIVE CONTROL LEGEND:

1. Production Interface
2. Corridor Galleries
3. Residency Galleries
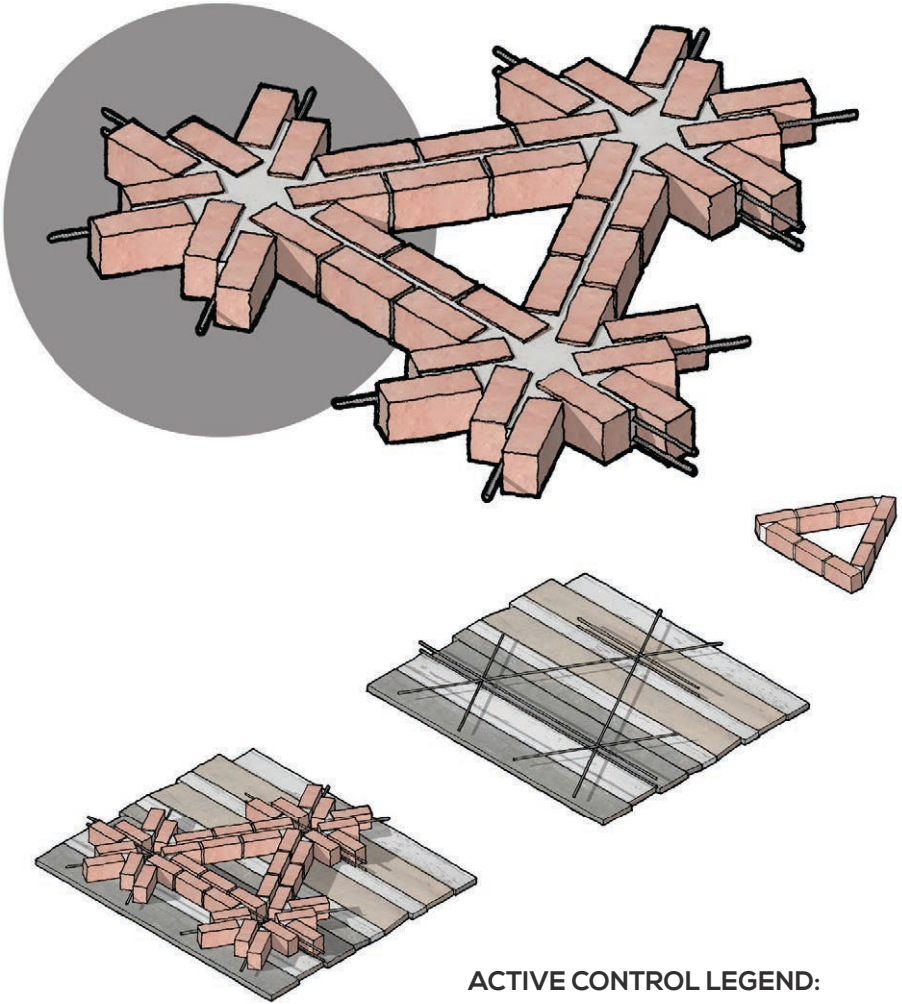4. Residency Workshops
5. Restaurant
6. Developmental Workshops

Fig. 8.24. Above - *Masonry Tesselate Construction Detail (Author, 2017)*
Fig. 8.25. Page Opposite - *Active & Passive System Zoning (Author, 2017)*

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Every precaution was taken in ensuring that the solar heat gain experienced in the various proposed additions would be minimised, screens & louvres were added to west & east façades, & carefully designed overhangs were given to north facing elements, allowing for winter sun while excluding summer over heating.

Due to the variety of programs included in the design, each with varying heating & cooling requirements, certain spaces would have to be actively controlled, while others could make use of passive systems.

For instance, the presentation of various pieces of art to be displayed in the museum & proposed exhibition halls would require an active air conditioning system, to minimise environmental damage to exhibits. The same careful treatment would also have to be taken in the library, catalogues, archive areas & auditorium.

The Workshops, Residency Galleries, & Restaurant on the other hand require less stringent controls, meaning a passive heating & cooling system could be installed to maintain the thermal comfort of these areas when required.

While the exhibit spaces would be served by mechanical ventilation, the areas requiring passive control would be catered for with a passive water circulation system in conjunction with ducts circulating air through the various spaces.

Passive Heating & Cooling:

To create the required coelth throughout the passive zones of the project, a combined ducting & closed loop water circulation system, passed through separated systems would serve to increase or decrease the temperature depending on the season.

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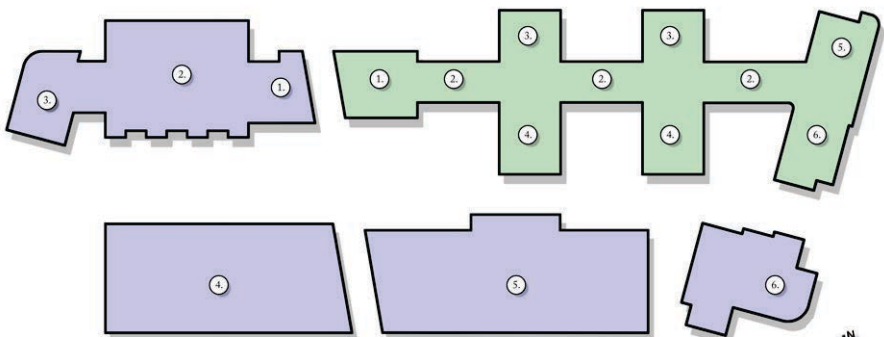
Summer Cooling Cycle:

Water storage tanks are placed below ground level on the southern side of the workshop wings, further shading them from any heat gain. These water masses are then used as heat sinks for the closed loop system in the summer months. From the water tanks, the cooled water is then fed through a heat exchanger, transferring potential cooling from the liquid system to the ducting system, allowing cool air to fall into the passively controlled spaces. This is further aided through including space radiators in the circulation system. The water is then returned through the water tanks as heat sinks to repeat the process.

Winter Heating Cycle:

During the winter months, the circulation is diverted away from the water tanks, instead passing through solar water heaters on the roof of the Corridor Gallery spaces, This system can then be aided further by passing the already heated water through a gas boiler when needed. The liquid is then passed through the same heat exchanger, transferring the heat from the circulation system to the ducting system, while also passing through the radiator system.

LEGEND:

01.   Below Ground Water Storage
02.   Below Ground Piping System
03.   Liquid-to-Air Heat Exchanger
04.   Ducting System
05.   Radiator System
06.   Circulation Return

Fig. 8.26. Page Opposite - *Summer Cooling Cycle Diagram (Author, 2017)*

LEGEND:

01.   Solar Water Heaters
02.   Gas Boiler (when required)
03.   Liquid-to-Air Heat Exchanger
04.   Ducting System
05.   Radiator System
06.   Circulation Return

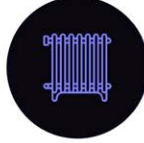**Fig. 8.27.** Page Opposite - *Winter Heating Cycle Diagram (Author, 2017)*
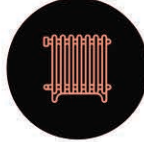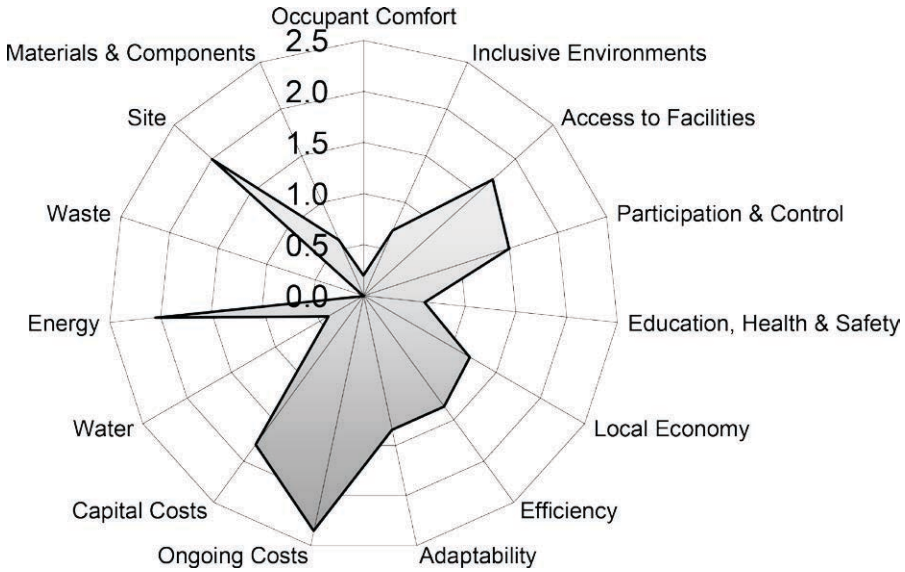
176

SUMMER COOLING CYCLE

WINTER HEATING CYCLE

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The existing Pretoria Art Museum is Mono-Functional, serving very few of the needs of Arcadia's society & its surrounds.

While the museum has undergone a handful of additions & alterations over the years, these have only served to increase the footprint of the building, little has been done to make its day to day use more sustainable.

Conversely, Arcadia Park to the South is something of a saving grace, requiring little maintenance to continue its use. Though this does not mean it is without its faults. While Public Space is interconnected by its very nature, the management & design of Arcadia Park does nothing to aide this. Access & ammenities in & around the park are scarce, with services such as the public bathrooms becoming liabilities over the years.

In conclusion, the Pretoria Art Museum & Arcadia Park fall well short of current societal & sustainable requirements.
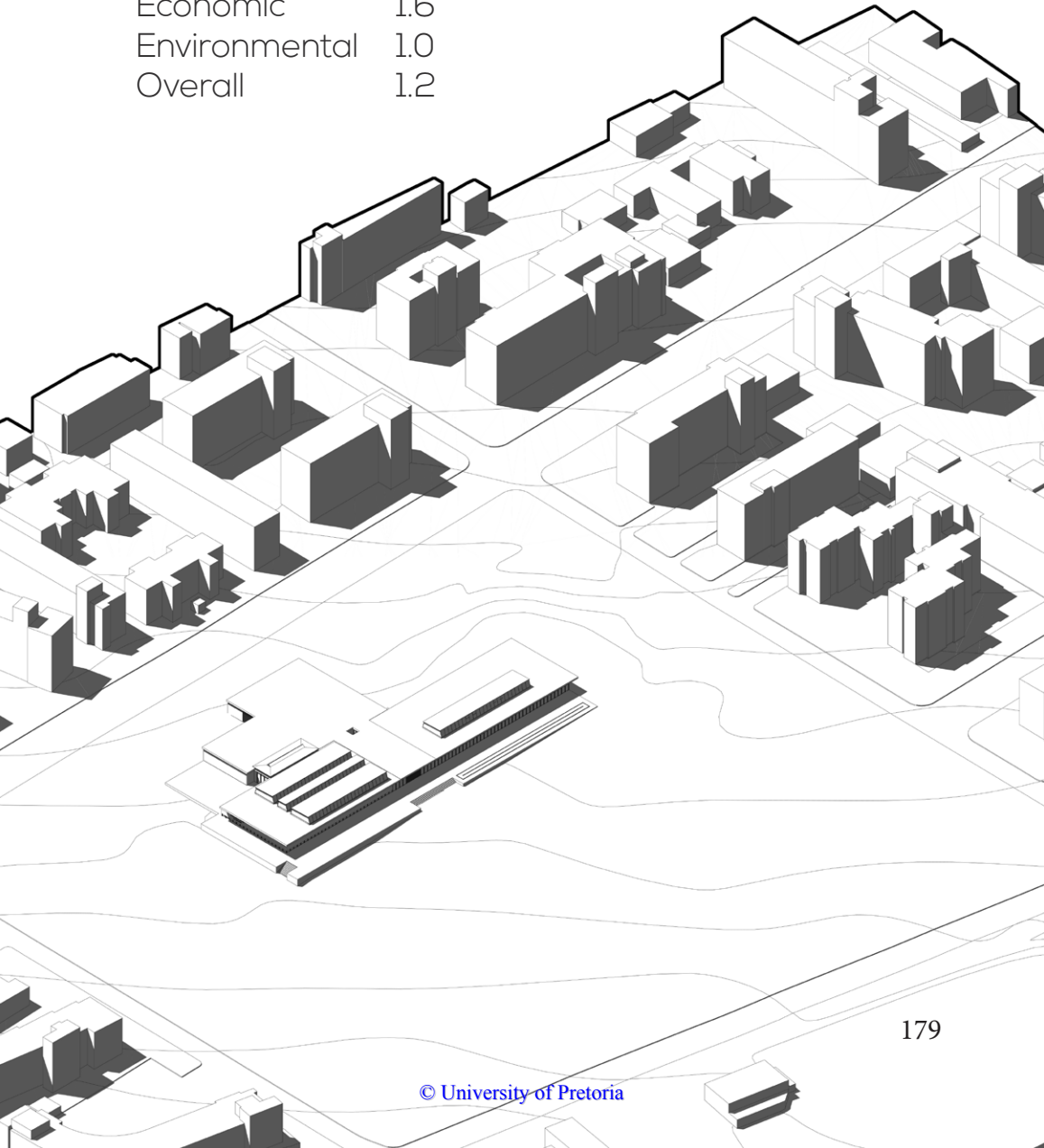
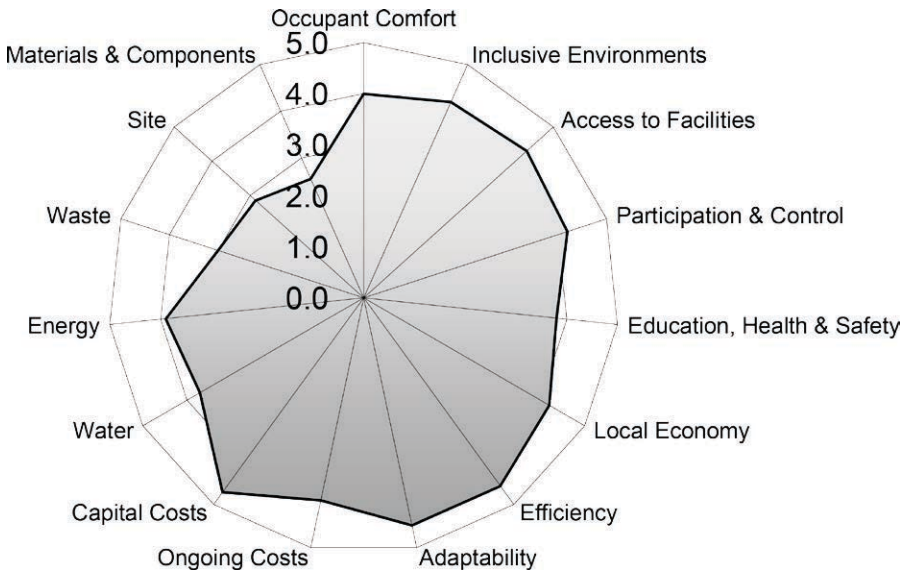**Fig. 8.28.** Above - *SBAT Result Diagram for the Existing Site (Author, 2017)*
Fig. 8.29. Page Opposite - *Axonometric Diagram of the Pretoria Art Museum (Author, 2017)*

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Social: 0.9
Economic   1.6
Environmental   1.0
Overall   1.2

Fig. 8.30. SBAT Result Diagram for the Proposed Additions

The proposed additions to both the Museum & Park were intended to make improvements to the sustainable future of this public space across a number of scales.

From the urban framework, the addition of public transport services, both traditional as well as alternative make the precinct far more accessible to a wider portion of Tshwane's society.

Programmatically, the addition of active use functions such as workshops & spaza areas - both formal & informal - would allow the study area to become economically useful to the peoples of Arcadia.

Lastly, through the zoning of the building into active & passive conditioned zones, the carbon footprint of the additions & alterations greatly improves the precinct's SBAT rating in comparison to the existing museum.

The Tshwane Arts Precinct is intended to be sustainable, socially, economically, & environmentally, ensuring sustained use of this public asset well into the future.

Fig. 8.30. Above - *SBAT Result Diagram for the Proposed Additions (Author, 2017)*

Fig. 8.31. Page Opposite - *Axonometric Diagram of the Tshwane Art Precint (Author, 2017)*

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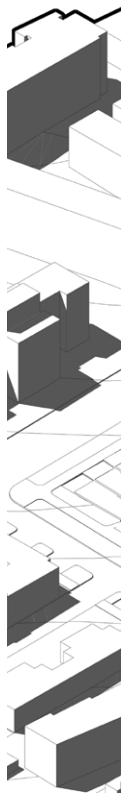
8.10
PROPOSED SBAT ANALYSIS:
TSHWANE ARTS PRECINCT

Social: 4.1
Economic   4.4
Environmental 3.2
Overall   3.9

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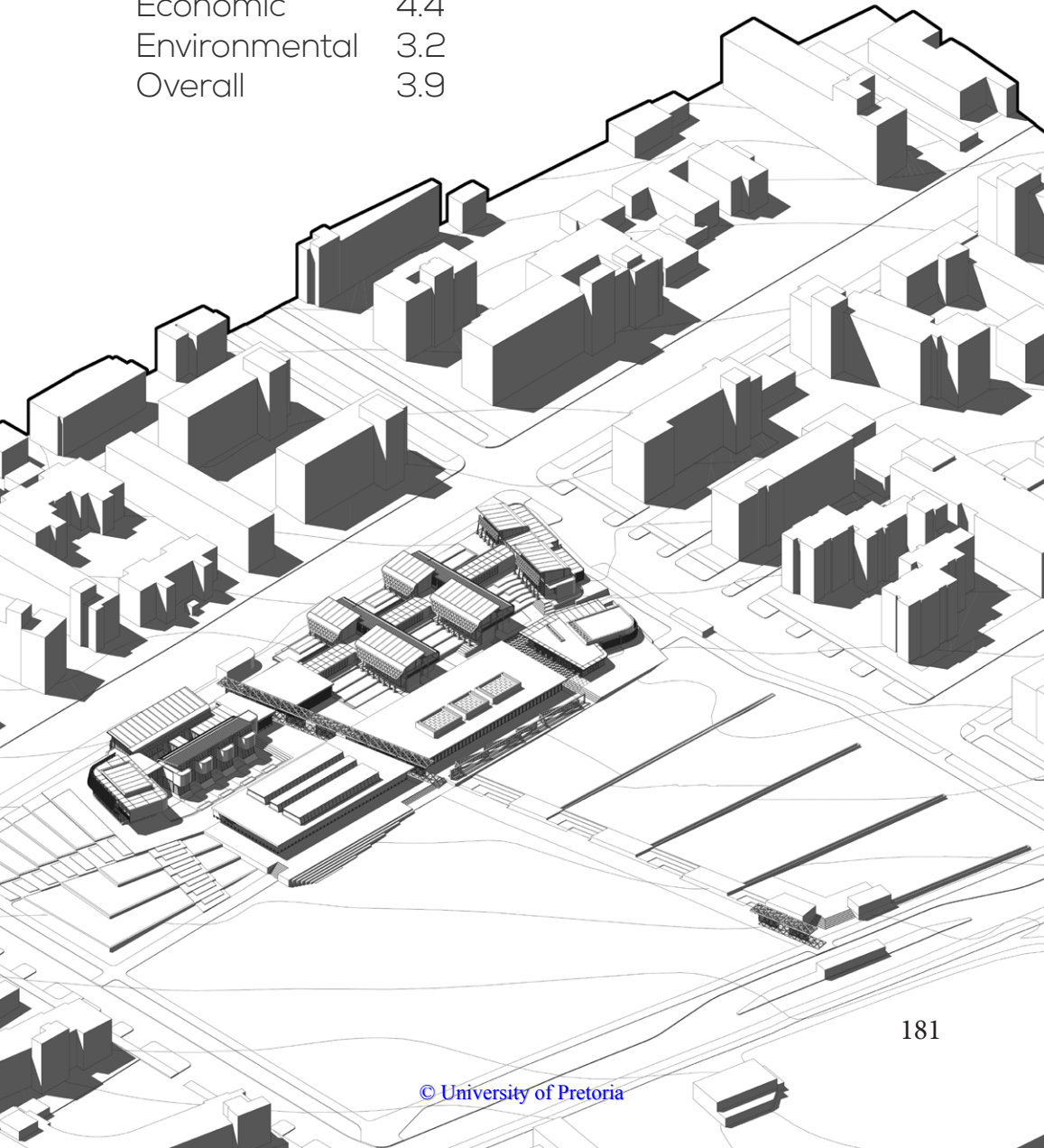Louis Kahn famously used to speak to his materials, encouraging architecture students to ask a brick what it wanted to be if they ever had a mental block. In doing so, Kahn developed beautiful stereotomic buildings, rooted to the ground plane, with geometric carvings defining the openings of his structures. Through 'asking' his material palette what it wanted to create, his often stereotomic selection of material invariably ended up becoming stereotomic buildings (Kahn, 1998).

From the outset, this dissertation took a different approach, wanting to create sheltered space through the use of stereotomic materials, though space that still invited & allowed for an unthinkably varied selection of rituals & practices.

This intention was undertaken hand-in-hand with contrasting the existing architectural language already found on site in the horizontal form of the Pretoria Art Museum.

Through simultaneously heeding & going against the advice of Khan, this dissertation challenges the traditional use of materials, along with the relationships between built elements.

The inverting of the relationship between mass of roof, & accessibility of façade of the proposed additions is meant to do exactly what the existing museum doesn't, to draw Tshwane's every-person into cultural spaces they are intended to have some agency over. This inversion maintains the permanence of these cultural spaces - giving them a form of *gravitas* - while allowing them to be filled with the ephemeral through the practises & activities that would fill them.

Kahn said "a brick aspires", it aspires to be more than what it is. In the technologically driven world the study area finds itself in, the lifting of bricks above simply stacking one on top of another becomes possible. At the same time, a conscious attempt needs to be made to maintain the idea of techné needs to be fought for, in the face of efficiencies & technological advancements. This dissertation attempts to synthesis those efficiencies & advancements, while still holding onto the poetics of crafting buildings.

Fig. 8.32. Page Opposite - *Inverting Traditional Stereotomic / Tectonic Relationships (Author, 2017)*
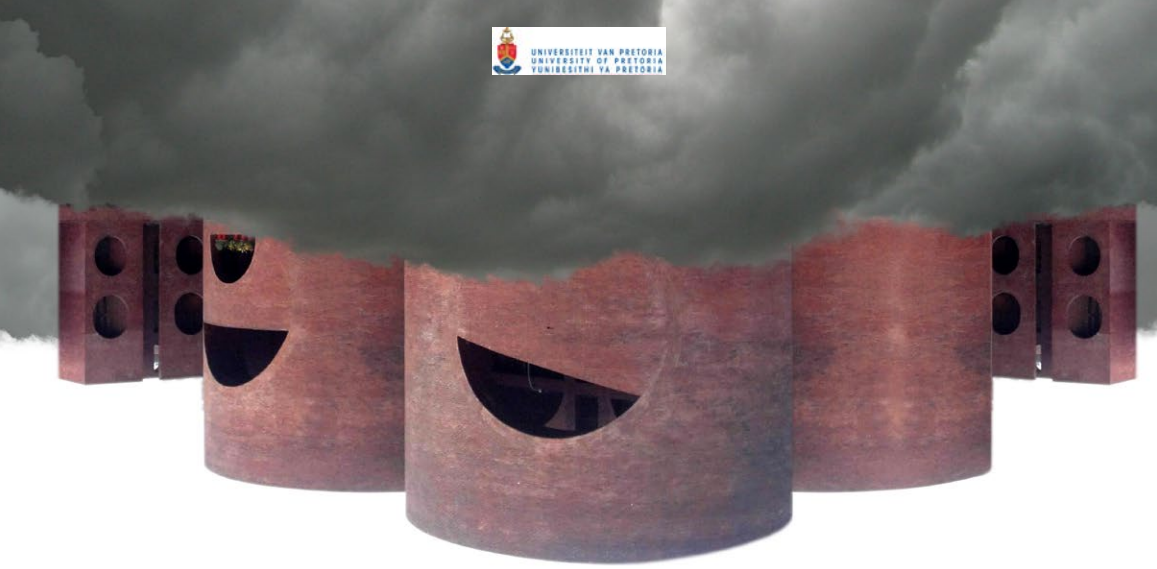
a brick aspires.

09

This chapter synthesises the intentions of the dissertation with the response of the design development of the Tshwane Arts Precinct, & the resolution of its technification & techné development.

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09

CONCLUSION

From the outset, the intention of this dissertation was to reinvigorate the lost cultural vestige that is the Pretoria Art Museum. To achieve this intention, the project had to mend the broken relationships the museum has been grappling with for far too many years. These non-relationships ranged from the physical, such as the barrier between the museum & Arcadia Park, to societal, between the museum & the peoples of Arcadia, Tshwane, to issues brought about by legacy, identity, & memory. As a means of addressing these issues, the proposed intervention focused on reconnecting the existing museum with the publicness of Arcadia Park, forcefully - & at the same time sensitively - opening what had become a perceived hardening of this cultural manifestation.

Through reconnecting the existing fabric of the museum with that of the park, cultural & public elements could once again intertwine as they did during the days of the museum. Once addressed, the proposed additions would then serve the growing needs of Arcadia & surrounds as a society, focusing more on ritual & making, rather than the presentation of art alone. This shifting of focus away from traditional exhibits & exhibition spaces, towards a making-centric experience based around workshops & studios would cater for the ephemeral aspects of ritual, with the products thereof rather becoming part of a journey through the precinct. As part of this expansion of cultural & public programs, the precinct would serve as central node,

around which Arcadian society could experience culture, enjoy public life, & possibly most importantly, make use of a range of economic infrastructure.

Through the incorporation of 'up & coming' workshops & studios, art & cultural rituals could become obtainable to the growing middle class society developing around the study area. Similarly, the inclusion of a restaurant with the means of uplifting artist's productions would make a traditionally volatile vocation more economically accessible to a larger portion of Pretoria's population.

While this upliftment makes formal place for artist upliftment, the smaller scale, informal makings & activities are also catered for through the inclusion of 'Cultural Spazas' to allow for the sale of curios & products in a more informal sense. This would be mirrored by the 'Economic Infrastructure' to be developed throughout the park, making use of the increased foot traffic brought about by the urban vision. This economic infrastructure treads a fine line between being overly formalised, & under serviced, offering enough in services along & around the already busy sections of the park for development of this infrastructure to occur naturally, rather than employing a top-down approach. Through the expansion of these cultural & public programs, the precinct would hopefully rekindle interest in the Pretoria Art Museum, & more esoterically, the value of cultural rituals & public practices.

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The role of the architect in forming & informing architectural identity representative of a very cosmopolitan society was an issue this dissertation grappled with throughout. A stand was taken on previous approaches to creating representative public architecture, from which a point of departure was created, deciding to rather focus on contrasting the existing language of the Pretoria Art Museum, through the manipulation of form, structure, material, & services.

The flowing forms that developed immediately created that contrast, while also being representative of the journey that users could enjoy, moving between various public & cultural spaces; both indoor & out. These forms took on a challenging material palette, one requiring special attention in its resolution. This was undertaken with the intention of making the proposed additions more accessible to the public surrounding & interacting with the study area, questioning conventional uses of materials as common as bricks was intended to kindle inspiration for those seeking it. Furthermore this worked well as a departure from the highly refined materials of the existing museum, rather advocating a return to a material selection immediately accessible, to every person interacting with the precinct.

To bind form & material, a melding of craft & efficiency also had to be undertaken. This manifested in the steel portal structure wrapped in the various skins - both deep & sheer - being allowed to maintain the flowing

forms seen in the development of the precinct's design. In this melding, the structure takes a on a secondary role to the skin, allowing the wrapping of space -introvertedly & extrovertedly depending on program- to be celebrated.

The systems & services incorporated into this dissertation were heavily influenced by the conceptual approach undertaken - specifically on the relationship between indoor & outdoor spaces - making the most of Tshwane's amicable climate. In zoning the precinct, workshops, residency galleries, & restaurants blurred boundaries between indoor & outdoor, while still making use of passive systems to comfort spaces when necessary. This stands in contrast to the rigour required by Exhibition & Archive spaces, making use of more traditional environmental control systems.

In its realisation, this dissertation binds contrast into the very fabric of the museum & park, creating clear definition between the existing & interventions, while still incorporating the existing into the heart of the precinct. While not always complimentary in form & material, the intention was to make the character of the existing & intervention immediately clear, as per the concept standing in contrast that intertwines the existing. The relationships between the museum & park, between culture & public becomes intertwined in the proposed precinct, blurring thresholds, while still nurturing the rituals of culture & the practices of public, in an architectural identity accessible to all.

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This is the final realisation of the Tshwane Arts Precinct. It is broken down into a set of Plans, Sections, Elevations & Details, concluding with a set of visuals conveying the crafting of the additions to the Pretoria Art Museum & Arcadia Park.

10

RESOLUTION

10.1
SITE PLAN:

LEGEND:

1. Permanent Collection Exhibit
2. Travelling Exhibition Spaces
3. Coffee Shop
4. Auditorium
5. Emerging Artists Workshops
6. Restaurant
7. Residency Galleries
8. Residency Workshops
9. Production Spaces Interface
10. Exhibition Interface
11. Main Exhibition Halls & Spaces
12. Library/Archives/Administration

13. Hatfield / CBD BRT Station
14. Public Services
15. Gautrain Rapid Loop Bus Station
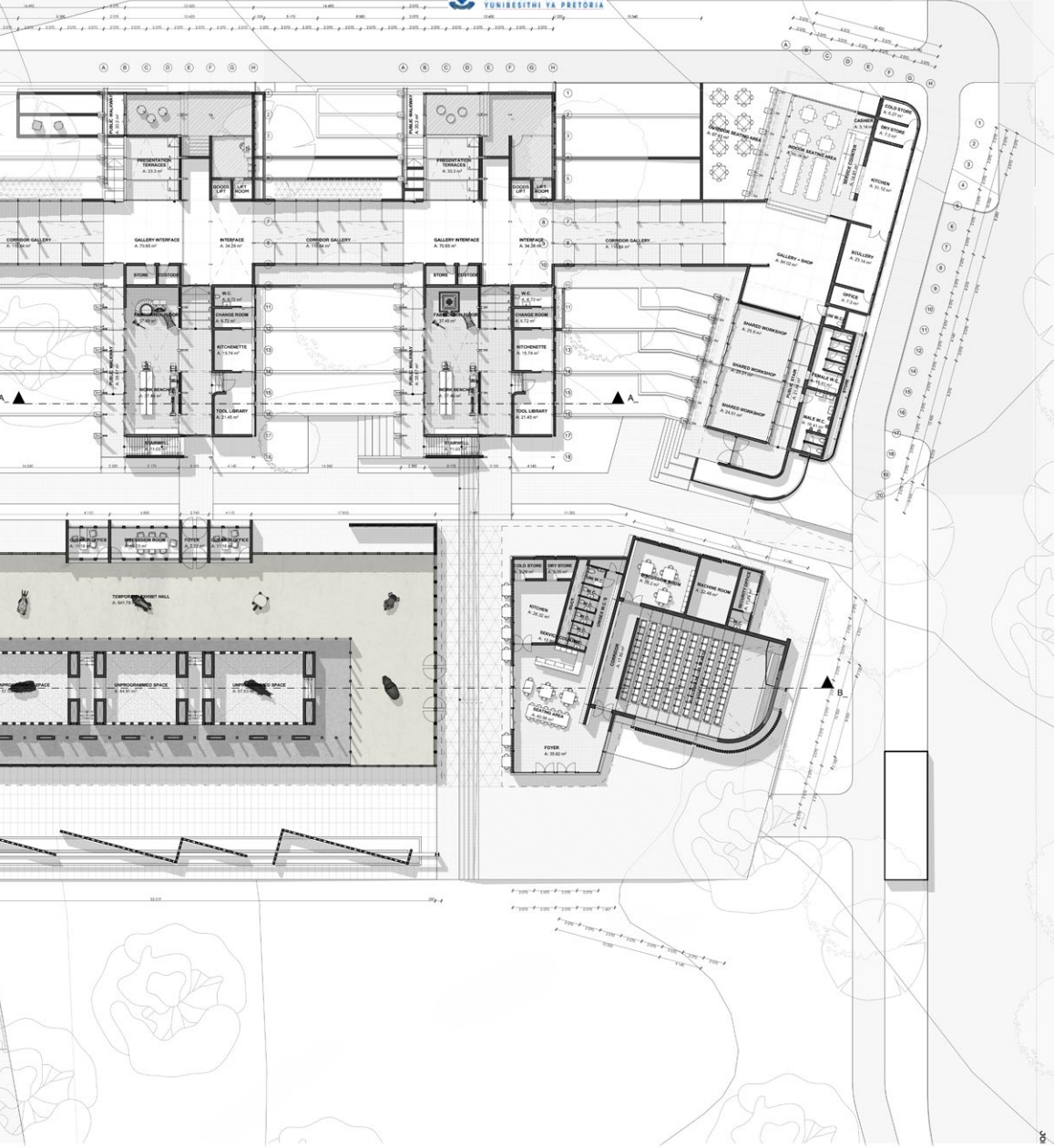16. Long Distance Bus Terminal

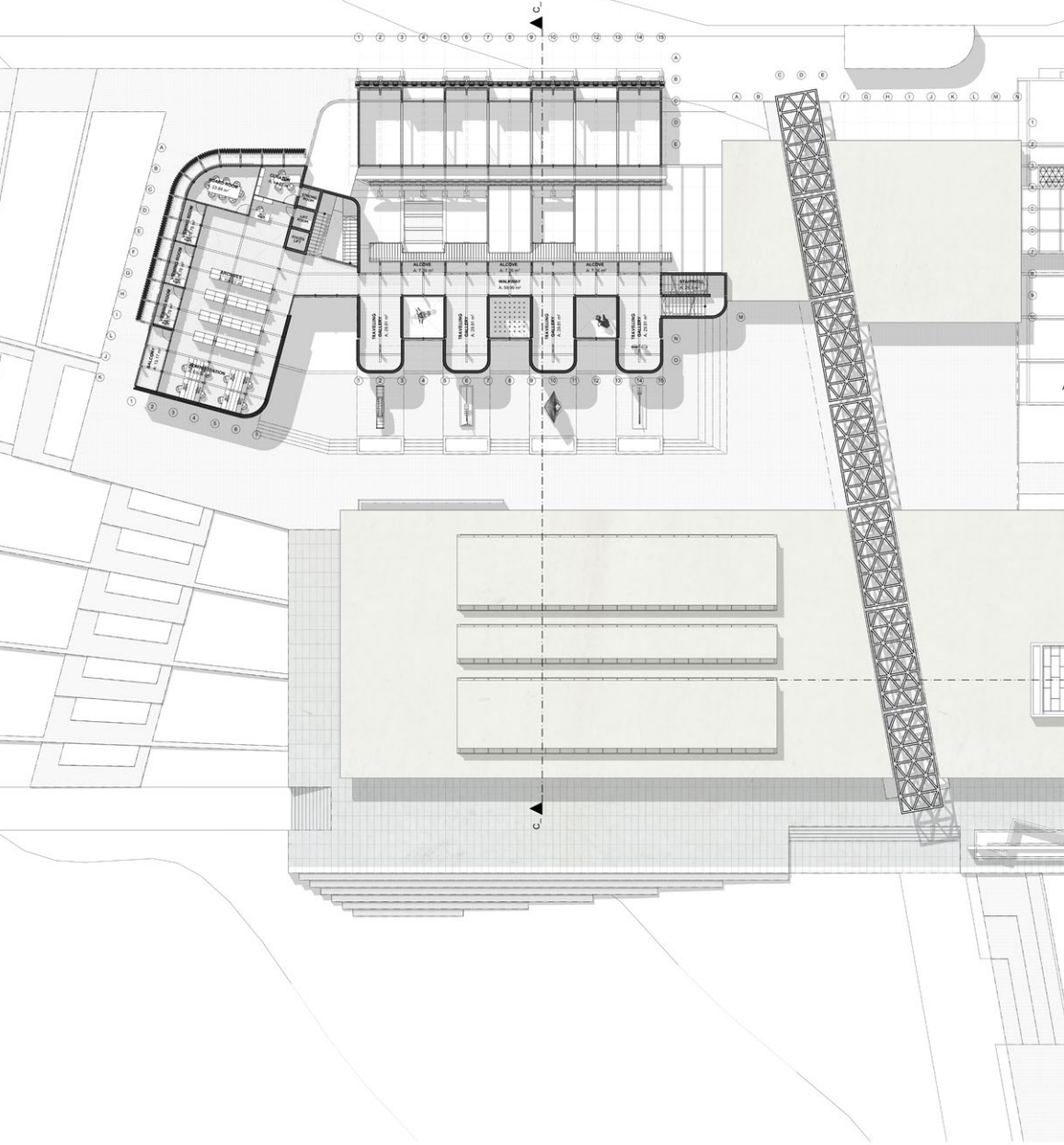**Fig. 10.1.** Page Opposite - *Tshwane Arts Precinct Site Plan (Author, 2017)*
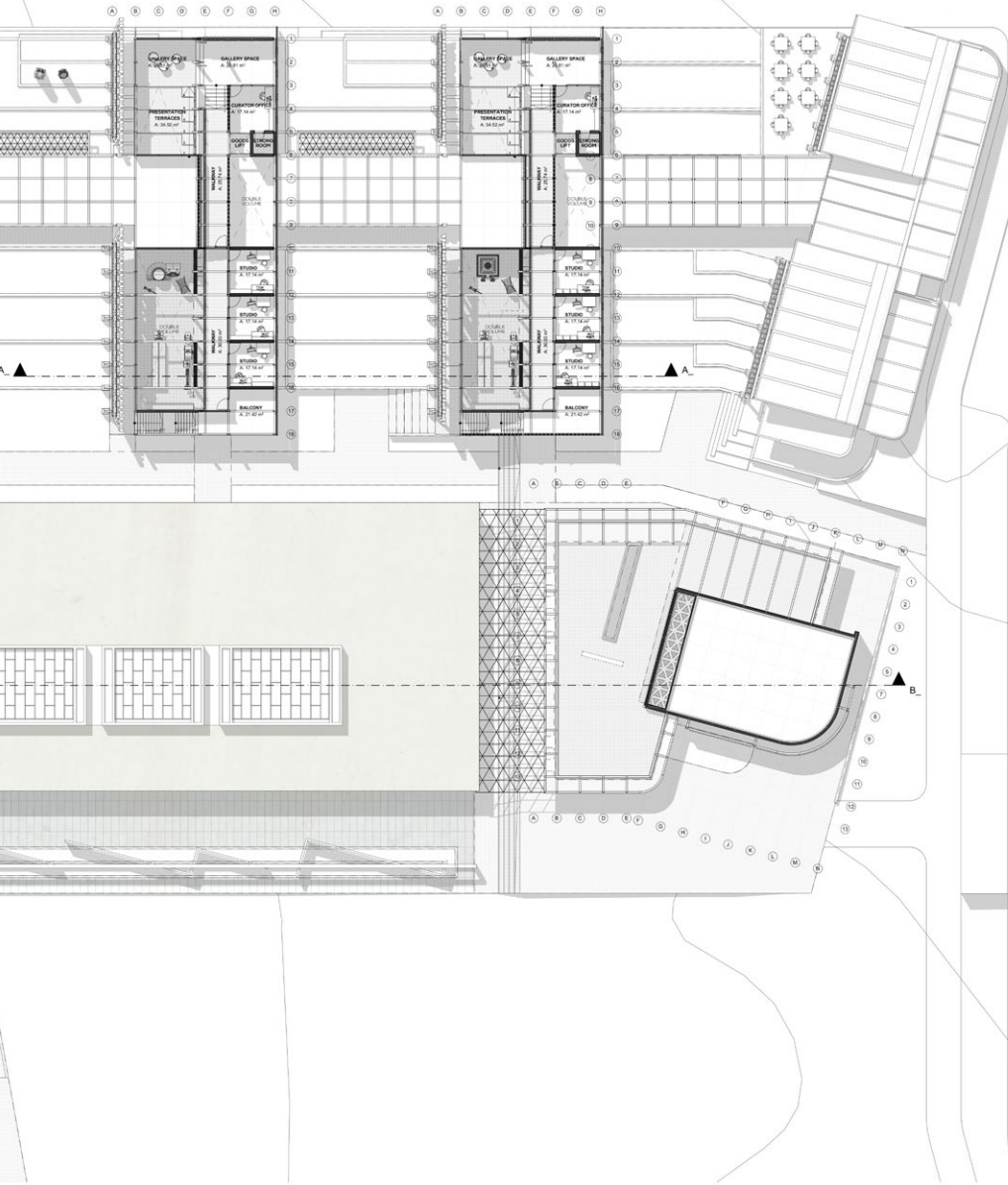
191
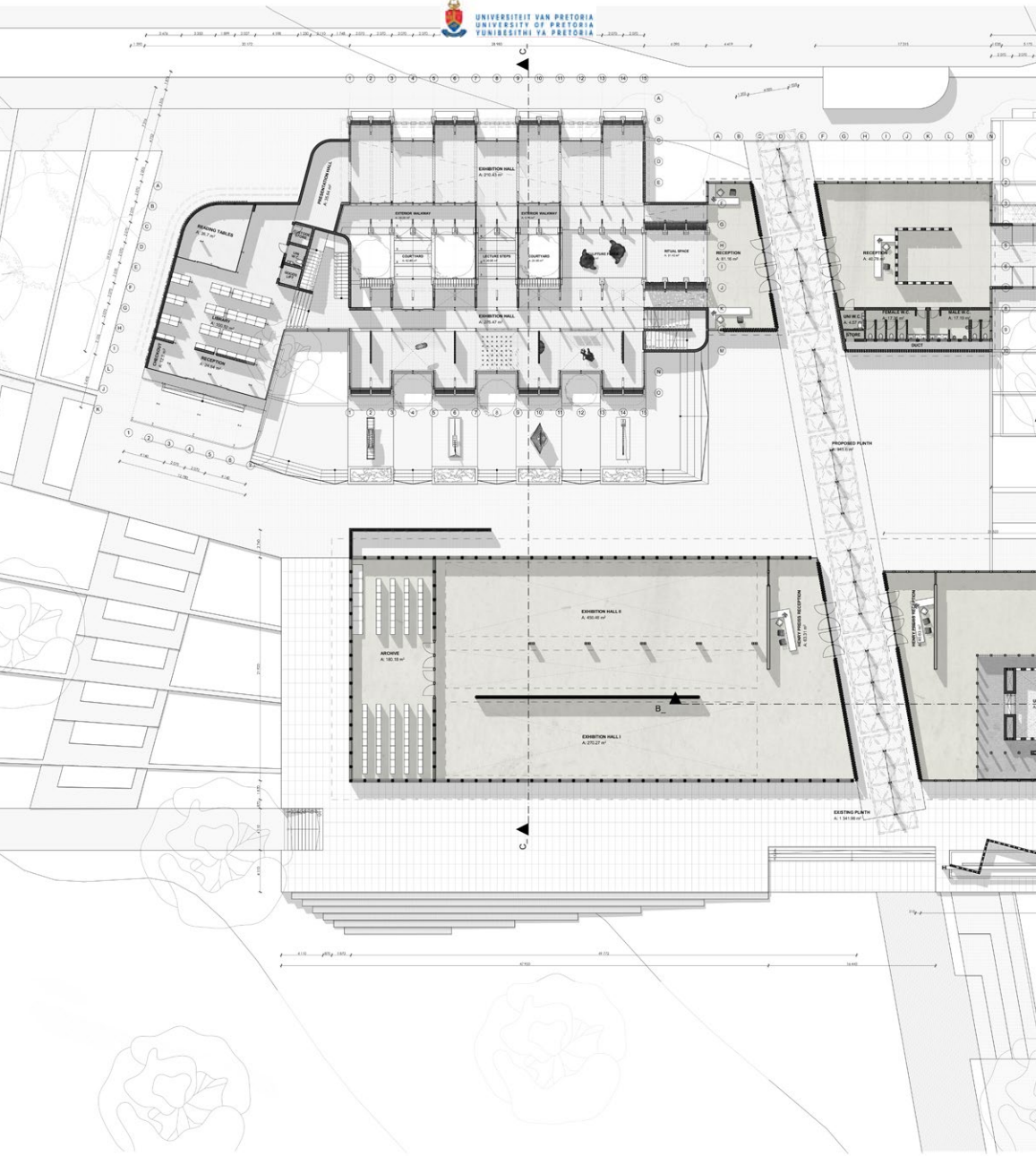
10.2
GROUND FLOOR PLAN:

Fig. 10.2. Above - *Tshwane Arts Precinct Ground
Floor Plan (Author, 2017)*

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10.3
FIRST FLOOR PLAN:

Fig. 10.3. Above - *Tshwane Arts Precinct First Floor Plan (Author, 2017)*
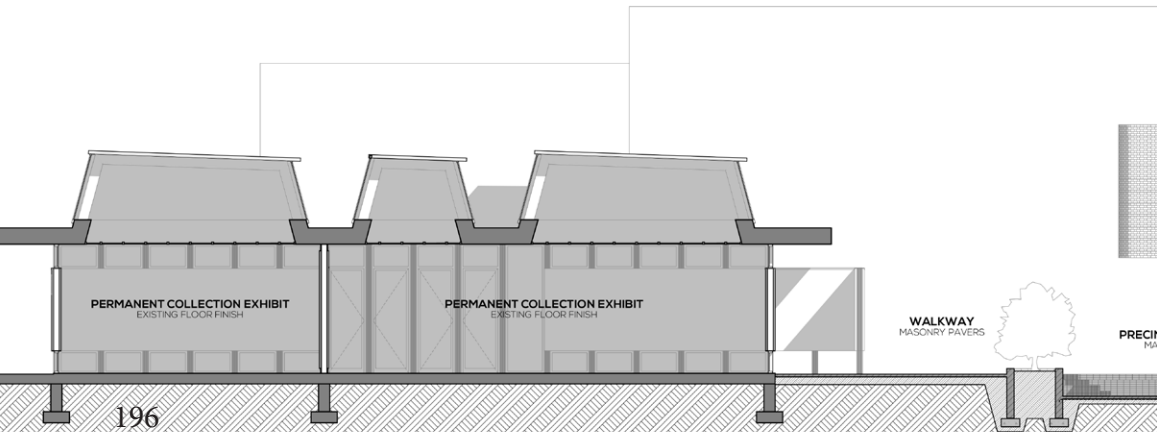
10.4
SECTIONS:

196
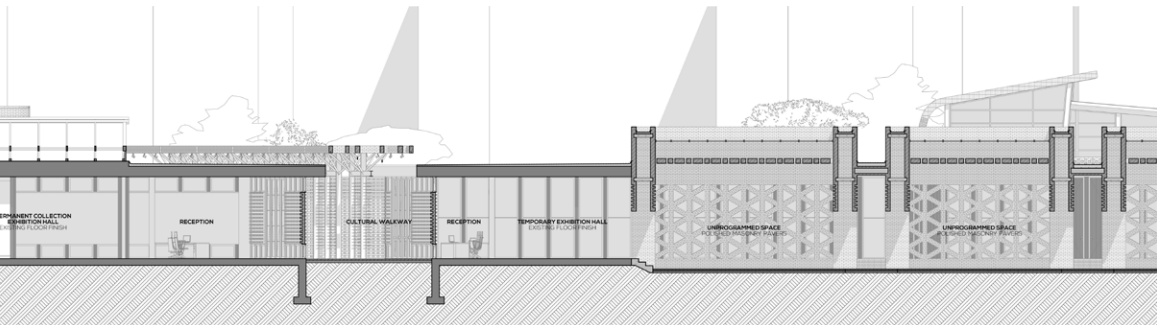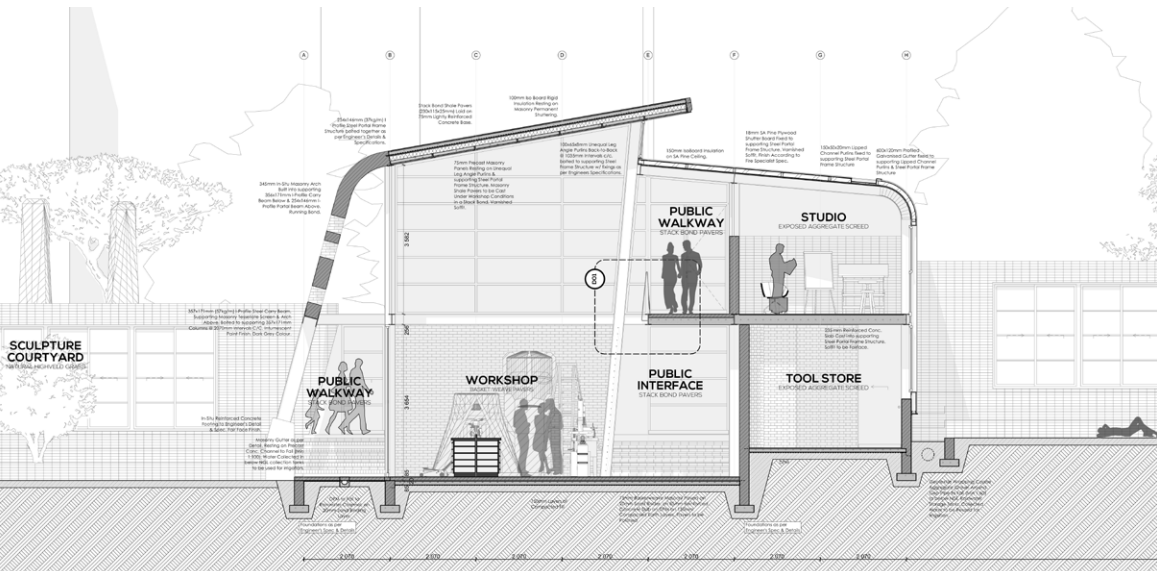
Fig. 10.4. Top - *Section A-A (Author, 2017)*
Fig. 10.5. Middle - *Section B-B (Author, 2017)*
Fig. 10.6. Below - *Section C-C (Author, 2017)*

197
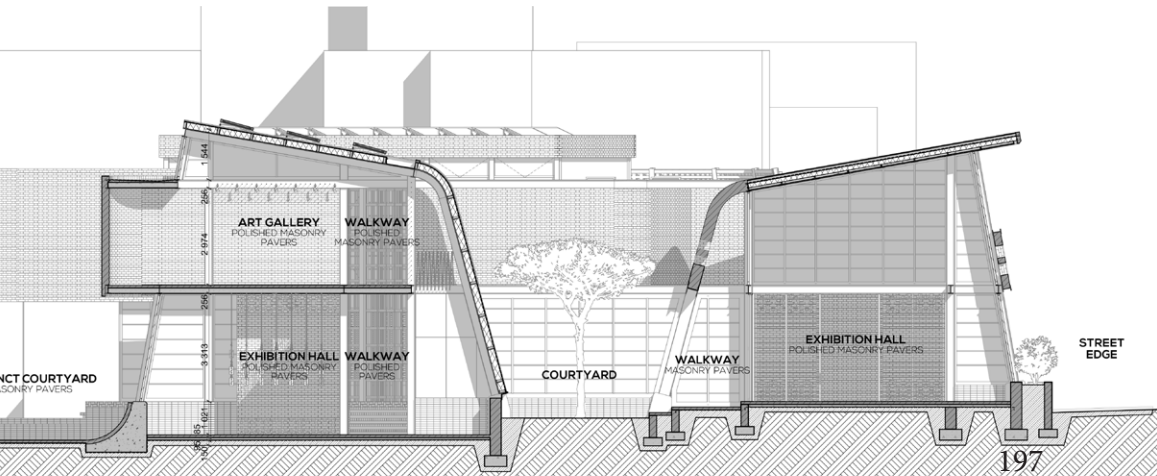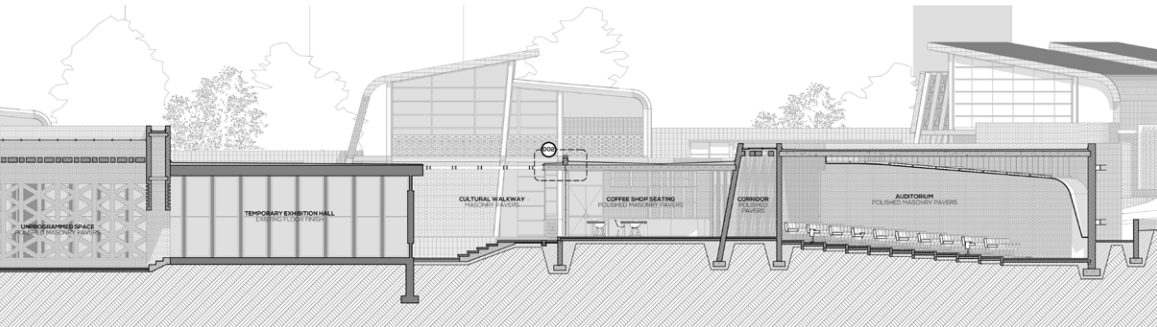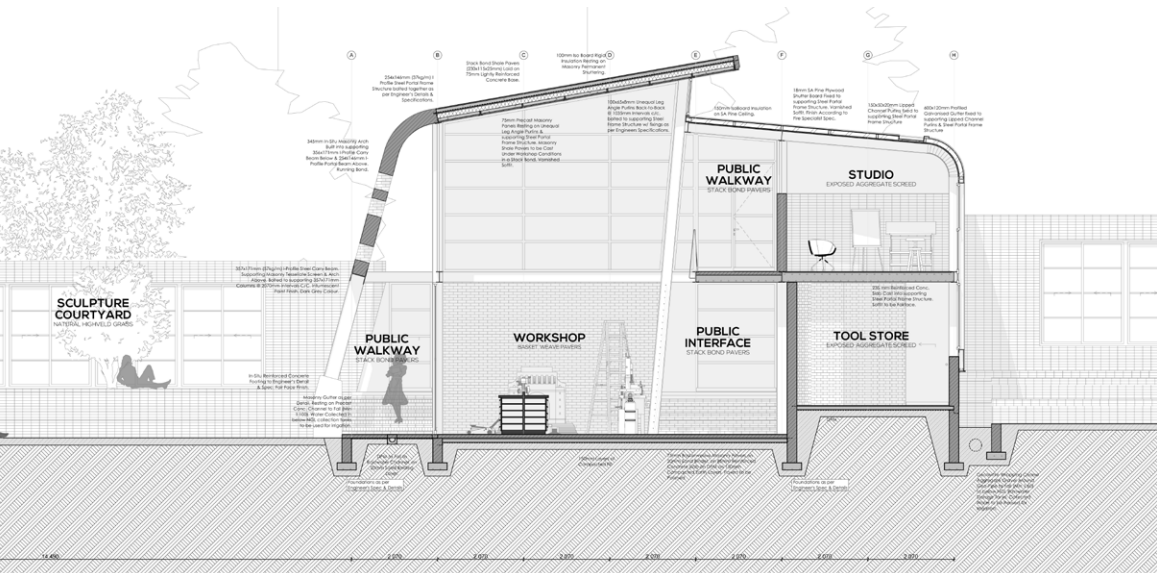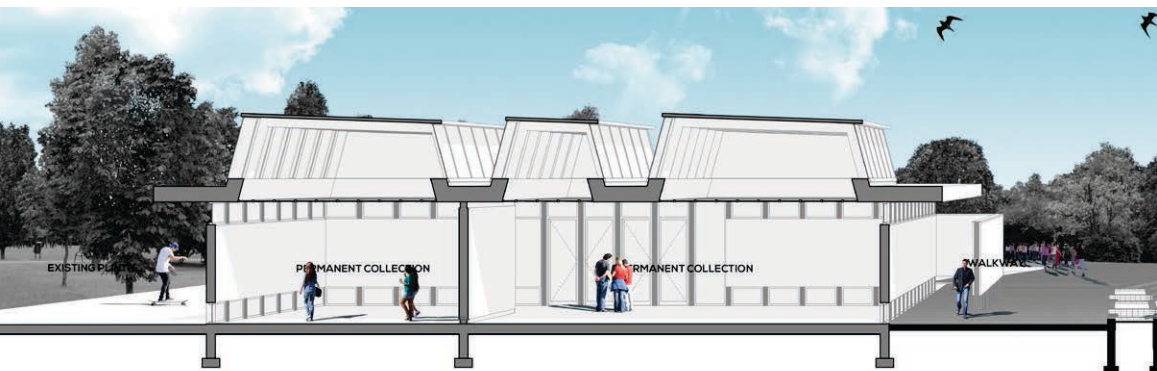
10.5
PERSPECTIVE SECTIONS:

198
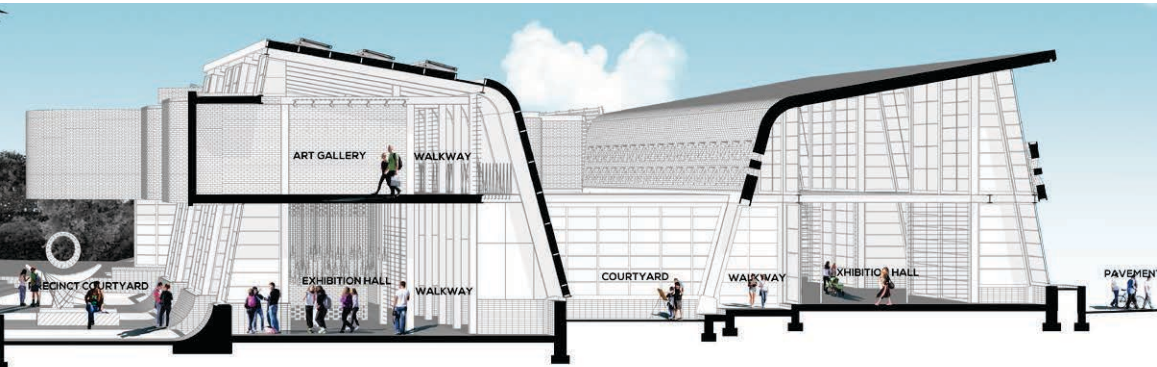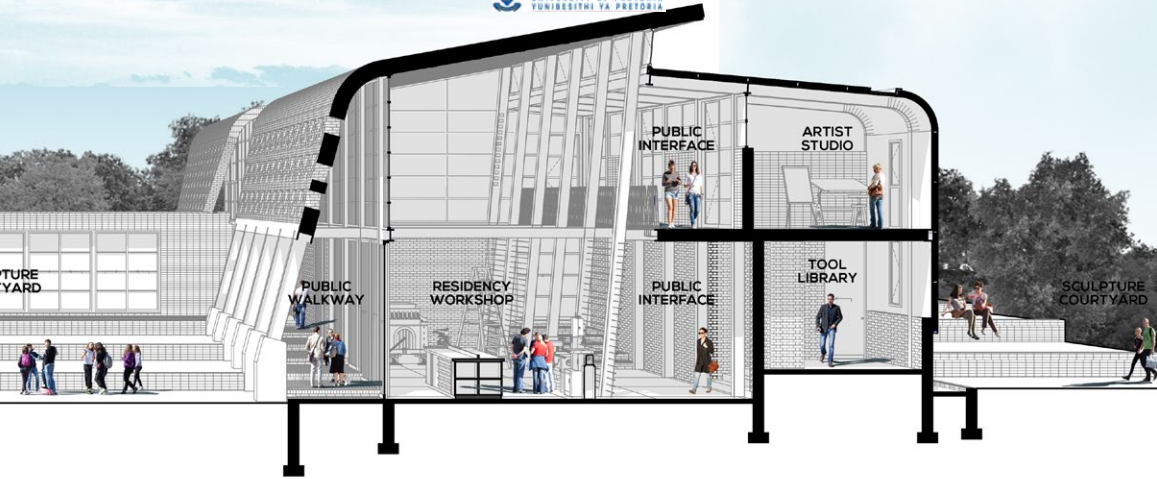
Fig. 10.7. Top - *Perspective Section A–A (Author, 2017)*
Fig. 10.8. Middle - *Perspective Section B–B (Author, 2017)*
Fig. 10.9. Below - *Perspective Section C–C (Author, 2017)*

199
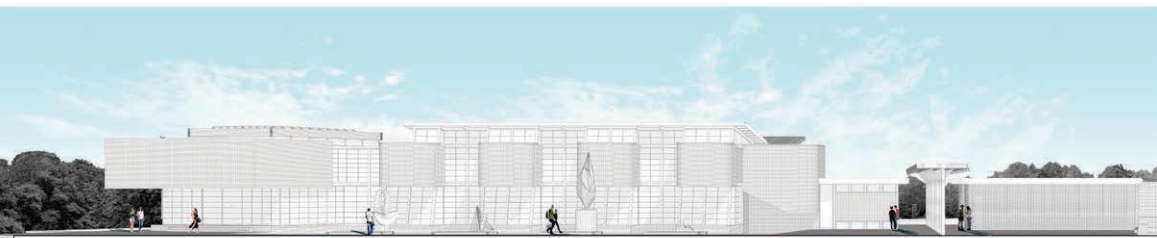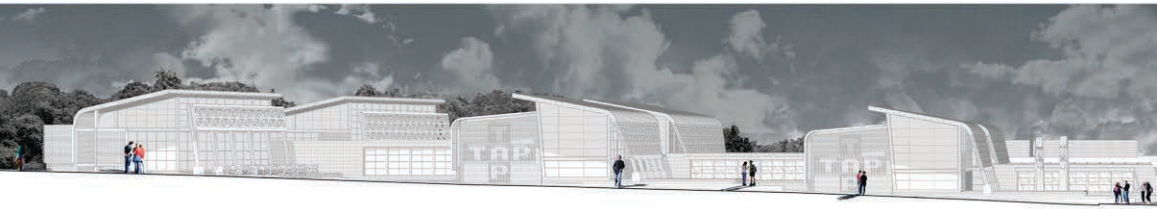
10.6
PERSPECTIVE ELEVATIONS:

200
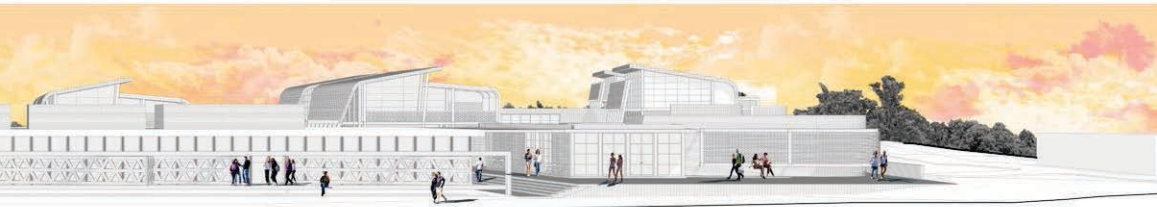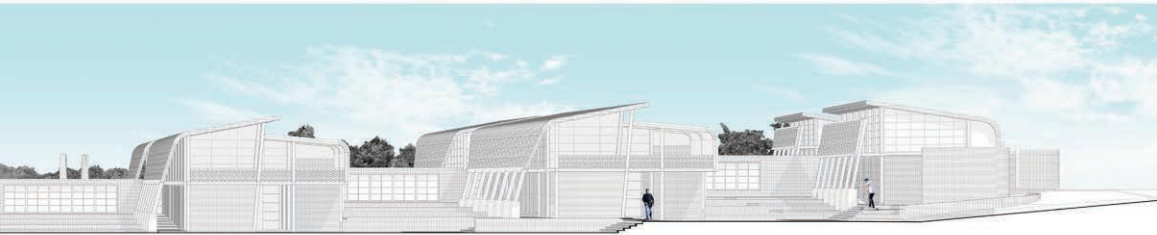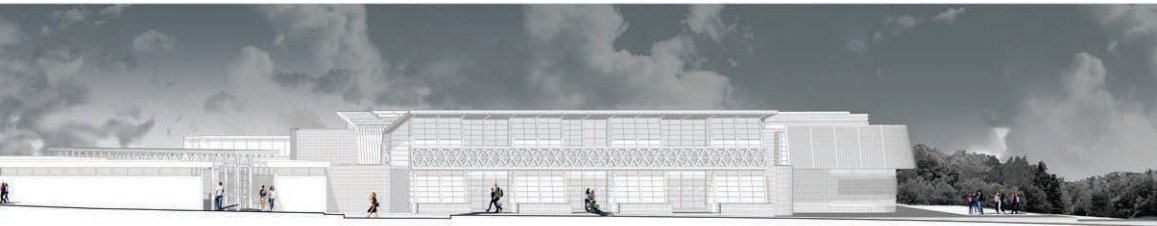
Fig. 10.10. Top - *Northern Perspective Elevation (Author, 2017)*
Fig. 10.11. Middle - *Internal Perspective Elevation (Author, 2017)*
Fig. 10.12. Below - *Southern Perspective Elevation (Author, 2017)*

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10.7
AXONOMETRIC SECTION STRIP:

Fig. 10.13.
Below - *Axonometric Section Strip (Author, 2017)*

LEGEND:

1. Stack Bond Shale Pavers (230x115x25mm) Laid on 75mm Lightly Reinforced Concrete Base

2. Soldier Bond Shale Paver (230x115x25mm) Laid on 75mm Lightly Reinforced Concrete Base.

3. Movement Joint.

4. 75mm Reinforced Concrete Base on Derbigum SP-4 Waterproofing Layer, 6-10mm Coarse Aggregate. Max 8mmØ Reinforcement Mesh.

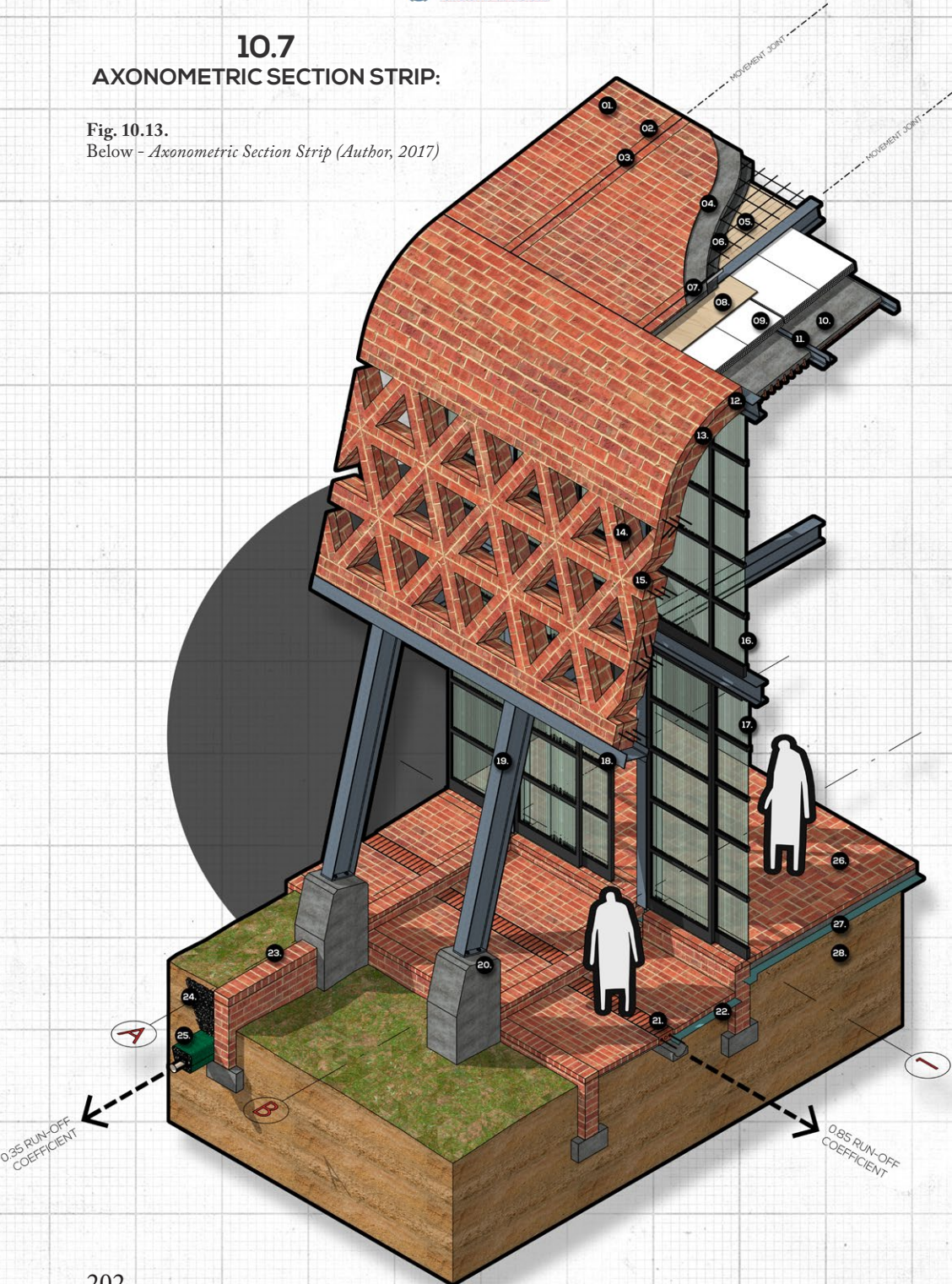5. Max 8mmØ Reinforcement Mesh Cast Into In-Situ Conc. Slab, Design as per Engineer's Spec & Detail.

6. Derbigum SP-4 Torch-On Waterproofing applied to Plywood Board, to be Applied by Specialist as per Maunfacturer's Spec & Detail.

7. Polystyrene Filler Sealed with Silcone along Movement Joint Line above Steel Portal Frame. Interval @ 2070mm c/c.

8. 18mm SA Pine Plywood Shutter Board Fixed to supporting Steel Portal Frame Structure.

9. 100mm Iso Board Rigid Insulation Resting on Masonry Permanent Shuttering.

10. 75mm Precast Masonry Panels Resting on Unequal Leg Angle Purlins & supporting Steel Portal Frame Structure. Masonry Shale Pavers to be Cast Under Workshop Conditions in a Stack Bond, Varnished Soffit.

11. 100x65x8mm Unequal Leg Angle Purlins Back-to-Back @ 1035mm Intervals c/c, bolted to supporting Steel Frame Structure w/ fixings as per Engineers Specifications.

12. 254x146mm (37kg/m) I Profile Steel Portal Frame Structure bolted together as per Engineer's Details & Specifications.

13. 345mm In-Situ Masonry Arch Built into supporting 356x171mm I-Profile Carry Beam. below & 254x146mm I-Profile Portal Beam Above. Running Bond.

14. Masonry Tessellate Screen to be constructed in-situ as per detail. 8mmØ Steel Reinforcement as per Engineer's detail to be built into joints. Long Joints to be Raked, Bonds to be Flush.

15. 8mmØ Steel Reinforcement as per Engineer's Detail to be Built into Masonry Joints.

16. Crittall Steel Window Frames w/ Reeded Texture Double Glazing Insets. To be Installed by Specialist. Dark Grey Powder Coating Finish.

17. Crittall Steel Sliding Doors w/ Reeded Texture Double Glazing Insets. To be Installed by Specialist. Dark Grey Powder Coating Finish.

18. 357x171mm (57kg/m) I-Profile Steel Carry Beam, Supporting Masonry Tessellate Screen & Arch Above. Bolted to supporting 357x171mm Columns @ 2070mm Intervals C/C. Intumescent Paint Finish, Dark Grey Colour.

19. 357x171mm (67.1kg/m) I-Profile Steel Columns @ 2070mm Intervals c/c. Bolted to Supporting Reinforced Concrete Footing through 16mm MS Plate. Bolts as per Engineer's Spec, 40mm Non-Shrink Grout filling between footing & Base Plate. Intumenscent Paint Finish, Dark Grey Colour.

20. In-Situ Reinforced Concrete Footing to Engineer's Detail & Spec. Fair Face Finish.

21. Masonry Gutter as per Detail, Resting on Precast Conc. Channel to Fall (Min 1:100). Water Collected in below NGL collection tanks to be used for irrigation.

22. DPM to Fall to Rainwater Channel, on 20mm Sand Binding Layer.

23. 1190mm Masonry Retaining Wall, Header Course Parapet. On Supporting Foundation as per Engineer's Spec & Detail.

24. Coarse Aggregate Back-Fill, 150mm Layers of Growing Medium to Fill Above. Geotextile Wrapping Coarse Aggregrate Gravel Around Geo-Pipe to Fall (Min 1:60) to below NGL Rainwater Storage Tanks. Collected Water to be Reused for Irrigation.

25. 85mm Basket Weave Paving on 85mm Conc. Slab. Pavers to be Polished.

26. DPM

27. 150mm Layers of Compacted Fill

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Fig. 10.14.
Above - *Hand Rail Detail 01 (Author, 2017)*

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LEGEND:

1. 18mmØ Steel Reinforcing Bar Welded to supporting Flat Bar Up-Rights @ 2070mm Intervals c/c.

2. 254x146mm (37kg/m) I-Profile Steel Portal Frame Structure bolted together as per Engineer's Details & Specifications.

3. 50x8mm Handrail Up-Rights cut from 8mm Steel Plate. Bolted to Supporting 254x146mm I-Profile Steel Portal Frame Structure w/ 12mm Bolts. Paint to Match.

4. 12mmØ Steel Reinforcing Bar cast into reinforced concrete slab as starter bars. Welded to top of 254x146mm I-Profile Steel Beam. Bars Cast @ 150mm Intervals c/c. Max Openings 100mm.

5. 254x146mm (37kg/m) I Profile Steel Beam w/ Holes @ 150mm Intervals c/c. Intumescent Paint Finish, Colour to be selected from Architectural Grey Paint Palette.

6. 70mm Masonry Pavers Laid in Basket Weave Pattern on 20mm Sand Binding Layer. Polished.

7. 20mm Sand Binding Layer on Reinforced Conc. Slab.

8. 170mm Reinforced Conc. Slab Cast into supporting Steel Portal Frame Structure. Soffit to be Fairface.

9. 12mmØ Reinforcement Mesh Cast Into In-Situ Conc. Slab, Design as per Eng.'s Spec & Detail.

10. 4x M24 Threaded Rods Bolting 254x146mm I-Profile steel Portal Frame Structure together through 14mm M.S Cap Plates, Welded.

11. 5mmØ Stainless Steel Cable fixed to supporting Steel Portal Frame Structure w/ Turnbuckle Bolts. Cables fixed @ 150mm Intervals Vertically c/c. Art & Tools to be Hung from Cables as Needed.

'PARAPETLESS' FLAT ROOF DETAIL 02:
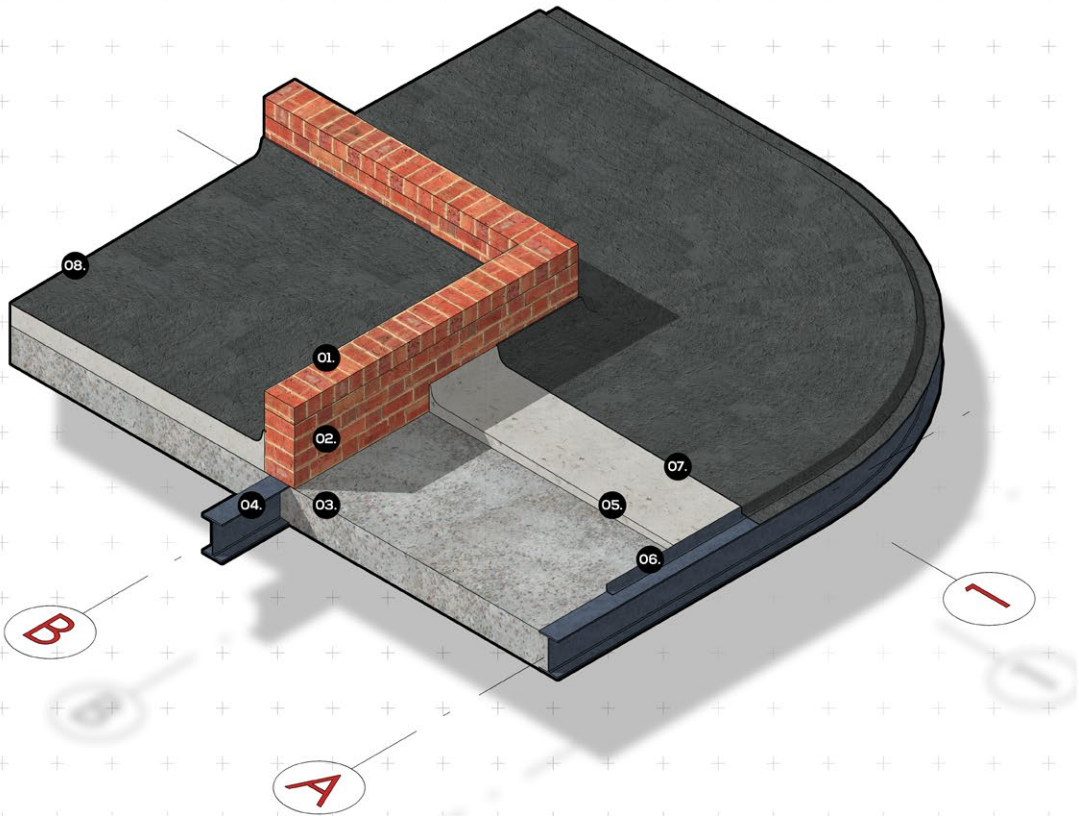
Fig. 10.15.
Above - 'Parapetless' Flat Roof Detail 02
(Author, 2017)

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LEGEND:

1. 115mm Header Course Coping.
2. 425mm Flemish Bond Parapet Wall set back on Grid. Laid on Reinforced Concrete Roof Above Steel Frame Structure.
3. 255mm Reinforced Concrete Slab cast into Steel Portal Structure, Reinforcement as per Eng.'s Spec & Detail. Soffit to be Fairface
4. 254x146mm (37kg/m) I Profile Steel Portal Frame Structure @ 2070mm Intervals c/c.   Intumescent Paint Finish, Colour to be selected from 'Architectural Grey' Paint Palette.
5. Min. 50mm Screed to Fall to Edge of Roofline. Fall to be min. 1:100.
6. 50x50x6mm Equal Leg Angle Spot Welded to Top of supporting 254x146mm I-Beam Profile as Stopper for Screed. Anti-Corrosive Paint Finish.
7. Derbigum SP-4 Torch-On Waterproofing to Fall to Edge of Roof Line. To be Applied by Specialist according to Manufacturer's Spec & Detail.
8. Derbigum SP-4 Torch-On Waterproofing to Fall to Fullbore Drain. To be Applied by Specialist according to Manufacturer's Spec & Detail. Gravel Layer to Cover.

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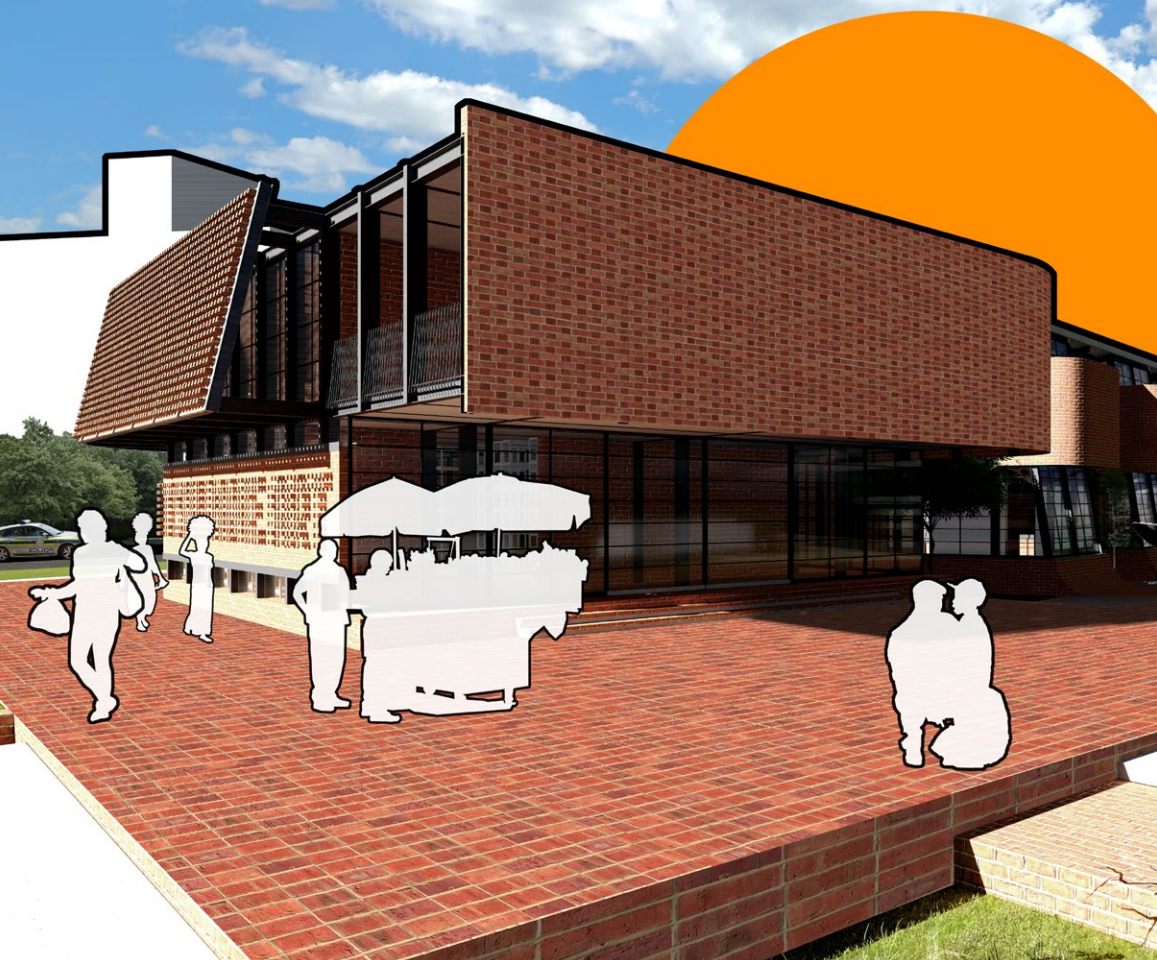
10.10
PROJECT VISUALS:

Fig. 10.16.
Above - *South Western Corner of the Library, Archive, & Existing Pretoria Art Museum (Author, 2017)*

Fig. 10.17.
Page 210 - *Residency Gallery & Sculpture Courtyard from Francis Baard St (Author, 2017)*

Fig. 10.18.
Page 210 - *Southern Opening through the Existing Pretoria Art Museum (Author, 2017)*

Fig. 10.19.
Page 211 - *Residency Workshop Western Façade & Sculpture Courtyard (Author, 2017)*

Fig. 10.20.
Page 212 - *Unprogrammed Masonry Insertions into the Existing Pretoria Art Museum (Author, 2017)*

Fig. 10.21.
Page 212 - *South Eastern Corner of the Exhibition Halls & Main Courtyard (Author, 2017)*

Fig. 10.22.
Page 213 - *Interior Perspective of the Reception to the Exhibition Halls (Author, 2017)*

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Fig. 10.23.
Page 214 - *Interior Perspetive of a Travelling
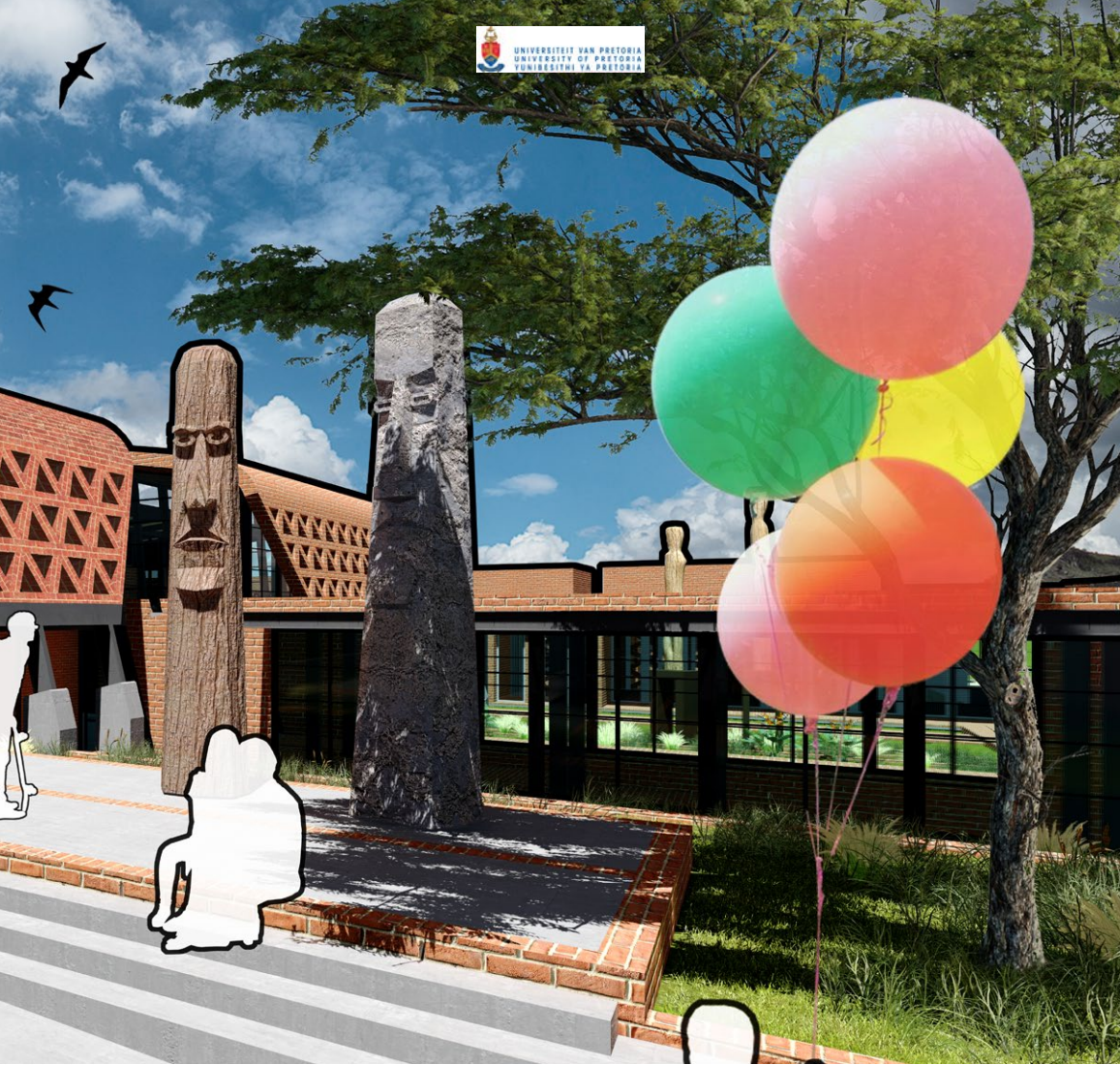Galleries in the Exhibition Wing (Author, 2017)*
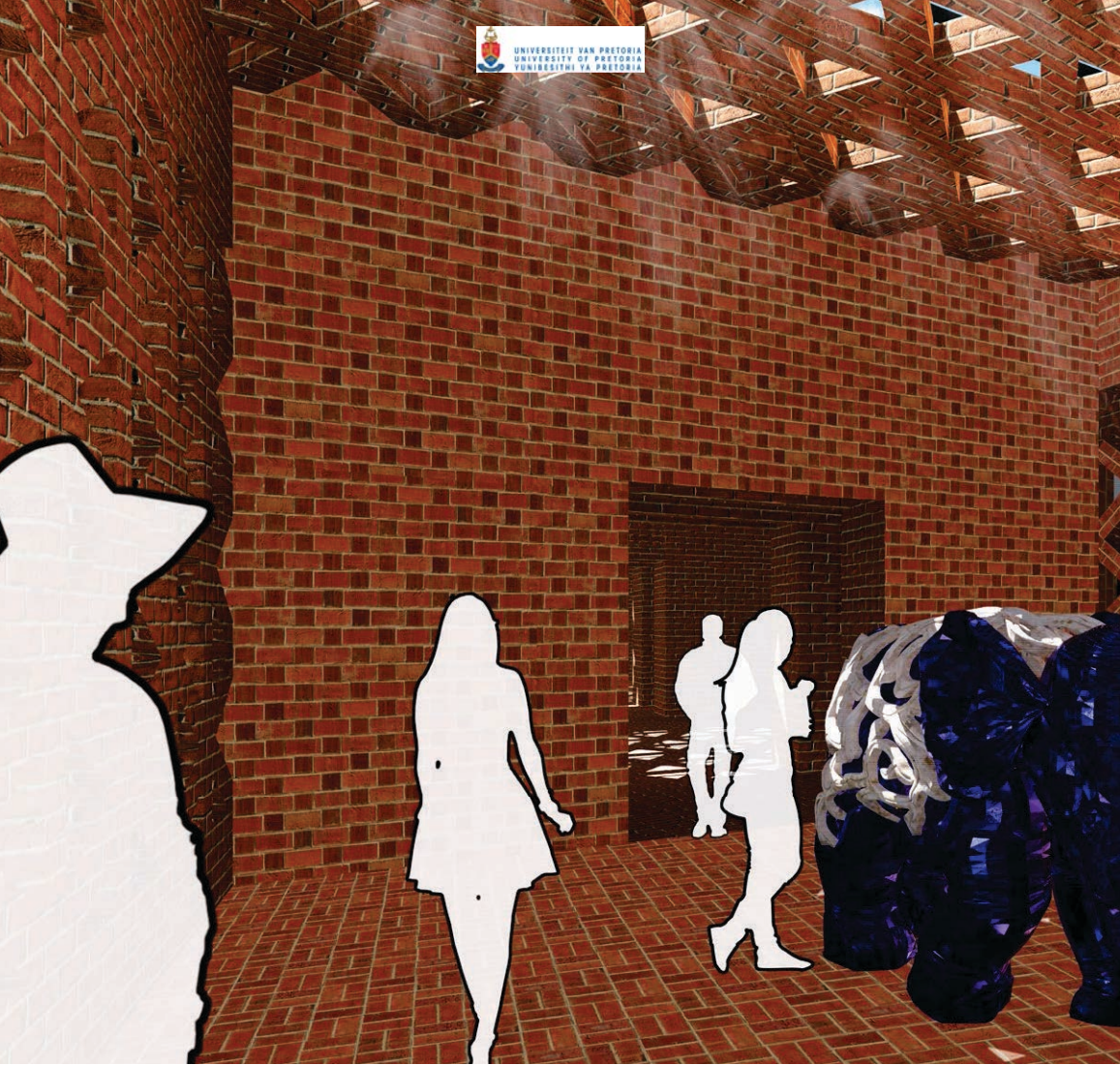Fig. 10.24.
Page 214 - *Interior Perspective of
an Artist Residency Gallery Space (Author, 2017)*
Fig. 10.25.
Page 215 - *Interior Perspective of
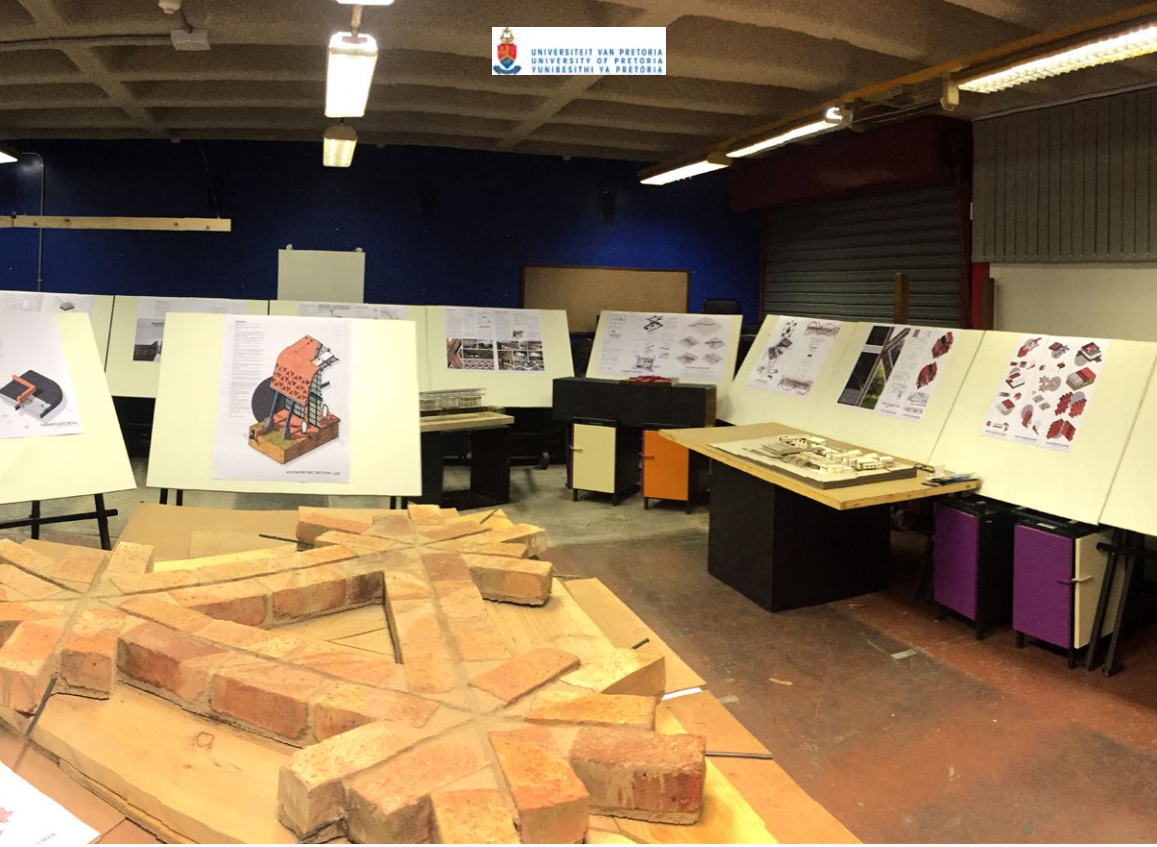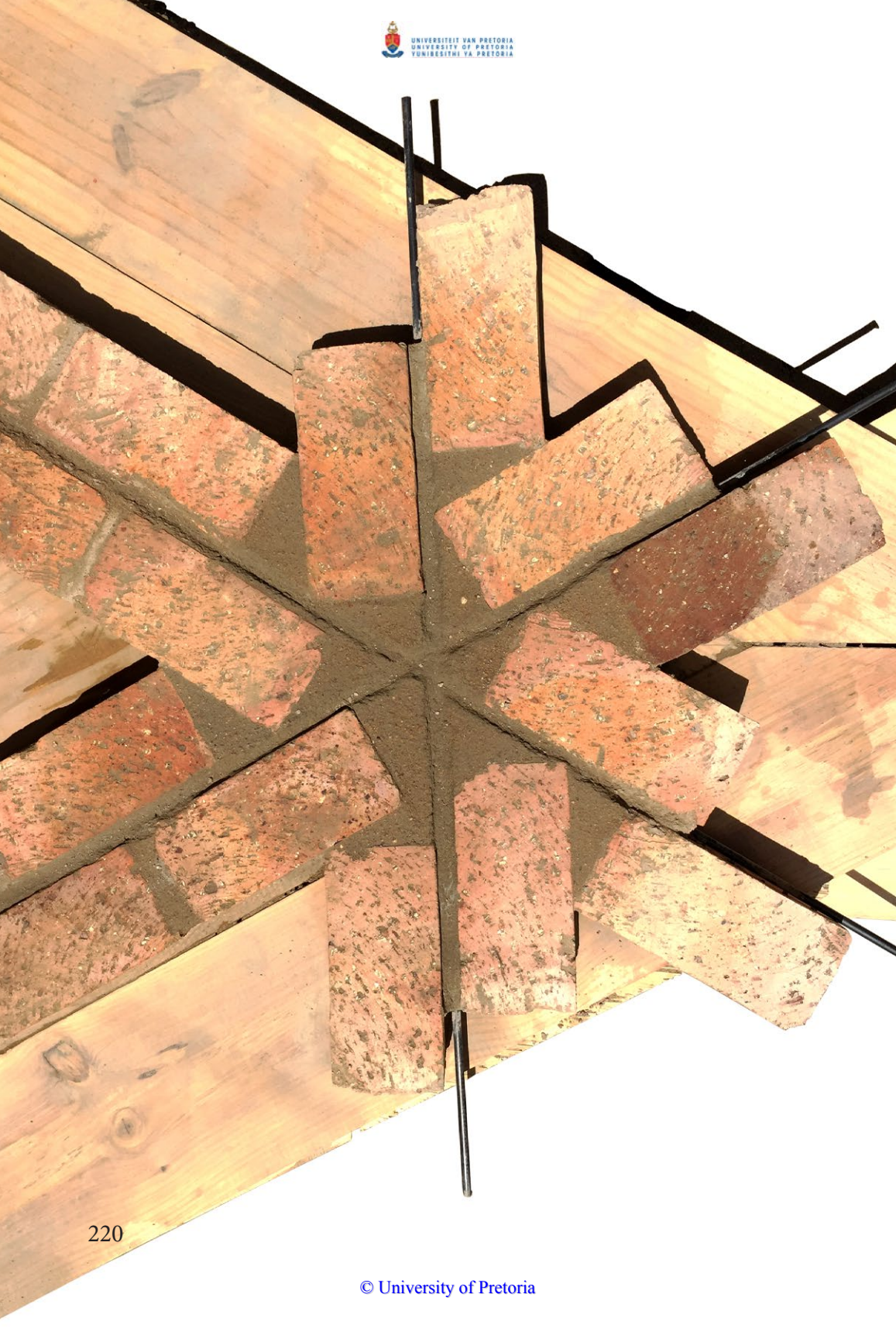an Artist Residency Workshop (Author, 2017)*

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APPENDIX A

FINAL EXHIBITION

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APPENDIX B

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