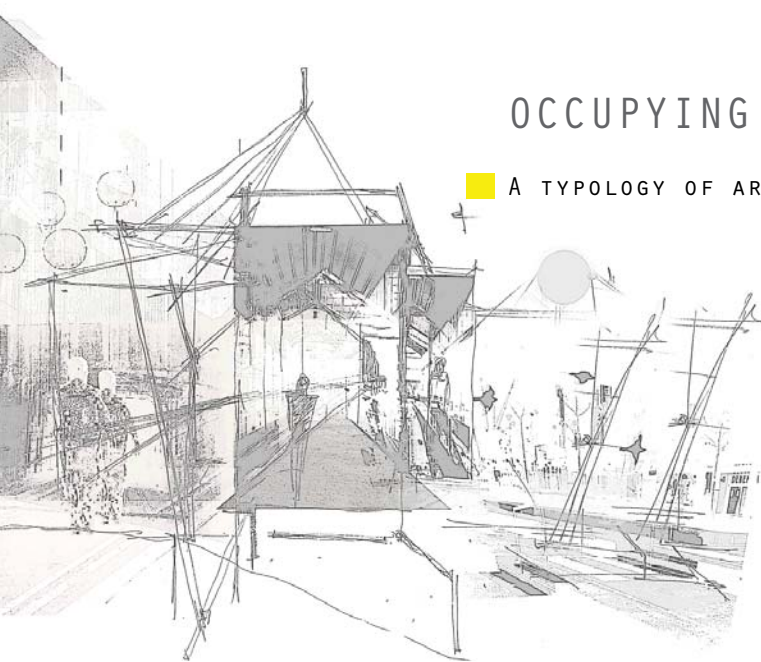


OCCUPYING THE IN-BETWEEN

■ A TYPOLOGY OF ARCHITECTURE AS THE MEDIATOR



To

My family

My friends

By Nina Steenkamp

Submitted in partial fulfilment of the requirements
for the degree
Magister in Architecture [Professional]
Department of Architecture

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Information Technology
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ABSTRAK

Die paradoksale aard van die samelewing lei tot verreikende dualiteite in die studie van beweging en ruimte wat teenstrydige verhoudings teweeg bring. Die rol van die argitektoniese ontwerp is om die wording van die mosies as platform vir die skouspel in sy onmiddellike konteks te fasiliteer.

Die verhandeling bied 'n argitektoniese voorstel wat die nosie van dualiteit aanspreek. 'n Argitektoniese narratief skep scenarios as moontlike weerwoorde deur om moontlikhede binne 'n liminale konteks te identifiseer.

Die skrywer ondersoek die manifestasie van meertallige programme: 'n leer-werkswinkel, bakery en 'n kroeg, binne die Suid-Afrikaanse stedelike konteks van Pretoria-Wes.

Die argitekturele verkenning het ten doel om die publieke lewe te verryk in 'n liminale ruimte op die rand van die stad. Uitdagings wat verband hou met die tipologie van dualiteit word aangespreek deur die integrasie met die onmiddellike konteks om die volhoubaarheid daarvan te verseker. Die doel is om die rant-toestande en ruimtes wat algemeen oor die hoof gesien word, te beklemtoon en selfs te vier.

Sleutelwoorde:
Liminale ruimte
Dualiteit

ABSTRACT

The paradoxical nature of society leads to great dualities in the study of motion and space, creating conflicting relationships. The role of the architectural design is to facilitate these motions to become a stage for the spectacle in its immediate context.

The dissertation presents an architectural proposal that addresses the notion of duality. By identifying the possibilities within a liminal context, an architectural narrative creates scenarios as a possible response.

The author investigates the manifestation of multiple programmes, a leather workshop, bakery and bar within the South African urban context of Pretoria West.

The architectural exploration aims to enrich public life in a liminal space on the periphery of the city. Challenges associated with the typology of duality are addressed through the integration with the immediate context to ensure its sustainability. The aim is to celebrate the edge condition and the spaces commonly overlooked.

Keywords:
Liminal Space
Duality

MEDIATE

*...to intervene between hostile factions
or conflicting ideas or principles.
[Porter, 2005]*

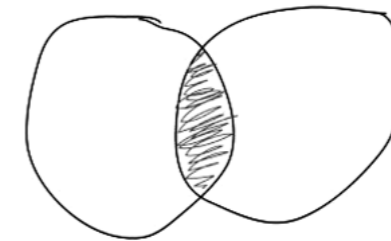
DUALISM

*Dualism is the theory that reality
is composed of only two irreducible
substances, for example, matter and
spirit. [Porter, 2005]*

LIMINALITY

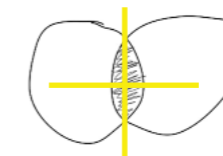
*..in-between situations and conditions
that are characterised by the
dislocation of established structures,
the reversal of hierarchies, and
uncertainty regarding the continuity
of tradition and future outcomes.
[Gennep, 1990]*

OCCUPYING THE IN-BETWEEN



Duality in Time

Duality in Event



MEDIATING PLATFORM

Fig. 1.1 Architecture as mediator [Author. 2012]

EXPOSITION

Written in a narrative style, the author aims to encapsulate the essence of the investigation in the study of architecture as mediator in the urban context of Pretoria West.

The narrative aims to give the reader an understanding of the architectural intervention within its immediate context. Consisting of different 'scenes', the dissertation is structured to unfold the plot and central idea [or concept] behind the proposed intervention.

THE NARRATIVE

Setting:

To define the situation or problem and its temporality: any event has a past, a present and an implication for the future [Porter & Sotelo, 2004]. The contextual analysis becomes the departure point of the design in order to understand and to challenge the current conditions.

Actors:

The characters in the narrative originate in the public realm. The architecture becomes the 'stage' in which the characters meet, play and perform.

Dramatic conflict:

As a liminal space, the conflict in the duality of the programmes and the context leads to collision and conflict in order to create a synthesis. The design challenges the existing in order to establish opportunities and possibilities within the conflicting 'setting'.

Possible resolutions:

The resolution is how the author aims to resolve and overcome obstacles, restrictions and rules in order to create an architecture for the actors in Pretoria West that is open-ended for interpretation.

Uncertainties:

The design has many potential interpretations. In establishing desired scenarios, diversity and plurality are embedded in the creative narrative imagination.

METHODS

Contextual and site exploration [The Found]:

The observation method is applied to create the basis of the study in contextual architecture. Establishing a deeper understanding of the immediate context, it enables the authors' architectural intervention to respond to the 'setting', both programmatically and architecturally.

Experiential drawing [The Possibilities]:

Allowing the imaginative realm to enter the physical, the method of drawing is employed to create possible dreamscapes within the existing context.

Similarities [Precedent]:

Studying similar programmatic, technological and theoretical approaches, the author investigates different proposals to similar 'problems'.

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SCENE 1

SETTING THE SCENE

PROBLEM STATEMENT
THE AIM

BACKGROUND
Historical Development

URBAN INTRODUCTION
A Liminal Space
The In-Between
Travelling Shots

URBAN PROPOSAL
Pretoria West Event Platforms
Inside Scoop
145 on Carl Event Platforms

THE OLD AND THE NEW
The Shed

PROBLEM STATEMENT

The death of traditional industries, coupled with new ways of distributing and producing goods have taken factories out of the urban centres. This resulted in a Post-modern form of urban decline that left many buildings devoid of purpose and vast areas eerily abandoned. [Hirt, 2005]

According to Sonia Hirt, author of *Toward Postmodern Urbanism*, Postmodernism thus has the potential to act as a conceptual bridge that “links changes in planning to changes in the context of a broad cultural shift that includes vast realms of human experience.” [Hirt, 2005:19]

There is room for an approach to architecture that would ultimately eclipse functionalist ideology in providing a humane platform for activity within a semi-industrial area.

How can architecture facilitate a dialogue between built form and the public realm? How can architecture promote participation and engagement between that which is created, the user and the observer in its immediate context?

THE AIM

Public space provides opportunities for people to meet and be exposed to their community [Borrup, 2007]. Pretoria West is currently a ‘pit stop’ area on a journey elsewhere. Providing for the unimpeded movement and storage of automobiles, rather than creating places that encourage social interaction, the area is a void in-between destinations.

An inclusive architecture in the form of public space and programme is an important constituent in a democratic society [Borrup, 2007]. The author aims to seek a dynamic approach to create an architecture that deals with the authenticity of time, place and the public realm, supported and complemented by related programmes to become the facilitator for public conversation.

With a focus on the forgotten places and networks that exist within the city of Pretoria, the West is investigated to unmask its potential as a liminal space. The streets of Pretoria West are the wilderness in which the author explores its potential and creates narratives from observations made. To create urban stories derived from the urban setting and its obscure character, the author aims to become the facilitator in revitalizing the *Terrain Vague*. [De Sola-Morales, 1995]

Through the layering of contextual narratives the project aims to find the middle ground between new and old systems and to find the balancing point of the edge condition, to create a threshold that connects rather than separates.

BACKGROUND

“The periphery is ...a state of in-between, between old centres and new islands, a region on non-location that remains in motion, free, contradictory, wild and plain beautiful.”
[Lapunzina, 1995:318]

Pretoria West is a neighbourhood located on the western periphery of the Tshwane Inner City [Fig. 2.1]. The area was established in 1892 and is one of the oldest townships in Pretoria. Established as a residential suburb, with single-storey middle class and workers houses, the development of the iron industry in the 1930’s resulted in major factories being developed along the Mitchell Street corridor. [PWIF, 2004]

Today the area is characterised by its semi-industrial nature, an in-between space on the periphery of the city edge. It is an area with a dual nature, a 7-5 pitstop where the battle for urban turf is won by the auto-mobile.

Currently acting as a sterile buffer zone, separating the CBD and the settlements to the West, the vacuum created by people moving out of this area needs to be addressed. The author argues that the area’s

favourable central location and available infrastructure, makes it a prime location for future development. With the high volume of people moving through Pretoria West and the close proximity to the CBD, the challenge is to provide more opportunities to spend time in the district instead of simply passing through to another destination.

Developed as a residential area, the character of the suburb has changed to a mono-functional area, isolated from the inner city and the neighbouring suburbs, a *liminal* space lost in time that separates and isolates, instead of connecting and supporting the surrounding neighbourhoods.

The change in the character of the area and the strategic location of the area, coupled with the principles put forward in the urban framework ‘Hardboiled Wonderland’, becomes the departure point for the proposed intervention on 145 Carl Street.

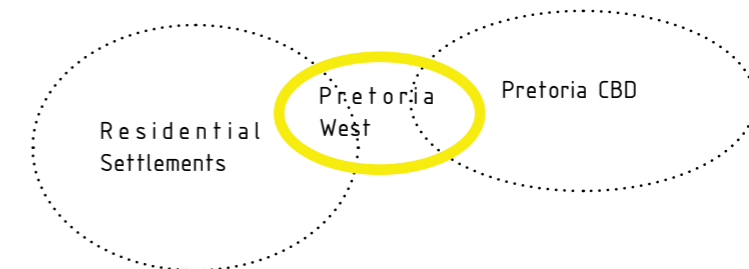


Fig. 2.1 Pretoria West as the In-between



Pretoria West

25'45'S _ 28'15'E

Church Street

Soutter Street

Mitchell Street

Carl Street

NZASM Tracks

DF Malan Street

Church Square

145 Carl

Paul Kruger Street

Fig. 2.2 Locality Map highlighting study area

HISTORICAL DEVELOPMENT

1855	Pretoria established
1890	Military Base
1892	Street Plan Laid out as Extension to Pretoria Central
1892	Weskoppies [Mental Hospital]
1900's	Railway Line extended to North
1910	Pretoria West Developed with Housing
1913	Western Barrel-Inn Hotel Built
1920	Power Station
1934	Iscor
1936	Proclamation Hill
1939	West Park
1939	Atteridgeville
1948	Black Mill



Fig. 2.3 Historical Development of Pretoria West

"I am a mesh of memories and purpose. I am without fixed flesh. I am the risen; burning bones of peoples past...It lives between here and there. In the spaces easily missed and misunderstood. It is life without flesh. It is body without organs. It is vitality craving intent".

[Parsons, 2012]



URBAN INTRODUCTION

"I walk against the flow. I can smell the night before and am greeted by the perfume of hard labour. The aroma of dust and gas fume exhausts me. My ears are filled with the voice of modern culture. The poison penetrates deep into my unsentimental soul as I leave in the hope to not be seen an outsider anymore." [Author, 2012]

The growing car culture has allowed South-Africans to live in suburban housing developments leaving our cities empty at night. The need to drive everywhere increases social fragmentation and is "most detrimental to those who cannot drive: the elderly, the sick, children and the poor" [Goff, 1993]. The infusion of the car into our cities has had a major bearing on urban architecture. To make space for the car, the loss of public space is becoming more apparent.

In his study, *Paris et l'agglomeration parisienne* [1952], Chombart de Lauwe notes that "an urban neighbourhood is determined not only by geographical and economic factors, but also by the image that its inhabitants and those of neighbourhoods have of it" [Murrell, 2011]. Mitchell Street is defined by a sea of cars crowding its facades, taking away from the experience of the pedestrian and halting the visual and cultural stimulation of the area as a public space. The 'public spaces' of the street have been compromised for the singular purpose of moving, repairing and storing of these cars. This phenomenon abandons public space to the favoured car owners of our society and the social interaction on the street is lost [Fig. 2.4].

In author Phillip Goffs' essay on *Car Culture and the Landscape of Subtraction* [Goff, 1993], Goff notes architectural historian Spiro Kostoff's important take on the street as a public space: "The street stands as the burial place of a chance to learn from one another, the burial place of unrehearsed excitement, of the cumulative knowledge of human ways" [Kostoff, 1992:243].

These encounters are lost because of the individual avoiding tension by escaping it, scheduling encounters with a friend, and travelling alone in climate controlled and music injected metal boxes. [Goff, 1993] This phenomenon is apparent in Pretoria West due to the auto-dominated character of the area, especially along the Mitchell Street corridor [Fig. 2.2].

Mitchell Street serves as an artery between the CBD and the areas to the West, which includes the workforce commuting to the CBD. As an auto-dominated area it has become uninviting to future investors and the general public, as well as challenging and unsafe to prospective tenants and property owners. Characterised by the consumerist culture of modern society, the underutilised infrastructure poses an opportunity and has the potential for the unveiling of its character as a place of destination, where unscheduled, unrehearsed excitement can prevail in the form of public event.

Fig. 2.4 Collage portraying the auto-dominated spectacle of Pretoria West

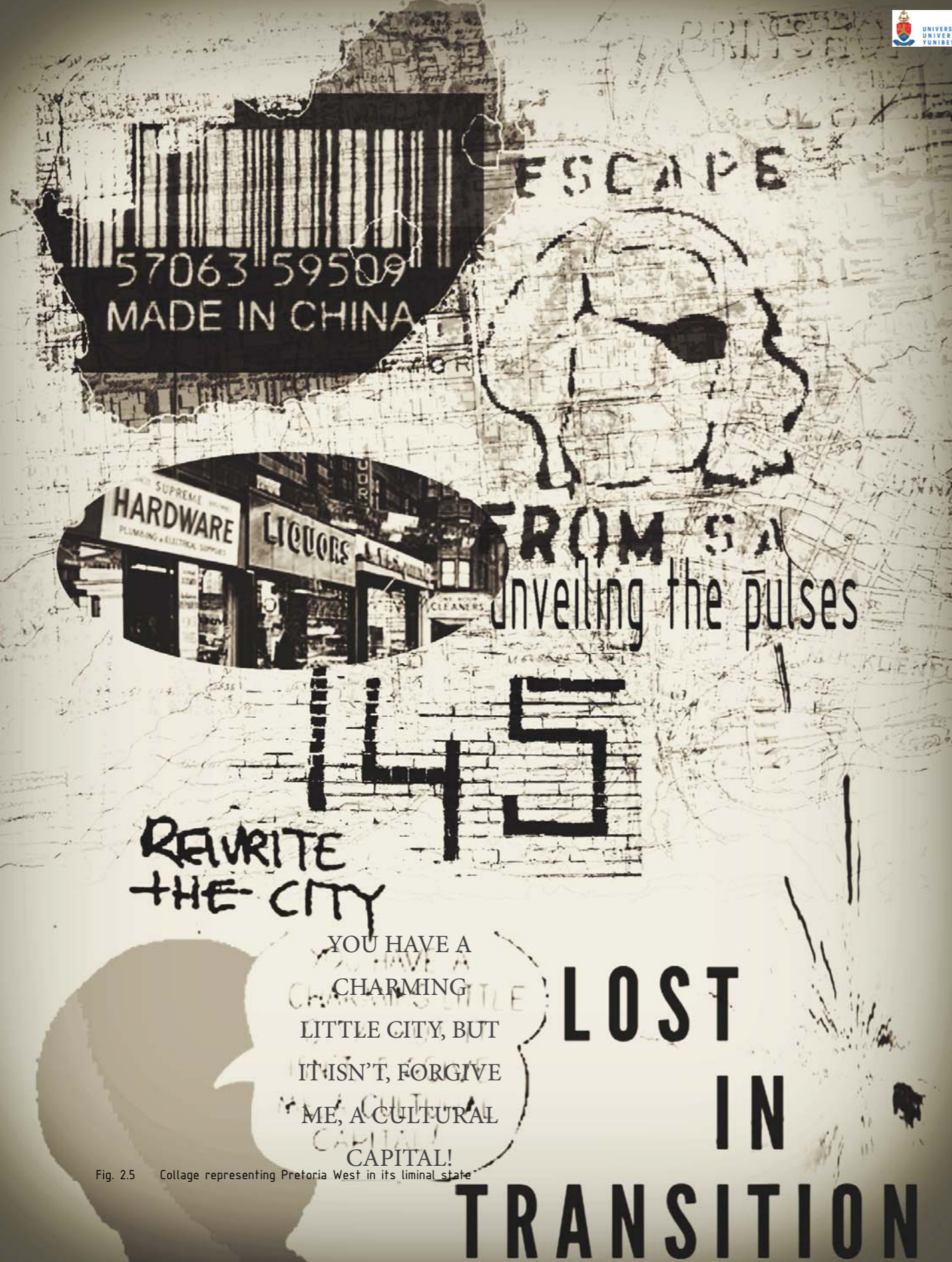


Fig. 2.5 Collage representing Pretoria West in its liminal state

A LIMINAL SPACE

The idea of liminality was developed by anthropologist Arnold van Gennep in his study *Les rites de passage*. Gennep identified three phases in the passage from one culturally defined state to another: *separation*, *transition (liminal)* and *reincorporation*. Further developed by anthropologist Victor Turner, the term liminality "refers to in-between situations and conditions that are characterised by the dislocation of established structures, the reversal of hierarchies, and uncertainty regarding the continuity of tradition and future outcomes".

Accordingly, liminality has been seen as a phase of transition. [Horvath, Thomassen, & Wydra, 2009]

Even though the general logic of liminality can only be verified by the existence of two finite entities, the peripheral condition creates a space in-between [Fig. 2.6]. The certainty of the CBD is lost in this suburb. As a place in-between neighbourhoods on the edge of the CBD, Pretoria West is lost in its liminality.



Fig. 2.6 Pretoria West on the Edge

THE IN-BETWEEN

Working with the in-between, the designer aims to encourage a dialogue between the dualities of the area and its surrounding neighbourhoods. The proposed site for the intervention tells a story of a place lost in time and space. It is a place with an enchanted sense of secrecy waiting to be uncovered and discovered. It is the empty vessel on the bridge of opportunity, a scaffold with forgotten and unknown memories.

In her essay, *Inhabiting the In-between: Architecture and Infrastructure Intertwined*, Phoebe Crisman [2011], states that the unseen and uninhabited is significant in many ways. "The edges and leftover spaces become the places where urban and architectural scales and uses collide and the social and economic divisions are manifested" [Crisman.2011].

The current urban condition of Pretoria West is a storytelling battlefield. Telling different "stories" at the same time, the West is seen as a space lost in transition. Not holding onto any 'visible' history and disconnected from the present reality of urbanity, the future is a distant unknown. The battlefield is filled with promises of the 'American Dream', it gives glimpses of an African urbanity and a small-town character to establish the reality of a space lost in time [refer to fig 2.7].

In the essay *Partially Open Space, Boundary Events, and Transitional Objects* [Pollak, 1999], Linda Pollak deliberates on the negative status of the edge condition in the modern city. Pollak argues for a re-examination of the boundary as boundaries can function as both thresholds and barriers.

"Because boundaries are where things meet, they have the potential, when approached and represented from different sides, to function as spaces of debate and ambiguity, where it is possible both to call identities into question and to reveal their interdependence, whether these are identities of subjects or of spaces." [Pollak, 1999:78]

Planning authorities often design only for the use of a vehicle, making buildings and spaces secondary to the means of conducting inhabitants from place to place. The lack of public open space in Pretoria West makes it difficult for the inhabitants or visitors to experience the area from the pedestrian side. A need for publicness, on an urban and architectural scale is apparent. Instead of once again providing for the car, the architecture and public spaces should become the connecting vessel.

The seemingly uninhabitable zones in a city create problematic discontinuities in the physical and social fabric. Reconceptualisation and inhabitation of these in-between spaces create the opportunity to activate these otherwise leftover 'non-spaces'. The history and characteristics of Pretoria West as an in-between space need to be examined and understood during the design process. The investigation involves finding innovative ways of combining public space, urban form and architectural density in creating a typology of re-connecting platforms of mediation.

"...to turn town planning into an applied science much was lost - the city of memory, of desire, of spirit; the importance of place and the art of place-making..." [Sandercock, 1998:78]

The ongoing challenge remains to be an architectural intervention that provokes memory, creates a desire and connects with the spirit.

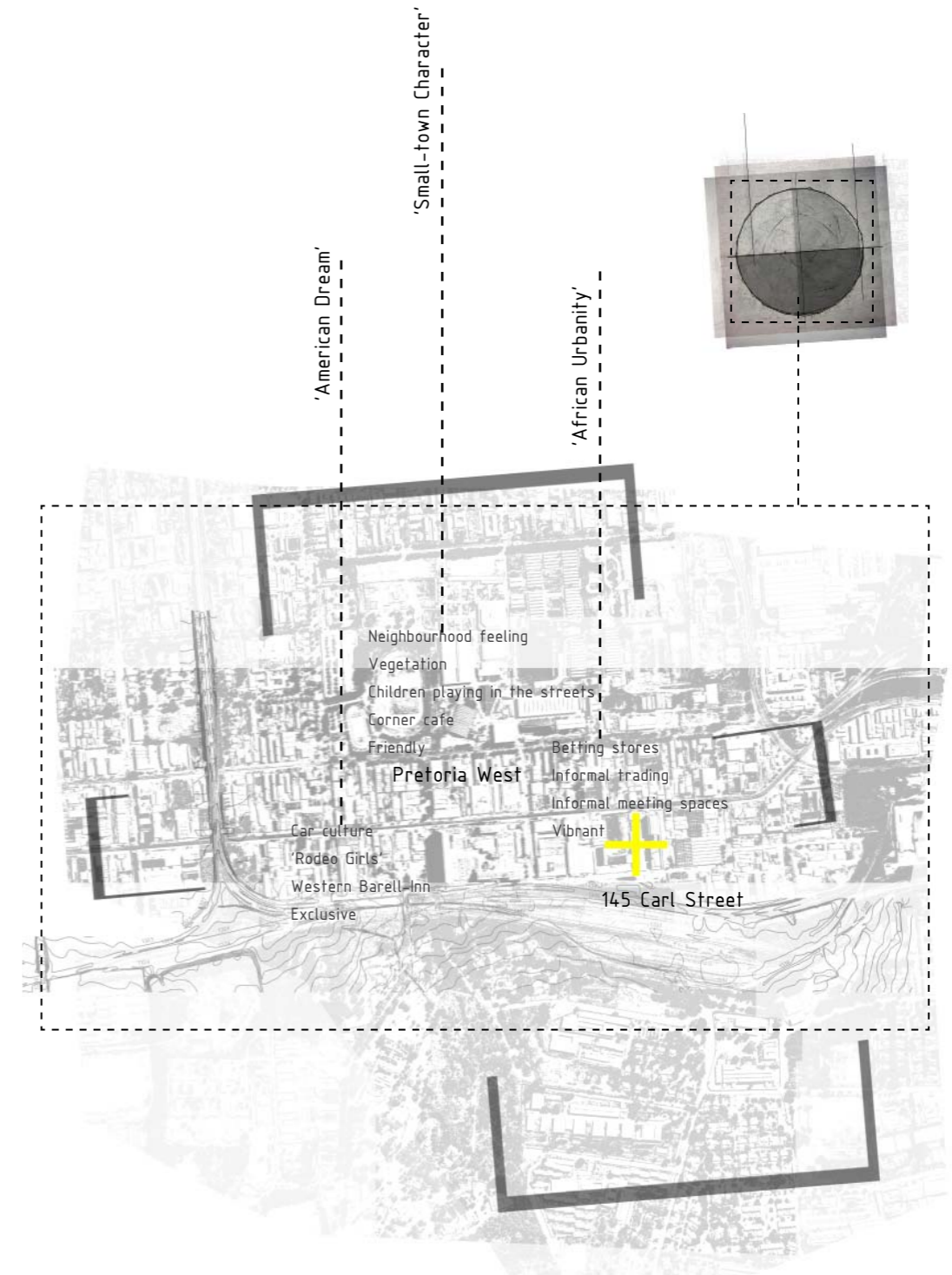


Fig. 2.7 Study Area as storytelling battlefield

TRAVELLING SHOTS

Mapping the existing infrastructure, textures, contextual character and characters photographically, it enables the author to get a 'freeze - frame' moment in the daily activities happening within the immediate context of Pretoria West. This observational technique allows the author to see the otherwise overlooked potentials within the context. The images depict the character of the area in its current state with opportunities and opportunists looming.



Fig. 2.8 The opportunists and opportunities in Pretoria West

"Fallen souls, drifters, the wasted, the waiting and the collapsed, the cheated potential, the hidden materials- from these heroic and hopeful events. From trash and ephemera make history." [Smith 2010]



Fig. 2.9 The opportunists and opportunities in Pretoria West



URBAN PROPOSAL

Ugly, ordinary and out of the way, they present difficult existing conditions and unglamorous realities.
[Crisman.2012]

This research project is an endeavour to respond to the proposed urban framework for Pretoria West, *Hardboiled Wonderland*. Deeply rooted in an ecosystemic doctrine, responding to the past, present and the future, the author aims to encompass the principles put forward in this framework. [Refer to Book 1]

Extensive mapping and contextual analysis exercises formed the basis for the framework proposal *Hardboiled Wonderland*. Conclusions drawn from these mapping exercises include the following.

1. With the current conditions not allowing for any public life or programmatic diversity, the need for an inclusive architectural intervention, in terms of built form and programme, needs to be addressed.
2. The few residential zones, contributing to the lack in activity after 5pm on Mitchell Street and Carl Street needs to be addressed in the form of mixed-use programmes.
3. The lack in public open space needs to be addressed through the re-appropriation of abandoned open spaces.

With multiple abandoned buildings and open spaces throughout Pretoria West, 145 Carl Street becomes the departure point for the urban proposal. Emphasizing and accelerating the current conditions in Pretoria West, 145 Carl Street, becomes the injection for a new public life within the area.

Seen as the scaffold for opportunity, the proposed interventions on 145 Carl Street should aim to emphasize and accelerate current conditions and condense the existing events happening on and around the site. Injecting a dynamic nature into the fading pulses of the area, the framework proposal seeks to balance the current auto-dominated edge condition and a more vibrant urban place for the public realm.

Proposing three major event platforms, designed for the public, *Hardboiled Wonderland* aims to encourage spaces for interaction and social gathering within the existing abandoned spaces in Pretoria West.

Fig. 2.10 Collage depicting possible public event spaces in abandoned open spaces in Pretoria West

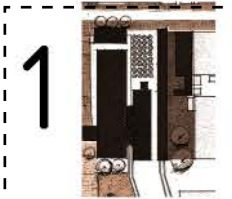
Church Street

Souffer Street

Mitchell Street

Carl Street

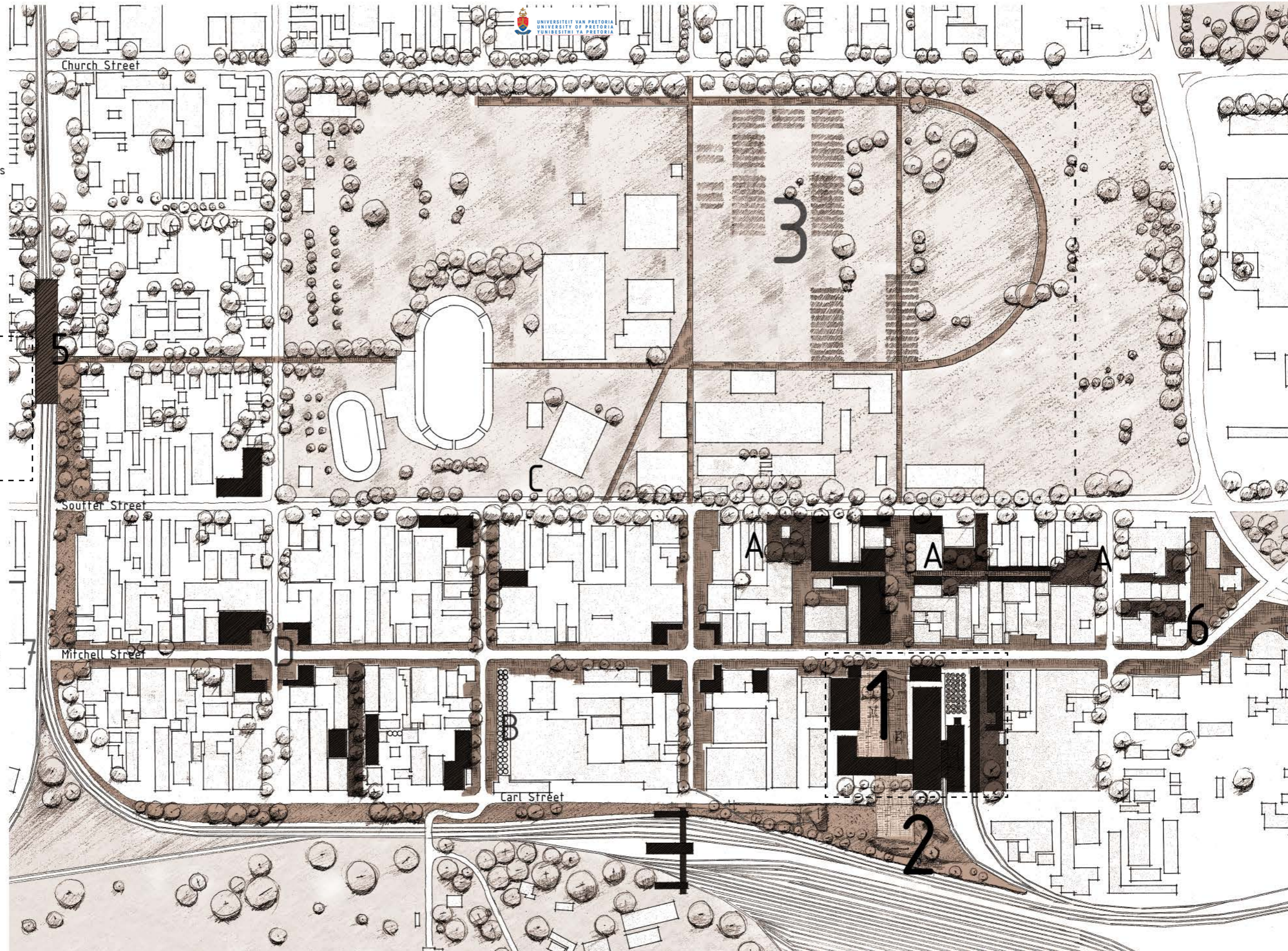
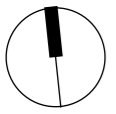
-  Proposed new buildings
-  Proposed pedestrian corridors
-  Proposed open spaces
-  Proposed public squares
-  Existing buildings



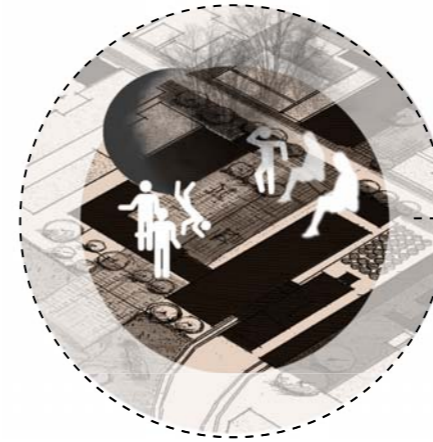
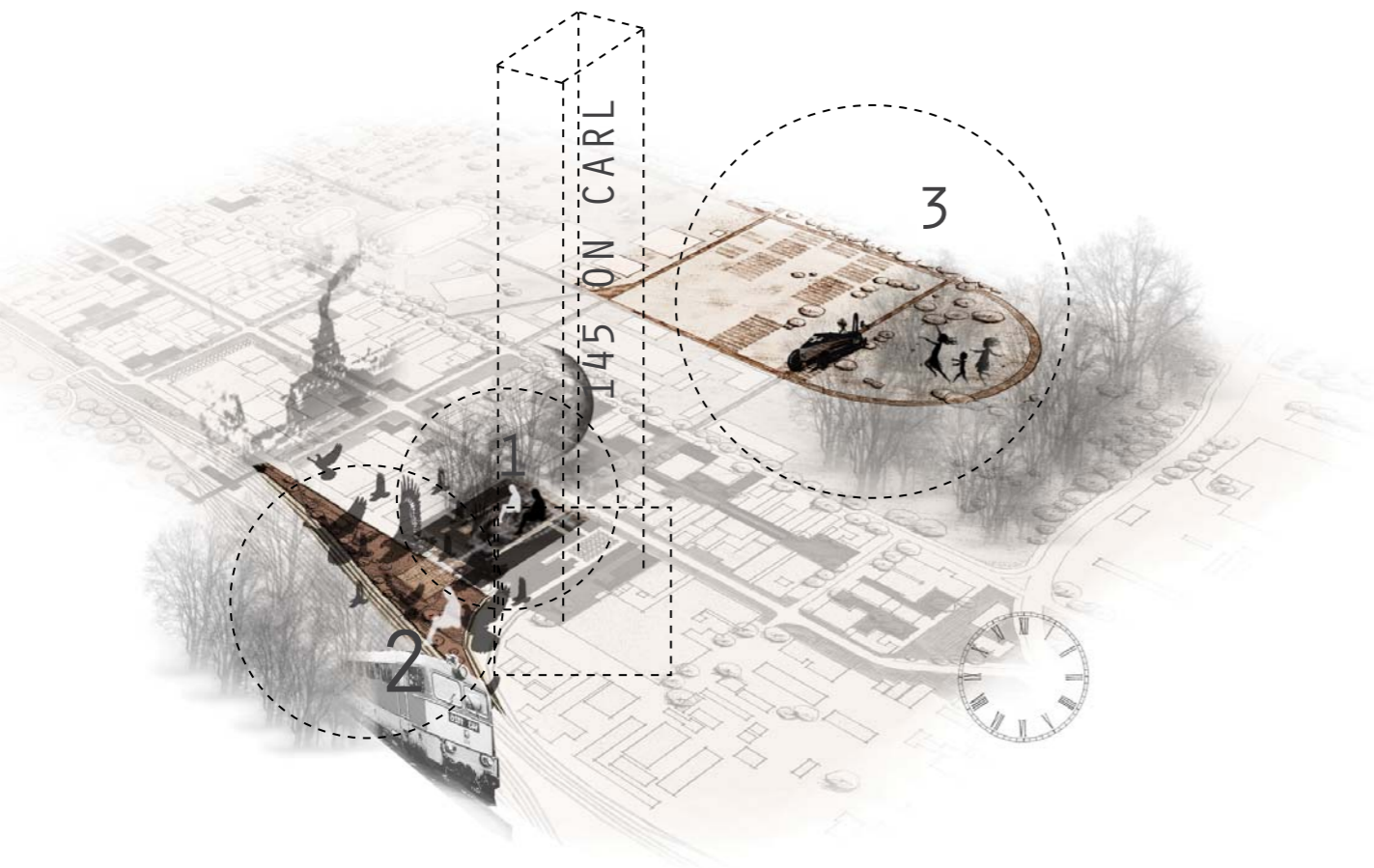
145 Carl Street
The Mill

- Primary Event Spaces
- 1 Moraba Square
 - 2 Asylum Park
 - 3 Racecourse Promenade

- Secondary Events Spaces
- A. Nightmarket squares
 - B. Silo Disco - Harvest Festival
 - C. Blooming Street
 - D. Drag Race



PRETORIA WEST EVENT PLATFORMS

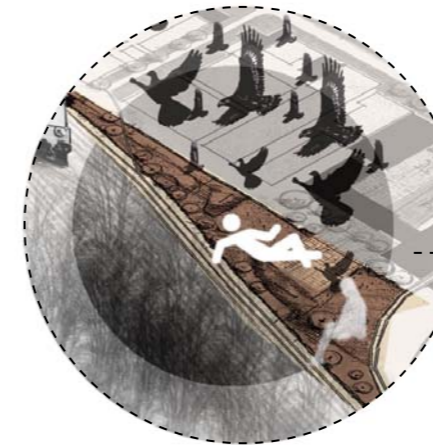


1



MORABA SQUARE

Moraba Square introduces a public event space on the commercial corridor. The large open space acts as an event platform and the filter between different activities and programmes.



2



ASYLUM PARK

The Park amplifies the existing feeding event in the area. The daily feeding of the pigeons is amplified and the park becomes the backdrop to 145 Carl Street, creating the green filter between the railway line and Carl Street.



3



RACECOURSE PROMENADE

Proposed Public event space on existing Showground.

Fig. 2.11 Proposed Event Spaces in Pretoria West study area

INSIDE SCOOP

Looking closer at 145 Carl Street, the proposed event platforms becomes the departure point for the authors' proposed intervention in the abandoned shed on the site. Bordered by the proposed event platforms, the shed is seen as the in-between where the author proposes an architecture that mediates between the old and the new infrastructure, the existing and the proposed condition, the public and the private realm and the rest of the proposed platforms on the site.

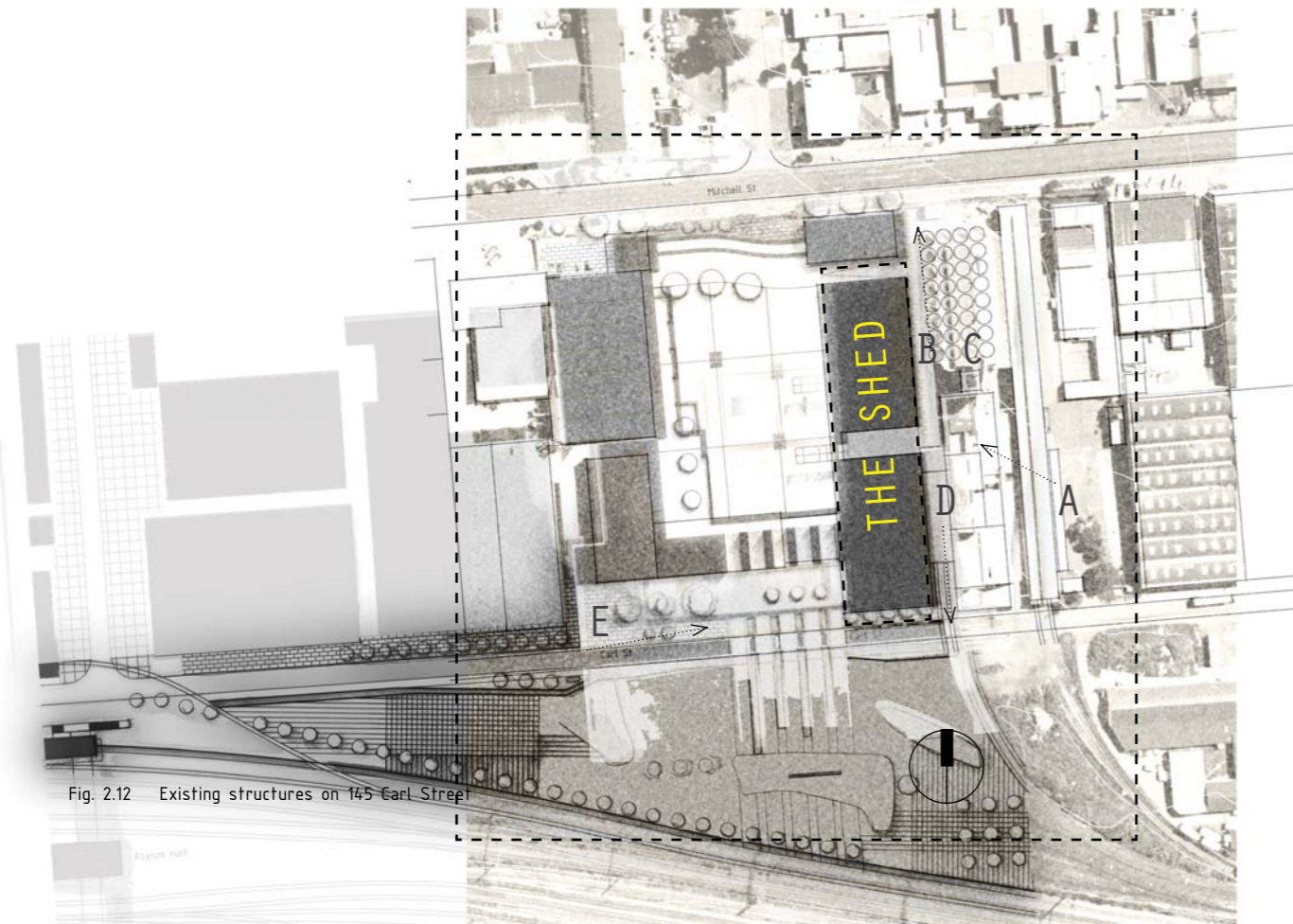


Fig. 2.12 Existing structures on 145 Carl Street



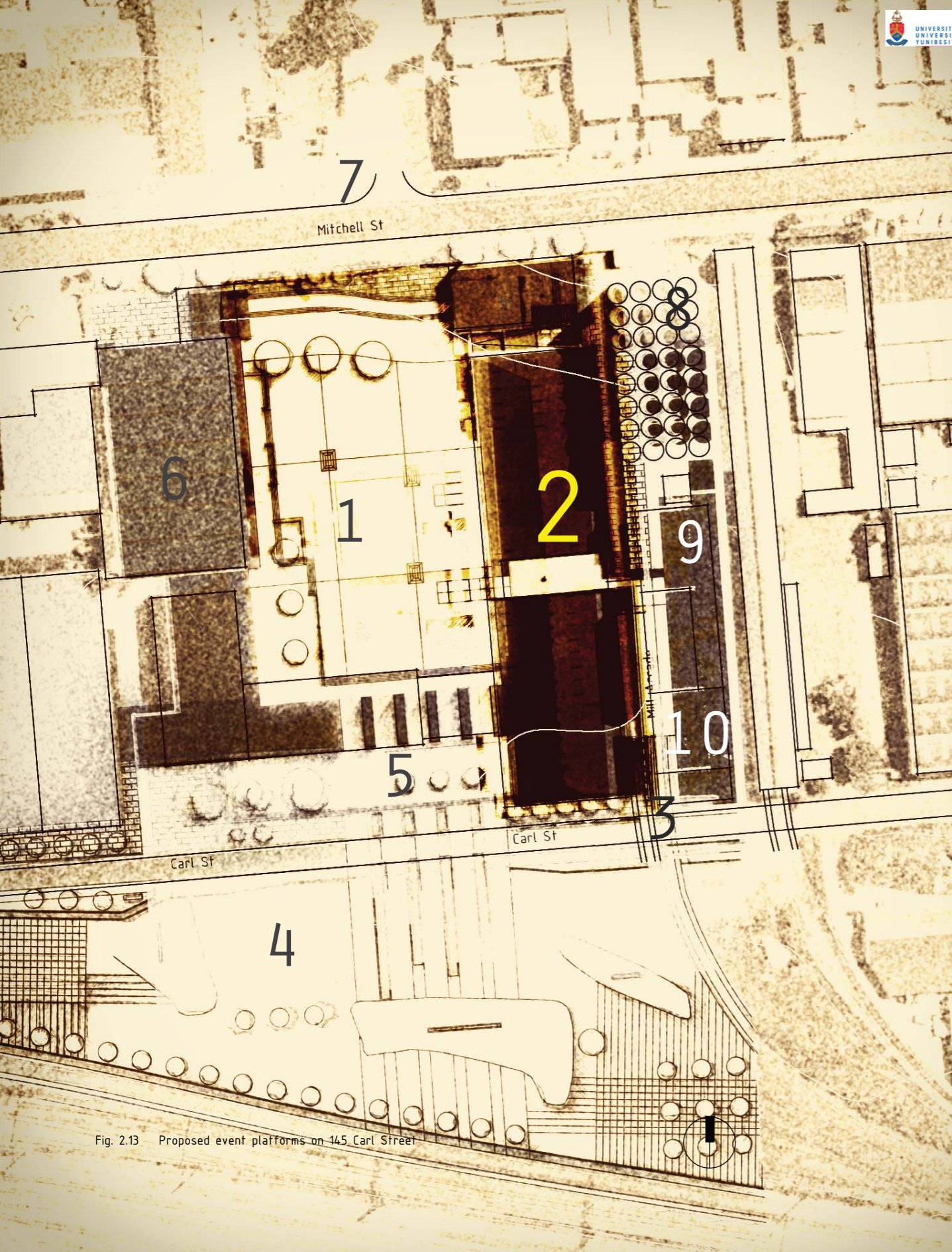


Fig. 2.13 Proposed event platforms on 145 Carl Street

145 ON CARL EVENT PLATFORMS

1. MORABA SQUARE

See Event Platforms [pg. 039]

2. THE SHED

Baking Shed _ Bakery

Leather Shed _ Auto-leather upholstery works, workshop and leather store

Sorghum Shed _ Bar and event space

3. ARCADE

The proposed arcade acts as the connecting platform between the railway station and the commercial activities on Mitchell Street.

4. ASYLUM PARK

See Event Platforms [pg. 039]

5. GATE HOUSE

The Gate House introduces a mixed-use typology in the area, where work, play and live is appropriated in a single development.

6. TRADE SHED

The Shed acts as a platform for commercial activity for entrepreneurs and artisans in order to engage with, and attract a diverse public.

7. COMMERCIAL CORRIDOR

Using the abandoned buildings on Mitchell Street, the proposed framework introduces a mixed-use typology that can actively oppose the mono-functional character of the neighbourhood.

8. PUBLIC POOLS

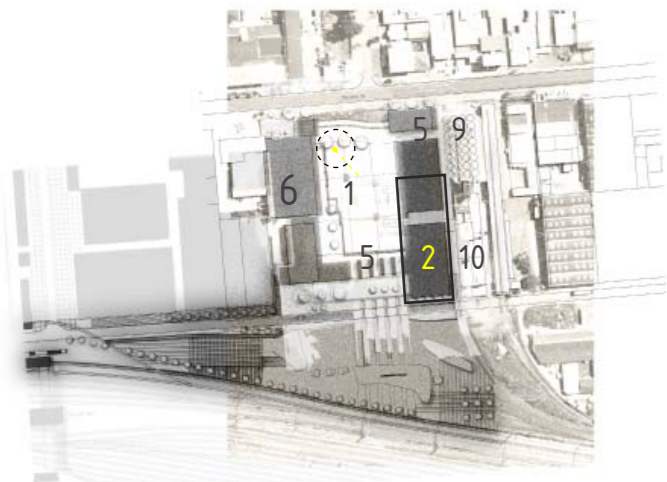
9. PISTONS, PINSTRIPES AND FISTICUFFS

Motorcycle workshop

Temporary Accommodation

Boxing Gym

10. PERFUMERY



5 North shed
Gate House

9 Silos
Public Baths

2 Storage Shed
THE SHED

10 Abandoned Mill
Perfumery

5 South Shed
Gatehouse

1 Abandoned Open Space
Moraba Square

6 West Storage Shed
Trade Shed



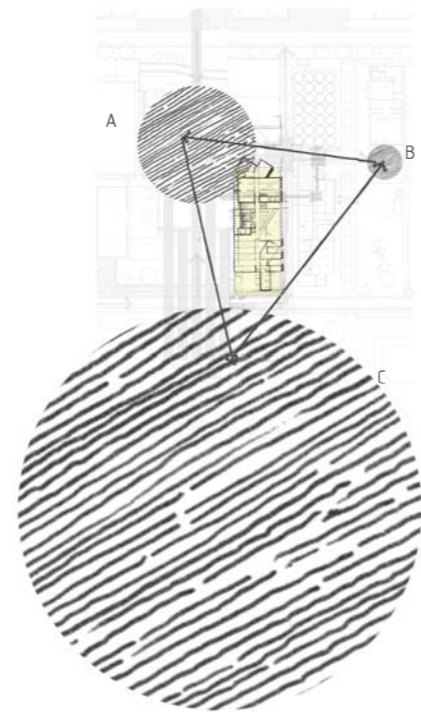
THE RULES

Important routes, views, entrances and places of orientation were identified within the precinct on 145 Carl Street.

With multiple proposed programmes on the site, the interventions need to respond to these elements to create a unified site that can be easily read, understood and accessed by both the user and the visitor.

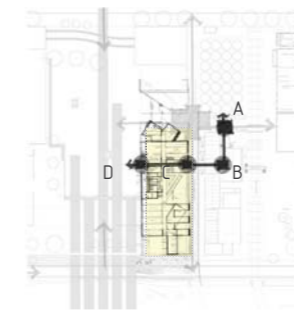
With public edges connecting the site to its surroundings, the interventions should respond to these programmatically and architecturally. The proposed interventions should all respond to their immediate context, existing built fabric and have a public interface [From *Hardboiled Wonderland*].

With an enchanted sense of mystery, 145 on Carl should reveal itself to the public.



PUBLIC OPEN SPACE

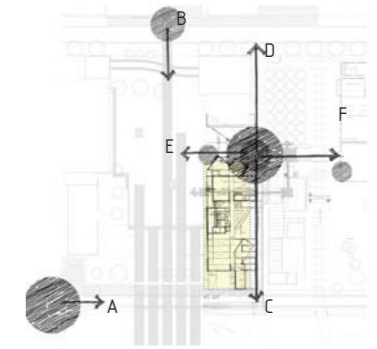
- A. Moraba Square
- B. Drive-in
- C. Asylum Public Park



ELEVATED URBAN CORRIDOR

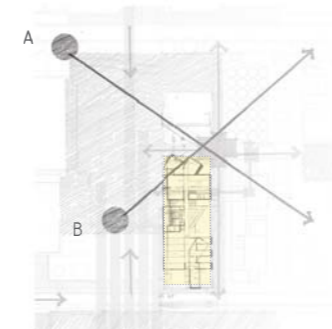
An elevated urban corridor connects the different interventions on 145 Carl Street. The corridor flows through the buildings to create a new public route throughout the site.

- A Public Pools
- B Perfumery
- C The Shed
- D Moraba Square



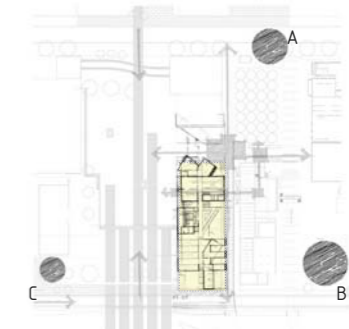
POINTS OF ENTRY / EXIT

- A Asylum Halt [Railway Station]
- B Mitchell Street commercial edge
- C Asylum Park
- D Public Arcade
- E Moraba Square
- F Parking and Drive-in



VIEWS

- A From Mitchell street Corridor to Drive-In
- B From Moraba Square to Public Arcade



PARKING ZONES

- A Off-street parking on Mitchell Street
- B Parking area on Drive-in
- C Off-street parking on Carl Street

THE OLD AND THE NEW

Industrial heritage constitutes a major part of South African history [Läuferts & Mavunganidze, 2009]. Endorsing industrial buildings as part of the national heritage, the reuse of industrial sites recognises the value of investment both in the built environment and the people [Eley, 1999].

To investigate an architectural platform rooted in the study of a contextual narrative, it is necessary to reminisce about the past, investigate the current conditions and propose a possible future.

The lack of attention and awareness of the historical industrial structures would in future lead to their extinction, with no recognition given to the successes it bared in the development of South Africa. The buildings are deteriorating and open to abuse, both from natural forces and malicious activities. In order to protect the industrial nature of Pretoria West, it is necessary to recognize and conserve the importance of these structures. Abandoned and aloof, the structures remain a ruin of the past. As an important part of the urban landscape, it remains a visual historical landmark. Using the existing structures found on the site in the regeneration of the Mill Complex, the author aims to bring new life to the current abandoned sorting shed.

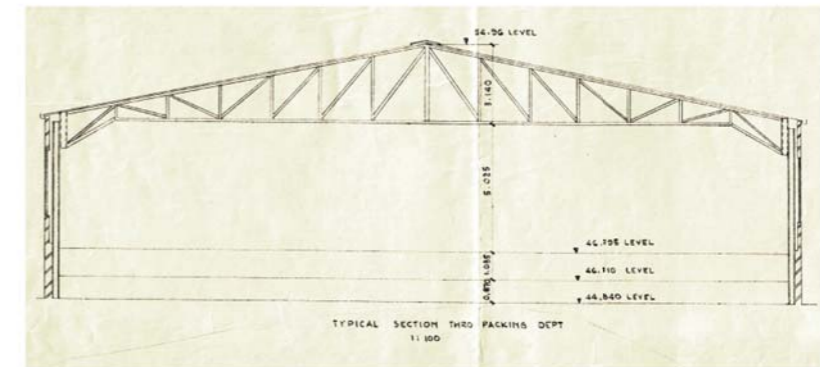
The tangible and intangible heritage on the site provides a narrative of historical development and the hierarchical layering thereof over time. Retention of the authenticity of the structures is an important element. The new intervention aims to present and interpret the authenticity (physical material, collected memory and intangible traditions) of the place and cultural experience to enhance the appreciation and understanding of the industrial heritage (International

Cultural Tourism Charter 1999). Standing alongside a paradigm that seeks to find the balancing point between new and old systems, to create a threshold that connects, the architecture should reflect the past and account for the current context to create a platform for the future in regenerative typologies.

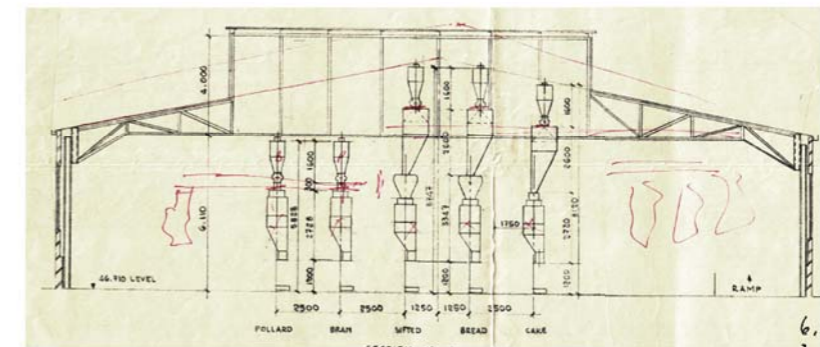
In the current context, adaptation of these structures is necessary in order to provide a sustainable platform. Responding to previous extension proposals [fig. 215] the author aims to adapt the existing structure [fig. 2.16], whilst still maintaining the industrial language found in and around the site. A comprehensive context and site investigation form the base of the proposal to establish the limitations and opportunities of the intervention. Re-using the existing structural elements, the author aims to create a dialogue between what was and what could be, adding to the layering of time found on 145 Carl Street.

Challenging existing infrastructures in a post-industrial landscape, the cultural sustainability of a programme becomes a fundamental part of the response. Highlighting the potential as a catalyst for a wider social and economic regeneration, a contemporary form of industry, proposes a major public element to the production line. The organisation and integration of spaces become the narrative for both the dweller and user to explore the past, current and future conditions.

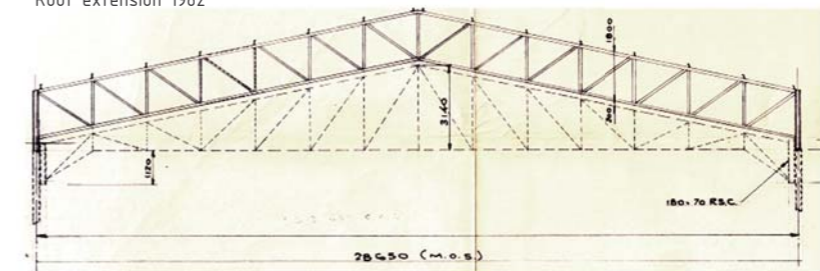
Used for sorting, storing and the distribution of flour, the shed is still in a sound structural condition. The design approach is based on creating a new network of connecting platforms throughout the shed, which enables the connection and interaction of previously inaccessible volumes contained within the shed.



Initial steel structure [Date unknown]



Roof extension 1982



Roof extension 1982

Fig. 2.14 Changes made to existing steel structure since 1982

THE SHED

Located between Moraba Square, Asylum Halt and the Arcade, the abandoned sorting shed was chosen by the author to create a typology of mediating platforms.

Re-using the existing structural elements, consisting of structural steel frames, brick walls and corrugated roofing, the vast space is broken up to create a humane environment.

A network of public connections and open circulation spaces is introduced to provide a sense of precinct for the three levels of the proposed bakery, leather workshop and the bar to occupy the revitalised building.

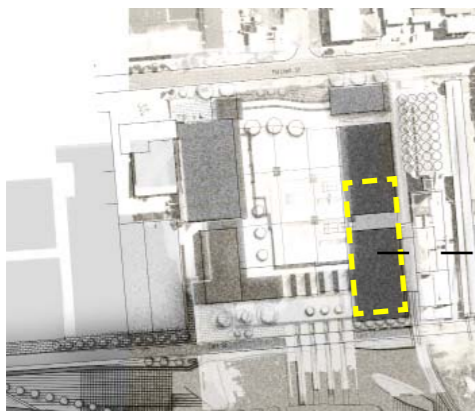


Fig. 2.15 The shed on 145 Carl Street



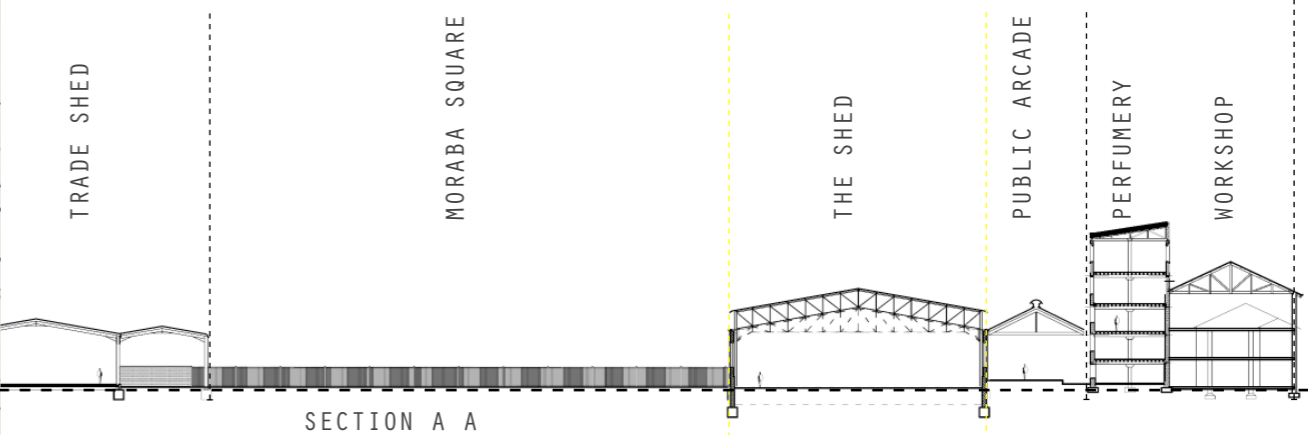
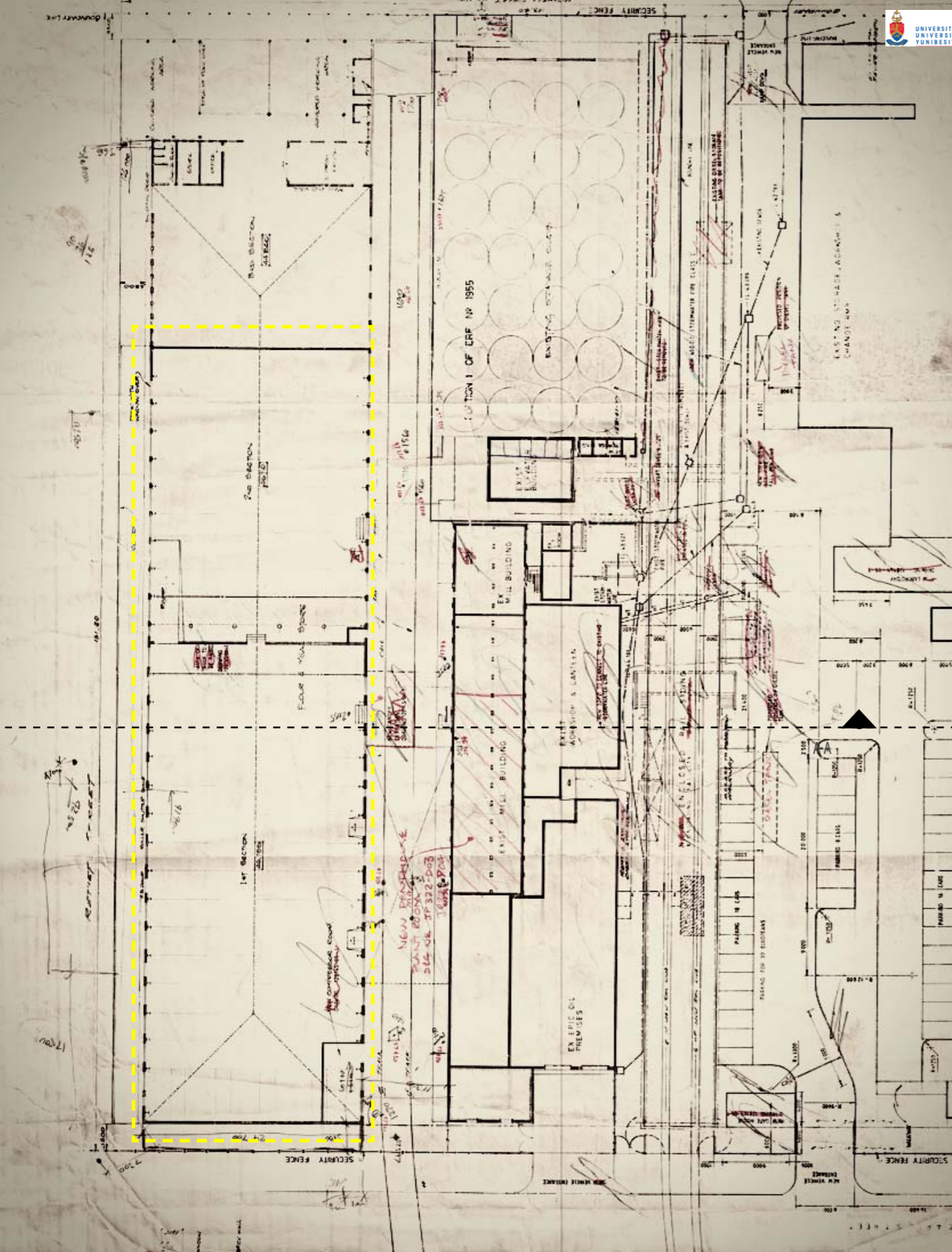


Fig. 2.16 145 Carl Street site plan [Shepherd and Shepherd, 1988]

SCENE 2

FLASHBACKS AND FLASHFORWARDS

THE UNVEILING OF 145 CARL STREET
A Manifesto

THEORETICAL APPROACH
Telling a story without text
Using the fragility
Parts of the whole

PRECEDENT
Cultural Centre by Díaz Díaz Architects
Kunsthall Museum by OMA Architects
Imperial Buildings by Fearon Bay Architects

THE UNVEILING OF 145 CARL STREET

*Who is the woman before us?
What secrets lie beneath her veil?*

*She personifies the Maid:
Fresh, appealing, yet unattainable.*

*She protects against the chill
Until her dance kindles her fire within.*

*She remains aloof from us,
Challenging us to prove ourselves worthy.
She chafes under the bondage
Of her patriarchal culture's demands.
She conceals her true spirit*

*Behind the veil of her smiling façade.
She fills us all with suspense
Wondering about what lies underneath.*

*She contains her awesome pow'r
Lest its brilliance overcome us.
She is the virgin, the bride, the elder
She is Goddess.*

*She is:
shy,
practical,
distant,
frustrated,
inscrutable,
mysterious,
powerful:
She is Woman.
Slowly,
Softly,
She draws away the veil.
She invites us into her world.*

*The Unveiling:
It removes a barrier.
It brings us together.*

*The Maiden emerges from her concealment.
She warms our hearts with her dance.
She invites us to draw nearer to her.
She casts off the bondage of her society.
She offers a glimpse of her spirit.
She reveals that which was hidden.
She shares her power with us.*

*The Unveiling:
Feel the Power.
Feel the Communion.
Share the Dance*

[Elliot, 1998]

Fig. 3.1 Physical Address

In the poem *The Unveiling*, writing by dancer, Julie Ann Elliot [1998], the veil conceals her true spirit until it is drawn. The veil is infinitely visual, yet it is also a means of concealment. The veil is itself mystery, even as it is the blanket that guards the secret. Veiling begins in nature, such as eclipses and the periodic shedding of animals' outer bodily layer before regrowth [Heath, 2008]. Veils can be illusion, arrogance, deception, architecture, clothing, hair, magic, transformation, dream, understatement and symbol, despair, delusion, subterfuge, beauty, expressive silence, sacredness, birth, deliverance, custody. [Heath, 2008]

Worn as a badge of honour and solidarity in a world filled with negative opinions, the abandoned Mill conceals her true spirit. Independent from the surroundings, disconnected from the emotions of society, it does not bear any political baggage or preconceived ideas. Strong in its physical presence, it does not allow anyone to deal in its beauty. Frustrated to be seen as an object, it has become standoffish and obsolete.

Strategically located between the Mitchell Street commercial corridor and the industrial Carl Street, the abandoned site holds the potential to once again become the exemplar of urban growth and prosperity. The author aims to draw its veil, to share its character, to create an inviting architecture for the public realm. The fertile site holds the potential to become a public platform that connects the commercial and industrial activities. In proposing an architecture that speaks to both the industrial typology [process-driven] and the commercial activities [trading] found in the area, as well as introducing a 'publicness' to these programmes to engage with the public realm, the potential of a liminal area is unveiled.

The mono-functional character of Mitchell Street does

not allow for any diversity, individuality or creativity for the urban dweller. Catering only for the *auto-pilot, need-for-speed* spectacle, the area is in desperate need for both individual and collective public space. The bombardment of mass production does not express or allow for individual idiosyncrasy or creativity.

The Society of the Spectacle is a work of philosophy and critical theory by Guy Debord. First published in 1967 in France, Debord traces the development of a modern society in which authentic social life has been replaced with its representation. Arguing that the history of social life can be understood as "*the decline of being into having, and having into merely appearing*" [Debord, 1976], Debord, expresses the relationship between rationalism and totalitarianism as follows:

"...but on the whole this introduction of technology into everyday life, ultimately taking place within the framework of modern bureaucratic capitalism, certainly tends rather to reduce people's independence and creativity. The new prefabricated cities clearly exemplify the totalitarian tendency of modern capitalism's organisation of life: the isolated inhabitants...see their lives reduced to the pure triviality of the repetitive combined with the obligatory absorption of an equally repetitive spectacle." [Debord, 1967:241]

Thus, In order to create a meaningful architecture, the individual must be embraced as an integral part of the design process for it to support diversity. Creating a multi-sensory, multi- programmatic and disciplinary architecture, the author aims to evoke associations and emotion through individual negotiation and accumulation. "*Ambiguity, paradox, irony, and indeterminacy allows*

one to create an architecture that nurture individual idiosyncrasy" [Mas Yendo:2010]. In his writings on *Detournement (Experimental Diversion)*, Mas Yendo critically looks at the importance of the individual experiment as the architects' tool for diverting the reductive, monolithic tendencies of consumerism and rational determinism. By allowing an architecture that maintains the tension between contradictory relationships and nurturing the complexity and ambiguity of the area, the architecture as a connecting platform aims at reconciling contrasts that lie at the heart of the human condition: individual freedom vs. collective responsibility, content vs. container, idealism vs. pragmatism, interior vs. exterior, man vs. nature.

The lack in public event spaces in the area greatly contributes to the 7-5 nature found in the area. Introducing an inclusive typology, the proposed intervention aims to create a more dynamic, vibrant and around-the-clock neighbourhood.

By embracing the potentials of contradiction, the paradoxical natures of the area and the ambiguity of liminality, the intervention seeks to address the culture and immediate context at large. Proposing an architecture that acts as a connecting platform between the public, the proposed programmes, temporality and the context, the architecture becomes the mediator.

A MANIFESTO

STEP INTO THE UNKNOWN

Go beyond the reflected image to seek the unfamiliar.

EXPLORE THE EVENT

Provide for the public realm in its current known condition.

CREATE A DIALOGUE

Explore the duality. Seek a dialogue between different programmes and spaces to create an architecture of mediation.

SEEK AUTHENTICITY

Engage with the physical and nonphysical

It is the task of architecture to provide a horizon of understanding, our being in the world and, finally, of ourselves. Authenticity of architectural works supports a confidence in time and human nature; it provides the ground for individual identity.

[Juhani Pallasmaa, 1994]



Fig. 3.2 Stepping into the unknown [tonysamara.blogspot.com]

"If novel, fiction, comic, and folktale tell the story by texts and picture. If painting and photograph tell the story by a great picture. If movie tells the story by moving picture and sounds. Architecture tells the stories without texts, but by geometrical form, space and materials." [Utama, 2008]

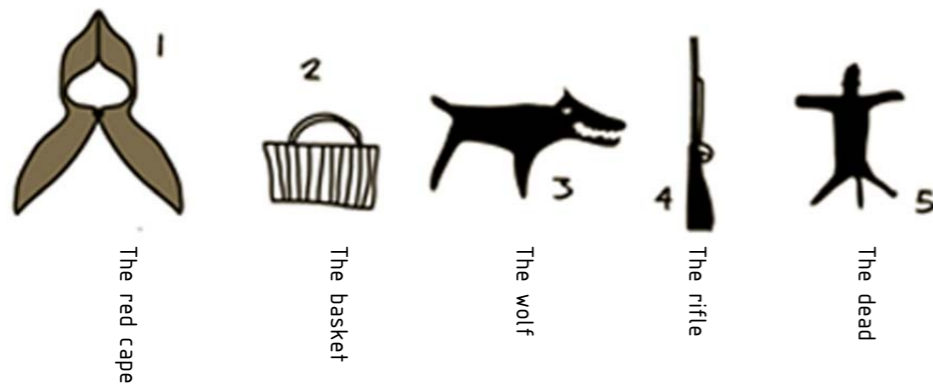


Fig. 3.3 Little Red Riding Hood as graphic story

TELLING A STORY WITHOUT TEXT

"Architecture is a social act and the material theatre of human activity." [Kostof, 1936-1991]

The central duality in architecture is the tug of war between the rational and the non rational. It is the contrasting game between a fact and fantasy. It is the balance between the circumstantial and the concrete.

A narrative describes a 'sequence of nonfictional or fictional events'. The word derives from the Latin verb *narrare*, 'to recount'. [Oxford English Dictionary, 2007] Narration can thus shape and simplify events into a sequence in order to stimulate the imagination. Pretoria West becomes the backdrop of event places and spaces to enable the public to see the otherwise overlooked spectacle. Using a narrative architecture, it aims at drawing on the immediate context and rendering it light enough to move into the territory of imagination, to draw the visitor through a variety of contrasting situations to evoke a sense of unique moment in time and place.

"Spatial experience is a form of storytelling, filled with imagery content, character and portraiture of its occupants." [Coates, 2012] Similar to the story of Little Red Riding Hood that can be depicted in five images [fig. 3.3], architecture can be understood through space, form and material. [Utama, 2008]

The relationship between architecture and narrative can be explored in multiple ways. The human rationality should be brought into the plot where the story can be explored and acted out by the inhabitant. Narrative can be translated into the architectural form by envelope, material, smell, spatial experience, light and sound. The architecture becomes the narrator. In deploying multiple scenarios through which the explorer can enter the explorative territory, the architecture should facilitate the imaginary realm of the user.

The narrative is the unfolding of the architectural intervention, connecting the events and experiences to the user. Using narrative architecture, the author aims to unfold meaning and initiate the thought process behind the making of space. Focusing on the 'process' of the design as much as the end product, it aims at using the immediate context and its influences to 'tell' the story of the process of design. As architectural space is perceived in terms of sequence in space, it is thus possible to define narrative in architecture as the dimension of time and movement. Within this narrative, a spatial story evolves from place, event, action, transition and process. The narrative portrays hierarchies, relates elements and constructs scenarios. According to Nigel Coates, author of *Narrative Architecture* [2012], architecture is understood as the art of arranging, organizing and establishing relationships between the fragments and the whole. It is also perceived as the art of designing spaces, which is experienced through movement and use. The method of conceptual ordering, spatial and social narrative becomes the foundation for the ways in which the author aims to shape the architecture in its specific context.

The narrative is employed to communicate the design proposal in terms of a 'plot' and accordingly explain the processes behind the product. Where an approach and entrance to a building can be seen as the 'introduction', movement into and about the building as the unfolding 'plot', and the journey stippled with 'mini-climaxes' leading to an ultimate 'climax' or ending, the author aims to create 'scenes' that focus on a single moment, thus portraying the character, idea, and setting of the architecture in time and place.

USING THE FRAGILITY

Flatness of surfaces and materials, uniformity of illumination, as well as the elimination of micro-climatic differences, further reinforce the tiresome and soporific uniformity of experience. All in all, the tendency of technological culture to standardise environmental conditions and make the environment entirely predictable is causing a serious sensory impoverishment. Our buildings have lost their opacity and depth, sensory invitation and discovery, mystery and shadow. [Pallasmaa. 2005]

In his book, *The Eyes of the Skin*, phenomenologist Juhani Pallasmaa claims that, “*society has become spectators instead of participants in their environments*”. Observing the visual image projected on the eye, the public has become disconnected from their environments which thus explains the alienation found in urban settings. In order to break this alienation, it is necessary to strive towards an advanced consciousness of *multi-sensory* sensitivity in architecture. [Pallasmaa, 1996]

The environment connects with the mortal body when moving through space. Feeling textures, hearing echoing sounds, sensing the breeze or strolling in the direction of a light, makes one connect with the environment. It is the amalgamation of the senses which generates the ‘atmosphere’ or personality of a space. These perceptions of atmosphere relates to the emotions and senses. [Pallasmaa. 2000] Created by the active exploration of the environment through the body a haptic architecture confirms the impression of depth seen through the eyes. [Pallasmaa, 1996]

The spatial experience through bodily movement, known as *Kinesesthesia*, becomes an integral part of the design response, where time, rhythm, pause and motion are explored spatially [See fig. 3.4]. Through the active exploration of the surroundings, a direct relation with touch and movement exists. Advocating a multi-layered experience, stimulating the movement of the body,

it is possible to create a less static architecture. *Synaesthesia* suggests a phenomenon that “*transfers sensory information from one sense to the other*”, [Cytowic, 2002] an example being the way the colour blue is perceived as cold. Memory relates these properties to enter the physical realm. A synaesthetic approach to architecture enables the designer to relate personal experience to the architecture whilst still leaving it open-ended enough for the user to draw their own conclusions.

In creating an inward looking and engaging architecture the phenomenon of hapticity is used to focus on the way the body and mind respond to tactile cues such as space, texture, light and colour to create a network of possible narratives, which can be experienced by each individual synaesthetically.

Pallasmaa advocates a haptic architecture offering *immediacy and affection rather than control and detachment*. The ‘fragile architecture’ is contextual, *multi-sensory*, and responsive, concerned with experiential interaction and sensual stimulation. This architecture grows gradually, scene by scene and is both a contextual and multi-sensory response to experiential interactions and spatial design. [Pallasmaa. 2000]

For the Greeks, temples were not only places to worship but also symbols of society and culture. Built as focal points they were surrounded by public meeting places, civic buildings, gymnasiums, stadiums, theatres, and housing. [Dietsch, 2002]

Using a flexible architecture that accommodates both live, play and work, the architecture should relate to the context as a whole. The author aims to seek a typology in harmony with its immediate environment as well as stimulating the human body.

In the aim to create a less isolated and deprived architecture it is necessary to create a *sensuous environment for the human body*. [Pallasmaa. 2011]

Users robotically pass through architecture, as if it is simply a way to get from point A to point B. Architecture needs to become more than just a static structure linking two points. It needs to become an unpredictable, ever distorting, transforming, interactive, stimulating environment which allows the user to become consciously aware of oneself and the environment again. Linking these elements [the user and space] the occupant assumes a perpetual dexterity within the conjunctive architecture, thus cultivating an actively [mentally and physically] aware occupant.

Fusing experience, space and time, the designer aims to create an architecture that identifies with the user in time, place, moment and being through all the senses.

The site is seen as the scaffold to build new memories and establish a platform for the fusing of public experience. As a modern day ‘temple’ the author aims to engage in public conversation, schedule unplanned encounters and promote a *multi-sensory* architecture in sound, smell, sight, touch and taste.



Fig. 3.4 Spatial experience through bodily movement

PARTS OF THE WHOLE

"Any 'new' architecture implies the idea of combination; all form is the result of a combination."
[Tschumi, 1997:180]

Palimpsest is derived from the Greek word, *Epalimpsestos*, meaning 'scraped again'. In architecture the term is used as a metaphor to describe the fractional removing and constant reworking of sites and buildings over time. Involving 'building over, within, above or alongside the previous or existing structure'. The 'memory' of a site and its traces of the past are respected and complemented by the new. [Porter, 2005]

The existing structures on the site speak of a layering of time. Built over 80 years, the buildings on the site have been re-worked and re-layered. [Fig. 3.2] As functional 'objects', standing tall, isolated and abandoned, the connection to the human body is lost. The proposed intervention aims to seek and trace the lost 'memory' of the site. Using an existing building as a departure point, the author aims to re-layer and re-work the structures, to create an architecture that speaks of time and place. Using the human body as a 'tool' for perceiving the space and experiencing temporal progression, the architecture becomes the narrator of time.

Each individual perceives space in a distinctly subjective way and projects different possibilities for the architecture shaped by the designer. Perception by internal association allows freedom of experience and interpretation. The body thus becomes an object of sensation.

Static, unchanging and already unfolded architecture does not allow for these sensations or interpretations, but is purely for perception.

"Spaces of sensation need to be experienced through a changing, moving conception, at times ambiguous and fleeting. Sensation and movement are inseparable aspects of experience". [Perez de Vega, 2010:398]

The architecture should aim at creating spatial experience as part of the human body. Without separating the object and subject, the body of sensation renders itself part of what is being sensed. Without rendering clear rational pictures; confusing, vague approximations; ambiguities and potentialities create an architecture that is open for sensation and interpretation.

As Spinoza pointed out when writing about knowledge in *The Ethics and Other* [Spinoza, 1994:02], *"the perception of one thing triggers the perception of another thing in an unsystematic and subjective way"*.



Fig. 3.5 The Soldier and the Farmer and Perception [Spinoza, 1994]

Spinoza illustrates this with the illustration of a soldier and a farmer noticing the traces of a horse [fig. 3.2]. The two recall dissimilar thoughts based on their own personal interpretation; for the soldier the recall the memories of other soldiers and of war, for the farmer they will remind him of a plough and of a farm field.

Dealing with experience as a temporal progression through space, the architecture aims to evoke perception that can be guided through movement. Movement is essential to understand affect. [Perez de Vega: 2010]

"The body conditions our engagement with the world; it is the presence and the means through which the environment is understood and experienced." [Perez de Vega: 2010:298]

Through constant transition and changing relationships with the environment, the body experiences space as a changing entity, allowing it to move in and around it. A symbiotic relationship between body, movement and space, allows the body to become an extension of space and space to become an extension of the body's action.

Exploring the connection of architecture, movement and performance, events and the architectural intervention fuse performer [worker /user], audience [the public], space [the architectural platform] and movement [the user] into a continuous experience.

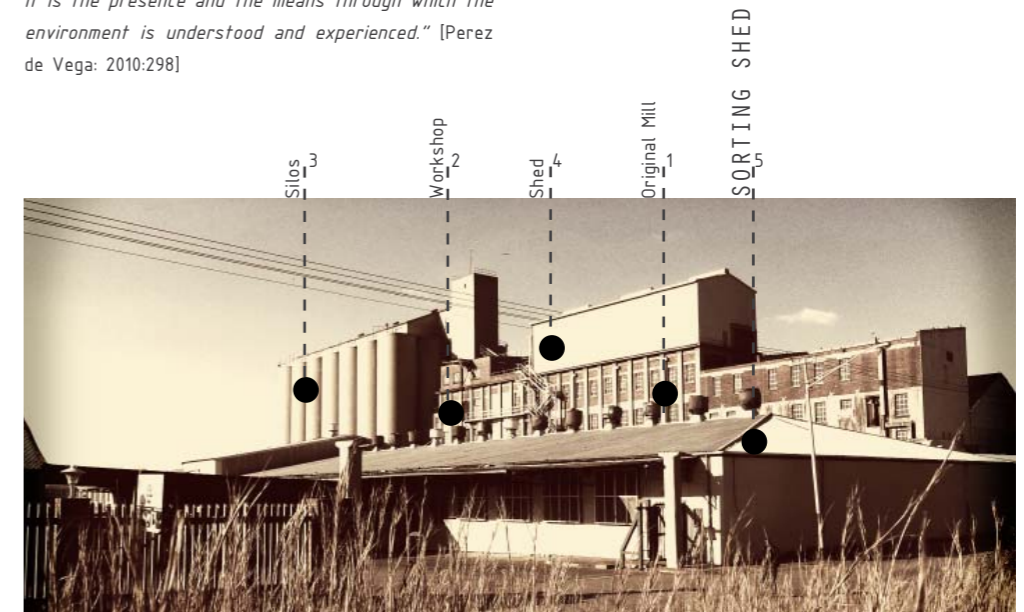


Fig. 3.6 Layering of Time on 145 Carl Street

PRECEDENT

Project: CULTURAL CENTRE

Location: Galicia, Spain

Architects: Díaz & Díaz Architects

Area: 9000 m²

Date of Construction: 2011 [phase I]

Photographic Credit: Xoa Piñon [Piñon, 2011]

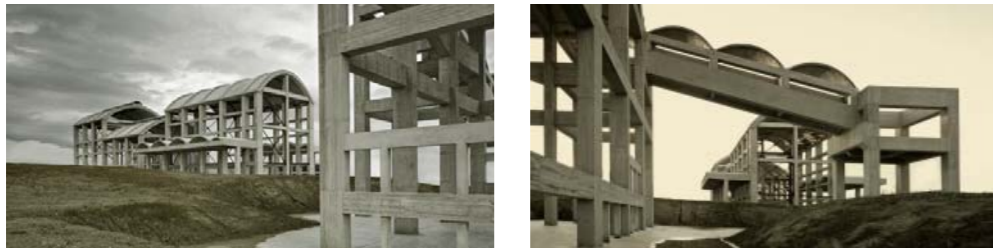


Fig. 3.7 Stripped Concrete Skeleton

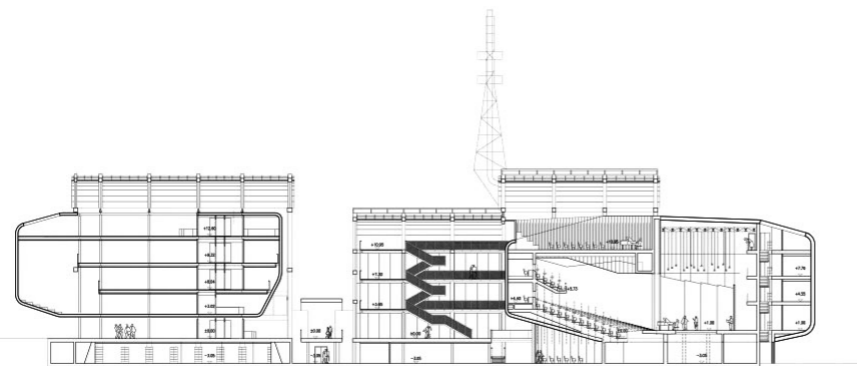


Fig. 3.8 Proposed Insertion_ Longitudinal Section

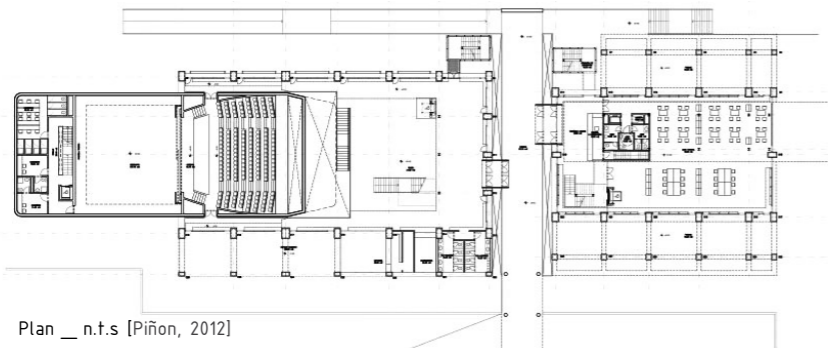


Fig. 3.9 Plan __ n.t.s [Piñon, 2012]

The stripped concrete skeletons of three former factories in Galicia, Spain, await conversion into public buildings by Spanish architects Díaz & Díaz.

The next phase of construction will see the La Cros buildings transformed into a library, an auditorium and a café. Considered together, the three existing buildings are considered to have great value for its urban and architectural system and volumetric plastic qualities, and their spatial configuration.

The architectural intervention is an response to the industrial heritage of the area and the old factory.

The architects aim to create different spaces within the existing scaffold. Simultaneously, they sought an integration of architectural space, so that the whole, consisting of different parts, can be perceived as a unified whole. The auditorium, library and cafeteria, each have their own circulation systems, enabling the functions to operate independently.

From the formal point of view, the new projected spaces are considered as *'free bodies'*, with clear volumes within the existing structure. The new insertion is separated from the existing structural elements, touching them in essential and specific points to make a clear distinction between the old and the new.

Seeking to express the contrast between the old and new, the structures were restored to their original volumetric qualities of barrel-vaulted naves with visible structure and the new bodies becoming a parallelepiped insertion.

Outcomes:

- New architectural intervention to be inserted into stripped scaffold of concrete frames.
- Integration of separate architectural spaces to create a unified whole.
- Clear distinction between old and new

Fig. 3.10 Proposed Cultural Centre at La Cros [Piñon, 2011]



Project: KUNSTHAL MUSEUM
Location: Rotterdam
Architects: OMA Rem Koolhaas

Area: 2900 m²
Date of Construction: 1988-1992
Photographic Credit: Andrew Kroll [Kroll, 2007]

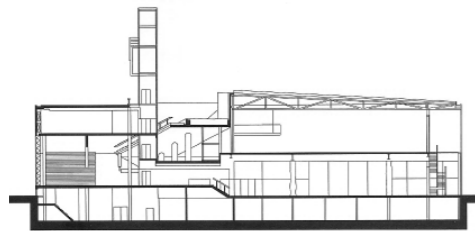


Fig. 3.11 Section _ n.f.s



Fig. 3.13 East Elevation showing materiality



Fig. 3.14 Entrance

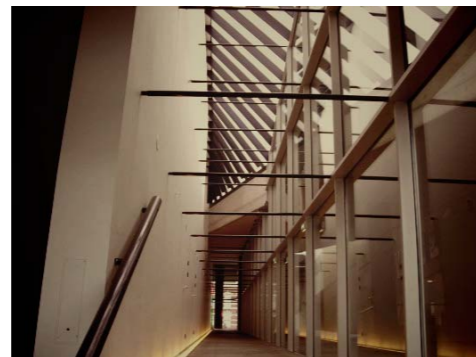


Fig. 3.15 Public Circulation Route

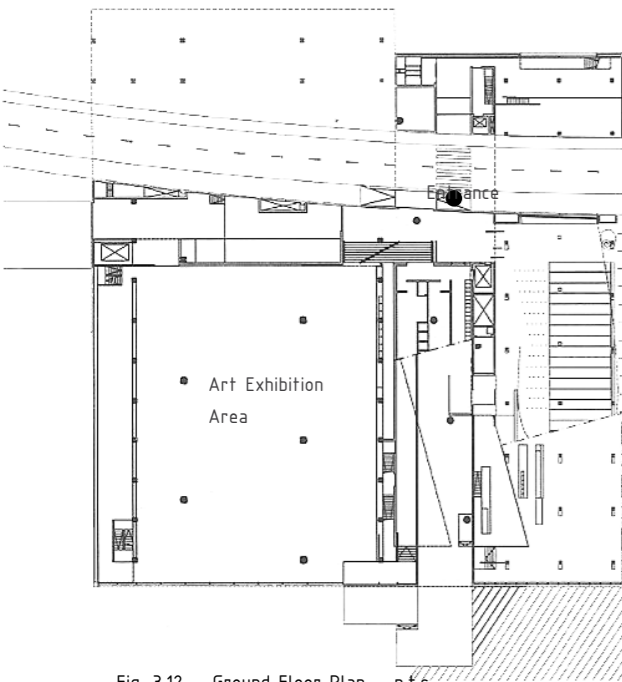


Fig. 3.12 Ground Floor Plan _ n.f.s

The Kunsthal situates itself as the gateway to Rotterdam's cultural amenities [OMA Website]. Designed as a compilation of several galleries and halls that allow for maximum flexibility and accommodate a multitude of exhibitions, the challenge was to design a museum as 4 autonomous projects, a sequence of contradictory experiences which would, nevertheless form a continuous spiral circuit.

The site presented a dual condition: the southern edge is bordered by a highway and the northern side, faces a contemplation space, the Museum Park. Instead of designing a stand-alone building, OMA positioned the building on the edge of the Museum Park. The square box is intersected by two axes, a public ramp and perpendicular service road that divide the building into four areas. The circulation spaces create intersections and provide spatial conditions for programmatic placement, visual connections and entry.

Deciding to cut the building with both vehicular and pedestrian traffic, and to base the floor plans and circulation on a spiral, Koolhaas played with the unexpected in his use of his program adjacencies, graphics and materials.

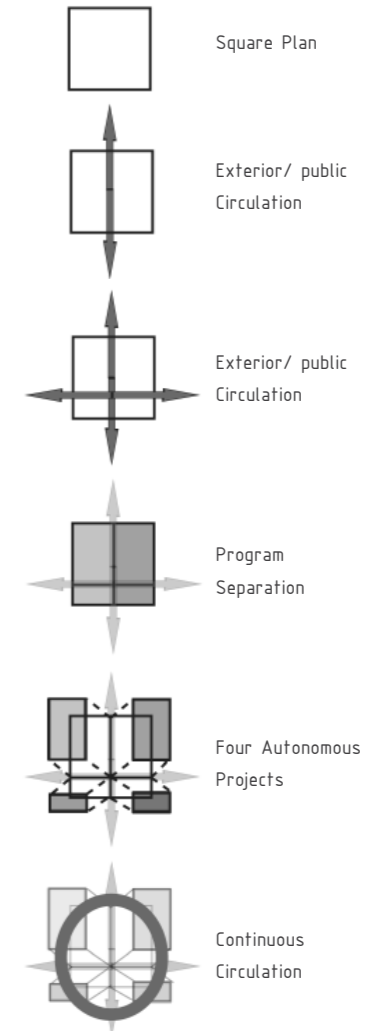


Fig. 3.16 South Elevation facing the highway [Kroll, 2007]



Project: THE IMPERIAL BUILDINGS
Location: Auckland, New Zealand
Architects: Fearon Bay Architects

Area: 5000 m²
Date of Completion: 2011
Photographic credit: Patrick Reynolds



Fig. 3.17 Heritage Typology



Fig. 3.20 Street Baking Area

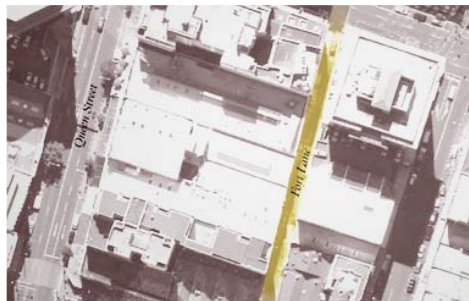


Fig. 3.18 Imperial Lane



Fig. 3.21 Vertical light shafts

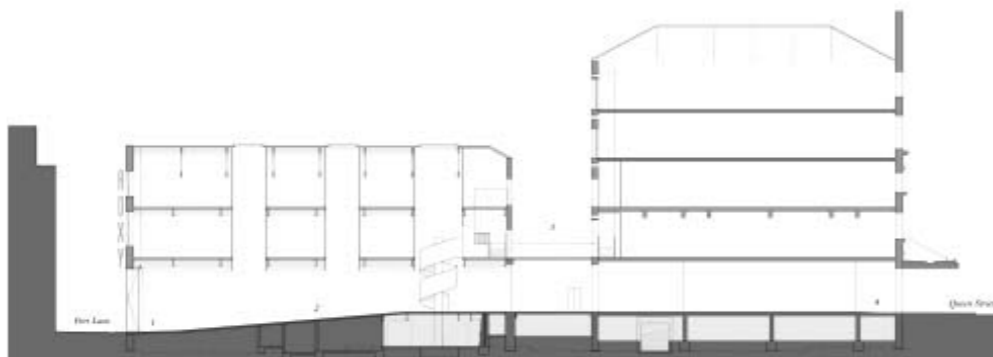


Fig. 3.19 Section

Built between 1886 and 1911, the Imperial Buildings are a rich mix of heritage spaces and built fabric in downtown Auckland.

The brief required bringing this mix together with an all-inclusive rework, restoration and upgrade of the existing buildings. A new street named 'imperial lane' has been sliced through the once closed-off structures to activate previously isolated components of the project through internal circulation components.

The design approach is based on creating a new network of circulation routes through the properties. The network of public connections and open circulation spaces provide a sense of precinct for the five levels of commercial office space, restaurants, bars and retail spaces that occupy the revitalised buildings.

Vertical shafts are cut through the floors above the lane, introducing light into deep spaces and a language of opaque glass and steel to complement the 'found' brickwork, timber truss, stone and dilapidated concrete of the original fabric.

The courtyard space is carved from a service-filled lightwell, with large openings formed in the surrounding walls and the addition of new steel plate stairways and balconies ensuring that spaces over the upper levels interact and connect with the open central space. Slender blackened steel members and corrugated metal panels support the original elements without distracting from their authentic industrial character.

Fig. 3.22 From left to Right: Light penetrating deep spaces, courtyard space, street cafe [Reynolds, 2012]



SCENE 3

DRAWING DUALITIES

THE SHED IN-BETWEEN

PROGRAMMATIC RESPONSE

The Baking Shed

The Leather Shed

The Sorghum Shed

THE SHED IN-BETWEEN

...beauty today can have no other measure except the depth to which a work resolves contradictions. A work must cut through the contradictions and overcome them, not by covering them up, but by pursuing them [Theodor W. Adorno]

A lack in diversity in the area has led to the site becoming obsolete and inaccessible. Engaging with the typology of mixed-used buildings, a multi-programmed proposal is envisaged for the site and its buildings, promoting a diverse cultural and social experience.

Baring witness to the once successful milling complex, the author proposes a platform for multiple activities within the abandoned shed, that can attract an around-the-clock, diverse public. These include a bakery, *The Baking Shed*, a leather studio, *The Leather Shed*, and a bar, the *Sorghum Shed*.

Even though structurally sound, the shed is seen as the in-between, acting as a barrier instead of a connecting space. Occupying the threshold between proposed public event spaces and places of gathering, the author engages with this in-between by proposing another in-between. The connecting platform between dissimilar and autonomous programmes.

Abandoned and without purpose, the shed is seen as the link between the different proposed interventions in the precinct and the public spaces. Once used for the storing, sorting and distributing of wheat and flour products, the shed forms part of the timeline on 145 Carl Street. It served as the last link in the chain to the production line of the flour mill.

Acting as the mediating platform, the author aims to find the balancing point between the seemingly different proposed programmes the abandoned shed on 145 Carl Street.

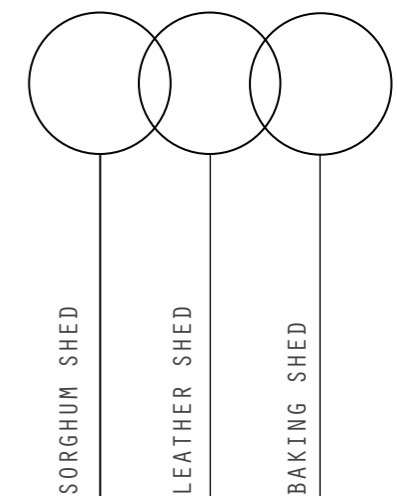


Fig. 4.1 Architecture as mediator between different programmatic platforms

THE BAKING SHED

Fire Flour Water

Wheat was first cultivated for bread production approximately 9 000 years ago in Mesopotamia [Iraq]. Historical records show that bread baking was originally a purely domestic activity carried out by the women of the household. Today, the art and skill of baking in South Africa is a result of its cosmopolitan nature, rooted in the traditions and preferences from Holland, Germany, England and other European countries.[]

Bread is produced by three types of bakery industries—the plant or industrial bakery, the in-store bakery and the stand-alone retail bakery. The number of in-store bakeries has grown in the last decade. Today almost every supermarket has its own in-store bakery. There has also been a significant growth in stand-alone retail bakeries around the country.

Ruto Mills, the largest mill on one site in SA, and eighth largest in the world, is a partner to both trade and the consumer. Its product range includes cake flour, white bread flour, brown bread flour, bakery prepared flour mixes, sponge cake mixes, maize meal, samp, maize rice, croissant mix, *ciabatta* mix, bread and roll mix. The mill known as Pretoria Flour Mills (Pty) Ltd came into existence in 1891. From the humble beginnings of a small family-owned mill, it tells a story of dedication, commitment, innovation and quality.

The prepared mixes plant and test bakery was established in Pretoria in 1984. The plant is a one ton batch mixing operation with packaging facilities that produce up to 15 tons per hour of speciality flour mixes. These products are sold to in-store bakeries, hot bread shops and confectioners.

Combining its rich harvest of the past with its vision for the future the mill looks back on a heritage of history, technology, innovation and progress.

Originally only milling wheat, the complex expanded during the 1950's in order to diversify, introducing maize milling and a chain of bakeries and depots. Today, this impressive complex is a landmark in Pretoria, consisting not only of the silo complex, but also consists of a bulk flour installation, five storey milling and warehouse complex, offices, plant, silo's, vehicle workshops, the prepared mixes plant and laboratory facilities.

Operated by high-tech machinery with production taking place 24 hours a day 7 days a week, Foodcorp Milling continues to grow in fields such as research and development, marketing, distribution, human resources and production. With the rich history surrounding this business and the passion and vision that Foodcorp engenders, the future of this mill looks set to be part of the milling landscape for another century of truly South African flavour.

Located on the western border of 145 Carl Street, Ruto Mills' test bakery and bakers training facility closed down in 2011, due to a lack of available space and infrastructure within the complex. Training bakers from all around the country on a monthly basis, the bakery offered artisan bread-baking classes with the fresh products sold to the staff and community of Pretoria West. In an interview conducted with Master Baker, Marius Jacobs from the test facility at Ruto Mills, Jacobs stated the importance of such facilities in South Africa. Reintroducing the test bakery and its training facilities, enables the mill to give back to the community.



The proposed new Bread School on 145 Carl Street, will partner with Ruto Mills to offer Artisan baking courses. Functioning as a baking school and small wholesale bakery, the bakery school will offer a diverse range of one-day courses in bread-baking. Making use of a few automated processes, the process relies mainly on traditional methods. Instilling the rustic and artisan aspects of making bread, the author aims to develop an architecture that speaks of the sense of craftsmanship imbued in the making of bread.

RUTO MILLS BAKING FACILITY



Dry storage room



Weighing area



Weighing counter



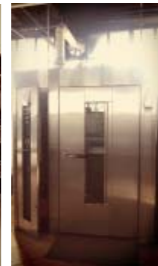
Mixing area



Forming / moulding area



Oven Racks



Fermentation oven



Flat bread Oven



Dough Flat Press



Doughnut and Flat Press



Paraffin and Gas supply pipes



Wet Area

ACCOMMODATION SCHEDULE

- Main Bakery
 - Baking Area
 - Confectionary Area
 - Fermentation area
 - Preparation Area
 - Dry ovens

Wood Oven Room

Storage Facilities

Wet Area

Cold Store

Theory classroom [16 people]

Meeting Room

- Offices
 - Administration
 - General Manager

Cloak Rooms and Ablution facilities

Refuse Area

Paraffin and Gas storage area

Retail Area with seating space

THE LEATHER SHED

In a race for the shiniest mags, the fastest cars and the trendiest kit, the pulses are moving fast in Pretoria West. Confronted with the pressures of a performer-driven society the need arises for individualism. A custom-built body, paint job and leather interior are the thrills they live for[1]. Providing for the custom-kids, the author aims to create a platform for these individuals. The leather-workshop provides a space for these individuals to explore the realms of their creativity in a custom leather fit studio.

The first mention of "leather" as a garment for humans is found in the Biblical account of Adam and Eve. The Bible goes on to say that "God made garments of skin for Adam and his wife, and clothed them".

The permanent alteration of the protein structure of skin enable the use of animal hides for protection, clothing, furniture, footwear, vehicle interior and many more.

Leather is a flexible and durable material created by the tanning of animal rawhide and skin, predominantly cattle hide. The production can range from small to heavy industry. In early history, tanning was considered a noxious trade and demoted to the outskirts of town, amongst the poor. The foul smell of ancient tanning methods result tanneries being isolated from the urban realm.

Many modern industries, particularly the textile industry, are dependent on leather components in much of their manufacturing processes. [Gibbs. R: 6] Today, the production of boxing gloves, headgears, saddles, protective motorcycle clothing, shoes, furniture, clothing, car-interior and luggage are all industries that is dependent on the leather industry.

The proposed Leather Shed will specialise in custom made designs. AK Leathers CC, currently situated in Gezina, specialises in genuine Leather Motor Trimmings. With a rise in demand, the current workshop is in need of a larger facility. The auto-dominated character of Pretoria West, is thus an ideal area for the proposed workshop. [1]

Operating alongside the car leather workshop, the author proposes leather design studios for custom made products, offering training and the production of leather goods. Suggesting the individual to participate in the design and manufacturing process, the leather workshop includes a studio and shop and offers courses to the public. With visible manufacturing processes, the author aims to encourage a transparent production line, with a focus on public participation.

From custom car leather interiors to boxing gloves, the author proposes a workshop rather than a factory. The workshop will specialise in car leather upholstery, from pattern making to fitting, as well as proposing a platform for creative classes, where individuals can learn the techniques in leather goods assembly.

From Pattern making, cutting out all the leather pieces needed to the assembling of the final piece, the proposed leather studio aims at contributing to the need for individual skills.



ACCOMMODATION SCHEDULE

Car Studio
 - Seat Removal
 - Seat fitment
 - Quality inspection

Horse Room
 Pattern room

Foam and Leather cut studio
 Overlocking and Stitch Studio
 Pullers Room
 Design Studio

Storage Rooms - Equipment

Offices
 - Dispatch
 - General Manager
 - Administration

Ablution

Leather Showroom and Shop

PROCESS



Car Seats



Pattern drawing



Sponge stitched to leather



Seat Removed from car



Panels cut to size



Seat panels stitched



Seat covers removed



Sponge drawn to leather panel size



Seat panels pulled over seats



Precut leather on horses



Sponge cut to panel size



Leather seats fitted to car

CATALOGUE



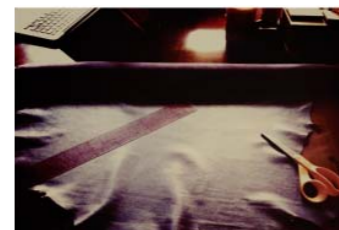
Leather custom design studio



Satchels and bags



Boxing gloves



Leather Pattern making and cutting



Belts



Racing gear



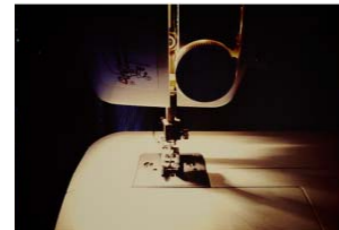
Custom accessories



Cellphone and notebook covers



Motorbike and bicycle seat covers



Stitching



Book covers



Fashion pieces

THE SORGHUM SHED

Sorghum Bar

— The flower that opens in the night

In dealing with the battleground between the old, industrial, and the newer, 'authentic', face of a more diverse, post-industrial area, the west is envisaged to become a space for events.

The city at night has historically been regarded as the eerie 'other' of the working day city, as a place for peripheral, crime ridden and liminal pleasures (Lovatt, 1995). Since the 1980's nightlife and a host of popular cultural activities, often promoted through the idea of the '24-hour city' and various forms of deregulation, have become an accepted part of urban growth (Bianchini, 1995; Lovatt, 1995; Heath and Stickland, 1997). As a result, a number of public subsidies and public-private partnerships have emerged to help kick-start not only the urban housing and office markets, but to develop cultural, night-time and entertainment facilities (Harvey, 2000).

However, affected by problems of visible decay, social division, and deprivation from its industrial past, Pretoria West also has its distinct characteristics. The author argues that in a more thoughtful approach to the development of the area as a place of destination, room should be provided for the growth of a genuinely creative, inclusive and regionally specific urban nightlife, less dominated by large-scale corporations, and more responsive to local cultural factors. To strike a balance between commercial and local needs, and the interests of corporate capital and users of the spaces in Pretoria West, the bar is aimed to serve as a meeting platform for the immediate context.

In seeking to remodel 145 Carl Street as a place to live, work and be entertained, the night-time economy,

through bars, pubs, clubs and music venues, has an identifiable role to play in revamping the run-down urban economy. Many places have been keen to move towards becoming '24-hour cities' (Bianchini, 1995) where activity stretches beyond the conventional '5 pm flight'. Proposing an event space that brews small scale traditional Sorghum beer during the day and provides a platform for the locals to meet, the Sorghum Bar aims at offering a place for the local nightlife culture, currently mainly based on informal gambling, sports bars, shebeens and betting stores.

Based around a more inclusive urban realm, encouraging the intermingling of different age groups and mixed night-time activities, the objectives of the bar would be to stimulate diversity, creativity and more democratic relationships.



ACCOMMODATION SCHEDULE

Brew Shed	- Preparation Area - Wet Area - Brewing Area
Storage Rooms	- Equipment - Warm Store - Fermenting Room - Cold Store
Bar	- Bar counter area - Seating area
Gambling / Betting / Play room	
Office space	- General Manager
Ablution facilities	

PROCESS



Pellet hops, sorghum syrup, dried gluten, beer yeast and amber candy sugar



Pellet and whole hops



Drain Carboy



Sanitize equipment with iodophore sanitizer solution



Add Sorghum Syrup



Fill carboy with water to dilute iodophore sanitizer



Amber Candy Sugar



Bring Sorghum and water mixture to boil



Add Pellet hops to boiling water



Pellet hops, sorghum syrup, dried gluten, beer yeast and amber candy sugar



Boiled, cooled mixture drain into carboy through sanitized hose from kettle



Add dried ale yeast



3-piece airlock with rubber stopper fixed to carboy



Fermenting period [1-3 weeks]



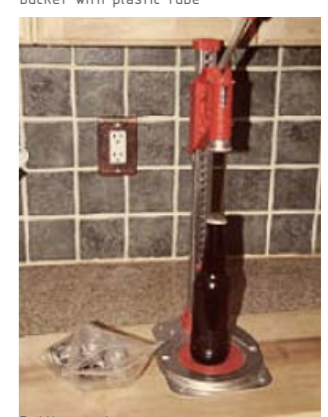
Bottling dry corn sugar



Bottling bucket



Bottling wand attached to bottling bucket with plastic tube



Bottle capping

Allow beer to carbonate [store in dark, warm room for 2-3 weeks]

SCENE 4

CONFLICTS IN MOTION

THE APPROACH

ARCHITECTURE AS MEDIATOR

THE SCAFFOLD

TWISTING. TURNING. LIFTING

SITE DEVELOPMENT

SPATIAL DEVELOPMENT

Fragmented structure

ENVIRONMENTAL RESPONSE

MATERIAL CHOICE AND APPLICATION

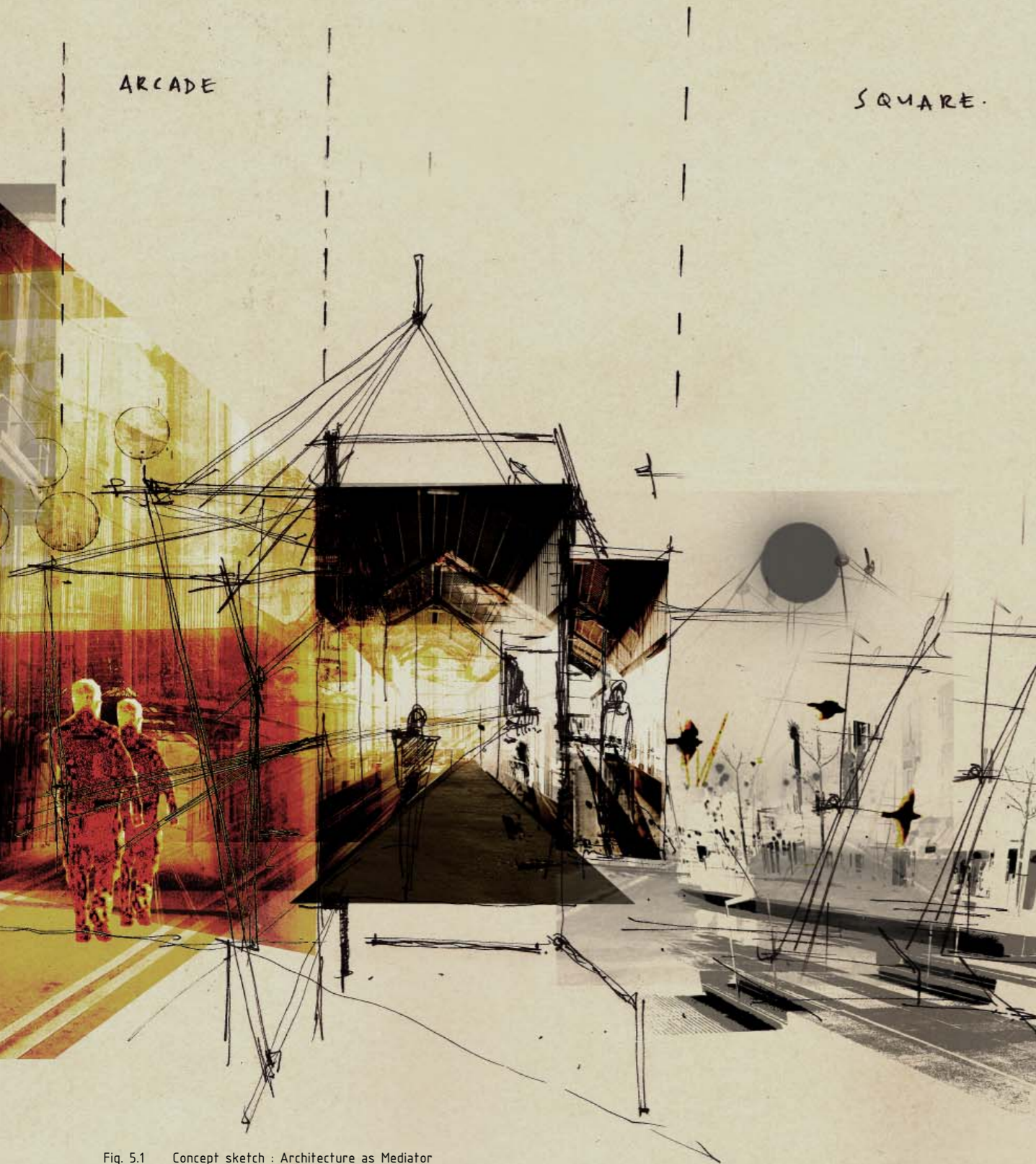


Fig. 5.1 Concept sketch : Architecture as Mediator

THE APPROACH

When the skateboarder looks for a good trick terrain, or the graffiti artist searches for a wall or road to tag, the same way the drifter seeks different ways of seeing and inhabiting spaces. Public space, incorporating freedom of association and expression, is essential to the continued vibrancy of the urban future.

Using the fragility of the site and the duality of the area, the project aims to promote a slow, appreciated and engaging architecture. Through engaging with the non-space, the space not consciously experienced, the intervention becomes the platform that is even more unpredictable, distorting, transforming, interactive, stimulating and cultivating for the dweller and the user.

Seen as veiled, an unseen place with a condition of attraction, for the visionary, and repulsion, by the untrained eye, the abandoned shed is envisaged to act as the threshold between the seemingly disconnected spaces on 145 Carl Street. By promoting a site specific programme it aims to encourage the passer-by to engage with the area and its places in new ways and to unveil the character of the place to both the visitor and the community.

The image of the modern urban centre is that of a facilitator of commercial exchange, a place where people go to shop [Murrell 2011]. While the façade of Pretoria West is that of pure business and economic activity, it should encourage and offer space for the inhabitant to breathe and spend time. Michael Foucault refers to spaces explicitly as '*sites of temporary*

relaxation', where it offers a diversion from its own functionality. The neighbourhood should provide spaces where the spectator can spectate.

In encouraging a multifaceted image for the area, the social potential in an area such as Pretoria West opens up the possibility for both commercial exchange and relaxation.

According to Graeme Murrell, author of *A Drifters Guide to Physical and Virtual Urban Open Space*, the individual, experiencing the city, is in constant dialogue with its spaces and is engaged in a creative act with these spaces. Spaces are remade by its inhabitants, to either become spaces to gather or to become paths connecting other spaces.

Through separate architectural episodes the project aims at creating a network of possible narratives, read and experienced in different ways. Creating spaces of duality in time, person and event, the dual nature of the area is explored using the duality of the event. An iterative process explores potential between void and solid, surface and volume, added and detached, active and idle, the history and the future.

'Biotope' suggests an urban field that includes a variety of functions and storylines that are mutually supporting yet independent. In the context of narrative, it captures an interrelated set of conditions with their own influences and dynamics, allowing it to be open to multiple interpretations and the users to make their own connections. The shift in time, event and public, becomes the foundation of the narrative in a typology of duality. The cross-programming allows for this shift, spatially and temporally, attracting a different public in creating an urban turf for the dweller.

To be in this landscape is to be aware of two worlds at once, in which each migrates towards the other. Whether visitor, inhabitant, frequent user or tourist, the subjects sense a lift on the physical surroundings and puts experience before verifiable reality.
[Coates. 2012]

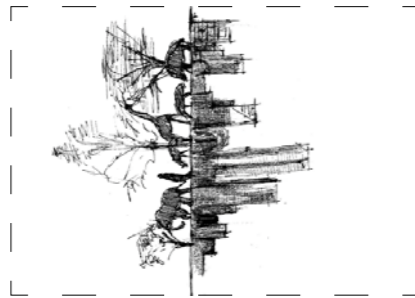


Fig. 5.2 Mediator between built and open space

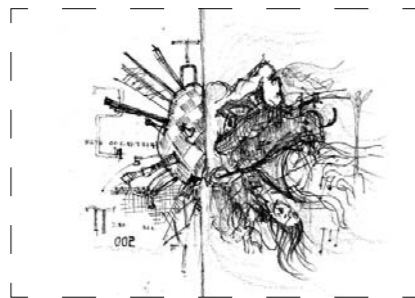


Fig. 5.3 Mediator between scientific and emotive

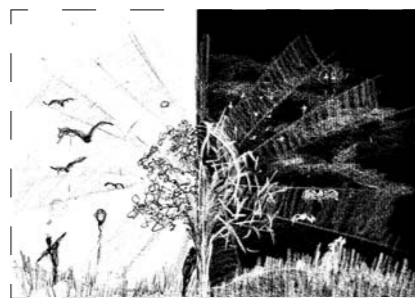


Fig. 5.4 Mediator between day and night activity

ARCHITECTURE AS MEDIATOR

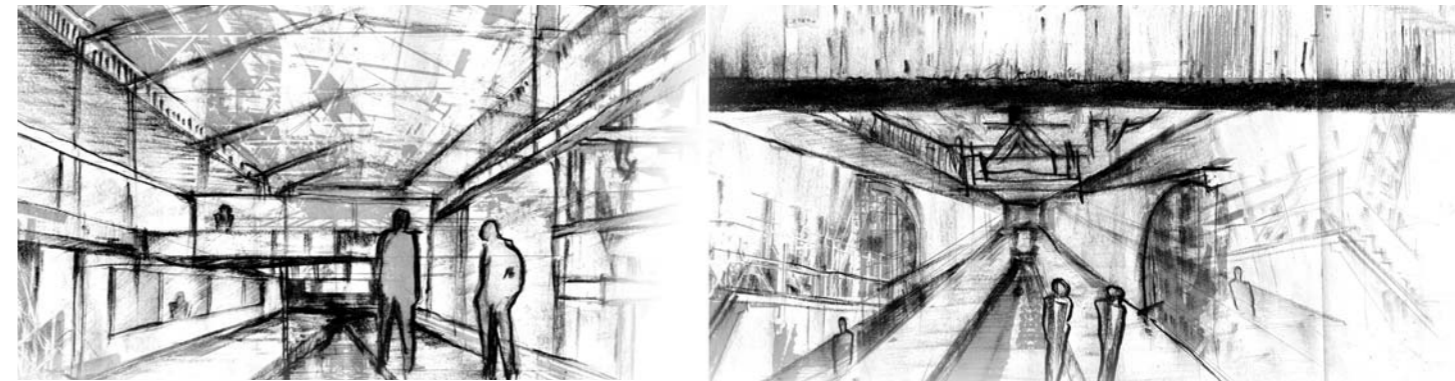


Fig. 5.5 Architecture as mediator between the old and the new

Using the existing shed as the scaffold for the proposed intervention, the author aims to create an architecture that mediates the shift in time and use. The abandoned shed, even though structurally sound, is seen as exclusive and without purpose.

The proposed intervention aims to find the balancing point between the old and the new spatially, programmatically, aesthetically and technically.



Advocating activity past the 5pm flight, the author aims to engage with the shift in events from daytime to night time happening on and around 145 Carl Street.

The author engages with the shift in time and event by promoting an architecture that can accommodate multiple activities in and around the Shed spatially and temporally.

Fig. 5.6 Architecture as mediator between day and night activity

Bordering public edges; The Arcade, Moraba Square and Asylum Halt, The Shed is seen as the filtering space between these edges and event spaces.

Currently acting as a barrier instead of a threshold, the author aims to engage with these edges either physically or visually by extending the public floor throughout the proposed intervention.

Fig. 5.7 Architecture as mediator between the proposed public edges



Fig. 5.8 Conceptual diagram of spaces within the scaffold

THE SCAFFOLD

In every case [of creative work] one must achieve the simultaneous solution of opposites...Nearly every design task involves...different contradictory elements, which are forced into a functional harmony only by man's will. This harmony cannot be achieved by any other means than those of art. [Alvar Aalto]

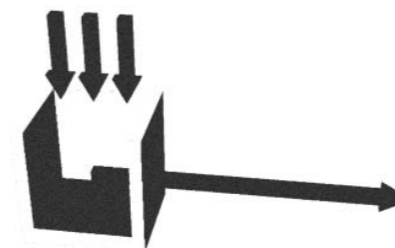


Fig. 5.9 Absorb and contain Memory to allow future history



Fig. 5.10 Recognition of the absence by creating voids within the solid and vice versa

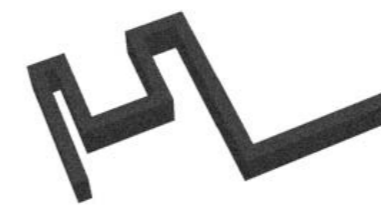


Fig. 5.11 Route Through to create a new urban room

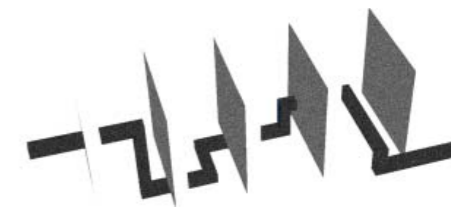


Fig. 5.12 Existing Structure seen as vertical slabs to organise programmatic placement

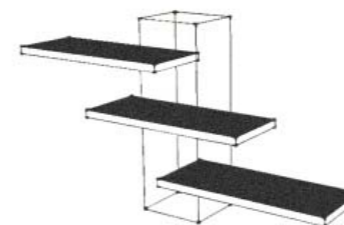


Fig. 5.13 Vertical Displacement of new insertions to create intersecting and overlapping platforms



Fig. 5.14 Connecting horizontal platforms through circulation

TWISTING. TURNING. LIFTING

The focus of the design proposal is that of three autonomous programmes, acting as connecting platforms within the existing structure. Without interference, the platforms should be seen as an unified entity, complimenting and contributing to the site and urban fabric as a whole. Originally used for storing, sorting and distributing of wheat and grain products, the abandoned shed is in a sound structural condition.

The structure consists of steel columns and trusses, spanning 28 meters at 3.8 meter intervals. 490mm Brick work on the exterior of the primary structure, is used as bracing and an enclosing element.

Creating deep spaces with poor ventilation and natural light penetration, the existing shed is considered to be inappropriate for reuse, without making changes to its structural elements to suit its proposed programmatic requirements.

Using the existing steel frames as the scaffold, the author aims to deconstruct the building to create an architecture of connecting platforms within the scaffold.

Using the structural grid as a guide to the new 'insertions', the frame is dismantled and re configured to suit the environmental, spatial and functional requirements of the proposed intervention.

The author aims to re-layer the existing with the new by carefully separating the existing layers of the building, namely the skin [brick walls], the bones [structural steel] and the organs [the space within the shed].

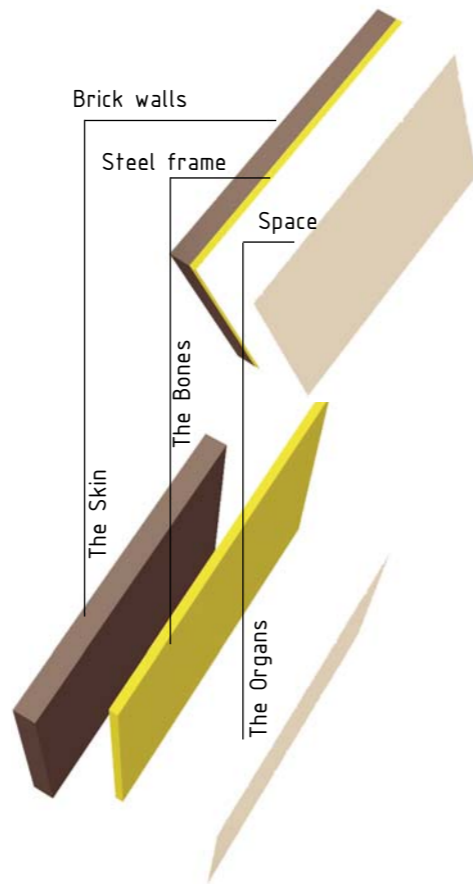
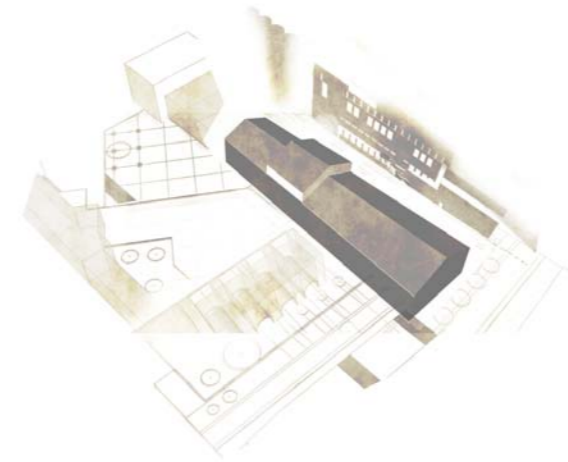


Fig. 5.15 The layers of the existing shed



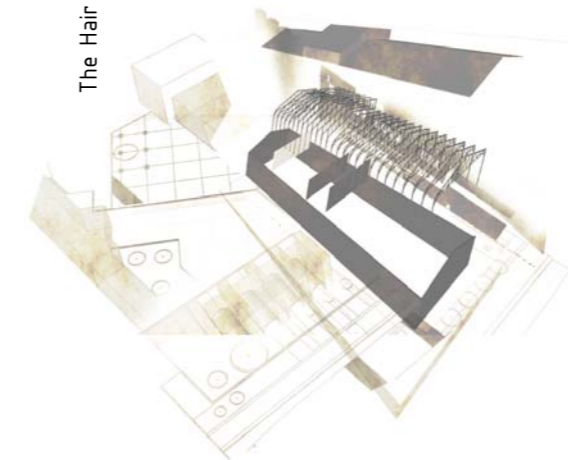
The existing shed



490mm Brick walls as bracing and enclosing element



Steel frame as primary structure



Roof as protective element

Fig. 5.16 Existing shed structural and enclosing elements

Changes made to structure over its lifetime, speaks of adaption for new purposes. Based on this principle, the author engages with this tectonic language by introducing another layer of adaptation. Re-using the steel frames as much as possible, and thus reducing the environmental footprint of the proposed intervention, the author uses influences from its existing urban setting, built fabric and proposed vision for the site and the Pretoria West.

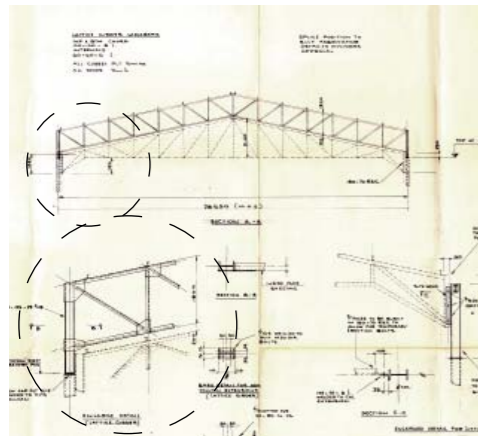


Fig. 5.17 Lifting of truss detail [Shepherd and Shepherd. 1982]

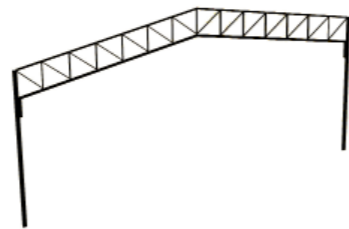


Fig. 5.18 Existing girder truss

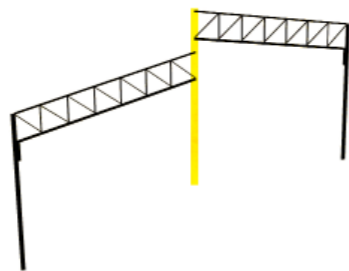


Fig. 5.19 Vertical displacement for light penetration and higher volume

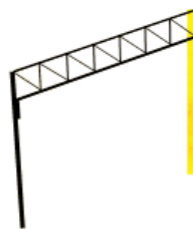
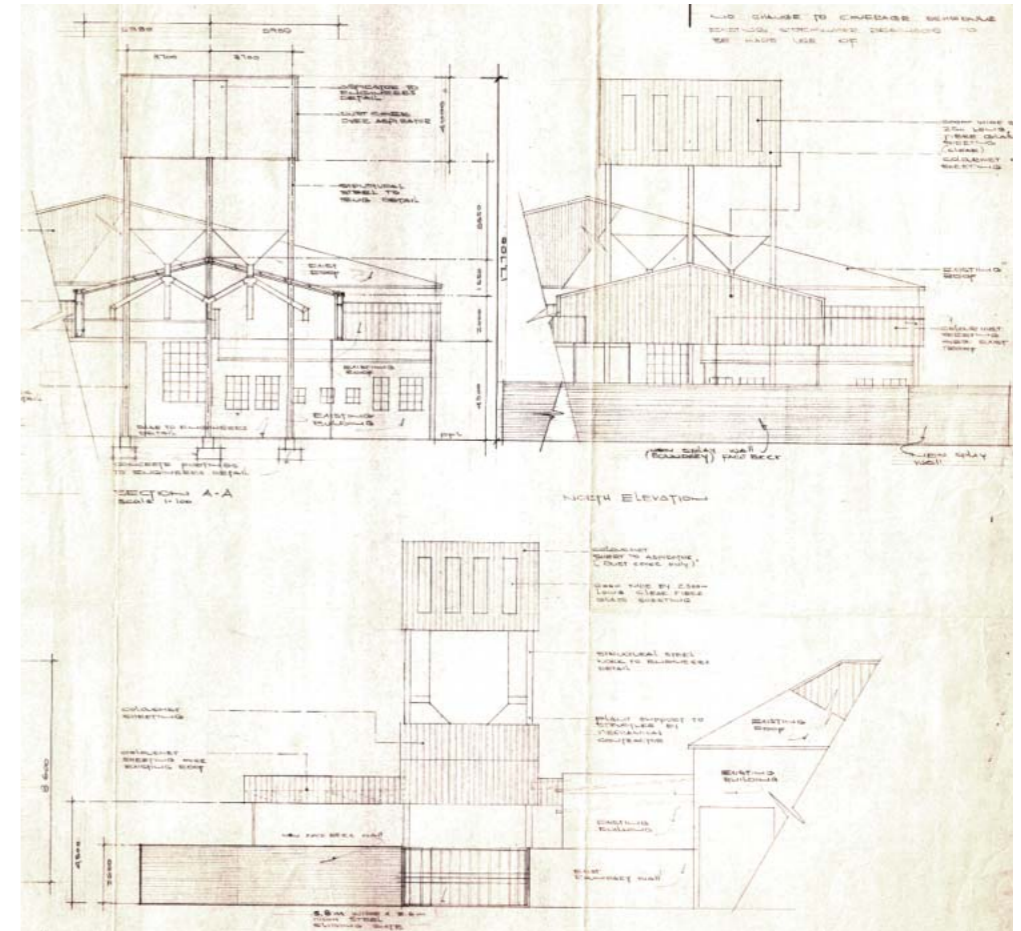


Fig. 5.20 Halving the truss for less deep spaces and programmatic placement



The objective of the design is to respond to the tectonic and architectural language and address the current cultural and social aspects of Pretoria West, whilst still allowing for future regeneration. The structure aims to become a connecting platform between the historical built fabric, the industrial activities of the surrounding area and the vision for the area.

As a historical industrial milling complex, the shed should not only introduce new functions, but also introduce a new tectonic language and reinstate the historic and existing significance of the milling complex.

Fig. 5.21 Proposed bulk loading facility as addition to shed showing tectonic language [Shepherd and Shepherd. 1985]

SITE DEVELOPMENT

Thresholds aim to introduce a relationship between social and process programs. With three autonomous programmes, the circulation and public spaces become these thresholds. Aiming to expose the processes and activity to the west and eastern edges, the design creates strong visual connections to these programmes. Investigating the interaction between the buildings' edges and the public edges on all four sides,

the design should be sensitive with the appropriate scale and supporting programmatic placement. With poor urban spaces and street edges, the proposed framework for 145 Carl Street engage with these spaces and edges to create spaces for gathering and events. Due to the size and orientation of the four interventions on 145 Carl Street, the spaces in-between and the street edges become an important spatial connector. Moving through and alongside the building, should thus become another layer for public interaction.

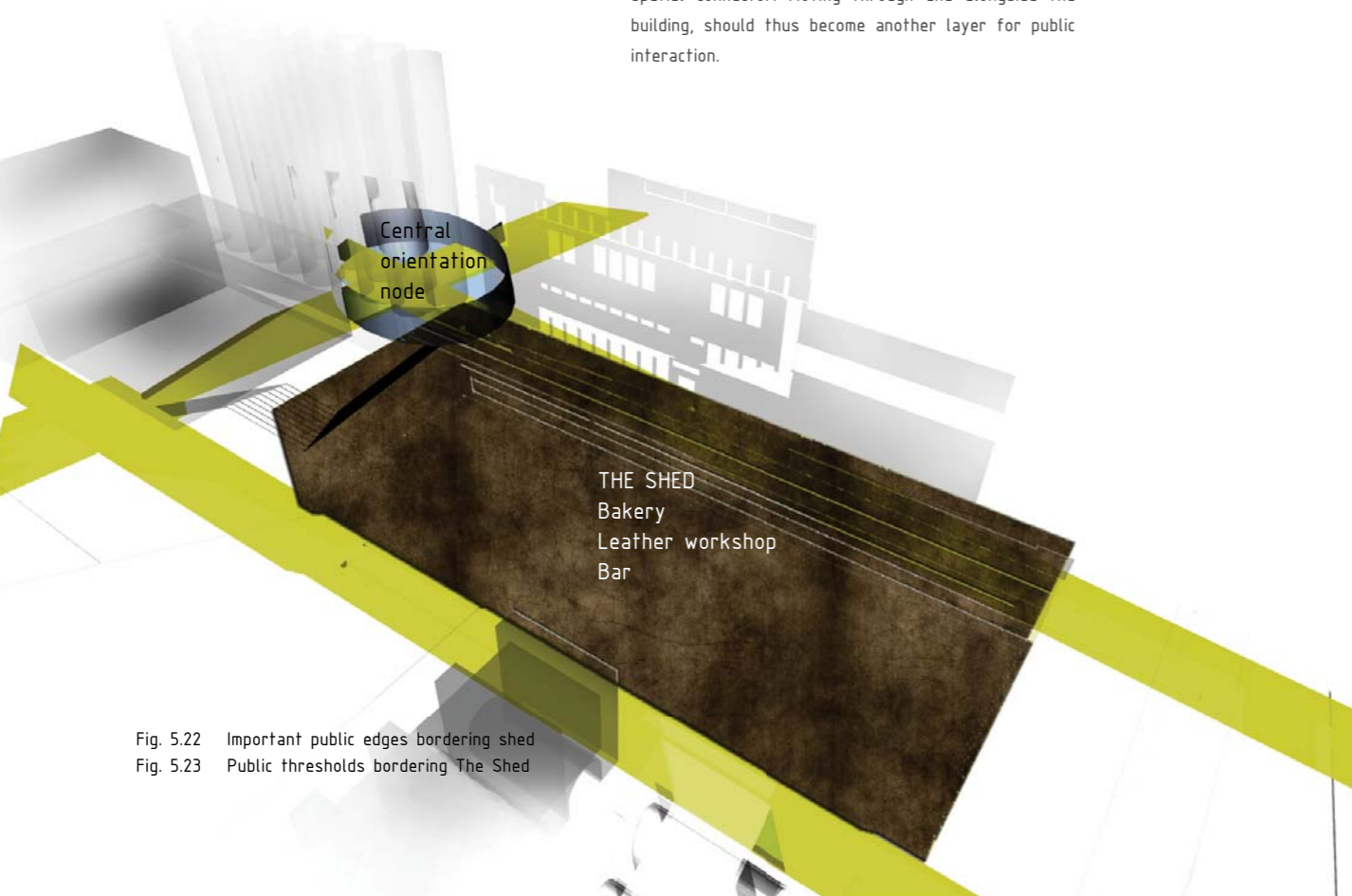
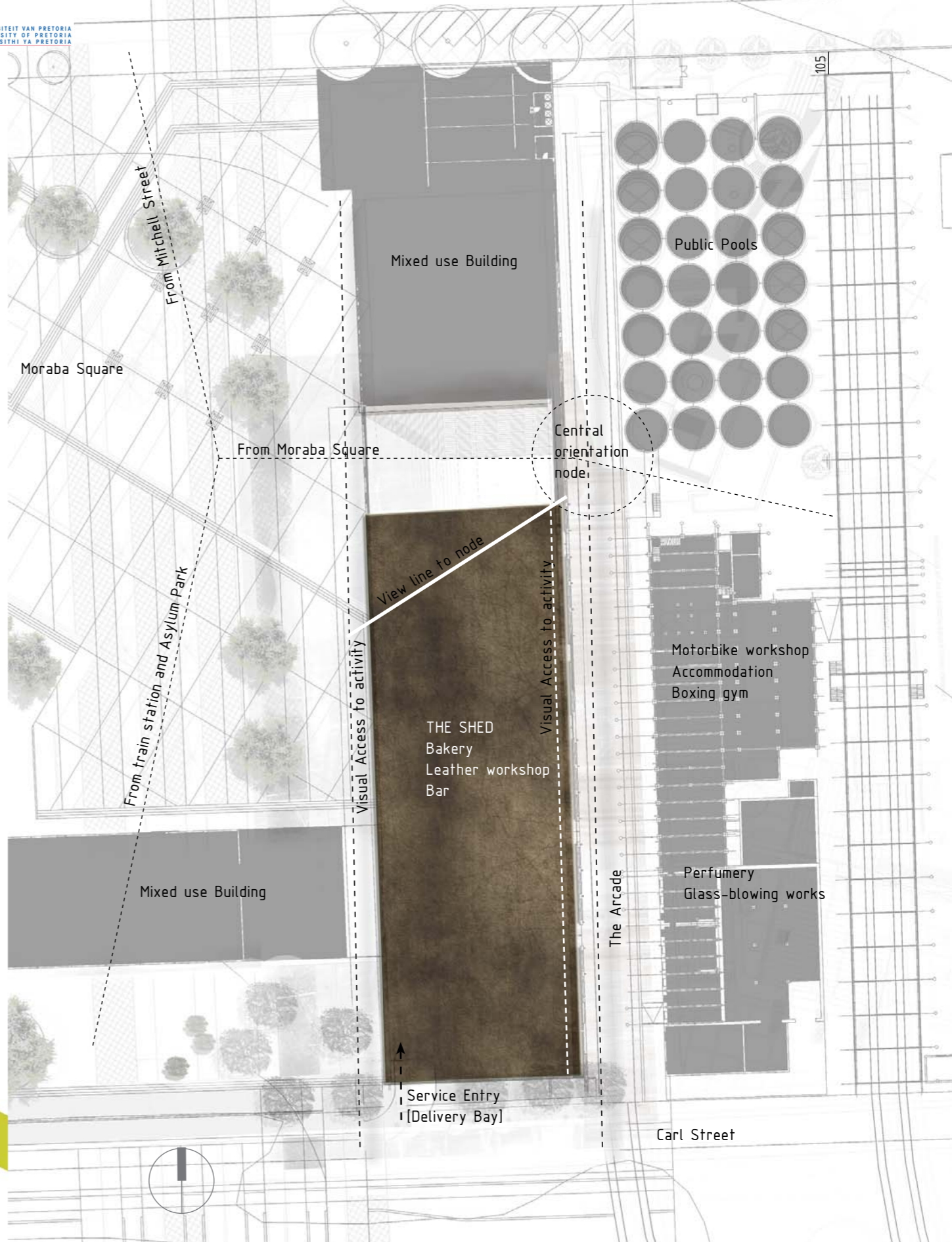


Fig. 5.22 Important public edges bordering shed
Fig. 5.23 Public thresholds bordering The Shed



SPATIAL DEVELOPMENT

With the three autonomous programmes and a site seen as the in-between, the author aims to create a connection between the spaces bordering the shed and the three programmes. The long linear shed is broken in three major parts, for programmatic placement, with public spaces and circulation becoming the connecting element.

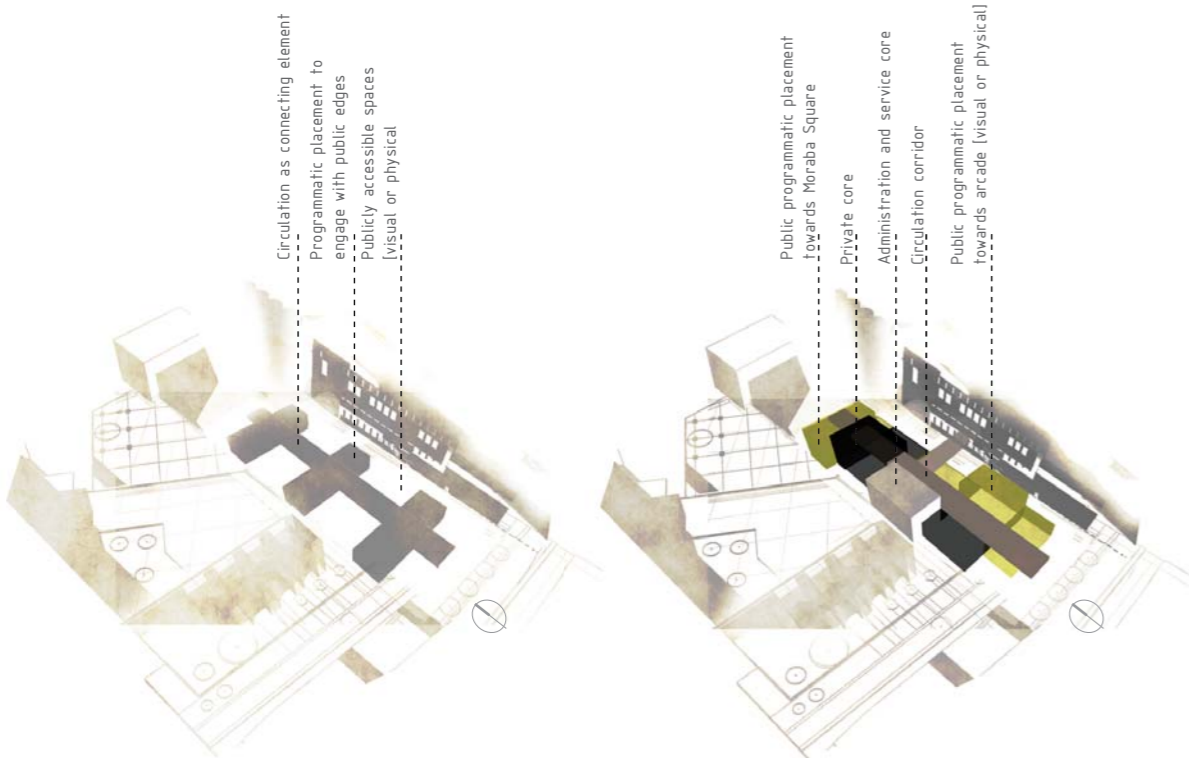


Fig. 5.24 Autonomous programmes and the edge conditions

Fig. 5.25 Programmatic placement and public circulation corridor

Ground Works:

In responding to the existing footprint of the shed, the foundations are kept to the largest extend possible. Assuming sound structural conditions, the author uses the structural grid to place the new elements. Foundations to the east, however, is removed to a certain extend to cast footings and foundations for the new structural additions. A clear distinction between the new and the old floor slabs are visible throughout the proposal to make the layering of structural additions clear. The proposed design is based on the existing 3,8 meter grid, with a clear distinction between both the old and the new, and structural and non-structural elements.

Contours:

With a 1 meter drop from the railway siding [proposed arcade], and a 2 meter fall from Carl Street to the northern edge of the shed, the existing building used to be accessed from the east, but is currently closed off from any access towards the siding with the only entrance on the west. A single level drop in the shed ensures a more level platform towards the west.

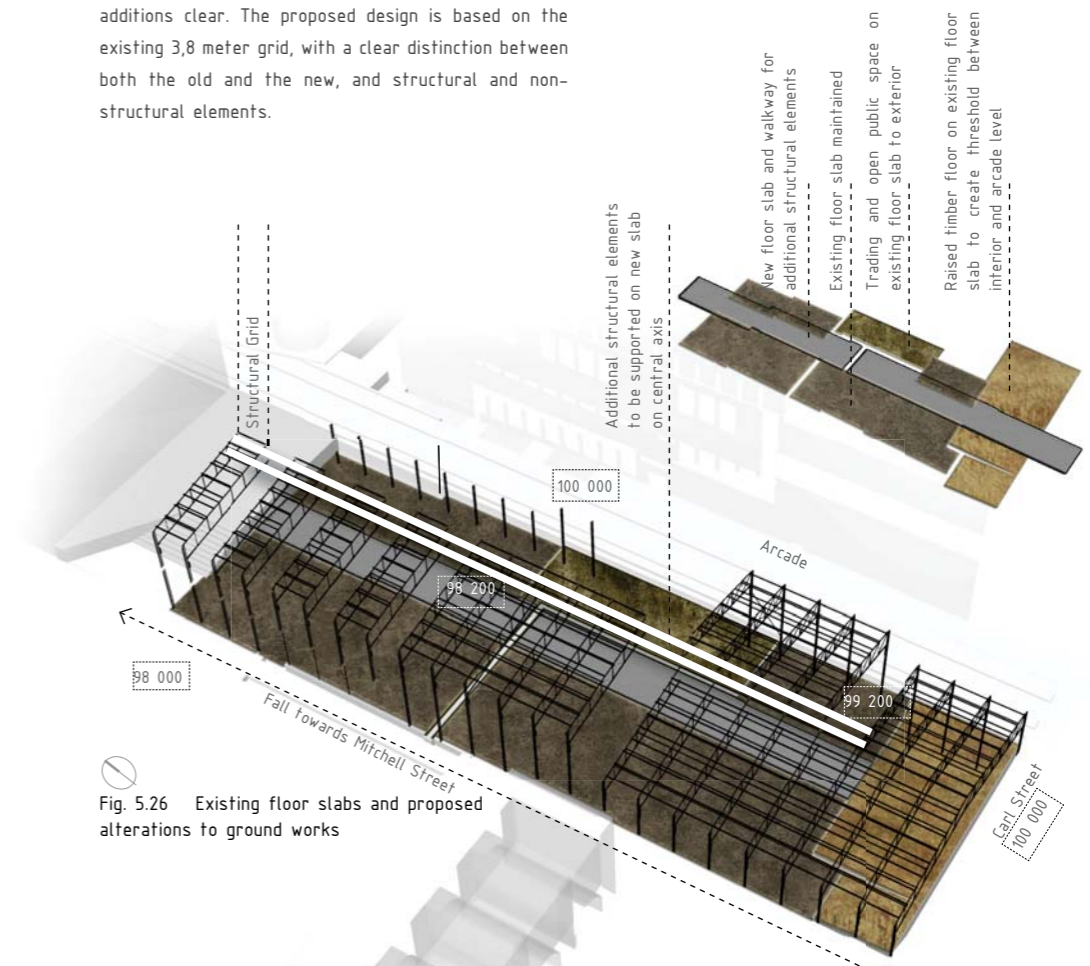


Fig. 5.26 Existing floor slabs and proposed alterations to ground works

Fragmented Structure:

Using as much as possible of the existing structural steel frames, the inaccessible volume is broken into different platforms for activity. The existing structure, seen as a permanent scaffold is re-layered to add additional spaces to the existing shed. By exposing the tectonics, both the existing and the new, of the building the design aims to tie in with the industrial character of the area, the site, and specifically the shed. By fragmenting the structure, the design aims to create a new tectonic layer as a separate element to the existing.

The proposed design is based on four elements within the building:

The Guide:

Placed on the inside of the brick walls, the existing structural steel frames is not legible from the exterior of the building and no recognition is given to its structural value. The existing 3,8 meter structural grid is used as guide for programmatic placement and should be legible from both the interior and exterior spaces, thus allowing a visible tectonic language.

The Platforms

Inserting two new levels within the shed allows for accessible volumes. The horizontal platforms should be layered to interact with each other to make both the user and the visitor aware of the activities taking place on these platforms.

The Connector

Introducing a public circulation corridor through the building, allows for additional activity along the edges of the connecting platforms [the different floors]. The circulation becomes the connecting element between the autonomous programmes and the rest of the site.

The Cover

The existing corrugated steel roof does not allow for any natural light to penetrate the deep spaces. Seen as the protective element, the roof becomes the protective element and is manipulated to allow for natural light penetration and shading device on the eastern and western facades.

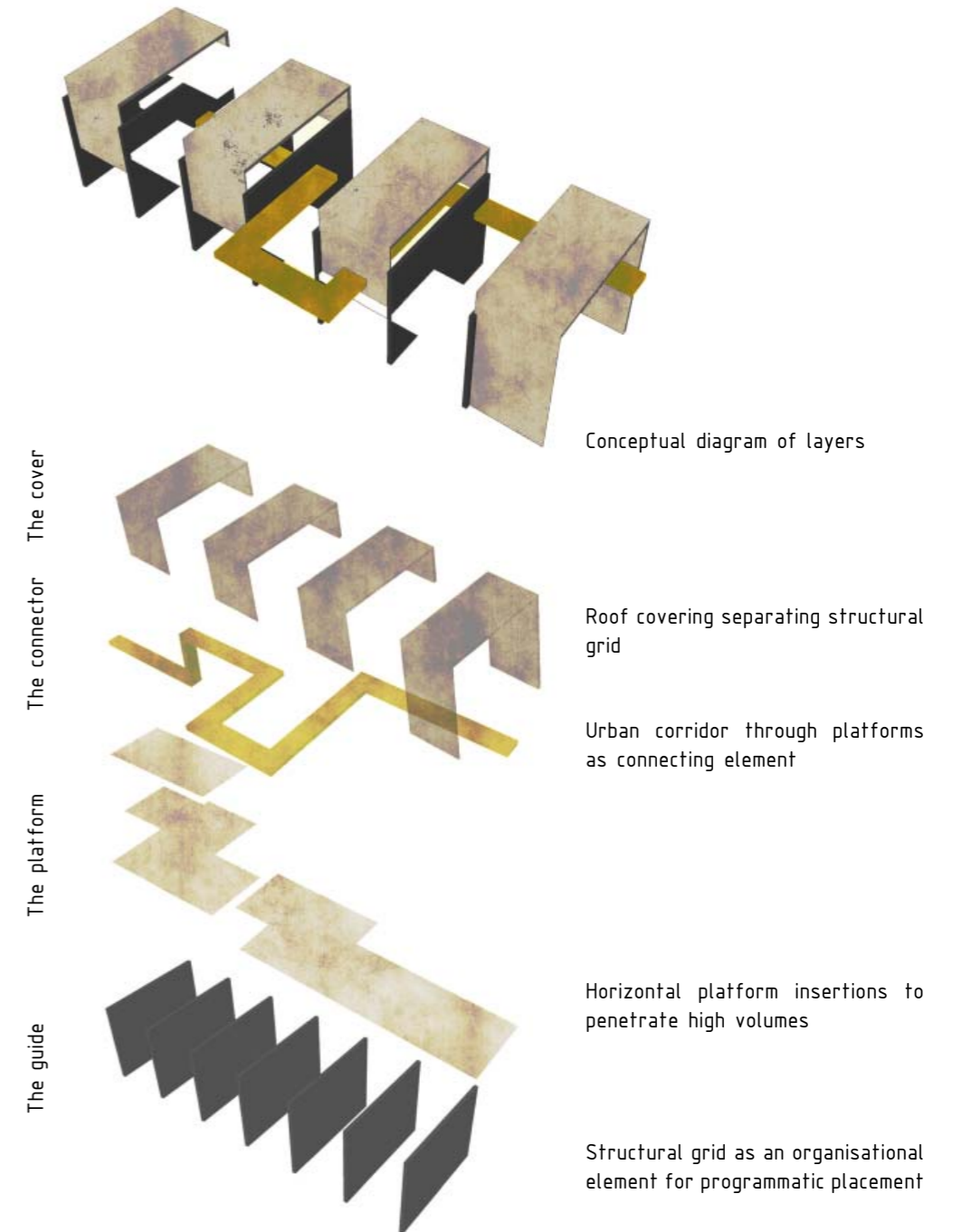


Fig. 5.27 Conceptual diagrams of fragmented structure

Existing walls:

Using the existing brick walls as threshold space and guide to the footprint of the existing shed, the author proposes to break away most of the external walls to expose the interior of the proposed design to the exterior. The gable end wall to the south is retained to create a vertical edge in Carl Street. The design reuse some of the existing bricks as thermal massing and new internal walls. The two existing internal walls are kept as guide for programmatic placement. The new built walls are kept separate from any existing or new structural elements to create a clear distinction between both the new and the old and structural and non-structural elements

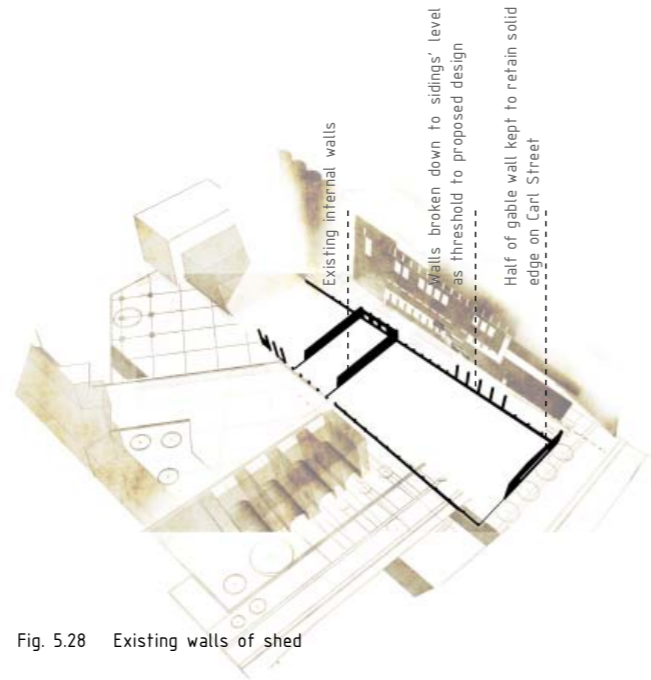


Fig. 5.28 Existing walls of shed

Existing steel structure:

The existing steel structure, positioned on the inside of the existing walls, are disassembled and repositioned to create the defragmented structure. Exposing the structural elements gives a more visible tectonic language to the design proposal.

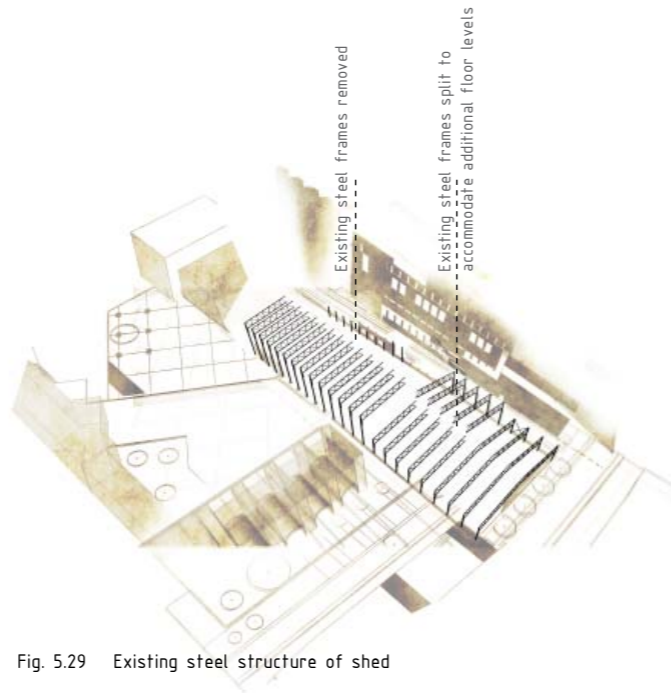


Fig. 5.29 Existing steel structure of shed

New steel structure:

The additional structural elements should be detailed to indicate that it is new. Because of additional floors, the additional structure is fixed to the existing steel frames and columns. New columns are positioned on the new central floor slab.

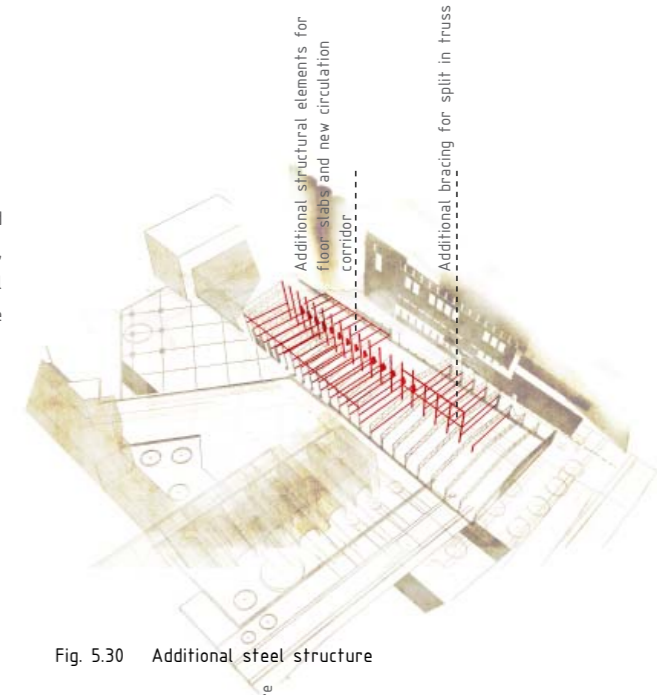


Fig. 5.30 Additional steel structure

Circulation:

The intention of the design is to maximize public exposure to its interior spaces and the processes and events taking places within the shed. Introducing an elevated urban corridor, encourages movement on an elevated level of activity. Allowing pedestrians to meander through the intervention, the public engages with the activities in and around the shed. The elevated corridor connects to the proposed perfumery and glass blowing works, by student Norbert Koch, which further connects to the proposed public pools by Johan Bohmer. Historically accessed through small openings from the siding, and dispatching taking place on the west, the grain was fed through the roof with an elevated connection to the east. With existing circulation taking place along the central axis of the shed, the proposed design proposes the new circulation route to also happen along this axis. Bordering four public edges, the service corridor is positioned towards to western facade for easy access and delivery.

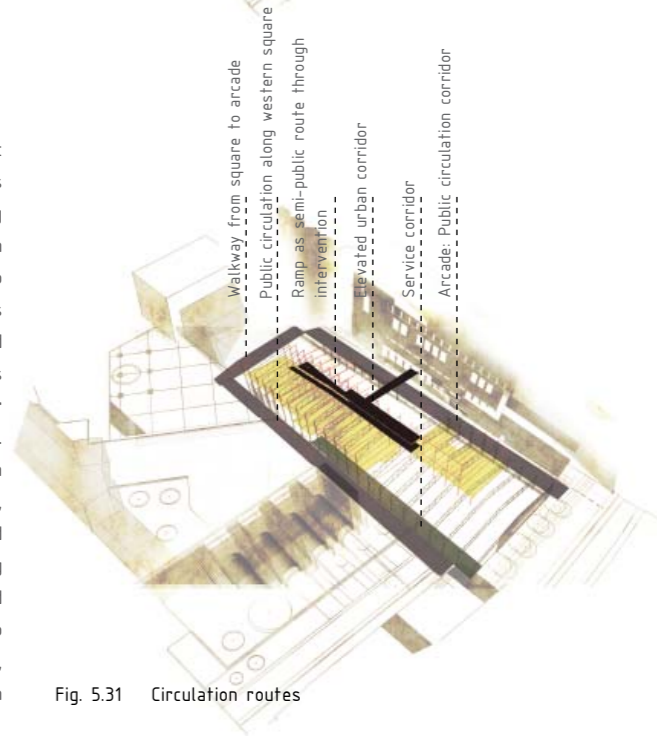


Fig. 5.31 Circulation routes

Secondary structure:

Even though structurally integrated within the building, the urban corridor should be considered as a public entity. Designed as a clip-on structure to the existing frames. The circulation corridor to the east and balconies to the west forms part of the secondary structure and is ventilated open spaces for public activity.

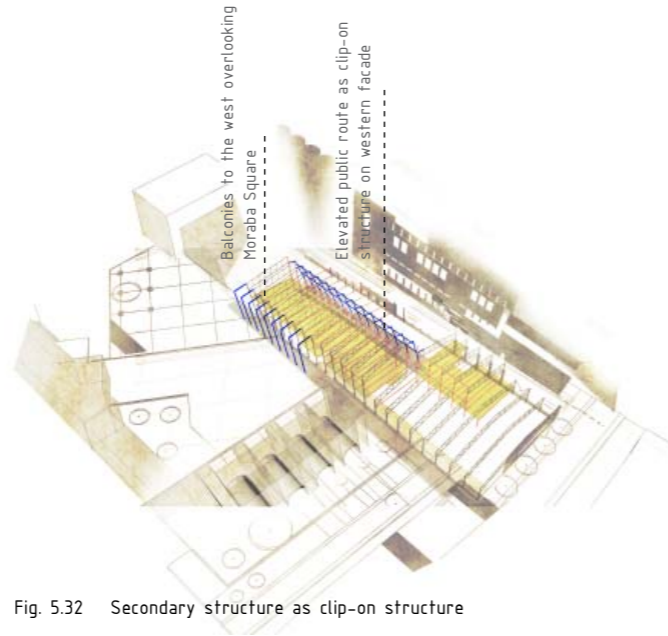


Fig. 5.32 Secondary structure as clip-on structure

Roof covering:

The roof sheeting is manipulated for maximum natural light penetration. Using the roof as shading device on the western and eastern facades, allows for the sheeting to read as a continuous surface between roof and wall.

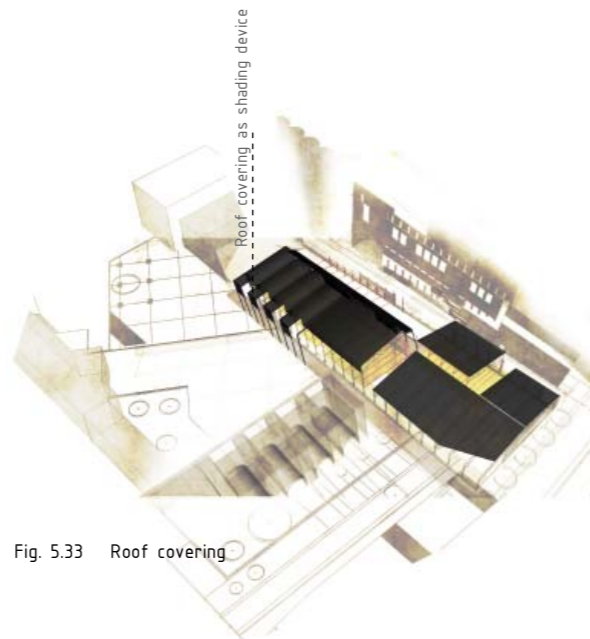


Fig. 5.33 Roof covering

ENVIRONMENTAL RESPONSE

In best practice, a building should be orientated with the longest side to face north for light and sunshine. The sheds' orientation allows for south light to penetrate the workshop areas, but makes it difficult for natural light on the eastern and western facades. The project employ passive heating and cooling systems which harness natural ventilation and shading to create comfortable indoor temperatures. Increased solar shading, controllable natural ventilation and high thermal mass significantly decrease energy usage in a building [Gunnel. 2009:06].

Using passive design principles, the design focuses on four major principles and systems;

1. Water harvesting
2. Natural light, ventilation and shading
3. Green roof
4. Cooling tower and solar panels

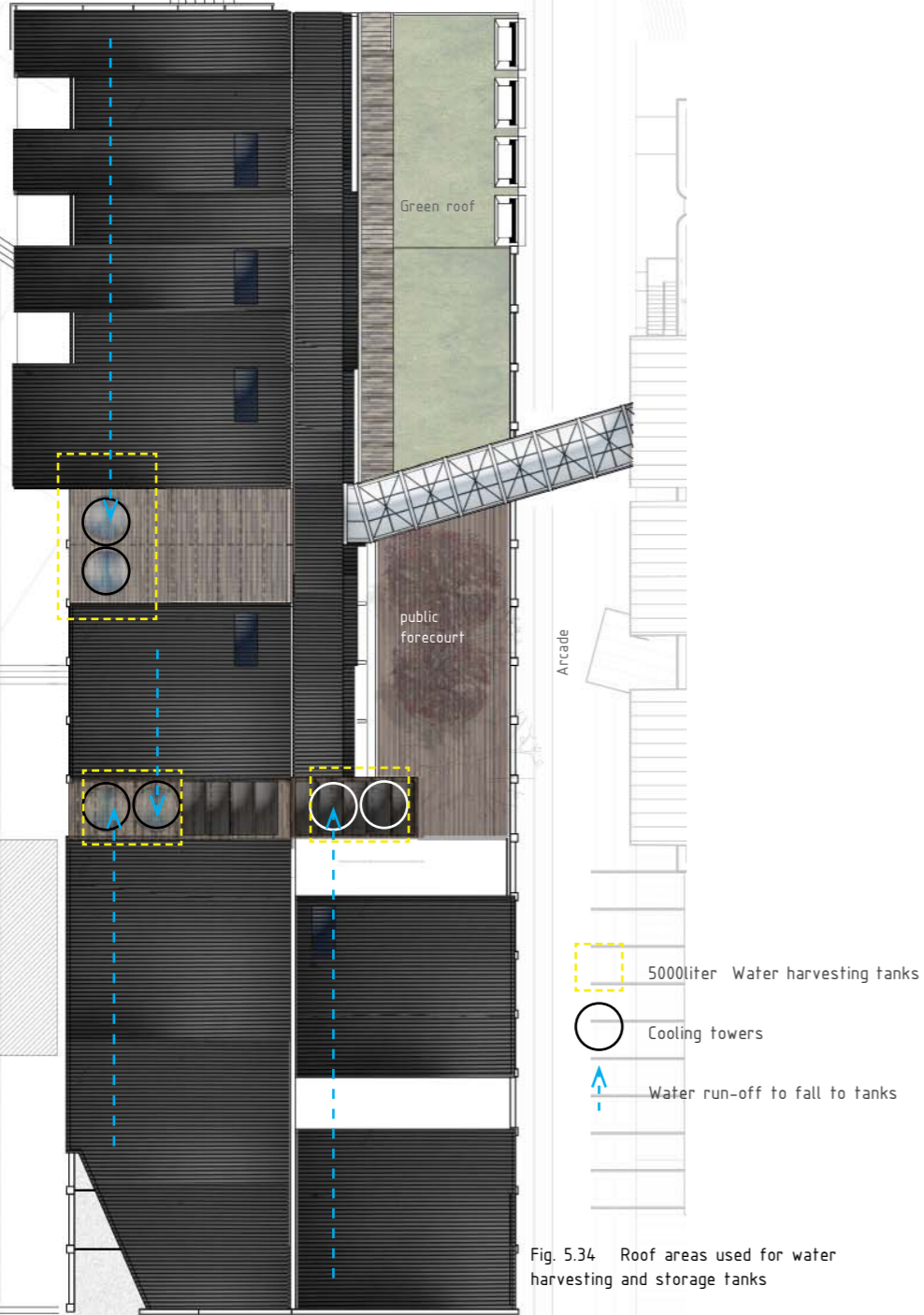


Fig. 5.34 Roof areas used for water harvesting and storage tanks

Water Harvesting:

Rain water is harvested from the roof and stored, or channelled to the green roof for irrigation. Using the roofs for water collection, four water storage tanks are located across the site. Rainwater is collected to serve several purposes; irrigation for landscaping, in heating and cooling systems and to serve the ablution facilities.

The total roof area is 1745 m², according to Jeremy Gibbert [2009], 90% of the total rainwater can be harvested. The storage tanks are positioned in close proximity to downpipes leading from the roofs and the systems it serves, thus preventing long pumping distances.

With the largest amount of water that can be harvested amounting to 172m³, four 44m³ tanks is sufficient for water storage.

	Rainfall [mm]	Harvest [90%]
January	136	213588
February	75	117787
March	82	128781
April	51	80095
May	13	20416
June	7	10993
July	3	4711
August	6	9423
September	22	34551
October	71	111505
November	98	153909
December	110	172755

Cooling towers:

Two cooling towers is used to extract heat from the interior spaces. Using water harvested from rain, the water is mechanically pumped to storage tanks within the cooling towers. The water is then pumped through copper pipes, filled with cold gas, inside the transferring box, which causes a down draft as cool air falls.

The cooling towers is also used for heat extraction. The principle of heat extraction is that of hot air rising. The water storage tank supply water to the solar water heater placed at a 24 degree angle facing North. The heated water is pumped through copper pipes feeding the heat transfer box. The heat-transfer box causes an upwards air draft and thus extract warm air from the interior spaces.

The two towers is positioned to maximize the cooling effect of the interior spaces to create a comfortable environment.

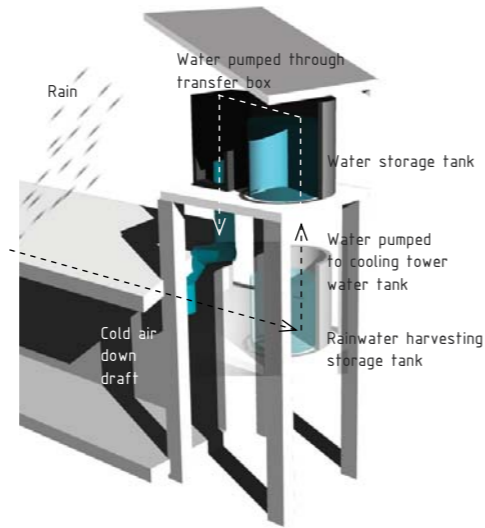


Fig. 5.35 Cooling tower for cold air supply

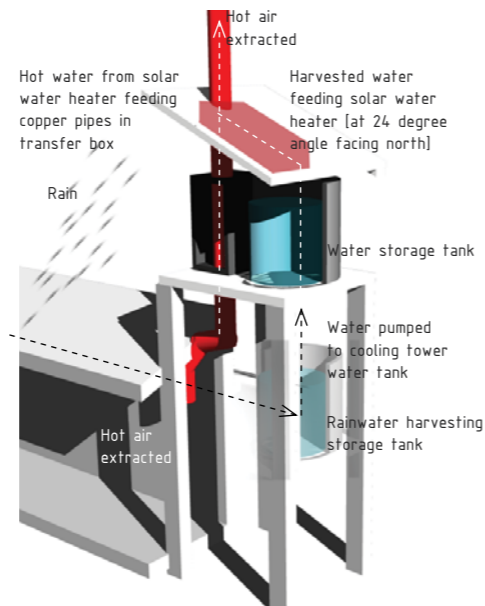


Fig. 5.36 Cooling tower for warm air extraction



Fig. 5.37 Cooling tower

Green Roof and vertical planting:

The green roof (over the bakery alongside the arcade) is covered with vegetation and soil. This type of roof has several advantages and provides climatic stabilisation. The green roof reduces heating (by adding mass and thermal resistance value) and cooling (by evaporative cooling) loads on the building. [Gunnel. 2009:12]. Using deciduous creepers on the eastern face of the walkway allows for natural light penetration .

Natural lighting and shading:

To minimize the use of artificial lighting, the roof is utilized to maximize natural light penetration and ventilation. By splitting the existing roof truss, deep spaces become penetrable. The use of skylights in the roof allows natural light into the shed on sunny days and eliminates the use of artificial lighting. The proposed design aims to provide suitable ventilation for fresh air and cool breezes. The stepped roof allows for ventilating the spaces and omitting warm air. The eastern and western facades are shaded by the walkway on the east and overhangs on the west.

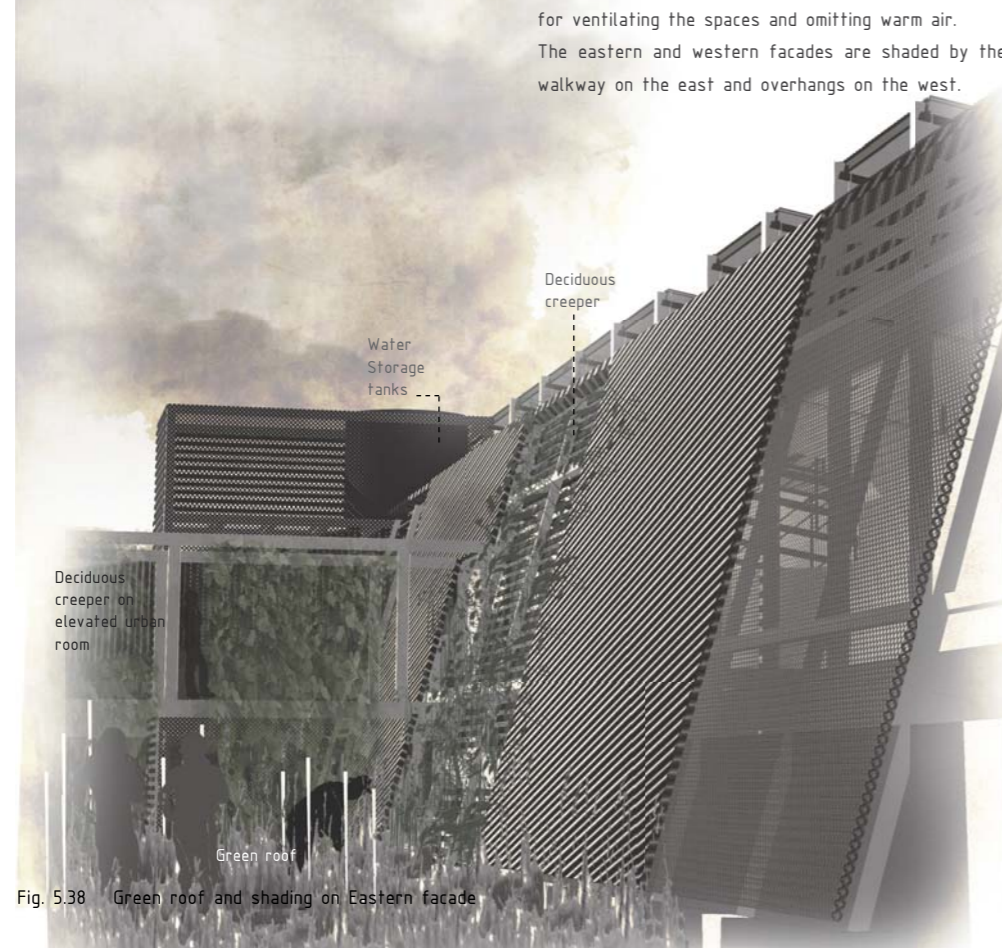


Fig. 5.38 Green roof and shade on Eastern facade

TECTONIC PALIMPSEST

The mill complex has an industrial language. Layered over a period of an estimated period of 80 years, the tectonics also speaks of this layering of time. With the first constructed buildings on the site built from concrete frames and brick infill, the shed, being a more recent addition, was built from steel frames and brick walls as the bracing and enclosing element. The palimpsest of textures and materials is, according to the author, what makes the site and its buildings so intriguing.

With an industrial language surrounding the site and the shed, the author aims to add another tectonic language to the site, whilst still responding sensitively and contextually.

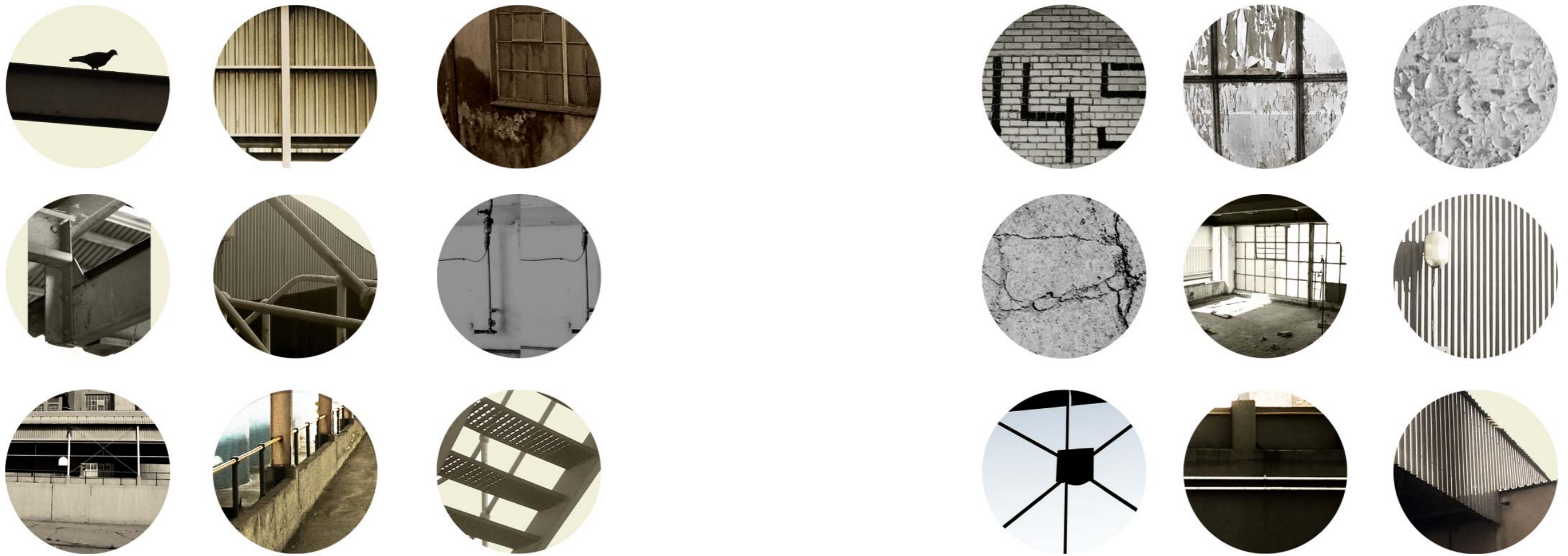
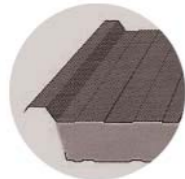


Fig. 5.39 Photo collage of existing materials and textures on 145 Carl Street

MATERIAL CHOICE AND APPLICATION

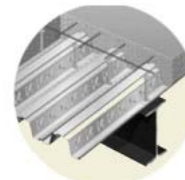
Trsiomet 333 system:



Trsiomet® 333 System is a robust, one component, factory controlled, made to measure, insulated roof and wall panel system that provides time savings in completion of cladding programmes; eliminates the risk of interstitial condensation; and ensures uniform thermal performance throughout the building envelope. Suitable for roof pitches down to 4 degrees.

Insulated roof and wall panel system comprising of side lapping, Fast installation. Optimum performance for water drainage and strength. The system offers excellent economic and environmental performance.

Bond-Deck:



HH Robertson Bond-Dek structural decking. 25 mpa Concrete on 12mm thick Bond-Dek structural steelwork fixed to steel supports with 'Top Speed' screws. 1mm Thick closer

piece at end of panels fixed with 4.8mmØ rivets. Kerb flashing to be min 1mm thick with steel straps at 450mm centers.

Steel:



Steel will be utilized as the main structural entity. Re-using the existing structural elements in an appropriated way, ensures a sustainable outcome and accommodate change over time. As an economic building method and with a fast erection time, the re-used steel has a lower embodied energy. New structural additions will also be steel to minimize wet-construction and additional loads.

Concrete:



The use of wet construction will be minimized to the greatest extend possible. The new ground floor slab and footings for the additional structural elements and water trough doubling as a beam, is constructed of in-situ concrete with off-shutter finish.

Masonry:



In demolishing most of the existing masonry walls, the bricks will be re-used to a large extend for thermal mass and a stereotomic aesthetic to contrast the steel work. The new built walls, from the re-used bricks, will be clearly separated from the structural elements to indicate its non-loadbearing capacity and to make a clear distinction between the old and the new.

Light weight partitioning:



Lafarge fixed partitioning with appropriate fire rating used for the additional walling elements to minimize additional loads and wet construction. The walls are either finished with timber or corrugated sheeting to suit its spatial intention.

Rhodesian teak:



Distinguishing between the structure and social spaces, the use of timber, as finishing element, incorporate a softer finish in contrast to the extensive use of steel. Rhodesian teak is used as it wears smoothly under all conditions and high pedestrian traffic, and is very stable under varying conditions of temperature.

Epoxy screed:

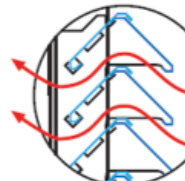


Existing RC floor slab to be primed and epoxy finished to a 2mm finish with smooth finish in baking area and car-fit workshop for durable and hard-wear finish.

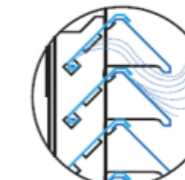
Colt universal rain defence louvre:



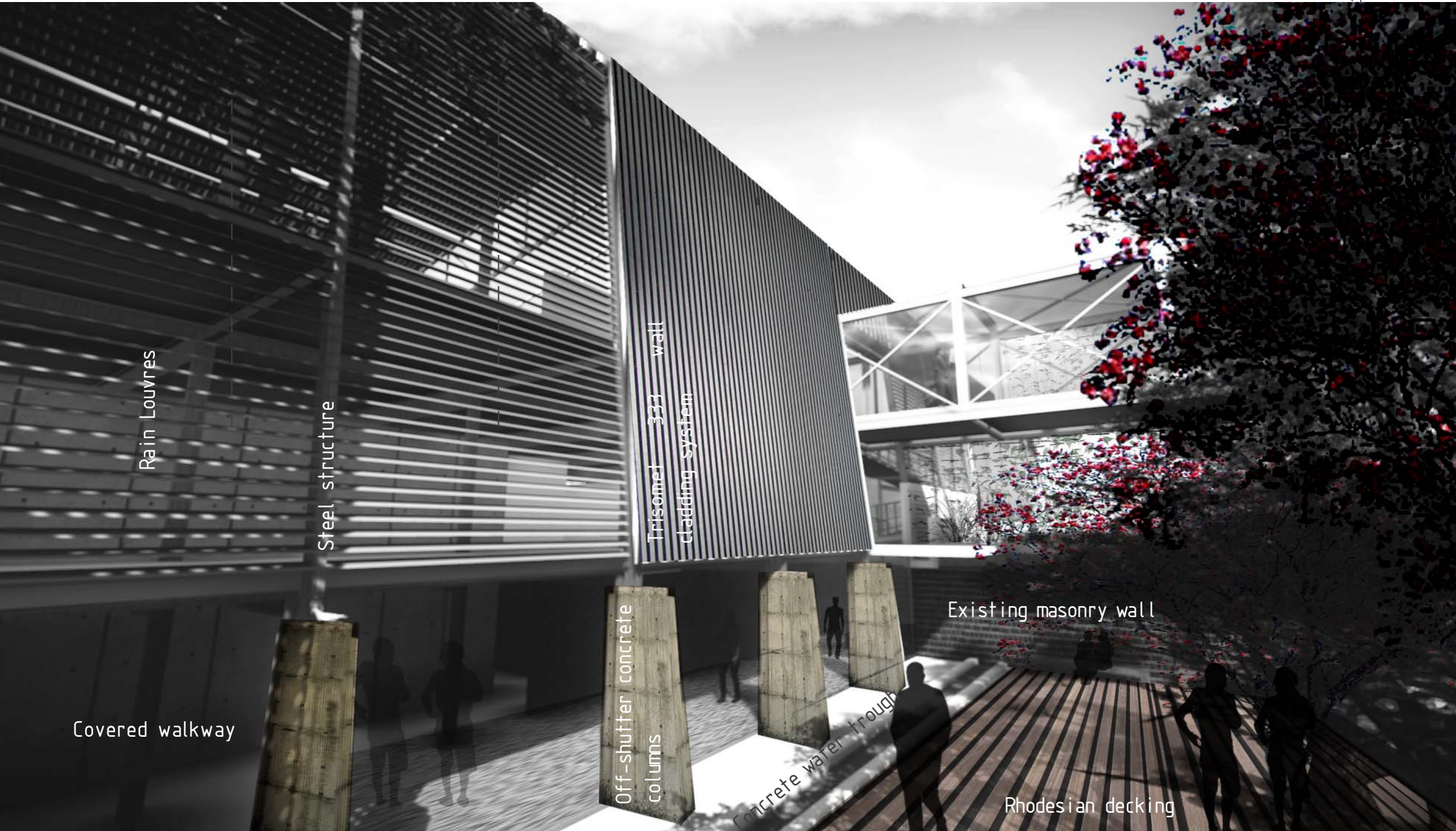
Rain defence louvres along walkway to allow passage of air whilst still providing protection against rain.



Air Flow



Rain dispersion



Rain Louvres

Steel structure

Trisomet 333 wall
cladding system

Off-shutter concrete
columns

Concrete water trough

Existing masonry wall

Covered walkway

Rhodesian decking

Fig. 5.40 Render showing materiality

SCENE 5

OVERCOMING OBSTACLES

APPLIED INVESTIGATION

DESIGN SYNTHESIS

145 CARL STREET PROPOSAL [MODEL]

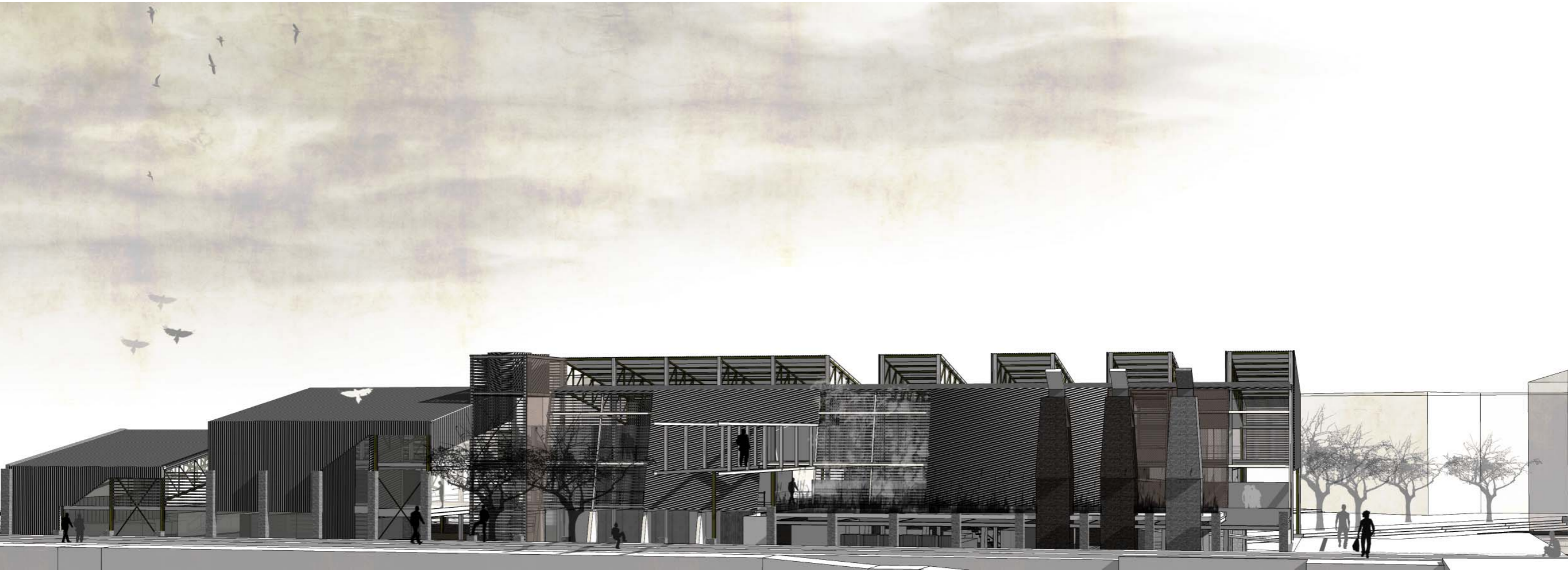


Fig. 6.1 Design development phase showing view from The Arcade looking West
[October 2012]



Fig. 6.2 Design development phase showing view from Moraba Square looking East
[October 2012]

APPLIED INVESTIGATION

The following chapter includes iterative design drawings of the proposed intervention on 145 Carl Street.



Fig. 6.3 The public urban corridor and bar event space

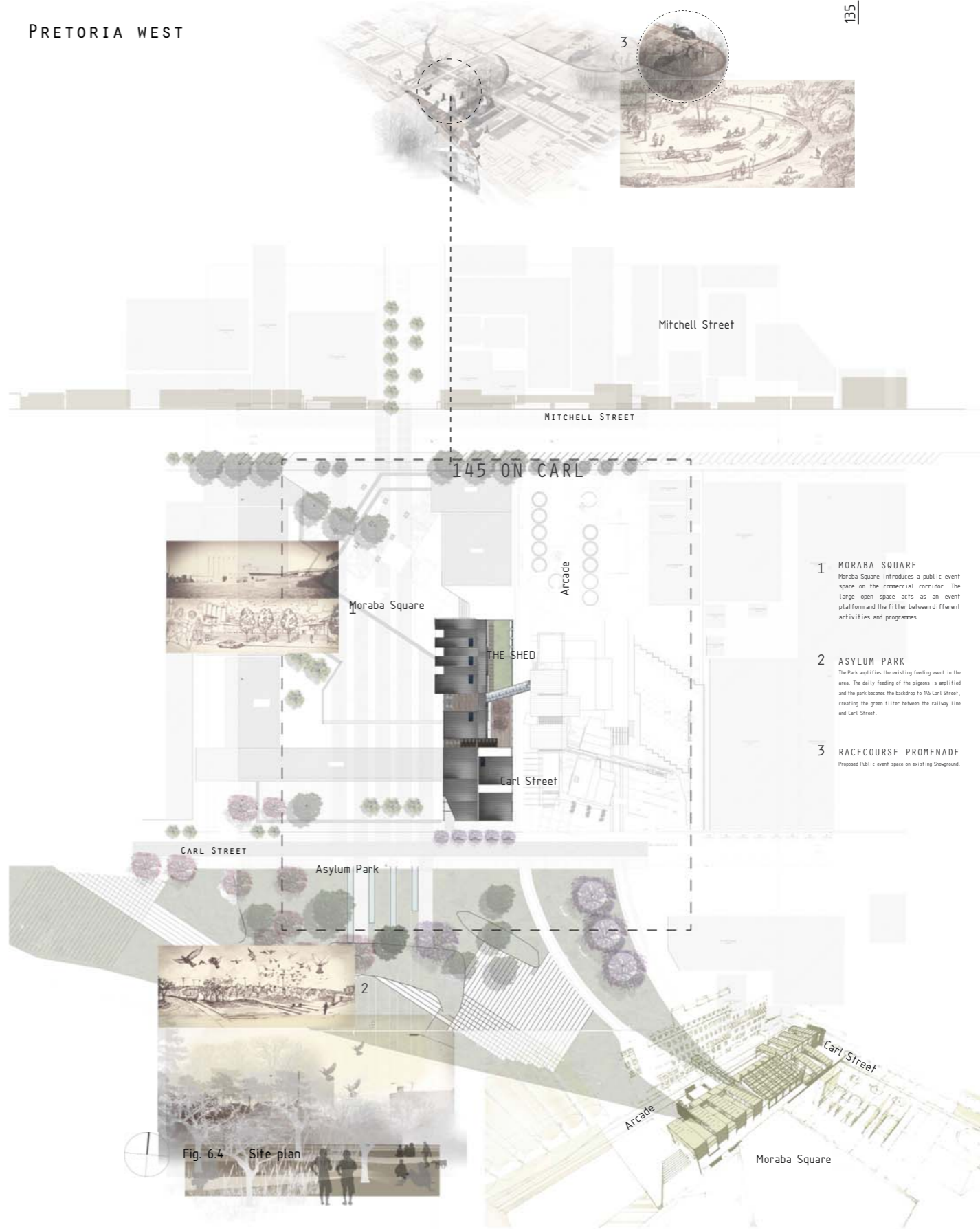




Fig. 6.5 Roof Plan

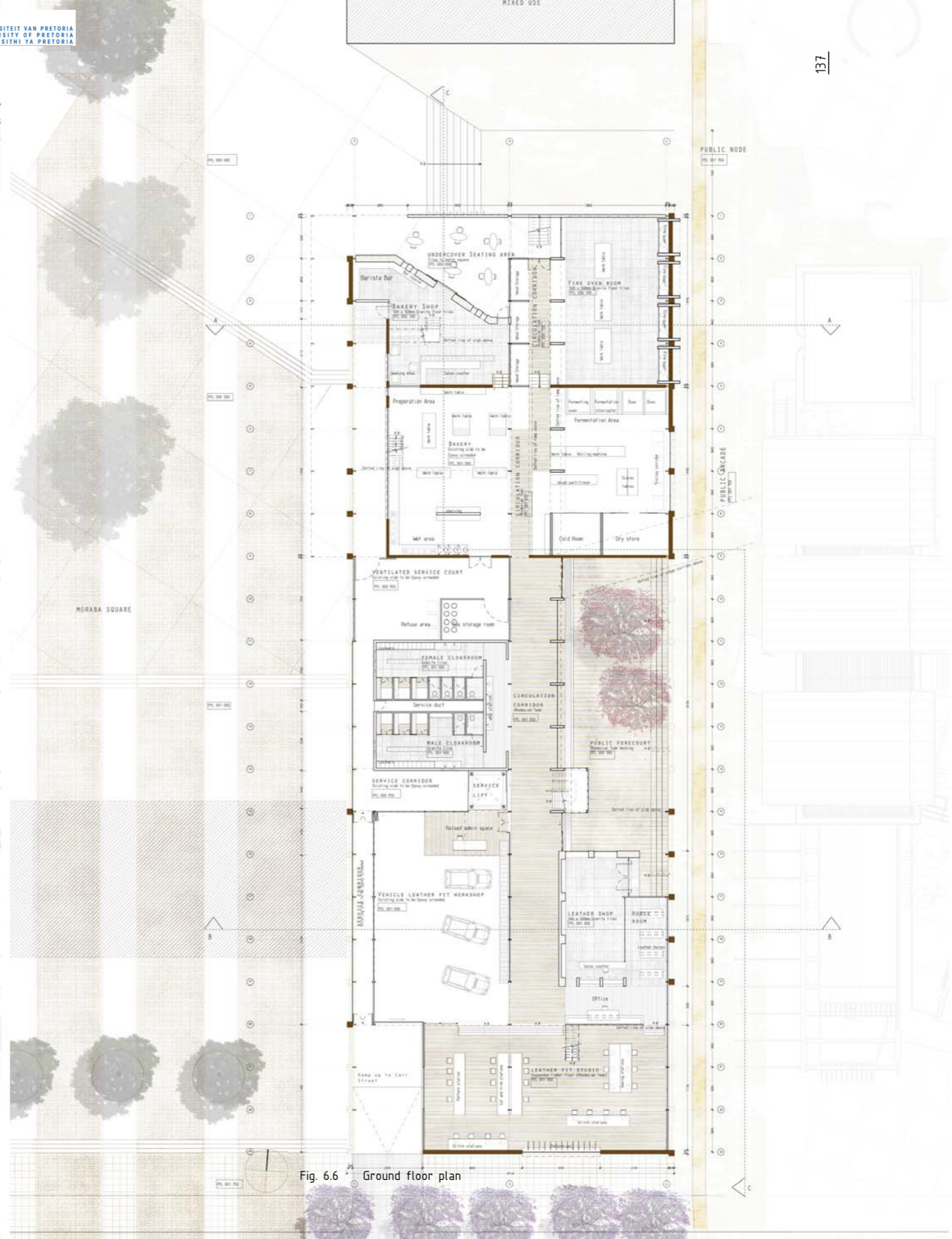


Fig. 6.6 Ground floor plan

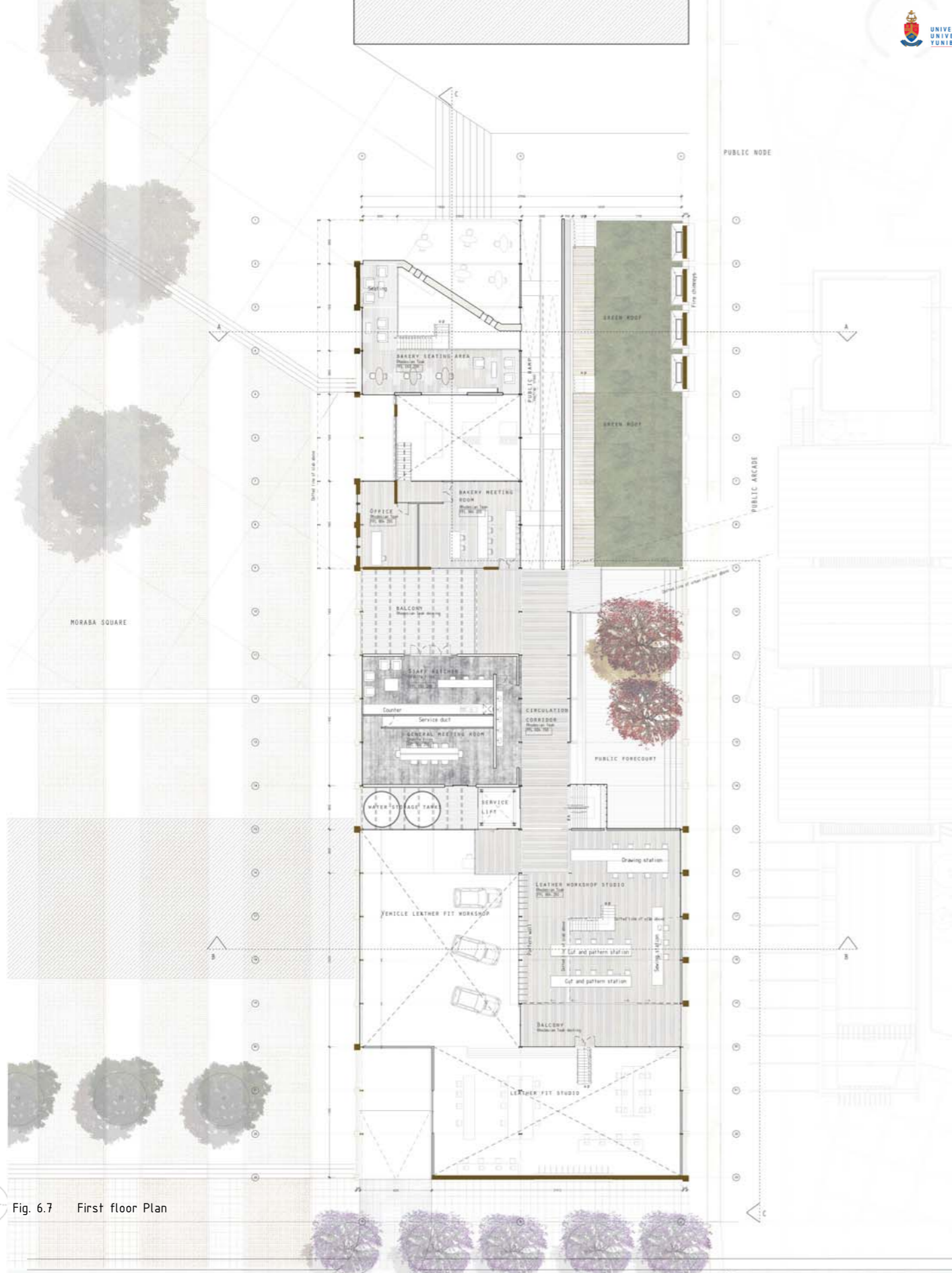


Fig. 6.7 First floor Plan

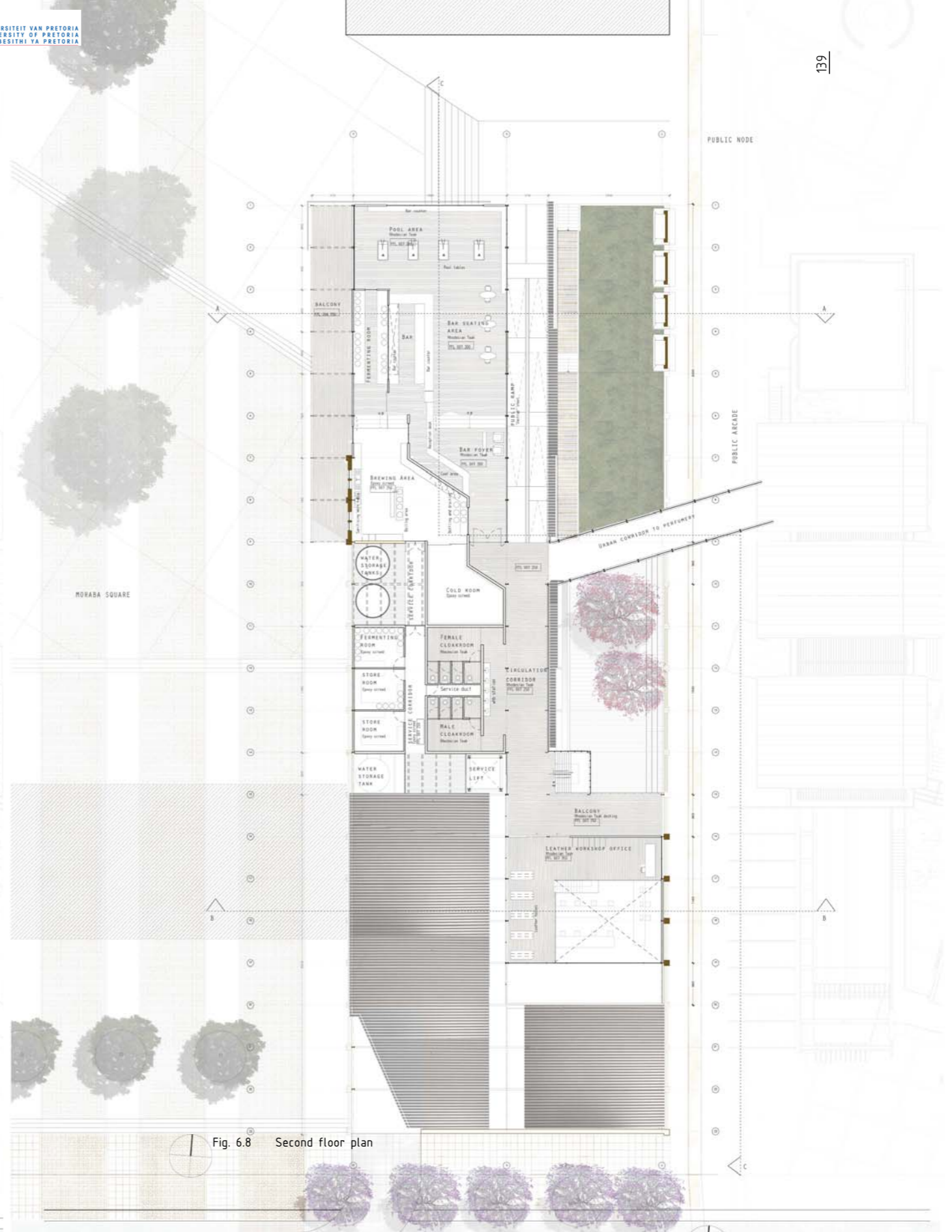


Fig. 6.8 Second floor plan

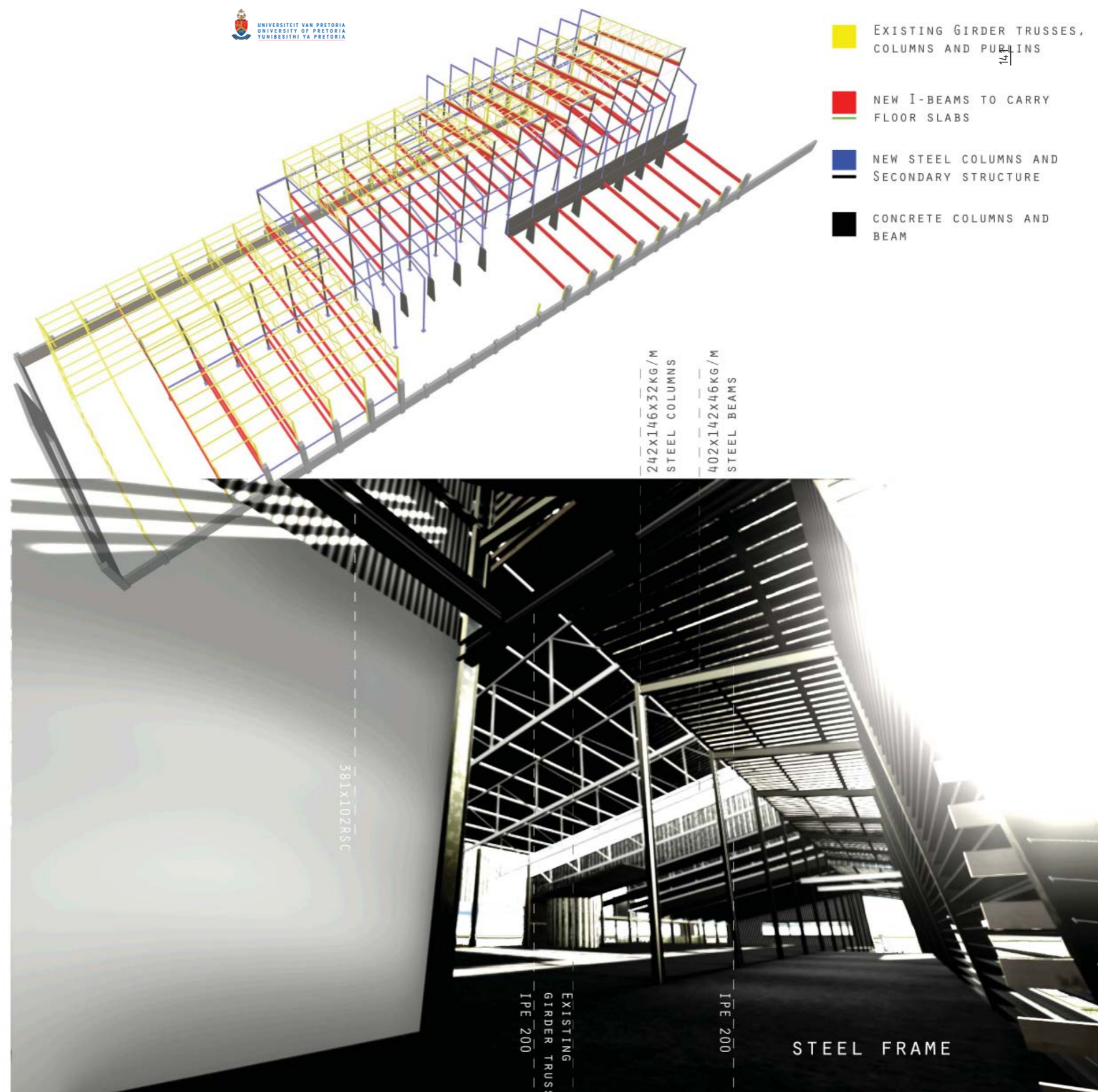


Fig. 6.9 Structural system render



Fig. 6.10 Section AA

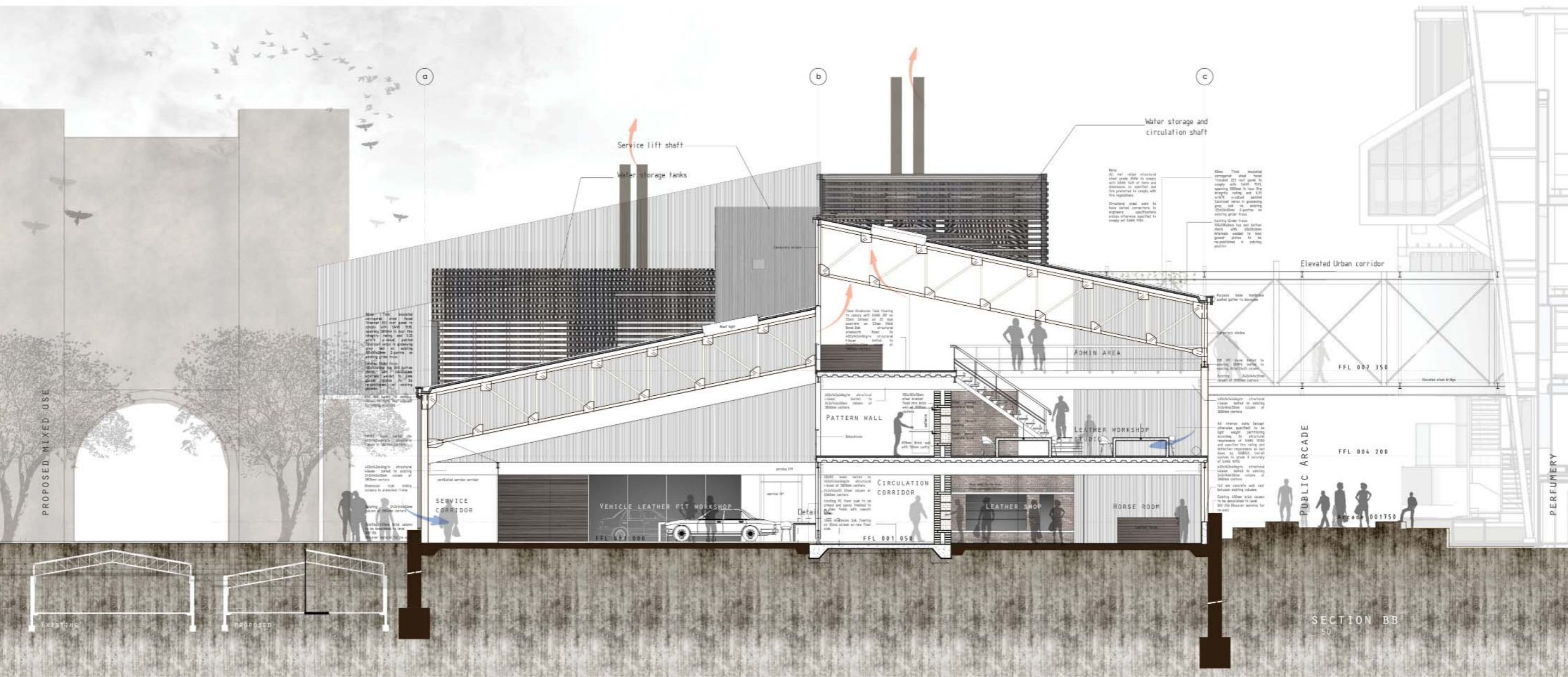


Fig. 6.11 Section BB

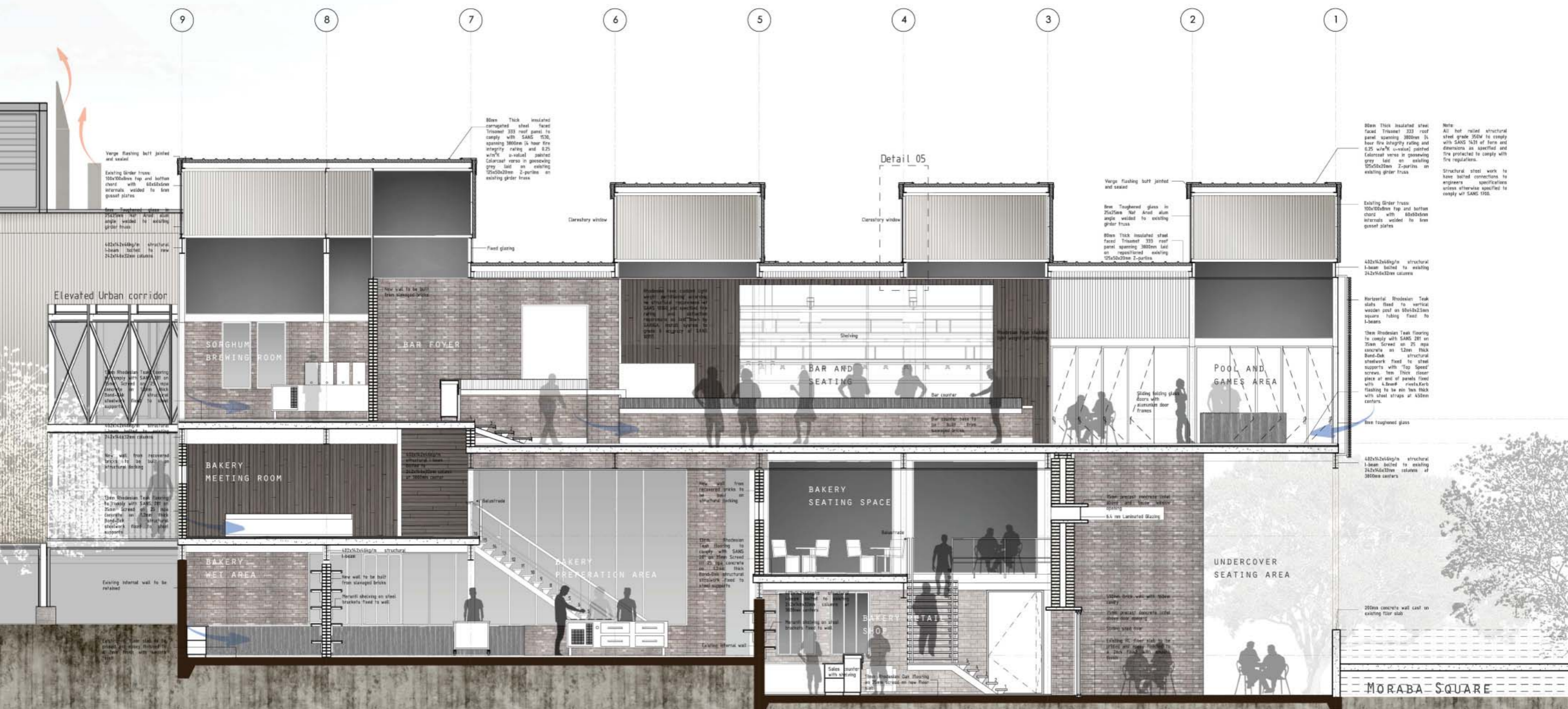
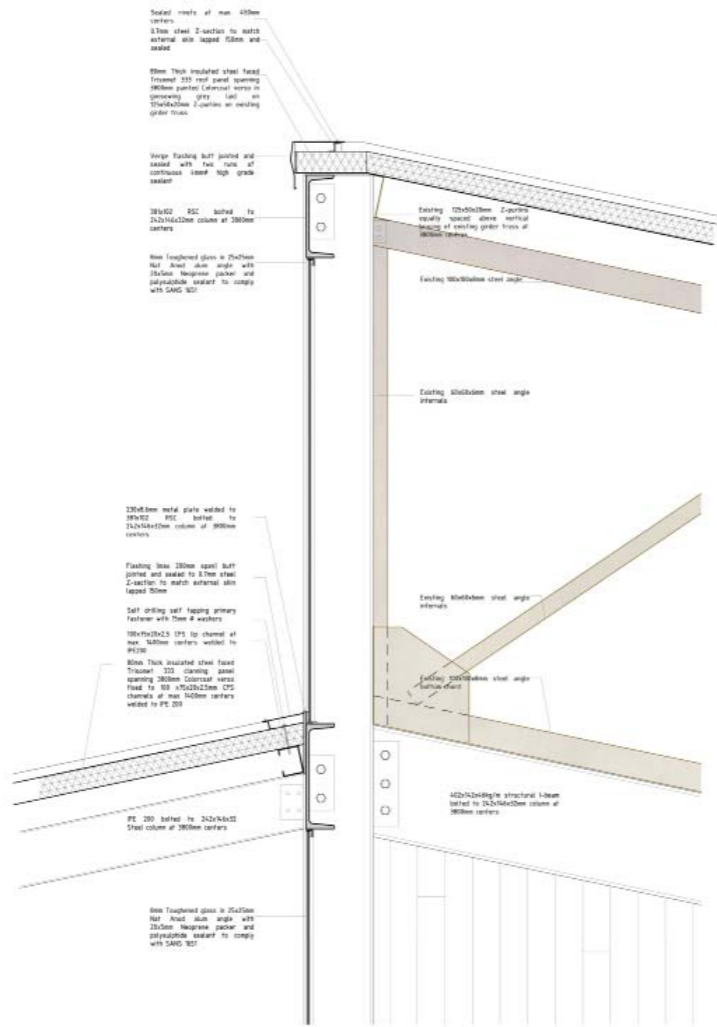
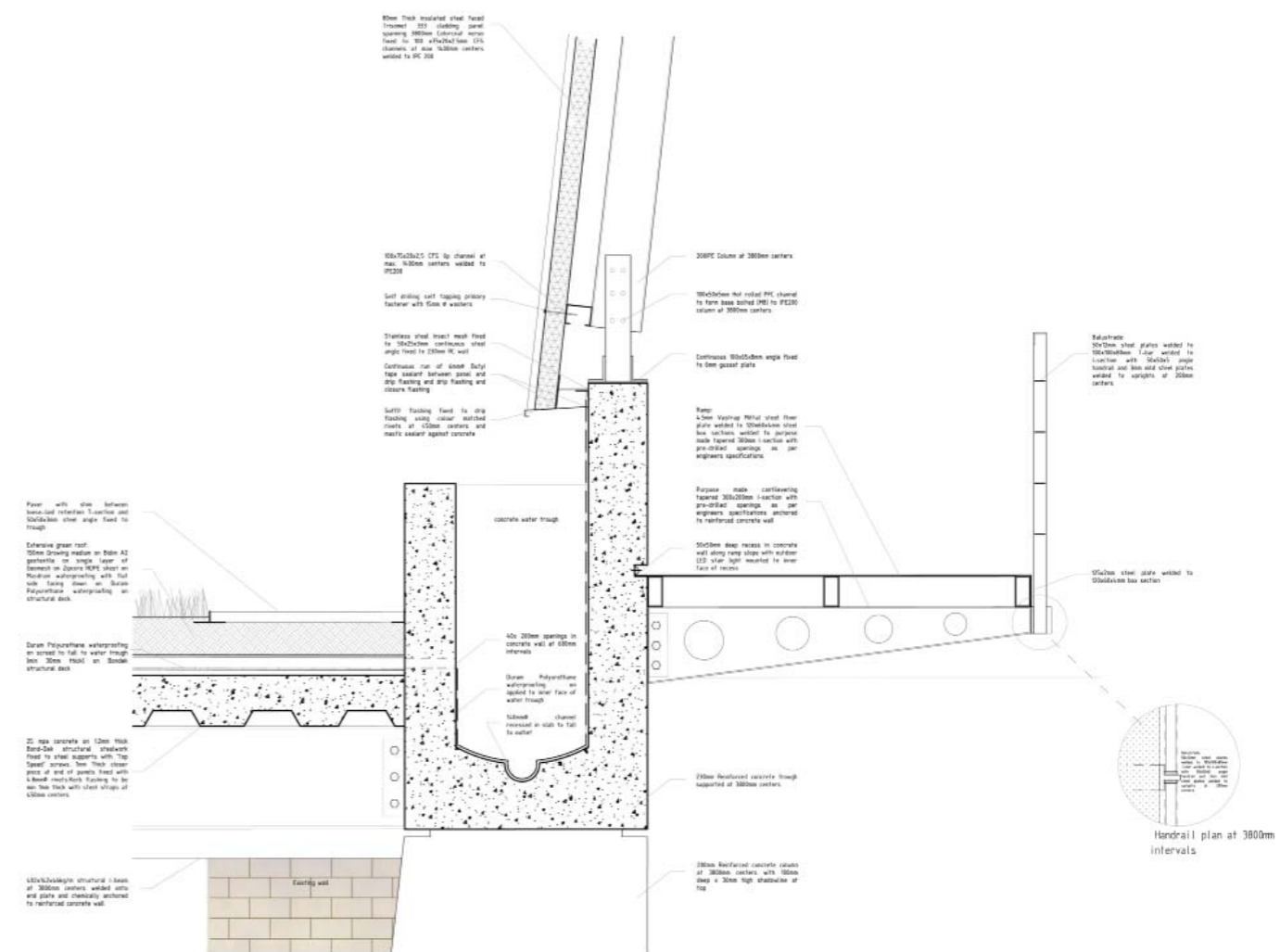


Fig. 6.13 Blow-up of Sectional Elevation CC

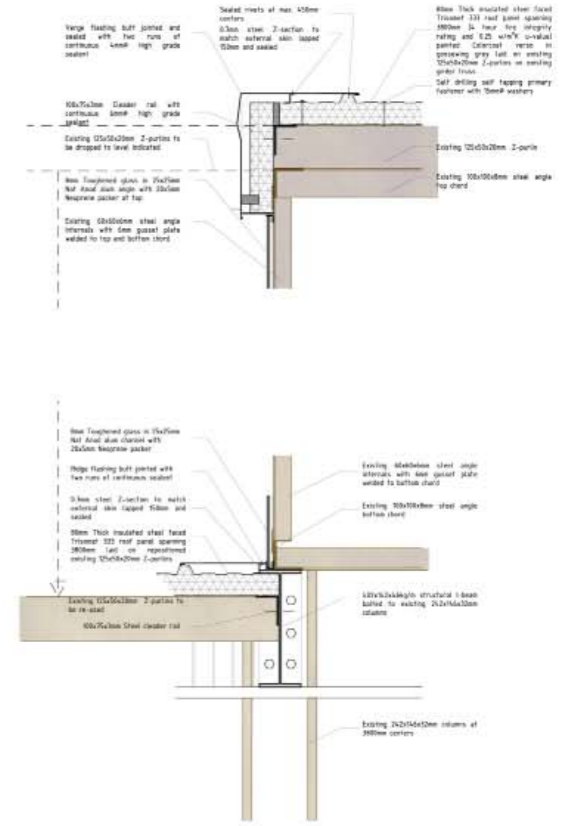
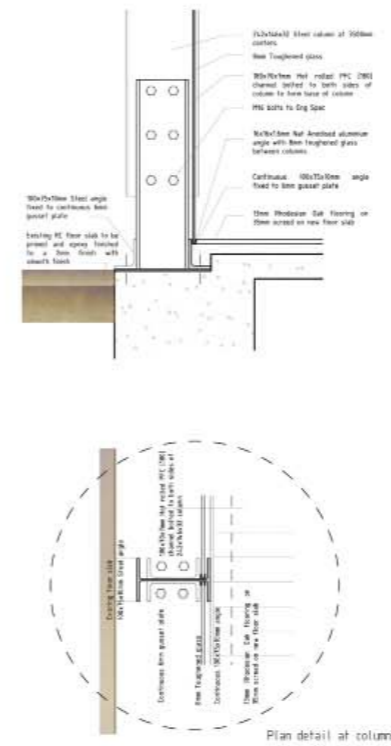
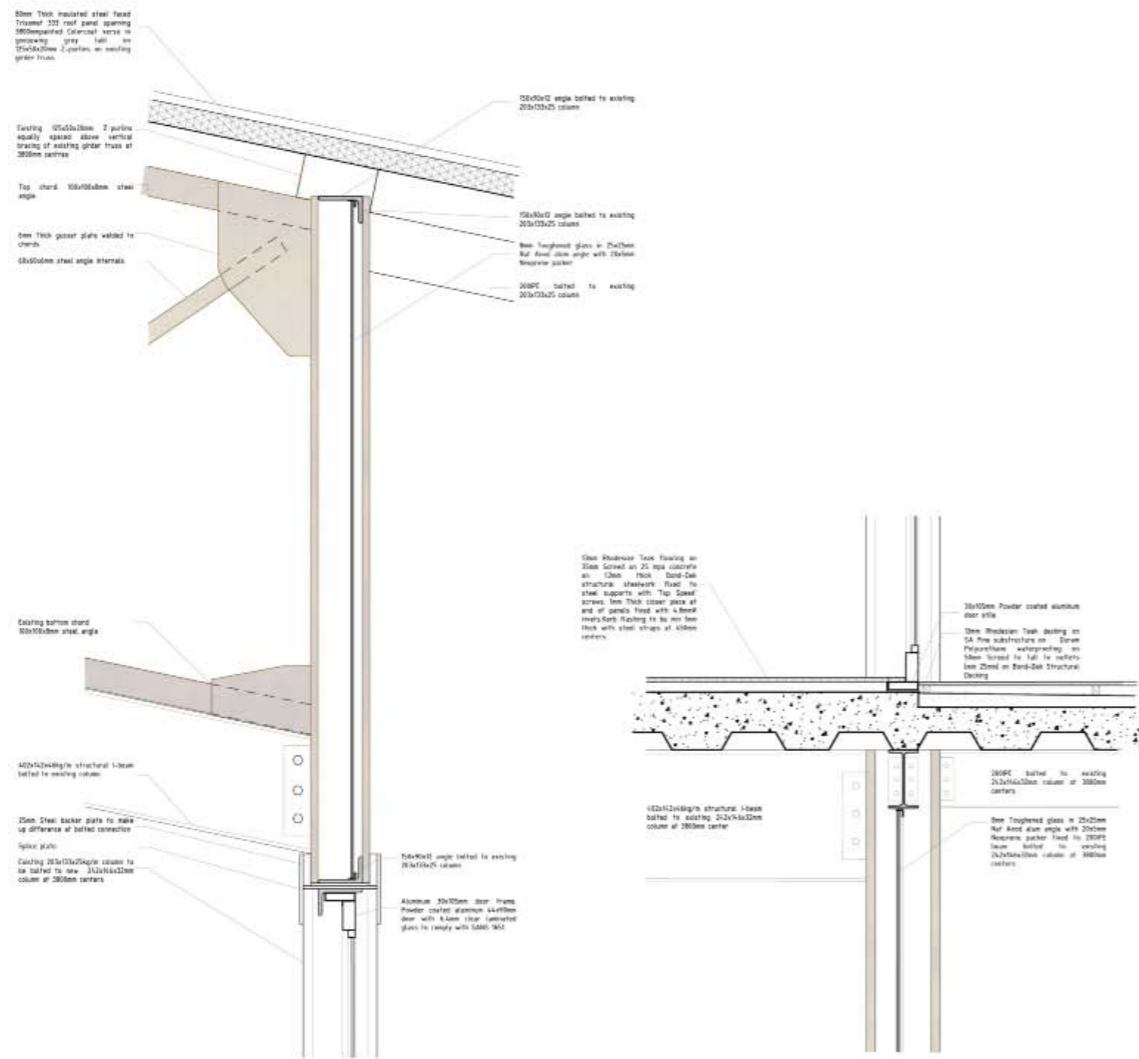


DETAIL 01



DETAIL 02

Fig. 6.14 Details 01, 02 [not to scale]



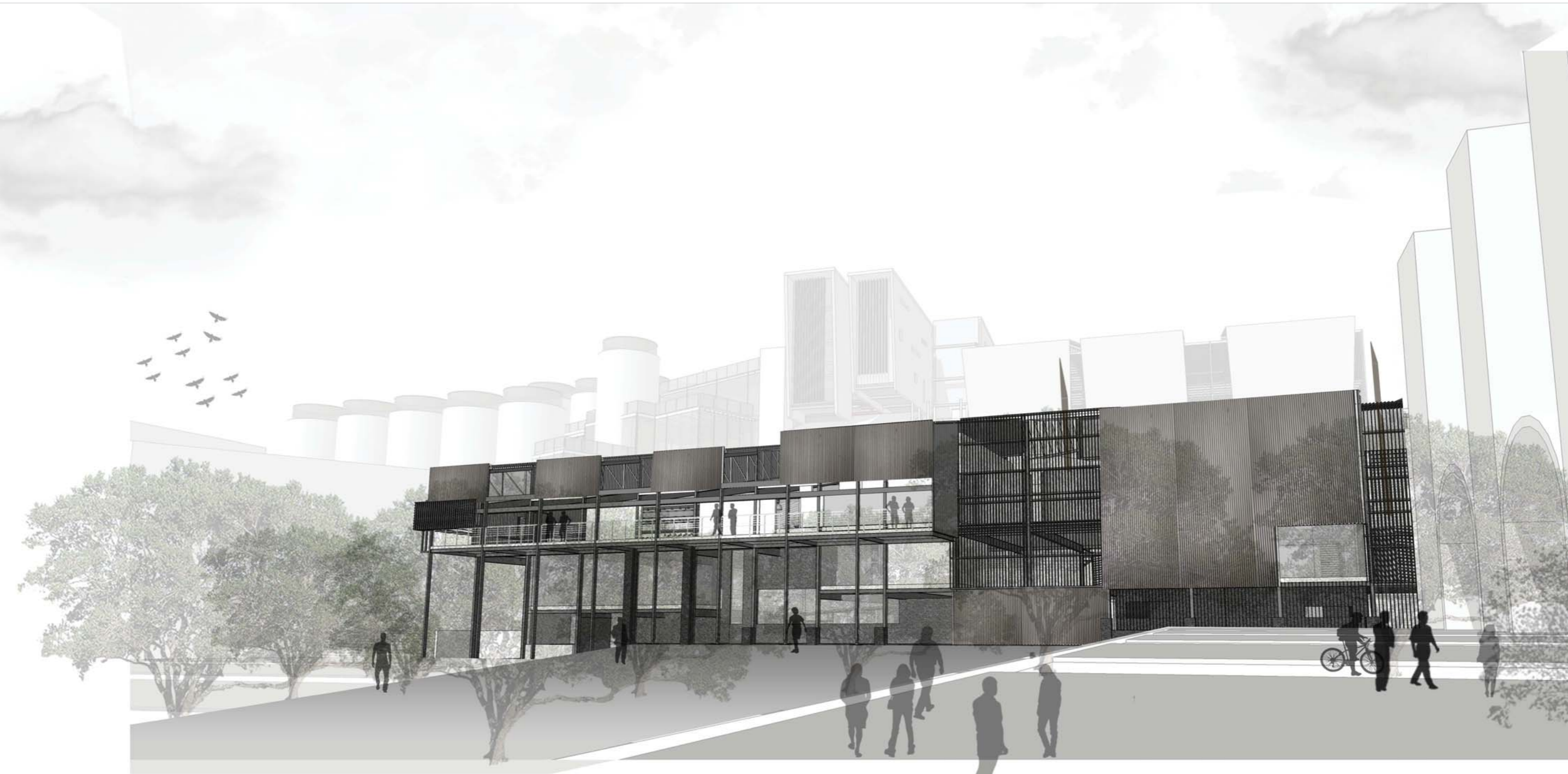
DETAIL 03A

DETAIL 03B

DETAIL 04

DETAIL 05

Fig. 6.15 Details 03, 04, 05 [not to scale]



THE SHED
VIEW FROM MORABA SQUARE LOOKING NORTH-EAST

Fig. 6.16 Perspective looking East from Moraba Square



VIEW FROM MORABA SQUARE LOOKING SOUTH-EAST

Fig. 6.17 Perspective looking South-East from Moraba Square



Fig. 6.18 Perspective looking South-West from Arcade

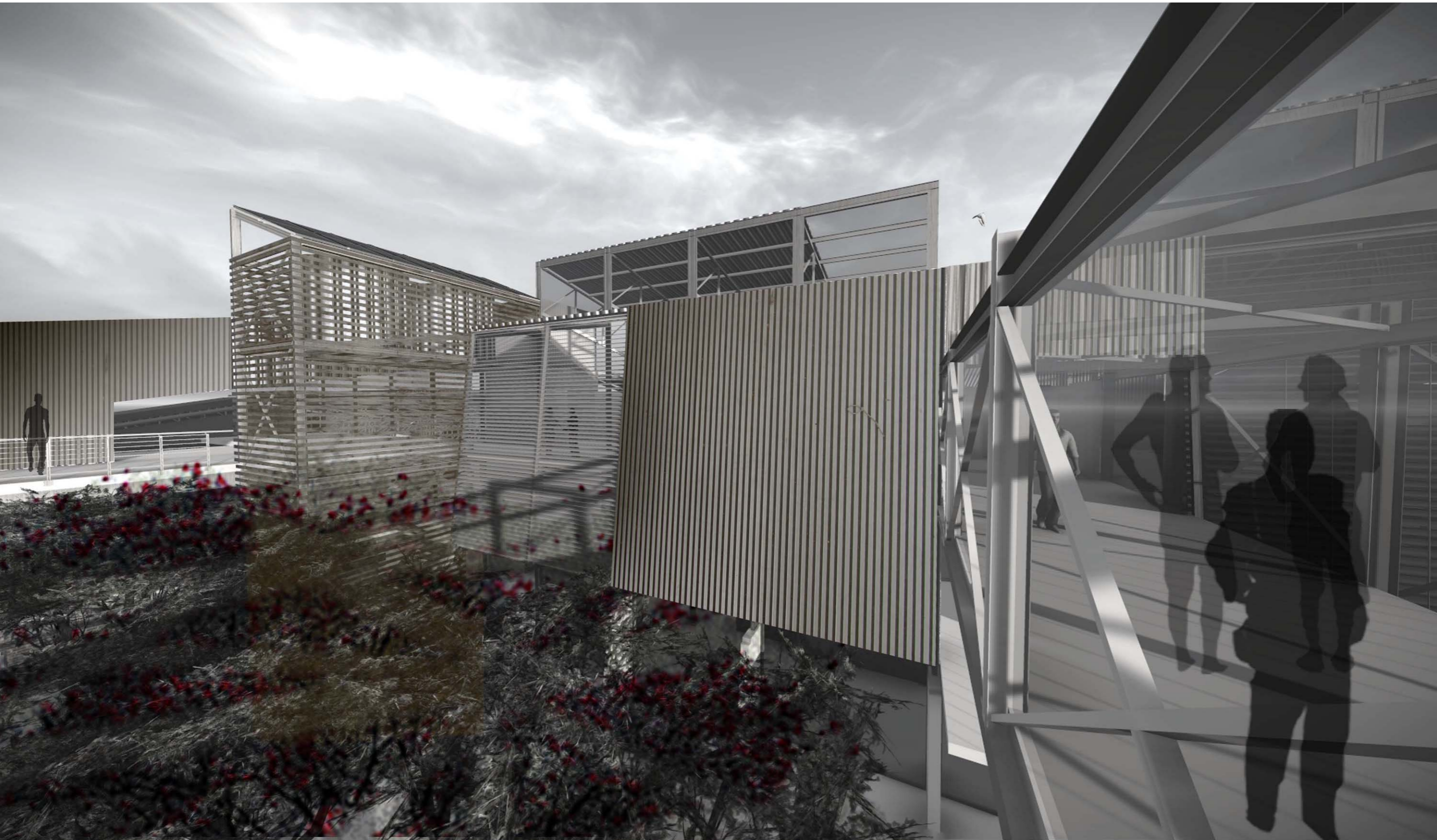


Fig. 6.19 Perspective from elevated urban corridor

145 CARL STREET PROPOSAL

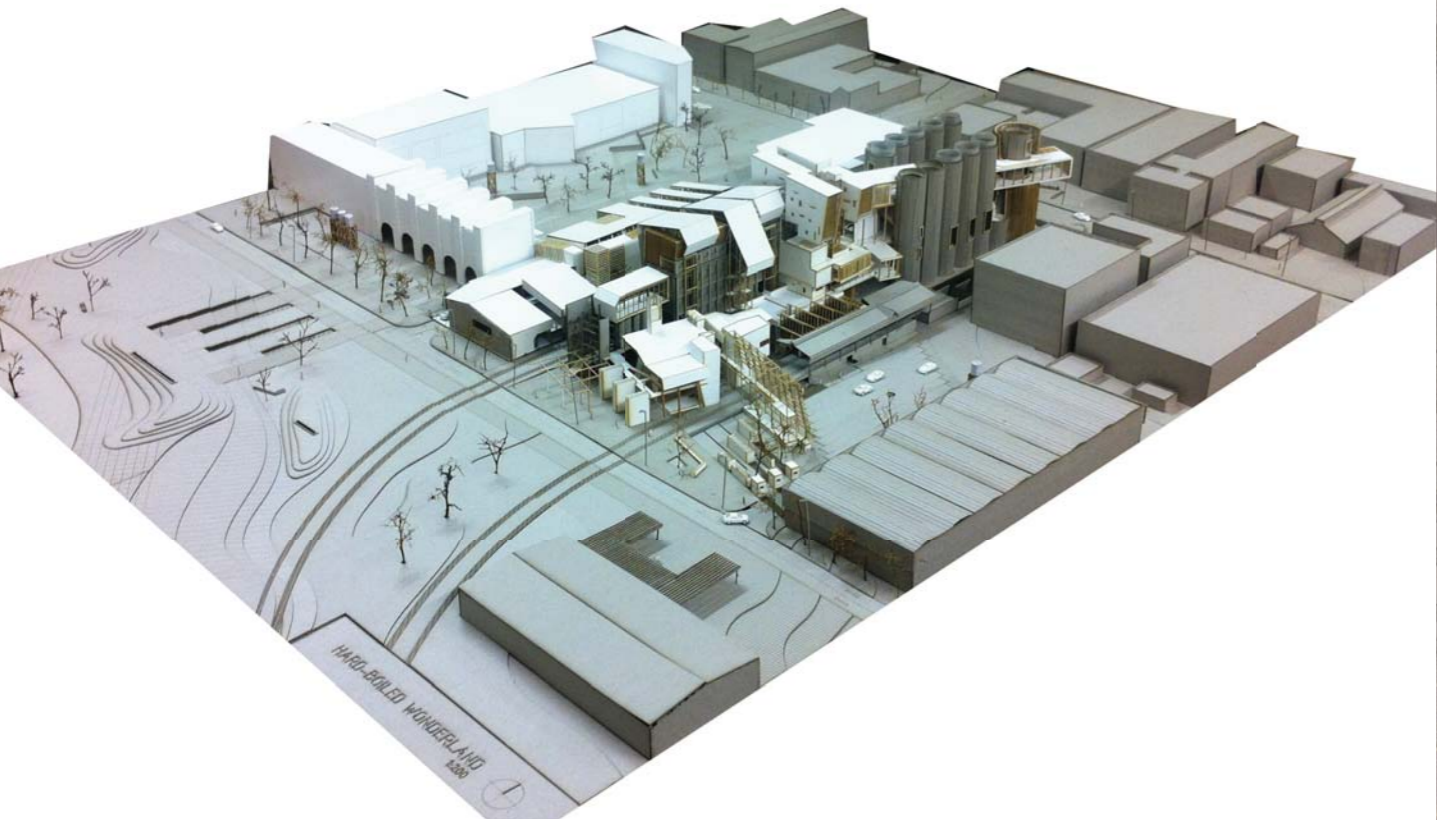
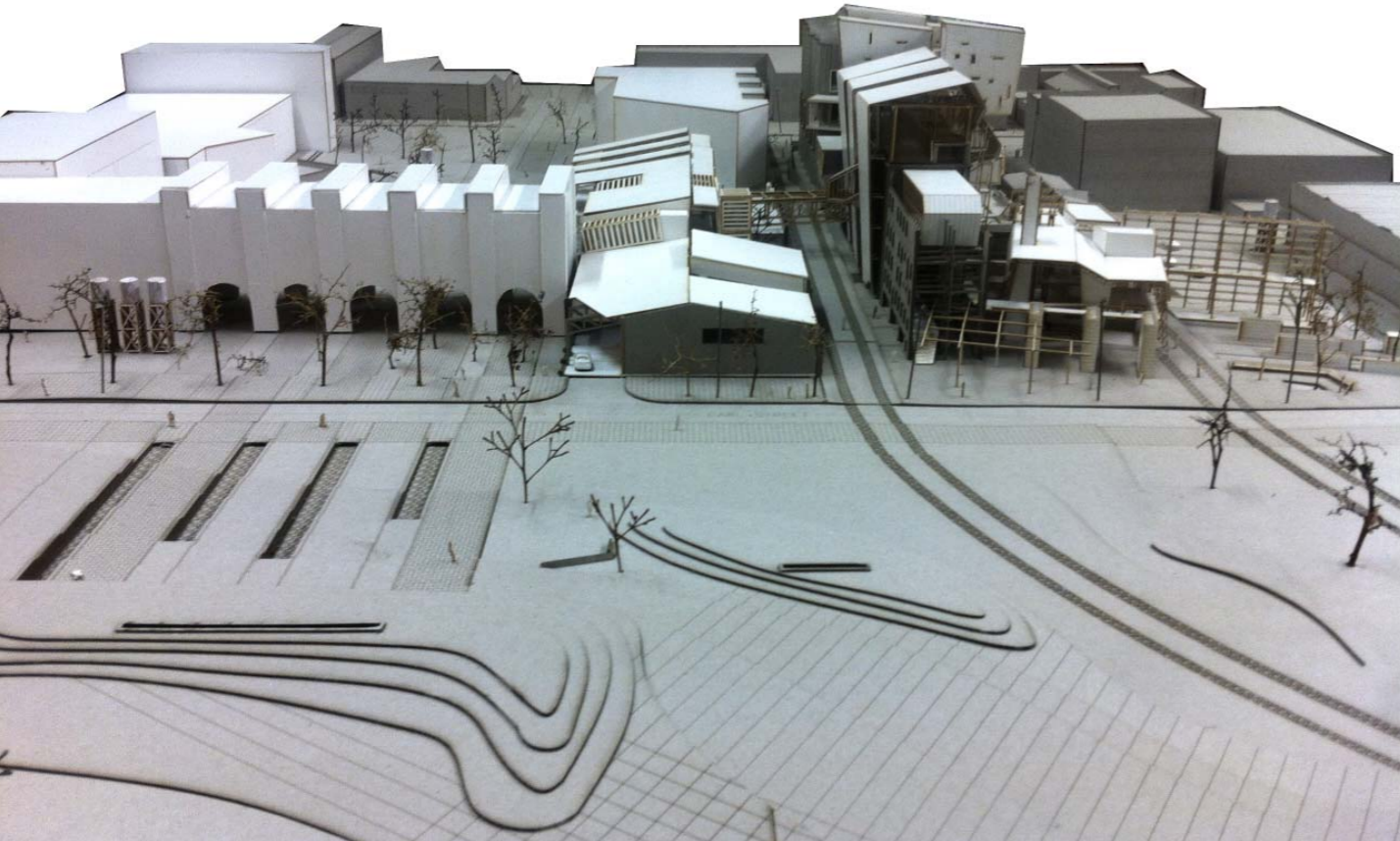
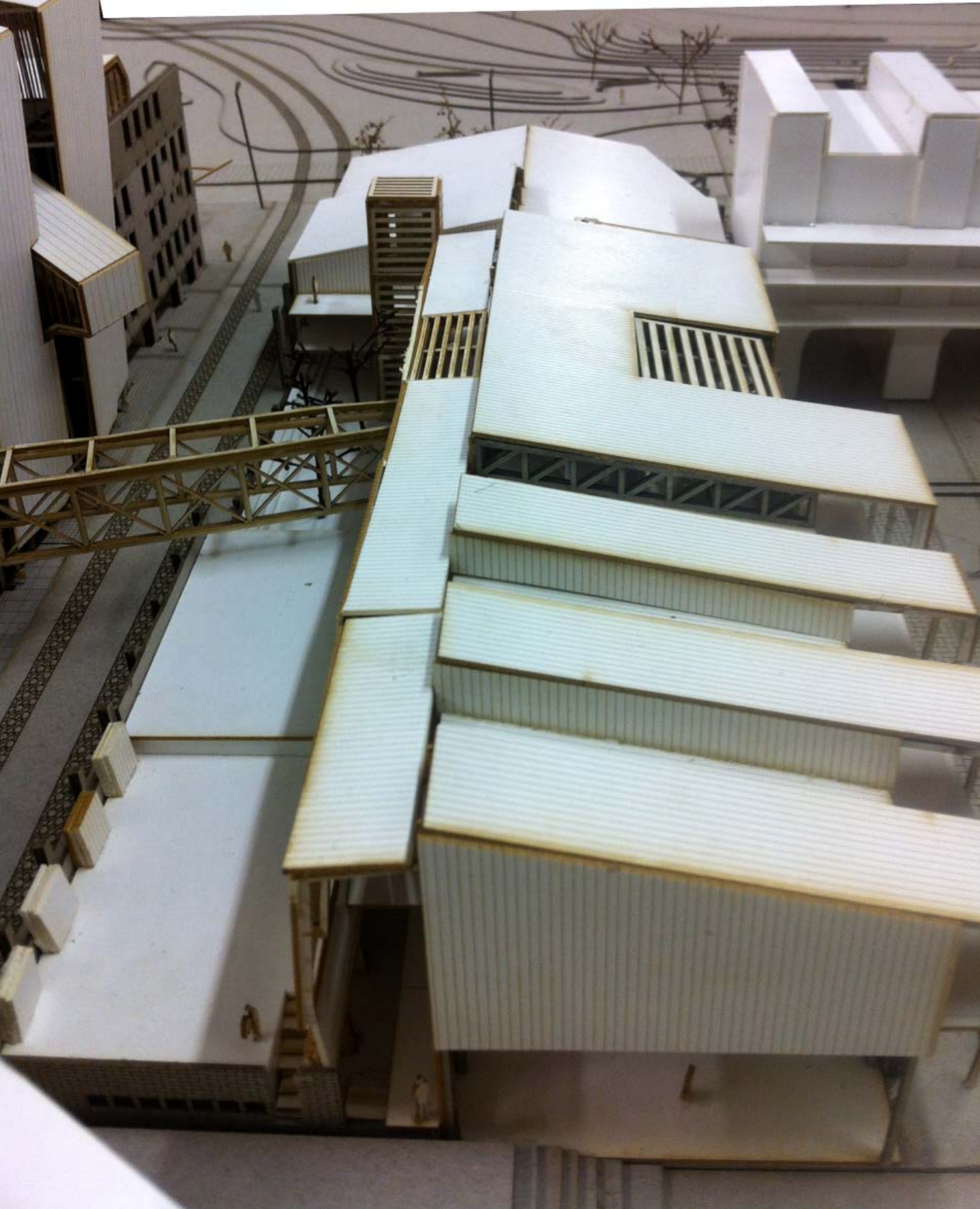


Fig. 6.20 Site model 145 Carl Street













DESIGN SYNTHESIS

The author set out to create an architecture of mediation. To create a typology that connects the seemingly disconnected, programmatically and architecturally.

Bordered by four public edges, the author also set out to create an architecture that connects the proposed shed to its public realm and setting. Aiming to create platforms within the existing the shed, the author explored to role of thresholds, creating thresholds that connect, rather than separate.

To create an architecture that eclipse functionalist idea, the author presents a proposal for human(e) activity within the semi-industrial area of Pretoria West. With a strong focus on public engagement and designing for the public realm, the proposed intervention also presents itself as engaging with the public realm and is deeply rooted in its immediate context. Focusing on both the old and the new and presenting a proposal for dealing with the edge condition, the in-between, the proposed shed becomes the connecting platform [s] for public activity.

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

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


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