

E_VERIFICATION

APPLICATION OF THE IDEA

The Final Stage of the Creative Process, according to Wallas (1926) is verification, in which the idea is deliberately investigated and tested to see if it can solve the problem.

It is important to remember that all four stages are in constant interplay with one another, so while design development is a period of verification, the creative

process refers to and develops the preparation, incubation, and illumination stages concurrently.

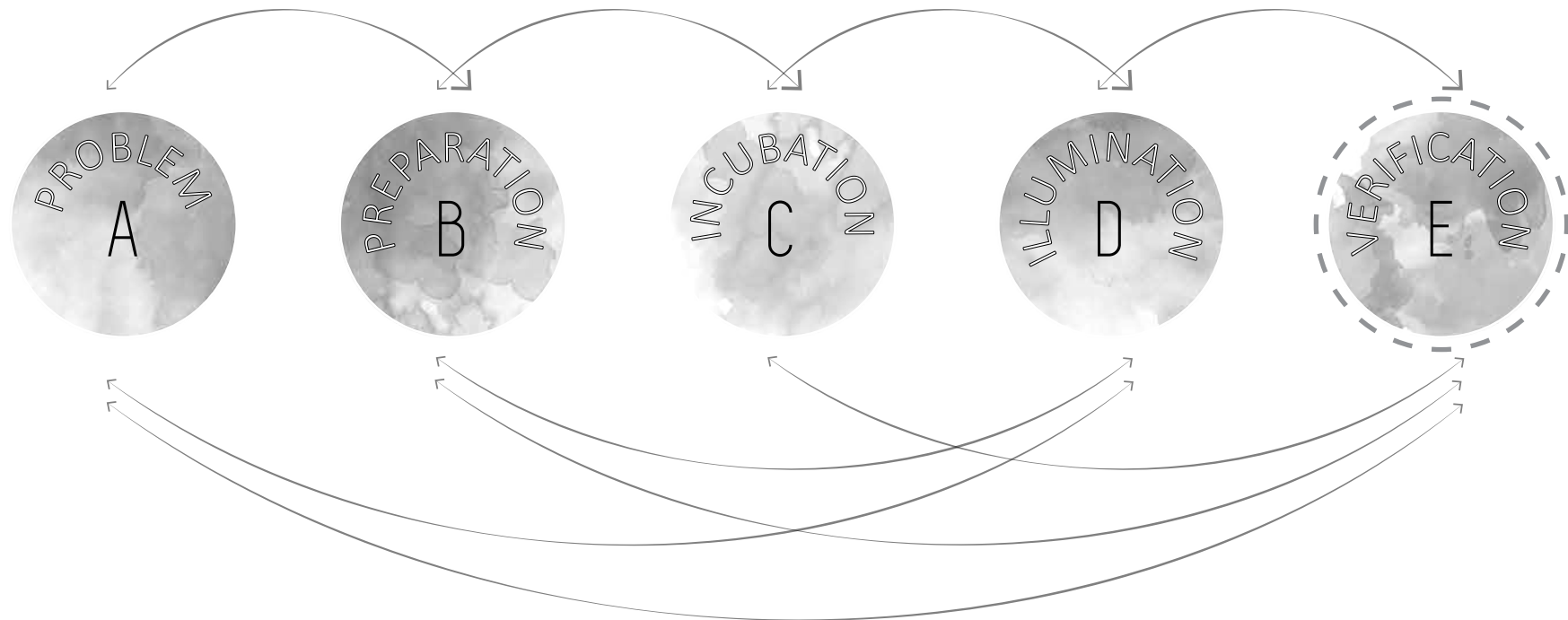


Figure 0.2
(Author, 2016)

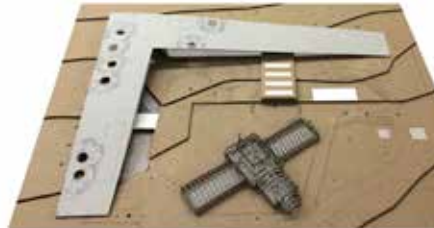


Figure 7.1
Model progression (Author, 2016)

CHAPTER 07

CONCEPTUAL & DESIGN DEVELOPMENT

Chapter 7 explores the conceptual investigation and development of an architectural design response. The design exploration responds to informants identified from previous chapters as well as conceptual approaches. This chapter presents the design informants, concepts, and iterated design resolutions.

7.1_ DESIGN INFORMANTS

Preceding chapters identified key informants guiding the following conceptual and design exploration. The primary design informants include: project intentions, the precinct vision, theoretical underpinnings, contextual understanding, and the programmatic requirements. By considering and synthesising these informants, a concept is developed which drives the design of the spatial resolution and establishes an architectural language. These informants are briefly reiterated:

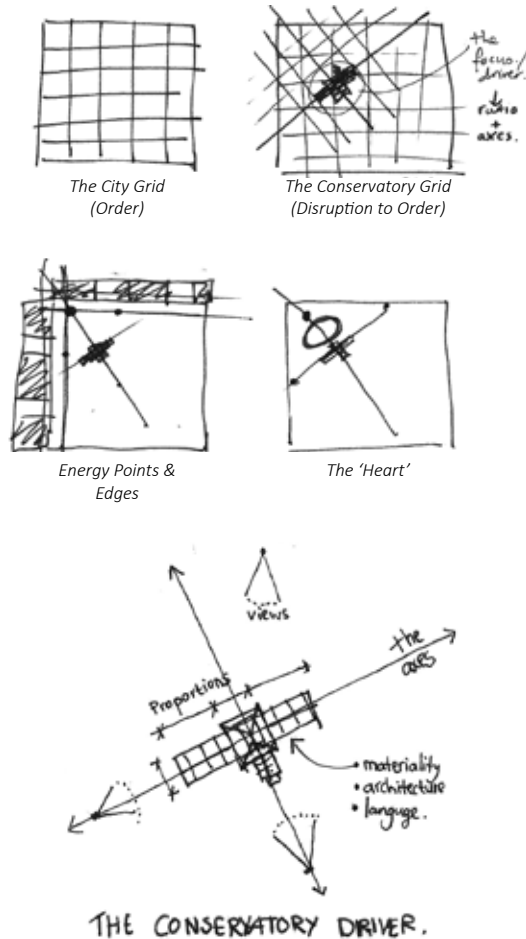


Figure 7.2
Sketch design drivers (Author, 2016)

7.1.1_PROJECT INTENTIONS

(Refer to Chapter 1)

The general intention of the project is to create spaces that aid in the development of human and social capital, driving the creative economy. Following this, the urban intention is to connect Joubert Park to Johannesburg's cultural nodes, allowing the Park to contribute to Johannesburg's creative milieu. Joubert Park's cultural identity is spatially expressed in the project, which is informed by heritage, contextual needs, and future aspirations.

The architectural intention is to:

- Explore the tangible and intangible heritage of the site in the making of new space.

- Consider the inherent qualities of the Conservatory Complex and reconfigure spaces to significantly contribute to its context and the community.
- Stitch the disconnection between heritage fabric and the current urban context.
- Contribute to social, economic, and cultural development.
- Facilitate creative expression and engagement between creative industries and people.
- Assist the cultural and media sectors in becoming accessible and inclusive.
- Appropriately integrate with the Park landscape.



Figure 7.3
(Author, 2016)

7.1.2_ URBAN PRECINCT FRAMEWORK & VISION

(Refer to Chapter 3)

The design must respond to the urban vision of Joubert Park as an 'Urban Artscape'. Joubert Park's past identities have contributed to its current condition, but have been forgotten. The Urban Artscape aims to rediscover the relevance of the past for the present and future. The urban framework identifies Joubert Park as an iconic public place in Johannesburg with cultural significance that can be mobilised to drive Johannesburg forward as the Cultural Capital of South Africa. The framework intends to connect the Park to other public spaces of the city so that its effect can be felt beyond its tangible boundaries. The architectural intervention should aim to have

the same impact beyond its borders.

The intervention is located at the north west corner of the Park, and in accordance with the framework, should hold this edge and help define the Park as a precious public space. The Conservatory is a relic of Joubert Park's identity as an oasis in the City, and ought to be reinterpreted to suit current needs of the community, whilst relating to the identity of the Park as an oasis and place of cultural significance.



Figure 7.4

The urban vision for Johannesburg as the Cultural Capital of SA (Author, 2016)

7.1.3_ THEORETICAL UNDERPINNINGS

(Refer to Chapter 4)

Theoretical discourses impact the approach to design and architectural resolution by considering the role of heritage fabric in placemaking. Joubert Park is under threat of becoming a non-place, and creativity can be mobilised to define the identity of the site.

The theoretical premises of creative placemaking suggests that the architecture ought to:

- Stimulate creative placemaking by having at least 10 different activities within the space, in accordance with the Power of 10 (Project for Public Spaces, 2016)
- Strategically develop its identity around arts and culture activities by engaging public and private sec-

tors

- Cluster creative industries and events to allow for knowledge spill-overs and interaction.

The theoretical discourse of adaptive reuse suggests that the architecture ought to:

- Consider the tangible and intangible heritage and memory of the site.
- Adapt heritage fabric to suit new needs.
- Support a symbiotic relationship between the old and new architecture.



Figure 7.5

The Power of 10 in placemaking (Project for Public Spaces, 2016)

7.1.4_ CONTEXTUAL UNDERSTANDING: THE SITE

(Refer to Chapters 2 & 5)

The quantitative and qualitative site conditions, tangible and intangible heritage, and inherent qualities of the site must be considered in the design response, whilst aligning with the theoretical premise and project intentions. Joubert Park and the Conservatory Complex provide a fascinating physical, social, cultural, and historical context from which to draw. These characteristics must be recognised in the design response with respect to identified geometries and interfaces between elements. The intentions for the Conservatory and

the response to its heritage should be reinforced by the architecture, which must also consider the natural heritage of the beautiful trees on the site.

The built and natural heritage fabric of Joubert Park and the Conservatory should merge with the new contemporary intervention, stimulating a mutually beneficial relationship.

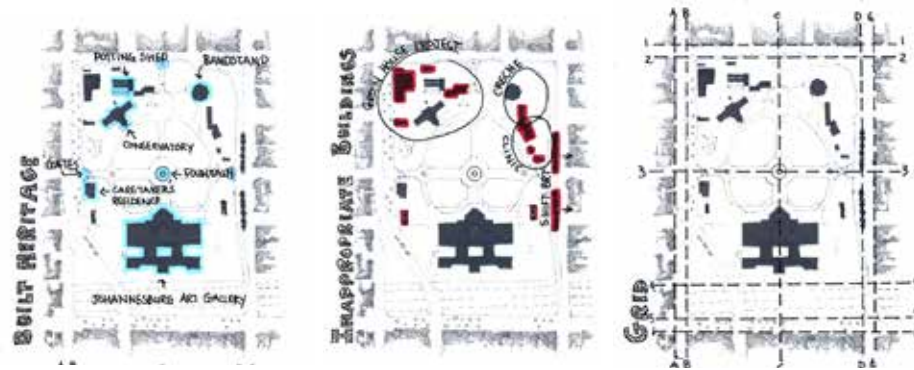


Figure 7.6
Context sketch mapping (Author, 2016)

7.1.5_ PROGRAMMATIC REQUIREMENTS

(Refer to Chapter 6)

The Creative Conservatory is a community creative arts and media centre which calls for an adaptive and engaging architectural response that stimulates creative exchange. The programme requires spaces for expression and creative investigation, stimulating interaction and creative community development. Therefore, the architecture ought to encourage public engagement with the Centre's functions.

The primary programmatic elements to be considered in the architectural response include:

- The provision of adaptable indoor and outdoor spaces that can accommodate functions and events of different time periods and scales.
- Hierarchy of entrances into the precinct must be considered, with the Creative Conservatory management core and resource centre as the clear entrance, being the place where the public begins their engagement with the facility.
- Public engagement with the Centre should be maintained throughout by direct and visual connections, informed by the programmatic functionality of the space in question.



Figure 7.7
Programme elements (Author, 2016)

7.2_ CONCEPTUAL INTENTIONS

7.2.1_BUILDING AS AN EXTENSION OF THE LANDSCAPE

The aforementioned design informants drive conceptual thinking, which responds to the project intentions by embracing heritage to contribute to the current context to create valid spaces. The approach to architectural manifestation of the concepts drive design development.

Conceptual intentions are as follows:

As the site is in a public park, the new architecture is envisaged as an extension of the landscape, providing a secondary ground plane for public exploration. The concept is for the intervention to become part of the landscape, enriching the space rather than detracting from it. The new architecture is conceptualised as a South African addition to the Victorian Joubert Park, established with the introduction of indigenous planting and contextually relevant functions. The concept manifests architecturally with the corner of Joubert Park lifting up to accommodate functions beneath. This allows for new archi-

ture to be introduced without reducing the green presence of the Park from above or compromising the allowance of public landscaped space. The building also defines the corner of the Park, preventing the City's continual encroachment on the Park's boundaries. The planted roof is a living museum with indigenous plants forming a collection which is in a constant state of flux with the changing of the seasons. The building becomes a transition space from the City into the Park demonstrating the interaction of architecture and the landscape.

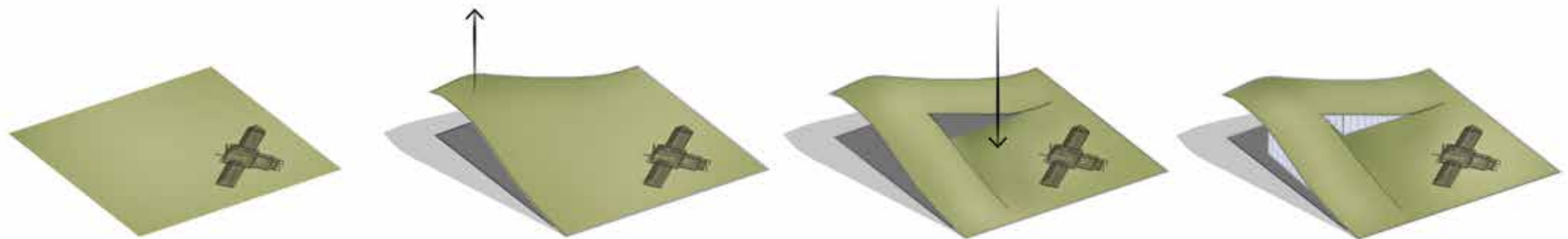


Figure 7.8
Conceptual diagram of architecture as an extension of the landscape (Author, 2016)

7.2.2_THE CONSERVATORY AS THE HEART

The Conservatory is conceptualised as the heart of the Complex, therefore its tangible and intangible heritage inspires the new architectural intervention. The Conservatory has a powerful presence as an object in space, so the architectural response does not physically build on the Conservatory, but rather frames the structure and responds to its qualities, for example, a 9m x 9m grid is employed, acknowledging the width of the structure's wings on plan. The Conservatory's

existing structural nature may be simplified as a stereotomic, heavy base supporting a tectonic, light framework skin. The architectural intervention draws from these contrasting qualities, exploring the relationship between the monolithic and the delicate elements of architecture, expressed in the architectural language.

7.2.3_BROAD CREATIVITY

Behind the sandstone walls of JAG and beneath its floors, innumerable artistic treasures lie waiting their turn to be exhibited to visitors. JAG is a house of the creative arts, but its approach to exhibition is perceived as narrow by the author. One has to enter JAG with a purpose to be exposed the art within and cannot interact with the creative works, but observe. There is a place for museums, but in a public park, JAG is failing to engage with the everyday people. This dis-

sertation considers the concept of a broad creativity, meaning creative endeavours that have impact beyond their tangible boundaries. Conceptually, this calls for architecture that is accessible, providing opportunities for the everyday person to interact with the arts on an informal level by walking past the active street edges of the CC or commenting on installations as well as on a formal level if they choose to engage with the activities of the CC, thus, people are

empowered to find their individual manner of creative expression. In doing so, creativity filters into the City, as a catalyst for change, rather than limited to one space, as currently happens in JAG. Creative engagement becomes a stroke of serendipity, rather than a planned event, embracing its role in the everyday life of the City, not merely the extraordinary presence found within JAG.

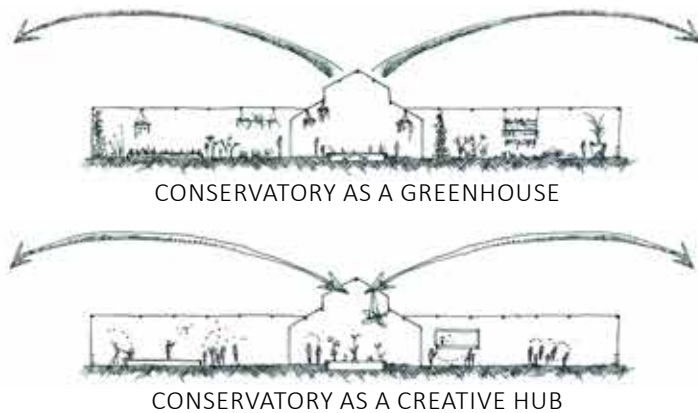
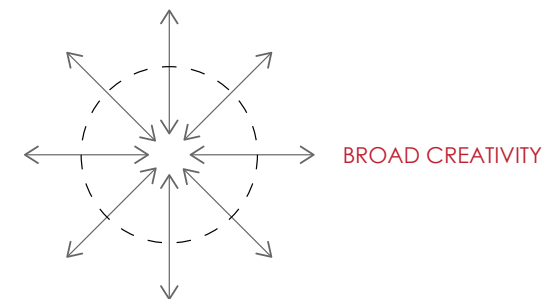
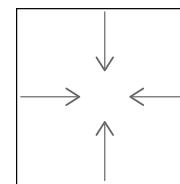


Figure 7.9

The reinterpretation of the Conservatory to be the heart of the CC (Author, 2016)

NARROW CREATIVITY



BROAD CREATIVITY

Figure 7.10

Diagrams illustrating the difference between narrow and broad creativity (Author, 2016)

7.3_ DESIGN INTENTIONS

7.3.1_SPATIAL INTENTION

The spatial intention of the project is summarised as follows:

- To frame and draw from the Conservatory as an object in space.
- To explore architecture as an extension of the Park landscape.
- To generate flexible and adaptable spaces for functions and events.
- To develop a hierarchy of space and entrances into the main courtyard and Park.
- To allow interior functions to engage with the street edge, but allow the Park edges to remain free.
- To draw from and respond to the existing spatial qualities of the site.
- To define the edge of Joubert Park and assert its contextual significance.

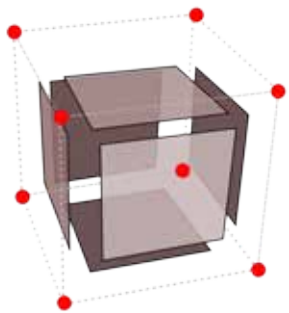


Figure 7.11
A conceptual image illustrating reinterpretation of heritage (the inner planes) by new spatial explorations (the outer points & lines)
(Author, 2016)

7.3.2_APPROACH TO EXISTING HERITAGE

The Conservatory has lost its power as an object in space due to unnecessary architectural additions, boundaries, and its isolation from the Park. The intention is to re-establish its iconic presence in the landscape by adding another layer to the Conservatory Complex in the form of a new building. Existing buildings were assessed in Chapter 5, and the Conservatory, Propagation Tunnels, and the remaining plinth of the Orchard House were identified as having heritage significance. The approach is to incorporate these elements by suggesting new functionality which is appropriate for the project intentions. Structures on the site without heritage importance were considered in the early design exploration to see whether or not they could add value to the Complex.



Figure 7.12
The Victorian Conservatory
(JAG Archives, 2016)

7.3.3_APPROACH TO SWANEPOEL'S 'URBAN ARCHIVE'

Jade Swanepoel's dissertation 'The Urban Archive' (briefly summarised in Chapter 3) is located on the NE quadrant of Joubert Park, adjacent to the site of the Creative Conservatory. As such, the design process should consider Swanepoel's architectural language and the relationship between the two interventions. It is interesting to note that different design approaches have been explored by the author and Swanepoel regarding building in a park. The concept of this project lifts the Park's ground plane with the building sitting beneath a living roof. Swanepoel employs a different strategy, elevating the structure above the Park on stilts, thus removing the architecture from

the landscape. Swanepoel makes use of steel construction with metal sheet cladding. The notion is that the two projects lead into one another, drawing on the meandering energy of people using both spaces. The CC's design will respond to the stilts of the Urban Archive and develop a relationship with the programme, which is large photographic pods capturing activity in the Park.

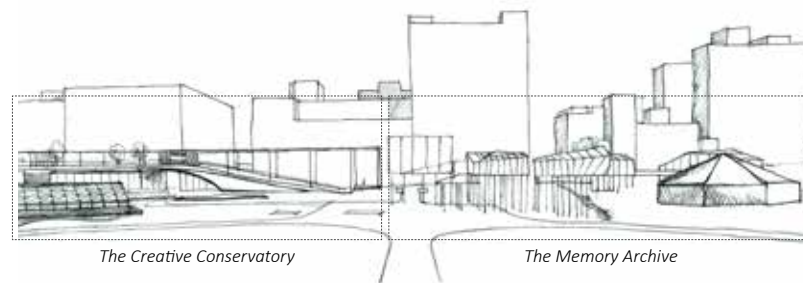


Figure 7.13
Relationship between the Creative Conservatory & the Memory Archive
(Author, 2016)

7.4_PRECEDENTS

7.4.1_BLOCH BUILDING, EXTENSION TO THE NELSON-ATKINS MUSEUM OF ART

Location_ Kansas City, MO, United States

Architect_ Steven Holl Architects

Year_ 1999- June 9, 2007

DESCRIPTION

The Bloch Building rises from the Nelson-Atkins Museum of Art's eastern sculpture park with a planted roof that is pierced by 5 glowing 'lenses' (Figure 7.15), gathering, diffusing and refracting different qualities of light into the interior (Figure 7.17). The relationship between the stereotomic, heavy building and the tectonic transparent boxes is described by Holl as 'the stone and the feather' (Figure 7.18) (Steven Holl Architects, 2016). The plan focuses on meandering circulation routes through and on top of the building (Figure 7.19). The new architecture frames the existing Museum whilst refraining from overpowering the 1933 heritage building.

RELEVANCE

The Bloch Building explores a paradigm fusing landscape and architecture, which is a core concept of this dissertation, making it a valuable precedent. Holl's exploration of 'the stone and the feather' considers the contrasting relationship between stereotomic and tectonic elements with a clear division between the 'lenses' and the green roofed building, allowing users to experience both by meandering between them. The Bloch building's responds to the original Museum by building adjacent to rather than on top of the structure. Thus, the new architecture is able to frame the old rather than overpower and diminish its powerful presence as an object in the landscape.



Figure 7.14 (Steven Holl Architects, 2008)



Figure 7.15 (Steven Holl Architects, 2008)



Figure 7.16 (Steven Holl Architects, 2008)



Figure 7.17 (Steven Holl Architects, 2008)



Figure 7.18 (Steven Holl Architects, 2008)



Figure 7.19
Ground Floor Plan (Steven Holl Architects, 2008)



Figure 7.20
East Elevation (Steven Holl Architects, 2008)



Figure 7.21
Longitudinal Section (Steven Holl Architects, 2008)

7.4.2_BROOKLYN BOTANICAL GARDEN VISITORS CENTRE

Location_ Brooklyn, New York
Architect_ Weiss/Manfredi
Year_ 2012

DESCRIPTION

The Brooklyn Botanical Garden Visitors Centre is embedded into an existing hillside with a 930m² living roof, rendering it a seamless extension of the gardens (Figure 7.22). The Centre acts as a threshold between the City and the Botanical Garden, transitioning the visitor from the structured street to the organic landscape. The street side has a pleated copper roof echoing a heritage building of the Botanical Gardens, and will eventually weather to green (Figure 7.23).

The Centre has been built with sustainability in mind, making use of clerestory glazing to maximise natural light, rain gardens collect and filter water, and a geotransfer system to heat and cool interior spaces (ArchDaily, 2012).

RELEVANCE

The Centre's approach to the City and the Garden is valid for the Joubert Park site, which is bordered by streets and high-rise buildings on the one side and a Victorian Park landscape on the other. The planted roof of the Centre hosts over 40,000 plants (Figure 7.26), becoming a landscape in its own right, although it is not accessible for visitors. The change of seasons impacting the roof transforms the experience of the building which weaves into the tapestry of the garden.



Figure 7.22 (Weiss/Manfredi, 2012)



Figure 7.23 (Weiss/Manfredi, 2012)



Figure 7.24 (Weiss/Manfredi, 2012)

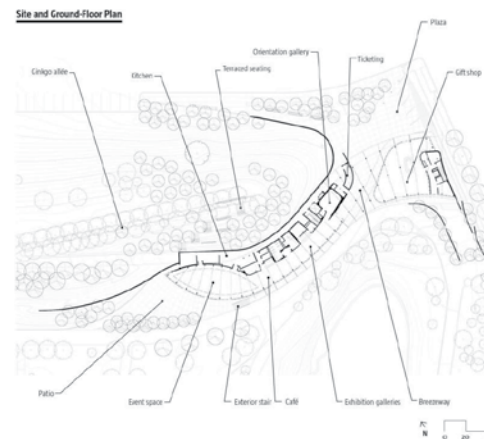


Figure 7.25
Ground Floor Plan (Weiss/Manfredi, 2012)

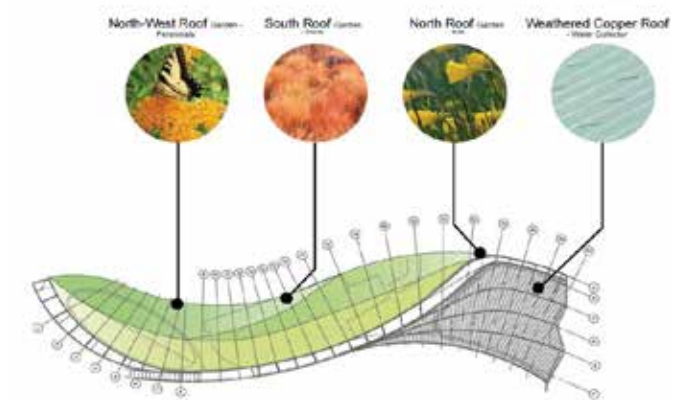


Figure 7.26
Roof Plan (Weiss/Manfredi, 2012)

7.4.3_CASA REDUX

Location_ Sao Paulo, Brazil
Architect_ Studio MK27, Marcio Kogan + Samanta Cafardo
Year_ 2013

DESCRIPTION

Casa Redux is a minimalistic house lying on the edge of a native forest in Sao Paulo. The building is set on the natural topography and designed to have minimal impact on its surroundings. The structure consists of a slab floor and flat roof of the same size with 4 programmed boxes sitting between them (Figure 7.32). The floor slab is suspended 500mm above ground level, giving it the appearance of floating (Figure 7.27). Each block performs a different task, but together they complete the functions of the house: private bedrooms, the master suite, the services, and the garage. The boxes have different ceiling heights depending on the function. The living space is enveloped in a skin of glass sliding panels, which engages with the external condition, while vertical wooden slatted panels clad the boxes, filtering the sunlight and transforming the boxes into lanterns in the landscape by night.

RELEVANCE

Casa Redux is beautiful in its simplicity and sleek forms, and is the epitome of the whole being more than the sum of its parts. The relationship between the different boxes creates dynamic spaces, unified by a roof slab. The materiality of heavy concrete contrasts with wooden slats and light glass, engaging with the context. The house is a relevant precedent for the dissertation as the roof is the vital element and the building does not overpower, but rather floats above and elegantly meets, its landscape.



Figure 7.27 (Guerra, 2013)



Figure 7.28 (Guerra, 2013)

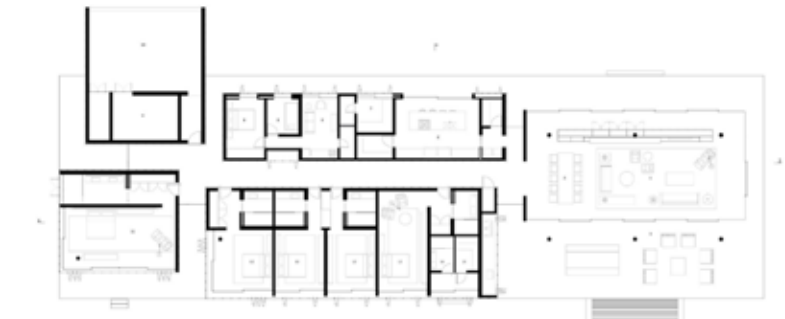


Figure 7.29
Ground Floor Plan (Studio MK27, 2013)



Figure 7.30
Longitudinal Section (Studio MK27, 2013)



Figure 7.31
Cross Section (Studio MK27, 2013)

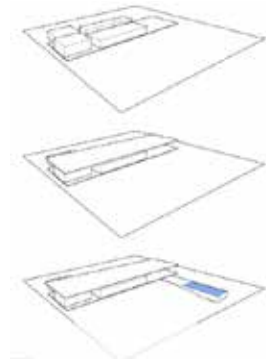


Figure 7.32
Diagram (Studio MK27, 2013)

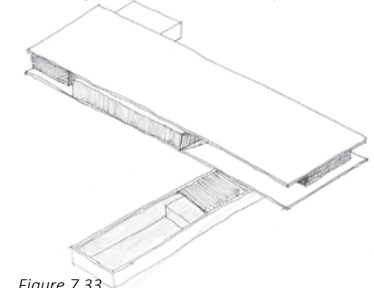


Figure 7.33
Sketch (Studio MK27, 2013)

7.4.4_THE HIGH LINE

Location_ New York City, US
Architects_ James Corner Field
Operations with Diller Scofidio +
Renfro
Year_2006-2009

DESCRIPTION

The High Line is an elevated linear park that runs through NYC on the structure of an old industrial steel railway line built in 1930 for freight trains. The 2.3km landscape is inspired by the wild self-seeded planting that took over the structure before it was reclaimed, so a paving system was designed to encourage natural growth and a 'pathless' landscape which is home to over 100 species of plants (Figure 7.38) (Cilento, 2009). The High Line has a meandering nature with various functions activating the space, such as viewing platforms and seating areas (Figure 7.34). The promenade has injected new life into its context, inspiring over 30 new architecture projects in the area.

RELEVANCE

The High Line reclaimed a site which previously provided no benefit to the city and activated a remnant of industrial heritage with a new function that was needed by the community. This is relevant for the dissertation project which is also adapting the use of a site for the requirements of the current community. The tiling is also a great way to integrate planting with paths in a manner that is sensitive to the park landscape.



Figure 7.34
Western view along the Rail Track Walks (Baan, 2014)



Figure 7.35
Entrance onto the High Line (Baan, 2014)



Figure 7.36
(Baan, 2014)



Figure 7.37
(Baan, 2014)



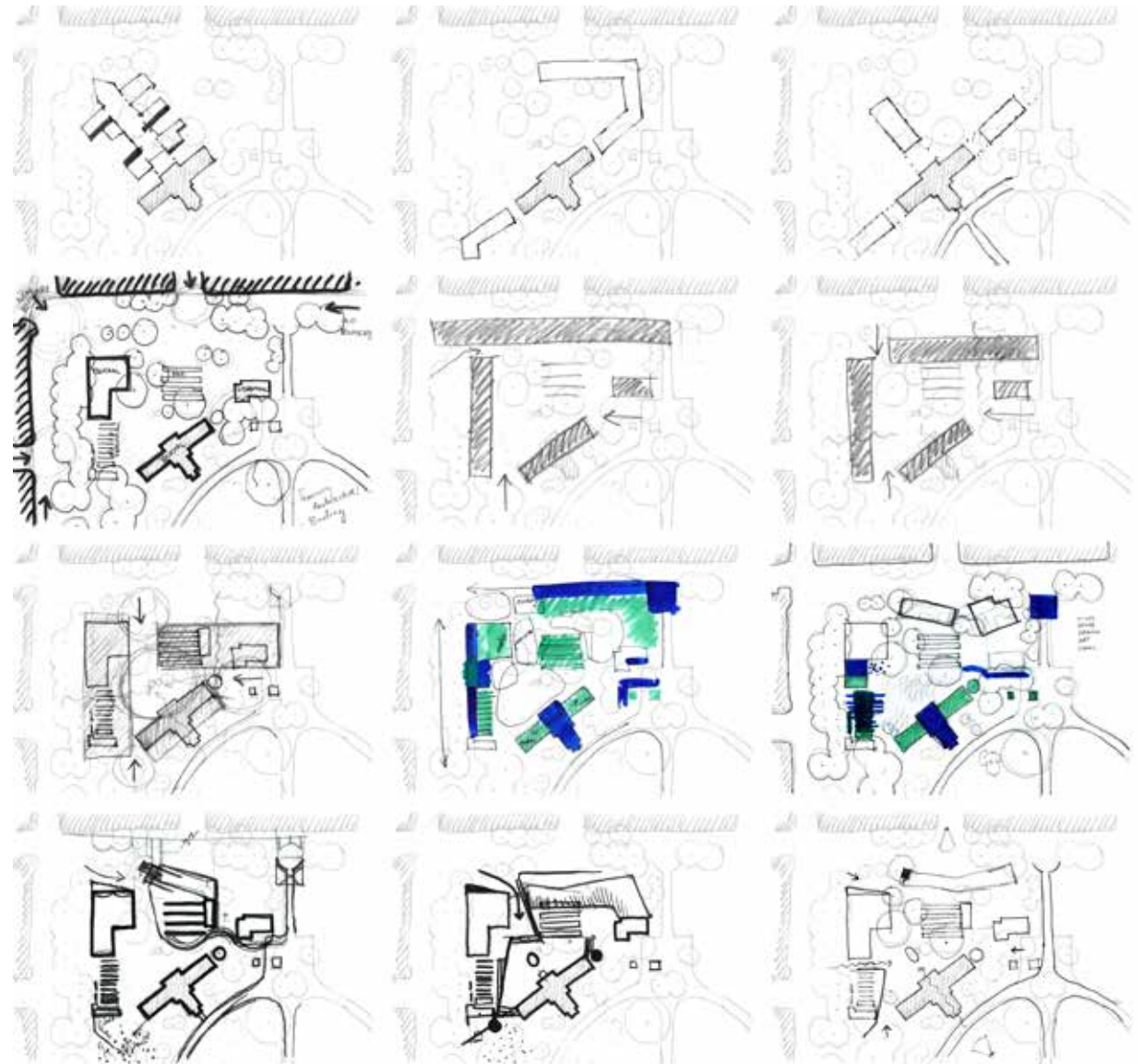
Figure 7.38 Southern view of the Washington
Grasslands (Baan, 2014)

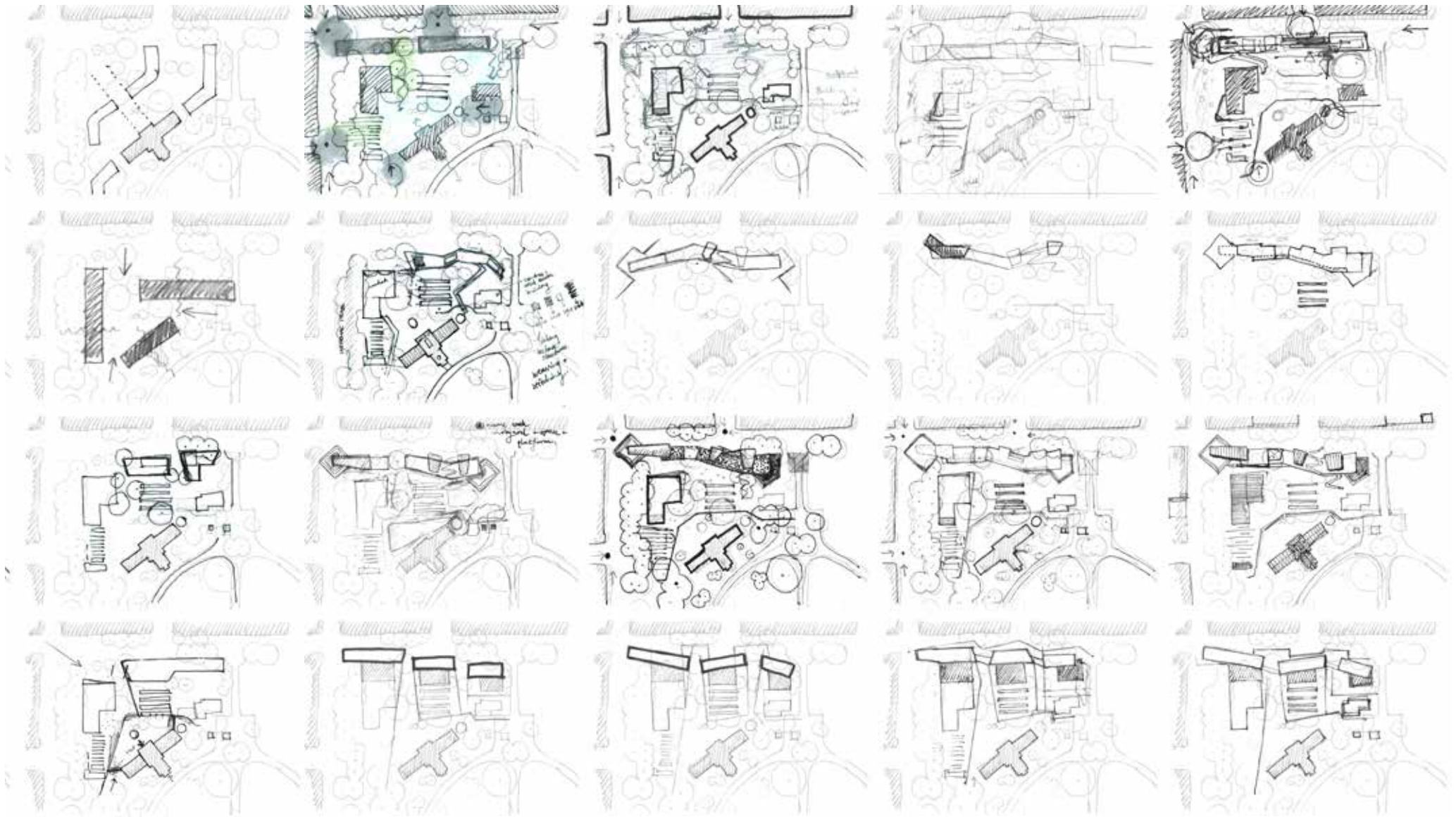
7.5_DESIGN EXPLORATION

7.5.1_INTRODUCTION

The design underwent a multitude of changes as the author discovered new layers of the site and experimented with different responses. The set of sketches (Figure 7.39) illustrates the extensive brainstorming process that led to the formulation of the base design. The design process was erratic and the investigation continuous. This section presents the major design milestones and iterations which led to the final resolution presented in Chapter 8.

Figure 7.39
Parti diagrams on plan explored the relationship between new geometries and the existing fabric (Author, 2016)





7.5.2 DESIGN BRAINSTORMING

In the design brainstorming stage, different approaches to the site were considered on a basic level. Ideas formed in the brainstorming stage influenced elements of consequent designs. The brainstorming included the whole northern portion of the Park, but pulled back to focus on the Conservatory Complex which became the final site.



Figure 7.40
Courtyard exploration (Author, 2016)

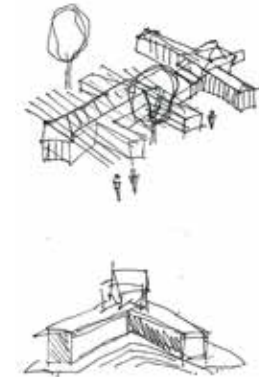


Figure 7.41
(Author, 2016)

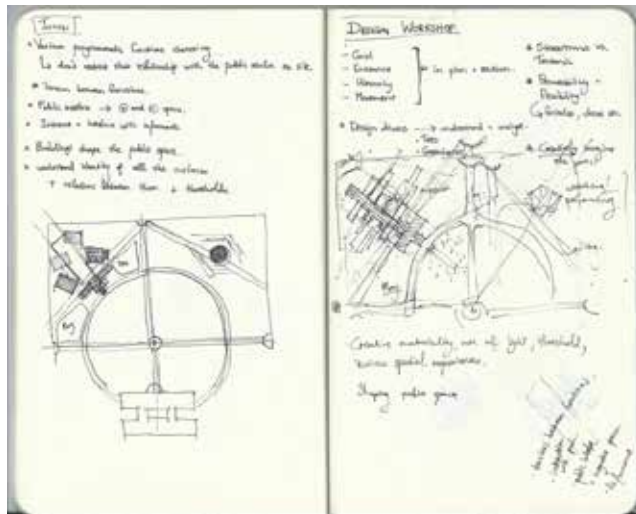


Figure 7.42
Notes from the design workshop (Author, 2016)

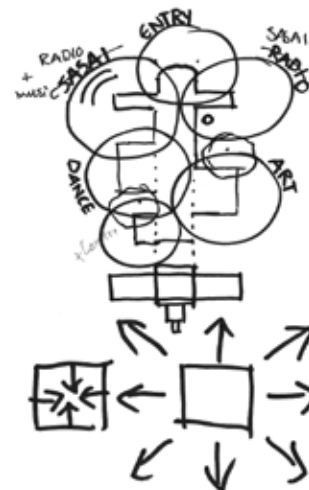


Figure 7.43
Programmatic explorations (Author, 2016)

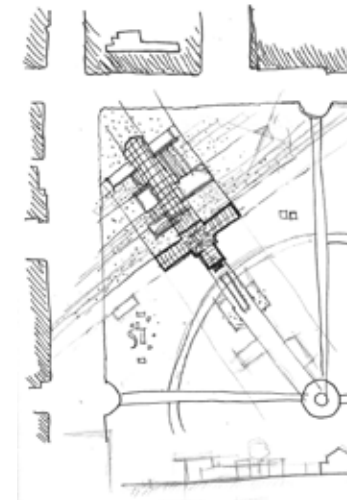


Figure 7.44
Considering the central axis (Author, 2016)

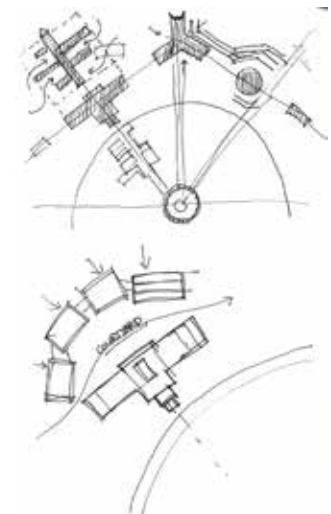


Figure 7.45
(Author, 2016)

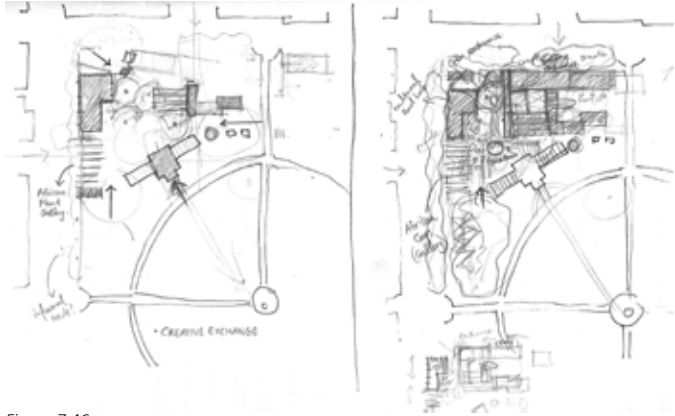


Figure 7.46
(Author, 2016)

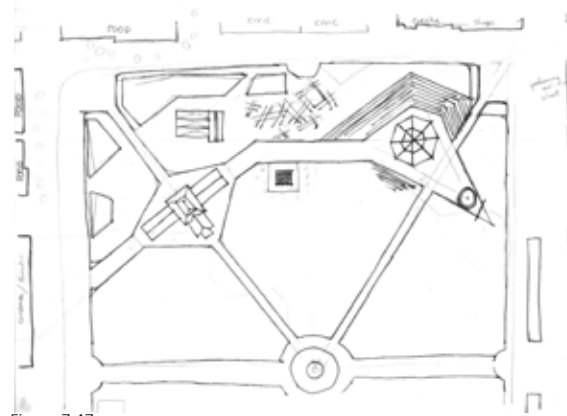


Figure 7.47
Considering the whole northern side of the Park (Author, 2016)



Figure 7.48
(Author, 2016)

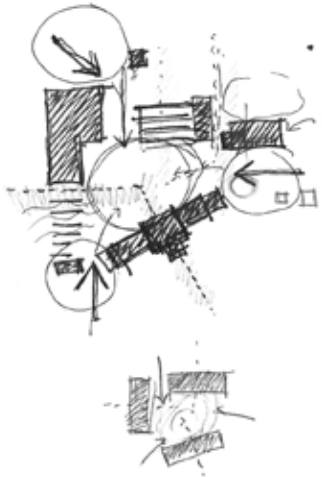


Figure 7.49
Points of entry (Author, 2016)

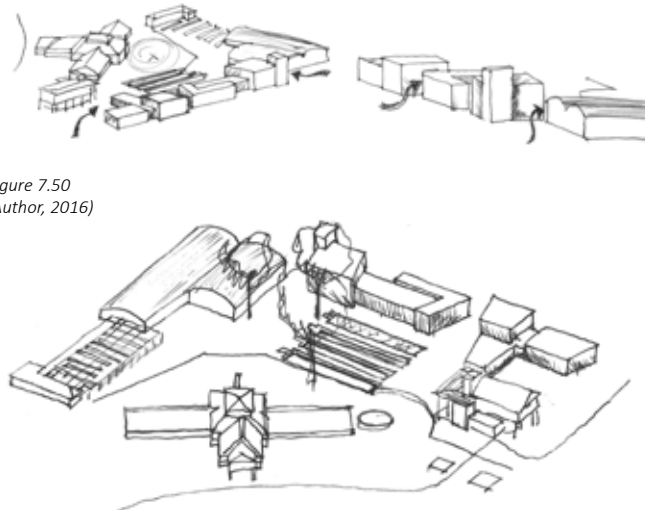


Figure 7.50
(Author, 2016)

Figure 7.51
(Author, 2016)

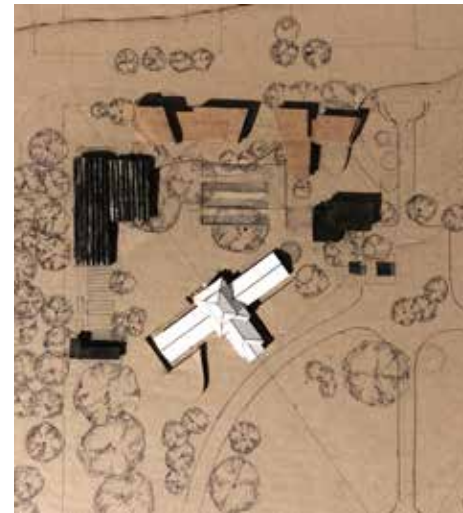


Figure 7.52
(Author, 2016)



Figure 7.53
(Author, 2016)

7.5.3_BASE DESIGN



OUTCOME

The base design retained most of the existing fabric on the site and developed a new building along the northern edge. The building framed entrances and views into the courtyard. The design explored the concept of the earth rising up between boxes of light carving meaningful spaces into the new landscape (Figure 7.54). The materiality considered the relationship between the City (concrete) and Park (timber). The design focused on the relationship between the heavy earthen base of the Park and the lightness of the Conservatory and reinterpreted the architectural language of the conservatory.



Figure 7.54
Conceptual elevation illustrating the boxes (Author, 2016)

- The basement level housed private functions: the workshop, theatres, and studios.
- The ground floor suggested an active edge for the creative economy and exposure to creative activity, such as the dance studio and radio station (Figure 7.65).
- The first floor had a planted roof accessible via a meandering canopy walk juxtapositioning the City and Park.

REFLECTION

Pros

- The planted roof introduced a new dynamic into the Park landscape and provided new views over the site.
- The boxes reinterpreted the language of the Conservatory .
- The Conservatory was framed by the new building and the existing structures on site.
- Breaking up the mass of the build-

ing allowed pedestrians to move freely into the Park.

Cons

- The basement created a scar in the landscape, isolating those functions from the public realm.
- Using the existing architecture resulted in a fractured architectural language and ill-suited functions were assigned to certain buildings.
- The canopy walk was not integrated with the rest of the building.
- Major street routes into the site were blocked by the new building.
- The random angles of the buildings had no conceptual support and failed to engage with the street edge.
- The building edges did not integrate well with the landscape or engage with pedestrian activity.

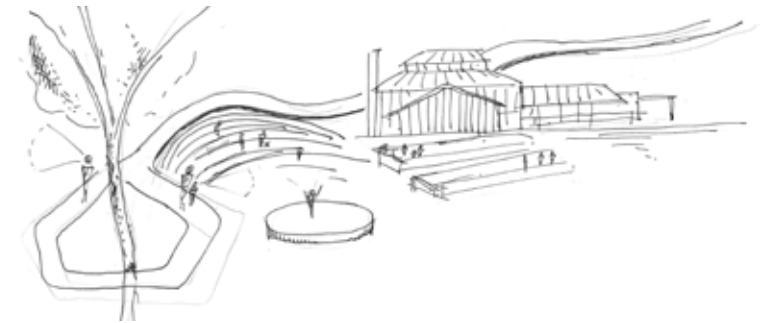


Figure 7.55
Conceptual sketch (Author, 2016)



Figure 7.56
Base design 1:200 model (Author, 2016)

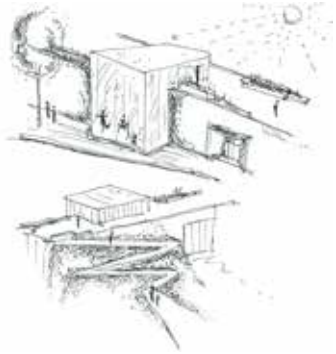


Figure 7.57
Design development sketch (Author, 2016)

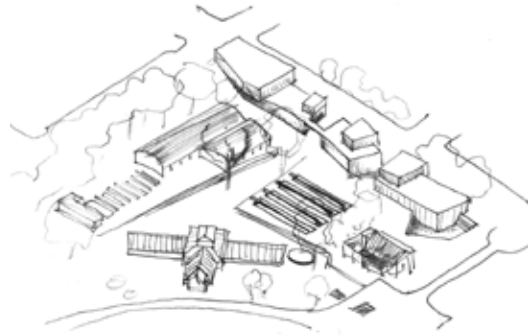


Figure 7.58
Design development sketch (Author, 2016)



Figure 7.59
Design development sketch (Author, 2016)



Figure 7.60
Rough brainstorming model (Author, 2016)



Figure 7.61
Rough brainstorming model (Author, 2016)

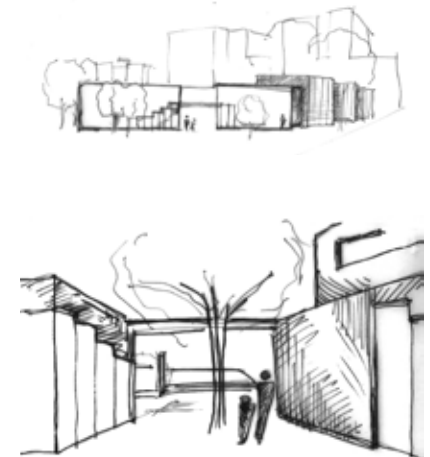
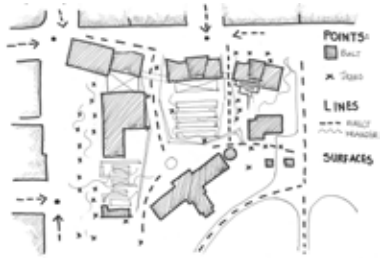
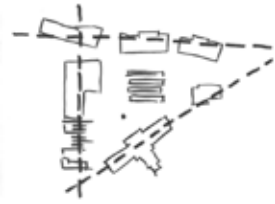


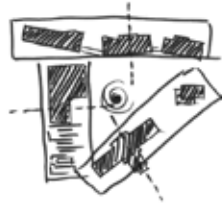
Figure 7.62
Sketch perspectives (Author, 2016)



POINTS, LINES & SURFACES



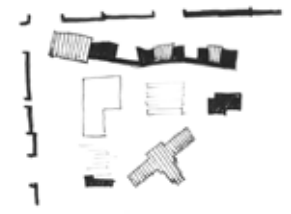
GRIDS



CENTRAL COURTYARD

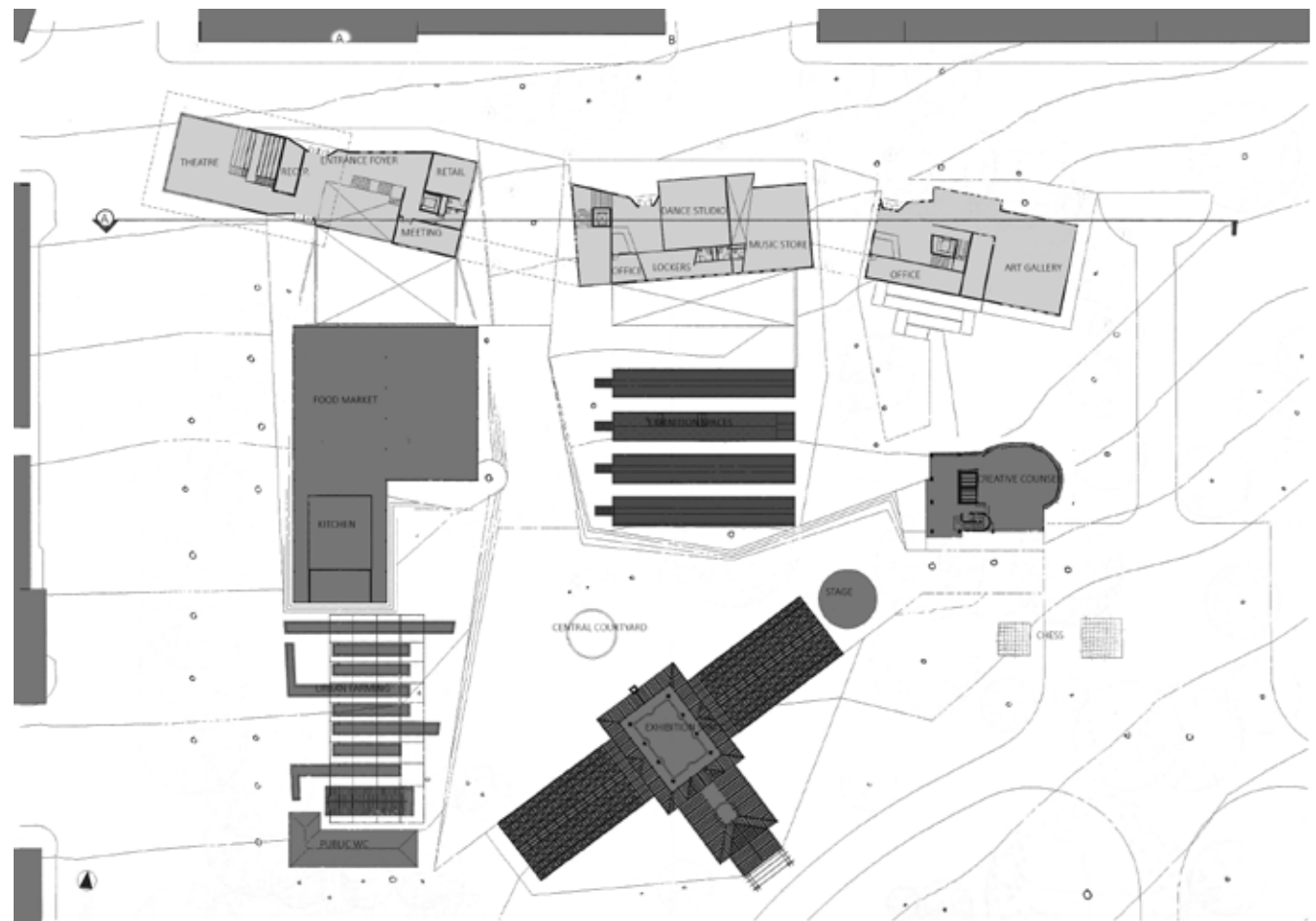


COURTYARDS



CONSERVATORIES

Figure 7.63
Diagrammatic explorations of the design (Author, 2016)



GROUND FLOOR PLAN

Figure 7.64
(Author, 2016)

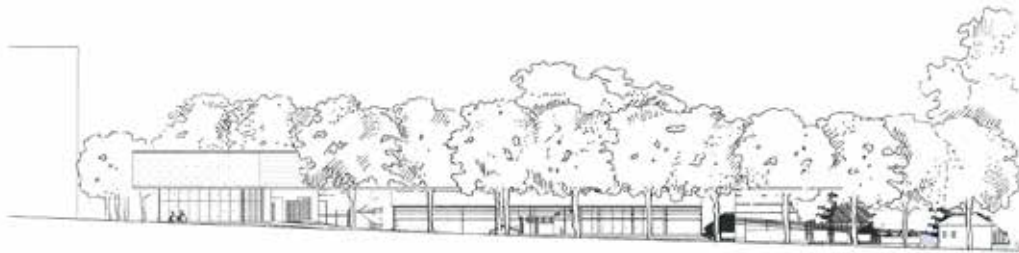


Figure 7.65
(Author, 2016)

EAST ELEVATION

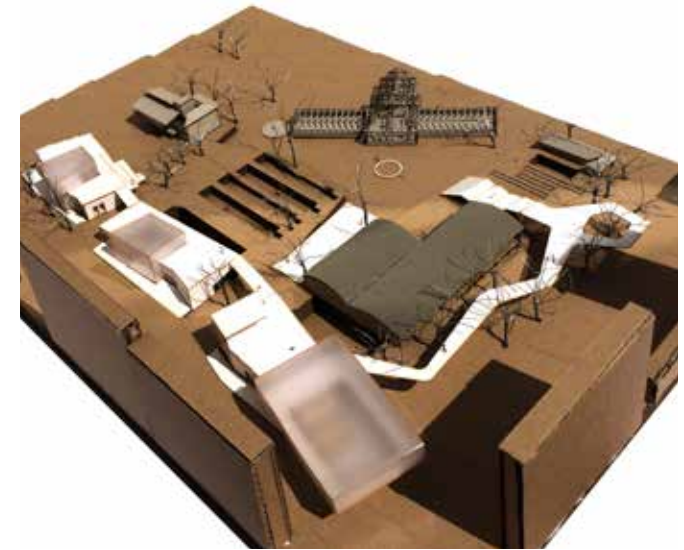


Figure 7.66
1:200 Model (Author, 2016)



Figure 7.67
(Author, 2016)

SECTION A

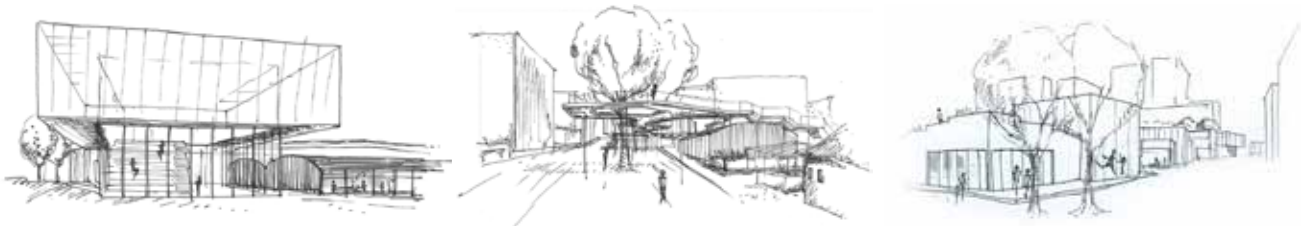


Figure 7.68
(Author, 2016)

PERSPECTIVES



Figure 7.69
1:200 Model (Author, 2016)

7.5.4_ITERATION 1



OUTCOME

Design Iteration 1 edited the base design to mitigate the perceived cons. The building axes were straightened to respond to the grid of the city and the entrances into the courtyard realigned to the streets (Figure 7.84). The canopy walk was eliminated and the ex-

isting architecture in the Park was considered in an attempt to connect with the new structure and the Conservatory. The polytunnels' orientation changed so that the arches faced the street and the earth building was demolished upon the discovery that it sat on the base of what was once an orchard house of heritage significance. The propagation tunnels were demolished and their footprints retained as skylights for a basement level dance studio. The building shape turned in the corner to frame another entrance into the courtyard from the

NE. In later iterations of the same design, the glass boxes were tilted to try recapture the movement of the base design.

REFLECTION

Pros

- Landscaping was considered to a greater degree, creating programmed courtyards and different treatments of the land.
- Responding to the City grid had merit as a concept as it started to frame the corner of Joubert Park.

Cons

- The changes made to the base design created a boring, static building that did not reflect the creativity it housed.
- The architecture lacked hierarchy of space.
- The design became removed from the Park and the Conservatory.
- Lack of form manipulation.
- The planted roof was only accessible from the interior of the building, rendering it less public.



Figure 7.70
1:200 Model (Author, 2016)



Figure 7.71
1:200 Model (Author, 2016)



Figure 7.72
1:200 Model (Author, 2016)

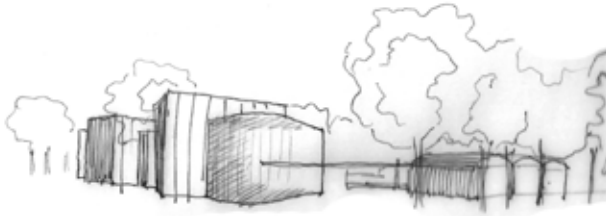


Figure 7.73
Entrance perspective (Author, 2016)

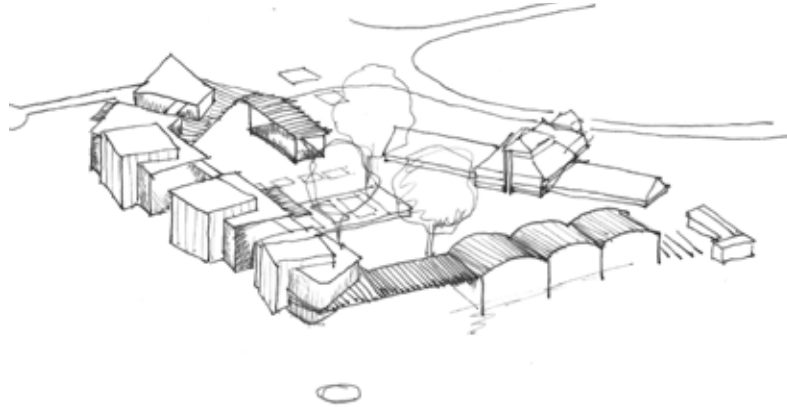


Figure 7.74
Aerial view showing the tilted boxes (Author, 2016)



Figure 7.75
Ground Floor Plan (Author, 2016)

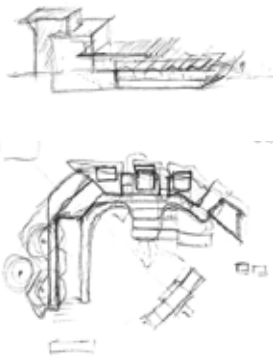


Figure 7.76
Polytunnel skylights (Author, 2016)



Figure 7.77
Considering routes and connections (Author, 2016)



Figure 7.78
(Author, 2016)



Figure 7.79
Landscaping exploration (Author, 2016)

7.5.5_ITERATION 2



OUTCOME

Iteration 2 considered a new approach to the design intentions, moving away from the initial base design. The new building lifted up from the Park landscape and terraced towards the Conservatory in three storeys (Figure 7.88). The boxes were abandoned in place of

a continuous floor plate with one long clear box on the top floor.

REFLECTION

Pros

- The concept of the building emerging from the landscape created an elegant form that framed the courtyard space well.
- The planted green roof became fully accessible to the public.
- The terraced Southern façade intended to be more sensitive to the Park.

Cons

- The building did not interact with the conditions on the site and overpowered the Conservatory.
- The sheer size of the structure was inappropriate within its landscape.
- The building became a wall to the street edge, preventing free movement into the Park (Figure 7.89).
- The iteration did not consider the positive or negative aspects of previous designs, one could say ‘the baby was thrown out with the bathwater’.

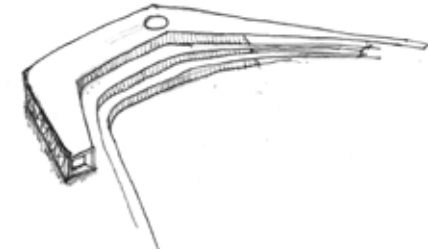


Figure 7.82
(Author, 2016)



Figure 7.80
1:500 Model (Author, 2016)



Figure 7.81
1:500 Model (Author, 2016)



Figure 7.83
1:500 Model (Author, 2016)

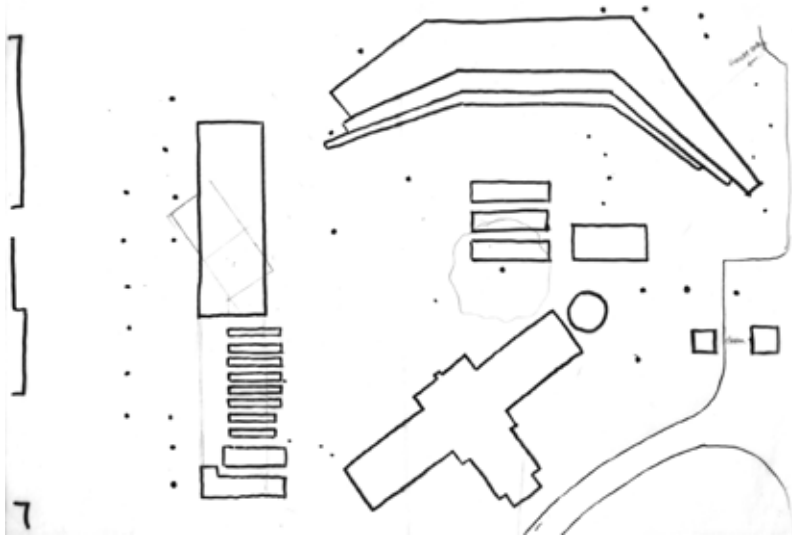


Figure 7.84
Site Plan Diagram (Author, 2016)



Figure 7.86
West Elevation (Author, 2016)



Figure 7.89
North Elevation (Author, 2016)

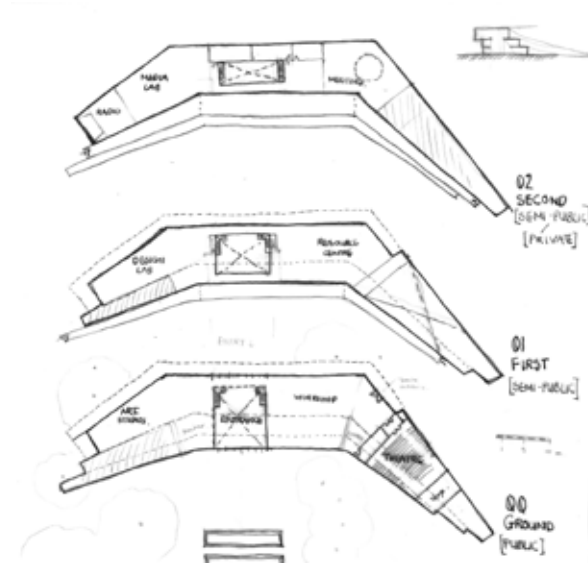


Figure 7.85
Plan exploration (Author, 2016)



Figure 7.87
Section (Author, 2016)



Figure 7.90
Section (Author, 2016)

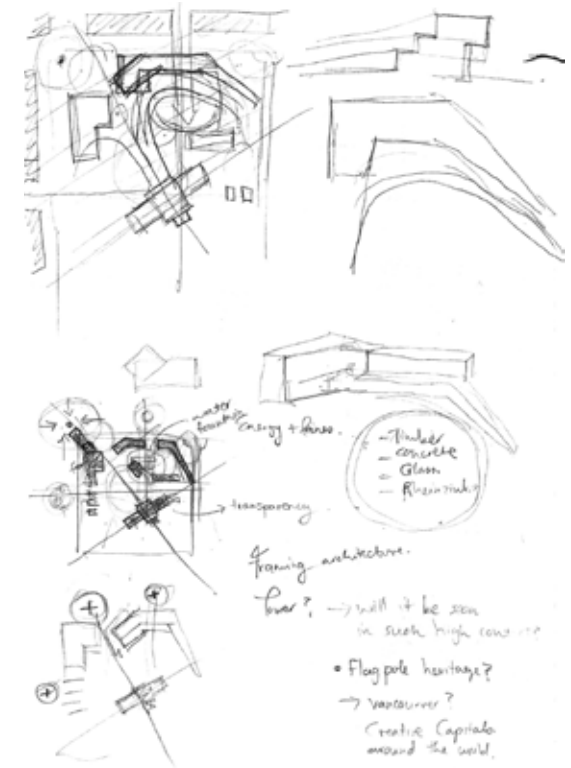


Figure 7.88
Sketchbook notes (Author, 2016)

7.5.6_ITERATION 3



OUTCOME

Iteration 3 was a fusion of the base design and iteration 2, drawing on both approaches conceptually. The new building defined the edge of Joubert Park according to the City grid and framed the Conservatory and a main courtyard. The living roof rose from the landscape (Figure 7.91) with boxes of activity below (Figure 7.92). The basement

level returned to a lesser degree, housing the private functions.

REFLECTION

Pros

- The design had a clear hierarchy of space created by the slope of the roof and its culmination in the corner of the site (Figure 7.95).
- The building interacted with the trees on the site, framing them and moving between them.
- The roof acted as a unifying element and had the potential to become a meandering path extending the ground plane of the Park.
- The building did not detract from

the green space of the Park and was attractive when viewed from the high-rise apartment buildings.

- The boxes were transparent glass, allowing for visual and direct interaction between the public and the facilities.

Cons

- The large scale of the building was disproportionate to the Conservatory (Figure 7.94).
- The slope of the roof was impractical for human meandering.
- Although the concept of the trees coming through the roof slab was interesting, identification of the trees as London Plane Trees meant

that this idea was impractical (Figure 7.95).

- The basement levels did not receive enough natural light or ventilation.
- Basements in Joubert Park were problematic due to the high water table and also aesthetically scarred the site.
- The difference between the City façade and the Park façade was not considered.
- The width of the building was excessive, structurally and contextually.

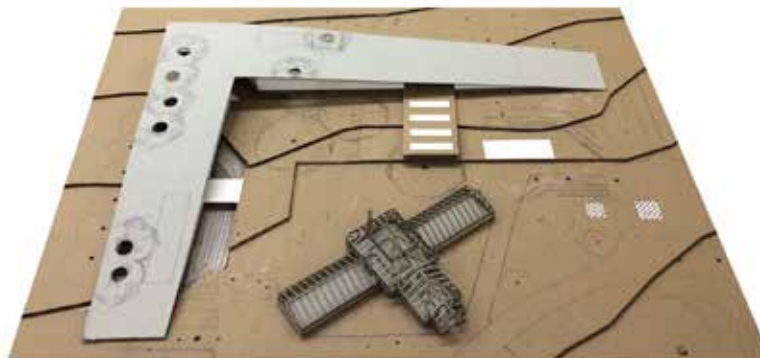


Figure 7.91
1:200 Model (Author, 2016)

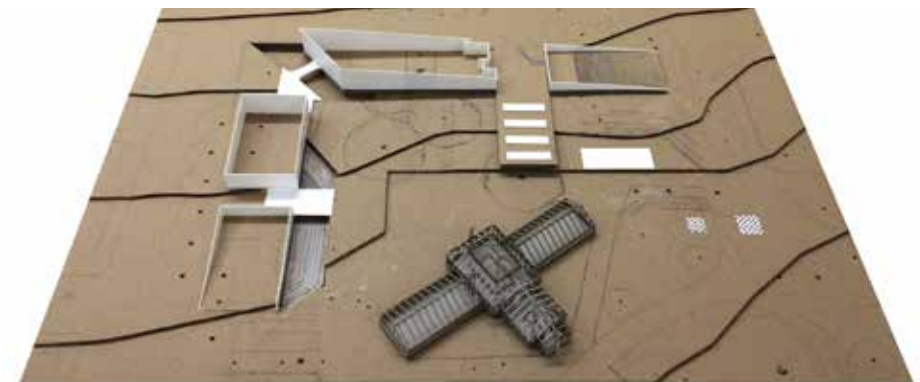


Figure 7.92
1:200 Model (Author, 2016)

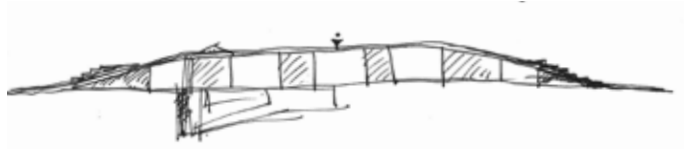


Figure 7.93
Conceptual sketch (Author, 2016)

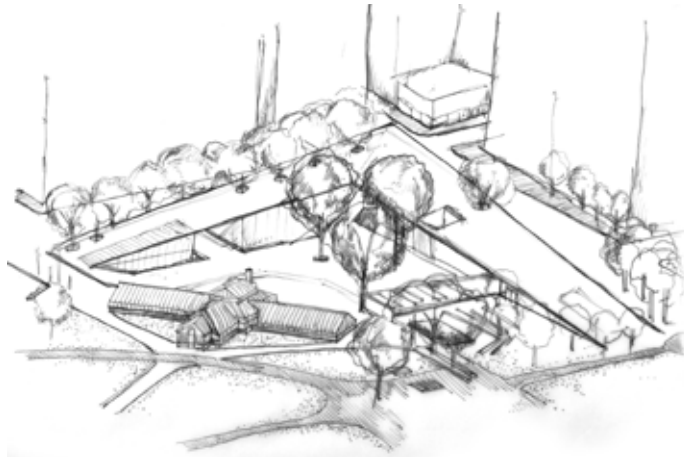


Figure 7.94
Aerial view (Author, 2016)



Figure 7.95
Entrance perspectives (Author, 2016)

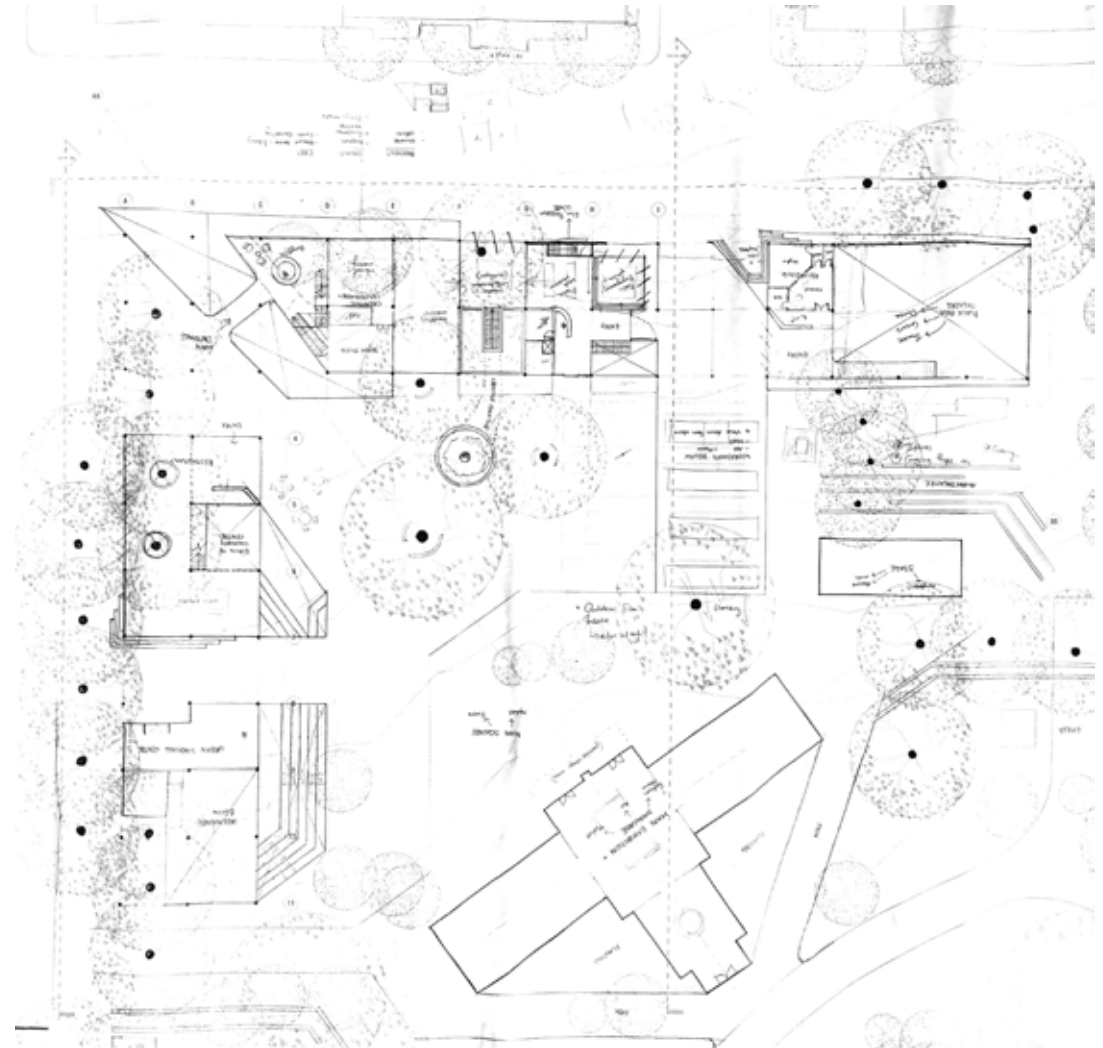


Figure 7.96
Ground Floor Plan (Author, 2016)

7.5.7_ITERATION 4



OUTCOME

The design adapted the slope of the roof to accommodate activity with terraced seating on the steep areas and a flat roof for the majority of the surface. The basement was removed and the column grid reduced to 5x5m (Figure 7.104). The iteration never reached the stage of programming the roof and developing the landscape.

REFLECTION

Pros

- The materiality was considered, thinking about the relationship between the stereotomic roof and the tectonic, light boxes beneath it housing the functions.
- Courtyards of different characteristics were proposed, imbuing the landscape with new possibilities.

Cons

- The columns broke the façade and ruined the elegance and simplicity of the building.
- The second floor was not programmatically necessary, and in-

creased the scale of the building dramatically for no reason.

- The form did not respond to the geometry of the Conservatory.
- The roof did not experiment with levels or engage with Swanepoel's project on the eastern side.
- The existing office building was retained, although it did not communicate with the Conservatory or the new building.

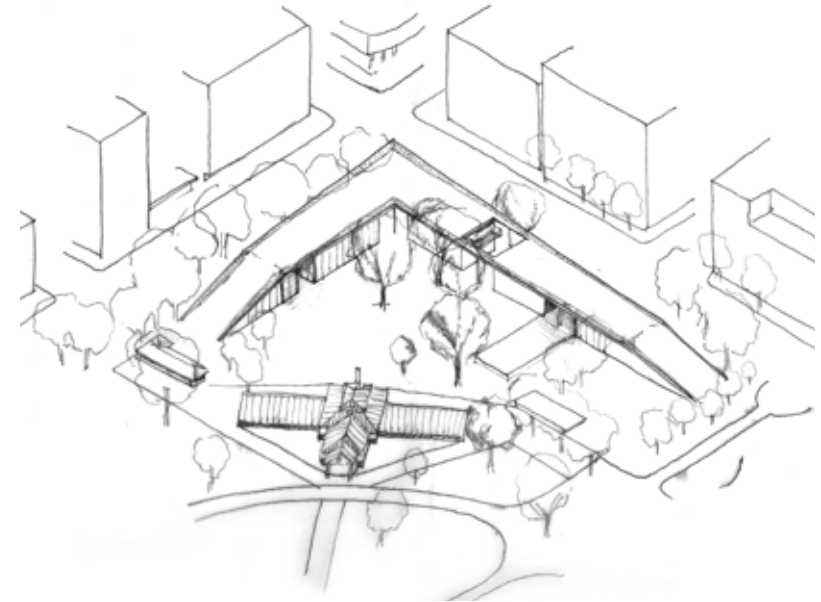


Figure 7.99
Aerial view (Author, 2016)



Figure 7.97
1:200 Model (Author, 2016)

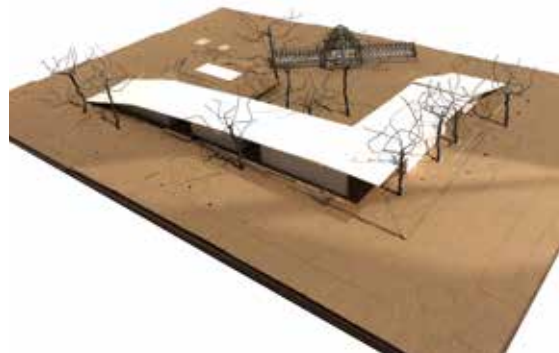


Figure 7.98
1:200 Model (Author, 2016)

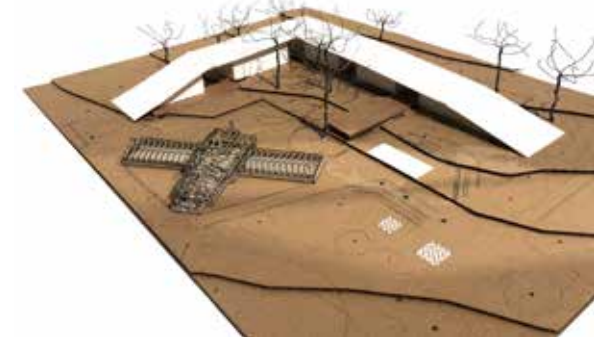


Figure 7.100
1:200 Model (Author, 2016)



Figure 7.101
Framing views of the Conservatory (Author, 2016)



Figure 7.102
Conceptual elevation (Author, 2016)

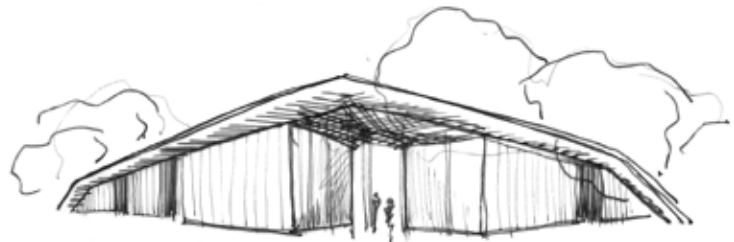


Figure 7.103
Main entrance (Author, 2016)

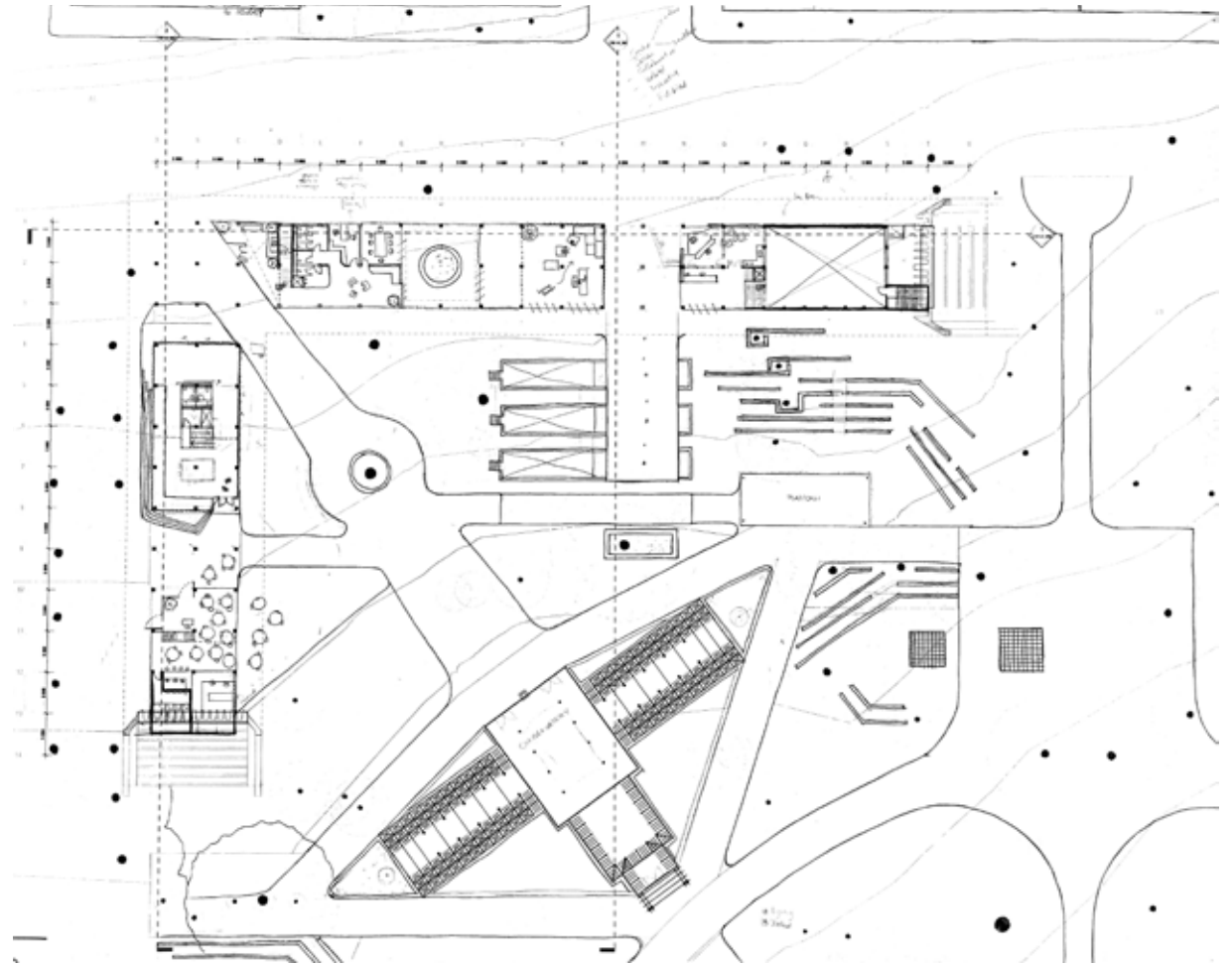
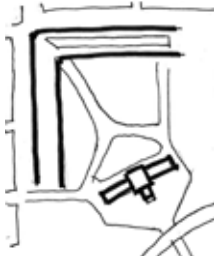


Figure 7.104
Ground Floor Plan (Author, 2016)

7.5.8_ITERATION 5



OUTCOME

Iteration 5 started exploring a second floor piercing through the monolithic roof, reminiscent of the base design (Figure 7.107). The second floor had a tectonic nature and ran along the northern façade, leading towards Swanepoel's intervention. The length of the building extended to the south to accommodate programmatic requirements on one floor only and better frame the Conservatory. (Figure 7.105)

The programmatic organisation was reconsidered, placing restaurants at entrances to keep eyes on the street. A vertical element in the form of a radio tower, was proposed to contrast the extensive horizontal façade of the building. The landscape was designed around the Conservatory, asserting the structure as an iconic object in space (Figure 7.108).

REFLECTION

Pros

- The scale of the building was more appropriate and sensitive to the Conservatory and Park
- The radio tower became a prominent feature reaffirming the en-

trance (Figure 7.107)

- The box penetrating the roof explored an interaction between the stereotomic and tectonic elements of the building
- Entrance points into the central courtyard were well placed and articulated (Figure 7.109)

Cons

- The terracing on the Park side of the building broke the illusion of the boxes lightly sitting on the grass
- The landscaping surrounded the Conservatory but needed to be developed to connect the new building to the existing heritage fabric

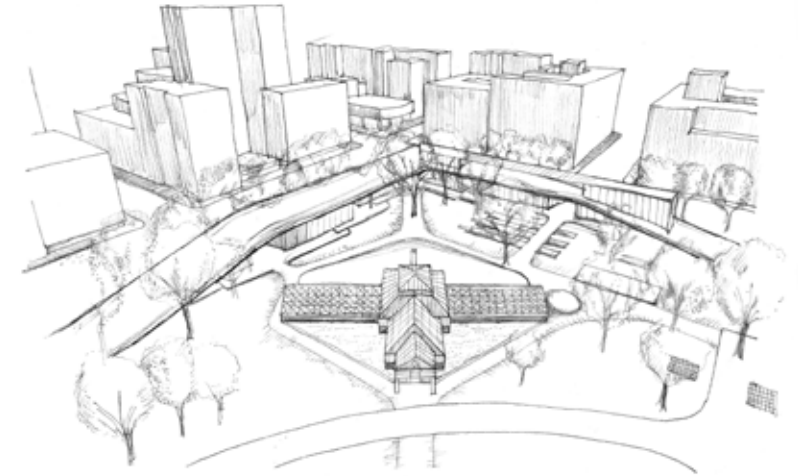


Figure 7.106
Aerial view (Author, 2016)

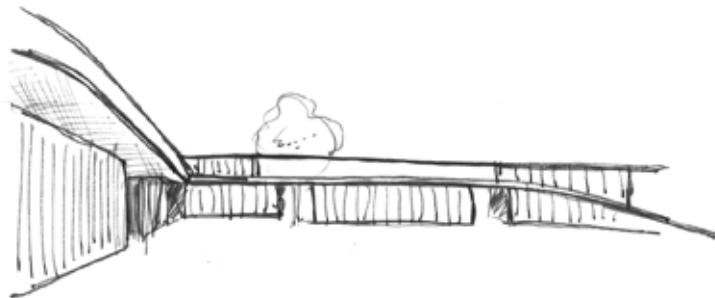


Figure 7.105
Courtyard perspective (Author, 2016)

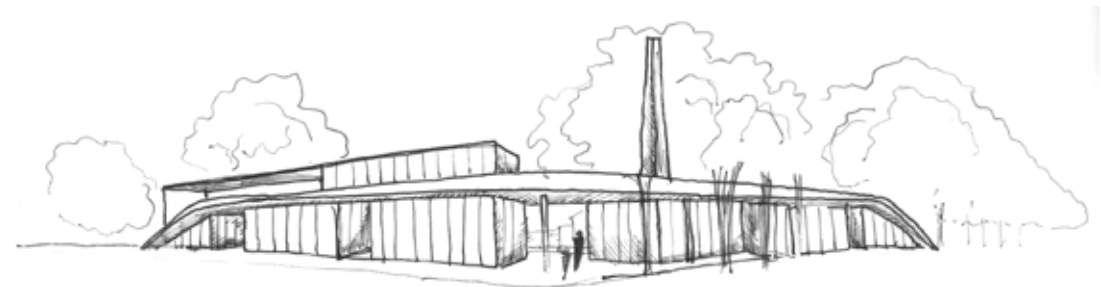


Figure 7.107
Main entrance perspective (Author, 2016)

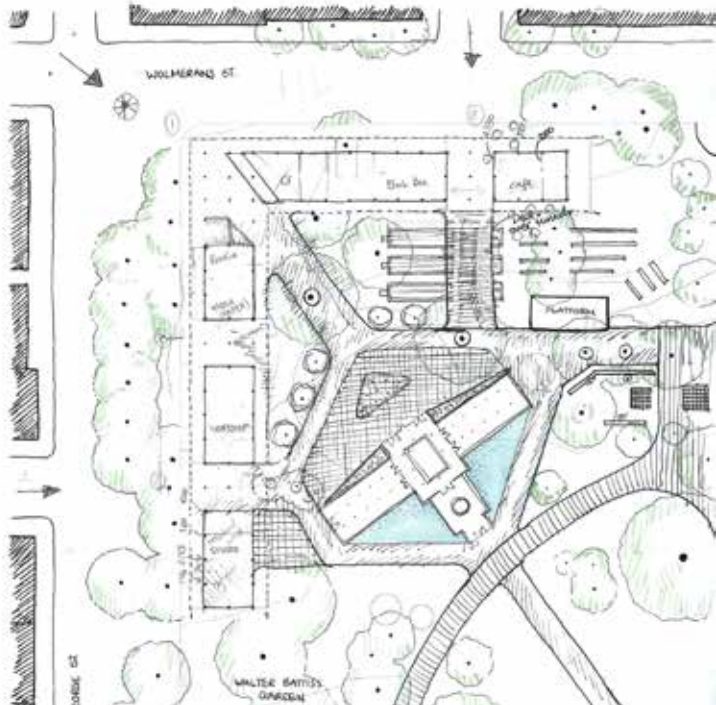


Figure 7.108
Landscape design (Author, 2016)

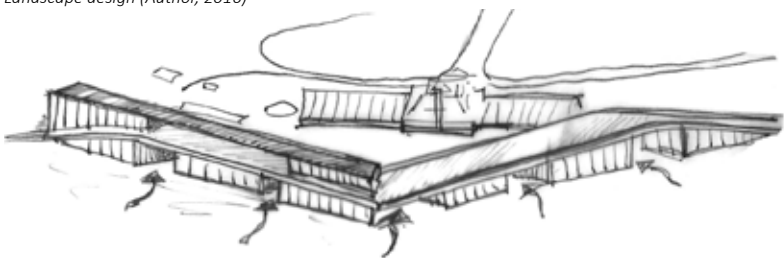


Figure 7.109
Points of access (Author, 2016)

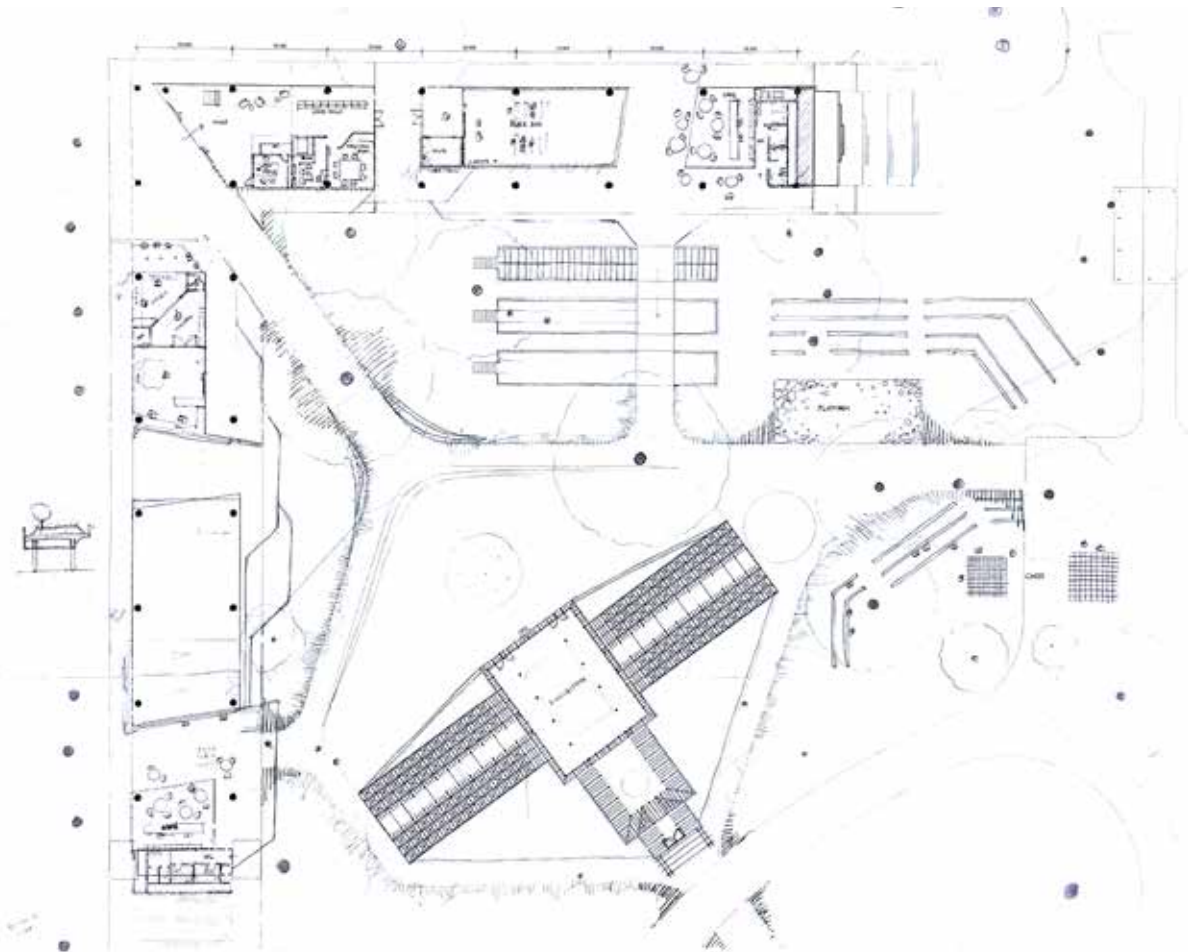


Figure 7.110
Ground Floor Plan (Author, 2016)

7.5.9_ITERATION 6



OUTCOME

Iteration 6 started pushing and pulling the boxes to create a dynamic interface with the street edge (Figure 7.112). Changes were made to the ceiling heights according to the functions below and glass panels became opaque over private areas. The canopy walk was reintroduced as a tectonic element winding between the trees and the propagation tunnels were given the function of a vertical wetland system, drawing from their heritage as planted spaces. The eastern edge of the building continued to develop in its response to Swanepoel's design, with the columns of the pergola responding to the buildings stilts. Interior spatial planning developed, as well as the relationship between interior and exterior spaces.

REFLECTION

Pros

- The adjustment of the depth and size of the boxes created more interesting spaces.
- Introducing ceilings provided space for services as the façade is primarily glazed and has limited service space.
- Iteration 6 considered the landscaping of the roof as an experience, such as framing views of the City and Park in certain spaces.
- The sustainability of the building was considered, such as passive thermal and lighting systems as well as opportunities for water collection and filtration.

Cons

- The Park landscaping alienated the Conservatory from the new architecture and broke up the courtyard (Figure 7.113).
- The programming of the Conservatory was not sufficiently considered.
- The balustrade was solid, inhibiting views from the planted roof for sitting people and children.

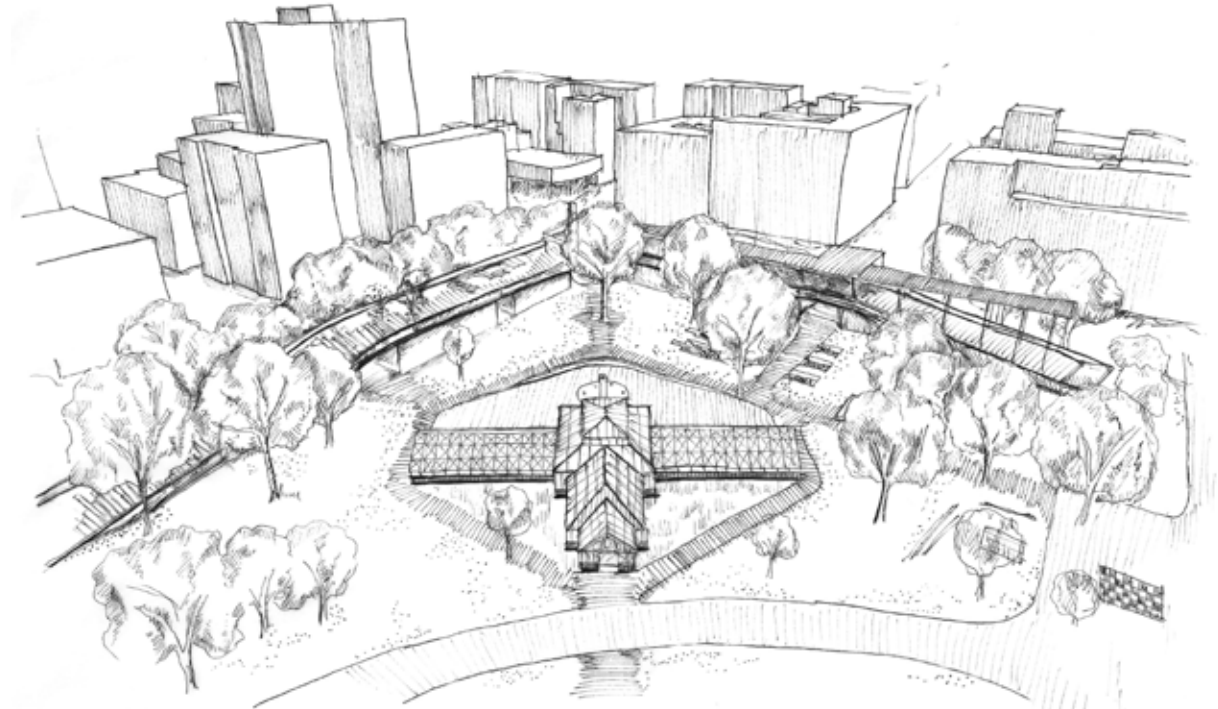


Figure 7.111
Aerial view (Author, 2016)

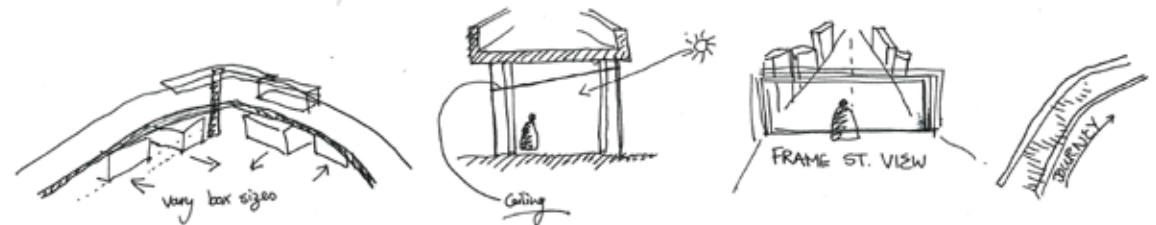


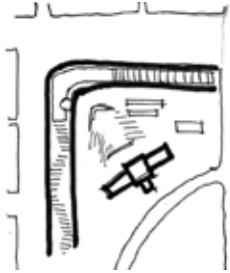
Figure 7.112
Diagrammatic conceptual explorations (Author, 2016)



GROUND FLOOR PLAN

Figure 7.113
(Author, 2016)

7.5.10_ITERATION 7 [FINAL]



OUTCOME

Iteration 7 focused on developing the edges of the building and the interface between the interior and exterior and how the programmes within responded to and activated the street edge and the courtyard. The ground level landscaping was completely reconfigured to create a generous courtyard appropriate for large events (Figure 7.116 illustrates various approaches to the landscaping). The connection to the central fountain of Joubert Park

was also developed (Figure 7.115), as well as the interaction between the building and the playground to the south and Swanepoel's project to the east.

REFLECTION

- The balustrade became clear to allow better views of the Park from the roof (Figure 7.117).
- The landscaping integrated the old with the new and became the unifying element of the design.
- The Conservatory became functionally more important and adjustments were made to the architecture to make it more accessible, such as the introduction of entrances at the wings.

The final iteration formed the base of the design as it was taken into technological resolution.

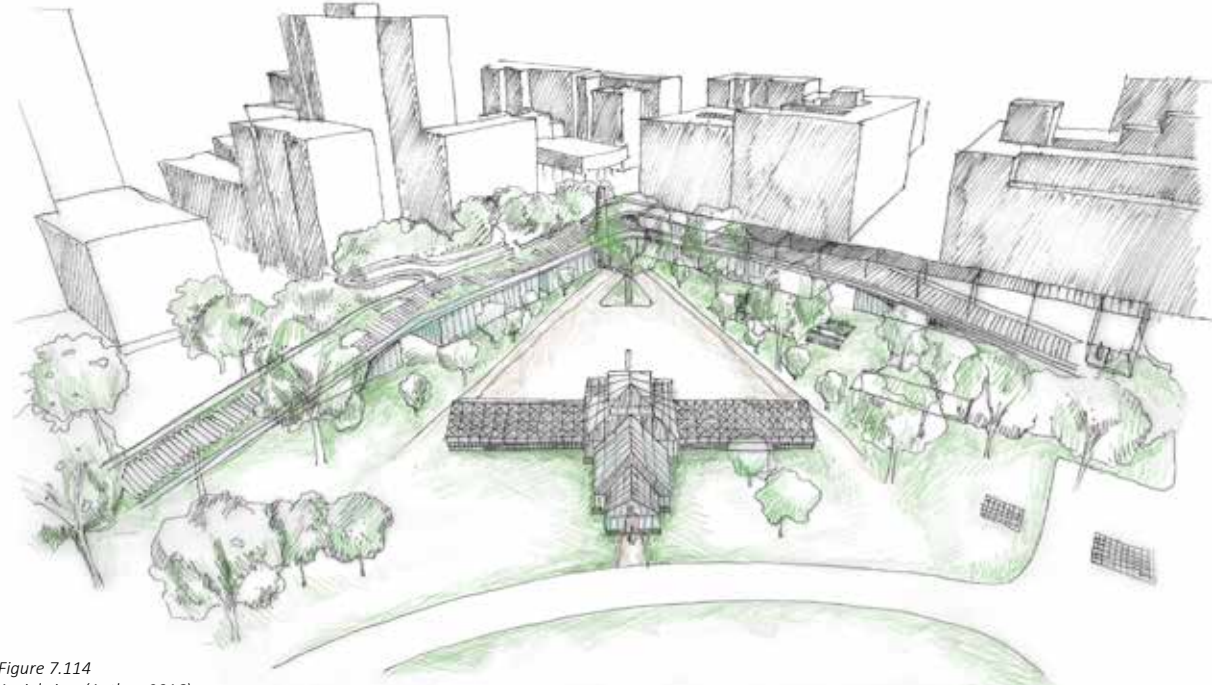


Figure 7.114
Aerial view (Author, 2016)

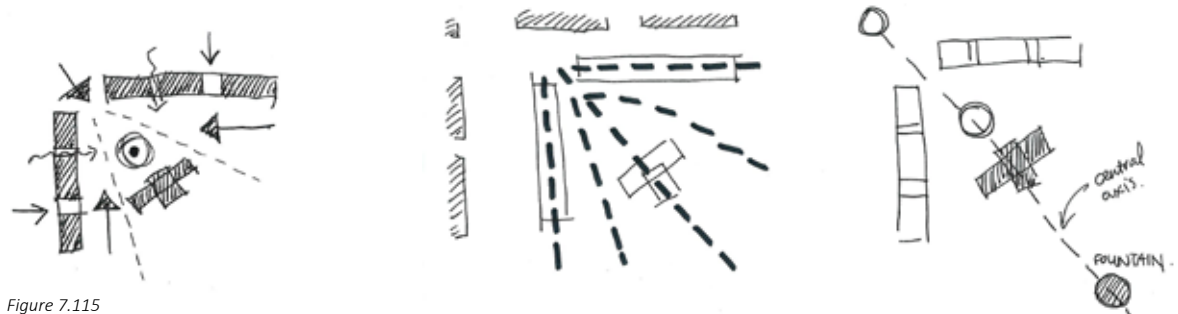


Figure 7.115
Parti diagrams considering access and axes (Author, 2016)

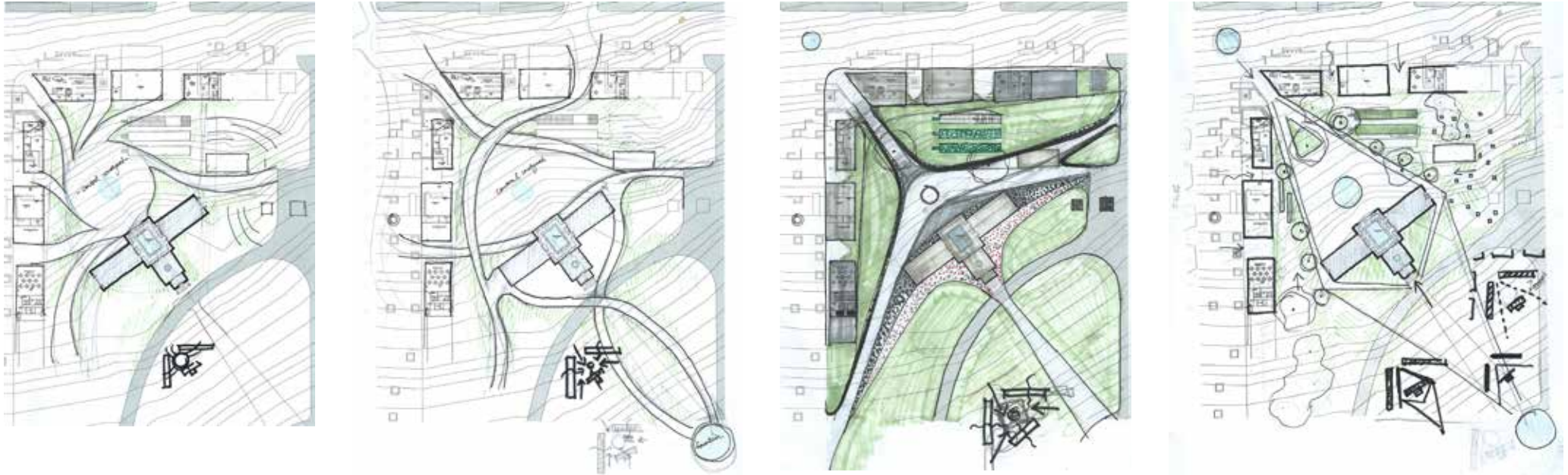


Figure 7.116
Landscape development (Author, 2016)

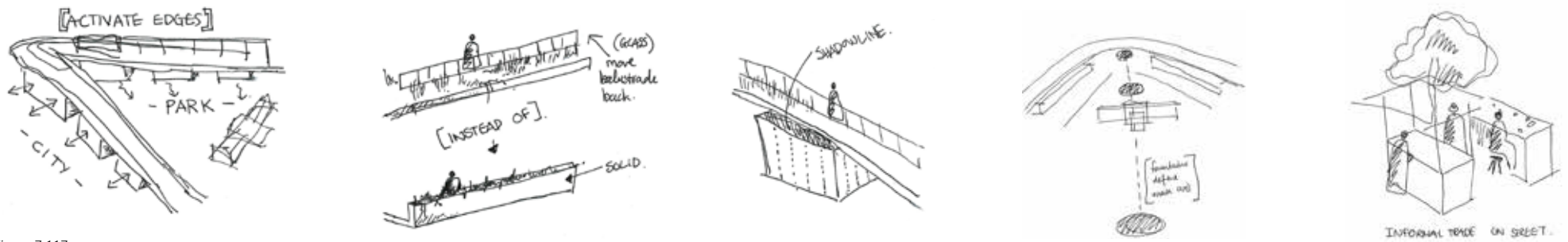
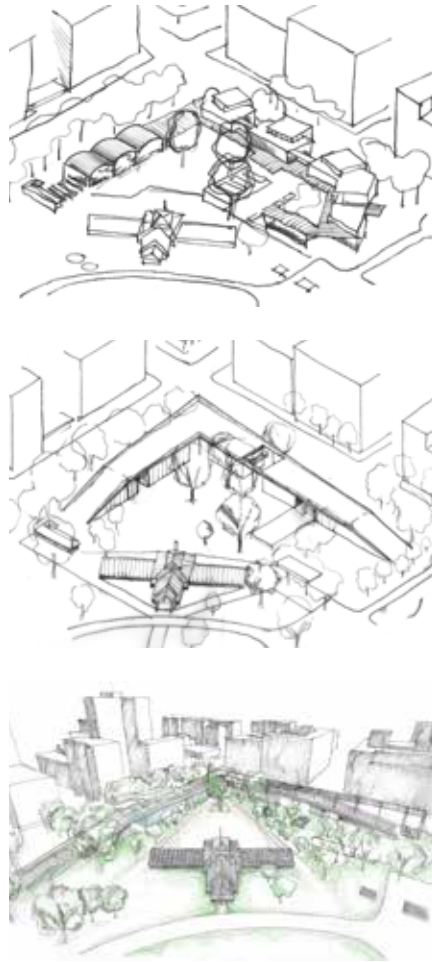


Figure 7.117
Diagrammatic considerations (Author, 2016)



7.6_SYNOPSIS

The conceptual and design development iterated the architectural response to aforementioned design informants, finally culminating in a design explored in iteration 7, which is discussed and illustrated in full in Chapter 8.

Figure 7.118
Sketch development (Author, 2016)