



Figure 10.1

CHAPTER 10

CONCLUSION

This final chapter concludes the exploration of the Creative Conservatory, a journey which the author hopes has impacted the reader's outlook on creativity, the important role it plays in placemaking and its contribution to a flourishing physical, social, and economic environment.

10.1 JOHANNESBURG'S RENAISSANCE

CONCLUDING THE CREATIVE CONSERVATORY

The City of Gold is on the cusp of a renaissance, a great revival of art, literature, and learning (Oxford Dictionary, 2016). The objective of this dissertation was to undertake an architectural intervention capable of rejuvenating its tangible and intangible historical, cultural, social, and natural heritage to exemplify this unique identity of place, maintain relevance for future generations, and contribute to Johannesburg's renaissance, branding as the Cultural Capital, and the development of the creative economy.

The chosen site was the Joubert Park Conservatory Complex, the location of the beautiful, century old, yet abandoned and decaying, ornamental greenhouse. The importance of the Conservatory within its context waned as its function was no longer relevant, resulting in the degeneration of its presence. When heritage fabric no longer contributes to its environment, it fades into obscurity. This dissertation considered the potential of heritage structures, such as the Conservatory, to be reinterpreted to suit present needs and how ar-

chitecture can express the dialogue between the past, present, and future to rejuvenate its context.

The dissertation methodology followed the creative process of Wallas (1926), starting by posing the problem to be investigated: how a spatial intervention could be mobilised to re-establish the forgotten significance of the site, and introduce a programme that would respect and enhance the heritage of the Conservatory and its cultural landscape to contribute to Joubert Park as well as the greater urban environment as the Cultural Capital. A preparation stage followed, analysing the context on a micro and macro scale from inner city Johannesburg to Joubert Park, and the Conservatory Complex. Then, the incubation period considered the theory of creative placemaking and adaptive reuse of heritage fabric, leading to further preparation and understanding of the latent potential in the Conservatory site. This allowed for the illumination stage to commence, in which a programme was established: the Creative Conservatory, a place for the

cultivation of arts and media within the community. The final stage, verification, developed an architectural intervention which considered all previous steps to generate a solution to the problem posed. The design exploration and further technical investigation resulted in a project which responds to its context and is able to create spaces which stimulate networking and engagement between the creative industries and facilitate various levels of creative expression. This, in turn develops Johannesburg's creative economy and asserts its identity as the Cultural Capital of South Africa.

The Creative Conservatory is a contextual response to the tangible and intangible heritage of the Conservatory and Joubert Park, introducing an architectural intervention which is relevant for the current community but respects heritage significance. The intangible heritage of the Conservatory as a place of cultivation inspired the programmatic response, and the tangible architectural language of the structure drove the tecton-

ic concept. As such, the project provides a good precedent for the wider discipline of adaptive reuse in heritage architecture.

The dissertation's extensive investigation and application of creative placemaking in Johannesburg contributes to the discipline of architecture by exploring the ability of arts and culture to shape place. This study is especially relevant as Johannesburg endeavours to become the Cultural Capital, as it highlights the potential to mobilise the creativity of the existing community by rethinking public space in the city.

The Creative Conservatory rises seamlessly from its Park landscape, framing the Conservatory and finding conceptual inspiration in its presence. Its architectural expression is appropriate within Joubert Park, responds to and is inspired by the Conservatory's tangible and intangible heritage, and is able to contribute to social, economic, and cultural development of inner city Johannesburg, giving momentum to the blossoming renaissance.

PERSONAL REFLECTION

I have always been passionate about the arts, at school I studied fine art, specialising in oil painting, I starred in musicals and theatre, and love reading and writing. The arts have always been my mode of expression, and in this dissertation I investigated the power of arts and culture in placemaking and architecture. As architects, we design places in which people can dwell. We cannot predict the nature of the dwelling, but we can provide spaces which inspire and stimulate certain activities. This project could be taken further, indeed it could spill out into the entire city. As I came to understand the multifaceted condition of Joubert Park, I realised that there are layers I have yet to discover, which would enrich the Creative Conservatory and the City. This year has been an exploration into the making of place that awakens the latent potential of the past to enrich the present and contribute to a thriving future, an investigation that I began as a student and will continue as an architect.

FIN.

'Engagement with arts combines stretching oneself and focusing, feeling the senses, expressing emotion or helping to self-reflect. The result can be: to broaden horizons, to convey meaning, with immediacy and or depth, to communicate iconically so you grasp things in one without needing to understand step by step, to help nurture memory, to symbolise complex ideas and emotions, to see the previously unseen, to learn, to uplift, to encapsulate previously scattered thoughts, to anchor identity and to bond people to their community or by contrast to stun, to shock by depicting terrible images for social, moral, or thought-provoking reasons, to criticise or to create joy, to entertain, to be beautiful. The arts can even soothe the soul and promote popular morale. More broadly expression through the arts is a way of passing ideas and concepts on to later generations in a (somewhat) universal language. To have these effects the arts have to be communicated. For these reasons the arts and their institutions are seen as lying at the core of culture...The best cities are ultimately experienced as living works of art.'

Charles Landry (2011, p. 22)

Creativity, Culture & the City – A Question of Interconnection



Figure 10.2
(Author, 2016)

10.2_DOCUMENT COMMENTS

DESIGN EXAMINER

15 NOVEMBER 2016

Assessment of Dissertation Document

Candidate: Lisa Verseput

Title: The Creative Conservatory

External examiner: Daniel van der Merwe

Comments

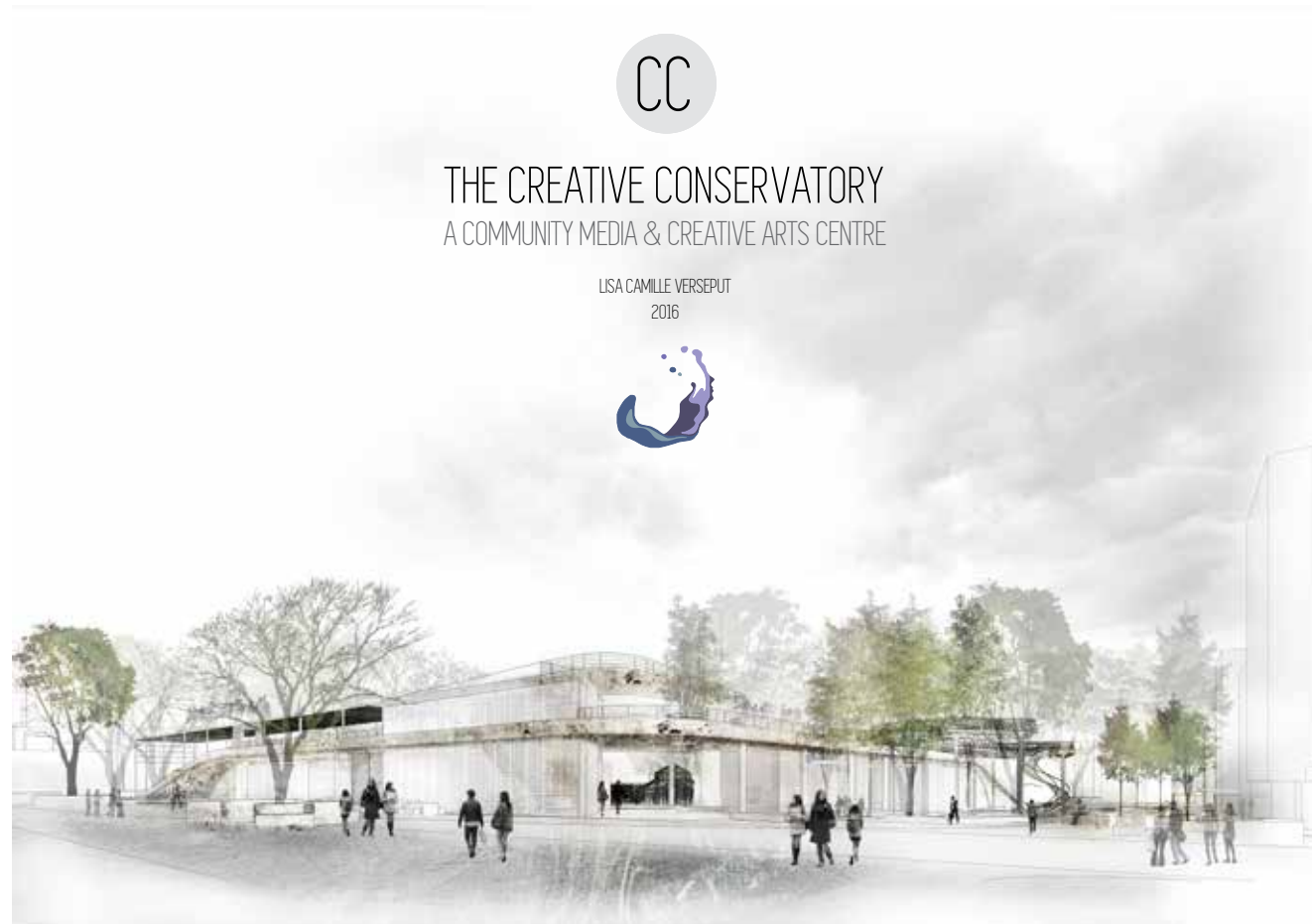
The dissertation is well composed, structured and edited. It communicates clearly and logically its intentions, approaches, explorations and the design investigation processes leading up to a design conclusion. Precedent case studies are well documented, lessons learned and applied as components of a design strategy is not always clear. Graphically the dissertation is extremely well supported. The theoretical propositions and analysis are mature and extensive. As precepts they create the necessary orientation and set a high level of expectation with regard to the final design conclusions. The bibliography is exhaustive. Overall the document is professionally well put together. The quest for an authentic

Architecture is commendable. Theoretical discourses allow for the development of a strong architectural strategy. Design explorations communicate the search for relevance and allows for a good final conceptual conclusion. The motivations and development of programme activities and its intentions are well developed. Overall an excellent dissertation, the presentation of which I'm looking forward to.

10.3_FINAL PRESENTATION

DESIGN & TECHNOLOGY EXAMINATIONS
21 NOVEMBER 2016

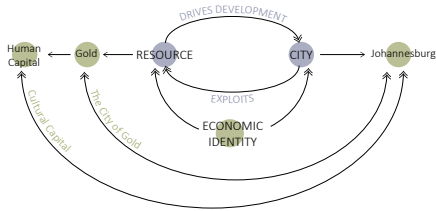
The following pages provide a summary of the work pinned up on the wall and presented in the final examinations, including models of various scales



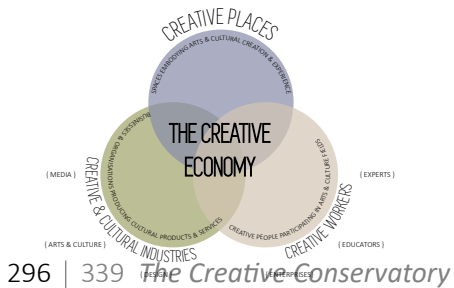
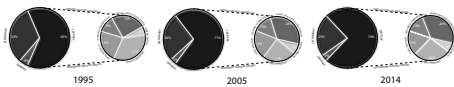


BACKGROUND

RETHINKING THE CITY OF GOLD



THE CHANGING ECONOMY OF JHB



THEORY



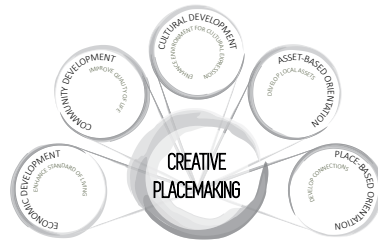
THE MAKING OF A GREAT PLACE



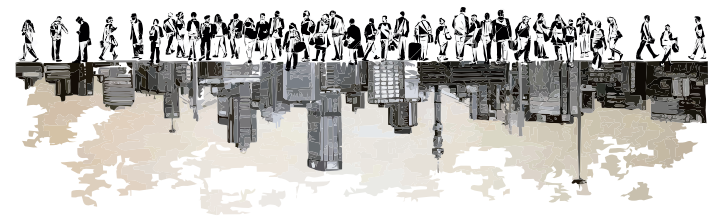
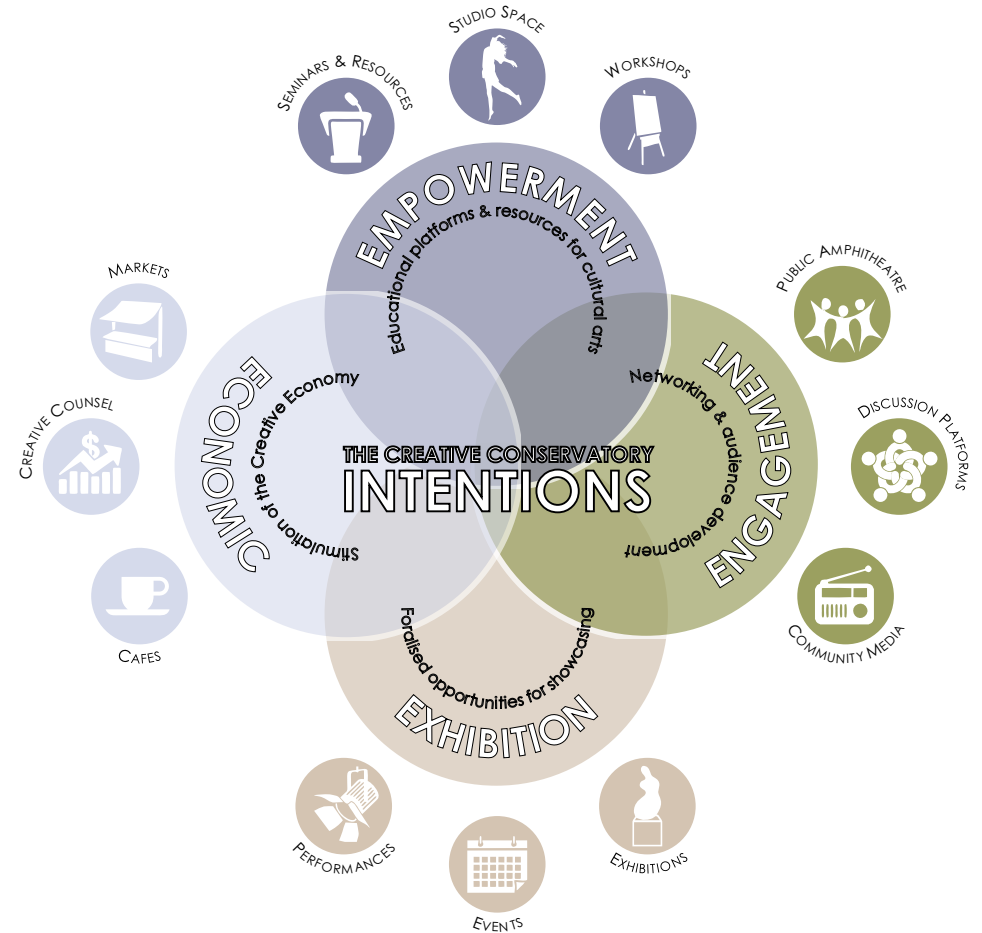
THE POWER OF 10

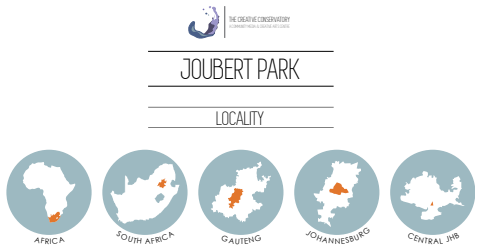


CREATIVE PLACEMAKING



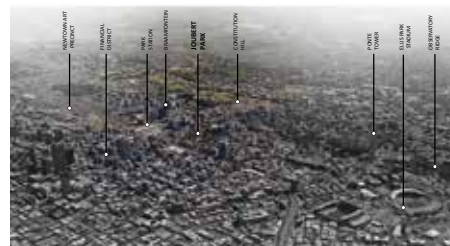
PROGRAMMATIC INTENT





JOUBERT PARK

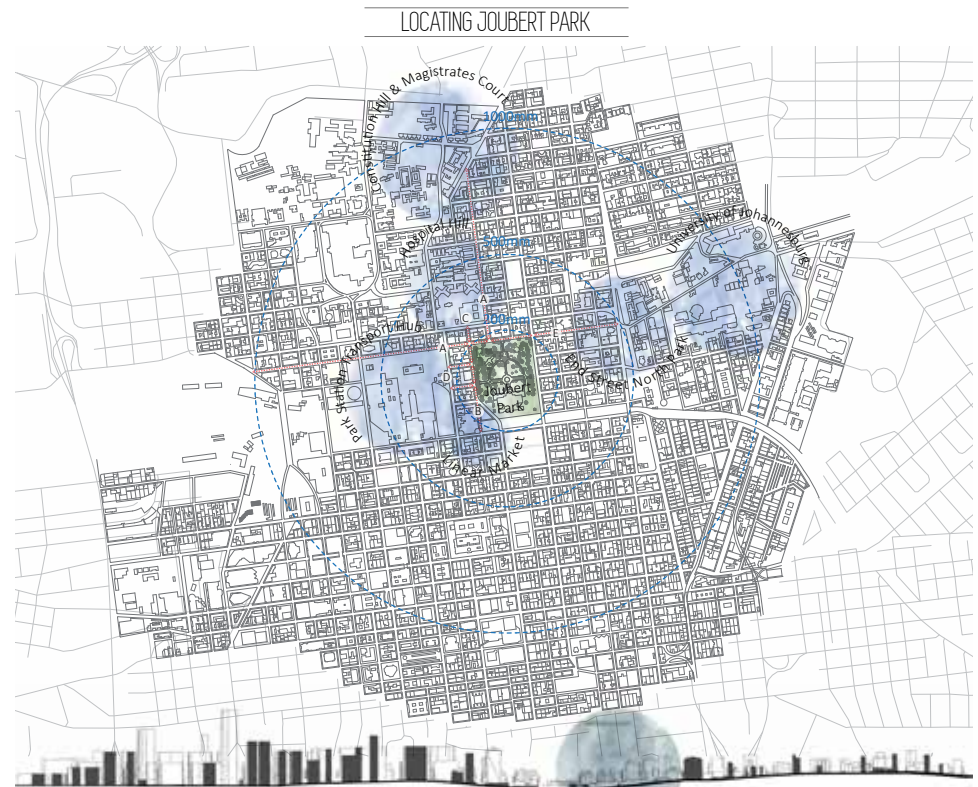
LOCALITY



JOUBERT PARK PALIMPSEST



FADING MEMORY OF THE CONTEMPORARY CONDITION



TIMELINE OF JOUBERT PARK

<p>1887 - Mining Commissioner Jan Stofft applies for a park in Johannesburg (1), which is supported by the Executive Council, who granted Johannesburg what is today the 10.28 area of ground that constitutes Joubert Park, named after Major Louis Meyer general, P.O. Joubert</p> <p>1888 - Kogler's Park, later Wanderers' Grounds, established near Joubert Park</p> <p>1892 - A strip along the southern border of Joubert Park is sold to the C.C. Beer brothers, who later became Tom's Engineer, after serving apprentices</p> <p>- Joubert Park is ploughed and planted, a pond (2), a botanical and horticultural (2) installed - Collections of plants and trees come from all over the world, including the New House Botanical Gardens</p>	<p>1901 - A local swarm devastates the flowering plants of the Park</p> <p>1907 - Drought impacts the Park</p> <p>1908 - Joubert Park is the "tenacity" spot of Johannesburg (3)</p> <p>1904 - Joubert Park is remodelled by A.H. Stone to include children's playgrounds following the ground breaking spirit of parks for people as opposed to elite gardens (4)</p> <p>- The removal of Eucalyptus and Acacia trees and experimentation with indigenous trees and shrubs - A local duck and orange garden (5)</p>	<p>1905 - City Council calls for tenders for a new iron conservatory in Joubert Park, as plans to the existing conservatory were suffering, due to its location - Drought impacts the Park, but not successful due to South orientation (6)</p> <p>1906 - March - City Council authorizes construction of a pre-erecting house - June - Call for Victorian Conservatory was constructed (7)</p> <p>1907 - Bonstead (10 & 11) - Latest swarm devastates the Park</p> <p>1909 - Subsoil team devastates the Park</p>	<p>1911 - The Johannesburg Art Gallery (JAG) opens on the southern side of the Park (12)</p> <p>1934 - City Engineer's Department allocated £15,000 for the construction of a new tower conservatory for Joubert Park from the agricultural architectural firm Messrs. Richardson & Co. Ltd. London</p> <p>1939 - Construction commenced on the site of the existing Victorian Conservatory, which was simultaneously demolished (13)</p> <p>1940 - The site is washed off from the Park, only accessible through a private gate</p> <p>1942 - New conservatory is completed (14) - JAG extension of west and east wings (15)</p>	<p>1986 - Front steps of the conservatory remodelled into a ramp - JAG addresses Meyer Pioneer Architects (16)</p> <p>1987 - Opening Child and Family Resource Service established (17) - Park Station Van Bank completed (18)</p> <p>2001 - October - CBE Architects appointed to prepare a maintenance and design recommendations for the Greenhouse Project (19) - The site is washed off from the Park, only accessible through a private gate</p> <p>2002 - R3 Million is provisionally allocated to the maintenance and renovation of the Conservatory by the National Lottery Distribution Trust Fund</p>	<p>2003-2005 - Painting is renewed - Existing steel columns are replaced due to rust and dangerous corrosion - Sanitisation of the entire floor frame - Existing glass is replaced - Removal of old furniture elements for restoration efforts - Damaged or rotting timber to be replaced with new sections of Redwood wood - New frame is painted white - All steel members are taken off-site for restoration and cleaning</p> <p>2004 - Bore Building Completed (20) - Bicycle Centre Completed (21) - Entrance Completed</p>	<p>2007 - RRT Shop Completed (22)</p> <p>2010 - Joubert Park is a Fair Park for the 2010 Soccer World Cup (23)</p> <p>2016 - Joubert Park today is at risk of becoming a taxi storage lot (24)</p>



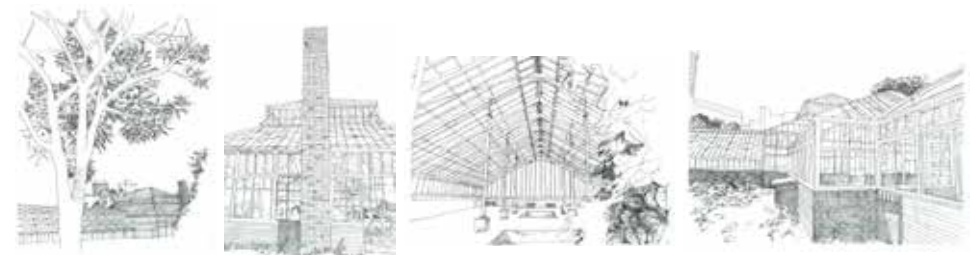
THE CONSERVATORY COMPLEX



HISTORIC DEVELOPMENT

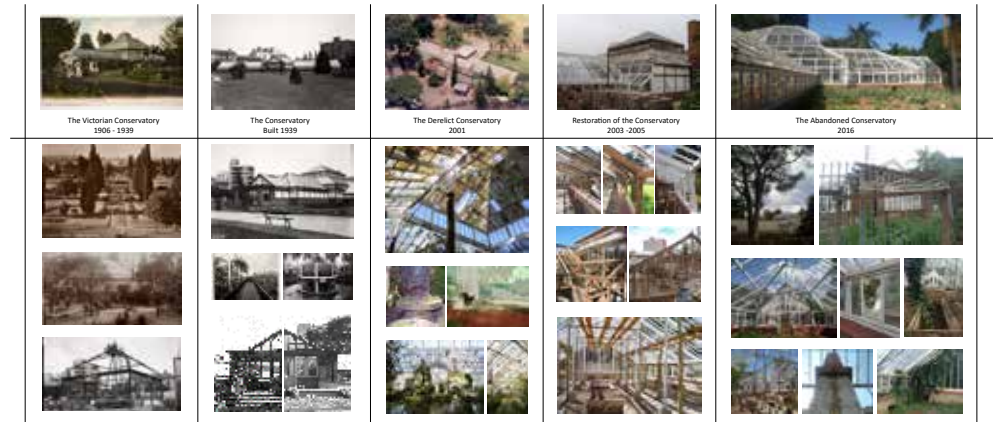


DIAGRAMS



HISTORY OF THE CONSERVATORY

A TIMELINE OF THE CONSERVATORY'S TRANSITION INTO DECAY



PHOTOGRAPHIC ROUTE





THE CREATIVE CONSERVATORY

TRANSFORMING TYPOLOGY

con-ser-va-to-ry

- 1- Grander and more ornamental version of a glasshouse or greenhouse used for conserving plants
- 2- Public building devoted to the cultivation of, and instruction in, any branch of art



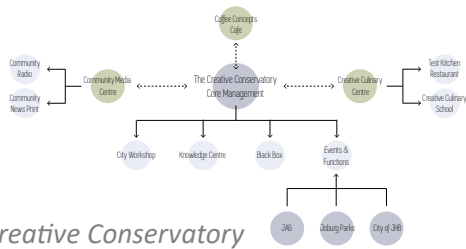
CLIENTS



THE CREATIVE CONSERVATORY
A COMMUNITY MEDIA & CREATIVE ARTS CENTRE



MANAGEMENT



FACILITIES



EVENTS

VISUAL ARTS



MUSIC



PERFORMING ARTS



POETRY & STORYTELLING

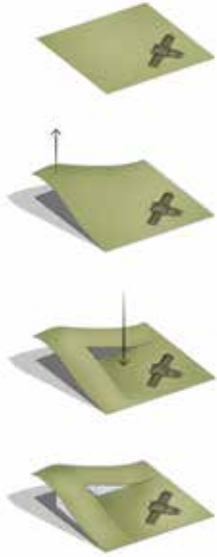


MARKETS



DESIGN CONCEPTS

ARCHITECTURE AS AN EXTENSION OF THE LANDSCAPE



THE CONSERVATORY AT THE HEART OF CULTIVATION

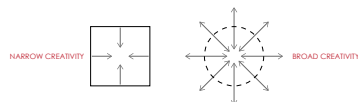


CONSERVATORY AS A GREENHOUSE



CONSERVATORY AS A CREATIVE HUB

NARROW TO BROAD CREATIVITY

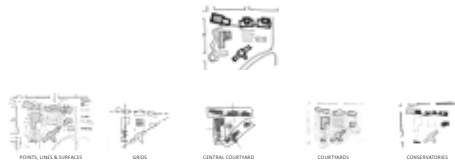


DESIGN DEVELOPMENT

BRAINSTORMING



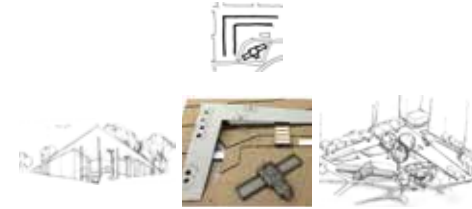
BASE DESIGN



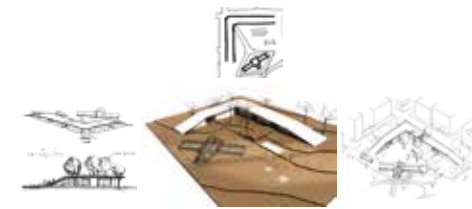
ITERATION 1



ITERATION 2



ITERATION 3



ITERATION 4



ITERATION 5



DESIGN INTENTION

ARCHITECTURE THAT:

INTEGRATES WITH
THE PARK



IS INSPIRED BY HERITAGE



CONTRIBUTES TO
DEVELOPMENT

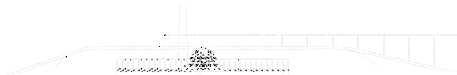


HERITAGE RESPONSE

REIMAGINE



FRAME

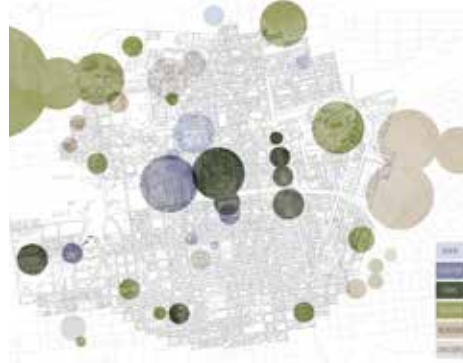


CELEBRATE



THE POWER OF 10

REGION _ INNER CITY JOHANNESBURG, PREVIOUSLY THE 'UITVALGROND'
A REGION HAS AT LEAST 10 NODAL DESTINATIONS



DESTINATION _ THE JOUBERT PARK PRECINCT
A DESTINATION HAS AT LEAST 10 PLACES



PLACE _ THE CONSERVATORY COMPLEX
A PLACE OFFERS AT LEAST 10 ACTIVITIES, WHICH ARE LAYERED TO CREATE SYNERGY



DIAGRAMS

PROGRAMME PLACEMENT



GEOMETRY & RATIOS



ACCESS



NEW & EXISTING ARCHITECTURE



THE CREATIVE CONSERVATORY
Joubert Park
SCALE 1:500



REINVENTING THE CONSERVATORY
AS A CREATIVE EVENT



ART EXHIBITION



FASHION SHOW



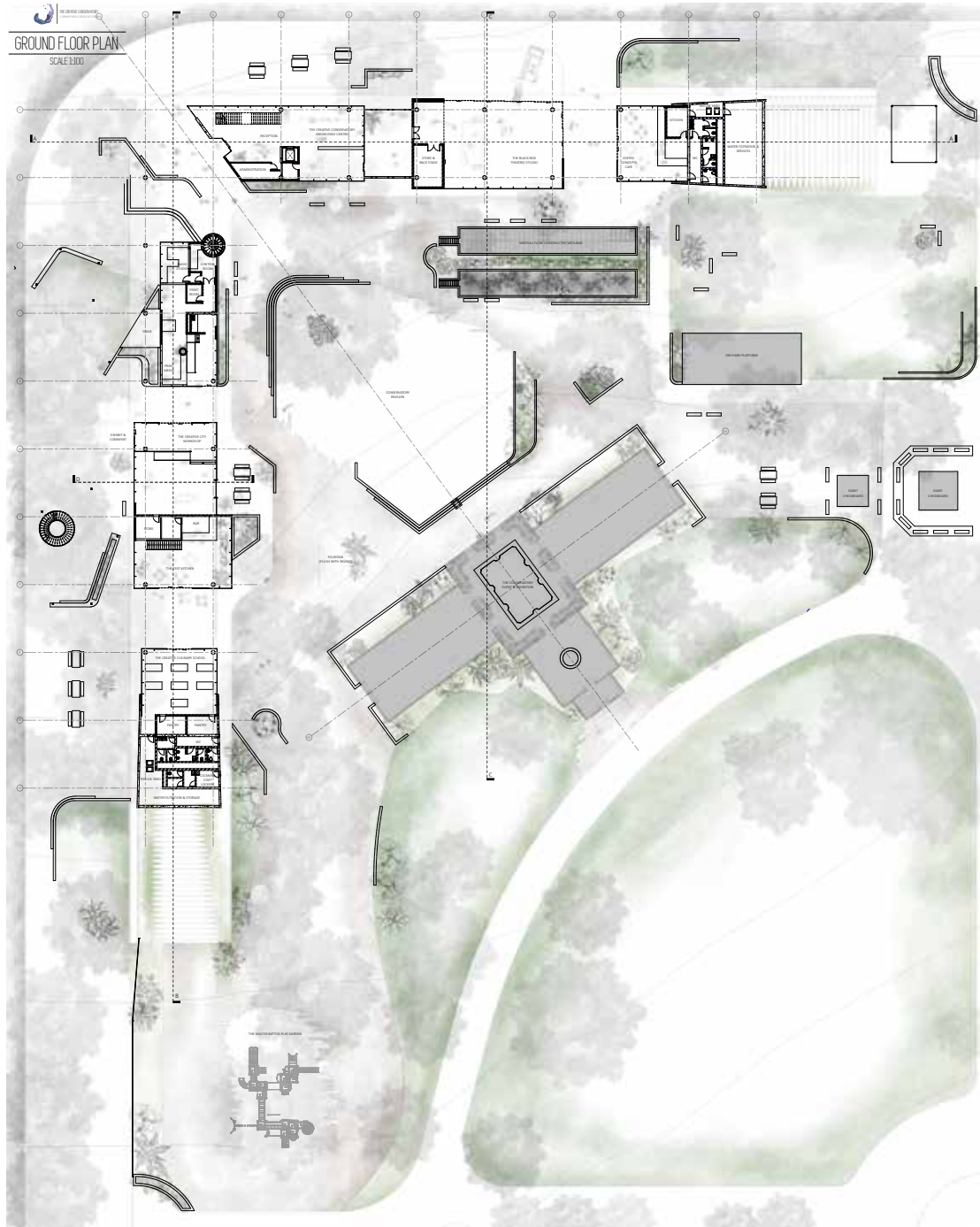
LUNCHEON



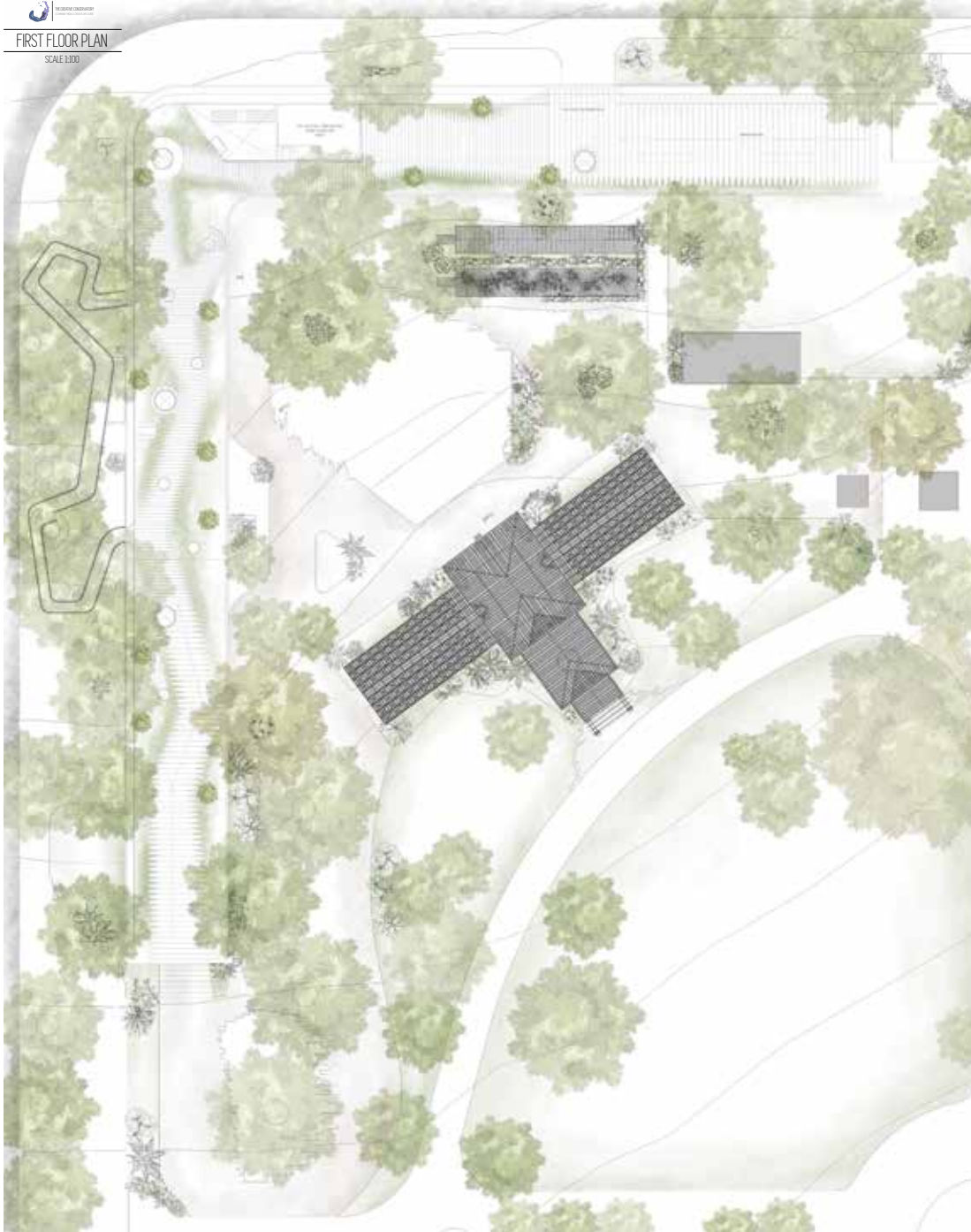
WEEKEND MARKET



THE CREATIVE CONSERVATORY



FIRST FLOOR PLAN
SCALE 1:100



ADAPTABLE SPACES
THE BLACK BOX



THEATRE



DANCE STUDIO

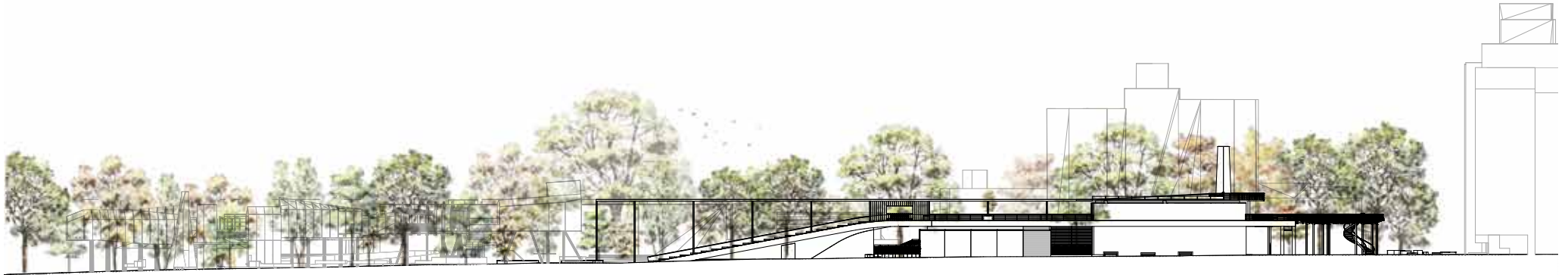






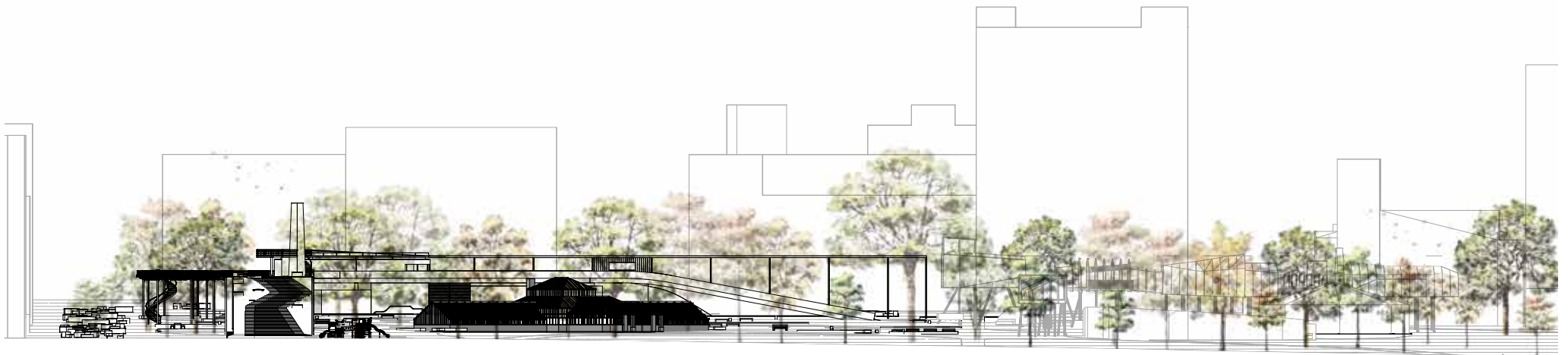
NORTH ELEVATION

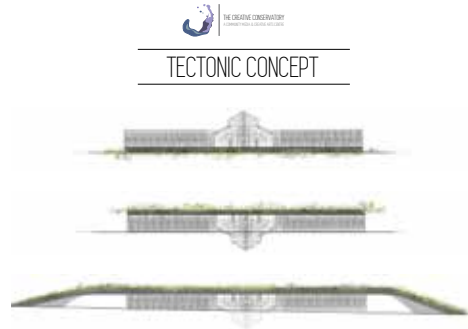
SCALE 1:200



SOUTH ELEVATION

SCALE 1:200



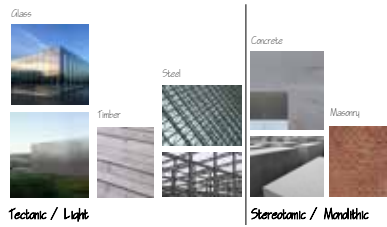


TECTONIC CONCEPT

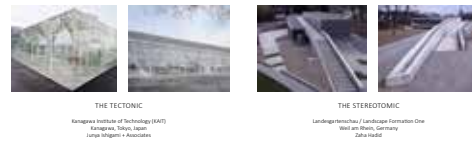
INFORMANTS



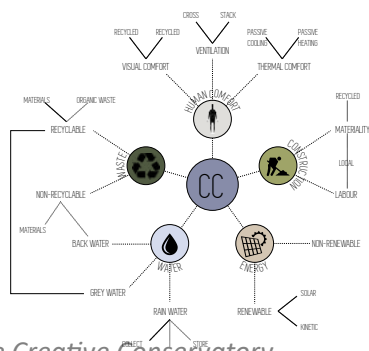
MATERIALITY



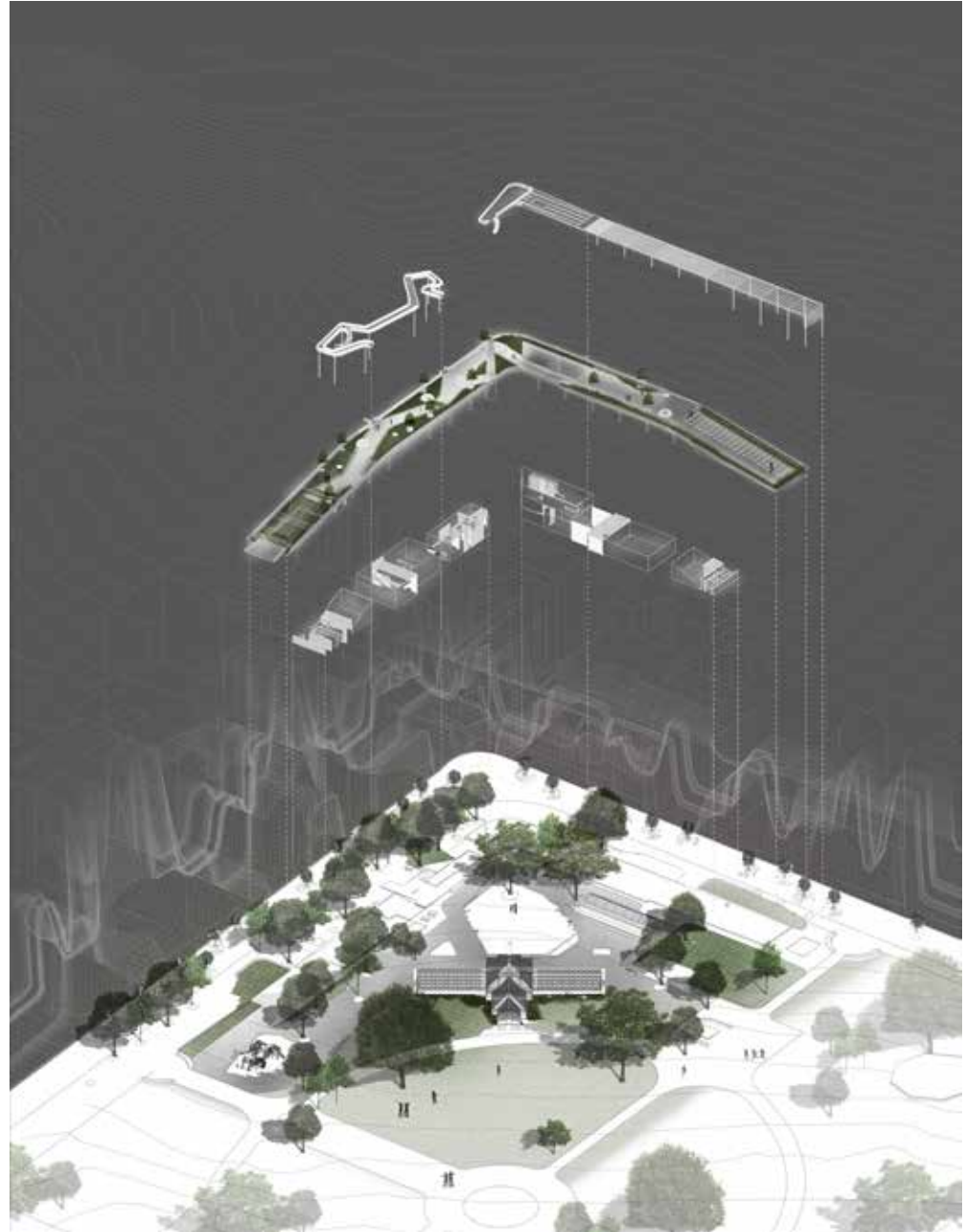
PRECEDENTS



SUSTAINABILITY STRATEGY

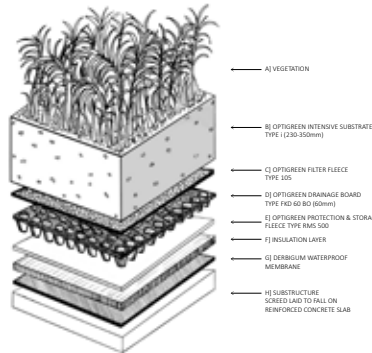


EXPLODED AXONOMETRIC
SCALE 1:300



THE LIVING ROOF

COMPONENTS



SOIL STABILISATION



PRECEDENT

THE DBSA WELCOME CENTRE
MIDRAND, GAUTENG
HOLM JORDAAN ARCHITECTS
2010



PLANTING PALETTE

GRASSES



SHRUBS



TREES

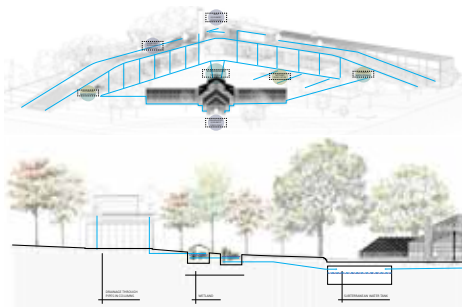
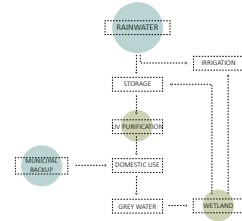


CLIMBERS



WATER SYSTEM

WATER STRATEGY

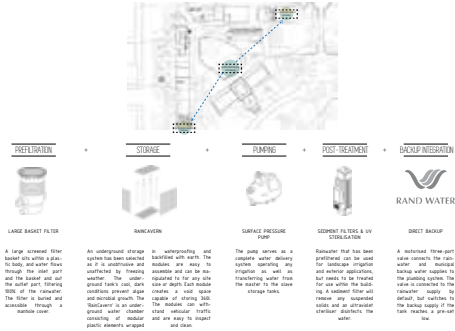


WETLAND FILTRATION

VERTICAL FLOW CONSTRUCTED WETLAND

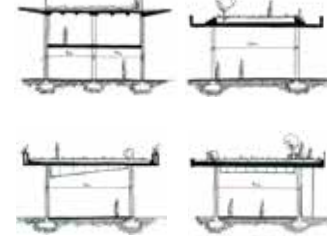


SYSTEM COMPONENTS

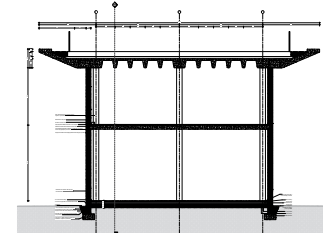


SECTION DEVELOPMENT

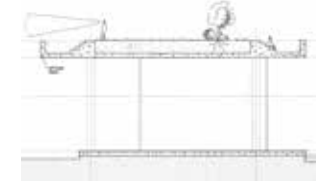
DIAGRAM DEVELOPMENT



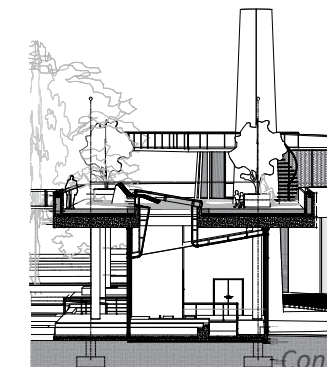
BASE DESIGN



ITERATION 1



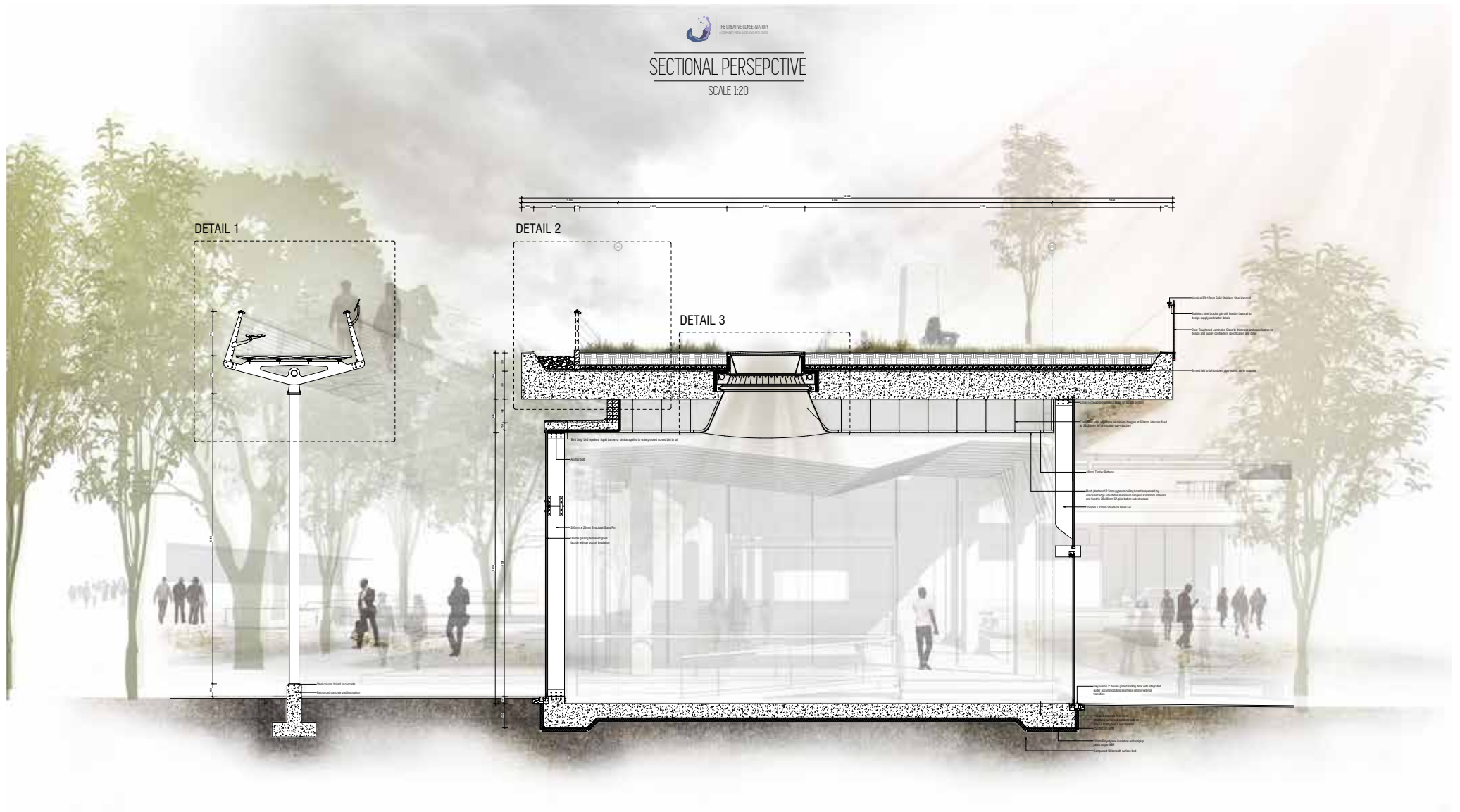
ITERATION 2





SECTIONAL PERSPECTIVE

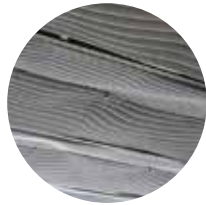
SCALE 1:20





PASSIVE DESIGN

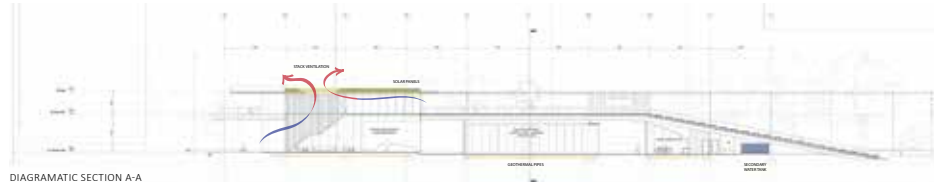
ACOUSTIC COMFORT



ACOUSTIC CEILING FINNS OF THE WORKSHOP
BASOTECT FOAM MELAMINE RESIN WITH A SOUND ABSORPTION COEFFICIENT OF 0.9



KEY



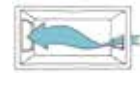
DIAGRAMATIC SECTION A-A

VENTILATION

CROSS VENTILATION



APERTURE SIZE FOR COOLING



APERTURE SIZE FOR COOLING

STACK EFFECT



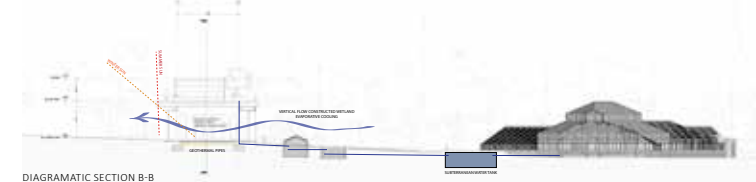
DIAGRAMATIC SECTION THROUGH THE RECEPTION

GEOHERMAL PIPES



THERMAL COMFORT

THERMAL MASS



DIAGRAMATIC SECTION B-B

LIGHTING



WEST FACADE

CENTURY OLD DECIDUOUS LONDON PLANE TREES LINE THE WESTERN FACADE. THEREFORE, THE FACADE IS WELL SHADED IN SUMMER AND HAS LIMITED DIRECT LIGHT IN WINTER.

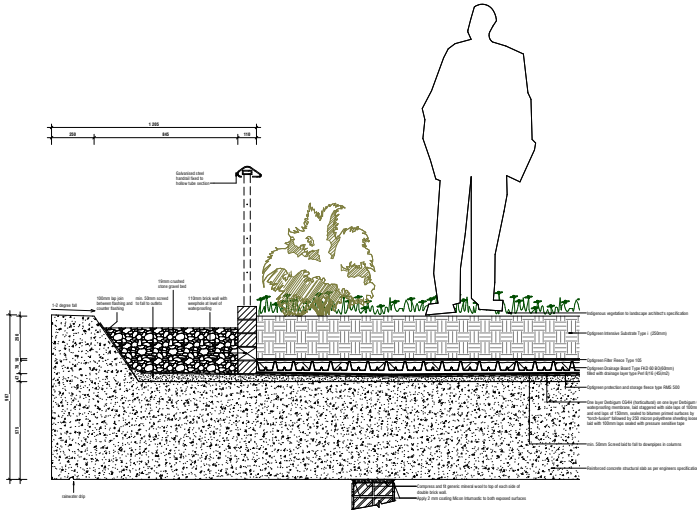


EAST FACADE

VERTICAL LOUVERS AND A LARGE OVERHANG ARE EMPLOYED TO SHADE THE EASTERN FACADE

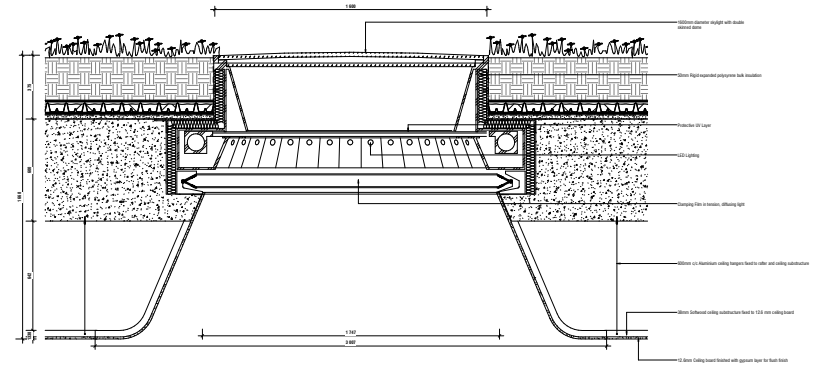
DETAIL B_LIVING ROOF

SCALE 1:10

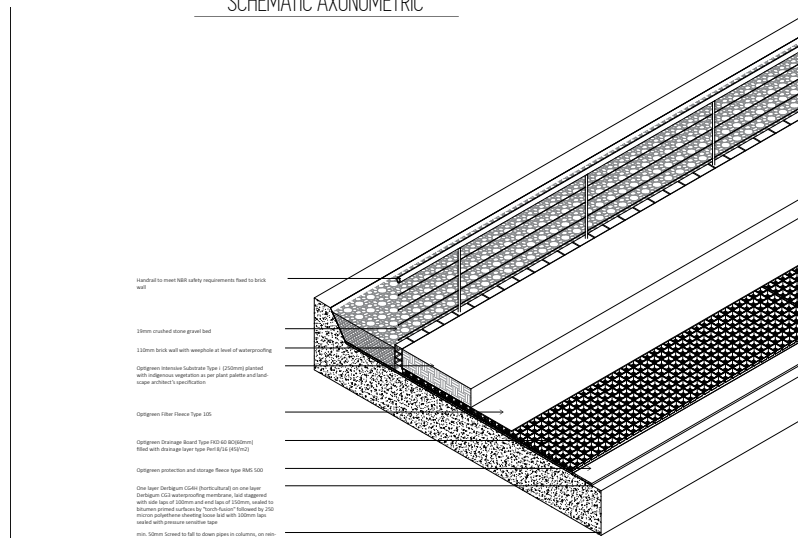


DETAIL C_SKYLIGHT

SCALE 1:10



SCHEMATIC AXONOMETRIC



Hand-drawn to meet NBS safety requirements fixed to brick wall

150mm crushed stone gravel bed

150mm brick wall with waterproofing as level of waterproofing

Clingsman Intensive Substrate Type 1 (250mm) planted with indigenous vegetation as per plant palette and landscape architect's specification

Clingsman Filter Fabric Type 105

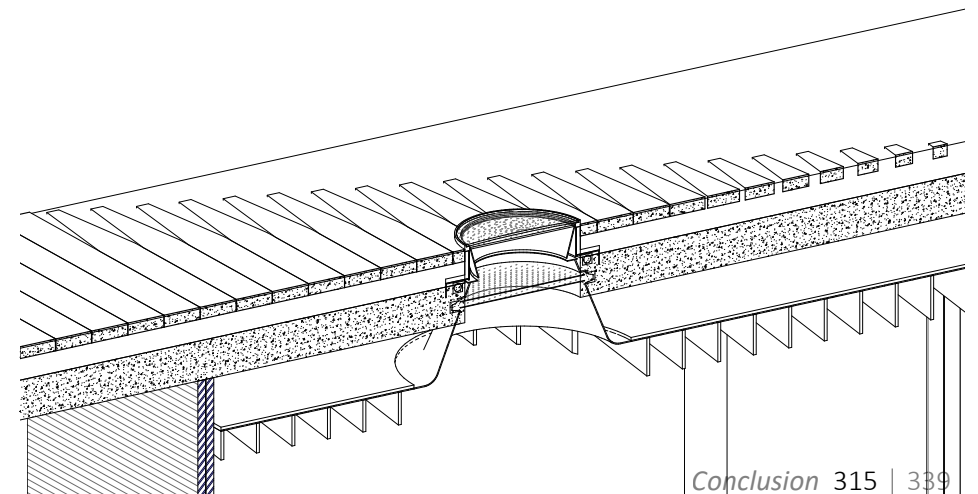
Clingsman Drainage Board Type F42 40-60(50mm) fixed with drainage layer type H40-60(100mm)

Clingsman protection and storage fleece type R40-100

The layer Clingsman CC44 (Berkel) shall be on one layer Clingsman CC2 waterproofing membrane, fixed and grouted with one layer of 150mm and one layer of 100mm, sealed to drainage perimeter and fixed by 'Tropic Raincoat' followed by 200mm concrete protection and drainage cover fixed with 200mm type steel with pressure sensitive tape

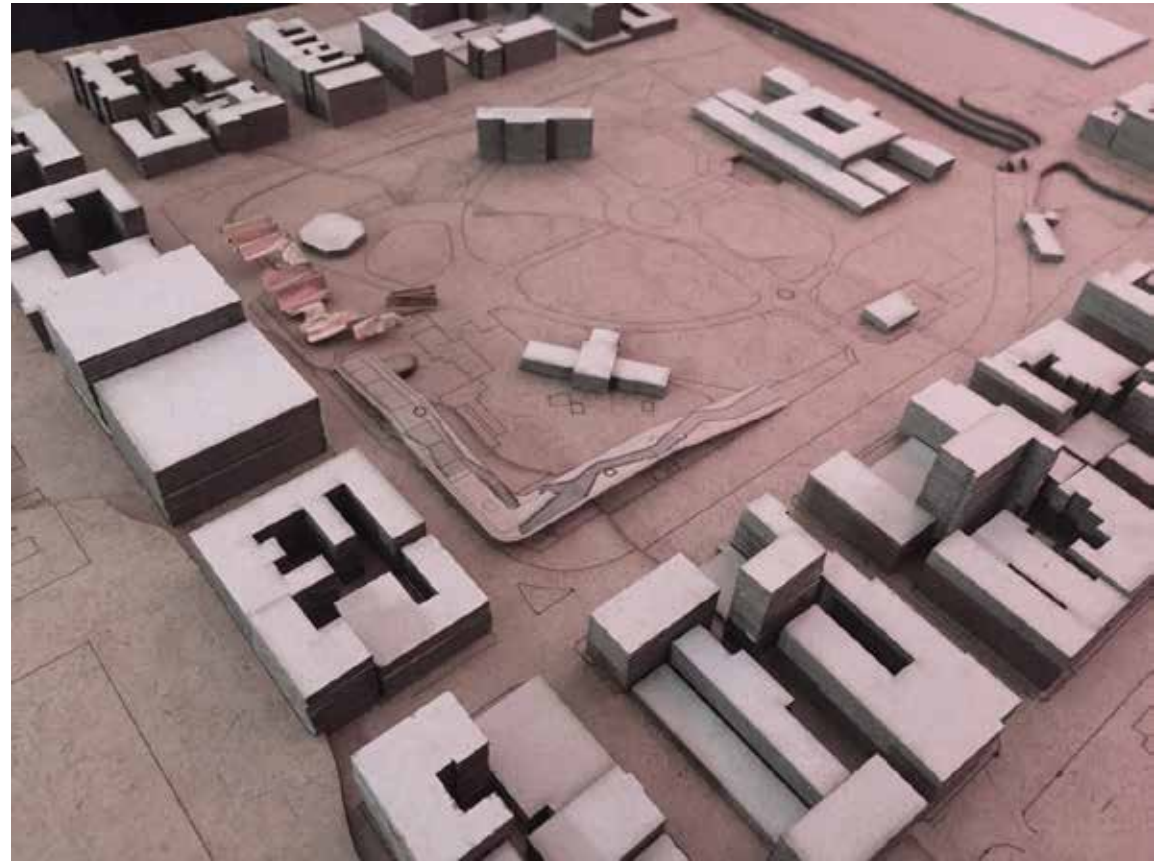
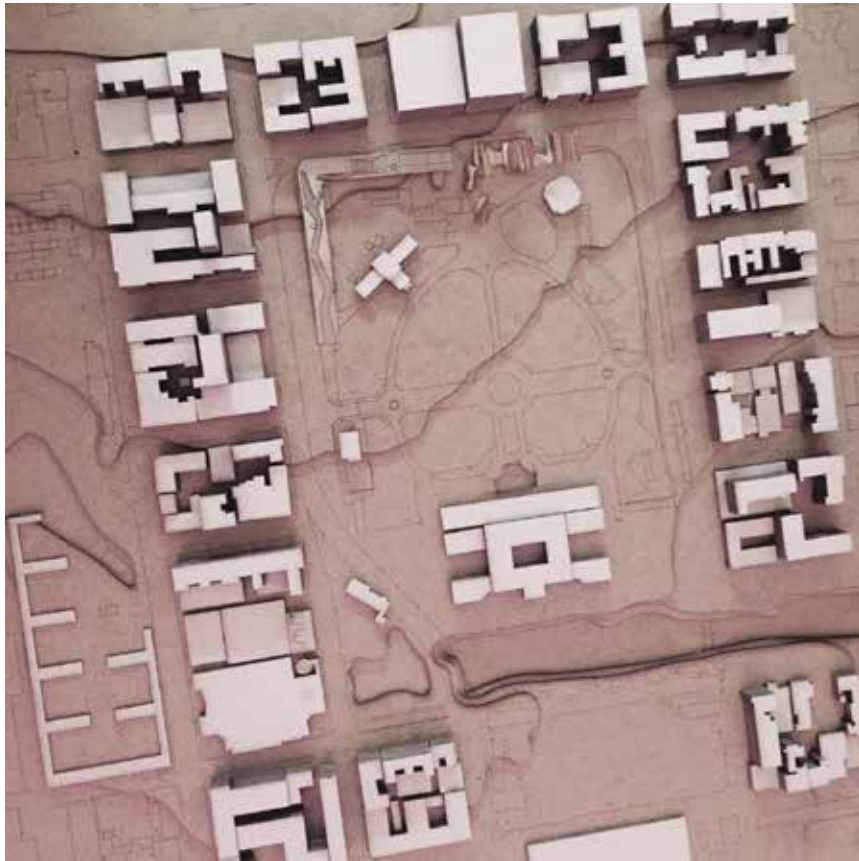
min. 50mm screed to fall to drain pipes in columns, on min.

SCHEMATIC AXONOMETRIC



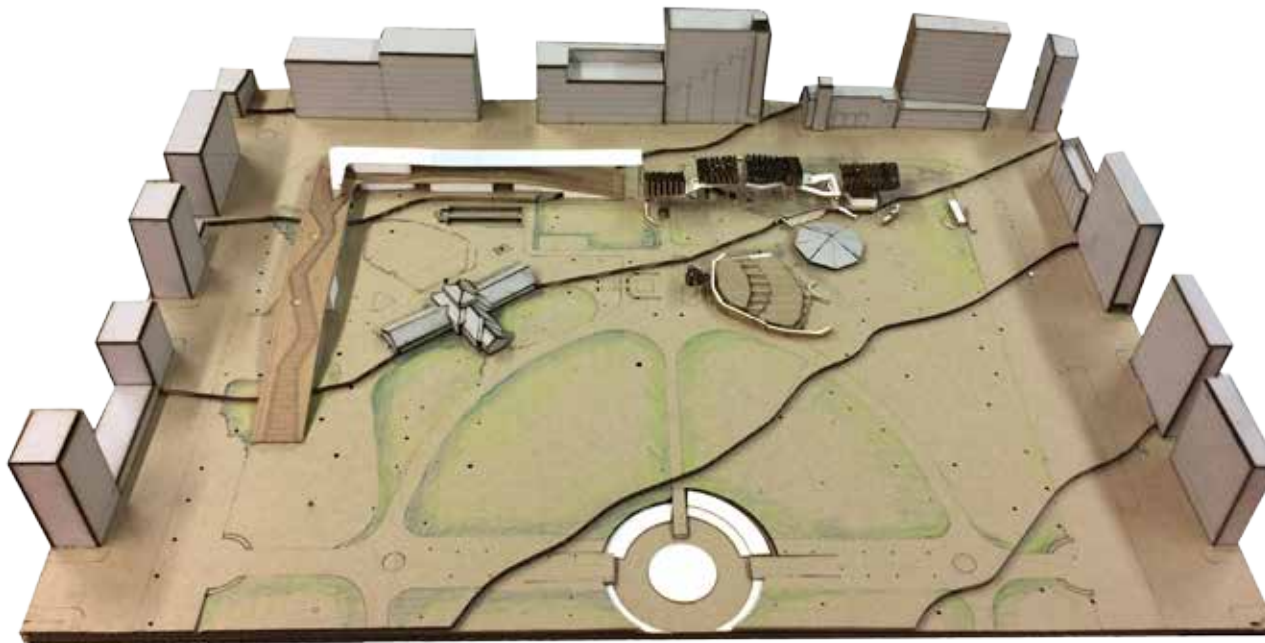
JOUBERT PARK MODEL
SCALE 1:1000

Indicating the three interventions
of the JPG and proximity to JAG



NORTHERN JOUBERT PARK MODEL
SCALE 1:500

Indicating the relationship between
the Creative Conservatory and the
Urban Archive



CREATIVE CONSERVATORY MODEL
SCALE 1:200

Contextual model of the Creative Conservatory with existing infrastructure built in grey



SECTIONAL DETAIL MODEL
SCALE 1:20

Sectional model cutting through each of the detailed elements: the canopy walk, walkable skylight, and the living roof





DESIGN & TECHNOLOGY EXAMINATIONS
21 NOVEMBER 2016



FIGURES

PREFACE

Figure 0.1_Creative Profile (Author, 2016)

Figure 0.2_The Creative Process (Author, 2016)

Chapter 01 INTRODUCTION

Figure 1.1_The Joubert Park Conservatory (Author, 2016)

Figure 1.2_The Relationship between Resources and the City (Author, 2016)

Figure 1.3_An Authentic Architecture (Author, 2016)

Figure 1.4_Architecture: Yesterday, Today, Tomorrow (Author, 2016)

Figure 1.5_This GDP graph illustrates the transformation of Gauteng's economy into one which increasingly relies on human capital (Author 2016, GDP data from Stats SA, 2011)

Figure 1.6_Fractured cultural and creative industries results in lack of interaction (Author, 2016)

Figure 1.7_The renegotiation of our contested heritage (Author, 2016)

Figure 1.8_Privatisation of Joubert Park's Heritage (Author, 2016)

Figure 1.9_Google Earth views zooming in on the site (Google Earth Pro 2016. Joubert Park 26°11'42.4"S 28°02'45.9"E. 3D Buildings data layer, viewed 15 February 2016.)

Figure 1.10_Sketch map of Joubert Park with notes (Author, 2016)

Figure 1.11_The Creative Process methodology (Author, 2016)

Figure 1.12_General, Urban, & Architectural Intentions (Author, 2016)

Figure 1.13_Architecture that integrates with the Park, is inspired by heritage and contributes to development (Author, 2016)

Figure 1.14_Project for Public Spaces, (2016), What Makes a Successful Place? (Online). Available at: <http://i0.wp.com/www.pps.org/wp-content/uploads/2009/12/diagrams-03232015-08.png?resize=660%2C510> [Accessed 10 May 2016].

Figure 1.15_Cultural Continuity (Author, 2016)

Figure 1.16_Imagined Logo for the Creative Conservatory (Author, 2016)

Figure 1.17_Building/Landscape (Author, 2016)

Figure 1.18_Reflected Conservatory (Author, 2016)

Figure 1.19_Creativity in the Conservatory (Author, 2016)

Chapter 02 URBAN ANALYSIS

Figure 2.1_Jaco van den Heever (2012), Of Dreams and Nightmares; Chalk, Pastel, Charcoal, Pigment Ink, Synthetic Gold Leaf, Soot, and Sodium Hypochlorite on Cotton Paper

Figure 2.2_Jaco van den Heever (2012), Shape of a City; Blood, Chalk, Pastel, Charcoal and Soot on Cotton Paper

Figure 2.3_The transformation of Johannesburg's landscape (Author, 2016)

Figure 2.4_Locating Johannesburg's precinct

landmarks (Author, 2016, adapted from Google Earth Pro 2016. Joubert Park 26°11'42.4"S 28°02'45.9"E. 3D Buildings data layer, viewed 15 March 2016.)

Figure 2.5_Locality of Johannesburg (Author, 2016, adapted from Google Earth Pro 2016. Joubert Park 26°11'42.4"S 28°02'45.9"E. 3D Buildings data layer, viewed 15 March 2016.)

Figure 2.6_The Apartheid Museum (2016), Map of South Africa (1885) prior to the discovery of gold (Online). Available at: <http://apartheid00.weebly.com/uploads/2/9/2/8/29283389/1399485730.jpg> [Accessed 1 April 2016].

Figure 2.7_Locating the gold reef (Yellow bands) (Author, 2016, adapted from Elzanne Pieterse (2015), Re(presentation). Pretoria: University of Pretoria. p. 87)

Figure 2.8_Graphic illustrating Johannesburg's settlement and development (Author, 2016, adapted from Elzanne Pieterse (2015), Re(presentation). Pretoria: University of Pretoria. p. 91)

Figure 2.9_Racial Segregation of Apartheid Planning (Elzanne Pieterse (2015), Re(presentation). Pretoria: University of Pretoria. p. 93)

Figure 2.10_The rigid racial zoning of Johannesburg after the forced removals (Elzanne Pieterse (2015), Re(presentation). Pretoria: University of Pretoria. p. 93)

Figure 2.11_Collage indicating the different sectors of Apartheid Johannesburg (Author, 2016)

Figure 2.12_Collage of photographs from Johannesburg's past (Author, 2016, images from Museum Africa Archives, 2016)

Figure 2.13_Collage of photographs of present day Johannesburg (Author, 2016)

Figure 2.14_OR Tambo International Airport (2016), Climate data: Johannesburg (Online). Available at: <http://ortambo-airport.com/images/JnbMaxTemp.jpg> [Accessed 1 August 2016].

Figure 2.15_Author, 2016, adapted from Adrian Frith (2011), Dot distribution maps of Johannesburg's demographics (Online). Available at: <https://dotmap.adrianfrith.com/tiles/race/6/35/37.png> [Accessed 1 April 2016].

Figure 2.16_Graphs illustrating Johannesburg's demographics (Statistics South Africa, 2011. City Of Johannesburg Statistics. (Online) Available at: http://www.statssa.gov.za/?page_id=4286&id=11306 [Accessed 10 August 2016].)

Figure 2.17_A. E. Caplen (1896), Plan of Johannesburg (Online). Available at: <http://www.newtown.co.za/heritage/ckfiles/images/hist1.jpg> [Accessed 1 April 2016].

Figure 2.18_Gloria Hodge (1893), Pictorial map (Online). Available at: <http://theheritageportal.co.za/sites/default/files/styles/adaptive/public/Pictorial%20Map%20by%20Gloria%20Hodge%201986%20.jpg?itok=SDDP3IX> [Accessed 1 April 2016].

Figure 2.19_CS Hammond and Co (1950), Visitors map of central Johannesburg (Online). Available at: https://img1.etsystatic.com/038/1/5813188/il_570xN.597246827_2phg.jpg [Accessed 1 April 2016].

Figure 2.20_Diagram of Johannesburg locating Joubert Park (Author, 2016)

Figure 2.21_Urban Boundaries (Author, 2016)

Figure 2.22_Sections through the north-south Axis of Joubert Park's Context (Author, 2016)

Figure 2.23_Joubert Park Elevation Study (JPG, 2016)

Figure 2.24_Sections through Joubert Park's street edges (Author, 2016)

Figure 2.25_Mapping Joubert Park's building use (JPG, 2016)

Figure 2.26_Macro mapping the transportation routes around Joubert Park (JPG, 2016)

Figure 2.27_Micro mapping the transportation routes around Joubert Park (JPG, 2016)

Figure 2.28_Mapping the physical barriers and boundaries of Joubert Park (JPG, 2016)

Figure 2.29_Photographic observation of Joubert Park (Author, 2016)

Figure 2.30_Timeline of Joubert Park, with a focus on the Conservatories (Author, 2016)

Figure 2.31_The Transformation of Joubert Park's Built Heritage (JPG, 2016)

Figure 2.32_Postcards of Joubert Park, early 1900s (JAG Archives, 2016)

Figure 2.33_Plans comparing the existing fabric of Joubert Park and its intended layout by Lutyens (Author, 2016, adapted from Google Earth Pro 2016. Joubert Park 26°11'42.4"S 28°02'45.9"E. 3D Buildings data layer, viewed 15 March 2016. and Lutyens from JAG Archives, 2016)

Figure 2.34_Mapping the Current Stakeholders of Joubert Park (JPG, 2016)

Figure 2.35_Photographic observation of Joubert Park's Social Environment (Author, 2016)

Figure 2.36_Mapping the Economic Fabric of Joubert Park (JPG, 2016)

Figure 2.37_Photographic observation of Joubert Park's Economic Environment (Author, 2016)

Figure 2.38_Johannesburg Development Agency, 2011. Greater Park Station Precinct Urban Design and Heritage Management Framework: Land Use, Johannesburg: The City of Johannesburg, p. 59.

Chapter

03

URBAN VISION & FRAMEWORK

Figure 2.39_ Mapping the Cultural Activity of Joubert Park (Author, 2016)

Figure 2.40_ Photographic observation of Joubert Park's Cultural Environment (Author, 2016)

Figure 2.41_ Performance Zone Map (Author, 2016, Adapted from Tanja Gershon (2015), Performance Power (Online). Available at: http://www.arpajournal.net/wp-content/uploads/2015/07/GERSHON_fig-7.jpg [Accessed 1 August 2016].)

Figure 2.42_ Mapping Public Space Nodes of Inner City Johannesburg (JPG, 2016)

Figure 2.43_ Public Parks (JPG, 2016)

Figure 2.44_ The transformation of Johannesburg's Identity and Fabric (Author, 2016)

Figure 2.45_ Identity 1:Paradise (JPG, 2016)

Figure 2.46_ Identity 2:Cultural Enlightenment (JPG, 2016)

Figure 2.47_ Identity 3:Social Exploration (JPG, 2016)

Figure 2.48_ Identity 4:Unclaimed (JPG, 2016)

Figure 2.49_ Identity 5:Transport & Commuting (JPG, 2016)

Figure 2.50_ SWOT Analysis (JPG, 2016)

Figure 2.51_ Jaco van den Heever (2012), Looking East, charcoal and soot on cotton paper

Figure 3.1_ Cultural Capital (Author, 2016)

Figure 3.2_ Streetwires (2016), Beaded Protea (Online). Available at: <http://ohdarlingdays.co.za/wp-content/uploads/2013/02/protea-bead-bouquet-front-640x480.jpg> [Accessed 5 April 2016].

Figure 3.3_ Johannesburg as the Cultural Capital: Icon (JPG, 2016)

Figure 3.4_ Johannesburg as the Cultural Capital: Bubble Diagram (JPG, 2016)

Figure 3.5_ Johannesburg Development Agency, 2011. Greater Park Station Precinct Urban Design and Heritage Management Framework, Johannesburg: The City of Johannesburg, p. 59.

Figure 3.6_ Johannesburg Development Agency, 2011. Greater Park Station Precinct Urban Design and Heritage Management Framework, Johannesburg: The City of Johannesburg, p. 79.

Figure 3.7_ Johannesburg Development Agency, 2011. Greater Park Station Precinct Urban Design and Heritage Management Framework, Johannesburg: The City of Johannesburg, p. 59.

Figure 3.8_ City of Johannesburg, 2013. Corridors of Freedom, Johannesburg: City of Johannesburg Group Communication and Tourism Department, p.4.

Figure 3.9_ City of Johannesburg, 2013. Corridors of Freedom, Johannesburg: City of Johannesburg Group Communication and Tourism Department, pp. 9-13

Figure 3.10_ The Everyday & the Extraordinary (JPG, 2016)

Figure 3.11_ Space to Place (Author, 2016)

Figure 3.12_ NLA (2015), Johannesburg Inner City Parks (Online). Available at: http://www.newla.co.za/images/projects/thumb/project10_1.jpg [Accessed 5 August 2016].

Figure 3.13_ NLA (2015), Johannesburg Inner City Parks (Online). Available at: http://www.newla.co.za/images/projects/thumb/project10_9.jpg [Accessed 5 August 2016].

Figure 3.14_ Urban Artscape (JPG, 2016)

Figure 3.15_ Collage of Newtown's Character (Author, 2016)

Figure 3.16_ Collage of Maboneng's Character (Author, 2016)

Figure 3.17_ Collage of Braamfontein's Character (Author, 2016)

Figure 3.18_ ArchDaily (2011), Parc de la Villette / Bernard Tschumi (Online). Available at: http://images.adsttc.com/media/images/5037/f5b2/28ba/0d59/9b00/0691/medium_jpg/string-io.jpg?1414206303 [Accessed 5 August 2016].

Figure 3.19_ Marcelo Gardinetti (2012), Parc de la Villette (Online). Available at: <http://tecne.com/wp-content/gallery/villette-2/villette-13.jpg> [Accessed 5 August 2016].

Figure 3.20_ Eric Pouhier (2006), Cité des Sciences et de l'Industrie (Online). Available at: https://upload.wikimedia.org/wikipedia/commons/5/54/La_cite_des_sciences_2.jpg [Accessed 5 August 2016].

Figure 3.21_ Nich Marketing (2015), Philharmonie de Paris (Online). Available at: <https://upload.wikimedia.org/wikipedia/commons/thumb/f/f3/Philharmonie.jpg/1196px-Philharmonie.jpg> [Accessed 5 August 2016].

Figure 3.22_ Jamie Barras (2011), Conservatoire de Paris (Online). Available at: <https://media.timeout.com/images/100551265/image.jpg> [Accessed

5 August 2016].

Figure 3.23_ Deborah Murphy (2011), Le Jardin du Dragon (Online). Available at: http://damhyul-3s75yv.cloudfront.net/photos/2107/original_Parc%20de%20la%20Villette-Jardin%20du%20Dragon-Paris%20France%20with%20kids-Christophe%20ALARY.jpg?1303616580 [Accessed 5 August 2016].

Figure 3.24_ Atlas Museum (2016), Le jardin des Miroirs (Online). Available at: http://publi-cartmuseum.net/w/images/thumb/1/14/Photo_0-636022930.jpg/357px-Photo_0-636022930.jpg [Accessed 5 August 2016].

Figure 3.25_ Limoges (2016), Le jardin des Ombrés (Online). Available at: http://file.1001shops.com/Articles/1_42.jpg [Accessed 5 August 2016].

Figure 3.26_ Joubert Park Existing (Author, 2016)

Figure 3.27_ Joubert Park Vision (Author, 2016)

Figure 3.28_ Street Edges (Author, 2016, adapted from Johannesburg Development Agency, 2011. Greater Park Station Precinct Urban Design and Heritage Management Framework, Johannesburg: The City of Johannesburg, pp. 61-67.)

Figure 3.29_ Schematic Diagram (Author, 2016)

Figure 3.30_ Individual Diagrams (Author, 2016)

Figure 3.31_ The Everyday and Extraordinary Relationship (Author, 2016)

Figure 3.32_ The Everyday and Extraordinary in Joubert Park (JPG, 2016)

Figure 3.33_ The Urban Archive (Swanepoel, 2016)

Figure 3.34_ The Creative Conservatory (Author, 2016)

Figure 3.35_ Empowering the Everyday (Tayob, 2016)

Figure 3.36_ Characteristics of the Micro Frame-

work (Author, 2016)

Figure 3.37_ Themed Gardens on Site (Author, 2016)

Figure 3.38_ Stock Photo, (2014), South African flag made of colorful splashes (Online). Available at: <http://cdn.xl.thumbs.canstockphoto.com/canstock19005060.jpg> [Accessed 10 October 2016].

Figure 3.39_ Walter Battiss, (N.d.), Imbandulu Bird (Online). Available at: <http://walterbattiss.co.za/certified-prints/> [Accessed 10 October 2016].

Figure 3.40_ Gerard Sekoto, (1943), Boy and the Candle (Online). Available at: <http://www.paintingartsales.com/images/Gerard%20Sekoto/boy-and-the-candle-1943-10252.jpg> [Accessed 10 October 2016].

Figure 3.41_ Willie Bester, (2000), Sara Baartman (Online). Available at: <http://www.williebester.co.za/img/archive/saatjie.jpg> [Accessed 10 October 2016].

Figure 3.42_ Diane Victor, (2014), Skagen (Online). Available at: <http://davidkrutprojects.com/cms/wp-content/uploads/2014/08/Victor-Untitled-2014-Drypoint-HR.jpg> [Accessed 10 October 2016].

Figure 3.43_ William Kentridge, (1999), Drawing from Stereoscope (Online). Available at: https://media2.wnyc.org/i/628/480/c/80/photologue/photos/6_.jpg [Accessed 10 October 2016].

Figure 3.44_ South African History Online, (2015), Miriam Makeba: Activist on Two Fronts (Online). Available at: <http://www.sahistory.org.za/people/miriam-makeba> [Accessed 10 October 2016].

Figure 3.45_ Phase 1 - Exhibition Park (JPG, 2016)

Figure 3.46_ Phase 1 - Exhibition Park (Author, 2016)

Figure 3.47_ Phase 2 - Creative Park (JPG, 2016)

Figure 3.48_ Phase 2 - Creative Park (Author,

2016)

Figure 3.49_ Phase 3 - Gaining Ground (JPG, 2016)

Figure 3.40_ Phase 3 - Gaining Ground (Author, 2016)

Figure 3.51_ Phase 4 - City Park (JPG, 2016)

Figure 3.52_ Phase 4 - City Park (Author, 2016)

Figure 3.53_ The Existing vs the Vision (JPG, 2016)

Chapter 04 THEORY

Figure 4.1_ Project for Public Spaces, (2016), *What Makes a Successful Place?* (Online). Available at: <http://i0.wp.com/www.pps.org/wp-content/uploads/2009/12/diagrams-03232015-08.png?resize=660%2C510> [Accessed 10 May 2016].

Figure 4.2_ The components constituting the creation of a sense of place (Author, 2016, adapted from Parsaee, M., Parva, M. & Karimi, B., 2015. *Space and place concepts analysis based on semiology approach in residential architecture : The case study of traditional city of Bushehr, Iran.* HBRC Journal, Volume 11(Issue 3), p. 368–383.)

Figure 4.3_ Mindmap for meaningful place in Joubert Park (Author, 2016)

Figure 4.4_ Project for Public Spaces, (2016), *What Makes a Successful Place?* (Online). Available at: <http://i0.wp.com/www.pps.org/wp-content/uploads/2009/12/diagrams-03232015-08.png?resize=660%2C510> [Accessed 10 May 2016].

Figure 4.5_ Creative Placemaking (Author, 2016, Content from Vazquez, L. (2012). *Creative*

Placemaking: Integrating Community, cultural and economic development. The National Consortium for Creative Placemaking.

Figure 4.6_ Seattle - The City of Music (Author, 2016)

Figure 4.7_ Facets of the Creative Economy (Author, 2016)

Figure 4.8_ Components of Creative Clusters (Author, 2016, adapted from Ontario Ministry of Tourism, (2016), *The Broader Creative Cluster* (Online). Available at: http://www.mtc.gov.on.ca/en/creative_cluster/Figure-1.jpg [Accessed 10 May 2016].)

Figure 4.9_ The City (Author, 2016)

Figure 4.10_ Johannesburg - The Creative City (Author, 2016)

Figure 4.11_ UglyMely, (2013), *Street Art @ New York* (Online). Available at: <http://www.uglymely.com/wp-content/uploads/2013/05/street-art-new-york-8.jpg> [Accessed 14 July 2016].

Figure 4.12_ Eva Koltunova, (2015), *Amazing Amsterdam Street Art* (Online). Available at: <http://odenzavacations.files.wordpress.com/2015/02/30da445cbbd8c4395622cb5c90b1dffd.jpg> [Accessed 6 September 2016].

Figure 4.13_ Adam Gray, (2012), *Queen Ziggy Stardust* (Online). Available at: http://i.telegraph.co.uk/multimedia/archive/02238/queen-ziggy_2238705b.jpg [Accessed 14 July 2016].

Figure 4.14_ Paul Etard, (2016), *Hendrik Beikirch 'Tracing Marrakech'* (Online). Available at: <https://streetartnews.net/wp-content/uploads/2016/04/Hendrick-03.jpg> [Accessed 10 May 2016].

Figure 4.15_ Tangible/Intangible (Author, 2016)

Figure 4.16_ Cultural continuity (Author, 2016)

Figure 4.17_ The palimpsest of Joubert Park created from JAG archives' heritage maps (Author,

2016)

Figure 4.18_ Constitution Hill, (2015), *Constitution Hill* (Online). Available at: <https://www.constitutionhill.org.za/site/wp-content/themes/constitutionhill/images/slider2.jpg> [Accessed 18 August 2016].

Figure 4.19_ Constitution Hill, (2015), *Constitution Hill* (Online). Available at: <https://www.constitutionhill.org.za/site/wp-content/themes/constitutionhill/images/slider4.jpg> [Accessed 18 August 2016].

Figure 4.20_ Constitution Hill, (2015), *Constitution Hill* (Online). Available at: <https://www.constitutionhill.org.za/site/wp-content/themes/constitutionhill/images/slider6.jpg> [Accessed 18 August 2016].

Figure 4.21_ Newtown Heritage Trail (2016), *Turbine Hall* (Online). Available at: http://www.newtown.co.za/heritage/images/auto/th_geR-J6XT37XfLexSs2010052118.jpg [Accessed 2 September 2016].

Figure 4.22_ The Forum Company (2009), *Turbine Hall* (Online). Available at: <http://crowdtalk.files.wordpress.com/2009/10/p1020760.jpg> [Accessed 2 September 2016].

Figure 4.23_ Lad & Lass Photography (2014), *Turbine Hall Wedding* (Online). Available at: <http://ruffledmedia.ruffled.netdna-cdn.com/wp-content/uploads/c-turbine-hall-wedding-85.jpg> [Accessed 2 September 2016].

Figure 4.24_ Turbine Art Fair (2014), *Event Banner* (Online). Available at: <http://1.bp.blogspot.com/-ELgoDnw428A/U7OURUuUTHI/AAAAAAAAAMI/nEbdkim9d64/s1600/TAF+web+banner.jpg> [Accessed 2 September 2016].

Figure 4.25_ Sketch (Author, 2016)

Chapter 05 THE JOUBERT PARK CONSERVATORY COMPLEX

Figure 5.1_ Sketch of the back of the Conservatory (Author, 2016)

Figure 5.2_ Watercolour of Joubert Park heritage structures (Author, 2016)

Figure 5.3_ Sketch of the Conservatory (Author, 2016)

Figure 5.4_ Diagrammatic map of central Johannesburg indicating Joubert Park and the direct connections to nearby points of public interest (Author, 2016)

Figure 5.5_ Google Earth perspectives of Joubert Park, highlighting the Conservatory and noting edge conditions (Author, 2016) adapted from Google Earth perspectives of Joubert Park, highlighting the Conservatory (Google Earth Pro 2016. Joubert Park 26°11'42.4"S 28°02'45.9"E. 3D Buildings data layer, viewed 15 February 2016.)

Figure 5.6_ Micro mapping the physical fabric of the site (Author, 2016)

Figure 5.7_ Panoramic photographs of the site with key maps (Author, 2016)

Figure 5.8_ Photographic site study (Author, 2016)

Figure 5.9_ Diagrams illustrating the changes in the Conservatory Complex's physical fabric (Author, 2016)

Figure 5.10_ Photographs depicting the current physical fabric on the site and assessing condition and significance (Author, 2016)

Figure 5.11_ The architecture, context, and current condition of the propagation tunnels (Author, 2016)

Figure 5.12_ The architecture, context, and current condition of the Conservatory (Author, 2016)

Figure 5.13_ Photographic Timeline of the Conservatory (Author, 2016)

Figure 5.14_ Sketch of the Conservatory and a large tree (Author, 2016)

Figure 5.15_ Diagram: Zoning (Author, 2016)

Figure 5.16_ Diagram: Significance and Landmarks (Author, 2016)

Figure 5.17_ Diagram: Trees (Author, 2016)

Figure 5.18_ Diagram: Site Geometry (Author, 2016)

Figure 5.19_ Diagram: Access (Author, 2016)

Figure 5.20_ Diagram: Movement (Author, 2016)

Figure 5.21_ CBS Architects (2001). *Masterplan for the GHP.*

Figure 5.22_ The two typologies of a conservatory (Author, 2016)

Figure 5.23_ *Defining a Conservatory* (Author, 2016, adapted from Curl, J. S., 2006. *Oxford Dictionary of Architecture and Landscape Architecture.* 2nd ed. s.l.:Oxford University Press. P. 194)

Figure 5.24_ George Munday, (2015), *Palm House* (Online). Available at: http://media.architecturaldigest.com/photos/55e76712302ba71f3016642e/master/w_385,c_limit/dam-images-architecture-2015-08-beautiful-greenhouses-most-beautiful-greenhouses-11.jpg [Accessed 24 May 2016].

Figure 5.25_ RGB Kew, (2015), *Temperate House* (Online). Available at: http://media.architecturaldigest.com/photos/55e7670cd709ad62e8e89dd/master/w_385,c_limit/dam-images-architecture-2015-08-beautiful-greenhouses-most-beautiful-greenhouses-03.jpg [Accessed 24 May 2016].

Figure 5.26_ Jens Astrup, (2015), *The Palm House* (Online). Available at: http://media.architecturaldigest.com/photos/55e7670fcd709ad62e8e89e4/master/w_385_c_limit/dam-images-architecture-2015-08-beautiful-greenhouses-most-beautiful-greenhouses-04.jpg [Accessed 24 May 2016].

Figure 5.27_ Olivier Poet, (2015), *Royal Greenhouses of Laeken* (Online). Available at: http://media.architecturaldigest.com/photos/55e76710302ba71f30166414/master/w_385_c_limit/dam-images-architecture-2015-08-beautiful-greenhouses-most-beautiful-greenhouses-06.jpg [Accessed 24 May 2016].

Figure 5.28_ Hannah Martin, (2015), *Palm House* (Online). Available at: http://media.architecturaldigest.com/photos/55e7670e302ba71f301663fe/master/w_385_c_limit/dam-images-architecture-2015-08-beautiful-greenhouses-most-beautiful-greenhouses-01.jpg [Accessed 24 May 2016].

Figure 5.29_ Gayleen Froese, (2015), *Muttart Conservatory* (Online). Available at: http://media.architecturaldigest.com/photos/55e76711cd709ad62e8e89f9/master/w_385_c_limit/dam-images-architecture-2015-08-beautiful-greenhouses-most-beautiful-greenhouses-07.jpg [Accessed 24 May 2016].

Figure 5.30_ Adelaide Botanical Gardens, (2015), *Bicentennial Conservatory* (Online). Available at: http://media.architecturaldigest.com/photos/55e76710cd709ad62e8e89ec/master/w_385_c_limit/dam-images-architecture-2015-08-beautiful-greenhouses-most-beautiful-greenhouses-05.jpg [Accessed 24 May 2016].

Figure 5.31_ Hannah Martin, (2015), *Greenhouses in the Botanical Garden of Curitiba* (Online). Available at: http://media.architecturaldigest.com/photos/55e76711cd709ad62e8e8a00/master/w_385_c_limit/dam-images-architecture-2015-08-beautiful-greenhouses-most-beautiful-greenhouses-08.jpg [Accessed 24 May 2016].

Figure 5.32_ CNP Collection, (2015), *Tropicarium*

(Online). Available at: http://media.architecturaldigest.com/photos/55e7670ecd709ad62e8e89d8/master/w_385_c_limit/dam-images-architecture-2015-08-beautiful-greenhouses-most-beautiful-greenhouses-02.jpg [Accessed 24 May 2016].

Figure 5.33_ Carlodell (2012), *Milan Conservatory Giuseppe Verdi* (Online). Available at: https://upload.wikimedia.org/wikipedia/commons/thumb/8/80/Conservatorio_Giuseppe_Verdi_%28Milan%29%2C_cortile%2C_ex_chiostro_di_Santa_Maria_della_Passione_01.JPG/1024px-Conservatorio_Giuseppe_Verdi_%28Milan%29%2C_cortile%2C_ex_chiostro_di_Santa_Maria_della_Passione_01.JPG [Accessed 22 July 2016].

Figure 5.34_ Packa (2007), *The Prague Conservatoire* (Online). Available at: https://upload.wikimedia.org/wikipedia/commons/thumb/1/19/Na_Rejdi%C5%A1ti_str%2C_Prague_Old_Town.jpg/1024px-Na_Rejdi%C5%A1ti_str%2C_Prague_Old_Town.jpg [Accessed 22 July 2016].

Figure 5.35_ *Musical Opinion* (2016), *The University of Music and Performing Arts Vienna* (Online). Available at: <http://www.musicalopinion.com/images/vienna-university-music.jpg> [Accessed 22 July 2016].

Figure 5.36_ Christian de Portzamparc (1990), *Conservatoire de Paris* (Online). Available at: <http://en.academic.ru/pictures/en-wiki/50/280px-Cnsmdd.jpg> [Accessed 22 July 2016].

Figure 5.37_ Minke Wagenaar (2016), *Conservatorium van Amsterdam* (Online). Available at: http://www.architravel.com/architravel_wp/wp-content/uploads/2013/01/conservatorium-van-amsterdam_main-630x315.jpg [Accessed 22 July 2016].

Figure 5.38_ *One Office Architects* (2009), *Juilliard School Expansion* (Online). Available at: http://www.oneofficearchitects.com/wp-content/uploads/2014/06/JSM_02_Ext_web.jpg [Accessed 22 July 2016].

Figure 5.39_ Eduard Hueber (2011), *The Royal Conservatory* (Online). Available at: http://images.adsttc.com/media/images/5014/a61f/28ba/0d39/5000/0b1d/large_jpg/stringio.jpg?1414421075 [Accessed 22 July 2016].

Figure 5.40_ Ipswich Studios (2016), *Boston Conservatory at Berklee* (Online). Available at: <http://acdn.architizer.com/thumbnails-PRODUCTION/12/4d/124de29f35bf41355894c046ee569b2e.jpg> [Accessed 22 July 2016].

Figure 5.41_ Audrey Cerdan (2015), *Nantes Conservatory* (Online). Available at: <http://www.escaut.org/sites/default/files/styles/projects-thumbs/public/projects/0793-12.jpg?itok=V-veeTUzx> [Accessed 22 July 2016].

Figure 5.42_ *Sequence of the Conservatory's Past, Present & Future* (Author, 2016)

Figure 5.43_ *Sketch of the Conservatory's interior* (Author, 2016)

Chapter 06 PROGRAMME

Figure 6.1_ Summers (2013), *Cooling Tower Sunset* (Online). Available at: <http://i0.wp.com/2summers.net/wp-content/uploads/2013/01/cooling-towers-sunset.jpg?resize=150%2C150> [Accessed 2 September 2016].

Figure 6.2_ Author, 2016, *Adapted from Spugnardi Design* (2013), *South African Baskets* (Online). Available at: <http://i.yimg.com/g/images/spaceout.gif> [Accessed 2 September 2016].

Figure 6.3_ *Brainwave* (Author, 2016)

Figure 6.4_ *Emblem of the CC* (Author, 2016)

Figure 6.5_ Kelvin Brown (N.d.), *Johannesburg Graffiti* (Online). Available at: <http://www.photoshelter.com/gal-kimg-get/G00002YyYerrH-6KU/s/950> [Accessed 24 July 2016].

Figure 6.6_ *Cultural Literacy* (Author, 2016)

Figure 6.7_ *Creative Thought* (Author, 2016)

Figure 6.8_ *Core of the CC* (Author, 2016)

Figure 6.9_ Nina Callaghan (2014), *LeadSA: Children's Radio Foundation* (Online). Available at: <http://imagecdn.cloudapp.net/prime-media-broadcasting/image/upload/v1447890824/CRF-young-reporter-Monique-interviewing-a-community-member-in-Atlantis.jpg> [Accessed 24 July 2016].

Figure 6.10_ *Joubert Park Crèche* (Author, 2016)

Figure 6.11_ *Programmatic Intentions* (Author, 2016)

Figure 6.12_ *Kultuuri Katel* (2016), *Logo: Kultuuri Katel* (Online). Available at: <http://kultuurikatel.ee/wp-content/themes/kultuurikatel/img/logo.svg> [Accessed 26 July 2016].

Figure 6.13_ *Centre for Creative Arts* (2016), *Logo: Centre for Creative Arts* (Online). Available at: https://scontent.fjnb4-1.fna.fbcdn.net/v/t1.0-9/11763_485501511521380_249709573_n.jpg?oh=9a543c6fdeeb3ff4b210270c-026b9ee0&oe=586946D0 [Accessed 26 July 2016].

Figure 6.14_ *The Sibikwa Art Centre* (2016), *Logo: The Sibikwa Art Centre* (Online). Available at: <http://www.sibikwa.co.za/> [Accessed 26 July 2016].

Figure 6.15_ *Ekhaya Multi Arts Centre* (2016), *Logo: Ekhaya Multi Arts Centre* (Online). Available at: <http://kcap.co.za/new/wp-content/uploads/2015/08/KCAP-logo-2012-white2.png> [Accessed 26 July 2016].

Figure 6.16_ *Creative Conservatory Logo* (Author, 2016)

Figure 6.17_ *JAG* (2016), *Logo: JAG* (Online). Available at: https://scontent.fjnb4-1.fna.fbcdn.net/v/t1.02042902_10154282576520968_6086270178610770595_n.png?oh=beca0f5633e0e6a5c21b-107197970f7b&oe=586726EC [Accessed 30 July 2016].

Figure 6.18_ *Joburg City Parks* (2016), *Logo: Joburg City Parks* (Online). Available at: <http://www.juma.co.za/wp-content/uploads/2016/03/jhb-city-parks-logo-300x250.png> [Accessed 30 July 2016].

Figure 6.19_ *The City of Johannesburg* (2016), *Logo: The City of Johannesburg* (Online). Available at: <http://vansa.co.za/Projects/Past/joburg-city-logo.jpg> [Accessed 30 July 2016].

Figure 6.20_ *Tanja Gershon* (2015), *Performance Power* (Online). Available at: http://www.arpajournal.net/wp-content/uploads/2015/07/GERSHON_fig-7.jpg [Accessed 1 August 2016].

Figure 6.21_ *Management System Diagram* (Author, 2016)

Figure 6.22_ *Outdoor Facilities* (Author, 2016)

Figure 6.23_ *Indoor Facilities* (Author, 2016)

Figure 6.24_ *Relationships between the Various Facilities* (Author, 2016)

Figure 6.25_ *Event Collage* (Author, 2016)

Figure 6.26_ *The Trinity Session* (2015), *Superdream* (Online). Available at: <http://isitok.net/superdream/wp-content/uploads/2014/06/sa03-224x300.jpg> [Accessed 1 September 2016].

Figure 6.27_ *The Trinity Session* (2015), *Superdream* (Online). Available at: <http://isitok.net/superdream/wp-content/uploads/2014/06/sa03-300x225.jpeg> [Accessed 1 September 2016].

Chapter 07 DESIGN DEVELOPMENT

Figure 6.28_Dudu Malingane (2014), *The Power of Film to Transform Lives and Communities: A Festival of African Storytelling, Film & Design* (Online). Available at: <http://www.okayafrica.com/wp-content/uploads/the-power-of-film-to-transform-lives-and-communities-a-festival-of-african-storytelling-film-and-design-south-africa-2014-cape-town-design-capital.jpg> [Accessed 1 September 2016].

Figure 6.29_TJ Lemon (2000), *The Jeppe Hostel Swankers* (Online). Available at: <https://books.google.co.za/books?id=9lcn62brt-GQC&pg=PA306&lpg=PA306&dq=afropolis+oswenka&source=bl&ots=14lyowuvPO&sig=D-hetKDmwne96oT3DSx-yKITIC1Y&hl=en&sa=X&ved=0ahUKUwJlpX2w93PAhXELcAKHTgFD-5QQ6AEIHDAA#v=onepage&q=afropolis%20oswenka&f=false> [Accessed 1 September 2016].

Figure 6.30_Teagan Cunniffe (2013), *oSwenka* (Online). Available at: <https://www.youtube.com/watch?v=LGhiYFYbnMw> [Accessed 1 September 2016].

Figure 6.31_African Dreamin' Productions (2015), *Smash Multimedia and Poetry* (Online). Available at: https://scontent.xx.fbcdn.net/hphotos-xtp1/t31.0-8/s72020/11807264_934836246563247_188917155430032179_o.jpg [Accessed 1 September 2016].

Figure 6.32_Freedom Park (2016), *Ungasali Storytelling Festival* (Online). Available at: <https://pbs.twimg.com/media/CctFGuqUsAAneIN.jpg> [Accessed 1 September 2016].

Figure 6.33_African Tip Tours (2016), *Green-market Square Craft* (Online). Available at: <http://www.plusto.com/images/plusto/web-sites/0/6/1/9/3/images/galleries//725af391-bd9e-4ca4-a868-d67b19d5ba79.jpg> [Accessed 1 September 2016].

Figure 6.34_Artists under the Sun (2014), *Artists under the Sun* (Online). Available at: [Accessed 1 September 2016].

Figure 6.35_Programmatic Vision (Author, 2016)

Figure 7.1_Model progression (Author, 2016)

Figure 7.2_Sketch design drivers (Author, 2016)

Figure 7.3_Sketch (Author, 2016)

Figure 7.4_The urban vision for Johannesburg as the Cultural Capital of SA (Author, 2016)

Figure 7.5_Project for Public Spaces, (2016), *What Makes a Successful Place?* (Online). Available at: <http://i0.wp.com/www.pps.org/wp-content/uploads/2009/12/diagrams-03232015-08.png?resize=660%2C510> [Accessed 10 May 2016].

Figure 7.6_Context sketch mapping (Author, 2016)

Figure 7.7_Programme elements (Author, 2016)

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

Figure 7.9_The reinterpretation of the Conservatory to be the heart of the CC (Author, 2016)

Figure 7.10_Diagrams illustrating the difference between narrow and broad creativity (Author, 2016)

Figure 7.11_Conceptual image illustrating reinterpretation of heritage with new spatial explorations (Author, 2016)

Figure 7.12_The Victorian Conservatory (JAG Archives, 2016)

Figure 7.13_Jade Swanepoel (2016), *The Memory Archive*

Figure 7.14_Steven Holl Architects (2008), *The*

Nelson-Atkins Museum of Art (Online). Available at: <http://www.stevenholl.com/media/files/Nelson-Atkins/RH1625-11---W-PROJECT-HORIZ.jpg> [Accessed 3 September 2016].

Figure 7.15_Steven Holl Architects (2008), *The Nelson-Atkins Museum of Art* (Online). Available at: <http://www.stevenholl.com/media/files/Nelson-Atkins/RH1625-128---W-PROJECT-HORI.jpg> [Accessed 3 September 2016].

Figure 7.16_Steven Holl Architects (2008), *The Nelson-Atkins Museum of Art* (Online). Available at: http://www.stevenholl.com/media/files/Nelson-Atkins/2006831NAMA_-0004new---W-PR.jpg [Accessed 3 September 2016].

Figure 7.17_Steven Holl Architects (2008), *The Nelson-Atkins Museum of Art* (Online). Available at: http://www.stevenholl.com/media/files/Nelson-Atkins/2006831NAMA_-0668-SHA---W-P.jpg [Accessed 3 September 2016].

Figure 7.18_Steven Holl Architects (2008), *The Nelson-Atkins Museum of Art* (Online). Available at: http://www.stevenholl.com/media/files/Nelson-Atkins/2006831NAMA_-0389---W-PROJE.jpg [Accessed 3 September 2016].

Figure 7.19_Steven Holl Architects (2008), *Ground Floor Plan: The Nelson-Atkins Museum of Art* (Online). Available at: http://images.adsttc.com/media/images/500e/f2a6/28ba/0d0c/c700/Of20/large_jpg/stringio.jpg?1413951862 [Accessed 3 September 2016].

Figure 7.20_Steven Holl Architects (2008), *Eastern Elevation: The Nelson-Atkins Museum of Art* (Online). Available at: http://images.adsttc.com/media/images/500e/f2b0/28ba/0d0c/c700/Of23/large_jpg/stringio.jpg?1413951869 [Accessed 3 September 2016].

Figure 7.21_Steven Holl Architects (2008), *Longitudinal Section: The Nelson-Atkins Museum of Art* (Online). Available at: http://images.adsttc.com/media/images/500e/f2ca/28ba/0d0c/c700/Of2a/large_jpg/stringio.jpg?1413951885 [Accessed 3 September 2016].

Figure 7.22_Weiss/Manfredi (2012), *The Brooklyn Botanical Garden Visitors Centre* (Online). Available at: <http://www.weissmanfredi.com/media/files/938278d053b115b739651874999a4fd2.jpg> [Accessed 3 September 2016].

Figure 7.23_Weiss/Manfredi (2012), *The Brooklyn Botanical Garden Visitors Centre* (Online). Available at: <http://www.weissmanfredi.com/media/files/dca96fdef779e0ec2beb101624e32c1a.jpg> [Accessed 3 September 2016].

Figure 7.24_Weiss/Manfredi (2012), *The Brooklyn Botanical Garden Visitors Centre* (Online). Available at: <http://www.weissmanfredi.com/media/files/dba7c81a31b00efe7b66f71e84014c47.jpg> [Accessed 3 September 2016].

Figure 7.25_Weiss/Manfredi (2012), *Ground Floor Plan: The Brooklyn Botanical Garden Visitors Centre* (Online). Available at: <http://cdnassets.hw.net/dims4/GG/b593618/2147483647/resize/850x-3E/quality/90/?url=http%3A%2F%2Fcdnassets.hw.net%2F25%2F7b%2F2F3e05e5ad4091b-c8a1029311f3197%2Ftmp3782-2et-mp-tcm20-1440645.jpg> [Accessed 3 September 2016].

Figure 7.26_Weiss/Manfredi (2012), *Roof Plan: The Brooklyn Botanical Garden Visitors Centre* (Online). Available at: <http://hdka.hr/wordpress/wp-content/uploads/2012/09/BrooklynBotanicGarden10.jpg> [Accessed 3 September 2016].

Figure 7.27_Fernando Guerra (2013), *Casa Redux* (Online). Available at: http://studiomk27.com.br/wordpress/wp-content/uploads/2014/05/image_15-1207x669.jpg [Accessed 5 September 2016].

Figure 7.28_Fernando Guerra (2013), *Casa Redux* (Online). Available at: http://studiomk27.com.br/wordpress/wp-content/uploads/2013/01/image_7-754x247.jpg [Accessed 5 September 2016].

Figure 7.29_Studio MK27 (2013), *Ground Floor Plan: Casa Redux* (Online). Available at: <http://images.adsttc.com/>

[media/images/5459/a3c8/e58e/cef6/0e00/00b4/large_jpg/mk27_redux_plans-1_copy.jpg?1415160744](http://images.adsttc.com/media/images/5459/a3c8/e58e/cef6/0e00/00b4/large_jpg/mk27_redux_plans-1_copy.jpg?1415160744) [Accessed 5 September 2016].

Figure 7.30_Studio MK27 (2013), *Longitudinal Section: Casa Redux* (Online). Available at: http://images.adsttc.com/media/images/5459/a3a7/e58e/cef6/0e00/00b3/large_jpg/mk27_redux_plans-2_copy.jpg?1415160733 [Accessed 5 September 2016].

Figure 7.31_Studio MK27 (2013), *Cross Section: Casa Redux* (Online). Available at: http://images.adsttc.com/media/images/5459/a3bf/e58e/ce47/9000/00ab/large_jpg/mk27_redux_plans2-2_copy.jpg?1415160748 [Accessed 5 September 2016].

Figure 7.32_Studio MK27 (2013), *Diagram: Casa Redux* (Online). Available at: http://images.adsttc.com/media/images/5459/a41d/e58e/ce51/8700/00c6/large_jpg/mk27_redux_plans-3_copy.jpg?1415160791 [Accessed 5 September 2016].

Figure 7.33_Studio MK27 (2013), *Sketch: Casa Redux* (Online). Available at: http://studiomk27.com.br/wordpress/wp-content/uploads/2013/01/croqui_final1-301x164.jpg [Accessed 5 September 2016].

Figure 7.34_Iwan Baan (2014), *The High Line: Western view along the Rail Track Walks* (Online). Available at: http://images.adsttc.com/media/images/5421/94d8/c07a/80a9/9100/00a4/large_jpg/1407_High_Line_At_The_Rail_Yards_Photo_By_Iwan_Baan.jpg?1411486908 [Accessed 10 September 2016].

Figure 7.35_Iwan Baan (2014), *The High Line: Entrance onto the High Line* (Online). Available at: https://lh5.googleusercontent.com/-53_1FWaRoQU/TUaV7SCRzI/AAAAAAAAgKQ/iaWpORWMPv0/s1600/High+Line+By+James+Corner+Field+Operations+and+Diller+Scofidio+%252B+Renfro-Photo+%252C%252A9+Jeff+GoldbergEsto%252C%252C%252A9+Iwan+Baan-20.jpg

[Accessed 10 September 2016].

Figure 7.36_ Iwan Baan (2014), The High Line (Online). Available at: <http://iwan.com/wp-content/uploads-iwan/2013/07/DSR-Highline-09-06-45941-307x460.jpg> [Accessed 10 September 2016].

Figure 7.37_ Iwan Baan (2014), The High Line (Online). Available at: http://images.adsttc.com/media/images/55f6/fc33/adbc/01bd/4b00/045d/slideshow/1543380236_dsr-highline-09-06-4804.jpg?1442249756 [Accessed 10 September 2016].

Figure 7.38_ Iwan Baan (2014), The High Line: Washington Grasslands, between Little West 12th Street and West 13th Street, looking South (Online). Available at: http://images.adsttc.com/media/images/5421/a81e/c07a/8086/fc00/00f9/large_jpg/Washington_Grasslands.jpg?1411491818 [Accessed 10 September 2016].

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

Figure 7.40_ Courtyard exploration (Author, 2016)

Figure 7.41_ Sketch (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_ Sketch (Author, 2016)

Figure 7.46_ Sketch (Author, 2016)

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

Figure 7.48_ Sketch (Author, 2016)

Figure 7.49_ Points of entry (Author, 2016)

Figure 7.50_ Sketch (Author, 2016)

Figure 7.51_ Sketch (Author, 2016)

Figure 7.52_ Model (Author, 2016)

Figure 7.53_ Model (Author, 2016)

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

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)

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

Figure 7.64_ Ground Floor Plan (Author, 2016)

Figure 7.65_ East Elevation (Author, 2016)

Figure 7.66_ 1:200 Model (Author, 2016)

Figure 7.67_ Section A (Author, 2016)

Figure 7.68_ Sketches (Author, 2016)

Figure 7.69_ 1:200 Model (Author, 2016)

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_ Sketch (Author, 2016)

Figure 7.79_ Landscaping exploration (Author, 2016)

Figure 7.80_ 1:500 Model (Author, 2016)

Figure 7.81_ 1:500 Model (Author, 2016)

Figure 7.82_ Sketch (Author, 2016)

Figure 7.83_ 1:500 Model (Author, 2016)

Figure 7.84_ Site Plan Diagram (Author, 2016)

Figure 7.85_ Plan exploration (Author, 2016)

Figure 7.86_ Western Elevation (Author, 2016)

Figure 7.87_ Section (Author, 2016)

Figure 7.88_ Sketchbook notes (Author, 2016)

Figure 7.89_ Northern Elevation (Author, 2016)

Figure 7.90_ Section (Author, 2016)

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)

Figure 7.97_ 1:200 Model (Author, 2016)

Figure 7.98_ 1:200 Model (Author, 2016)

Figure 7.99_ Aerial view (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)

Figure 7.105_ Courtyard perspective (Author, 2016)

Figure 7.106_ Aerial view (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)

Figure 7.111_ Aerial view (Author, 2016)

Figure 7.112_ Diagrammatic conceptual explorations (Author, 2016)

Figure 7.113_ Ground Floor Plan (Author, 2016)

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)

Figure 7.118_ Sketch development (Author, 2016)

Chapter 08 FINAL DESIGN

Figure 8.1_ (Author, 2016)

Figure 8.2_ Aerial Perspective (Author, 2016)

Figure 8.3_ The Power of 10: Region (Author, 2016)

Figure 8.4_ The Power of 10: Destination (Author, 2016)

Figure 8.5_ The Power of 10: Place (Author, 2016)

Figure 8.6_ New & Existing Architecture (Author, 2016)

Figure 8.7_ Geometry & Ratios (Author, 2016)

Figure 8.8_ Access (Author, 2016)

Figure 8.9_ Programme Placement (Author, 2016)

Figure 8.10_ Site Plan (Author, 2016)

Figure 8.11_ First Floor Plan (Author, 2016)

Figure 8.12_ Ground Floor Plan (Author, 2016)

Figure 8.13_ North Longitudinal Section (Author, 2016)

Figure 8.14_ West Longitudinal Section (Author, 2016)

Figure 8.15_ Cross Section (Author, 2016)

Figure 8.16_ North Elevation (Author, 2016)

Figure 8.17_ South Elevation (Author, 2016)

Figure 8.18_ Perspective Key (Author, 2016)

Figure 8.19_ Wolmarans Street (Author, 2016)

Figure 8.20_ Main Entrance (Author, 2016)

Figure 8.21_ CC Knowledge Centre (Author, 2016)

Figure 8.22_ The Black Box as a Theatre Space (Author, 2016)

Figure 8.23_ The Black Box as a Dance Studio (Author, 2016)

Figure 8.24_ A Luncheon Event (Author, 2016)

Figure 8.25_ A Gathering Space (Author, 2016)

Figure 8.26_ An Art Exhibition (Author, 2016)

Figure 8.27_ A Runway Space (Author, 2016)

Figure 8.29_ Sketch (Author, 2016)

Chapter 09 TECHNOLOGICAL RESOLUTION

Figure 9.1_ Exploded Axonometric (Author, 2016)

Figure 9.2_ Owen (2012), *The Four Elements of Architecture* (Online). Available at: http://positivedialogues.aaschool.ac.uk/wp-content/uploads/2012/02/HEARTH_SMALL.jpg [Accessed 12 September 2016].

Figure 9.3_ Tectonic Concept (Author, 2016)

Figure 9.4_ Helene Binet –(N.d.), *Landscape Formation One* (Online). Available at: http://www.zaha-hadid.com/wp-content/files_mf/cache/

[th_ded8de6ef54c061a659828a26028150e_943_lands_phot_02.jpg](http://www.zaha-hadid.com/wp-content/files_mf/cache/th_ded8de6ef54c061a659828a26028150e_943_lands_phot_02.jpg) [Accessed 2 October 2016].

Figure 9.5_ Zaha Hadid (1996), *Landscape Formation One* (Online). Available at: http://www.zaha-hadid.com/wp-content/files_mf/cache/th_ded8de6ef54c061a659828a26028150e_943_lands_sket_05.jpg [Accessed 2 October 2016].

Figure 9.6_ Helene Binet (N.d.), *Landscape Formation One* (Online). Available at: http://www.zaha-hadid.com/wp-content/files_mf/cache/th_ded8de6ef54c061a659828a26028150e_943_lands_phot_02.jpg [Accessed 2 October 2016].

Figure 9.7_ Zaha Hadid (1996), *Landscape Formation One: Elevation* (Online). Available at: http://www.zaha-hadid.com/wp-content/files_mf/cache/th_ded8de6ef54c061a659828a26028150e_943_lands_sket_05.jpg [Accessed 2 October 2016].

Figure 9.8_ Zaha Hadid (1996), *Landscape Formation One: Roof Plan* (Online). Available at: http://www.zaha-hadid.com/wp-content/files_mf/cache/th_ded8de6ef54c061a659828a26028150e_943_lands_sket_05.jpg [Accessed 2 October 2016].

Figure 9.9_ Zaha Hadid (1996), *Landscape Formation One: Cross Section* (Online). Available at: http://www.zaha-hadid.com/wp-content/files_mf/cache/th_ded8de6ef54c061a659828a26028150e_943_lands_sket_05.jpg [Accessed 2 October 2016].

Figure 9.10_ Zaha Hadid (1996), *Landscape Formation One: Longitudinal Section* (Online). Available at: http://www.zaha-hadid.com/wp-content/files_mf/cache/th_ded8de6ef54c061a659828a26028150e_943_lands_sket_05.jpg [Accessed 2 October 2016].

Figure 9.11_ Junya Ishigami + associates (2008), *KAIT* (Online). Available at: http://archeyes.com/wp-content/uploads/2016/01/junya_007.jpg

[Accessed 4 October 2016].

Figure 9.12_ Junya Ishigami + associates (2008), *KAIT* (Online). Available at: [Accessed 4 October 2016].

Figure 9.13_ Junya Ishigami + associates (2008), *KAIT* (Online). Available at: <http://archeyes.com/wp-content/uploads/2016/01/junya.jpg> [Accessed 4 October 2016].

Figure 9.14_ Junya Ishigami + associates (2008), *KAIT: Plan* (Online). Available at: <http://archeyes.com/wp-content/uploads/2016/01/junya1.jpg> [Accessed 4 October 2016].

Figure 9.15_ Junya Ishigami + associates (2008), *KAIT: Section* (Online). Available at: http://archeyes.com/wp-content/uploads/2016/01/junya_005.jpg [Accessed 4 October 2016].

Figure 9.16_ Foster + Partners (2006), *Hearst Tower: Sectional Perspective* (Online). Available at: <http://www.fosterandpartners.com/media/1705491/img4.jpg> [Accessed 4 October 2016].

Figure 9.17_ Foster + Partners (2006), *Hearst Tower* (Online). Available at: <http://www.fosterandpartners.com/media/1705436/img2.jpg> [Accessed 4 October 2016].

Figure 9.18_ Foster + Partners (2006), *Hearst Tower* (Online). Available at: <http://www.fosterandpartners.com/media/1705431/img1.jpg> [Accessed 4 October 2016].

Figure 9.19_ Foster + Partners (2006), *Hearst Tower* (Online). Available at: <http://www.fosterandpartners.com/media/1705476/img10.jpg> [Accessed 4 October 2016].

Figure 9.20_ Structural Concept (Author, 2016)

Figure 9.21_ Structural Informants (Author, 2016)

Figure 9.22_ Conservatory Informant (Author, 2016)

Figure 9.23_ Park Informant (Author, 2016)

Figure 9.24_ City Informant (Author, 2016)

Figure 9.25_ Exploded Axonometric (Author, 2016)

Figure 9.26_ Holm Jordaan Architects (2010), *DBSA Welcome Centre* (Online). Available at: http://www.holmjordaan.co.za/main/cms/uploads/DBSAWelcomeCentre_photo_2_thumb.jpg [Accessed 20 September 2016].

Figure 9.27_ Holm Jordaan Architects (2010), *DBSA Welcome Centre* (Online). Available at: http://www.holmjordaan.co.za/main/cms/uploads/DBSAWelcomeCentre_photo_thumb.jpg [Accessed 20 September 2016].

Figure 9.28_ Holm Jordaan Architects (2010), *DBSA Welcome Centre: Sections*

Figure 9.29_ Christoph Bonke (2012), *Städel Museum / Schneider + Schumacher* (Online). Available at: http://images.adsttc.com/media/images/55e8/9b7a/e258/462c/0f00/00bc/slide-show/5037cd8a28ba0d542a000048_st-del-museum-schneider-schumacher_o_staedel_aussen_01_16022012-jpg.jpg?1441307481 [Accessed 2 October 2016].

Figure 9.30_ Kirsten Bucher (2012), *Städel Museum / Schneider + Schumacher* (Online). Available at: http://images.adsttc.com/media/images/55e8/9dbb/e258/462c/0f00/00cf/slide-show/5037d3a428ba0d543000004e_st-del-museum-schneider-schumacher_-schneider_schumacher_kirsten_bucher_staedel_exterior-jpg.jpg?1441308060 [Accessed 2 October 2016].

Figure 9.31_ Schneider + Schumacher (2008), *Städel Museum: Skylight Detail* (Online). Available at: <http://www.baulinks.de/webplugin/2012/i/1359-zumtobel3.gif> [Accessed 2 October 2016].

Figure 9.32_ Norbert Miguletz (2010), *Städel Museum, Frankfurt am Main* (Online). Available at: http://www.detail-online.com/fileadmin/_mi

grated/pics/staedel-museum-11.jpg [Accessed 2 October 2016].

Figure 9.33_ Schneider + Schumacher (2008), Stadel Museum: Section (Online). Available at: http://cdn.architecturelab.net/wp-content/uploads/2015/01/A_0746-Staedel_section_bb.jpg [Accessed 2 October 2016].

Figure 9.34_ Materiality Concept (Author, 2016)

Figure 9.35_ Site Photographs (Author, 2016)

Figure 9.36_ Berlin Memorial to the Murdered Jews (Author, 2016)

Figure 9.37_ NAMELESS Architecture (2014), RW Concrete Church / NAMELESS Architecture (Online). Available at: http://images.adsttc.com/media/images/5317/cc90/c07a/806c/d900/0075/slideshow/RW_Concrete_Church-NAMELESS-Architecture-14.jpg?1394068611 [Accessed 13 September 2016].

Figure 9.38_ Wallpaper (2016), Brick Background (Online). Available at: <http://wallpaper.zone/thumb/67233.jpg> [Accessed 13 September 2016].

Figure 9.39_ Julien Lanoo (2016), Louvre Lens / SANAA (Online). Available at: <http://images.adsttc.com/media/images/55e6/ebb3/4d8d/5d0b/c000/119c/slideshow/louvre-lens-by-sanaa-21.jpg?1441196982> [Accessed 13 September 2016].

Figure 9.40_ Julien Lanoo (2016), Louvre Lens / SANAA (Online). Available at: <http://images.adsttc.com/media/images/55e6/ebb3/4d8d/5d0b/c000/119b/slideshow/louvre-lens-by-sanaa-19.jpg?1441196969> [Accessed 13 September 2016].

Figure 9.41_ National Prefab Systems (2016), Steel Structure (Online). Available at: <http://nationalprefabsystem.com/images/Products/SteelStructure/SteelStructure2.jpg> [Accessed 13 September 2016].

Figure 9.42_ DZine Construction (2016), Steel Structure (Online). Available at: <http://dzinecon>

structure.co.za/wp-content/uploads/2015/09/steelstructure-848x450.jpg [Accessed 13 September 2016].

Figure 9.43_ Charlie Miller (2016), AMCOL International Building, Hoffman Estates, IL (Online). Available at: https://www.wbdg.org/images/greenroofs_11.jpg [Accessed 13 October 2016].

Figure 9.44_ AOSHI16 (2012), Experience the green roof project (Online). Available at: https://aoshi16.files.wordpress.com/2012/12/img_0425.jpg?w=580 [Accessed 13 October 2016].

Figure 9.45_ Conservation Technology (2008), Nominal Thickness (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/DP1.jpg> [Accessed 2 October 2016].

Figure 9.46_ Wildflower Nursery (2016), Suppliers of indigenous plants to Landscape Architects and Developers (Online). Available at: http://wildflowernursery.co.za/wp-content/uploads/2016/08/Pterodiscus_speciosus500X500-150x150.jpg [Accessed 2 October 2016].

Figure 9.47_ Conservation Technology (2008), Drainage (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/DP1.jpg> [Accessed 2 October 2016].

Figure 9.48_ Conservation Technology (2008), Green Roof Aluminium Edge (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/AluminumEdge100x150.gif> [Accessed 28 September 2016].

Figure 9.49_ Conservation Technology (2008), Green Roof Aluminium Edge (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/AluminumAtParapet.gif> [Accessed 28 September 2016].

Figure 9.50_ Conservation Technology (2008), Soil Stabilisation (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/TeeAssembly.jpg> [Accessed 28 September

2016].

Figure 9.51_ Intensive Green Roof (Author, 2016, Adapted from Dave Hilary (2015), Intensive Green Roofs: A Primer (Online). Available at: <http://www.greenroofplan.com/wp-content/uploads/2010/10/intensive-green-roof.jpg> [Accessed 28 September 2016].

Figure 9.52_ State of California (2016), Agrostis blasdalei (Blasdale's Bent Grass) (Online). Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=60641&inline=1> [Accessed 28 September 2016].

Figure 9.53_ Conservation Technology (2008), Optigreen Extensive Roof Fertilizer (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/Fertilizer.jpg> [Accessed 28 September 2016].

Figure 9.54_ Conservation Technology (2008), Roof Fabric (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/FabricRoll.gif> [Accessed 28 September 2016].

Figure 9.55_ Conservation Technology (2008), Drain Plate (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/40mmDrainPlate.gif> [Accessed 28 September 2016].

Figure 9.56_ Conservation Technology (2008), Drain Box (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/InspectionBoxAssembled2.gif> [Accessed 28 September 2016].

Figure 9.57_ Conservation Technology (2008), Roof Fabric (Online). Available at: <http://www.conservationtechnology.com/images/Green%20Roofs/FabricRoll.gif> [Accessed 28 September 2016].

Figure 9.58_ Insulation (Author, 2016)

Figure 9.59_ Derbigum (2008), Roof Garden

Specification (Online). Available at: http://www.derbigum.co.za/images/specifications/specification_horticultural_water.png [Accessed 28 September 2016].

Figure 9.60_ Sustainable Design Strategy (Author, 2016)

Figure 9.61_ Wind Roses (Author, 2016 generated from Autodesk Revit)

Figure 9.62_ Cross Ventilation (Author, 2016)

Figure 9.63_ Cross Ventilation (Author, 2016)

Figure 9.64_ Cross Ventilation (Author, 2016)

Figure 9.65_ Image from: DeKay, M. & Brown, G. Z., 2014. Sun, Wind, and Light: Architectural Design Strategies. 3rd Edition ed. s.l.:Wiley. p. 184

Figure 9.66_ Stack Effect (Author, 2016)

Figure 9.67_ Human Comfort (Author, 2016)

Figure 9.68_ Thermal Mass of the Concrete Floor (Author, 2016)

Figure 9.69_ Overhangs & Shading (Author, 2016)

Figure 9.70_ Evaporative Cooling (Author, 2016)

Figure 9.71_ Aperture size for Cooling (Author, 2016)

Figure 9.72_ Diagram illustrating the workings of the geothermal system (Author, 2016)

Figure 9.73_ Graphs illustrating the change in earth temperature at different depths underground from Holm, D., 1996. Manual for Energy Conscious Design, Pretoria: Department of Minerals and Energy.

Figure 9.74_ Autodesk (2016), Different kinds of top lighting (Online). Available at: <http://sustainabilityworkshop.autodesk.com/sites/default/files/styles/600px/public/core-page-inserted-images/>

toplighting_-_revised.jpg?tok=tUAB_V8G [Accessed 1 October 2016].

Figure 9.75_ Light Shelves (Author, 2016)

Figure 9.76_ Baffles (Author, 2016)

Figure 9.77_ Light & Perception (Author, 2016)

Figure 9.78_ Diagram illustrating the summer and winter solstice paths (Author, 2016)

Figure 9.79_ Base Study (Author, 2016)

Figure 9.80_ East Louvers (Author, 2016)

Figure 9.81_ Skylight Addition (Author, 2016)

Figure 9.82_ Energy Strategy Icons (Author, 2016)

Figure 9.83_ Author, 2016, generated from SBAT

Figure 9.84_ Water Strategy (Author, 2016)

Figure 9.85_ Water Strategy Axo Diagram (Author, 2016)

Figure 9.86_ Water Strategy Section Diagram (Author, 2016)

Figure 9.87_ Water Demand Graph (Author, 2016)

Figure 9.88_ Schematic of the Vertical Flow Constructed Wetland from Tilley, E. et al., 2008. Compendium of Sanitation Systems and Technologies, Duebendorf: Swiss Federal Institute of Aquatic Science and Technology (Eawag).

Figure 9.89_ Meerbrook Pond Plants (2016), Cyperus involucreatus (Online). Available at: <https://www.pondplants.co.uk/uploads/site/w0hshcyperus%20invalucratu%203.JPG> [Accessed 13 October 2016].

Figure 9.90_ Yannsgob (2016), Cyperus papyrus (Online). Available at: <http://www.performancenursery.gardenideaswest.com/PlantMaster/Photos/207a.jpg> [Accessed 13 October 2016].

Figure 9.91_ Steve Mullany (2016), *Cyperus alternifolius* (Online). Available at: http://vignette1.wikia.nocookie.net/houseplants/images/6/62/Flowering_Cyperus_alternifolius.jpg/revision/latest/scale-to-width-down/250?cb=20090501005244 [Accessed 13 October 2016].

Figure 9.92_ Juliana Proserpi (2016), *Cyperaceae cypeus* (Online). Available at: http://publish.plantnet-project.org/uploads/publish_prod_riceweeds_collection_information_image/cypro_20070718_173930.jpg [Accessed 13 October 2016].

Figure 9.93_ Creative Commons (2008), *Ethiopia grass* (Online). Available at: https://upload.wikimedia.org/wikipedia/commons/thumb/d/d0/Ethiopia_2008_vetiver_grass.jpg/1200px-Ethiopia_2008_vetiver_grass.jpg [Accessed 13 October 2016].

Figure 9.94_ Eurobodalla Shire Council (2016), *Zantedeschia aethiopica* (Online). Available at: <http://www.esc.nsw.gov.au/living-in/about/our-natural-environment/introduced-plants-and-animals/weeds/weed-profiles/arum-or-calla-lily-zantedeschia-aethiopica/Zantedeschia-aethiopica.jpg> [Accessed 13 October 2016].

Figure 9.95_ Water Storage Plan Diagram (Author, 2016)

Figure 9.96_ Water Storage System, Author, 2016, with images from *Conservation Technology, 2008. Conservation Technology: Energy, Water, Environment.* (Online) Available at: <http://www.conservationtechnology.com/> [Accessed 6 October 2016].

Figure 9.97_ Section A-A Key (Author, 2016)

Figure 9.98_ Section A-A (Author, 2016)

Figure 9.99_ Section B-B Key (Author, 2016)

Figure 9.100_ Section B-B (Author, 2016)

Figure 9.101_ Cross section progression (Author, 2016)

Figure 9.102_ Base Section (Author, 2016)

Figure 9.103_ Iteration 1 (Author, 2016)

Figure 9.104_ Iteration 2 (Author, 2016)

Figure 9.105_ Sectional Perspective Key (Author, 2016)

Figure 9.106_ Sectional Perspective (Author, 2016)

Figure 9.107_ Preliminary Intensive Green Roof Detail (Author, 2016)

Figure 9.108_ Final Intensive Green Roof Detail (Author, 2016)

Figure 9.109_ Preliminary Detail Investigation for the Black Box's Door (Author, 2016)

Figure 9.110_ Final Canopy Walk Detail (Author, 2016)

Figure 9.111_ Preliminary Raised Skylight Detail (Author, 2016)

Figure 9.112_ Final Walkable Skylight Detail (Author, 2016)

Figure 9.113_ Sectional Perspective (Author, 2016)

Chapter 10 CONCLUSION

Figure 10.1_ *The Conservatory Reimagined* (Author, 2016)

Figure 10.2_ *Creative Profile* (Author, 2016)

BIBLIOGRAPHY

- Anon., n.d. University of Music and Performing Arts Vienna. [Online] Available at: <http://shiptraveling.com/university-of-music-and-performing-arts/> [Accessed 30 August 2016].
- ArchDaily, 2012. Brooklyn Botanic Garden Visitor Center by Weiss / Manfredi. [Online] Available at: <http://www.archdaily.com/235079/brooklyn-botanic-garden-visitor-center-opens-to-the-public> [Accessed 13 August 2016].
- ArchEyes, 2016. Kanagawa Institute of Technology. [Online] Available at: <http://archeyes.com/kanagawa-institute-of-technology-junya-ishigami-associates/> [Accessed 20 September 2016].
- ArchiTeam, 2013. Conservatorium van Amsterdam. [Online] Available at: <http://www.architravel.com/architravel/building/conservatorium-van-amsterdam/> [Accessed 30 August 2016].
- Architizer, 2016. The Boston Conservatory. [Online] Available at: <http://architizer.com/projects/the-boston-conservatory-ipswich-studios/> [Accessed 30 August 2016].
- Autodesk, 2016. Concepts and Tools for Sustainable Design. [Online] Available at: <http://sustainability-workshop.autodesk.com/> [Accessed 1 September 2016].
- Autre[s]p Arts Factories, 2004. Arts and Media Access Centre- Cape Town. [Online] Available at: <http://www.artfactories.net/Arts-and-Media-Access-Centre-Cape.html> [Accessed 19 July 2016].
- Battiss, W., 2015. Fook Island. Johannesburg: Walter Battiss Company.
- Bremner, L., 2000. Reinventing the Johannesburg Inner City, Great Britain: Elsevier Science Ltd.
- Cape Town Official Tourism Website, 2016. Greenmarket Square. [Online] Available at: http://www.cape-town.travel/activities/entry/Greenmarket_Square2 [Accessed 25 July 2016].
- Carmona, M., Heath, T., Oc, T. & Tiesdell, S., 2003. Public Places—Urban Spaces: The Dimensions of Urban Design. Oxford: Architectural Press.
- CBS Architects, 2003. The Joubert Park Conservatory SAHRA Report, Cape Town: SAHRA.
- Cerdan, A., 2015. Nantes Conservatory. [Online] Available at: <http://www.archdaily.com/773373/nantes-conservatory-raum-plus-lescaut-architectures> [Accessed 26 August 2016].
- Chapain, C. et al., 2010. Creative Clusters and Innovation: Putting Creativity on the Map, London: NESTA.
- Cilento, K., 2009. The New York High Line officially open. [Online] Available at: <http://www.archdaily.com/24362/the-new-york-high-line-officially-open> [Accessed 15 August 2016].
- City of Johannesburg, 2013. Corridors of Freedom, Johannesburg: City of Johannesburg Group Communication and Tourism Department.
- Connect/ZA, 2015. Superdream. [Online] Available at: <http://www.superdream.co.za/> [Accessed 19 July 2016].
- Conservation Technology, 2008. Conservation Technology: Energy, Water, Environment. [Online] Available at: <http://www.conservatontechnology.com/> [Accessed 6 October 2016].
- Constitution Hill, 2015. Constitution Hill. [Online] Available at: <https://www.constitutionhill.org.za/site/> [Accessed 26 November 2015].
- Cook, J., 2011. Unlocking the Democratic City. Architecture South Africa, pp. 3-12.
- Curl, J. S., 2006. Oxford Dictionary of Architecture and Landscape Architecture. 2nd ed. s.l.:Oxford University Press.
- Daffonchio, n.d. The Maboneng Precinct, Johannesburg CBD. [Online] Available at: <http://www.daffonchio.co.za/the-maboneng-precinct-johannesburg/> [Accessed 9 August 2016].
- Darroll, L., 2006. Green Architecture in the Inner City. Leading Architecture and Design.
- Derbigum, 2016. Roof Gardens. [Online] Available at: http://www.derbigum.co.za/Content/specifications_horticultural_roof_gardens.html [Accessed 3 October 2016].
- Dezeen, 2014. Paris music school by Basalt Architecture Features Copper Walls and Cantilevered Studios. [Online] Available at: <http://www.dezeen.com/2014/02/24/copper-music-conservatory-paris-cantilevered-studios-basalt-architecture/> [Accessed 26 August 2016].
- Dupuis, F., 2014. Creative Marrakech is still at the top of its game. [Online] Available at: <http://www.your->

middleeast.com/travel/creative-marrakech-is-still-at-the-top-of-its-game_22835 [Accessed 1 October 2016].

Encyclopaedia Britannica, 2016. Isicathamiya. [Online] Available at: <https://global.britannica.com/art/isicathamiya> [Accessed 25 July 2016].

Enders Analysis, 2014. Europe's Creative Hubs, London: Bertelsmann.

ERC Services, 2002. Creative Industries Development Strategy: Propelling Singapore's Creative Economy, Singapore: Ministry of Trade and Industry Singapore.

Fakouhi, N., 2006. Ensanshenasi ye shahri (Urban Anthropology). Tehran: Nashr-e Ney.

Forman, A., 2015. Creative New York, New York, NY: Centre for an Urban Future.

Foster + Partners, 2016. Hearst Tower. [Online] Available at: <http://www.fosterandpartners.com/projects/hearst-tower/> [Accessed 15 September 2016].

Gaete, J., 2012. Städel Museum / Schneider + Schumacher. [Online] Available at: <http://www.archdaily.com/266833/stodel-museum-schneider-schumacher> [Accessed 2 October 2016].

Gershon, T., 2015. Taking It to the Street, The Art of Public Life. [Online] Available at: <http://www.arpajournal.net/to-the-street/> [Accessed 19 July 2016].

Gowling, A., 2013. Amsterdam: Fourth Most Creative Global City. [Online] Available at: <http://www.iamexpat.nl/read-and-discuss/expat-page/news/amsterdam-fourth-most-creative-global-city> [Accessed 3 September 2016].

Grondzik, W. & Kwok, A., 2007. The Green Studio Handbook: Environmental Strategies for Schematic Design, Oxford: Elsevier Inc..

Grütter, J., 1987. Ästhetik der Architektur: Grundlagen der Architektur-Wahrnehmung, Michigan: W. Kohlhammer.

Hall, P. G., 1998. Cities in Civiliza-

tion. Illustrated ed. s.l.:Pantheon Books.

Harvey, D., 2012. The Right to the City. [Online] Available at: <http://abahlali.org/node/9134/> [Accessed 9 April 2015].

Holm Jordaan Architects, 2010. DBSA Welcome Centre. [Online] Available at: http://www.holmjordaan.co.za/main/projects_spec.php?id=9 [Accessed 20 September 2016].

Holm, D., 1996. Manual for Energy Conscious Design, Pretoria: Department of Minerals and Energy. Joburg City, 2007. Arts, Culture, and Heritage. [Online] Available at: http://www.joburg.org.za/index.php?option=com_content&task=view&id=1690&Itemid=49 [Accessed 25 May 2016].

Johannesburg Development Agency, 2011. Greater Park Station Precinct Urban Design and Heritage Management Framework, Johannesburg: The City of Johannesburg.

Kahn, L. et al., 2009. Breakthrough Cities: how cities can mobilise creativity and knowledge to tackle compelling social challenges, England: British Council Design Department.

Kaufman, S. B., 2014. The Philosophy of Creativity. London: Oxford University Press.

KCAP, 2016. Ekhaya Multi Arts Centre (EMAC). [Online] Available at: <http://kcap.co.za/about-us/> [Accessed 19 July 2016].

King, T. & Flynn, M. K., 2014. Heritage as Urban Regeneration in Post-Apartheid Johannesburg. In: J. Kaminski, A. Benson & D. Arnold, eds. Contemporary Issues in Cultural Heritage Tourism. New York: Routledge, pp. 101-106.

Kirkpatrick, C., 2015. Miriam Makeba: Activist on Two Fronts. [Online] Available at: <http://www.sahistory.org.za/people/miriam-makeba> [Accessed 10 October 2016].

Koltunova, E., 2015. Amazing Amsterdam Street Art. [Online] Available at: <http://accessart.nl/>

amazing-amsterdam-street-art/ [Accessed 6 September 2016].

Krut, D., 2016. Diane Victor. [Online] Available at: <http://davidkrut.com/bioVictor.html> [Accessed 10 October 2016].

Krut, D., 2016. William Kentridge. [Online] Available at: <http://davidkrut-projects.com/artists/william-kentridge> [Accessed 10 October 2016].

Kultuuri Katel, 2016. Kultuuri Katel. [Online] Available at: <http://kultuurikatel.ee/en/events/treff-2016-ramkoers/> [Accessed 4 September 2016].

Landry, C., 2004. Imagination and regeneration: Cultural policy and the future of cities, s.l.: s.n.

Landry, C., 2011. Creativity, Culture & the City: A question of interconnection, s.l.: Ministry of Family, Children, Youth, Culture and Sport of the State of North Rhine-Westphalia.

Landry, C. & Bianchini, F., 1995.

- The Creative City, London: Demos.
- Landry, C. & Brookes, F., 2006. Can Artists Make Great Places?, s.l.: Arts & Business and the Commission on Architecture and the Built Environment.
- Landry, C., n.d. Culture at the Heart of Transformation, Switzerland: Swiss Agency for Development and Cooperation (SDC).
- Leung, T., 2016. Greenhouse Conservatories Around the World. [Online] Available at: <http://www.architecturaldigest.com/gallery/greenhouse-conservatories-around-the-world/all> [Accessed 27 August 2016].
- Lyndon, D., 2009. The Place of Memory. In: M. Trieb, ed. Spatial Recall: Memory in Architecture and Landscape. New York and Oxon: Routledge, pp. 62-85.
- Maboneng Precinct, 2016. Maboneng Precinct. [Online] Available at: <http://www.mabonengprecinct.com/> [Accessed 19 August 2016].
- Machado, R., 1976. Old Buildings as Palimpsest. Progressive Architecture, Volume Volume 2, pp. 46-49.
- Mail&Guardian, 2016. Braamfontein Brims with Life. [Online] Available at: <http://mg.co.za/article/2016-04-15-00-braamfontein-brims-with-life> [Accessed 9 August 2016].
- Markusen, A. & Gadwa, A., 2010. Creative Placemaking, Washington DC: Markusen Economic Research Services and Metris Arts Consulting.
- Martin, H., 2015. Greenhouses Around the World. [Online] Available at: <http://www.architecturaldigest.com/gallery/most-beautiful-greenhouses-slide-show/all> [Accessed 27 August 2016].
- McCain, N., 2015. Have Your Say on Greenmarket Trading. [Online] Available at: <http://www.news24.com/SouthAfrica/Local/Peoples-Post/Have-your-say-on-Greenmarket-trading-20150629> [Accessed 25 July 2016].
- Morel, A. & Diener, S., 2006. Grey-water Management in Low and Middle-Income Countries, Review of Different Treatment Systems for Households or Neighbourhoods, Duebendorf: Swiss Federal Institute of Aquatic Science (EAWAG), Department of Water and Sanitation in Developing Countries (SANDEC).
- Moronell, C., 2011. Situating the architectural project of hybridity within the post-colonial African city, Cape Town: University of Cape Town.
- Naidu, E., 2003. A Case Study of Constitution Hill, Johannesburg: Centre for the Study of Violence and Reconciliation.
- Newtown Landscape Architects, 2015. Johannesburg Inner City Park. [Online] Available at: http://www.newlaco.za/projects/johannesburg_inner_city_park.php [Accessed 31 July 2016].
- Norberg-Schulz, C., 1980. Genius Loci: Towards a Phenomenology of Architecture. Minnesota: Academy Editions.
- Obama, B., 2016. Remarks by President Obama at YSEALI Town Hall. [Online] Available at: <https://www.whitehouse.gov/the-press-office/2016/05/25/remarks-president-obama-yseali-town-hall> [Accessed 23 May 2016].
- Ontario Ministry of Tourism, C. a. S., 2016. The Broader Creative Cluster. [Online] Available at: http://www.mtc.gov.on.ca/en/creative_cluster/cluster_report_intro.shtml [Accessed 8 June 2016].
- Optigreen, 2016. Optigreen Roof Greening. [Online] Available at: <http://www.optigreen.com/> [Accessed 1 October 2016].
- OR Tambo International Airport, 2016. Johannesburg Climate. [Online] Available at: <http://ortambo-airport.com/weather/climate.php> [Accessed 15 August 2016].
- Oxford Dictionary, 2016. Definition of Renaissance in English. [Online] Available at: <https://en.oxforddictionaries.com/definition/renaissance> [Accessed 12 10 2016].
- Parsaee, M., Parva, M. & Karimi, B., 2015. Space and place concepts analysis based on semiology approach in residential architecture: The case study of traditional city of Bushehr, Iran. HBRC Journal, Volume 11(Issue 3), p. 368–383.
- Pinther, K., Förster, L. & Hanussek, C., 2012. Afropolis: City/ Media/ Art. s.l.:Jacana Media .
- Plevoets, B., Plevoets, B. & Van Cleempoel, K., 2011. Adaptive Reuse As A Strategy Towards Conservation Of Cultural Heritage: A Literature Review, Belgium: PHL University College & Hasselt University.
- Presidency, T., 2016. The Order of Ikhamanga- Willie Bester. [Online] Available at: <http://www.thepresidency.gov.za/pebble.asp?re-lid=7833> [Accessed 10 October 2016].
- Project for Public Spaces, 2016. The Origin of the Power of 10. [Online] Available at: <http://www.pps.org/reference/poweroften/> [Accessed 14 March 2016].
- Rees, M., 2013. Maboneng

Precinct: 'I am an island', Johannesburg: Mail & Guardian.

Reid, C., 2016. The Artist- Sekoto's Life. Johannesburg: The Gerard Sekoto Foundation.

Rich, J., 2013. Tschumi's Layers. [Online]
Available at: <http://julianrich.blogspot.co.za/2013/02/tschumis-layers.html>
[Accessed 21 April 2016].

SABS, 2010. SANS 10400- Part A: General Principles and Requirements. Edition 3 ed. Pretoria: SABS Standard Division.

SABS, 2010. SANS 10400- Part O: Lighting and Ventilation. Edition 3 ed. Pretoria: SABS Standard Division.

SABS, 2010. SANS 10400- Part P: Drainage. Edition 3 ed. Pretoria: SABS Standard Division.

Scientific American, 2016. How is tempered glass made?. [Online]
Available at: <https://www.scientificamerican.com/article/how-is-tempered-glass-made/>
[Accessed 11 October 2016].

Semper, G., 1851. The Four Elements of Architecture. New York: Cambridge University Press.

Shand, K., 2010. Newtown: A Cultural Precinct – Real or Imagined?, Johannesburg: University of the Witwatersrand.

Sibikwa Arts Centre, 2014. Sibikwa Arts Centre. [Online]
Available at: <http://www.sibikwa.co.za/>
[Accessed 19 July 2016].

South African Government, 2015. Arts and Culture White Paper. [Online]
Available at: <http://www.gov.za/documents/arts-and-culture-white-paper>
[Accessed 13 March 2016].

South African Heritage Resources Agency, 2007. Between Ownership and Belonging: Transitional Space in the Post-Apartheid Metropolis. s.l.:Department of Foreign Affairs. South African History Online, 2016. Johannesburg. [Online]
Available at: <http://www.sahistory.org.za/local-government>
[Accessed 17 April 2016].

Steven Holl Architects, 2016. The Nelson-Atkins Museum of Art. [Online]
Available at: <http://www.stevenholl.com/projects/nelson-atkins-museum-of-art>
[Accessed 12 May 2016].

Stone, S., 2005. Re-readings: the Design Principles of Remodelling Existing Buildings. WIT Transactions on The Built Environment, Volume Volume 83, pp. 125-134.

The City of Johannesburg, 2006. Reflecting on a Solid Foundation: Building Developmental Local Government 2000-2005, Johannesburg: The City of Johannesburg.

The City of Johannesburg, 2007. Charter: Public spaces. [Online]
Available at: http://www.joburg.org.za/index.php?option=com_content&task=view&id=1734&Itemid=49
[Accessed 18 August 2016].

The City of Johannesburg, 2007. The Inner City Regeneration Charter, Johannesburg: The City of Johannesburg.

The Prague Conservatoire, 2016. Conservatory Today. [Online]
Available at: <http://www.prgcons.cz/about>
[Accessed 30 August 2016].

The Royal Conservatory, 2016. The Royal Conservatory. [Online]
Available at: <http://learning.rcmusic.ca/about>
[Accessed 30 August 2016].

Tilley, E. et al., 2008. Compendium of Sanitation Systems and Technologies, Duebendorf: Swiss Federal Institute of Aquatic Science and Technology (Eawag).

University of KwaZulu-Natal, 2016. Centre for Creative Arts. [Online]
Available at: <http://www.cca.ukzn.ac.za/>
[Accessed 19 July 2016].

Wallas, G., 1926. The Art of Thought, s.l.: s.n.

Weiler, S. K. & Scholz-Barth, K., 2009. Green Roof Systems: A Guide to the Planning, Design, and Construction of Landscapes over Structure. New Jersey: John Wiley & Sons.

Wild Flower Nursery, 2016. Wild Flower Nursery. [Online]
Available at: <http://wildflowernursery.co.za/>
[Accessed 12 September 2016].

Wolff, H., 2011. A case against the construction of a cultural identity. [Online]
Available at: <http://www.wolffarchitects.co.za/2011/02/a-case-against-the-construction-of-a-cultural-identity/>
[Accessed 2 May 2015].

World Cities Culture Forum, 2016. London: City Profile. [Online]
Available at: <http://www.worldciti-escultureforum.com/cities/london>
[Accessed 3 September 2016].

Zaha Hadid Architects, 2016. Landesgartenschau / Landscape Formation One. [Online]
Available at: <http://www.zaha-hadid.com/architecture/landesgartenschau-landscape-formation-one/>
[Accessed 14 September 2016].

APPENDICES

APPENDIX A WATER CALCULATIONS

RAIN WATER HARVESTING DATA

DESCRIPTION	AREA (m ²)	RUNOFF COEFF. (C)
Green Roof	1795,516	0,2
Conservatory Roof	631	0,9
Roof	313,236	0,9
TOTAL AREA (A)	2739,75	
WEIGHTED C		0,43

TOTAL WATER YIELD

MONTH	AVE RAINFALL (m)	CATCHMENT YIELD (m ³) (Yield = PxAxC)	TOTAL WATER YIELD (m ³)	TOTAL WATER YIELD (litres)
January	0,13	148,87	148,87	148870,06
February	0,09	111,95	111,95	111950,28
March	0,09	107,19	107,19	107186,44
April	0,05	64,31	64,31	64311,86
May	0,01	15,48	15,48	15482,49
June	0,01	10,72	10,72	10718,64
July	0,00	4,76	4,76	4763,84
August	0,01	7,15	7,15	7145,76
September	0,03	32,16	32,16	32155,93
October	0,01	8,34	8,34	8336,72
November	0,01	13,10	13,10	13100,56
December	0,10	122,67	122,67	122668,93
ANNUAL AVE.	0,70	646,69	646,69	646691,52
MONTHLY AVE.	0,05	53,89	53,89	53890,96

WATER DEMAND

	Litres Per Use	Uses/day	Days Per Week	Usage Per Month (litres)	Usage Per Month (m ³)	Annual Usage (m ³)
Shower	30	2	7	1680	1,68	20,16
Toilet	3	90	7	7560	7,56	90,72
WHB	0,5	90	7	1260	1,26	15,12
Cleaning	10	2	7	560	0,56	6,72
Dishwasher	15	2	7	840	0,84	10,08
Food Preparation	3	50	6	3600	3,6	43,2
WHB	2	30	6	1440	1,44	17,28
TOTAL				16940	16,94	203,28

GREY WATER

	Per Month (litres)	Per Month (m ³)
Shower runoff	1680	1,68
WHB runoff	2700	2,7
Dishwasher	840	0,84
Food Preparation	3600	3,6
TOTAL	8820	8,82

WATER BUDGET

	Per Month (litres)	Per Month (m ³)
Excess Water	53890,96	53,89095991
Greywater	8820	8,82
TOTAL	62710,96	62,71095991

PRIMARY TANK REQUIREMENT

	Demand/Month (m ³)
TOTAL	16,94
Tank Req.	11,676

SECONDARY TANK REQUIREMENTS

	King George St Block Demand/Month (m ³)
Ablutions	6,09
Restaurant	4,032
Cleaning	0,56
TOTAL	10,682
Tank Req.	21,364

	Woimerans St Blocks Demand/month (m ³)
Ablutions	4,41
Café	1,428
TOTAL	5,838
Tank Req.	11,676

APPENDIX B

ENERGY CALCULATIONS

LIGHTING REQUIREMENTS															
ROOM	DIMENSIONS			AREA	LUX REQUIRED	LUMENS	LIGHT TYPE	LUMENS/ UNIT	WATT/ UNIT	QUANTITY/ AREA	TOTAL WATT	AMOUNT OF ROOMS	HOURS USE/DAY	TOTAL POWER DRAW (Watt/Hours/ day)	
	Width (m)	Length (m)	height(m)												
INDOOR AREAS															
Entrance				63,0	75	4725,0	LED Globe	300,0	3,0	16	47,3	1	10	472,50	
Reception				9,0	200	1800,0	LED Globe	300,0	3,0	6	18,0	1	10	180,00	
Office				23,0	300	6900,0	LED Globe	300,0	3,0	23	69,0	1	10	690,00	
Media Centre				72,0	300	21600,0	LED Tube	1120,0	8,0	19	154,3	1	10	1542,86	
Kitchenette				47,0	150	7050,0	LED Tube	1120,0	8,0	6	50,4	1	10	503,57	
Black Box				171	200	34200,0	Round Ultra-Thin Panel Light (LED	880,0	11,0	39	427,5	1	8	3420,00	
BB Store				16,0	100	1600,0	LED Globe	300,0	3,0	5	16,0	1	1	16,00	
Café				81,0	200	16200,0	LED Globe	300,0	3,0	54	162,0	1	12	1944,00	
Kitchen				12,0	150	1800,0	LED Globe	300,0	3,0	6	18,0	1	12	216,00	
WC				29,0	100	2900,0	LED Globe	300,0	3,0	10	29,0	1	12	348,00	
Studio				17,0	300	5100,0	Round Ultra-Thin Panel Light (LED	880,0	11,0	6	63,8	1	12	765,00	
Control Room				17,0	300	5100,0	Round Ultra-Thin Panel Light (LED	880,0	11,0	6	63,8	1	12	765,00	
Sound Lock				2,0	150	300,0	LED Globe	300,0	3,0	1	3,0	1	12	36,00	
Printing				11,0	200	2200,0	LED Tube	1120,0	8,0	2	15,7	1	2	31,43	
Kitchenette				28,0	150	4200,0	LED Tube	1120,0	8,0	4	30,0	1	12	360,00	
News Print Offices				60,0	300	18000,0	Round Ultra-Thin Panel Light (LED	880,0	11,0	20	225,0	1	8	1800,00	
Workshop				124,0	300	37200,0	Round Ultra-Thin Panel Light (LED	880,0	11,0	42	465,0	1	8	3720,00	
Store				12,00	100	1200,0	LED Globe	300,0	3,0	4	12,0	1	1	12,00	
Culinary				68,00	200	13600,0	Round Ultra-Thin Panel Light (LED	880,0	11,0	15	170,0	1	3	510,00	
Pantry				12,00	150	1800,0	LED Tube	1120,0	8,0	2	12,9	1	1	12,8571	
Restaurant				80,00	200	16000,0	LED Globe	300,0	3,0	53	160,0	1	12	1920,00	
Kitchen				31,00	150	4650,0	LED Tube	1120,0	8,0	4	33,2	1	12	398,5714286	
WC				28,00	100	2800,0	LED Globe	300,0	3,0	9	28,0	1	12	336,00	
Meeting Space				78,00	300	23400,0	Round Ultra-Thin Panel Light (LED	880,0	11,0				5		
Staff				16,00	150	2400,0	LED Globe	300,0	3,0	8	24,0	1	2	48,00	
OUTDOOR AREAS															
Water Treatment				0,00	50	0,0		880,0	80,0	0	0,0	1	0	0,00	
Garden				0,00	50	0,0	LED Landscape spotlight	800,0	10,0	0	0,0	1	12	0,00	
														20047,79	W/day
														20,048	kW/day

Source: p372-p375

OUTDOOR LAMPS WITH OWN PV PANELS					
Outdoor Path to Entrance	13,0	30,0	390,00	50	19500,0
Square	21,0	25,0	525,00	50	26250,0

LED street lamp	1200,0	12,0	16	195,0
LED street lamp	1200,0	12,0	22	262,5

1	12	2340,00
1	12	3150,00

ELECTRICITY USAGE						
Item/Appliance	Power draw per item (W)	Amount of appliances:	Total Power draw (W)	Average hours run time per week:	Total hours run time per week:	Watt-Hours per week:
Laptop	60	15	900	40	600	540000
LED Display 32"	50	5	250	12	60	15000
LED Display 42"	80	2	160	3	6	960
Computer server	400	1	400	168	168	67200
Laser Jet Printer	500	6	3000	5	30	90000
Projector	410	1	410	5	5	2050
Alarm System	40	6	240	98	588	141120
Wifi router	6	6	36	40	240	8640
Cordless Phone	2	6	12	40	240	2880
Instantaneous Water Heater	3	6	18	6	36	648
Coffee Machine	800	5	4000	10	50	200000
Microwave	800	5	4000	5	25	100000
Bar Fridge	77	3	231	10	30	6930
Fridge	200	3	600	10	30	18000
Dishwasher	1200	2	2400	15	30	72000
Stove / Oven	2000	4	8000	1	6	48000
				Total watt hours /week:		1313428

		Average W/hours per day
Appliances		187633
Lighting		20048
	TOTAL Wh/day	207681
	kWh/day	207,681

ANNUAL SOLAR POWER GAIN					
Month	Ave monthly sunhours	Power gain(kW)	Total Power Gain (KWh)	Total Power demand/ month (kW-hours)	Power Gain/Loss (kWh)
January	290	10,2	2958,0	6438,1	-3480,1
February	270	10,2	2754,0	5815,1	-3061,1
March	260	10,2	2652,0	6438,1	-3786,1
April	250	10,2	2550,0	6230,4	-3680,4
May	270	10,2	2754,0	6438,1	-3684,1
June	240	10,2	2448,0	6230,4	-3782,4
July	280	10,2	2856,0	6438,1	-3582,1
August	310	10,2	3162,0	6438,1	-3276,1
September	300	10,2	3060,0	6230,4	-3170,4
October	300	10,2	3060,0	6438,1	-3378,1
November	260	10,2	2652,0	6230,4	-3578,4
December	300	10,2	3060,0	6438,1	-3378,1
			33966,0	75803,4	-41837,4

PV PANELS				
Roof area (m2)	Tile area (m2)	No of tiles	Power gain/tile(W)	Total Power gain (W)
103,4	103,4	34	300	10200,0
		34		10200,0



THE CREATIVE CONSERVATORY

A COMMUNITY MEDIA & CREATIVE ARTS CENTRE

LISA CAMILLE VERSEPUT
2016



