



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

INHERIT VALUE

POPOP SKILLS TRAINING CENTRE SALVOKOP



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Submitted in partial fulfilment of the requirements for the degree of
Master of Interior Architecture (Professional)
in the Faculty of Engineering, Built Environment and Information Technology
University of Pretoria
PRETORIA 2011

BY ZAKKIYA KHAN

STUDY LEADER: CATHERINE KARUSSEIT
COURSE CO-ORDINATOR: JACQUES LAUBSCHER

Project Summary

Full dissertation title:	Inherit Value, POPUP Skills Training Centre, Salvokop
Submitted by:	Zakkiya Khan (Ms)
Student number:	29159475
Study leader:	Catherine Karusseit (Ms)
Course coordinator:	Jacques Laubscher (Dr)
Degree:	Master of Interior Architecture (Professional)
Department:	Department of Architecture
Faculty:	Faculty of Engineering, Built Environment and Information Technology
University:	University of Pretoria
Programme:	Skills Training Centre
Site description:	Historical Building within Salvokop across the railway line from Pretoria Station
Client:	People's Upliftment Programme (POPUP)
Users:	Learners of Skills Training Centre, Staff and Teachers of Skills Training Centre, Visitors from Public
Site Location:	Salvokop, Pretoria
Address:	Off Skietpoort Avenue, Salvokop, Pretoria, South Africa

Design Theoretical Premise:	The relationship between historical architecture, alteration and current cultural production
Design Approach:	Intervention on an existing historical building for a changed time, user and programme
Research filed:	Heritage and Cultural Landscapes

Declaration

In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and theses, I declare that this dissertation, which I hereby submit for the degree Master of Interior Architecture (Professional) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

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

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

The dissertation is 17862 words long (Chapter 1 - Chapter 8, excluding the scanned items).

Zakkiya Khan



ABSTRACT

This dissertation responds to the problem that intervention on historical architecture generally represents a loss of value to the existing building and new programme. It investigates the relationship between the alteration of historical architecture and the introduction of new intervention which reflects current users, time and programme through cultural production.

Historical architecture is static and rejects the notion of change. Interior design opts to alter the existing to ensure new inhabitation in changing times. Cultural production is the process by which products are designed to relate intrinsically to their user group culture and identity.

The study links all three factors through the design of the People's Upliftment Programme skills training centre in Salvokop (2011 POPUP), in a building which was constructed in 1909 as the chief engineer's office (1909 CEO) for Pretoria's railway line.

The project seeks to identify a balance between retaining the identity and character of the existing ("historical ideal"), and explicitly reflecting the energy of the skills learners and skills training programmes which have subsequently occupied the building.

<i>Title Page</i>	<i>i</i>
<i>Project Summary</i>	<i>ii</i>
<i>Declaration</i>	<i>ii</i>
<i>Abstract</i>	<i>iii</i>

TABLE OF CONTENTS

<i>List of Tables</i>	<i>vi</i>
<i>List of Figures</i>	<i>vi</i>
<i>List of Illustrations</i>	<i>vi - ix</i>

1 INTRODUCTION		1
1.1 Introduction	2	
1.2 Background	3	
1.3 Research Problem	4 - 5	
1.4 Design	6 - 8	
1.5 Methods	9 - 11	
1.6 Conclusion	11	
2 CONTEXT AND SITE		13
2.1 Introduction	14	
2.2 Greater Context	15 - 17	
2.3 Historical Context	18 - 21	
2.4 Urban Framework	22	
2.5 Site Analysis	23 - 27	
2.5.1 Urban to Interior		
2.5.2 Sense of Place		
2.5.3 Internal Spatial Quality		
2.5.4 Space and Use		
2.5.5 Alterations and Additions		
2.6 Establishing Ideal	28 -30	
2.7 Conclusion	31	
3 THEORY		33
3.1 Introduction	34	
3.2 Legislation and Guidelines	35	
3.2.1 National Heritage Resources Act (NHRA)		
3.2.2 The Burra Charter		
3.3 Cultural Production in Historical Architecture	36	
3.4 Alteration	37	
3.5 Stripping Back	38	
3.6 Conclusion	39	
4 PRECEDENT & CASE STUDIES		41
4.1 Introduction	42	
4.2 Heritage	43 - 48	
4.2.1 Rehabilitation of Santa Caterina Market, Barcelona		
4.2.2 Ogilvy Offices, Durban		
4.2.3 Cape Quarter, Cape Town		
4.2.4 Tate Modern, London		
4.2.5 Jolie Toujours, Tokyo		



4.3 Cultural Production	49
4.3.1 Imagine life on the other side of the planet, Perth	
4.3.2 Kasa Digitalia, Milan	
4.4 Community	50
4.4.1 Barking Skills Centre, Edinburgh	
4.5 Conclusion	51
5 DESIGN DEVELOPMENT	53
5.1 Introduction	54
5.2 Steam punk	55
5.3 Concept (April 2011)	56 - 63
5.3.1 Design Draft 1	
5.3.2 Design Draft 2	
5.4 Concept Development (May 2011)	64 - 67
5.5 Design Development (June 2011)	68 - 75
5.5.2 Entrance	
5.5.2 Cultural Production	
5.5.3 Light	
5.5.4 General Comments	
5.6 Accommodation Requirements (July 2011)	76 - 77
5.6.1 Dining Hall	
5.6.2 Studios	
5.6.3 Food LAB	
5.6.4 Lecture Rooms	
5.7 Branding (July 2011)	78 - 79
5.8 Final Design (July - October 2011)	80 - 94
5.8.1 Design Outline	
5.9 Conclusion	95
6 TECHNICAL DEVELOPMENT	94
6.1 Introduction	98
6.2 Approach	99
6.3 Services	100 - 109
6.4 Materials	110 - 111
6.5 Inclusive Design	112
6.6 Sustainability	113
6.7 Details	114 - 127
6.8 Conclusion	128
7 CONCLUSION	129
7.1 Conclusion	130
8 BIBLIOGRAPHY	131
<i>APPENDIX A - Urban Framework</i>	135
<i>APPENDIX B - Design Perspectives</i>	144
<i>APPENDIX C - Examination Presentation</i>	146

LIST OF TABLES

Table 1.1 Grounded theory research phases (Groat & Wang, 2008:181)	9
Table 2.1 Time Line, Salvokop (Bakker, 2002) formatted by (Author, 2011)	20 - 21

LIST OF FIGURES

Fig 1.1 Design Methods (Author, 2011)	10 - 11
--	---------

LIST OF ILLUSTRATIONS

Illus 0 Cover Image (Bakker, 2002) edited by (Author, 2011)	i
Illus 1 1909 Chief Engineer's Office and users (Peoria, s.a.) edited by (Author, 2011)	1
Illus 1.1 Actors in Cultural Production (Author, 2011)	4
Illus 1.2 Aerial Photograph of Salvokop (Google Earth, 2011)	6
Illus 1.3 Chief Engineer's Office, 1909 (Bakker, 2002)	6
Illus 1.4 POPUP (Astrup, 2005:21)	7
Illus 1.5 POPUP's Sewing Laboratory (Author, 2010)	8
Illus 1.6 Stripping Back: Parti Diagram (Author, 2011)	9
Illus 2 2011 POPUP (Author, 2011) and 1909 CEO (Bakker, 2002) edited by (Author, 2011)	13
Illus 2.1 Locality Maps (Author, 2011)	15
Illus 2.2 Aerial photo, Salvokop (Google Earth, 2011) edited by (Author, 2011)	16
Illus 2.3 Residential Character (Author, 2011)	17
Illus 2.4 Breathing Space (Google Earth, 2011) edited by (Author, 2011)	17
Illus 2.5 Ecological Systems (Google Earth, 2011) edited by (Author, 2011)	17
Illus 2.6 Historical Character (Author, 2011)	17
Illus 2.7 Time Mapping, Salvokop (Author, 2011)	18 - 19
Illus 2.8 Salvokop Framework (Google Earth, 2011) edited by (Author, 2011)	22
Illus 2.9 Strengths Weaknesses Opportunities Threats Mapping (Author, 2011)	23
Illus 2.10 Urban to Interior (Author, 2011)	24
Illus 2.11 Sense of Place (Author, 2011)	24
Illus 2.12 Aerial photo of POPUP's site and programming (Google Earth, 2011) edited by (Author, 2011)	25
Illus 2.13 Internal Spatial Quality (Author, 2011)	26
Illus 2.14 Space and Use (Author, 2011)	26 - 27
Illus 2.15 Alterations and Additions (Author, 2011)	27
Illus 2.16 Establishing Ideal (Author, 2011)	28
Illus 2.17 Establishing Ideal (Author, 2011)	29
Illus 2.18 Site Character (Author, 2011)	30
Illus 3. Cultural Products (Author, 2011)	33
Illus 3.1 Change in Occupation (Bakker, 2002) & (Author, 2011)	37
Illus 3.2 Alteration Processes (Author, 2011)	37
Illus 4 Untitled (Cohn, 2006: [100]) (Schauffer, 2011: 24) (Author, 2011) (Takahashi, 2008: 5) (De Wild, 2008: 178) (Smith, 2004) (De Wild2, 2008: 65) (Phaidon, 2010)	41
Illus 4.1 Santa Caterina Market's colourful roof (Cohn, 2006: [100])	43
Illus 4.2 Santa Caterina Market street view (Cohn, 2006: [101])	44



Illus 4.3 Santa Caterina Market interior (Cohn, 2006: [100])	44
Illus 4.4 Entrance (Schauffer, 2011: 25)	45
Illus 4.5 Harbour Elements (Schauffer, 2011: 24)	45
Illus 4.6 Boardroom Materials (Schauffer, 2011: 26)	45
Illus 4.7 Historical Images of the block and users (Cape Quarter, 2009)	46
Illus 4.8 Cape Quarter facade (Author, 2011)	46
Illus 4.9 Interior Exterior Space (Cape Quarter, 2009)	46
Illus 4.10 Tate Modern (Perrin, 2002)	47
Illus 4.11 Tate Modern Volume, Skylight and Atrium (Smith, 2004)	47
Illus 4.12 Jolie Toujours (Takahashi, 2008: 5)	48
Illus 4.13 Imagine life on the other side of the planet (Kimme, 2008: 53)	49
Illus 4.14 Kasa Digitalia (De Wild2, 2008: 65)	49
Illus 4.15 Barking Skills Centre and square (Rick Mather Architects, 2009)	50
Illus 4.16 Barking Skills Centre and context (Rick Mather Architects, 2009)	50
Illus 4.17 Barking Skills Centre and the Barking Methodist Church (Rick Mather Architects, 2009)	50
Illus 5 Untitled (Author, 2011)	53
Illus 5.1 Steam punk (Author, 2011)	55
Illus 5.2 Jules Verne's "20 000 Leagues under the sea" (1869) is a classic literary work which influenced the steam punk movement (Willis, 2009)	55
Illus 5.3 Hayao Miyazaki's "Laputa Castle in the Sky" (1986) is a Japanese anime film which falls within steam punk genre (Canth, 2011)	55
Illus 5.4 Jean Pierre Jeunet's "The city of the lost children" (1995) is stylised and contains steam punk elements (Hudler, 2010)	55
Illus 5.5 Mood board 1, April 2011 (Author, 2011)	57
Illus 5.6 Mood board 2, May 2011 (Author, 2011)	57
Illus 5.7 Model 1, May 2011 (Author, 2011)	58
Illus 5.8 Model 2, May 2011 (Author, 2011)	59
Illus 5.9 Plans and Section, May 2011 (Author, 2011)	60 - 61
Illus 5.10 3 Dimensional Stripping Back Study, May 2011 (Author, 2011)	62
Illus 5.11 Re-imagining the Historical "Ideal", May 2011 (Author, 2011)	62 - 63
Illus 5.12 Mood Plan (Author, 2011)	65
Illus 5.13 Diagrammatic Plan (Author, 2011)	66
Illus 5.14 "Historical Ideal" Plan (Author, 2011)	67
Illus 5.15 Site Plan (Author, 2011)	68
Illus 5.16 Aerial view of site (Author, 2011)	68
Illus 5.17 Plan through Entrance 1:200 (Author, 2011)	69
Illus 5.18 Section A through Entrance 1:200 (Author, 2011)	69
Illus 5.19 Sketch of entrance and arrival (Author, 2011)	70
Illus 5.20 Sketch of entrance and arrival (Author, 2011)	70
Illus 5.21 Ground and Mezzanine 1 Floor Plans 1:200 (Author, 2011)	72
Illus 5.22 First and Mezzanine 2 Floor Plans 1:200 (Author, 2011)	73
Illus 5.23 Second Floor Plan 1:200 (Author, 2011)	74
Illus 5.24 Process Sketches (Author, 2011)	74
Illus 5.25 Section B 1:200 (Author, 2011)	75
Illus 5.26 Section C 1:200 (Author, 2011)	75
Illus 5.27 Ergonomic seating conditions (Neufert, 1999: 16)	77

Illus 5.28 Dining Seating Conditions (Neufert, 1999: 455)	77
Illus 5.29 POPUP logo (POPUP, S.A.)	78
Illus 5.30 MoMA branding (Iheartgum, 2009)	78
Illus 5.31 New POPUP logo (Author, 2011)	78
Illus 5.32 POPUP logo Variations (Author, 2011)	79
Illus 5.33 Ground Floor Plan - 1:200 (Author, 2011)	81
Illus 5.34 Mezzanine 1 Floor Plan - 1:200 (Author, 2011)	82
Illus 5.35 First Floor Plan - 1:200 (Author, 2011)	83
Illus 5.36 Mezzanine 2 Floor Plan - 1:200 (Author, 2011)	84
Illus 5.37 Second Floor Plan - 1:200 (Author, 2011)	85
Illus 5.38 Section A - 1:200 (Author, 2011)	86
Illus 5.39 Section B - 1:100 (Author, 2011)	87
Illus 5.40 Section C (Author, 2011)	88 - 89
Illus 5.41 View of POPUP building from Salvokop Bridge (Author, 2011)	90
Illus 5.42 Entrance to POPUP (Author, 2011)	91
Illus 5.43 View of POPUP building from Railway Line (Author, 2011)	92
Illus 5.44 Railway Promenade (Author, 2011)	93
Illus 6 Untitled (Author, 2011)	100
Illus 6.1 Overlay of Plans indicating Services (Red - Fire, Blue - Wet) (Author, 2011)	101
Illus 6.2 Site Plan indicating delivery entrance along west 1:500 (Author, 2011)	102 - 103
Illus 6.3 Fittings (Radiant, 2011)	104
Illus 6.4 Materials(Author, 2011)	104
Illus 6.5 Ceiling Plans Above Ground 1:200 (Author, 2011)	104
Illus 6.6 Ceiling Plans Above M1, Above First 1:200 (Author, 2011)	105
Illus 6.7 Ceiling Plans Above M2, Above Second 1:200 (Author, 2011)	106
Illus 6.8 Materials and Key (Author, 2011)	107
Illus 6.9 Floor Finishes - Ground (Author, 2011)	107
Illus 6.10 Floor Finishes - M1 & First (Author, 2011)	108
Illus 6.11 Floor Finishes - M2 & Second (Author, 2011)	109
Illus 6.12 Materials Palette (Author, 2011)	110
Illus 6.13 <i>Evac+Chair</i> (Evac+Chair, 2004)	112
Illus 6.14 Concept and Materials (Author, 2011)	114
Illus 6.15 Stages 1 - 4 (Author, 2011)	114
Illus 6.16 Stages 5 - 8 (Author, 2011)	115
Illus 6.17 Section and Plan 1:25 (Author, 2011)	115
Illus 6.18 Concept and Materials (Author, 2011)	116
Illus 6.19 Inspiring Artworks (POPUP Students, 2011)	116
Illus 6.20 Wallpaper Graphic (Author, 2011)	116
Illus 6.21 Elevation Perspective (Author, 2011)	117
Illus 6.22 Sectional Perspective (Author, 2011)	117
Illus 6.23 Concept and Materials (Author, 2011)	118
Illus 6.24 Pieces for Assembly (Author, 2011)	118
Illus 6.25 Section and Elevation of Food LAB and Media Centre Boxes 1:20 (Author, 2011)	118
Illus 6.26 Section of Studio Storage Box 1:10 (Author, 2011)	119
Illus 6.27 Elevation of Studio Storage Box 1:10 (Author, 2011)	119
Illus 6.28 Concept and Materials (Author, 2011)	120

Illus 6.29 Infill, Thread and Frame pieces for crafter's use (Author, 2011)	120
Illus 6.30 Shape Abstraction (Author, 2011)	120
Illus 6.31 Infill Options (Author, 2011)	121
Illus 6.32 3D Explosion for Assembly (Author, 2011)	121
Illus 6.33 Concept and Materials (Author, 2011)	122
Illus 6.34 Isometric of Leg and Beam (Author, 2011)	122
Illus 6.35 Plan of Seat (Author, 2011)	122
Illus 6.36 Shape Abstraction (Author, 2011)	122
Illus 6.37 Seating Configurations (Author, 2011)	123
Illus 6.38 Partially Exploded 3D of Single Seating Unit (Author, 2011)	123
Illus 6.39 Two Seating Units in "Bench" configuration (Author, 2011)	123
Illus 6.40 Concept and Materials (Author, 2011)	124
Illus 6.41 Perspective of Dining Hall with Tables (Author, 2011)	124
Illus 6.42 3D Detail of Table (Author, 2011)	124
Illus 6.43 Table Surface Finishes in Spaces (Author, 2011)	125
Illus 6.44 Two 700 x 700 mm Tables (Author, 2011)	125
Illus 6.45 One 700 x 1400 mm Table (Author, 2011)	125
Illus 6.46 Mortise and Tenon Joint (Author, 2011)	125
Illus 6.47 Concept and Materials (Author, 2011)	126
Illus 6.48 Inspiration Images (Mode de Mundo, 2010; Dan's Upholstery, S.A. Mary, 2010)	126
Illus 6.49 Frame Component (Author, 2011)	126
Illus 6.50 Textile Roll Screen in Use (Author, 2011)	127
Illus 6.51 Base Component (Author, 2011)	127
Illus 9.1 Analysis of existing GAPP Framework (Salvokop Group, 2011)	136
Illus 9.2 Analysis of existing Tshwane Open Space Framework (TSOP) (Salvokop Group, 2011)	136
Illus 9.3 Analysis of existing Re Kgabisa Framework (Salvokop Group, 2011)	137
Illus 9.4 Framework Map (Salvokop Group, 2011)	138 - 139
Illus 9.5 Tshwane Open Space Framework Guideline Coding over New Framework Map (Salvokop Group, 2011)	140 - 141
Illus 9.6 Phases 1 - 3 & All Phases Overlay (Salvokop Group, 2011)	142 - 143
Illus 9.7 Current Condition (Author, 2011)	144
Illus 9.8 "Historical Ideal" - 1909 CEO (Author, 2011)	144
Illus 9.9 2011 POPUP (Author, 2011)	144
Illus 9.10 Entrance Hall (Author, 2011)	145
Illus 9.11 Food LAB Meeting Area / Banquet Space (Author, 2011)	145
Illus 9.12 Atrium and Mezzanine Spaces (Author, 2011)	145
Illus 9.13 The Author before design examination (Di Monte, 2011)	146
Illus 9.14 Sectional Structural Model (Author, 2011)	146
Illus 9.15 Detail 3.1 Model (Author, 2011)	146
Illus 9.16 The Author presenting the design project to the examination panel (Di Monte, 2011)	147
Illus 9.17 Detail 5 Model (Author, 2011)	147
Illus 9.18 Detail 6 Model (Author, 2011)	147
Illus 9.19 Examination Presentation (Author, 2011)	148
Illus 9.20 Examination Presentation (Author, 2011)	148
Illus 9.21 Design Model, Entrance View (Author, 2011)	149
Illus 9.22 Design Model, South Facade (Author, 2011)	149
Illus 9.23 Design Model, North Facade and Promenade (Author, 2011)	149
Illus 9.24 Design Models with presentation behind (Di Monte, 2011)	149
Illus 9.25 Design Model, Railway Promenade (Author, 2011)	149
Illus 9.26 Design Model (Author, 2011)	149