Submitted by: Shawn Adrian Duncan
Student Number: 22139703
Mentor and study leader: Barbara Jekot.

Submitted as part of the requirements for the degree of Magister in Architecture (Professional) in the Faculty of Engineering, Built Environment and Information Technology.
The Settler
( South African War ended, May 1902)

Here, where my fresh-turned furrows run,
And the deep soil glistens red,
I will repair the wrong that was done
To the living and the dead.
Here, where the senseless bullet fell,
And the barren shrapnel burst,
I will plant a tree, I will dig a well,
Against the heat and thirst.

Here, in a large and sunlit land,
Where no wrong bites to the bone,
I will lay my hand in my neighbour’s hand,
And together we will atone
For the set folly and the red breach
And the black waste of it all:
Giving and taking counsel each
Over the cattle-kraal.

Here will we join against our foes-
The hailstroke and the storm,
And the red and rustling cloud that blows
The locust’s mile deep swarm.
Frost and murrain and flood let loose
Shall launch us side by side
In the holy wars that have no truce
’twixt seed and harvest-tide.

Earth, where we rode to slay or be slain,
Our love shall redeem unto life.
We will gather and leap to her lips again
The waters of ancient strife,
From the far and fiercely guarded streams
And the pools where we lay in wait,
Till the corn cover our evil dreams
And the young corn our hate.

And when we bring old fights to mind,
We will not remember the sin-
If there be blood on his head of my kind,
Or blood on my head of his kin-

For the ungrazed upland, the untilled lea,
Cry, and the fields forlorn:
"the dead must bury their dead, but ye-
Ye serve an host unborn."

Bless then, our God, the new yoked plough
And the good beasts that draw,
And the bread we eat in the sweat of our brow
According to Thy Law.
After us cometh a multitude-
Prosper the work of our hand,
That we may feed with our land’s food
The folk of all our lands!

Here, in the waves and troughs of the plains,
Where the healing stillness lies,
And the vast, benignant sky restrains
And the long days make wise-
Bless to our use the rain and the sun
And the blind seed in its bed,
That we may repair the wrong that was done
To the living and the dead!

Rudyard Kipling 1903
"...maybe the day will come when the Transvaal University College will be for our country what Oxford is for England, maybe we shall have to watch the grass grow on the field for another hundred years before we see this happen, but a good start has been made."

General Jan Smuts on the occasion of the laying of the foundation stone of the Old Arts Building
Abstract

The dissertation considers architecture of the built environment and its effects on the existing social fabric within the larger urban context.

This thesis argues that South African Universities stand at a critical and defining moment in time, that through careful assessment and implementation of tertiary education structure design and planning, we may challenge the previously accepted spatial, socio economic and political extents of life since it is the change that occurs within the built environment which most profoundly affects our daily lives.

The platform used to explore this premise is a Hotel School, situated on the eastern boundary of the University of Pretoria’s Hatfield Campus. The fundamental relationship between the chosen site and the immediate surrounding will be defined, resulting in a formal translation in terms of an architectural intervention. As a means to recognise this challenge the intention will be to expand upon the architectural identity of the Campus and contribute toward the production of a South African sensibility through the language and interaction offered by architecture to the public.

The issues underpinning the argument deal with the lack of interaction between the University and its neighbours. The objective of this discourse will be the ratification of the ideal that positively performing urban environments reflect the high degree of integration between various parts and elements of the city.

"The essence of urbanity is that, with increasing agglomeration, individuals, groups and communities can benefit from a greater range of opportunities and facilities than can be generated by their operating in isolation.” (Dewar 1991:20)

The final design proposes an interaction between the University as private entity and the public realm through the use of an experiential hospitality training facility. The design creates a place of relief which is reliant upon the event of programme acting as generator, effectively bridging the divide and ultimately unifying a portion of the Campus with its surroundings.
# Table of Contents

## Chapter 1_Introduction

1.1 Introduction  

## Chapter 2_Brief

2.1 Problem statement  
2.2 Sub Problems  
2.3 Methodology  
2.4 Design objectives  
2.5 The Client  
2.6 Literature Review  
2.7 Theoretical Framework  

## Chapter 3_Theoretical Context

3.1 Introduction  
3.2 Hospitality management education  
3.3 Education in South Africa  
3.4 The role of the Teaching Hotel  
3.5 Architecture of the event  

## Chapter 4_Context Analysis

4.1 Introduction  
4.1.1 Study Area  
4.1.2 Project Area  
4.2 Historic Context  
4.2.1 City of Pretoria  
4.2.2 University of Pretoria  
4.3 Tourism Industry Facts and figures  
4.4 Trends in Hotel Development  
4.5 Conclusion  
4.6 Topography  
4.7 Geology  
4.8 Climate  
4.9 Legal land status  
4.10 Land use and Activities  
4.11 Movement and access: Study Area  
4.12 Study Area  
4.13 Project Area  
4.14 Current on site activities  

## Chapter 5_Urban Design Development

5.1 Introduction  
5.2 The urban space  
5.3 Social principles  
5.4 Urban Design Precedent  
5.5 The peripheral nature  
5.6 Site analysis  
5.7 Proposed new developments  
5.8 Parking  
5.9 Urban Design Informants  
5.10 Context Analysis  
5.11 Site Selection  
5.12 Conclusion
Chapter 6 _Precedents
6.1.1 Precedent 1: Constitutional Court 47
6.1.2 Precedent 2: Hotel Watt13 49
6.1.3 Precedent 3: Olympic College 51
6.1.4 Precedent 4: Hotel Bohemia 53
6.1.5 Precedent 5: Law Faculty 55
6.1.6 Precedent 6: The Kerzner Building 57

Chapter 7 _Building Design Development
7.1 Introduction 60
7.2 Spatial properties 60
7.3 Building Skin 61
7.4 Identity of the intervention 62
7.5 Architectural response 62
7.6 Application 64
7.7 Design Influences and site forces 67
7.8 Spatial organization 68
7.9 Building users 69
7.10 Programme 70
7.11 Circulation 72

Chapter 8 _Technical Investigation
8.1 Introduction 81
8.2 Design Summary 81
8.3 Structure 82
8.4 Materials 83
8.5 Passive climate control 85
8.6 Passive systems 85
8.7 Lighting 87
8.8 Air-conditioning systems 88
8.9 Water catchment and re-use 88
8.10 Landscaping 88
8.11 Services 88
8.12 Fire strategy 88

Chapter 9 _Technical Report
9.1 Drawings 89
9.2 Conclusion 107

Chapter 10 _Appendices and References
10.1 References 108
Appendix 1: Occupancy class and accommodation schedules
Appendix 2: Building usage over duration of the day
Appendix 3: Sustainable Building Assessment
Appendix 4: Newspaper Articles
List of Figures

Chapter 1: Introduction
Fig 1.1: The approach to the project site becomes progressively more dominated by the vehicle. (Author)

Chapter 3: Theoretical Context
Fig 3.1: Culinary art. (www.showcook.co.za/Cooker) 25/10/08

Chapter 4: Context Analysis
Fig. 4.1: Gauteng Regional Plan. (www.environment.gov.za) 10/09/08
Fig. 4.2: Location of site within the city context. (Author)
Fig. 4.3: Historic map of Pretoria. (Engelbrecht, S.P. p. 399)
Fig. 4.4: Painting by Thomas Baines of Pretoria 1872. (Bolsmann, E. p. 20)
Fig. 4.5: Church Square early 1900’s. (Balkema, A. p. 30)
Fig. 4.6: University of Pretoria Administration Building. (www.up.ac.za): 03/04/08
Fig. 4.7: University of Pretoria Ou Letterie Building 1911. (DuT Spies et al. p. 274)
Fig. 4.8: University of Pretoria Aerial view 1910-1960. (DuT Spies et al. p. 270)
Fig. 4.9: Campus map indicating eastwards expansion. (DuT Spies et al. p. 274)
Fig. 4.10: Established hotels in direct vicinity of site. (Grant Thornton 2008) Edited
Fig. 4.11: Accommodation Roomnights Sold. (Grant Thornton 2008) Edited
Fig. 4.12: Accommodation establishments in Pla. (Grant Thornton 2008) Edited
Fig. 4.13: Breakdown of Bednights sold. (Grant Thornton 2008) Edited
Fig. 4.14: Competing Hotels and Hospitality Management Schools within vicinity of site. (Author)
Fig. 4.15: Analysis of strengths, weaknesses opportunities and threats faced by the Lifestyle Hotel. (Author)
Fig. 4.16: Gauteng Soil and Geology Analysis. (www.environment.gov.za) 10/09/08
Fig. 4.17: Surveyor General diagram of site. (City of Tshwane Municipality)
Fig. 4.18: Study Area Land Use. (Author)
Fig. 4.19: Study Area Movement and Access. (Author)
Fig. 4.20: City wide structuring elements. (Author)
Fig. 4.21: Regional Location. (Author)
Fig. 4.22: Land use and activities around project area. (Author)
Fig. 4.23: Buildings adjacent to site. (Author)
Fig. 4.24: View of north eastern corner of site. (Author)
Fig. 4.25: View of primary pedestrian axis and Ring Road. (Author)

Chapter 5: Urban Design Development
Fig. 5.1: Collective Urban elements. (Spreiregen, P. p. 51)
Fig. 5.2: Urban elements. (Spreiregen, P. p. 50-51)
Fig. 5.3: Study of the relationship between the Public and Private realm. (Author)
Fig. 5.4: Active Public space along Regent Street. (www.leicester.gov.uk)
01/08/08
Fig. 5.5: New Walk incorporating Regent Street. (www.leicester.gov.uk)
01/08/08
Fig. 5.6: St Wilfred’s Anglican Church adjacent to site. (Author)
Fig. 5.7,5.8,5.9: Current boundary treatment of Campus. (Author)
Fig. 5.10: View of Dutch Reformed Church adjacent to site. (Author)
Fig. 5.11: View along primary pedestrian route. (Author)
Fig. 5.12: Road networks of project area. (Author)
Fig. 5.13: Proposed new developments. (Author)
Fig. 5.14: Proposed structured parking. (Author)
Fig. 5.15: Current on site building mass. (Author)
Fig. 5.16: Current on site forces and movement. (Author)
Fig. 5.17: Proposed on site forces and movement. (Author)

Chapter 6: Precedents
Fig. 6.1: Constitutional Court southern façade. (Knie, A. p. 221)
Fig. 6.2: Great African Stairs. (Deckler, T et al. p. 18)
Fig. 6.3: Spatial Planning. (Deckler, T et al. p. 19)
Fig. 6.4: Floor layout and building use. (Deckler, T et al. p. 19)
Fig. 6.5: Representation of connections. (Deckler, T et al. p. 21)
Fig. 6.6: Western façade and entrance podium. (Deckler, T et al. p. 21)
Fig. 6.7: Northern façade. (Deckler, T et al. p. 21)
Fig. 6.8: Conceptual façade fenestration. (Deckler, T et al. p. 21)
Fig. 6.9: Conceptual façade fenestration. (Deckler, T et al. p. 21)
Fig. 6.10: Ground floor plan. (Coggioni, P. p. 130)
Fig. 6.11: Hotel entrance lobby. (Coggioni, P. p. 127)
Fig. 6.12: Typical upper floor plan. (Coggioni, P. p. 130)
Fig. 6.13: Lighting. material use of the interior. (www.wattredci.com): 06/09/08
Fig. 6.14: View along northern façade of building. (Russel, S. p. 192)
Fig. 6.15: Floor plans and use. (Russel, S. p. 196)
Fig. 6.16: Wooden shed like structures enclose space. (Russel, S. p. 194)
Fig. 6.17: Grand entrance. (Russel, S. p. 193)
Fig. 6.18: Extensive full height glazing. (Russel, S. p. 194-195)
Fig. 6.19: Consideration of context and heritage. (Jones, P. p. 75)
Fig. 6.20: Light penetration through courtyard. (Jones, P. p. 76)
Fig. 6.21: Prague skyline from suite. (Jones, P. p. 78)
Fig. 6.22: Typical bedroom. (Jones, P. p. 79)
Fig. 6.23: Attention to detail and material use. (Jones, P. p. 79)
Fig. 6.24: Presentation adds to user experience. (Jones, P. p. 77)
Fig. 6.25: Plans and sections. (Jones, P. p. 75)
Chapter 7  Building Design Development

Fig. 7.1: Exploring spatial properties. (author)
Fig. 7.2: Conceptual façade treatment. (author)
Fig. 7.3: Typical Khoikhoi dwelling enclosure. (Fisher, R.C; p. 20)
Fig. 7.4: Extensive use of concrete. (DuT Spies et. al: p. 195)
Fig. 7.5: The Aula—the freestanding auditorium (DuT Spies et. al: p. 187)
Fig. 7.6: Section illustrating proposed street character. (author)
Fig. 7.7: Section illustrating proposed street character on Campus. (author)
Fig. 7.8: Section illustrating proposed street character. (author)
Fig. 7.9: Exploring relationship between mass and void. (author)
Fig. 7.10: Space defining elements. (author)
Fig. 7.11: Proposed site forces after intervention. (author)
Fig. 7.12: Exploring potential service areas. (author)
Fig. 7.13: Relationship between function and spatial planning. (author)
Fig. 7.14: Diagrammatic spatial relationship of public areas. (author)
Fig. 7.15: Spatial diagram indicating controlled access and public areas. (author)
Fig. 7.16: Diagram indicating connections and circulation. (author)
Fig. 7.17: Diagram indicating circulation and function of Restaurant. (author)
Fig. 7.18: Diagram showing spatial use. (author)
Fig. 7.19: Diagram representing circulation. (author)
Fig. 7.20: Section looking westward exploring building as viewing platform. (author)
Fig. 7.21: Section looking northward exploring building as viewing platform. (author)
Fig. 7.22: Sketch showing public-private domain. (author)
Fig. 7.23: Sketch showing corner of development. (author)
Fig. 7.24: Perspective view towards north east. (author)
Fig. 7.25: Perspective view towards south east. (author)
Fig. 7.26: Perspective view of courtyard area. (author)
Fig. 7.27: Perspective view of hotel component locking towards south west. (author)

Chapter 8  Technical Investigation

Fig. 8.1: Design development. (author)
Fig. 8.2: Spatial and structural composition. (author)
Fig. 8.3: Exploration of Auditorium form. (author)
Fig. 8.4: Steel component and glazing at Hotel entrance. (author)
Fig. 8.5: Use of timber to soften building edge and provide shading. (author)
Fig. 8.6: Steel component detail. (author)
Fig. 8.7: Seasonal sun paths. (author)
Fig. 8.8: Detail of clerestory box window. (author)
Fig. 8.9: Shadow study. (author)
Fig. 8.10: Sky light detail. (author)
Fig. 8.11: Vertical sun angle penetration. (author)

Chapter 9  Technical Report

All technical documentation by author.