INHABITING THE RUIN

By Juliette Hart

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE MASTER OF ARCHITECTURE (PROFESSIONAL), DEPARTMENT OF ARCHITECTURE, FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY, UNIVERSITY OF PRETORIA. PRETORIA, 2011
In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and theses, I declare that this thesis, which I hereby submit for the degree Master of 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 thesis has already been, or is currently being, submitted for any such degree, diploma or other qualification.

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

Juliette Hart
project summary_

PROGRAMME: Culinary school and facilitated kitchen

SITE DESCRIPTION: The project is located within the shell of the Prédio Potts building located in Maputo, Mozambique.

CLIENT: The University of Eduardo Mondlane and Slow Food © Maputo

SITE LOCATION: Erf 154, Maputo, Mozambique

ADDRESS: Corner Avenue 25 Septembre and Avenue Samora Machel, Maputo, Mozambique

GPS CO-ORDINATES: 25E 58’ 21.88” 32E 34’ 15.47”

ARCHITECTURAL THEORETICAL PREMISE: The role of heritage architecture within an urban environment and its ability to be

ARCHITECTURAL APPROACH: The re-intergration of a ruined and derelict early 20th century monument into the built urban fabric of the Maputo baixa as a site of public interaction.

RESEARCH FIELD: Heritage and Cultural landscapes
ILLUS. 1 Aerial view of Maputo (Perez, 2010; [1])
The dissertation addresses the loss of definition of public spaces within urban environments, due in large part to increased privatisation. Using the Baixa of the city of Maputo, Mozambique as its laboratory, the alienated and abandoned spaces within the urban fabric which result in these voids will be explored. Drawing on critical theory relating to the manner in which we appropriate and define spaces within our urban environment, the dissertation will seek to establish a connection between the architectural realm and its surrounding public landscape and explore the series of thresholds that the interaction between the two afford. Specifically, through the adaptive re-use of an historically significant landmark within the urban core, an architecture which explores the reconnection of place to space will be sought.
# Table of Contents

**Abstract**  
5

**List of Figures**  
7

**List of Illustrations**  
9

**Project Brief and Client**  
12  
- Introduction  
4  
- Research Questions  
5  
- Aims  
5  
- Problem Statement  
5  
- Delimitations and Assumptions  
5  
- Site  
6  
- Program/Brief  
7  
- Research Methodology  
8  
- Outline of Document  
8

**Context**  
10  
- Historical Analysis  
12  
- Macro Context  
17  
- Meso Context  
19  
- Micro Context  
27  
- Predio Potts  
30  
- Building Analysis  
32  
- Form  
32

**Theoretical Exploration**  
35  
- Structure  
35  
- Steel Frame and Fire  
37

**Precedent Studies**  
50  
- Womens Jail, Constitutional Hill  
51  
- Turbine Hall and Boiler House  
53  
- Slexys Bookstore  
55  
- Caselvecchio  
58  
- Pigsty Showroom  
61  
- The Institute of Culinary Arts  
62

**Programme and Client**  
68  
- Vendor Studies  
72  
- Functional Informants  
74

**Design Development**  
76  
- Massing  
77  
- Corner Treatments  
79  
- Access Road  
80  
- Threshold Exploration  
81

**Design Resolution**  
97  
- Vegetated Landscape  
83  
- Grid Juxtaposition  
87  
- Architecture as Insertion  
89  
- Street Interfaces  
91  
- Design Guidelines  
93  
- Structural Additions  
95  
- Vegetated Roof  
96  
- Design Perspectives  
97

**Design Resolution**  
100  
- Demolition Plan  
101  
- Site Plan  
103  
- Design Layout Ground Floor  
104  
- Services Layout Ground Floor  
105  
- Design Layout First Floor  
106  
- Section A-A  
107  
- Samora Machel Elevation  
109  
- Courtyard Perspective  
111  
- Detail Resolution  
112  
- Model Perspectives  
117

**Bibliography**  
122
list of figures

FIGURE 1 Mozambiquan timeline. (adapted from Casson et al, 2011)
FIGURE 2 Vendor studies (adapted from Zonderland, 2011)
ILLUS. 1 Aerial view of Maputo (Perez, 2010; [1])
ILLUS. 2 Topographical view of Baixa (Perez, 2010; [3])
ILLUS. 3 Aerial view of Predio Pott. (Hart, 2011)
ILLUS. 4 Mercado Central (Hart, 2011)
ILLUS. 5 Nerina Trojan Restaurant ambiance (Hart, 2011)
ILLUS. 6 Restaurant ambiance (Hart, 2011)
ILLUS. 7 Freshly caught prawns (Hart, 2011)
ILLUS. 8 Fish market traders (Hart, 2011)
ILLUS 9 Maputo through the time (Rufino, 1925)
ILLUS. 10 the Fort & trading settlement on an island in a swamp
ILLUS.11 first phase of swamp reclamation & layout of formal street grid
ILLUS. 12 circular demarcation of city limits & extension of street grid
ILLUS. 13 second phase of swamp reclamation & extension
ILLUS. 14 organic extension. consolidation of erfs in second phase swamp reclamation
ILLUS.15 extension to the North
ILLUS 16 Entrance to Botanical Gardens (Rufino, 1925)
ILLUS. 17 Botanical gardens (Rufino, 1925)
ILLUS.18 Tram on Avenue Agiar (Rufino, 1925)
ILLUS. 19 Major Transport network, greater Mozambique (Casson et al; 2011)
ILLUS 20 Major Transport network Maputo (Casson et al; 2011)
ILLUS. 21 Transport networks(Casson et al, 2011)
ILLUS. 22 Green networks (Casson et al, 2011)
ILLUS. 23 Formal and Informal trade (Casson et al, 2011)
ILLUS. 24 Combined analysis (Casson et al, 2011)
ILLUS. 25 Open space network (Casson et al, 2011)
ILLUS. 26 Municipal buildings Maputo (Hart, 2011)
ILLUS. 27 Proposed municipal precinct development (Forjaz, 2010)
ILLUS. 28 Las Ramblas, Barcalona (Hart, 2010)
ILLUS. 29 View down Avenue Samora Machel (Hart, 2011)
ILLUS. 30 Proposed street section through Las ramblas (Casson et al, 2011)
ILLUS. 31 Proposed las Ramblas atmosphere (Hart, 2011)
ILLUS. 32 Heritage buildings (Casson et al, 2011)
ILLUS. 33 Character of Baixa (Casson et al, 2011)
ILLUS. 34 Grid analysis (Google earth, 2011)
ILLUS. 35 Block analysis (Hart, 2011)
ILLUS. 36 Maputo city textures (all by Hart, 2011)
ILLUS. 37 Predio Potts Introductory Images (all by Hart, 2011)
ILLUS. 38 Artists impression of Predio Potts Ave D Carlos (Dana, 1972)
ILLUS. 39 Artists impression of Predio Potts Ave Aguiar (Dana, 1972)
ILLUS. 40 Predio Potts 2011, Ave Samora Machel Elevation (Hart, 2011)
ILLUS. 41 Solid to void rythm of facade. (Hart, 2011)
ILLUS. 42 Cast iron fretwork (Perez, 2011)
ILLUS. 43 artistic impression Predio Potts circa 1948 (Perez, 2011)
ILLUS. 44 Durban Town Hall 1883-1910 (Unknown, 2011)
ILLUS. 46 original turret with roof, Predio Potts circa 1990 (Perez, 2011)
ILLUS. 46 facade detail Predio Potts, 2011 (Hart, 2011)
ILLUS. 47 Dutch influenced tulip plaster detail (Hart, 2011)
ILLUS. 48 Turret in current condition (Hart, 2011)
ILLUS. 49 Predio Pott, East-West Section A (Hart, 2011)
ILLUS. 50 Predio Pott, East-West Section B (Hart, 2011)
ILLUS. 51 Predio Pott, East-West Section C (Hart, 2011)
ILLUS. 52 typical steel lintol warehouse construction detail (Drury, 1944; 73)
ILLUS. 53 (OPPOSITE) typical timber sash window detail (Drury, 1944; 250)
ILLUS. 54 (OPPOSITE) Section A-A Predio Potts showing original construction circa1903. (Perez, 2011)
ILLUS. 55 Plaster encased steel members (Hart, 2011)
ILLUS. 56 Model showing structural vs unstable built fabric (Hart, 2011)
ILLUS. 57 Found structural analysis (Hart, 2011)
ILLUS. 58 Predio Potts February 2011 (Hart, 2011)
ILLUS. 59 Plaster informal housing in ruin (Hart, 2011)
ILLUS. 60 Walt Disney Auditorium by Frank Gehry (arcpace, 2011)
ILLUS. 61 Säynätalos town hall by Alvar Aalto (Britannica online, 2011)
ILLUS. 62 Olympic Aquatic Hall by Zaha Hadid (Zaha Hadid Architects, 2011)
ILLUS. 63 Brion cemetery by Carlos Scarpa (Oames, 2009)
ILLUS. 65 Heritage conservation area (Google earth, 2011)
ILLUS. 66 site location (Google earth, 2011)
ILLUS. 67 Diagram of building significance (Hart, 2011)
ILLUS. 68 Historical facade element (Hart, 2011)
ILLUS. 69 Representative structural system (Hart, 2011)
ILLUS. 70 Connections between new and old fabric (Hart, 2011)
ILLUS. 71 Removability of intervention Images (Hart, 2011)
ILLUS. 72 layered components Images (Hart, 2011)
ILLUS. 73 Gender Equality Commission Offices (Hart, 2011)
ILLUS. 74 Cor-Ten screens (Hart 2011)
ILLUS. 75 Negative connectio to existing (Hart, 2011)
ILLUS. 76 Balcony above awaiting trial block (Joubert (editor), 2009)
ILLUS. 77 Section through existing cell block (Joubert (editor), 2009)
ILLUS. 78 Section through new offices (Joubert (editor), 2009)
ILLUS. 80 Turbine Hall, east entrance (Hart, 2011)
ILLUS. 81 New gallery space within existing structure (Hart 2011)
ILLUS. 82 Threshold space between new and existing shell (Hart, 2011)
ILLUS. 83 Section through new offices (Louw (editor), 2008; 84)
ILLUS. 84 Section through new offices (Joubert (editor), 2009)
ILLUS. 85 Selexys book store (Pham, 2011),
ILLUS. 86 New retail space within existing structure (Pham, 2011)
ILLUS. 87 interaction between new and existing shell (Pham, 2011)
ILLUS. 88 Cafe space in apse of church (Pham, 2011)
ILLUS. 89: Plan and axonometric of intervention (Pham, 2011)
ILLUS. 90 Castelvecchio gallery space (Schultz, 2010)
ILLUS. 91 connection to commune wall (Schultz, 2010)
ILLUS. 92 adaption of gothic windows (Schultz, 2010)
ILLUS. 93 Stripped back roof element (Schultz, 2010)
ILLUS 94 Layering of modular floor finishes (Schultz, 2010)
ILLUS 95 stratification of space (Schultz, 2010)
ILLUS 96 Movement through gallery (Schultz, 2010)
ILLUS 97 layered connections (Hart, 2011)
ILLUS 98 Layering of elements expressed in detailing (Schultz, 2010)
ILLUS 99 Banca Popolare (Schultz, 2010)
ILLUS 100 Planar layering of facade elements (adapted from Schultz, 2010)
ILLUS 101 Pigsty Showroom , insertion of new box (Bennes, 2010)
ILLUS 102 Dovecoat Studio, Suffolk (Bennes, 2010)
ILLUS 103 Pigsty showroom (Bennes, 2010)
ILLUS 104 layering of Pigsty showroom structure (Hart, 2011)
ILLUS. 105 ICA culinary school main building (Hart, 2011)
ILLUS. 106 Floor plan (Hart, 2011)
ILLUS. 107 Vegetable graden for fresh produce and herbs (Hart, 2011)
ILLUS. 108 Modular kitchen furniture (Hart, 2011)
ILLUS. 109 Bread at the market (Dores, 2009)
ILLUS. 110 Taste of slow (Slow Food, 2009)
ILLUS. 111 restaurant view mazzo restaurant New York (Brand, 2010)
ILLUS. 112 Food in the Baixa (Hart, 2011)
ILLUS. 113 Movement spaces between countertops (Neufort, 1995)
<table>
<thead>
<tr>
<th>Illustration Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILLUS. 114</td>
<td>Circulation space (Neufort, 1995)</td>
</tr>
<tr>
<td>ILLUS. 115</td>
<td>Comfortable reach heights (Neufort, 1995)</td>
</tr>
<tr>
<td>ILLUS. 116</td>
<td>Maximum reaching heights (Neufort, 1995)</td>
</tr>
<tr>
<td>ILLUS. 117</td>
<td>Movement analysis in restaurant (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 118</td>
<td>Removable cooking counters (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 119</td>
<td>Bakery pan storage (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 120</td>
<td>Hygiene in kitchen (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 121</td>
<td>Mazzoo restaurant (Brand, 2010)</td>
</tr>
<tr>
<td>ILLUS. 122</td>
<td>Patisserie table (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 123</td>
<td>Initial massing views (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 124</td>
<td>Diagram of found structural analysis (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 125</td>
<td>Conceptual planning (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 126</td>
<td>Initial functional massing (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 127</td>
<td>Central Printers, Maputo (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 128</td>
<td>Chamfered corner detail, Maputo (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 129</td>
<td>Office building diagonally opposite Predio Potts (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 130</td>
<td>Predio and Achri building, Maputo (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 131</td>
<td>Corner massing treatments (Ching, 2007)</td>
</tr>
<tr>
<td>ILLUS. 132</td>
<td>Street elevation Avenue 25 September (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 133</td>
<td>Proposed demolition of building (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 134</td>
<td>Threshold 1 from Las Ramblas (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 135</td>
<td>Threshold 2 - historic shell (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 136</td>
<td>Threshold 3 - new intervention (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 137</td>
<td>Parti diagram (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 138</td>
<td>Section A-A (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 139</td>
<td>Section B-B (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 140</td>
<td>Urban edge condition (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 141</td>
<td>Salad bar (Velazquez, 2010)</td>
</tr>
<tr>
<td>ILLUS. 142</td>
<td>Vegetated walls (Velazquez, 2010)</td>
</tr>
<tr>
<td>ILLUS. 143</td>
<td>Conceptual diagrams (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 144</td>
<td>Conceptual diagrams (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 145</td>
<td>Proposed addition to create urban edge along Samora Machel (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 146</td>
<td>Artistic impression Predio Potts (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 147</td>
<td>Greened planting element (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 148</td>
<td>Vegetated walls (Velazquez, 2010)</td>
</tr>
<tr>
<td>ILLUS. 149</td>
<td>Conceptual design September 2011 (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 150</td>
<td>System of grids (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 151</td>
<td>Carving out of building mass (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 152</td>
<td>Ground floor conceptual diagram (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 153</td>
<td>First floor conceptual diagram (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 154</td>
<td>Conceptual language of insertion asymmetric pitch roof (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 155</td>
<td>Conceptual language of insertion concrete flat roof (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 156</td>
<td>Impression of architectural insertion (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 157</td>
<td>Conceptual rendering of new insertion (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 158</td>
<td>Expression of differing functional boxes within ruin (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 159</td>
<td>Conceptual rendering of new insertion (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 160</td>
<td>Threshold exploration (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 161</td>
<td>Population of street thresholds (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 162</td>
<td>Street elevation of proposed cooking Kitchen (Hart, 2011)</td>
</tr>
<tr>
<td>ILLUS. 163</td>
<td>Diagramatic layout of major cooking kitchen (Hart, 2011)</td>
</tr>
</tbody>
</table>