



**AN ARCHITECTURAL RESPONSE TO HOMELESSNESS:**

A Proposed Transitional Shelter in Orange Grove, Johannesburg

**LAWRENCE CHETTY**

A Dissertation Submitted in partial fulfilment of the  
Requirements for the degree of Master of Architecture to  
The School of Built Environment and Development Studies

University of KwaZulu-Natal

Durban, South Africa

July 2022

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**Supervisor**

**Dr Viloshin Govender**

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## DECLARATION

Submitted in fulfilment of the requirements for the degree of Master of Architecture,  
in the Graduate Programme in Architecture, University of Kwa-Zulu Natal, Durban,  
South Africa

I declare that this dissertation is my own unaided work. All citations, references and  
borrowed ideas have been duly acknowledged. I confirm that an external editor was not used. It  
is being submitted for the degree of Master in Architecture in the faculty of Humanities, within  
the school of Built Environment & Development Studies, KwaZulu-Natal.

Zulu Natal, Durban, South Africa. None of the present work has been submitted previously for  
any degree or examination in any other University.

LAWRENCE CHETTY



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DATE

23 January 2024  
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## **DEDICATION**

To all social workers, NGO's, NPO's and agents of empowerment, who work tirelessly and authentically at alleviating poverty and homelessness in Gauteng.

## ABSTRACT

The root cause of street homelessness in South Africa is apartheid, which has contributed to fortified divisions spatially, economically, and socially. Structural causes, such as unemployment, lack of accommodation, and rapid urbanisation are some of the contributing factors to homelessness. The knock-on effects are individualistic causes such as family breakdown and substance abuse to name but a few, which force many to the streets. An integral response to homelessness is the homeless shelter.

A desktop analysis of shelters in Johannesburg and case study visits to homeless shelters in the inner city reveals that shelters are unable to respond to the needs of those experiencing homelessness. Twelve failures have been identified in shelters which fall under three primary categories, namely urban, architectural, and social issues.

International responses from Canada, America, The United Kingdom, and Australia, are taking a different approach by omitting the institutionalised look and feel of shelters by creating a home environment. It is considered that by creating such an environment healing and empowerment can also occur, which invariably leads to autonomy.

What was also identified during the research process was that in a 5-step ladder approach to autonomy and accommodation for those experiencing homelessness, the transitional shelter is a missing step in Johannesburg. It is with this in mind that this building typology becomes the focus of the study. The design of the transitional shelter has been informed by a literature review, precedent studies, case studies, observations, and semi-structured interviews. The following three theories, *Theory of Culture*, *Theory of Empowerment*, and *Theory of Placemaking*, have also been identified as critical lenses through which the problem statement and the appropriate response can be understood.

## TABLE OF CONTENTS

DECLARATION.....	3
ACKNOWLEDGEMENTS.....	4
DEDICATION.....	5
ABSTRACT .....	6
TABLE OF CONTENTS .....	6

LIST OF FIGURES .....	10
IDENTIFICATION OF VARIABLES.....	18
1.0.1. UKZN Research Flagship: African Cities of the Future .....	18
1.0.2. Independent Variable: Homelessness .....	18
1.0.3. Dependent Variable: Transitional Shelter .....	18
1.1. INTRODUCTION .....	19
1.1.1. Background .....	19
1.1.2. Motivation / Justification of the study.....	22
1.2. DEFINITION OF THE PROBLEM AIMS AND OBJECTIVES .....	22
1.2.1. Definition of a Problem.....	22
1.2.2. Aim.....	24
1.2.3. Objectives.....	24
1.3    SETTING OUT THE SCOPE .....	24
1.3.1    Delimitation of Research Problem .....	24
1.3.2    Definition of Terms .....	25
1.3.3    Stating the Assumptions.....	25
1.3.4    Key Questions.....	26
1.4. CONCEPTS AND THEORIES .....	26
1.4.1 Introduction.....	26
1.4.2. The Theory of Culture .....	27
1.4.3. The Theory of Empowerment .....	28
1.4.4. The Theory of Placemaking.....	30
1.5    RESEARCH METHODOLOGY .....	31
1.5.1    Introduction .....	31
1.5.2    Research Philosophy and Strategy.....	31
1.5.3    Secondary Data Collection.....	32
1.5.4    Primary data collection .....	33
1.5.4.1. Semi-structured interviews .....	33
1.5.4.2. Case studies .....	33
1.5.4.3. Observations.....	34
1.5.5    Research Materials .....	34
1.5.6    Research Analysis.....	34
1.5.7. Summary.....	35
1.6.    CONCLUSION.....	36

CHAPTER 2: LITERATURE REVIEW DEFINING CULTURE .....	36
2.1. Introduction.....	36
2.2. Defining the theory of culture.....	37
2.3. Defining Culture in South Africa.....	41
2.4. Culture and community .....	45
2.5. Culturally Responsive Environments .....	59
CHAPTER 3: EMPOWERING THOSE EXPERIENCING HOMELESSNESS .....	70
3.1 Introduction.....	70
3.2. Sustainable Development Goals and homelessness.....	70
3.3. Empowering those experiencing homelessness .....	71
3.3.1. Proposed interventions.....	72
3.4. Empowering Spaces.....	76
3.4.1. Aranya Low-Cost Housing .....	77
3.4.2. The Perseigne social housing project.....	78
3.4.3. Byker Wall .....	78
3.4.5. Challenges with Empowerment Spaces .....	79
3.4.6. Empowerment in South Africa – Ubuntu Centre .....	81
3.4.7. Empowerment in South Africa – Tshwane Food and Energy Centre.....	83
3.4.8. Empowerment in South Africa - Outreach foundation project in Hillbrow .....	84
3.5. Adult Learning.....	85
3.5.1. Learning space, technology, and a sense of place.....	87
3.5.2. A sense of place .....	87
3.5.3. Learning spaces and technology .....	87
CHAPTER 4: LITERATURE REVIEW PLACE MAKING .....	91
4.1 Introduction.....	91
4.2. Place and its impacts on those experiencing homelessness.....	91
4.2.1. The Neighbourhood.....	99
4.2.2. The district .....	100
4.2.3. The Corridor.....	100
4.3. What is the principle of home – A sense of home – People Place Past Future.....	101
4.4. Place-Making in Homeless Shelters.....	106
4.4.1. History of the Homeless Shelter. ....	107
4.4.2 Frameworks for designing shelters. ....	108
4.4.3. Design Considerations.....	110

4.4.3.2. Building Design – the shell and interior .....	110
4.4.4. Accommodation Variations.....	111
4.5. Genius Loci.....	116
4.5.1. Defining sustainable architecture .....	118
5. CHAPTER 5: PRECEDENT STUDIES.....	124
5.1. Introduction.....	124
5.2. Precedent Study 1 – Eva Phoenix .....	124
5.2.1. Project Description.....	124
5.2.2. Justification.....	126
5.2.3. Urban Context and Locality .....	126
5.2.4. Project Objectives .....	128
5.2.5. Program and Planning.....	131
5.2.6. Design Strategy .....	135
5.2.7. Summary.....	138
5.3. Precedent Study 2 – Pacific Garden Mission .....	139
5.3.1. Project Description.....	140
5.3.2. Justification.....	141
5.3.3. Urban Context and Locality .....	142
5.3.4. Project Objectives .....	144
5.3.5. Program and Planning.....	145
5.3.6. Design Strategy .....	148
5.3.7. Summary.....	151
5.4. Precedent Study 3 – Dennis Hurley Centre .....	153
5.4.1. Project Description.....	154
5.4.2. Justification.....	155
5.4.3. Urban Context and Locality .....	156
5.4.4. Project Objectives .....	157
5.4.5. Program and Planning.....	159
5.4.6. Design Strategy .....	162
5.4.7. Summary.....	166
6. CHAPTER 6: CASE STUDIES.....	167
6.1. Introduction.....	167
6.2. Case Study: MES (Mould Empower Serve) .....	168
6.2.1. Background .....	168

6.2.2. Urban Context .....	169
6.2.3. Case Study 1: Ekhaya Overnight Shelter.....	172
6.2.4. Case Study 2: Ekuthuleni Shelter.....	176
6.2.5. A comparative analysis.....	180
6.2.6. Responding to the needs of those experiencing homelessness .....	181
6.3 Case Study 3: Siyabonga Africa .....	182
6.3.1. Background.....	182
6.3.2. Urban Context .....	183
6.3.3. Response to students and those experiencing homelessness. ....	186
6.3.4. Empowerment spaces.....	190
6.3.5. Suitability of the Program and Facility.....	192
6.3.6. Looking to the future .....	193
6.4. Conclusion.....	193
CHAPTER 7: ANALYSIS AND DISCUSSION.....	194
7.1. Introduction.....	194
7.2. Analysis of Research Findings.....	194
7.3. Discussion and Theoretical Implications .....	199
7.4. Conclusion.....	203
CHAPTER EIGHT: CONCLUSION AND RECOMMENDATIONS.....	203
8.1. Introduction.....	203
8.2 Achieving Objectives .....	205
8.3. Conclusions .....	206
8.4. Recommendations.....	208
8.5. Site Selection.....	210
8.6. Conclusion.....	213
REFERENCES.....	213
LIST OF APPENDICES.....	226

## LIST OF FIGURES

Figure 1. Categories of homelessness (Edgar et al. 2010)

Figure 2. Right to the City (Author, 2022)

Figure 3. Cause of homelessness in Johannesburg (De Beer & Vally 2021; Google Images; Author, 2023)

Figure 4. Insurgent sleeping conditions (Google Images)

Figure 5. Shortcomings of homeless shelters (Google Images; Google Maps; Author, 2023)

Figure 6. Theories and Concepts (Author, 2023)

Figure 7. South African Culture (Author, 2023)

Figure 8. Essence of design – to solve human problems (Author, 2022)

Figure 9. The components of Placemaking. (Google Images)

Figure 10. Research Design and Strategy (Author, 2023)

Figure 11. Somatic and extrasomatic symbols (White, 1959)

Figure 12 – Reinterpretation of somatic and extrasomatic conditions relative to homelessness (Author, 2023)

Figure 13 mental programming. (Hofstede, 2010)

Figure 14 Manifestations of Culture at Different Levels of Depth (Hofstede, 2010)

Figure 15. Map of South Africa (Google Images)

Figure 16. Racial and Spatial segregation in colonial planning (Christopher, 1984 in Rosenberg, 2012)

Figure 17. The Apartheid city segregation Plan (McCarthy and Smit, 1984 in Rosenberg, 2012)

Figure 18. Apartheid in South Africa (Google Images)

Figure 19. Sandton and Alexandra disparity (Archdaily. Divided: Urban Inequality in South Africa, Accessed: April 2024)

Figure 20. Mental programming adapted to those experiencing homelessness (adapted by Author, 2023)

Figure 21. Figure ground of *traditional city* (left) versus *planned city* (right) (Trancik, 1986)

Figure 22. Perspective of *traditional city* (left) versus *planned city* (right) (Tibbald, 1991)

Figure 23. Garden City by Ebenezer Howard

Figure 24. Radiant City by Le Corbusier

Figure 25. Urban elements of imageability and legibility (UX Planet, 2022)

Figure 26. The Burgess Model (Google Images)

Figure 27. Human Right in South Africa (Google Images adapted by author, 2023)

Figure 28 Lost spaces in the city (Aly et al. 2023)

Figure 29. Mumbai in India (Wikimedia adapted by Author, 2023)

Figure 30 Dharavi in Mumbai (Boano et al. 2011)

Figure 31 Map of Dharavi (Gregory, 2010)

Figure 32. Informal settlements and material. (Dey, 2018).

Figure 33. Creating work opportunities (Boano et al. 2011).

Figure 34. Six stages of Dharavi house construction (Dey, 2018)

Figure 35. Not responding to people needs (Boano et al. 2011).

Figure 36. Shacks in Barrios (Irazábal et al. 2020)

Figure 37. Tower Of David in the City of Caracas (Irazábal et al. 2020)

Figure 38. Tower of David Site Plan (Caldieron, 2013)

Figure 39. Incomplete buildings - insurgent opportunities (Caldieron, 2013) (Irazábal et al. 2020)

Figure 40. Typical adapted layout in Torre David (Caldieron, 2013)

Figure 41. Typical adapted layout in Torre David (Caldieron, 2013)

Figure 42. Typical adapted layout in Torre David (Caldieron, 2013)

Figure 43. Creating a home in insurgent spaces. (Caldieron, 2013)

Figure 44. Creating a home in insurgent spaces. (Caldieron, 2013) (Irazábal et al. 2020),

Figure 45. Makro, meso and micro urban scales (Rappaport, 2005)

Figure 46. Physical and metaphysical built environments (McClure & Bartuska, 2007) (Adapted by author, 2023)

Figure 47. Interaction between people and environments (Rappaport, 2005)

Figure 48. Reinterpreting the traditional Chinese courtyard (Dezeen, 2018)

Figure 49. Desi Training Centre. (Author, 2023)

Figure 50. Desi Training Centre (Google Images)

Figure 51. Informal settlements in India and South Africa (Archdaily, Architecture and Aid: Reframing Research on Informal Settlements, Accessed: April 2024)

Figure 52. Stress and human behaviour (Rappaport, 2005)

Figure 53. Superkilen response to urban stress (Ghadeer, 2020)

Figure 54. Design response to stress (Rappoport, 2005)

Figure 55. Cultural spatial preferences (Rappoport, 2005)

Figure 56. Dismantling social expressions of culture (Rappoport, 2005)

Figure 57. Components of culture. (Rappoport, 2005)

Figure 58. Dismantling Culture (Rappoport, 2005)

Figure 59. Sustainable Development Goals (United Nations, 2015)



Figure 60. Maslow's hierarchy of needs. (Luckan, 2015)

Figure 61. Needs of those experiencing homelessness (Fleury et al. 2021)

Figure 62. Steps towards rehabilitation (De Beer & Vally, 2021)

Figure 63. U-turn Program (De Beer & Vally, 2021)

Figure 64. Empowerment through tenure and street trade (Serageldin, 1997)

Figure 65. Owners decorated their houses according to the beliefs and needs (Raina et al. 2016)

Figure 66. Alencon School and community Centre (Schuman, 1987).

Figure 67. Byker site plan (Abrams, 2003)

Figure 68. Byker wall – a symbol of ecological design. (Abrams, 2003)

Figure 69. Ubuntu Centre Plan View (Archdaily, <https://www.archdaily.com/135432/ubuntu-centre-field-architecture> Date Accessed: October 2023)

Figure 70. Ubuntu Centre Section (Archdaily, <https://www.archdaily.com/135432/ubuntu-centre-field-architecture> Date Accessed: October 2023)

Figure 71. Ubuntu Centre – Subsistence Farming (Archdaily, <https://www.archdaily.com/135432/ubuntu-centre-field-architecture> Date Accessed: October 2023)

Figure 72. Tshwane Food and energy Centre (Dimmer, 2016).

Figure 73. Biogas bio digester and solar panels (Dimmer, 2016).

Figure 74. Outreach foundation project external View (Archdaily <https://www.archdaily.com/776444/outreach-foundation-local-studio> Accessed: May 2023)

Figure 75. Primary objectives – learning education training (Tight, 2004)

Figure 76. The Learning Café at Glasgow Caledonian University (Boys, 2010) (Jisc, Marmot et al., 2006)

Figure 77. Centre for Inquiry- based Learning (Jisc, Marmot et al., 2006)

Figure 78. Flexible formal learning spaces

Figure 79. Vocational learning spaces with flexible and web-based services

Figure 80. Homelessness and victimisation (Google Images)

Figure 81. homelessness and stigmatisation (Google Images)

Figure 82. homelessness and lack of access (Google Images)

Figure 83. homelessness and inadequate shelter (Google Images)

Figure 84. Placemaking – reconnecting. (Minnaar, 2019)

Figure 85. Human behaviour based on activity (Tibbald, 1991) (Archdaily, The Psychology of Urban Planning, Accessed: March 2023)

Figure 86. Liminal space (Minnaar, 2019)

Figure 87. The roman forum (Ching et al., 2017)

Figure 88 Aranya – designing for human activity on streets (Rethinking the Future)

Figure 89. Place identity (Montgomery, 1998)

Figure 90. Elements of good urban place (Montgomery, 1998)

Figure 91. The civic spirit of place (Brown, 1999)

Figure 92. A sense of community (Brown, 1999)

Figure 93. Street equality (Global Designing Cities Initiatives)

Figure 94. Phenomenological aspects of home (Sixsmith, 1986)

Figure 95. Human behaviour (Lawson, 2007)

Figure 96. Balance between man, nature and man-made (Author, 2023)

Figure 97. Stimulation Range (Stoneham & Smith, 2015)

Figure 98. Hearth – creating an ambient place (Google Images)

Figure 99. Evolution of the cottage (Google Images).

Figure 100. Contrast between nature and architecture (Stoneham & Smith, 2015) (Google Images)

Figure 101. The window from inside and outside (Stoneham & Smith, 2015)

Figure 102. Views and privacy (Stoneham & Smith, 2015)

Figure 103. Organic principles of architecture (Google Images)

Figure 103. Le Corbusier's Modulor (Ching, 2007)

Figure 104. Workhouses built by parishes. (Pable et al. 2022)

Figure 105. Leverett Street Almshouse. (Pable et al. 2022)

Figure 106. before and after images using trauma informed design. (Pable et al. 2022)

Figure 107. Le Corbusier's five points of architecture (Archdaily, <https://www.archdaily.com/948273/the-5-points-of-modern-architecture-in-contemporary-projects> Accessed : August 2023)

Figure 108. Critical Regionalism (Author, 2022)

Figure 109. Suzlon One Earth Global Corporate Headquarters site plan (Archdaily [https://www.archdaily.com/466958/suzlon-one-earth-global-corporate-headquarters-christopher-benninger?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/466958/suzlon-one-earth-global-corporate-headquarters-christopher-benninger?ad_source=search&ad_medium=projects_tab) Accessed : September 2023)

Figure 110. Suzlon One Earth Global Corporate Headquarters external view (Archdaily [https://www.archdaily.com/466958/suzlon-one-earth-global-corporate-headquarters-christopher-benninger?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/466958/suzlon-one-earth-global-corporate-headquarters-christopher-benninger?ad_source=search&ad_medium=projects_tab) Accessed : September 2023)

Figure 111. Gando Primary School external view (Archdaily, [https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad_source=search&ad_medium=projects_tab) Accessed: September 2023)

Figure 112. Gando Primary School internal view. (Archdaily, [https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad_source=search&ad_medium=projects_tab) Accessed: September 2023)

Figure 113. Gando Primary School – rainwater harvesting. (Archdaily, [https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad_source=search&ad_medium=projects_tab) Accessed: September 2023)

Figure 114. Gando Primary School – high quality aesthetics. (Archdaily, [https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad_source=search&ad_medium=projects_tab) Accessed: September 2023)

Figure 115. Eva Phoenix, Toronto, Canada

Figure 116. Internal View of Eva Phoenix (Author, 2023)

Figure 117. Eva Smith (Facebook)

Figure 118. City of Toronto downtown (Google image adapted by author, 2023)

Figure 119. City of Toronto (google earth adapted by author, 2023)

Figure 120. Circle of courage (Ecker et al. 2017).

Figure 121. Holistic Framework (Ecker et al. 2017).

Figure122 Belonging. (Ecker et al. 2017).

Figure 123. Master and Independence (Ecker et al. 2017).

Figure124. Existing brownfield Site (ERA Architects, 2017).

Figure125. Urban context and site (adapted by author, 2023)

Figure126. Ground floor plan – Eva Phoenix (adapted by author, 2023)

Figure 127. Second floor – Eva Phoenix (adapted by author, 2023)

Figure 128. Third floor – Eva Phoenix (adapted by author, 2023)

Figure 129. Basement – Eva Phoenix (adapted by author, 2023)

Figure 130. Visual integration (Google Images)

Figure131. Eva Phoenix - Natural light (adapted by author, 2023)

Figure132. Eva Phoenix - Skylights (Google Images)

Figure133. Eva Phoenix – Social spaces (Google Images)

Figure134. Enhancing place with light and nature (Google Images)

Figure 135. Pacific Garden Mission Location – United States of America

Figure 136. Pacific Garden Mission Courtyard (Author, 2022)

Figure137. Pacific Garden Mission - Urban fabric - Google Earth (adapted by Author, 2023)

Figure 138. Pacific Garden Mission - Surroundings - Google Earth (adapted by Author, 2023)

Figure 139. Pacific Garden mission – creating a welcoming atmosphere (Google Maps)

Figure 140. Pacific Garden mission – A sense of hope (Google Images)

Figure 141. Pacific Garden Courtyard

Figure 142. Pacific Garden ‘yellow brick road’

Figure 143. Pacific Garden Chapel

Figure 144. Institutionalised space

Figure 145. Pacific Garden Mission Ground Floor Plan (author, 2023)

Figure 146. Pacific Garden Mission Roof Plan (author, 2023)

Figure 147. Form massing analysis of light (Author, 2023)

Figure 148. Pacific Garden Mission - Landscaped courtyard - Biophilia

Figure 149. Pacific Garden Mission - Potted plants in ‘yellow brick road’ corridor

Figure 150. Dennis Hurley Centre Location – South Africa

Figure 151. Dennis Hurley Centre – Street View (Author, 2022)

Figure 152. Existing Parish.  
(Dennis Hurley Centre, no date)

Figure 153. Denis Hurley Centre in urban context

Figure 154– Dennis Hurley Urban Context surround the site (Author, 2023)

Figure155 – A ‘meal of reconciliation’

Figure 156. Dennis Hurley - Ground Floor Zones (Author, 2023)

Figure 157. Dennis Hurley - First Floor Zones (Author, 2023)

Figure 158. Dennis Hurley - Second Floor Zones (Author, 2023)

Figure 159. Dennis Hurley -Third Floor Zones (Author, 2023)

Figure 160. Dennis Hurley - Northern Elevation (Archdaily,  
[https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad_source=search&ad_medium=projects_tab) Accessed: October, 2023)

Figure 161. Reflection of Emanuel Cathedral onto Southern Facade(Archdaily, [https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad_source=search&ad_medium=projects_tab) Accessed: October, 2023)

Figure 162. Dennis Hurley - Eastern and Southern façade. (Archdaily, [https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad_source=search&ad_medium=projects_tab) Accessed: October, 2023)

Figure163. Central atrium – Lungs of the building (adapted by author, 2023)

Figure 164. (MES) Changing the heart of the city.

Figure 165. Ladder of Accommodation (MES – adapted by author)

Figure 166. Johannesburg Inner City.

Figure 167. Ekhaya Overnight Shelter

Figure 168. Ekuthuleni Shelter

Figure 169. Ekhaya internal entrance (Author, 2023)

Figure 170. Ekhaya Shelter – Storage space and additional sleep space (Author, 2023)

Figure 171. Ekhaya Shelter – Staircase (Author, 2023)

Figure 172. Ekhaya Shelter – Entrance foyer (Author, 2023)

Figure 173. Ekhaya Shelter – Sleeping area (Author, 2023)

Figure 174. Ekhaya Shelter – Sleeping quarters (Author, 2023)

Figure 175. Ekhaya Shelter – Sleeping quarters (Author, 2023)

Figure 176. Ekhaya Shelter – Social spaces (Author, 2023)

Figure 177. Ekuthuleni Shelter – public spaces (Author, 2023)

Figure 178. Ekuthuleni Shelter- Main Entrance (Author, 2023)

Figure 179. Ekuthuleni Shelter – courtyard and circulation spaces (Author, 2023)

Figure 180. Ekuthuleni Shelter – sleeping quarters (Author, 2023)

Figure 181. Ekuthuleni Shelter – sleeping quarters (Author, 2023)

Figure 182. Ekuthuleni Shelter – social space (Author, 2023)

Figure 183. MES Skills Centre, low-cost housing and Crèche (Author, 2023)

Figure 184. Madulammoho Housing Association & Youth and Assessment Centre. (Author, 2023)

Figure 185. Siyabonga Africa (Google Maps)

Figure 186. Map of Brakpan

Figure 187. Land use in Brakpan (adapted by author, 2023)

Figure 188. Google earth image of Brakpan (adapted by author, 2023)

Figure 189. Urban relationships of Siyabonga Africa (adapted by author, 2023)

Figure 190. Site Plan of Siyabonga Africa (adapted by author)

Figure 191. Siyabonga Africa - Front of property images (Author, 2023)

Figure 192. Siyabonga Africa – Reception area (Author, 2023)

Figure 193. Siyabonga Africa – Staff rooms (Author, 2023)

Figure 194. Siyabonga Africa - Chapel (Author, 2023)

Figure 195. Siyabonga Africa – Place of reflection (Author, 2023)

Figure 196. Siyabonga Africa – Outdoor teaching area (Author, 2023)

Figure 197. Siyabonga Africa – Teaching Bakery (Author, 2023)

Figure 198. Siyabonga Africa – Fashion School (Author, 2023)

Figure 199. Siyabonga Africa – Computer and business literacy Author, 2023)

Figure 200. Urban farming prospects (Author, 2023)

Figure 201. (NVivo) Themes derived from Respondent 1 (Author, 2023)

Figure 202. (NVivo) Themes derived from Respondent 2 (Author, 2023)

Figure 203. (NVivo) Themes derived from Respondent 3 (Author, 2023)

Figure 204. NVivo) Themes derived from Respondent 4 (Author, 2023)

Figure 205. Street Culture - sense of familiarity and comfort

Figure 206. Elements of a ‘Sense of Home’

Figure 207. Trauma Informed Design – Healing environments

Figure 208. Social Integration – Street Edge Treatment

Figure 209. Layering of spaces

## **IDENTIFICATION OF VARIABLES**

### **1.0.1. UKZN Research Flagship: African Cities of the Future**

### **1.0.2. Independent Variable: Homelessness**

### **1.0.3. Dependent Variable: Transitional Shelter**

## 1.1. INTRODUCTION

### 1.1.1. Background

Homelessness is a social phenomenon which occurs in all parts of the world (Bucsh-Geertsema et al. 2016). The United Nations estimates the world homeless population to be about 1.1 billion (Speak, 2019). The European Typology on Homelessness and Housing Exclusion (ETHOS) suggest that there are seven categories of homelessness (Busch-Geertsema in Edgars et al. 2010). This also describes how needs of those experiencing homelessness are not met in the physical, legal and social domains, see figure 1.

Conceptual category	Operational categories	Physical domain	Legal domain	Social domain
Homelessness	1 Rooflessness	No dwelling (roof)	No legal title to a space for exclusive possession	No private and safe personal space for social relations
	2 Houselessness	Has a place to live, fit for habitation	No legal title to a space for exclusive possession	No private and safe personal space for social relations
Housing exclusion	3 Insecure and inadequate housing	Has a place to live (not secure and unfit for habitation)	No security of tenure	Has space for social relations
	4 Inadequate housing and social isolation within a legally occupied dwelling	Inadequate dwelling (unfit for habitation)	Has legal title and/or security of tenure	No private and safe personal space for social relations
	5 Inadequate housing (secure tenure)	Inadequate dwelling (dwelling unfit for habitation)	Has legal title and/or security of tenure	Has space for social relations
	6 Insecure housing (adequate housing)	Has a place to live	No security of tenure	Has space for social relations
	7 Social isolation within a secure and adequate context	Has a place to live	Has legal title and/or security of tenure	No private and safe personal space for social relations

Figure 1. Categories of homelessness (Edgar et al. 2010)

In South Africa, The Human Sciences Research Council (HSRC) estimate that there are about 200 000 experiencing homelessness (Kok et al. 2010) (Rule-Groenewald et al. 2015), and whilst there is no official count for Johannesburg, the Johannesburg Homeless Network (JHN) estimates this number to be about 20 000 (Perlman and Charlton, 2021) (Davie, 2019). At the core of homelessness, is great trauma and injustice where those experiencing homelessness do not enjoy rights to the city like others in society. See figure 2.

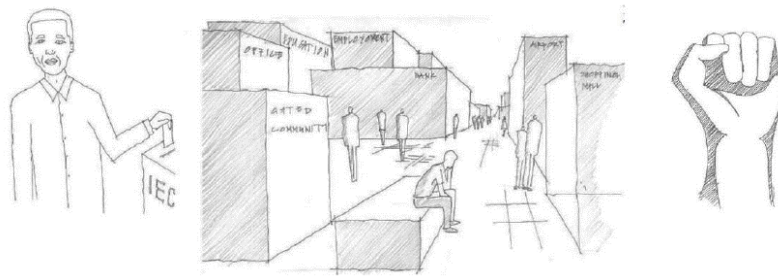


Figure 2. Right to the City (Author, 2022)

Olufemi (1998) argues that the primary cause of homelessness in South Africa is the apartheid which has created a spatially, socially, and economically divided city. The most identifiable argument of this was creation of the apartheid city and how this has contributed to uneven growth, which is further discussed in chapter 2. Secondary causes can be described as follows: unemployment; old age; alcohol and drug abuse; mental illness; family disintegration; migrant status; staying close to work opportunities; disabilities and staying close to work (De Beer & Vally, 2021) depicted in figure 3. Since 1994 the government has sought ways to address homelessness, and the risk of becoming homeless through two government sectors, Housing and Social Development (Naidoo, 2010). However, these structural and individualistic causes (Tayob, 2014), mentioned above have proven to be a complex undertaking with remedial and preventative measures being unable to stop its growth.

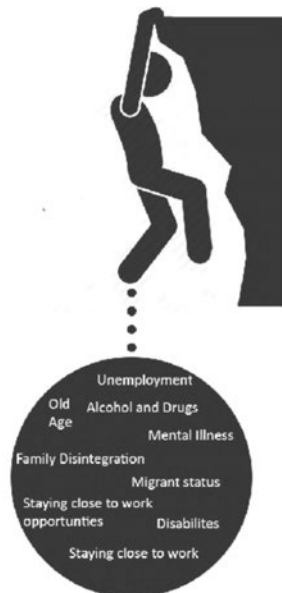


Figure 3. Cause of homelessness in Johannesburg (De Beer & Vally 2021; Google Images; Author, 2023)



Much of the literature on homelessness, both internationally and nationally, takes the time to define different types of homelessness and how one should respond (Olufemi, 1998) (Tipple and Speak, 2005) (Morrow, 2010) (De Beer and Vally, 2021). The importance of defining homelessness relates to insurgent sleeping conditions. In Johannesburg the following sleeping environments have been identified: bus shelters or railway stations; pavement dwelling, emergency shelters (Olufemi, 1998); public spaces; under bridges, in someone's shack at an informal settlement, backyard houses; in a relative's house, abandoned buildings (De Beer & Vally, 2021) and parks (Charlton, 2019). See figure 4. Whatever the condition may be, a common variable is that there is a lack of stability and being 'at home' (De Beer & Vally, 2021: 49). This includes those living in shelters due its temporary nature by design, making it only a matter of time before they find themselves homeless again (Tayob, 2014). This implies the concept of home which provides feelings of familiarity, security, protection, and wellbeing of family, are no longer available to those experiencing homelessness (De Beer & Vally, 2021).



Figure 4. Insurgent sleeping conditions (Google Images)

In Johannesburg homelessness is predominantly a structural problem that would ensure that housing backlogs, rapid urbanisation, high unemployment rates, and lack of effective social development strategies will only see this phenomenon get worse. It is with this in mind that this explorative study reimagines the homeless shelter that would act as a vehicle to uplift and empower in the face of adversity. This also means providing a sense of home that reconnects those experiencing homelessness to people, place, the past and the future (Dovey, 1985).

### **1.1.2. Motivation / Justification of the study**

The motivation of this study expresses the importance of getting a better understanding of homeless shelters in Johannesburg and how it can be improved. Studies show that being homeless is a life changing and traumatic experience which essentially changes perceptions and behaviour for both individuals and society. Someone who experiences homelessness suffers a multitude of emotional, physical, spiritual, and mental traumas.

There are many studies on homelessness that highlight such traumas, but very few that use the built environment that act as a repository to address such issues. This study will therefore add to the limited body of knowledge on homeless shelters in Johannesburg which can be useful to other scholars in the field, government, and NGO's.

Findings from this study will be used as an additional reference source in finding pathways out of homelessness. This study highlights three key concepts that has been developed internationally which have been instrumental in assisting individuals in exiting a life of homelessness. This includes creating homelike environments, creating spaces that empower socially and economically and the application of trauma informed design principles. Shelters in Johannesburg fall short of achieving such goals and is unpacked in the problem statement.

## **1.2. DEFINITION OF THE PROBLEM AIMS AND OBJECTIVES**

### **1.2.1. Definition of a Problem**

The fundamental problem with homeless shelters in the City of Johannesburg is that they fail to respond to a user's needs. A desktop analysis of five shelters reveals that these needs are related to urban, architectural, and social aspects. These aspects are not exhaustive and are investigated further in chapter 6.

This analysis (summarised in figure 5) revealed that most shelters were poorly located in terms of access to public transport and economic opportunities. Two shelters were in areas with high crime rates. Security walls or fences prevented meaningful social engagement and community integration. The external image of some of the buildings had a prison look and feel. Data indicates that shelters were originally designed as other building typologies, and were not

designed to be a homeless shelter, therefore function and form did not correlate. Sleep areas and internal spaces lacked privacy, proportion, and scale. In one of the shelters, the sleeping space was a converted hall, and had windows which was significantly higher than eye level. The meant that a user had no view to the outside. In all shelters, beds were positioned to maximise floor area. This created an institutionalised look and feel. The knock-on effect of this is feelings of stigmatization. Another form of stigmatisation is the graphic sign board found on the external facades. According Pable et. al (2021) there should not be signs that refer to a shelter as a shelter, as this may remind someone of how bad their situation has become. A shelter should represent a place of healing, recovery, and empowerment. Only one shelter showed an appropriate empowerment space, which was a vegetable garden. Studies also show that shelters should also have places for reflection, where someone can take stock of one's life and make plans. This process is closely accompanied by being close to nature. Shelters unfortunately showed very little indication of this. Some shelters charged an overnight stay fee, which means if you could not come up with the money, then that night they would probably be sleeping under the sky.

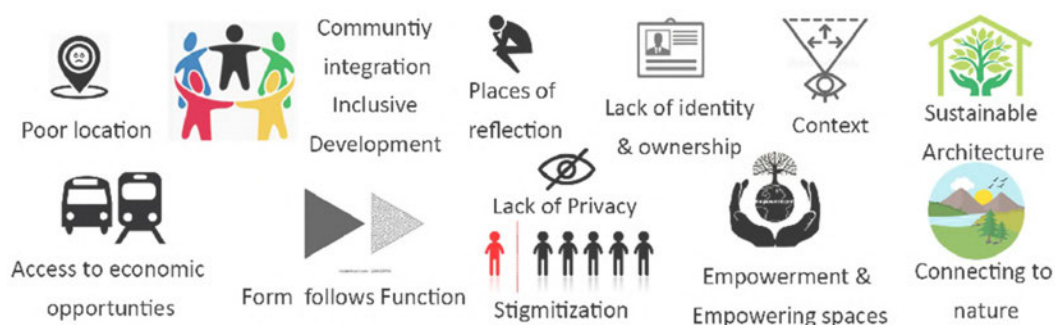


Figure 5. Shortcomings of homeless shelters (Google Images; Google Maps; Author, 2023)

It is also evident that there are simply too few shelters in the City of Johannesburg. Most knowledge sources have observed that there are about 20000 homeless, and shelters can only provide 1000 beds. Whilst it is understood that these shelters may have serious funding issues, and may not have access to the appropriate resources, the implications of not addressing such issues means that these buildings will merely represent institutionalised space fit only for accommodation. Recent studies show that shelters internationally can be so much more than this

and can play a crucial role in the healing, recovery, and empowerment process. Examples of such shelters will be discussed further in chapter 4, and precedents will be analysed in chapter 5. Buildings like these which has a sensitive user need to be mindfully articulated early in the design process. This is achieved through understanding the needs and experiences of the user, hence meaning that there must be a phenomenological approach to shelter design. And lastly, this is a moral and ethical matter which is subjective, but this impacts everyone. By not addressing it appropriately implies various negative outcomes for individuals and society, but perhaps most crucially this will continue contributing harmfully to the city's health, safety, and sustainability.

### **1.2.2. Aim**

The aim of this study is to examine how architecture responds to those experiencing homelessness in urban environments.

### **1.2.3. Objectives**

1. To explore how homeless shelters can be designed to suit the needs of those experiencing homelessness.
2. To explore how space can be used to heal those experiencing homelessness.
3. To define a set of design principles for a homeless shelter.
4. To analyse existing homeless shelters to understand their needs and program.

## **1.3 SETTING OUT THE SCOPE**

### **1.3.1 Delimitation of Research Problem**

The fundamental meaning of homelessness is not having a home. The concept of home is both a tangible and intangible experience and the hypothesis is, if designed mindfully, could become the receptacle for change. It is with this in mind that this study explores the possibilities of what a homeless shelter can be with a *primary focus on home*. As discussed in the introduction, homelessness affects several individuals, and it would be a form of prejudice not to consider *those who are affected*. This means understanding cultural and social backgrounds. The study is limited to the *City of Johannesburg*; however, it is hoped that findings could be applied to all parts of South Africa. And finally, as mentioned in the definition of the problem there is a severe

shortage of homeless shelters in Johannesburg. The design of a single shelter won't solve this problem. The aim of this study is to tease out *architectural design principles* that could be applied to existing shelters or new build shelters.

### 1.3.2 Definition of Terms

- Home: *A home can be described as shelter and a place of safety, where an individual can experience, love, privacy, and lay down roots, and can be considered an abode or paradise that one always returns to (Sommerville, 1992).*
- Culture: *Culture is cultural information (Hall & Hall, 1990 in Lebron, 2013) that passes intergenerationally which has broadly evolved language, economy, religion, policies, social institutions, class, attitudes, manners, customs, education, and so on (Hofstede, 1991; Trompenaars 1993; Czinkota & Ron Kanen, 1993 in Lebron, 2013).*
- Sense of Place: *A sense of place is the personal experience that an individual has with space through processes which happen naturally (Sanger, 1997).*
- Empowerment: *The process of enhancing capacity to be informed, make choices, and transform choice into actions (FEANTSA, 2009).*
- Economic sustainability: *This is economic growth which can be sustained for long periods of time and not impact social and environmental aspects negatively.*
- Social sustainability: *This is where value is placed on human rights of all individuals, whereby democracy and equity are practised in aspects pertaining to civil society, culture, social realms, politics, and economy.*
- Inequality: *This is the uneven distribution of resources and opportunities in society.*
- Segregation: *This is an act of separation between someone and something, which is a social and spatial expression of inequality.*

### 1.3.3 Stating the Assumptions

The City of Johannesburg spatial inequalities is a product of apartheid city planning. Therefore, homelessness becomes a complex issue where causes are both individualistic and structural. At a structural level this could be attributed to a lack of access to housing and social grants. Studies also reveal that unemployment and rapid urbanisation are the main causes (De Beer & Vally, 2021). Many want to exit the life of homelessness but are unable to do so due to structural issues.

This then forces individuals to choose to live in public areas which are close to work or work opportunities due to transport or accommodation costs. It is estimated that 10% of those who are street homeless in Johannesburg are migrants who also move mainly for work opportunities (ibid). However, homelessness affects individuals, families, and all ethnic groups because of various causes. Therefore, the proposed homeless shelter must accommodate those who are homeless or those who are at risk of becoming homeless.

### **1.3.4 Key Questions**

#### **Main Research Question**

How can architecture empower those experiencing homelessness in urban environments?

#### **Sub Questions**

1. How can homeless shelters be designed to suit the needs of those experiencing homelessness?
2. How can empowerment spaces be used to uplift those experiencing homelessness?
3. What is the appropriate architectural response when creating a homeless shelter?
4. How do existing shelters and programs provide for the needs of those experiencing homelessness?

## **1.4. CONCEPTS AND THEORIES**

### **1.4.1 Introduction**

Theories and concepts serve to provide the connection between the independent and dependent variables, which in this case is architecture and homelessness. They also help guide and interpret data which is related to the topic. All three theories selected for this study have tangible and intangible properties, and are inherently connected through the built environment, which will become evident in coming chapters. This in turn provides the conceptual direction of the homeless shelter design. The theory of culture aims to understand the social needs of those experiencing homelessness. The theory of empowerment is primarily a toolkit that will help

define homelessness exit strategies. And the theory of Placemaking aims to understand a sense of home and in turn responds to culture and empowerment. See figure 6.

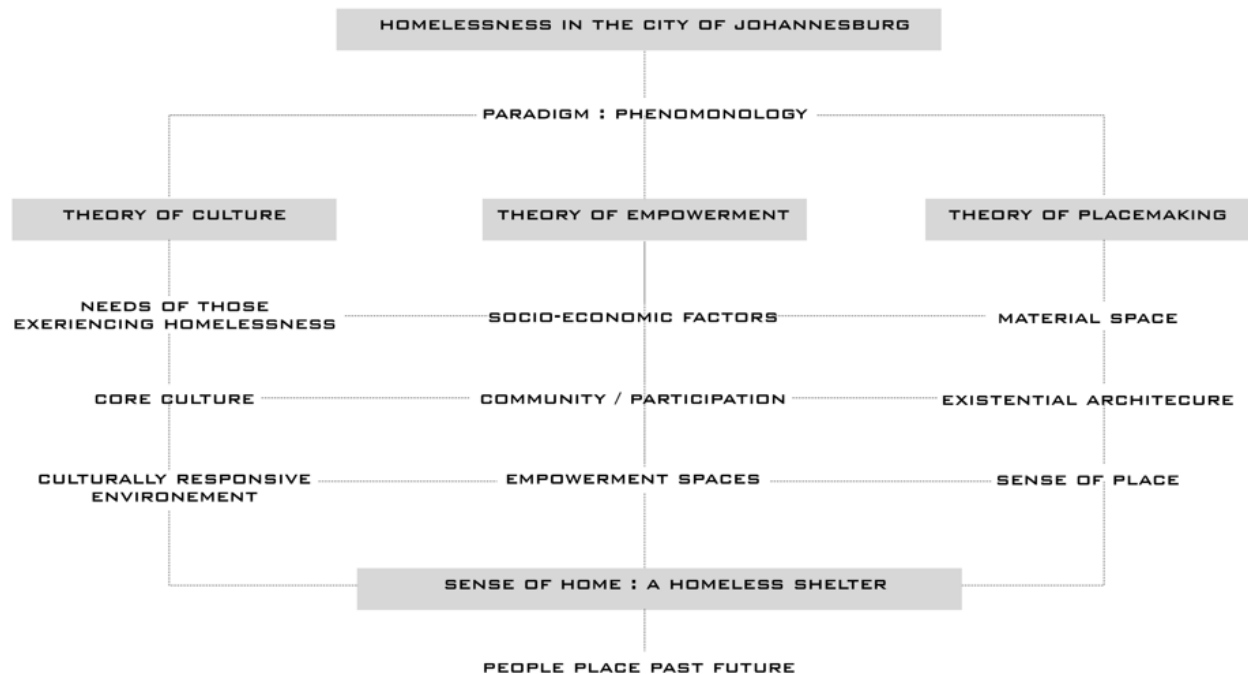


Figure 6. Theories and Concepts (Author, 2023)

### 1.4.2. The Theory of Culture

*‘A hungry man can’t see right or wrong. He just sees food’. Pearl S. Buck*

Culture can be explained through psychology, sociology, and anthropology (Kroeber & Kluckhohn, 1952). It was first conceptualised by Sir Edward B. Tylor in 1871 who stated ‘Culture, or civilization, is that complex whole which includes knowledge, belief, art, law, morals, custom, and any other capabilities and habits acquired by man as a member of society.’ (Kroeber & Kluckhohn, 1952: 90). This essentially points towards patterns in the daily lives through traditions and values which then creates identities for societies (Govender, 2014). In his seminal work, *A Pattern Language*, Christopher Alexander highlights the failure of Metropolitan areas, where he essentially argues the loss of traditions, values, and identities of societies due to the homogenous nature of cities (Alexander et al. 1977). He reinforces that there needs to be a mosaic of subcultures, who are true to themselves, whilst still having access to other cultures

(ibid). As stated earlier in this chapter, Johannesburg which is a metropolitan area is multicultural and multinational. So, in the search of new meaning to the homeless shelter, the theory of culture will be used to understand where commonalities can be found, whilst still respecting individual cultures. This essentially means two things, firstly designing 'culturally responsive environments' (Naidoo, 2020: 32) and maintaining a 'core culture' (Mthethwa, 2001: 11 in Govender, 2014). In design this means understanding the intricate nature of both user and functions. Amos Rapoport uses the terms 'etics' and 'emics' which is understanding where cross cultural applications can or cannot be used (Rapoport, 2005). This is especially true for a country like South Africa, which is infused with multiple cultures as illustrated in figure 7. And finally, it is also of equal importance or perhaps even greater importance to undo certain negative aspects of street culture. This would perhaps mean connecting or reconnecting them to their own needs as described in concepts such as Maslow hierarchy of needs or Max Neef's fundamental human needs.



Figure 7. South African Culture (Author, 2023)

### 1.4.3. The Theory of Empowerment

*'Give a man a fish and you feed him for a day. Teach him how to fish and you feed him for a lifetime.'* Lao Tzu

It is believed that the theory of empowerment began as early as 1776 when Thomas Jefferson wrote the Declaration of Independence where he sought to uplift those being oppressed by slavery (Kent in Joseph, 2019). However, it is commonly agreed that the theory really started gaining popularity in the 70's and by the 80's had developed its fundamental framework.



Empowering those experiencing homelessness means enhancing their capacity to be informed, make choices, and transform choice into actions (FEANTSA, 2009). However, it is not lost on the researcher that homelessness is a structural problem in Johannesburg, based on socioeconomic issues. What this implies is how do you provide skills if there are no job opportunities? This is where the transition needs to happen in an individual who should be shown or given the knowledge on what one needs to do to survive even in difficult situations. Therefore, it becomes of vital importance to provide the necessary life skills through a supportive community. Rappaport (1987) states '*by empowerment I mean our aim should be to enhance the possibilities for people to control their own lives*' (Rappaport in Lord & Hutchinson, 1993). It is equally important to understand how architecture can empower. Well researched and synthesised architecture can encourage positive behaviour in humans, which can create narratives that revolve around community. All too often good architecture is saved for the elites who can afford it, and the less fortunate must make do. This is evident in the standard of homeless shelters in Johannesburg. So, to prevent such misgivings practitioners of architecture must learn to share, serve, and teach without prejudice. Hence as Veiga & Almendra (2014) implies '*One should never forget the essence of design: solving human problems.*' (Veiga & Almendra, 2014: 2). See figure 8. Combining the social principles of empowerment with empowerment spaces will be an important step in instilling a sense of competence within those experiencing homelessness which will ultimately aim at achieving autonomy.

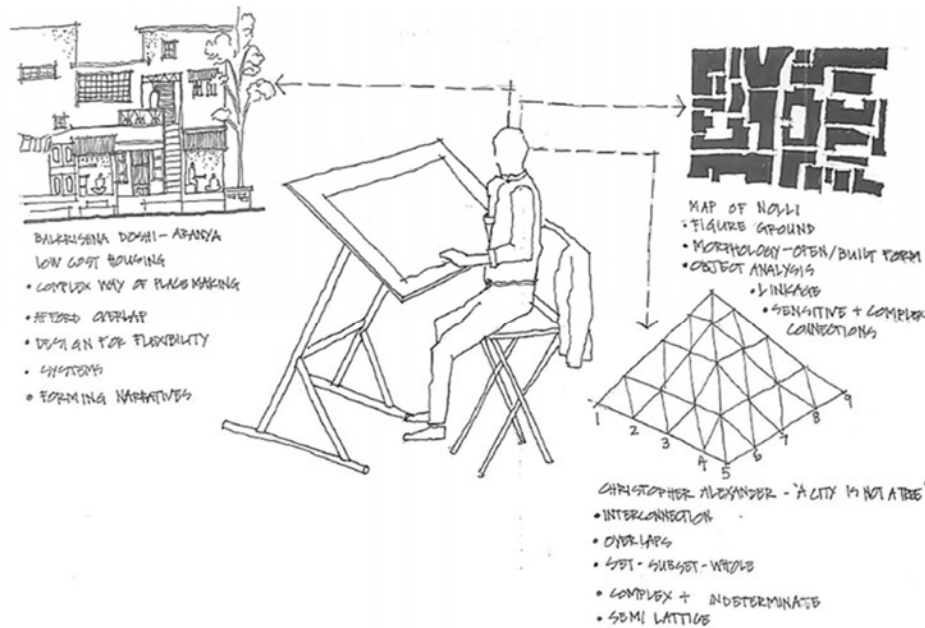


Figure 8. Essence of design – to solve human problems (Author, 2022)

#### 1.4.4. The Theory of Placemaking

*‘Home is where the heart is’ Pliny the elder.*

*Placemaking* is understood as a construct that goes beyond material *space* and considers aspects such as connections, comfort, amiability, access, activities, image, and uses, all of which creates a relationship between people and a *sense of place* (Archdaily, 2021). See figure 9. Materiality of space is four dimensional which only considers width, height, depth, and time (Zevi, 1958 in Mthethwa, 2019). This is not to say that space is unimportant, for without it, place cannot exist. However, for this metamorphosis to occur, Norberg Schulz states that architecture must be practised existentially (Najafi et al., 2011). It is through this a sense of place emerges which speaks to the quality of an environment (ibid). The very same principle can be drawn between house and home whereby house is equivalent to space and home is equivalent to place. Dovey (1985) states a house is an object that exists in an environment, whereas the home is based on a relationship which is meaningful between dwelling and dweller. This principle can be further extended whereby the homeless shelter now is merely the space, or it is nothing more than a

housing structure if you will. To change this, an existential architecture must be applied to create a sense of place, a sense of home. The home has many tangible and intangible benefits therefore this study aims to reconnect someone experiencing homelessness to people, place, the past and the future (Dovey, 1985)



Figure 9. The components of Placemaking. (Google Images)

## **1.5 RESEARCH METHODOLOGY**

### **1.5.1 Introduction**

The approach of this study is inductive which aimed at developing a theoretical framework that responded to the phenomenon of homelessness. This was instrumental in forming an architectural proposal that contributed towards understanding homeless shelters and how architecture could respond. The aim was not to design a building but to extract architectural principles.

### **1.5.2 Research Philosophy and Strategy**

In this study Saunders 'onion' was used as a guide to answer the main research question, research problem, aim and objectives (Saunders et al. 2003). The paradigm used in this study was phenomenology which aimed to understand the essence of what it truly means to be homeless and directed the architectural response. In this explorative study the methodological choice was qualitative which aimed to understand behaviour, attitudes, and experiences (Dawson

2009). Suitable data was collected which was instrumental in answering and guiding research questions and objectives. Both primary and secondary data was collected. See figure 10.

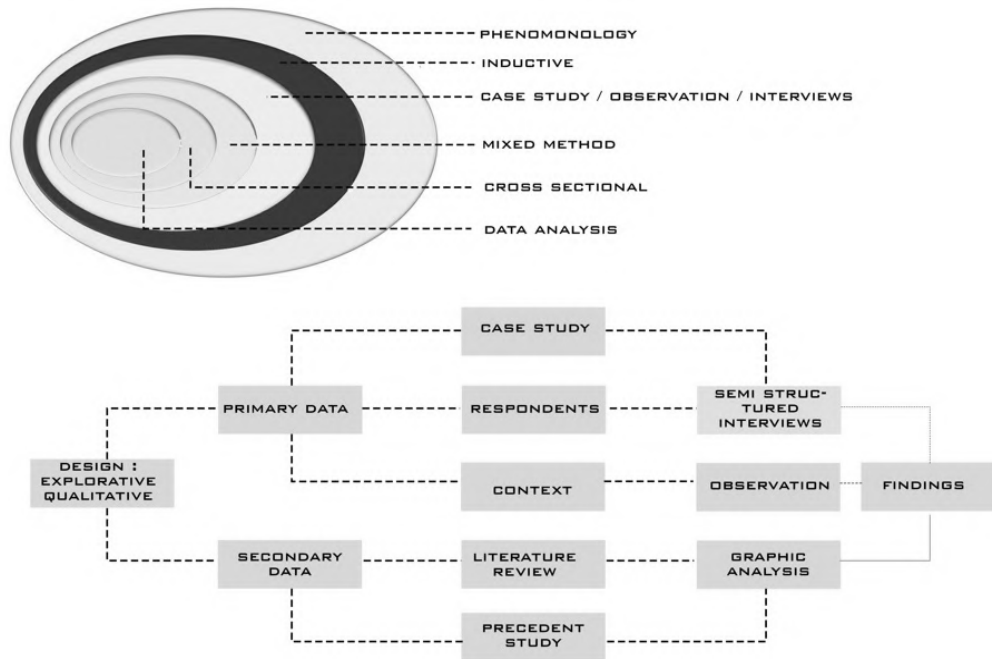


Figure 10. Research Design and Strategy (Author, 2023)

### 1.5.3 Secondary Data Collection

The phenomenon of homelessness was explored through a literature review and precedent studies. The literature review unpacked the objective and research questions through selected theories and concepts. This was achieved through analysis and synthesis of books, journal articles and other media sources. A comparative analysis was conducted of the following precedent studies to understand design elements through theories and concepts.

- Precedent 3: Eva Phoenix homeless shelter / LGA Architectural Partners. The selection of this precedent was relevant to adaptive re-use of buildings, and the concept of home environments.
- Precedent 4: Pacific Garden Mission / Tigerman McCurry Architects. The selection of this precedent was relevant in highlighting culture and sustainable concepts.

- Precedent 5: Denis Hurley centre / Ruben Reddy Architects. The selection of this precedent was relevant in highlighting the use of sustainable materials and social integration.

#### **1.5.4 Primary data collection**

##### **1.5.4.1. Semi-structured interviews**

In person semi structured interviews were carried out through a purposive sampling method with the following key respondents:

- Respondent type 1: Social workers / Faith Based Organizations / NGOs. Respondents included those dealing with the challenges of homelessness in the City of Johannesburg. (1 interview to be conducted)
- Respondent type 2: Representative at a homeless shelter. Respondents included those who offered insights regarding the research proposal and challenges faced in running such facilities. (1 interview to be conducted).
- Respondent type 3: Representative at a skills development centre. Respondents included those who offered insights regarding the research proposal and challenges faced in running such facilities. (1 interview to be conducted).
- Respondent Type 4: Architects involved in social architecture and community upliftment (1 interview to be conducted).

The first-hand data collected from interviews provided insights that responded to the aim and objectives of this study.

##### **1.5.4.2. Case studies**

Three case studies were identified in Gauteng, which specifically dealt with poverty and community upliftment. Analysis and synthesis of these establishments were vital in cross-referencing the theoretical framework and research objectives through an in-depth understanding of both positive and negative aspects. This first and second case studies were homeless shelters, and the third was a homeless shelter that was converted into a skills development facility.

Case study 1: Ekhaya overnight homeless shelter in the Johannesburg inner city. This case study predominantly emphasised architectural failures of homeless shelters. It also highlighted the importance of empowerment programs.

Case study 2: Ekuthuleni homeless shelter in the Johannesburg inner city. This case study predominantly emphasised architectural and urban failures of homeless shelters.

Case study 3: Siyabonga Africa is non-profit organisation located in Brakpan and falls under the City of Ekurhuleni Metropolitan Municipality. This case study predominantly emphasised the importance of empowerment.

#### **1.5.4.3. Observations**

Observations were carried out through a SWOT analysis whereby movement and urban context was be investigated.

#### **1.5.5 Research Materials**

To gain an understanding of the phenomenon and challenges faced by those experiencing homelessness, materials, sources, and devices were used during primary and secondary data collection. Books, journals, reports, past theses, and other online sources were used to collect secondary data. Prior to primary data collection, ethical clearance and consent forms were obtained from the relative stakeholders as required.

Observations were carried out at an urban scale within the study location, and during case studies. At an urban scale experience, atmosphere, materials, routes, routines, infrastructure, mental and emotional relationship to place, environmental quality, building typology, and accessibility were analysed. Case study observations aimed to understand building function, learning spaces, building structure, materials, and relationship to context. This was done through field notes, photographs and videos captured by cell phone, and sketches.

Semi structured interviews were carried out in safe and familiar locations and were audio recorded. Raw data was transcribed into written text.

#### **1.5.6 Research Analysis**

Both thematic and discourse analysis were applied whereby the former identified repeated patterns or themes in data sets (Kiger & Varpio, 2020), and the latter searched for meaning in text (Mogashoa, 2014) which provided insights into how the world is viewed.

### 1.5.7. Summary

See Table 1.

Objectives	Research questions	Data collection questions	Data source and sample size	Data collection method	Data analysis method	Data presentation forms/style
To explore how homeless shelters can be designed to suit the needs of those experiencing homelessness	How can homeless shelters be designed to suit the needs of those experiencing homelessness?	What are the needs of those experiencing homelessness? Can these needs be met? Who will be affected?	<b>Published literature and 4 key respondents.</b>	Interviews and literature review.	Thematic and discourse analysis	Descriptive text and images
To explore how space can be used to empower, uplift, and heal those experiencing homelessness.	How can empowerment spaces be used to uplift those experiencing homelessness?	What are the entrepreneur and employment opportunities in Johannesburg? What does one do when there are no employment opportunities? How does this relate to space?	<b>Published literature Review, 1 Case Study, 1 key respondents</b>	Interviews, literature review, precedent study, case study, design, and spatial analysis of drawings	Thematic, discourse, and spatial analysis	Analytical drawings, diagrams, text, maps, and photographs

To define a set of design principles for a homeless shelter	What is the appropriate architectural response when creating a homeless shelter?	What is the current condition of homeless shelters in Jhb? What architectural principles have proven to be successful? How can it be achieved?	<b>Published literature Review, 1 Case Study, 1 key respondents</b>	Interviews, literature review, precedent study, case study, design, and spatial analysis of drawings	Thematic discourse, and spatial analysis	Analytical drawings, diagrams, text, maps, and photographs
To analyse existing homeless shelters to understand needs and programs.	How do existing shelters and programs provide for the needs of those experiencing homelessness?	What is the current state of shelters in Johannesburg?	<b>Published literature, World wide Web. Case Study, 1 key respondents</b>	Interviews, literature review, precedent study, case study, design, and spatial analysis of drawings	Thematic and discourse analysis	Analytical drawings, diagrams, text, maps, and photographs

Table 1. Research Matrix.

## 1.6. CONCLUSION

Research shows that street homelessness is a global issue. In South Africa apartheid is considered as the main cause of homelessness (Olufemi, 1998). This has created spatial and economic divisions. In the City of Johannesburg unemployment is the primary cause for homelessness (DeBeer & Vally, 2021), however there are several other structural and individualistic causes. Due to housing backlogs, those experiencing homelessness will remain homeless, thus the homeless shelter should be a vital form of relief. However, in Johannesburg there are too few, and those that exist are not equipped to assist in permanently exiting homelessness. The hypothesis of this study is that if the concept of home is applied to the homeless shelter, then this will become the springboard to change lifestyle trajectories.

## CHAPTER 2: LITERATURE REVIEW DEFINING CULTURE

### 2.1. Introduction



For architecture to intervene positively in the built environment there needs to be an in-depth understanding of social and cultural contexts (Baziw, 2020) of those experiencing homelessness and the communities it impacts. The limitation of this study is that it is not possible to identify and analyse the cultural traits of those experiencing homelessness in the City of Johannesburg, as it is beyond the scope of this study. However, it is important to understand culture, the culture of people in Johannesburg, and designing culturally responsive environments.

## **2.2. Defining the theory of culture**

The most widely resourced book on culture was published by anthropologists Alfred L. Kroeber and Clyde Kluckhohn, *Culture. A Critical Review of Concepts and Definitions*, in 1952 (Boroch, 2016). The book comprised 164 definitions, from 300 resources spanning between 1871 and 1951 (ibid). According to Kroeber & Kluckhohn (1952) culture represents patterns of behaviour in human groups which are transmitted into symbols, various achievements, and eventually what is commonly known as enlightenment (ibid).

From early civilization this process of cultural development seems to be common in most societies around the world, whereby the locus of culture comprises somatic and extra somatic cultural traits (White, 1959). This underscores the fact that man was able to think and learnt new ways of living (Keesing, 1974 in Lebron, 2013). Cultural information (Hall & Hall, 1990 in Lebron, 2013) was passed on from generation to generation which broadly evolved language, economy, religion, policies, social institutions, class, attitudes, manners, customs, education, and so on (Hofstede, 1991; Trompenaars 1993; Czinkota & Ron Kanen, 1993 in Lebron, 2013). This process also ushered in plurality and diversity (Crang, 1998). This can be guided by societal beliefs, norms, and rules (Conerly et al. 2021). Hofstede (2010) further relates this to values, rituals, heroes, and symbols.

The process of cultivation has been evolving for more than 3 million years (Conerly et al. 2021). Humans are social creatures who have been forming groups, common habits, and behaviours (ibid) all of which have been a fundamental constituent of survival. These elements of culture are temporal as it refers to a certain stage of advancement in human history which is related to the theory of progress (Kroeber & Kluckhohn, 1952).

Culture also comprises beliefs which strengthen values and is maintained through norms and rules which is taught through language (Conerly et al. 2021). This is carried out through written or unwritten rules in society (ibid). Written rule could be legislation or laws made by man. Unwritten rules for example deal with how one is brought up through learned behaviours. Rules are crucial in correcting unfairness in society created by processes such as uneven development which ultimately results in phenomena such as homelessness. This is an important component of reintegrating those experiencing homelessness back into society and communities.

The concept of symbols is neatly unpacked by Leslie A. White. In his description he refers to *things and events* which are dependent on *symboling* or *symbolates*, a term coined by White (White, 1959). The *things and events* are *phenomena* that occur in human nature (ibid). The symbols related to the phenomena can occur as *somatic* or *extrasomatic* (ibid). Somatic refers to anything dealing with an individual or human body (ibid). When symbols are not related to the human organism, then this is extrasomatic. This White refers to a type of *culture trait*. See figure 11.

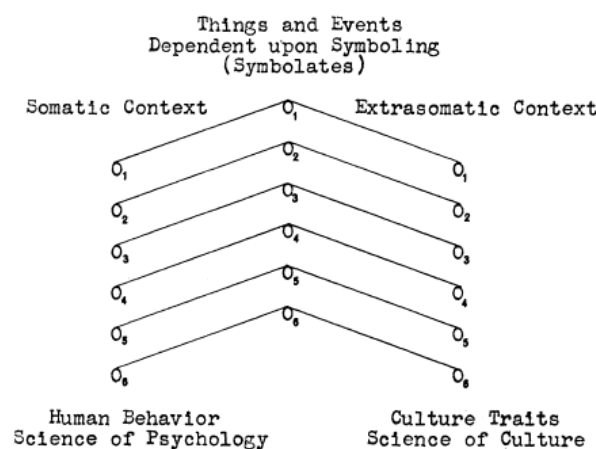


Figure 11. Somatic and extrasomatic symbols (White, 1959)

The importance of using such a technique in this study could mean 2 things. Firstly, providing a broad framework which links homelessness (things and events) to those experiencing homelessness (human behaviour - somatic) and relative non-human aspects (cultural traits - extrasomatic). Secondly once the relative non-human aspects have been identified, further in-depth investigation improves the chances of responding to the needs of those experiencing homelessness. See figure 12 which is a re-interpretation of figure 11.

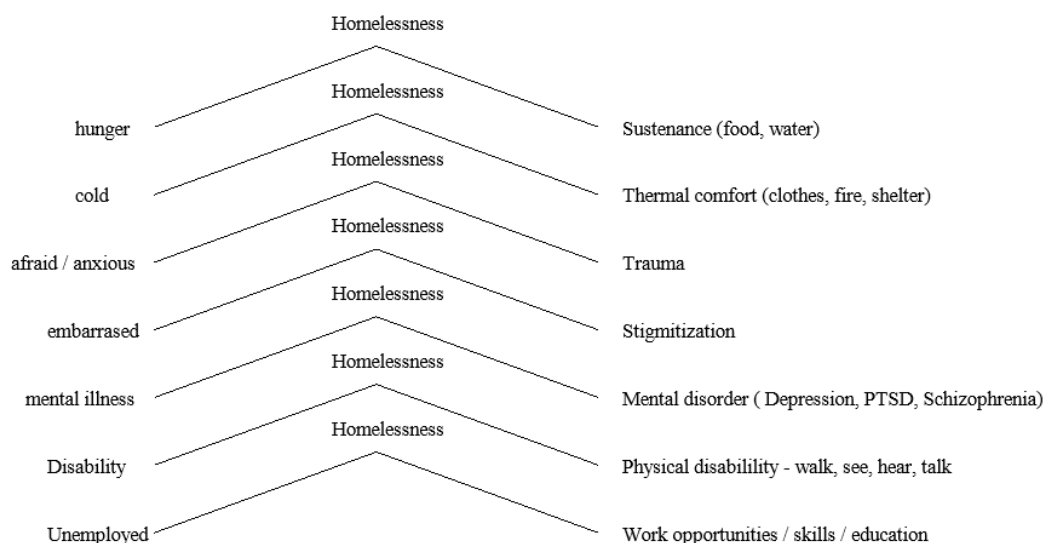


Figure 12 – Reinterpretation of somatic and extrasomatic conditions relative to homelessness  
(Author, 2023)

In concluding this summary of culture, and perhaps most important to this study is the concept of difference. People and societies are different or as Frans Boaz suggested in his concept of *cultural relativism*, that one cannot simply make assumptions about a certain community and their cultural systems (Lentz, 2017). This development begins with the individual and progresses through various social environments, such as family, neighbourhood, school, work, and community (Hofstede et al. 2010). Hofstede (2010) refers to this as *mental programming* which occurs at 3 levels: *human nature; culture; and personality*. In the first level of human nature are the *inherited genes*, which are physical and physiological traits (ibid). The second level comprises *learned behaviours* through certain types of culture or attributes of a group. When combining level 1 and 2, an individual's unique personality emerges. See figure 13.

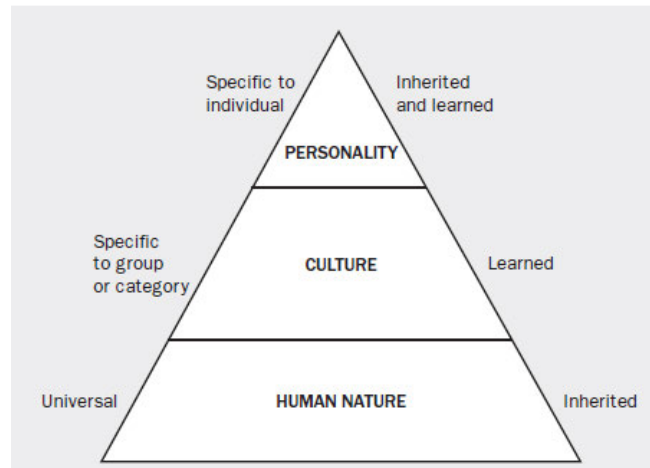


Figure 13 mental programming. (Hofstede, 2010)

These unique differences manifest themselves in culture. Hofstede et al. (2010) describes 4 terms that encapsulate culture and its manifestations: *symbols*, *heroes*, *rituals*, and *values*. For Hofstede, values hold the most importance which refers to opposing constructs such as moral versus immoral or evil versus good, and so on. Hero's aims at highlighting characteristics of someone found in national or international circles, fictional or non-fictional, that influence how one thinks and acts. Rituals refer to process social interactions based on politics, business, or religion. And symbols as already discussed refers to words, objects, or gestures which carry a certain meaning. These are easily changed depending on preference; hence Hofstede refers to this as superficial. Through the practice of symbols, rituals and heroes, values emerge, as depicted in figure 14.

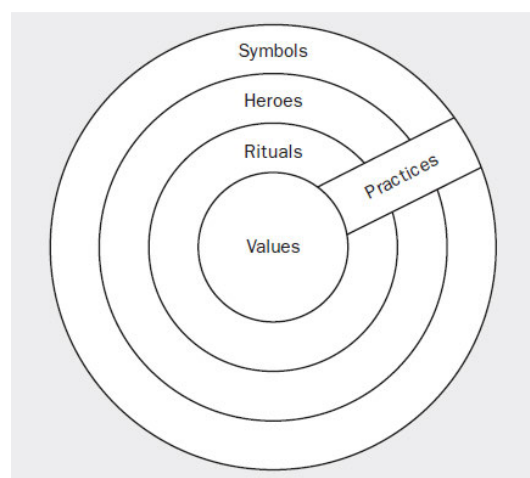


Figure 14 Manifestations of Culture at Different Levels of Depth (Hofstede, 2010)

### 2.3. Defining Culture in South Africa



Figure 15. Map of South Africa (Google Images)

South Africa (see figure 15) was home to the San, Khoi, and other indigenous tribes for thousands of years. Since the seventeenth century, foreign cultures such as the Dutch, German, French, British, (ibid), Indians, Chinese, Malays, and Filipino's (Mokofe & Shi, 2022) settled and became part of what is known today as the 'New South Africa'. However, getting to this point was not an easy journey due to colonialism and apartheid. This in culture is known as *cultural imperialism* which is a deliberate imposition of one culture on another (Conerly et al. 2021). In a sense this is also regarded as *ethnocentrism* where one culture evaluates and judges another and imposes (ibid). This leads to stereotyping, disdain, misunderstanding and eventually conflict.

After the arrival of the Dutch in 1652, two patterns of human settlement began which were divided between trade and agriculture (Rosenburg, 2012). Colonial spatial layouts had already made their intentions quite clear in terms of segregation and inequalities between races as can be seen in Figure 16.

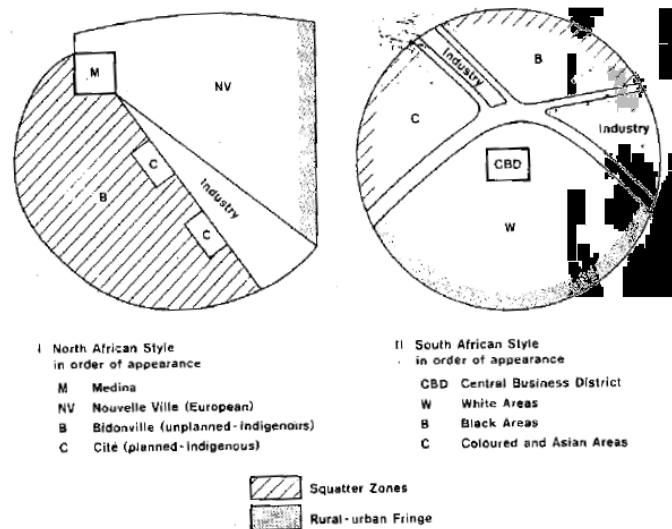


Figure 16. Racial and Spatial segregation in colonial planning (Christopher, 1984 in Rosenberg, 2012)

As the Dutch gained advantage against the British, they imposed *written and unwritten rules* which impacted social, spatial, political, economic, and cultural spheres between whites and non-whites. In 1923 the Natives (Urban Areas) act was passed which was an urban segregation act (De beer & Vally, 2021). This was followed by the Slums Act in 134, which encouraged further segregation under the guise of sanitation (De Beer & Vally, 2021). In 1950 the group's area act became the voice of the apartheid city and ultimate segregation of races (Rosenberg, 2012). See figure 17.

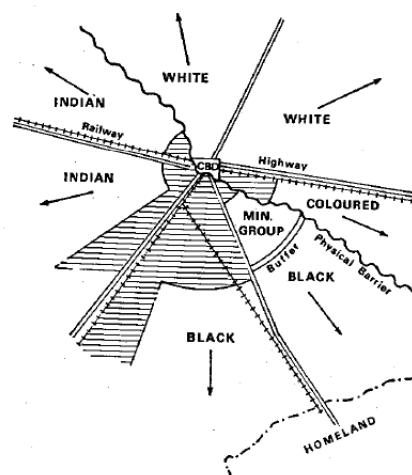


Figure 17. The Apartheid city segregation Plan (McCarthy and Smit, 1984 in Rosenberg, 2012)

Other acts which played a significant role promoting segregation and inequalities were the 1945 natives' consolidation act, Industrial conciliation act, and the Bantu Education Acts (Barret, 2019). The city of Johannesburg is perhaps the epicentre of South African economic activity due to its natural resources of gold discovered in 1886 in Witwatersrand (Bizzell, 2002). However, like Cape Town and Durban, and other parts of the country (as depicted in Figure 18), the city fell victim to segregation, inequality, and land contestation.



Figure 18. Apartheid in South Africa (Google Images)

The essence of apartheid planning aimed to ensure that blacks were kept from living in well located so called white areas (SERI, 2016). South Africa's struggle to free itself from the clutches of apartheid meant that the oppressed had to unlearn patterns of norms and beliefs and become activists, which eventually saw a free and democratic South Africa being born in 1994.

Returning to the present day in the 'New South Africa', there are still vast disparities that exist between races. However, one may argue that segregation and inequalities have shifted from race to class. Closely related to this is Karl Marx *conflict theory*, which describes inherent unequal social structure in race, class, gender, and age (Conerly et al. 2021). What this essentially means is that through capitalism and neo-liberal policies, there is a constant fight amongst humans for hierarchical dominance at geographical, political, economic, and social scales. An example of this is Sandton and Alexandria depicted in figure 19. Coupled with this is the underlying fact that apartheid has created a fortified division in South African societies which creates socio-economic, socio-cultural, and socio- spatial ills and disparities, such as homelessness.



Figure 19. Sandton and Alexandra disparity (Archdaily. Divided: Urban Inequality in South Africa, Accessed: April 2024)

To this point 3 culturally related aspects have been identified that have contributed to social ills, like homelessness in South Africa, *cultural imperialism*, *ethnocentrism*, and *conflict theory*. To conclude this section, 2 more cultural concepts will be discussed, *cultural memory* and *culture shock*, and how this impacts someone experiencing homelessness. *Cultural memory* connects people to their past through rituals, art, music, poetry, literature, sport and many other human accomplishments and activities (Humphreys, 2002). However much of this culture can be lost or forgotten for various reasons, like conflict or globalisation. This means that social boundaries become diminished and cultural identities are lost (ibid).

For someone experiencing homelessness, cultural memory loss is a reality, as this is a gradual process that eventually leads to the loss of cultural traits. Studies show that many experiencing homelessness hold on to nostalgic happy and sad memories, but there are aspects of their culture which have been lost. There is also a threshold point at where one goes from being homed to homeless. If one was to reinterpret this through Hofstede et al (2010) uniqueness in mental reprogramming, there would perhaps be 2 more levels added, Trauma/ Life choice and Culture shock as depicted in figure 20. During the *trauma / life choice* period, could be the beginning of cultural memory loss, where previous habits and behaviours are being unlearned. The next level of being homeless becomes a *culture shock*, where they are confused, afraid and anxious.



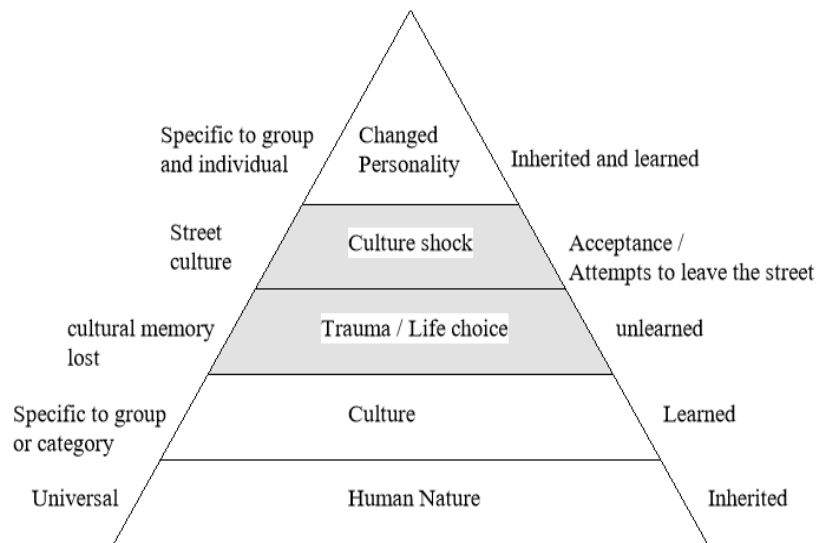


Figure 20. Mental programming adapted to those experiencing homelessness (adapted by Author, 2023)

An overview of this section reminds one of the effects of apartheid and considers the cultural impacts on society and those experiencing homelessness. It also reminds us of the nature of man, his fear of lack, and the extremes he is willing to go to. Undoing such impacts and changing the trajectories of society, and those experiencing homelessness means asking the following questions. Firstly, who are the homeless in Johannesburg? Where do the homeless get their basic needs met? Can they get their basic needs met? Are the homeless being abused by authorities? Are they living their best lives? How do communities perceive homelessness? Can we change the perceptions of communities who view homelessness negatively? Can we change the structural causes of homelessness?

## 2.4. Culture and community

As highlighted in the previous section, apartheid has influenced many aspects of life, and perhaps most important to the built environment is how cities currently exist. Apartheid planning was also influenced by modernist city planning, which focused on efficiency. The outcome is urban sprawl, urban decay, segregation, inequalities, and most importantly the 'Right to the City.' There were perhaps good intentions of modernist planners but one of the major losses was a sense of community. This also highlights the fact that a culture of poor design decisions can

also contribute to social ills such as homelessness. Historically traditional cities were walkable, and motor vehicles did not dominate linkages as depicted in figure 21 and figure 22.

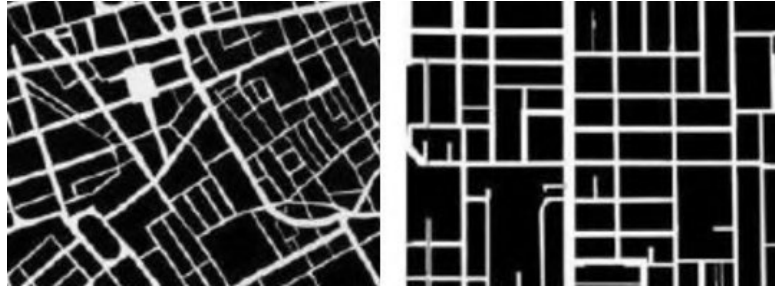


Figure 21. Figure ground of *traditional city* (left) versus *planned city* (right) (Trancik, 1986)



Figure 22. Perspective of *traditional city* (left) versus *planned city* (right) (Tibbald, 1991)

Jane Jacobs and Kevin Lynch were amongst many who tried to define and understand the failures of modernist planning and produced seminal books *The Life and Death of American Cities* and *The Image of the City* (Jencks & Kropf, 2006). Both books were a response to the urban development that was occurring because of the war. Jacobs believed that cities needed to be understood through inductive thinking. She criticised Ebenezer Howard's 'Garden City' and Le Corbusier's 'Radiant City' – See figure 23 and 24. Jacobs (1961) argues that both these proposals are inherently the same thing. In a sense Jacobs is not wrong, as these proposals excluded an important factor which is what Christopher Alexander (1979) refers to as 'quality without a name' (QWAN). Buildings were objectified and excluded the rhizomatic nature of cities (Luckan, 2015).

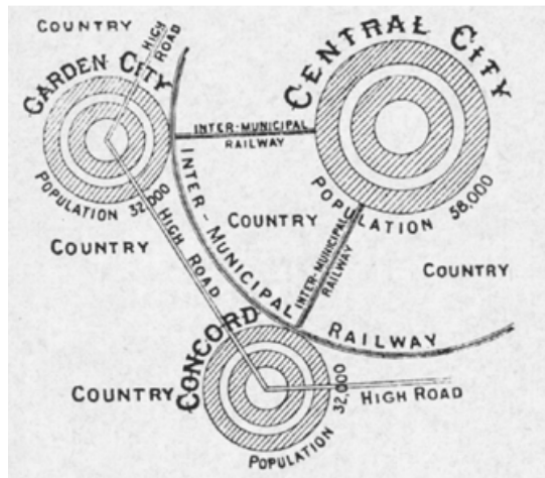


Figure 23. Garden City by Ebenezer Howard

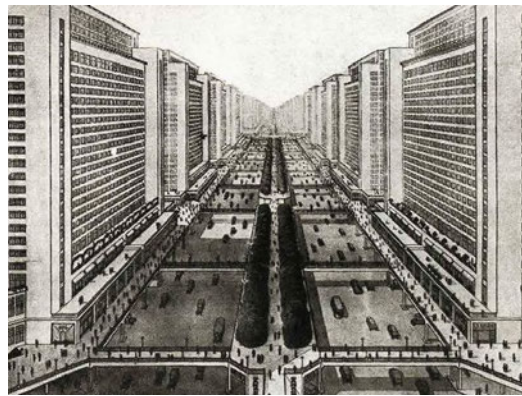


Figure 24. Radiant City by Le Corbusier

Lynch (1960) used the term imageability to describe how citizens perceive cities. He focused on the perceptions and physical imageability of the city which was being lost to urban sprawl because of modernist planning. He admits that there are factors such as social meaning, history, function, or perhaps even a name, that was not included in his study, but this was not his focus (Jencks & Kropf, 2006). His aim was to highlight the importance of navigation, boundaries and visual connections (Course Hero, 2020), which is a mental mapping process which is a crucial component of place theory (Trancik, 1986). He defined the city as five elements: paths, edges, districts, nodes, and landmarks (Lynch, 1960). See figure 25.



Figure 25. Urban elements of imageability and legibility (UX Planet, 2022)

In both instance Jacobs and Lynch were speaking from a citizen perspective, rather than the silo thinking of architects and urban planners. The aim was to challenge the way city planners perceived cities. Jacobs and Lynch are amongst many who have attempted to change the modern planning techniques, but it has not changed the fundamental principles of how a city grows in real time and what is an urban social structure. This is perhaps still dependent on capitalism and neo-liberal policies. The Burgess model perhaps best describes how cities grow, which was originally meant for America, but it seems similar for most cities internationally. What this really means is that the wealthy always occupy the most favourable zones and means that not everyone has equal rights to the city. See figure 26.

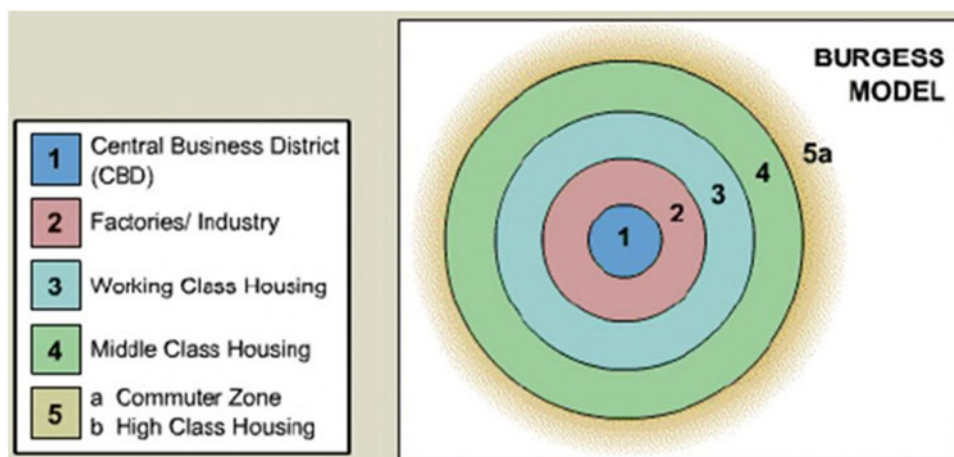


Figure 26. The Burgess Model (Google Images)

The right to the city was a social activist concept which was introduced by French philosopher and sociologist Henri Lefebvre in 1968 (Lefebvre, 1968). The essence of his writings focused on

the fact that the poor of the city did not use the city like everyone else. They lacked access to social and economic value in the city. Hence this was an attempt at taking back the city from socially produced inequalities in urban space (Soja, 2010). However as illustrated in the Burgess model inequalities will persist as long as the city belongs to the elites who control how the city is organised (Harvey, 2008)

According to the Constitution of the Republic of South Africa, 1996, all citizens of this country have the benefit of 27 human rights (See figure 27), yet research shows that those experiencing homelessness have the benefit of only four (De Beer & Vally 2021). This means that they are restricted from using the built environment like others who inhabit the city, which is both a social and spatial injustice. Those experiencing homelessness have no access to land and infrastructure; security of tenure; administrative justice; cheap public transport; democratic participation; driving the agenda; healthcare; or inclusive employment (ibid).



Figure 27. Human Right in South Africa (Google Images adapted by author, 2023)

This means that those experiencing homelessness are forced to occupy lost space in the city (Hou, J2010: 84 in Govender, 2014) This can be: *space below* (under bridges); *void spaces* (undeveloped land); *oversized infrastructure* (abandoned buildings); *redundant infrastructure* (unused roads); *wedges* (places that cannot be used to build on); *rooftops*; spaces around (around existing buildings); and *spaces between* buildings. (ibid), as depicted in figure 28.

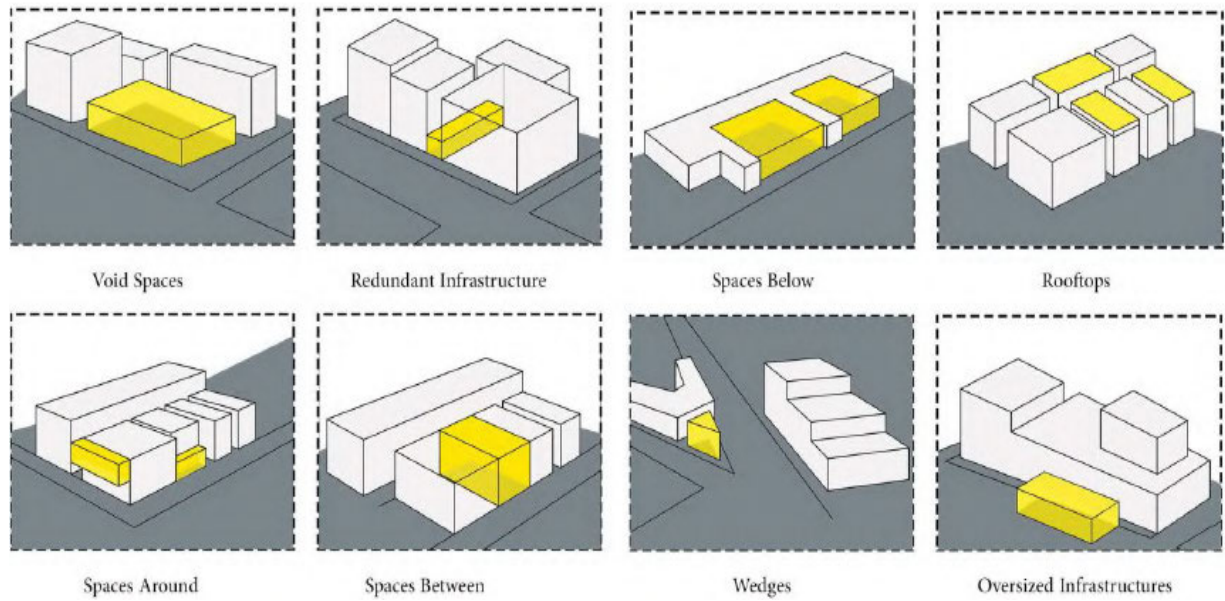


Figure 28 Lost spaces in the city (Aly et al. 2023)

Perhaps 2 of the most popular examples of insurgency is Dharavi and Tore David which shows peoples tenacity to survive.

Dharavi began as a fishing village in 1884 but has since evolved into a thriving slum which has between about 700 thousand and 1 million residents in Mumbai, India (Merheb, 2020) (Boano et al. 2011). See figure 29.



Figure 29. Mumbai in India (Wikimedia adapted by Author, 2023)



The slum covers an area of about 2.1 km<sup>2</sup> and has a density of 277 136 per square kilometre. See figure 30. The slum had 3 train stations which formed a triangular shape and is thus referred to as the golden triangle (Merheb, 2020). Dharavi developed independently without any formal planning, zoning, or landscaping (ibid). For architect Rahul Mehrotra, the slum is considered a territory within a larger territory, an expanding space with dynamic economic activity with most shelters built with low quality materials (Merheb, 2020).

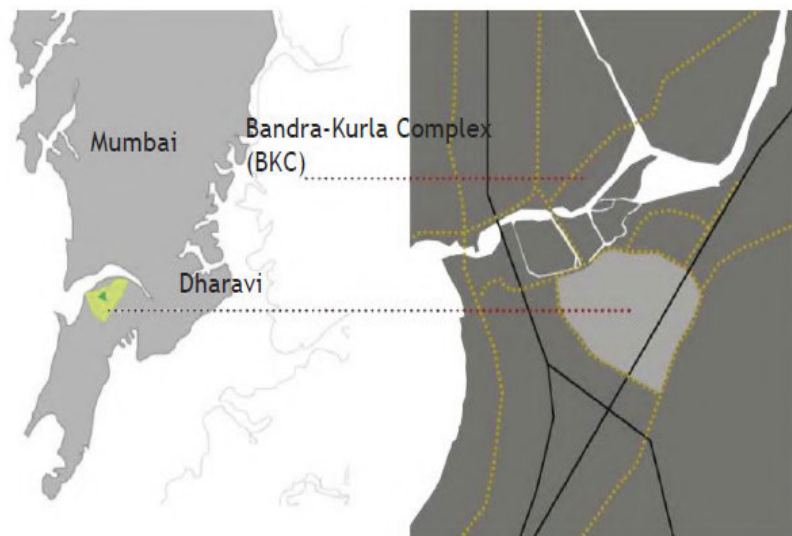


Figure 30 Dharavi in Mumbai (Boano et al. 2011)

According to Dan Cruikshank (2008), a TV presenter for BBC series *Adventures in Architecture*, suggests that Dharavi represents the origins of a city (Gregory, 2010). When looking at the plan view of the city, one may also find similarities of the organic nature found in traditional cities. See figure 31.



Figure 31 Map of Dharavi (Gregory, 2010)

The development of Dharavi was slowly constructed by its citizens, using debris and waste to create their settlement of huts which are built in compact urban formations (Boano et al. 2011). See figure 32. It comprises 85 neighbourhoods in a multifunctional work-live dwelling space (ibid). This points out 2 important factors, firstly construction occurred as needed, and secondly the closeness in proximity makes for a rich cultural and social experience.





Figure 32. Informal settlements and material. (Dey, 2018).

The informal economy comprises two empowerment cultures which makes a turnover of 350 million pounds per year (ibid). The first empowerment culture is that of entrepreneurship which comprises the following industries: pottery, leather, clothing, food and medical (Dey, 2018). The second empowerment culture is recycling which recycles plastic, glass, e-waste, metal, cardboard, and paper (ibid). These empowerment cultures provide work opportunities for 85% of its populations (Boano et al. 2011). See figure 33.



Figure 33. Creating work opportunities (Boano et al. 2011).

The slum, like most slums of the world, is fraught with issues such as poorly built structure, sanitation, water, and electricity (Merheb, 2020) (Urban Design Lab, 2022). In most cases floors are constructed from brick flat soling, walls are made from metal or polyethylene sheets with corrugated metal or asbestos sheets, with a bamboo or wooden light weight beam and column structure, with an asbestos or corrugated metal roof sheet, and tarpaulin sheets as depicted in figure 34 (Dey, 2018).

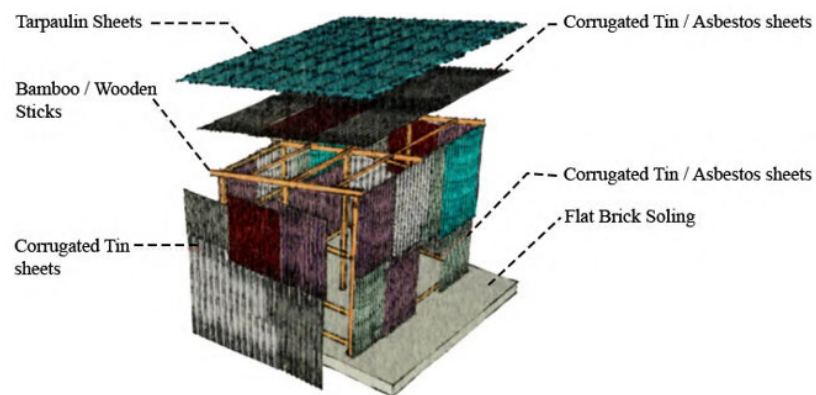


Figure 34. Six stages of Dharavi house construction (Dey, 2018)

There have been several regeneration programs, but all failed to make any noteworthy improvements (ibid). The property itself though is considered high value due to its location, and regeneration programs seem to be focusing on the profits that can be gained rather the people that live there. See figure 35.

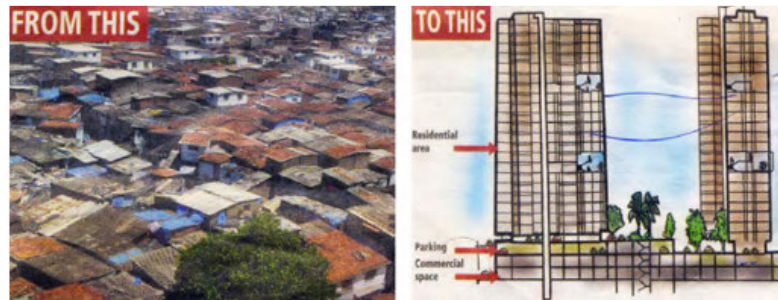


Figure 35. Not responding to people needs (Boano et al. 2011).

Shiri Patel, an engineer who practised in India for 50 years, stated that Dharavi was about people who have built a life for themselves and depended on livelihoods (Gregory, 2010) He further explained how this space has evolved into bakeries, schools, and community halls etc. all of which have created a sense of community. The most recent redevelopment design attempt was by Architect Mukesh Mehta which aimed to house 57 000 families by providing 33 square metres per tenant. This has been rejected by NGOs and the community. The major issue is the top-down approach, rather than getting communities to participate in constructing their own lives.

Another project that exemplifies community, right to the city and empowerment through insurgency is Torre David in Caracas, Venezuela. At the heart of Venezuela's dichotomy is the *Torre* (modern High-Rise building) and the *Rancho* (self-built shack) (Irazábal et al. 2020). What this really represents is the divide that exists between the rich and poor through capitalist and neo liberal constructs. This divide began with the re-election of Carlos Andrés Pérez in 1989, who subsequently imposed neo liberal policies which favoured the elites resulting in high unemployment and crime rates (ibid). This combined with nationalizing of key industries changed political culture to that of corruption. Greed forced political leaders to enforce policies

that would favour them in holding on to power and ultimately contributed to widespread poverty, forcing citizens to occupy slums known as Barrios (ibid). See figure 36.



Figure 36. Shacks in Barrios (Irazábal et al. 2020)

Prior to this Venezuela was considered a relatively stable economy because of its oil resources. This had created many wealthy people, including banking mogul, David Brillembourg who had visions of creating a thriving economic hub, known as the ‘Wall Street of Caracas’ (Irazábal et al. 2020: 5) See figure 37 and figure 38. He embarked on placing his mark on the city by building his Tower of David. Construction however came to a halt because of his sudden illness and passing away in 1993 (Caldieron, 2013).

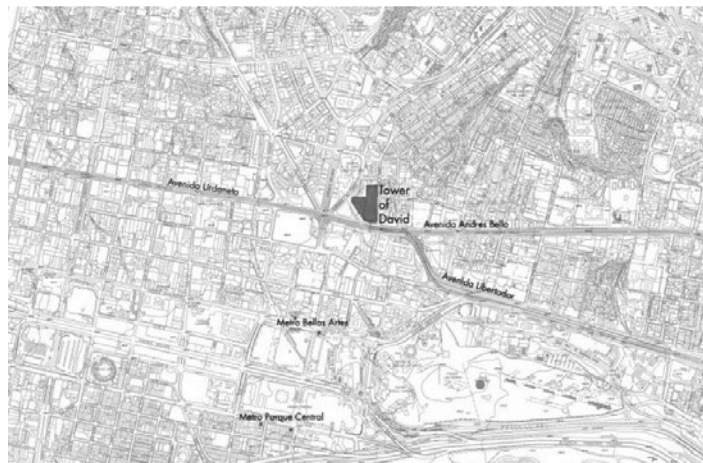


Figure 37. Tower Of David in the City of Caracas (Irazábal et al. 2020)

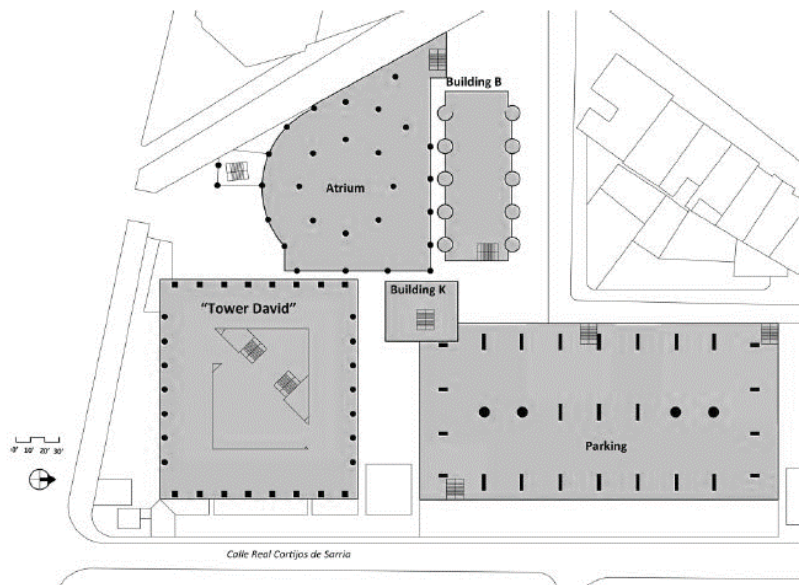


Figure 38. Tower of David Site Plan (Caldieron, 2013)

In October 2007, 200 families sought refuge in the incomplete 45 storey 'Torre de David' (see figure 39), as result of inclement weather and being without shelter (Caldieron, 2013: 138) (Irazábal et al. 2020). This led to the tower being occupied for almost 8 years before all the residents were evicted in 2015 (Irazábal et al. 2020)



Figure 39. Incomplete buildings - insurgent opportunities (Caldieron, 2013) (Irazábal et al. 2020)

During this period of illegal occupation two important aspects had occurred. Firstly, a social order was developed which resulted in a sense of community being created. And secondly,

through this sense of community, occupants empowered themselves. The ‘self-contained vertical community’ (Gomez, 2014: 214) social order can be owed to a prominent figure in this community, Pastor Alexander Daza (Caldieron, 2013) (Gomez, 2014) (Irazábal et al. 2020). Contradictory to false portrayals in the media as the community being rife with crime and disorder (Irazábal et al. 2020), it was well maintained in terms of social order.

A survey showed that the biggest advantage to living in the building was its location and transportation (Caldieron, 2013). However, most were unsatisfied living in the building due to the main challenges of crime, water, and electrical services. There seems to have been 6 types of living arrangements as depicted in figure 40 – 42.

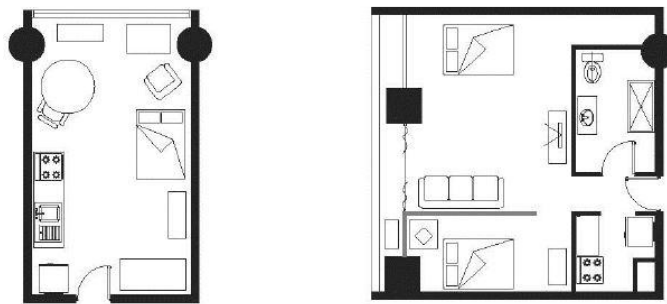


Figure 40. Typical adapted layout in Torre David (Caldieron, 2013)

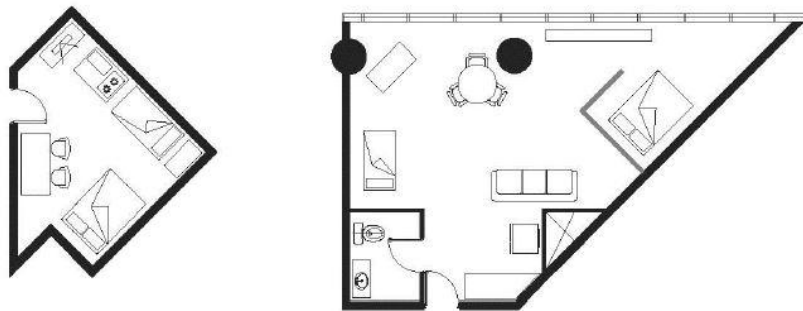


Figure 41. Typical adapted layout in Torre David (Caldieron, 2013)

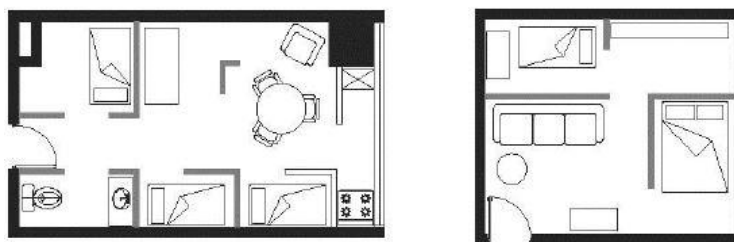




Figure 42. Typical adapted layout in Torre David (Caldieron, 2013)

An analysis of these apartments reveals that only 3 types had access to water and toilets. Two had no natural light, and none had natural ventilation as these were unitised fixed curtain walls which are generally inoperable. In the event where no curtain wall was installed, meant that they had no protection from rain and wind. The point being in this instance is that the building was constructed as an office building, hence services, proportion and scale was not in favour of the insurgent user, see figures 43. This again highlights the fact as stated on the problem statement buildings need to be designed to suit the user's needs. However, despite these shortcomings they made it their own. See figures 44.



Figure 43. Creating a home in insurgent spaces. (Caldieron, 2013)



Figure 44. Creating a home in insurgent spaces. (Caldieron, 2013) (Irazábal et al. 2020),

The key takeaways from both these projects this are that:

- People were able to organise themselves and claim a space in the city, and successfully managed to exist with very little help from the government.
- Citizens of these settlements empowered themselves by providing services, even though not ideal; creating social spaces; and creating work opportunities.
- Also, despite the poor living conditions, they attempted at making this a home through social integration and community by embracing cultural similarities and differences.

## 2.5. Culturally Responsive Environments

For architecture, to respond to the cultural aspects of a user, there needs to be a deep understanding of the unique *human characteristics* in relation to *urban design*, *landscape design*, *interior design*, and *industrial design*, all of which Rappaport (2005) refers to as *environmental design*. This occurs at a macro, meso and micro level of the *built environment*. See figure 45.

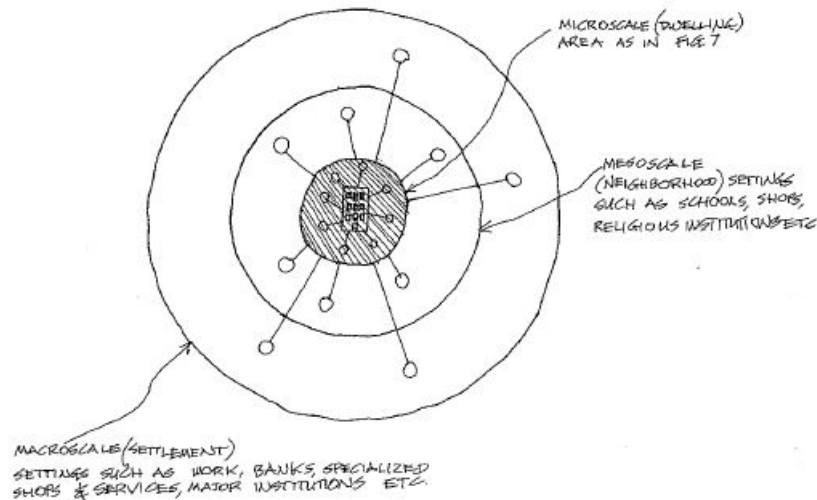


Figure 45. Makro, meso and micro urban scales (Rappaport, 2005)

The term-built environment emerged in the 1980's (McClure & Bartuska, 2007). In a metaphysical sense it can be defined as 4 aspects: everything, everywhere on the planet natural or humanly created; creation of things allows for the fulfilment of human purpose and need; to protect, change or mediate the environment for human comfort; and lastly components of the built environment are impacted by the built environment (ibid). In a physical sense the built environment is defined as products, interiors, structures, landscapes, cities, regions, and earth (ibid). See Figure 46

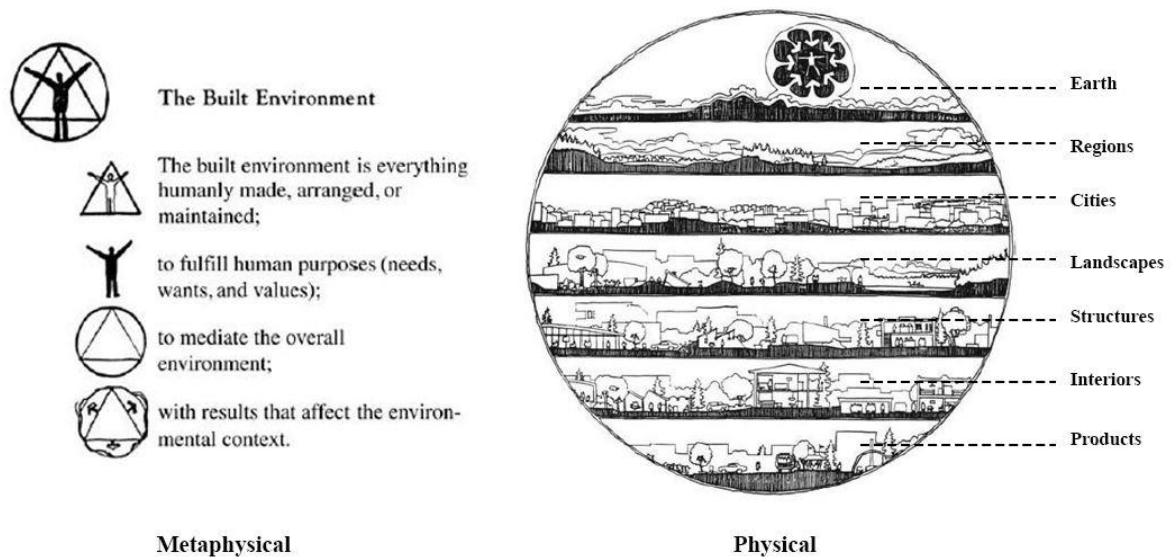


Figure 46. Physical and metaphysical built environments (McClure & Bartuska, 2007) (Adapted by author, 2023)

Defining the success of a design can only be done based on the response of the user post occupancy, hence it becomes vital to begin with what the design truly needs in terms of *culture*, *behaviour*, and *environment* (ibid). This means understanding the interaction between people and environments, referred to as *environment-behaviour relations* (EBR) (Rappaport, 2005). *Environmental behavioural studies* (EBS), a component of EBR, asks 3 vital questions based on behaviour, environment, and mechanisms. See figure 47.

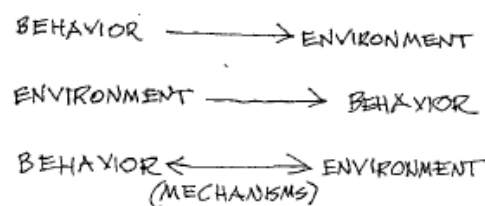


Figure 47. Interaction between people and environments (Rappaport, 2005)

*Firstly, how does behaviour affect the environment? Secondly, how does the environment affect behaviour? Lastly, what are the implications of the mechanism on the first 2 questions?*

Mechanism are variables impacting the design as highlighted in See table 2.



<b>Mechanism</b>	<b>Definition</b>
Physiology	Thermal comfort; light, and noise.
Anatomy	Anthropometrics and ergonomics
Perceptions	Multisensory response to environment – sight, sound, smell, touch.
Cognition	How one makes sense of the world
Meaning	Images, ideals, status, identity.
Affect	Feelings, emotions, moods
Evaluation	Preferences based on wants – quality of environments
Action and behaviour	Responding to cognitions, meaning, affect and evaluation.
Supportiveness	Related to cultural, social, psychological, physiological etc.

Table 2 (Adapted by Author, 2023)

The *environment* could be understood as 4 related conceptualizations:

1. *Organization of space; time; function.* This refers to the function of the space when the space will be used and by whom. This process is inherently linked to human *activities* (ibid).
2. *Settings:* Settings are cultural variables, as it means different things for different people. This responds to rules which affect behaviour. If the rules change, the *activity* changes, which results in behaviour changes. Behaviours also change between settings, like between a library and a dining hall. Within settings there are other settings, a house comprises lounge, dining, kitchen, bedrooms, bathrooms, and so on. Activity could be dismantled into 4 components: the activity itself; how it is carried; how it is associated with other activities; and the meaning of the activity.
3. *Cultural landscape:* refers to cultural geography, which is determined by transformation or modification of the built environment by people.
4. *Fixed, semi fixed, non-fixed elements:* fixed elements refer to infrastructure and physical structure of a building, semi fixed elements are those which can be moved around, and non-fixed elements are related to human behaviour and activities.

To fully grasp the built environment and culture there needs to be an understanding of vernacular environments and settlements, all cultures, history of humans, and buildings and *material culture* (ibid). The importance of vernacular (derived from Latin, meaning *native*) is an architectural solution which had been modified and improved over time by traditional folk (Oliver, 2006). The aim should be to create qualities of space, form, proportions, details, use of materials, choice of land and resources, and artistic expression as depicted in figure 48 (ibid).

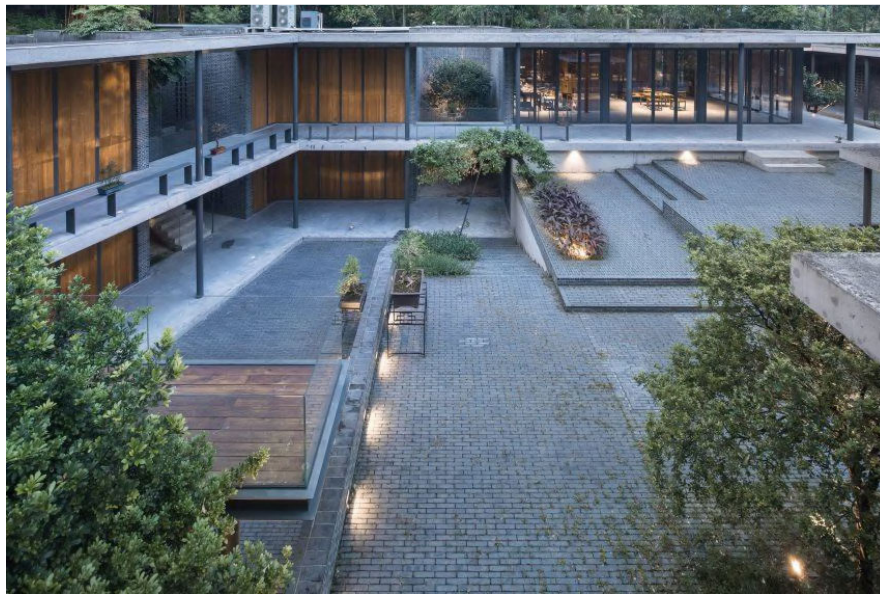


Figure 48. Reinterpreting the traditional Chinese courtyard (Dezeen, 2018)

However, architectural qualities and principles can change through a *diffusion* of cultural ideas (ibid). One such project which has expressed this diffusion of cultural traits is the Desi Training Centre by Anna Heringer in 2006. For architecture to respond appropriately to this cultural setting, Heringer asked the following question: *how do you improve the level of development and maintain the level of sustainability through its traditional building techniques?*

Heringer spent a year in Bangladesh, where she collected first-hand information that would eventually inform her design decisions. She learnt about the people's history, materials, climate, beliefs, and aspirations. Through this she reconceptualised two cultural aspects whilst still respecting its traditions, the traditional homestead and raising the value of what was thought to be *low class* building materials, bamboo, and mud. See figure 49.

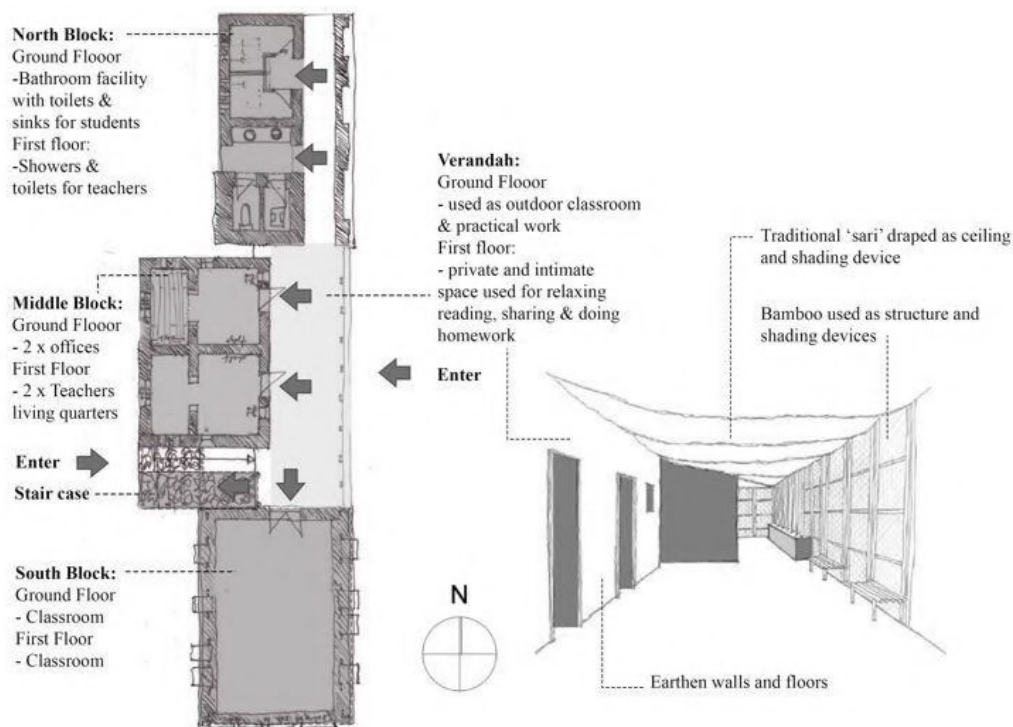


Figure 49. Desi Training Centre. (Author, 2023)

Heringer's design strategy was based on cultural, social, and ecological practices infused with modern techniques and technologies. Heringer realised by putting more thought into how the materials are put together, creates different aesthetics. See figure 50. This is further analysed at the end of this section (See *dismantling*)



Figure 50. Desi Training Centre (Google Images)

The common day problem is that *high style* architecture has slowly lost sight of the value in the principles of vernacular architecture (Oliver, 2006). It should also be noted that in most cases

that architects who practise this kind of architecture reserve their services exclusively for the elites. In most developing countries, such as India, Brazil, and South Africa, a new vernacular is being created in the form Bustees, Favelas (ibid) and the informal settlement respectively in peri-urban settings, which have no formal input from architects or building professionals. See figure 51.



Figure 51. Informal settlements in India and South Africa (Archdaily, Architecture and Aid: Reframing Research on Informal Settlements, Accessed: April 2024)

These settlements by no means must be romanticised in any way, as there is great poverty, segregation and inequality linked to this, as discussed in the previous section. But at the cultural core there is a relationship with the way traditional cities are built. When one responds to the needs and struggles of a community, cultural diversity must be considered which in most instances results in a place where social cohesion can thrive.

One such example that responds to community struggles with modern design concepts is the Superkilen Park in Copenhagen, Denmark. When unpacking struggles in community, as seen in the Superkilen, the underlying catalyst is *stress* (Rappaport, 2005). This in a sense is a *situation* that impacts the *individual* through challenging norms and beliefs which results in *stress*. See figure 52.

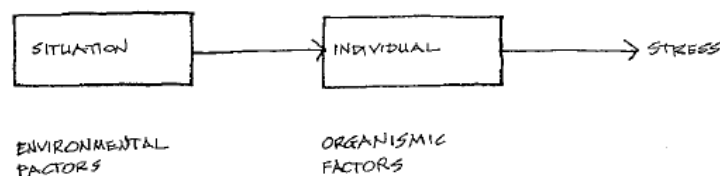


Figure 52. Stress and human behaviour (Rappaport, 2005)

The theory that frames the response to such stresses is *intergroup contact theory* (Baziw, 2020) which raises vital aspects of *prejudice* and *stereotyping*, all of which is deeply related to homelessness. This response by the Danish government was to a platform where positive interaction can occur. In 2012 the outcome was a 27000m<sup>2</sup> park that represented 60 nationalities (Archdaily). The park which is 800m long was divided into 3 zones and defined as the Red Square, The Black Market, and The Green Park (Ghadeer, 2020). The members of the community were invited to submit objects that would become part of the urban landscape. 60 objects such as sewer drains, palm trees, neon signs, trash cans, and the like representing the community became part of the cultural landscape. Aside from this, the urban space became a social arena for sport, recreational and cultural activities, as depicted in figure 53.





Figure 53. Superkilen response to urban stress (Ghadeer, 2020)

When unpacking the response, it becomes self-evident that culture has made a significant contribution by creating ‘stress relieving settings’ (Rappaport, 2005: 50). This firstly takes cognizance of the environmental factors (situation) and applies cultural norms, ideals, and values

of an individual or group that can respond to the stress. In doing so the perceived stress is reduced, and for architecture, this becomes an environmental design response. See figure 54.

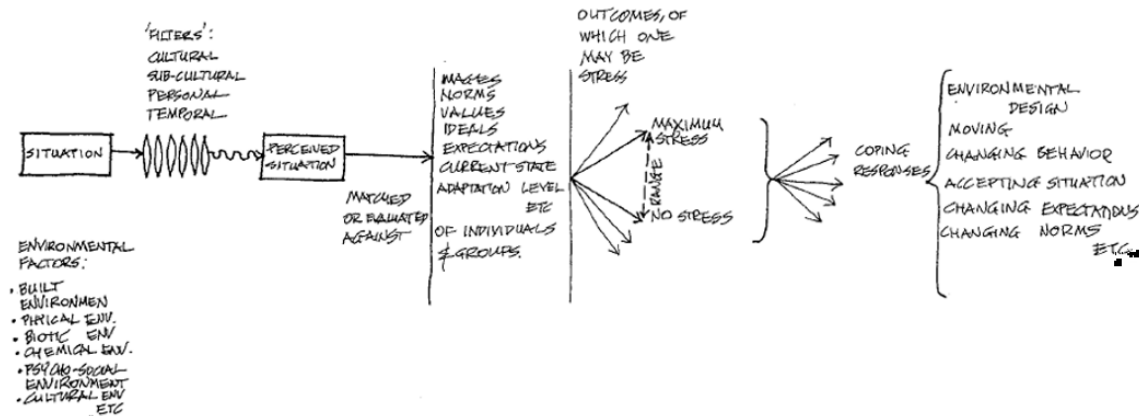
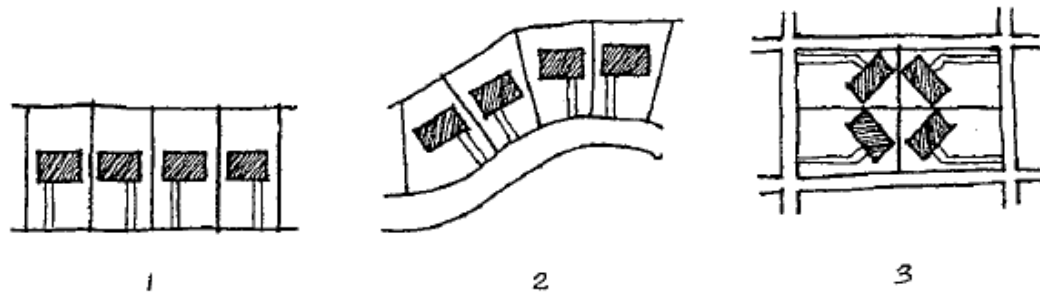


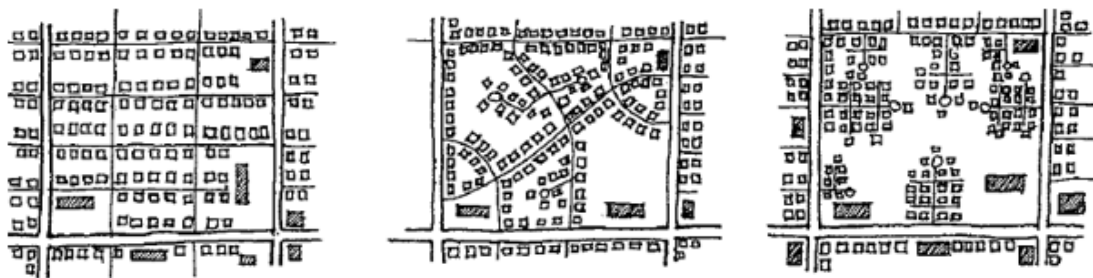
Figure 54. Design response to stress (Rappoport, 2005)

As one can see architecture and design can provide the platform that brings community together when navigating sensitive social aspects such as stereotyping and prejudice. But responding to the cultural aspects of homelessness through design, perhaps poses additional hurdles due to insufficient data. Who are the homeless? Where do they come from? Is it possible to use available data to provide relative and appropriate solutions? This Rappaport (2005) refers to the *scale* of culture. This means that there are far too many variants, for example in India there are 4200 communities, 1652 dialects, 18 languages and 9 religions in 26 states from one source. Analysis from other sources vary. So, in this there are already 2 issues, firstly there are too many cultural variables, and secondly the accuracy of using the information. Further issues arise as change occurs forcibly or voluntarily through acculturation, modernization, and assimilation (Rappaport, 2005).

What this implies is that different people have *preferences*. A study in Arizona between two groups of people on housing style choice concluded that there was distinct preference in terms of grouping of houses, subdivision of houses, (see figure 55) external colours, decoration, landscaping, spatial arrangements, style, and décor. It was also found that people of similar sub-cultures preferred being part of the same spatial group at a neighbourhood level, which raises the concept of homogeneity. And special settings were required to accommodate requirements of a specific culture.



Grouping of houses



Sub-division of houses

Figure 55. Cultural spatial preferences (Rappoport, 2005)

To deal with this Rapport suggests *open-ended design* is considered whereby 3 questions need to be asked: *what is common?* *What is different but inherently common?* *What is completely different?* In so doing this addresses the *abstractness* and *generality* of culture. Culture is a theoretical construct and cannot be directly used to inform design. According to Rapoport, to make culture useful in design it needs to go through a process of *dismantling* culture. This can be carried out in two ways. First through more observable social expressions of culture such as family, kinship, roles, social networks, status, identity, and institutions as depicted in figure 56.



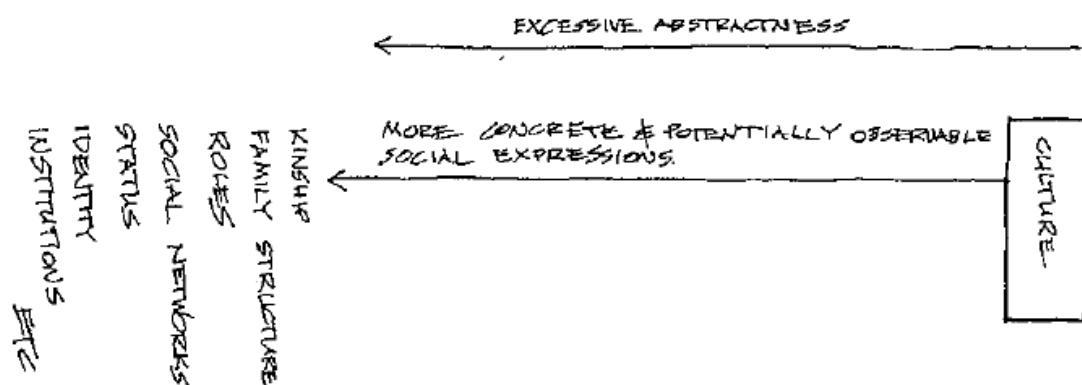


Figure 56. Dismantling social expressions of culture (Rappoport, 2005)

A second way of dismantling is deriving a sequence of 6 components of culture:

- Worldviews – how members of a group see the world.
- Value – evaluation based on preference and choice.
- Images – ideals, schemata, meaning.
- Norms – expectation, standards, rules,
- Lifestyles – environment behaviour interactions, outcome of choices, resource allocation in terms of time, effort, economy, and involvement
- Activity systems – concrete expression of culture – activity analysis-function and meaning. See figure 57.

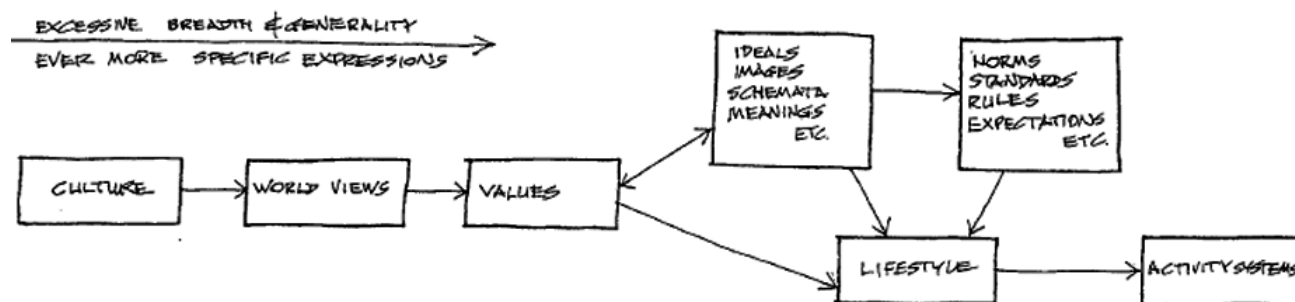


Figure 57. Components of culture. (Rappoport, 2005)

Once these processes of dismantling are successfully achieved it can then perhaps respond adequately to the built environment as expressed in figure 58. In the following chapter, dismantling these aspects in relation to someone experiencing homelessness will be investigated further.

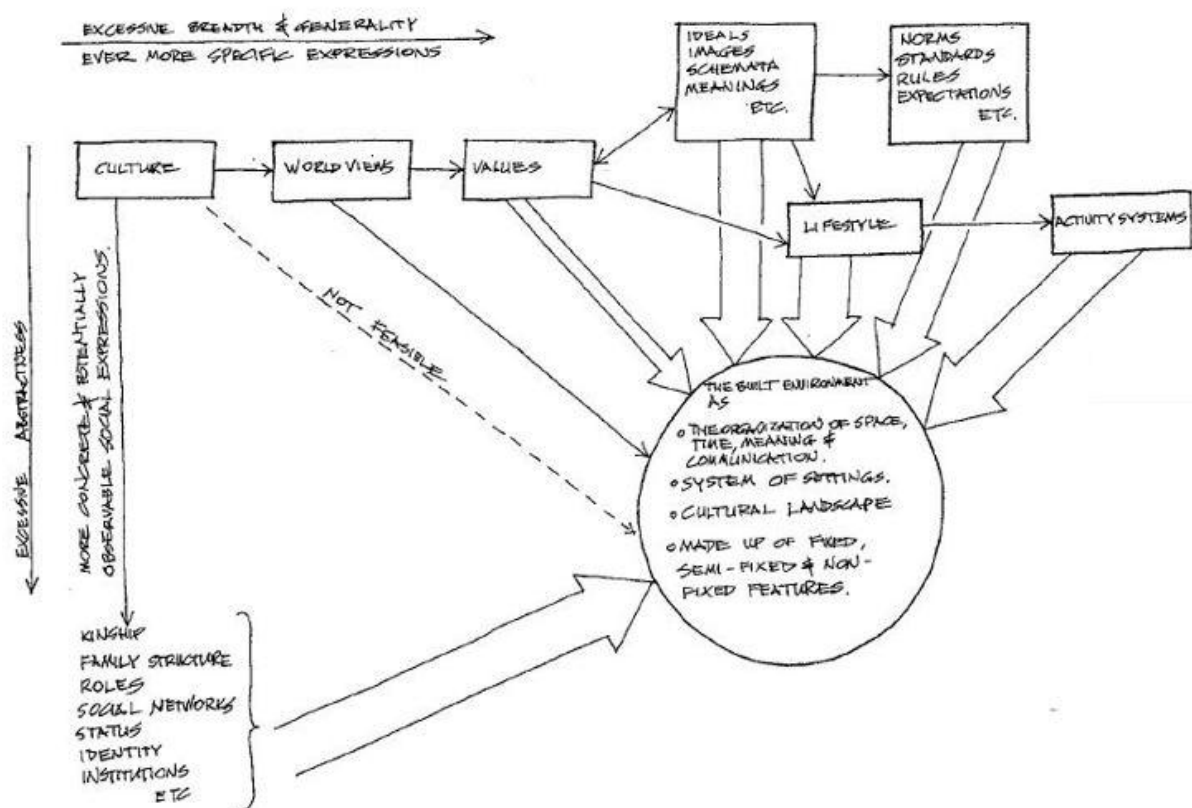


Figure 58. Dismantling Culture (Rappoport, 2005)

## CHAPTER 3: EMPOWERING THOSE EXPERIENCING HOMELESSNESS.

### 3.1 Introduction

This chapter deals with 4 key sections. The first section deals with sustainable development goals and how this impacts those experiencing homelessness. Building on this, empowering those experiencing homelessness is the next crucial step. In the section that follows an understanding of how space can be channelled as a tool of empowerment for those who are marginalised in society. In the final section a deep dive is taken into understanding adult learning and learning spaces that will respond to those experiencing homelessness.

### 3.2. Sustainable Development Goals and homelessness

Empowerment in a subset of sustainability. The following are crucial turning points for the concept of sustainability:

- In 1972 the term 'sustainable' was first used (Grober 2012 in Purvis et al. 2018).

- The UN conference on the Human Environment was also held in Stockholm whereby anthropogenic activity was highlighted (Purvis et al. 2018) (Paul, 2008) (Klarin, 2018) (Mensah, 2019).
- The concept of ‘sustainable development’ became a key point of discussion in the Brundtland report ‘Our Common Future’ in 1987 (Purvis et al. 2018) (Keiner, 2005) (Paul, 2008) (Grober, 2007) (Klarin 2018) (Mensah, 2019).
- This concept evolved into 17 Sustainable Development Goals by 2015 See Figure 59.



Figure 59. Sustainable Development Goals (United Nations, 2015)

In terms of homelessness Salcedo (2018) specifically identifies goal 1, 8, 10 and 11 as crucial aspects in addressing this issue. It is anticipated that in addressing these SDG's, it can also improve the conditions of sustainability goals 2, 3 and 6 also (ibid).

### 3.3. Empowering those experiencing homelessness

Empowering those experiencing homelessness means enhancing their capacity to be informed, make choices, and transforming choice into actions (FEANTSA, 2009). Empowerment is embedded in powerlessness whereby outcomes can be changed, or it cannot be changed (Lord & Hutchinson, 1993). In the case of homelessness there are possibilities to change outcomes. Hence it is vital to allow the opportunity for those experiencing homelessness to change their situation or as Rappaport (1987) states "*by empowerment I mean our aim should be to enhance the possibilities for people to control their own lives*" (Rappaport in Lord & Hutchinson, 1993).

Empowerment can happen at 3 levels, individual, organisational or community (Perkins & Zimmerman, 1995). The theory can be defined by *process* and *outcome* (Swift and Levine in Zimmerman, 2000). Process is defined as actions, activities, or structure which are *empowering*, whereby outcomes of such processes determine the level of *empowerment* (Perkins & Zimmerman, 1995). Process can also be described as: learning decision making skills; managing resources; and working with others (Zimmerman, 2000). Outcomes can be described as: sense of control; critical awareness; and participatory behaviours (ibid).

A crucial aspect of empowerment at an individual level is psychological empowerment (Zimmerman 1990; Zimmerman & Rappaport, 1998 in Zimmerman, 2000). According to Zimmerman (2012) there are 3 components of psychological empowerment. Firstly, *intrapersonal* which comprises personality with reference to locus of control, cognitive with reference to self-efficacy, and motivational aspects of perceived control (ibid). In terms of homelessness, the individual may question if they can achieve their recovery and housing goals (Joseph, 2019) Secondly is the *interactional* component, which is an individual's analytical skills, with reference to problem solving for example, that can change one's environment (Zimmerman, 2000). In the case of an individual experiencing homelessness may involve them engaging with resources, programs, or local representatives to access housing facilities (Joseph, 2019). And lastly is the *behavioural* component, which is exerting control by acting, which can be through participation in various social activities (Zimmerman, 2000).

### **3.3.1. Proposed interventions**

Finding pathways out of homelessness through empowerment must first aim at understanding the needs of those experiencing homelessness. A Useful tool that can be applied is Maslow's Hierarchy of needs. It comprises 5 levels of needs as depicted in figure 60 which moves through a step-up motion as each need is met in a sequential order: physiological; safety; belonging love; self-esteem; and self-actualization.



Figure 60. Maslow's hierarchy of needs. (Luckan, 2015)

Fleury et al (2021) conducted a study aimed at understanding met and unmet needs of 455 homeless participants in the United States of America, through a mixed method approach, using the Maslow's hierarchy of needs as a guide. The study revealed that the top three needs in order were housing, regular meals, and adequate clothing (ibid), which relates to the physiological aspect of Maslow theory. Healthcare was the following need which included medical, surgical, and dental and substance use control, all of which relates to physical needs. Earning a steady income, access to transport, education and employment fell under the safety needs. In terms of love and belonging, this involved both positive and negative experiences through interactions with relatives, friends, homeless peers, house sharing acquaintances, employers, landlords and shelter staff. Most participants had little to say about self-actualization, but studies show that this need is met when the other needs are met. See figure 61.

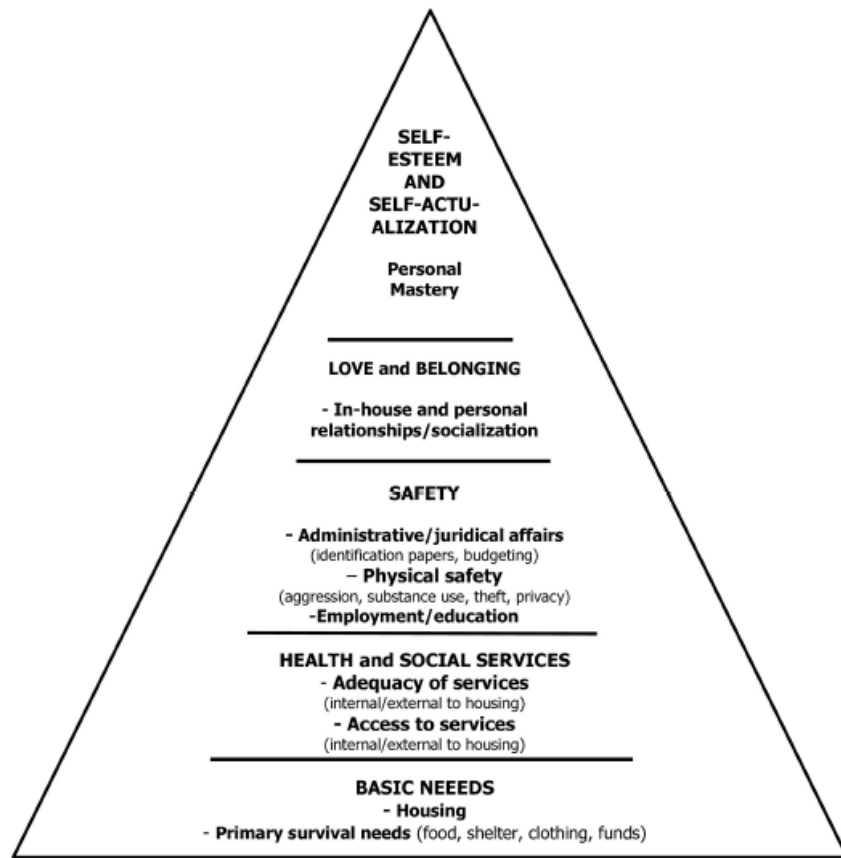


Figure 61. Needs of those experiencing homelessness (Fleury et al. 2021)

Homelessness is a deprivation of housing and adequate standard of living (United Nations in O'Shaughnessy & Greenwood, 2020). Hence a response to homelessness needs this as a primary goal. However this is not prioritised, and the reality is that there are 4 common responses to homelessness in South Africa: *punitive response* which is forceful measures to stop people from being on the street; *humanitarian response* which seeks to provide relief to those experiencing homelessness; *developmental response* which aims to provide shelter, social support, rehabilitation, skill development and empowerment; and a *rights-based response* which aims to change policy (Hopkins et al. in De Beer & Vally, 2021).

At the outset, it needs to be determined what condition those experiencing homelessness are in. which is embodied in the U-Turn program in Cape Town (ibid). This is to say do they require relief, rehabilitation, or development. Relief is urgent or temporary aid in the time of crisis or distress (Fikkert & Corbbert in De Beer & Vally, 2021) Rehabilitation seeks to assist with

returning to a positive state prior to crisis or distress (ibid). Development is continued transformation in search of a better-quality life (ibid). See figure 62.

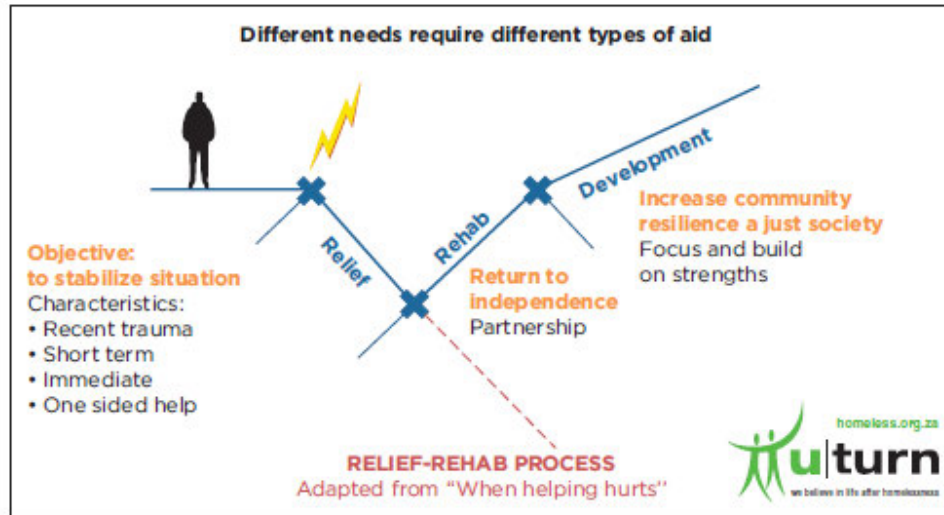


Figure 62. Steps towards rehabilitation (De Beer & Vally, 2021)

FEANTSA (2009) proposes an empowering way in dealing with those experiencing homelessness which essentially embodies the principles of the empowerment theory. This comprises 4 aspects: rebuilding self-confidence; understanding possibilities, resources and how to use it; participate socially; and taking on responsibilities (ibid).

Joseph (2019) on the other hand looks at interventions which have empowering features which are complex in their nature, and for the purposes of simplicity it is analysed as 5 fundamental types.

- The first is supported housing with case management.
- The second is housing first, combined with case management.
- The third type is case management.
- The fourth type involved education programs with a focus on recovery and occupational therapy.
- And the last intervention involved peer support where emotional, mental, and material support was offered.

The U-Turn program also has a four-step approach which comprises: preparation, rehabilitation, work readiness, and employment as depicted in Figure 63.



Figure 63. U-turn Program (De Beer & Vally, 2021)

*The main objective of such empowerment programs is to provide opportunities, where those who are experiencing homelessness must want to change.*

### 3.4. Empowering Spaces

In this section an understanding of how spaces can empower whereby the architectural designer must shed the burdens of ego and turn his attention to those who are least represented in society. As Veiga & Almendra (2014) puts it '*one should never forget the essence of design: solving human problems.*' (Veiga & Almendra, 2014: p2). However, Serageldin (1997) argues that an architecture that empowers does not mean the role of the architect as a form giver is abandoned but chooses to understand the complexities that exist in environments, where priority is given to the poor as much as that given to the rich. According to Marschall (1998) this can only be achieved through community participation. Hester (1989) refers to the architect as a 'community designer'.

Thus, the role of the community designer is concerned with aspects which are related to social, ecology, environmental, culture and politics (Veiga & Almendra, 2014) (Marschall, 1998). However, the primary role of the community designer is to bring about social change (Hester,



1989) (Veiga & Almendra, 2014). In this study this means the role of architecture and how it can relieve those suffering the ills of homelessness. Being a community designer means more than just site visits, engagement with community and other institutions, drawings, and other traditional responsibilities of an architect. It means advocating for the rights of those who are least represented in society through design. Balkrishna Doshi, Lucien Kroll, and Ralph Erskine are amongst those mindful architects who pioneered community focused design.

### 3.4.1. Aranya Low-Cost Housing

The Aranya low-cost housing project located in Indore, India, was designed by Balkrishna Doshi in 1981 (Sharma and Metha 2007). According to Serageldin (1997), one way to empower is through creating a sense of community through social bonds. Doshi sensitively created socio-economic opportunities and created common spaces where those with different religious and cultural backgrounds gathered, thus encouraging social cohesion. See figure 64 and 65.



Figure 64. Empowerment through tenure and street trade (Serageldin, 1997)



Figure 65. Owners decorated their houses according to the beliefs and needs (Raina et al. 2016)

### **3.4.2. The Perseigne social housing project**

Belgian architect, Lucien Kroll's took on an activist role against modernist architecture in Alençon, France (Schuman, 1987). Originally a social housing project influenced by the planning doctrine of modern planning through the CIAM, left the housing development lacking neighbourhood qualities which subsequently led to degradation. Kroll was appointed in 1978 by the municipality to remedy the situation. Of the work done, a school project was most successful, due to careful research, listening to the residents, and long hours of observations. See figure 66. Kroll argued that architecture was not meant to be pretty, but the era called for 'architecture of anarchy' that would bring about social transformation (Serageldin, 1997: p45). This is to say people need to participate democratically when making decisions about their own lives. This reveals the inherent relationship that exists between participation and empowerment.



Figure 66. Alençon School and community Centre (Schuman, 1987).

### **3.4.3. Byker Wall**

Ralph Erskine project in Newcastle, England also about the same period as Doshi and Kroll, saw the replacement of existing houses of Byker in the United Kingdom (Abrams, 2003). His design approach was based on 5 primary aspects: humanistic, ecological, cultural, nature orientated, and participatory (ibid). The primary goal though was public participation (Comerio, 1987). To gain the trust of the people in Byker, Erskine went to the extent of moving into the neighbourhood. See figure 67 and figure 68. Like most neighbourhoods' complexities arose from social hierarchies and with Byker, a similar fate saw a decline in the quality of the social life. A lesson in this is perhaps the architect should aim to anticipate every kind of outcome during the design

process. Nonetheless, Byker is an outstanding example of putting the users' needs first during the design process.

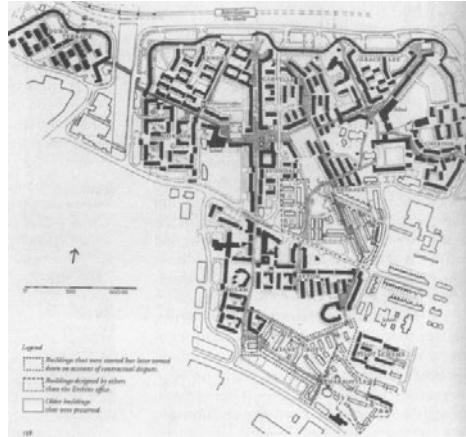


Figure 67. Byker site plan (Abrams, 2003)



Figure 68. Byker wall – a symbol of ecological design. (Abrams, 2003)

All three projects enjoyed empowerment success, however complexities at structural and community levels did see these projects decline over time. This raises the question of what went wrong during the design process and was not accounted for?

### 3.4.5. Challenges with Empowerment Spaces

It would be naïve to think that the community design process is an easy task. An article by Sabine Marshall in 1998 reveals that an architect involved in community design faces various obstacles. Her findings reveal 9 challenges that South African architects face:

- Lack of trust and respect. Communities don't understand the role of the professional and the professional does not understand the needs of the community.

- Lengthy meeting: participatory means long meetings, on weeknights and sometimes weekends
- Decisions made in lengthy meetings are sometimes overturned in subsequent meetings for no good reason.
- Lack of understanding with regards to architectural jargon or plan reading.
- New buildings are vandalised.
- Architects become emotionally drained when they see buildings being vandalised or must wait during the participatory process.
- The tender process is often not used as the community might have a preferred builder who might not be as adequate as a professional contractor.
- Due to the length of time spent on a community project in the sense of meetings and teaching, an architect may not be adequately remunerated.
- Risk of raising expectations and not keeping promises, risk of being patronised, elites who benefit disproportionately, and leadership might change the direction of the project. (Marschall, 1998).

In response to these challenges, she suggested solutions to be based on the following:

- Decision making can be finalised by setting out the *terms of democratic participation* and understanding what this means at the very start of the project.
- Broaden the *representation* base. In this way the project belongs to more members of the community and could deter situations like vandalism.
- *Communication* is key, and the community needs to understand how this will benefit them as a neighbourhood. It would be prudent to use an interpreter to get these points across.
- The architect must become the *facilitator of empowerment* and become part of the development process and become available to all who are in need in society.

- At a *tertiary* level there needs to be change in how architecture is taught, to move away from theoretical jargon and move closer to practical modes which deal with engineering, landscape design, town planning, sociology, history, art, and anthropology.
- Studying *theoretical models* such as Participatory Rural Appraisal (PRA), will raise the architect's awareness of key role players, history of the community, boundaries, building trust and understanding cultural norms.
- Architects need to familiarise themselves with methods on dealing with *power struggles and conflict resolution*. This can be done through manuals or workshops such as that produced by United Nations Centre for Human Settlement (Habitat 1989).
- *Methods or tools* like that produced by Shubhagato Dasgupta (1996), can help architects determine the extent of a *community's needs*.
- *Engaging with children* from disadvantaged backgrounds through workshops like those conducted by Shelagh Nation, in Pretoria teaches basic principles of selecting a site, developing a brief, developing sketches and building models, which can prove to be a useful tool for future empowerment and development of communities.
- *Human resource development* is perhaps the most important aspect to empowerment through the transfer of knowledge and skills.

The examples below are proof that community design is possible despite challenges and is key to unlocking sustainability and empowerment.

### **3.4.6. Empowerment in South Africa – Ubuntu Centre**

An example of one of the most celebrated buildings of community empowerment in South Africa is the Ubuntu Centre in Port Elizabeth which offers the latest technologies in HIV testing, community empowerment by means of career guidance and computer training. The centre also offers educational and concert halls for community use, which is key for the community to feel a sense of ownership, which reduces the risks of vandalism. See figure 69 and figure 70 which shows the plan and section which describes the orientation, program, circulation, proportions, hierarchy, light and scale.



Figure 69. Ubuntu Centre Plan View (Archdaily, <https://www.archdaily.com/135432/ubuntu-centre-field-architecture> Date Accessed: October 2023)

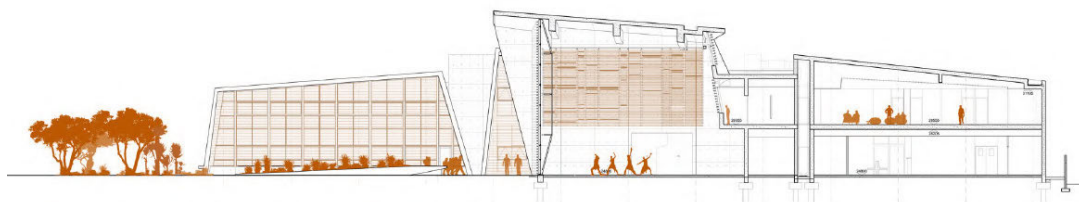


Figure 70. Ubuntu Centre Section (Archdaily, <https://www.archdaily.com/135432/ubuntu-centre-field-architecture> Date Accessed: October 2023)

There is also a roof garden which feeds more than 2200 students a day, which also empowers the community in terms of subsistence farming techniques. See figure 71. The pathways, like that seen in Kroll's school project, is also a key feature in the Ubuntu Centre, whereby the townships pathways are part of the architectural design thus becoming contextually relevant, but also respects those who have used these pathways. The architecture is contemporary, and this is a statement that everyone deserves access to quality architecture.



Figure 71. Ubuntu Centre – Subsistence Farming (Archdaily, <https://www.archdaily.com/135432/ubuntu-centre-field-architecture> Date Accessed: October 2023)

### 3.4.7. Empowerment in South Africa – Tshwane Food and Energy Centre

The Tshwane Food and Energy Centre is also an example of socio-economic empowerment. This pilot project began in 2016 which focused on food security and renewable energy production. 25 displaced families were provided with a plot that included the following: family dwelling; rainwater harvesting tank; a solar water heater; bio-septic tank; greenhouse; chickens; and 2 alternative energy production systems solar PV; biogas digester (Dimmer, 2016). See figure 72 and 73.



Figure 72. Tshwane Food and energy Centre (Dimmer, 2016).





Figure 73. Biogas bio digester and solar panels (Dimmer, 2016).

Dorah Nteo, who was the strategic executive director of city sustainability for the City of Tshwane states that this was not a free housing scheme, as there were policies and lease agreements in place. This now being referred to as an agropolitan city approach, has a central market located at its centre which is the hub for economic activity. According to a study conducted by Khanyile (2018) affirms that the Tshwane Food and Energy Projects was a useful case study for others to learn from.

#### **3.4.8. Empowerment in South Africa - Outreach foundation project in Hillbrow**

In concluding this section, the Outreach foundation project in Hillbrow, Johannesburg will be investigated. Due to high rates of crime and violence, there were a number of counselling centre sporadically spaced around this area. The outreach foundation became an opportunity in bringing these counselling facilities under one roof. The building is divided into three primary levels, with computer training rooms at ground floor, dance floor and a roof garden at first floor with meeting rooms at the second floor. In this sense we find that all activities and functions in this building are strongly linked to empowerment. See figure 74.





Figure 74. Outreach foundation project external View (Archdaily

<https://www.archdaily.com/776444/outreach-foundation-local-studio> Accessed: May 2023)

### 3.5. Adult Learning

In this final section, adult learning will be considered, as a means of empowering those experiencing homelessness, together with appropriately designed learning spaces. Adult learning can take place through various platforms such universities, Technikons, colleges, vocational schools, places of work, community, to name but a few, many of which are still based on the *industrial economy*. However, in the last few years, there has been a pedagogical shift from an *industrial economy* to a *knowledge economy* (Cornell, 2002). Cornell (2002) further suggests that this has shifted from:

1. Passive learning to active learning
2. Directed learning to facilitated learning.
3. Knowledge revealed to knowledge discovered.
4. Explicit knowledge to explicit and tacit
5. Knowledge is discreet to knowledge is embedded.
6. Single assessment to multiple assessment
7. Single intelligence to multiple intelligences
8. Instructor technology to ubiquitous technology.
9. Alone to alone and together
10. Just in case to just in time
11. Content to content and process

## 12. Linear and planned to planned and chaotic.

Adult learning comprises 3 primary themes: education, *training*, and *learning*. In this sense education and training happens through facilitation, but learning happens through the combination of the 2, which is further developed based on reflection. See figure 75.

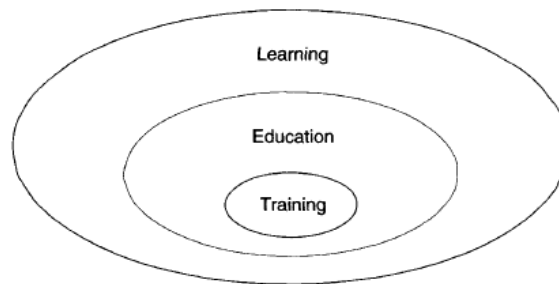


Figure 75. Primary objectives – learning education training (Tight, 2004)

Education is crucial to empowerment and is listed as SDG 4 which states the following:

*Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.* (United Nations, 2015).

United Nations Educational, Scientific and Cultural Organization (UNESCO) further describes education as:

*‘Organised and sustained instruction designed to communicate a combination of knowledge, skills and understanding valuable for all the activities of life’* (Tight, 2004).

*Education* can occur in a formal setting, like a university for example, or an informal setting, like a skills development facility, and can also occur through long distance learning.

*Training* can occur with or without formal education, however some kinds of cognitive abilities are required. Therefore, training can be described as the mastering of a specific type of task; to master the task there needs to be practice; and the underlying rationale is not a focal point (Peters 1967, p. 15, in Tight, 2004).

*Learning* can be associated mostly with discovery, which insinuates certain processes such as reflection, or incubation (ibid). However, a more succinct description is *‘Learning is the process*

*whereby knowledge is created through the transformation of experience*' (Kolb 1984, p. 38 in Tight, 2004). Tight (2004) states that concepts in learning can be understood as two groups.

The first groups deal with the education and training and the organisational provider with focus on distance learning, open learning, and flexible learning.

The second group with the individual learner and four concepts: *experiential*, *problem based*; *independent*; and *self-directed learning*.

These concepts are not comprehensive, as learning is an evolving process, however these are widely used, and for the purposes of this study, these are crucial components to understand spaces where learning will be effective.

### **3.5.1. Learning space, technology, and a sense of place**

As previously mentioned, learning has shifted from an industrial economy to a knowledge economy. This could mean 2 things for 21<sup>st</sup> century learning for those experiencing homelessness. Firstly, defining how a sense of place can enhance the experience of learning based on sensitivity to at risk individuals (Sanger, 1997). And secondly understanding the relationship change between architecture, physical space, and its effects on learning (Boys, 2010), and considering advancements in technology, and its impact on location, access, and aspirations (Jisc, Marmot et al., 2006).

### **3.5.2. A sense of place**

A sense of place is the personal experience that an individual has with space through processes which happen naturally (Sanger, 1997). For those who have experienced homelessness, this is significant because it means that space must not bring up traumatic feelings, or stigmatise, or make one feel unsafe and vulnerable. This then being a concept of phenomenology, also referred to as 'spirit of place' (Najafi et al. 2011), or 'genius loci' (Luckan, 2015), must naturally allow feelings of safety, belonging, and comfort.

### **3.5.3. Learning spaces and technology**

According to Marmot et al. (2006) there are 6 important components to 21<sup>st</sup> century learning space as follows:

- *Flexible space as pedagogy evolves.*

- *Future-proofed* for relocation and reconfiguration.
- *Bold*; that considers evolving technologies and pedagogies.
- *Creative*; to stimulate and inspire.
- *Supportive* role that maximises learning potential.
- *Enterprising* through a multi-purpose role.

According to (Boys (2010) learning methods need to move away from teacher-centric knowledge transfer and move more towards problem-based, student-centred, and collaborative learning. This leans toward social interaction, collaboration with peers and informality (Jisc, Marmot et al., 2006) (Boys, 2010). An example of such a space is *The Learning Café at Glasgow Caledonian University* (See figure 76).



Figure 76. The Learning Café at Glasgow Caledonian University (Boys, 2010) (Jisc, Marmot et al., 2006)

Individual learning spaces on the other hand are nooks; pods or clusters (Boys, 2010). An example of this is the *Centre for Inquiry- based Learning in the Arts and Social Sciences* (see figure 77). The design attribute here was based on providing more 1350 learning spaces which could be used individually or collaboratively (ibid).



Figure 77. Centre for Inquiry- based Learning (Jisc, Marmot et al., 2006)

Design attributes should focus on both tutor and learner led activities. By these needs with reference to presenting; collaboration; information retrieval; discussion and sharing can be addressed through creating flexibility in learning spaces. This means learning and teaching need to happen seamlessly. However there needs to be careful thought given to sound, heat and light (ibid). See figure 78.

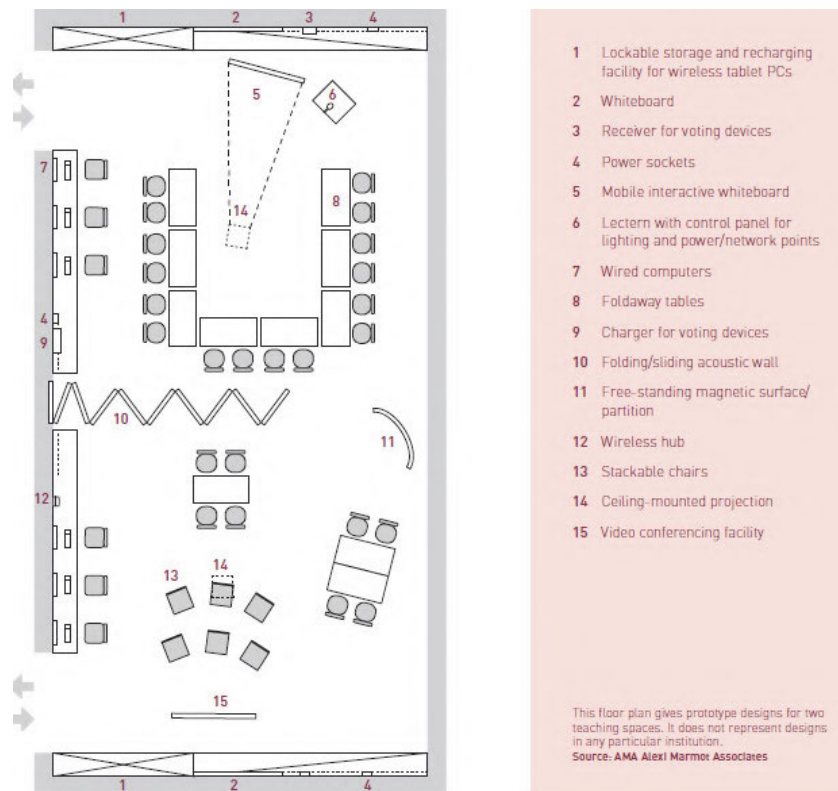


Figure 78. Flexible formal learning spaces

For vocational teaching spaces, the requirement in most cases is equipment, room size and supporting infrastructure. The main design attribute is operations driven, which is backed up by evolving pedagogic drivers. In this sense learners benefit from having access to web-based learning in conjunction with workshop-based learning. See figure 79.

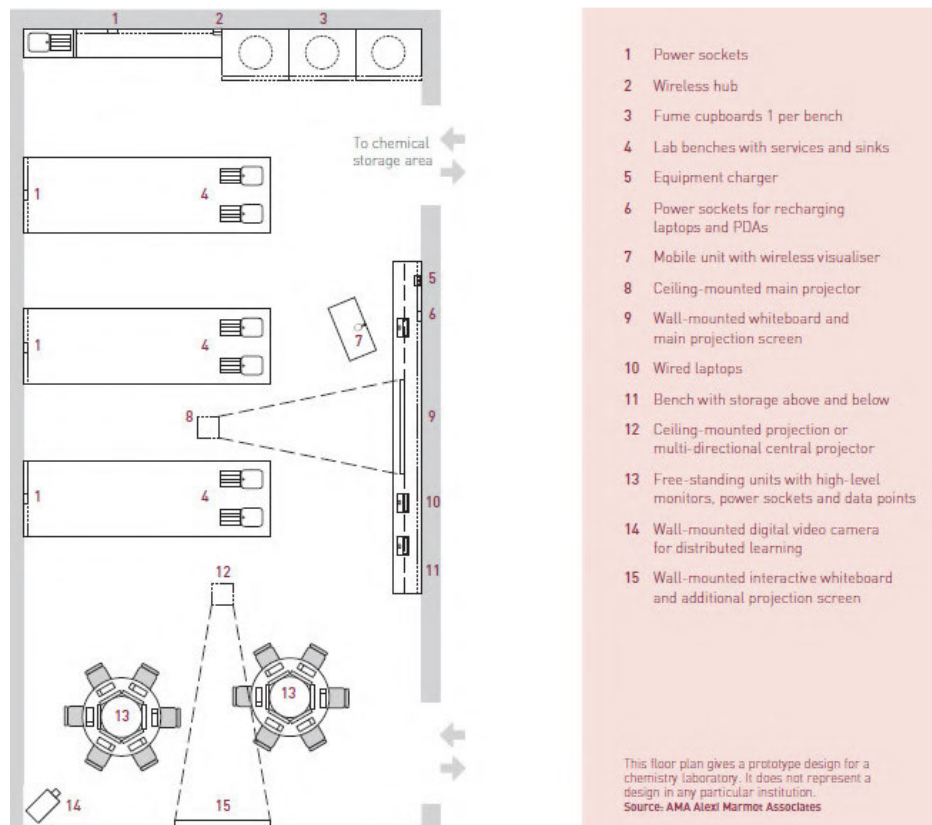


Figure 79. Vocational learning spaces with flexible and web-based services

Technology is crucial in modern day learning and can be thought of as 4 types of learning groups (Jisc, Marmot et al., 2006).

- *Mobile Learning* which comprises tablet PCs; laptops; mobile phones; wireless keyboards and mouse; PDAs; and digital cameras.
- *Connected Learning* and this comprises wired computing; wireless-enabled laptops/tablet PCs; internet-enabled PDAs; and mobile phones.
- *Visual and Interactive Learning* comprising video conferencing; video streaming; image projection; interactive whiteboards; and voting devices.
- *Supported Learning* assistive technologies accessible usb ports audio-visual prompts video recording facilities plasma screen information points?

In designing interactive places of learning, it is important to ask the right questions (Boys, 2010), which ensures that architecture is guided through humanistic (Luckan, 2015) attributes rather

than design attributes of what is prescribed. This is to say the former should take precedence over the latter.

## **CHAPTER 4: LITERATURE REVIEW PLACE MAKING**

### **4.1 Introduction**

Someone experiencing homelessness cannot experience a place in the same way as an individual who is accepted in social and cultural domains of modern-day society. Most drift from street to street in search of food and shelter, making use of *space* that they are *allowed* to use until they are asked to leave by authorities and others who are higher up in the so-called *social order*. So even though public space which by right belongs to all who inhabit it, is really the property of the law makers and taxpayer. This means there is no social identity or sense of belonging and they can never feel *at home*. This also means public space is not made inclusively. It is with this in mind that *placemaking* needs to be reconsidered at urban and building scale that creates places that are inclusive where social cohesion can occur in communities and becomes *home* to all its inhabitants. This chapter will therefore aim to understand theories of *place* and *space* in a physical and metaphysical sense.

### **4.2. Place and its impacts on those experiencing homelessness.**

In chapter 2, the effects of apartheid and its contribution to homelessness has been highlighted. In lieu of this, the current reality is that Johannesburg inner city has limited physical infrastructure, and the spatial organisation for other parts of Johannesburg has contributed to social, economic, and spatial exclusion (De Beer & Vally, 2021). Perhaps the most pertinent concerns for those experiencing homelessness are 1) *victimisation*; 2) they are constantly being *stigmatised*; 3) *by-laws* which limit how they support their own needs; 4) and are forced to occupy and build *substandard spaces* to sleep in.

1. In terms of *victimization*, all who are homeless are potential victims of crimes such as being robbed, raped and acts of violence (Olufemi, 1998) (Morrow, 2010) (De Beer & Vally, 2021). This means they are constantly living in fear. In a study by Sadiki (2016) those experiencing homelessness are at a higher risk of physical attacks and theft, with the most common perpetrator being a male under the age of 25. Another common form of



victimisation is by the authorities. The following is a statement is by a homeless person who highlights the futility of communicating with the police:

*You think I don't know that umaphuza do not have the right to beat me up? Of course, I know that. And I also know that if, while they are klapping me at 3am, I start telling them about my rights, they are going to klap me even harder.* (De Beer & Vally, 2021: 71).

The literature shows that in most instances, their belongings and IDs are taken by the police. See figure 80.



Figure 80. Homelessness and victimisation (Google Images)

2. In terms of *stigmatisation*, which also means being rejected by society, Charlton (2019) states that those living in public spaces are referred to as vagrants, polluters, invaders, or criminals. Whilst it may be difficult to set up what goes on in terms of criminality, Charlton's research shows most are merely trying to make a living by avoiding unaffordable rental and travelling costs. Another aspect of *stigmatisation* is the LGBTIQ+ community, who are shunned by religious groups, public and private service providers (De Beer & Vally, 2021). See figure 81.



Figure 81. homelessness and stigmatisation (Google Images)

3. 'In terms of *by laws* for public space, according to Louw (2017), the South African by-laws for public open space highlights the following prohibitions: Urinating or defecation; bathing or washing; sexual activity; nudity; use of drugs or alcohol; making a



fire; and making a camp. In terms of, urination or defecation, bathing or washing, public toilets are important, but these toilets are locked or open early in the morning and close in the early evenings, which means those experiencing homelessness must use public space to urinate and defecate. And according to Charlton (2019) many experiencing homelessness use the Braamfontein spruit to wash their clothes. The following 3 items of sexual activity, nudity, and use of drugs and alcohol means those experiencing homelessness are not allowed to function as other human beings do. With regards to fire or making a camp, raises the question how one survives in cold, inclement weather. See figure 82.



Figure 82. homelessness and lack of access (Google Images)

4. *Substandard shelters* can be divided into 2 categories where in the first category is the physical homeless shelter, which are fraught with urban, architectural, and social problems discussed in the problem statement. Another negative social aspect of homeless shelters is the way in which those experiencing homelessness are treated, which could mean stigmatisation or victimisation. According to Olufemi (1998) shelters lack water, toilets facilities, with poor sanitation leading to health issues such as tuberculosis and respiratory diseases because of poor indoor climate. This means a homeless person reaches a point where they would rather live *under the sky* than suffer physical, mental, or emotional abuse in a shelter.

This being the second category, where someone experiencing homelessness constructs their own shelter as described in chapter 2. In most instances this shelter is created using materials which are most available, like cardboard (De Beer & Vally, 2021) asbestos, sticks, or plastic (Govender, 2014). The makeshift shelter is also to stay out of the view from the disapproving public eye. In other instances, many sleep without any makeshift shelter, just dirty old blankets, and their belongings. See figure 83.



Figure 83. homelessness and inadequate shelter (Google Images)

These four attributes point out that cities and urban spaces are not designed, socially, spatially, and legally for living in public space. This reveals that those experiencing homelessness are being excluded from the urban design process. It is with this in mind that placemaking becomes a crucial urban design theoretical approach as it is inclusive by nature as it prioritises people over infrastructure, primarily focusing on social and cultural aspects (Archdaily, 2023). One of the most telling negative aspects of excluding people in the design process is the outcome of many modernist urban design interventions (Sime, 1986). Placemaking like other urban design principles which aim to debunk modernist principles, incorporate four primary principles of *people centred design*; *public participation*; *mixed use development* and *sustainability*.

Placemaking is thus about change and reconnecting people with place, based on everyday human behaviours where space becomes receptacles for life to be experienced (Creswell, 2004; Friedman, 2010 in Minnaar, 2019). See figure 84.

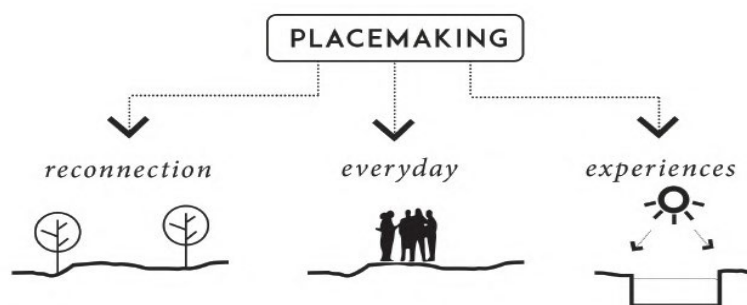


Figure 84. Placemaking – reconnecting. (Minnaar, 2019)

Since the failures of modernist planning, designers have been trying to identify characteristics which makes good urban space. In 1988 Barry Sherman suggest the following characteristics:

planning which allowed cities to evolve naturally; stimulating geometry; celebration of street life; sense of intrigue; variety of interesting happenings that act as platforms for socialisation; things to do; food and drink meeting places; comfortable place to sit and wait; a balance between privacy and loneliness prevention; climatic conditions considered; and senses to be heightened (Montgomery, 1998).

Based on these characteristics, place can be defined as a combination of *psychology of place* (Alexander, 1979; Lynch, 1960 in Montgomery, 1998) and *physicality of place* (Cullen, 1961 in Montgomery, 1998). This relates to human behaviour (psychology) and the built environment (physicality) as depicted in figure 85. This is intrinsically connected to the four points stated above, whereby one could relate *victimisation* and *stigmatisation* to the psychology of space and *by laws* and *substandard shelter* are prescribed to the physicality of space.



Figure 85. Human behaviour based on activity (Tibbald, 1991) (Archdaily, The Psychology of Urban Planning, Accessed: March 2023)

That Canadian geographer, Edward Relph's major contribution to the understanding of place are the concepts of *insideness* and *outsideness*. Insideness referred to positive feelings of being here instead of there, safe instead of being in danger, enclosed instead of exposed, and at ease instead of being stressed (Seamen & Sower, 2008). Outsideness is the opposite of insideness (ibid). This is where one does not feel at home or feel welcomed, which is the case of those experiencing homelessness. Minnaar (2019) proposes that the production of space thus becomes the *liminal space* where *informal* and *formal* space interact (Minnaar, 2019). See figure 86.

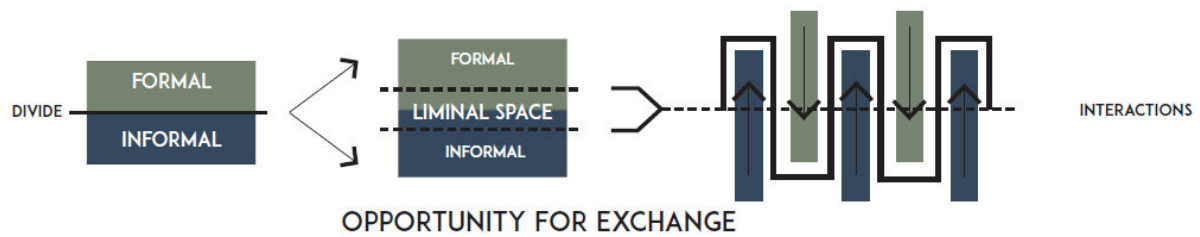


Figure 86. Liminal space (Minnaar, 2019)

In traditional cities, liminal space could be considered as the *street* and the *square*, which relates to *linkage* and *ordering* principles respectively. The square is perhaps the original element of the urban space as buildings were grouped together creating a courtyard and forming a defensive line to its rear as seen in the Agora or Forum (ibid). Forum, meaning outdoor public space in Latin, was the symbolic centre of cities like Rome (Ching et al., 2017), where entertainment, leisure, civic life, culture, relaxation, where social exchanges can occur (Tibbalds, 1992). See figure 87. Krier & Rowe (1979) who clearly understood the vitality the square brings to urban space, compiled a rigorous analysis of the physicality of the square. He concluded the square was informed by three geometric spatial types: the square, the circle, and the triangle, through which several permutations created regular or irregular spaces, which are closed or permeable (Krier & Rowe, 1979).



Figure 87. The roman forum (Ching et al., 2017)

The street, being more of a functional quality, connected squares and other parts of settlements (Krier & Rowe, 1979). Prior to the modernist planning of grids, zoning, hierarchies, low density,

technologies, engineering, and the international style (Tibbalds, 1992), streets were designed with human scale in mind as depicted in figure 88. Other urban theorists such as Jane Jacobs, Jan Gehl and Robert Cook believed that urban space should be about street life, activities in buildings and space (Montgomery, 1998).

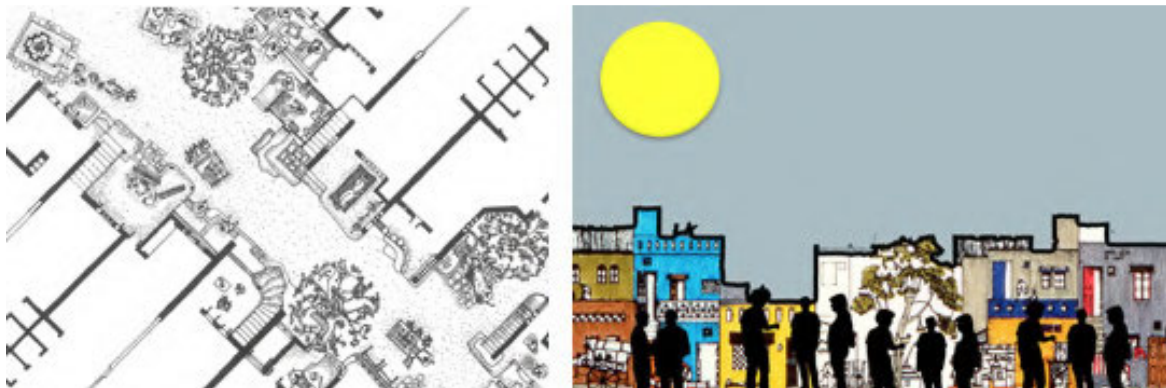


Figure 88 Aranya – designing for human activity on streets (Rethinking the Future)

Relph's phenomenological approach which is the interpretive study of human experience conducted an in-depth study of people's *identity* of and with place (ibid). Unwin (2009) states that identification of place lies at the generative core of architecture. He argues that place to architecture is like meaning is to language (ibid). This means that like language, there are patterns that can be formed that create different meanings, and ultimately varying identities, which are crucial for inhabitants to feel a sense of belonging, which relates to its historical, geographical, cultural, and physical contexts (Tibbalds, 1992). Relph concluded that place identity included 3 components: *physical settings*; *events* and *activities*; and people in the form of individual and community which give place *meaning* (ibid) (Punter, 1991 in Montgomery, 1998). See figure 89.



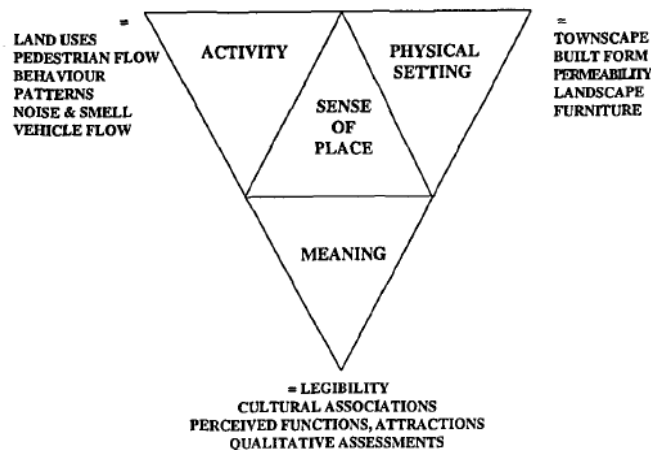


Figure 89. Place identity (Montgomery, 1998)

Montgomery (1998) suggests a derived model which highlights activity, form and image which can be used as a combination of elements to produce a good urban place. See figure 90. A homeless shelter must form part of



Figure 90. Elements of good urban place (Montgomery, 1998)

A concept that defines the creation of a good urban place is New *Urbanism* (Katz, 1993). The fundamental organising elements of this approach is the *neighbourhood*, *district*, and *corridor*, all of which fall under the principle of *Transit Oriented Development (TOD)* (ibid). This is essential for this study as Orange Grove has been identified for TOD.

#### 4.2.1. The Neighbourhood

The neighbourhood should comprise five characteristics as depicted in figure 91:

- Neighbourhoods should comprise a *centre* and an *edge* (ibid). The centre should be a public space (Brown, 1999). Buildings of various function occupy the centre with the edge will comprise parkways or boulevards (ibid).
- Neighbourhood *optimal size* should have a *quarter mile radius (402.33metres)* (Katz, 1993). The aim would be to create a cluster of transit-oriented neighbourhoods, which contribute to a network of villages, which is walkable (ibid).
- A neighbourhood has a healthy mix of activities (Katz, 1993). This relates to dwelling, shopping, and schooling, working, recreating, and worshipping (ibid).
- Neighbourhood sidewalks to be attractive, and be wide with landscaping, which is pleasant to use (Brown, 1999). It is anticipated that if sidewalks have more people using them, then vehicles will slow down (ibid), which is an important traffic calming strategy.
- Public space and civic buildings to be given priority (Katz, 1993). The civic spirit of a community is lifted when activities related to culture, socializations, education, and religious activities are given preference (Brown, 1999). See figure105.



Figure 91. The civic spirit of place (Brown, 1999)

#### 4.2.2. The district

The district structure is like the neighbourhood, which has identifiable qualities which has clear boundaries and is oriented (ibid). Groups form different districts such as *institutionalised districts*, *tourist districts*, and *theatre district* (ibid). The is interweaved with public spaces and combined create a sense of community. (Brown, 1999). See figure 92.

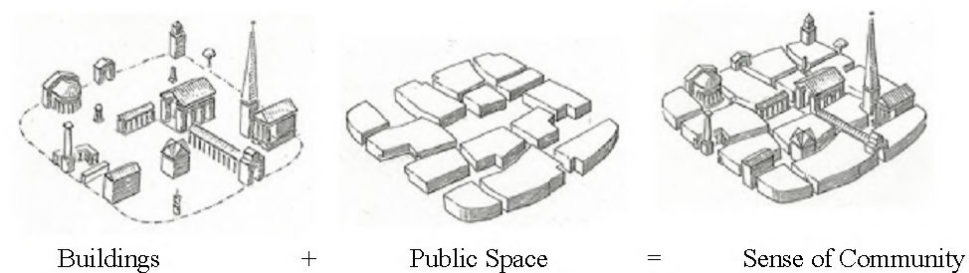


Figure 92. A sense of community (Brown, 1999)

#### 4.2.3. The Corridor

The corridor acts as connector and separator of districts and neighbourhoods (Katz, 1993) (Brown, 1999). A corridor could represent several types of travel paths. Transportations corridors must be designed with equality amongst the different types of street use, namely motor vehicles, walking, and cycling as depicted in figure 93.



Figure 93. Street equality (Global Designing Cities Initiatives)



#### 4.3. What is the principle of home – A sense of home – People Place Past Future.

Being homeless means not having a home which results in the following: being excluded from socio economic activity, denied access to basic human rights, dependent on the charity of others for survival, being stigmatised, and being vulnerable (DeBeer & Vally, 2021).

Somerville (1992) suggests that the meaning of home is signified by 7 key dimensions: shelter (*materiality* – physical security), *hearth* (warmth – emotional security), *heart* (love – emotional security); *privacy* (control – territorial security); *roots* (identity – ontological security); *abode* (place – spatial security); and *paradise* (ideality – spiritual security).

Dovey (1985) states that the meaning of home is defined by 3 themes: *order*, *identification*, and a *dialectic process*.

- *Order* are patterns of experience and behaviour can be expressed as *spatial*, *temporal*, and *socio-cultural* (ibid).
- *Identity* is the bonding between home and the human spirit, which is both spatial and temporal (ibid).
- The *dialectic process* omits the static nature of home which means home has *spatial*, *social* and *appropriation* dialectics (ibid).

Sixsmith's (1986) phenomenological study findings revealed 20 categories which related to the meaning of home. These 20 categories were sorted under into 3 modes of experience as depicted in figure 94.

Composition of the three experiential modes		
Personal	Social	Physical
Happiness	Type of relationship	Structure
Belonging	Quality of relationship	Services
(Responsibility)	Friends and entertainment	Architecture
Self-expression	Emotional environment	Work environment
Critical experiences	(With others)	Spatiality
Permanence		
Privacy		
Time		
Meaningful places		
Knowledge		
Desire to return		

Figure 94. Phenomenological aspects of home (Sixsmith, 1986)

According to Stoneham & Smith (2015) the most positive attribute of home is the social aspects like the relationships created. The negative aspect of the home is the unhappiness of its built form (ibid). The home thus is both a psychological construct and a physical construct. For those experiencing homelessness the physical construct is required to satisfy the psychological construct (Parsell, 2012). This means they cannot enjoy a sense of security; symbolically express their individuality; a loss of control and self-expression; inability to lay down roots; a lack of emotional experience; no leisure time; enjoy a sanctuary to retreat from the world; or enjoying the feeling of accomplishment in owning your own house (Depres, 1991).

The concept of home we experience today was first thought up in the Netherlands, towards the end of the 17<sup>th</sup> century (Hill, 2006). To understand home, means understanding human behaviour, which is a complex undertaking. Lawson (2007) places human behaviour into 4 categories, instinctive, conative, cognitive and skill as indicated in figure 95.

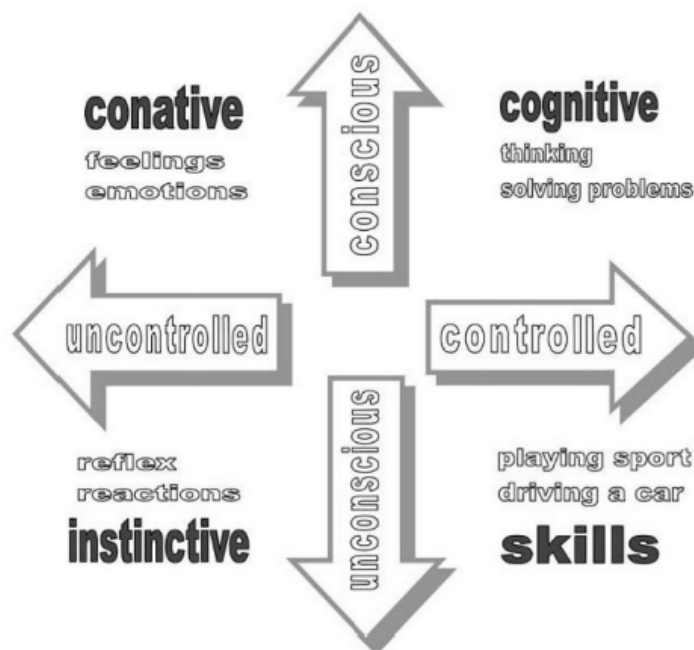


Figure 95. Human behaviour (Lawson, 2007)

By understanding human behaviour, the architect puts himself in the position to relate architectural principles which can therefore create a sense of home as suggested below:

1. *Sol y Sombra* (Stoneham & Smith, 2015) – This refers to balance between manmade space, nature, and man as depicted in figure 96.

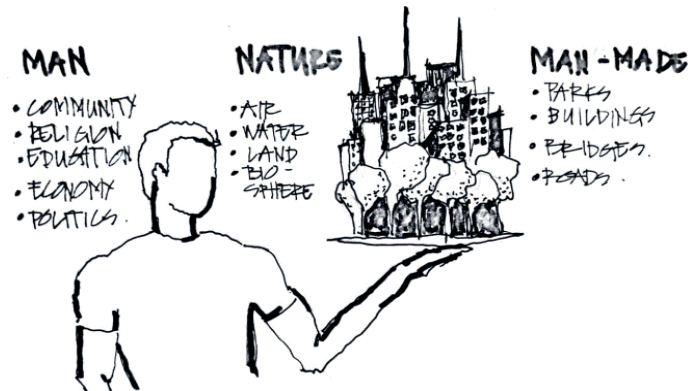


Figure 96. Balance between man, nature and man-made (Author, 2023)

2. *Stimulation and Security* (Stoneham & Smith, 2015) – Creating points of interest within a setting that can be psychologically stimulating. The aim is to find the stimulation balance as depicted in figure 97.



Figure 97. Stimulation Range (Stoneham & Smith, 2015)

Security refers to feeling of stability and predictability (ibid). The fireplace or hearth, (Unwin, 2009), is perhaps one of the most successful elements as it not only provides physical warmth, but also adds ambience to the atmosphere. See figure 98.

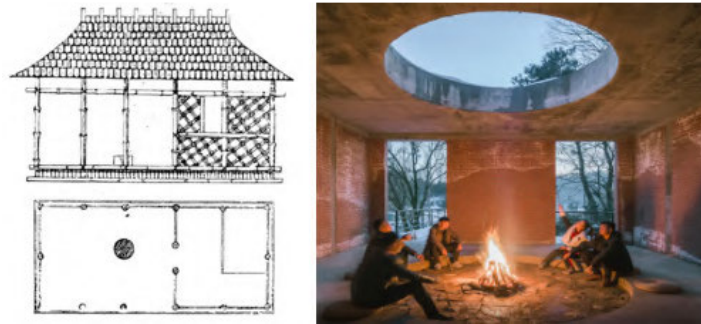


Figure 98. Hearth – creating an ambient place (Google Images)

3. *Old and new* (Stoneham & Smith, 2015) – Home alludes to the archetypal cottage. The cottage was characterised by various inherent cues, like the way it nestled on the ground, takes advantage of orientations and the sun, uses readily available materials, considers human scale, and emphasised places for social activities such as cooking, sitting, eating, relaxing, and sleeping (Unwin, 2009), See figure 99.



Figure 99. Evolution of the cottage (Google Images).

4. *Contrast and Harmony* (Stoneham & Smith, 2015) – these aspects determine how buildings meets its surrounding context. Marcel Breuer believed that there should be no blurred line between nature and architecture, hence a promotion of *contrast*, where there will be a greater emphasis and appreciation one for another as See figure 100.



Figure 100. Contrast between nature and architecture (Stoneham & Smith, 2015) (Google Images)

The *window* is a crucial aspect of keeping the visual, emotional, and spiritual connection with nature through the creation of views. This can be thought of as 2 aspects, what is being seen from the inside, and what the impact on the façade is. See figure101.



Figure 101. The window from inside and outside (Stoneham & Smith, 2015)

Views also play a crucial role in what is allowed to be private or public as depicted in figure 102.

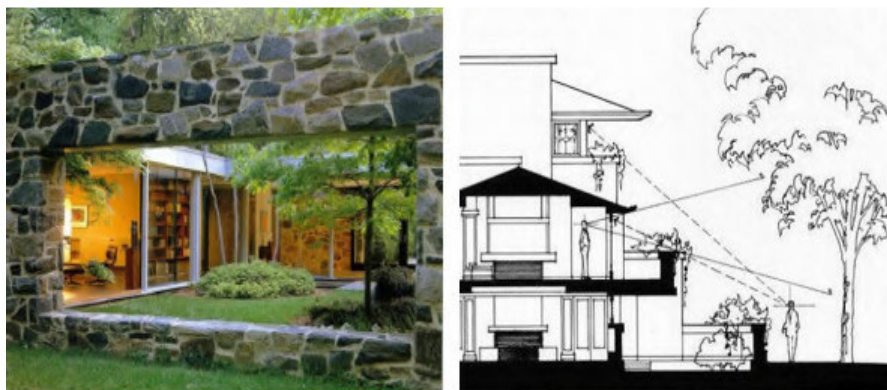


Figure 102. Views and privacy (Stoneham & Smith, 2015)

*Harmony* does not mean architecture should mimic nature, but it does however aim to be one with nature. This perhaps is best represented through Wright's organic principles of architecture. See figure 103.



Figure 103. Organic principles of architecture (Google Images)

5. *Scale* (Stoneham & Smith, 2015). In this final element of creating a sense of home is *human scale*. This is closely related to *anthropometrics* and *ergonomics*. Any sort of design without considering human scale would be a dislocation (Corbusier, 1931). Le Corbusier's Modulor is a good example of understanding human scale. This system was created using *mathematics* and *proportion* (Ching, 2007). See figure 103.

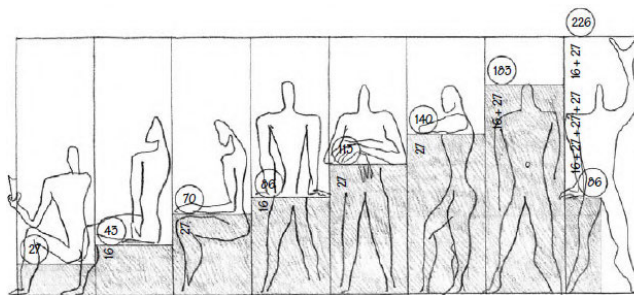


Figure 103. Le Corbusier's Modulor (Ching, 2007)

#### 4.4. Place-Making in Homeless Shelters

Most homeless shelters can be defined as space with mere dimensional properties, fit purely for the purpose of meeting the needs of tier 1 and 2 of Maslow's hierarchy of needs. According to Dovey (2009) the difference between space and place is that place has an intensity that creates a connection between social interactions and quality of space. It is with this in mind that that place becomes the receptacle (Alexander, 1966) in which the complexities of human engagement can occur (Menin, 2003). Those experiencing homelessness have experienced traumatic situations being on the streets and shelters cannot meet them at their point of need. The following section will briefly look at the origins of the homeless shelter, framework, design considerations and



looking at different types of shelters, all of which is based on a Jill Pable, Yelena McLane, and Lauren Trujillo book *Homelessness and the Built Environment*.

#### 4.4.1. History of the Homeless Shelter.

The first type of homeless shelter that came into existence was the 'workhouse' which was created because of the Poor Law Act Amendment Act of 1834, which stated that the most destitute will be provided shelter or assistance. Workhouses were built by Parishes which aimed to provide food, fuel, and clothes (See figure 104). Layouts were like prisons which allowed managers to maintain a sense of control and regulating behaviour. Architectural approaches were based on the corridor, courtyard and radially which allowed for a visual and physical access from a central point.

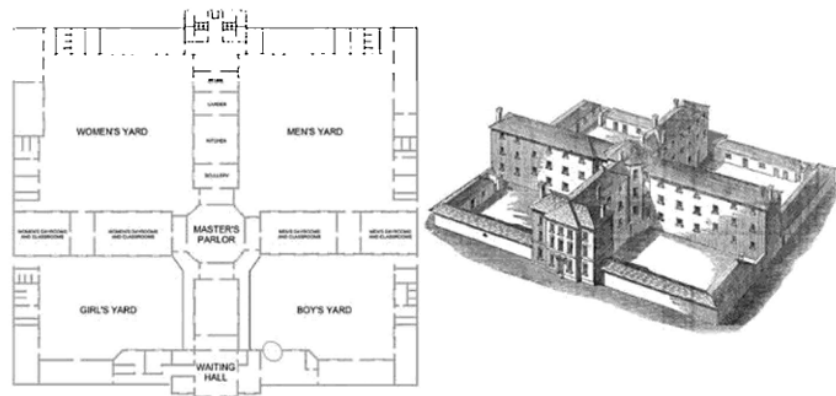


Figure 104. Workhouses built by parishes. (Pable et al. 2022)

In America, at about the same time as Britain, early 1800's pauperism saw the development of the 'poor house'. These were divided into 2 types, institutional and domestic. Domestic was suited for rural communities whilst the institutional were located on the outskirts of the city. Generally, these buildings were dour in character, except for the Leverett Street Almshouse in Boston designed in a Neoclassical style (see figure 105).



Figure 105. Leverett Street Almshouse. (Pable et al. 2022)

In South Africa the ‘workhouse’ was also implemented because of the discovery of diamonds in the 1860’s. This caused an influx of prospectors from Europe and Australia, resulting in rapid industrializations and land competition.

The concept of homelessness at international scale was then followed by 2 periods according to Pable et al. (2022). First was the ‘modern era’ which was between 1900 and 1950, followed by the ‘service economy’ from 1950 to present day. The modern era saw philosophers such as Thomas Hill Green and Henry Sedgewick who argued that the root of homelessness was poverty rather than genetic defects. In America President Roosevelt was quick to recognize this and provided relief systems in terms of employment and housing. This has pretty much been a response to homelessness internationally and in South Africa ever since. However, since the 1980’s, architects have taken a more involved role in recognizing that architecture can play a crucial role in alleviating homelessness.

#### **4.4.2 Frameworks for designing shelters.**

Designing for the homeless means understanding the full extent of what it means to be desperate or vulnerable or what is urgent. Designers may find it difficult to fully empathise with someone who is struggling mentally and emotionally. It is with this in mind; frameworks can play a crucial role in assisting the designer make informed decisions. Frameworks as defined by Pable et al. (2022) is a knowledge idea, like theory, but frameworks are more strategic and practical.

In the case of those experiencing homelessness studies show that trauma is the underlying effect of being on the street. Trauma is described as:



*‘An event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being.’* (Centre for Health Care Strategies, Inc., 2017, p. 9 in Pable et al. 2022).

Pable et al. (2022) have identified 2 frameworks, *‘Trauma Informed Care’* and *‘Psychologically Informed Environments’*. These frameworks were instrumental in creating *‘Trauma informed design’* response which comprises 12 criteria as follows:

1. Ensure that individuals feel a sense of identity and ownership.
2. Spaces should be safe and inviting.
3. Encourage choice making whilst catering to the needs of all using the space.
4. Creating dynamic multisensory environments that actively engages individuals.
5. Adverse triggers and stimuli to be removed.
6. Effects of noise and crowding to be carefully analysed.
7. Create ways to allow individuals to do things for themselves.
8. Create spaces which allow for privacy and confidentiality.
9. Create a space that indicates that an individual can trust.
10. Create spaces that show connections to nature and the outside world.
11. Spaces should reveal a sense of collaboration and community.
12. Spaces should be versatile in separating an individual from others, should he/she be in distress.

An example of using trauma informed design criteria was the Waystation Day Centre in the US state of Vermont where a key focus was on light, colour, furniture, spatial layout, and defining visual interest versus visual complexity. See figure 106, which shows before and after incorporation of the trauma informed design criteria.



Figure 106. before and after images using trauma informed design. (Pable et al. 2022)

#### 4.4.3. Design Considerations

According to Pable et al. design consideration can be divided into two approaches:

- 1) The holistic needs which are common to all projects like this: site; the shell, and interior.
- 2) Understanding the needs, namely the 12 criteria identified by Pable and Gomory in the previous section, and how architecture can respond.

These two approaches fundamentally mean ‘*in short, placemaking for people experiencing the trauma of homelessness is about laying a foundation of stability for progress toward well-being.*’ (Pable et al. 2022: p117-118).

##### 4.4.3.2. Building Design – the shell and interior

According to Pable et al. (2022) the most important aspect of building shelters is creating accommodation that communicates a sense of calmness and affords the guests the space to contemplate the future. Architects who designed the *Shelter from the Storm* in the UK were able to create a welcoming feeling by turning the entry point into a café. This allowed the community to engage with the building and the guests of the shelter. The architects used concepts of home, comfort, intimacy, and familiarity.

The next important question is what should the size and capacity of a shelter be? The consensus seems to be that a smaller shelter can be effective in neighbourhoods, than larger shelters as this will result in kinder and gentler treatment of clients. However large shelters can be successful in urban settings. According to architect Michael Maltzan, who worked on several low-cost housing schemes, suggests that 75-200 units sounds about right. The main reasons to maintain a smaller building is to ensure that: there are no feelings of intimidation; wayfinding is easier; numbering

rooms and beds won't be necessary; materials are used which are longer lasting hence building starts having a hospital look; people might feel a sense of shelterization and won't feel empowered if there are too many rules; and finally, as mentioned previously COVID 19 has highlighted aspects such as social distancing and ventilation systems.

Design considerations become complex when considering the primary use for the 3 main guests: those previously homeless, staff, and service providers. However, most facilities have common requirements and are outlined as follows: *safety and security; privacy and personalization; physical and mental health needs and social support; minimising regulation and restrictions.* These will be investigated in greater detail in the design process of the homeless shelter.

*Ontological security* means having a positive view of the world and oneself and the future, but this is difficult for those experiencing homelessness to do. In order for architecture to respond to this, needs mentioned in the previous sections must be considered in order to link ontological security to design considerations. This too will be looked at in greater detail during the design phase.

In the final part of design considerations Pable et al. identifies indigenous populations, as their needs may differ. In South Africa this may have an opposite definition as it refers to those experiencing homelessness who have migrated from other countries. They are experiencing similar hardships, namely poverty, substance abuse and trauma. However, their cultural, social, and spiritual practices may vary. In this sense means providing personal and communal spaces that can cater to both South Africans and migrants.

#### **4.4.4. Accommodation Variations**

In this study 3 variations of accommodations will be analysed, namely the '*shelter*'; '*transitional or permanent supportive housing*'; and *Multiservice complex*.

The shelter is an emergency option, which means an unhoused person who seeks immediate relief for needs being met such as a meal; shower; a place to sleep; medical care; counselling and access to internet services. This generally means an overnight stay. Three examples below were examined through a *trauma informed design* approach focusing on spatial program and layout, visibility and accessibility, control, aesthetics, multifunctionality and flexibility. A brief description is laid out in table 3 below.

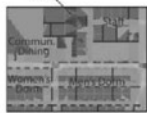
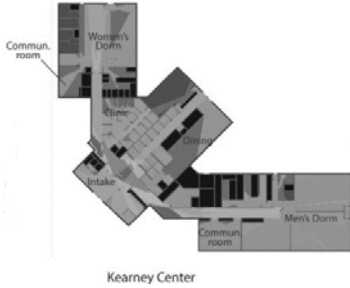

	Example 1	Example 2	Example 3
Name	Hope of the Valley Bridge Housing	Kearney Centre	Shelter from the Storm
Location	USA - California	USA - Florida	UK - London
Year	2020	2015	2019
Type	Overnight Shelter	Overnight Shelter	Overnight Shelter
Capacity	85 beds	220 beds	44 beds
Footprint			
Overall spatial program & layout	69 percent sleeping and social space	54 percent sleeping and social space	80 percent sleeping and social space.

Table 3

The analysis by Pable et al. revealed the following findings:

- There are diverse ways to approach design considerations.
- Spatial arrangements that consider security, stress management, and personal control can contribute to the wellbeing of staff and guests.
- Spaces to be considered in this regard are private, semi-private, and communal.
- Surface treatment should consider a homely feel like art, pattern cloth, and assorted furniture to name but a few.
- The aim is to move away from the institutional look and feel of shelters.
- Visual integration and navigation through the building must be considered.
- Space planning must consider suppression, support, shelterization, regimental attributes, regulation and empowerment.

- Enabling choice which promotes self-identity, personal wellness, and adaptability to life changes.

However, a commitment to change may see a previously unhoused person moved into *transitional or permanent supportive housing* facility which will through the continuum of care model. Users are required to pay rent and will have access to support services and mental health treatment. The extent of stay in such a facility would last anything between 6 months to a year. Three examples below were examined through a trauma informed design approach focusing on empowering residents, and well-being of those exiting homelessness. A brief description is laid out in table 4 below.

The analysis by Pable et al. revealed the following findings:

- Avoid alienating future tenants who may already feel isolated.
- Site selection must consider connectivity and integration.
- Best to locate in well-established neighbourhoods.
- Omit entrance signage or makings – to reduce stigmatisation.
- Aim to create multiple community shared public spaces or semi-private amenities.
- Common features: reception; community rooms; public courtyard.
- Allow areas for casework support; training areas; and gardens.
- Elevated ceilings.
- General sense of openness through visibility and visual integration.
- Trauma informed design elements: large windows; plants; daylight; interaction at multiple levels encouraged.

	Example 1	Example 2	Example 3
Name	The Six	MLK 1101	Brisbane's Common Ground
Location	USA - California	USA - California	Australia - Brisbane
Year	2016	2019	2012
Type	permanent supportive housing	permanent supportive housing	permanent supportive housing
Capacity	52 units	26 units	146 units



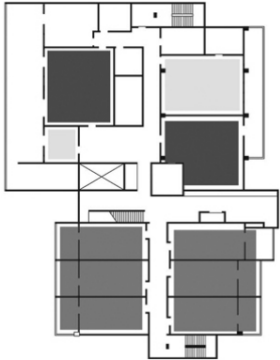
Footprint			
Trauma informed design aspects	Security & privacy; personal control and empowerment; passive stress management; socialising and community building; aesthetics	Socialising & community building; security & privacy; personal control & empowerment; passive stress management.	Sense of community; Dignity & self-esteem; Security & privacy; Stress management.

Table 4.

The *multiservice complex* is seen as an experimental type of building. Due to the varying needs of those experiencing homelessness, it combines shelters; transitional; permanent supportive housing; and low-cost housing. Two examples were accessed through trauma informed design and the 3 C framework: choice; comfort; & community. See table 5.

	Example 1	Example 2
Name	Arroyo Village	Ozanam House Resource Centre
Location	USA - Colorado	Australia - Melbourne
Year	2019	2019
Type	multi-service complex including an emergency shelter, permanent supportive and affordable housing	multi-service complex includes short-, medium-, and long-term supportive housing; day centre; healthcare services; and dining

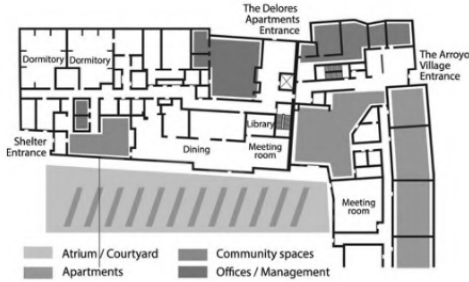
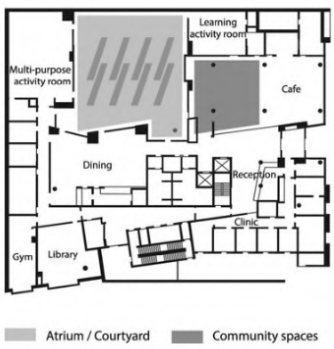
Capacity	65 overnight beds; 35 permanent supportive housing units; 95 low-cost units (1;2;3; bedroom)	60 short term occupancy units (4-12 weeks). 48 medium term occupancy units (16-24 weeks). 24 long term occupancy units
Footprint		

Table 5

The analysis by Pable et al. revealed the following findings:

- Safety – people feel safe in areas that are visually connected with high movement patterns. Creating a sense of obvious security.
- Choice – promoting agency and control over space by navigating or socialising. Helps to reduce stress levels.
- Comfort – beyond food & shelter. This also relates to aspects that affect wellbeing both psychologically and emotionally. Therefore acoustics; odours; daylights; street views and natural landscapes must be considered.
- Community – create public and semi-public spaces for engagement at multiple levels.
- Comprehensibility & Manageability – When buildings are large, they still need to be easily understood in terms of navigation. This means breaking the building into manageable parts. Restrictions, visibility, and functions need to be analysed.
- Meaningfulness & Biophilia. – healing is a nonlinear process and varies from individual process. Enhancing the process can happen through biophilic design: daylight; natural ventilation; plants; landscaping; courtyards. Meaningfulness could mean using natural materials such as brick, glass, timber, and stone.

- Reject institutionalised building functions and services whilst placing more emphasis on human dignity.
- Reduce feelings of stigmatisation.
- Exterior design, especially entrance to be carefully considered to make guests feel welcome.

#### 4.5. Genius Loci

Christiaan Norberg Schulz architectural phenomenological meaning ‘return to things’ (Schulz, 1980:8), is perhaps a stance against Le Corbusier’s ‘the house is machine for living in’ (Le Corbusier, 1931: 4). However, both have merit in their own sense. Most modern-day buildings are still influenced by Le Corbusier’s five points of architecture as depicted in figure107.



Figure 107. Le Corbusier’s five points of architecture (Archdaily,

<https://www.archdaily.com/948273/the-5-points-of-modern-architecture-in-contemporary-projects> Accessed : August 2023)

However, Modernism and Le Corbusier were not concerned about context in a social and cultural way, as one of his commitments was to mass building, which ignores place and nature



(ibid). The fad of the time also called for banishing traditional ways of architecture, like neoclassicism. Schulz on the other hand believed that one needs to carefully understand the space between the earth and the sky before he builds. He states that man relates to nature in 3 fundamental ways:

- *Visualise* – to build one needs to first see what nature is offering.
- *Compliment* – add what is lacking.
- *Symbolise* – bringing meaning to place, which is unique.

What Schulz was really calling for was the man-made structures and constructs between the earth and the sky that respect the *spirit of place*, what the Romans defined as *Genius Loci* (Schulz, 1980). Those experiencing homelessness find their Genius Loci in the lost spaces of the city (Govender, 2014). These lost spaces though do not suffice as discussed in section 2, but also means he doesn't identify completely with such a place, as if there is no permanence or belonging. A man feels comfortable in a space when he can *orientate* himself and *identify* with (ibid). This also allows man according to Heidegger, to dwell in place, to be content, be at peace and be liberated (Sharr, 2007) (Schulz, 1980). Identification which relates to culture, which makes Genius Loci and Critical Regionalism closely connected (Govender, 2014). Critical Regionalism, a term coined by Alexander Tzonis and Liane Lefaivre, was later developed by Kenneth Frampton, who suggested six points that would create an architecture that would hold on to modernism principles, whilst being contextually relevant as depicted in figure 108.

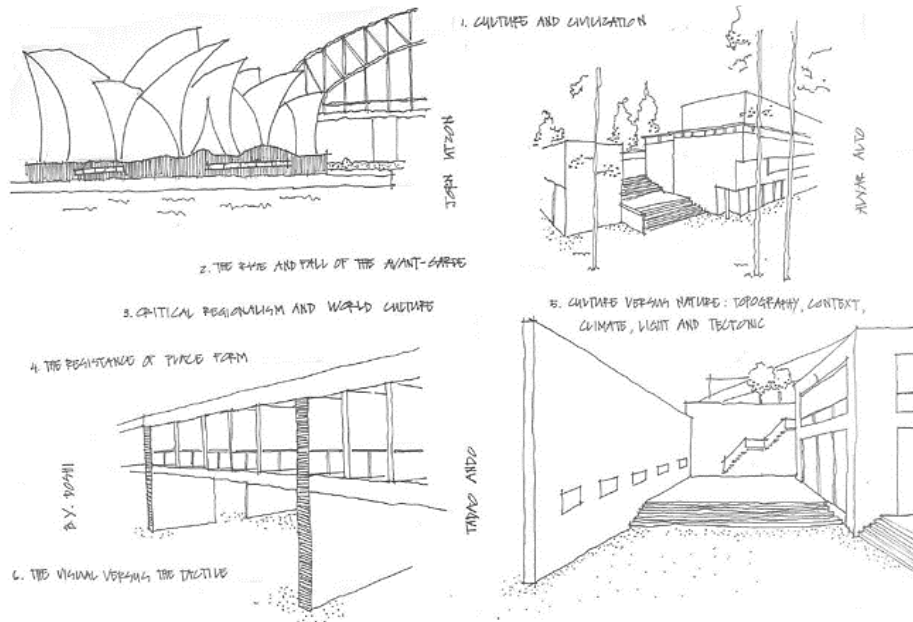


Figure 108. Critical Regionalism (Author, 2022)

Frampton speaks of the negative effects of globalisation on culture, whereby Schulz highlights the importance of locality and belonging. Both architects aim at understanding a site through its context and character. The importance of nature to Frampton is its local culture and landscape, whereas the relationship Schulz draws with nature is through the 3 points mentioned above: visualise, compliments, and symbolise. Both architects aim at understanding what is unique about a place, ultimately the spirit of place. In a very real sense this means understanding and selecting a site appropriately for those experiencing homelessness.

Architecture therefore has profound impacts on society and humans which makes it a powerful concept (Day, 1990). Christopher Day highlights the following responsibilities: biological effects on occupants; sensitive and to be in harmony with surroundings; to individual who will be in any kind of contact with the building; aesthetics; and the spirit of the place (Day, 1990). This means understanding energy conservation, careful building material selection, and the way it is put together. Sustainable architecture is thus a crucial component of any design approach.

#### 4.5.1. Defining sustainable architecture

Literature shows that sustainable architecture is not clearly understood due to its relative infancy (IIT Roorkee, 2018). At times it is referred to as eco design, eco-friendly architecture,

environmental architecture, natural architecture (Ragheb et al. 2016). Or in terms of the structure itself it is referred to as green buildings, climate responsive buildings, or eco buildings (IIT Roorkee, 2018). It could however be thought of as a response to 2 fundamental aspects. Firstly, as a response to environmental aspects such as earth, air, water, fire, and space (ibid), and how the built environment impacts this. Within each of these aspects are sub-categories as seen in table 6.

Earth	Air	Water	Fire	Space
Site	Air pollution	Quality of water	Energy efficiency. Type of energy sources – renewable versus non-renewable.	Natural and mechanical ventilation implications
Soil	Toxic compounds emitted into the air			Water produced
Vegetation				
Materials				
Construction waste				
Waste produced during building occupation				

Table 6. Environmental aspects and the built environment – adapted from IIR Roorkee, 2018.

A second aspect could be thought of as a response to human physiology. This means impacts of heat, light, and sound on indoor environmental conditions (Szokolay, 2004), and how this affects human comfort. This is referred to as *Bioclimatic Architecture*, which was first conceptualised by Victor Olgyay in the 1950's. There are 3 main sensory organs which need to be considered when designing for human comfort which is the eye, ear, and thermal sensors (ibid). To do this the designer must consider 4 aspects as seen in table7.

<b>Examine Given Conditions</b>	<b>Define Limits of Acceptable Conditions</b>	<b>Controlling Variable Through Passive Means</b>	<b>Providing Energy-Based Services</b>
Site conditions	Temperature	Heat	Heating

Climate			Cooling
Daylight	Lighting	Light	Artificial lighting
Noise	Acceptable noise level	Sound	Sound control

Table 7 – Internal Environmental Conditions (Szokolay, 2004)

Examples above are just a few ways of many that characterises sustainable architecture and perhaps choosing the right one is probably left to the designer's discretion and environment. However, the benefits of this type of design almost always chooses to acknowledge environment, human comfort, economy, and aesthetics (ibid). IIT Roorkee (2018) however provides a convincing argument that distinguishes sustainable architecture from what they refer to as green architecture. They do this in the form of 2 case studies: *Suzlon One Earth Global Corporate Headquarters* and the *Gando Primary School*.

To represent green architecture *the Suzlon One Earth Global Corporate Headquarters* by architect Christopher Benninger was analysed (see figure 109 and 110). This is an institutional building in Pune, India and was completed in 2009. The building is a net zero building with a key focus on:

- Onsite and off-site wind turbines
- Wind hybrid solar chargers.
- Solar panels
- Building orientation
- Materials
- Lighting
- Landscaping
- Water management



Figure 109. Suzlon One Earth Global Corporate Headquarters site plan (Archdaily [https://www.archdaily.com/466958/suzlon-one-earth-global-corporate-headquarters-christopher-benninger?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/466958/suzlon-one-earth-global-corporate-headquarters-christopher-benninger?ad_source=search&ad_medium=projects_tab) Accessed : September 2023)



Figure 110. Suzlon One Earth Global Corporate Headquarters external view (Archdaily [https://www.archdaily.com/466958/suzlon-one-earth-global-corporate-headquarters-christopher-benninger?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/466958/suzlon-one-earth-global-corporate-headquarters-christopher-benninger?ad_source=search&ad_medium=projects_tab) Accessed : September 2023)

To represent sustainable architecture, the *Gando Primary School* in Burkina Faso, by architect Francis Kere is analysed, which was completed in 2001 (see figure 111 and 112). Kere, who

grew up in Burkina Faso, understood what it was like to grow up studying in spaces with less than desirable lighting and ventilation. To have this building completed, Kere faced challenges such as cost, climate, feasibility, and resource availability. He used locally available materials like the clay mud brick, together with innovative roof techniques which ensured indoor thermal comfort. There were also rain harvesting techniques (see figure 113). And using inexpensive materials like clay pots he was able to create high quality aesthetics (see figure 114). However, the real heroes of the story are the community who banded together and showed off cultural and low-tech sustainable techniques to bring this project into fruition.



Figure 111. Gando Primary School external view (Archdaily, [https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad_source=search&ad_medium=projects_tab) Accessed: September 2023)





Figure 112. Gando Primary School internal view. (Archdaily, [https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad_source=search&ad_medium=projects_tab) Accessed: September 2023)



Figure 113. Gando Primary School – rainwater harvesting. (Archdaily, [https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad_source=search&ad_medium=projects_tab) Accessed: September 2023)



Figure 114. Gando Primary School – high quality aesthetics. (Archdaily, [https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/785955/primary-school-in-gando-kere-architecture?ad_source=search&ad_medium=projects_tab) Accessed: September 2023)

The difference between these 2 projects is affordability and application of all 3 pillars of sustainability. In the Suzlon One Earth Global Corporate Headquarters, there were no cost implications, and there was no community involvement. Hence in terms of the 3 pillars of

sustainability, the social component requirement is unmet. Whereas with the Gando Primary School, all 3 pillars are intrinsically being dealt with through the life cycle of the project.

## **5. CHAPTER 5: PRECEDENT STUDIES**

### **5.1. Introduction**

This chapter comprises 3 precedent studies that connect the needs of those experiencing homelessness to the three theories and concepts used in this study. The analysis of these buildings will provide the inspiration and knowledge required to inform decisions during the design process of the homeless shelter.

### **5.2. Precedent Study 1 – Eva Phoenix**

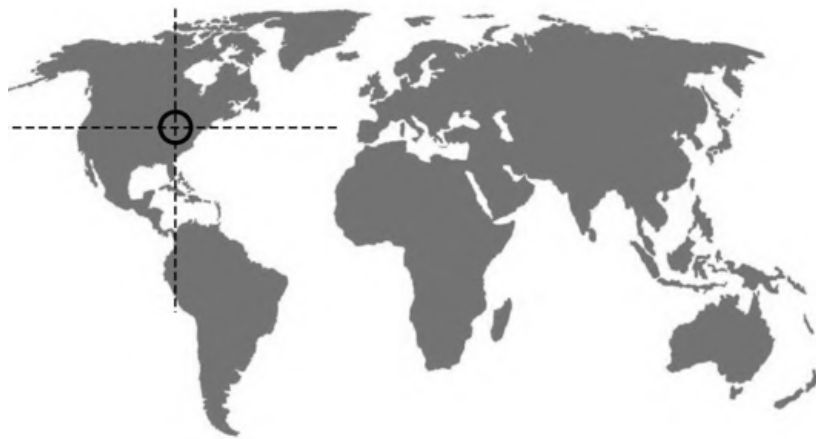


Figure 115. Eva Phoenix, Toronto, Canada

#### **5.2.1. Project Description**

Architect: LGA Architectural Partners

Location: Canada

Project Area (m2): 3828

Year completed: 2016.

Building typology: Homeless Shelter.





Figure 116. Internal View of Eva Phoenix (Author, 2023)

The Eva phoenix transitional shelter is home to 50 youth which offers a safe and inclusive space, together with skills and training (Urbannext, 2017). The shelter, originally constructed in 1999 at 11 Ordnance Street in Liberty village was relocated to 60 Brant Street in the Fashion District, Toronto, in 2016 (Choi, 2016). The new building was completed by LGA Architectural Partners (Minutillo, 2017), which is a townhouse style transitional housing. This homeless shelter was a result of the legacy of Eva Smith (See figure 118). Eva Smith was originally from Jamaica and immigrated to Canada in 1956. She worked tirelessly at helping the homeless youth of Canada right up to her death in 1993. This in a sense refers to Hofstede et al. (2010) cultural manifestation and *heroes* discussed in chapter 2. Preceding Eva Phoenix, two other shelters were also established: *Eva's Place* opened in 1994, an emergency shelter which caters for pregnant mothers, comprises 40 beds and *Eva's Satellite* which caters for substance abuse and harm reduction, opened a few years later, comprises 33 beds (ibid). Both are also located in Toronto, Canada. Assistance from these shelters focuses on age group 16 to 24 with the following services: *mentorship; living independently; skills training; creating employment opportunities together with interview preparation; education; harm reduction; recreation; continued encouragement and support; and counselling* (Eva's, 2016). Aside from these points which are crucial for re-integration, are its partnerships it has created with businesses, labour and community, and its unique program (ibid).



Figure 117. Eva Smith (Facebook)

### 5.2.2. Justification

What makes Eva Phoenix important to this study is its connection to the *theory of placemaking*. LGA architects, Janna Levitt, and Dean Goodman, drew upon aspects of the originally designed shelter to create a *sense of place*. The primary aim of the project is to provide housing and employment training, (Bridgman, 2001) for 50 homeless youth (Ecker et al. 2017). At times the shelter provides this to as many as 150 youth per year (Eva's, 2016). One of its foundational characteristics is its holistic framework. This enables the homeless youth who want to change their circumstances to move through a 3-step process towards autonomy. This will be discussed later in this chapter. This strongly speaks to the *theory of empowerment* which aims to inform, make choices and convert those choices into actions as discussed in chapter 3. It also speaks to the *theory of culture*, whereby the framework encourages a culture of learning, well-being, and agency (Bridgman, 2001). Most homeless shelters in Johannesburg lack suitable empowerment frameworks and programs and invariably lack a responsive and empowered architecture. It is found that through understanding the principles of this framework, the architecture of Eva's Phoenix has adequately responded to the needs of the youth, who are predominantly between the ages of 16 and 24. However, aspects of the holistic framework and architecture can also be applied to other age groups as the focus of this precedent is empowerment and creating a sense of place, which is also firmly placed in the aim of this study.

### 5.2.3. Urban Context and Locality

Eva's Phoenix is in Toronto, which comprises three broad land use categories, *Live Work Communities*, *Creative Industry District*, And *Port / Employment Districts* (Toronto.ca, 2014). In a traditional sense *Live Work Communities* comprise low rise buildings with retail and other active uses located at the base of buildings (ibid). Amenities such as schools, community centres and daycare centres also make up the urban fabric (ibid). The *Creative Industry District* comprises film related and creative, and knowledge base industries. The *Port / Employment Districts* services functions related to the port industry service to Lake Ontario (ibid).

The original Eva Phoenix shelter was in Liberty Village which is part of the Live Work Community. However, in the early 2000's, renovation, and so-called upgrades in Liberty village, which was the development of condominiums, meant that the existing Eva's Phoenix shelter had to be relocated (Goodman, 2018). The new site was donated by the City of Toronto, which was a 1930's art deco style waterworks industrial warehouse on the western edge of downtown Toronto, known as the *Fashion District*. The Fashion District falls within the mixed-use live work communities. See figure 118.

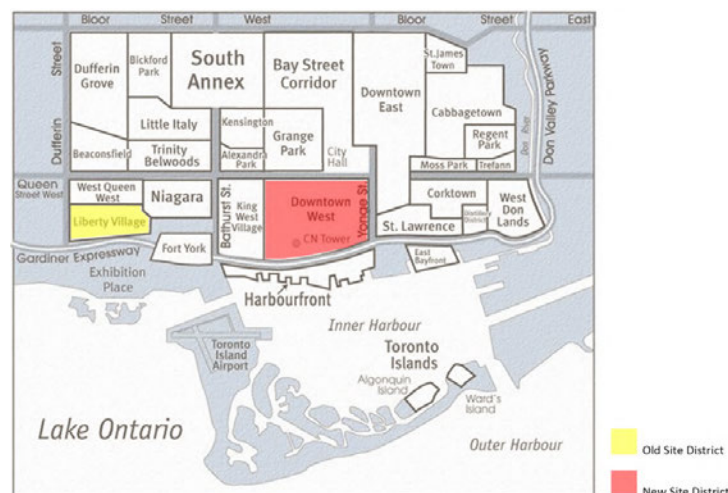


Figure 118. City of Toronto downtown (Google image adapted by author, 2023)

The growth of the Fashion District, which was originally a residential area, had evolved at the turn of the 20<sup>th</sup> century into a mixed-use area because of the port harbour, rail lines, fabric, and textile industry (Fudge, 2020). Much of the area became industrial and was influenced by the Art Deco style. Buildings were strongly characterised by vertical lines, proportion, symmetry, and balance (ibid). In 1990 Toronto was affected by a nationwide recession. In 1996 a *Live/Work*

*Zoning* policy was introduced which aimed at revitalising the decaying industrial neighbourhood. These development zones were assigned to areas on either side of the CN Tower which was instrumental in creating what is known as the fashion / creative districts. See figure 119.

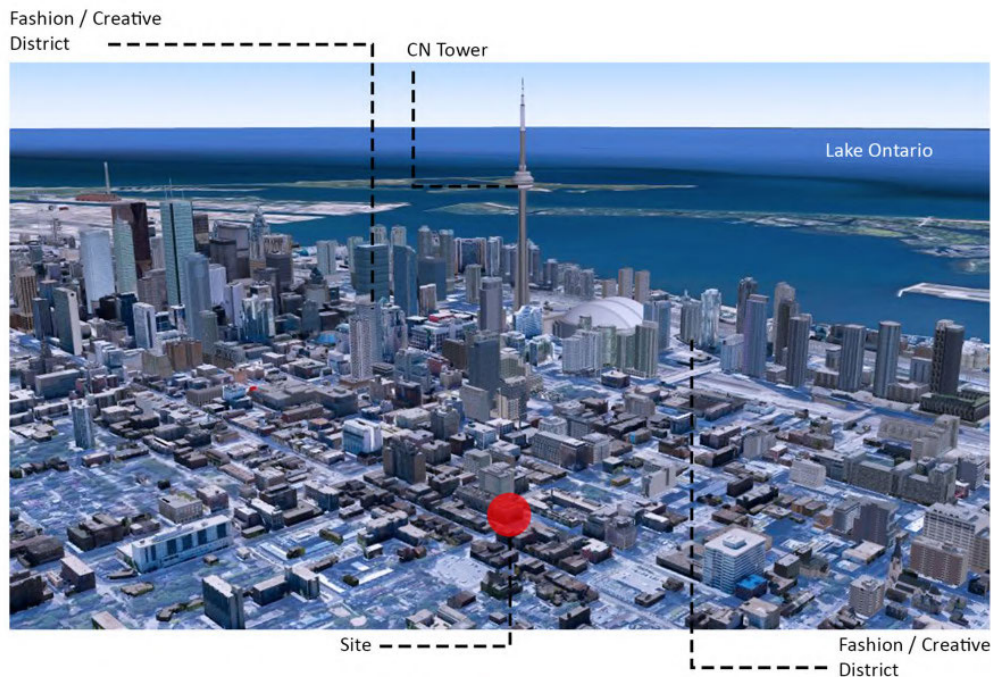


Figure 119. City of Toronto (google earth adapted by author, 2023)

#### 5.2.4. Project Objectives

The project objectives can perhaps be a combination of two fundamental and inseparable characteristics. Firstly, through the holistic framework already mentioned in the previous section, and secondly is how the architects chose to respond to difficult built form conditions, with the first characteristic in mind. According to Dean Goodman, architecture alone cannot heal the physical and emotional wounds caused by homelessness, but it can lead the way by creating the conditions for overcoming the trauma (Budds, 2017). Goodman goes on to say that what this architecture really needs to be accompanied by is a robust vision and program (ibid). In relation to this, the holistic framework that is used is based on the *circle of courage* which focuses on the wellbeing and emotional health of youth. See figure 120.



Figure 120. Circle of courage (Ecker et al. 2017).

The *outcome framework* is essentially a three-step process comprising *organisational capacity*, *youth development* and *stable home* as depicted in figure 121.

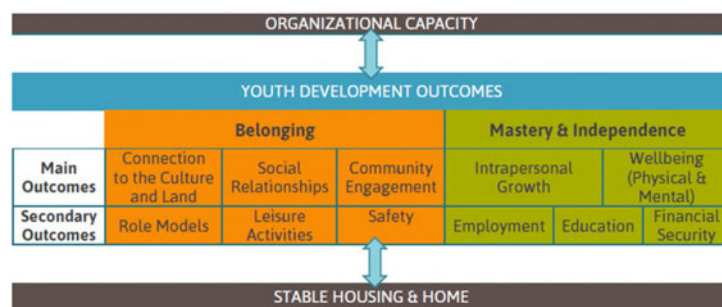


Figure 121. Holistic Framework (Ecker et al. 2017).

The organisational capacity comprises 6 principles: *positive development*; *inclusivity and respect for diversity*; *addressing systemic barriers like housing, employment and education, anti-oppression, and discrimination*; *harm reduction*; and *therapeutic alliance*. Youth development comprises 2 main components *belonging* and *mastery / independence*. In both these components there were *main* and *secondary outcomes* depicted in figure 122 and 123.

MAIN OUTCOMES		
<b>CONNECTION TO THE LAND AND CULTURE</b> <ul style="list-style-type: none"> <li>➤ (Re) connecting to the land</li> <li>➤ (Re) connecting to one's culture</li> </ul>	<b>SOCIAL RELATIONSHIPS</b> <ul style="list-style-type: none"> <li>➤ Reconnecting with family (when appropriate)</li> <li>➤ Building upon social networks developed within the system</li> <li>➤ Developing friendships outside of the system</li> </ul>	<b>COMMUNITY ENGAGEMENT</b> <ul style="list-style-type: none"> <li>➤ Sense of community</li> <li>➤ Sense of belonging</li> <li>➤ Awareness of resources available</li> <li>➤ Mentorship opportunities</li> <li>➤ Generosity</li> </ul>
SECONDARY OUTCOMES		
<b>ROLE MODELS</b> <ul style="list-style-type: none"> <li>➤ Community partners stepping in</li> <li>➤ Supportive adults</li> <li>➤ Peer supports</li> </ul>	<b>LEISURE ACTIVITIES</b> <ul style="list-style-type: none"> <li>➤ Engaging in meaningful activities</li> <li>➤ Physically active</li> <li>➤ Artistically fulfilled</li> </ul>	<b>SAFETY</b> <ul style="list-style-type: none"> <li>➤ Within one's home</li> <li>➤ Within one's neighbourhood</li> <li>➤ Both include lessening exposure to violence</li> </ul>

Figure122 Belonging. (Ecker et al. 2017).

MAIN OUTCOMES	
<b>INTRAPERSONAL GROWTH</b> <ul style="list-style-type: none"> <li>➤ Self-esteem</li> <li>➤ Empowerment</li> <li>➤ Addressing labels ("homeless")</li> <li>➤ Instilling hope/dreaming</li> <li>➤ Generosity</li> </ul>	<b>WELLBEING (PHYSICAL AND MENTAL)</b> <ul style="list-style-type: none"> <li>➤ Addressing mental health challenges</li> <li>➤ Developing coping skills</li> <li>➤ Accessing health services</li> <li>➤ Monitoring health</li> </ul>
SECONDARY OUTCOMES	
<b>EMPLOYMENT</b> <ul style="list-style-type: none"> <li>➤ Meaningful employment to youth</li> <li>➤ Sustainable employment</li> <li>➤ Financially viable employment</li> <li>➤ Skill development</li> </ul>	<b>EDUCATION</b> <ul style="list-style-type: none"> <li>➤ Achieving educational goals</li> <li>➤ Achieving goals outside of the educational system (e.g., driver's license, soft skill development)</li> <li>➤ Exploring alternative forms of education outside of traditional systems</li> <li>➤ Skill development</li> </ul>
<b>FINANCIAL SECURITY</b> <ul style="list-style-type: none"> <li>➤ Budgeting</li> <li>➤ Developing savings</li> <li>➤ Food security</li> </ul>	

Figure 123. Master and Independence (Ecker et al. 2017).

It is anticipated that through the first 2 processes, the third and final process of obtaining a *stable home* can be achieved.

Its response in terms of the built form hinges on the fact that this was a brownfield site which was selected for adaptive re-use. The existing building which was donated by the city of Toronto (Monsebraaten, 2016) was originally part of Toronto's waterworks building which, for various reasons, is a heritage property (ERA Architects, 2017). The original Art Deco style building was designed by J.J. Woolnough in 1932 (ibid). See figure124.



Being a heritage building meant that the existing walls and roof had to be retained (Roome, 2019). This posed problems in terms of planning and redevelopment, but also assisted in reducing costs (ibid). LGA Architects, however, successfully manage to overcome such challenges. This became evident as it managed to win several awards including the Canadian Network Brownfield (Brownie) award for *‘excellence in site-specific responses to public policy initiatives that accelerate the pace of regeneration resulting from development’* (ERA Architects, 2017).



Figure124. Existing brownfield Site (ERA Architects, 2017).

#### **5.2.5. Program and Planning.**

Eva Phoenix occupies the extent of its entire site (Roome, 2019), which joins together two previously separated warehouses (Frame Magazine, 2017). The building can be accessed from Richmond Street W., which is the main entrance, and Brant Street. Controlled access like this however provides a sense of comfort and security for the residents, as sleeping in any of the 8 ‘lost’ spaces described in chapter 2, can be a traumatizing experience due to fear of being robbed, assaulted or raped. Another important aspect to this could be allowing staff to monitor who enters and exits the building. Aside from the residents, there’s also the element of criminality like drug dealers and the like. The approach was thus to create a safe neighbourhood within the building.

A pivotal feature of this project is the *layering of spaces*. This allows residents to choose their level of integration (ibid), through a process of comfort levels (Urbannext, 2017). This was achieved by positioning 10 townhouses around a generously proportioned atrium, which acted as a ‘main street’ (Pable et al. 2021). The street could also be a reference to street culture, which now has different meaning. A Street that was once fraught with unknown dangers, now becomes a safe community space. See figure 125.



Figure125. Urban context and site (adapted by author, 2023)

The 10 townhouse units are positioned on opposite sides of the ‘main street’. Each townhouse comprises a communal living space, kitchen, 2 bathrooms, and bedrooms (Urbannext, 2017). A resident will have access to this townhouse for up to 1 year. When considering the layering of spaces, the following could be considered in terms of comfort levels:

- Someone who first arrives at shelter is perhaps feeling insecure may retreat to their rooms.
- Once they start feeling *safer*, they may go to the communal living space, but still within the unit.
- As their *confidence* increases, they may venture into the ‘front yard’, or in this case the open stair.
- And lastly once they feel *comfortable*, will choose to participate in the activity on the street.



Thus, it can be conceived that the building comprises 4 types of zones: 1. *private*; 2. *Semiprivate*; 3. *Public*, and 4. *Utility Spaces* as depicted in figures 126 to 129. Bedrooms have been considered as the most private space, as only the resident has access to this with their own room’s key.

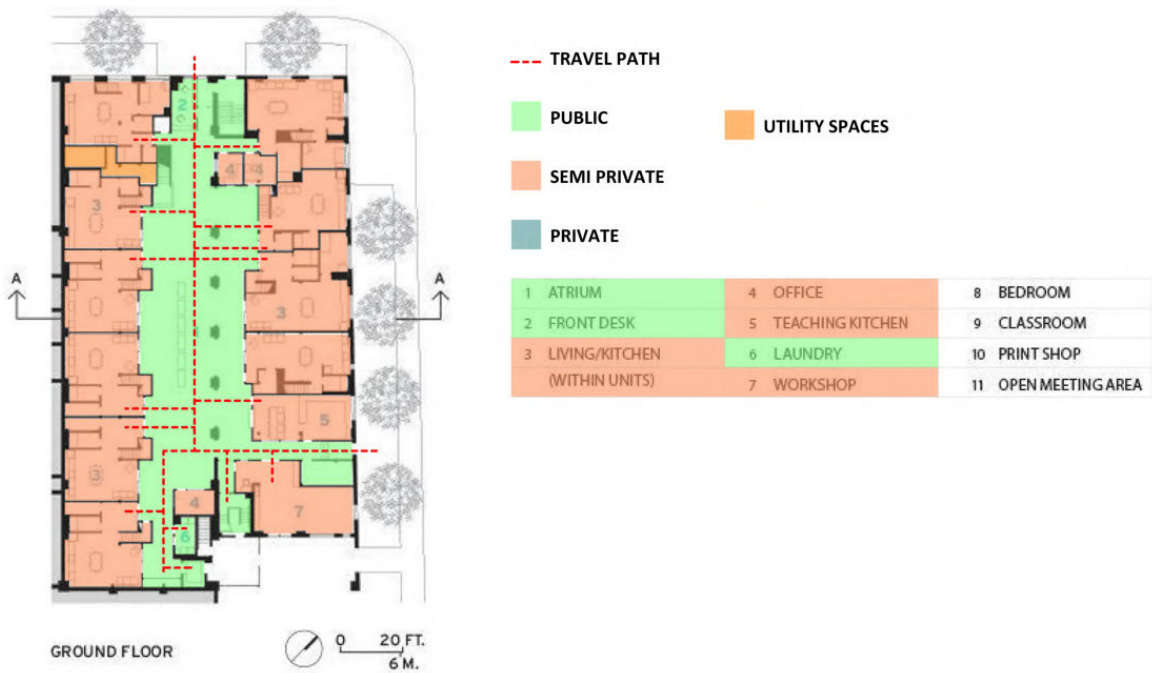


Figure126. Ground floor plan – Eva Phoenix (adapted by author, 2023)

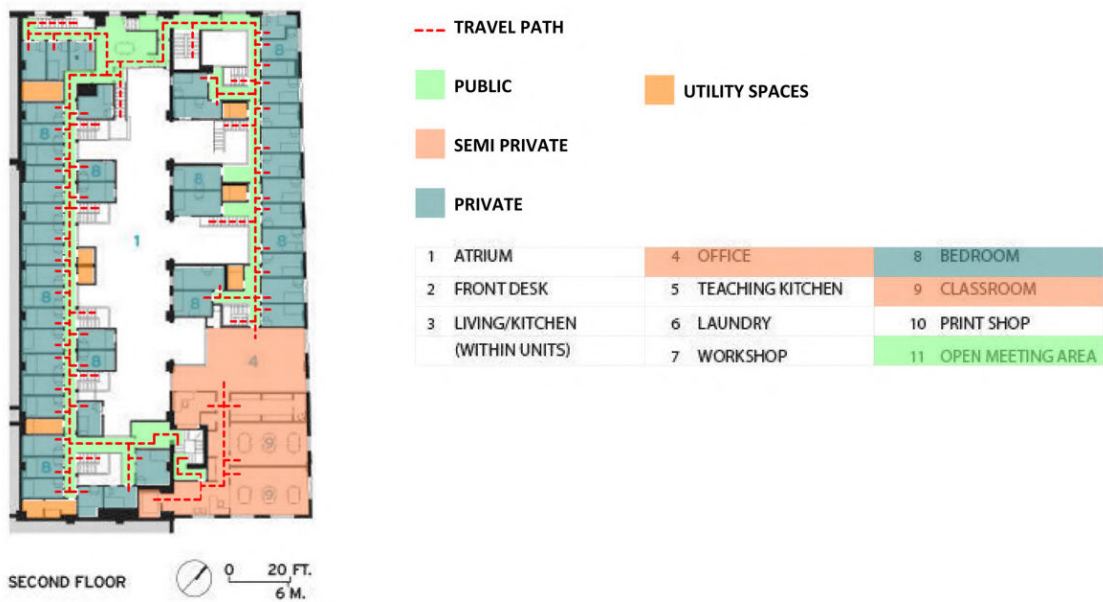


Figure 127. Second floor – Eva Phoenix (adapted by author, 2023)

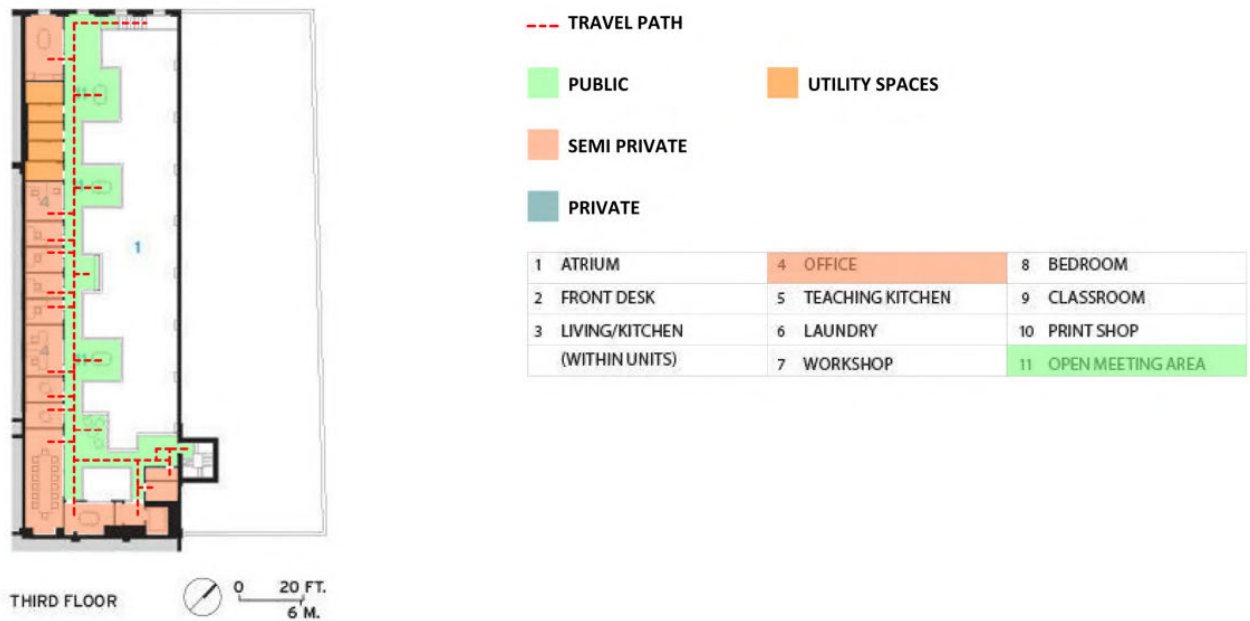


Figure 128. Third floor – Eva Phoenix (adapted by author, 2023)

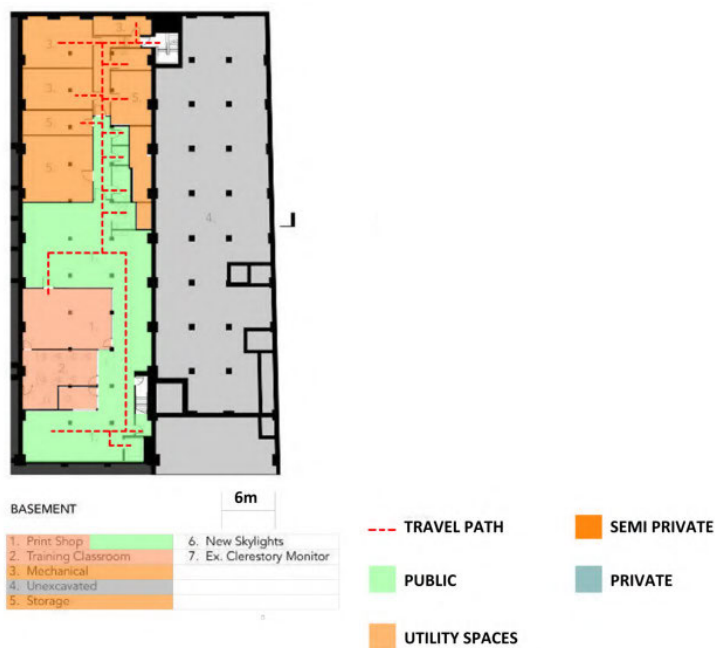


Figure 129. Basement – Eva Phoenix (adapted by author, 2023)

What is most crucial about this type of space planning is the visual openness and the presence of public spaces for the residence which plays a central role in alleviating anxiety (Pable et al. 2021). But as previously mentioned, as confidence increases so does an individual's agency (ibid). What this really means is that visibility and visual integration contributes to openness and accessibility (ibid). For someone who has experienced life on the streets, this openness and accessibility is not readily available. This is thus creating a sense of identity, belonging and place. This seems to suggest that architecture can only empower by first creating a sense of place. The program in itself can be divided into 3 primary components: social service, mental and physical health services, and empowerment facilities as depicted in Table 10.




			
	<b>Social Services</b>	<b>Mental &amp; Physical Health Restoration</b>	<b>Empowerment Facilities</b>
<b>Ground Floor</b>	Front Desk Laundry Living / Kitchen (in units)	Atrium. Offices.	Teaching Kitchen Workshop
<b>Second Floor</b>	Bedrooms	Office	Open Meeting Area Classroom
<b>Third Floor</b>		Office	Open Meeting Area
<b>Basement</b>			Print Shop Training Classroom

Table 8 (Author, 2023)

#### 5.2.6. Design Strategy

The overarching design strategy for Eva Phoenix is creating a 'sense of home' (Budds, 2017). This means teaching or re-teaching vital life skills like cooking, sharing of spaces, and living together (ibid). This strategy relates to trauma informed care that was discussed in chapter 4 (Pable et al. 2021). This can be synthesised through the following 4 criteria: *empowerment and personal control*; *passive stress management*; *socialising and community building*; and *aesthetics*

(ibid). These 4 criteria can be synthesised into the following design principles: aesthetics, sunlight, community, and nature as depicted in table 9.





Design principles			
Aesthetics	Sunlight	Nature	Community
			

Table 9. (Author, 2023)

*Empowerment and personal control* refer to residents having control over their social encounters (ibid). Those experiencing homelessness have had different experiences on the street, meaning some may have been traumatised emotionally, mentally, or physically. This was achieved through combining public and semi-private zones which are visually accessible from any location in the building (ibid). See figure130.



Figure 130. Visual integration (Google Images)

*Passive stress management* focuses on accessing natural light and nature through existing and new skylights. This allows the building to synchronise with seasonal and day night light cycles. Such light cycles are important to vision and how objects in space are perceived. Through this the connection with the outdoors also improves, which have vital benefits to health. The atrium receives the maximum amount of natural light, as seen in figures 131 and 132.

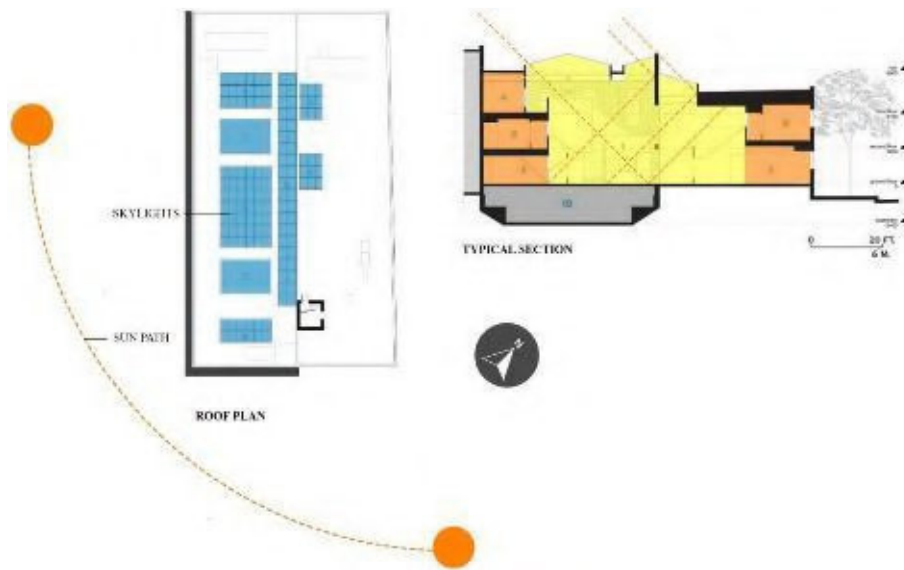


Figure131. Eva Phoenix - Natural light (adapted by author, 2023)



Figure132. Eva Phoenix - Skylights (Google Images)

*Socialising and community building* plays a crucial role in building trust. Being on the street can lead to mistrust at multiple levels, between each other, criminals, the public, and authorities. This trust is relearned through communicating with peers, and service providers. It is with this in mind that this type of socialising occurs mainly in 2 spaces, the living / kitchens and in the atriums. See figure 133.



Figure133. Eva Phoenix – Social spaces (Google Images)

The final aspect of *aesthetics* perhaps being a subjective matter considers the fact that this is a reinterpretation of a neighbourhood. Neighbourhoods or urban spaces are a combination of different elements. Those who were on the street perhaps became familiar with such visuals. To achieve this at Eva Phoenix the architect made use of angular geometries, staggered volumes, and the use of white surfaces contrasted against bright colour accents (ibid). Bright natural light and planters enhance the space. This kind of visual interest not only stimulates the mind, but also creates a sense of respect, cheer, and optimism (ibid) See figure134.

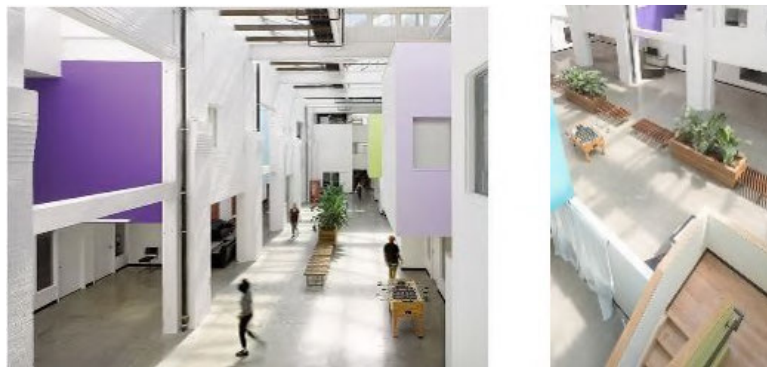


Figure134. Enhancing place with light and nature (Google Images)

### 5.2.7. Summary

There are several key takeaways from the Eva's Phoenix transitional shelter. To begin with, perhaps most important is the value placed in someone caring for another who is down on their luck. Eva Smith's perseverance to fight for homeless youth of Toronto is what makes this project a success that is today. The project doesn't just aim to provide shelter, but more importantly, it

aims to empower and enable someone who is willing to put in the work to eventually become autonomous.

The driving force behind its empowerment success rates is its holistic framework. The framework is based on the circle of courage, which comprises 4 key points: belonging, mastery, independence, and generosity. The framework itself is based on a 3-step process: organisational capacity, youth outcomes and stable home. It is expected that if the first 2 steps are successfully carried out, then the third step will be achieved.

Another key aspect is the fact that most shelters do not have the luxury of finding a suitable site. In this case the site was donated by the city of Toronto, which was a heritage building. This meant that the LGA Architectural Partners did not have the luxury of changing the façade of the building, which was limiting in terms of planning and how the building communicates with the street. The architects resolved to create a simulation of a neighbourhood within the existing building.

Ten townhouse style units were created which housed 50 homeless youth. This provides a sense of ownership and belonging, albeit for just a year. One of the key aspects of the programming and planning was the layering of spaces which allowed residents the opportunity to decide their level of participation and integration. It was therefore perceived that there were 3 zones of integration, private, semi-private, and public. A fourth zone was the utility spaces.

The design strategy was based on creating a sense of home, which focused on teaching or re-teaching life skills, which are vital for autonomy. This was complemented by 4 criteria: empowerment and personal control; passive stress management; socialising and community building; and aesthetics. These four criteria are intrinsically linked to trauma informed design which was unpacked in chapter 4. It was with this in mind that 4 design principles could be considered: aesthetics, sunlight, nature, and community.

### **5.3. Precedent Study 2 – Pacific Garden Mission**



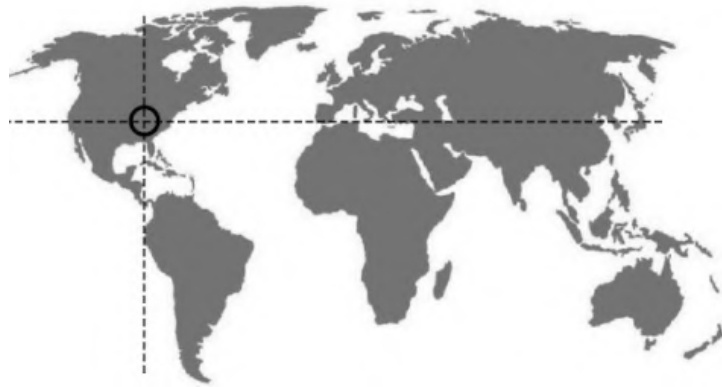


Figure 135. Pacific Garden Mission Location – United States of America

### 5.3.1. Project Description

Architect: Tigerman McCurry Architects

Location: Chicago

Project Area: 156 000 sq. feet (14 493m<sup>2</sup>)

Year completed: 2007.

Building typology: Homeless Shelter

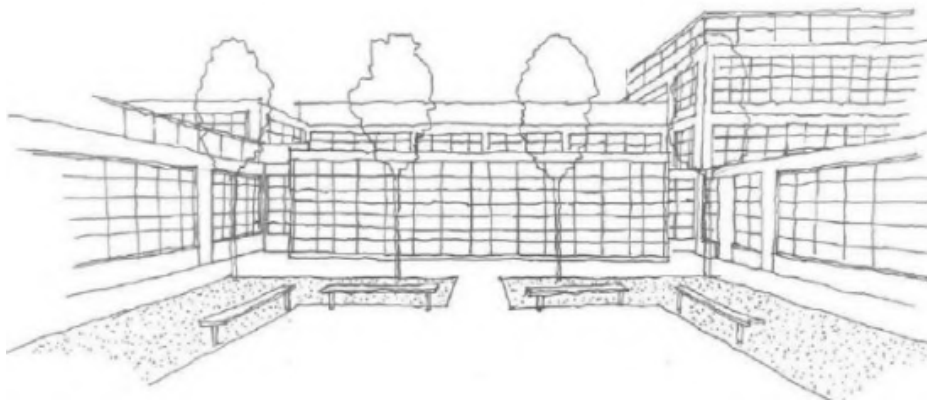


Figure 136. Pacific Garden Mission Courtyard (Author, 2022)

The Pacific Garden Mission was originally established by an American Midwestern couple (May 2012) George and Sarah Clark in 1877, whose aims was to help the poor, drug addicts, gamblers, and the like of Chicago with a hot meal, warm bed and help those who wanted it to rebuild their lives (Encyclopaedia of Chicago). Being of a Christian faith, they also aimed to provide spiritual



nourishment, together with medical care and clothing (2012). Before its current position, it was in an area that was slowly becoming gentrified, and the mission became a prime location for a school that wanted to expand (May 2012). As we found in Eva Phoenix, a relationship can be drawn to Hofstede 'hero' and this couple (Hofstede, 2010). The mission now with a lawsuit on the horizon called upon architect Stanley Tigerman to testify on their behalf, who eventually became their architect (ibid). The lawsuit subsided and the search for an appropriate site followed, however due to NIMBYism, this became a challenge (ibid). This too is a problem in Johannesburg (De Beer & Vally, 2021). A site was eventually established, and like most homeless shelters, this was not because of its appropriate qualities but because of availability, adequate size, and was reasonably close to the old site. The accepted site was surrounded by industrial activity, and was 3km away from the Chicago Loop, which was not ideal. See figure 137. Tigerman, through careful analysis, synthesis, and deliberation managed to produce a socially responsive piece of architecture. His continued dedication to putting people at the centre of his design earned him the title 'defender of ethics in architecture' (Petit, 2014).

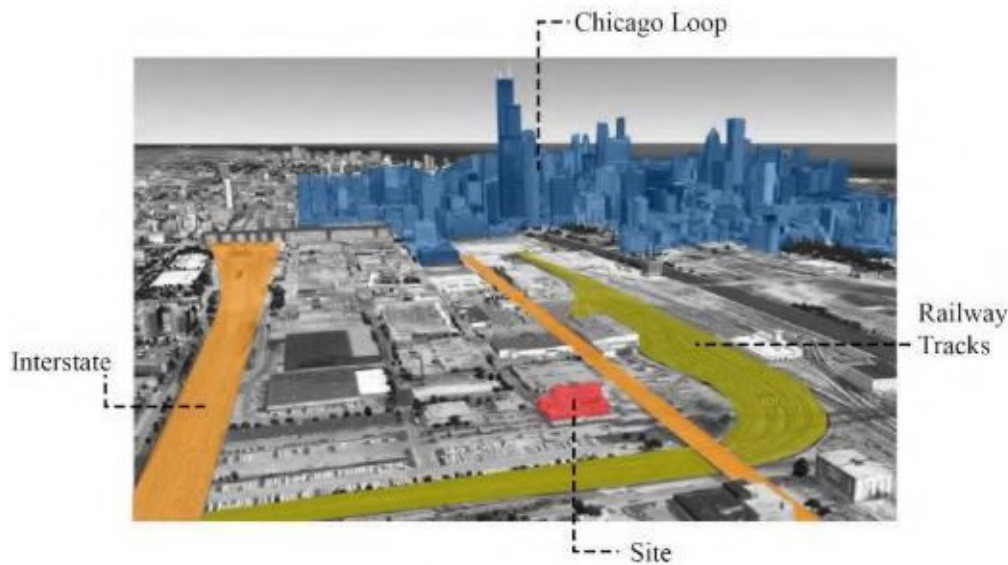


Figure137. Pacific Garden Mission - Urban fabric - Google Earth (adapted by Author, 2023)

### 5.3.2. Justification

The design of Pacific Garden Mission predicates on all 3 theories relative to this study, placemaking, culture and empowerment. Defining aspects which are related to placemaking are

gentrification, insurgency, and site selection. Gentrification was experienced when the original mission was forced to find new premises. The elites will always take preference when it comes to economic transformation and neoliberal politics. However, this can be challenged by empowering those experiencing homelessness, which is one of the main objectives of the mission. Insurgency is when those experiencing homelessness make a home in public space. As previously discussed, if those experiencing homelessness feel ostracised at a shelter, they would rather practise insurgency. Therefore, a shelter can only become a beacon of hope if it is designed to suit the need and operates in a respectful and dignified manner. Site selection in this case demonstrates that homeless shelters are seldom ever found in good locations, and always end up in the least desirable parts of the city. Tigerman however proves that a poor-quality site does not necessarily mean poor-quality architecture.

The Pacific Garden Mission achieves sustainability in two ways. First it responds to the social aspects of sustainability through its empowerment programs. Secondly are its sustainable design features. Its green roof manages storm water runoff and controls heat gains and losses (Mays, 2012). Organic soil is generated by 2 greenhouses which also grows consumable goods. Finally, solar panels are used to heat domestic water, all of which contributed towards the mission achieving a LEED silver accreditation (Mammoth, 2007).

### **5.3.3. Urban Context and Locality**

In his analysis of the urban context relative to the site, Tigerman concludes ‘There is no urban fabric, literally’ (Mays, 2012). The site lies at the corner of South Canal Street and West 14<sup>th</sup> Place. Railroad tracks are in front of the shelter, whilst a 2-way interstate highway with 6 lanes each is at the back of the shelter. Surrounding the site are a multitude of parking lots and industrial buildings (Givens, 2010) See figure 138. The Chicago loop, the economic hub of Chicago, can be accessed from the South Canal Street via car, public transport, cycle or walk which would take 8, 26, 15, and 38 minutes respectively (Google Maps).



Figure 138. Pacific Garden Mission - Surroundings - Google Earth (adapted by Author, 2023)

Most buildings have a light industrial look, where there is no place to pause and rejuvenate or relax, like a public square or recreation facility (Govender, 2014). It seems the area lacks a sense of warmth due to dilapidated buildings and cold hard surfaces, together with the wide roads, which makes it unfriendly to pedestrians and cyclists. This makes it like main streets in Orange Grove, Johannesburg. South Canal Street is defined by its exchange value, and consequently Tigerman realised that Pacific Garden Mission could not weave the outdoor urban space into its design (Moore, 2004). Therefore, tranquillity and comfort one would normally find in a park, or familiarity found on friendly streets needed to happen within the building. In a sense this had to become an introverted building, where its beauty and meaning could only be experienced once you are inside. Tigerman however did attempt to create a dialogue with the urban fabric through landscaping (Govender, 2014), which seems to provide the street facade with a welcoming atmosphere. See figure 139.



Figure 139. Pacific Garden mission – creating a welcoming atmosphere (Google Maps)

#### 5.3.4. Project Objectives

*‘Therefore, by the grace of God go I.’*

It may seem that this project had 3 primary objectives of creating a sense of hope and restoration, creating awareness, and empowering those experiencing homelessness. Firstly, the mission being a Christian non-profit organisation, aims to exemplify hope (Architectural Record, 2019). The impression Tigerman got at the initial engagement with the mission was ‘The mission treated these people with great respect and dignity’ (Mays, 2012). This is represented by illuminated signage on the street façade which provides a sense of hope. See figure 140. This also goes back to what was mentioned in chapter 1, where the signage should not refer to a building as a homeless shelter, which in a sense belittles those experiencing homelessness. The building's external aesthetics also blends in with the surroundings, which is the light industrial look which speaks to those who use the building by not making them feel any different or blamed for their situation.



Figure 140. Pacific Garden mission – A sense of hope (Google Images)

Secondly was to create awareness which highlights the grim nature of homelessness to the public (Govender, 2014). Tigerman uses the word ‘poignancy’ which relates to regret, or sadness (Chicago Architecture Centre, 2020), where anyone could become homeless with a sudden change in circumstance (Mays, 2012). Awareness was achieved by its sheer size, being one of the largest homeless shelters in America (Govender, 2014). Awareness was also achieved through its radio station ‘unshackled’ which relays the stories of those experiencing homelessness (ibid). Thirdly was using the building as a tool for empowerment which speaks to social sustainability and equity. Tigerman points out that those experiencing homelessness become a ‘nonperson’ who is avoided in society (Chicago Architecture Centre, 2020). He questions what it may feel like living this kind of life, hence the importance of reintegration through empowerment.

#### **5.3.5. Program and Planning.**

At the heart of this design is the sense of place created by the courtyard. This not only acts as a space of retreat and reflection but allows natural light to penetrate deep into the four surrounding blocks (Govender, 2014). Tigerman likened these spaces to monasteries. See figure 141. As previously mentioned, due to the hostile surrounding urban context, the internal circulation space was designed as a main street at ground level (Tracy Geraldez). This main street also referred to as the ‘yellow brick road’ is an ‘L’ shaped corridor, was thoughtfully designed to feel like a street which has streetlights, street signs, outdoor benches, and trash receptacles (Givens, 2010). According to Tigerman this six-metre-wide yellow epoxy painted street has become an integral part of the mission acting as an interactive space (Mays, 2012). See figure 142. This relates to street culture, thus creating an atmosphere of comfort through familiarity.



Figure 141. Pacific Garden Courtyard



Figure 142. Pacific Garden ‘yellow brick road’

When someone experiencing homelessness visits for the first time, they are given clean clothes to wear and their dirty clothes are taken and sterilised in what is known as the ‘hotbox’, which is a metal lined room. These are located on the first and second floor. At the ground floor, there are five classrooms and six counselling rooms all geared towards empowerment and assisting those who wish to reintegrate back into society. The mission provides work assignments, high school diplomas, Basic English lessons, and computer training. Also, on the ground floor is a massive dining hall which is bright and spacious due to an abundance of glazing and high ceiling. The building also in a sense behaves like a neighbourhood, where one could go to the barber, library, gym, or a beauty salon (Mays, 2012). There are 2 spaces which are specially created for spiritual nourishment, through bible teaching and fellowship which is the 600-seater auditorium and the chapel. The chapel faces the courtyard, and its large windows are penetrated by the morning sun. See figure 143.





Figure 143. Pacific Garden Chapel

The first and second floors are more private spaces which are the sleeping areas (Givens, 2010). The sleeping areas are efficiently fitted with 'space saving bunks', which maximises the floor area. Tigerman states that 'This is not a home, it's an institution' (Mays, 2012), and the regimented arrangement of bunk beds exemplifies this. One may argue that perhaps these spaces could have less of an institutional look and feel, and rather create a sense of place, as discussed in chapter 4, which is important. However perhaps in this case Tigerman was also looking at the reality of the situation where Chicago's winters are bitterly cold, and getting as many as possible indoors is of greater significance. See figure 144. Semiprivate spaces are also included at level 2 and 3, which are the outdoor patios which are poised over the courtyard. Finally, are the green roofs and solar panels which are located on level 3 and the roof. It could assume the program breakdown consists of 4 key components: social service, mental & physical health restoration, empowerment facilities and sustainability aspects. See table 10.



Figure 144. Institutionalised spaces





				
	<b>Social Services</b>	<b>Mental &amp; Physical Health Restoration</b>	<b>Empowerment Facilities</b>	<b>Sustainability Aspects.</b>
<b>Ground Floor</b>	Dining Facility. Offices. Barber. Laundry and Clothing facilities.	Gym. Courtyard. Medical Care. Chapel. Auditorium	Classroom & Training. Meeting Space.	Green house.
<b>First Floor</b>	Sleeping Quarters. Showers. 'Hot boxes.	Outdoor Patios.	Meeting Space	
<b>Second Floor</b>	Sleeping Quarters. 'Hot boxes.	Outdoor Patios.		Green Roof. Solar panels.
<b>Roof</b>		Outdoor Patios.		Green Roof. Solar Panels.

Table 10. Program breakdown (Author, 2023)

### 5.3.6. Design Strategy

The design strategy for the Pacific Garden Mission is informed by the pedestrian hostile urban environment (Mays, 2012). In this regard, the analysis of this precedent perhaps highlights primary 3 design principles, humanism, sunlight, and nature. See Table 11.

Design principles		
Humanism	Sunlight	Nature






		
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Table 11. (Author, 2023)

The humanistic approach places human need and welfare at the centre of design. One may infer that humanistic architecture relates to spatial planning (Govender, 2014), materials and its structure. Tigerman’s post-modernist approach was to create an experimental pedestrian friendly oasis which becomes a place of retreat from the demanding task of finding food and shelter daily (Mays, 2012). This is achieved through the internal street (the ‘yellow brick road’), where strategic additions of street elements, discussed in the previous section, makes it a familiar environment to those experiencing homelessness. The courtyard also becomes an important spatial planning element which is essentially a place of retreat, contemplation, and reflection. The brick and concrete columns also provide the space with warmth and familiarity. The concrete structure provides a cost effective and efficient trabeated system. The rhythmic colonnade also provides a sense of unity and direction which compliments controlled processional movement. Outdoor patios on the upper levels also provide spaces for pause, reflection, and contemplation.

Sun light enters the building from several different points which is a result of orientation of key spaces, open to sky spaces and the way in which the building is set back in certain areas. Being in the southern hemisphere, the courtyard and open patios experience the full impact of sunlight during the day. The setback around the courtyard at upper levels and low-rise surrounding buildings allows the sunlight to penetrate the building. This has the benefit of natural light and heat gain. The interplay between light and shadow contrast enhances the experience of the place. Heat gain is important for the cold winter months. The building however is also supplemented with an advanced HVAC system which plays a key role in air quality and thermal comfort.

The aspect of nature is represented in various forms, starting with the landscaping on the street façade of the building. As stated above, this was to soften the cold surface of the surrounding

urban environment. Other forms of landscaping are found in the courtyard, and potted plants are found in the 'yellow brick road'. This relates to biophilia. The mission has 2 greenhouses which can be found on the southern side of the building at ground level and the roof. These are part of a soil composting program where 3 million worms are used to generate income from the growth of organic lettuce and tomatoes. In its current state the courtyard has flourished into a beautiful garden, which could be a welcome sight for those who have just come off the streets. The final 2 aspects of nature occur on the upper levels in the form of the solar panels, which speaks to renewable energy and the green roof, which speaks to heat gain, and storm water management. See figure 145, 146 and 147 which highlights these 3 design principles.

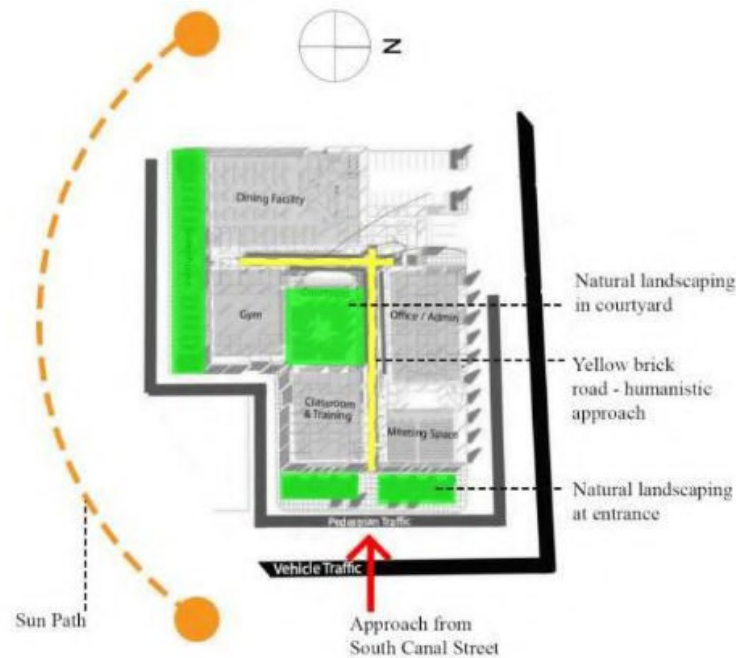


Figure 145. Pacific Garden Mission Ground Floor Plan (author, 2023)

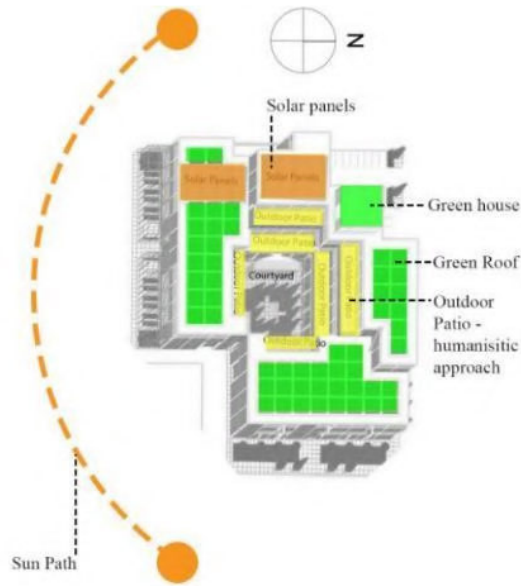


Figure 146. Pacific Garden Mission Roof Plan (author, 2023)

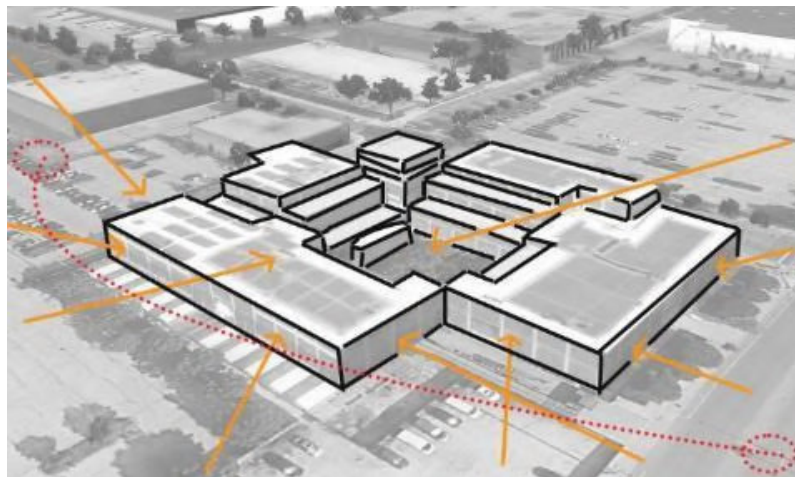


Figure 147. Form massing analysis of light (Author, 2023)

### 5.3.7. Summary

The Pacific Garden Mission represents all 3 theories which are specific to this study. However, placemaking and empowerment seems to be predominant. Placemaking is related to gentrification, insurgency, and site selections. Because the mission was being forced to relocate, they called upon the services of architect Stanley Tigerman. To their benefit, this was not a 'starchitect' but someone who put people's needs first. He quickly realised that the urban context

was not something that could be incorporated into the design of the mission due to it being unfriendly towards the pedestrian.

He therefore opted to turn the mission into a self-sustaining entity due to its accepted site selection. Under a more researched circumstance, an appropriate site would offer community participation, and social integration but this was not possible. The surrounding area operated on two primary economic functions: parking lots, and industrial buildings. This forced Tigerman to design an introverted building, which meant that its true meaning and beauty can only be experienced once someone is physically inside the building. It can be hypothesised that Tigerman chose to highlight 3 design principles which were humanism, sunlight and nature.

The first principle he focused on was the user, their need, how they will experience the building, how they will heal, and how they will improve their situation. This meant making them comfortable when they first encountered the mission. An important element is the yellow brick road. Streetlights, streets signs, street benches and trash receptacles are all incorporated into the 'yellow brick road' street metaphor. An equally important element was the courtyard. This is a place of retreat where one could calm their thoughts and reflect. This he aligned with spaces one would find in a monastery. This courtyard has now become a beautifully landscaped space. See figure 148. At the upper levels outdoor patios open to sky are strategically positioned which are also places of pause. Sunlight penetrates deep within the building which is an important passive design aspect that responds to natural light, and heat gain and losses. This is achieved using the building's orientation, courtyards, large window openings, and set back of upper levels which surround the courtyard. The use of nature first responds at the entrance of the building where landscaping is used to soften the façade and surrounding urban space. Once inside potted plants are used in the 'yellow brick road' See figure 149. The courtyard as mentioned is also landscaped all of which relates to biophilia. The green houses, green roofs, and solar panels are other important components which are related to natural processes.



Figure 148. Pacific Garden Mission - Landscaped courtyard - Biophilia



Figure 149. Pacific Garden Mission - Potted plants in 'yellow brick road' corridor

#### 5.4. Precedent Study 3 – Dennis Hurley Centre

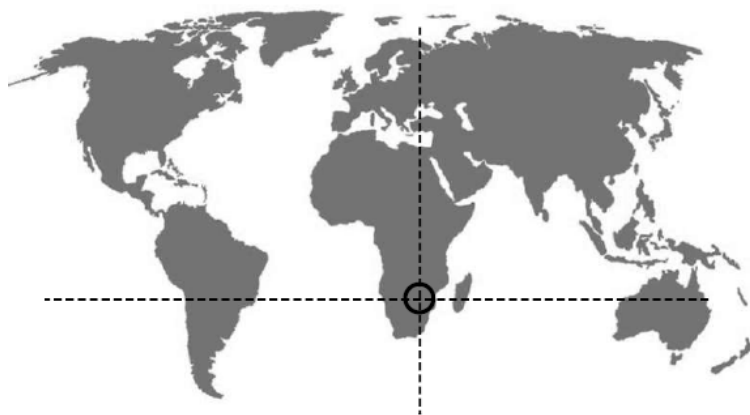


Figure 150. Dennis Hurley Centre Location – South Africa

#### 5.4.1. Project Description

Architect: Ruben Reddy Architects

Location: South Africa, Durban

Project Area: approximately

Year completed: 2015.

Building typology: Cultural Centre

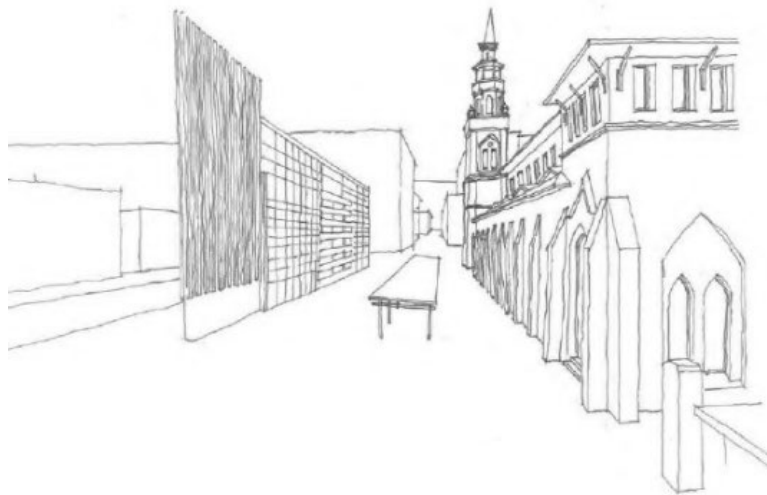


Figure 151. Dennis Hurley Centre – Street View (Author, 2022)

The Dennis Hurley Centre located in the heart of Durban's city Centre, is named after the catholic archbishop, and is an interfaith community Centre, noted for assisting the marginalised (Raymond Perrier in De Beer & Vally, 2021). The building has become a beacon of hope through its diversity and versatility which reflects its complexity, vibrancy of its environment and users (Ruben Reddy Architects). This Centre became the replacement to the original parish which was built in 1902. See figure 152. The parish first became a sociopolitical refuge in 1949 during the Zulu Indian war, during which time the Emanuel Cathedral was approached (Nair, 2013). Ever since the parish has responded to needs such as food, medical attention, and a becoming home to many who sort shelter (ibid). In 2008 during xenophobic attacks, the old

parish was used as a refuge for 500 people who sought shelter (Skyscraper City, 2011). It became evident during this time that the dilapidated building function was inadequate in terms of its ablution, cooking and living facilities (ibid). Restoring the old facility was considered, but it seemed to be more costly to do so (ibid). Hence the decision was made to build a purpose facility on the same site. The new building would cost 30 million rand, which would comprise four levels (Nair, 2013). It was anticipated that the finishes and detailing would take its cues from the adjoining cathedral which was refurbished in 2003 (ibid). The new Centre accommodates a feeding scheme, a centre for those seeking refuge, arts and culture program, conference rooms, meeting rooms, and accommodation for foreign volunteers (ibid). With such facilities, the Centre assists the homeless, drug users, the urban unemployed, and refugees, with the intention of empowering economically and politically, with the guiding principles of education, care, and community (Dennis Hurley Centre, no date).



Figure 152. Existing Parish. (Dennis Hurley Centre, no date)

#### **5.4.2. Justification**

This precedent study predicates on all three theories of this study, empowerment, culture, and placemaking. The catholic Archbishop Dennis Hurley, after whom the Centre is named, was a crucial figure in the fight against apartheid and social injustices (Skyscraper City, 2011). Again, we find the important cultural aspect of Hofstede's 'hero' (Hofstede, 2010). Being a catholic initiative did not mean it was going to ignore other religions. Raymond Perrier, who was involved with the Dennis Hurley Centre for six years, makes a key observation with regards to this being unique in that it represents many religions which include the following: Catholic, Methodist, Presbyterian, Anglican, Evangelical, Hindu, Muslim and Jewish (Perrier in De Beer



& Vally, 2021). This partnership has formed a new level of collaboration that seeks justice by providing relief to all who need assistance (ibid). The moral stance against social ills taken by the late Archbishop, is represented in the Denis Hurley Centre (KZNIA, 2015). The project is also rooted in sustainability and its 3 pillars, economy, environment and social. The economic aspects deal specifically with functioning of the Centre which seeks to provide the vital skills which can assist in individuals finding employment and becoming self-sustaining. The environmental aspects deal with the architectural design principles of energy efficiency and materials discussed later in this chapter. Social sustainability deals with reintegration of those experiencing homelessness back into society which is central to the concept of greater good. In terms of critical regionalism, this deals with the newly designed Centre still being revered to the previous building in terms of the existing form and materials. Face brick is known for its durability and low maintenance requirements. The scale and proportion with regards to its surroundings is also respected and does not choose to be overt but rather it stands in solidarity with surroundings. See figure 153. However, with this reverence the building is seen as an example of African Modernism.



Figure 153. Denis Hurley Centre in urban context

#### **5.4.3. Urban Context and Locality**

Dennis Hurley Centre can be found in the heart of the Durban city centre. It sits on a small complex triangular site, with a 0-metre building line (Ruben Reddy Architects). This part of the city is known for its constant hustle and bustle in the form of busy vehicular traffic, street trade, pedestrian movement, and the many retail shops and markets, all of which make up its dynamic and vibrant atmosphere. This Denis Hurley site is walking distance from the Warwick Triangle, and the Juma Musjid Mosque, which are prominent liberation heritage sites, amongst others



(Arch daily). The Centre lies adjacent to two road frontages, with Cathedral Street which is in an easterly direction, and Denis Hurley Street (formerly Queen Street) lies in a northerly direction. Cathedral Street is a one-way single lane street which has a combination of vehicular and pedestrian movement. There are mostly retail shops, together with street hawkers, which makes it a highly active economic hub. The architectural style is a combination of Victorian, Edwardian, and Art Deco. Dennis Hurley Street, which is equally active, is a four-lane one-way street. As in most parts of Durban city, its main function is based on exchange value, where there seems to be always some kind of service being offered. As previously mentioned in this study, this service-oriented type of urban function is perhaps what has contributed to Warwick Junction and surrounding areas' resilience. To the south of the Centre is the Emanuel Cathedral. It may be construed that the Denis Hurley Centre has taken its architectural cues in terms of scale, form, proportion, rhythm, textures, colour, and materials from the Cathedral and the 5 storey Juma Musjid Primary School on Cathedral Street. To the south of the Emanuel Cathedral lies the N3 freeway which links Durban to the City of Johannesburg. The City of Johannesburg, like the city of Durban, has not recovered from the aftermath of apartheid. Most parts are ageing, dilapidated and in disrepair. See figure 154.

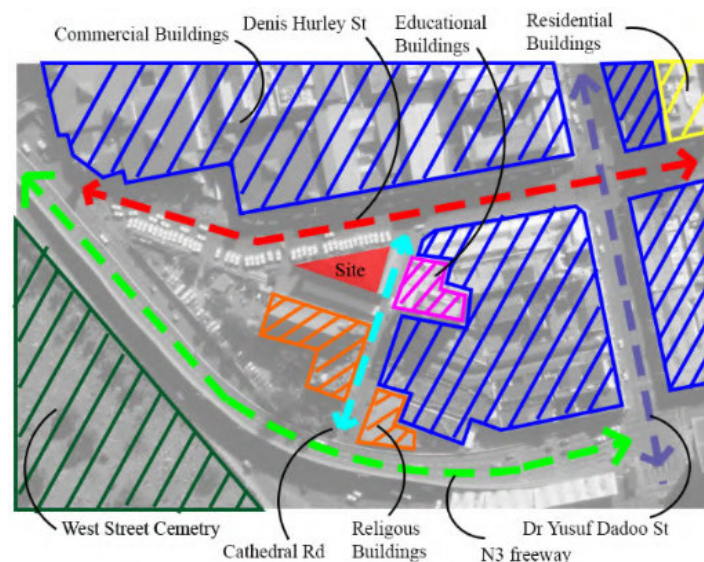


Figure 154– Dennis Hurley Urban Context surround the site (Author, 2023)

#### 5.4.4. Project Objectives

*‘Care, Education, Community’*

The main objective of the Dennis Hurley Centre is to serve the community. Archbishop Denis Hurley, who often spoke out against the atrocities of apartheid over a 50-year period, believed that the church should be a 'community serving humanity' (Specifile, 2023). This mantra is still being honoured to this day. Another important objective is reconciliation. The centre aims to bring all religions and people together. This was displayed on 16 December 2022, by means of a 'meal of reconciliation' which was served to 300 individuals who were either experiencing homelessness or those from poverty-stricken lives who cannot afford to put a meal on the table (Mbhense, 2022). The Centre serves the homeless community 5 days a week (ibid). The ultimate objective in this regard is unifying a country that was once torn apart by racial differences. See figure 155.



Figure155 – A 'meal of reconciliation'

The Centre sees to the needs of those experiencing homelessness, drug addicts, urban unemployed and refugees. In an interview with 8 individuals who had experienced homelessness and were on their way to recovery expressed their gratitude to the opportunities and services the Centre provided (Denis Hurley Centre, 2021). This included *medical treatment, social services, education, and career advice and skills development*. There are three initiatives which are particularly successful: their used *books sales, farming, and recycling*. Through these initiatives and services these 8 individuals find themselves to be in a more hopeful state of mind, where some were already living in their own places. Another key initiative driven by the Centre was unpacking the importance of having a domicile address and the right to vote (Perrier in De Beer & Vally, 2021). A ruling by the electoral court stated GPS coordinates could be used as an address. A subsequent exercise required those experiencing homelessness to state where they had

slept 3 of 7 nights, which were related to various informal settlements. The Centre was successful in registering 400 unhoused individuals who became eligible to vote in the 2019 general and provincial elections (ibid).

#### **5.4.5. Program and Planning.**

As mentioned above the existing site for the demolished parish was re-used with zero building lines and 100% site occupation was permitted (KZNIA, 2015). The total area of the site is approximately 500m<sup>2</sup> (ibid). The meagre size and complex shape of the site seemed to present the design process with a challenge (ibid). However, these factors together with its adjacent cathedral and rich history of struggle and liberation provided the inspiration required for such a challenge (Rushi, no date). The form of the Centre hence grew from the shape of the site, which is a right-angled triangle, whereby three interconnected spaces surround an atrium. This in a sense reinforces Dennis Hurley's goal of creating an integrated community (ibid).

The Centre comprises three non-governmental programmes: Nkosinathi programme, the Clinic, and The Refugee programme (ibid). The Nkosinathi programme provides showers and meals daily. The Clinic provides check-ups and screening for those who have no access to healthcare or medical insurance. They also provide first aid and are also registered to roll out ARVs for those living with HIV. The Refugee programme provides counselling and advice to refugees (ibid).

At the ground floor level primary social services are catered for which can be accessed from the street on all three facades (KZNIA, 2015). The main entrance to the Centre can be accessed from the southern façade of the building. Adjacent to the main entrance is a fire escape stair which allows an entry / exit point. Also, on the southern side the building can be accessed through 3 shop front double doors which allows spill out from the dining area. From the eastern façade on Cathedral Street, the building can be accessed through the service entrance. On the northern façade there is an entrance/exit point through the second fire escape stairs. On the north-eastern corner between the fire escape and the service entrances are a series of medical related rooms all of which are positioned around an eight-seater waiting area. On the northern side of the building are 4 refugee rooms for counselling, and a meeting room. On the Southern side of the building are mostly building service rooms and ablution services. Shower facilities are located towards the Centre of the building. These three blocks surround a quadruple volume atrium. See figure 156.

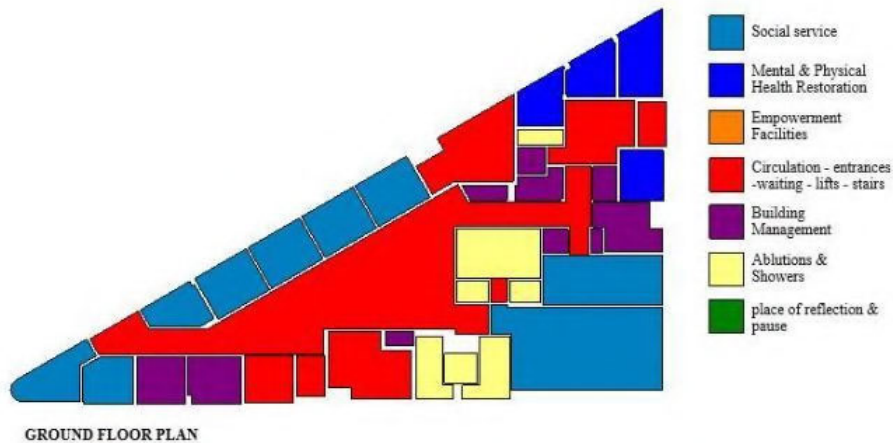


Figure 156. Dennis Hurley - Ground Floor Zones (Author, 2023)

The first thing noticed on the first floor is the atrium opening increases in size by approximately 2.6 times. On this level, the northern side houses 3 meeting rooms. A double volume multipurpose room, used for banquets, weddings or conferences is located on the eastern side of the building. This room spills out into the foyer. On the western side of the building is an open plan library and cafeteria. Also on the western corner, where the triangle vertices meet, is a terrace. On the southern side is a computer room and ablution facilities. See Figure 157.

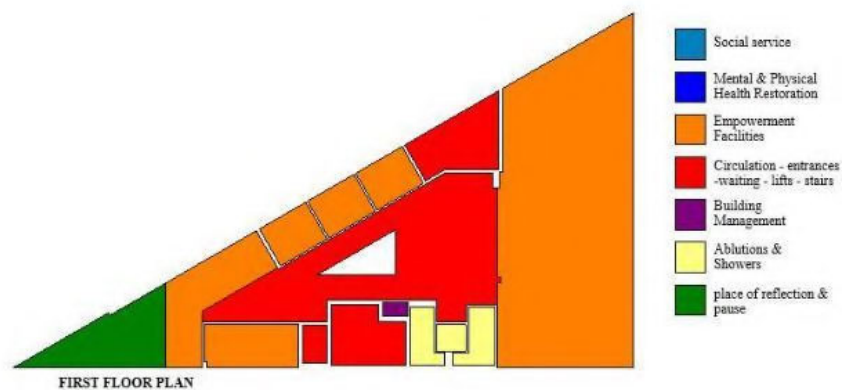


Figure 157. Dennis Hurley - First Floor Zones (Author, 2023)

On the second floor, the north side houses a series of skills development rooms and a lounge. The western side of this floor is the caretaker's flat, comprising bedroom, bathroom, and living

space, which is completed with a terrace in the western corner, as on the floor below. On the southern side are volunteer rooms, and ablutions. See figure 158.

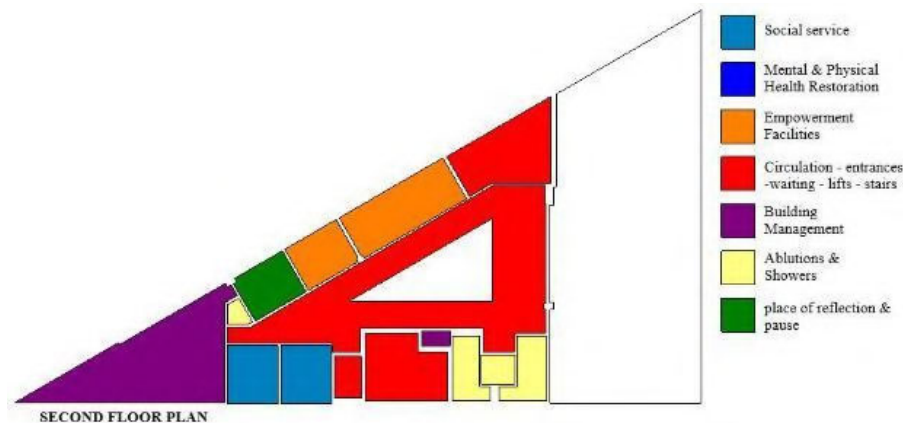


Figure 158. Dennis Hurley - Second Floor Zones (Author, 2023)

On the third-floor northern side is open to a long rectangular covered veranda which is approximately 2.7m wide x 14.5m long. On the eastern side is a large multipurpose room subdivided into 3 parts by acoustic partitions. On the western side is a large triangular shaped prayer room. The southern side houses meeting rooms and ablutions. See figure 159.

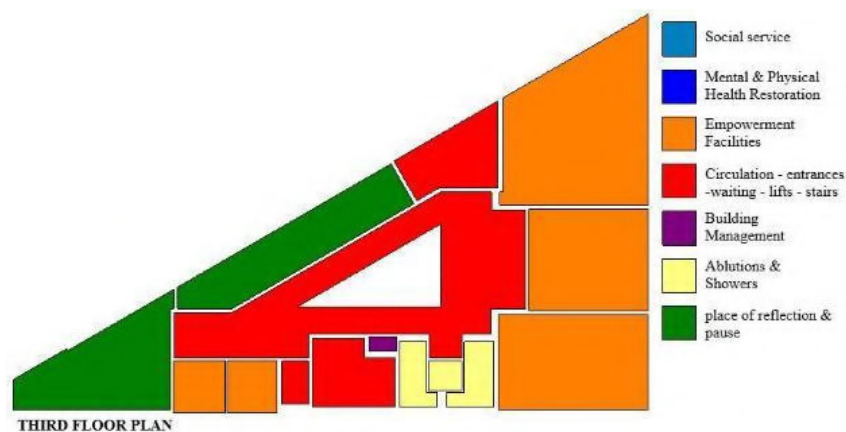


Figure 159. Dennis Hurley -Third Floor Zones (Author, 2023)

On all three upper floors, rooms on the perimeter of the building congregate around the circulation space and atrium. It seems the program breakdown comprises 3 key components: social service, mental & physical health restoration, and empowerment facilities. See table 12.




			
	<b>Social Services</b>	<b>Mental &amp; Physical Health Restoration</b>	<b>Empowerment Facilities</b>
Ground Floor	Meeting (+- 10m <sup>2</sup> ). Justice & Peace x 2 (+- 15m <sup>2</sup> ). Refuge Office x 4 (+- 40m <sup>2</sup> ). Main Kitchen (+- 21m <sup>2</sup> ) Dining (+- 45m <sup>2</sup> )	Clinic Office (+- 8m <sup>2</sup> ) Treatment Room (+- 21m <sup>2</sup> ) Patient Consult x 2 (+- 8m <sup>2</sup> )	
First Floor		Terrace (+- 3m <sup>2</sup> ) Open Cafe (+- 25m <sup>2</sup> )	Library & Exhibition (+- 29m <sup>2</sup> ) Meeting Room x 3 (+- 30m <sup>2</sup> ) Multipurpose room (+- 184m <sup>2</sup> ) Computer Room (+- 18m <sup>2</sup> )
Second Floor	Volunteer Room x 2 (+- 20m <sup>2</sup> )	Lounge (+- 10m <sup>2</sup> )	Skills training x 2 (+- 30m <sup>2</sup> )
Third Floor		Prayer Room (+- 41m <sup>2</sup> ) Verandah (+- 39m <sup>2</sup> )	Meeting Room x 5 (+- 189m <sup>2</sup> )

Table 12. Program breakdown (Author, 2023)

#### 5.4.6. Design Strategy

The design strategy for this building was to reduce the running costs as much as possible during its operations cycle. This was achieved in 2 ways. Firstly, by making the building as energy efficient as possible (Specifile, 2023). Secondly was choice of materials in terms of cost effectiveness, maintenance, and durability (ibid) which implies sustainable materials. The importance of this kind of strategy not only ensures continued service to the community in need

but also adds value to urban surroundings. In this regard, the analysis of this precedent perhaps highlights 3 design principles, community, energy efficiency and materials, depicted in Table 13.




Design principles		
Community	Energy Efficiency	Sustainable Materials
		

Table 13, Design Principles. (Author, 2023)

The importance of community as a design principle is deeply rooted in the growing divide that exists in Durban and South Africa at large. A prevalent capitalist and neo liberal economic system encourage structural inequality, social exclusion, disconnection, and a sense of insecurity (Mutero & Govender in Mutero et al. 2020). The Denis Hurley Centre has through many programs such as Thusa Batho, a sewing program, aims to break down xenophobia and the like (ibid). The Denis Hurley Centre essentially facilitates the restitching of a divided community.

With regards to energy efficiency the right-angled triangular shape of the building reduces the running costs of the building (KZNIA, 2015) and responds to context and climate (Archdaily). The northern side of the building, which will receive the most sun during the day, comprises mostly deep recessed narrow windows on ground, first and second floor. This provides light, reduces heat gain through passive solar control (ibid). This also reduces glare. Large windows are only on the third floor, for the 2 larger gathering spaces of prayer room and multipurpose room. The narrow shape of the building also allows light to penetrate the building from, especially through the long shaded glazed veranda on the third floor. See figure 160.





Figure 160. Dennis Hurley - Northern Elevation (Archdaily,  
[https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad_source=search&ad_medium=projects_tab) Accessed: October, 2023)

The widest part of the building is approximately 25m and narrows to naught at 30 degrees. Staying on the northern side is a large louvre frame which brings in natural air to cool building service equipment, which sits above the fire escape stair. This happens on the southern fire escape stair as well. On the western point, where the vertices meet, the afternoon sun is protected by vertical louvre blades which extend from the first floor to beyond the roof gutter by approximately another floor. This becomes a distinct nodal architectural feature of the building. The southern side of the building has a greater glazed component, which allows views of the adjacent cathedral (ibid). The cathedral can be seen reflecting onto the Dennis Hurley Centre glazing. This in a sense pays tribute to old and new, which in a sense speaks to creating a sense of place. See figure 161. The eastern façade makeup is like that of the northern façade. See figure 162.



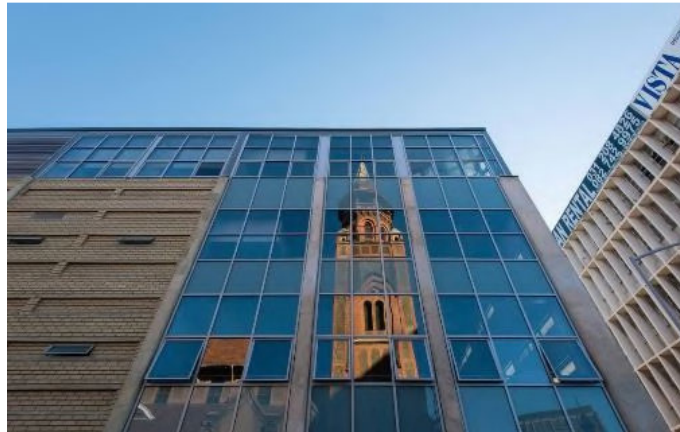


Figure 161. Reflection of Emanuel Cathedral onto Southern Facade(Archdaily, [https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad_source=search&ad_medium=projects_tab) Accessed: October, 2023)



Figure 162. Dennis Hurley - Eastern and Southern façade. (Archdaily, [https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad\\_source=search&ad\\_medium=projects\\_tab](https://www.archdaily.com/769446/denis-hurley-centre-ruben-reddy-architects?ad_source=search&ad_medium=projects_tab) Accessed: October, 2023)

The building envelope essentially acts as a breathable skin, which maximises natural light and ventilation, and protects against direct sun penetration (ibid). This responds to Durban's humid subtropical climate which requires a cool building through most of the year (ibid). The atrium essentially serves three functions. Firstly, it allows natural light to all public spaces, thus reducing the need for artificial light (Specifile, 2023). Secondly it acts as an extract system

through a negative flow of air, drawing out hot air from each level (ibid). And when windows are open a draft is created (ibid). And lastly, it reduced the need for corridors, thus maximising circulation efficiency. See Figure 163.

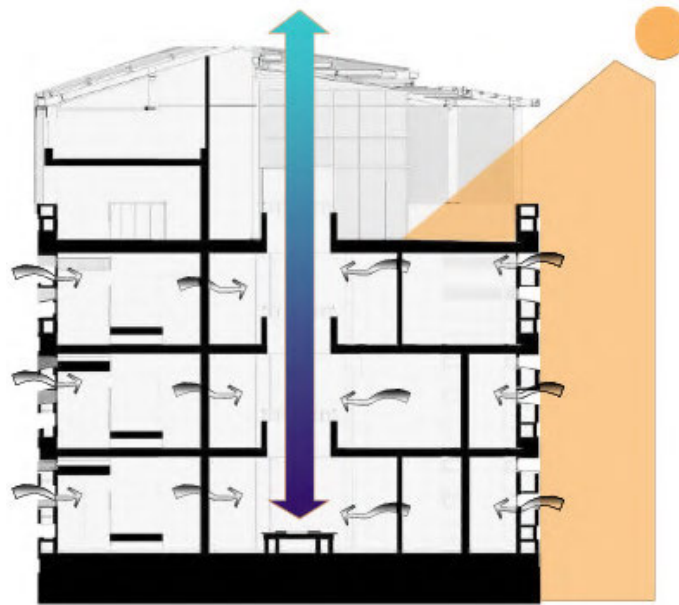


Figure163. Central atrium – Lungs of the building (adapted by author, 2023)

Given the tight budget, materials were judiciously selected. Two types of bricks were chosen with the travertine face brick being the most that was used which is visible on the external facades (Specifile, 2023). Future costs in terms of durability and maintenance also determined this choice. The light colour of the brick had the added property of reflecting heat, thus contributing to cooling the building. The clay bricks on the other hand also helped with humidity absorption. Inside the building costs were reduced by using polished concrete floors, of shutter concrete ceilings, and the third-floor ceilings had acoustic and insulation properties (ibid). Roofs were insulated with 100mm thick Factorylite, and windows were tinted to lower heat gain, but still allowed light in.

#### 5.4.7. Summary

The aim of the Denis Hurley Centre is to provide care to a community in need through education and empowerment. This initiative began with the Archbishop Denis Eugene Hurley who was a

key figure in the fight against apartheid. The site of the Denis Hurley Centre was originally occupied by a parish which was built in 1906 and has been a place of refuge since 1949. During the 2008 xenophobic attacks, it became apparent that the building was in great disrepair. Refurbishment seemed to be a costly exercise and a design for a new building followed.

This precedent study analysis postulates that this new building possesses qualities relative to the three theories used in this study. Placemaking seeks impartiality for those who are marginalised, thus providing a place for restoration and recovery. This impartiality is further experienced through its acceptance of multiple religions who seek to support the centre in providing relief to those in need, which speaks to the theory of culture. The project also predicts sustainability and the 3 pillars of sustainability, social, economic, and environmental. Social seeks to reintegrate those who want to change their lives, back into society. Economics is achieved through the empowerment programs. And the environment is based on energy efficient and material architectural principles. Through its reverence for the demolished parish's form and materials, one may consider the crucial aspect of cultural memory. The building is also not overt but becomes one with its context. With respect for the old, the new building architectural style is considered African Modern.

The new four level building provides 3 primary programmatic functions: social service, mental and physical health restoration, and empowerment opportunities. At its conception, the architect design strategy sort to reduce its running costs during its operations cycle, with the community in need still being most crucial as seen in its program. To achieve a low operational cost building, energy efficiency and material selection became key aspects during the design process.

## **6. CHAPTER 6: CASE STUDIES**

### **6.1. Introduction**

Eradicating homelessness requires 2 primary responses, shelter, and empowerment. As already discussed, most homeless shelters fall short at responding to this. However, one NPO that places an emphasis on empowerment is MES (Mould Empower Serve). Another NPO that focuses on empowerment is Siyabonga Africa, which is a skills development facility, located in Brakpan, with the vision of eradicating poverty. Analysis of these two NPOs and their physical buildings will provide valuable insights into design principles that will be adapted for use in this study.

## 6.2. Case Study: MES (Mould Empower Serve)

In the problem statement, 5 homeless shelters in Johannesburg were analysed through a desktop study from an urban, architectural, and social perspective. The following is an analysis of 2 homeless shelters that were visited by the researcher to collect first-hand data which verified what was identified in the desktop analysis. These 2 homeless shelters are run by MES whereby Ekuthuleni Shelter is subsidised by the City of Johannesburg and the Ekhaya overnight shelter is supported by sponsors. Both are in the inner city and form part of the MES network in Johannesburg.

### 6.2.1. Background

In its current format, this Christian social development organisation MES has a vision of changing the heart of the city by *moulding*, *empowering*, and *serving* the homeless and those who are at risk of becoming homeless (MES website). This includes 4 specific groups: preschool children, school aged learners, youth and adults which ranges from 5 months old to adults over 36 years old (ibid). Respondent 2 has through his profiling identified both structural and individualistic causes and groups who end up on the streets, as described in figure 164. This substantiates what has been identified in the literature.

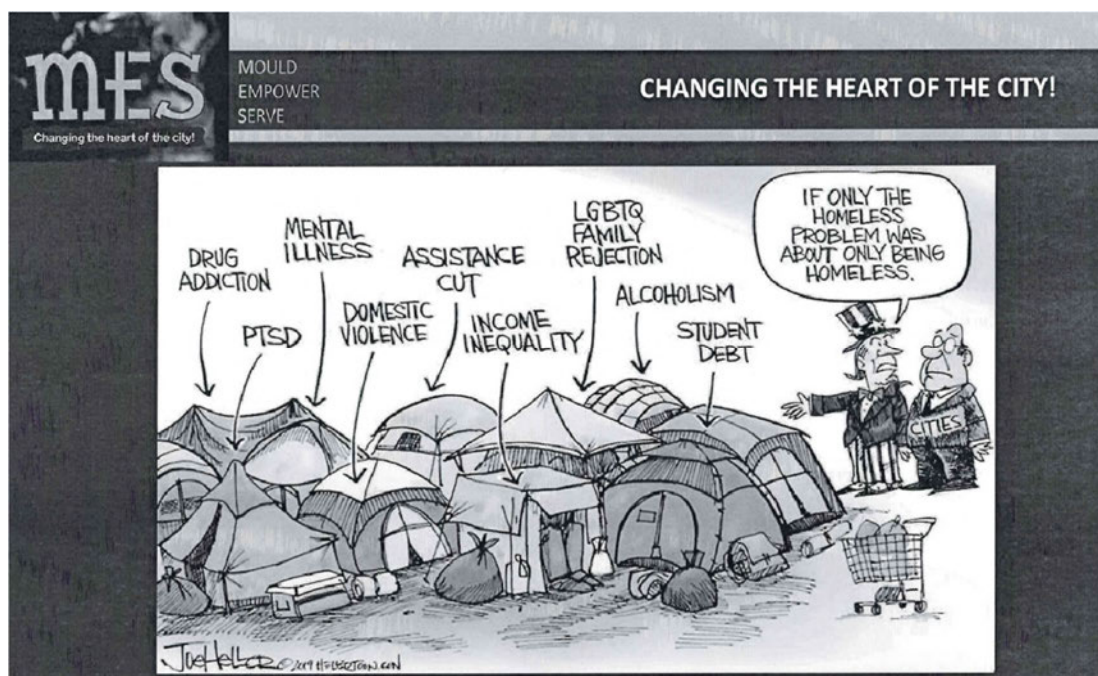


Figure 164. (MES) Changing the heart of the city.

Respondent 2 states that one of their main goals is trying to reunify those experiencing homelessness with their families or integrating them within communities. This means physical, mental, emotional, and spiritual support. The end goal of MES then, is to get such individuals to exist autonomously, sustainably, and to enjoy full and meaningful lives. This can be achieved through the various empowerment programs offered by MES, which is integrated with their ladder approach to accommodation. See figure 165. Respondent 2 states that the transitional housing step, within the ladder approach is missing.

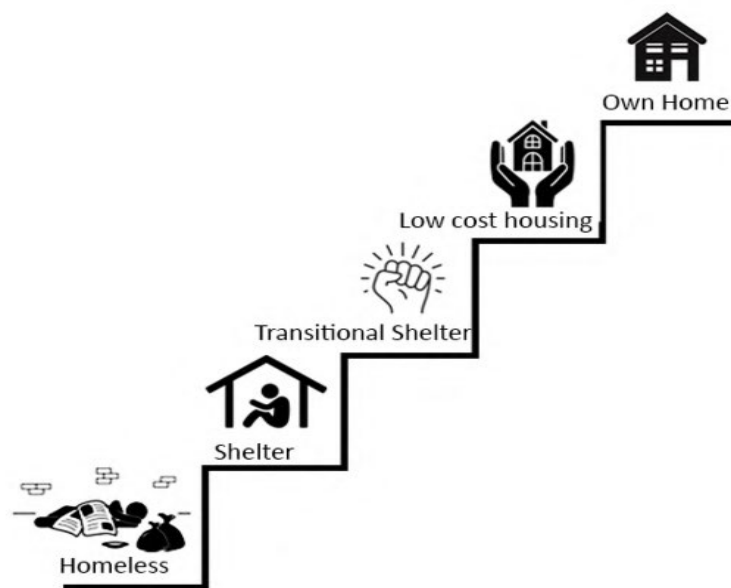


Figure 165. Ladder of Accommodation (MES – adapted by author)

### 6.2.2. Urban Context

MES as an organisation is made up of various sectors which are in different parts of the inner city. This in effect speaks to the issue of funding or the lack thereof, which is always a key factor in selecting a site for those experiencing homelessness. Buildings are normally sponsored and re-used without much being done to make it suit the user's needs. See figure 166.



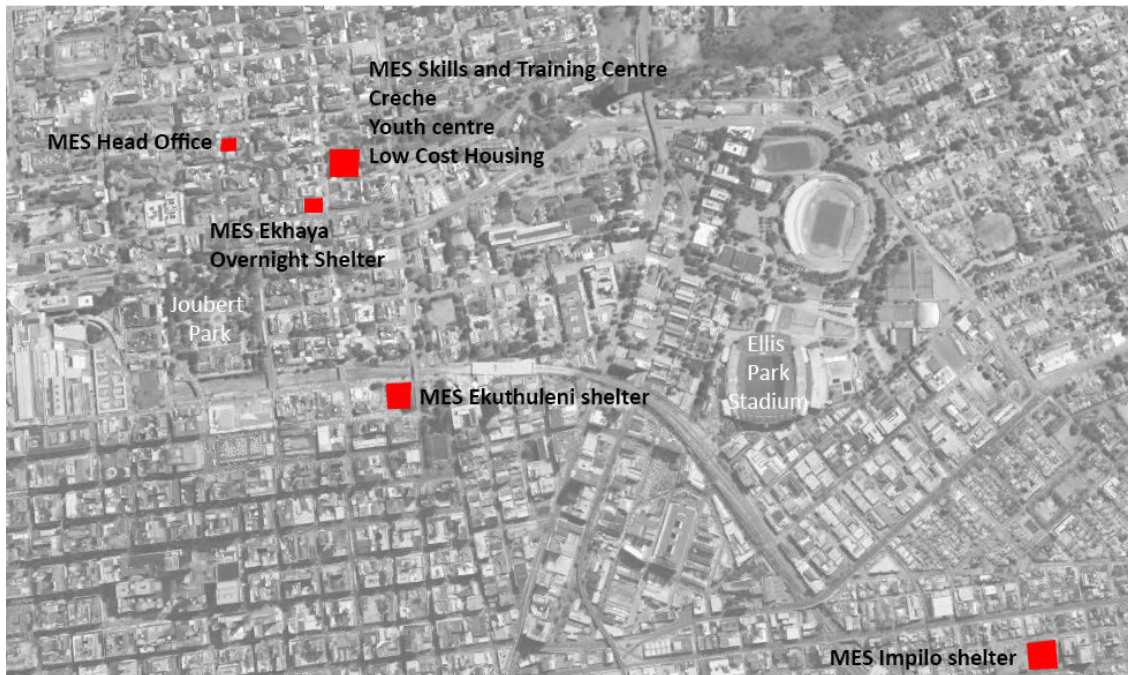


Figure 166. Johannesburg Inner City.

Two shelters were visited by the researcher, the Ekhaya overnight shelter and the Ekuthuleni Shelter, which took place at about 9.30am. See figure 167 and 168. Both shelters are in the inner city. The urban area comprises a mixture of low, medium, and high-rise buildings. These urban spaces are old with several buildings in need of restoration. In terms of crime, both shelters are in high-risk areas, however Ekuthuleni is more vulnerable due to drug users who occupy a hijacked building close by. This is regarded as a *hotspot* for where those experiencing homelessness can be found. Respondent 2 confirms that there are at least 15 *hotspots* which include about 4 hijacked buildings and 11 parks in the inner city. He further states that other hotspots are under bridges, open spaces, and some literally just sleep on the street. Most use whatever plastics and posts they can find to construct their shelter. The streets surrounding the shelters, and within the inner city in general, are highly active during the day and are full of vitality with pedestrian and vehicular movement. The fast-moving and congested vehicular traffic creates an unsafe feeling though.



Figure 167. Ekhaya Overnight Shelter



Figure 168. Ekuthuleni Shelter

### 6.2.3. Case Study 1: Ekhaya Overnight Shelter

The Ekhaya Overnight Shelter now occupies what used to be a hotel. It sleeps about 100 clients who are charged 20 rand per night. The 2-floor square shaped building can be entered at ground floor level, through a single door. This leads to a narrow passage with a relatively high ceiling. The wall finishes are plaster and paint on one side with face brick on the other. The only natural light came through the open front door. There is no reception area as such, and a long timber bench serves as a waiting area. See figure 169.

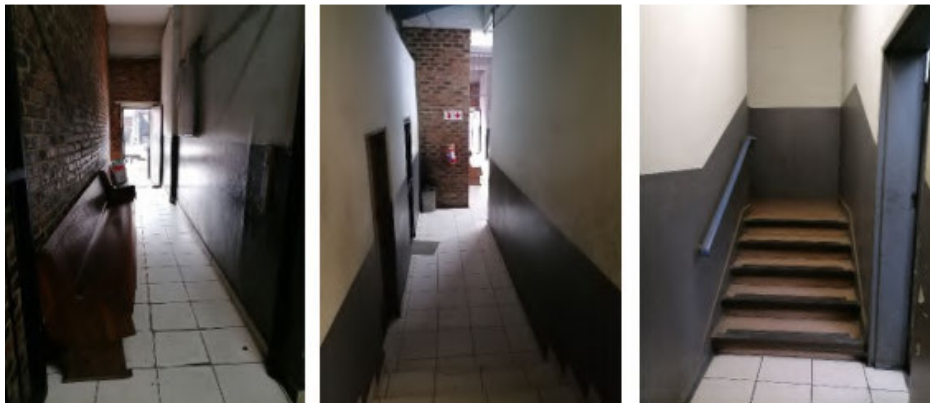


Figure 169. Ekhaya internal entrance (Author, 2023)

Following this are other narrow passages until one meets a stair. The overall feeling in this initial introduction to the building does not instil feelings of safety. There is no visual integration between spaces. Spaces are either connected by long narrow passages, other rooms, or communal spaces. The shelter is equipped with an emergency sleeping space available for example on extremely cold nights during winter. To get to this space one needs to go through a storage space. The storage space is where those experiencing homelessness, also referred to as clients now, may want to keep their belongings. The emergency space itself has windows at high level, with no view to the outside. The floors have a raw concrete finish. Single mattresses are used which are stacked which are still in their plastic covers. These spaces are artificially lit. See figure 170.





Figure 170. Ekhaya Shelter – Storage space and additional sleep space (Author, 2023)

The building is vertically connected by 2 staircases which are positioned side by side. Only one is used. The stair, which is in use, has a steep incline, which will make it difficult for those with walking problems to negotiate, especially the elderly. The stair is well lit though with natural light being emitted from a skylight. The skylight is constructed from translucent sheets, combined with metal roof sheeting which are fixed to timber beams notched into the brickwork. A simple but effective technique. The only negative about this detail is the red stains of a waterproofing agent which looks unsightly. See figure 171.



Figure 171. Ekhaya Shelter – Staircase (Author, 2023)

Once at the upper level, there seems to be a change in atmosphere from what felt claustrophobic at the lower level. The high ceilings now seem proportional to the width of this open space. The furniture used in the space comprised a single wooden table, a filing cabinet, a storage cupboard

and 2 steel bed frames. This made it difficult to understand the function of the space thus lacking an identity. The neutral colours of grey and white added a sense of calm. The space was also connected to the unused stair, which had a steel gate at the top which gave the space an institutional feeling. Ablution entrance doors were also visible and not kept out of sight lines. The roof of the entire upper floor was a reinforced concrete structure, with deep beams. This could have been as result of the equipment the previous hotel may have required on the roof. Wide windows with a height of approximately 600 mm were located at slab height. This did not allow enough natural light into the space, which meant artificial light had to make up the lux requirement in the space. There was no visual connection to the outside or any form of nature. See figure 172.



Figure 172. Ekhaya Shelter – Entrance foyer (Author, 2023)

The rooms where clients slept were dormitory style setups. The first dormitory that I encountered was a men's quarters which was a long room with three rows of bunk beds. The first thing I noticed was the pungent smell in the room. Next to each bunk bed was a metal locker. On one side of the room were large windows, with curtains, which allowed plenty of natural light into the space. See figure 173.



Figure 173. Ekhaya Shelter – Sleeping area (Author, 2023)

In another men's dormitory, the room was smaller, but the setup was similar. The windows were a lot smaller, and the lack of natural light made the place feel cramped. What added to a negative feeling in this room was the change in the floor finish, which was a polished concrete finish. See figure 174.

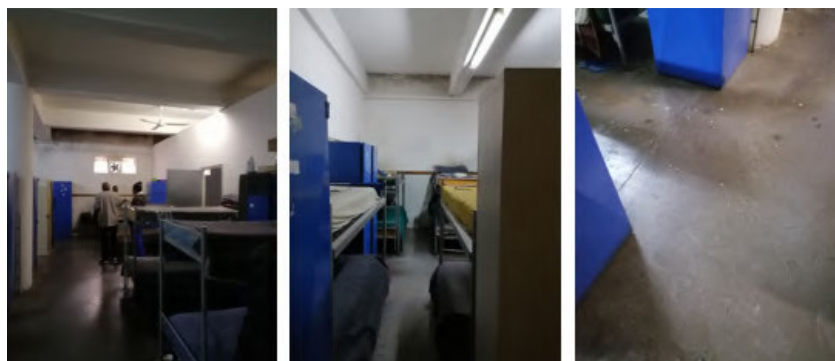


Figure 174. Ekhaya Shelter – Sleeping quarters (Author, 2023)

Perhaps the most successful dormitory room was the women's quarters. The bunk bed and locker set up was the same as the men's quarters but seems more generously planned. The large windows in the room also allowed an abundance of natural light into the space. This room also did not have the pungent smell like the other men's rooms. The floor however was a polished concrete and created a cold institutional feeling to it. See figure 175.

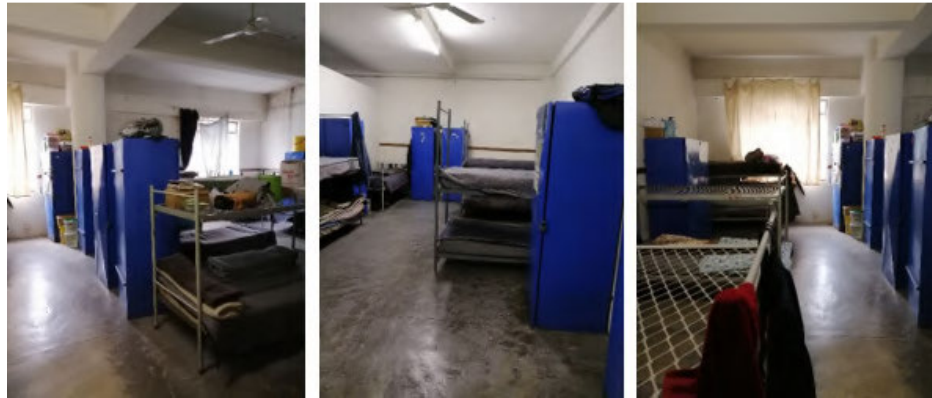


Figure 175. Ekhaya Shelter – Sleeping quarters (Author, 2023)

The dormitory set up rooms lacked privacy and did not cater for the traumatic condition someone may have been in when coming straight off the street. There is very little natural light, with small windows positioned at high level. This is a flexible space though, which is used for socialising, watching TV, and eating. There is also a platform where talks are given by social workers, nurses or other network partners. This is also used as a podium when church services are held. See figure 176. There is no food preparation that happens within this shelter, as it is prepared at the Ekuthuleni Shelter and brought here.

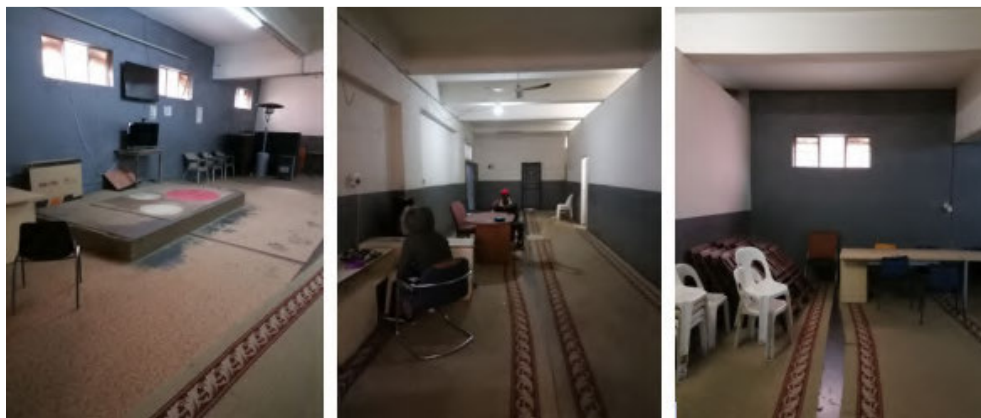


Figure 176. Ekhaya Shelter – Social spaces (Author, 2023)

#### 6.2.4. Case Study 2: Ekuthuleni Shelter

The Ekuthuleni Shelter was originally a Turkish bath, which now sleeps about 120 clients. Getting into the site is a challenge as minibus taxis are parked on both sides of the one-way street, where traffic still moves in both directions despite the restriction. Once in the complex, 2

buildings are encountered, together with cars parked between the 2 buildings. The smaller of the 2 buildings is single storey, with a corrugated roof sheeting, with paint finish to un-plastered brickwork. This building comprises offices, additional sleeping spaces and a kitchen where meals are prepared for other shelters, and outreaches. See figure 177.



Figure 177. Ekuthuleni Shelter – public spaces (Author, 2023)

The second building which is the actual shelter has similar external finishes. The building is elevated off the ground with about 6 stair risers to the main entrance. There is a second-floor level which partially covers the ground floor, which is also accessed by a separate staircase. This again excludes clients with walking disabilities. At the top of the stair is a security turnstile which immediately creates feelings of danger, anxiety and stigmatisation. The external colours are dull and have an institutional feel. See figure 178.



Figure 178. Ekuthuleni Shelter- Main Entrance (Author, 2023)



The internal spaces of the building are located around a courtyard. The courtyard allows sunlight to penetrate deep within the building through windows. Around the courtyard on the internal side of the building are passages which lead to different rooms which clients occupy. The courtyard itself is used for utilities, like washing and drying clothes. The courtyard lends itself to opportunities other than just utilities. Adding plants and grass would have enhanced this space in creating a sense of place attachment and identity, or a place to reflect. See figure 179.



Figure 179. Ekuthuleni Shelter – courtyard and circulation spaces (Author, 2023)

The passages which lead to the rooms occupied by clients are narrow and do not receive much sunlight. Most demising walls, between rooms and passages, were not built to the underside of the ceiling which did not allow for privacy and a sound proofed space. There are two types of rooms. The first type of room is big enough to accommodate a couple, or a mother and child. Getting access into these rooms was a challenge as most rooms were occupied. The room that was looked at received an adequate amount of sunlight. The room also had a pleasant human scale. The finishes to walls and floors however were in poor condition, with dull colours, which makes the space feel cold and uninviting. See figure 180.



Figure 180. Ekuthuleni Shelter – sleeping quarters (Author, 2023)

The second type of room is a small space which accommodates 2 bunk beds with a narrow aisle in between. This space which is no more than 5 square metres sleeps 4 people. The demising wall that separates the room from the passage does not go to the u/s of the ceiling. In this case it allows the room to be ventilated. Rooms share small windows, which are not positioned in relation to room walls, which receive very little sunlight. The walls of course were built after the windows. The high ceilings added to the awkward human scale of the space. It was noted that some clients occupy this space through the day. As noted in the first room type, the finishes, together with the awkwardness of the space cannot be good for client's physical, mental and spiritual health. See figure 181.



Figure 181. Ekuthuleni Shelter – sleeping quarters (Author, 2023)

The communal space which is used for socialising and dining is located on the western side of the complex. Large windows on the west means that this space will only receive the heat radiation from the sun in the late afternoon. The lack of deep recesses also will also create glare in the afternoon. This can be remedied with the use of vertically positioned louvres. The expansive shed styled space lacks a human scale due its high ceilings. The high ceilings add to the physical coldness of the space. The exposed rafters however do add an aesthetic quality to the space. But this is lost to the poor condition of the floor's walls and peeling paint from the ceilings. The concrete wash troughs and steel tables make it feel like an institutional styled building, and the identity of the space was unclear. See figure 182.



Figure 182. Ekuthuleni Shelter – social space (Author, 2023)

#### **6.2.5. A comparative analysis**

Both shelters experienced shortcomings in terms of architectural, urban and social aspects. Firstly, these were building typologies that were repurposed as shelters, where very little was done to consider the user's needs. Both shelters are poorly located in terms of its proximity to crime and temptation of going back to life on the street through substance abuse. This said, the hustle and the bustle of the city can also offer work or entrepreneurship opportunities. The shelters also have good access to public transport, which means they can get to other parts of the city in terms of skills training and finding work opportunities. Both shelters lacked a meaningful community integration, due to there being no street edge treatment of either building. Internal spaces also lacked views to the outside because of windows being too high. But many clients don't want to be seen because of their situation. Adding to this stigmatisation is the



institutionalised look and feel of both shelters. There were opportunities to connect to nature and sunlight, but this was not a priority, as raising funds to feed the homeless is a greater concern. This understandably is a priority of the MES organisation and for the many starving on the streets.

#### **6.2.6. Responding to the needs of those experiencing homelessness**

Despite these shortcomings in terms of its shelters, the one thing that stands out is the MES commitment to empowerment. Respondent 2 explains that the only response to homelessness is through empowerment. This involves 2 approaches via their outreach and feeding scheme programs. Many of those experiencing homelessness are merely expecting a meal, but during the meal they are introduced to empowerment either through a nurse, social worker or a pastor. Respondent 2 states that those who are tired of living on the streets need to first commit to changing their lives. Some want to give up drugs, and some want to be reunited with their families. They are then put into the relative MES programs or are put in touch with other NPOs or to social workers. Skills and training are mostly certificate courses, which opens up opportunities to work or further education. Above the skills centre is low-cost housing. Another low-cost housing program is the Madulammoho Housing Association. A crèche is also available for single mothers who don't have someone to take care of their children while they attend skills training. The youth centre is open to all members of the community, but its focus is on empowering those who are at risk of becoming homeless. These facilities and services are in walking distance of the Ekhaya shelter or can be reached via public transport from the other shelters See figure 183 & 184.



Figure 183. MES Skills Centre, low-cost housing and Crèche (Author, 2023)



Figure 184. Madulammoho Housing Association & Youth and Assessment Centre. (Author, 2023)

### 6.3 Case Study 3: Siyabonga Africa

One of the main reasons for the selection of this case study is its unwavering dedication to alleviating poverty through empowerment, which is one of the guiding theories of this thesis. It is also one of the very few NPO's in Gauteng which has developed a focused coursework program, which also includes those experiencing homelessness. The program has been carefully integrated into the architecture, thus also creating a sense of place for the learners.

#### 6.3.1. Background.

According to Respondent 3, a representative at Siyabonga Africa, the roots of the organisation started as a church in 1984. It was soon realised that the poverty and suffering in the community and a decision was taken to convert the property into a homeless shelter. Those experiencing homelessness initially slept in tents on the property. The tents were replaced with timber Wendy houses as funds became available. The shelter ran up until 2015.

However, in 2004 it became evident that simply providing for basic needs was not bringing about long-term change which breaks the cycle of poverty within families. The primary issue was that most who were homeless were also battling drug related problems. So, in order to empower them this needed to be addressed first, through a network partnered rehabilitation Centre.

Now a registered Skills Centre, saw the introduction of skills training programs, with the initial course focusing on computer literacy as it is a skill that is required for most jobs these days. A

subsequent course that was offered was baking. Siyabonga Africa were instrumental in designing a gas operated oven which could be used anywhere, thus allowing entrepreneurs to bake, sell and generate an income. This humble beginning has now evolved into four primary programs, namely: *community care; skills training; e-learning and job creation*.



Figure 185. Siyabonga Africa (Google Maps)

*Community Care* aims to provide for basic needs through emergency relief items such as food, blankets, clothing, toiletries, and ablution facilities for those experiencing homelessness (Siyabonga Africa Website). They also provide access to the following: social services and shelters; government and municipal services; drug rehabilitation services; skills training and education providers; small business development information; employment opportunities; and local news and other reading materials; internet; email; facsimile machine; photostat machine; and CV assistance (ibid).

The *Skills Training* courses comprise the following: life skills and job preparation training; computer literacy; fashion design; bread & confectionery baking; early childhood development training; home vegetable gardening; and welding (ibid). In terms of *Job Creation*, Siyabonga Africa works with small and micro businesses. To date they have helped start up over 300 small businesses since 2004. Also included in this process is business gap analysis, coaching and mentorship. They also connect newly qualified trainees to employers together with providing transportation and interview preparation.

### 6.3.2. Urban Context

Siyabonga Africa is in the mining town of Brakpan which is in the City of Ekurhuleni. Brakpan is 30 km from OR Tambo airport and 40 km from Johannesburg as depicted in figure 186.

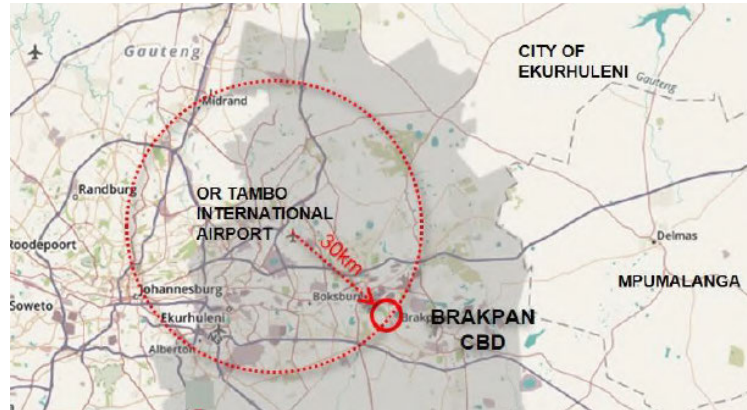


Figure 186. Map of Brakpan

Siyabonga Africa provides its services to Local Township which include: KwaThema, Duduza, Khatlehong, Tsakani, Vosloorus, to name but a few. These areas have high levels of unemployment. The school systems are not seen as serving the children in these areas, where there are high dropout rates. The Siyabonga Africa facility thus seeks to fill this gap. The facility can be reached by bus or taxi along the main road, Prince George Avenue. The site falls within an Agriculture zone. It is surrounded by Community Facility, Special and Residential zones. The Jan Smuts dam and CBD precinct is to the north of the site. See figure 187 and figure 188.

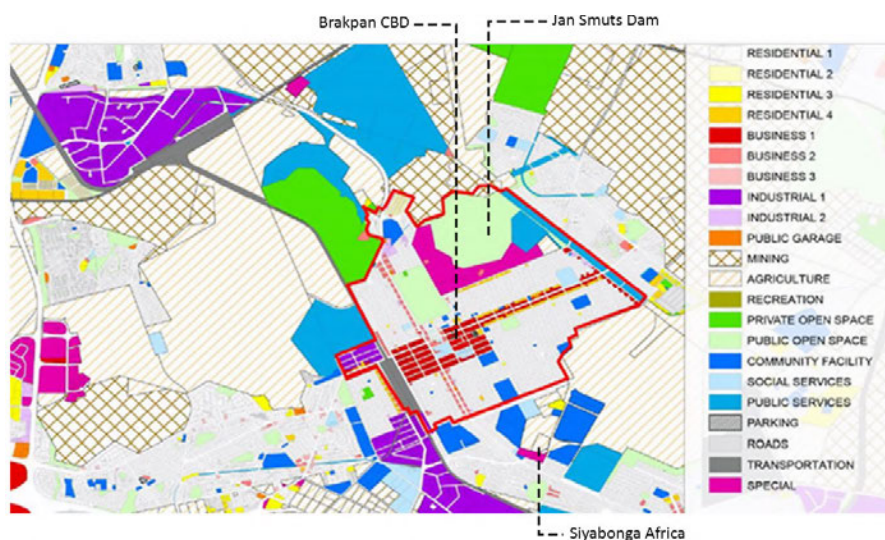


Figure 187. Land use in Brakpan (adapted by author, 2023)





Figure 188. Google earth image of Brakpan (adapted by author, 2023)

To the immediate north of the property is an open field which is zoned as an agricultural property. To the east of the property there are 2 schools, Muriel Brand School and Laerskool Morewag. To the immediate south of the property is the Cosy Corner Shellhouse which is a landmark which commemorates the two world war veterans. In its current function it is a place where one could relax with family and friends for food and drink. To the southwest of the property are 2 churches, the Pinkster Protestante Kerk and PPK Lighuis Gemeente. The property itself is shared with another church and other small-scale business which contributes to place making and mixed use, which creates a sense of community. See figure 189.



Figure 189. Urban relationships of Siyabonga Africa (adapted by author, 2023)

### 6.3.3. Response to students and those experiencing homelessness.

Funding becomes a determining factor when considering form and function for buildings like these. This invariably influences aesthetics. Aesthetics, as we have seen in the Eva Phoenix precedent, plays a key role in creating a sense of place. In this case we find that the lack means a reduced understanding of architectural character and cohesion. This could also mean that construction happens intermittently, whereby there are different designers or contractors who may have varying architectural and cultural expressions, thus resulting in a building that meets the need and utilitarian function first. This raises the question of typology, and in this case, the building does not look like a learning facility. This in effect raises a subsequent question, if this is not what it should look like, then what should a learning facility look like?

This of course is not a bad thing entirely as the building responds in the most efficient manner which becomes apparent in the low complexity method that has been adopted in this medium sized project. This simplicity has created a legible, safe, dignified, and peaceful environment. The importance of creating such an environment relates to the shame and lack of value that students feel when they first arrive at the facility, as mentioned by Respondent 3. She further states that previously disadvantaged students should be shown that they deserve to be respected

like everyone else, and they do have a purpose. The building comprises 9 interlocking blocks. The links are created either by the covered walkways or the open courtyards between blocks as depicted in figure 190.



Figure 190. Site Plan of Siyabonga Africa (adapted by author)

When arriving at the single storey facility, either by foot or car, the expansive space between the road and the buildings is landscaped with trees and grass, which is also used by workers from adjacent properties, which creates a feeling of calm. One immediately recognizes the building and sees a few covered parking spaces located in front three blocks. The building has no signage, but it is not difficult to locate the reception area. See figure 191.





Figure 191. Siyabonga Africa - Front of property images (Author, 2023)

The reception building is a prefabricated structure and even with the friendly welcome by the receptionist, is still physically cold, even though it should be receiving morning sun radiation through its glass doors and windows. It is also small and narrow, which makes it feel enclosed, with very little options for space planning arrangements. The use of artificial light during the day is a result of natural light being obstructed by trees and parking shade cloth cover. However, the use of timber and light colours does offer a form of visual warmth. See figure 192.



Figure 192. Siyabonga Africa – Reception area (Author, 2023)

Once inside the facility it becomes evident that careful thought was put into the layout of the buildings and spaces. The buildings look different, but the contrast is not unappealing. The Staff Building, which is a brick-and-mortar building has the most aesthetical character. The internal spaces are well laid out with three distinct zones, staff area, waiting area, and senior management space. However, these spaces are not closed off from each other, and are visually integrated, which speaks to hierarchy of spaces. This in a sense speaks to what Respondent 3 tries to convey, is that all who enter the property needs to be treated equally. The only downside is the

lack of privacy and sound. Neutral colours and earth tones create a sense of peace and calm. The high ceilings create a sense of spaciousness and allow more natural light and ventilation into the space. However, this also makes the space physically cold as the building is not positioned in east west orientation. Nonetheless, this can be easily resolved with insulation technology. See figure 193.



Figure 193. Siyabonga Africa – Staff rooms (Author, 2023)

Other spaces which add to the concept of peace, dignity, safety, and happiness are the *Chapel*, *Reflection Space*, and *Outdoor Eating Area*. The Chapel, which was the first building to be built on the property, is a flexible space and is well lit and is physically warm space, as it receives unobstructed early morning sunlight through windows positioned on the eastern side of the building. The carpeted floors add to the homely feeling of the space. The sloped ceilings allow natural light to travel deep into the western side of the room. This also assists in transmitting sound to all parts of the space. See figure 194.

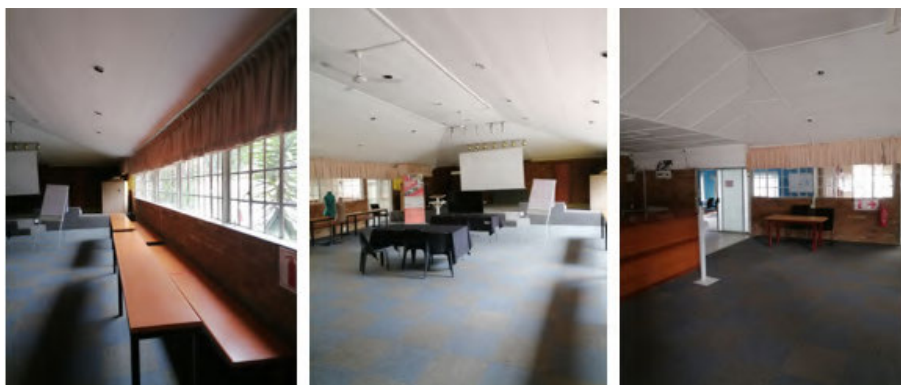


Figure 194. Siyabonga Africa - Chapel (Author, 2023)

The Reflection Space and the Outdoor Seating Area are crucial elements in terms of physical and mental health. Most students are battling with disadvantaged backgrounds, broken homes and live in fear, and even though they are referred to counsellors, still need the additional support. Most must stand in cues for food and medical treatment, which as previously mentioned leads to a sense of shame due to lack. The outdoor space and reflection space provides that opportunity to reflect and communicate with others and make plans to change the trajectory of one's life. Respondent 3 also ensures that those who attend are given a meal, as most come from extremely poor families. The landscaped plants and trees in these spaces relate to biophilia, and nature enhances the peaceful atmosphere. See figure 195.



Figure 195. Siyabonga Africa – Place of reflection (Author, 2023)

#### **6.3.4. Empowerment spaces**

Empowerment spaces are the most important aspects of this facility. This is where trajectories change. This could mean, for example, someone who once lived in a squatter camp or under a bridge is given an opportunity to choose a better life and autonomy. When students first attend the school, they go through a screening process which identifies skills and abilities.

Training occurs in the *Outside Teaching Space*, *Baking School*, *Fashion School*, *Classroom 1*, and *Classroom 2* as identified in Figure 211. The outside teaching space is covered by metal corrugated roof sheets with intermittently positioned polycarbonate translucent sheets which allows natural light through. There is ample ceiling height, and the exposed girders and rafters add to the architectural image and quality of the space. There is also a sense of visual integration between the chapel and the baking school through windows. Sunlight from the east passes through the chapel and filters into this space. See figure 196.



Figure 196. Siyabonga Africa – Outdoor teaching area (Author, 2023)

The baking school is tiled on floor and walls, which can be expected due to gas fumes being emitted. The high ceilings and windows allow for natural light, ventilation, and control of heat build-up within the space. Ventilation in enclosed spaces is crucial as gas ovens are at risk of emitting carbon monoxide. The use of gas is an important component of empowerment as it allows students to set up businesses just about anywhere and make a living. See figure 197.



Figure 197. Siyabonga Africa – Teaching Bakery (Author, 2023)

The fashion school and the classrooms are prefabricated buildings. As we have seen at the reception building, one almost immediately notices that these spaces lack a sense of connection to the user, which speaks to the form follows function concept. This can be expected of prefabricated buildings. However, the internal spaces are efficiently arranged, and its function seems to be satisfied. The buildings are positioned to create courtyard spaces in between which allows sunlight to filter through. See figure 198 and figure 199.



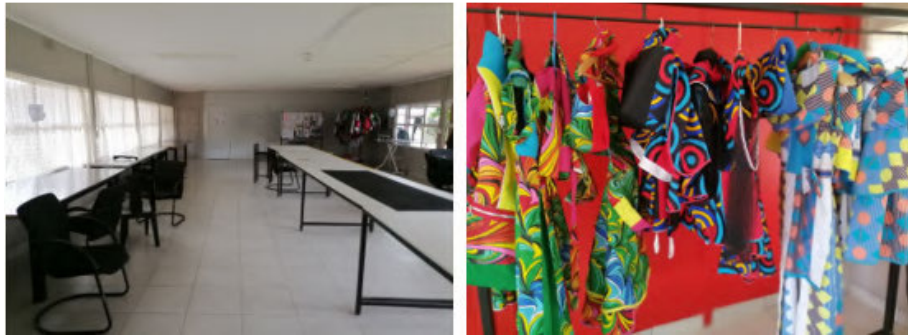


Figure 198. Siyabonga Africa – Fashion School (Author, 2023)



Figure 199. Siyabonga Africa – Computer and business literacy Author, 2023)

### 6.3.5. Suitability of the Program and Facility.

Siyabonga Africa has shown that through communication and research, it becomes an effective response to poverty alleviation. The biggest issue is unemployment, which is a focus of this study. Their approach involves various key aspects. The first aspect is being well *informed* about their students. This allows them to make the right decisions for the students and community. As already mentioned, a student is evaluated at the start of their skill development journey.

Respondent 3 states that by first teaching students about business, they are more likely to succeed with their skill. She further states that by changing their mind-sets and making them believe that an income can be generated from just about anything, increases their chances of being successful. The second aspect is *networking*. Through networking they can engage with other sources of services which they are unable to provide. This also helps with raising awareness and funding. Their network partners comprise social workers, schools, police, municipality, and community. They also create awareness by going to schools and communities and speaking about pressing issues. They are also affiliated with the government. A third approach is *connecting*. This means that once a student has successfully completed their courses

they relate to opportunities. This is done through start up kits or connecting with potential employers. Students are even given opportunities to pitch business ideas, and successful candidates are subsequently funded.

#### **6.3.6. Looking to the future**

Siyabonga Africa is an example of what it means to make use of meagre resources but still grow at the same time. This perhaps shows their commitment to the community, but also highlights the concepts of resilience and sustainability. It also shows an attitude of not giving up. This was especially central during the shock of COVID where struggling families were provided with food vouchers through SMS. Respondent 3 recollects that recipients of the voucher were also advised to use part of the voucher to start small businesses, which became an income generating opportunity.

The NPO is continuously trying to improve the quality of education and how it is delivered together with improving the quality of the user experience. This includes upgrades to the existing facility, adding another block and an agriculture project. The agriculture project aims at using farming techniques to generate food that would feed the students daily. This means converting an existing unused swimming pool into a mini dam which can be used as a source of irrigation. See figure 200.



Figure 200. Urban farming prospects (Author, 2023)

#### **6.4. Conclusion**

MES and Siyabonga Africa show how Gauteng responds to homelessness and those who are at risk of becoming homeless. Both NPOs are strongly linked to the theory of empowerment

through the skills and training programs they offer. Even though their physical buildings fall short in terms of an urban and architectural response, the passion of making a difference comes through strongly. The Ekuthuleni Shelter and the Ekhaya Overnight Shelter showed no response to cultural and placemaking as these were repurposed buildings. The spaces and architecture provided shelter, but it did not respond to physical, mental, and emotional needs of street culture or the impacts of street culture. Elements of stigmatisation were also used in terms of architecture and space planning. Siyabonga Africa on the other hand showed signs of placemaking, but this could be vastly improved. Siyabonga Africa was also integrated into the community, whilst the two homeless shelters, even though they were in the heart of the city, had no meaningful connection to the urban environment and community. Operational costs could also be reduced through sustainable architecture techniques.

## **CHAPTER 7: ANALYSIS AND DISCUSSION**

### **7.1. Introduction**

This chapter sets out to unpack responses from questionnaires, carried out through a purposive sampling method with 4 key respondents. Respondents provided primary data regarding how the phenomenon of homelessness in Johannesburg is understood, the challenges faced, and how it is addressed from an urban, architectural, and social perspective. Accordingly, questions were tailored to gain data from respondents who were identified in chapter 1.

The aim of this study is motivated by a desktop analysis and secondary data that suggests homeless shelters are not equipped to deal with homelessness in Johannesburg, whereby urban, architectural, and social issues were highlighted in the problem statement. This is further exacerbated by the fact that there are not nearly enough homeless shelters in Johannesburg. Theories and concepts were thus identified to understand such issues in Johannesburg and internationally. In relation to this, homeless shelters were comprehensively analysed in the literature review, precedent studies, and case studies. Together with this analysis, interview responses are used to tease out how architecture can be used to respond to the phenomenon with the goal of ending homelessness in Johannesburg.

### **7.2. Analysis of Research Findings**



Research findings of interviews is heavily weighted towards the theory of empowerment, as all respondents considered that long term change through empowerment would be more effective in addressing homelessness, rather than just resolving immediate needs. Several themes were identified during the semi structured interviews.

Respondent 1 explains the role of *social workers, auxiliary workers, community workers, and volunteers* who work in this space and the responsibility of restoring dignity to those experiencing homelessness. This means being compassionate, respecting people and their backgrounds, and being mindful of the traumas. This needs to happen through various *levels* of change, be it physical or metaphysical. At physical level this starts at a *drop-in centre*, then a *safe space, transitional shelter* and lastly *housing*. At a metaphysical level this needs to happen through various support systems, such as *medical treatment, counselling, drug rehabilitation, occupational therapy, education, and skills development*. This will be instrumental in clients finding *jobs*, becoming autonomous, preparing for the future, and ultimately becoming resilient. All this needs to fall within a framework through *policy* for those experiencing homelessness and housing. There are homelessness policies for Gauteng and Tshwane, but unfortunately the City of Johannesburg has only released a draft policy to date, that is non comprehensive. See figure 201.

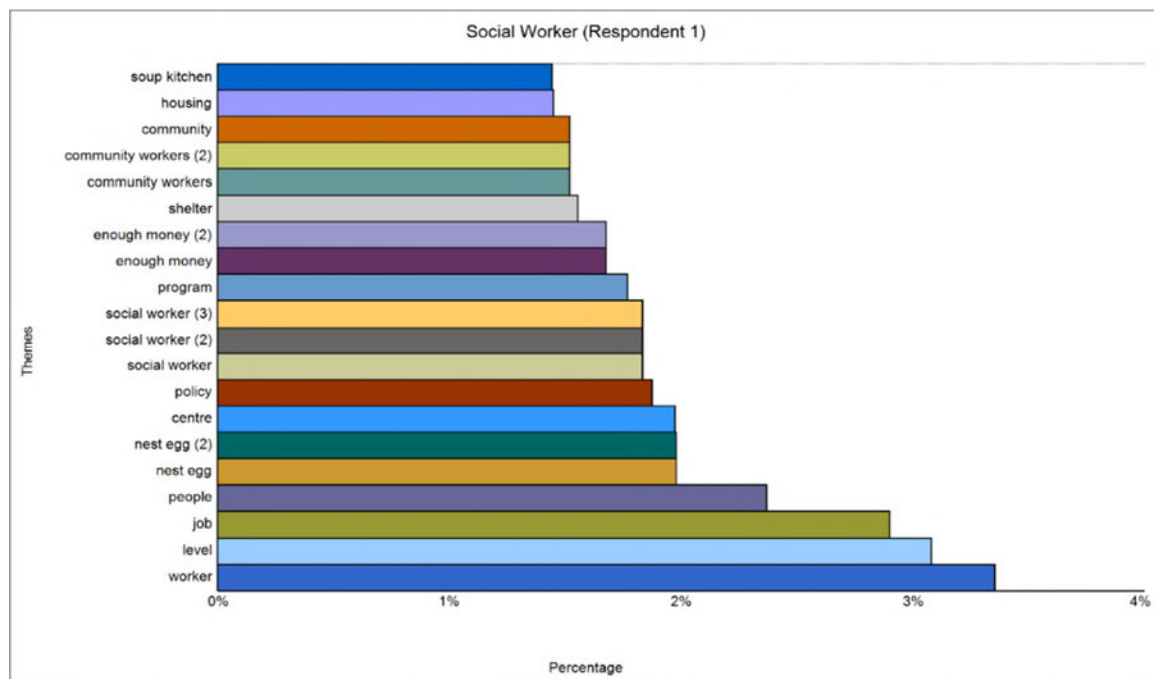


Figure 201. (NVivo) Themes derived from Respondent 1 (Author, 2023)

Respondent 2 states that priority should be given to *family* reunification. Family breakdown and family politics are some of the main causes of homelessness in areas such as Soweto and Alexandra, as *accommodation* is insufficient. This is a structural and socioeconomic issue whereby housing and employment is lacking. This unfortunately cannot be resolved by anyone but the government, so this means funding becomes an important component in getting the attention and restoring the dignity of those experiencing homelessness. Outreaches and Feeding schemes become a crucial step in this process. Most experiencing homelessness in the inner city are from areas like KwaZulu Natal and Limpopo, and many are foreign nationals. Most are attending outreaches just for meals, but during this time they are given talks by social workers, nurses, and pastors. It is at this point that someone experiencing homelessness decides to want to make the change in their lives. This happens by being referred to the right support system after an evaluation process. See Figure 202.

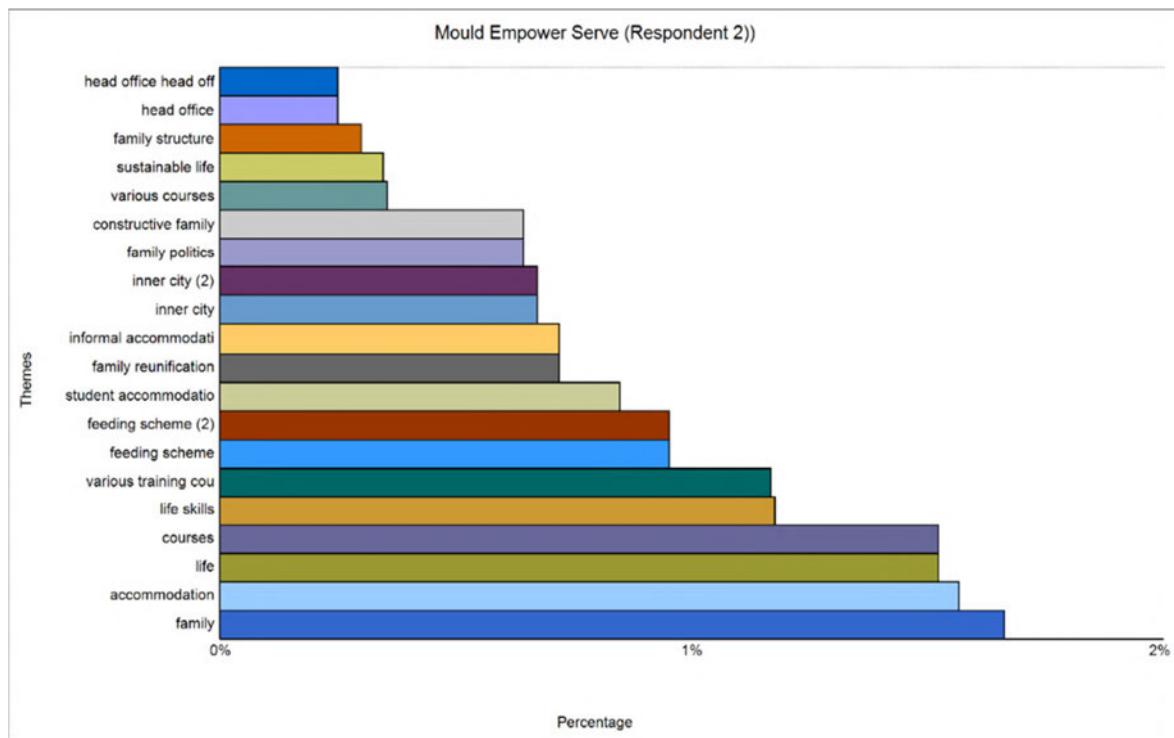


Figure 202. (NVivo) Themes derived from Respondent 2 (Author, 2023)

Respondent 3, who had witnessed the perpetuation of poverty and homelessness from 1984, stressed the value of skills *training* in the empowerment process. Respondent 3 alludes to the fact that schooling systems in different poverty-stricken areas are not serving communities adequately and recalls the suicide of 9 matric students who did not pass. Community members also ostracise such students, leaving many feeling a sense of shame. This combined with the high unemployment rates, poverty in families, broken homes, are left with few choices and end up on the streets, with many turning to drugs as a form of dealing with a hopeless situation. Siyabonga Africa attempts to contact such individuals through different communication platforms and network partners. Those who are screened and are eager to change their situation are firstly shown that they are worthy and have value. Feeding students is also an important aspect for the facility, who cannot afford food, and as stated in the previous chapter, students are given a meal daily. Also as stated in the previous chapter the programs offered by the school have been refined to what is most likely to empower and assist students in finding autonomy. See Figure 203.

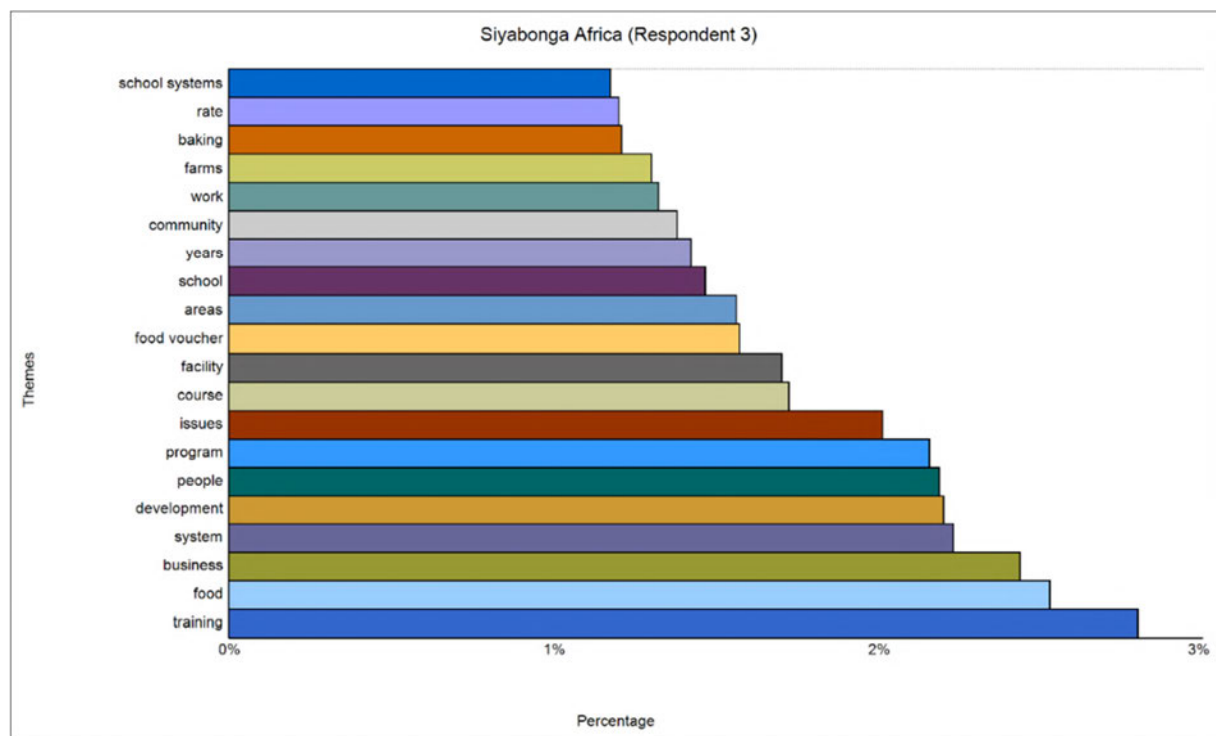


Figure 203. (NVivo) Themes derived from Respondent 3 (Author, 2023)

Respondent 4, an architect who has a passion for urban design and community, highlights the importance of understanding the users' needs during the design process of social development projects. What this alludes to is that any noteworthy design concept will evolve from the need of the user. Where this is failing in South Africa, is where mega housing projects, like RDP, are located on the periphery of the city, away from good transport and economic opportunities. This perpetuates poverty and apartheid planning. Projects need to be suitably located and need to be identified as 'catalytic projects' meaning it needs to galvanise development. Development means creating empowerment spaces which were evident in Siyabonga Africa, Eva Phoenix, Pacific Garden Mission, and the Dennis Hurley Centre. It is equally important to understand who is using the building, who is running the building and who is impacted by the building. To create a sense of place for these three groups, there needs to be an approach that is holistic in terms of background and cultures as was discussed in chapter 2. The architecture must not be different to what is in the neighbourhood and surrounding areas, as it alludes to stigmatisation. *The architecture also needs to be sustainable*, and this means the use of passive house technology, like natural light, ventilation, energy efficiency, and the use of long-lasting materials which may have an initial upfront cost but in due course will be a saving on maintenance. See figure 204.

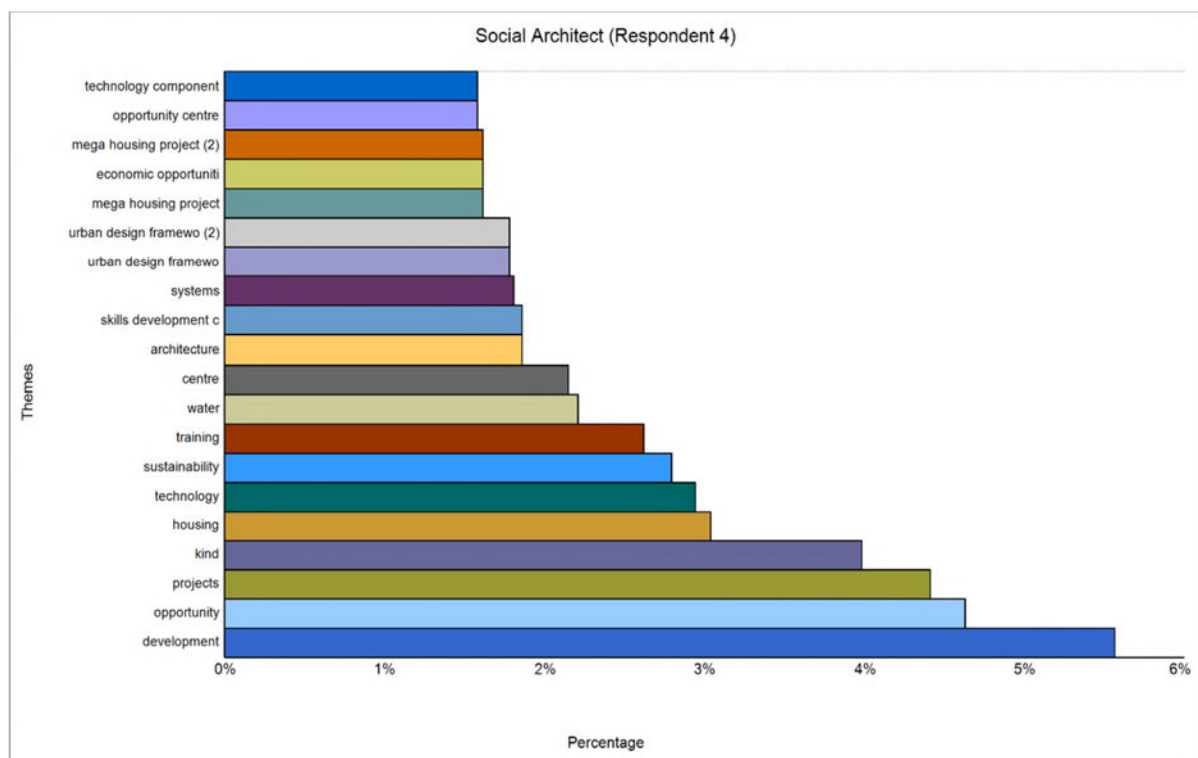


Figure 204. NVivo) Themes derived from Respondent 4 (Author, 2023)

These interviews point out that in Gauteng, homelessness is mainly caused by structural issues, because of three primary socio-economic factors, unemployment, education, and housing. This is a catalyst for individualistic causes, starting with family disintegration which leads to life on the streets in search of independence. As a coping mechanism, drugs and alcohol become a readily available relief. Many of those experiencing homelessness are however seeking long term change and more importantly must want to change. This has been identified during immediate relief programs such as feeding schemes or outreaches by various workers in this space, like social workers, nurses, pastors, and volunteers. Assessment is also crucial which identifies abilities and where skills and talents can best be used that would generate an income. As discussed in chapter 4, selecting a site is a complex process. This is since most communities don't want a homeless shelter close to them. But homeless shelters need to be in an established neighbourhood with good access to public transport. It's important that the community is on board with the proposal unless this could result in further victimisation and stigmatisation.

### 7.3. Discussion and Theoretical Implications

At the heart of the research problem is the failure of homeless shelters to provide the required responses that would respond to needs from an architectural, social, and urban perspective. Secondly there are simply not enough beds in Johannesburg to accommodate the growing population of the homeless. A third important factor discovered during the research was that the transitional shelter is missing from the ladder approach as discussed in chapter 6. Theories and concepts which come through from the analysis of shelters and a skills development facility are *Theory of Culture*, *Theory of Place Making*, *Social Integration Theory*, and *Trauma Inform Design*.

Findings from the Ekhaya and Ekuthuleni homeless shelter case studies are consistent with what has been lacking with the 5 other homeless shelters discussed in chapter 1. These buildings were not designed to be a homeless shelter. This means *human behaviour*, which comprises *instinctive*, *conative*, and *cognitive* aspects are not considered (Lawson, 2007). Also related to this are Rappoport's 3 fundamental questions when designing culturally responsive buildings which were not considered (Rappoport, 2005). How does behaviour affect the environment? How does the environment affect behaviour? And what are the implications of the 9 *mechanisms*

(see table 3) have on question 1 and 2? Clients in these 2 shelters are from different parts of South Africa and Africa. This means buildings need to show some form of *cross-cultural traits*, (Olivier, 006) which was not evident in both homeless shelters apart from materials. This refers specifically to communal spaces and its *organisation of space, time, and function* together with an understanding of its *settings* (Rappoport, 2005) This means spaces need to offer *flexibility* and *materials need to be common* to South Africa and other parts of the African continent. In this way the qualities of space, form, proportions, details, use of materials, choice of land and resources, and artistic expression are responding to different cultures (Olivier, 2006). This also means the homeless shelter is now responding to *scales of culture* by asking 3 essential questions: what is common? What is different but inherently common? What is completely different? (Rappoport, 2005).

The 2 precedent studies, Pacific Garden Mission and Eva's Phoenix took advantage of a common attribute shared by those experiencing homelessness, *street culture*. Krier (1979) states that a street has a functional quality but to those experiencing homelessness, this becomes *home*. The street thus relates to Relph's (1979) *phenomenological experience of place* and Unwin's (2009) *identification of place*, which also means that the street becomes a *place of belonging*. See figure 205.

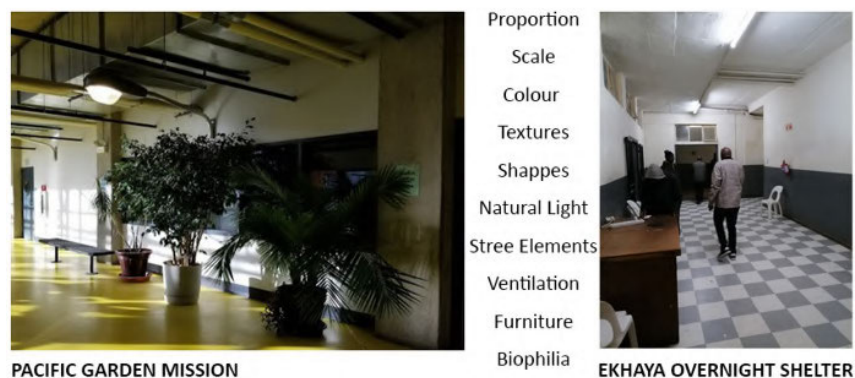


Figure 205. Street Culture - sense of familiarity and comfort

The *physical* and *metaphysical* characteristics of *home* therefore need to be woven into the fabric of a homeless shelter which was seen in the Eva's Phoenix transitional shelter. Sommerville (1992) describes home as *shelter, hearth, heart, love, privacy, roots, abode, and paradise*. Dovey (1985) describes home as three themes *order, identification, and a dialectic process*. Sixsmith

(1986) phenomenological approach describes home as 3 experiential modes, *personal*, *social*, and *physical*. Stoneham & Smith (2015) suggest 5 elements of home *sol y sombra*; *stimulation and security*; *old and new*; *contrast and harmony*; and *scale*. See figure 221.

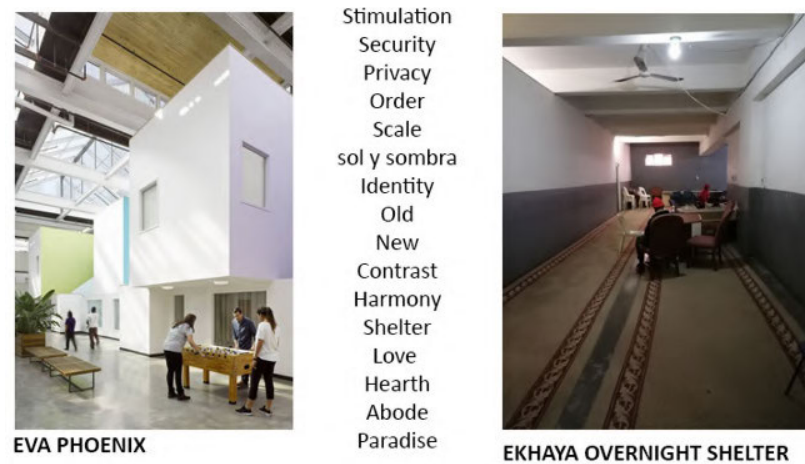


Figure 206. Elements of a 'Sense of Home'

This was enhanced by Pable et al. (2022) 12 *trauma informed design* criteria which deals with *emotional*, *mental*, *physical*, and *spiritual* constructs of experiences on the street. should allow clients the following: feel a *sense of identity and ownership*; spaces should be *safe and inviting*; encourage *choice making* and catering to the *needs of all using the space*; create *dynamic multisensory environments*; remove *adverse triggers and stimuli*; effects of *noise and crowding*; allow individuals *to do things for themselves*; allow for *privacy and confidentiality*; create spaces where clients can *trust*; connections to *nature and the outside world*; sense of *collaboration and community*; and *versatile spaces* when dealing with clients in distress. See figure 207.



Figure 207. Trauma Informed Design – Healing environments



The aspect of *social integration* relates to *community*. Community can be separated into to 2 categories. The first category refers to the urban community within a neighbourhood and how they respond to the homeless and homeless shelters. The second category are the communities created within the shelter. In the Dennis Hurley Centre reveals the value in *street edge treatment* which creates a dialogue between street and building. More importantly the façade in essence becomes a welcome sign to members of the community. See figure 208.

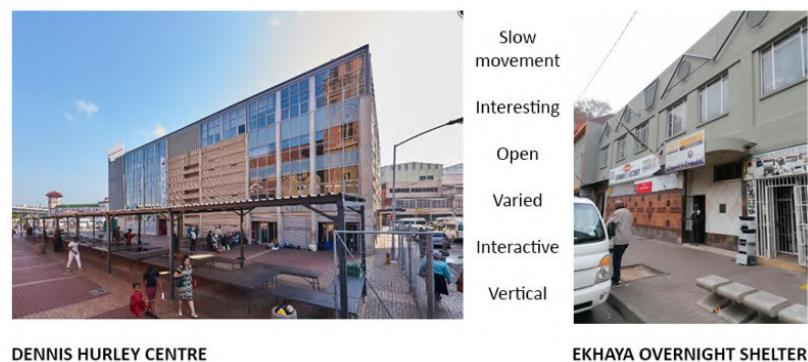


Figure 208. Social Integration – Street Edge Treatment

The second aspect of community within shelter pays close attention to the psychological trauma of clients and physical aspects of space. This was created in Eva Phoenix through the *layering of spaces*, which comprised 3 zones, *private*, *semi-private*, and *public*. This however was not experienced in either Ekhaya overnight shelter or the Ekuthuleni Shelter. See Figure 209.

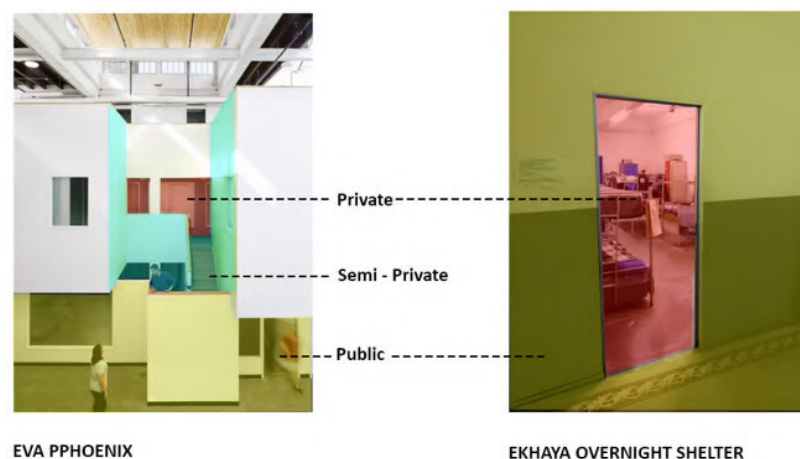


Figure 209. Layering of spaces

## 7.4. Conclusion

The analysis of theories, concepts, literature, precedent studies, case studies, and observations was instrumental in unpacking the phenomena of homelessness in the City of Johannesburg. Both secondary data and primary data verify that homeless shelters in Johannesburg cannot respond adequately to those experiencing homelessness. The data collected in this study infers that there are seven interrelated characteristics to consider when determining urban and architectural design principles for a homeless shelter. These seven characteristics are inherently linked to theories and concepts discussed in this study. The first characteristic is that homeless shelters need to change from institutionalised building to rather creating a *sense of home*. A second characteristic is the *layering of spaces* which affords clients the opportunity to choose where they want to be in the building. A third characteristic is to acknowledge that *street culture* to those experiencing homelessness is a form of familiarity and comfort. The fourth characteristic is dealing with trauma through *trauma informed design*. A fifth characteristic is empowerment programs and *empowerment spaces*. The sixth characteristic is *social integration of communities*. This refers to communities within shelters and communities in surrounding neighbourhoods. The seventh characteristic deals with the concept of *sustainable architecture*. This in essence responds to sustainable development goals under the umbrella of the three pillars of sustainability, namely social, economic, and environmental.

## CHAPTER EIGHT: CONCLUSION AND RECOMMENDATIONS

### 8.1. Introduction

In this study it was revealed in chapter 1 that there are more than 20000 people experiencing homelessness in Johannesburg. Primary data suggests this number could be as high as 25000. The largest contingent seems to be in the inner city. Causes of homelessness have its roots in apartheid, but currently the main causes are socio-economic which relates to unemployment, housing, and education. These structural causes amplify individualistic causes such as family breakdown and politics, substance abuse, health issues, physical disabilities, mental disabilities, and old age. Apart from there not being enough shelter to cope with the growing homeless population, secondary and primary data indicate that homeless shelters are not responding to urban, architectural, and social aspects. The total number of issues identified in the problem statement were twelve. It should be noted that this is not an exhaustive number. These issues

were further analysed which unlocked three theories that qualified as a lens to define the issue and provide potential solutions. See table 14.

Urban Issue	Architectura Issue	Social Issue	Theory of Culture	Theory of Placemaking	Theory of Empowerment
Poor Location				×	
Access to Public transport				×	
Context			×	×	
	Place of reflection			×	
	Form follows function		×	×	
	Lack of Privacy			×	
	Sustainable Architecture		×	×	×
	Nature			×	
		Community integration and inclusive development	×		×
		Stigmatization	×		

		Lack of identity and ownership	×		
		Empowerment and empowering spaces			×

Table 14. (Author, 2023)

## 8.2 Achieving Objectives

*To explore how homeless shelters can be designed to suit the needs of those experiencing homelessness.*

The needs of those experiencing homelessness relates in most cases to trauma, and the sensitivity to which the homeless shelter responds in a tangible and intangible way. This was explored through existing literature, precedent studies, case studies and precedent studies. Based on this the architectural response asks the following fundamental questions: Does it stigmatise? Is it dignified? Does it empower? Will it victimise? Is it restorative?

*To explore how space can be used to empower, uplift, and heal those experiencing homelessness.*

Exploring how space can empower those experiencing homelessness was achieved through existing literature, precedent studies, case studies and semi structured interviews. This is intrinsically linked to the needs of those experiencing homelessness. Empowerment thus needs to happen holistically, which means mental empowerment, emotional empowerment, physical empowerment, teaching of skills, and social integration. Without a holistic approach the *architecture will not be successful.*

*To define a set of design principles for a homeless shelter.*

Achieving the design principles for this project was established by synthesising findings from existing literature, precedent studies, case studies, and semi structured interviews. It can be considered that these principles are not only to this project but can be used as a template for any project that embarks on building a homeless shelter that meets the needs of those expiring

homelessness and the social, political, and economic context. The principles are discussed in detail later in this chapter.

*To analyse existing homeless shelters to understand their needs and program.*

Existing homeless shelters in Johannesburg was analysed through internet articles, academic papers, desktop studies, precedent studies, and case studies. The needs and program were based on synthesising existing literature, and information gathered from semi structured interviews. For Johannesburg the primary need is a socio-economic problem, and this makes skills development a crucial component of the shelter.

### **8.3. Conclusions**

Table 18 indicates that, based on secondary data, the theory of Placemaking seems to be the most crucial aspect to respond to when identifying solutions for homelessness. However, findings from the semi structured interviews suggest that empowerment is also a driving feature. Both these theories are inherently linked to the theory of culture. Therefore, all three theories are significant in its own unique way.

Secondary and primary data are consistent in terms of how those experiencing homelessness construct shelter. Secondary data suggest that there are 8 ways in which lost space is occupied through insurgency. Primary data suggest that lost space is occupied in parks, hijacked buildings, streets, and any open space where they won't be harassed by community or authorities. There seems to be divided opinions about the JMPD and Metro Police with regards to their response to homelessness in terms of the insurgent shelters they construct and the confiscation of belongings. Primary data and secondary data reveal that some see the authorities as the villain, who insidiously confiscate belongings and harass those experiencing homelessness. On the other hand, primary data indicates that law enforcement is merely following what is stipulated in legislature, which is to stop illegal occupation of land. In this sense if open spaces are allowed to grow, then this means new informal settlements are created, which has knock on effects in terms of service delivery. There is also the matter of authorities being instructed to clean up the streets, by forcefully relocating those experiencing homelessness into shelters. The problem that arises with this is that shelters then become overcrowded. This however is a structural problem which has its roots in Apartheid and is beyond the scope of this study. To physically construct insurgent

shelter, it is found that in most instances materials which have been discarded are used to create shelter, which are in the form of unused plastic sheets and wooden or plastic sticks. Such structures are visible throughout Johannesburg.

Homeless shelters in Johannesburg are also unable to provide an appropriate response to the needs of those experiencing homelessness. Needs fell within the first three steps of Maslow Hierarchy of Needs. The first step responds to *physiological needs* which comprise food, shelter, and clothing funds. The second step are *safety needs* which fell under healthcare. The third step, *love and belonging*, this involved both positive and negative experiences through interactions with relatives, friends, homeless peers, house sharing acquaintances, employers, landlords and shelter staff. The top 2 steps of self-esteem and self-actualization were not a priority. Primary data also reveals that most want to be reunified with their families, need employment, and want to stop drug and alcohol abuse to get off the streets. Homelessness affects mostly black citizens in Johannesburg, who can fall in an age group between 5 months and over 65 years old. Those under the age of 18 are referred to Child services. A large contingent also are from other parts of South Africa. Foreign nationals have also been identified in the inner city and make up about 40% of the homeless populations. Understanding the theory of culture, discussed in chapter 2 becomes a crucial component in responding to scales of culture and cultural needs.

Shelter that was physically investigated through case studies, corresponded to secondary data identified in the problem statement. This is to say that there are a number of urban, architectural, and social issues. A real challenge is funding. It could be anticipated that if there was adequate funding then shelters could employ the services of built environment professionals who could provide the appropriate urban and architectural responses. But shelters in Johannesburg are not responding. International shelters analysed in chapter 4 and chapter 5 offered valuable insights into where shelters need to be in terms of an appropriate response. One of the main findings during the primary data collection was that the *Transitional Shelter* was identified as a missing step in the ladder approach to accommodation for those experiencing homelessness. See figure 166.

Empowerment is a crucial step in terms of making long term change in the lives of those experiencing homelessness. This falls under the umbrella of Sustainability and the Sustainable Development Goals. Homelessness is linked to SDG 1, 8, 10 and 11. Empowerment is divided

into 2 interrelated categories, programs, and empowerment spaces. Different programs were identified in the literature, precedent studies, and case studies. The U Turn program which originated in Cape Town, comprises 4 different stages of Preparation, Rehabilitation, Work-readiness, and Employment. The Eva Phoenix program comprises a three-step process comprising organisational capacity, youth development and stable home. Siyabonga Africa has a 4-way approach to empowerment which are community care; skills training; e-learning and job creation. Empowerment spaces are intrinsically linked to adult learning through learning, education, and training. Learning spaces need a phenomenological approach which allows students to feel a sense of safety, belonging and comfort, which is essentially a multisensory experience. Such spaces need to respond to 21<sup>st</sup> century learning techniques which must be flexible, future proof, bold, creative, supportive, and enterprising. Empowerment space must also respond to economic empowerment, social empowerment, and cultural empowerment. Economic empowerment refers to those experiencing homelessness to be afforded the space to make a living whilst they are still in the transitional shelter. Social empowerment deals with community offering to be involved in providing skills to those in the transitional shelter. Cultural empowerment deals with arts and culture and affording the space for this activity to occur.

#### **8.4. Recommendations**

In Johannesburg there is no policy that's available that responds adequately to phenomena of homelessness. A draft policy was released on the World Wide Web but is under development. Findings from this study can be used as a supplement guideline for transitional shelters along with the policy. The overarching concept for the facility should consider the *Layering of Spaces*. Under this concept the 7 characteristics identified in chapter 7 must be considered as a holistic response to shelter design as follows: *Sense of Home*; *Layering of Space*; *Street Culture*; *Trauma Informed Design*; *Empowerment Spaces*; *Social Integration of Communities*; *Sustainable Architecture*.

- **Sense of home:** This deals with all zones of the building. In this sense it needs to respond to 3 pertinent aspects, *stigmatisation*, *victimisation*, and the *restoration of dignity*. This relates to feeling a sense of belonging and Relph's (1979) insideness whereby bonds between place and human spirit can be achieved. Internal and external spaces must not look institutionalised. At a metaphysical level, the phenomenological approach of the 3



experiential modes must be sought which relate to *personal space*, *social space*, and *physical space*. From an architectural perspective the 5 points of *Sol y Sombra*; *Stimulation and Security*; *Old and new*; *Contrast and Harmony*; and *Scale* must be achieved.

- **Layering of Spaces:** This must deal specifically with *places of transition*. This is to say the facility should comprise 3 zones: private, semi-private, and public. This will give clients the opportunity to choose their level of participation, depending on their comfort levels. *Private zones* will be sleeping areas and certain identified places of retreat and reflection. *Semiprivate Zones* to comprise certain identified circulation and communal. *Public zones* to comprise empowerment spaces, communal spaces, places of retreat, circulation, and management and support services, like occupational therapy, medical treatment, and counselling spaces. Space should also allow for *visual integration* even though they may be demarcated as different zones.
- **Street Culture:** These needs be carefully considered as serving a dual-purpose element. It firstly needs to serve as a functional element, whereby it will serve as linkage between structural elements and other spaces. Its proportion and micro-climate properties must also be considered. It then needs to serve as a form of familiarity and comfort for those experiencing homelessness. Forms on either side of the street must also resemble urban space, which considers shapes, materials, colour, texture and so on.
- **Trauma informed design:** This considers the 12 trauma informed design criteria which must apply to all spaces and architecture: feel a sense of *identity and ownership*; spaces should be *safe and inviting*; encourage *choice making* and catering to the needs of all using the space; create *dynamic multisensory environments*; remove *adverse triggers and stimuli*; effects of *noise and crowding*; allow individuals to *do things for themselves*; allow for *privacy and confidentiality*; create spaces where clients can *trust*; connections to *nature* and the *outside world*; sense of *collaboration and community*; and *versatile spaces* when dealing with clients in distress.
- **Empowerment Spaces:** This deals with 3 types of empowerment spaces which are shared by clients and members of the community. Firstly, there are the skills development, education, and training spaces. The second type of empowerment space will deal with economic opportunities like craft markets, second-hand bookstores,

bakeries, and so on. The third type deals with socio-cultural empowerment. This should be a diversity of spaces that deal with arts and culture, religious activities, sport, and spaces where the community can use for functions such as neighbourhood meetings or weddings and so on.

- **Social Integration space:** This again deals with transitional spaces that encourage interaction and integration with clients and community. This should be achieved through empowerment spaces above, but this should also occur with street edge treatment. A good soft edge will: encourage slow movement; be interesting; be open; be varied; interactive; and vertical. A factor related to this is traffic calming of the main street. This means narrower roads to slow down cars and creating a pedestrian friendly environment through walking and cycle lanes. Streets should also be visually appealing.
- **Sustainable Architecture:** These deal with 3 important aspects. Firstly, bioclimatic architecture which deals with human comfort as a response to human physiology and a response to eye, ear, and thermal sensors. Secondly, Meaningfulness & Biophilia. Healing is a non-linear process and varies between clients. Enhancing the process can happen through biophilic design: daylight; natural ventilation; plants; landscaping; courtyards. Meaningfulness could mean using natural materials such as brick, glass, timber, and stone. The third aspect deals with the three pillars of sustainability, which is social, economic, and environment. The social pillar must consider community participation during and after construction through the use of low skilled labour. Economy must consider materials which are robust and long lasting which can be easily maintained. This may incur initial upfront costs. The environmental pillar must consider passive house building techniques, and renewable energy.

### 8.5. Site Selection.

Site Selection considers primary attributes related to homelessness and secondary attributes related to sustainability as follows:

- **Primary site selection attributes**
  1. Site selection depends on zoning, funding, and attitudes towards homelessness.
  2. Smaller neighbourhoods with smaller businesses are preferred as opposed to economic hubs which have big box shops and high-rise buildings.

3. Mixed residential and commercial areas are preferred.
4. Industrial and waste management sites to be avoided.
5. Good walking access to public transport that connects to social and other services.
6. An important concept is to ensure that guests of the shelter are not alienated from the community.
7. Neighbourhood with positive activity like walking, cycling and is visible, which will reduce levels of stress for guests of the shelter.
8. It has also been suggested that situating transitional housing next to libraries can be a good which can be viewed as a positive addition to the community.
9. It is also important for the building's look to blend into the surrounding context, which is to say that the building should not resemble an institutional form but rather represent the local culture.

- **Secondary site selection attributes:**

1. Density: Choose developed areas which will increase density and reduce urban sprawl.
2. Diversity: This will comprise the different building types and spaces within a neighbourhood.
3. Topography: Locate away from flood plans, consider contours which consider moulding of the site. Site ecology, building loads and storm water control. Soil conditions related to percolation rates; groundwater recharge; and aquifers.
4. Natural habitats: The natural area of the land also must be considered in terms of protected or endangered species.
5. Regulations: regarding zoning, heights, floor area ratios, coverage, heritage, and the like must be adhered to.

## **Sustainable sites**

When considering sustainable site selection, the following must be considered:

- **Density:** As the world continues to urbanise, it would be wise to choose sites which are already in developed areas, which will increase density and reduce urban sprawl. By doing this the load on infrastructure will be reduced.
- **Diversity:** This will comprise the different building types and spaces within a neighbourhood. It would be important to include homes, parks, offices, stores, and schools. This also encourages a diverse mix of people which talks to social aspects of sustainability. All of which relates to compact development and sprawl reduction.
- **Transport:** As stated previously, the site must be located in a position where it is close to amenities and transport hubs. Spaces, buildings, and transport nodes should be relatively close to one another, which would encourage cycling and walking. Public transport use also takes the burden of car usage, which also reduces fossil fuel emissions.
- **Topography:** The site must be located away from floodplains so that the site is not in the catchment area of a water body. This also means understanding the contours of the site which will determine the amount of moulding the site would be required (Booth, 1983). Site ecology is also an important consideration which determines the ability of the land to support the load of the building and keep water away from the structure (Alread & Leslie, 2007). This means understanding the different types of soil conditions in terms of percolation (ibid) all of which has a bearing on aquifers and groundwater recharge (IIT Roorkee, 2018). All of which can have negative impacts such as desertification (ibid).
- **Natural habitats:** The natural area of the land also must be considered in terms of protected or endangered species (ibid). Steps must also be taken to restore natural areas (ibid). Avoid building near or in sensitive areas such as wetlands as such areas are the lungs and recharge areas.
- **Brownfield sites** must always take preference over Greenfield sites. However, the costs of clearing the site must be taken into consideration.
- **Regulations** regarding zoning, heights, floor area ratios, coverage, heritage, and the like must be adhered to.
- **Ecological footprint:** Ecological footprint is an important measurement tool to keep in mind when choosing a site. This is related to carbon footprint and emissions.

## **8.6. Conclusion**

Homelessness is a complex matter, as it affects individuals from different cultures and backgrounds. However, it should not be over complicated as the primary cause in Johannesburg is unemployment which has its roots in apartheid. This means that in a sense homelessness has a different meaning to other parts of the world. In other words, and hypothetically speaking, what would have been the homeless population numbers in Johannesburg, if there was no such thing as apartheid? But this is not the case, and therefore homelessness needs to be addressed from an empowerment strategy first in order to achieve long term change going forward.

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## LIST OF APPENDICES

### APPENDIX A

#### COLLEGE OF HUMANITIES

To: (Name of Member of NGO / Built Environment Professional)

.....

...

Dear: (Name and surname)

.....

#### INFORMED CONSENT LETTER

*To be read out by the researcher before the beginning of the interview). One copy of the form is to be handed over to the interviewee. Another copy is to be signed by the interviewee and kept safely by the researcher.*

My name is Lawrence Chetty, I am a Master of Architecture student from the School of Built Environment and Development Studies, College of Humanities at the University of KwaZulu-Natal. My research project is entitled: **AN ARCHITECTURAL RESPONSE TO HOMELESSNESS: A Proposed Homeless Shelter in Orange Grove, Johannesburg.**

**Background:** Homelessness is a phenomenon that is becoming increasingly widespread in both the Global North and the Global South. Unemployment; old age; alcohol and drug abuse; mental illness; family disintegration; migrant status; staying close to work opportunities; disabilities and staying close to work are amongst the main causes. It is estimated that 20000 people are experiencing homelessness in Johannesburg.

**Purpose:** It is with this in mind that this explorative study reimagines the homeless shelter that would act as a vehicle to uplift and empower in the face of adversity. This also means providing a sense of home that reconnects those experiencing homelessness to people, place, the past and the future.

The objectives of the study are:

1. To explore how those experiencing homelessness construct shelter.
2. To explore how homeless shelters can be designed to suit the needs of those experiencing homelessness.
3. To explore how space can be used to empower, uplift, and heal those experiencing homelessness.

4. To define a set of design principles for a homeless shelter.
5. To analyse existing homeless shelters to understand needs and program.

**Procedure:** You are invited to participate in the study because you can provide invaluable information and knowledge that relates to the research topic and objectives. I would like to gather the necessary information/data from you through a conversational semi-structured interview process. The interview is estimated to be 30-45 minutes. Interviews will be carried out in the English language. A voice recording of the interview will be used for this research project only and will be strictly confidential. Once the voice recording has been transcribed it will be deleted from all storage sources.

**Participation and confidentiality:** You are not obligated to participate and can stop participating in the research at your discretion. There is no direct/personal costs, incentives, reimbursements or benefits in participating in the study and it is completely voluntary. However, the data/information collected will be used to enhance the research towards an appropriate 21<sup>st</sup>-century youth skills development centre.

The data collected will be kept confidential and secure. Audio recordings will be used to facilitate the interview process. The recordings will allow the data to be transcribed for more in-depth analysis after the interview. The recordings will be stored safely and password protected and will not be shared with anyone. Data will be stored for a maximum of five years after the study has been completed, thereafter it will be destroyed.

Your identity will remain anonymous in the final research documents. However, I may use quotations from our discussion in this study. Any information provided will not be used against you and will only be used for this study. The analysis of the collected data from the interview will be sent to you for verification as a method to validate the research.

**Ethical Approval:** This study is in the process of being submitted to the Humanities & Social Science Research Ethics Committee of the University of KwaZulu-Natal for approval.

The submission to the Ethics Committee will be strengthened when the researcher can provide evidence that the key informants, interview participants and case study organisations can provide written permission to participate in the study.

**No interviews will be conducted until approval is received from the Humanities & Social Science Research Ethics Committee of the University of KwaZulu-Natal.**

If you have any questions or concerns about rights and role as a research participant, you may contact the Research Ethics office.

This study is supervised by Dr Viloshin Govender, a senior lecturer at the School of Built Environment and Development Studies, University of KwaZulu-Natal.

If you have any further questions or concerns about your participation in the study you may contact the researcher or supervisor via the contact details below:

Researcher:

Lawrence Chetty

Cell: 062 099 8959

Email: [222120347@stu.ukzn.ac.za](mailto:222120347@stu.ukzn.ac.za)

Supervisor:

Dr Viloshin Govender

Tel: 031 2602365

Email: [govenderv3@ukzn.ac.za](mailto:govenderv3@ukzn.ac.za)

You may also contact the Research Ethics Office:

**HUMANITIES & SOCIAL SCIENCE RESEARCH ETHICS ADMINISTRATION**

Research Office, Westville Campus

Govan Mbeki Building

Tel: 27 31 2604557 – Fax: 27 31 2604609

Email: [HSSREC@ukzn.ac.za](mailto:HSSREC@ukzn.ac.za)

Thank you for your time and for reading this document.

Yours faithfully

.....

Lawrence Chetty

Student number: 222120347

## **APPENDIX B**

### **Semi structured interview Questionnaire for Respondent 1**

1. So how did you become involved in working with those experiencing homelessness?
2. How much do you know about the homeless shelter from an historical perspective?
3. How many streets homeless people are there in Johannesburg?
4. Which are the areas where you would find the largest congregation of homeless people in Johannesburg?
5. What are their main needs?
6. What would you say are the main causes of homelessness in Johannesburg?
7. What kind of traumas happen on the street?
8. Does homelessness lead to substance abuse?
9. What kind of illnesses do they suffer from?
10. How many super kitchens operate on weekends?
11. In terms of gender, what group would be the larger of those who are homeless?
12. What age group would you say are most common for those experiencing homelessness?
13. What are their experiences on the street?
14. What kind of culture develops whilst being homeless?
15. What kind of complaints do you get from those experiencing homelessness, in terms of being homeless?
16. What are their feelings towards community?
17. What kind of complaints do you get from the community?
18. How many are from South Africa?

## **APPENDIX C**



#### Semi structured interview Questionnaire for Respondent 2

1. How did you become involved with serving those experiencing homelessness?
2. How many homeless people are there in the inner city?
3. What are the main causes of homelessness?
4. What are the needs of those experiencing homelessness?
5. What are the challenges faced when running a homeless shelter?
6. What kind of rules does the shelter have?
7. How much does it cost for someone to stay the night at your shelter?
8. Who are the homeless, in terms of race, gender, and age?
9. What kind of structures do they occupy or build when they are on the street?
10. How do they make money when they are on the street?
11. What is the relationship between the police and those experiencing homelessness?
12. What kind of empowerment programs do you offer?
13. What kind of treatment is offered in terms of physical, mental and emotional support?
14. What do you think needs to be improved considering how homelessness is approached in Johannesburg?
15. Who are your network partners?

#### **APPENDIX D**

#### Semi structured interview Questionnaire for Respondent 3

1. How did you become involved in skills development for the underprivileged?
2. How do people find out about the service you provide?
3. Do you get any kind of government funding?
4. What condition are students in when they first arrive?
5. what would you say is the biggest social problem?
6. What advice would you give someone to empower themselves if there's no work?
7. What is your most successful program in terms of finding employment?
8. How crucial is assessment in terms of selecting potential students?

9. What are the main criteria for potential students?
10. What are the challenges do instructors face?
11. What are the predominant age groups?
12. How do you feel about your building?
13. What do you offer students other than skills development?
14. Have you heard of 21st century Learning?
15. What kind of activities do you encourage?

## **APPENDIX E**

### **Semi structured interview Questionnaire for Respondent 4**

1. What are your expectations of yourself as an architect?
2. What kind of work do you prefer?
3. What's your style that you prefer to work in?
4. Who inspires you as an architect?
5. What projects stand out for you nationally or internationally?
6. What's your knowledge on spatial justice and what have you? What do you understand by this if you do?
7. In terms of sustainable architecture but what do you find to be quite effective?
8. And in terms of like the social aspect, how do you that relate to a sustainable approach?
9. How have you been able to reduce costs for like projects like you just spoke about now in terms of material choice?
10. In terms of, have you ever done a materials deal to materials that are low cost and has a long?
11. If you were commissioned to design a homeless shelter with the skills development component, what would be key points to consider in your design process?

12. In terms of an understanding of homeless people, what would be key factors when designing a homeless shelter?
13. In designing for different backgrounds and cultures like those experiencing homelessness, what would you consider to be key in creating an architecture that responds in a holistic manner?
14. What design aspects would you consider that would encourage community participation during its operational phase?