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KWAZULU-NATAL**

**INYUVESI
YAKWAZULU-NATALI**

HEALING AND EMPOWERMENT THROUGH ARCHITECTURE

Towards an Empowerment Centre for abused women in Durban

By

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DECLARATION

I declare that this dissertation is my own unaided work, and was carried out exclusively by me under the supervision of Dr Yashaen Luckan. This document is being submitted as per the requirements for the degree of Master in Architecture at the University of KwaZulu-Natal. It has not been submitted previously towards any other degree or examination in any other University.

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01.10.2020

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Date

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ABSTRACT

The aim of this dissertation is to understand and recognize the conditions and criteria that would inform a socially responsive architecture, towards the healing and empowerment of domestically abused women in South Africa. The research draws from a theoretical framework, theories of environmental psychology, culture, social learning and feminism. The built environment is explored as an expression of culture. Relevant literature explores the socio-spatial challenges of domestically abused women, towards developing a set of design criteria for an environment that will facilitate the healing and empowerment of domestically abused women. Focusing on the design drivers identified through the theoretical framework and literature, the precedent, case studies and primary data is critically analysed. Three precedent studies were strategically selected, based on the identified impacts of domestic violence against women. Two women's facilities located within Durban were identified as case studies, in order to understand the needs of domestically abused women within the local context. Each geographical location bears its peculiar region-specific needs and challenges. Current socio-spatial challenges faced within current restorative environments is explored through interviews and observation. Both precedent and case studies are critically analysed through the lens of the identified design drivers, to assess how these design drivers have been adequately implemented. Violence against women is a global challenge. South Africa, a country which was built on social systems of inequality, where women were alienated and marginalised, reports the highest statistics for violence against women in the world. The correlation is very apparent. Studies have been undertaken to highlight the various socio-spatial and cultural constraints within specific geographical locations. These are the contributing factors to this global and national phenomenon, and has led to stimulating violence against women and producing a culture of violence. This dissertation focuses on the design drivers as a toolkit to support the design of a responsive architecture that facilitates the healing and empowerment of domestically abused women in South Africa.

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CHAPTER ONE
RESEARCH BACKGROUND AND METHODOLOGY

1.1 Introduction

1.1.1 Background

Violence against women is also known as *gender-based violence* in many circles, and refers to the violent victimization of women and girls. Violence against women has become a growing global challenge, especially within chauvinistic social systems, reminiscent of older civilizations like the ancient Romans. Roman law granted men the authority to chastise their wives to the point of death (Stedman, 1917). Where social and cultural systems do not stand opposed to domestic violence against women, the resultant environment becomes conducive for domestic violence (Amaral, 2011).

In this regard, South Africa is clearly a country in crisis, with reportedly the highest statistics for violence against women in the world (CSV, 2017). Albeit a new democracy, South Africa's history is steeped in colonialism, apartheid and patriarchy. These foundational social philosophies have entrenched and perpetuated gender discrimination, undermining the perceived role of woman in South Africa. These entrenched beliefs have come to be characteristic of South African culture, with the resultant effect of the marginalisation and subjugation of women.

1.1.2 Motivation/Justification of the study

The architectural narrative of the built environment in South Africa is a reflection of culture and social organisation. Architectural and urban environments reveal culture (Hall, 1969). Factors that influence and inform identity within a particular geographic location include social organization, climate, landscape, materials and technology (Schulz, 1975). This research seeks to explore the socio-spatial relationships within the South African context, and understand its influence on domestic violence against women. This study explores how architecture can be employed as a social modality to facilitate the healing and empowerment of domestically abused women. A responsive architectural design can be identified from this corpus of contextual reflection, and architecture can be effectively utilized as a catalyst for social transformation.

The fabric of South Africa's democratic culture is compromised by violence, inequality, and the subjugation of women. There is still segregation within social, economic and geographic contexts. Not only do people from different cultures speak different languages, but each of their subjective experiences emanating from their respective subcultures gives us a glimpse into their unique sensory world, each having their unique perceptions of life and reality. Architectural and urban environments are expressions of that perception (Hall, 1969). This research explores the socio-spatial relationships that impact domestic violence against women, with the aim of exploring how architecture can be used as a catalyst for healing and empowerment, in the context of Sydenham, Durban.

1.2 Definition of the Problem, Aim and Objectives

1.2.1 Definition of the Problem

Although abuse against women is a global challenge, it is of grave concern that South African statistics are reportedly amongst the highest in the world and these statistics continue to rise (AKESO, 2018). The history of violence and socio-spatial inequalities in South Africa are vividly expressed in the built form. Whilst social, economic and geographic inequality compromises South Africa's fledgling democracy, the spatial qualities most expressed the architecture, play a vital role in the realities of domestically abused women. An inquiry into current restorative environments within South Africa therefore requires an in-depth understanding of how architecture influences the physiological and psychological needs of domestically abused woman. The findings of this inquiry are vital to the empowerment of women, through architecture for spatial transformation within historically disadvantaged communities such as Sydenham in Durban.

1.2.2 Aim

The aim of this dissertation is to understand the socio-spatial needs of domestically abused women, and to ascertain how architecture can be utilized as a social modality and catalyst that facilitates healing and empowerment of these women.

1.2.3 Objectives

The objectives of this study are:

- 1.2.3.1. To analyse the social systems and spatial configurations that influence domestic abuse against women.
- 1.2.3.2. To identify the spatial needs and challenges of domestically abused women.
- 1.2.3.3. To explore how architecture can be utilized to facilitate healing and the empowerment of domestically abused women.
- 1.2.3.4. To define responsive design principles that will adequately service domestically abused women in Sydenham, Durban.

1.3 Setting the Scope

1.3.1 Delimitation of the research problem

For the purpose of this study, the primary focus group will be abused women, who have been specifically exposed to domestic violence. All research data will be generated through key personnel and professionals from organizations already involved with domestically abused woman. Empirical data will not be sourced directly from victims themselves due to the sensitive nature of the issue. The research will focus primarily on the existing restorative environments and their impact on the recovery of victims. As an architectural dissertation, the

research will culminate in providing recommendations for a restorative architectural environment for woman experiencing domestic abuse.

1.3.2 Stating the assumptions

The primary assumption is that architectural spaces can positively influence domestically abused women both within a psychological and emotional capacity. It is further assumed that the built environment is directly related to issues associated with domestic violence against women, and can be utilized as a medium to facilitate the rehabilitation of domestically abused women. As an architectural dissertation, the recommendations and conclusions supplied herein will be founded upon evidence defined by professionals and organizations which deal directly with abuse victims.

1.3.3 Research Questions

1.3.3.1 Key Question

How can architecture promote the healing and empowerment of domestically abused women in restorative environments?

1.3.3.2 Secondary Questions

1. What are the socio-spatial relationships that influence domestic violence against women?
2. What are the socio-spatial needs and challenges of domestically abused women?
3. What architectural principles stimulate healing and empowerment domestically abused women?

1.4 Research Methodology

1.4.0. Introduction

This dissertation incorporates conceptual and theoretical grounding, which will be underpinned by the relevant literature and precedent studies, which together will be critically analysed. Spatial configurations and their functions will reveal how environments can facilitate healing and empowerment of domestically abused women. A study of existing built environment facilities will reveal how successful these spaces are in stimulating healing and empowerment. The research seeks to uncover the general quality of these built environments, in their capacity to stimulate healing and empowerment. The assimilation of this data will respond to the key questions which were set out at the onset of this study. Due to the socially rooted nature of this research, data will be examined qualitatively, so as to establish a clear ideological framework of the socio-spatial issues surrounding this topic of critical social relevance.

1.4.1. Research Philosophy

This chapter will incorporate research to support the conceptual and theoretical elements which facilitate the built-form surrounding the healing and empowerment of abused women, the challenges and the spatial needs. The research will be in the form of data collected. This data will draw a lens on the spatial planning dynamics surrounding abused women, and how architecture can facilitate healing and empowerment.

The conceptual and theoretical framework will form the paradigm through which the relevant literature and precedent studies will be critically analyzed. The criteria includes spatial planning and will highlight how these environments impact the development and healing of abused women.

Holistically, the contextual response will display how current built-form facilities have sought to respond to the challenge and the interfaces that have been developed in this regard.

The primary method of research undertaken, will be a qualitative research. The collection of this data will respond to the key questions which were set out at the onset of this study.

1.4.2. Research Strategy

Primary and secondary data is generated and disassembled. Case studies are strategically selected within the context of Durban, South Africa. A qualitative data collection method was used in the analysis of the case studies. Themes derived from the conceptual and theoretical framework are used throughout the analysis to ensure consistency. Multiple case studies explore spatial configurations and conditions in the existing natural environment. Semi-structured interviews with professionals will help explore the nature and complexity associated with spatial needs and challenges faced by domestically abused women.

1.4.3. Research Methods and Instruments

1.4.3.1 Primary Data

1.4.3.1.1 Case Studies

The research will focus on specific case study locations for the reasons outlined herein under. The research interrogates three selected sites located within the context of Durban, South Africa, with the aim of acquiring a direct and comprehensive understanding of issues relating to the research topic. These case studies are located in Durban, within the vicinities of Windemere and Umgeni. Each case study will comprise of primary research data, the generation of spatial mapping and the critical analysis of photographic evidence.

The first case study will be undertaken at the Durban Hospice for women, which is a place of refuge for destitute and abused women. This facility is located at 201 Mathews Meyiwa Road in Windemere within the City of

Durban. This non-profit organization was established in 1951, and provides skills training and rehabilitation. It is a locally funded organization and an active place of refuge. This facility can provide insight into the socio-spatial challenges faced by domestically abused women locally, and will provide insight regarding the efficiency of a current restorative environment.

The Umgeni Empowerment Centre will be the site of the second case study. Whilst this facility is not restricted to women only but to all in need, the core function of the Centre is to support domestically abused women. The Center is located at 16 Mona Road within the Durban CBD. It is a faith-based organization that operates on a non-profit basis. Established in 2003, the Centre aims to provide care, counselling, upliftment and rehabilitation. Looking into this privately-funded organization can provide us with insight both into the challenges faced by domestically abused women and the organizations that support them.

1.4.3.1.2 Semi-Structured Interviews

Analysing social systems and spatial configurations that influence domestic violence against women can be intimidating and sensitive in nature to participants, semi structured interviews will allow the researcher to guide the conversation while allowing the participant freedom to express views, thoughts and beliefs on deeper issues associated with spatial needs and challenges. The target population in this study constituted with participants positioned within organizations that deal with domestically abused women. The professionals and key personnel will be chosen on the basis that they are registered professionals who have worked in organizations located within Durban that have dealt with domestically abused women for more than 12 months. The key personnel of these organizations will be interviewed, they are privileged witnesses, who due to their professional involvement interact with a large population of domestically abused women systematically. These key professionals engage in activities and responsibilities that allow them to gain valuable in-depth insight regarding the socio-spatial challenges that domestically abused women encounter. The spatial needs and challenges of domestically abused women within Durban will be reviewed in order to define the key responsive design criteria required to facilitate the healing and empowerment of domestically abused women.

1.4.3.1.3 Spatial mapping and photographic analysis

Spatial mapping of the case studies will be undertaken to gain a keen understanding of socio-spatial relationships, and to evaluate its successes and failures. Enquiry will be made into the use of space within the current infrastructure of places of refuge for domestically abused women. This will be analysed within the South African context so as to ascertain whether they are suitable environments to facilitate healing and empowerment. The spatial needs and challenges of domestically abused women will be critically analysed, to establish how to improve and enhance current spatial configurations. Field observation in the form of photographic and comparative site analysis will be undertaken to critically assess the built environment. This will provide a greater

understanding of the existing socio-spatial dynamics within these facilities. By analysing its physical structure and form, we will be able to scrutinize the impact of spatial relationships. The case studies will be discussed in further detail in Chapter Five.

1.4.3.2 Secondary data

This research will analyse relevant data from secondary sources such as published books, magazines, journals, documentaries, internet websites and archival repositories. The research will evaluate the various concepts, methods and principles surrounding the study. Theories and concepts pertinent to the research questions will be developed from the empirical research data that is generated. These secondary resources will provide the theory and literature framework, upon which a discussion can be undertaken to explore socio-spatial concepts of domestic violence against women. We can then propose a conceptual framework upon which to generate a socially responsive architectural design. From the data that will be collected and analysed, a set of general codes and themes can be established from this. The analysed data will be further broken down into themes in order to establish the conceptualization of an Empowerment Centre for domestically abused women.

1.4.3.2.1 Literature

A process of critical analysis of concepts and theories through literature review will underpin this study. Data encompassing South African social systems that impact spatial configurations will also be analysed, with a view to how these relationships impact domestic violence towards women in the South African context. Literature that looks into how built environments can facilitate healing and empowerment will be critically evaluated in relation to the research problem.

1.4.3.2.2 Precedent studies

A critical analysis of precedent is essential for the evaluation of how spatial implications of the built form impacts on the physiological, psychological and emotional responses of abused women. Precedent studies will be critically analysed and will highlight how the built environment can promote healing and empowerment. Analysis and data derived from these studies will be used to inform a design that talks to the socio-spatial and psychological needs of domestically abused women, in a manner that facilitates healing and empowerment.

1.4.3.2.3 Document analysis

Policies and legislation will be analysed, with specific focus on spatial bylaws governing places of refuge for domestically abused women. Documentation will be procured from the relevant institutions, agencies, municipal and government offices. All data will be reviewed holistically in order to gain an awareness of which spatial dynamics ought to be applied to the built environment in order to facilitate healing and empowerment for domestically abused women.

1.5 Conclusion

This chapter is an introduction to this dissertation, it explores the background research and motivation for this study. The problem statement, aim and objectives are defined and established in this chapter. The scope for this study is outlined and research strategy breaks down the research framework for the document. Research methods stipulate the research approach pertaining to the dissertation topic. Case studies, semi-structured interviews and spatial mapping are instruments used to identify key research principles surrounding the study. All secondary data is collected and analysed, various concepts which are identified in the research are evaluated.

CHAPTER TWO
THEORETICAL AND CONCEPTUAL FRAMEWORK

2.0 Introduction

This chapter seeks to explore theories and concepts that are associated to social and spatial principles that influence domestic violence against women. This dissertation focuses on three main theories which include, Culture and social learning theory, Feminism and Environmental psychology. Each theory is interrelated, focus is drawn to the socio-spatial relationships which resonates in the concepts. Theories and concepts are explored below.

2.1 Theories

2.1.1 Culture and social learning theory

Culture is defined not only as a way of life, but also as that which encompasses social behaviours and norms. It is a system of meanings and adaptive strategies for survival, based upon the surrounding environment and contextual geographic location (Rapoport, 1969). The built environment is an expression of material culture. It is the manifestation of intellectual arts. Social systems that define the way of life of a group defines the culture of that group. The built environment is an embodying metaphor that reveals culture. Culture and social structures influence learning and behaviour. Social learning is an aspect or theory of classical conditioning, wherein learning is facilitated through the process of observational learning of the social environment (Bandura, 1977). Through simple observation of the surrounding environment, the mind is being conditioned. This observational learning further reinforces culture, cultural beliefs manifested in the surrounding built environment can continue to condition the mind of its inhabitants.

2.1.2 Feminism

The term *feminism* is derived from the French word *féminisme*. In the 1870's, this was a word that referred to the freedom and emancipation of women. Our social systems are undergirded by a culture of gender inequality. As a result, we subsist within a gendered environment, defined by a male and female identity of space. Gendered spatial environments will vary based upon the social structures and culture that operates where it is located. We can deduce from this that spaces have symbolic meanings, and that they transmit gendered messages. These messages inform the inhabitant of how gender is constructed and understood within that space (Massey, 1994). Gendered spaces provide the architectural characteristics with a platform for gender dynamics to occur. In this way, all spaces within the built environment becomes gendered and polarized.

The feminist movement has historically critiqued the arrangements of buildings and cities, and challenged the chauvinistic perception that women play a subordinate role in society. Feminist groups do not deem spaces within the built environment to be neutral. They consider a male-orientated or gendered space to be a contradiction between the lived experience of women and the physical patterns of the built environment. Culture

that is manifested in the built form, can also be defined in terms of gender inequality within the built form. “The design of a physical place influences the mental state of the people in that space. That shapes their attitudes and behaviour” (Paiva, 2018). Feminists argue that women were oppressed in building decisions, town planning policies, and spatial relationship decisions, due to the social systems that stereotyped a women’s perceived role in society (Matrix, 1984). A built environment developed through a patriarchal lens would generate gender inequality in the built-form, influencing the attitudes and behaviour of its inhabitants.

2.1.3 Environmental psychology

Environmental psychology can be defined as the human response to architectural stimuli, or as a study of how the environment impacts on human behaviour (Namazian and Mehdipour, 2002). Environmental psychology provides an analytical perspective of the existing built environment, and offers a rich and diverse set of quantitative indicators in regard to proximity. It assesses a variety of psychological reactions, the choice of routes during transit, orientation and disorientation, the acquisition of knowledge space, perceived spaciousness, privacy and social interaction, stress, and fear, and aesthetic judgments (Kolb, 1984). Through this avenue, we are exploring how human functioning is dependent upon the environment (Wilson, 1984). The key concepts of environmental psychology are territoriality, privacy, personal space and security. These concepts result in a pattern of behaviour that correlates with how physical space is controlled and utilized (Gillford, 1997). In other words, environmental psychology concerns itself with the user’s perception of space and how it relates to territory, psychological well-being, and feelings of security and safety. These are the primary factors that influence users’ perception (Gillford, 1997). Environmental psychology deems the control of space to be vital for physical safety, the prevention of crime, and for peace of mind. Personal space is related to how distance and orientation impinges on interpersonal relations. For example, human behaviour requires larger interpersonal distances when an environment is perceived as crowded. Interpersonal distance influences human behaviour when there is insufficient space. Whether spaced or crowded, both proximities evoke a peculiar human response. Whilst inadequate distance can evoke feelings of invasion and activate an instinctive flight mode, excessive distances can evoke feelings of indifference and loneliness. Man is therefore irrevocably linked to his environment. This connection transcends a mere physical exchange. As man physically interacts with his environment, he becomes psychologically and emotionally influenced by it. The application of neuroscience to architecture reveals that spaces directly impact the conscious and unconscious mind (Paiva, 2018).

2.2 Concepts

2.2.1 The impact of culture on domestic violence

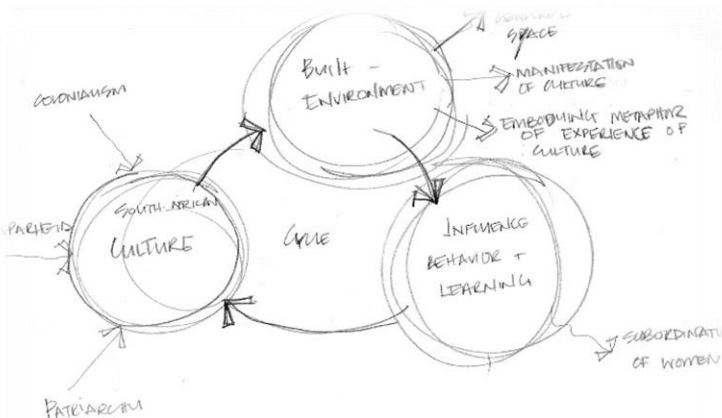


Figure 2.1, *The Cycle of culture, the built-environment and learning.*
Image source: Author, 2019

Using the South African backdrop of colonialism and apartheid, we can observe how space is a product of consciousness (De Kerckhove, 2001), where social systems were utilized as a means of subjugation. Colonialism was used as a social system to exercise control over land. Their control of land, gave them authority over the nation. In like manner, apartheid was a social system that exerted racial control. Patriarchy is another social system that used gender as a means of male supremacists exerting control over women. All of the abovementioned social systems are linked by their characteristic perpetuation of inequality, violence and subjugation. These cultural systems were manifested in physical spaces, and their ideology was translated into the architecture of their built environment. In so doing, their sociological imprint on the built environment was used to perpetuate a sense of identity (Norberg-Schultz, 1975). South Africa's spatial functioning is embedded within its social and cultural beliefs of inequality. This precipitated in a socio-physical environment being emblazoned in the geographical landscape (Jenkins and Abrahams, 2002). As identity is informed by the surrounding environment, it must be understood that both male and female South Africans' identity has been birthed out of a surrounding environment of violence and inequality. Culture is the conditioning of the mind in particular alignment to a specific group. As the environment is shaped by culture, a collective identity is formed through interaction with the surrounding environment. This creates a cycle of interaction. In this way, culture lives on in the built environment that it produces. In time, these environments continue to influence all who interact with it in much the same way. In like manner, we can deduce that environments can be utilized as a means of stimulating social change and social learning.

2.2.2 The environment through the perception of women

Each culture produces people with a distinct language and way of perception. Their place of origin provided them with a distinct sensory world, where they had a distinct sensory experience. Architectural and urban environments are expressions of perception, language and sensory experiences (Hall, 1969). South Africa's

urban expressions and perceptions will be unique to South Africa and will be a manifestation of South African culture. South African culture was built upon social systems that perpetuated both racial and gender inequality. The subordination of women was further reinforced by the legal system. The decision-makers in South African culture have traditionally been men. Spatial relationships revealed in the built environment were reflections of the perception of men. Feminist theory argues that the world might be perceived and experienced differently if there was more consideration given to women (Weisman, 1981).

2.2.3 The environment experienced through the mind

“Architecture is the art which so disposes and adorns the edifices raised by man ... that the sight of them contributes to his mental health, power and pleasure” (Paiva, 2018). Studies reveal that the built environment can influence behaviour and emotion. Neuroscientists explain that the brain experiences space through the sensory organs, and that the mind responds and adapts to the information that is received (Paiva, 2018). The sensory organs process the information received by external stimuli. The mind is therefore an information processing system that directs all human actions and reactions, via both the conscious and the unconscious mind. Whilst the unconscious mind processes everything and determines what the conscious mind must focus upon, the conscious mind’s ability to process information is far inferior. The capacity of the conscious mind is less than 1% of the unconscious minds ability to process information. The implication therefore is that the subconscious mind is greater impacted by the environment rather than conscious faculties. The unconscious mind is instinctive, impulsive and automatic. It controls most of the mental processes (Pavia, 2018). Memories are data that has been stored and processed collectively, as the mind interprets the surrounding environment. Memories can be considered to be the result of the body’s experience with physical spaces. Memories are therefore subjective experiences that were defined by the particular spaces that were occupied by these individuals.

2.3 Conclusion

This dissertation is geographically grounded, and as such the socio-spatial systems of South Africa is explored conceptually. South African culture is embedded in beliefs of violence, inequality, and patriarchy. Culture theory confirms that culture is a set of beliefs and social norms and through social learning theory are learnt behavioural norms. Culture and social learning theory expand this concept by revealing that the built environment is an expression of culture and continues to condition the mind and social behaviour.

Feminism theory reveals that spaces are gendered and have embedded symbolic meanings that impact gender equality. The concept of the environment through the perception of a women explores how women experience gendered space which continues to condition both men and women.

Environmental psychology theory further reinforces both theories and concepts, attention is drawn to the socio-spatial relationship of the environment and its ability to affect human behaviour. Neuroscientists consolidate this theme, the environment is experienced through the mind, it is primal, the response is instinctive, impulsive and automatic. In conclusion this chapter reveals that the environment can not only influence human behaviours, however also condition it which comes full circle as it's out of it conditioning that new environments or birth to continue the cycle.

CHAPTER THREE
LITERATURE REVIEW

3.1 Introduction

The literature review seeks to systematically break down the problem statement in order to gain a greater understanding of the subject matter. The discussion that ensues in this chapter is intended to provide a conceptual framework whereupon the core concepts of this study can be underpinned. This review investigates the social and cultural systems in South Africa, which has and continues to marginalise and alienate women from society and their environment. These systems have also impacted on domestic violence against women. The study begins by analysing how the perceived roles of women in society has influenced domestic violence against women. This serves to place a lens over the influence of culture and on socio-spatial relationships between people and place. The identity of South African women will be critically analyzed within the socio-spatial and cultural constraints. Key concepts related to the traditional spatial dynamics of the home and the women's shelter will be analyzed through a critical feminist framework, towards garnering an understanding of what influence gendered spaces have on domestic violence against women within the South African context. The study will explore the impact that the environment has on the mind, and on human behavior. It will explore how neuroscience can be integrated with architectural principles, in order to create spaces that stimulate healing and empowerment. An outline of the intervention processes to stimulate healing and empowerment of domestically abused women, will serve as a platform for this dissertation. Differentiation will be drawn between the processes.

3.2. Culture

South Africa is a multi-cultural country with diverse socially restrictive cultural systems of inequality. These systems are expressed in the built environment and is reflected in the geographical landscape (Jenkins and Abrahams, 2002). These cultural systems which are manifested in spaces, become the surrounding built environment that creates a sense of identity (Norberg-Schultz, 1975). This dissertation is researched through the lens of the South African social system of such inequalities such as Colonialism, Patriarchy and Apartheid. These systems harness a culture of violence and the marginalisation of women from society and their environment, this is a reality facing marginalised communities in Durban, South Africa.

3.2.1 Colonialism

Colonialism was imposed on South African citizens from 1652, and was predicated upon a model of slavery and a forced labour it was a system of domination. This original model was introduced by the Dutch and was transferred to Western Cape Afrikaner Republics. Colonial rule commenced as a two-way contract of trade between African rulers and European settlers. Whilst African leaders saw this as an opportunity to gain access to European technology like firearms, the European settlers were interested in human trade for slavery. In this era which is also defined as African dysphoria, the birth of a culture is revealed whereby violence and the forceful omission of human rights is an acceptable trade, in order to usurp power and control (SAHO, 2017.) Colonialism at a domestic scale has had a detrimental effect on the vulnerability of women through spatial design and

architecture. Within a colonial design paradigm, the masculine approach to spatial organization and aesthetic excludes the physical and psychological needs of women.

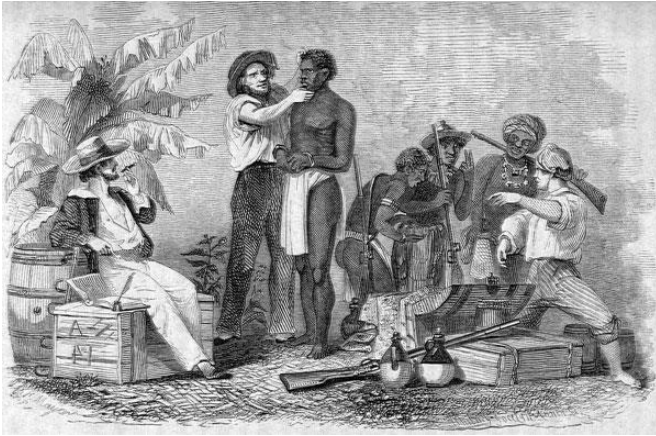


Figure 3.1, A slave auction where African American men, women and children are being auctioned to a group of white men.
Image source: www.sahi

Figure 3.1 depicts an auction, where non-white individuals were being sold as slaves. The glaring absence of women in this public square, implies that the selection of which slaves to purchase was left solely unto the men. Men have been recognised throughout South African colonial history for commerce, legislation and war. This correlates with feminist theory which purports that men have historically been the decision-making authority in society. On the grand scale, entire nations have been controlled through the perceptions of men. The frontier women's role was one of helpmate, marriage and caring for the family unit. The most dominant trend in Colonialism in African history is female invisibility. This historical gender blindness reveals a sexual apartheid whereby women were conceptually separated from the family unit. These are the important power domains of men which dictated the social systems of life and culture (Bradford, 1996). Architecture is an apparatus used to organise bodies in space, the female invisibility revealed throughout South African history suggests that the organising of space was done with little to no consideration of female spatial needs and challenges. Men had the decision-making authority in society and spatial configurations were done through the perceptions of men.

3.2.2 Apartheid

Apartheid in Afrikaans literally means *apartness*. This social system was introduced to South Africa in 1948 and impacted upon social, economic and political separation based on race. Apartheid was a social system of inequality that replaced Colonialism in South Africa (SAHO, 2017). Whilst Colonialism was a social system of inequality that infringed on the human rights of individuals, Apartheid as a social system of inequality infringed on the human rights of non-white individuals. Apartheid perpetuated the belief that one race could be superior to another, and thereby dominate the other. This cultural system was birthed out of African Dysphoria (SAHO, 2017), and used laws to enforce segregation of groups on the basis of racial identity.

The Apartheid City

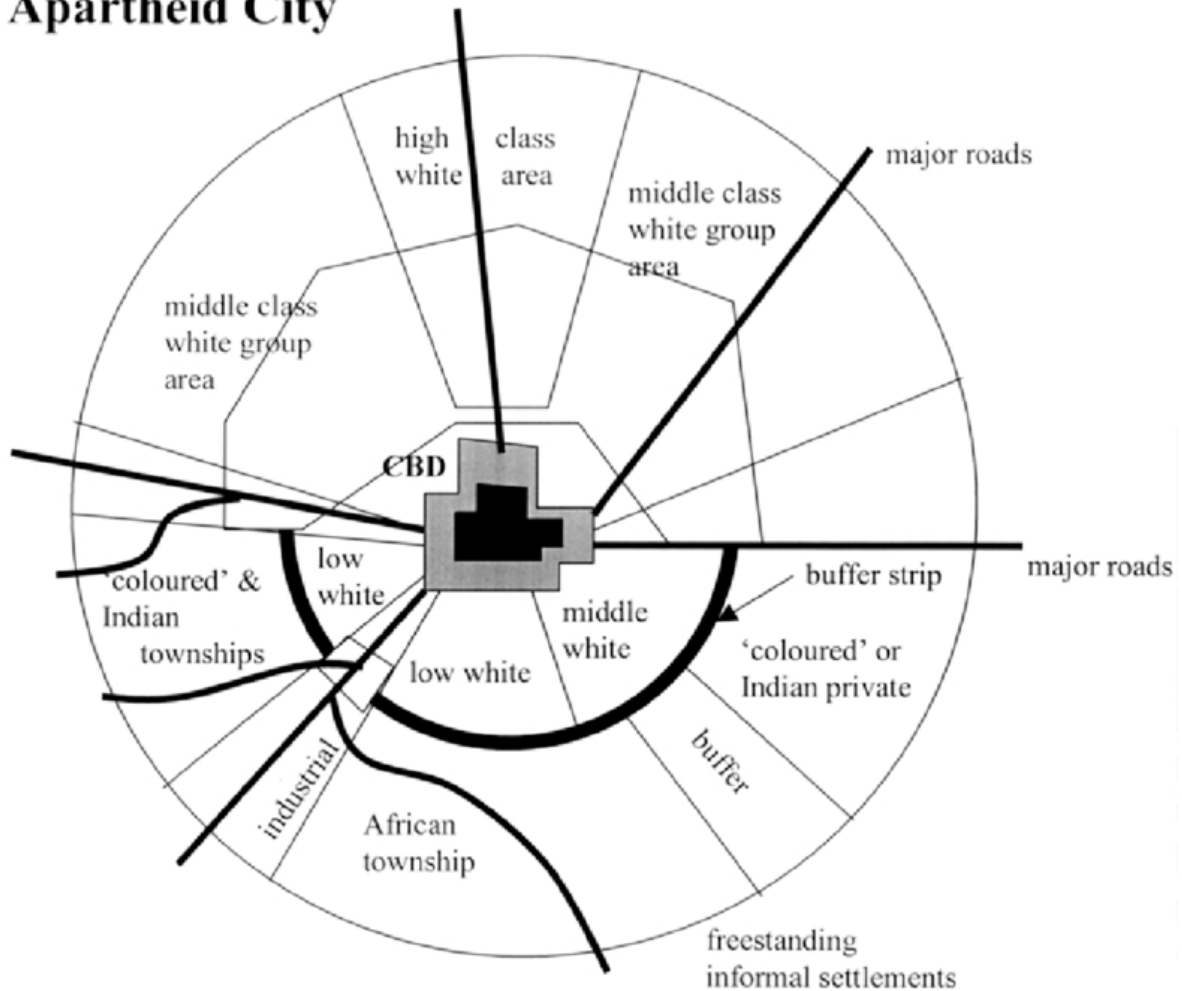


Figure 8.26, Apartheid City Structure
Image source: Du Plessis and Landman (2002)

The extent of segregation produced geographical separation is reflected in Figure 3.2. The geographical segregation that ensued was a clear representation of how culture, beliefs and social systems had been transferred into the built environment. Apartheid entrenched inequality into the built environment. Female invisibility progressed into gender apartheid. Gender apartheid refers to the economic, social and sexual discrimination against individuals on the basis of their gender or sex. It is a system enforced by using either physical or legal means to relegate individuals to subordinate positions. Discriminatory laws were put in place to control and subdue the economic social development of white women in settler society and black women in traditional society (SAHO, 2017). Colonialism and Apartheid practiced inequality, the violation of human rights to gain power, control and the marginalisation of females. Colonialism and Apartheid both introduced and reinforced a culture of patriarchy. These principles were materialized in the spatial relations within the built environment.

3.2.3 Patriarchy

South Africa's socio-political history has produced an environment where inequality and violence is a tool to attain power and control. The role that women have played in South African history has been stymied by a struggle for freedom from gender oppression, community rights and gender equality. South African history chronicles the white political movement, its interracial interaction, and the achievements of males. The achievements and struggle of women was largely under-documented. South Africa's Apartheid legacy is characterized by one race group without much of a female presence. This invisibility of women deems South African society to be conventionally patriarchal (SAHO, 2017). Discriminatory laws, governmental regulations, and cultural attitudes have contributed to the creation of conditions conducive to a women's subservient role in society (Weisman, 1981). The statutory law imposed by the state deemed all women of all races to be subordinate to their male spouses. This law stripped women of any legal protection or individual social liberties. All economic and property assets had to be passed through male lineage. Matrimonial Act 88, was only passed in November 1984 and summarily overruled this legislation for white women. Four years later, the act was amended to grant protection to African women also. Refer to Section 11, Matrimonial Property Act No 88 of 1984. Studies reveal that discriminatory patriarchal practices that harness the imbalance of power between genders are the root causes of Gender Based Violence (GBV). These patriarchal attitudes and social systems of gender inequality are a driving factor towards domestic violence against women (CSV, 2016)

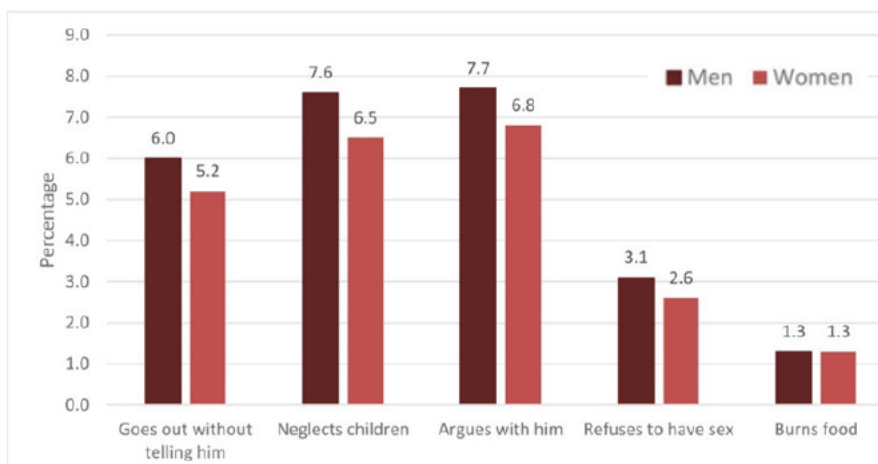


Figure 3.2, Percentage of South African individuals who think it is acceptable for a husband to hit his wife by gender.

Image source: Statistics South Africa, 2018

The statistics in Figure 3.2 reveal the cultural acceptance of domestic violence against women, and is categorized by gender. The graph shows that both genders agreed and accepted domestic violence against women and determined its severity based upon the situation.

Population group	Men	CV%	Women	CV%
Black African	3,8	7	2,5	10
Coloured	1,5	30	0,9	41
Indian/Asian	1,0	73	1,1	58
White	1,4	36	2,6	26
All	3,3	2	2,3	9

Table 3.1, Percentage of South African individuals who think it is acceptable for a man to hit a women by race and gender.

Image source: Statistics South Africa, 2018

Table 3.1 reveals the acceptance of domestic violence against women. It cuts across gender and racial boundaries in a country with a history of inequality and segregation. In transitioning to a new democracy, South Africa inherited the social systems of violence and patriarchy. Although democracy cut across racial boundaries, it continued to endow men with a powerful position while keeping women as the subordinate gender. Gender inequality was a South African women’s primary challenge in 1956. Currently the primary challenge that South African women face is domestic violence, child abuse, HIV / AIDS, unemployment, gender discrimination and poverty (SAHO, 2017). Current news reports cite South Africa as having the highest global rate of reported abused women. (Cape Times, December 2007, 2001). The built environment organises space both internally and externally. Externally the South African streets were defined by a built environment that gave substance to the mass segregation of communities while internally the social hierarchies are revealed through space. Social and spatial systems that gave substance to cultural ideologies of inequality, violence and male superiority materialized through space will continue to condition its inhabitants.



Figure 3.3. Flow of victim’s emotions based on socially restrictive systems of South Africa
Image source: Author, 2019

3.3 Domestic Violence

The research seeks to gain a greater understanding of how socio-spatial systems can influence domestic violence against women and ascertain why incidents of domestic violence continues to escalate remaining a primary challenge for South African women. Domestic violence against women is known by many terms: wife beating, battering, family violence, and domestic abuse. These varied terms describe the abuse of one person

by their intimate partner (Berry, 2000). The *Declaration on the Elimination of Violence Against Women* adopted by the United Nations in 1993, defined violence against women as “a manifestation of the historically unequal power relations between men and women, which are crucial social mechanisms by which women are forced into subordination to men.” This ubiquitous statement frames our contextually experienced inequality embedded in South African culture by our erstwhile social systems.

3.3.1 Domestic Violence Explained

Domestic violence against women is a global challenge, and it is one of the most common forms of gender based violence amongst partners. This genre of violence may also involve sexual assault, battery, coercion and sexual harassment (Sigsworth, 2009; Tshwaranang Legal Centre, 2012). Statistical reports indicate that South Africans endure the highest rate of gender-based violence in the world. These alarming statistics continue to escalate, even in our democratic post-apartheid climate. Domestic violence against women cannot be attributed to just a single driver. For the purpose of this research, we will draw an understanding through the culture and feminist framework. Culture theory suggests that social norms both positive and negative are expressed in the surrounding built environment can influences and condition of the mind. A patriarchal culture can produce patriarchal spaces that continue to create a patriarchal interaction between both men and women training the mind. Feminist theory supports this concept by suggesting that spatial environments based on social structures of gender inequality reinforce the unequal power relations between men and women. The Duluth model is an intervention programme that is widely used as a point of reference for domestically abused women in the United States of America. It was authored by Ellen Pence and Michael Payer as an initiative to curb violence against women. The core concept of this programme is predicated on the theory that the violent tendencies of men are due to them being socialized in social structures of patriarchy. The programme focuses on the use of violence to maintain power and control. The Duluth model uses a tool called the *Power and Control Wheel* to provide insight into scenarios that impact women who are victims of domestic violence. The goal is to gain an understanding of the socio-spatial needs and challenges of domestically abused women for the cause of a rehabilitative architecture. According to the Power and Control Wheel, the following phases are discovered. *Intimidation* describes the phase where fear is instilled through words, fear based gestures, symbols and actions. *Emotional abuse* encompasses humiliation and a loss of dignity. *Isolation* speaks of complete control over victims, over their resultant actions and how they become powerless victims. Minimizing, denying and blaming, their compensation creates a forced sense of acceptance. Victims are often manipulated by using children as a bargaining ploy. Using male privilege subjugates women into believing that they are subservient. Using economic abuse, a dire lack of personal financial resources leaves victim disempowered from opportunities for economic development. The abuser thereby maintains control and the victim could even be left homeless. Domestic violence against women leaves the victims in spatial need of safety and security. These women desire greatly to live without fear and to be free. They seek to be empowered to make their own decisions and to act

for themselves. Abused women seek to be treated with respect, value and dignity. In an abusive environment, women feel that they lack control and lose their sense of safety, security and confidence. This leads them to feel disempowered (Abrahams, 2010).

3.3.2 The Impact of Domestic Violence on Health

Domestic violence is recognized as a global health risk to women. It violates women's human rights and affects their physical and psychological wellbeing. The term *physical violence* is a categorical term which includes any acts that are designed to physically injure, hurt, endanger or cause pain to women. These acts often result in a variety of physical injuries that leave women physically impaired and in need of recovery. The time frame of recovery may vary between reasonable periods of time and those who will require permanent treatment. When a domestically abused woman undergoes physical injury, her resultant condition could be substantial pain, not functioning at her optimal levels and impairment of bodily function (Abrahams, 2010). Physiological and emotional abuse involves verbal discourse or the victim being forced to act out deeds that bring about a sense of shame, demeaning, worthlessness and mentally injury. It also encompasses the stripping away of a woman's power to make her own decisions. When this form of abuse is prolonged, it often causes women to suffer from a resultant psychological disorder. The following disorders may manifest.

3.3.2.1. *Post-Traumatic Stress Disorder*, where the abused woman experiences nightmares, intrusive memories, flashbacks, numbing, hyper-arousal or hypervigilance.

3.3.2.2. *Major depression*, where it is commonplace for the abused woman to experience temper tantrums, emotional outbursts, unexplained fatigue, a sense of worthlessness, hopelessness, helplessness, irritability, insomnia, restlessness, loss of appetite or over-indulgence.

3.3.2.1. *Complex trauma*, where the domestically abused woman has persistent feelings of emptiness, anger, and sadness. The victim is prone to self-mutilation and has an unnatural preoccupation with the perpetrator.

3.3.2.1. *Generalized anxiety disorders*, where the victim is overanxious, fearful and perpetually worried. (American Psychiatric Association, 2013; Herman, 1992; Ludsin & Vetten, 2005; Sadock et al, 2015).

The core driver of traumatic stress is helplessness, which is characterized by a loss of control over one's body. Trauma associated with these experiences can render the victim with an inability to control parts of their brain. This can impact their sense of identity, memory and even consciousness (Spiegel, 2008). Domestic violence against women can manifest in many forms; physical, sexual, psychological, financial and emotional. Any of these forms of abuse can reduce the victim to a state of constant fear, anxiety and a loss of any sense of physical and emotional safety (Abrahams, 2010). Many abused women exhibit self-harming behaviours during their abuse. Although this is counterproductive, their self-mutilation is a coping mechanism that alleviates their intense emotional anguish. It is an indirect means to once more feel a sense of power where they now feel powerlessness (Abrahams, 2010). The impacts of domestic abuse provide an in-depth understanding of the spatial needs and challenges faced by domestically abused women.

3.3.3 The impact of domestic violence on Empowerment

Maslow's conceptualization of human needs can be used to provide a framework for understanding the impact of domestic violence against women. Through his matrix, we can understand the abused woman's life, and her determination to survive and reach out to others (Abrahams, 2010). Maslow's *hierarchy of needs* is a motivational theory in psychology that depicts human needs in a tapering or hierarchical form. These needs can be further categorized as *deficiency needs* and *growth needs*. Whilst individuals may be self-motivated to fulfil certain needs by themselves, there are however some needs that require motivation to pursue, and these higher needs ought to take precedence over the lower needs (McLeod, 2018).

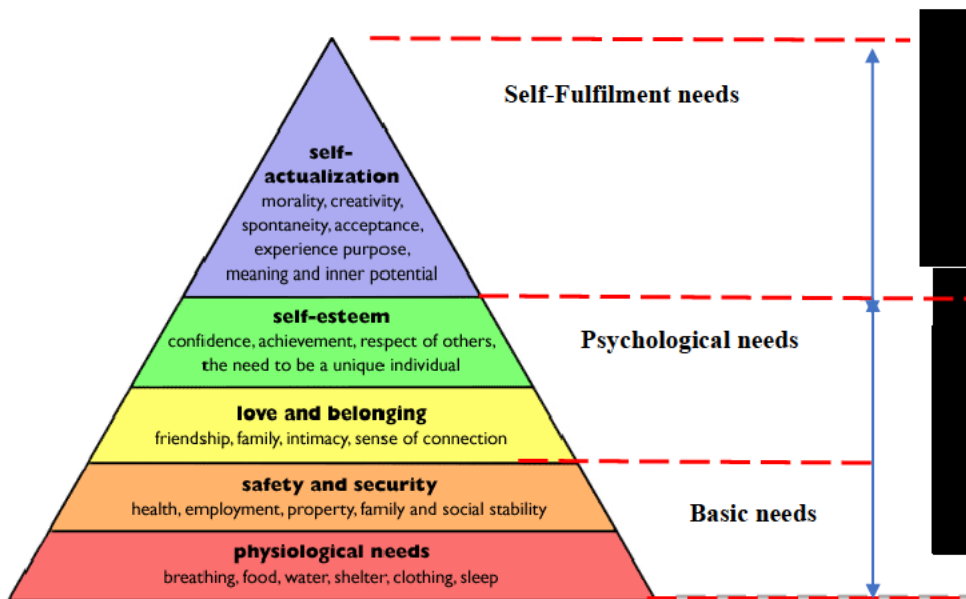


Figure 3.4, Maslow's Hierarchy of human needs.
Image source: Motivation and Personality, First published 1954

Physiological needs refer to biological needs that are necessary for human survival. Should these needs not be met, the human body becomes unable to function at optimum. This is therefore the most important need, and all other needs are ceded as secondary by comparison (McLeod, 2018). Domestic violence can sometimes leave women temporarily homeless and without the stability of foundational elements like food, water, shelter, clothing and sleep. For women to escape their abuse, it will require them to be uprooted from their homes, their social networks and the financial support that they receive from their partners. Women who face domestic violence therefore lose everything that once gave them a sense of stability, and their most basic survival need is threatened (Abraham, 2010). The basic need for safety refers to protection against the elements, a sense of security, order, law, stability and freedom from fear (McLeod, 2018). Domestic violence demolishes this structure, removes any sense of safety and security, and evokes the emotion of fear. The social order of the relationship is eradicated along with their sense of belonging and their connection to love (Abraham, 2010). The need for esteem can be separated into esteem for oneself and the desire for respect from others. Esteem for oneself is one of dignity, independence and achievement. Domestic violence destroys the confidence and self-

esteem of women. It isolates them from their support systems and erodes away their sense of power to take independent action (Abraham, 2010). These human basic needs influence behavioural motivation and empowerment. The spatial systems designed for domestically abused women need to reinforce connections to their support systems and empower communities to challenge patriarchal principles.

3.4 Feminism in a South African space

“Be it acknowledged: The man-made environments which surround us reinforce conventional patriarchal definitions of a women’s role in society and spatially imprint those sexist messages on our daughters and sons. They have conditioned us to an environmental myopia which limits our self-concept...which limits our visions and choices for ways of living and working...Which limits us by not providing the environments we need to support our autonomy or by barring our access to them. It is time to open our eyes and see the political nature of this environmental oppression.” (Weisman, 1981). Weisman’s statement explains how the built environment purports the role of women in society through the eyes of men, and how these roles are spatially imprinted in the minds of multiple generations who perpetuate this cyclical thinking. Weisman highlights how the embodying spatial experience continues to condition and oppress the development of women by influencing their unconscious mind. The lack of foresight of future generations to change the spatial experience causes them to not break the cycle of perpetuity. When referring to the dialectic relationship between space and society, we understand that space is a condition of social production. That is to say that spaces are socially produced. Anthropology reveals that gender relations is what defines the connection between gender and space (Rendell, 2000). The built environment is a manifestation of the cultural priorities and beliefs of the decision-makers in society. Spaces are defined by human intention. As the built environment interacts with all that enter its space, the resultant experience influences behaviour (Weisman, 1981). The role of women in South Africa has traditionally been domestic, childbearing, being a help-meet and the one who provides a general well-being in the family. Against this backdrop, the realm outside of the home became considered the male domain. This included the rise of the industrial economy, the development of towns, indigenous societies, the development of the migrant labour system and prescriptions of the role of women in South African society (SAOH, 2017).



Figure 3.5. Officials examine Johannesburg 'Native Townships' plan.
Image source: Apartheid Museum Photograph

From the above photograph shot in the mid 1950's, we can clearly see that the decision-makers of the apartheid socio-spatial urban planning system were only men. The decision-making responsibility and role was historically relegated to men. Male Planners steered land-use development through interventions like policy development, spatial development planning and the utilization of land-use models that stimulate land-use reform (Koomen, 2007). As apartheid created spatial segregation, it also extended its bigotry to gender segregation. Feminist theory advocates that spatial configurations produced through the perception men underpin social systems of gender inequality. Urban planners created gendered environments that reinforced systems of inequality and the marginalization of women. The interaction with gendered spatial environments has impacted South African women and men and will continue to impact how they engage with each other and the environment. The socio-physical environment that apartheid produced caused men to express their wounds through violence. Not only by armed struggle but also through domestic struggles, where the personal battleground becomes a place for regaining power (Jenkes and Abrahams, 2002). One of the most vital tasks of feminism is to restore the significance of a women's experience, and to reinterpret and restructure the built environment under those conditions (Weisman, 1981). The city plays a passive role in the public-private relationships of space for the provision of security. By using urban planning, design and architecture, the urban fabric can be transformed to maintain or enforce a sense of order and safety. Thus the concept can be linked to crime prevention through environmental design. Environment can greatly influence genetics and the structure of the brain, leading to a change in behaviour (Cage, 2003). If the built environment is gendered and the embodying experience is one of inequality and violence, this space is interpreted by the brain and can influence behaviour. Similarly, the built environment can be used to promote healing and empowerment of domestically abused women.

3.5 The narrative of the building

3.5.1 The spatial significance of the space called home

Domesticity can be defined as a pattern of activities that are linked to a specific environment. The development of homeliness has been influenced by physical geography and the Dutch lowlands middle class who placed high value on family. The home signified the domestic dwelling with the conventional family unit. This environment was overseen and defined as the female realm (Rybczynski, 1986). Many traditions have been transferred through space and time in numerous ways, even during colonization. "Bauen originally means to dwell. Where the word *bauen* still speaks in its original sense, it also says how far the nature of dwelling reaches. That is, *bauen*, *buan*, *bhu*, *beo* are our word *bin* in the versions: *ich bin*, *I am*, *du bist*, you are, the imperative form *bis*, be. What then does *ich bin* mean? The old word *bauen*, to which the *bin* belongs, answers: *ich bin*, *du bist* mean: I dwell, you dwell. The way in which you are and I am, the manner in which we humans are on the earth, is *Buan*, dwelling. To be a human being means to be on the earth as a mortal. It means to dwell. The old word *bauen* says that man is insofar as he dwells. This word *bauen* could however also mean at the same time to cherish and protect, to preserve and care for, specifically to those who till the soil, to cultivate the vine" (Heidegger, 1971). Heidegger argues that all forms of the built environments we inhabit are our potential homes, and our domicile is decided upon by the way we inhabit that place. He considers the potency of dwelling to be a foundational anthropological characteristic, in that we consider an environment to be our home on the basis of our psychological connection to that place. Home therefore is a spatial metaphor, not just a physical abode. Not only do we reside there, but our psychological connection with that location gives us a personal space, a retreat, and a haven from outside activities. This sense of homeliness resonates within us and translates into common parlance like, "there's no place like home." The home becomes construed as a physical boundary between our external uncontrolled environment and the internal controllable environment. Since women have been traditionally restricted outside the home (Matrix, 1984), their homes have deep emotional significance to them. In the home, women enjoy a safe and private space. They exercise a sphere of influence and have a sense of personal identity, which is essential to their lives and their sense of self (Abrahams, 2010). South African women have traditionally also played a domestic role and were not expected to concern themselves with any function outside their homes. This was traditionally the domain for South African men of all races and income levels (SAHO, 2017). The significance of the home environment for South African woman is depicted as follows:

3.5.2 The spatial Dynamics of the home

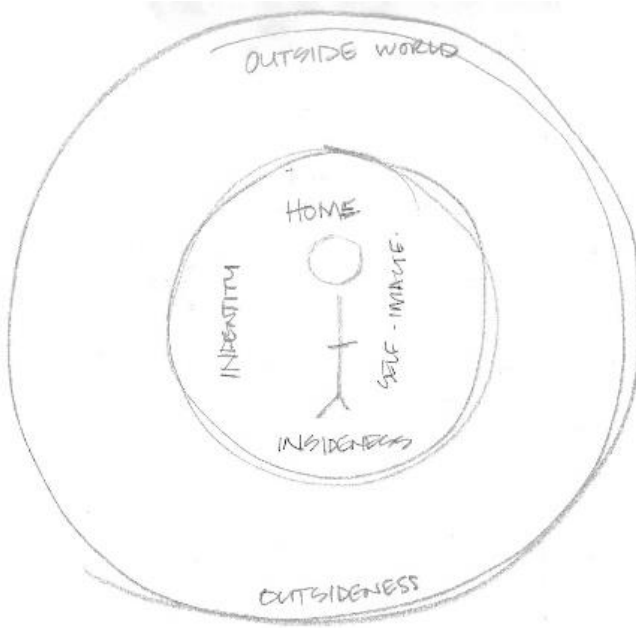


Figure 3.6, The relationship with home.
Image by author, 2019

The concept of home is not merely a physical domicile but a shared experience. Home is a sacred and secure place, where there is certainty and stability. Home is an experience of complete insiderness, and a concomitant outsiderness to the surrounding world. Within the home, the dweller can control both access and behaviour, that is to say, both the physical and the symbolic boundaries. Within the spatial order, the home is a significant nucleus, one which is accessible, hospitable and personal. The home is a complex and multifaceted space which assigns a certain sense of identity to us. This ascription of identity is mutual. As the dweller draws their identity from the dwelling, so too the dwelling derives its identity from its dweller (Dovey, 1985). Women are trained and domesticated from an early age to be homemakers, housekeepers and housewives regardless of their culture, class and location. This is the ubiquitously accepted perception of women's role in society, and reinforces the gendered spatial relationships we have in society. Socialist Max Weber defines *patriarchy* as the social order of a specific household whereby the male or father presides over other members of that household. He represents this position as a form of male dominance (Barret, 2000). This conceptual position takes on a spatial presence as spaces of authority are allocated and ascribed to the man. Consider how spaces like the head of the table, the master bedroom, the privacy of a personal study to work and a hobby room is universally assigned to the dominant male. The homemaker is generally not afforded any place of her own. But she is assigned with spaces of service, like the kitchen she cooks in, the dining room she plays the role of hostess in, the master bedroom where she is the lover, the children's room where she plays a maternal role, and the parking garage where she is the chauffeur. The home is therefore a spatial metaphor that reinforces the role of women to be perceived as that of service. This conventional stereotype is embodied generationally (Weisman, 1981) by the experience of the family who create a spatial memory (Dovey, 1985). Spatial memory refers to the storage and retrieval of

location-specific information in the brain. When selecting a travel route or locating a missing item, we draw from the experiences of our spatial memory (Encyclopaedia of Neuroscience, 2009). Spatial memory is a repository from whence we define spatial connections. If spatial memory and spatial connections were connoted within a socially restrictive system that marginalised women, we can deduce that spatial norms of the home were developed through patriarchal lens. Within this context, domestic violence against women is a means by which males gain power and control over women in a gendered space.

3.5.3 Domestic Violence against women in the home

More than just a location, home is the embodying experience of a place where we draw our identity and self-image from. Home is a space with deep emotional connection, where our identity is ratified through our connections with the past, present and the future (Dovey, 1985). As previously defined, home is a female domain for women of all cultures, races and class groupings. Domestic violence against women therefore is a malevolence that violates the sacrality of a home, and desecrates the female domain. Domestic violence affects the only domain where women are entitled to have a level of authority. Women who leave behind domestic violence must surrender their very concept of their identity in exchange for safety. The spatial dialectics between home and journey are a continuous cycle of movement through space and time.

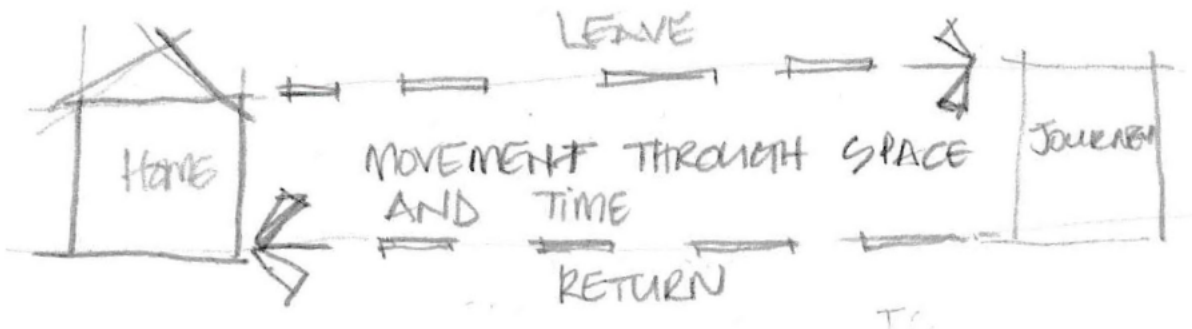


Figure 3.7, The spatial dialectic between home and journey.
Image source: Author, 2019

Domestically abused women must abandon the natural spatial dialectic cycle of movement in space and time. They become homeless and bereft of identity. Spatial configurations in their new built environment must facilitate the transition of refining, defining and reorienting themselves. Space must be used as the apparatus to create a sense of place that radiates empowerment and stimulates progression.

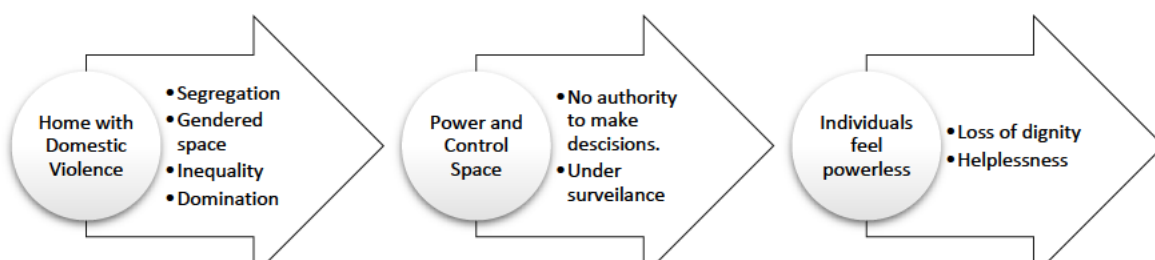


Figure 3.8, Flow chart of victim's emotions based on the home environment with Domestic Violence
Image source: Author, 2019

3.6 The Abused women's Shelter

3.6.1 The spatial significance of the Abused Women's Shelter

Various interventions and programmes have been founded to cater for women experiencing domestic violence. Crisis centers for battered women, emergency shelters and sanctuaries are temporary places of protection and support for women trying to escape domestic violence. These serve as transitional dwelling facilities. Women leaving abusive relationships are torn away from their regulatory support systems and are required to seek a place of refuge (Abrahams, 2010). Some women may even become homeless because of domestic violence. Most survivors turn to shelters only as a last resort. Shelters are a foreign space that represents a new architectural environment to the abused woman. Shelters offer women the opportunity to reorientate from their current position and effect radical changes in response to their oppression and infringement (Weisman, 1981). Domestically abused women are often controlled by their partners and made to feel helpless and imprisoned. The South African built environment has been generated through a patriarchal lens, shelters for domestically abused women within this context would reinforce gender inequality. The research explores how the built environment can be used to promote the healing and empowerment of domestically abused women.

3.6.2 The spatial dynamics of the Abused Women's Shelter

Space is a common challenge for shelters in South Africa. It is a daunting prospect for abused women to domicile temporarily in an unfamiliar environment – one that is overcrowded, filled with strangers and cohabiting with other distressed individuals in crisis. Shelters offer little privacy, and impose various rules, regulations and conditions that may be less than comfortable. For many women, their lack of social and economic resources renders the shelter to be their only alternative (Vetten, Makhunga, and Massawe, 2012). Shelters do not offer privacy or private bedrooms for personal reflection and solitude. In this way, abused women struggle to regain control and autonomous thinking, since this is only incubated within an environment of privacy. Shelters use the lack of privacy to regulate the process of interaction between their residents. Women in shelters miss the freedoms associated with their disenfranchised home, where they could cook, entertain and enjoy leisure activities. They no longer have the personal fulfilment of having their basic needs met, nor do they have access to the creature comforts that caused that space to be their home. They can no longer close the door and have their own controlled and personal space. The physical assault that leads women to these shelters is the most immediate manifestation of the subordination they experience. Many of the women who seek protection are unemployed, under-employed or bereft of finance, shelters must further provide inhabitants with programmes that encourage women to make alternate incomes as well as providing them with a sense of purpose. Shelters must therefore serve a far greater function than merely to provide housing. They must also address the violence inflicted by the batterer and the various form of domination that is inflicted upon these women's lives. Shelters must offer women the opportunity to create alternatives to the abusive relationships that brought them there in

the first place (Crenshaw 1991). The socio-environmental influences of the built form affect the psychology of its users. This is particularly important in the case of domestically abused women living in shelters. Victims not only lack a psychological and emotional connection to that place, but they also lack a sense of place-based identity and emotional attachment. They remain detached from their original community and their detachment leaves them without any sense of belonging, safety and security. Some abused women's shelters may also house empowerment initiatives that offer a range of activities. Domestically abused women can therefore completely disconnect from the outside world and become literally built into the new environment (Matrix, 1984).

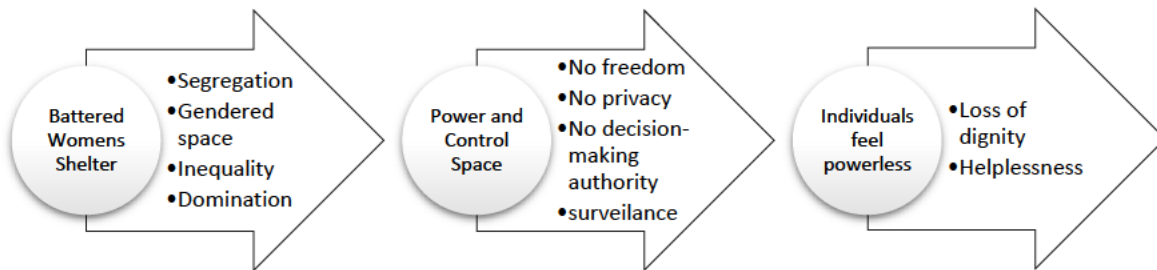


Figure 3.9, Flow chart of victim's emotions based on spatial relationships within Women's Shelter in South Africa. Image source: Author, 2019.

3.7 Space - a catalyst for healing and empowerment

Domestic violence impacts women's health in many ways, both directly and indirectly. Abused women can be afflicted with various physical and psychological injuries. This could lead to substance abuse, suicide or premature death (Swiss Med Wkly, 2010). Healing and empowerment through space explores how spaces can become an integral contributor of the restorative process for domestically abused women. The research focuses on the role of restorative architectural environments, and how they can be utilized to stimulate and facilitate healing and empowerment.

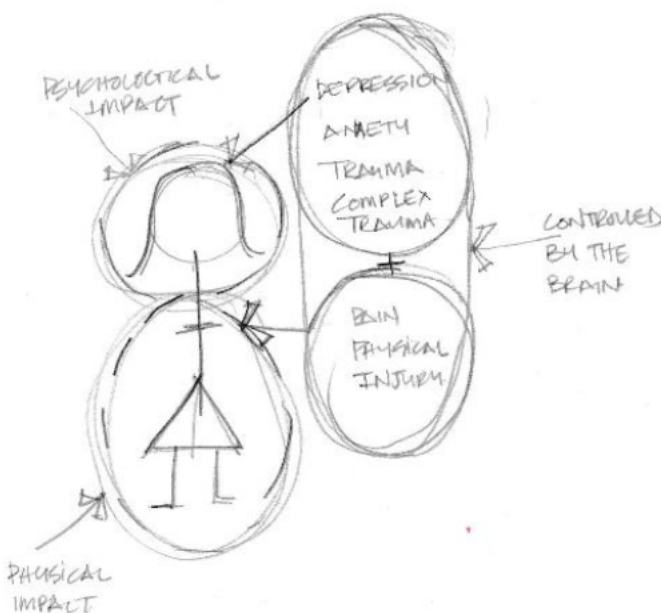


Figure 3.10, Impact of domestic violence on women. Image source: Author, 2019

The abovementioned figure depicts the two primary areas of impact, where domestic violence on women is concerned. The effect is often psychological and physical. A healing environment would need to facilitate healing of the physical body from injury and the mind from psychological injury. Similarly, an empowering environment would need to engage the user physically through a sensory experience in order to mentally stimulate the emotions that bring about a sense of empowerment.

3.7.1 Sunlight as a catalyst for healing

Women who undergo physical and emotional abuse often manifest all the conditions associated with psychological stress. Psychological trauma can be defined as an injury to the mind, as a result of an extremely frightening or distressing event. Trauma produces psychological injury and causes people to react in differently ways. Trauma is directly linked emotions of terror and helplessness. Seasonal Affective Disorder or S.A.D. is a medical condition whereby patients display conditions as trauma patients such as depression, feelings of hopelessness, guilt, and lethargy. S.A.D. affects people who have a reduced exposure to sunlight levels. A lack of sunlight disrupts the body's circadian rhythms and causes the natural serotonin and melatonin levels to drop. This can trigger depression, affect sleeping patterns and alter moods (www.nimh.nih.gov, 2019). The body releases hormones based on its interaction daylight (Day, 2002). The immune system defends the body against foreign bodies and antigens. Under stress, the human body can suppress the effectiveness of the immune system and consequently impede the body's ability to heal itself (McLeod, 2010). Daylight is a source of broad spectrum light which is vital for health and general well-being. Spatial configurations that integrate sunlight into the built environment can be used to promote healing by stimulating the immune system and the release of hormones that combat conditions associated with psychological stress whilst encouraging sentiments of empowerment.

3.7.2 Nature as a catalyst for healing

When humans exist harmoniously with nature, the ecosystem becomes a veritable source of physical and mental wellbeing. Plants for example, serve to buffer humidity and produce oxygen. They reduce the ambient temperature, trap dust, absorb pollution, dampen and mask noises. Indoor plants can be used to soften architectural hardness and freshen a space (Day, 2002). Whilst human beings inhale oxygen and exhale carbon dioxide, plants and trees undertake respiration in reverse. Through photosynthesis, plants continue to replenish the atmosphere with filtered oxygenated air. Through phytoremediation, plants filter the air of pollutants. Through transpiration, plants release water vapour into the air and stimulate air circulation. (www.planterra.com, 2019). Plants have the ability to produce negative ions which can trap airborne allergens such as pollen, mould spores, bacteria and viruses. Negative ions can improve immune function, balance the autonomic nervous system (Anderson, 2014) and release serotonin in the brain, relieving stress and depression (Man, 2002). A built environment which strategically incorporates nature in design, can lead to healing, reduce stress and boost the immune system.

3.7.3 Empowerment through space

“The appropriation and use of space are political acts. The kinds of spaces we have, don’t have, or are denied access to can empower us or render us powerless. Spaces can enhance or restrict, nurture or impoverish” (Weisman, 1981). Empowerment architecture in the built environment responds to the needs of its users whilst respecting their humanity and giving them authority over own destinies (Yunus, 1997). Julian Rappaport, an American social scientist and psychologist, introduced the concept of empowerment as the antidote to powerlessness brought about by social ills (Rappoport, 1981). The Oxford Dictionary defines empowerment as, “the act of giving somebody more control over their own life or the situation they are in,” or “the act of giving somebody the power or authority to do something.” The built environment can dictate social behaviour to follow a specific path. Architecture can be used as a tool to produce a harmonious society. Architects have the power to change society through design. Using form, placement and layout organization, architectural design can be used to have a direct effect on human behaviour. A built environment with a programme that supports activities for empowerment can further support design interventions.

3.7.4 The built environment and the mind

Environmental psychology postulates that one’s environment creates an embodying experience that influences the senses, evokes emotions and ultimately influences behaviour. Neuroscience explains that emotions are a result of chemicals being released in the brain. Different chemicals produce different emotional states. The brain continually interprets the environment and relates that information to the body. A positive environment will produce a positive effect on the body and will cause the brain to produce neurochemicals such as dopamine, serotonin, oxytocin, endorphins and melatonin. These neurotransmitters can facilitate healing and a produce a sense of empowerment. The characteristics of these chemicals and how they can facilitate healing and empowerment of domestically abused women will be critically analysed.

CHEMICAL	WHAT STIMULATES THE RELEASE	INFLUENCE
endorphins	<ul style="list-style-type: none"> ● Feeling of reward ● Exercise ● Pleasure related recognition ● Induced stimulus 	<ul style="list-style-type: none"> ● Reduces the perception of pain ● Boosts the immune system response ● Combats depression ● Promotes the release of dopamine
dopamine	<ul style="list-style-type: none"> ● Exposure to natural light ● A peaceful environment ● Sleep 	<ul style="list-style-type: none"> ● Reduces the perception of pain ● Boosts the immune system response ● Combats depression ● Influences moods and feelings ● Influences motivation

serotonin	<ul style="list-style-type: none"> • Exposure to natural light • A peaceful environment • Sleep 	<ul style="list-style-type: none"> • Feelings of confidence • Feelings of importance • Reduces depression • Regulates anxiety • Boosts healing of wounds
oxytocin	<ul style="list-style-type: none"> • Recognition • Feeling of trust 	<ul style="list-style-type: none"> • Promotes resilience to stress
melatonin	<ul style="list-style-type: none"> • Activity synchronized with light • Natural lighting 	<ul style="list-style-type: none"> • Improved immune defense • Promotes sleep

Table 3.2 Brain chemicals and their impact.

Table source: www.sciencedirect.com, 2019, table format by author

Spaces can be interpreted differently by the brain. Certain built environments evoke peculiar emotions and memories. Some environments stimulate learning, whilst others kindle a sense of relaxation. Certain spaces generate expectations which influences the brain and changes human behaviour (Paiva, 2018). The manner in which a person experiences space is directly influenced by their culture and memories. Everyone experiences space through their own subjective perception and interpretation (Paiva, 2018). Each domestically abused woman is unique and has been encultured by her own individual life experience and culture. South African women who were raised under a South African culture may share a common response to spaces, and may experience a shared perception. Further to enculturation, another incorporating factor is experiential commonality. Women who have been domestically abused are carrying the weight of being psychologically and physically impacted. An environment that is spatially protective, private and stimulating, mentally engaging, and provides exposure to nature and sunlight, could be conducive to facilitating healing and empowerment amongst domestically abused women.

3.8 Conclusion

This literature review explored the socio-spatial contributing factors that stimulate domestic violence against women in South Africa. South African culture was found to be a root driver to the socio-spatial factors that harnessed domestic violence against women, as it was identified as being patriarchal by nature, induced with violence and inequality which was manifested in the built environment. This concept is compounded by further research into the Domestic Violence, which is a product of the historical imbalance of power relations between men and women.

Maslow's hierarchy of needs examines the severe impact of domestic violence against women's human behavioural deficiency and growth needs. Domestic violence against women destroys the structure of the basic survival needs associated with safety and physiological needs which are linked to the spatial experience of the home and the socio- spatial needs which the Women's shelter must embody. Deficiency needs highlights the

importance of the connection to family, friends in relation to the human behavioural needs of love, belonging, self-esteem and confidence. The study investigated the socio-spatial relationships of home and shelters to gain a greater understanding of the spatial needs and challenges. The home environment of the domestically abused women is a space where domestically abused women are made to feel helpless, disempowered, and imprisoned. South African shelters for domestically abused women are spatially challenged as a result they lack privacy, personal and reflection space, accompanying rules and regulations make the domestically abused women's socio-spatial experience uncomfortable. Shelters lack the freedoms associated with leisure activities and personal fulfilment, as such shelters reinforce the socio-spatial experience subordination. The disconnection from family and community creates an isolation environment similar to that of imprisonment. Women who are victims of domestic violence are left homeless, jobless and are incapacitated both physically and mentally as a result the shelter environment must be designed to respond to the physical and psychological needs of its inhabitants.

The study explored the benefits of human interaction with sunlight and nature, both were found as being strong stimulators for organic mental and physical healing. The literature review investigated the socio-spatial drivers that influenced domestic violence against women, by understanding these drivers design principles that can act as a catalyst to stimulate the healing and empowerment of domestically abused women was generated. Science advocates that a built environment which strategically incorporates responsive design principles can stimulate the healing and empowerment of domestically abused women.

The research identifies key design themes.

- Location, cultural practices and norms are related to geographic location.
- The building programme and the relevance of its spatial relationships and configurations within the built environment.
- How the spatial relationships transition the Privacy gradient
- Spatial interaction with community.
- Spatial integration of Nature
- Spatial integration with light

These design themes explore key variables that can promote the healing and empowerment of domestically abused women.

CHAPTER FOUR
PRECEDENT STUDY

4.0 Introduction

The precedent studies chosen were selected to draw parallels with the way in which healing and empowerment architecture is addressed in a similar context to that of the case study area of research. The precedents are critically analysed to explore the extents of healing and empowerment environments with community integration, in order to reveal design principles that are conducive for the healing and empowerment of domestically abused women.

4.1 Urugo Women's Opportunity Centre, Kayonza, Rwanda, Africa

ARCHITECT	Sharon Davis Design
CLIENT	Women for Women International NGO
PROJECT YEAR	2013

4.1.1 Introduction and Justification

The design of the Urugo Women's Opportunity Centre is based upon a socially responsive architecture, one which provides facilities for women survivors of war in a way that helps them rebuild their lives. The design of the centre is predicated on feminist theory, in that it was designed by women for women. The Centre incorporates concepts of community, and gives consideration to social equity, nature and lighting to create architectural spaces that are conducive to the restoration and empowerment of previously marginalized women. This precedent was selected to analyse how architecture was used to stimulate healing and empowerment for previously marginalised women.

4.1.2 Location map

The Urugo Women's opportunity Centre is located in Kayonza, Rwanda in Africa. The site is located along a primary arterial road.

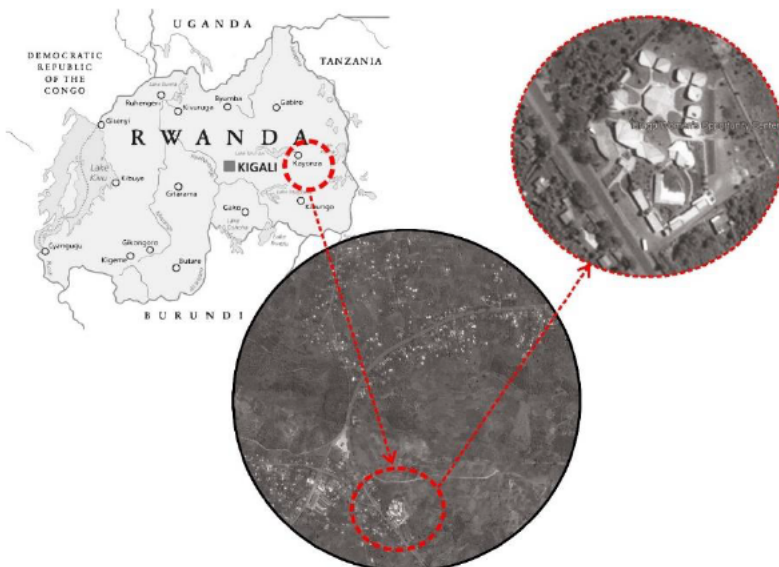


Figure 4.1, Locality map of Kayonza within Rwanda.
Image sources: www.123rf.com and Google Earth
Adapted by author, 2019

4.1.3 Analysis of data

4.1.3.1. Programme



	
SOCIAL SERVICE	EDUCATION
Interactive Market	Classrooms
Accommodation	Meeting space
General	
Administration	

Table 4.1, Programme breakdown
Table source: author, 2019

4.1.3.2 Privacy gradient

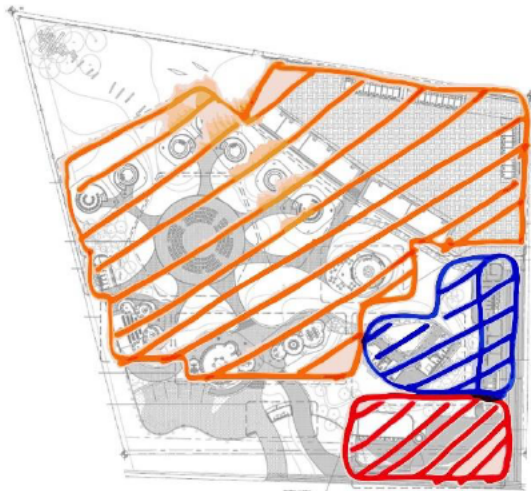


Figure 4.2, Aerial image of site.
Image source: <http://elizabethfelicella.com>.
Adapted by author, 2019

The more private classrooms and accommodation radiate outwards to the centre of the community space then to the more public farmers market and thereafter the civic exterior. Brick walls are perforated acting as a ventilated screen. Whilst the gaps are large enough to provide visibility, they are also small enough to provide a sense of privacy.



Figure 4.3, Perforated screen walls.
Image source:
www.elizabethfelicella.com, 2019



Figure 4.4, Perforated walls.
Image source:
www.elizabethfelicella.com, 2019

4.1.3.3 Relationship with community

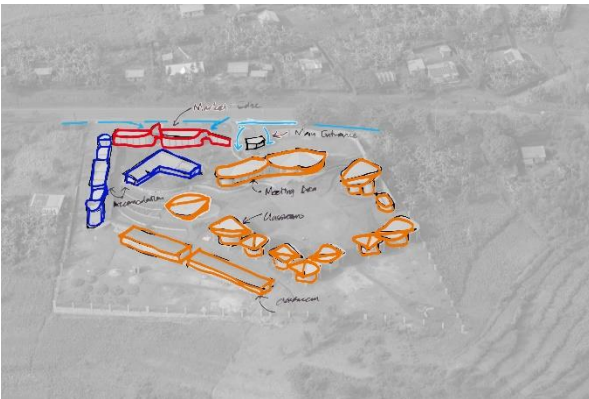


Figure 4.5, Aerial view of site.
Image source: www.google.earth.com.
Adapted by author, 2019

The Urugo Women's Opportunity Centre is arrayed similarly to a Rwandan village. Classrooms and meeting places are circular shaped, reminiscent of the vernacular huts of the Rwandan village. The construction materials used consist of locally handmade bricks, lightweight canopies made from corrugated metal sheets, and mild-steel supports. The Centre is a reinvention of the traditional village, albeit with modern materials and finishes.



Figure 4.6, Market Elevation.
Image source: <http://elizabethfelicella.com>, 2019

The market edge provides an interface for community engagement, where onsite-manufactured goods made by women residents are sold to the public. The market also provides an opportunity for rentable space.

4.1.3.4 Connection to nature

The village itself is surrounded by natural landscaping. Animal pens and classrooms are cooled with green roofs and earthen walls. Women learn how to farm and thereby take responsibility to produce their own food.



Figure 4.7, Aerial image of site
Image source: <http://elizabethfelicella.com>, 2019



Figure 4.8, Framing gardens
Image source: <http://elizabethfelicella.com>, 2019

4.1.3.5 Incorporation of light

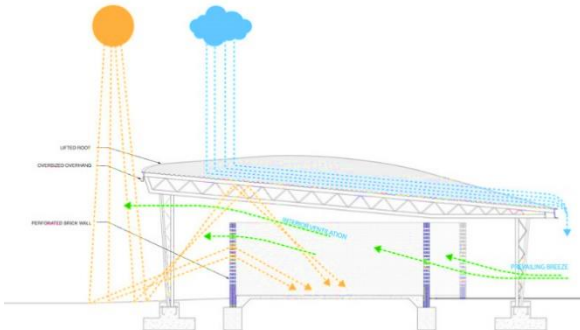
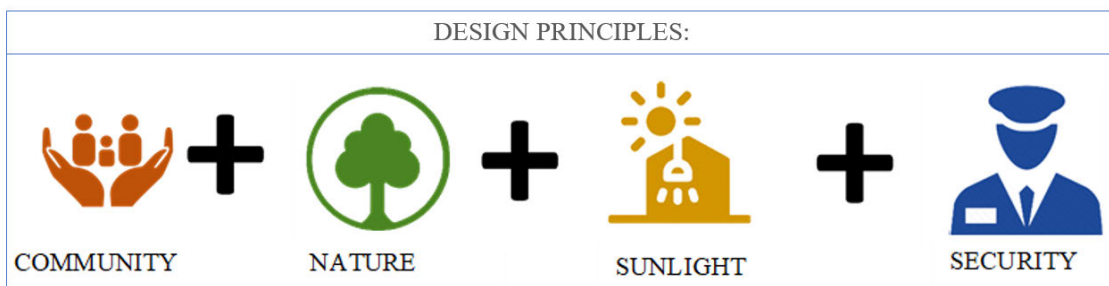


Figure 4.9, Section through UWOC
Image source: www.detail-online.com, 2019

4.1.3.6 Conclusion

The Urugo Women's Opportunity Centre empowers women who were previously disadvantaged with skills training to produce their own food and develop economically. Nature is used as a tool for training and empowerment. The Centre provides the women with a soothing natural environment. Training facilities provide



the women with holistic development skills. Fresh produce harvested by the women is sold in the market. The community is engaged and serves as a support structure for this initiative. Permeable walls function both as a sunscreen and a partitioning privacy screen. Whilst it allows for natural ventilation, natural lighting penetrates the built form throughout the day. The privacy gradient ensures that security is maintained passively without harsh or imposing barriers.

4.2 Ubuntu Centre, Zwide, Port Elizabeth, South Africa

ARCHITECT	Ngonyama Okpanum Hewitt Coleman
CLIENT	Ubuntu Education Fund
PROJECT YEAR	2010

4.2.1 Introduction and Justification

This precedent exemplifies the conceptual use of architecture to stimulate the mind, and to facilitate healing and empowerment. The facility is located in a non-white post-apartheid community. The centre offers paediatric HIV testing and treatment, counselling and education for previously marginalised individuals.

4.2.2 Location map

The Ubuntu Centre is located in a post-apartheid community of Port Elizabeth in South Africa.

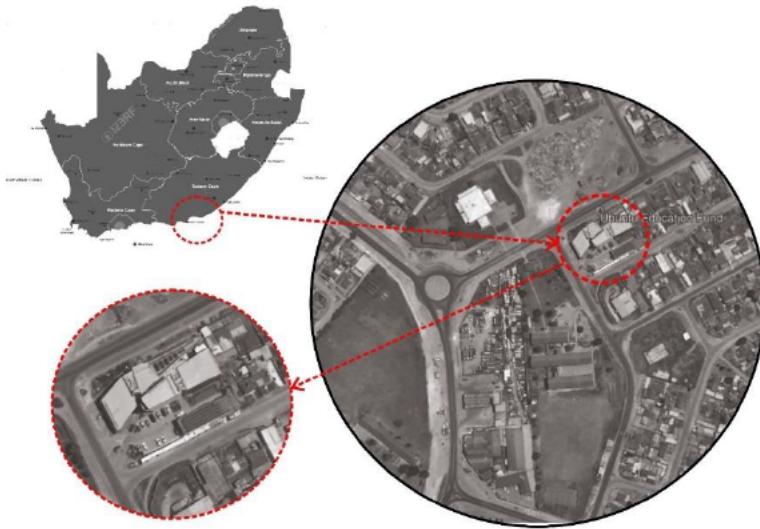


Figure 4.10, Locality map of Ubuntu Centre,
Image sources: www.123rf.com and Google Earth
Adapted by author, 2019

The Ubuntu Centre is positioned along a main arterial road, bordering on a residential edge, linking to commercial and educational services.



Figure 4.11, Aerial image of site.
Image source: www.google.earth.com
Adapted by author, 2019

4.2.3 Analysis of data

4.2.3.1. Programme




		
SOCIAL SERVICE	EDUCATION	HEALTH
Multi-purpose Hall	Computer Learning Centre	Paediatric HIV & TB testing
Theatre	Career guidance	Clinic
Shelter		Counselling rooms

Table 4.2, Programme breakdown,
Table source: author, 2019

4.2.3.2 Privacy gradient

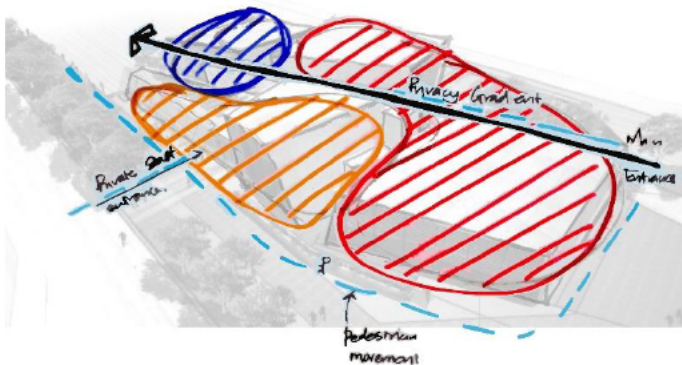


Figure 4.12, Privacy gradient of site.
Image source: www.googlemaps.com
Adapted by author, 2019

The volumes are independent in function and form. The precedent is not a high-rise development thus the privacy gradient develops across the site horizontally. The public area offers a multi-media research room, group study, a computer lab, community theatre / multi-purpose hall. The semi-private areas consist of offices, building management and administration. The private area encompasses the clinic and counselling rooms.

4.2.3.3 Relationship with community



Figure 4.13, Built form
Image source: www.archdaily.com
Adapted by author, 2019

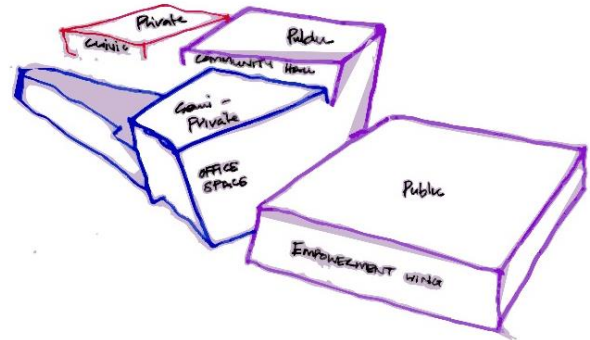


Figure 4.14, Built form and usage
Image source: www.archdaily.com
Adapted by author, 2019

The concrete form consists of independent arrangements which lean on each other for support. The message of *Ubuntu* means, "I am because you are." Inspired by Zwide footsteps, the voids are a continuation of township pathways. They are space designed for people to walk through instead of entrances punctured through the façade. The strong form stands proud of the traditional and surrounding built form, and is intended to minimise the social stigmatisation of its users. Construction materials utilized are robust concrete and wooden gum poles, used for timbers screens. These raw materials integrate the centre into the community.

4.2.3.4 Connection to nature

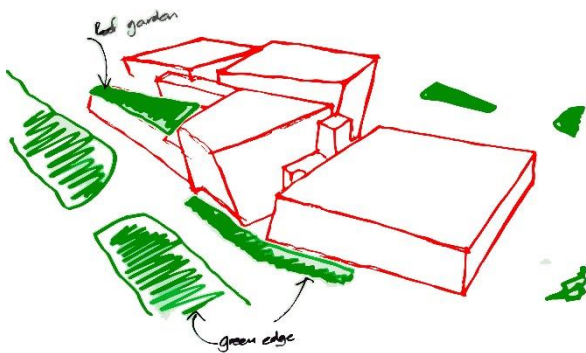


Figure 4.14, Form massing analysis of green spaces
Image source: www.archdaily.com
Adapted by author, 2019

The Ubuntu Center uses nature as a permeable screen to the exterior of the façade between roads and pedestrian movement. An organic roof garden grows fresh produce, but also serves to keep the interior cool. A central courtyard provides a naturally quiet reflection space within the built form.

4.2.3.5 Incorporation of light

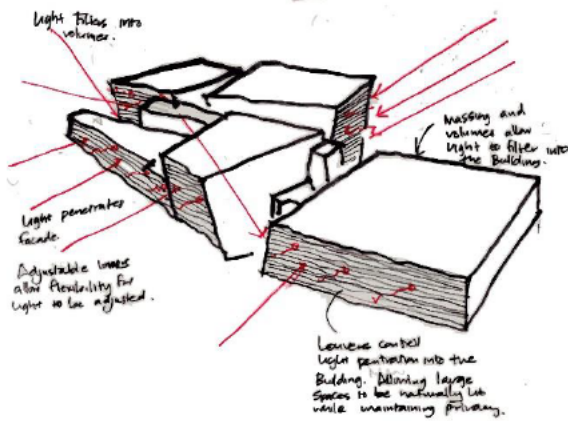


Figure 4.15, Form massing analysis of light
Image source: www.archdaily.com
Adapted by author, 2019

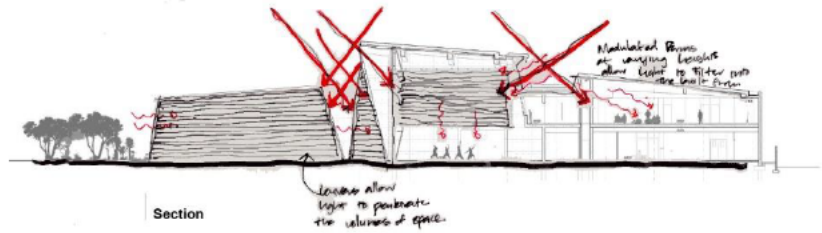


Figure 4.16, Form massing analysis of light ingress
Image source: www.archdaily.com
Adapted by author, 2019

The modulated masses and voids allow the light to filter throughout the built-form and its varying levels. Louvered screens control the amount of light that penetrates the spaces. It functions as a filter for harsh light and a means of achieving privacy.

4.2.4 Conclusion

The Ubuntu Centre uses a strong form with high volumes of space that are screened with timber to allow natural light to filter throughout the voids and create warm spaces. Nature is used as a gentle screen on the street edge, to provide a quiet courtyard space at the centre and a roof-top garden. The community is integrated into the public civic spaces, this allows the community to act as support to the stigmatised users of the clinic.



Figure 4.17, Design principles.
Image source: author, 2019

4.3 Kronstad District Psychiatric Centre, Bergen, Norway

ARCHITECT	Origo Arkitektgruppe
CLIENT	
PROJECT YEAR	2013

4.3.1 Introduction and Justification

The literature review in Chapter Three reveals that domestically abused women bear an impact both physically and psychologically. The built environment is experienced through the mind. This sensory experience can act as a catalyst for healing and empowerment physically and psychologically. This precedent draws parallels with the use of architecture to stimulate the mind to facilitate healing and empowerment.

4.3.2 Location map



Figure 4.18, Locality map of Bergen within Norway.
Image source: google.earth.com and www.23rf.com
Adapted by author, 2019

This precedent is located on the outskirts Bergen, a Port city in Norway in a low-economic and harsh urban setting. Bergen is a coastal city with the busiest Port in Norway.

4.3.3 Analysis of data

4.3.3.1. Programme



	
SOCIAL SERVICE	HEALTH
Public Square	Patients rooms
Cafeteria	Counselling
	Meeting rooms

Table 4.3, Programme breakdown,
Table source: author, 2019

4.3.3.2 Privacy gradient

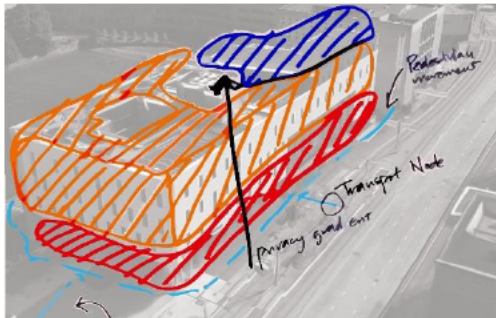


Figure 4.19, Privacy gradient
Image source: www.archdaily.com
Adapted by author, 2019

The ground floor is public and set back. It links to a light railway transport node and a civic square. The floors above the ground floor increase in privacy with a vertical privacy gradient, with the top floor being the most private. Units are designed to ensure that staff have an overview. Smaller spaces are incorporated so that patients do not feel they are being watched.

4.3.3.3 Relationship with community

The square on the ground floor gives the public a space for temporary seating. The square extends from the local tram to beneath the building, revealing green façades and large windows. This creates a sense of transparency to the ground floor centre, stimulating an openness regarding mental health issues.

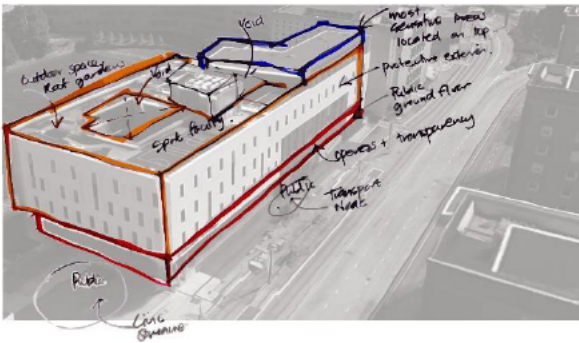


Figure 4.20, The ground floor square and community
Image source: www.archdaily.com
Adapted by author, 2019

4.3.3.4 Connection to nature

The built form is modulated internally with volumes and green spaces. Atriums allow a glimpse of nature between each building. Green spaces vary in location and function, and are used to encourage social interaction and spaces for contemplation. Roof gardens also provide relief in a dense urban setting.

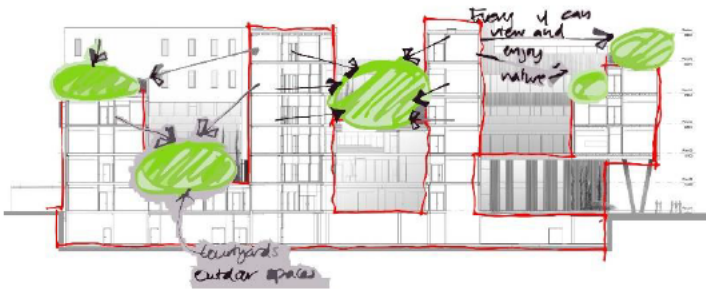


Figure 4.21, Section depicting volumes, atriums and green spaces
Image source: www.archdaily.com
Adapted by author, 2019



Figure 4.22, Section depicting volumes and green spaces
Image source: www.archdaily.com
Adapted by author, 2019

4.3.3.5 Incorporation of light

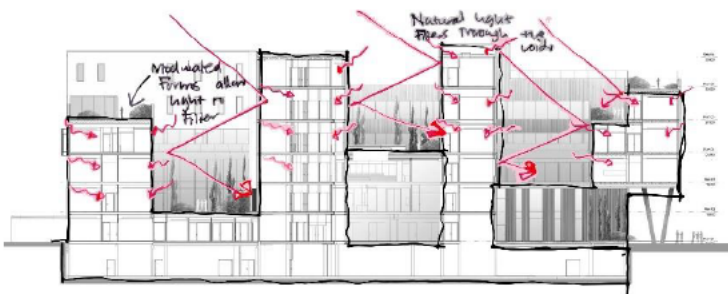


Figure 4.23, Section depicting ingress of natural lighting
Image source: www.archdaily.com
Adapted by author, 2019



Figure 4.24, Section depicting natural lighting
Image source: www.archdaily.com
Adapted by author, 2019

The modulated form allows light and air to filter into the building and recreational spaces. Light wells are used to bring in natural light and facilitate cross ventilation into the floors below the volumes of recreational spaces.

4.3.4 Conclusion

The Kronstad Psychiatric Centre uses the theme of openness and transparency to engage the community and stimulate community awareness and openness for this stigmatised minority. The modulated form plays with voids to allow for the creation of interlinking green spaces, bringing in light and air to filter throughout the building. This also creates spaces for contemplation and passive surveillance across departments.

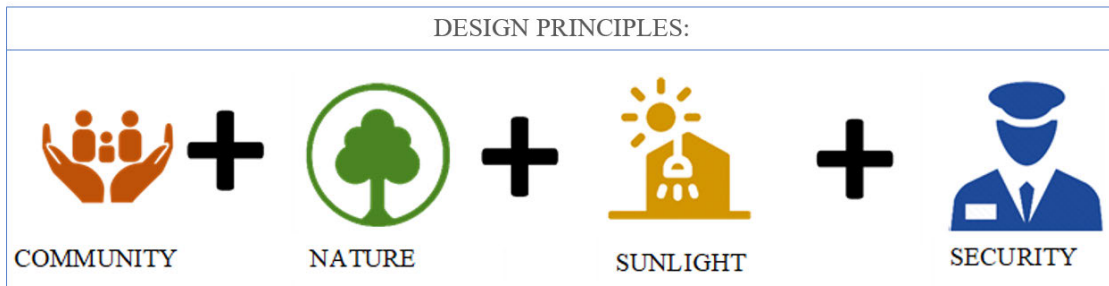


Table 4.4, Design principles,
Table source: author, 2019

4.4 Comparative Analysis and Summary

All of the precedents selected use community engagement as a tool to support the initiatives of the built form. Education, skills development and training are the means utilized to stimulate empowerment and development. A sense of community awareness and acceptance is engendered by a design that is open and transparent. A privacy gradient is used to control access and maintain the functioning of programmes with varying levels of privacy. Security is passively maintained without using imposing physical barriers. Community footpaths, traditional forms and materials are reinvented, and used to create a sense of place through the built form. Strong forms convey a message of formidability to the surrounding community, to act as a support to stigmatised users. Nature is used as permeable screens and hedges. Modulated and interlinking courtyards are used to create peaceful spaces of contemplation and social interaction. Roof gardens are used to soften dense urban settings. High volumes and modulated forms are used to allow light to fill voids. Light wells further pour light into hidden volumes and create windows on roof gardens. Perforated screens allow light and natural ventilation to filter passively into spaces while still maintaining a level of privacy. All three precedents make use of three fundamental design principles to facilitate healing and empowerment: (1) community engagement, (2) nature and (3) light.

CHAPTER FIVE
CASE STUDY

5.0 Introduction

This chapter explores strategically chosen case studies located in the context of Durban, South Africa. These case studies will be unpacked using primary data collection methods. Photographic data will be critically analysed and spatial mapping will be generated. Semi-structured interviews will be conducted with professionals who work with domestically abused women. All data will be collected and analysed through the themes extracted from the theoretical and conceptual framework.

5.1 Durban Hospice for Women, 201 Mathews Meyiwa Road, Windermere, Durban, South Africa

5.1.1 Background and Justification

Durban Hospice for Women is also known as Kerr House. It is a women's refuge centre established in 1951 that operates as a non-profit organisation. The Durban Hospice for women provides shelter for abused and destitute women, but also offers skills training, counselling, therapeutic group work and the individual rehabilitation of abused women. This concept fits in with the ethos of providing healing and empowerment to abused women. The building facility offers functional conditions which facilitates empowerment and healing of abused women.

5.1.2 Location map

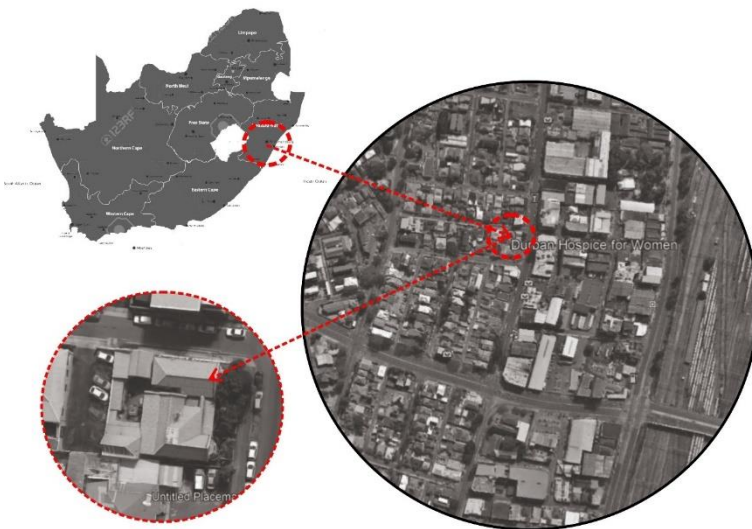


Figure 4.25, Aerial image of Durban Hospice
Image source: www.google.earth.com
Adapted by author, 2019

Located on the periphery of the industrial zone which links to the Durban Central Business District, the Durban Hospice for women is hidden amongst industrial buildings within the Berea area, with the aim of being difficult to locate by perpetrators of domestic violence.

5.1.3 Analysis of data

5.1.3.1 Programme



	
SOCIAL SERVICE	EDUCATION
Accommodation	Training

Table 5.1, Programme breakdown,
Table source: author, 2019

5.1.3.2 Privacy gradient

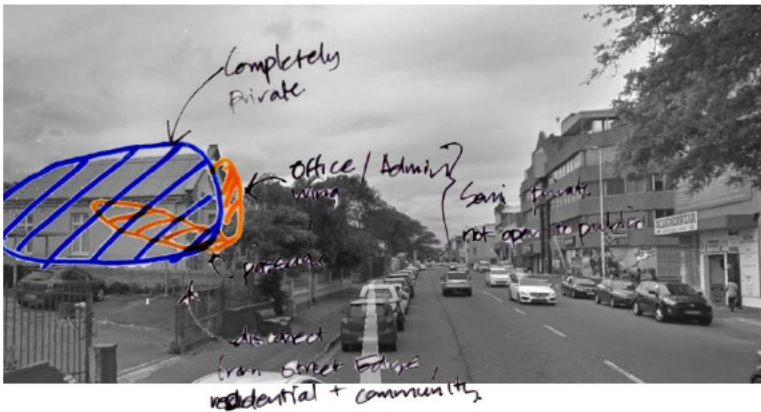


Figure 5.1, Street depicting privacy gradient
Image source: www.googlemaps.com
Adapted by author, 2019

The property is enclosed and has access control. The shelter itself is completely private with only the entrance and offices as semi-private due to controlled access.



Figure 5.2, Interior view depicting interior privacy gradient
Image source: author, 2019

The passage leading off from the entrance is the spine of the building, providing access to the shared rooms, kitchen, dining, lounge, rear courtyard, laundry, external ablution facilities and house matrons' quarters. Rooms are shared and space between users is very constrained, without much personal privacy in the accommodation.

5.1.3.3 Relationship with community

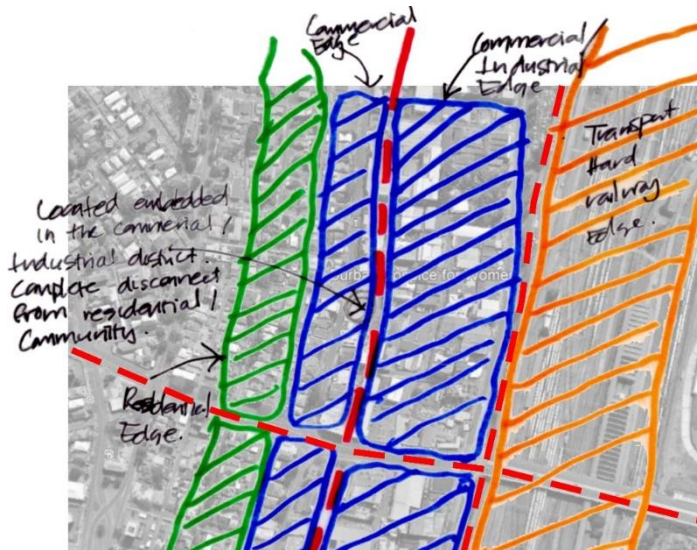


Figure 5.3, Aerial view of site, depicting relationship with community.
Image source: www.googleearth.com
Adapted by author, 2019

The Durban Hospice for women is located along a major arterial road in the heart of a commercial industrial district. The location is completely disconnected from the residential district, and the centre is isolated from the community. Domestically abused women have to be referred by a third-party service provider such as court, police or social worker in order to enter the shelter. No one may enter by just walking in off the street. The Shelter offers a range of services for abused women, which can help to facilitate their healing and rehabilitation. This therapy takes place within the shelter for security and protection.



Figure 5.4, Street View of Durban Hospice
Image source: author, 2019

The building has a residential feel and duplicates the environment of being in a home away from home. Masonry walls with decorative mouldings adorn the exterior, and the building is roofed with metal sheeting. Human scale is maintained as the form of the original residential building has been preserved. The building is immersed in and is dominated by the surrounding industrial architecture. This causes the shelter to be unassuming and disconnected from surrounding community.

5.1.3.4 Relationship with nature and light



Figure 5.5, Street view in ambient lighting
Image source: author, 2019

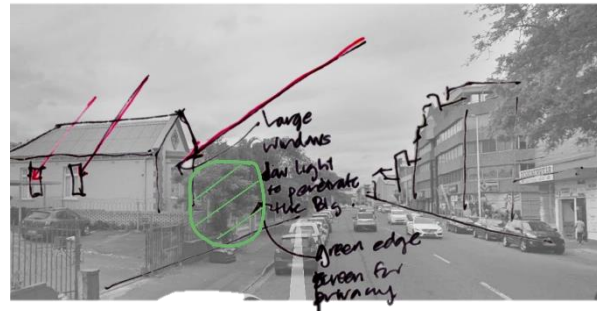


Figure 5.6, Street view depicting ingress of natural light and relationship with nature
Image source: author, 2019

The front of the building has rich green planters, which act as a semi-permeable edge to the main building. This disconnects the main building from the street edge. Window blinds prevent pedestrians from looking into the shelter. The front façade has traditional full height bay windows, which allows ambient light to flood the colourful bedrooms.

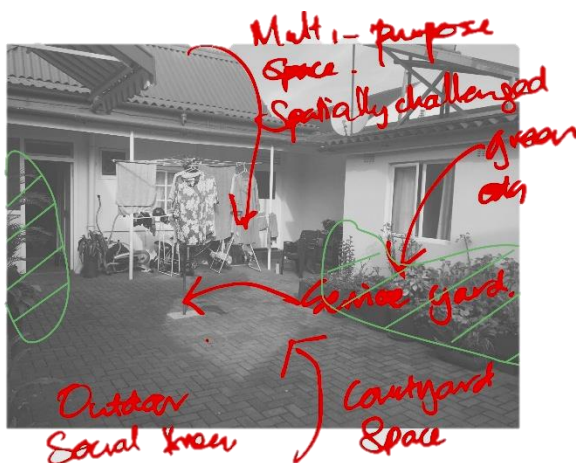


Figure 5.7, Courtyard depicting relationship with light and nature
Image source: author, 2019

The rear of the shelter has a paved courtyard with lots of planting. This area doubles as a service yard when not being utilised.

5.1.4 Design principles



Figure 5.8, Aerial image of site.
Image source: www.googleearth.com, 2019



Figure 5.9, Street view of site.
Image source: www.googleearth.com, 2019

The building is a Victorian themed residential building which has been beautifully maintained to keep its original historic aesthetic. It blends into the surrounding industrial and commercial environment, and is unassuming and not imposing. The building has been converted to fit the purpose of a shelter for abused women, with key consideration given to privacy and security.

5.1.5 Conclusion

The Durban Hospice for Women is an example of a building that serves to empower and rehabilitate domestically abused women. The facility has been converted from an existing residence to now being a rehabilitation centre for abused and destitute women. The building serves to provide a safe and secure haven, where there is privacy and security for the female residents. This functionality and purpose has guided the conversion and new usage.

5.2 The Umgeni Community Empowerment Centre

5.2.1 Background and Justification

The Umgeni Empowerment Centre is a Christian based non-profit entity that is registered with SARS as a Public Benefit Organisation. Their core ideology revolves around benefitting and uplifting society. Although the centre is not solely limited to women, it does attend to the needs of domestically abused women. The Centre implements empowerment programs, to make individuals and communities become self-sustainable. The Shiloh Crisis Centre for Women is one of the initiatives of The Umgeni Empowerment Centre, and offers refuge to abused women and children. The thrust behind the Centre is the underlying concept of empowerment within the South African context, with its erstwhile restrictive social systems and culture.

5.2.2 Location map

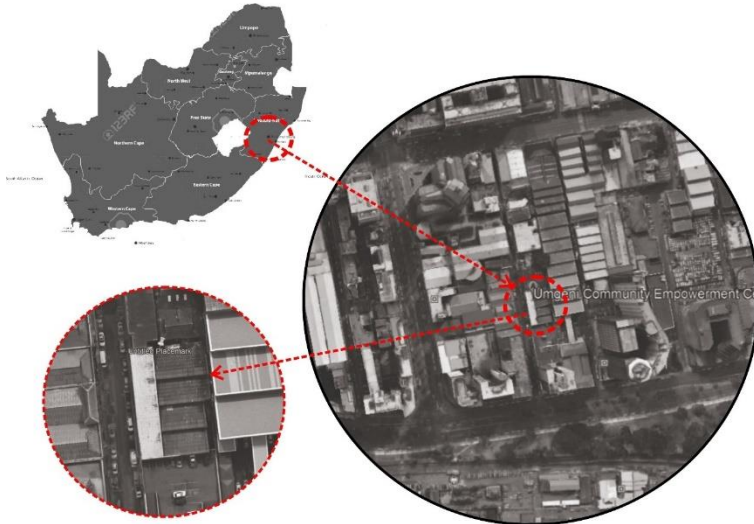


Figure 5.10, Aerial image of site.
Image source: [www. Googleearth.com](http://www.Googleearth.com)
Adapted by author, 2019

The Umgeni Empowerment Centre is located within the context of South Africa, with the aim of providing empowerment not solely for women but offering assistance to all in need. The Centre is located in the heart of the city and is well positioned to address the needs of the abused and destitute.

5.2.3 Analysis of data

5.2.3.1 Programme



	
<p>SOCIAL SERVICE</p>	<p>EDUCATION</p>

Table 5.2, Programme breakdown
Table source: Author, 2019

The Centre occupies an upper floor in an existing Durban CBD building. This level has been converted to accommodate the activities of the centre.

5.2.3.2 Privacy gradient

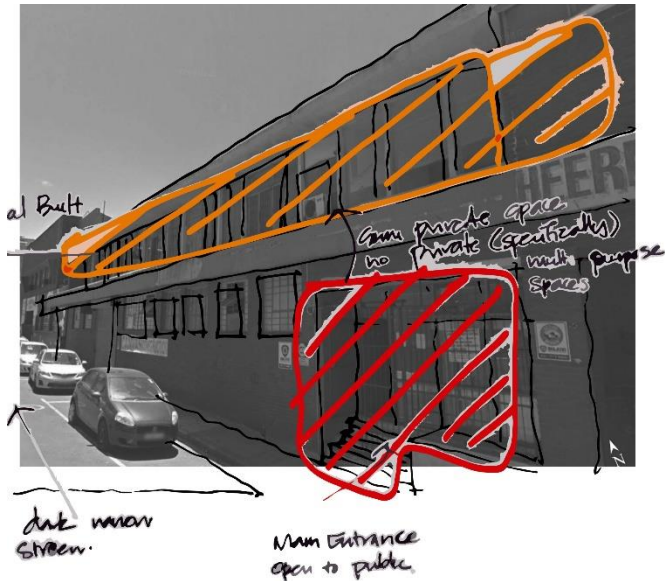


Figure 5.11, Street view depicting privacy gradient
Image source: author, 2019

The entrance to the building is public, and leads to the semi-private floor above. People seeking help can come to Centre without first getting a third-party referral. All are welcome off the street without discrimination. The centre is accessible to pedestrians. Due to its location, activity space is a major challenge.

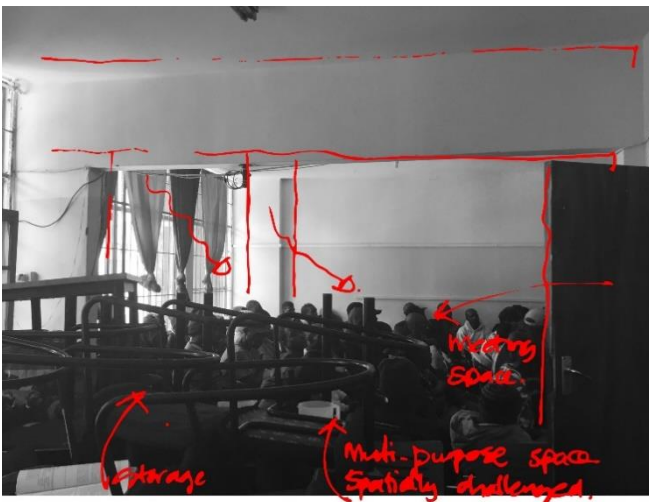


Figure 5.12, Interior view depicting interior privacy gradient
Image source: author, 2019

This view of the interior gives us a glimpse of the plenary meeting space, which is currently also being used on one side for storage. Since the centre is spatially challenged, the internal spaces of the Centre have a multifunctional usage.

5.2.3.3 Relationship with community

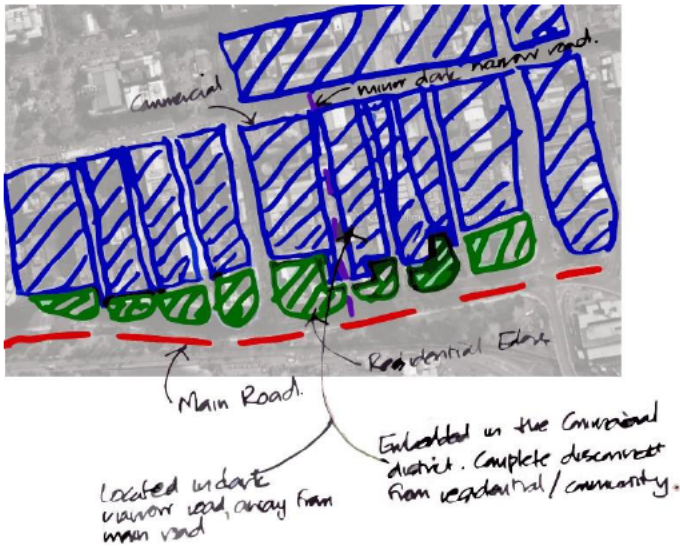


Figure 5.13, Aerial view and relationship with surroundings
Image source: www.googleearth.com
Adapted by author, 2019

The Umgeni Empowerment Centre is located in the heart of the city, and is completely subsumed within the Central Business District. It is therefore disconnected from the residential buildings within Durban and is safe from community engagement. The solid concrete and masonry image and character of the building coveys the feeling of solidity and safety. This is amplified by the location of the Centre within a multi-storey city block.

5.2.3.4 Relationship with nature and light

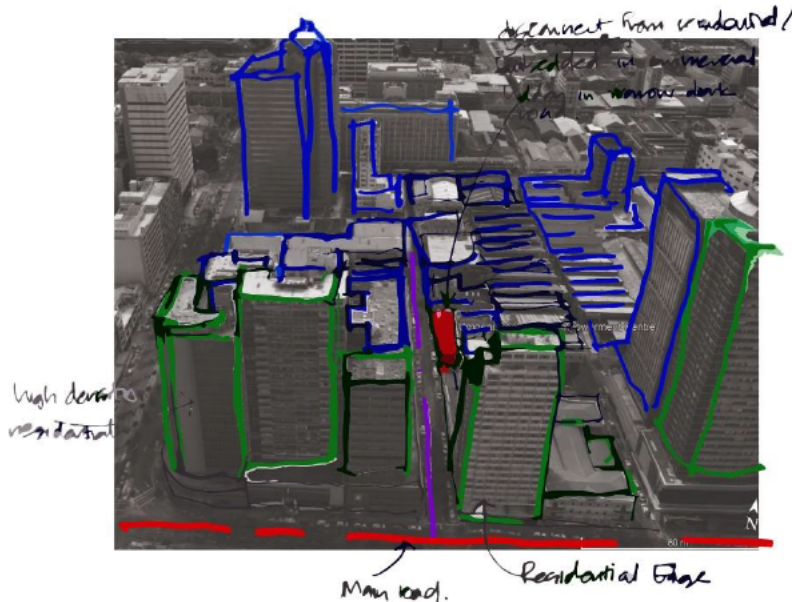


Figure 5.14, Street edge
Image source: www.googleearth.com
Adapted by author, 2019

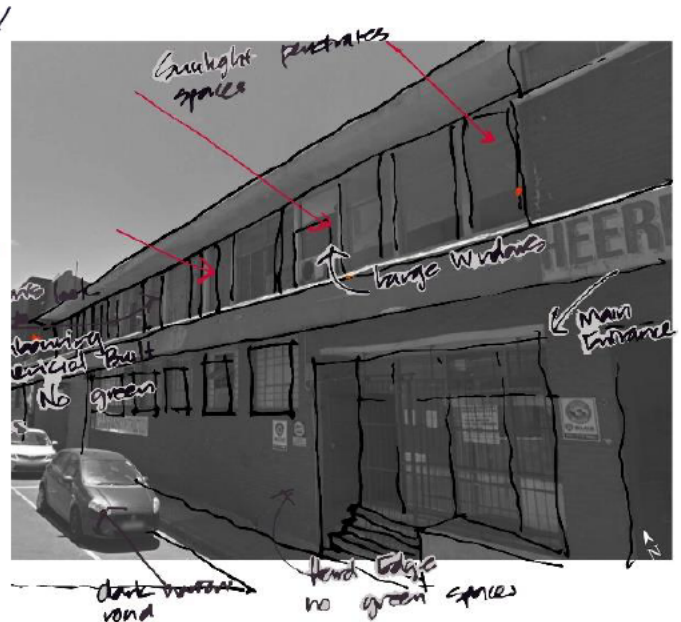


Figure 5.15, Street edge depicting relationship with light and nature
Image source: www.googleearth.com
Adapted by author, 2019

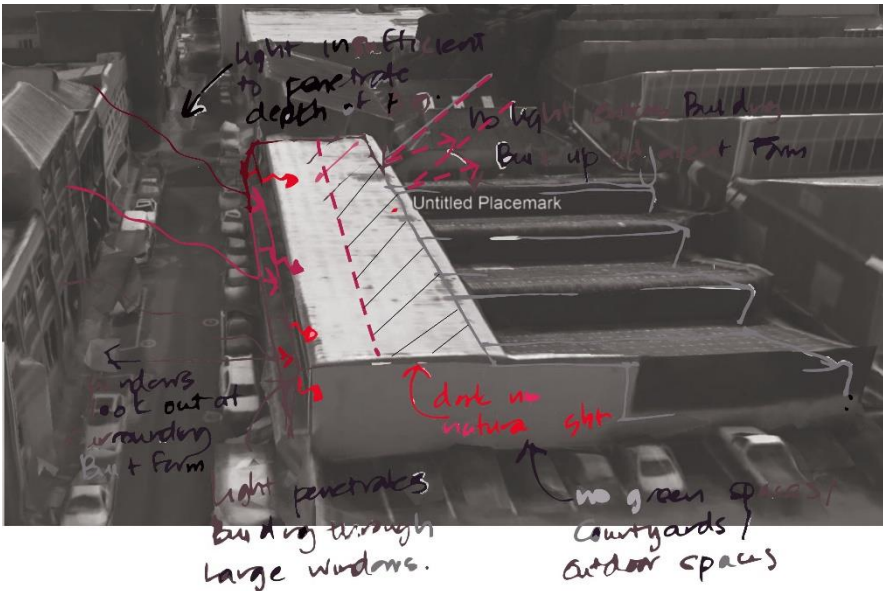


Figure 5.16, Aerial view depicting relationship with light and nature
Image source: www.googleearth.com
Adapted by author, 2019

The hard-exterior concrete and masonry façade leaves no room for planting or greenery. The building's large road-facing windows allow ambient light to filter into the built form. The building on the opposite elevation is closed off, preventing cross ventilation or the ingress of any natural lighting. This leaves the corridors and rooms under-illuminated, dark and dull. Due to its location, the built form does not have courtyards, light-wells, cross-ventilation, soft landscaping or green spaces.

5.3 Conclusion

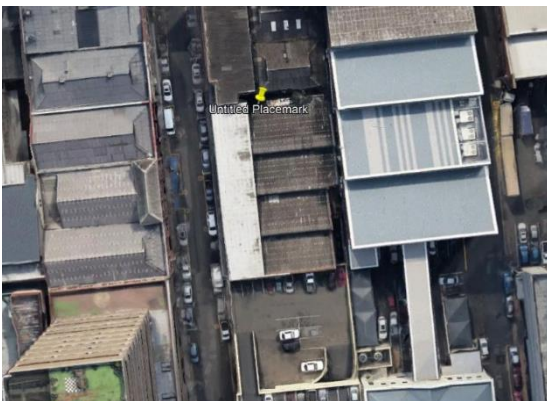


Figure 5.17, Aerial view.
Image source: www.googleearth.com, 2019

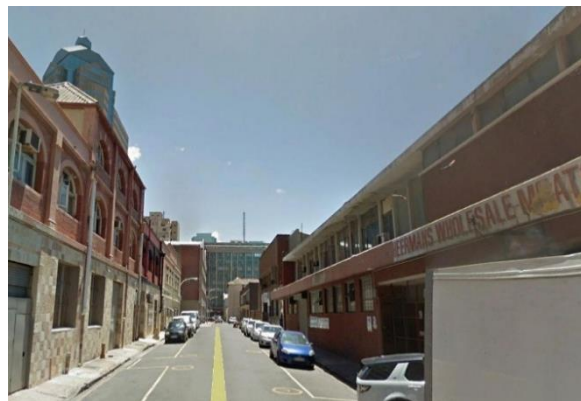


Figure 5.18, Street view.
Image source: www.googleearth.com, 2019

The Centre is an existing building which was adapted to suit the functional requirements of the Umgeni Empowerment Centre. Spaces within the building have been configured in such a way that it could be utilized as is, and without further structural adjustments.

CHAPTER SIX
PRESENTATION OF DATA AND ANALYSIS

6.0 Introduction

The aim of this chapter is to develop a greater understanding of the physical built environment provided for domestically abused women within the context of South Africa. Data has been collected and analysed through themes generated from the theoretical and conceptual framework, and noted in the literature review, precedent and case studies, and in the further addressing of key questions. This chapter continues the discussion, allowing it to generate and underpin recommendations for environments conducive for the healing and empowerment of domestically abused women. Semi-structured interviews were developed in the form of a questionnaire in order to guide the discussion, so that the socio-spatial challenges that are faced by domestically abused women could be explored. The assistance of two separate organisations was enlisted to strategically select participants for this exercise. Organisation A is a *shelter* for domestically abused women and Organisation B is a *help centre* for domestically abused women. Participants are key professionals that are actively engaged with domestically abused women from organisation A and B. Their involvement in this field ranges from 4 to 30 years of experience. Healing environments, treatments, constraints and opportunities for improvement will be explored. The questionnaire is used to direct the research towards recommendations for a proposed healing and empowerment initiative, where the environment is conducive for the healing and empowerment of domestically abused women.

6.1 Analysis of results

6.1.1 Programme

Programmes currently offered in organisation A and B are reviewed and categorized in comparison, whilst programmes that are needed are analysed. Programmes which are perceived to stimulate healing and empowerment are explored.



			
SOCIAL SERVICE		EDUCATION	
Organisation A	Organisation B	Organisation A	Organisation B
Counselling, group work	Counselling, group sessions, therapy groups	Cooking, baking, sewing, knitting	Computer skills
Accommodation, shelter, food, clothing		Skills development	
Walks, exercise, watching TV			

Table 6.1, Programme breakdown
Table source: Author, 2019

QUESTION:

What services, which you do not currently have on offer, do you think is required for domestically abused women?

- Participant 1, Organization A, 2019

“Women have to go to the library to use the computer to work on their curriculum vitae to help them find jobs. They need help to sell the items they make to get money. When they have no money, they become miserable. A cosy set up where people can help them find out what they are going to do.”

- Participant 2, Organization A, 2019

“Teenage boys are not allowed here, because it becomes a problem for the domestically abused women. Counselling with family involvement with perpetrator. Multidisciplinary teams to work together.”

- Participant 3, Organization B, 2019

“Abused women end up on drugs. A help centre.”

- Participant 4, Organization B, 2019

“After the women leave, they need a support group. Women have to move out to get away from the stigma of the crisis centre. People who run away from abusive situations abandon their jobs. They need a free digital service where they can access centres that will help them find jobs.”

QUESTION:

What programmes do you run that stimulate healing and recovery of domestically abused women?

- Participant 1, Organization A, 2019

“Praying together, watching a movie and bible study. Everything to help them get their minds off what they are going through. To get them to relax, laugh, gain skills and have fun.”

- Participant 2, Organization A, 2019

“All the programmes are geared towards healing and recovery. Group work and counselling.”

- Participant 3, Organization B, 2019

“Group sessions, support, and group therapy. Counselling, getting a sense of self, and empowerment.”

- Participant 4, Organization B, 2019

“Make-overs, manicures, pedicures, motivational talks and health talks. A safe environment where they receive love, and feel ready to face the world again.”

QUESTION:

How long do domestically abused women stay in your organization?

- Participant 1, Organization A, 2019
“3-6 months.”
- Participant 2, Organization A, 2019
“Most stay for 4 months, but they can stay up to 6 months depending on the social worker.”
- Participant 3, Organization B, 2019
“Depends on the case. 3-6 months is normal. Some cases can go 6 – 12months.”
- Participant 4, Organization B, 2019
“Depends on the situation.”

6.1.2 Conclusion

Participants reveal through their perspectives and experience when working with domestically abused women what programmes are lacking and what programmes they recommend to order to facilitate healing and empowerment. Domestically abused women who enter shelters leave their homes and jobs. Their constant challenge is to find employment. A computer facility enabled with internet access and with a library of general information would facilitate the task of job seeking. When women are taught skills and make saleable items, they may be unable to sell them to derive an income while they are jobless. They may require a place where they can sell the items they make. A facility for family involvement and possible counselling with the perpetrator would be helpful. A support centre for the women exiting the shelter would be crucial. Shelters require programmes that facilitate healing and recovery, and restores hope and faith. Shelters ought to provide motivational talks, facilitate activities that aid relaxation, equip women with skills and help them have fun.

6.1.3 The Privacy gradient

The privacy gradient between organization A and B is reviewed. The function of the organization and access to its facilities play a vital role in the privacy gradient. Organization A is a shelter specifically for domestically abused women. Organization B is a help centre with a core function to assist domestically abused women on a larger scale of community empowerment. Enquiry is also made into the duration that domestically abused women stay in the recovery facilities.

QUESTION:

What procedure do domestically abused women have to follow to gain access to the services offered by your organisation?

- Participant 1, Organization A, 2019
"We don't take people straight off the street. There has to be some proof of the abuse. They have to be referred by another service provider."
- Participant 2, Organization A, 2019
"Must be referred by a service provider. We only take abused women. Must have an identity document and children must have a birth certificate."
- Participant 3, Organization B, 2019
"Drop-In centre, can come by referral or on their own."
- Participant 4, Organization B, 2019
"Just walk in".

QUESTION:

What is your experience in terms of spatial challenge?

- Participant 1, Organization A, 2019
"There is limited space. Shared bedrooms only have one plug and one window. Sometimes we must lock one person at a time in the kitchen otherwise they are fighting with each other there. Space is a challenge, lots of multi-functional spaces. Women fight in the lounge to watch a particular TV programme."
- Participant 2, Organization A, 2019
"Rooms are shared with sometimes 3-4 people per room. You could be sharing with anybody. Space is a challenge with lots of multi-purpose rooms. Programmes have to finish early and breakdown can be disruptive."
- Participant 3, Organization B, 2019
"Space is a challenge. Multi-purpose rooms are a challenge. Spaces have no privacy."
- Participant 4, Organization B, 2019
"Everything is open, shared space. No private space for counselling."

QUESTION:

How long do domestically abused women generally stay at your facility?

- Participant 1, Organization A, 2019
"3-6 months."
- Participant 2, Organization A, 2019
"Most stay for 4 months, can stay up to 6 months depending on the social worker."

- Participant 3, Organization B, 2019

“Depends on the case. 3-6 months is normal. Different cases can go 6 – 12months.”

- Participant 4, Organization B, 2019

“Depends on the situation.”

6.1.4 Conclusion

Organization A is a shelter for domestically abused women which women can only gain access to via service providers. This suggests that privacy starts from the gate, as access is completely controlled. Within the facility, the women share their bedrooms and multi-purpose spaces. Privacy and personal space is stymied by the optimal use of functional or activity spaces. Women are confined in this spatially challenged facility with limited privacy gradients internally, and may therefore display aggression towards each other. Organization B is a help centre with a core function to assist domestically abused women. This is a drop-in centre so anyone can enter off the street. Here, there is no privacy gradient from the centre's gate. Internal or room space is a challenge with multi-functional spaces. There is no privacy or demarcated private areas to ensure that activities can progress optimally. Domestically abused women reside in these facilities for long durations of time in order to be rehabilitated. Where privacy lines are blurred, the efficiency of the recovery environment and the programmes they offer are compromised.

6.1.5 Relationship with community

The relationship with community is explored. Age statistics are enquired about to establish the demographic range of women within the community affected by domestic violence. South African communities are defined by precincts. Precincts that were traditionally segregated by race and ethnicity is analysed. The level of education of domestically abused women is also considered, to establish the level of skills women who face domestic abuse have within the community. It is important to note that both centres for domestically abused women are not located in residentially defined communities. Centres are open to all women from varying locations within Durban.

QUESTION:

What is the highest age statistic of women that enter this Organization for Domestic abuse?

- Participant 1, Organization A, 2019
“Season of mature people, then a season of young people and recently a lot of pregnant women.”
- Participant 2, Organization A, 2019
“Ages 20-30. The age when they discover their partners, when they discover themselves.”
- Participant 3, Organization B, 2019
“Ages 15-40.”
- Participant 4, Organization B, 2019
“Ages 20-40.”

QUESTION:

What is the highest race / ethnicity?

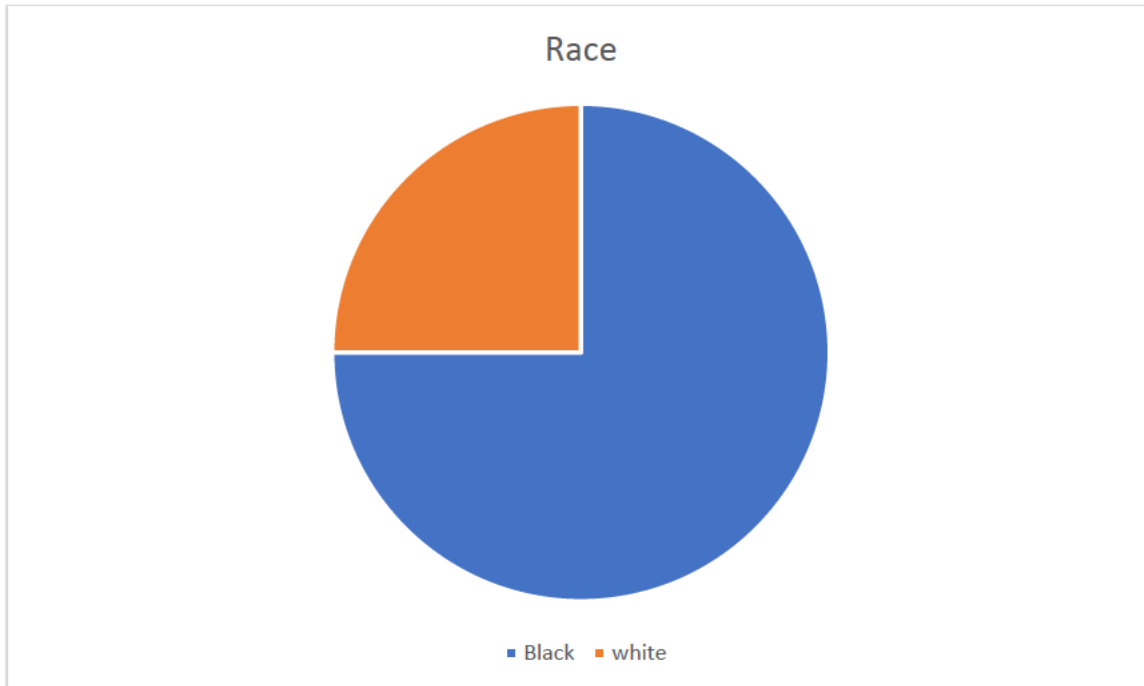
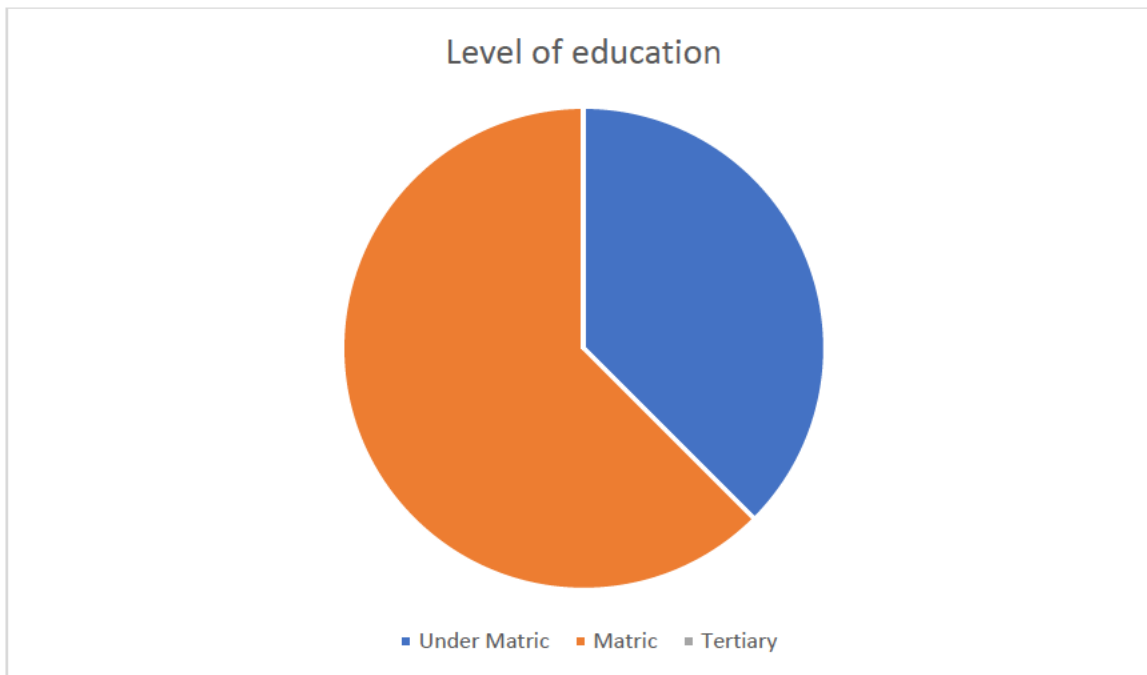


Figure 6.1, Chart for the highest race / ethnicity in restorative environments for domestically abused women
Image source: author, 2019

QUESTION:

What is the highest level of education?



*Figure 6.2, Chart for the highest level of education in restorative environments for domestically abused women
Image source: author, 2019*

6.1.6 Conclusion

The women who predominantly experience domestic violence are black women or those from non-white communities. This is quite significant as Durban's communities and spatial planning was underpinned by racial segregation according to the apartheid philosophy of separatist development. These women have a low level of education so there is a dire need for skills development and training. Women from ages as low as 15 years old to 40 years old are impacted by domestic violence. This highlights the need for all women to be exposed to easily accessible and properly located options against domestic violence within communities.

6.1.7 Connection to nature and incorporation of light

The perception behind the impact of nature and light in environments created for domestically abused women is interrogated.

QUESTION:

What spatial or planning requirements do you think would improve the efficiency of these programmes?

- Participant 1, Organization A, 2019

“Gardens, skills rooms, a play area for kids outside. More light, lots of windows looking out into peaceful surrounding.”

- Participant 2, Organization A, 2019

“An outdoor space for skills development. An awning outside with tables. There’s no yard for kids to play. No space to sit around.”

- Participant 3, Organization B, 2019

“A spacious place, with larger outdoor areas outside for kids and parents. A pool for therapy.”

6.1.8 Conclusion

Feedback from both organizations highlighted the need for outdoor spaces and sufficient lighting to be incorporated into the environments provided for domestically abused women.

CHAPTER SEVEN
DESIGN DEVELOPMENT PART 1

7.0 Introduction

This dissertation explored the relationship between restorative architectural environments and domestically abused women. Inquiry was made into socio-spatial influences of culture on domestic violence against women within the context of South Africa. The research drew on a theoretical framework, unpacking theories of culture, social learning, feminism and environmental psychology to guide key spatial concepts that could influence domestic violence against women and further exploring how these concepts could be used to promote healing and empowerment. It can be concluded that restorative environments for domestically abused women were generated through the patriarchal lens of traditional South African culture, manifested in the built environment continues to oppress the healing and empowerment of domestically abused women. The literature review holistically instigated the impact of domestic violence on women to establish what architectural principles could drive a responsive design.

While further research can be conducted for a longer duration of time with a wider sample selection, this study will assist the design process for restorative architectural environments in South Africa for domestically abused women with more consideration for the socio-spatial challenges and needs presented in this study using architecture as an embodying metaphor to facilitate healing and empowerment.

7.1 .1 Conclusions

The Literature review illustrated that traditional South African culture is driven a system of patriarchal ideologies that perpetuated unequal power gender relations. The gender inequality gave birth to gendered spaces which have holistically influenced a women's perceived role in society inducing domestic violence against women which extended to unequal gender economic development. Skills development is identified as an imperative human growth need to facilitate empowerment. Case studies reveal programmes which include shelter facilities and skills development. Multi-purpose spatial configurations lack differentiation between activities such as shelter and skills development restricting the effectiveness of restorative support programmes. Skills development programmes are carried out by professionals within the organisation and are not regulated by a standard recognizable by employment organizations, employment opportunities continue to be a major challenge. Participants highlight the need for a help centre away from shelters to support programmes more effectively. The selling of goods produced from skills development programmes is a major challenge due to the intentional spatial invisibility of case studies to community's, subsequent of the socio-spatial disconnect generated under the principle of security.

Precedent studies also incorporated programmes for empowerment that included education, skills development in combination with social service activities. Programme activities were spatially configured and separated to

support the effectiveness of programme initiatives. Socio-spatial presence that engaged communities created a sense of awareness of social challenges within communities and promoted community support. The community spatial interaction subsequently supported the skills development of previously disadvantaged women gave them tools to economically develop themselves creating a cycle for development. Precedent studies demonstrate how the built environment can communicate strength, hope and awareness to communities. Case studies are located within industrial and commercial zones, with no connection to residential communities where domestic violence is manifested. From these far-removed locations, there is no presence, awareness or message sent out into communities regarding domestic violence against women. Case study Restorative environments are located within existing built form which were not designed or sufficiently adjusted for its new purpose. Externally, restorative environments are silent with no presence. These facilities are hidden in its surrounding built form.

The Literature review explores the significance of the privacy gradient when transitioning from public interactive space to support security and the shift of activities. Case studies expose contrasts in the privacy gradient approach. The first with extreme levels of privacy resulting in a complete disconnect and isolation from surroundings and community. The second almost completely public with little to no privacy gradient. Interviews with participants reveal the challenges associated with the privacy gradients. Internally, the lack of privacy gradient produces aggression and frustration. Blurred lines of privacy impede the optimal functioning of programmes that support the healing and empowerment of domestically abused women.

Precedent studies highlight the significance of the privacy gradient in a built environment at a macro and micro level.

Precedent studies use nature to passively maintain a privacy gradient while primarily supporting a physical and mental wellness principle. The literature review unpacks the role of nature as a vital variable to stimulate healing. Externally it is used to soften the hardness of urban environments, whilst internally it is used for social spaces, and places of contemplation or tranquillity. Nature responds to sunlight and so do humans. Sunlight actively stimulates the mind stimulating psychological and physical wellness. Case studies reveal restorative environments that lack the integration of nature and sunlight are cold and gloomy. Whilst precedent studies display a integration of nature and sunlight harnessing and reinforcing a restorative spatial experience.

It is after critical analysis of the research that key constants such as programme development, privacy gradient, community engagement, integration of nature and sunlight became the defining responsive design principles for the healing and empowerment of domestically abused women.

7.1.2 Strategies for a healing and empowerment Centre

7.1.2.1 The programme

Environmental psychology highlights the significance of the built environment to influence behaviour. The brain experiences any space through the senses and releases neurochemicals that stimulate behaviour. The literature review explores the importance of programmes that can stimulate the release of brain chemicals so that healing and empowerment for domestically abused women can be stimulated. Programmes that included physical exercise and programmes that generated feelings of reward activated the release of endorphins, which is a brain chemical. Endorphins combat depression and fight pain. Programmes that increased exposure to light stimulated the release of dopamine. Serotonin is the brain chemical that stimulates moods and feeling of confidence.

7.1.2.2 The privacy gradient

Key concepts of environmental psychology are territoriality, privacy, personal space and security. Domestic violence erodes all these principles. Planning needs to incorporate privacy gradients, in order to support functionality and the transition of spaces.

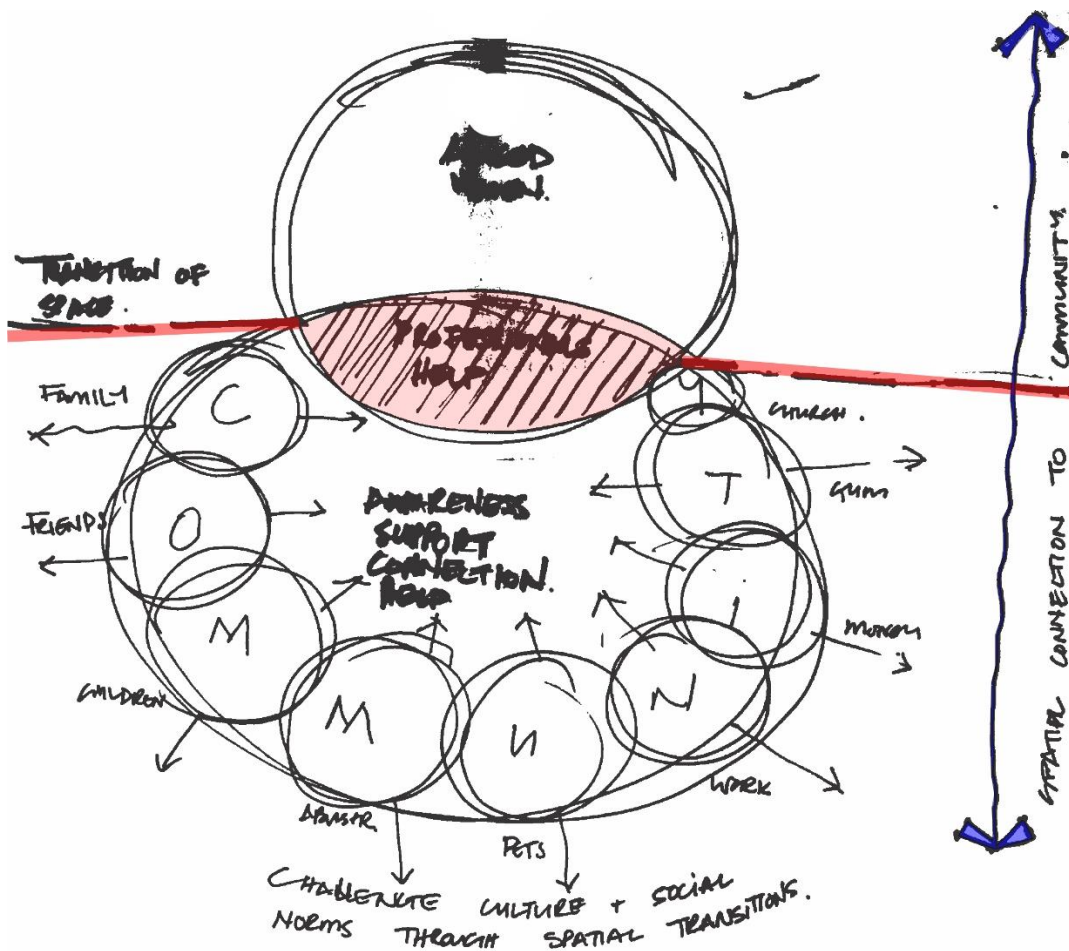


Figure 7.1.1, Privacy Gradient recommendation.
Image source: Author, 2020

7.1.2.3 Relationship with community

The literature review connects South African culture with domestic violence through social systems. The built environment reveals culture and continues to influence its inhabitants through the experience of embodiment. It is vital to use the built form for community engagement not only in a way that supports the domestically abused woman in finding and creating jobs, but also to create awareness and a new metaphor as a catalyst for change.

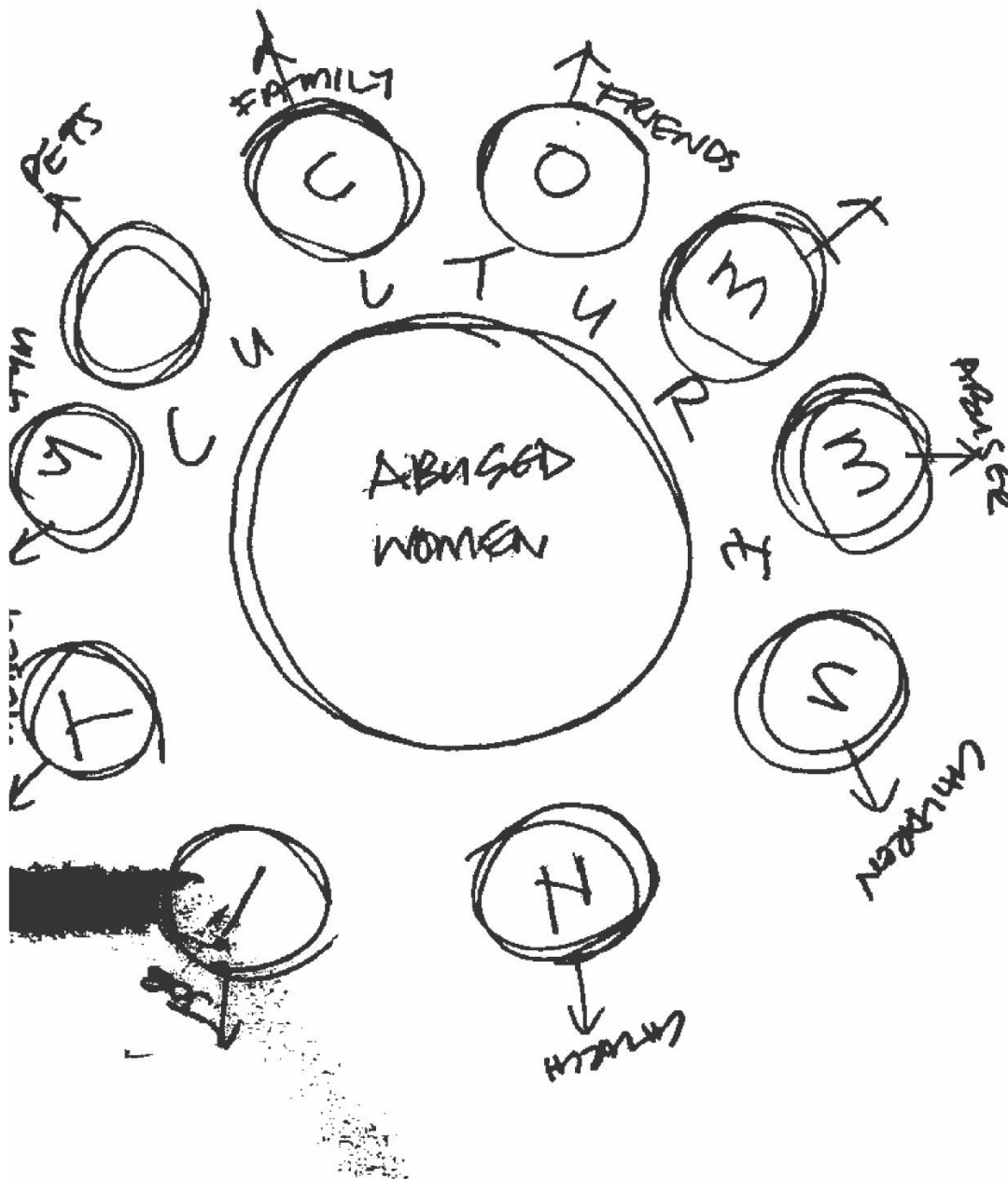


Figure 7.1.2, Abused women socio-spatial relationship with Community during Abuse.
Image source: Author, 2020

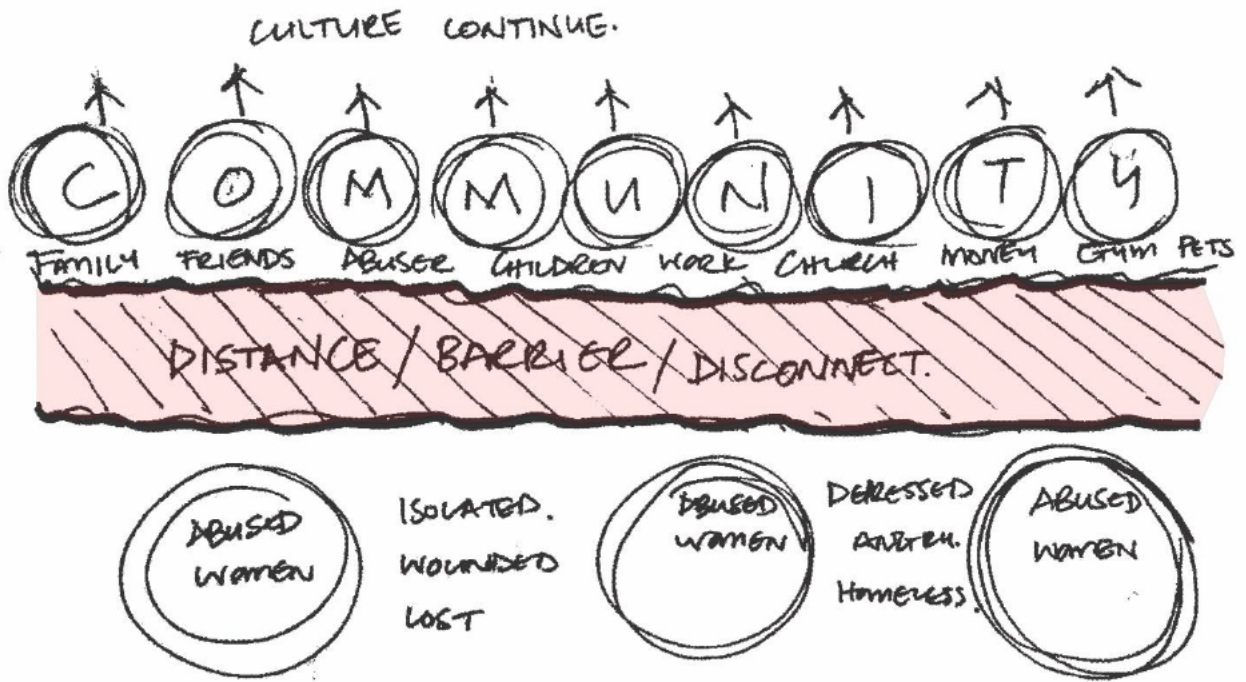


Figure 7.1.3, Abused Women socio-spatial relationship with community after abuse.
Image source: Author, 2020

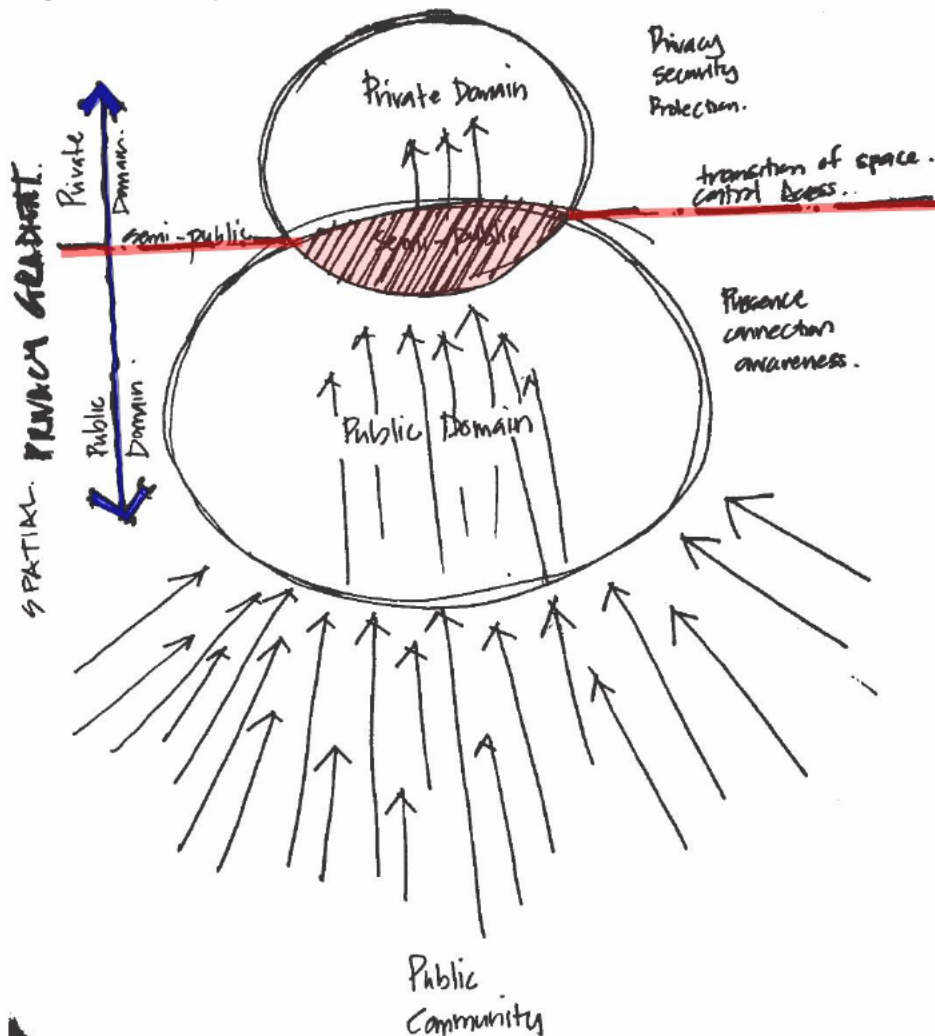


Figure 7.1.4, Abused Women socio-spatial relationship with community after abuse recommendation.
Image source: Author, 2020

7.1.2.4 Connection to light and nature

Human interaction with sunlight is vital in producing the brain chemical serotonin. It also promotes health and general wellness. Nature is pivotal in producing clean and healthy environments. The incorporation of light and nature into spaces is necessary to produce an environment that stimulates and facilitates the healing of domestically abused women, both physically and psychologically.

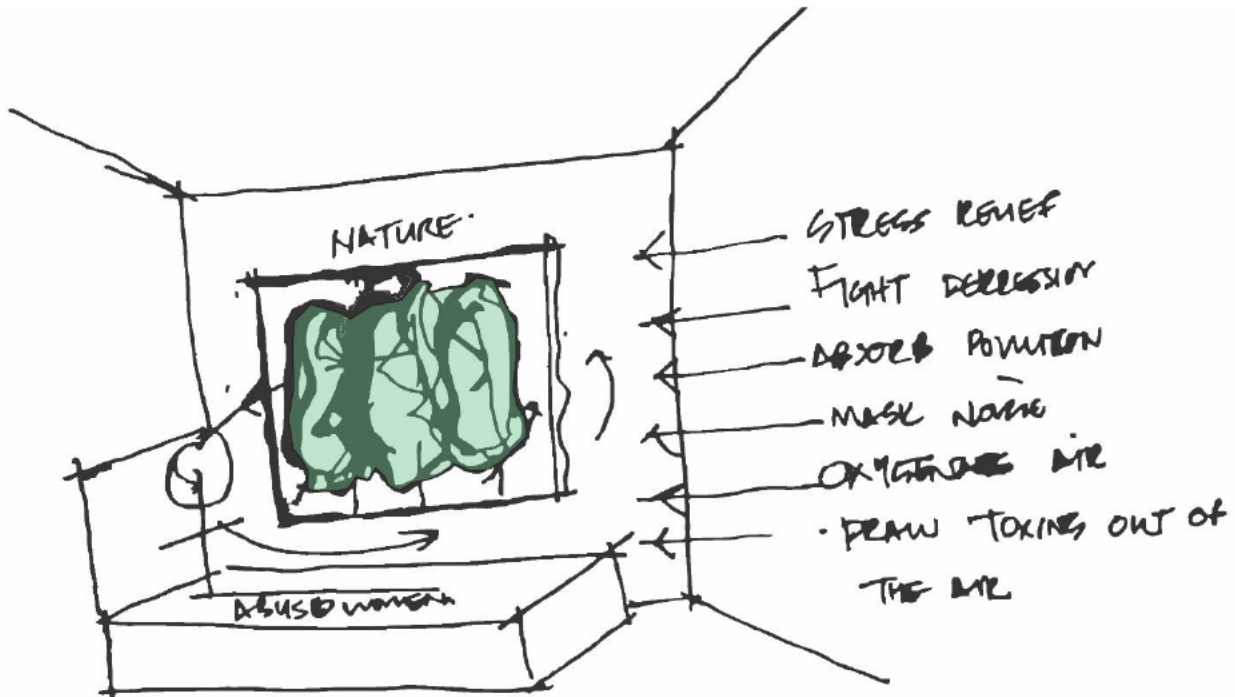


Figure 7.1.5, Abused women recommended spatial relationship with nature.
Image source: Author, 2020

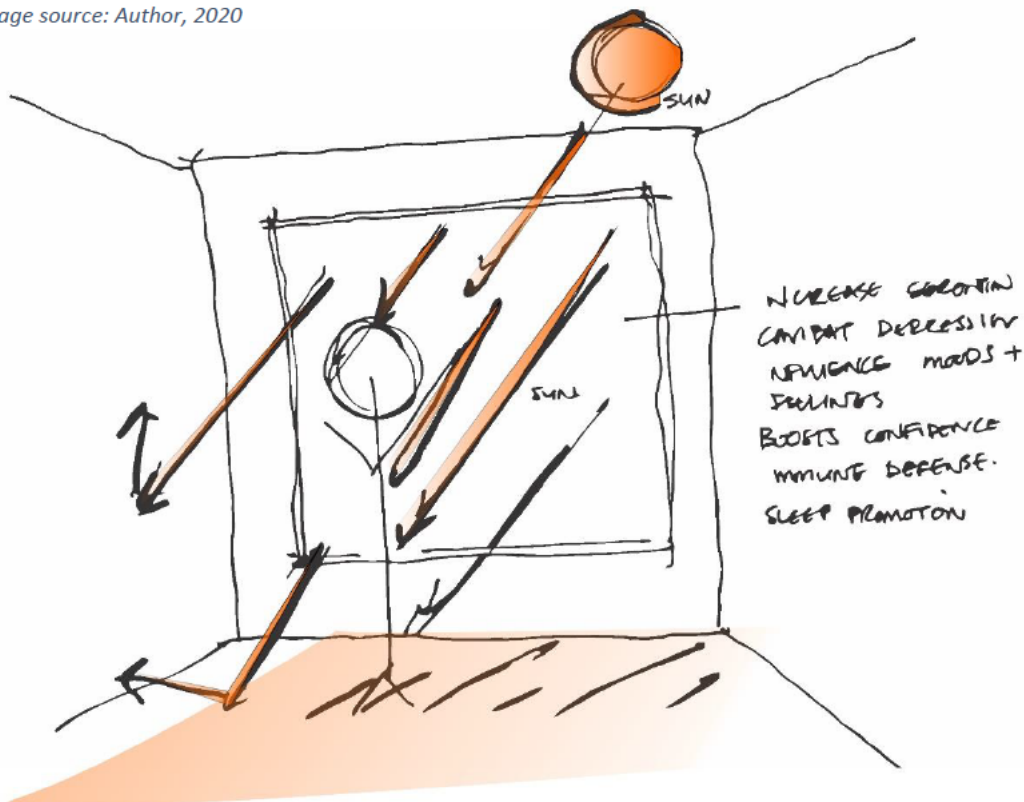


Figure 7.1.6, Abused women recommended spatial relationship with sunlight.
Image source: Author, 2020

7.1.3 Recommendations for site selection

The site needs to be located within a residential non-white area, as studies reveal that domestic violence occurs most predominantly in an area like this. Surrounding built form should be in a densified residential area such as a high-rise apartment residential block, where there is a high volume of families. These families usually share minimal living spaces. Aggression and violence is generated from the blurred lines of privacy, territoriality, personal space and security.

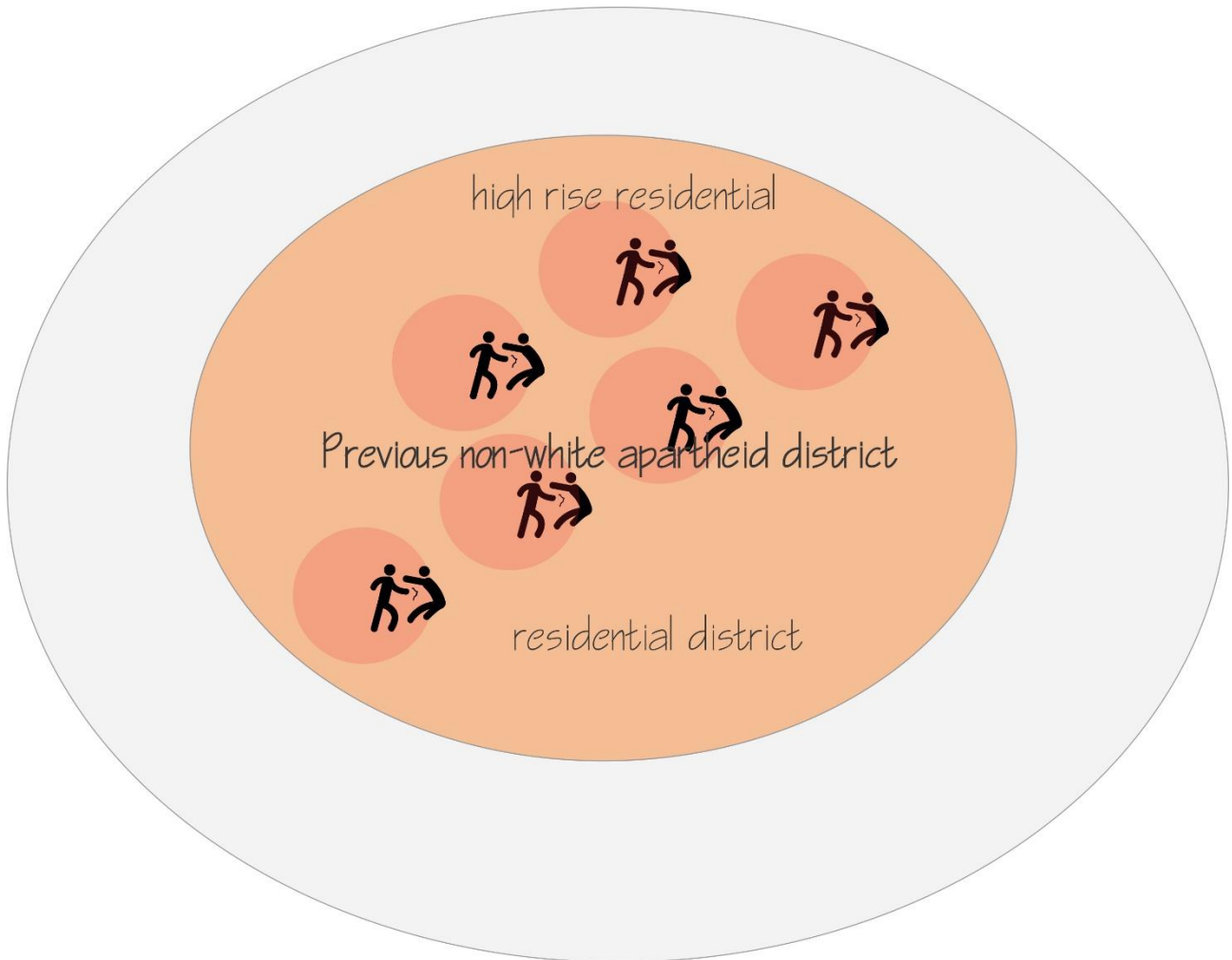


Figure 7.1.7, Ideal socio-spatial relationship recommended site selection.

Image source: Author, 2020

PART 2
DESIGN CONCEPT DEVELOPMENT

7.2 Introduction

This chapter serves to demonstrate how the research findings have informed and guided the design process. The brief for the mixed-use development of a Women's Empowerment Centre was established through informants from the literature review and primary research data. Environmental psychology postulates that human interaction with the environment is reciprocated in how the environment influences him both psychologically and physically. Domestically abused women are impacted both physically and psychologically. Design has the ability to influence the user both physically and psychologically.

7.2.1. Brief and accommodation schedule

7.2.1.1. Informants

The selection of client and the design brief have been informed by the literature review and the primary data. The literature review and primary data have guided the design proposal towards a Women's Empowerment Centre which is a mixed-use facility. Through interviews with professionals in organisations that support domestically abused women, the resultant facility can offer a programme that incorporates social service, education and health services.

7.2.1.2. Clients

In response to the current challenges revealed in the research data, violence against women is a global challenge, with South Africa generating some of the highest statistics in the world. There are two clients; an international humanitarian organisation and the South African government.

- **Women for Women International**

Women for Women International is a humanitarian organisation that aids in the recovery of women who were marginalized by war and social conflict. This organization works with the governments of several countries by offering support, practical tools and access to skills development.

- **South African Government**

In response to the alarming statistics of violence against women, the South African government is working in collaboration with organizations such as Women for Women International to effect change in South Africa.

7.2.1.3 Detailed Brief

The proposed Empowerment Centre for domestically-abused women is responsive to the issues and challenges facing domestically abused women. The building typology is mixed-use. The programmes of the mixed-use Centre is guided by the privacy gradient that escalates within the building facility.

7.2.1.3.1. Basement level

The basement storey is predominately a parking and services level. The design incorporates a specifically allocated and secure drop-off zone and parking area for the domestically abused women that will utilize the facility. The secure access allows the domestically abused woman to bypass the public ground storey and proceed directly to the higher privacy zones at the skills development and retreat zones. The double volume space creates a sacred exhibition zone, where the artworks on display can serve both to create a sense of awareness of domestic violence as well as to inspire a sense of economic sustainability. These domestically abused women are able to use art as a medium of expression, healing and catharsis. The practical outcomes however is the rebuilding of their lives, self-sufficiency through the income they are generating, and sustainability. This level is also the main storage area for the general facilities and programmes held at various venues within the building. Foyer spaces provide a point of access and ingress to the activity venues above.

7.2.1.3.2. Ground floor level

Since the research highlighted the importance of community engagement, the ground storey was consequently designed as a public level, providing access to the community. The market serves as a point of transition from the public areas into the domain of the empowerment centre for women. The ground floor level is further passively transitioned between fully public, semi-public and private zones. The ground floor has a fully public wing with food outlets and a market space, where goods produced by the skills development level can be promoted and sold. Other women-shelters may hire out this market space to generate an income for the domestically abused women of the community that they service. The ground storey level is designed to draw in the community as a point of interaction, and facilitate community engagement with the Centre. The research has revealed that domestically abused women go to shelters as a last resort, when all other alternatives have been exhausted. The empowerment centre offers a semi-private public wing, where women, men and families can access the helpdesk of professionals such as the police, social worker, attorney or doctor. This level is transparent and allows for the ease of movement and engagement between the exterior and the interior. The semi-private public wing uses innocuous partitioning such as plants to establish a privacy gradient between the fully public and semi-private spaces.

7.2.1.3.3. First Floor Level

The first floor level is the management level, where the administrative offices are located. The offices for the management of the maintenance and operations of the building is housed in the right wing of the first floor. The left wing houses the offices for the management of the abused women's skills development and retreat levels above. The left and right wings are connected with a social bridge. This level allows for transparency and a point from which passive security and management can keep watch over the activities of the ground floor. This level also serves as a point of transition between the public level below and the more private levels above.

7.2.1.3.4. The Second Floor level

The research reveals that many of the domestically abused women have to rebuild their lives. Most of these women have a minimal education, while others are forcibly removed from their sources of income. The second floor level therefore provides a training hub where women can be empowered with skills to rebuild their lives. The training level also provides a seminar room, where abuse-survivors, trainers and motivational speakers can be hosted at the centre to provide encouragement, information and training. This level is set back from the level below, providing a sense of visual permeability and privacy from the levels below. The left and right wings are connected with a social bridge. This level is screened using planting and screening devices. Interior and exterior spaces are semi-permeable with screens that allow sunlight to penetrate the spaces throughout the day. Green walls are angled so that winds stimulate the air movement throughout the building, continuously refreshing and oxygenating the air.

7.2.1.3.5. Third floor level

The research revealed that exercise, beauty activities and health spa activities helped stimulate the release of brain chemicals, which when combined with a positive environment can facilitate healing and wellness. The third storey level is separated in programme by the activity noise factor. A contemplation lounge, hair salon, nail bar, gym and health spa completes the retreat level. This level is set back from the level below to reinforce its visual privacy and permeability from the levels below. There are no connecting wings at this level. Green walls act as a screen for privacy whilst re-oxygenating the interior environment. They also serve as a buffer by actively absorbing sounds from the exterior spaces. This level is generally screened allowing for semi-permeability of sunlight throughout the day.

7.2.1.4 Accommodation schedule

Basement	Area (m²)	Quantity	Total
Parking	90.6	1	90.6
Security	17.3	1	17.3
Cleaners	28	1	28
Cleaners store	19.5	1	19.5
Circulation core / Foyer 1	73	1	73
Exhibition space	178	1	178
Storage 1	31.8	1	31.8
Storage 2	29	1	29
Storage 3	37.4	1	37.4
Storage 4	61.9	1	61.9

HEALING AND EMPOWERMENT THROUGH ARCHITECTURE
Towards an Empowerment Centre for abused women in Durban

Transformer Room	29	1	29
Meter Room	17.6	1	17.6
Secure drop-off and parking	340	1	340
Circulation core / Foyer 2	65	1	65
Bin Area	17.8	1	17.8
Fire Stair 1	38	1	38
Fire Stair 2	21	1	21
Total			801 m²

Ground floor	Area (m²)	Quantity	Total
Restaurant	162	1	162
Wash-up / Scullery	16.7	1	16.7
Dry Store	14.4	1	14.4
Cold Store	11	1	11
Ice-cream / sweets store	55	1	55
Exhibition Space	452	1	452
Souvenirs shop	46	1	46
Express food bar	88.3	1	88.3
Kitchen	20.8	1	20.8
Wash-up / Scullery	10.7	1	10.7
Dry & Cold Store	11.3	1	11.3
Circulation core / Foyer 1	57	1	57
Security	68	1	68
Coffee shop	104	1	104
Waiting Lounge	71	1	71
Social worker	24.5	1	24.5
Attorney	24.5	1	24.5
Consultation Room	12	2	24
Doctor	78	1	78
Print	6.4	1	6.4
Ablution 1	35	1	35
Ablution 2	33.5	1	33.5
Circulation core / Foyer 2	42	1	42
Total			1205 m²

HEALING AND EMPOWERMENT THROUGH ARCHITECTURE
Towards an Empowerment Centre for abused women in Durban

First Floor	Area (m²)	Quantity	Total
<u><i>Left Wing</i></u>			
Boardroom	55	1	55
Meeting room	60	1	60
Circulation core / Foyer 1	57	1	57
Social space	86	1	86
Open plan office	209	1	209
Office	24	2	48
Kitchen	22	1	22
Ablution	35	1	35
Outdoor social space / seating	47	1	47
Outdoor social space / seating 2	61	1	61
Outdoor social space / seating 3	69	1	69
<u><i>Right Wing</i></u>			
Circulation core / Foyer 2	42	1	42
Boardroom	42	1	42
Open plan office	138	1	138
Laptop station	97	1	97
Ablution	33	1	33
Kitchen	11.7	1	11.7
Outdoor seating area	51	2	102
Total			1203 m²

Second Floor	Area (m²)	Quantity	Total
Circulation core / Foyer 1	57	1	57
Food Court	58	1	58
Training Kitchen	87	1	87
Wash-up / Scullery	19	1	19
Dry & Cold Store	10	1	10
Ablution 1	35	1	35
General research	23	1	23
Computer Class	83.2	1	83.2
Group discussions	59	1	59
Multi-purpose workshop	92	1	92

Sewing and Knitting class	79	1	79
Books	23.4	1	23.4
Reading room	51	1	51
Health Spa	74	1	74
Outdoor social space	53	1	53
Circulation core / Foyer 2	42	1	42
Seminar room	118	1	118
Waiting area	60	1	60
Ablution 2	33	1	33
Outdoor Social Space	33	1	33
Total			983 m²

Third Floor	Area (m²)	Quantity	Total
Contemplation lounge	81	1	81
Yoga	49	1	49
Ablution & change room & steam room	64	1	64
Hair salon	73.5	1	73.5
Nail bar	47.5	1	47.5
Waiting area	46	1	46
Gym	260	1	260
Health spa	74	1	74
Total			574 m²

Total floor Area	4766m²
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7.2.2 Site

7.2.2.1 Site Selection

The site needed to be located in a densely populated residential area, where the built-form still reflected social systems of inequality. The site also needed to have a clear link with the community. The key theory for application is environmental psychology, as it talks to territoriality, privacy, personal space and security. Domestic violence takes place in the home.

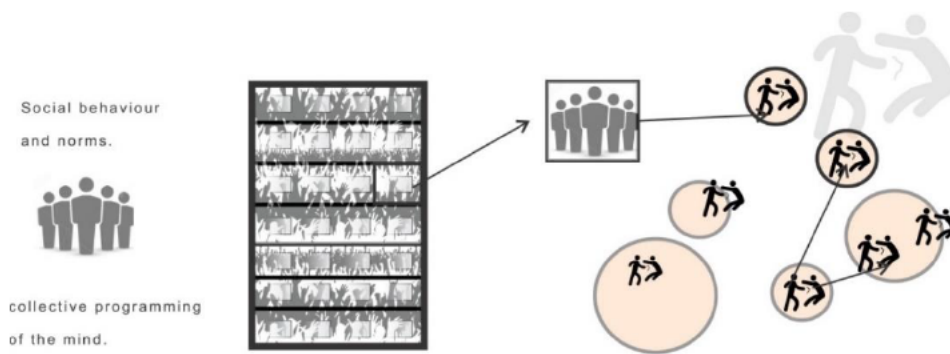


Figure 7.2.1, Social behaviour and norms
Image source: author, 2019

7.2.2.2 Justification of Site

With South Africa generating some of the highest statistics in the world for violence against women, the research revealed that South Africa has an embedded social system of inequality produced by such factors as colonialism, patriarchy and apartheid. The site in the Sydenham precinct that was selected, is located in a community where the above South African social context with its built form is still reflected.

7.2.2.3. Opportunities presented onsite

The site is located in the heart of the Sydenham community, flanked by multiple high-rise residential blocks. The location of the high blocks in relation to the site, reveals which parts of the site will be shaded or blocked. This provides us with the opportunity to design around these challenges.

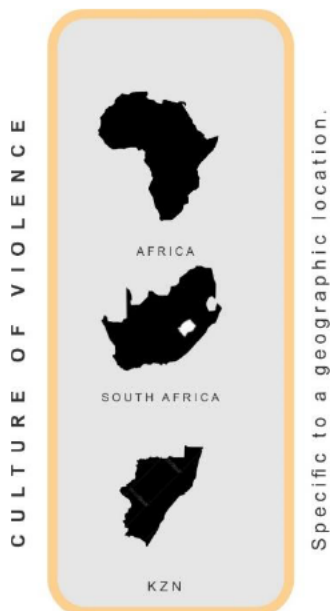


Figure 7.2.2, Culture of violence in SA
Image source: author, 2019



Figure 7.2.3, Aerial view.
Image source: www.googleearth.com
Adapted by author, 2019



Figure 7.2.4, Surrounding green spaces
Image source: www.googleearth.com
Adapted by author, 2019

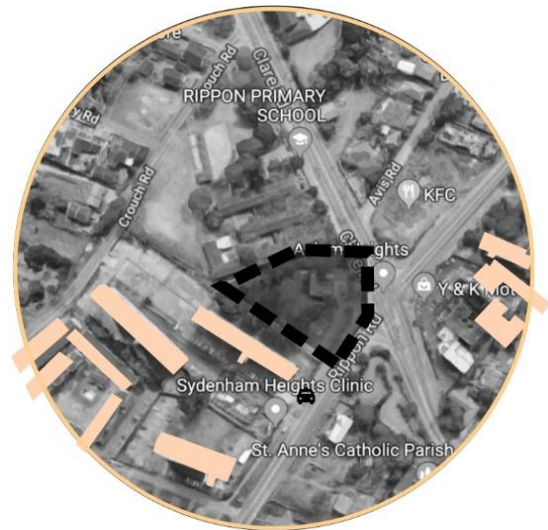


Figure 7.2.5, Surrounding high-rise residential blocks.
Image source: www.googleearth.com
Adapted by author, 2019

The site shows opportunity for connecting and expanding the surrounding green spaces. One of the key design principles is the incorporation of nature. The linkage to green surrounding spaces is vital for connecting with context and the community. Green spaces need to be further incorporated within the design. The research reveals that nature produces negative ions which stimulate the release of serotonin. Serotonin is a hormone that assists with stress relief, fights depression and balances the autonomic nervous system.



Figure 7.2.6, Locality Zoning
Image source: <http://gis.durban.gov.za/ethekwinimunicipality/viewer/cgisPublicViewer.html>
Adapted by author, 2019

The site is surrounded by highly densified high-rise buildings as well as other mixed-use activities. This provides us with the opportunity to create a linkage with current activities, to connect with the spirit of this area and to strengthen the connection with the surrounding community.

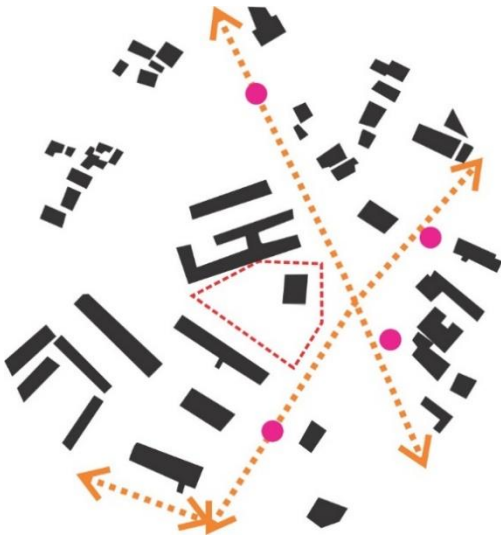


Figure 7.2.7, Surrounding vehicular movement
Image source: www.googleearth.com
Adapted by author, 2019

The site is easily accessible along dominant traffic routes and is surrounded by traffic movement nodes. The site has a strong presence within the community, as it is located amidst the continuous day-to-day movement of the surrounding dialectic community.

7.2.3 Environmental study

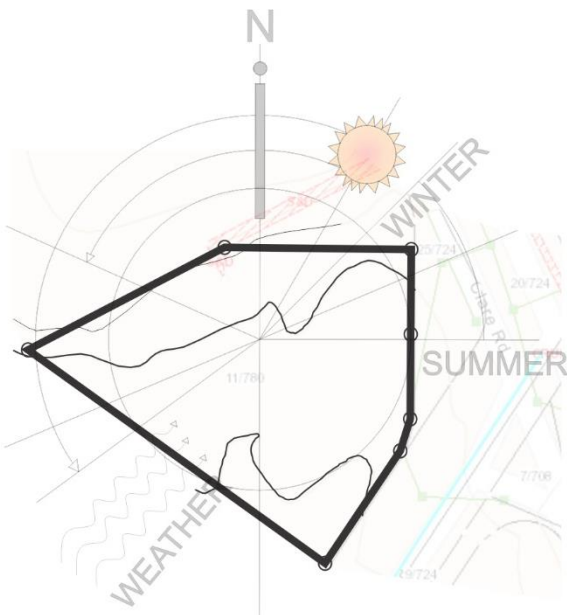


Figure 7.2.8, Site analysis
Image source: www.googleearth.com
Adapted by author, 2019

The site analysis reveals the solar path in relation to the site. Understanding the solar path in relation to the site is imperative to the design, since incorporating sunlight is a vital design principle. The research reveals that the lack of sunlight causes depression, feelings of hopelessness, guilt and suicides. Restrictions in the light spectrum

increases levels of the stress hormone cortisol, and can lead to suppressing the effectiveness of the immune system. Working with the solar path is also crucial for nature and green spaces, which requires sunlight to survive. Understanding the solar path can help us to strategize and harness the penetration of the sun into the various sections of the building. The north-westerly and south-easterly winds that blow through the site can be channelled to facilitate air circulation within the Centre. In the hot and humid climate of this area, this movement of air within the development can provide natural cooling and ventilation.

7.2.4 Design Development

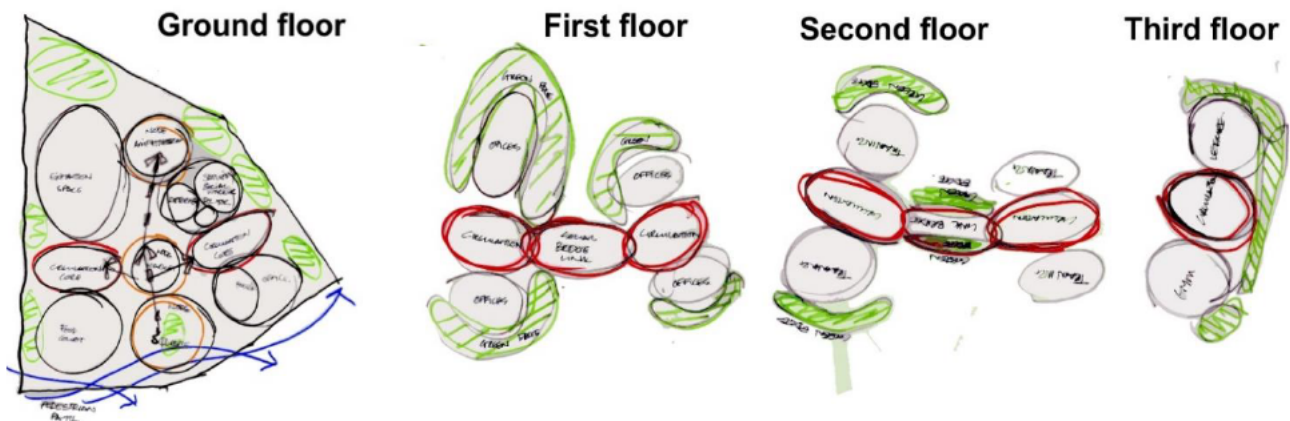


Figure 7.2.9, The building programme
Image source: author, 2019

The flow of the building is linked, incorporating all activities stipulated in the client brief. The privacy gradient is established within both the horizontal and vertical planes. Green spaces are used for the following reasons - as a buffer for humidity, to mask noise, to absorb pollution, to trap dust, to oxygenate the air and to screen off areas for varying levels of privacy.

Form Development

The site

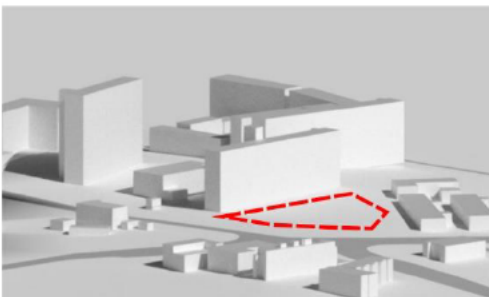


Figure 7.2.10, Massing study of the surrounding sites
Image source: author, 2019

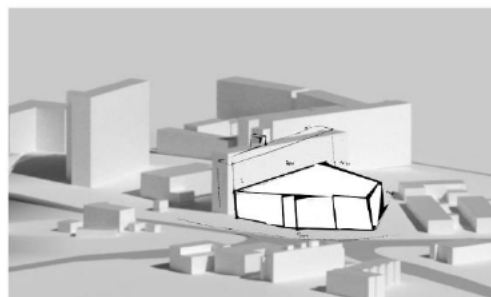


Figure 7.2.11, Massing study of the site
Image source: author, 2019

The site is first identified and highlighted, within the existing surrounding context.

Relationship with Community

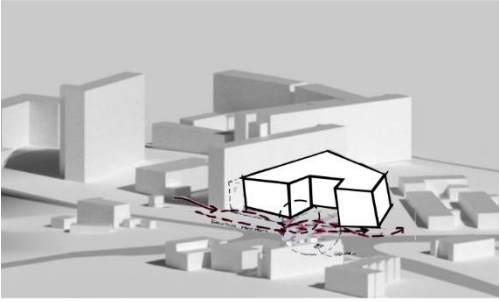


Figure 7.2.12, Form massing and community
Image source: author, 2019

Programme

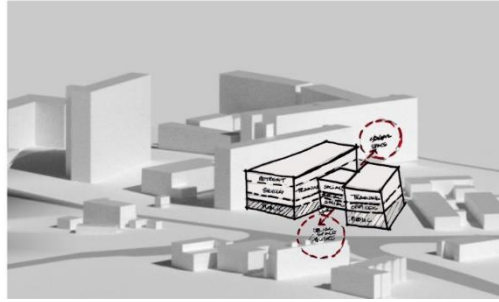


Figure 7.2.13, Form massing and building programme
Image source: author, 2019

The existing paths and dialectic pedestrian movement around the current vacant site has been noted. A portion of the building will be recessed within the site to draw the community into the core of the development. The building programme reinforces the community connection. The public level will act as a spine to draw the community into the development and to connect with them within its hierarchy of social spaces. The first storey will function as the management hub. The second storey will house the skills development facilities, whilst the third storey will provide the amenities for retreat and recovery.

Privacy Gradient

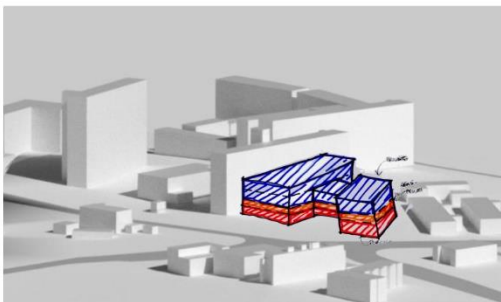


Figure 7.2.14, Form massing and privacy gradient
Image source: author, 2019

Relationship with context

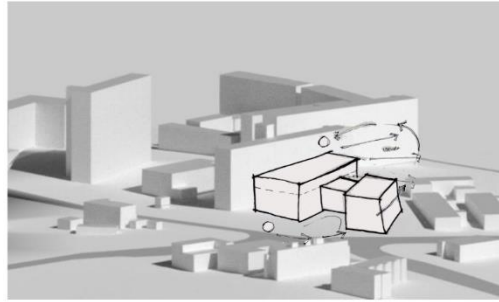
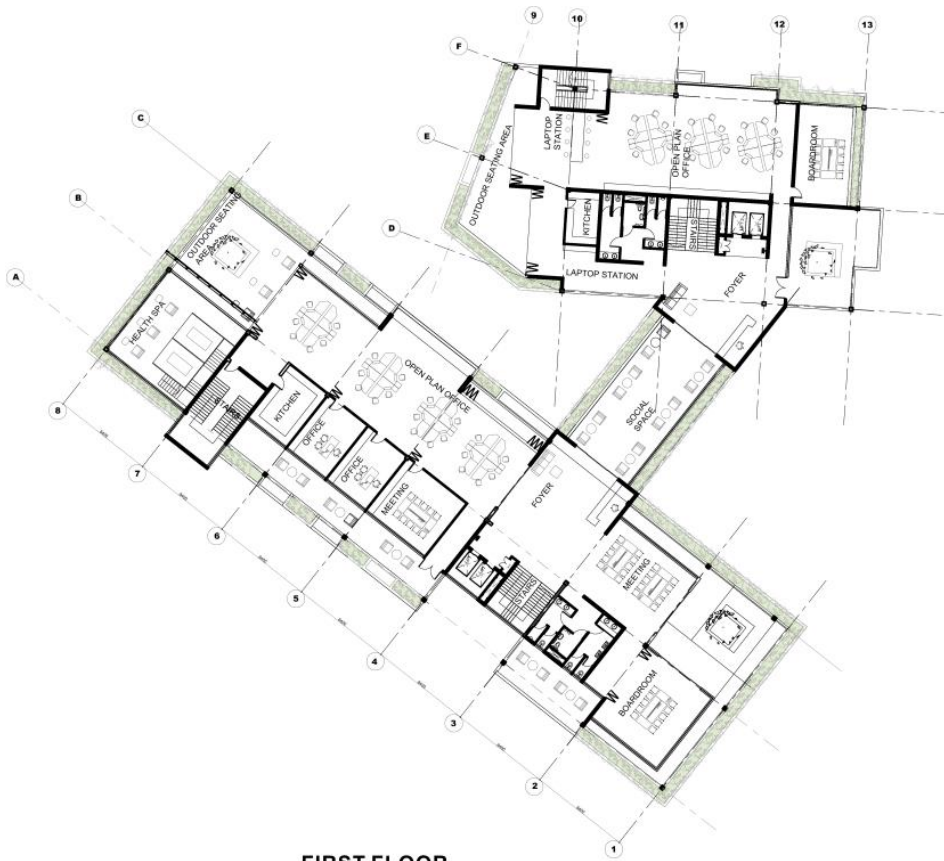


Figure 7.2.15, Contextual massing exercise
Image source: author, 2019

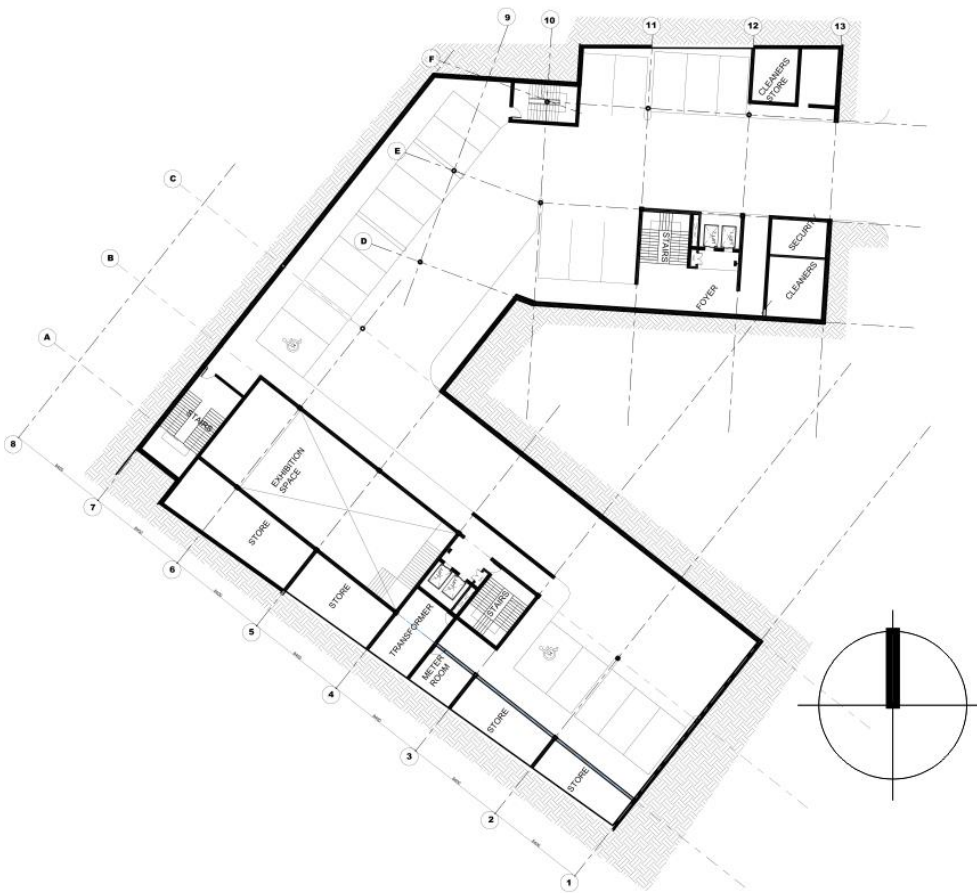
The privacy gradient per level is reinforced by the programme. On the vertical plane, the privacy gradient is achieved by stepping the building back. The development is contextually modulated to adapt in relation to the heights and levels of the surrounding buildings.

HEALING AND EMPOWERMENT THROUGH ARCHITECTURE
Towards an Empowerment Centre for abused women in Durban



FIRST FLOOR

scale 1 : 200



BASEMENT FLOOR

scale 1 : 200

Figure 7.2.21, Floor layouts
Image source: author, 2019

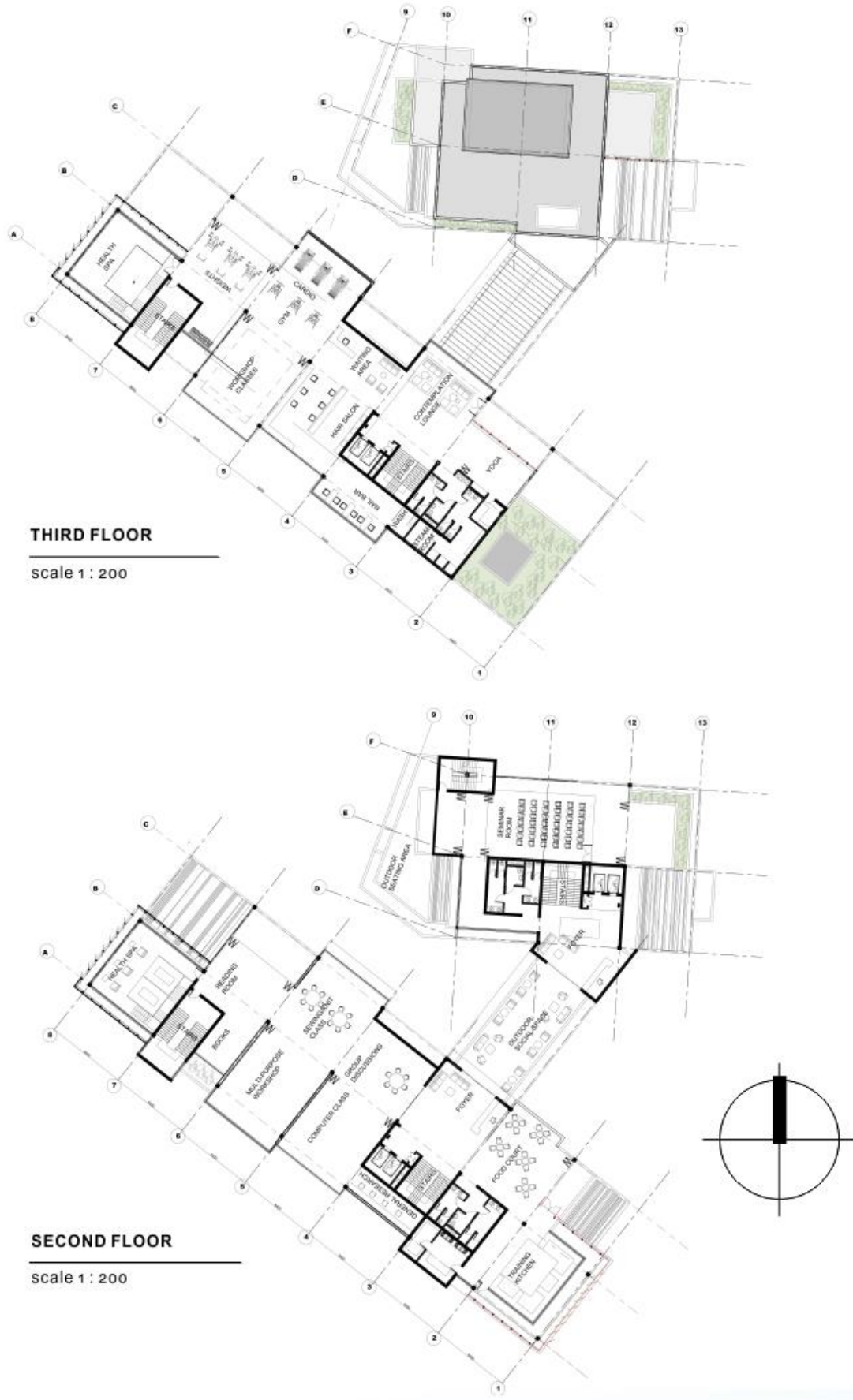


Figure 7.2.22, Floor layouts
Image source: author, 2019



Figure 7.2.23, Street views
Image source: author, 2019



Figure 7.2.24, Street views
Image source: author, 2019

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APPENDIX 1



UNIVERSITY OF
KWAZULU-NATAL
INYUVESI
YAKWAZULU-NATALI

07 November 2019

Miss Sherlaine Alison Boyles (201504787)
School Of Built Env & Dev Stud
Howard College

Dear Miss Boyles,

Protocol reference number: HSSREC/00000255/2019

Project title: Healing and empowerment through Architecture: Towards an Empowerment Center for abused Women

Full Approval – Expedited Application

This letter serves to notify you that your application received on 12 August 2019 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid for one year from 07 November 2019.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

Yours sincerely,



Professor Urmilla Bob
University Dean of Research

/dd

Humanities & Social Sciences Research Ethics Committee
Dr Rosemary Sibanda (Chair)
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Website: <http://research.ukzn.ac.za/Research-Ethics/>

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

INSPIRING GREATNESS

APPENDIX 2

HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)

APPLICATION FOR ETHICS APPROVAL For research with human participants

INFORMED CONSENT RESOURCE TEMPLATE

Note to researchers: Notwithstanding the need for scientific and legal accuracy, every effort should be made to produce a consent document that is as linguistically clear and simple as possible, without omitting important details as outlined below. Certified translated versions will be required once the original version is approved.

There are specific circumstances where witnessed verbal consent might be acceptable, and circumstances where individual informed consent may be waived by HSSREC.

Information Sheet and Consent to Participate in Research

Date:

Good Day

My name is Sherlaine Alison Boyles a Masters architecture student from University of Kwa-Zulu Natal (Howard College) and my contact number is +(27)71 672 0123 and my email address is sherlaine@livindesign.co.

You are being invited to consider participating in a study that involves research of "Healing and Empowerment through architecture, "Towards an Empowerment Centre for Domestically Abused Women."

The aim and purpose of this research is to understand the socio-spatial needs of abused women, specifically domestic violence, in order to inform the design of a built environment that stimulates healing and empowerment.

The objectives of this study are:

1. To analyse the social systems and spatial configurations that influence domestic abuse against women.
2. To identify the spatial needs and challenges of domestically abused women.
3. To explore how architecture can stimulate healing and the empowerment of domestically abused women.

The study is expected to enroll multiple Professionals and key personnel located at organizations that interact with Domestically abused women, incorporating three different case studies located in the context of South Africa.

Procedure

It will involve the following procedures;

The participant will be asked to answer/ respond to questions related to the study. The interviewing process will encompass a semi-structured interview, time and location of the interview will be scheduled at the participants convenience.

Duration

The duration of your participation if you choose to enroll and remain in the study is expected to be 60minutes.

Funding

The study is funded privately.

Risk and discomfort

There are no known medical risks or discomforts associated with this study specially the research or interview. Participants may experience fatigue when responding to the questions and will be given as breaks and required.

Benefits

There are no direct benefits to participating in the study. We hope that the study that the results, from the study will help the researcher gain a better understanding of the socio-spatial needs of Centres for domestically abused women.

Participants Rights

Participation in this study is voluntary. If you feel for any reason that you do not want to be part of the study any more, you have the right to withdraw from the study, there will be no repercussions for doing so. You are also free to state that you do not want to answer a question if you do not feel comfortable to do so.

Medical risks and discomfort

There are no known medical risks or discomforts associated with the study or interview. Participants may experience fatigue when responding to the questions and will be given as breaks and required. There are no other appropriate alternative procedures and treatments that may serve as possible alternate options to participation in this study.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number_____).

In the event of any problems or concerns/questions you may contact the researcher at (provide contact details) or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Participants Rights

Participation in this study is voluntary. If you feel for any reason that you do not want to be part of the study any more, you have the right to withdraw from the study, there will be no repercussions or incurred penalties for doing so.

You are also free to state that you do not want to answer a question if you do not feel comfortable to do so. On completion of the interview the researcher will terminate the participant from the study.

Financial Compensation

Participants will not be compensated in any way their participation. There are no incentives or reimbursements for the participation in this study.

Confidentiality Clause

Should you agree to participate in this study, please note the following:

The researcher is directed by the ethical committee of the University of KwaZulu Natal and participants are assured of the following:

Your name and any form of identification will not be revealed on any documentation, nor on any publication pending from the research project. The results of this study may be published in professional journals, participants would be referred to participant one, two, three etc. Consideration would be given during the session to any sensitive issue and anonymity and confidentiality will be strictly maintained. Responses will be recorded in writing to enable the researcher to have valid and reliable data.

Once the research has been completed, the copies of completed interviews, field notes, transcribed responses, photographic and comparative site analyses will be stored in a confidential safe place for 5 years and thereafter disposed of.

CONSENT (Edit as required)

I (Name)_____ have been informed about the study entitled (provide details)_____ by (provide name of researcher/fieldworker)_____.

I understand the purpose and procedures of the study (add these again if appropriate).

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at (provide details)_____.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Audio-record my interview / focus group discussion YES / NO

Video-record my interview / focus group discussion YES / NO
Use of my photographs for research purposes YES / NO

Signature of Participant

Date

**Signature of Witness
(Where applicable)**

Date

**Signature of Translator
(Where applicable)**

Date

APPENDIX 4	
SEMI- STRUCTURED QUESTIONNAIRE FOR PROFESSIONALS AT CENTRES FOR DOMESTICALLY ABUSED WOMEN	DATE OF DATA COLLECTION
TITLE OF RESEARCH PROJECT	
Healing and empowerment through Architecture: Towards an Empowerment Center for abused Women	
A.	Background Information
1.	What position do you hold at this Women’s Centre?
2.	Can you describe your duties as that professional in this Women’s Centre?
3.	How long have you been practicing as a Professional in this industry?
4.	How long have you been employed by this organisation?
5.	What is your aspirations as a Professional in this industry?
B.	Services Available at Centres of Refuge for Women
1.	What procedure do Domestically Abused Women have to follow in order to gain access to services offered by your organisation?
2.	What programmes does your organisation offer Domestically Abused Women?
3.	Which programmes do you think are the most effective or produce the best recovery results? Why?
4.	What services do you think are required for a for Domestically abused women, which you do not currently offer in your organisation?
5.	To what extent are you involved in the planning and implementation of these programmes?
6.	What do you think your organisation could do differently in order to improve your service delivery?
7.	Are there any programmes that stimulate healing or recovery of Domestically Abused women?
8.	What do you understand by the term empowerment?
9.	Do you think it is possible for a Centre for women to empower Domestically Abused Women?
10.	We live in a digital age? Is there any service that be offered digitally to support domestically abused women?
11.	Do you have any recommendations?

C	Spatial Requirements
1. 2. 3. 4. 5. 6. 7. 8.	<p>Would you say the space provided is sufficient to support these programmes?</p> <p>What spatial or planning requirements do you think would improve the efficiency of these programmes?</p> <p>What are your experiences in terms of spatial challenges?</p> <p>What are your experiences in terms of spatial successes?</p> <p>If you could redesign the Centre, what would you do differently?</p> <p>In your opinion, what spaces are most popular to domestically abused Women in your organisation?</p> <p>In your opinion, what spaces are most disliked by domestically abused women?</p> <p>Which spaces are under utilised by abused women and why?</p>
D	Demographic Information
1. 2. 3. 4. 5. 6.	<p>What is the highest age statistic that enters this organisation for Domestic Abuse?</p> <p>What is the highest race/ ethnicity?</p> <p>What is highest level of education?</p> <p>How long do domestically abused women stay in your organisation?</p> <p>Is there a reason for this timeframe?</p> <p>What are your recommendations?</p>
E	General
1. 2. 3. 4. 5.	<p>Are you networked with other professionals in different organisations?</p> <p>In your opinion, what are the general challenges that Centre for women face that impact service delivery?</p> <p>What are the major spatial challenges you face that effect your service delivery?</p> <p>What major spatial requirements in your opinion will improve the service delivery?</p> <p>What are your recommendations?</p>

APPENDIX 5		
OBSERVATION SCHEDULE FOR CENTRES FOR DOMESTICALLY ABUSED WOMEN		
TITLE OF RESEARCH PROJECT		
Healing and empowerment through Architecture: Towards an Empowerment Center for abused Women		
DATE	Name of Facility/ Organization	Observed by:
Purpose of observation		Zoning of Spaces Observed
DATE	Name of Facility/ Organization	Observed by:
Purpose of observation		Zoning of Spaces Observed
DATE	Name of Facility/ Organization	Observed by:
Purpose of observation		Zoning of Spaces Observed
DATE	Name of Facility/ Organization	Observed by:
Purpose of observation		Zoning of Spaces Observed