

**PERCEPTION OF THE BUILT ENVIRONMENT AND ITS IMPACT ON THE
PROCESS OF REHABILITATION FROM ADDICTION**

A Proposed Life-Recovery Facility for Durban, South Africa

by

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DECLARATION

A document submitted in partial fulfilment of the requirements for the degree of Masters, in the Graduate Programme in Architecture, University of KwaZulu-Natal, Durban, South Africa.

I declare that this dissertation is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. It is submitted for the degree of Masters in Architecture in the Faculty of Humanities, Development and Social Science, University of KwaZulu-Natal, Durban, South Africa.

None of the work has been submitted previously for any degree or examination in any other university.

Samantha Anna Suzanne Rouche (202520552)

14 March 2014

DEDICATION

This document is dedicated with love and pride to my mom, Laura Rouche, on her 6th birthday.

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ABSTRACT

In an increasingly urbanized modern context, physically and mentally damaging addictive behaviours are endangering the emotional and moral stability of society. Cognitive Behavioural therapies and operant conditioning have long been used to modify destructive and anti-social behaviours, such as those symptomatic of addiction; and while many studies have illustrated the impact of these therapies on those suffering psychological ills, few have linked one's perception of the built environment with the potential for improving, directly, the treatment of rehabilitation from addiction. Thus the primary purpose of this study, is to explore the ways in which one perceives the built environment and how this impacts one's own perception of self; and subsequently how this may be utilized to improve the effectiveness of the current methods of addiction treatment. Therefore an understanding of the duality of addiction and of the nature of the addict is required to ensure a realistic and functional approach. To this end, personal interviews with those in recovery for a minimum of two years and the professionals - both recovering addicts and non-addicts alike - who treat them, was crucial to providing a balanced and definitive account of the nature of those affected; the nature and origins of the disease and the preferred treatment therapies most commonly applied in South Africa today. This qualitative data was supplemented by a closed-ended quantitative study, describing the profile of the addict which was subsequently fleshed out in a qualitative focus group. The results reveal the current broad cultural and socio-economic base of recovering addicts in Durban and the underlying psychological distress at the heart of the disease. As well as describing a powerful and well connected fellowship, the study has demonstrated an incredible sense of spiritual order and humility as central to sustained recovery and a positive perception of self. The built environment has shown to improve the effectiveness of the available treatment methods, in enhancing one's perceived sense of self by providing a meaningful cultural and personal connection to the users of it. Physiologically the built environment directly impacts addiction treatment in affording opportunities for unconscious and challenging physical and mental stimulation in an enriched and meaningful environment. Findings describe the ways in which the built environment may be utilized to encourage a positive self-image and directly impact the process of rehabilitation from addiction, through both the physiological and psychological impact of one's perception of self within it.

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CHAPTER ONE | RESEARCH BACKGROUND AND METHODOLOGY

1.1 Introduction

1.1.1 Background

According to the United Nations Office on Drugs and Crime, the global estimated drug use was 5% of the world population in 2010, which may sound inconsequential. However, 5% of 6.9 billion, accounts for approximately 345 million people suffering a disease that contributes to economic and social instability beginning at society's core - in the family structure. In South Africa, approximately 2.5 million people took illicit drugs in 2010 (UNDOC, Drugs Report 2012). Illicit drugs referring to illegal substances and not including the abuse of pharmaceutical medication or alcohol. In 2005, South Africa's alcohol consumption was within the higher half of global rates, between 7.5 - 9.99 litres per capita; similarly for Cannabis of between 4.01 and 6.00 percent of the population between 15 and 64 years of age (WHO, 2010). Alcoholics Anonymous (AA) suggests, that only 3% of addicted people, recognize themselves as addicts and seek recovery, of that figure, 97% of recovering addicts do not stay in recovery (AAWS, 2010).

Substance abuse correlates with increases in crime and incidences of HIV and undermines the family structure at the heart of the local community and society at large (UNDOC, Drugs Report 2012). If one assumes that the figures of consumption relate to substance abuse, and coupled with the statistics from AA, the current number of people in South Africa, suffering addiction to illicit drugs, accounts for approximately 4.8 million. With escalating crime and poverty rates, suggested by SANCA Phoenix House Director Adrie Vermeulen, as being two of the most significant socio-economic causes of substance abuse in South Africa - improving current awareness and treatments, is an increasingly pertinent conversation.

1.1.2 Motivation/Justification of the Study

The disease of addiction has both physical and psychological manifestations but is considered as being rooted in emotional ills (Brown, 2007) that act to distort one's perception of reality and their core ethical values seen to subsequently erode the moral fabric of society in general (Vermeulen, 2013, pers. comm. 25 March). The built environment provides the conscious and unconscious platform, within which one forms their negative or positive perceptions of self. As such, it has the potential to act at modifying destructive social behaviours by

encouraging the latter and mitigating the erosion of individual and subsequently communal, moral values (Norberg-Schulz, 1985).

This study establishes possible reasons for the aforementioned and alarmingly low rates of successful recovery and explores the inherent potential of the built environment, to increase the effectiveness of addiction treatment. It is believed that this may be achieved, by addressing people's perception through a built environment that promotes mental and physical health and wellbeing, specifically with regards to rehabilitation. The intention is that the research describe the ways in which the built environment - in tandem with existing treatment therapies - may directly and positively impact the process of rehabilitation from addiction.

1.2 Definition of the Problem, Aims and Objectives

1.2.1 Definition of the Problem

According to Adrie Vermeulen, there has been a shift in the cause-effect relationship between drug abuse and crime and poverty in South Africa, since 1994. With the loosening up of border controls, the country has been exposed to a massive influx of drugs not previously available. Now one sees that where before, drug abuse and addiction were the cause of a lot of poverty and crime, the current view is that poverty is a major cause of drug abuse and addiction as people try to escape the reality of their lives (Adrie Vermeulen, pers. comm. 25-03-2013).

In AA, addiction is described as a 'spiritual disease' which erodes not only ones sense of self, self-esteem and moral values but those of the family structure and eventually the community and society in general. Thus by looking at the entire picture of the dual nature of addiction - understanding that it is a disease of both the mind and the body - there may be opportunity for an effective and realistic treatment method that not only heals individuals but all of the systems and social structures they form a part of.

1.2.2 Aims and Objectives

Aims

The overall aim of this study is to explore the nature of the impact of the built environment on one's perceptions of self and how this affects a sense of personal worthiness, so critical to those suffering the disease of addiction. The aim is then to establish an approach that may go toward a more effective design of rehabilitative spaces, thereby increasing the rates of sustained, long-term recovery from addiction and potentially preventing its onset altogether.

Objectives

- To describe the nature of addiction and establish how the built environment impacts the perception of an addicted person.
- To explore perception of the built environment; in literal and intuitive terms; and establish how this impacts on the user of the built environment.
- To formulate an approach to the built environment that goes to treating the disease of addiction and mitigating the physical and socio-economic contributors to its onset.

1.3 Setting Out the Scope

1.3.1 Definitions of terms

AA is Alcoholics Anonymous

Active Addiction is when an addicted person is using substances or displaying addictive behaviours

An Addict is a person who compulsively engages in physically and mentally unhealthy behaviour as a consequence of misperceptions of self

Addiction is a chronic, relapsing brain disease and spiritual illness

Blame is a method of avoiding emotional pain

The Built Environment refers to man-made physical surroundings that include buildings, roads and parks

Character is the combination of qualities or features that distinguish one thing from another

Cognition refers to the mental process of acquiring knowledge

Courage refers to embracing one's vulnerability in being authentic

A Dry-Drunk is a person who physically abstains from substance abuse without going to addiction therapy and treating the underlying psychological causes

Empirical Knowledge is gained through practical experience

Existential is the empirical experience of existence

Fear is the anxiety experienced at the perceived presence of danger

GA is Gamblers Anonymous

A Halfway House is a home shared by addicted people

An In-Patient Facility is where an addicted person is accommodated over night for addiction treatment

Knowledge refers to the information about the built environment possessed, that affords awareness and resourcefulness within it

The Milieu is the multitude of objects that make up the built environment

Morphology refers to the nature of the built form

Multifarious is to have many aspects

NA is Narcotics Anonymous

OA is Overeaters Anonymous

An Out-Patient Facility like an AA meeting, offers addiction treatment without accommodation

Paradigm is a set of concepts, values and practices subscribed to by a community, that define their perceptions of reality

Perception is the recognition of opportunities for survival in the built environment, via the sensory experience of environmental stimuli and influenced by personality and culture

Phenomena are seen and unseen things

Phenomenology is the philosophical paradigm defining the essence of things

Primary-Care is the first stage of the recovery process and treats the physical symptoms of addiction

A Recovering Addict is an addict who is both abstaining from substance abuse and in addiction treatment

Residential Rehabilitation refers to being treated for addiction while living away from one's usual home

SANCA is the South African National Council on Alcoholism and Drug Dependence

The Rooms is the colloquial term used for out-patient meetings

Topology refers to the nature of the spatial arrangement of the built environment

Secondary-Care is the second stage of the recovery process and treats the psychological origins of addiction in residential rehabilitation facilities

Sensation is an emotional response preceded by one's perception of environmental stimuli and which precedes the cognition of them

Shame is the disproportionate fear of disconnection

Socio-Economic refers to interrelated social and economic factors

Tertiary-Care is the on-going treatment of addiction in out-patient facilities

Vulnerability is emotional risk and exposure

1.3.2 Delimitation of the Research Problem

Although it is recognised that addiction includes both substance abuse and behavioural addiction, the subjects of this research are limited to previous substance abusers from AA and NA only and specifically those who have been in recovery for a minimum of two years. Gamblers and over-eaters were not approached. Although men and women respond differently in addiction and to the various addiction treatment methods, the subject is beyond the scope of this study, and has been touched on only briefly, to highlight the issue. Although residential rehabilitation is not mandatory to the recovery process, for the purposes of this study, the psychological impact of the built environment has been measured within the context of a rehabilitation centre. The impact on the perception of users of the built environment, is measured in general terms and not exhaustively in terms of addicted people. Due to the nature of the issue, the scope of this study is limited to the potential of the built environment, to enhance addiction treatment as opposed to providing a solution to the disease of addiction, in isolation of current therapies.

1.3.3 Stating the Assumptions

It is assumed that while the built environment offers opportunity for mitigating the onset of an addictive mentality and may benefit the recovery process, it forms only a part of the system of addiction treatment. As such it is recognized that the efforts of the built environment, require the combination of established treatment methods, as described in the research and the support of the local community, to significantly impact the recovery process. It is the assumption of the researcher, that many of the current social issues, exacerbated by the built environment were borne of the Modernist paradigm and that thereby, the solution lies in understanding those consequences and the potential for the built environment to mitigate them. It is subsequently assumed, that the current global social context offers

opportunity for exacerbating or mitigating these and that through a greater awareness of the intricacies of such a disease, the latter may be encouraged.

1.3.4 Hypotheses

By encouraging a positive perception of self and of one's physical and metaphysical position within the world that self inhabits - the built environment, which provides the conscious and unconscious background instrumental in that positioning, may improve the efficacy of addiction treatment.

1.3.5 Research Questions

Primary Question:

- In what ways does the built environment have the potential to improve the effectiveness of addiction treatment?

Secondary Questions:

A Disease of Perception

- How are the psychological origins of addiction effected by one's perception of the built environment?

A Sense of Worthiness

- How does the built environment foster a perception of love and belonging?

An Empirical Learning

- How may the built environment be designed and utilized to encourage incidental learning?

1.3.6 Research Methods and Materials

1.3.6.1 Primary Research

The primary research included qualitative and quantitative data collection. This approach afforded a comprehensive perspective on the current nature of the issue, the perceptions and socio-economic status of those it affects and to gauge the efficacy of rehabilitation centres and the current treatment methods they provide.

1.3.6.1.1 Quantitative Research Methods

The quantitative research comprised a closed-ended survey (see Appendix B.1) that has been analyzed in terms of the current demography of the addict; their perception of the disease and the relevance and efficacy of rehabilitation centres. This method was used due to it being simpler and quicker to complete, independent of the researcher's presence which may have led to self-conscious and thereby inaccurate responses. Additionally this allowed the researcher to gain a comprehensive general overview of the people affected by the disease as well as their spouses, dependents and communities, in order to further clarify the current greater socio-economic impact of the disease in Durban.

1.3.6.1.2 Qualitative Research Methods

The qualitative data was collected through the regular attendance of AA and NA meetings and personal interviews with recovering addicts; addiction treatment professionals; a philosophy and psychology professor whose work includes research on gambling addiction and two recovering addicts. A focus group discussion, with six recovering addicts, was conducted to analyze the results of the quantitative study - in order to gain a more accurate perspective of effects of secondary treatment on those currently in recovery in Durban. The case studies that were used to test the practical application of the theoretical framework, included rehabilitation centres, that described three separate approaches to the location and morphology of the built environment in accommodating addiction treatment.

Meetings

The researcher attended three weekly meetings in Durban, including an AA 12-Step Workshop in Redhill, an open NA meeting in Malvern and an open NA meeting on the Berea. The observation allowed a deeper understanding of the nature of the addict, the disease and the recovery process, as well as an analysis of an addict's perception and subsequent use of space.

Personal Interviews

Professionals

Personal interviews with addiction treatment professionals were conducted to gain an understanding of the disease and current therapeutic methods from the perspective of those administering them. It was intended to establish which addiction therapies are considered the

most effective and how they may be improved or augured by the careful consideration of the design of the built environment.

The following addiction treatment or research professionals were interviewed for the aforementioned purposes:

Judith Gordon-Drake is a recovering alcoholic, social worker and treatment professional in the National Responsible Gambling Programme and currently completing her clinical masters dissertation on: *An Assessment of the Resilience in Clients in an Addiction Treatment Programme*. Her current professional qualifications include a B Soc Sc (UND) and a BSW (UNISA). Ms Gordon-Drake's personal experience of the disease and subsequent professional and academic work into its causes and treatment described a profoundly accurate and realistic perspective of addiction as well as the therapies that work for both patients and therapists.

Dr. David Spurrett is a professor of Philosophy at the School of Religion, Philosophy & Classics at UKZN and his qualifications include a BA., BA(hons), MA and a PhD (philosophy) all from the University of Natal. Dr Spurrett's insights provided the work a philosophical background surrounding the psychological mechanisms of desires and one's fulfilment of them as a consequence of the paradigms of space and time.

Adrie Vermeulen became director of SANCA Johannesburg in 2000 and is currently the director of SANCA Phoenix House in Sophiatown, Johannesburg. Her qualifications include BA Soc SC (RAU) and MA Occupational Social work (WITS). Ms Vermeulen contributed greatly to not only the history of SANCA's work in South Africa but also to the conversation on alternative methods of addiction treatment moving forward

Keith Wilkes is a recovering addict and co-founder and owner of the Cedars Addiction Treatment Centre in Dududu, near Scottburgh, Durban. His professional qualifications include an introduction to counselling and certificate course at Lancaster University in the United Kingdom. Similar to Ms Gordon-Drake, Mr Wilkes offered a personal perspective on the disease as well as the practicalities and approaches to the workings of rehabilitation centres

Recovering Addicts

Personal interviews were conducted with recovering addicts Aldine and Clint who have five and three years clean time respectively. The focus group discussion included Aldine and Clint, Gabby, Laura, Nick and Simon - all of whom have been in recovery for a minimum of two years.

Case Studies

Cedars Rehabilitation Centre, Dududu, South Coast.

Cedars has been in operation for ten years and offers primary, secondary and tertiary care comprising both in and out-patient facilities. The centre is owned and run by recovering addicts some of whom have qualified as counsellors and are currently addiction therapists at the centre.

Ellim Clinic, Kempton Park, Johannesburg and SANCA Phoenix House, Sophiatown, Johannesburg.

Both secondary case studies offer medicated primary-care treatment for residential-rehabilitation stays between three and six weeks long. Both centres approach the treatment of addiction at the primary stage with very different approaches to the morphology and location and thereby offer a valuable opportunity to test the proposed theoretical framework.

1.3.6.2 Secondary Research

Literature

Secondary data collection to form a thorough literature review will include relevant published work, journals, conference reports, guides and organisational and governmental surveys and publications. A large range of Narcotics Anonymous literature also exists which will be referred to in order to further an understanding of the complexities of the disease and the principles of recovery.

Precedent Studies

The precedent studies conducted included local and international examples of the built environment that test the theoretical framework within different physical and social contexts in order to gain a broader understanding of its implication in various contexts and the impact of the built environment on one's health and well-being.

The Dyson Centre for neonatal care, Royal United Hospital, Bath, England

The Dyson centre was studied as an example of the proven health benefits of the built environment, to the physical and psychological well-being of the users of a space.

The Ubuntu Centre, Ibhayi Township, Port Elizabeth, South Africa

The Ubuntu centre was selected as a precedent study as it describes an approach to a social and physical context existing throughout South Africa. It also deals in its morphology, with similar social issues experienced in addition of social stigma, privacy, affiliation and accessibility, all of which form a part of the theoretical framework to be tested in the study.

Yingst Retreat, Michigan, North Dakota, U.S.A.

Yingst retreat illustrates the nature of a personal identity that enhances that of the context and was tested against the theoretical framework to define manifestations of repose, intimacy and sanctuary in the built environment.

1.4 Theoretical Framework

1.4.1 Shame Resilience Theory

In her Shame Resilience Theory, Dr Brenée Brown, explores the recurring themes of shame, vulnerability, authenticity and wholehearted living and their relevance in understanding the nature of addiction and the emotional queues to its treatment. Brown describes shame as an intense fear of disconnection as a result of excruciating vulnerability and places this at the core of most social issues, including substance abuse and addiction. A disproportionate sense of low self-worth is symptomatic of feelings of shame and inherent to the nature of the addict. Brown proposes developing an ethos of empathy to counteract feelings of worthlessness resulting from a lack of a sense of love and belonging, which is a consequence of a sense of life being meaningful. Connection with others and one's place in the built environment gives life purpose and meaning and are essential to wholehearted, emotionally and physically healthy living within it. (Brown, 2007)

1.4.2 The Postmodern Paradigm of Phenomenology

Theory in architecture acts to identify the social challenges faced by the profession in the custom and manufacture of the built environment. It differs from descriptive history and

'narrow' judgemental critique in that theory proposes innovative alternatives and 'thought paradigms' for meeting these challenges gleaned from a broader critical analysis of the present state of the profession. In analysing the discipline's current position, architectural theory becomes a tool for measuring its intentions and cultural relevance by outlining not only the social and cultural heights architecture aspires to, but those it has already achieved. (Nesbitt, pg 16, 1996)

"The Bauhaus view was universalistic, one that failed to recognise the social, cultural and geographic circumstances in which buildings function."

(Lang & Moleski, 2010, pg. 32)

The modernist approach to architectural theory which essentially reduced its significance to that of an applied science, resulted in its ignorance of 'myth and true knowledge', concerned exclusively with the 'efficient domination of the material world.' (Perez-Gomez, pg29, 1986) The early modernist school of thought exemplified by Rationalist architects like Le Corbusier and the founder of the Bauhaus school Walter Gropius, 'shared a common concern for *functionalism*' and 'orthogonal geometries.' The approach was one of an efficiency of built form to accommodate efficiently carried-out activities in 'as simple a manner as possible' (Lang & Moleski, pg 5, 2010). After limited success in achieving its proposed universal utopia in Europe, the modern movement in America had, by the 1950s, been translated into little more than a style adopted by mostly corporate architecture and devoid of the social ideology of its original programme (Nesbitt, 1996).

As architectural theories traditionally develop, postmodernism developed in reaction to the existing modern status of the profession within a socio-political culture of revolution against oppression in an expression of 'radical individualism', freedom and civil rights in the post World War ii context. As an alternative to the modern approach, postmodernism proposed five new thought paradigms including phenomenology, aesthetics, linguistic theory, Marxism and feminism. In response to the existing social challenges in the aftermath of two world wars and exacerbated by the Modern Movement's concern for the universal over the individual, postmodernism offered six general themes of cultural theory namely, History and Historicism, Meaning, Place, Urban Theory, Political and Ethical Agendas and The Body (Nesbit, 1996). In exploring the concept of mans' perception of the built environment and the physiological and psychological ways it impacts on sufferers of addiction, the postmodern

themes of Place and The Body will be discussed within the philosophical paradigm of Phenomenology.

Phenomenology is a method of inquiry borrowed from philosophy that underpins the postmodern approach to context and tectonics. The method focuses on the visceral perception of the built environment as a series of objects or phenomena, in reconnecting mans' 'bodily and unconscious connection to architecture'. Husserlian phenomenology, developed by philosopher and mathematician Edmund Husserl, explored the nature of consciousness and its physical and philosophical objects. (Nesbitt, pg 29)

1.4.2.1 Perception

The theoretical work of Peter Zumthor on the emotional perception of atmosphere in the built environment provides an account of mans' sensory perceptions of his environment and expresses the value of the haptic and experiential nature of architecture, in understanding and appreciating ourselves within our built environment. These qualities lend themselves to an architecture that may be nurturing and healing and therefore are important factors in the design of a rehabilitative space.

1.4.2.2 Dwelling

The concept of dwelling was developed by Christian Norberg-Schulz as underpinning his Genius Loci Theory of Spirit of Place and builds onto the existential foothold of reality described in Martin Heidegger's work on true human dwelling, within the postmodern paradigm of phenomenology (Nesbitt, 1996). The concept of dwelling outlines the physical and philosophical way in which the built environment becomes meaningful to the users of it and the personal worthiness inherent to this sense of meaning within a place (Norberg-Schulz, 1985). Belonging and purpose as a result of identification and orientation in the built environment, are at the core of Norberg-Schulz's work, as a basis for unconscious and integral emotional security (Lynch, 1960), so desperately lacking the addicted mind (Clint, 2013, pers. Comm. 18 April).

1.4.3 Behaviourism

Behavioural psychology is based on the school of thought that all behaviours are learned and subsequently sustained as a result of the positive or negative reinforcement of them by environmental stimuli. The protagonists of the subject include its founder, American psychologist John B. Watson who suggested that all behaviours could be learned irrespective of one's internal emotional or mental states; Russian physiologist and founder Ivan Pavlov who's work on classical conditioning is epitomized in his well-known 'Pavlov's Dog' experiment and psychologist B.F. Skinner, well-known for his work on operant conditioning (Cherry, 2013). Behaviourism suggests that the emotional responses caused by the perception of stimuli in the built environment effects one, whether those behaviours are repeated or not (Ferster & Skinner, 1957). Thus, in the process of recovery the built environment can be used as a tool for learning and thereby sustaining new and positive behaviours.

1.4.3.1 Empirical Learning

Both Behavioural and Ecological Psychology focus on mans' perceptual systems as a tool for navigating the built environment and understanding how he should behave within it and are instrumental in informing the work of theorists, urban designers and architects, Jon Lang and Walter Moleski, on a Functional Theory of Architecture and the behavioural settings within and affordances of the built environment (Lang & Moleski, 2010). Where behavioural psychology suggests that all learning is experienced as separate from mans' mental and intuitive processes, ecological psychology suggests that this learning is tempered by the cognitive process of information resulting in the sensations of the built environment as separate from the perceptual process. Together, these perspectives illustrate the ways in which the built environment effects one's perception of self in relation to external and internal forces and are thus both relevant to exploring the full impact of the built environment on the treatment of people suffering a 'disease of perception' (Aldine, 2013, pers. comm. 17 April) such as addiction.

1.5 Conclusion

The disease of addiction is a physical and mental illness that destabilises individuals, families, the communities they form a part of and the wider societies they pervade. As such it

is becoming increasingly evident that an effective solution for the treatment of addiction may have far-reaching consequences on the physical, mental and socio-economic health, of not only addicts and their families but of society in general (Vermeulen, 2013, pers. comm. 25 March). The symptoms of addiction and the nature of the addict are similar to those experienced as result of the placelessness and subsequent disconnection experienced in the aftermath of the Modernist paradigm (Lang & Moleski, 2010). Improving the efficacy of current addiction treatment methods, in the provision of a built environment that mitigates the causes of addiction - by fostering emotional and physical health and encouraging social interaction (Lang & Moleski, 2010) - benefits both addicts and non-addicts alike. The person-centred approach, suggested by clinical psychologist Carl Rogers (Gordon-Drake, 2013, pers. comm. 22 March), reiterating the philosophical underpinning of postmodernism and phenomenology's return to delight in the existential ordinariness of everyday phenomena, suggests an atmosphere of care in a meaningful built environment that instils a sense of worthiness critical to the effective treatment of addiction (Brown, 2007). The result is a built environment that instils a positive perception of self and a subsequent and inherent sense of belonging to a place and being a valued part of a community. A built environment that impacts the perception of personal worthiness of its users, is therefore not limited to the benefit of addicts but to society in general.

CHAPTER TWO | LITERATURE REVIEW

2.1 A Disease of Perception

2.2 Introduction

In his interview with William R. Miller PhD, on *the Psychology of Addiction Recovery*, William L. White discusses the changes in the philosophy behind recovery since the 1960's, describing the integral components of the process as they are widely accepted in the field today. Dr Miller's contribution to the study of addiction recovery has been instrumental in defining the nature of the addicted person. His work has gone a long way to humanizing the disease in contemporary society as he positions himself at the 'interface of psychology and religion', in his evaluation of the most efficient methods of recovery (White, 2012). It is the intention of this study to place the built environment at that same junction, that it may be recognized as similarly integral to the recovery process.

2.2.1 The Duality of Addiction

2.2.1.1 The Physiological

The National Institutes of Health define addiction as a chronic, relapsing brain disease characterized by compulsive substance abuse, despite harmful consequences (NIH, 2010). Prolonged substance abuse damages the structure, functioning and metabolism of the brain, often resulting in destructive anti-social behaviour (NIH, 2010) and a skewed perception of reality (Clint, 2013, pers. comm. 18 April). Drs N. Volkow and H. Schelbert, liken the brain disease of addiction to other chronic illnesses like diabetes, that are preventable and treatable but not curable and may last a lifetime if not prevented (NIH, 2010).

Environmental Enrichment

The Dana Foundation, a philanthropic organization that promotes and supports brain research, has described the positive impact a complex environment has, on the treatment of brain disorders such as addiction. The most critical elements to the efficacy of environmental enrichment, on preventing and mitigating the disease, include spacious environments with various exercise machines and designed in such a way as to stimulate physical and mental activity; social integration and the opportunity for empirical learning within the built environment (Patone, 2006).

Positive and Negative Affect

In his article, *The Emerging Field of Emotion Regulation*, James J. Gross identifies the effect of personality on addiction and in particular the contributing factors of positive and negative effects. In the case of addiction, the addicted person experiences desires to minimize negative affect and maximize positive effect, which translates, initially, into substance use to experience pleasure, until such a time that one's experience of pleasure is dependent on the use of substances. At this point, negative affect contributes to wanting to stay high or get higher in order to maintain the pleasurable experience. (Gross, 1998) The NIH describe the following risk factors and the preventative measures that may go to minimizing them in table 2.1 below.

Examples Of Risk And Protective Factors
(Table 2.1 courtesy of National Institutes of Health, 2010. Source: www.nih.org)

Risk Factors	Domain	Protective Factors
Early Aggressive Behaviour	Individual	Self-Control
Poor Social Skills	Individual	Positive Relationships
Lack of Parental Supervision	Family	Parental Monitoring and Support
Substance Abuse	Peer	Academic Competence
Drug Availability	School	Anti-Drug Use Policies
Poverty	Community	Strong Neighbourhood Attachment

The question of whether addiction is voluntarily entered into is a contributing factor to the existing social stigma. At first the choice to take substances is usually voluntary, however with aggravated use over time the decrease in brain functioning, specifically the physical changes in areas of the brain that are critical to judgment, decision making, learning, memory and behaviour control, explain the often misunderstood 'compulsive and destructive behaviours' of those suffering active addiction. Table 2.1 above describes the general risk factors as suggested by the NIH. The more of these present in a person's life, especially a more vulnerable younger person and the less of the protective factors present, may make addiction more likely. While genetic factors account for 40 - 60% of one's predisposition to addiction, the dual physical and psychological nature of the disease, means that there is not one sure predictor of addiction (NIH, 2010). However, from a purely physiological perspective, brain diseases like addiction are treatable through mitigating the risk factors

described in table 2.1 and enriching the built environment to afford an abundance of physical and mental challenges that stimulate brain function.

2.2.1.2 The Psychological

The NA literature that refers to addiction as a mental obsession and a physical allergy (NAWS, 2012), clearly illustrates the nature of the disease as not purely physiological. In their article, *What is Addiction?*, Psychology Today, explains the duality of addiction as not only relating to the aforementioned physiological factors but almost always as an emotional response to a psychological stress (PT, 2013). The sentiment introduces the concept of shame as illustrated by social research professor Dr Brenee Brown, who describes shame as the primary psychological stress underpinning all addictive behaviour (Brown, 2012). Addiction is also defined as a disease of a personal nature believed by AA to be a 'spiritual disease' where the substance or compulsive behaviour is inconsequential relative to the psychological causes of it (AAWS, 2012).

2.2.2 The Duality of Treatment

2.2.2.1 Physical Recovery

In the Journal of Neuroscience 21, 2001 a study on the improvements in the make-up and functioning of the brain after prolonged abstinence from drugs proves that as with all chronic diseases like diabetes, it can be managed by choosing treatment every day. Similar to other chronic diseases, relapse is normal and not a sign of failure but more accurately illustrative of the suggested need to treat the disease both medicinally and behaviourally (NIH, 2010).

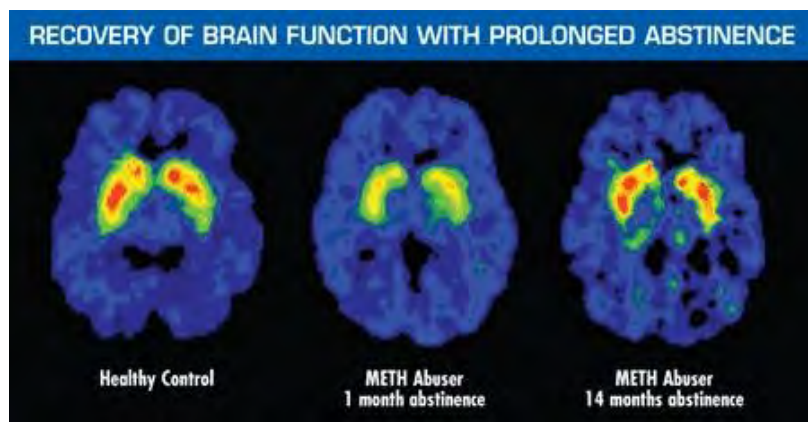


Figure 1: Recovery of Brain Function (Source: www. www.attcnetwork.org)

Medicated Treatment

The NIH suggests, that the use of certain medications used in the detoxification process that forms the initial period of treatment accommodates the recovery process, helping patients to a.) stop using, b.) stay in recovery and c.) not relapse. Withdrawal is common when a person first stops using a substance or behaving in a compulsive way (in the case of behavioural addiction) and is characterized by the experience of anxiety and depression, restlessness and sleeplessness. Some medications are prescribed to help the brain through the transition from the abused substance. These normally help the body to become less reliant on the substance, allowing for more attention to be paid to the behavioural therapies used in conjunction with the medicinal treatment. Association with 'peoples, places and things' as described by AA, acts as a trigger for the stress experienced as a precursor to substance abuse, to cope. In order to rewire ones perception of these triggers to not suffer the negative compulsion they would normally evoke, behavioural therapies are imperative to the sustained recovery of the addicted person (NIH. 2010).

2.2.2.2 Psychological Recovery

Behavioural treatment for addiction is advocated for the successful and sustained recovery of addicted people with many groups such as Narcanon International (NI), discouraging any form of medicinal treatment including, during the detoxification period. NI believe a drug-free detoxification is possible and have done a multitude of studies and research to this effect, suggesting that physical exercise and a healthy diet is as effective without the potential for a swop of addiction from one substance to another as is often the case with medicinal detoxifications (NI, 2013) .

"Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select--doctor, lawyer, artist, merchant-chief, and, yes, even beggarman and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors."

(Watson, J. B., 1930)

Behavioural therapy comprises many different types of psychotherapeutic methods of which the most well-known is cognitive behavioural therapy based on the theory of behaviourism

and the psychological school of behavioural psychology developed by psychologist J.B. Watson. The therapeutic approach is based on shifting perceptions by gaining empirical knowledge of oneself through the sensory experience of the built environment. Echoing the philosophy of Edmund Husserl, that all knowledge is gained this way - behavioural therapy aims at correcting primarily, the perception of self and how that perception effects and is effected by the built environment (Nesbitt, 1996).

The 12 Steps

The 12-step programme was developed from the teachings of the Oxford Group, a 'non-denominational movement' popular in Europe and the United States in the early 1900's, who in accordance with the 'Four Absolutes' of honesty, purity, unselfishness and love, advocated self-reflection, making amends and using prayer and meditation to maintain a balanced and healthy life. The first Alcoholics Anonymous group - with the help of suggestions from Swiss psychoanalyst, Carl Jung on the need for a 'spiritual awakening' to maintain abstinence from alcohol - developed the Oxford Group's philosophies into 12 practical steps to recover from an unmanageable life. The 12-Step Programme was developed by Bill Wilson and prominent Akron surgeon Dr Robert Sieberling. The two have come to be affectionately known amongst recovering addicts as 'Bill and Bob'. June 10 1935 is commonly accepted as the day of Dr Bob's last drink and the official beginning of Alcoholics Anonymous. Together with Dr. William D. Silkworth, Bill and Bob wrote 'the Big Book' or basic text of AA (AA,2001).

The 12-step programme of recovery from addiction - translated into the popular therapy model, known as the Minnesota Model - offers the community as therapist, in a non-judgmental, non-discriminatory ethos of cooperation, mutual benefit and sharing. The atmosphere of freedom from discrimination that exists in the rooms is one of the principles of healthy communities and results from feelings of emotional and physical security (Butterworth, 2000), as an extension of personal identity and orientation in the built environment (Norberg-Schulz, 1985). The programme's core principle is the non-denominational spiritual element of one's 'Higher Power'. In this way the programme, as developed by AA and adopted by Narcotics Anonymous amongst others, provides a community based on empathy, honesty and love with a willingness to recover being the only requirement for joining. The sense of community and subsequent feeling of belonging and acceptance as advocated by the 12-steps thus becomes another powerful tool for sustained

recovery and emotional support (AA, 2001). This may be expressed in the built environment through the creation of community spaces that provide a sense of love and belonging to a place, thereby encouraging interconnectedness amongst its people.

2.2.3 *WholeHearted* Living

2.2.3.1 Shame Resilience Theory

Shame Resilience Theory was developed by Dr Brenée Brown, Ph.D., LMSW, a research professor at the University of Houston Graduate College of Social Work and looks at the concepts of vulnerability, courage, worthiness, and shame, all recurring themes in the discourse on addiction.

"Meaning is the fundamental human need."

(Nesbitt, 1996, pg.426)

In her work on shame resilience, Dr Brown establishes that human beings are neurobiologically pre-disposed to make personal connections with others. According to Brown, our universal human need to feel connected and a deep-seated sense of belonging is fundamental to leading a joyful and authentic life and underpins all social science research. The greatest threat to one's sense of connection is shame, a universal human experience in varying degrees (except in the case of sociopaths) and which is preceded by an excruciating sense of vulnerability (Brown, 2007).

A Fear of Disconnection

Brown defines shame as the fear of disconnection - a person's fear that there may be something inherently wrong with them, that would cause them to not be worthy of love and belonging. Social science research reveals that connection gives our lives purpose and meaning and that disconnection is at the root of most social problems and anti-social behaviour, such as substance dependence. Shame grows in the presence of secrecy, silence and judgment and acts as a constant source of self-criticism and doubt and is highly correlated to addiction where guilt is inversely related to addiction. The difference between guilt and shame is important in the conversation on the source of addictive behaviours, as both indicate a person's perception of self. Guilt is a healthy emotion that allows a person to measure the quality of their thoughts or actions against the kind of person they would like to

be and make changes accordingly. Shame is more often the cause for unhealthy behaviours as it acts to erode a person's self-esteem even further, in the belief that they are incapable of change. Men and women feel shame in the same way but for different reasons. Where men feel shame at signs of their perceived weakness, women experience shame as a result of a perceived failure to meet the multitude of perceived societal roles and responsibilities. Shame stops people from participating in life for fear of failure and rejection from not being good enough, in an age where a healthy and realistic striving for excellence is confused with being perfect (Brown, 2007).

Emotional Risk

The common misperception is that being vulnerable is a sign of being weak when in fact, being vulnerable involves taking emotional risks, exposing one's true self and one's own uncertainty and frailty and as such is the 'most accurate measurement of courage' at man's disposal. Vulnerability is at the heart of fear, anxiety, shame and our struggle for worthiness, vulnerability is also the root of innovation, creativity and change (Brown, 2012) as well as love and a sense of belonging.

"Blithely, we exchange our already tenuous hold on the public sphere for the electronic distraction of the private future."

(Frampton in Nesbitt, 1996 pg.443)

Society has developed, what Brown describes as an Intolerance for Vulnerability which is motivated by a modern cultural attitude of scarcity, resulting in the constant quest to be extraordinary. Ordinarity has become synonymous with boring and meaningless, causing modern man to lose sight of what is truly valuable in life. The 12-Steps teaches one to find joy in the ordinary moments, leading to greater feelings of self-fulfilment. Society's intolerance for vulnerability is manifest at the point where joy turns into apprehension for the perceived imminent loss of its source; living a lifestyle of disappointment to pre-empt the emotional upheaval of feeling disappointed; 'low-grade disconnection' of the increasingly virtual connections people foster; apparent perfectionism as opposed to an authentic and healthy striving for excellence; faith without vulnerability resulting in extremism and most notably, the numbing of feelings of vulnerability all together, through substance abuse and addiction (Brown, 2007).

A Desperate Escapism

Numbing is evident in the unprecedented percentages of adults who are addicted, medicated, in debt and obese. People compulsively abuse substances including food, or behave in certain ways including romantically, in an attempt to not feel negative emotions, like the perceived weakness or exposure to emotional risk of being vulnerable. However, as one cannot selectively numb negative emotions without numbing positive ones (Brown, 2007), the cycle of numbing perpetuates, motivated by the shame of increasing exposure to negative emotions and thoughts and the impact of them on those people and places closest to one.

Brown suggests that empathy is the antidote to shame in that it allows one to embrace their own vulnerability without fear of rejection, isolation and subsequently disconnection. People who have an inherent sense, of being worthy of love and belonging, are able to live wholeheartedly. Wholehearted living requires that we expose our true selves; that we give love openly and without fear of it not being returned and that we truly believe that we are enough and are kinder to ourselves and subsequently to others as a result of this self-compassion. Embracing vulnerability requires one to practice and experience gratitude for the things one has in their lives; to be mindful of and honour the ordinary and everyday experiences and to take advantage of feeling good when they have the chance, to bolster their reserves for when life becomes difficult (Brown, 2007).

A Therapeutic Community

The concept of the Therapeutic Community is central to the recovery process according to the 12-Step Programme and captures the essence of Dr Brown's concept of being authentically vulnerable, to allow connection and healing. The safe space the rooms provide, free from judgment and subsequently shame, can be likened to the psychoanalyst's couch in Freud's proposed treatment method. By sharing one's experiences and difficulties without input or interruption from other addicts simply listening, the listeners become the silent therapists and the talker the psycho-analytical subject. Sharing in the rooms to a group of empathetic addicts is thus cathartic in the same way talking about past traumas is. It is suggested however, that the result is increased exponentially, in that every member of the community is reciprocally therapist and patient, increasing the number of opportunities for compassionate encounters and learning from one another's experiences.

2.2.4 Summary

Approaches to treatment methods and rehabilitation facilities vary greatly. In-patient residential care and out-patient facilities all contribute to the process of recovery. Just as there is not one single cause of addiction, so there is no one-size-fits-all solution to recovery. Each story is unique and the rehabilitation process should reflect that diversity. Universal truths of perception of oneself and ones built environment however play a profound role in the process of recovery, just as the spirit of community and belonging do. Incorporating these principles in the design of a space of wellbeing that is free from judgment and empathetic; a space that encourages inclusion and self-reflection while remaining aware of an over-arching healing power - has the potential to transform lives that have become unmanageable, through a desperate and compulsive need to escape the inevitable frailty of one's own humanness. The built environment has the potential to encourage a sense of community and thereby augers the feelings of belonging, required for a person to feel comfortable being honest about who they truly are. Without honesty and authenticity, connection is not possible. Fear of disconnection or shame, is the birthplace of addictive behaviours, that numb the feelings of a life without purpose or meaning. For the built environment to positively impact the recovery process, it must correct the misperceptions of self, encourage social connection and interaction and offer opportunities for learning new and positive behaviours.

2.3 Expanding Perceptions

2.3.1 Introduction

"They call it a disease of perception. My perception of everything around me was skewed by the darkness of the disease."

(Aldine, 2013, pers. comm. 17 April)

A meaningful connection with one's environment results from the spontaneous emotional response formed by one's perception of that environment. The perceptual systems by which humans recognize and understand their environment are universal, however the interpretation of the meanings of these environmental stimuli is formed through the cognitive process, which is influenced by one's specific culture and personality (Lang & Moleski, 2010). Addicts are very sensitive and overly aware of themselves in relation to their social environment. They are self-conscious without being self-aware or self-transcendent and thus self-confident (Abraham Maslow cited in Lang & Moleski, 2010), with an exaggerated focus on self as central to everything both good and bad around them.

Addicts tend to over-analyse situations, most notably those that are emotionally charged and are overwhelmed by what may be perceived as the normal range of human emotions. As such, addicts are particularly sensitive to perceptual queues in the built environment. However, as their perception is often skewed, the resulting sensations are accordingly, uncomfortable and inaccurate, further reinforcing their negative perceptions of self and the environment. Consequently - it is critical to the concept of aiding the treatment of addiction through the careful design of the built environment - that the ways one gains an overall perception of the built environment are understood and appropriately utilised in the design thereof.

2.3.2 Perception

Perception is the process of gathering information from stimuli in the built environment through the perceptual systems of the five senses of taste, touch, hearing, sight and smell and then interpreting this information in order to take action appropriate to it. The sensory receptors of the body also include the proprioceptors found in the muscles, tendons, joints

and inner ear and are responsible for the ability to detect movement and changes in the body's position.

"Reactions are what tie us back to our purely human instincts, to the universal senses which connect us all. Responding to space and material in an almost reptilian way, we absorb our surroundings from the beginning of our existence, internalizing our sensibility. Our past experiences shape our perception and, in turn, each new experience reshapes the next. Hence, it is that which makes us most human that ties us so intimately to architecture."

(Swisher S., 2010)

Through the sensory receptors, one is able to experience their surroundings in order to survive, interact and thrive within them. The perceptual systems allow a sensory experience of the world that goes toward an intuitive response to various environments manifested in our behaviours in different settings. This intuitive response to familiar and similar stimuli in the built environment is gained through the cognitive processes of learning which include awareness, perception and judgment (Cherry, 2013).

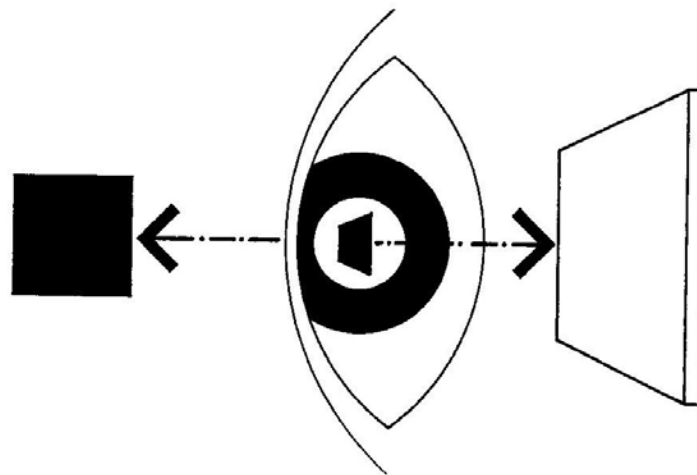


Plate 1: The eye perceives the mind interprets (source: Wilson, 1984, pg.11)

One's perception of the built environment is a combination of learned responses defined by previous experiences and is thus cumulative, as one matures and becomes more capable of perceiving greater and greater detail (Rasmussen, 1959 and Lang & Moleski, 2010). The details one becomes more adept in detecting, include those of the physical perceptual systems, as well as those that define and are defined by, emotional responses to stimuli in the

built environment (Lang & Moleski, 2010, Zumthor, 2006). The point then, is to look at the ways in which the built environment impacts not only on one's sensations through and in space but also on the emotions attached to them.

In treating a 'disease of perception' like addiction, it is crucial that the treatment be holistic and act on both the physical manifestations such as withdrawals, cravings and unhealthy bodies and simultaneously on the emotional and psychological manifestations of the disease. The research has shown these to be a complex combination of feelings of no or low self-worth and esteem, often stemming from physical and mental isolation as a result of misperceptions of self. In this way the built environment can contribute to the treatment of addiction by the design of facilities that stimulate and extend one's physical and mental capabilities, affording the patient opportunities for learning through sensory experiences that reinforce new and positive behaviours.

Source: Lang (1987); drawn by Omar Sharif

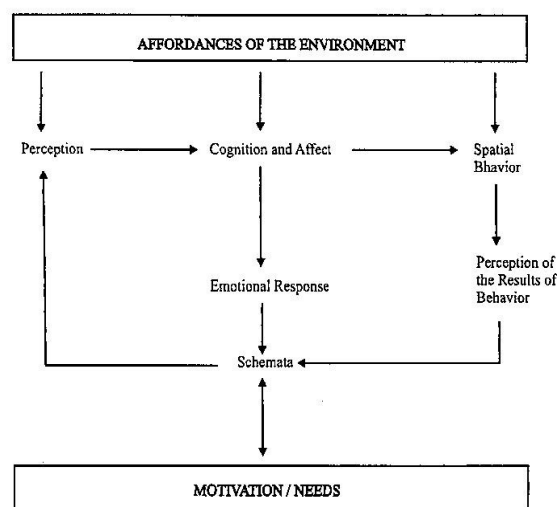


Plate 2: The Fundamental Processes of Human Behaviour (Source: Lang & Moleski, 2010, pg.39)

The way we process information from the built environment, is universal as illustrated in figure 3 above, which describes the reciprocal relationship between the perception of opportunities afforded by the built environment and the behaviours appropriate to it. The two reciprocally inform each other. However, in spite of the universality of perceptual systems, the stimuli in the built environment that one pays attention to is guided by their cultural inheritances and personality (Lang & Moleski, 2010), resulting in varying affects or emotional responses, which then determine how one behaves in a particular instance. The

primary emotional responses are arousal as a measure of stimulation; pleasure referring to the level of satisfaction gained and dominance, which relates to the 'degree of control' one feels in a certain space. These determine how we respond to the people and objects in our environment (Lang & Moleski, 2010).

2.3.2.1 The Perceptual Systems

Before the seminal work on the perceptual systems, by the founder of ecological psychology, James J. Gibson, the Aristotelian interpretation of the senses of sight, sound, smell, touch and taste was normatively held. Gibson, in exploring the more psychological and philosophical nature of perception through the senses, organized them into 'aggressive, seeking' systems categorized according to the specific types of 'environmental information' they gather. Gibson maintained that sensation never exists independently of perception, whereas perception can exist without an attributed sensation. For instance, one can visually perceive an object without processing it cognitively resulting in a sensation of it, or perhaps a conscious sensation of it. The perceptual systems are thus separated into the visual system, the auditory system, the taste-smell system, the basic-orienting system and the haptic system. The most

Adapted from Gibson (1966) by Jon Lang

System	Mode of Attention	Anatomy of the System	Stimuli Available	External Information Obtained
Basic Orienting	General orientation	Vestibular organs	Forces of gravity and acceleration	Direction of gravity and being pushed
Auditory	Listening	Cochlear organs with middle ear and auricle	Vibrations in the air	Nature and location of vibratory events
Haptic	Touching	Skin, joints and muscles	Deformation of the tissues, configuration of joint, and stretching of muscles	Contact with the earth, the shape and texture of objects, and their solidity or viscosity
Smell and Taste	Smelling; Tasting	Nasal cavity (nose); Oral cavity (mouth)	Composition of the medium; Composition of ingested objects	The nature of volatile substances; The nature of nutritive and bio-chemical values
Visual	Looking	Eyes as related to the vestibular organs, the head and the whole body	Sources of radiant light and the structure in ambient light	Everything available in the optic array about objects, materials, animals, motions, events, and places

Figure 3: The Human Perceptual Systems (source: Lang & Moleski, 2010, pg 40)

influential of these being the latter two, in forming one's perception of the built environment (Bloomer & Moore, 1977, pg.33). The haptic system and emotional perceptual system are exemplified in Peter Zumthor's approach to atmosphere in his theoretical and practical work. The basic-orienting perceptual system defined in the work, on the concept of dwelling by Christian Norberg-Schulz.

"We believe that the most essential and memorable sense of the three-dimensionality originates in the body experience and that this sense may constitute a basis for understanding spatial feeling in our experience of buildings."

(Bloomer & Moore, 1977)

2.3.2.2 The Haptic System

The haptic sense is that of touch but is not limited to the organs of touch namely the hands. The haptic experience of the built environment encompasses all of the haptic sensations of pressure, warmth, cold, pain and the motion of the body referred to as kinesthesia. Therefore, gaining a haptic perception of the built environment includes activating any of the senses of touch through physical interaction with it. None of the other perceptual systems engage the user so directly in 'feeling and doing simultaneously', thus affording the haptic sense greater opportunity to influence one's perception of the built environment. The proximity of the built environment in relation to sight versus touch also has a profound impact on one's perception of it, making the haptic experience of the built environment, the most influential and direct of the senses. These experiences include the entire body thus giving the visual, inherent meaning in terms of physical experiences as opposed to cerebral experiences (Bloomer & Moore, 1977). This thinking forms the premise of ecological psychology, which promotes learning through sensory and perceptual experience of the built environment as opposed to within formal and cerebral learning environments and lends itself to the potential of the built environment to forming an integral part of the process of healing in recovery from addiction.

2.3.2.3 Perceiving Atmosphere

A theme that appears to run throughout the theoretical and practical work of Peter Zumthor, is that of an experience of beauty that is inextricably linked to and thereby enhanced by the context. His work engages beauty both visually and haptically, in an unobtrusive and discreet manner. It is evidence of his theoretical approach to creating a perceived 'atmosphere' within the built environment that touches on the ethereal in an attempt to 'move' the user (Zumthor, 2006). Capturing the elusive atmosphere of the built environment in such a way that creates the perception of it having always been there, lends itself to an almost spiritual quality. This sense of something beyond our perception of the physical world, is a recurring sentiment of the Minnesota Model of addiction treatment, manifested in the acknowledgement of one's Higher Power and lends itself to the concept of the built environment's ability to satisfy mans' Soul Needs (Day, 1993, pg.107).

" Where the environment can offer interest, activity and intriguing ambiguity, timeless durability and sense of roots (in place, past and future) in the wider natural world with its renewing rhythms, sociable places and relaxing atmospheres for the socially shy, and harmony, tranquillity and quiet soothing spaciousness, it can provide support as the first step to recovery."

(Day, pg 26, 1993)

The atmosphere of a space is perceived through one's emotional sensibilities (Zumthor, pg.13) and processed immediately to form the First Impression. Like an incredible piece of music moves us within the first moments of our hearing it, so too does the emotional perception of a place invoke our spontaneous like or dislike of it, comfort and discomfort in it. This is not a cerebral process, but one that appears instinctual and which results from a processing of previous and similar experiences. Contextual responsiveness enables such an emotional perception of the environment and roots it in our most intimate experiences of place (Zumthor, 2006).

The creation of atmosphere that affords an emotional response relies on a series of sentiments about the built environment that include the materiality of the architectural body - the substance and mass which is followed by the way in which the composition of materials react with each other; how they show themselves and the other off in the way they are used and

exposed. An honesty to the inherent nature of materials translates into a sincere connection to the context and what it represents for the user. The atmosphere created is one of belonging to a timeless procession of life through spaces new or old alike. The third component is that of the quality of sound in a space (Zumthor, 2006). As the olfactory and auditory systems gather indirect information from sounds and smells that bounce around within a space, sound quality provides information not only of the volume of the space but also of its function. Here materials and sound act together to inform the function, as entering a bathroom blindfolded sounds different to doing the same in a bedroom or a library (Lang & Moleski, 2010). These perceptions are also affected by the temperature of a space - the three: materials, sound and temperature, each intimately expressing the other. Temperature acts on both the physical and the psychological levels, sub-consciously effecting our sense of comfort and has potential adverse health risks as describe in the figure below.

ET °C	Temperature sensation	Discomfort	Regulation of body temp.	Health	ET °F
40	Very hot	Limited tolerance Very uncomfort.	Failure of free skin evaporation	Increasing danger of heat-stroke	100
35	Hot	Uncomfortable	Increasing vasodilation sweating		90
30	Warm	Slightly uncomfortable			80
25	Slightly warm	Comfortable	No registered sweating	Normal health	70
20	Neutral	Slightly uncomfortable	Behavioral changes	Complaints from dry mucosa	60
15	Slightly cool				
10	Cold	Uncomfortable	Shivering begins	Impairment peripheral circulation	50

Figure 2: Effective Temperature (source: Wilson, 1984 pg.200)

Intimacy - Proxemic Theory

Intimacy has a profound sub-conscious effect on one's comfort level and the perceived atmosphere of a space. It manifests in the extent of the boundary of personal space a user of it, perceives as comfortable and is determined by one's cultural norms of personal boundary. As such, intimacy and the associated levels of comfort as a perception of personal space are intensely individual, making catering for them in a cultural milieu as diverse as South

Africa's both challenging and essential. Edward T. Hall's Proxemic Theory studied the ways humans use space within this cultural context and established a set of universal principles to determine the extents of these spatial boundaries, illustrated in the figures below. As such, the exact measurements of these spatial constructs in the table below, while specific to the culture to which they cater, may form a general basis from which to work. Keeping in mind the nature of the cultures the built environment caters to is imperative therefore, in successfully balancing an atmosphere of intimacy with the appropriate level of personal space (Hall, 1966).

Cross-cultural tension often results from unwitting intrusions on personal space boundaries and considerably impacts on one's feelings of comfort. The spaces that surround people can broadly be grouped into three categories. *Intimate Space* is the closest space around a person, where it is appropriate for one's most intimate friends to enter. *Social and Consultative Space*, refers to the comfortable distance at which people keep habitual social interactions with both acquaintances and strangers with impersonal and 'relatively anonymous' interactions taking place at the level of Public Space (Hall, 1966).

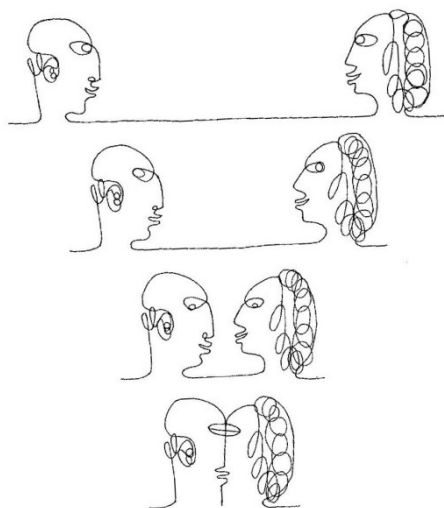


Figure 3: When people get very close together, they often close their eyes (source: Wilson, 1984, pg.230)

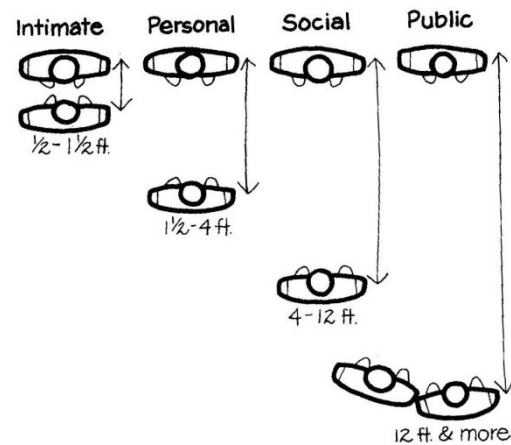


Figure 4: Distance relationships among people (source: Wilson, 1984, pg.230)

Feet Apart		0	1	2	3	4	5	6	7	8	10	Increasing distance
Perceptual system	SPACE CHARACTER											
	Intimate	Personal		Social-Consultative				Increasingly Public				
								Close zone	Not close zone			Not close zone begins at 30 to 40 feet
Haptic system / touching	Bodies can touch Hands can reach One person has elbow room Just outside touching distance By stretching people can pass an object back and forth Beyond physical touching											
Thermal receptors	Awareness Out of awareness except for the heat of cattle and horses											
Smell / taste system	<i>Varies by cultural attitudes but</i> Smell of washed skin and hair are acceptable Breath odors acceptable if antiseptic Body odor other than scents not acceptable No personal odors acceptable Cooking odors become dissipated with distance											
Auditory system	Grunts and groans audible Soft voice Conventional voice: casual or consultative style As distance increases so does the loudness of voice At 18 feet full public speaking distance begins											
Visual system	Pores of skin and fine hairs can be seen Distorted vision of a person's face Details of objects can be examined Details of the face can be seen Can see the face and upper body of a person Can see the whole body Peripheral vision increases without the need to turn one's head As the distance apart increase so the details of a person or an object become less distinguishable											

Figure 5: The interplay of distance and the formality of the behavioural loop between people according to Hall's Proxemic Theory (Hall 1969) (source: Lang & Moleski, 2010, pg.230)

Enriched Composition

Architecture is a spatial art (Zumthor, pg.41) that evokes feelings of movement or stillness through varying degrees of dynamic composition as described in figure 6. In this way the built environment has the ability to manipulate or encourage different types of motion

through and between various behaviour settings via the links that connect them. These connecting links thereby become behaviour settings themselves allowing for a creative and suggested use of space as opposed to a prescribed one (Barker, 1968). Zumthor discusses the concept of thresholds as defining the points at which these transitions between behaviour settings occur, focusing on the 'tension between the interior and exterior' environments (Zumthor, 2006).

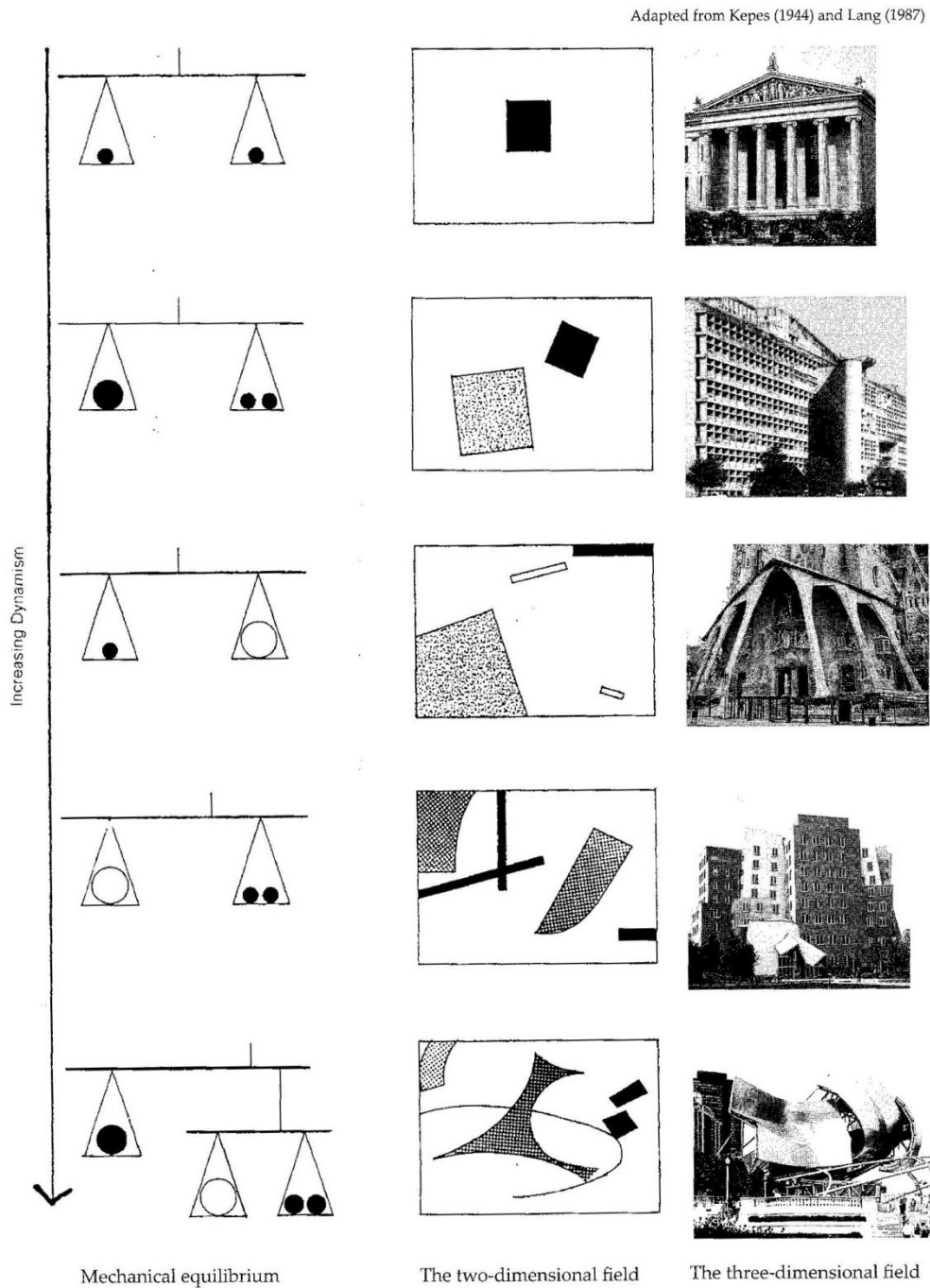


Figure 6: The dynamics of visual form (source: Lang & Moleski, 2010 pg.265)

Liminality

In *A Phenomenon of Place*, Christian Norberg-Schulz describes the threshold, as an embodiment of a difference in illustrating the importance of contrast in the formation of meaning in the built environment (Nesbitt, 1996, pg. 429). Threshold concepts or liminality is a field of study founded by anthropologist Arnold van Gennep and later extended by Victor Turner which looks at the psychological transition from one mental state to another through the enactment of specific and usually religious rituals, like those of Rights of Passage in African cultures. The focus of the concept, is that exact moment during a ritual at which the subject has left behind him, his previous beliefs but has not yet absorbed the new beliefs hailed in the ritual (Turner, 1967). The concept of liminality belongs to this discourse not only for its direct application to architectural thresholds, but also for its correlation to the recovery process as a transition of an addicted person in recovery, from an unhealthy to a healthy psychological state, through engaging in cognitive behavioural therapy. Liminality in the built environment, lends itself to the symbolic expression of the process of recovery through the ways in which the built environment is experienced and through what is emphasized by thresholds introducing and concluding varying spaces and their associated mental states. Thresholds emphasize in the built form, the transition between psychological states.

Thresholds in the built environment are critical to ones sensory perception of the space, the appropriate use of the space and thereby their own perception of self within it. They pronounce the moment at which one becomes 'aware of the influence of its activities' (Day, pg111) and act to define entrance and exit signalling shifts in emotional response in the passage from one physical and mental space to another. Thresholds may suggest these changes in perception by subtle changes in floor surface, or direction of a path or more traditional and obvious gates and steps. A difference of 10% to a door height has profound psychological impact on a person's perception of movement through it focusing the act of entrance and thereby drawing attention to the activity the following space accommodates.

The built environment is experienced as the overall perception of a series of moments that describe an atmosphere. These moments defined by the appropriate use of scale, detail and quality of craftsmanship and the integrous use of materials creates a person-centric built environment better equipped to serve sub-consciously, both the physical and mental needs of

the user. The tectonic and haptic quality of the built environment is thus crucial to fulfilling the spiritual functionalism needed to provide spaces of mental and physical healing. (Day, 1993)

2.3.2.4 Visual Perception

"Sensory experiences arise from the arousal of any of our perceptual systems...however we seldom pay attention to such experiences unless they make us feel uncomfortable or challenge our abilities...generally we only become aware of sensations when deviate from the norm. consciously or subconsciously some of these deviations are pleasant and some unpleasant."

(Lang & Moleski, 2010, pg.260)

Perception of the environment from a car is different to that experienced by the pedestrian, consequent of the different speeds of movement, coupled with the spacing of points of interest along a facade which puncture the procession. Walls and boundaries at the car interface should have moments spaced farther apart to create a pleasing visual stimulation and avoid uncomfortable physical sensations like nausea as a result of too rapidly approaching or departing stimuli. Scale and distance are thus crucial in a pleasurable, visual stimulus in considering the nature of the interface.

2.3.2.4.1 Gestalt Psychology

In the early 1900's psychologists from the Berlin School of Gestalt ("form") psychology developed a new theoretical model for the measuring of visual perception that went some way to demystifying the ways in which 'healthy adults' recognize and compartmentalize architectural form and aesthetics. Their work had a profound effect on the Modern movement in architecture in its promotion of order, rationality and a simplification of form. In a Platonic approach to the perception of architecture, the Gestalt model placed the sense of sight above the other perceptual systems (Bloomer & Moore, 1977). The postmodern phenomenologists whose work impacts the understanding of perception for the purposes of this study, is architect and architectural theorist, Peter Zumthor who proposes a haptic response to the built environment repositioning the body as central to it. It is thus important to understanding each of the senses in terms of how they inform one's perception of the built environment.

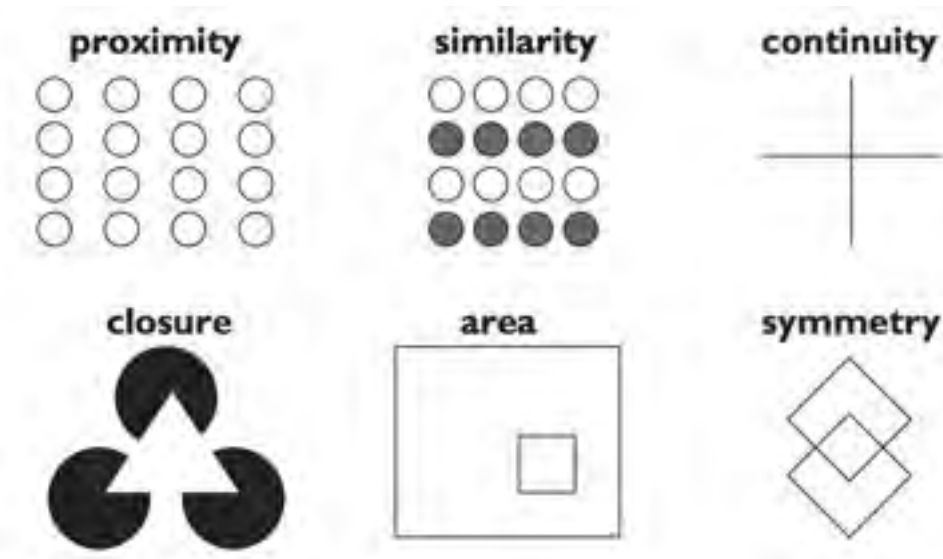


Figure 7: The Gestalt principles of visual perception (source: www.firstcoastcreative.net.com)

The Gestalt principles of visual perception (figure 7), are referred to in Christian Norber-Schulz's conversation on providing meaningful connection to the built environment by allowing identification and spatial orientation within it. The means by which these two aspects of the built environment are achieved, are through the perception of one's environment as suggested to be characterized by visual organization defined in the Gestalt principles of visual perception.

2.2.3 Summary

In an increasingly 'PC', tolerant, multivalent world, touting the faceless and non-denominational any..thing do we risk a return to a 'universal utopia' as missold by Modernism? Or do we find ourselves in a post Post-Modern époque, where one may recognize that modern form is visually appealing and that by imbibing it with the haptic qualities of touch, texture, light and shadow that give meaning to the built environment, we may avoid the sterility of modernism without ignoring its visual and experiential attributes entirely? In this regard the ordering principles of visual perception, as described in Gestalt psychology, afford a recognition and understanding of the affordances of the built environment and the ways in which one may seek out healthy and appropriate actions commensurate with it.

2.3 A Sense of Worthiness

2.3.1 Introduction

The first impression of a place is a result of the impact of the environment, on all of one's perceptual systems, simultaneously. This spontaneous, sensory cognition provides for an emotional perception and is borne of the immediate recognition of all of the physiological and psychological phenomena of architectural language, organized according to Gestalt principles of visual perception and that constitute its atmosphere.

Atmosphere, is a construct of the actual and existential meaning of phenomena in the environment and an emotional response to the morphology, topology and typology of the built environment, as seen in its perceived entirety, or as deduced from a series of moments. Sensations result from the cognitive processing of environmental stimuli directed toward those objects and people, in the built environment, to whom we pay attention, as defined by our personal and cultural values. As such, the moments from which one constructs their perception of the mood of a place, are those that resonate with one's existential sense of identity and orientation - those that make their life experiences meaningful.

For man to truly dwell, in the philosophical sense of the word he must feel equally at home in the collective, public and private spheres which constitute the complete built environment. The place in which one dwells, serves to identify and orientate, thereby making existence meaningful (Norberg-Schulz, 1985, pg.7). Dwelling thus becomes the philosophical equivalent of worthiness (Brown, 2010), manifest in the spirit of a place. When one dwells - in the existential sense - his needs for love and belonging are fulfilled (Norberg-Schulz, 1985, pg.7).

2.3.1.1 The Existential Foothold

"...Works of architecture are objects of human identification because they embody existential meanings, making the world stand forth as it is."

(Norberg-Schulz, 1985, pg. 19)

Heidegger's existential foothold provides for orientation in space and identification with the specific character of a place - the opposite of alienation. It may be safe to say that addiction is

an illness of isolation and alienation. And in so far as architecture may be an act of orientation and identification, the built environment lends itself to the treatment of it. The concept of an existential foothold of the built environment underpins the concept of the built environment being meaningful to man in his perception, sensation and cognition of it. As such the built environment can, through the perceived meaning we ascribe it, foster a sense of belonging and discourage feelings of alienation so instrumental in the development and sustaining of an addiction. In experiencing the environment as meaningful, as suggested, one can truly comprehend and identify with the built environment, as being inextricably linked to mans' perception of self and being in the world. The built environment therefore is a critical tool in treating a disease of perception, in the hopes of ultimately coming to a point of self-awareness and actualization.

"Man is nothing else, but that which he makes of himself."

- Jean-Paul Sartre

Existentialism, describes the extent to which one associates meaning to phenomena in one's life, said to have no inherent meaning beyond what we place on them ourselves, from our own experience, choice and action. Existentialism tends to be atheistic in its suggestion that people must take responsibility and take action as opposed to waiting for divine deliverance (Ots, 2011). The concept is contradictory to the principles of the 12 steps, which acknowledge one's powerlessness to a Higher Power. However it is worth mentioning, in part because it describes the subjective nature of mans' relationship with his environment and more importantly because, just as is the ethos of the 12 steps, the responsibility of choosing recovery rests squarely on the addicted person who has acknowledged his powerlessness and thus his dependence on the 'God of his understanding' (NAWS, 2012).

"Culture, history and ultimately architecture are not fixed and merely additive, but are a continual process of reiteration and simultaneous dislocation which at every moment modifies the previous instant of meaning and structure."

(Eisenman, 1987)

Peter Eisenman captures the notion that meaning is subjective and prescribed, based not on the objects themselves but on their relation to each other and their context. Considering the

words c-a-t and a-c-t, that although they comprise the same elements have different meanings as a result of the fixed relationship between those elements, illustrates his point. He likens the analogy to the 'text' of the built environment, suggesting that the meaning we derive from it is a result of our relationship with the elements within it and that in order to transform our perceptions, we must redefine the dynamics of that relationship and not necessarily the elements themselves (Eisenman, 1987).

It follows that the built environment cannot be adjusted to the subjective views of each person that struggles to manage life within it. However, as suggested by Norberg-Schulz in *The Phenomenon of Place*, people appreciate that to a large extent their identity is 'a function of places and things' (1976: 6). In tackling the disease of addiction at its source where 'human identity presupposes the identity of place' it is necessary to appreciate that the original source is in the mind of the addicted. As such, an architecture of rehabilitation should provide vivid places that psychically encourage introspection while simultaneously fostering healthy identification with self, context and society.

2.3.2 The Concept of Dwelling

Identity is a result of finding meaning in the built environment. The Gestalt figures one distinguishes as meaningful within it, are influenced by culture and personality and go to aiding orientation as man moves among them. Identification is a measure of the nature of environmental stimuli where orientation is the cognition of their spatial relationships. Where identity relates to the body and subsequently the embodiment of meaning in the built environment; orientation places the body in space structuring this meaning and affording admittance by action within the built environment.

"I don't know who I am but give me routine and I start understanding who I am. I function better. Jail was one of the best times for me. I was happy even though I lived with all these murderers. I woke up in the morning, I polished the floors. Even though there were 36 of us to one cell, two toilets, one shower, I was alright because I knew what I had to do next."

(Clint, 2013, pers. comm. 18 April)

Our perceived place in the world is an integral part of how we identify ourselves. The place is the original commonality on which a fellowship is based, its permanence lending stability and expressing the nature of the shared beliefs that enable a kinship to form. One's home is a harmonious internal microcosm of the external place in which one dwells. The outer world shapes our reality by conditioning our perception of self. In the qualitative, existential meaning, to dwell is to 'belong to a given place' (Norberg-Schulz, pg.12) and is a universal human condition. Similarly, identifying with a fellowship requires a commitment to the values it upholds and the behaviours it demands (Norberg-Schulz, 1985).

"Human existence is qualified by the insoluble unity of life and place."

(Norberg-Schulz, 1985, pg.13)

Identification is the act of perceiving the built environment as meaningful. Following Heidegger's gathering of the fourfold; of earth, sky, the divinities and man; phenomena and their context are manifested relative to each other. Dwelling thereby becomes an expression of our cognition of the meanings inherent in the milieu of the built environment. This understanding of perceived meanings in the built environment allows one to identify and orientate themselves, via an existential foothold of their context. Dwelling consists of gaining an understanding of the existential meaning the built environment affords. Environmental stimuli gain personal meaning through the cognitive process. Embodiment suggests a relation between the body and the object, its nature is exposed physiognomically. Identity is thereby a result of internalizing recognised and understood phenomena, requiring an exposure to a multitude of stimuli to cement one's identity.

"...Man has to concretise his belonging to feel at home."

(Norberg-Schulz, 1985, pg. 20)

The identity of the drug-ego associates negative, unhealthy actions and lifestyles with the built environment, the potential then is to provide a built environment that encourages one to identify with healthier constructs of self. The psychological function of orientation determines one's actions. People orientate by way of recognising and acting on the centres, paths and domains that constitute the built environment. Disorientation creates a sense of

emotional insecurity (Kevin Lynch), as a feeling of a loss of control through low levels of dominance over one's self in the environment (Lang & Moleski, 2010).

In each of *the Four Modes of Dwelling*, described by Norberg-Schulz as the settlement, urban space, public building and house, there is a centre which acts to manifest its reason for being. Norberg-Schulz suggests this centre is not necessarily the physical centre of the built environment, but the existential heart of a place that facilitates the primary goal of each of the four modes of dwelling. The primary goal of the settlement, where natural dwelling is said to occur, is the manifesting of the sense of arrival and usually occurs as an existential understanding of the settlement. Thus the settlement expresses the end of mans' wandering and the point at which he arrives in his rightful place. The primary goal of the urban space where communal dwelling is said to occur, is to facilitate meeting with the built environment and others in it. The institution facilitates public dwelling and its primary goal is to concretise meaning and the explanation of a set of principles people may subscribe to in the forming of cohesive fellowships and finally, the house which is the domain of private dwelling, facilitates the primary goal of retreat from and reflection on the external built environment, in coming to a personal identity separate from it (1985:13). The centre is by its nature, the most stable and secure area in the milieu. It is usually a fixed point from whence surrounding objects radiate, thereby existentially embodying the concept of creation. As such it is experienced as a vertical axis usually terminating a horizontal plane or axis; connecting the sky and divinities with the earth and man representing a sacred dimension, connecting man and the cosmic realm (Norberg-Schulz, 1985).

2.3.2.1 Atmosphere

The atmosphere of a place, is the mood or sense of a space that is deduced spontaneously and as a result of the simultaneous stimulation of all the perceptual systems (Zumthor, 2006). Atmosphere and cognition of the built environment are contained in its language just as thought and understanding are to the written and spoken word. Language has at its existential core, the interconnectedness of man. Architectural language is a composite of identity or built form, orientation or organized space and building type referred to as the morphology, topology and typology of the built environment (Norberg-Schulz, 1985).

Morphology

Norberg-Schulz describes the morphology of the built environment as essentially how its form is articulated through its standing on earth, its rising to the sky and the interface of external and internal experiences (1985:18). Standing refers to the treatment of walls and floors and what this says about the relationship between the building and the earth. Its verticality expresses a relationship with the sky and associative sacredness of the cosmic order; while the external-internal interaction is expressed in the treatment of openings on the facade. The built form identifies how a building exists and is defined by its morphology, constituted by the quality of its spatial boundaries.

"...The overbuilt form of a settlement interprets the site in relation to chosen socio-cultural values. Thus it embodies located human togetherness."

(Norberg-Schulz, 1985, pg. 41)

The settlement embodies the relationship between the built and natural environments and provides the platform for natural dwelling. The skyline creates one's perception of its relation to the earth and sky, thereby identify with the values it upholds. The settlement that contemplates and visualizes the existing topography takes on its unique character becoming an easily identifiable focal point in the landscape. And although the silhouette is important in identifying a settlement, it is the prominent vertical elements that make it distinct. These elements correspond to Gestalt 'figures' and facilitate identification and orientation. From a distance these elements suggest the atmosphere of the man-made environment within the settlement and from within the settlement, remind one of its inextricable connection to the natural context. This unifies the interior and exterior of the settlement just as openings do the interior and exterior of individual buildings. The centre as articulated by the verticality of the tower, is reinforced in the morphology of the settlement by its repetition in smaller scales across its composite form.

The urban space affords the opportunity to meet and interact with one's chosen environmental stimuli, fulfilling the need for collective dwelling. Continuity in the urban fabric consists of variations of clearly recognisable and characteristic themes. The continuity of the street has to be punctuated by eye-level details that articulate these common themes in varied and interesting interpretations, to create an enriched and unified built form. The wall is

the primary element of the built environment. The floor of the city articulates the rhythm of the built form and acts to demarcate different zones in a symbolic gesture of boundary.

Street intersections slow movement down, encouraging choice and meeting, thereby acting as a 'quasi square'. Norberg-Schulz cites Paul Zucker as defining the public square as the built environments tool for creating communities from individuals living in close proximity with each other. The square is thereby, a contemplative space for pause and consideration of the many choices displayed along its perimeter and implied by its adjoining streets. It facilitates the goal of the settlement which is to gather. The built form bounding it being morphologically more cohesive and enriched. Horizontal rhythms are more regular and vertical elements exaggerated to evoke the central cosmic order. Regular geometric floor patterns evoke the stable and continuous connection to the earth and the unity of the square and the city. The sky which acts as a ceiling to the square is defined by the roofline of enclosing buildings. Public dwelling extends and formalises these choices in the *public building*, which expresses the nature of the values agreed to by a group. The facade of the public building forms the threshold between internal and external concepts of dwelling. Formal articulation is therefore important to fulfil the explanation. *The house* is the domain of private dwelling where one may retreat to for personal sanctuary and reflection on one's own identity.

Topology

Topology refers to the character of the spatial arrangement of the built environment. This organised space which serves to orientate one in his environment at every level of dwelling constitutes centres, paths and domains on the horizontal plane. Topology relates to the Gestalt principles of proximity, continuity and closure.

"With a topological pattern the elements maintain a certain individual freedom, whereas the geometrical layout implies a dominant superior order."

(Norberg-Schulz, 1985, pg. 41)

The built form is also characterised by the way the settlement is grouped. Physiologically this is determined by the site and psychologically by the social context. Topology is broadly categorised into the cluster, row and enclosure which correspond with Gestalt principles of

proximity, continuity and closure respectively. The intention is to use each of these spatial configurations to visualize or complement the existing site as described so effortlessly in the figure below. The man-made intervention, contemplates and visualizes the natural landscape with only a single figure to pronounce its difference.



Figure 8: Eggum Tourist Route, Snohetta (source: www.archdaily.com)

Geometrical topologies suggest an imposed togetherness (Norberg-Schulz, 1985, pg. 41), as opposed to a natural meeting facilitated by topological arrangements. Topological organisation is inclusive of multiple cultures where geometric arrangement is an imposed and subscribed to set of principles. However, in keeping with the existential meaning of dwelling, settlements should contain both.

"A spatial figure is a form which is easily recognisable and possesses a conspicuous identity."

(Norberg-Schulz, 1985, pg.63)

Urban space fulfils the need for density which facilitates meeting, while the richness of the urban milieu caters to a variety of choice. Figural qualities in this complex milieu need to be easily recognisable by contrasting in form or scale to its surroundings. This human scale is derived from the need to fulfil human-sized action. Topologically organized urban space facilitates multicultural freedom of meeting and access in the absence of an imposed geometric social order; as in the case of the colonial city grid. This freedom of association

and movement allows the city to make man feel secure and happy, as proposed by Aristotle, it should. A geometric square becomes profoundly more symbolic of an imposed order and choice. It evokes a mental discipline suited to the primary stages of rehabilitation, where there is a desperate need for mental order and structure. A more topological square is better suited to an expression of freedom found in the later stages of treatment when a recovering addict has come to trust himself and his own sense of responsibility through learning self-discipline. It may be said that the geometric meeting place is symbolic of fulfilling basic human needs where the topological meeting place lends itself to the fulfilling of advanced human needs so crucial to the recovery process - those of self-awareness and self-transcendence, that lead to an ability to succour others.

In terms of the Gestalt principles of spatial cognition, the domain is a cluster, the street a row and the square an enclosure. A distinct image of one's environment through clearly identifiable spatial organisation gives one a sense of purpose and belonging, thereby making the built environment meaningful. It is this inherent connection to the built environment that give people a sense of worthiness through the feeling of belonging. A positive urban image requires the presence of topological features of proximity/density; continuity/links and enclosure/centre to facilitate orientation.

"Strictly geometrical and symmetrical centres tend to disorientate as a result of the indistinct homogeneity of its parts. A combination of both a rich experience of life."

(Norberg-Schulz, 1985, pg.66)

The public building orientates by forming the conclusion to the physical and philosophical wanderings of man. Spatially the house is less formally organised than the public building and intends to recognise all of the phenomena of the site. Existentially speaking, one looks from his room to an enclosed and stable garden as though looking outward and back inward.

Typology

The architectural typology subscribes to an agreed upon identity and orientation specific to its function. The built form, spatial organization and the essence of the organising social principles expressed in its meeting places, give the urban space a figurative character commensurate with a certain and agreed upon way of dwelling within it. Urban spaces

facilitate collective dwelling by catering to all of the activities of a particular society, expressing its shared principles. By providing a meaningful experience of life throughout the identification of and orientation within the built environment. The urban spaces that constitute a settlement act as a precursor to the way one may dwell privately there. The house typology is difficult to determine symptomatic of its intensely personal nature.

Meaning in the built environment is a construct of the built form (morphology); its spatial organisation (topology); the principles it enshrines as an act of function (typology) and the relevance of the approach to these in the physical and historical contexts. A rehab located in the milieu of urban space offers a choice of another type of meeting in the built environment. The aim is not a space for rehabilitation, but for identity and orientation - for meaningfulness and the opportunities for choice, personal interactions and a sufficiently dense and varied urban fabric, to cater to all of one's moods.

2.3.2.2 Four Modes of Dwelling

Settlement

A settlement demarcates the extent of the place for a certain type of dwelling. Settlements should enhance the natural environment - responding to its particular topography in a careful way, thereby taking on an atmosphere specific to it. The natural centres are areas in the landscape where one becomes aware of the relationship between the earth and the sky and tend to be the points in the natural environment people are drawn to settle and truly dwell. They include ridges, valleys and bodies of water. Through the process of visualization the built environment serves to enhance the existing natural environment. Contemplation is the process by which the built environment compensates for the lack of a natural centre about which to settle. Las Vegas for instance, has no natural centre to distinguish it as figure in the natural desert landscape. The figural quality of a settlement identifies it as a figure in space and is distinguishable as a measure of its density in relation to Gestalt principles of proximity.

Urban Space

The primary goal of urban space as the platform of public dwelling is to facilitate meeting and choice, which encompass the existential definitions of the city. The city therefore facilitates meeting and forming a fellowship that embraces diversity while not homogenising opportunities for expressing one's identity through personal choice. The urban realm thus

affords the opportunity to belong without sacrificing personal choice. This unconditional acceptance and non-judgemental atmosphere is as the heart of the twelve traditions and the spiritual principles of AA. The city is a rich source of environmental affordances (Lang & Moleski, 2010), and one's identity is determined by those one takes advantage of. One chooses activities based on their practical, theoretical and poetical understanding of reality ((Norberg-Schulz, 1985) as a function of one's perceptual systems and subsequent cognitive processes. One's interaction with the built environment, through the choices for fellowship one makes, shapes a person mentally and reinforces a self-identification in the recognition of their social roles as meaningful. For meeting to occur, the urban fabric must be dense enough to facilitate choice encounters. Urban space is multifarious and enriched with layers of existential meaning; it envelops the user snugly, evoking the sense of being within the interior of a settlement. For urban space to accommodate public dwelling by providing the platform for meaningful interactions to occur; it must be adequately dense, enriched and continuous.



Figure 9: Within the urban milieu (source: Norberg-Schulz, 1985, pg.54)



Figure 10: An expansive placelessness (source: Norberg-Schulz, 1985, pg.54)

Institution

The goal of public buildings is to manifest and explain, in the built form, the set of principles agreed to by a certain fellowship, formed as a result of their subscription to them. The church offers an explanation for the world and life; the city hall an understanding of social organisation and structure; the theatre a portrayal of the way life is lived and the school and understanding of knowledge. A poetic understanding of the world facilitates the translation of the practical and theoretical understanding of it into built form. Therefore, a requisite for public dwelling to fulfil its goal of facilitating agreement, public buildings must represent the social principles poetically. The church is the ultimate expression of dwelling between the cosmic and worldly orders and an embodiment of the truth of the social principles.

House

The goal of the house is to facilitate the development of mans' personal identity outside of his social participations (pg. 89).

"Love in fact is the attitude which makes direct contact with phenomena possible"

(Norberg-Schulz, 1985, pg.91)



Figure 11: Atmosphere (source: Author, 2008)



Figure 12: Capturing atmosphere (source: Author, 2009)

Light manifests atmosphere in the built environment, the house concretises atmosphere - the mood of a bedroom in a rehabilitation centre is determined by the needs of the addict-what mood an addict needs to recover - silence, order, stability, connection, acceptance, care. Mood is a reflection of potential behaviour settings, potential functions- the house offers a space for retreat from and reflection on the public world outside - space for stepwork to discuss in meetings-public space. Intimate meetings not isolation is the goal.

2.3.3 Fulfilling Soul Needs - Spiritual Functionalism

Christopher Day refers to the concept of Spiritual Functionalism as a way of describing the ways in which the built environment fulfil what he calls mans' 'Soul Needs', critical in treating the 'modern phenomenon' of dependence on drugs and alcohol (Day, 1993). Central to this concept is that of the spirit of a place, it's inherent genius loci which acts as it's memory of where it has come from and the hope of where it is going. Being mindful of the existing condition of a space and deferring to the 'composite of sensory experiences' contained within it, is integral to the successful design of a facility that transforms a perceived space into a discernible and memorable place. The architect is responsible for ensuring that the internal and external elements of the built environment contribute to a conversation between 'idea, usage and place', that the design maintains a reciprocal relationship with the context and the spirit or soul of a place.



Figure 13: An inseparable relationship with place (Author, 2008)

The use of landscape and built elements add to the perception of a more manageable, conservative and thereby appropriate scale of the built environment that caters to mans' aforementioned soul needs. These elements discreetly instil a sense of welcome, privacy, leisure and business in the built environment without the need for overt symbols of, amongst others, entrance, boundary, repose and activity. (Day, pg107)The result is the perceived belonging of the built environment to its natural and social context translating to the subsequent belonging of the people within it and the emotional security that inspires. (Norberg-Schulz, 1996).

Elements of the built environment that are integral to enhancing the existing soul of a place include amongst others: light and its associated and varied colours; local ecology including indigenous plant and animal life; air quality and natural temperature control; noise reduction including most notably those from mechanical sources as well as and most significantly 'visual noise' of mere objects in space ignorant of their existing socio-cultural and ecological context including the use of locally sourced materials and lastly a variety of spatial experiences (Day, pg 108). Materials that capture the passage of time, like wood for instance, would suit the facility of a therapeutic community which promotes a culture of support from older, more experienced members and also by emphasizing the guests belonging to a deep rooted tradition and community.

The Numinous

William Griffith Wilson was the co-founder of Alcoholics Anonymous and author of the AA's Big Book outlining its traditions and principles for recovery (AAWS, 2010). The philosopher Carl Jung wrote to Wilson explaining his belief in the power of the numinous and a sense of community and subsequent belonging in the recovery from addiction.

'I am strongly convinced that the evil principle prevailing in this world leads the unrecognized spiritual need into perdition, if it is not counteracted either by real religious insight or by the protective wall of human community... You see, "alcohol" in Latin is "spiritus" and you use the same word for the highest religious experience as well as for the most depraving poison. The helpful formula therefore is: spiritus contra spiritum.'

(Jung, 1961)

Non-denominational, spiritual principles form the backbone of the 12-step recovery programme as advocated by many AA, NA and rehabilitation programmes worldwide (NAWS, 2001). The architectural application therefore becomes central to the discussion on the potential of the built environment to evoke the numinous and encourage self-reflection and introspection in recovery from the disease of addiction.

Silence, seems to embody something contradictory to the vivid objectivity of phenomenology and with reference to the disease of addiction, seems wholly out of place. However, appreciating that according to Carl Jung, the defining moment of transformation from addiction to recovery is fundamentally spiritual and profoundly introspective, one realizes the incredible potential for healing in the Silence embodied in certain architecture. Ots, in *Decoding Theory Speak*, describes how the 'architecture of spirit' is able to 'respond to place' - a central theme in phenomenology - exploring the 'spatial aspects of the mystical and eternal'. He touches on how the work of Louis Kahn and Tadao Ando, and even the later work of Le Corbusier touched on something 'we cannot name or know', in describing the built environment's potential for fostering introspection and silence, in an awareness of something 'immeasurable' and 'eternal' (Ots, 2011).

" A work is made in the urging sounds of industry, and when the dust settles, the pyramid, echoing Silence, gives the sun its shadow." - Louis Kahn

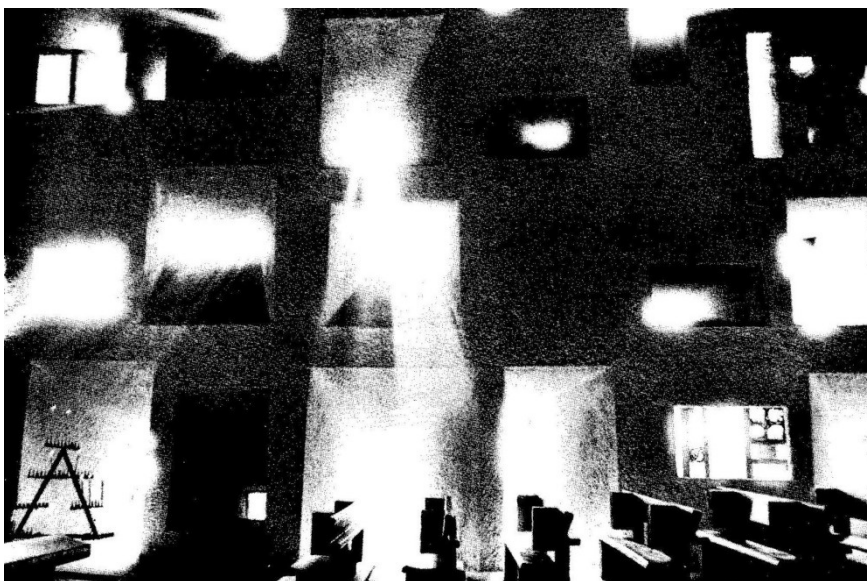


Figure 14: Interior of Le Corbusier's Ronchamp (source: Norberg-Schulz, 1985, pg.87)

The concept of one's 'Higher Power' is fundamental to the recovery process and while that is not to say that the recovery process is religious in nature, it is certainly theistic and non-denominational. The first step of twelve to recovery is the admittance of one's powerlessness to the disease and becoming aware of one's own fragile humanness. In *The Renovation of the Body*, Perez Gomez suggests that in order for architecture to become meaningful, it must have a 'metaphysical dimension' that 'reveals the presence of Being, the presence of the invisible within the world of the everyday.' Considering Ots suggestion that 'architecture can be thought of as a spiritual path and a practice of meditation and reflection', places the built environment in a key position to benefit the recovery process.

2.3.4 Summary

'The architectural differences' that separate the functions of different internal spaces 'start with the senses' (Day, pg120, 1993). The sensory experience of the floor beneath your feet announces uses and their changing and the differences in the acoustic qualities of a bedroom and bathroom, a place of still meditation and that of celebration speak to the event one can expect within them. The built environment prescribes one's behaviour in it and does this by use of materials, tectonic details and the elements that control the quality of the internal environment. These details form the interface between the user and the space and should be considered with careful consideration to how they affect one's perception of space and how that perception informs the users perception of self.

2.4 An Empirical Learning

2.4.1 Introduction

Behaviourism suggests that psychology is not a study of the science of the mind but of the science of behaviour which can be explored without making any reference to one's internal psychological status (<http://plato.stanford.edu/entries/behaviorism/>). Founded by John B. Watson and promulgated in his seminal paper in 1913, *Psychology as the Behaviourist Views It*, behaviourism is the belief that behaviours are learned through conditioning when one interacts with the environment and that these behaviours can be 'measured, trained and changed' through the positive and negative affirmations of them. Behaviourists believe that man's emotional response to stimuli in the environment defines his behaviours within it, (Cherry, 2013) suggesting that the built environment has the potential to reinforce positive behaviours by acting appropriately on the perceptual system of the human body which is responsible for emotional responses to environmental stimuli (Lang & Moleski, 2010). Reciprocally the philosophy of principle phenomenologist and founder of Husserlian Phenomenology, Edmund Husserl suggests that all learning is a result of experience through informal learning as opposed to formal and that this learning is coloured by our perception of the built environment and what it affords us (Nesbitt, 1966; Lang & Moleski, 2010). It subsequently is imperative to understand the process of perception and the physiology of the perceptual process as well as the reciprocal relationship between one's perception of and one's behaviours within, the built environment.

2.4.2 Environmental Psychology

Lang and Moleski borrow from the field of environmental psychology developed by Roger Barker and build on the concepts he uses to describe the relationship between man and the built environment in order to provide a framework for design moving toward a Functional Theory of architecture.

2.4.2.1 Meeting Human Needs

The built environment and more specifically, architecture is intended to meet the needs of its users. According to Maslow's Hierarchy of Needs (figure 8), these are separated into the basic bodily and social needs and the advanced needs of self-fulfilment. These are universally applicable and separate from typology or accommodation. They speak instead to the required

atmosphere of certain spaces, the emotional perception of self in space (Lang & Moleski, 2010). The hierarchy establishes the importance of fulfilling needs to mans' survival, suggesting self-actualization to be of less importance than survival needs. It is imperative to note, that the Minnesota Model of addiction treatment advocates self-actualization and ultimately self-transcendence in the succour of others in the therapeutic community as the defining factor in achieving and sustaining one's own recovery from addiction. Coming to a realization of one's own physical frailty allows for self-actualization to occur and eventually, through recognizing one's counterpoint in another - self-transcendence (TEDx, 2010).

Basic Human Needs

Affiliation needs are met by our knowing that we are members of a group and an associative social and moral order. Affiliation needs differ between cultures and individuals and are linked to the identity and values of a the group. Cultural groups are formed on the basis of kinship, locality and common interests. When a society's needs for security and affiliation are not met, its members feel stressed, isolated and alienated. This often causes them to withdraw from social interactions and engage in anti-social behaviours that satisfy their needs for recognition and identity (Lang & Moleski, 2010, pg.66).

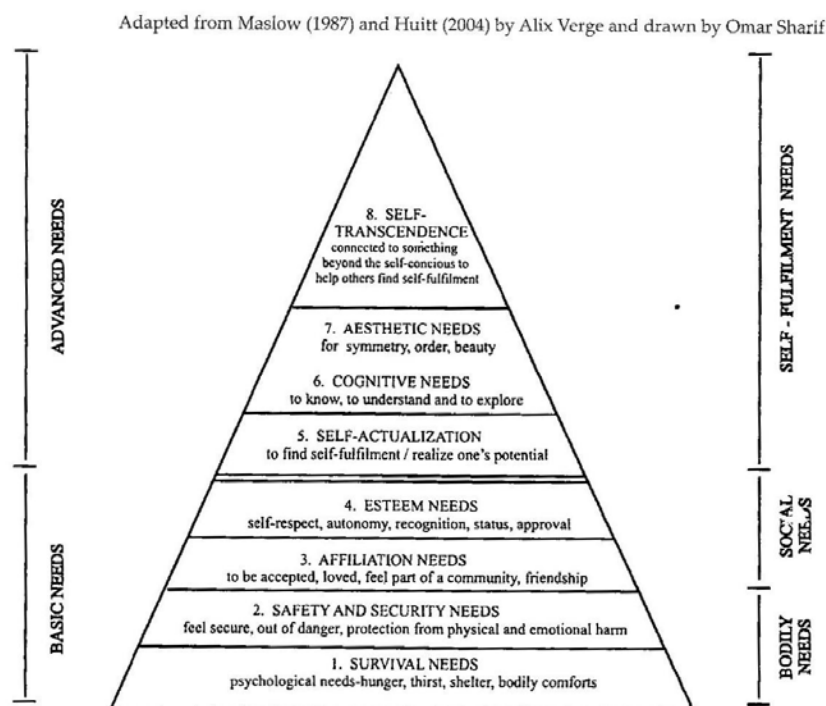


Figure 15: The hierarchy of human motivations as seen by Abraham Maslow (Lang & Moleski, 2010,

Behaviour Settings

The concept of behaviour settings takes from the notions of event-space and extends on the concept of dwelling in its idea of the built environments reinforcing of one's identity. By way of behaviour settings, the built environment affords one the opportunity to learn and understand how the world operates and what this says about the individual (Lang & Moleski, 2010). Behaviour settings exist in two broad categories of spaces and also within links between them.

Advanced Human Needs

The 12-step programme intrinsically aims to achieve self-actualization and promote self-transcendence through actively encouraging the succour of others in the therapeutic community. The built environment serves self-actualization and self-transcendence functions by providing for peoples' cognitive and aesthetic needs.

2.4.3 Affordances - Learning from the Built Environment

Table 4.2 The affordances of environmental features for children's activities

Adapted from Heft (1988) by Vivian Romero (2010) and Jon Lang

ENVIRONMENTAL FEATURES	AFFORDANCES
Flat, relatively smooth hard surfaces	Walking, running, cycling, skating
Relatively smooth slopes	Coasting, running, and rolling down
Graspable, detachable objects	Throwing, digging, drawing, dueling and building structures
Attached objects	Hanging, jumping-on/over and swinging on
Climbable features	Looking out from and passage to other places
Shelter	Providing privacy and microclimate quality
Moldable materials (e.g., dirt and snow)	Constructing objects and throwing
Water	Swimming and splashing

Figure 16: The affordances of environmental features for children's activities (source: Lang & Moleski, 2010, pg.53)

"The only kind of learning which significantly influences behaviour is self-discovered or self-appropriated learning - truth that has been assimilated in experiences."

(Carl Rogers, clinical and educational psychologist cited in Lang & Moleski, 2010, pg.243)

The built environment fulfils mans' cognitive needs by affording opportunities for sub-conscious, informal learning as suggested by clinical and educational psychologist Dr Carl Rogers. The four sets of cognitive needs include the need to understand one's environment; the cognition needed to perform a task; the needs for learning to satisfy one's curiosity and those of expressing what one has learned. The built environment affords its users the opportunity for continual learning (Lang & Moleski, pg.243) outside of formal institutions and the subsequent opportunity for expressing and using what has been learned. Learning is not only necessary for survival in understanding what opportunities our environment can and cannot afford us, but fulfils our need to satisfy our curiosity and the freedom of expression that allows for enriched life experiences. The adventures that result from satisfying one's search for meaning through the exploration of the built environment, strengthen mans' physical and mental capabilities and knowledge which positively impacts their perception of self and subsequently their self-esteem and self-worth (Lang & Moleski, 2010).

Many opportunities for non-instructional learning exist in the informal and transitional spaces between places of formal learning. Corridors, break-out spaces and casual communal settings become spaces for the exchange of ideas and personal experiences that form the basis of the therapeutic community model which purports learning from the experiences of others. Film and television operate in a similar way, allowing people to learn indirectly through the lives of others without the risk of overwhelming emotions. Enriched and participatory environments satisfy the cognitive learning process as described by Dr Carl Rogers and Edmund Husserl, who both suggest that learning through experiencing is the only true way to acquire knowledge (Lang & Moleski, 2010 & Nesbitt, 1996).

"He (Matthew Sanford - paraplegic yoga instructor) has yet to experience someone who became more aware of their body, in all its frailty and its grace, without, at the same time, becoming more compassionate towards all of life."

(Matthew Sanford cited by Krista Tippett in *TedTalks: Reconnecting with compassion*, 2011)

Actions that push us to our limits to test our strengths and weaknesses in coming to a deeper knowledge and acceptance of self and our own physical and mental competencies bring us closer to fulfilling our advanced human needs of self-actualization and self-transcendence. The built environment, through the provision of an enriched and challenging physical landscape, goes some way to encouraging, sub-consciously the fulfilment of advanced needs

of self-awareness and actualization. In so doing the built environment contributes to the recovery process by directly effecting the functioning of the brain in navigating stimulating and challenging built environments.

2.4.3.1 Incidental Learning - Enriched and Participatory Environments

Just as playgrounds offer children the opportunities to explore and test their physical and mental skills for navigating the built environment, so does the urban realm afford the adult the opportunity for self-exploration and incidental learning. The more enriched and challenging the urban design, the greater the opportunities for subconscious learning (Lang & Moleski, 2010). Research has shown that enriched environments stimulate brain activity and are thereby instrumental in the treatment of brain disorders such as addiction (www.danainstitute.com). The learning gained contributes to one's sense of control over their environment and the emotional security that results from it (Norberg-Schulz, 1986). Lang and Moleski suggest enriching the built environment is achieved through the milieu of behaviour settings and affordances of a multi-sensory stimulating built environment and by stimulating the perceptual systems in engaging the user directly and haptically with the built environment and as importantly, with other people within it. The city itself becomes a playground and thereby life enhancing (Lang & Moleski, 2010).

Addiction has its roots in the desire to numb all negative emotions that remind one of past traumas. As numbing is not selective (Brown, 2012), the positive emotions are simultaneously escaped and replaced with the illusion of a static emotional state available to the drug-altered mind.

2.4.3.2 Operant Conditioning

Psychologist B.F. Skinner developed his theory on operant conditioning on the premise that how often you reward and thereby reinforce good behaviour effects the sustaining of that behaviour. It was found that Continuous Reinforcement where one is rewarded for the desired behaviour, every single time, is most effective in the primary stages of behaviour modification in Cognitive Behavioural Therapy. The continuous positive affirmation strengthens a person's positive associations with the new and desired behaviour (Ferster & Skinner, 1957), at their most vulnerable time in recovery and at a time where they are most susceptible to relapse. Partial Reinforcement is the rewarding of the desired behaviour some

of the time, and although the cementing of the learned behaviour takes a longer time, it is eventually easier to sustain and less susceptible to extinction (Ferster & Skinner, 1957). These methods of positive reinforcement of healthy non-addictive behaviours may be made manifest in the built environment by the considered and appropriate use of built elements that create a challenging environment to navigate and explore, that may subsequently and simultaneously be rewarding both physically and mentally. In this way, one may be exposed sub-consciously to opportunities for informal learning through direct participation with the built environment and the people and objects within it (Lang & Moleski, 2010).

In *Experiencing Architecture*, Rasmussen touches on the informal quality of learning from the physical, directly participatory experience of interacting with the built environment. Through experiencing the built environment in a variety of ways and subsequently through many of the perceptual systems, one 'instinctively learns to judge things according to weight, solidity, texture, heat-conducting ability' (Rasmussen, 1962, pg. 18). The built environment becomes a sub-conscious, informal extension of the formal learning environment of the classroom, affording opportunities for learning through perceptual and sensory experiences. This learning defines how one perceives and situates himself in relation to his environment and others and objects within it. A sterile environment affords very little opportunity for this learning, whereas an enriched environment allows for a wealth of learning through physical and mental exploration of the built environment (Lang & Moleski, 2010). This learning through experience is even more valuable to extending mans' physical and mental capabilities (Nesbitt, 1996) which enhances his sense of emotional security and self-worth (Norberg-Schulz, 1993).

The person-environment relationship was criticized for being misunderstood in modernist thinking. The impact of the built environment on the user was more deterministic than is normatively accepted today. Architects then believed that buildings and the built environment could force exemplary moral behaviour onto users whereas the thinking now, as suggested by Lang and Moleski, is one of a more subtle encouraging that takes the diversity and complexity of modern man into account. A more empiricist account of modern thought as opposed to the more rationalist, objects-in-space approach (Lang & Moleski, 2010).

Architectural Determinism 'involves the belief that there is a direct cause/effect relationship between architecture and human behaviour' (Ots, 2011). As South Africans, we are no strangers to the concept of 'social engineering' which Ots refers to as the 'extreme form' of architectural determinism in his book, *Decoding Theory Speak*. However the term did not always connote negative social implications and in fact, on the contrary suggested a progressive departure from the 'ills of the medieval city'. As modern society acknowledges the complex and multivalent nature of the built environment, we realise that most things comprise many factors in a symbiotic relationship to generate the whole. And where Ots recognises that 'although the hope that architecture could directly lessen social and psychological ills has faded' he does go on to express 'the value of architecture as the setting for human life' and as such, one of the many components that may go to improving the quality of it. (Ots, 2011)

" The reason for architecture is to encourage people ... to behave, mentally and physically, in ways they had previously thought impossible."

- Cedric Price

Architectural Determinism, as perceived by Ots, forms part of a kit of tools that may enhance the built environment and in this case the urban built environment where the addict dwells. In the quote by Cedric Price, Ots emphasises architecture's ability to change the mental and physical reactions of people, in this case those affected by addiction, to their built environment and consequently their habitual behaviour within it.

By locating rehabilitation centres in the areas in which the addict makes their daily choices, the built environment may begin to redefine the associated memory of and subsequent behaviour within that space, allowing for new and healthier daily choices to be made. This solution is not only economically more feasible, as it does not require relocating the problem but tackling it at its source but it consequently becomes more socially sustainable to those directly affected by the disease and the community they are a part of.

The philosophy behind the process of recovery has changed substantially thanks to the work of Dr William R. Miller as is discussed in his interview with William White on *The Psychology of Addiction Recovery*. Much like the general shift from the 'top down approach'

that is evident in many industries today, it is interesting and encouraging to note that the patients themselves, often have a keen and surprisingly accurate idea of what they need to recover.

"We have imagined that we professionals hold the answers to our clients' life problems. The longer I work, the more I realise that it is our clients who hold the answers, and our job is to provide the light and water needed for them to bloom."

(White, 2012)

We are seeing the same emphasis on community participation in architectural interventions the world over and most prominently where those communities are vulnerable and in the greatest need of efficient and socially and economically viable solutions. Isolation and exclusion are being recognised for the psychologically and socially disruptive influences that they are. At the junction of psychology, spirituality and architecture, we look to the power of community and inclusion in remedying destructive anti-social behaviours.

2.5 Conclusion

Man has sought a meaning for his existence. Modernism oversimplified the conversation leaving the built environment meaningless and man lost and without an identity as a result. In over-emphasising visual perception, Modern architects searched for the extraordinary at the expense of the ordinary. Phenomenology returns architectural thought from the cerebral abstractions of functionalism to the figurative, personal, objectiveness of architecture that rejoices in the fundamentally ordinary messiness of meaningful, everyday life experiences.

CHAPTER THREE | PRECEDENTS STUDIES

3.1 Introduction

The precedent studies analyzed were selected for their contribution to the nature of the physiological functioning of environments with healing potential and in terms of the resulting psychological impact on the user, as a perception of atmosphere. Underpinning this perception is the built environment's morphological and topological nature as a statement of its identity and orientation respectively and consequently those of the users of it.

The precedent studies include the Neo-Natal intensive care unit in the new Princess Anne wing of the Royal United Hospital in Bath, England; the Ubuntu Centre for HIV/AIDS education, testing and community support, in the township of Ibhayi near Port Elizabeth in South Africa and the Yingst Retreat, private residence in Michigan, North Dakota in the United States of America. The studies describe the importance of a connection to place and the different ways this is perceived according to the specific cultural and geographical context. The titles of each study draw parallels with the sections of the theoretical framework that it pertains to and aims to dissect in its manifestation within the built environment.

3.2 Catering to Soul Needs - The Dyson Centre for Neonatal Care

Architect: Fielden Clegg Bradley Studios LLP - Bath, England

Function: Neo-Natal Intensive Care Unit for the Royal United Hospital in Bath, England

Location: Royal United Hospital, Bath

Project Area:



Figure 3: External View (source: www.vinciconstruction.com)

3.2.Motivation

Fulfilling mans' soul needs, referred to by Christopher Day and reflecting mans' advanced needs of self-awareness and transcendence as defined by Abraham Maslow, are inherent to the effective treatment of the psychological causes of addiction. These are discussed here in terms of how their fulfilling may manifest in the built environment.

The neonatal intensive care unit in the Princess Anne wing of the Royal United Hospital in Bath, England was partly funded by inventor, Sir James Dyson and designed by architects, Fielden Clegg Bradley Studios based in Bath and London. Having personal experience with his own son being born premature, Dyson was insistent on a holistic design approach with the

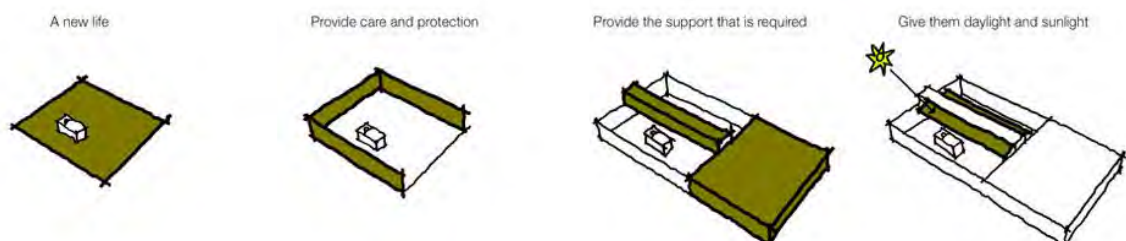


Figure 4: Architects Sketch Describing Person-Centred Approach (source: www.fcbstudios.com)

intent of creating a sustainable healthcare environment, using technology to auger the person-centred approach of the proposal. The scheme describes the intimate relationship between a built environment that acts simultaneously on all of the perceptual systems to provide an innate and unconscious healing in tandem with traditional therapies.



Figure 17: Locality Map of the Dyson Centre in Bath (Source: www.googlemaps.com)



Figure 18: Location Plan of Centre within the hospital complex (source: www.ruh.nhs.uk)

3.2.2 An Atmosphere of Care

The atmosphere of the centre touches the emotional sensibilities in response to the perception of calm and the cognition of serenity, imbibed by the tactile use of natural materials that express the healing and ethereal quality of the abundance of light within. This atmosphere is enhanced through the auditory perceptual system and the decided insulation from mechanical and external noise, most notably in the babies' wards. As a result the centre has achieved ground-breaking results in terms of improved efficacy of treatment. Breast-feeding time increased from 64%-90%, the babies were recorded as sleeping 22% longer due to the reduction of noise levels from 65 to 55DB and nurses spent approximately 20% more time with their patients. Anxious parents found the atmosphere more relaxing not least of all, because siblings were catered for with a dedicated play-pod (Bignell, 2013). The built-in seating within the wards themselves serves the dual purpose of allowing large amounts of light to enter the space and providing an area of repose for parents wanting to be near their babies during treatment. The height of the window seats encourages relaxation enhanced by the views outside, while the depth of the window reveal, ensures a comfortable seat as well as tempering the light to be less harsh within the ward.



Figure 19: Siblings Pod (Chris Auckland - Fotohaus, 2011, Source: www.europaconcorsi.com)



Figure 20: Built-In Bay Window Seating for Parents within the Actual Ward (Chris Auckland - Fotohaus, 2011, Source: www.europaconcorsi.com)

3.2.3 Health-Giving Tranquillity

The walls are periodically painted varying colours and act to break up the expanse of white mixed with the soothing natural hue of occasional timber panels, that seem to add a gentle rhythm to the circulation space surrounding the nurses' station and administration spaces that form the core of the unit. The open plan feel, creates the perception of a socially interactive space where intensely public areas that have the potential for becoming points of tension have been eased by the use of curved counters that respond to the intuitive movement through the space. The clockwise arrangement of the spaces radiating from this circulation zone are said to create 'a psychological effect of development and health improvement' (Bignell, 2013), subsequently enhanced by the extensive use of skylights illuminating the circulation space. The double height at this point in the units provides a feeling of space that is restrained by the occasional connection to the utility space above, that again serves to enhance the perception of the rhythm of movement throughout the space while still acknowledging the intimacy required in the care of premature babies, their families and the staff that care for them.



Figure 21: Illuminated Circulation Around Nurses Station (Stephen Shepherd source: www.independent.co.uk)



Figure 22: Skylights in Circulation Space (Stephen Shepherd source: www.independent.co.uk)

The sketch section figure 24 below describes the holistic approach to creating an environmentally as well as emotionally sustainable health care facility that acts on the auditory, visual, haptic and emotional perceptual systems simultaneously in creating an atmosphere of healing for all users of the space.



Figure 23: External View of Window Seat (source: www.fcbstudios.com)

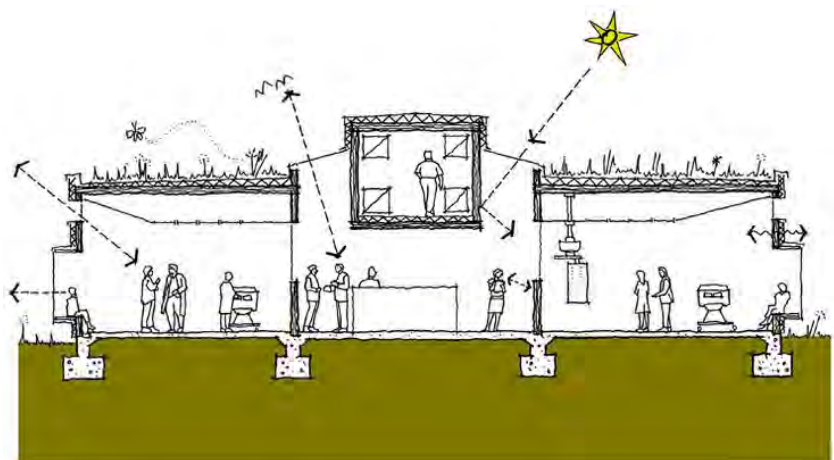


Figure 24: Architect's Sketch Section (source: www.fcbstudios.com)

3.2.3 Summary

The architects commissioned specifically with no previous healthcare experience, brought a more holistic approach to the design, separate from any preconceived notions of the typology. The result is the diluting of an outdated hospital typology in and an improving of the health and well-being of all of the users of the space, from the premature babies being treated to

their entire families, including young siblings and staff. This idea lends itself to the concept of a universal cognition of spaces in the built environment, that satisfy the soul needs of one being worthy of care.

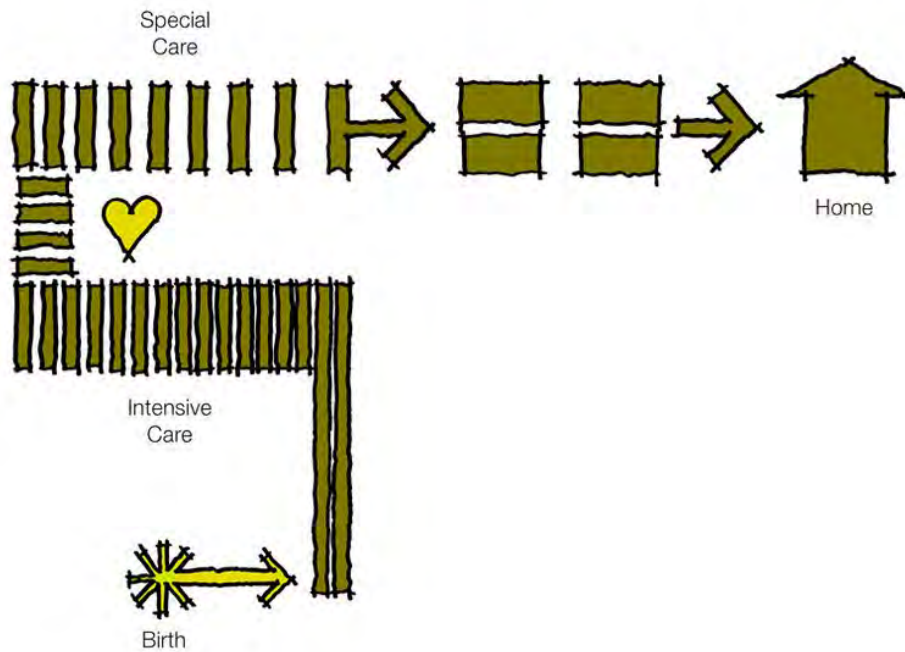


Figure 25: Architects Sketch Capturing the Essence of Care in the Built Environment (Source: www.fcbstudios.com)

3.3 Communal Dwelling - Ubuntu Centre, Port Elizabeth, South Africa

Architect: Field Architecture

Function:

Location: 5 Qe Qe Street, Zwide, 6200, Port Elizabeth , South Africa

Project Area: 1950 m



3.3.1 Introduction

The Ubuntu Centre in Port Elizabeth was designed by Field Architecture as a 'state-of-the-art' centre for paediatric HIV testing and treatment. The facility also provides, counselling and education within the context of an under-privileged post-apartheid community. The premise of the design was to break down the stigma surrounding HIV in the 'normalizing' of it. The principles of sustainability at the heart of the design philosophy, extend beyond just the environment but into the surrounding social context with the aim of empowering the local community.



Figure 26: Locality Map of Ubuntu Centre, Ibhayi, Port Elizabeth (source: www.googlemaps.com)

3.3.2 Contemplating and Visualizing - Accessibility as a Tool of Empowerment

The Ubuntu centre responds to the local social context both physical and mentally in its location and architectural language respectively. Both allow for an ease of access and facilitate a certain degree of anonymity for those victim to the disease and the social stigma of it. It also accommodates those in need of shelter at times and affords the community a focal point that represents positive change and thus, may inspire personal pride.

The building is located at an intersection, opposite an empty lot and diagonally opposite another of the townships institutional focal points. This not only lends itself to the beginnings of a less formal civic centre - defined topologically as opposed to geometrically - but also adds emphasis to the form of the centre within the landscape of the surrounding township. The nature of the context allows enough distance for one to take in the perceived entirety of its form and its relationship with the context. The form, conceived as boulders as shown in the architects sketch below, appears to merge with the context, growing out of it and reaching its apex at the street intersection. The connection between the building and the context is established in its conception, in an ethos of care and regard for the users for whom it is designed. Thus the identity of the institution is inextricably linked to that of its members, defining both in relation to each other. This interaction is extended to the execution of the plan and the continuation of the natural footpaths through the built form. The suggestion is one of a reciprocal relationship between building and context as an intrinsic expression of their individual and interrelated identities and the meanings encouraged by each.

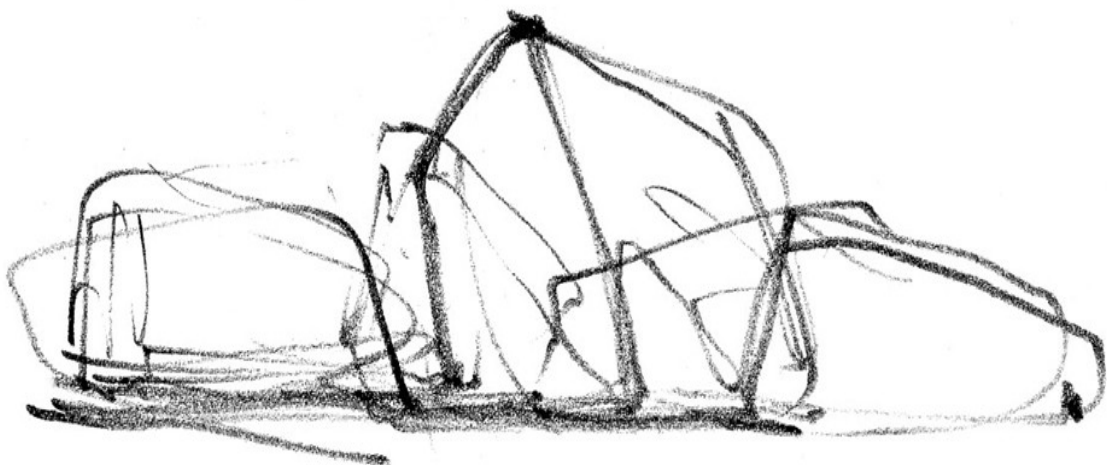


Figure 27: Ubuntu Centre Sketch 1 (source: www.fieldarchitecture.com)

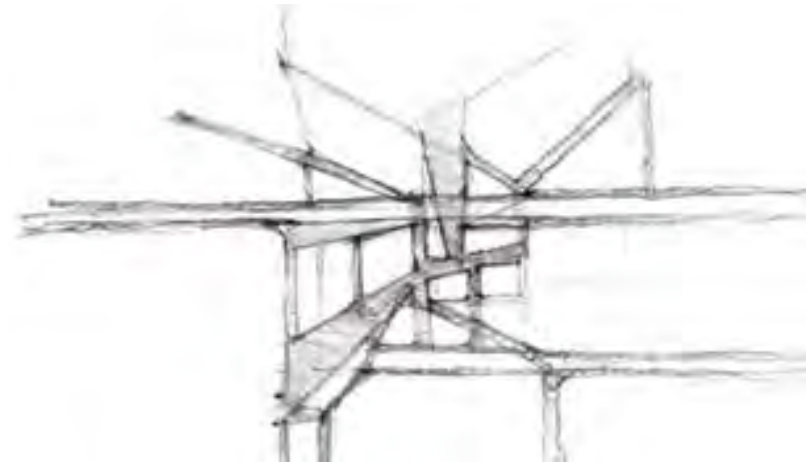


Figure 28: Context Sketch (source: www.archrecord.construction.com)



Figure 29: Roof Plan View of Site Paths
(source: www.googlemaps.com)

The continuous planes created by the consistent use of regular pre-cast concrete panels for the roof and walls create the perception of a concrete ribbon that has been shaped to form multiple volumes. The varying and increasing heights moving away from the pedestrian interface of the pavement, allows the building to appear as a complex of built forms representative of the urban milieu and affording it the perception of an environment to be explored and ventured into. The restrained human scale of the complex affords the intimacy required in treating such a sensitive subject and allows for a deeper connection with the users in an absence of an overpowering built form.

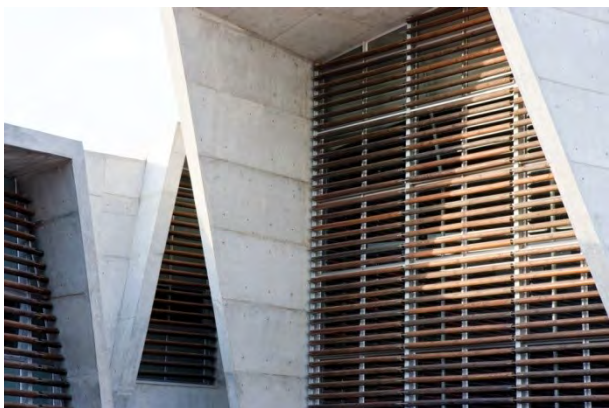


Figure 30: Haptic Tactility of Materiality (Jess Field, Source: www.archdaily.com)

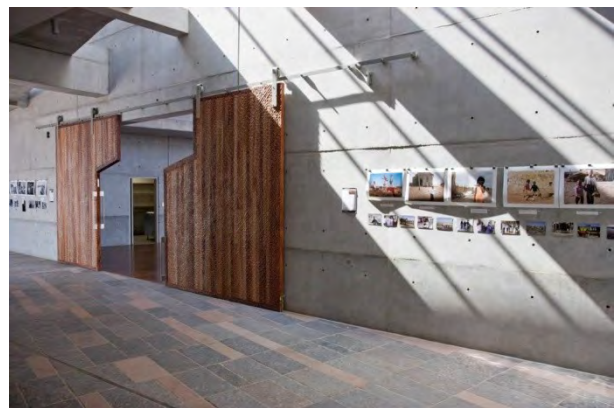


Figure 31: Internal Use of Natural Light Illuminate Concrete Walls (Jess Field, source: www.archdaily.com)



Figure 32: Human Scale of Pedestrian Interface (source: www.archdaily.com)

There is an honesty in the use of materials in their untreated, muted forms that speaks to the simplicity and ordinariness of the surrounding built environment. This allows the building to be embraced by the community as an orientating point in the environment, encouraging a connection between the community and the principles the organization represents.

3.3.4 Summary

The Ubuntu centre sets a new standard for the treatment of public institutions that emulate an attitude towards the community it serves and the larger social and natural environment it expresses. In being cogniscent of its impact on the surrounding landscape and the people within it, the built environment, inherently reveres the identity of place and by extension, the cultures that reciprocally identify with it.

3.4 Retreat and Reflection - Yingst Retreat, Michigan, USA

Architects: David Salmela Architect

Location: Michigan, Michigan, USA

Photographers: Paul Crosby, Peter Bastianelli-Kerze and Undine Prohl *



Figure 1: Front Facade. * Source: www.salmelaarchitect.com

3.4.1 Motivation

The Yingst retreat in Michigan, USA by David Salmela Architects captures the nature of identity and belonging in its contextual response and contrasting form and colours; the concept of enriching cohesive environments in its treatment of form, material, spatial relationships and colour and encourages regular routine in its exposed and natural structural rhythm.

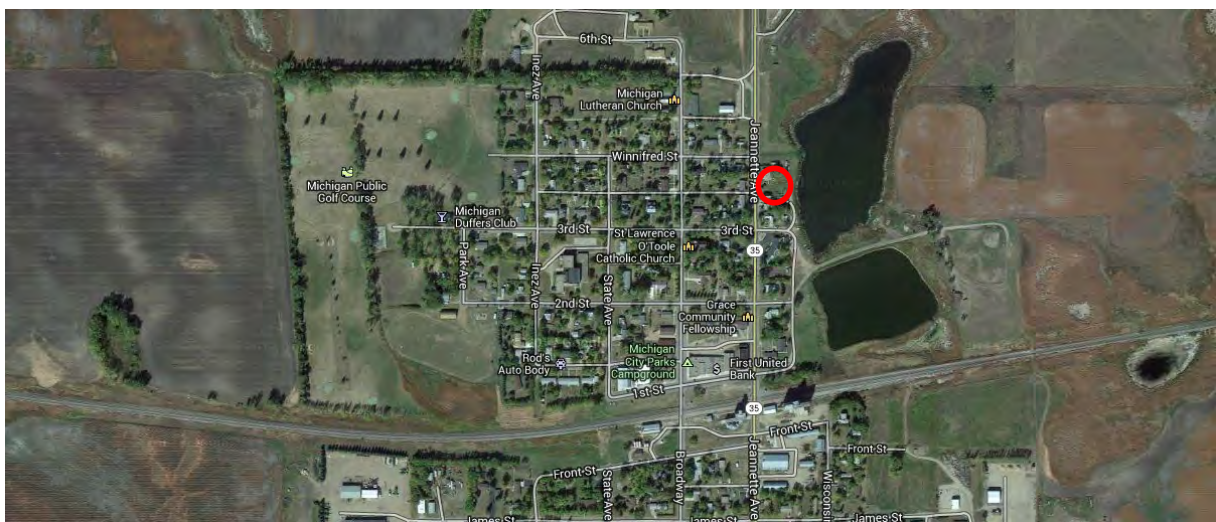


Figure 33: Locality Map of Yingst Retreat, Michigan, North Dakota (source: www.googlemaps.com)

3.4.1 Autonomy, Identity and Belonging - A Contextual Response

Viewing the building through the trees sets the form within its context in a way that describes the importance of the relationship. The two exist in the usual contrast between natural and man-made form and are mutually visualized by it. The blank and stark white facade is softened by the shadows cast, while setting the backdrop to the surrounding landscape. In distinguishing each other, the two create a definitive sense of place borne from the contemplation and visualisation of both natural and man-made elements equally.

The main building appears anchored in the landscape as if having grown from it. There is no description of plinth as is the case with the black box 'follies' housing the garages. Although minimal, the discreet stone base echoes in colour and material, the pale surrounding gravel while the darker grey of the crush adjacent the white facades, not flanked by grass, frames the base of white wall and pale timber as the trees do the entire building. The reciprocal and contrasting relationship between building and environment is described as much in the detailing as in its overview.

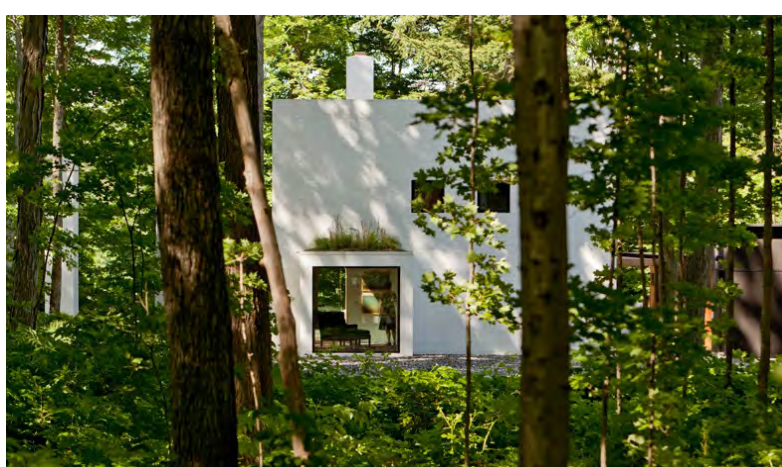


Figure 34: View through the trees. * Source: www.salmelaarchitect.com

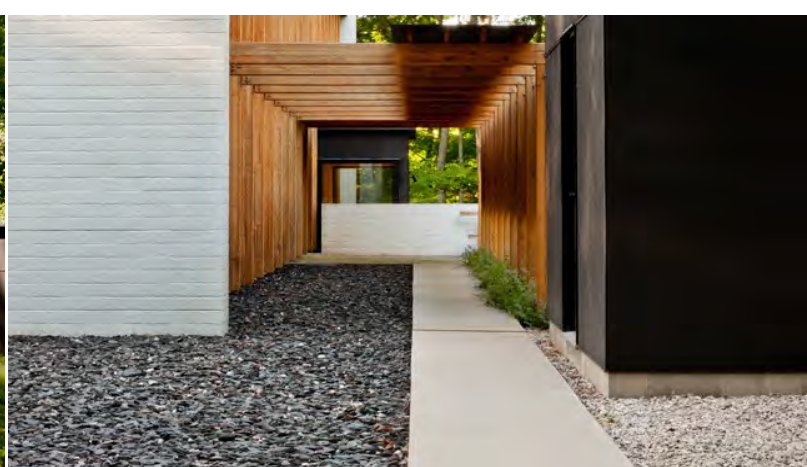


Figure 35: Entrance pathway. * Source: www.salmelaarchitect.com

The contextual response illustrates the building's identity as an extension of the natural environment that is enhanced by the obvious differences between them. By responding to the context in a way that is harmonious while also retaining its autonomy of form, material and colour palette, a clear sense of identity and belonging is achieved between building and environment. These are inherent to the nature of healthy and recovering addicts. Metaphorically the building represents the function it accommodates.

3.4.2 Enrichment and Simplicity - The Healing Power of the Environment

Openings become opportunities for the enrichment of the environment essential in the treatment of brain disorders and diseases. Personal moments are eluded to by carefully placed openings describing the inner workings just enough to pique the interest without compromising the users privacy; just enough to animate the facade without compromising the simplicity and stillness it captures. The unusual and varied treatment of openings, boxing them out to allow for roof gardens and distinctly separating one large opening in into two of two and one third lengths, deliberately creates a multiplicity of form that is interesting and intriguing. This curious use of opening form is however repetitive in size and proportion thus still achieving a subtle sense of cohesion and creating an identifiable language without becoming monotonous.



Figure 36: Unusual & proportional window treatment. * Source: www.salmelaarchitect.com

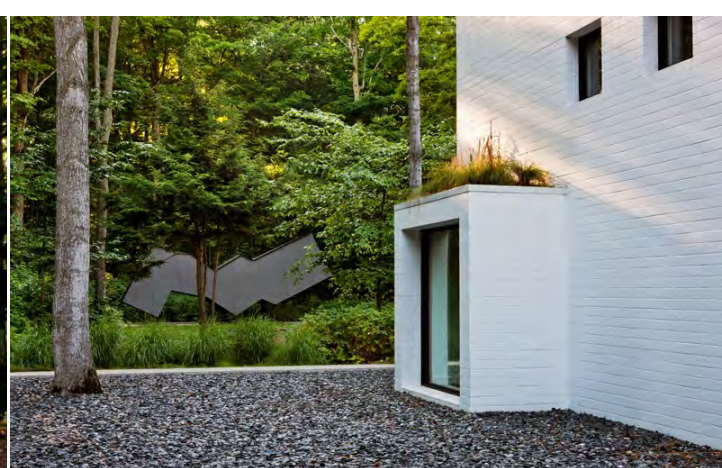


Figure 37: Opportunities and elements of enriched environments. * Source: www.salemelaarchitect.com

The collection of contrasting coloured and sized follies in the landscape, further enrich the environment and act to define the space without the restriction and mental confinement of a physical boundary. Intensifying this visual enrichment, the irregular form of the bowls pavilion stands in complete contrast to the formal regularity of the rest of the complex. Detailing, colour and material treatment ensure it still belongs while remaining independent.

The use of varying and simple forms, spatial relationships and colour and material palettes - while maintaining a sense of cohesion and architectural language through proportion repetition and detailing - creates the enriched built environment so fundamental to correcting the warped perception of the addict suffering the disease of addiction.

3.4.3 Chaos and Order - The Natural Rhythm of Routine

In using a restricted but starkly contrasting palette of colours and materials combined along regularly geometric planes, the environment is enriched without becoming chaotic or conversely too rigidly ordered. The timber pergola defining the external corridor of the entrance passage accentuates the contrast of black on white and similarly of timber on plaster and brick. The movement towards the entrance is enhanced and celebrated by the exaggerated pathway terminating visually at the framed vista of the natural context beyond.



Figure 38: Front Facade. * Source: www.salmelaarchitect.com



Figure 39: Internal View Looking Out. * Source: www.salmelaarchitect.com

The black front facade of the building is rhythmically segmented by double and in some places 2.5 height timber posts evoking the sense of its inextricable link and belonging to its natural forest context. The facade creates an ordered pause between the organic landscape flanking either side and bound by the starkly contrasting white walls that act as bookends - clearly defining the junctions between natural and built environments. The timber against the black regularly pierced with views of the internal space are reminiscent of the view through the trees and the shadow of the forest toward the house. The black is cave-like and sheltering evoking an atmosphere of seclusion and privacy without severing its connection to its surroundings.

Internally the timber beams that pierce the space seem to literally bring the (natural) environment inside and simultaneously divide the internal volume separating the public and private functions. The regularly spaced timber beams that punctuate the space create an internal rhythm that unconsciously records one's passage through it. The vista framed by

these timber beams paired with the lines of the grey floor tiles accentuate moving through the space towards a definitive end point.

The building both internally and externally uses similar elements such as framed natural vistas, grey flooring and timber beams overhead and the rhythmic passage through space and time to create a cohesive architectural language that speaks of an order in contrast to the surrounding and organic chaos. Equally through the process of recovery, the addict may find a natural order in routine and away from the chaotic space of his previously diseased mind.

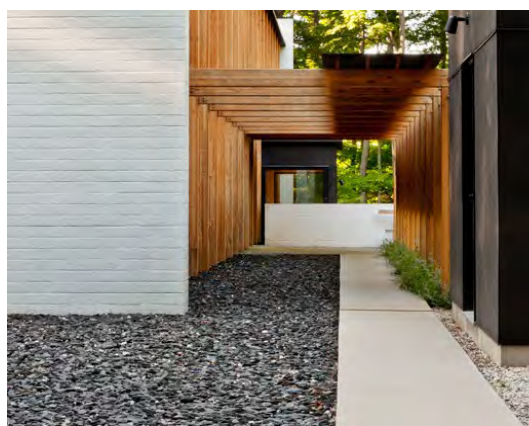


Figure 40: Entrance Vista.
* Source:
www.salmelaarchitect.com

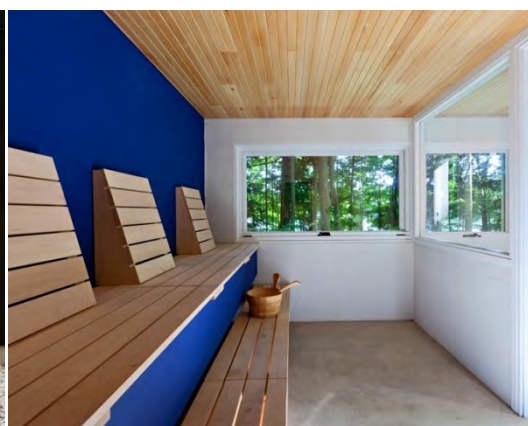


Figure 41: Sauna Vista.
* Source: www.salmelaarchitect.com

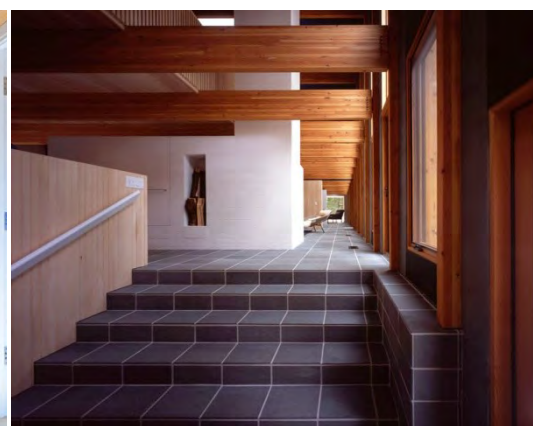


Figure 42: Internal Living Space
Vista. * Source:
www.salmelaarchitect.com

3.4.4 Summary

The Yingst Retreat by Salmela Architects captures the natural quality of the surrounding context without compromising the contrasting regularity of the built form. The two work symbiotically to enhance the distinct character of the other encouraging a sense of individuality and belonging essential in the addicts journey toward a healthy perception of self. By simplifying the elements and approaches to different aspects of the built form, a cohesive architectural language is formed that remains interesting and enriches the built and natural environments. This visual and spatial stimulus is integral to the effective treatment of brain diseases such as addiction. Similarly, the gentle return to routine encourages a sense of self-awareness and responsibility lacking in the addictive lifestyle and allows an ordered reprieve from the emotional chaos of addiction.

CHAPTER FOUR | CASE STUDIES

4.1 Introduction

The case studies interrogate the perception of the built environment as a function of its language and the emotional impact this has on its users as a function of the resulting atmosphere. They include three addiction rehabilitation centres that together describe the full range of stages of care in the treatment of addiction, namely primary, secondary and tertiary care. Elim Clinic and SANCA Phoenix House, are both primary care facilities illustrating two very different approaches to primary care and therapy and afford the opportunity for comparison. Cedars Rehabilitation Centre is the third study and includes primary and secondary care as well as a halfway house facility that offers tertiary care. The variety of contexts affords insight into an underlying set of principles for the effective treatment of addiction. The titles of each study draw parallels with the sections of the theoretical framework that they pertain to and aim to dissect in their manifestation within the built environment.

4.2 Retreat and Reflection - The Cedars Addiction Treatment Centre, Dududu

Facility: Primary and Secondary In-Patient Care

Location: Dududu, Scottburgh



Figure 43: Aerial View of The Cedars (source: www.wedorecover.com)

4.2.1 Motivation

The Cedars Addiction Treatment centre is located on an old farm in Dududu, near Scottburgh, Durban. It was established 10 years ago and has grown to accommodate up to 50 people at one time.

The Cedars was selected as a case study for an analysis of the effect of a rural setting on the efficacy of addiction treatment and to test the notion of identity to a place, as a source of emotional security.



Figure 44: Locality Map of The Cedars in Dududu, Scottburgh (source: www.googlemaps.com)

4.2.2 The Power of Natural Affiliation

The centre has an atmosphere of being at home within it - in the true sense of the word dwelling. The architectural language is dated and similar to Phoenix House, describes an attitude of a previous time of hand-madeness, craft and the central place of the user in the conception of the built environment. The perception of the old farm house typology also lends itself to an atmosphere of care, sanctuary and safety that may be argued is universally associated with old farm houses in expansive country settings.



Figure 45: Front Facade Facing toward the Entrance Gate (Author, 2013)



Figure 46: Side Entrance Steps (Author, 2013)

The built form is regular and stands confidently within the landscape. The vertical elements along the facades create a rhythm that draw one's attention while the openings recede back into the shadow of the balcony, intimating the sense of privacy and retreat offered by the internal spaces.

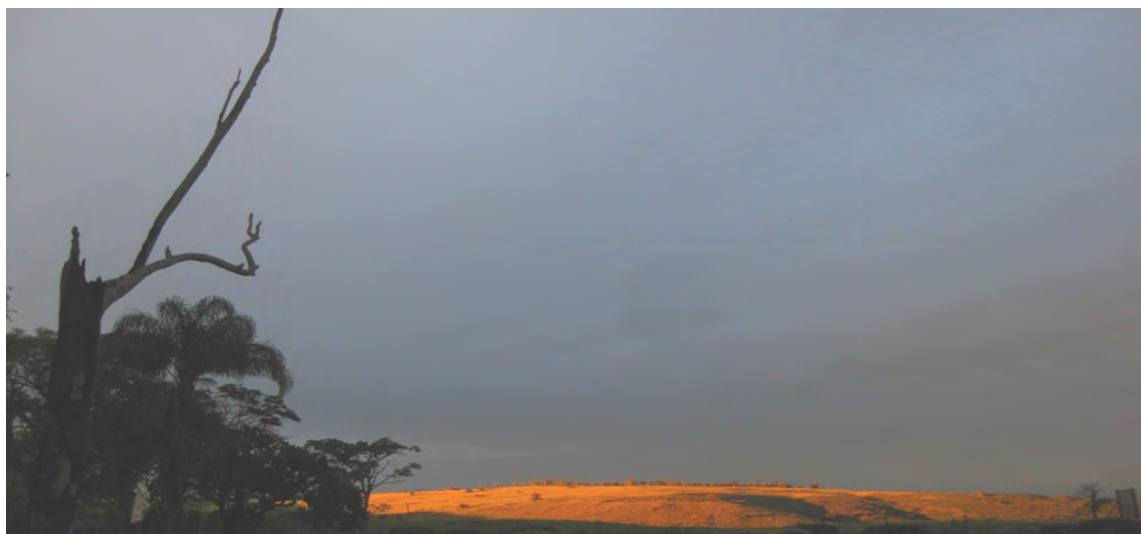


Figure 47: View of the Surrounding Natural Landscape (Author, 2013)

The veranda becomes a semi-public area that filters access into the house and is visually connected to the kitchen block, to the right of the front entrance and the administration office, at the main entry point at the side entrance. These spaces are deep, shadowed and provided with seating to encourage the necessary social interaction. The first floor balconies offer more of a semi-private experience of contemplation fostered by the calming views from that height. There are no distractions in the landscape to draw the mind away from the treatment principles and the setting promotes a quiet self-reflection so needed for treating addiction.



Figure 48: Ground Floor Verandah (Author, 2013)



Figure 49: View From First Floor Balcony (Author, 2013)

The colours and materials complement each other and combine to create a sense of warmth and comfort consistent with being at home as opposed to in a clinic. This is also captured in the sense of space both inside and out. The interior is illuminated by the use of large windows that allow an abundance of natural light and ventilation to filter through the house and bring attention to the extensive use of timber throughout. This allows the building to identify with the surrounding countryside and the potential for healing as a result of being so closely connected to nature.



Figure 50: The Old Walkway and Pergola Framing the Front Garden (Author, 2013)



Figure 51: The Wildness of the Garden (Author, 2013)

The gardens are well tended but not overly manicured, and thus describe a sense of encouraged as opposed to imposed order. In so doing, it embodies the underlying principle of the 12-Step programme, that requires one to commit to changing their mentality, of their own accord and not under duress. In order for the treatment to be truly effective, it must be the addicts own choice and stem from a deep-seated conviction of sincerely wanting to change their outlook and stop the destructive behaviours that result from and exacerbate it.



Figure 52: The Women's Bedroom (Author, 2013)



Figure 53: The Arch Over the Entrance to the Snooker Room (Author, 2013)

As the research has shown, physical exercise is important to the effective treatment of addiction because it stimulates endorphins, encourages social interaction and participation

with one's environment and thereby, allows a person to test and stretch their own physical and mental capabilities in navigating it. As such the rural location lends itself to fulfilling this need in treatment as well as affording the healing power of affiliation with nature to improve the efficacy of therapy. The resulting atmosphere is thus tranquil and one of truly being rooted within a place.



Figure 54: The Gym (Author, 2013)



Figure 55: The Resident Cedars Dog (Author, 2013)

4.2.3 Summary

The built form is distinct and allows one a clear sense of identity in subscribing to the principles it upholds. Its obvious connection with nature both in its location and in its use of natural building materials enhances the atmosphere of belonging and the emotional security the building itself identifies with.

4.3 Spiritual Structuring - Elim Clinic, Kempton Park, Johannesburg

Function: Primary Care Addiction Rehabilitation Clinic

Location: Plane Road, Kempton Park, Johannesburg



Figure 56: Locality Map of Elim Clinic in Kempton Park (source: www.googlemaps.com)

4.6.1 Motivation

Elim Clinic was established in 1927, when its founders started the SA Railways Temperance Union helping people with alcohol abuse problems. The clinic as it stands today was built in 1968 accommodating 43 men and an additional female section was added to it in 1976. The clinic now can accommodate a maximum of 72 guests, separated into a female section and a males section which includes a dedicated section for drug abusers. The clinic is located within the Kempton Park Golf Course, adjacent the industrial area of Kempton Park near Johannesburg, South Africa.

The study was found to be useful for its specific location on the periphery of a lower economic, urban, industrial context, surrounded on three sides by a golf course - and the dichotomy of social responses that evokes. It also caters to a diverse range of guests from

many different cultures including international visitors and has been operating for over 50 years. Elim Clinic proposes an interesting perspective on responses to the physical and social contexts; accommodation of diverse cultures and the daily functioning's of a rehabilitation centre that provides primary care only and within the framework of a faith based facility as opposed to a 12-Step programme working on the Minnesota Model of addiction treatment.

4.3.2 Spiritual Principles and Mental Order

The atmosphere of the clinic is immediately welcoming and relaxed. This is contrary to what one may expect of a primary care facility, dealing mostly with the early and often unpleasant, first stages of recovery from addiction. There appears to be an intimate social cohesion in spite of the superficially institutional appearance of the building itself, suggesting a more subconscious perception of the built environment based less on the visual quality and more on the stimulations of the haptic, olfactory, auditory and emotional perceptual systems.



Figure 57: Single-storey Institutional-Type Facade
(Author, 2013)

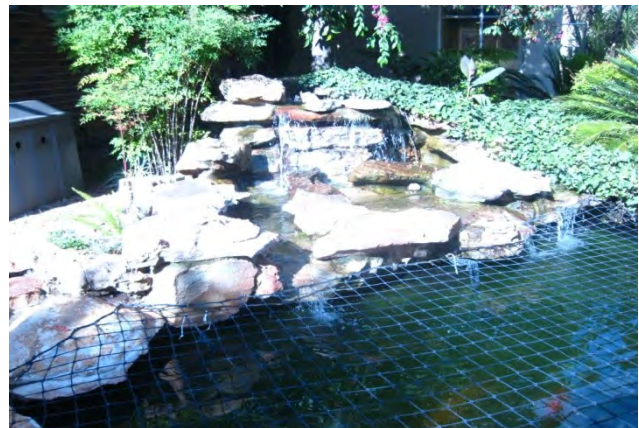


Figure 58: Landscaped Refuge (Author, 2013)

The built form is restrained in scale, with traditional hipped roofs iconic of the domestic home and although the windows are reminiscent of public school hostels built in the 1960s, they are large with an exaggerated height that allows an abundance of light to enter the interior of the building. This not only acts functionally for natural light and ventilation, but aesthetically in providing a bright internal environment conducive to healing while subconsciously connecting mans internal with his external environments that encourages exposure to social interaction as well as the emotional security of being seen and cared for.

The colours both internally and externally are neutral with floors ranging from linoleum, to ceramic tiles and timber parquet. Each distinguishing a different zone defined by use for private dwelling, medical consultations and ablutions and public spaces respectively. Although the finishes combined with the long, straight and narrow corridors in general tend to further the visual perception of an institution, the light and natural ventilation and the constant connection with the tranquillity of the landscaped gardens outside create an atmosphere that is more caring than sterile.

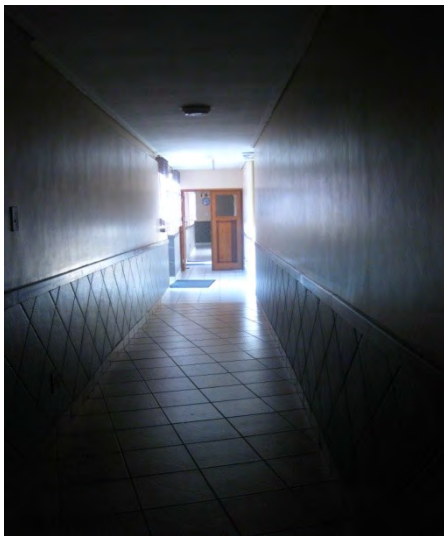


Figure 59: Dark Institutional-Type Corridor Punctuated by Light (Author, 2013)



Figure 60: Light-Filled Corridor (Author, 2013)

The spatial arrangement of the built environment is formal and regular. This provides a sense of stability and direction, most needed at the beginning stages of recovery where the addicted mind tends to be plagued by chaos and emotional insecurity. The organisation of internal spaces is specific to controlling private and public access while allowing social participation



Figure 61: Ladies Living Room (Author, 2013)



Figure 62: Reception Waiting Area (Author, 2013)

and comfort. As such, central meeting areas of varying degrees of privacy separate the lengths of corridor that lead deeper into the space becoming increasingly private as they do and terminating in the most private spaces of the bedrooms. It is interesting to note the difference in men and womens' bedrooms, where men are never less than two to a bedroom and women are never less than four. Community support and interaction are essential to recovery and to the feeling of being supported as well as being accountable, both of which are inherent to the principles of fellowship encouraged by addiction therapy.



Figure 63: Mens' Bedroom (Author, 2013)



Figure 64: Women's' Bedroom (Author, 2013)

The response to the social and physical context offers an interesting perspective on locating rehabilitation centres. Traditionally, these facilities are located in rural areas that allow for large expanses of landscaping and even farmland to encourage connections with the healing natural environment. The location of Elim Clinic enjoys the centrality and accessibility of Kempton Park and the public transport station a few minutes' walk from the centre as well as the tranquillity of views out toward the golf course surrounding it on three sides.



Figure 65: Tempered Light of Serene Atmosphere of Church (Author, 2013)



Figure 66: Peaceful Atmosphere of Church (Author, 2013)

The scale of the built environment also lends itself to the nature of the residential areas nearest to it, while offering a domestic-type of repose in contrast to the urban nature of the industrial area opposite.

Its distinct form gives a sense of richness and intrigue to the otherwise conservative architectural expression just as the events of quiet, reflection and spiritual orderliness it accommodates, give an identity to the process of recovery subscribed to by the users of the facility.



Figure 67: The Church seen from the Entrance Gate (Author, 2013)

4.3.3 Summary

This describes how in the absence of a purpose-built rehabilitation facility, in keeping with the principles suggested in the research; of primary importance is the treatment of the public spaces in creating an atmosphere of care and community and an accentuating of natural light and ventilation to enhance feelings of health and well-being.

4.4 Accessible Choice - SANCA Phoenix House, Johannesburg

Facility: Primary In-Patient and Out-Patient Care

Location: 16 Bernard Street, Martindale, Sophiatown, Johannesburg, South Africa

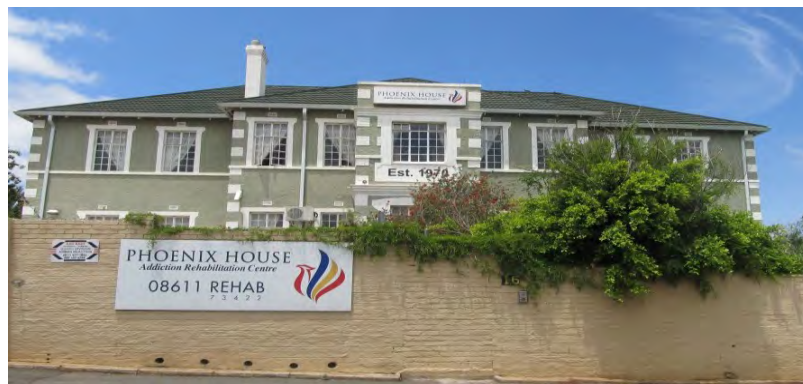


Figure 69: View of Phoenix House from the Street
(source: www.phoenixhouse.co.za)



Figure 68: Image of Front Elevation from Within the Property (source: www.phoenixhouse.co.za)

4.4.1 Motivation

SANCA Phoenix House was opened in 1970 following the establishment of SANCA Johannesburg in 1954, and moved to the current premises on Bernard Street in 2005. The centre offers primary care and out-patient facilities that also cater to families. SANCA Phoenix House was selected as a case study due to its central location within a sub-urban area, badly affected by drug abuse and addiction, in Johannesburg. The facility runs a 12-Step programme with emphasis on family therapy and community support.



Figure 70: Locality Map of Phoenix House, Sophiatown (source: www.googlemaps.com)

4.4.2 Supporting Communities - A Central Response

Phoenix House is located within the heart of the community it serves and as such, offers a critical centre of support, for those battling addiction in and around it. Unusually, the majority of the guests at the centre are from the local community, further strengthening the relationship with its residents and offering recovery not only as a physically accessible option but also as a psychologically viable alternative. The building was originally a convent that has since been converted to accommodate the rehabilitation centre. The external morphology has a distinctive character and identity, and stands out from the context of residential units adjacent. As such it becomes a focal point of pride within the residential milieu, symbolic of the psychological distinction with the facilities it accommodates, in contrast to those found in a lot of the surrounding built environment. The new reception area added onto the building to accommodate the administration functions, contrasts in its distinctly modern character and acts to direct and orientate movement.



Figure 71: View Toward Paved Outdoor Seating Area between the Admin Extension and Original House (Author, 2013)



Figure 72: View out of the Modern Windows of the Reception Addition (Author, 2013)

The internal space is intimately private, with original timber, cottage-pane, sash windows letting natural light and ventilation to enter throughout the space, while not exposing the users to the street below. The timber floors are warm and show signs of the passage of time and use by a history of others, acting to entrench a sense of belonging to an established social

identity. The women's bedroom is one large space with an en-suite bathroom. The men's bedrooms are shared between a minimum of two people. Both sections of private dwelling, benefit from the use of timber floors; neutral colours on the walls and soft furnishings and a gentle light that creates an atmosphere of tranquillity and sanctuary.



Figure 73: Women's Dormitory (Author, 2013)



Figure 74: Men's Bedroom (Author, 2013)



Figure 75: Open-Plan Arrangement of Guest Dining and Living Room (Author, 2013)



Figure 76: Gymnasium in Basement (Author, 2013)

The dedicated prayer room is inadequately sized in terms of spatial proximity, not allowing for a feeling of privacy necessary for the functioning of the space and its location results in it being starkly lit. The opportunity for contemplation has not been maximised and is exacerbated by views towards the bottle store down the road and towards the church through the opposite window. One cannot miss the irony.

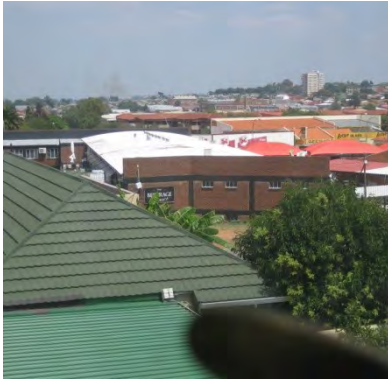


Figure 79: Prayer Room View
Toward Bottle Store (Author, 2013)



Figure 78: Prayer Room View of
Surrounding Houses (Author, 2013)

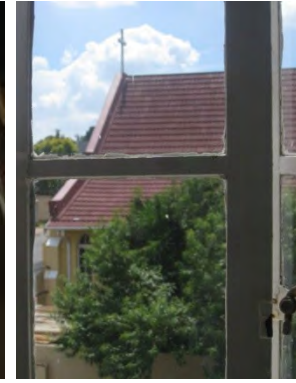


Figure 77: Prayer Room View
of Church (Author, 2013)

The external space is also sorely lacking any atmosphere of calm. The small courtyard linking the dining room and gym entrance of the house with the meeting rooms is hard landscaped resulting in plants being limited to planters. The staff parking doubles up as a volleyball court as physical exercise is encouraged in treating addiction however, it was expressed by the director that additional open outdoor space would benefit the treatment efforts and the guests significantly. The addition of a zen garden was suggested as a dedicated external space for quiet and personal contemplation.



Figure 80: Restrictive Outdoor Space (Author,
2013)



Figure 81: No Benefit of Soft Landscaping (Author, 2013)

The atmosphere as a construct of the meaningfulness of the building, is one of silence and protection. The spaces are intimate and sociable, suggesting a closely knit community with common goals. The warmth of natural materials and the home-like language of the internal space contrasts to the formal more institutional-like language of the external space,

describing an intriguing relationship between the perceived and actual experience - symbolic of the contradictory nature of the disease of addiction.

4.4.3 Summary

Despite the fact that the original building was designed for another time and social context, it speaks of an attitude towards accommodating people with regard and care that is universally perceived and understood. The use of materials in the original house resonate with the notion of fulfilling mans' soul needs of belonging to a place and its people. The overall atmosphere is one of peacefulness, conducive to dwelling in general and addiction therapy specifically.

4.5 Discussion and Conclusion

The precedent studies discuss the principles underlying the design of spaces that are built for health as well as those that have healing qualities that may be transposed to other typologies. The over-arching theme is that of the tools available to the built environment to encourage a clear sense how one perceives oneself in relation to their personal and social identities as well as their affiliation and belonging to a fellowship defined by its physical and mental place. The case studies of specific rehabilitation spaces indicate the variety of ways this perception may be achieved in relation to the rehabilitation centre typology, which as the research has shown, is very difficult to define as is the case with the domestic house typology.

The research shows that one's perception of a space and how one responds to it emotionally are a result of the spontaneous cognition of all of the elements that go to forming the architectural language, including those of the local and temporal contexts, which significantly shape our perceptions and the attitudes they encourage.

CHAPTER FIVE | DATA ANALYSIS AND DISCUSSION

5.1 Introduction

The qualitative interviews with academics; recovering addicts - including those who have qualified as addiction therapists with invaluable first-hand experience - and those who work with them professionally; provided insight into the disease of addiction, that confirmed the research findings and described the extent of the emotional and spiritual torment of it. The scope of this chapter includes the primary data defining the nature and causes of the extent of the physiological and psychological consequences of active addiction. The primary research has also described the impact of addiction on one's perception of space and how this effects the way in which it is used. It was intended to arrive at an understanding of how the onset and continuation of the disease could be mitigated and recovery sustained, through an appropriately designed built environment in conjunction with and that facilitated, the proposed treatment therapies.

"We're people who are just learning to live."

(Clint, 2013, pers. comm. 18 April)

5.2 Learning to Live

The nature of an addict is complex and their behaviours, often contradictory. As such, the task of separating the nature of an addict and the manifestations of addiction, from the causes of addiction as cited here, was a difficult task. The manifestation of the disease in the habits that form the nature of a person in active addiction, are often the cause of the feelings associated with it, thus perpetuating the cycle of shame, disconnection and numbing as described by Dr Brown in the research (Brown, 2012). The over-riding characteristic of an addict is a disproportionately low sense of self-worth, self-love or self respect; all of which are exacerbated by the shame often from the effect of their impact on others and a perceived inability to make physiologically and psychologically healthy choices. Often referred to as an insanity, the chaos that plagues the addicted mind renders life and the normal range of human emotions, overwhelming and unmanageable. The denial with which most addicts live is cited as the primary cause only 3% of people with addiction recognise and admit it (AAWS, 2013). The physical addiction, often manifest in substance and alcohol abuse, is only the symptomatic end-result of a chronic spiritual illness that originates in a skewed sense of self,

at best. A sense of identity is inherent to feelings of emotional security and self-awareness, both of which are sorely lacking the addicted person.

"What is addiction? Addiction is a complex disease. The physiological, genetic, psycho-social, nutritional and environmental factors are often thought to lead to the development of this disease and need to be addressed in recovery."

(Gordon-Drake, 2013, pers. comm. 22 March)

The causes of the disease of addiction highlighted by the sample group of interviewees, correlate with the research and describe a complex milieu of both physiological and psychological issues. The factor underpinning all of the responses and which accounts for the low-self esteem inherent to the addict's nature is a feeling of not being loved and results essentially, in a desperate fear of disconnection Dr Brown defines as a shame and subsequently, isolation. Both are incredibly detrimental to the individual, others like him and the community at large and only add to the social stigma and further disconnection experienced. Community support and the formation of a fellowship within which to find empathy and support in one's recovery, is central - as confirmed in the quantitative data - to mitigating the spiritual pain of addiction and sustaining recovery from it.

"That lack of understanding alienates you so much that you just slip more and more into isolation, so the power of a group, without even calling it spiritual principles, instantly you are accepted, instantly you are understood, instantly you feel compassion, simply by other people identifying."

(Aldine, 2013, pers. comm. 17 April)

The treatment for the disease is similarly varied, complex and functions at both physiological and psychological levels. The most important aspects of the recovery process; as suggested by all of the interviewees and almost all of the survey respondents; are spiritual principles and fellowship. As described by Dr Spurrett, committing to recovery is essentially making a promise to oneself which is often more difficult to keep than if one had made the promise to a group, to whom he was held accountable. Further to this, abstinence from substance abuse is the easier part of the recovery process. After approximately one year, the neurotransmitters in the brain have rewired to become independent from substances. However, the task of

psychologically modifying one's entire mentality and the lifestyle and behaviours associated with it, is the difficult task in the process and often only becomes an unconscious action after a minimum of two years abstinence while in addiction treatment (Vermeulen, 2013, pers. comm. 25 March). Treatment essentially involves a rediscovery of life and a conscious effort, every day to manage positive and negative emotions without rushing to numb any overwhelming sensations, in an effort essentially, to come to an understanding and intrinsic acceptance of self.

"I always say when you come into treatment it's not a process of recovery but of discovery."

As you start your discovery process you are self-analysing and you develop self awareness, self-insight through all the different activities, and counselling and therapy. And once you've got true self awareness, you go to self accepting and only once you've accepted yourself warts and all, your strengths and weaknesses, can you change and change results in recovery. In recovery, you become comfortable in your own skin. All those years you've been fighting who you are and when we become genuine and authentic you can find recovery. It is so liberating."

(Gordon-Drake, 2013, pers. comm. 22 March)

The end goal of the Minnesota Model of addiction therapy, is to encourage and promote self-awareness and self-transcendence and the subsequent succour of recovering addicts less experienced in the programme than oneself. At the centre of these concepts are the spiritual principles of the 12-Steps (refer to appendix A for A.A. literature), which outline the practical tools for achieving an awareness of self through an understanding of one's own personal identity and in relation to one's social context as well as one's concept of the divinities. As such, the Programme suggests to achieve the same result as that of a meaningful built environment - to afford the addicted man the opportunity to dwell, in an atmosphere of peace, wherein he may feel at home, most notably, with himself.

5.3 Quantitative Study Analysis and Discussion

5.3.1 Introduction

A quantitative study in the form of a closed-question survey, was completed by 50 recovering addicts attending weekly AA and NA meetings in the Redhill, Malvern and Musgrave areas of Durban. The sample group of meetings were selected for their location in three culturally and economically different areas of the city, in order to gain a more accurate depiction of the current socio-cultural and economic profile of the recovering addict. The meetings were regularly attended by the researcher for the purposes of the study, allowing a more authentic response to the questions by the sample group, in the absence of feelings of being observed by an outsider.

5.3.2 Demographics

The demographics of the recovering addict in Durban are important in understanding their natures to best cater to them. This information addresses the nature of the addict and the disease of addiction - the subject of the study - providing vital information for an approach to the location and design of a rehabilitation centre.

5.3.2.1 Race, Age and Religion

The first and most notable difference between the current census from Statistics South Africa 2011, is the racial profile of the respondents. According to the 2011 census, 85% of the population of the KwaZulu-Natal province is African; 1.5% are Coloured with Asians and Europeans accounting for 8.3% and 5% respectively. Comparatively 14% of respondents were Coloured with Asians and Europeans accounting for 28% and 58%. The results suggest that that there are no Africans in active addiction or recovery, which is at complete odds to the population breakdown. The focus group discussion revealed a multitude of possible reasons for the results.

The sample group was not definitive in accurately accounting for majority Asian areas such as Chatsworth and Meerwent. Chatsworth is suggested to be one of the worst affected areas in the city for drug abuse and trafficking according to Independent Newspapers Journalist, Mr Jackson Mutie. Meetings and rehabs in Wentworth; Newlands-East and Phoenix

accommodate mostly Coloured and African recovering addicts, as those suburbs are close to the largely African residential areas of Kwa-Mashu and Inanda.



Plate 4: Location of the Musgrave Meeting (source:www.google.com)

The Musgrave meeting on the Berea on a Friday night, is one of the largest meetings in Durban with around seventy attendees and although mixed, the majority is European. As suggested by the focus group, the Friday night meeting is unique in that it is seen as an alternative to the usual Friday night party slot and as such it is a very social and well-attended meeting. This is also due, in part, to the density of the population in this area compared to outlying areas such as Kloof or Hillcrest and also because it is more easily accessible due to its proximity to major public transport routes along Berea, Musgrave and Essenwood Roads.

"The severity of temptation changes as a function of proximity, mostly in time but if you're close to something it takes less time to get to so in space as well."

(Spurrett with reference to George Ainsley, 2013, pers. comm. April)

Some of the more remote meetings and rehabilitation centres are not well-attended by the usual attendees of the Musgrave meeting for fear of personal safety in areas near townships. This also then brings up the issue of racial comfort zones, that exist at this as well as at an economic level in the city. Most addicts are reluctant to move outside of these zones to seek recovery. Some make a concerted effort to do so however, for that exact reason. Cultural

stigma and tradition within a cultural group also have a profound influence on whether people seek help or not. The language barrier is another significant obstacle. Very few AA or NA literature has been translated into African languages, making the task of spreading the message of recovery even more difficult to achieve.

The majority of respondents (50%) were between the ages of 26 and 35, with only 4% of respondents aged 60 years and older. These figures suggest a dropping off of meeting attendance in older age. A suggested reason for this is the toll of substance abuse on the body and that in fact most people abusing 'street' drugs don't have very long life-expectancies. Keith, co-founder and owner of Cedars Rehabilitation centre is a recovering addict and addiction counsellor. In the interview he described the profoundly destructive physiological consequences of drug and alcohol abuse. Pharmaceutical drugs and alcohol are more detrimental to the body than illicit street drugs. It is possible to sustain the use of pharmaceutical drugs and alcohol for a far longer period than harder street drugs, as a result people may go twenty, thirty years without realizing or acknowledging they have a substance abuse problem, by which time their bodies are significantly damaged. The withdrawal period from these can be as long as two years and can result in death.

The main religious groups represented were Christian (52%) and Hindu (10%). Islamic and Jewish people represented 4% each with Atheists and those with a Spiritual belief accounting for 2% each. The remaining 26% of respondents did not identify with a specific religion. The relevance of the results points to the non-denominational nature of the 12-Step recovery programme and the need to accommodate all religions in a facility that simultaneously promotes a connection with one's Higher Power. It is normatively accepted that the 12-Step Programme is supported by all the major religions and promotes spiritual principles as the basis for the recovery from addiction.

The focus group discussion suggested that the 12-Step programme gives one practical tools to achieving a spiritually healthy life and mentality. It is essential that no-one is discriminated against on any ground, since the disease is rooted in feelings of social isolation, as such the Higher Power referred to is the 'God of your understanding', where God refers to Good Orderly Direction. The sentiment is to be comfortable in acknowledging and accepting a power greater than oneself as the first step towards recovery.

"If you are powerless, then the solution has to be a power that's greater than you."

(Aldine, 2013, pers. comm. 17 April)

It was also suggested that long-term recovery beyond one or two years is not easy to achieve as people become complacent or in time, forget the damage addiction caused to their lives. It has also been found in AA that the percentage of people finding and sustaining recovery has decreased since its inception. This decline in recovery rates was attributed to the introduction of rehabilitation centres and the opportunities they have come to offer, for a sabbatical from life, which in some more luxurious centres resembles more of a holiday than a programme of cognitive behavioural therapy aimed at correcting destructive mental perceptions and behaviours. The first semblance of a rehabilitation centre was the group of recovering addicts who spent months living with each other, discussing recovery and developing the 12-Steps with the founders of the 12-step programme, Dr Bob Smith and Bill Wilson in 1935.

5.3.2.2 Gender Ratio

The most startling difference in the survey results was the ratio of men to women in the rooms with 78% of respondents being male of this number, 33% were single fathers with 45% of the female respondents being single mothers. The focus group discussion indicated two main threads colouring the reasons for the discrepancy, namely the perception of women in society and the brutally honest, self-reflective nature of the 12-Step Programme.

"I felt entitled to kind of obliterate my experience of how badly I was being treated and neglected...first they just kind of are the person who is smashed emotionally and physically and eventually that turns into addiction."

(Aldine, 2013, pers. comm. 17 April)

The gender ratio discrepancy, according to the focus group and interviews, has to do with the perceived gender roles imposed on men and women by social norms. Women are perceived to be more responsible, most notably when they have children and the social stigma leaves female addicts frowned upon. Women are suggested to be more proud of being able to find recovery on their own and those who are victims of verbal or physical abuse often do not realize they have a problem with substance abuse, in contrast to the glaring issue of domestic

violence they face. As a result it is easy to justify the addiction as an escape from the emotional torment.

In many cases women, especially older women, abuse pharmaceuticals as they are easier (and legal) to obtain and far more socially acceptable. Consequently, these women are not considered to have an addiction since they are not abusing street drugs when in fact, as the research has shown, the damage is far worse, longer lasting and easier to hide and deny. For this reason the abuse may remain undetected for years. The consequence is that a lot more women are dying from substance abuse because of social stigma and the issue of pride and the perceived shame of not fulfilling their prescribed roles.

With regards to the Minnesota model, women struggle with the simplicity and straightforwardness of the 12-Step programme which, as suggested by the focus group, tends to encourage a 'tough-love' approach better suited to men, who usually respond positively to being mentally broken down and then built back up. Whereas women tend to be more intuitively aware of their faults and break their own self-esteem down themselves, women are thus more in need of a loving and nurturing, building up in recovery. This issue is being tackled in the female sponsee/sponsor relationship, where the sponsor can gauge, due to her more intimate knowledge of the sponsee, the type of approach best suited to her.

5.3.2.1 Engendered Shame and Denial

In her book, *In a Different Voice* feminist, psychologist, ethicist and professor, Carol Gilligan, describes the difference in male and female approaches to care. Gilligan's Ethics of Care is a response to Lawrence Kohlberg's seminal psychological work on the *Stages of Moral Development* where he proposes the level of moral development reached in boys and girls at certain ages. Men tend to favour an impartial and impersonal 'justice-based' approach to moral dilemmas where women respond to sensitive issues with an emphasis on care, prevention of harm and a sense of interconnectedness also referred to in the work on vulnerability and shame by Brene Brown.

The communication theory established by Gilligan's work, proposes that the difference in the male approach of justice and the female approach of caring is rooted in their perceptions of self. Women view themselves as connected to others, which inspires sentiments of care and

nurturing where men define themselves autonomously. Women tend to look after themselves only once they have fulfilled their perceived roles of caring for others, where men are suggested as putting themselves first. (Gilligan, 1982)

"Women are so intuitive, we already are so connected to everyone else's needs and that's a major problem in most women is that we take care of other people so automatically we're more in tune with other people in front of their own needs. Women are aware of the consequences. So women need a far more sensitive approach."

(Adrie Vermeulen, 2013, pers. comm. 25 March)

According to the World Health Organization (WHO) a person's gender has a profound effect on their developing an illness that effects their mentality such as addiction. Gender is a determinant in one's control over the socio-economic and cultural aspects of people's lives as well as if and how they may go about dealing with them. Men are twice as likely to become addicts than women and three times more likely to develop anti-social, personality disorders. Gender roles in society are significant contributors to depression and anxiety as well as psychological damage as a result of domestic violence, which has a 10% higher chance of occurring in women than in men. As a result of this perception, women are more likely to be prescribed mood altering pharmaceutical drugs for sustained periods of time. The WHO suggest independence, financial resourcefulness and emotional support from family and friends as the three main prohibitors of women suffering mental disorders or becoming depressed (*Gender and Women's Mental Health*, www.who.int, 2013).

The issue of single parents is also a significant factor in the conception of a rehabilitation centre as traditionally, facilities don't accommodate families or single parents with their children. The discussion in the focus group reiterated the sentiments of SANCA Phoenix House Director, Adrie Vermeulen, that this is a much needed facility in the rehabilitation model. It affords the extension of the scope of the rehabilitation centre to addressing the impact of addiction not only on the addict but on the family structure, which as the research shows, is commonly where the disease originates.

5.3.2.3 Employment and Education

Twenty six percent of the respondents were homeless at some stage. This figure did not show any significant correlation with the levels of education, which showed 40% and 54% of respondents achieving high school and tertiary education respectively and only 24% reporting that their level of education effected their choice of employment. Seventy four percent of respondents were employed and self-supporting at the time of the survey, with 26% unemployed or retired and 20% relying on financial support from their families.

5.3.3 Disease History

Information about the respondents history of the disease describes the efficacy of the methods of treatment currently available and identifies the reasons why some therapies are preferred.

5.3.3.1 Duration and Efficacy of Treatment

Of the respondents who completed the survey, the number of years in recovery ranges from 1 to 23, with an average of 9 years, the majority of people having reached a point where they could not withstand the emotional torment of addiction and sought recovery through the 12-Steps, to learn how to live more manageable lives. Not all respondents had attended a rehabilitation centre as a part of their recovery. Of the 28% who had not attended a rehabilitation facility, 27% stated finances as the reason for their choice with 33% suggesting they were able to stay in recovery through attending AA and NA meetings only. Of the 78% of respondents who had attended an in-patient/residential rehabilitation centre, with costs ranging between R800 and R500 000 with an average cost of approximately R77 164.00, 77% stated that rehab had helped them stay in recovery. The relapse rates between those respondents who attended a rehabilitation centre and those who did not differed by only 7%, showing both meetings and rehab to be equally as effective in treating addiction.

"You actually can't work the 12 step programme until you've conceded defeat.

The journey in alcoholism and addiction is a journey from admittance to acceptance. If you've accepted you're an addict you'll never drink/use again."

(Keith, 2013, pers. comm. 16 May)

Reiterating the sentiments of Sister Maria from Ellim Clinic, the focus group stressed the importance of an addict making the choice for themselves to find recovery and commit to

going to a rehabilitation centre. According to the interviews with addiction therapy professionals, people forced to attend rehab are far less likely to sustain recovery after leaving and even less likely to attend meetings of their own volition. As stated by Mr Wilkes, director of Cedars Rehabilitation Centre and addiction counsellor, it was suggested that once one has surrendered and accepted that they are an addict, their ability to sustain recovery is significantly improved.

5.3.4 The Recovery Process

The following results establish the general attitude towards the therapies of attending meetings and rehabilitation centres and the ways in which rehabilitation centres may be improved. The information describes what is currently believed to be lacking in current recovery therapy offerings and the potential improvements from the perspective of the end-users.

5.3.4.1 The Social Perception of Addiction and Recovery

Social stigma and prejudices about the disease of addiction and addicts suffering it, are some of the major obstacles to solving the problem in South Africa (Adrie Vermeulen, 2013, pers. comm. 25 April) as there is often a substantial lack of community and family support (Jackson Mutie, 2013, email comm.). However, the survey results suggest the opposite is true, with few respondents (14%) feeling they did not have the support of their communities and families (6%). One hundred percent of respondents stated that fellowship was important to their recovery process suggesting that regardless of whether recovery is through a meeting or a rehabilitation centre, the essential element of belonging to a community is instrumental in sustaining recovery. These figures are welcomed in the debate on the efficacy of current treatment methods which are further enforced in the discourse on shame and pride in addiction. A staggering 92% of respondents claimed that they did not feel ashamed to be seen attending AA and NA meetings and rehabilitation centres.

" My ego was a surfer, I was perceived as a surfer but now I am happy to be me."

(Simon, 2013, focus group. comm. 16 May)

The perception of shame is a recurring theme in the discourse on how human beings maintain their interconnectedness and is described, through the research, as a primary source of

addictive mentalities. The focus group discussion on the shame results attribute the absence of these feelings as an indication of the success of the programme. Recovering addicts are so intensely grateful and 'delighted' about their freedom from the unbearable physical and mental confines of active addiction, that they are happy to be seen going to meetings and to a rehabilitation facility. They are aware of how difficult recovery is to sustain every single day and are grateful for their still being in recovery.

5.3.4.2 A Spiritual Solution

Of the 86% of respondents who said they had experienced a definitive liminal moment during their recovery process, 96% stated it was spiritual in nature. Distinct from the religious profile of the recovering addict, the spiritual nature of the treatment of the disease is central to the true cognition of the 12 steps.

"The disease of addiction is a spiritual thing and I think these other rehabs are trying to deal with a spiritual disease in a worldly way. Like beat it out with a kind of a different approach to what it actually is. You've got to deal with it spiritually if it's a spiritual sickness."

(Simon, 2013, focus group. comm. 16 May)

The focus group discussion expanded on this sentiment of the disease of addiction being a 'spiritual malady' not curable by psychological therapy or psychiatric drugs. The approach is reminiscent of Carol Gilligan's work on a more feminine approach to medicinal care that is more subjective and aware of the emotional frailties in the diagnosis. Although the underlying illness may be a type of insanity in that one repeats the same actions expecting different results each time, the cure to addiction is spiritual (Nick, 2013, focus group. comm. 16 May).

5.3.4.3 Suggested Improvements

Most of the respondents believed that rehabilitation centres would benefit from the introduction of training facilities (84%) including occupational training such as computer and trade skills development as well as life-skills psychology and addiction counselling. Respondents were also largely in favour of parenting and family skills education (82%), reiterating the opinion of addiction counsellor, Judith Gordon-Drake that addiction is a family

disease that affects the whole system and of the importance of stable family structures and home life in defence of addictive tendencies. In keeping with the current offering, the majority (52%) of respondents would prefer a rehabilitation centre located in the country.

The halfway house model as an integrated part of the rehabilitation centre model with skills development that equips a person with the skills needed to become financially and then emotionally self-sufficient thereby mitigating the chances of relapse on return to the person's previous lifestyle on leaving the centre. This is one of the major obstacles to sustained recovery and often affects single mothers who are unskilled and will do any job to provide for their children.

"A lot of the people have got something...but they go back home to their families and communities where people are using all around them; you'd have to be literally super-human not to start using again."

(Aldine, 2013, focus group. comm. 16 May)

These facilities however, should be separated from the primary care portion of treatment to not dilute the impact of the cognitive behavioural therapy of the 12-Step programme which is imperative in the initial stages of recovery. It was suggested that a central educational facility, could serve many rehabilitation centres in instances where resources are more limited. These central zones of community empowerment possibly funded by businesses in the community could encourage community participation and investment as suggested in the theory of Placemaking. Community participation is also central to the idea of a Kibbutz-like system for a rehabilitation centre, where the recovering addicts residing there contribute to making the centre self-supporting by including a commercial element as a public interface and tending urban farmlands to decrease the drain of a percentage of food costs on the centre, thereby freeing up a portion of financial resources for offering subsidized treatment over and above what the government offers.

In terms of location, the group cited the need for a direct connection with nature and an adequate amount of outdoor space for physical exercise, as the two main reasons why a country location was preferred by the majority of respondents. However, there were concerns raised about accessibility, most notably for those homeless and without transport. In this case

centrally situated easily accessible centres were proposed, on the periphery of urban areas so as to cater to both outdoor space requirements and public transport routes. In terms of specialized facilities, most of the focus group members expressed an interest in having guided meditation classes in a dedicated sacred and silent space.

5.4 Potential and Actual Behaviour Settings - An Intuitive Response

5.4.1 Introduction

Regular AA and NA meetings were attended to gain an understanding of the perception and subsequent use of space by recovering addicts, through observation and analysis. The meetings attended were in three varying socio-economic and cultural contexts in Durban including Redhill, the Berea and Malvern. These were chosen to decipher any underlying tendencies towards the use of space amongst recovering addicts in the rooms, in relation to the secondary research most notably on behaviour settings; the fulfilling of privacy and affiliation needs (Lang & Moleski, 2010) and room layouts as an intuitive response to facilitating the specific functions they afford (Day, 1993).

5.4.2 Redhill Meeting

The Monday night meeting was held in Redhill, Durban and was a weekly 12-Step workshop aimed at the teaching and discussion of the 12 steps, going through each step in its turn. It was attended by an average of 15 people, majority Asian males from 21 - 65 years old and was chaired by the same person every week, who read through and taught the current step, after which the meeting was opened to the floor for those who wished to contribute or query.

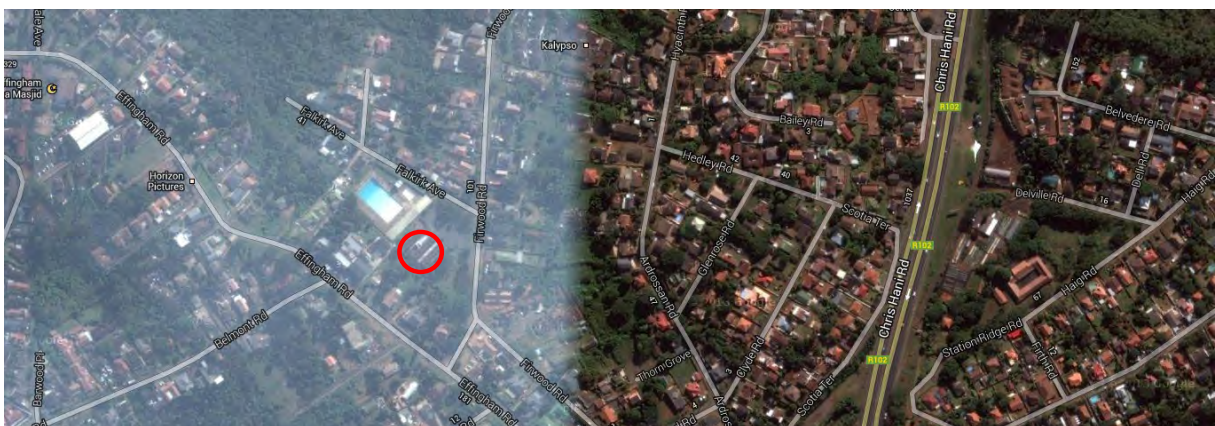


Figure 82: Location of Redhill Meeting (source: www.googlemaps.com)

The hall where the meeting was held was larger than required for the size meeting and the arrangement of desks was in a long thin line with chairs around. The potential behaviour setting was to accommodate a more-socio petal space to allow for interaction amongst group members. The actual behaviour setting was the result of an intuitive response to the nature and format of the meeting, which was instructional and focused to one side of the table and always toward the rear of the hall, backs turned toward the door. The chairs splayed out to best accommodate the function of an instructional space (Day, 1993).

The tables were always set out in the rear two thirds of the room, with the first third acting as the semi-private buffer zone between the private meeting space and the communal break-out space shared with the karate studio opposite. This natural response to the spatial arrangement indicates the need for privacy and dominance over their environment (Lang & Moleski, 2010), in retreating from the main entrance toward the rear of the room and clearly demarcating the more public zone by the placement of the tea station within this area.

This meeting was found to be intimate, lively and more interactive which may be as a result of increased feelings of privacy and connectedness as a result of the use of space as well as of having a focal point away from oneself. As public speaking can be an anxious experience, the focus on the chair person proved helpful in making it more comfortable for those less inclined, to contribute to the meeting and gain a greater sense of self in an acknowledgement and extension of their own social capabilities (Lang & Moleski, 2010).

5.4.3 Malvern Meeting

The Malvern NA meeting was held every Wednesday and took the format of an open NA meeting, chaired by a different person every week and covering a different topic each meeting. The topic was opened to the meeting once the opening readings had concluded, to share personal experiences related to it or any difficulties experienced during that day or week. The meeting was attended by approximately 12 people of mixed age and race, including a married couple who would often bring their daughter who read quietly while the meeting went on. The atmosphere was comfortable and intimate.

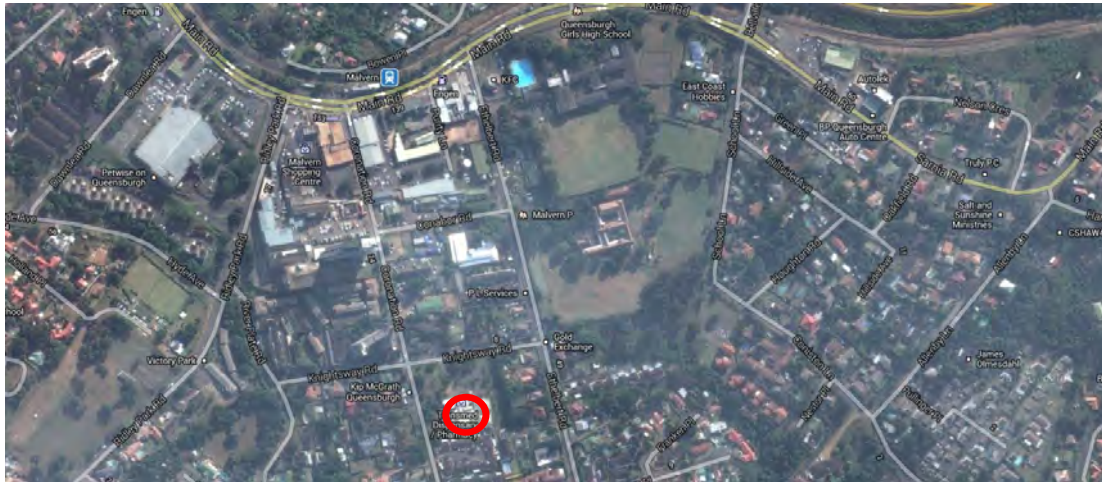


Figure 83: Location of Malvern Meeting (Source: www.googlemaps.com)

There were no desks laid out in the hall, only chairs spaced approximately 500mm apart in a circle, with the addiction literature placed at the centre of the circle as a focal point. The circle was placed in the last two thirds of the room and away from the exposed area at the entrance and demarcated by the expansive windows with views into the corridor and garden separating the hall from the parking lot. The meeting room was well-sized for the amount of attendees and felt intimate and private. Sharing in the meeting however, was inconsistent and at times not at all. The assumption is that people felt more exposed not only because of the intimate size of the group but as a result of the spatial arrangement, where the person sharing became the focal point exposed to 360°s of attention. The meeting was also only in its 8th month when attendance began, another assumed reason for the potential fear of exposure.

The Malvern meeting displayed the same tendencies as the Redhill meeting, in being centred toward the rear of the room with the first third of the space acting as a semi-private zone between the group and the entrance area. The size of the room and amount of attendees also lends itself to increased feelings of privacy and intimacy, thereby encouraging a greater sense of community. This however, was still developing as a consequence of lapsed time, reinforcing the concept of the developing of fellowships over extended periods being essential to providing a safe and emotionally secure environment for recovery.

5.4.4 Musgrave Meeting

The meeting on the Berea was the most well attended meeting with some 70 people on Friday nights and took the same format as the NA meeting in Malvern, being an open meeting with different chair person and topic each week, which was opened to the floor.

The hall was located at the end of an entrance passage which formed the semi-private zone separating it from the entrance, as such and to accommodate the amount of people, the seating was arranged in circular rows with a smaller entrance zone at the doors and a table for the literature forming the focal point at the centre. There were usually 3 rows of chairs on either side, with the more confident people usually taking up the seats in the centre and those less so, sitting in the less exposed rows behind. The space can be regarded as overtly socio-petal and encouraging interaction, however the size of the room and the amount of people resulted in a less intimate atmosphere, where sincere interaction and personal comfort were less obvious than experienced at the Redhill and Malvern meetings.

The loss of intimacy and personal comfort as a result of size of the meeting punctuated the comment of SANCA Phoenix House Director Adrie Vermeulen, of the need for smaller more intimate sized meetings not larger than 30 people with 20 being ideal, to adequately foster participation by all members in a neutral atmosphere of fellowship

5.4.5 Summary

The intuitive response to spatial arrangement was consistent between both smaller meetings in using the rear two thirds of the room and allowing a relatively consistent portion of the space to act as a buffer between entrance area and meeting space. The larger meeting had less need for this zone, as the entrance passage fulfilled the function and the area within the meeting space was minimal and apparently more of necessity than out of a concern for privacy. The smaller meetings were considerably more intimate with the meeting chaired consistently by the same person having an atmosphere of stability and centeredness. The emotional security that came with it permeated the members of the fellowship, affording a sense of identity and camaraderie essential to sustaining recovery.

5.5 Conclusion

The potentially most significant obstacle to the design of a rehabilitation centre that allows people to truly dwell - as a crucial element to becoming aware of one self and transcending the self in the succour of others - is catering to the multitude of guests not necessarily from the surrounding context. What then are the universal elements that make the cognitive experience of the built environment, phenomenologically meaningful?

The universal needs as defined by Abraham Maslow and interpreted into the application of them in the built environment by Christian Norberg-Schulz's Concept of Dwelling, describe the same sentiments illustrated in the primary research discussed. Community allows for an emotional support system that structures ones routine as well as ones sense of self in relation to it. Privacy and affiliation needs are essential to feelings of emotional security and personal confidence, with a sense of belonging and love inherent in the level of intimacy of communal gatherings.

CHAPTER SIX | RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

Architectural theory seems to concretise or organise or manifest the intuitive, instinctual responses of man to his environment - apparently articulating and making conscious, those aspects of living and dwelling so inherent to man he is not aware he already knows them. Perhaps architecture without architects is rather a commentary on architects not being redundant but useful in their being charged with the reminding. For the built environment to effect and modify one's perceptions of self; which are at the core of the disease of addiction; it must fulfil mans' basic needs but more importantly his advanced needs of self-awareness and self-transcendence. The built environment achieves this by becoming meaningful to its inhabitants in making them feel recognised, respected and worthy of love and belonging. A sense of self is achieved in identifying with the built environment and recognising how the built environment perceives oneself and through the self-confidence and emotional security that follows a knowing and understanding of one's physical, mental and social position and procession within the built environment. How the built environment perceives a person, profoundly impacts on how they feel about themselves within it and thereby how they perceive it. One's perception of the built environment's comment on themselves is coloured by personal and cultural references.

In answering the questions asked in chapter one, the built environment has the potential to improve the effectiveness of addiction treatment. The research has shown, that the built environment impacts, both physically and mentally, on one's sense of worthiness and social connection, thereby affecting the onset and sustaining of addiction caused, in part, by a low sense of self-worth. In treating *a disease of perception*, it is imperative that the built environment acknowledge the cultural intricacies of its users and confirm their sense of belonging by considering and enhancing the existing topographical and social context. In these ways the built environment encourages *a sense of worthiness* in fostering a perception of love and belonging and thereby a sense of connection and meaningfulness, in its users. Further to these the built environment has the potential though providing opportunities for *empirical learning* to sustain recovery through the learning of new and positive behaviours.

Confirming the Assumptions

The postmodern paradigm, with particular reference to phenomenology, recognises the critical need for the holistic, interconnectedness of the often untidy and multifarious, everyday and ordinary reality of life. This much-needed departure from an overly efficient and often impersonal modernist approach, describes an attitude of person-centred care, where all of the constituent parts of the whole are considered and valuable, thus confirming the nature of the relationship of the built environment and addiction treatment therapies as existing symbiotically in the effective treatment of addiction. The consequences of the modernist approach in the context of the built environment includes a sense of placelessness and a loss of a sense of belonging, within a built environment void of personal or cultural meaning. As the research has shown, belonging and meaning in the built environment provide one a sense of connection, so critical to a healthy sense of self-worth, so sorely lacking in an addict, thus confirming the assumption that the built environment plays an integral part in preventing the onset of and promoting and sustaining the recovery from addiction. It can thus be said that by encouraging a positive perception of self and of one's physical and metaphysical position, within the world that self inhabits - the built environment, which provides the conscious and unconscious background instrumental in that positioning, directly and positively improves the effectiveness of addiction treatment.

6.2 Built for Meaning

The research has explored the physical and mental duality of the nature of addiction and established the corresponding physiological and psychological therapies currently used to treat it. It has been illustrated, that one's perception of self impacted, in part, by one's perception of the built environment, contributes to both the physical and mental onset of addiction. Subsequently the research has discussed how one's perceptions of their environment are formed, and the ways in which the built environment can encourage a positive perception of self, in being mindful of the personal and cultural diversity of its users and provide a multitude of opportunity for social interaction and direct and physical participation with the objects in one's environment. The research has shown that a person-centred, all-perceptual-systems-go approach; firmly rooted in identifying with the existing social, cultural and temporal contexts and seeking to enhance them; is required to make the

built environment and thereby mans' life experience, meaningful. If the built environment can affect the senses it can change perceptions.

6.2.1 Life-Discovery - A Design Approach

It is imperative that the built environment that caters to recovering addicts, fosters transparent, communal, socio-petal and non-hierarchical spaces that discourage the secrecy, silence and judgment that feed the growth of shame. Physical participation in cognitive behavioural therapies is crucial in truly gaining knowledge and understanding in order to positively modify one's negative self-image and unhealthy behaviours - making the built environment physically and mentally challenging with 'rewards' after the completion of these challenges conditions the user to sustain modified and positive behaviours. Using the body to stretch its limits and thus inspiring a sense of one's own personal vulnerability as well as encouraging a sense of compassion for ourselves and others in understanding our own physical 'frailty

It is clear from the case studies that although spiritual principles and practices are at the centre of the 12-step recovery programme as also highlighted by the survey results and focus group discussion, little focused attention is given to the numinous in the built environment. The concept remains a cerebral one to be learned formally in the course of attending meetings and doing stepwork. From the philosophical underpinning of behaviourism, ecological psychology and phenomenology, it is clear that formal learning is inadequate in the holistic cognition of self, as one progresses towards fulfilling the advanced humans needs of self-actualization and transcendence which are critical in sustaining recovery. To truly come to know something, one must engage in it physically as well as mentally in order to facilitate informal and sub-conscious learning via the perceptual systems through direct interaction with stimuli in the built environment. A dedicated space that captures a silent atmosphere of spiritual reverence affords a deliberate focus on the central theme of recovery and the opportunity for a deep and inherent learning of it. The built environment must visualize and contemplate the existing site topography to become meaningful.

The following are a list of issues, identified in the research process, as having potential for improvement through careful architectural design, as suggested alongside:

- *Isolation*: Design elements that encourage visual contact, social integration and shared responsibilities.
- *'Spiritual' (non-denominational!) Disease* : Facilitate an ordered and structured lifestyle without being overly controlling but encouraging a healthy mentality. The provision of a dedicated space that captures silence and introspection.
- *Stigma and Shame* : The architectural language should embody a new attitude to addicts and addiction treatment without looking institutional or out of place within the context, so as to encourage its discreet use by those not comfortable with identifying with it.
- *Privacy* : Access should allow for private and public entry for various functions so as to avoid singling out and potential victimization of patients or visitors to the facility.
- *Security* : Security, especially in the early stages of recovery, is vitally important to the addict and the public in general. It needs to be maintained in a discrete and humane way so that the recovery process is not perceived as imprisonment.
- *Gender Differences* : It is imperative that men and women's' sleeping areas are separated and as men and women respond differently to treatment, single-sex meetings need to be accommodated.
- *The Family Unit* : Single-parent family units should be accommodated, as well as units that may accommodate couples and couples with children.
- *Limited Financial Resources (Human, economic and ecological)* :
- *Human resource limitations* are an opportunity to use the expertise of previous guests and other recovering addicts, including those staying at the centre to form a large part of the staff body. This concept of everyone contributing to the daily workings of not only themselves but the facility offers opportunity for a reciprocal relationship where the facility and the guests benefit mutually from it. Similar to the concept of a kibbutz and in line with the principles of social and economic Marxism, everyone's shared efforts reinforce the sense of community and belonging as well as exponentially increasing the efficacy of the therapeutic community.

- The need for *economic resourcefulness* also offers an interesting opportunity to find innovative solutions to the problem. Some of which may be looking at how the building construction/technology can realistically reduce overall running costs of the facility, how it may be built on a limited budget in the first place in the hopes of being more attractive to investors, financiers and government and what management and therapeutic systems may be implemented to achieve the ends within as small a budget as possible.
- *Ecological resourcefulness* is necessary in general, not only in construction and not only in the construction of rehabilitation centres. The use of natural, locally available materials reinforces the contextual belonging and embodied Genius Loci of the scheme, rooting it in its place and augmenting the perception of belonging to its users and their normal environment, thereby lessening initial apprehension and hopefully working to demystify the whole subject. The use of natural materials also goes to the atmosphere of care and wellbeing in reconnecting with nature.
- *Poverty and Education* : Sustained recovery is more likely should recovering addicts have the tools to become financially as well emotionally independent thereafter. Life skills and parenting classes should be accommodated as well as focused training for the (current) job market. This concept leans to the provision of flexible learning spaces that may allow for a variety of training purposes that can also be opened to the public as a centre for skills development and another source of income for the centre. Thus the facility can contribute to the greater community it forms a part of, becoming a hub of healthy and empowering lifestyle choices.

6.2.2 The Topography of Health - An Approach to Locality

The research has shown that what is critical to ensuring the built environment's capacity for improving the effectiveness of addiction treatment, is the provision for a sense of belonging to a place, derived from one's personal and cultural identification with it and coupled with a sense of safety and emotional security, consequent of its perceived and understood spatial organization. In terms of providing a centre for addiction therapy, that is both physical and mentally accessible - most notably in a cultural context as diverse as Durban's - intermediate areas, along the periphery of urban areas and the public transport routes provide for this.

However, where urban locations offer an enriched built environment, that provides the mental and physical stimulation beneficial to the treatment of brain diseases such as addiction; they do not offer much opportunity for a response to the existing natural topology, unique to a particular place. Urban built environments are also filled with noise pollution amongst others, which is detrimental to an overall sense of peaceful, well-being.

According to the research, the location of rehabilitation centres should be based on existing public transport infrastructure; adequate opportunity for expressing the natural topography of a site; allow for a maximising of optimum light from the correct orientation and within enough of a distance from external social environments to avoid isolation and far enough away to afford privacy and the intrusion of unwanted noises. In these ways, from selecting the site, the built environment is poised to positively impact the process of recovery from addiction.

6.3 Conclusion

As illustrated in the research, in order for the built environment to positively contribute to the effective treatment of addiction, it should instil a sense of worthiness in the users of it. Worthiness is defined by Dr Brenee Brown, as a deep-seated, unconscious perception of love and belonging within one's society (Brown, 2007). This is translated into the built environment by Christian Norberg-Schulz in his book, *The Concept of Dwelling*, as a meaningful experience of one's surroundings (1985:7). In order for the built environment to become meaningful, it must fulfil two primary functions: to act as a tool for defining one's personal and social identity and to orientate a person within their physiological and psychosocial context. Identifying with and orientating oneself within the built environment, is achieved through the perception and cognition of environmental stimuli that resonate with and contribute to altering and defining one's perception of self, as a construct of individual personality and cultural kinship. As such, the built form and spatial arrangement of the built environment must be as culturally and individually specific as possible (Lang & Moleski, 2010), in order to effectively treat addiction, by instilling an inherent sense of regard for the user, perceived as a sense of worthiness in belonging to a place and a people. The emotional security that comes as a result of this, as described by Kevin Lynch, initiates a psychological transition toward self-acceptance, awareness and ultimately transcendence (Maslow, 1954), which then allows for the succour of others and thereby, the unconscious perpetuation, within

any fellowship - not limited to that of recovering addicts - of the spiritual principles it embodies and a healthy state of mind commensurate with them. Man thereby experiences connection, belonging and ultimately love toward himself, removing the need to escape a torturous reality.

PART II
DESIGN REPORT

CHAPTER 7 | BACKGROUND, CLIENT AND SITE ANALYSIS

7.1 Introduction

The research - both primary and secondary - aimed to describe the nature of the disease of addiction and how it is affected by one's physical environment and thereby, how this environment may be designed to positively affect the process of recovery from it. The results of the research described how the built environment directly impacts the user both physically and psychologically and that the built environment has the potential to play a significant part in the rehabilitation process. The background research showed the very low rates of recovery and sustained recovery from addiction and after addiction treatment respectively, describing inherent flaws in the current approach to addiction treatment. Another point brought to the fore, is the traditional approach to locating rehabilitation centres in isolated, usually rural or sub-urban environments which following the research - proved contradictory to the concept of developing a resilience to triggers in the urban built environment synonymous with addictive behaviours in order to sustain recovery following addiction treatment, and most notably, residential addiction treatment in environments totally opposite to that of one's usual environment. This document continues the research in applying the conclusions set out in chapter 5 to the pragmatic and sensitive design of a Life-Recovery Facility situated in the urban built environment to further test the concepts of the theoretical framework and their practical application in architectural and urban design.

7.1.1 Justification of the Building Typology

The most directly associated building typology related to addiction treatment is a rehabilitation centre. However, there are few examples describing a specific and purpose-built addiction rehabilitation centre; precedents and case studies present converted public and private buildings with the nearest purpose-built examples being asylums - institutional at best. These, according to the research and proved by the aforementioned low rates of successful recovery, point to an inefficiency in the design or consideration of the importance of the creation of a specific addiction treatment facility.

The study also described shortfalls in the majority of the current addiction treatment centre offering, both locally and internationally. The most significant factors of which include little or no provision for the residential rehabilitation and therapy for the whole family unit,

including single parents and their children - both addicts and non-addicts alike. Personal, life-skills and vocational training is minimal and proved to be essential in ensuring the sustained recovery from the disease by affording people the opportunity to change their lifestyles and normal living arrangements which too often trigger relapse.

7.1.2 Project Description

The resulting typology that emerged from the research is one that includes physical therapy in the form of adequate open and enclosed space for exercise, yoga and other physical activity including social interaction which is vital to the recovery process. Psychological therapy in the form of the cognitive behavioural therapy of the 12 Steps of Addiction Treatment is an imperative part of the facility, as well as inherent informal empirical learning afforded by the built environment itself and the intellectual therapy provided by the various skills development determined by the specific social, cultural and economic status of both the users and their context. These all go toward the formation of the proposed typology of a Life-Recovery Facility which aims to not only care for those affected by addiction but those affected by them, including their families and greater communities. It also aims to treat people from their first step toward recovery to their last day in equipping people with the physical, psychological, social and intellectual tools to maintain their recovery after leaving the facility.

7.2 The Notional Clients

The CDA in conjunction with SANCA and SANCA Aurora Centre, are the notional clients.

The CDA: The Central Drug Authority (CDA) is the advisory body within the Department of Social Development that is charged with implementing the National Drug Master Plan 2013 - 2017 (NDMP), in the fight against substance abuse in South Africa.

SANCA and SANCA Aurora Centre: The South African National Council on Alcoholism and Drug Dependence (SANCA) is one of the leading organizations tackling substance abuse in South Africa, through their national network of in and out-patient centres; the development of addiction therapy training programmes and curriculum and joint ventures with businesses and government departments to further addiction related research, debate and legislation. The Aurora Centre in Bloemfontein in the Free State is a SANCA facility that, after specific research into the impact of substance abuse and addiction on women, has developed GROW

(Guiding the Recovery of Women), a rehabilitation programme aimed specifically at accommodating women. The research has shown this approach to be not only beneficial but necessary in allowing women the same opportunity as men, to find sustained recovery. As the survey results indicate a worrying difference between male and female representation in recovery circles in Durban, attention to female accommodation aims to address the discrepancy.

7.2.1 The Clients' Objectives

Objectives of the NDMP 2013 - 2017:

- Demand reduction through education; culturally undesirable substances (marketing)
- Supply reduction
- A localised version of harm reduction: treatment, aftercare and reintegration of substance abusers/dependents with society
- Address the issue of Foetal Alcohol Syndrome (FAS) by reducing the incidence and managing the symptoms. The following are a few examples of how this may be achieved:
 - Education
 - Family planning, education and therapy
 - Medical facility for expectant mothers
 - Social support
 - Creative and Vocational training/education

Objectives of SANCA:

- Heighten public awareness
- Provide treatment for dependents and families
- Offer specialised training and education programs
- Undertake and encourage research
- Mobilise and utilise community resources
- Empower communities through prevention programs
- Identify and strengthen resources, strengths and weaknesses of communities

- Work towards a strong corporate image through creating a brand image, aggressive media promotion and innovative marketing strategies

Objectives of the SANCA Aurora Centre:

- Programs must be culturally sensitive
- Programs must take into account family and children and single mothers and fathers
- Empower women through education: Parenting Skills, managing budgets and educational/vocational and non stereotyped job training
- Strengthen a women's relationship with her children and reunify her with her family
- Trauma therapy

7.2.2 The Clients' Brief

The Four Pillars of the NDMP are prevention, early intervention, treatment, after care and reintegration. The intention of the proposed Life-Recovery facility, is that it accommodates all four pillars, in addressing the problem in its entirety from origins and cause, through manifestation to sustained recovery. The centre is positioned to contribute to demand reduction and localized harm reduction and social and economic reintegration and aims to not only educate those affected and their families but also the local and wider community. It is therefore imperative the facility is well integrated within the physical and social context in order to meet the clients' objectives, as well as within the economic and ecological context in order to ensure a holistically sustainable solution.

The Central Drug Authority in conjunction with the South African National Council on Alcoholism and Drug Dependence are positioned, in partnership, at the forefront of South Africa's battle against substance dependence, abuse, addiction and the economic and psycho-social issues that result from this chronic disease. As such, it is imperative that the facilities offered on their behalf, reflect their sincerely held beliefs and meet each organisations individual objectives.

The Albert Park Life-Recovery Facility in Durban, South Africa is intended to become a model for future developments, by its unique approach to the addiction therapy programme in combination with that of its architectural approach. The building is intended to become an integral part of the recovery process, not only for those suffering the disease of addiction but also for those affected by the physical, emotional and financial turmoil that accompanies it - most notably, the families of those addicted.

Innovative and traditional therapies coupled with an appropriate architectural response, all within the framework of a holistically sustainable end-goal are the drivers of the design scheme. The overall aim is to achieve a built environment that positively impacts on the users perceptions of self in order to encourage a healing process that begins at the heart of the problem.

The Site

Albert Park - the site that has been selected - is located right at the heart of the problem in central Durban and is located directly across from what is colloquially termed, Whoonga Park for the significant illicit drug merchandising that takes place there. According to Crime Stats South Africa, Durban central reported the highest rates of drug-related crime in KwaZulu-Natal in 2012. There is opportunity from the project's inception, to act on changing people's perceptions of not only severely affected areas but the city and urban environment in general. The aim is to encourage a mental shift from a chaotic and chronically unhealthy and destitute lifestyle to one of serenity in amongst an energetic urban environment while still maintaining one's ability to make coherent and healthy choices.

7.2.3. End-User Profile and Occupancy Calculations

Occupancy Calculations

The projected population figures are informed by the statistical information presented in the SACENDU Research Brief Volume 15 (1) of 2012, compiled by the South African Community Epidemiology Network on Drug Use (SACENDU) between July 1996 and December 2011.

- Primary drug of choice at rehabilitation centres in KZN: Alcohol - 67%; Cannabis - 16%; 6% Heroin; 5% Cocaine
- Gender: 75% male - 25% female
- Average age is 29-33
- HIV testing for around 28% of in-patients.
- Proportion of KZN population / population in treatment: African - 85% / 59%; Indian - 8% / 13%; Coloured - 2% / 6%; White - 5% / 23%. These depict how under-represented Africans are in addiction treatment in KZN describing the need to cater to the discrepancy.

KZN population demographics: (from Statistics SA Census 2011 and the eThekweni Integrated)

- Population: 10 267 300
- Race: African - 87% (8 213 840); Coloured - 1.4% (143 742) ; Indian - 7.4% (759 780); White - 4.2% (431 227)
- Gender: Male - 47% ; Female - 53%
- Private / public transport: 37% / 63% (Taxi - 68%; Bus - 25%; Train - 7%)

EThekweni demographics (Stats SA)

- Population: 3 442 361
- Race: African - 74% (2 547 347); Coloured - 2.4% (82 617) ; Indian - 16.% (574 874); White - 6.6% (227 196)
- Working Age 15 - 64: 70% / 2 409 653
- Gender: Male - 49% ; Female - 51%

Calculating the Occupancy

Points to consider:

- According to the CDA's 2008 Annual Report, an average 15% (and three times the world average of approximately 5% according to the UN World Drug Report 2012), of South Africa has a substance abuse problem.
- It is normatively accepted by AA and addiction treatment specialists that only 3% of those with addiction seek treatment.
- The treatment facility population should more accurately reflect the current demographic, accounting for the current under representation of Africans in addiction treatment.
- According to the primary research conducted 72% of people in out-patient treatment previously attended an in-patient facility.
- The primary research showed that 33% of men and 45% of women in treatment were single parents and that 28% were married with an average of 2 children.

These points are reflected as follows:

- Population with substance abuse problem: 15% of the Durban Metropolitan Area
 $2500\ 000 = 375\ 000$
- Population seeking treatment: 3% of 375 000 = 11 250
- Average Age 20 - 34: 27% of 11 250 = 3 038

- Approximately 30 alternate treatment facilities available in DMA accommodating approximately 50 guests each = 1 538
- In-patient / Out-patient 72% / 28%: 1107 / 431
- 3 Month minimum stay: $(1107 / 12) \times 3 = 276$ in-patients at any one time
- Gender: Male - 49% = 135; Female - 51% = 141
- Married : 28% of 276 = 77
- Single patients 29% of 276 = 80: Male 49% of 80 = 39; female 51% of 80 = 41
- Single parents 43% of 276 = 119: Male 49% of 119 = 58; female 51% of 119 = 61

Total Proposed Occupancy

Patients:

- 276 In-patients
- 77 Married patients with an average of 2 children
- 80 Single patients - 39 male and 41 female
- 119 Single parents - 58 male and 61 female
- 431 Out-patients
- 77 In-patients requiring HIV testing

Therapeutic Staff:

According to the case study research, each patient should have one one-hour long, private therapy session every week with a therapist or social worker. Assuming an average 8 hour working day with an hour for lunch, another for admin and staff meetings and two or three hours for workshops and group therapy sessions, each therapist would be able to see 3 people each day for private therapy.

- A minimum of 15 therapists would be required (3 x 6 days a week = 18 sessions) alternating between 8 or 10 private therapy rooms with a central open workstation office and adjacent, lockable archive store for personal files.

National Building Regulations Classification of Spaces:

A1 - Public Assembly - 1p/1m²

A3 - Places of Instruction - 1p/5m²

A4 - Worship - 1p/1m²

A5 - Outdoor Sports - 1p/1m²

E2 - Hospital - 1p/10m²

E3 - Other Institutional (residential) - 2p/bedroom

G1 - Offices - 1p/15m²

H2 - Dormitory - 1p/5m²

J3 - Low Risk Storage - 1p/50m²

1.2.4 Schedule of Accommodation

7.3 Site Selection and Analysis

7.3.1 Site Options and Criteria

7.3.1.1 Site Selection Criteria (100)

1. Close proximity to affected areas (35)
 - Meeting Places (10)
 - Employment (10)
 - Drug-crime (10)
 - Home (5)
2. Close proximity to access routes (20)
 - Walking distance to public transport stops (10)
 - Major roads (10)
3. Natural topography (20)
 - Maximised North orientation (10)
 - Physically challenging natural environment (5)
 - Views (5)
4. Adequate size (15)
 - Outdoor physical activity (5)
 - Trade skills training workshops (5)
 - Urban subsistence & ideally commercial farming (5)
5. Good location for retail functions (10)
 - Foot Traffic (10)

7.3.1.2 Site Options

The following sites were selected initially, for their proximity to severely affected areas for drug-related crimes and then subsequently evaluated in terms of the criteria established in the research as described in Table 1.

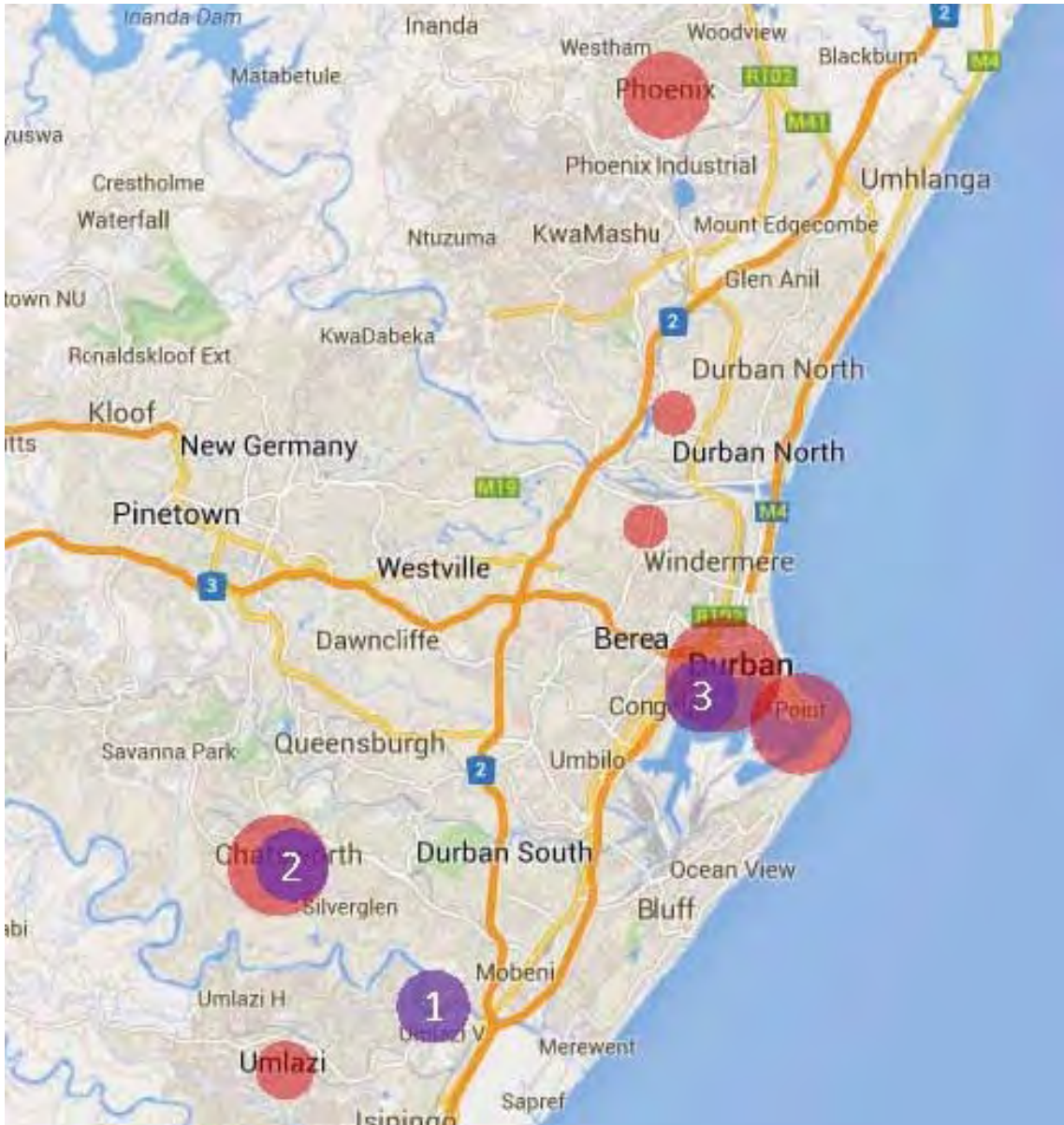


Figure 84: Location of 3 Site Options (Source: www.googlemaps.com)

Site 1 | Lushezi Road, Adjacent Gijima Cemetery, Chatsworth

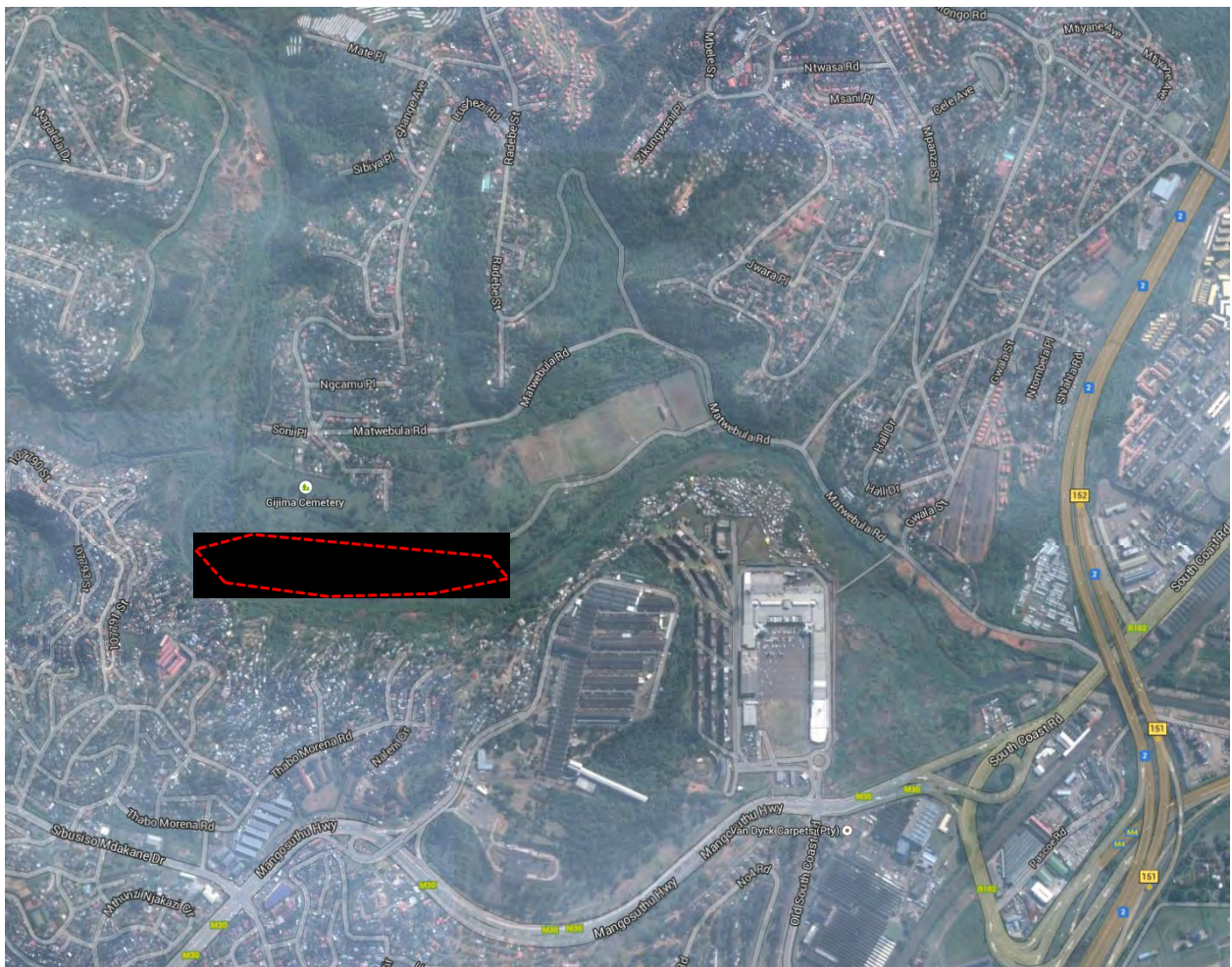


Figure 85: Google Earth Image of Site Option 1 (www.google.co.za)

Advantages of the Site

- Between Chatsworth and Umlazi
- Dramatic and picturesque natural topography
- North Orientation

Disadvantages of the Site

- Potential for limited social accessibility
- Dangerous location
- Not easily accessible from main road

Site 2 | Opposite R K Khan Hospital, Chatsworth (75%)

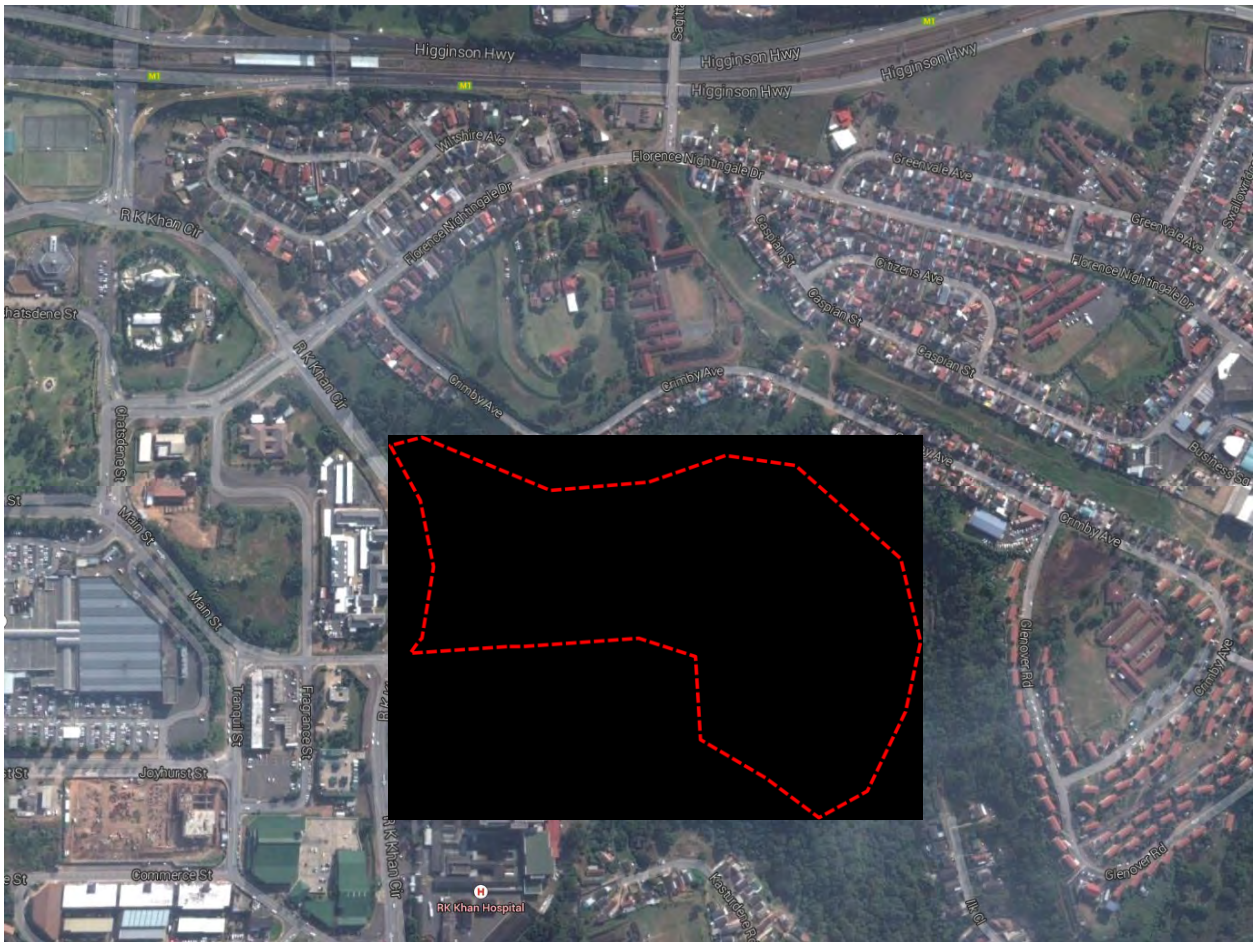


Figure 86: Google Earth Image of Site Option 2 (www.google.co.za)

Advantages of the Site

- Within the civic heart of Chatsworth on the RK Kahn circle.
- Views of nearby, spiritually significant buildings and spaces such as the Gandhi Centenary Park and the Hare Krishna Temple of Understanding as well as the local police station and hospital.
- Generous space and picturesque natural topography.

Disadvantages of the Site

- Potential to clash with the nearby Hare Krishna temple and be socially rejected by community.
- Steep slope may be more expensive to develop.

Site 3 | Albert Park, Durban Central



Figure 87: Google Earth Image of Site Option 3 (www.google.co.za)

Advantages

- Central Location
- Natural setting within urban context
- Views of the bay and industrial harbour unique to Durban
- Good orientation

Disadvantages

- Limited feeling of spaciousness
- Slight overshadowing to the east

Site Selection Result

		1: Lushezi Road, Chatsworth	2: R.K. Khan Circle, Chatsworth	3: Albert Park, Durban Central
Proximity to Affected Areas	Meeting Places (10)	4	7	10
	Under-represented (10)	8	4	8
	Drug-Crime (10)	5	8	10
	Employment (5)	2	4	5
	Residence (5)	4	5	3
Proximity to Transport	Public Transport (10)	5	7	9
	Main Roads (5)	2	3	5
Natural Topography	Orientation (10)	6	6	8
	Slope (5)	4	3	2
	Views (5)	3	2	4
Adequate Size	Leisure Activities (5)	4	4	4
	Workshops (5)	3	2	2
	Farming (5)	4	2	3
Retail	Foot Traffic (10)	3	7	9
TOTAL		57	64	82

Table 1: Site Selection Result

7.3.2 Urban Analysis

7.3.3 Site Analysis

The central Durban, Albert Park site that has been selected for the proposed scheme, benefits from being located within the heart of a severely affected area of the Durban CBD, for both substance abuse and drug related crime. As such, it is well positioned to tackle the issue of substance abuse and addiction. The advantage of being within the CBD, is the improved physical and social accessibility with a major public transport interchange at the north-west corner of the site. The disadvantages of the site are a limited amount of space for functions such as urban farming at a commercial scale, which will need to be carefully considered to

ensure success. The surrounding buildings also pose potential problems of over-shadowing and infringing on privacy, which will also need to be taken into consideration during the design process.

The site is well orientated, benefitting from a longer east-west axis providing the opportunity for an abundance of north light and the subsequent opportunities for passive heating, cooling and natural lighting. It also benefits from an abundance of shady deciduous trees. While it will be necessary to remove a fair amount of these, this should be done sparingly and with particular attention to retaining, as far as possible, indigenous trees and those that enable ecological diversification and preservation. The intent here is to encourage ecological sustainability and thereby, mitigate the harmful impact to the environment as far as possible. North-easterly winds prevail in the summer months, while south-westerly winds that tend to bring with them more rain, are more prevalent in the winter months between May and August. The site benefits from views of the harbour to the south and the iconic sugar terminals to the west.

CHAPTER 8 | DESIGN PRECEDENT STUDIES

8.1 Introduction

8.2.2 Spiritual Introspection - Bruder Klaus Field Chapel, Mechrenich, Germany

“In order to design buildings with a sensuous connection to life, one must think in a way that goes far beyond form and construction.”

Peter Zumthor

Architect: Peter Zumthor

Location: Mechernich, Germany



Figure 88: Exterior of Bruder Klaus Field Chapel
(www.archdaily.com)



Figure 89: Interior View of Bruder Klaus Field Chapel
(www.archdaily.com)

The Bruder Klaus Field Chapel, captures a sense of the divine and ethereal both internal and externally although both in starkly contrasting ways. The interior and exterior morphologies capture the essence of Heidegger's concept of dwelling on this earth and the ways in which

man and the heavens are so inextricably linked through an architecture that belongs to its place.

Internally the homage to light and verticality and the mystery of whatever one believes lies beyond, is striking and expresses the construction method and materials in a way that exemplifies the haptic quality of architecture. The dramatic sense of scale that results is tempered only by the reverence and silence it imbues the space with and the sense of pause and introspection it inspires. The opening to the sky where the concrete bands terminate allow light and rain in to the building, making the visitor keenly aware of the seasons and specific natural context the chapel is located in.

Perhaps placed in urban context the quiet and conservative monumentality of the chapel's exterior would be lost amongst towering skyscrapers and hurrying busses but atop a hill of crops whose colour mimics that of the stone on the facades, the building takes up its position rightfully - as though it had always been there. In this way, a centre for care and rehabilitation should look to belong so keenly to a place that were it removed the place itself would look unfamiliar and foreign. In so doing, the users of the space take on the same sentiments of belonging to a place and not being alienated or feeling foreign but truly being a part of a whole greater than but intrinsically linked to their own.

8.2.3 Natural Dwelling - A Contextual Response - ASU Polytechnic Campus

Architects: Lake Flato Architects and RSP Architects

Location: Mesa, Arizona, USA



Figure 91: Exterior View of ASU Polytechnic Campus (www.archdaily.com)



Figure 92: Balcony Seating (www.archdaily.com)

Figure 90: Engaging With The Street (www.archdaily.com)

The ASU Polytechnic campus in the Arizona desert captures the relationship between natural topography and built elements in a way similar to the Yingst retreat does. Both acknowledge and visualise the natural context while remaining distinctly man-made and the contrast of regularity to organic accentuates and celebrates both. The choice of materials also captures the surrounding palette and acts to soften to regular and clean lines of the building. Corten steel screens act functionally as well as aesthetically to protect the users from the harsh desert sunlight without blocking visual connection internally or externally. Periodically these screens appear to break open to allow the balcony towers to puncture the facade and

articulate its movement through the topography. These act to connect the pedestrian and cyclist at street level to engage with the shelter the building provides in the harsh climate and natural context.

Just the same the same the rehabilitation centres facade is articulated to not only allow a diverse range of light quality to the internal spaces - as Christopher Day suggests goes toward balancing hormones and related emotions - but also aims to engage the passer-by with the building that it may more easily become a part of the community it serves. Materials play a significant role in not only providing the centres aesthetic but in placing it comfortably within its context. The maritime influence of Durban are factors contributing to this choice as well as the wearability and life-time costs. The intention is, in the same the ASU Polytechnic campus aims to use materials to marry the building to its natural context in colour and light so too does the rehabilitation centre want to belong to its natural as well as man-made context in a way that expresses the culturally familiar.

8.2.4 Atmosphere - Safe Haven Library, Ban The Song Yang, Thailand

Architects: **TYIN Tegneste**

Location: **Ban Tha Song Yang** 📍, Thailand



Figure 93: Safe Haven Library Exterior View (www.archdaily.com)

The Safe Haven Library was selected as a precedent study as it captures the atmosphere and spirit of place that is immediately nurturing and gentle. The hand-made building affects the haptic perceptual system with its texture and use of naturally sourced and familiar materials and construction methods. The building design and construction is simple, the spaces ordinary but they are executed in a way that speaks of a care and a craftsmanship that is inviting and warm.

The same sentiment is desirable in a place of tranquillity and rehabilitation, where people may find respite from a harsh and sometimes uncaring urban and even suburban environment. The careful use of materials in this building demonstrates their significant ability to alter the haptic perception of spaces and how regular and simple spaces can be instilled with a healing power based only on the correct use of material and the gentle manipulation of light - taking advantage of the natural resources at its disposal the building cannot but belong to its people and its place.



Figure 94: Haptic Quality of Interior Space (www.archdaily.com)

CHAPTER 9 | CONCEPTUAL FRAMEWORK AND DESIGN DRIVERS

9.1 Introduction

9.2 Application of Theoretical Framework

9.2.1 Perception

The research discussed the ways in which people perceive their physical environments and how these perceptions shape their personal identities and sense of self-worth. It was found that in spite of visual perception being the most direct of the sensory systems, those of the indirect and refracted waves of sound - smell and touch acted on a more subtle level and as such, had the greatest psychological impact on the user. The intention is to provide spatial experiences that act on these more subliminal sensory systems in order to depict the urban environment and the associated triggers within it, in a healthier way. By providing affordances for different and healthier behaviours in the same environment, it is possible to re-perceive that environment and build a resilience to the undesirable behaviours traditionally associated with it.

The sacred space acts as the heart of the facility and as such the architectural language used here is reiterated in spaces of similar atmosphere where a sense of verticality, diffused light and the dilution of the visual perception of the urban context acts to reinterpret the triggers that exist in it. The private meditation balconies attached to each unit therefore, has this same language in order to reinforce the association with one's spiritual connection. The major entrances to the facility also attach to this verticality and the sense of something greater than oneself. This not only achieves this end but also diffuses the interior light and associated heat gain, to facilitate passive cooling of the building. The play of light and shade on the blank walls of the interior and exterior faces also creates a continuously changing and visually stimulating aesthetic without the retrospective application of additive decoration. The integrity of the materials and their reference to the context is maintained and encouraged in a bid to familiarise the user with the building encouraging a sense of dwelling in the space.

9.2.2 Dwelling

In terms of the issue of self-esteem, identity and self-awareness and actualisation the concept of Dwelling defined by architectural theorist Christian Norberg-Schultz, sets out the basis for the creation of an atmosphere conducive to this end. Orientation and Identification within the

built environment are integral contributing components to one's emotional security within a space. As such the clear understanding and familiarity with stimulus in the built environment augers the healing process.

The design of the Life-Recovery Facility is based on the principles of the Four Modes of Dwelling from Natural, through Common, Public to personal. The central administrative block of the facility also houses primary and secondary residential units on levels 2 and 3. In topology this block is structured, symmetrical and regular. Circulating around a central courtyard which facilitate social integration; surveillance of residents by staff and together with single loaded corridors aids in cross ventilation and natural lighting of all spaces. The residents in this block are in the first two stages of recovery and require a more structured environment in which to find clarity of thought form the chaos of their addictive minds.

The rear portion of the facility breaks from this regularity while naturally following the existing natural context. In an effort to disturb the natural context as little as possible, the rear block is situated where the old dis-used tennis club once was and accommodates the communal functions of the facility including the sacred space as well as residential accommodation for tertiary units including single parents, families and single males and females in halfway-house type units. The public cafe is also situated in this block and acts to connect the currently isolated and dangerous south-east corner of Albert Park with the busy soccer field and paved walkway to the north-west of the macro-site.

Fellowship and Spirituality form the basis of recovery from addiction and this has been translated in the contextual response to the urban environment. The centre acts outwards as well as inwards as is the need of both public and private users of the space. It also acts to activate currently inactive parts of the macro-site, looking to rehabilitate the area of Albert park as a whole. A key component of this concept is the direct connection of Albert Park to Wilson's Wharf situated across the main road to the south of the site. Wilson's Wharf is a hub of leisure and marine activity which has been only partially successful as a result of it's being inconvenient to arrive at. It is also segregated from its nearest neighbours in the CBD and specifically Albert Park and as such it is not fulfilling its potential to activate trade, social interaction and curb crime in the area. The urban design proposal is to provide a market bridge connecting Albert Park and Wilson's Wharf and populate it with informal traders from the area. The urban farming that is proposed for the less-used south-west hillside of Albert

Park can then be easily transported to the proposed fresh food market situated alongside the existing fresh fish market on Wilson's Wharf. The intention of the overall urban design, is to rehabilitate a once vibrant part of the city and connect that energy to that of a culturally and economically different area with the objective of rehabilitating both through the principles of Fellowship.

9.2.3 Empirical Learning

The primary reasons for relapse back into addictive behaviours is transitions from one healing space back into one's former and less savoury living situation. As such, in order for a recovery facility to be effective it must ensure that residents leave with the means and ability to maintain a changed way of living. According to the research this may be achieved both consciously and sub-consciously through formal and informal learning. Empirical learning talks about the latter and how in actual fact we only ever learn indirectly/sub-consciously.

To this end, circulation spaces became instrumental in the process of recovery and the establishing and strengthening of a sense of fellowship. The circulation spaces are exaggerated to encourage socialising and the subsequent informal exchange of ideas and information and thereby learning from one's peers. As is described in the primary research, the break-out spaces connected to the meeting spaces proved as essential to the meetings as did the formal meeting halls. These places allow those less inclined to participate formally (certainly in the initial stages of recovery) a more comfortable space to socialise and integrate.

The use of materials, light and passive cooling also act to regulate the temperature and the subsequent physical comfort of certain spaces. Floor finishes are specifically chosen for their auditory and haptic qualities, acting to announce difference in spaces and environmental affordances of different areas. Most notably, timber flooring is used in the bedrooms to show the wear of ages of use and the feeling of belonging to something long-standing and enduring. Also, the sound of timber when walked on can be disturbing to others - encouraging room-mates to be mindful of others and establish personal boundaries in the enforcing of personal comfort.

9.3 Conceptual Development

9.3.1 The Premise

The premise of the project is that in treating a chronic disease like addiction, it is imperative to look beyond the substance abuse which is in fact only a superficial symptom of an underlying psychological and emotional problem stemming from a deep-seated belief of not being worthy of love and belonging. It is also important to note that where the traditional approach to rehabilitation often results in physical and social isolation, it is becoming increasingly apparent that this does not ensure sustained recovery from addiction. It is thus increasingly important to provide a rehabilitative solution that builds a person's resilience to triggers in the urban built environment that may cause relapse, in order to equip recovering addicts with the psychological tools to withstand them.

9.3.2 The Developed Premise

The research has shown that in order to effectively treat addiction, it is imperative to treat the emotional and socio-economic origins of the disease and provide a facility that tackles these in tandem with a spiritually based cognitive behaviour programme, which in the case of a SANCA rehabilitation facility includes the 12-Steps / Minnesota Model of addiction treatment. In approaching the disease of addiction as an illness that effects the physiology of the brain and its proper metabolising and functioning, it has been established in the research, that the physical treatment environment should be enriched, complex and stimulating. The built environment should offer an appropriate frequency of opportunities for social encounters and silent, time for introspection; it should be complex without becoming overly complicated and socially stimulating without becoming chaotic. The already existing chaos of the addicted mind requires silence and naturally encouraged structure to heal. From here the concept, borrowed from the work of Christopher Day on the subject, of a Spiritual Functionalism together with the concept of Urban Resilience emerges as appropriate drivers for the scheme.

9.3.3 The Design Concept

The concept of Spiritual Functionalism here extends Day's work to capture not only the idea of creating a healing environment that accounts for the emotional needs of the users as well as the practical ways to achieve both physical and mental healing; but also describes an attitude toward the scheme as a whole. The research has shown natural materials and a

deference towards the site to be imperative in the creation of a healing built environment intended to serve those affected by substance dependence and addiction. It has also described the need to provide an environment where one may feel an appropriate amount of emotional security, while still being challenged mentally and physically to allow for an environment that fosters resilience to triggers in the built environment and empirical learning and thereby encourages a lasting mental transition. As such the concepts of urban Resilience and Spiritual Functionalism lend themselves to the idea of a built environment that is functionally, socially, ecologically and economically sustainable; one that is clearly structured and expresses mental and emotional order without force and in such a way that one is aware of oneself within the built environment and a constant and inherent connection to nature through the expression of ordered and sacred geometries of natural material and an abundance of natural light.

9.4 Design Drivers

9.4.1 Users' Requirements

The research has found that one of the primary reasons people do not elect a residential rehabilitation stay is because of the exorbitant costs and due to them having young children. The absence of a parent seeking help in an addiction rehabilitation facility results in perpetuating the cycle of childhood trauma experienced by the breaking up of the family home. As such, the restructuring of the family unit is central to the proposed Life-Recovery Facility and the accommodation provided takes this into account. Further to this, the centre looks to equip people with the social and vocational skills to maintain a healthier lifestyle and sustained recovery, on leaving the facility.

9.4.2 Social Considerations

The facility acts not only as a fundamental stage in the rehabilitation of active addicts entering for the first time but also as a centralised point for recovery-related functions research and promotion and as a major out-patient facility for the Durban CBD. As such the challenge is socially integrating the centre which is inherently introverted and private with the surrounding social and physical context. This is made more complex by the fact that the adjacent neighbourhood consists of a large population of Tanzanian drug merchants. Security, privacy and intimacy are not synonymous with the urban environment but are imperative to the success of the proposed Life-Recover Facility.

9.4.3 Economic Considerations

The project is essentially a municipal undertaking and as such economic support is limited. As such the design of the facility should take into as many cost-saving measures as possible in its implementation from conception. Many of these measures, conveniently propose ecologically sustainable solutions as well as economically ones.

9.4.4 Ecological Considerations

Ecological sustainability is central to the concept of health-giving architecture and ensures the reduced life-cycle costs of the building, reiterating the concept of Urban Resilience. In-keeping with the concept of Dwelling, the facility being ecologically considered, expresses the overall objective of rehabilitation and of health-giving built environments.

9.4.4.1 Energy

As far as possible, alternative and renewable energy sources need to be used in the scheme not only for ecological reasons but also in order to keep costs as conservative as possible, being that funding is limited for such projects. The site benefits from good orientation and exposure to winds throughout the year which contribute to achieving this goal.

9.4.4.2 Urban Farming

Urban farming should also be considered for the ecologic and economic benefits it brings to architectural interventions in general and specifically those of a healing nature with limited resources and within urban environments. Vertical farming, hydroponic and hybrid hydroponic and soil farming offer opportunities suited to the urban context. A successful precedent already exists in Durban's Priority Zone, less than a kilometre away.

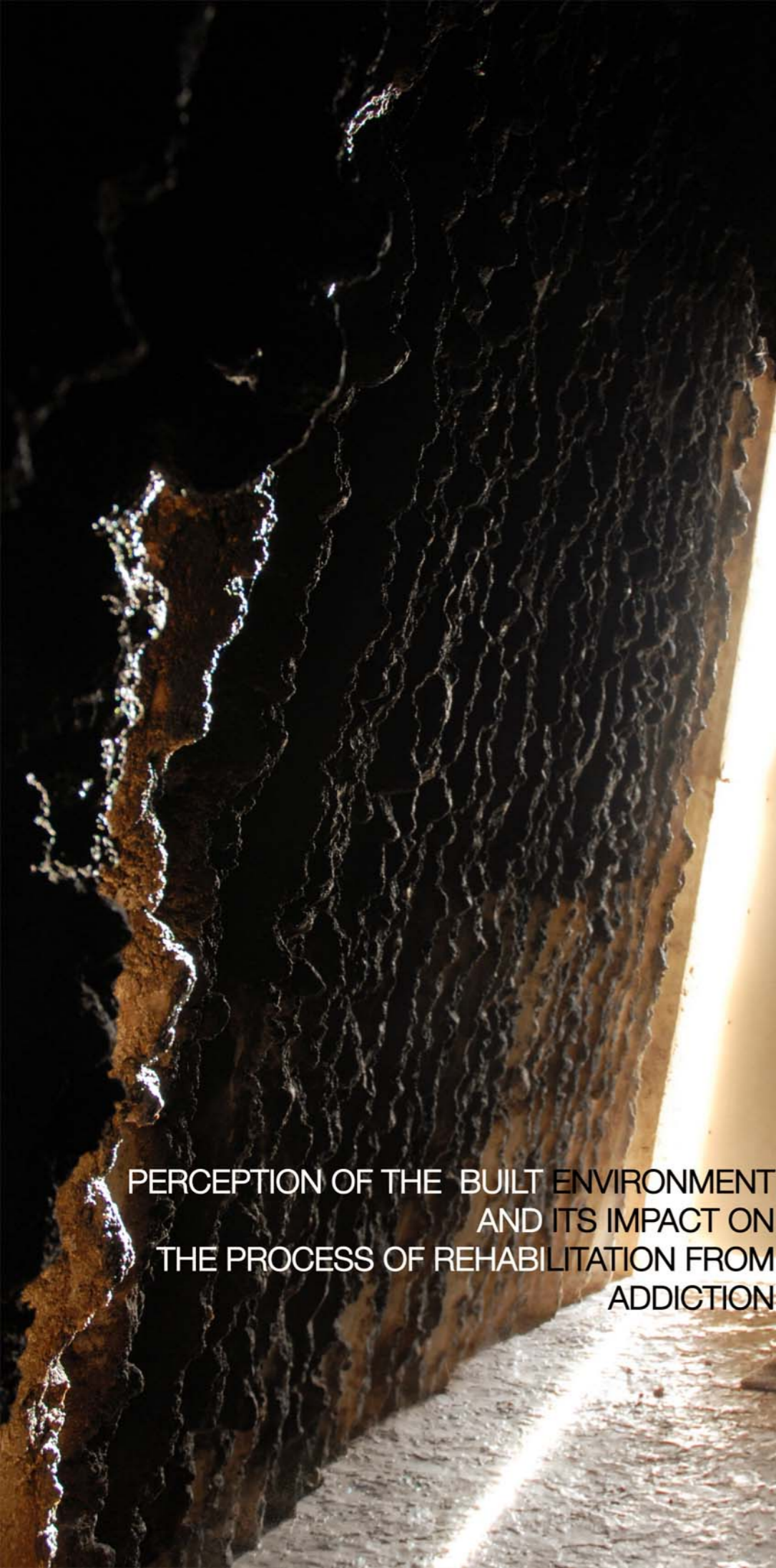
9.4.5 Construction materials

The material palette, as described in the international precedent studies, is selected for its perceptual connection to the existing context of the urban environment adjacent a working industrial harbour and on a site situated within an extensive green space. Thus the selection of materials responds to many conditions with the overall aim of offering an ecologically, socially and economically sustainable solution.

9.5 Conclusion

As illustrated in the research, in order for the built environment to positively contribute to the effective treatment of addiction, it should instil a sense of worthiness in the users of it. Worthiness is defined by Dr Brenee Brown, as a deep-seated, unconscious perception of love and belonging within one's society (Brown, 2007). This is translated into the built environment by Christian Norberg-Schulz in his book, *The Concept of Dwelling*, as a meaningful experience of one's surroundings (1985:7). In order for the built environment to become meaningful, it must fulfil two primary functions: to act as a tool for defining one's personal and social identity and to orientate a person within their physiological and psycho-social context. Identifying with and orientating oneself within the built environment, is achieved through the perception and cognition of environmental stimuli that resonate with and contribute to altering and defining one's perception of self, as a construct of individual personality and cultural kinship. As such, the built form and spatial arrangement of the built environment must be as culturally and individually specific as possible (Lang & Moleski, 2010), in order to effectively treat addiction, by instilling an inherent sense of regard for the user, perceived as a sense of worthiness in belonging to a place and a people. The emotional security that comes as a result of this, as described by Kevin Lynch, initiates a psychological transition toward self-acceptance, awareness and ultimately transcendence (Maslow, 1954), which then allows for the succour of others and thereby, the unconscious perpetuation, within any fellowship - not limited to that of recovering addicts - of the spiritual principles it embodies and a healthy state of mind commensurate with them. Man thereby experiences connection, belonging and ultimately love toward himself, removing the need to escape a torturous reality.

DESIGN PROPOSAL

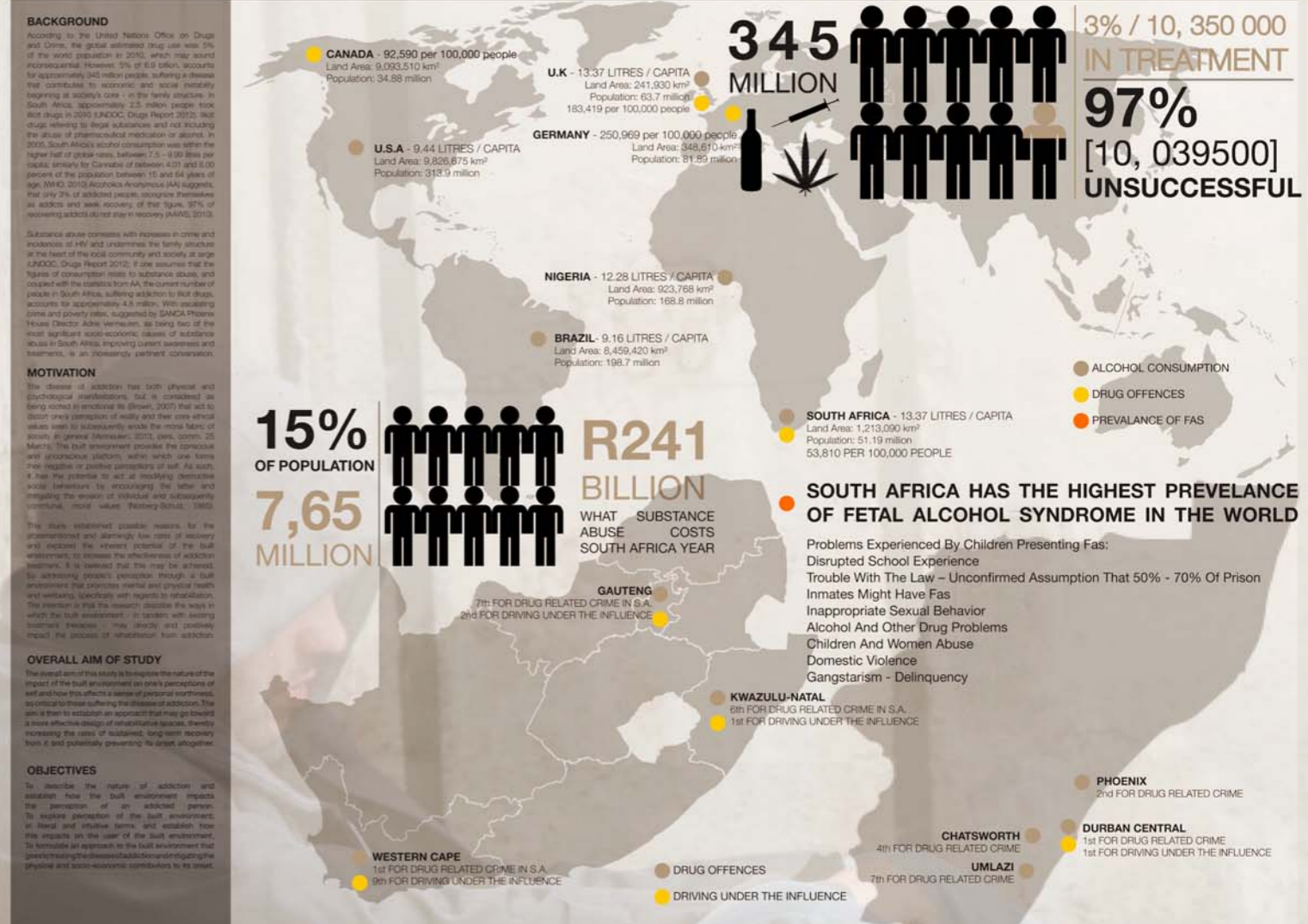


PERCEPTION OF THE BUILT ENVIRONMENT AND ITS IMPACT ON THE PROCESS OF REHABILITATION FROM ADDICTION

*A Life-Recovery Facility
Durban, South Africa*

Samantha Rouché | 202620562 | M.Arch UKZN

THE EXTENT OF SUBSTANCE USE GLOBALLY



WHAT IS THE DISEASE OF ADDICTION AND THE NATURE OF A PERSON SUFFERING IT?

"What is addiction? Addiction is a complex disease. The physiological, genetic, psycho-social, nutritional and environmental factors are often thought to lead to the development of this disease and need to be addressed in recovery."

(Jordan Drake, 2013, pers. comm. 22 March)

THE DUALITY OF ADDICTION

PHYSICAL Genetically Pre-Disposed 40 - 60%

Brain Prolonged substance abuse damages the structure, functioning and metabolism of the brain, often resulting in destructive anti-social behavior (NH, 2010) and a skewed perception of reality (Clint, 2013, pers. comm. 18 April), Drs N. Volkow and H. Schweibert, liken the brain disease of addiction to other chronic diseases like diabetes, that are preventable and treatable but incurable and may last a lifetime (not prevented) (NH, 2010).

Positive and Negative Affect: In the case of addiction, the addicted person experiences desire to minimize negative affect and maximize positive affect, which translates, initially, into substance use to experience pleasure, until such a time that one's experience of pleasure is dependent on the use of substances. At this point, negative affect contributes to wanting to stay high or get higher in order to maintain the pleasurable experience.

Environmental Enrichment The Dana Foundation, a philanthropic organization that promotes and supports brain research, has described the positive impact a complex environment has on the treatment of brain disorders such as addiction. The most critical elements, to the efficacy of environmental enrichment, on preventing and mitigating the disease, include spacious environments with various exercise machines and designed in such a way as to stimulate physical and mental activity; social integration and the opportunity for empirical learning in the built environment.

PSYCHOLOGICAL The NA literature that refers to addiction as a mental obsession and a physical slavery (NAWS, 2012), clearly illustrates the nature of the disease as not purely physiological. In their article, What is Addiction?, Psychology Today, explains the duality of addiction as not only relating to the physiological factors described in 2.1, but almost always as an emotional response to a psychological stress (PT, 2013). The statement introduces the concept of shame as illustrated by social research professor Dr Steven Brown, who describes shame as the primary psychological stress underpinning all addictive behaviour (Brown, 2012). Addiction is also defined as a disease of a personal nature believed by AA to be a "spiritual disease" where the substance or compulsive behavior is inconsequential relative to the psychological causes of it (AAWS, 2012).

FACTORS CONTRIBUTING TO THE ONSET OF ADDICTION:
UNEMPLOYMENT | POVERTY | LACK OF PARENTING | INFLUENCE | NO KNOWLEDGE | FAMILY HISTORY | AVAILABILITY | MENTAL ILLNESS

ASSOCIATED SOCIAL ILLS OF SUBSTANCE ABUSE
CRIME | VIOLENCE | ABNORMAL BEHAVIOUR | HIV/AIDS | DEATH | DAMAGE TO PHYSICAL HEALTH | FINANCIAL | BREAKDOWN OF FAMILY UNIT | MORAL DECAY



"We're people who are just learning to live."

(Clint, 2013)

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THEORETICAL FRAMEWORK

ARCHITECTURAL THEORY

Theory in architecture acts to identify the social challenges faced by the profession in the nation and manufacture of the built environment. It offers from descriptive history and 'reason' judgemental critique in that theory processes innovative alternatives and 'thought' paradigms for meeting these challenges. Grounded from a tacit critical analysis of the present state of the profession, in analysing the discipline's current position, architectural theory becomes a tool for measuring its progress and cultural relevance by studying, not only the social and cultural heights architectural spaces, but also those it has already achieved. (Pruitt, pg 10, 1996)

The Bauhaus view was universalistic, one that failed to recognise the social, cultural and geographic circumstances in which buildings function. (Lang & Moleski, 2010, pg. 30)

The modernist approach to architectural theory which essentially reduced its significance to that of an applied science, resulted in its ignorance of truth and true knowledge, concerned exclusively with the efficient dimension of the material world. (Pruitt-Gomes, 2020, 2002)

The early modernist school of thought championed by the Bauhaus school, Walter Gropius, intended to create a new form of architecture, 'integrated' common sense for functionality and 'orthogonal' geometries. The approach was one of an efficiency of built form to be expressed in a variety of varied out-looks: a simple manner as possible. (Lang & Moleski, pg 5, 2010)

After limited success in achieving its proposed universal utopia in Europe, the modern movement in America had, by the 1930s, been translated into little more than a style adopted by many corporate architects and devoid of the social ideology of its original programme. (Pruitt, 1996)

PERCEPTION PRECEDENT STUDY: UBUNTU CENTRE

Architect: Field Architecture
Function: HIV testing and treatment and community centre
Location: Zwif, Port Elizabeth, South Africa

"Meaning is the fundamental human need." - Kate Nesbitt, 1996

SHAME RESILIENCE THEORY

- Dr Brené Brown [2007]
- people need a purpose
- shame prevents people from making connections
- connections make life meaningful
- meaning in life creates a sense of love and belonging
- love and belonging are fundamental to feelings of self-worth
- therefore the built environment needs to encourage connections | be meaningful to the user's culture, beliefs and needs
- In her Shame Resilience Theory, Dr Brené Brown, explores the recurring themes of shame, vulnerability, authenticity and wholehearted living and their relevance in understanding the nature of addiction and the emotional queues to its treatment. Brown describes shame as an intense fear of disconnection as a result of excruciating vulnerability and places this at the core of most social issues, including substance abuse and addiction. A disproportionate sense of low self-worth is symptomatic of feelings of shame and inherent to the nature of the addict. Brown proposes developing an ethos of empathy to counteract feelings of worthlessness as a result of a lack of a sense of love and belonging, which is a consequence of a sense of life being meaningful. Connection with others and one's place in the built environment gives life purpose and meaning and are essential to wholehearted, emotionally and physically healthy living within it. (Brown, 2007)



THE POSTMODERN PARADIGM OF PHENOMENOLOGY

- Mathematician and Philosopher Edmund Husserl [1900] | Philosopher Martin Heidegger [1971] | a return to phenomena and 'thingness' | and departure from cerebral experience of life | postmodern inclusive approach vs modern exclusive | individually specific vs universally 'utopian' | replacing the body as central to man's experience of the external built environment

PERCEPTION

- Psychologist James J. Gibson [1960] | Peter Zumthor [2006] | universal human perceptual systems | basic orienting | auditory | haptic | smell & taste | visual | emotional | atmosphere is perceived through the emotional perceptual system in response to the nature of the morphology, topology and typology of the built environment



DWELLING

- Christian Norberg-Schulz [1993] | to be at home in a place | four modes of dwelling: natural | communal | public | private | **identity & orientation provide a sense of meaning = love and belonging = worthiness = emotional security** (see SHAME RESILIENCE THEORY) | atmosphere = morphology + topology + typology

SPIRITUAL FUNCTIONALISM

- Christopher Day [1993] | a built environment that satisfies man's soul needs [see Maslow] | physically and mentally rehabilitating | ecologically, socially and economically sustainable solutions
- culturally relevant and specific responses



DWELLING PRECEDENT STUDY: YINGST RETREAT

Architects: David Salmela Architect
Location: Michigan, Michigan, USA

BEHAVIOURISM

- Psychologist Dr John B. Watson | all behaviours are learned through experience of environmental stimuli | positive or negative reinforcement of behaviour perpetuates certain states | regardless of mental or emotional internal state, desired behaviours can be learnt through one's physical environment via the perceptual systems

EMPIRICAL LEARNING

- Walter Lang and John Moleski [2010]
- B.F Skinner [operant conditioning 1937]
- affordances in the built environment give us clues to opportunities for experiencing life and others
- social and physical interactions allow for inherent learning
- positive reinforcement of desirable behaviours for sustained recovery



THE DYSON CENTRE FOR NEO-NATAL CARE

Architect: Fielden Clegg Bradley Studios LLP
Function: Neo-Natal Intensive Care Unit for the Royal United Hospital
Location: Royal United Hospital, Bath

DESIGN DRIVERS

INTERGRATION: Design elements that encourage visual contact, social integration and shared responsibilities.

Acceptance and Pride: The architectural language should embody a new attitude to addicts and addiction treatment without looking institutional or out of place within the context, so as to encourage its discreet use by those not comfortable with identifying with it.

INTIMACY: Access should allow for private and public entry for various functions so as to avoid singling out and potential victimization of patients or visitors to the facility.

Security: Security, especially in the early stages of recovery, is vitally important to the addict and the public in general. It needs to be maintained in a discrete and humane way so that the recovery process is not perceived as imprisonment.

Gender Relations: It is imperative that men and women's sleeping areas are separated and as men and women respond differently to treatment, single-sex meetings need to be accommodated.

STRENGTHENING THE FAMILY UNIT: Single-parent family units should be accommodated, as well as units that may accommodate couples and couples with children.

Resourcefulness (Human, economic and ecological): Human resource limitations are an opportunity to use the expertise of previous guests and other recovering addicts, including those staying at the centre to form a large part of the staff body. This concept of everyone contributing to the daily workings of not only themselves but the facility offers opportunity for a reciprocal relationship where the facility and the guests benefit mutually from it. Similar to the concept of a kibbutz and in line with the principles of social and economic Marxism, everyone's shared efforts reinforce the sense of community and belonging as well as exponentially increasing the efficacy of the therapeutic community.

Skills Development and Empowerment Sustained recovery is more likely should recovering addicts have the tools to become financially as well emotionally independent thereafter. Life skills and parenting classes should be accommodated as well as focused training for the (current) job market. This concept leans to the provision of flexible learning spaces that may allow for a variety of training purposes that can also be opened to the public as a centre for skills development and another source of income for the centre. Thus the facility can contribute to the greater community it forms a part of, becoming a hub of healthy and empowering lifestyle choices.



URBAN DESIGN PRINCIPLES

In-keeping with the concept of rehabilitation, the urban design principles encourage social integration by providing spaces on the street where the community already spend their time, which allow for safe social integration.

The proposal is to remove as many of the parking garages as possible and replacing them with external paved parking areas that are well planted and irrigated and use softer paving materials that are ecologically beneficial and promote children playing on their surface. The intention is to make the user and especially the children intimately aware of their physical environment and thereby encourage them to spend more time in it learning about themselves and their peers in a familiar environment that allows for improved personal knowledge.

The nature of urban environments requires certain functions to allow people to comfortably with each other without going without the spaces they need. The public transport taxi and train and bus stops in the area are maximised but car travel is still essential, but by providing more socially and ecologically sustainable parking spaces they become economically sustainable too.

The pedestrian is given preference as far as possible by widening the pavement and paving the roads and using speed hump pedestrian crossing which slow traffic down and allow the pedestrian a feeling of increased emotional security which improves his self esteem.

It is also proposed to convert the parking areas, many of which are empty on ground-floor of the residential blocks along Diakonia Avenue, into shops, cafes, piazza shops, clothing boutiques etc to stimulate foot traffic and naturally improve the safety and social integration in the area simultaneously helping to curb the dangerous drug community that has developed, by natural and passive surveillance and improved ownership of the street.

PRECEDENT: EXHIBITION ROAD, LONDON



THE DUALITY OF ADDICTION

DUALITY OF THE DISEASE OF ADDICTION - DUALITY OF MAN'S RELATIONSHIP - BOTH PSYCHOLOGICAL AND PHYSICAL WITH THE BUILT ENVIRONMENT -

CREATING A TENSION IN THE BUILT ENVIRONMENT THAT STIMULATES WITHOUT BECOMING CHAOTIC | THAT CALMS WITHOUT BORING | THAT STRUCTURES WITHOUT RIGIDITY



An all-perceptual-systems-go approach; firmly rooted in identifying with the existing social, cultural and temporal contexts and seeking to enhance them; is required to make the built environment and thereby man's life experience, meaningful.

If the built environment can affect the senses it can change perceptions.

URBAN DESIGN AND SITE PLAN SCALE 1:1000

PERCEPTION OF THE BUILT ENVIRONMENT AND ITS IMPACT ON THE PROCESS OF REHABILITATION FROM ADDICTION

A Life-Recovery Facility Durban, South Africa

samantha rouché | 2025/2024

LEVEL 1 - CIRCULATION AND ZONING

PUBLIC CIRCULATION AND FACILITIES

Public access is restricted to within the first third of the building from the street and from within the park. The public facilities act as a buffer between the public and private realms outside and within the heart of the centre respectively.

PUBLIC CIRCULATION AND COMMUNAL AREAS

Public circulation brings visitors immediately to the reception and lift lobby for access to the first floor and includes the communal area which forms a light-well buffer between the rehab centre functions and the public library. The light well opens out to form a courtyard break-out space to cater for larger functions in the lecture hall.

PRIVATE (REHAB) CIRCULATION AND STAFF SPACES

The main circulation space and entry to the rehab is deeper within the building from the entry along Diakonia avenue and helps to keep residents and visitors to the facility anonymous from the street entry. On level 1 administration, medical and processing staff areas are kept to the perimeter.

PRIVATE (REHAB) CIRCULATION AND RESIDENTS' SPACES

Administrative functions occur within the more formal topography of the central and first rehab space while communal and leisure functions are kept to the more informal sections of the facility situated deeper within the park and which offers public leisure functions which connect to the soccer field and activates the quiet south-east corner of Albert Park.

PRIVATE (REHAB) CIRCULATION AND COMMUNAL SPACES

The circulation space is generous and well lit to allow for opportunities for social encounter and interaction. It acts as the internal 'street' in avoiding the feeling of being confined and is punctuated by the communal spaces external and enclosed, which open up from it.

- LEGEND**
- PUBLIC CIRCULATION
 - PUBLIC COMMUNAL
 - PUBLIC THERAPY / TRAINING ROOMS
 - REHAB CIRCULATION
 - REHAB RESIDENTS
 - REHAB STAFF
 - REHAB COMMUNAL
 - SERVICE ACCESS

GROUND FLOOR PLAN
SCALE 1:250

LEVEL 2 - CIRCULATION AND ZONING

PUBLIC CIRCULATION AND FACILITIES

Public access is restricted to within the first third of the building from the street and from within the park. The public facilities act as a buffer between the public and private realms outside and within the heart of the centre respectively.

PUBLIC CIRCULATION AND COMMUNAL AREAS

The public training and NA and AA therapy meeting rooms are accommodated on level 2 and accessed from within the library or off the main lift lobby space with double volume views to the entrance and reception below.

PRIVATE (REHAB) CIRCULATION AND STAFF SPACES

The rehab staff spaces on level 2 include individual therapy consultation rooms which are accessed off intimate courtyards connected to the main circulation route.

PRIVATE (REHAB) CIRCULATION AND RESIDENTS' SPACES

The individual and group therapy rooms are situated on level 2 and within the main administrative building. The residential units on this level are the tertiary family units situated in the lower block and closest to the public leisure functions where reintegration into society is encouraged.

PRIVATE (REHAB) CIRCULATION AND COMMUNAL SPACES

The communal functions on level 1 include the gym which faces south with expansive views to the harbour and park. The central and sacred space which forms the heart of the facility is accessed from across the shared courtyard and is an intensely introspective communal space.

- LEGEND**
- PUBLIC CIRCULATION
 - PUBLIC COMMUNAL
 - PUBLIC THERAPY / TRAINING ROOMS
 - REHAB CIRCULATION
 - REHAB RESIDENTS
 - REHAB STAFF
 - REHAB COMMUNAL
 - SERVICE ACCESS

FIRST FLOOR PLAN
SCALE 1:250

LEVEL 3 - CIRCULATION AND ZONING

PRIVATE (REHAB) CIRCULATION AND STAFF SPACES

On level 3 the most private residential facilities are accommodated away from public access and the busy street and park cafe. Staff accommodation is centred to the rear of the units around a double height garden space.

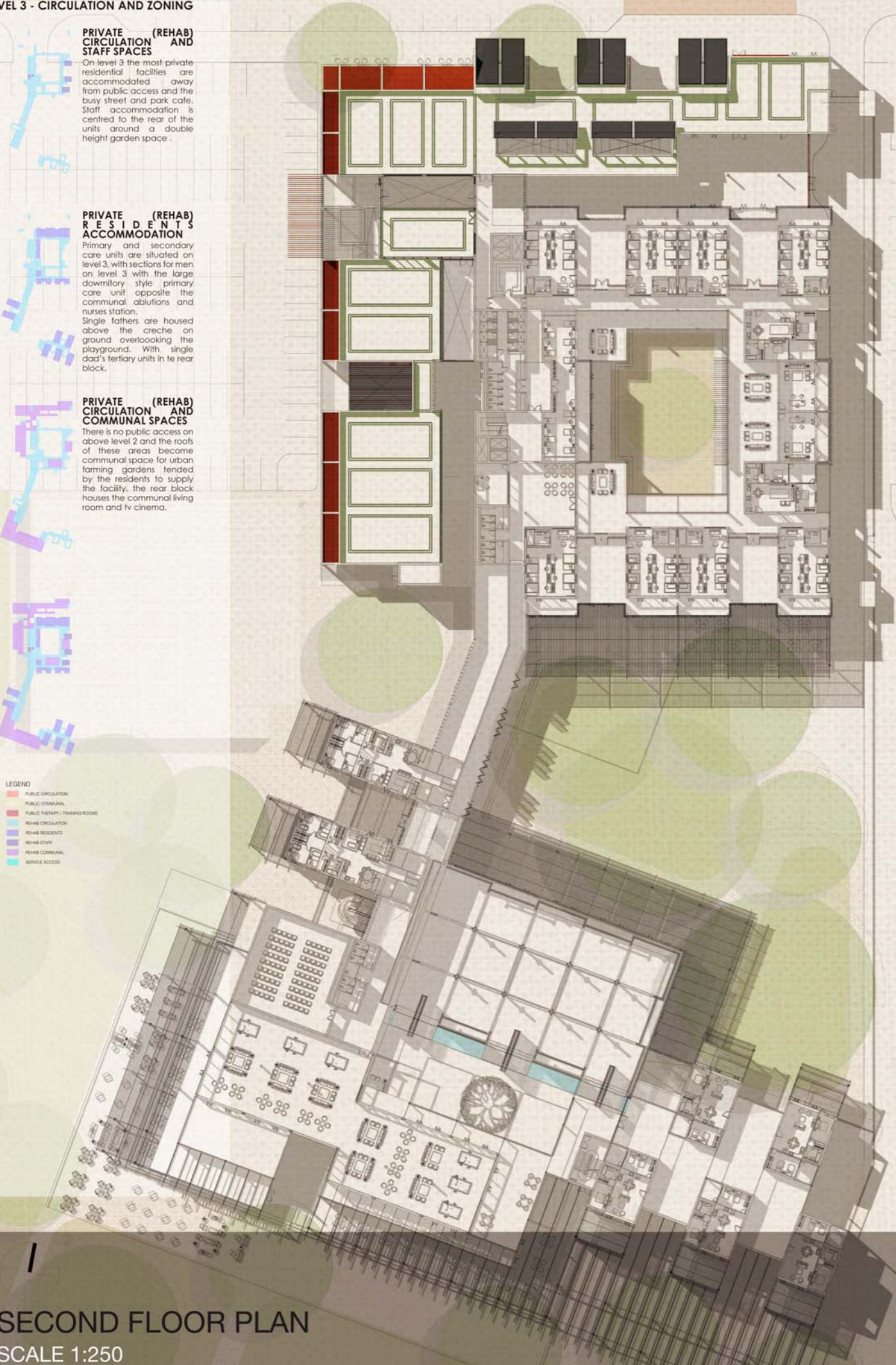
PRIVATE (REHAB) RESIDENTS ACCOMMODATION

Primary and secondary care units are situated on level 3, with sections for men on level 3 with the large dormitory style primary care unit opposite the communal ablutions and nurses station. Single fathers are housed above the creche on ground overlooking the playground. With single dad's tertiary units in rear block.

PRIVATE (REHAB) CIRCULATION AND COMMUNAL SPACES

There is no public access on above level 2 and the roofs of these areas become communal space for urban farming gardens tended by the residents to supply the facility, the rear block houses the communal living room and tv cinema.

- LEGEND
- PUBLIC CIRCULATION
 - PUBLIC COMMUNAL
 - PUBLIC THERAPY / TRAINING ROOMS
 - REHAB CIRCULATION
 - REHAB RESIDENTS
 - REHAB STAFF
 - REHAB COMMUNAL
 - SERVICE ACCESS



LEVEL 4 - CIRCULATION AND ZONING

PRIVATE (REHAB) CIRCULATION AND STAFF SPACES

On level 4 the most private residential facilities are accommodated away from public access and the busy street and park cafe. Staff accommodation is centred to the rear of the units around a double height garden space.

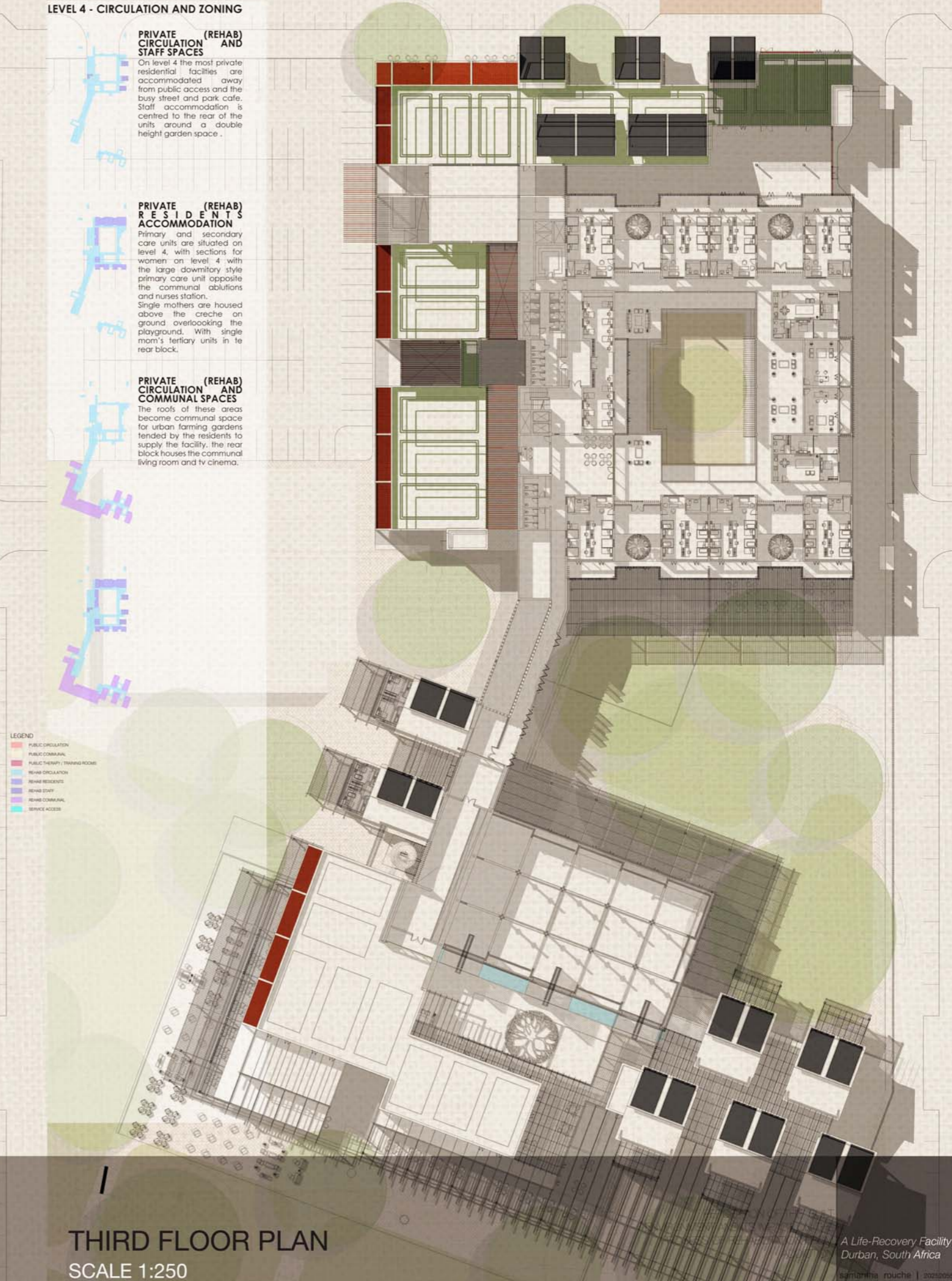
PRIVATE (REHAB) RESIDENTS ACCOMMODATION

Primary and secondary care units are situated on level 4, with sections for women on level 4 with the large dormitory style primary care unit opposite the communal ablutions and nurses station. Single mothers are housed above the creche on ground overlooking the playground. With single mom's tertiary units in rear block.

PRIVATE (REHAB) CIRCULATION AND COMMUNAL SPACES

The roofs of these areas become communal space for urban farming gardens tended by the residents to supply the facility, the rear block houses the communal living room and tv cinema.

- LEGEND
- PUBLIC CIRCULATION
 - PUBLIC COMMUNAL
 - PUBLIC THERAPY / TRAINING ROOMS
 - REHAB CIRCULATION
 - REHAB RESIDENTS
 - REHAB STAFF
 - REHAB COMMUNAL
 - SERVICE ACCESS



SECOND FLOOR PLAN
SCALE 1:250

THIRD FLOOR PLAN
SCALE 1:250



NORTH ELEVATION
SCALE 1:200



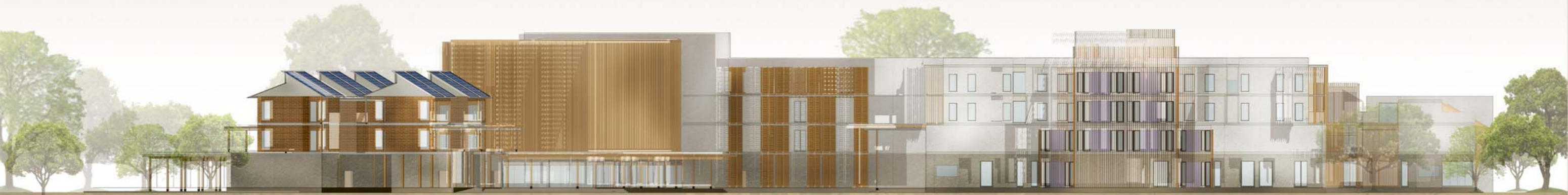
SOUTH ELEVATION
SCALE 1:200



LONGITUDINAL SECTION A-A
SCALE 1:200



NORTH-WEST VIEW



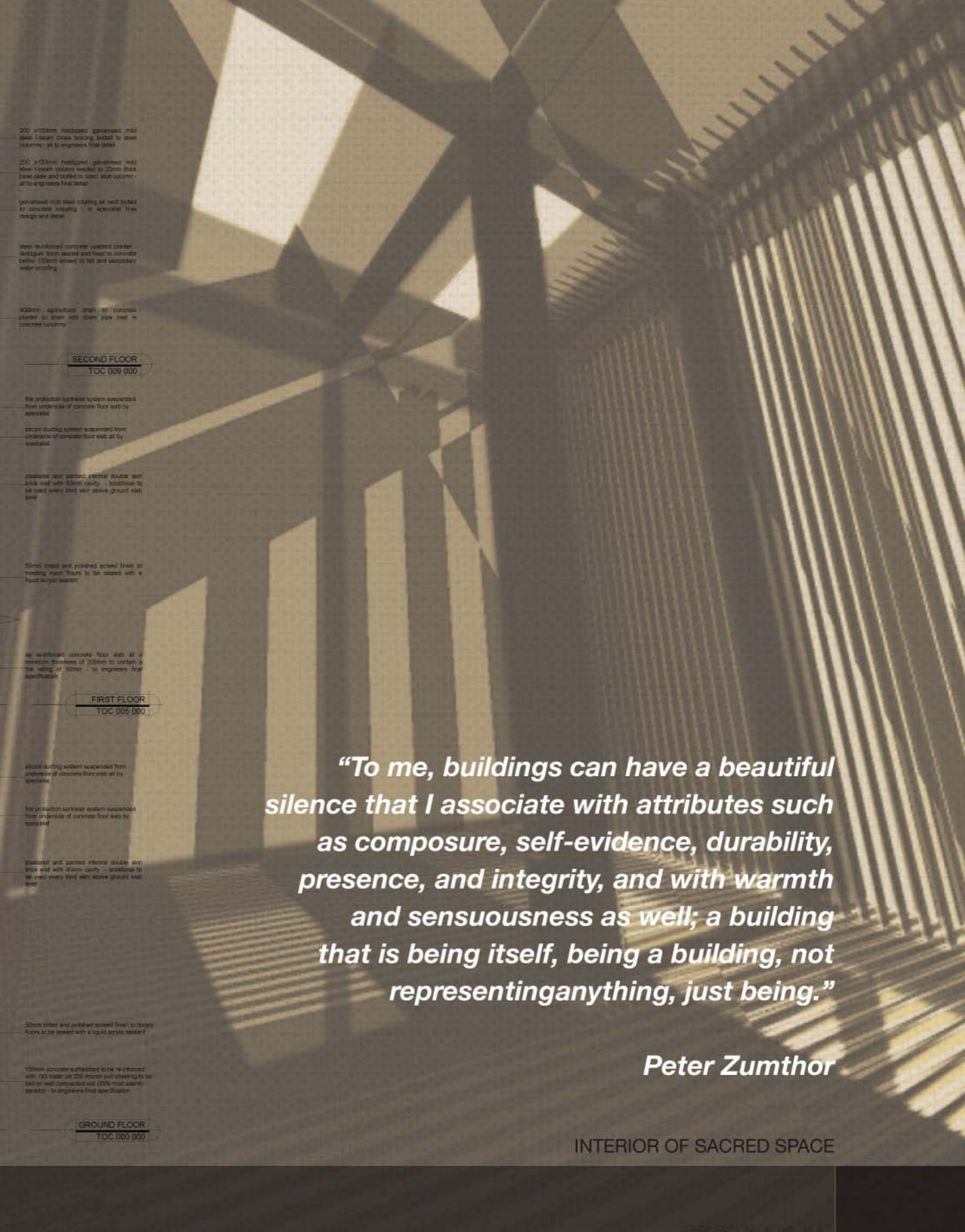
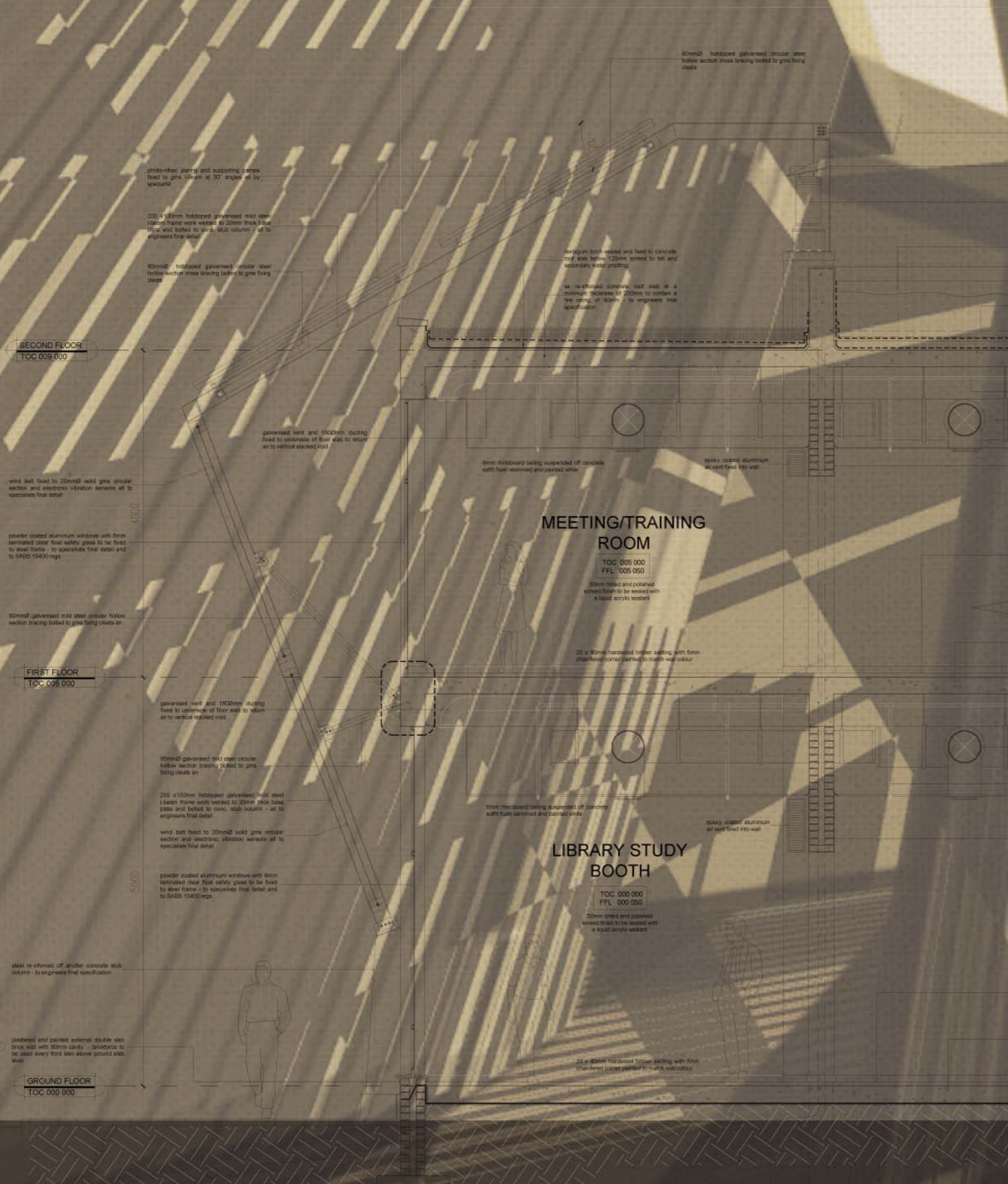
EAST ELEVATION
SCALE 1:200



WEST ELEVATION
SCALE 1:200

1

2



“To me, buildings can have a beautiful silence that I associate with attributes such as composure, self-evidence, durability, presence, and integrity, and with warmth and sensuousness as well; a building that is being itself, being a building, not representing anything, just being.”

Peter Zumthor

INTERIOR OF SACRED SPACE

STRIP SECTION
SCALE 1:20

A Life-Recovery Facility
Durban, South Africa

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APPENDICES

A | Alcoholics Anonymous Literature

A.1 The Twelve Steps of AA

Step 1: Honesty

We admitted we were powerless over alcohol—that our lives had become unmanageable. After many years of denial, recovery can begin when with one simple admission of being powerless over alcohol -- for alcoholics and their friends and family.

Step 2: Faith

Came to believe that a Power greater than ourselves could restore us to sanity. It seems to be a spiritual truth, that before a higher power can begin to operate, you must first believe that it can.

Step 3: Surrender

Made a decision to turn our will and our lives over to the care of God *as we understood Him*. A lifetime of self-will run riot can come to a screeching halt, and change forever, by making a simple decision to turn it all over to a higher power.

Step 4: Soul Searching

Made a searching and fearless moral inventory of ourselves. There is a saying in the 12-step programs that recovery is a process, not an event. The same can be said for this step -- more will surely be revealed.

Step 5: Integrity

Admitted to God, to ourselves, and to another human being the exact nature of our wrongs. Probably the most difficult of all the steps to face, Step 5 is also the one that provides the greatest opportunity for growth.

Step 6: Acceptance

Were entirely ready to have God remove all these defects of character. The key to Step 6 is acceptance -- accepting character defects exactly as they are and becoming entirely willing to let them go.

Step 7: Humility

Humbly asked Him to remove our shortcomings. The spiritual focus of Step 7 is humility, asking a higher power to do something that

cannot be done by self-will or mere determination.

Step 8: Willingness

Made a list of all persons we had harmed, and became willing to make amends to them all.

Making a list of those harmed before coming into recovery may sound simple. Becoming willing to actually make those amends is the difficult part.

Step 9: Forgiveness

Made direct amends to such people wherever possible, except when to do so would injure them or others.

Making amends may seem like a bitter pill to swallow, but for those serious about recovery it can be great medicine for the spirit and soul.

Step 10: Maintenance

Continued to take personal inventory and when we were wrong promptly admitted it.

Nobody likes to admit to being wrong. But it is absolutely necessary to maintain spiritual progress in recovery.

Step 11: Making Contact

Sought through prayer and meditation to improve our conscious contact with God, *as we understood Him*, praying only for knowledge of His will for us and the power to carry that out.

The purpose of Step 11 is to discover the plan God as you understand Him has for your life.

Step 12: Service

Having had a spiritual awakening as the result of these Steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

For those in recovery programs, practicing Step 12 is simply "how it works."

Service Material from the General Service Office of A.A. World Services, Inc.

Source: www.aa.org

A.2 The Twelve Traditions of AA

1. Our common welfare should come first; personal recovery depends upon A.A. unity.
2. For our group purpose there is but one ultimate authority—a loving God as He may express Himself in our group conscience. Our leaders are but trusted servants; they do not govern.
3. The only requirement for A.A. membership is a desire to stop drinking.
4. Each group should be autonomous except in matters affecting other groups or A.A. as a whole.
5. Each group has but one primary purpose—to carry its message to the alcoholic who still suffers.
6. An A.A. group ought never endorse, finance, or lend the A.A. name to any related facility or outside enterprise, lest problems of money, property, and prestige divert us from our primary purpose.
7. Every A.A. group ought to be fully self-supporting, declining outside contributions.
8. Alcoholics Anonymous should remain forever nonprofessional, but our service centres may employ special workers.
9. A.A., as such, ought never be organized; but we may create service boards or committees directly responsible to those they serve.
10. Alcoholics Anonymous has no opinion on outside issues; hence the A.A. name ought never be drawn into public controversy.
11. Our public relations policy is based on attraction rather than promotion; we need always maintain personal anonymity at the level of press, radio, and films.
12. Anonymity is the spiritual foundation of all our Traditions, ever reminding us to place principles before personalities.

Service Material from the General Service Office of A.A. World Services, Inc.
Source: www.aa.org

A.3 The Spiritual Principles of AA

1. Surrender. (Capitulation to hopelessness.)
2. Hope. (Step 2 is the mirror image or opposite of step 1. In step 1 we admit that alcohol is our higher power, and that our lives are unmanageable. In step 2, we find a different Higher Power who we hope will bring about a return to sanity in management of our lives.)
3. Commitment. (The key word in step 3 is decision.)
4. Honesty. (An inventory of self.)
5. Truth. (Candid confession to God and another human being.)
6. Willingness. (Choosing to abandon defects of character.)
7. Humility. (Standing naked before God, with nothing to hide, and asking that our flaws in His eyes be removed.)
8. Reflection. (Who have we harmed? Are we ready to amend?)
9. Amendment. (Making direct amends/restitution/correction, etc..)
10. Vigilance. (Exercising self-discovery, honesty, abandonment, humility, reflection and amendment on a momentary, daily, and periodic basis.)
11. Atonement. (Becoming as one with our Father.)
12. Service. (Awakening into sober usefulness.)

Service Material from the General Service Office of A.A. World Services, Inc.
Source: www.aa.org

B | Questionnaires

B.1 Quantitative Questionnaire

Participants: 50 Recovering Addicts at the Redhill AA, Malvern NA and Musgrave NA meetings

Age: 18 -25 26 -35 36 - 45 46 -60 60 +

Race: Asian Black Coloured Oriental White Other

Spiritual Orientation: Atheist Buddhist Christian Hindu Islamic Jewish Other

Gender: Male Female

Marital Status: Single Married Divorced Widowed

Children: 0 1 2 3 4+

Where do you live?

Have you ever been homeless?: Yes No

Education Level: No formal schooling Junior School High-School Tertiary Education

Is your education level preventing you from getting the job you want?: Yes No

Employed: Yes No

How do you support yourself?: Self-supporting Family support Community support
Government support

How many years since you first realized you were an addict?

Why did you seek recovery?

How many times have you been to rehab?: 0 1 2 3 4+

If 0, why didn't you go to rehab?

How many times have you relapsed since you started recovery?: 0 1 2 3 4+

How many years since your first stay in rehab?

About how much has rehab cost you in total?

Do you think rehab has helped you stay in recovery?

Do you think rehab is an important part of recovery?

Does your community support your recovery?: Yes No

Does your family support your recovery?: Yes No

Do you feel proud to be seen going to rehab or meetings?: Yes No

One word to describe how your rehabs made you feel?

Did you have a single defining moment that changed your recovery?: Yes No

Was it spiritual in nature?: Yes No

Do you think rehabs should have skills training and education courses?: Yes No

If yes, what type of training?

Do you think rehabs should offer parenting and family skills classes?: Yes No

Is fellowship important to your recovery?: Yes No

Do you feel comfortable sharing in a mixed-gender group?: Yes No

Would you prefer a single-sex rehab or meeting?: Yes No

Where would you prefer to go to rehab?: In the city In the suburbs In the country Near
to my house

What keeps you in recovery?

B.2 Questionnaire for Journalists

Participant: Jackson Mutie

Position: Journalist at Independent Newspapers, KwaZulu-Natal

1. Where are the worst affected areas of drug use, abuse and trafficking in the greater Durban Area?
2. Why are these areas so vulnerable? 3. Is drug abuse in these areas due to social or economic issues?
4. What facilities or organisations exist at the moment, to help addicts who want recovery, in these and other areas in and around Durban?
5. What are the main reasons, that you've found, why an addict will not or cannot go to rehab?
6. How do you think these can be overcome?
7. What is, in your experience, the most important physical or psychological aspect to helping an addict recover?
8. How do you think this may be encouraged or discouraged by the person's surroundings?

C | Personal Interviews

A single interview schedule was not used for the personal interviews, as each were conducted based on the information specific to the individual.

C.1 Adrie Vermeulen

Professional Position: Director of SANCA Phoenix House, Sophiatown, Johannesburg, South Africa

Qualifications: BA Soc SC (RAU) and MA Occupational Social work (WITS)

Date: March 2013

Time: 10:30-12:00

Venue: SANCA Phoenix House, Sophiatown, Johannesburg

What is the official stance on subsidies for addiction rehabilitation centres?

What issues with stigma have you come across in your work?

Are there any government initiatives aimed at mitigating addiction and the social stigma of addicts?

Do you think that is something that is a symptom of the post-apartheid city that we're faced with in SA today?

What is Welkonol?

What are the practical measures you have in place in those communities?

Do you think it would be valuable to include education and skills development in the treatment programme for those addicts unable to support themselves?

Why that amount of time ?

It seems like the current offerings aren't going far enough to tackle the disease after rehab.

What do you think can be done to change it?

Do you think that there's space within in a centre for very vulnerable people, that there is a designated area for quite public access and treatment? Do you think that is possible, or would it compromise the addicts recovery?

How do you deal with drugs getting in?

What is the 'Therapeutic Community'?

What would you suggest as a minimum stay?

Do you find women effected very differently to men?

I get the impression there are a lot more men in recovery?

Why is that?

I wonder if there is space in the rehab typology for rebuilding the family structure which seems to be one of the major psychological factors causing addiction? Do you think there's space for accommodating and rebuilding entire families?

So would you suggest separating men and women and having a facility for families and single mothers with children?

Do you think shifting the focus of rehabs to women, would better use the limited resources available with greater effect?

It seems realistically, the triggers in the urban environment are just too powerful for the recovering addict to overcome would you agree with that?

Are the people coming to the centre now far different to those coming when you were in Mellville?

Where does South Africa sit in the world drug/alcohol picture?

What leisure facilities do you have?

How does the spiritual aspect impact treatment?

How do you facilitate stepwork for people who can't read and write?

What facilities are offered here?

Do you limit the size of meetings?

The staff accommodation and administration?

What guest accommodation do you offer?

How can a rehab be self-supporting?

C.2 Judith Gordon-Drake

Professional Position: Social worker, in private practice and treatment professional in the National Responsible Gambling Programme

Qualifications: B Soc Sc (UND), BSW (UNISA) and currently completing a Clinical dissertation titled: An Assessment of the Resilience in Clients in an Addiction Treatment Programme

Date: 22 March 2013

Time: 14:30 - 15:30

Venue: SHARP Rehabilitation Centre, Oaklands, Johannesburg

My question is whether the architecture and location of the rehab can have a positive impact on the process of recovery from addiction?

So the idea then is that the environment therefore has to contribute to the recovery from the disease?

Is that reintegration key in maintaining recovery after rehab?

Do you think that the longer stay could make reintegration more difficult? Because the person is essentially a quite abnormal life?

Do you have daily meetings?

Do you think addicts don't seek recovery because of feelings of shame?

What impact do you think, perception of their environment has on the recovery of an addict?

Do you think it's possible to be in those places without there being those associations? Do you think it's possible to reassociate those spaces with healthier attitudes?

Do you find that the further into recovery the easier it is, or is it just *always* better to avoid those people, places, things and thoughts?

What do you think is an effective treatment method? And how does the faith-based approach impact that?

Is it necessary to have a rehab for each different type of addiction, drugs, alcohol, sex, pornography, gambling, etc?

So one rehabilitation centre serves all?

How is addiction counselling and psychotherapy different?

Would you say that it's more introspective than therapy?

How prescriptive is the therapy?

Do you find families struggle to come to terms with the disease?

Do you think that has anything to do with race?

How is that effected by funding those people who can't afford rehab?

What would your response to an urban rehab be?

So your perception of the clinic was coloured by your childhood experiences which you had positive associations with?

How do you think the environment can impact?

How does the therapeutic community impact on recovery rates?

What is the accepted recovery rate of rehabilitation facilities?

What are you dealing with in your dissertation?

Do you think there is a place for education and empowerment in the rehab facility?

It seems to be leading to the sacred qualities of architecture that encourage introspection and self-contemplation?

C.3 Professor David Spurrett

Professional Position: Professor of Philosophy, School of Religion, Philosophy & Classics, UKZN (Howard College).

Qualifications: BA., BA(hons), MA, PhD (philosophy) University of Natal.

Date: 3 April 2013

Venue: Naughty Nineties, Churchill Road, Durban

What I've observed is that these pristine, isolated and tranquil areas tend to be very different from the addict's usual environment and that this may make the transition from rehab to normal life difficult at the most vulnerable time in recovery?

What do you believe are the links between the built environment and rehabilitation?

Do you think there is a place for the numinous in addiction treatment?

I've tried to look at ways the built environment can encourage introspection.

Existentialism?

Since isolation is a massive part of the origin of addiction?

Is it reasonable to think removing yourself entirely from all of those triggers you're isolating yourself from a majority of those social situations where you would normally live your life?

Yes, instead of completely dislocating from your normal environment? Is it feasible to think you can reassociate the environment with healthy activities?

I wonder then if that proximity to healthier options within the same environment would actually outweigh the choice of the unhealthy options?

How does gambling addiction compare with other addictions in South Africa?

Recovering addicts general consensus is that recovery rates are at 3%?

So to say 5% of the world's population seems conservative at best? That brings up the whole gender discrepancy where a lot more men admit they're addicts compared to women.

Do you think there's merit in single sex rehabs? Or does that risk intensifying the stigma of female addicts and increasing the social isolation?

C.4 Aldine

Date: 7th May 2013

Time: 19:30-20:30

Venue: The researcher's residence

What is your opinion on the usefulness of the 12-step programme to non-addicts as well as addicts?

How is the 12-step programme helping in other parts of your life besides addiction? And do you think it could benefit non-addicts as well?

How is a non-addict different in that way?

Do you think the idea of the therapeutic community and learning from others has made a substantial difference to your recovery?

How do you feel about the importance of rehab to the recovery process?

How do you think one's perception of themselves, their identity and place in the world is effected by the disease?

How has the programme helped you to become the person you want to be? And what part of the programme helps you stay 'on track'?

Why is it so important to avoid giving your opinion and instead guiding your sponsee through recounting your own experiences?

How do you feel about the approach of using medication as a treatment method?

Through my research I've found a huge discrepancy in the number of women in recovery and rehab, why do you think there is such a big difference in the numbers?

You've spoken about this idea of your soul being wounded, of having a crack in it, please tell me about that?

Would you say they play the 'victim card' as a justification for all the things they knew they shouldn't be doing?

How did your addiction impact your life? What was your rock bottom?

What does shame mean to you?

How do you find meditation and silence helpful?

Do you find socializing in and out of the rooms with addicts and non-addicts has changed the longer you've been in recovery?

What is the 90 meetings in 90 days?

Why did rehab work for you where it hasn't for others?

What are the 12-Steps? How does the programme work in changing your perception of yourself and your world? Of correcting your 'warped perception'?

How has the programme helped you live in the moment?

It seems like there is a lot of emphasis on spiritual transformation and your higher power, which I appreciate but there are a lot of people who would not be comfortable with that. How have you found that?

How do you think rehabs can accommodate people who can't afford it? How could they become self-supporting?

Is there ever a point where you are not conscious of being in recovery?

Why is that? Please explain what you mean by addiction being a progressive disease?

Is that heroin?

Can you imagine ever going back there? Ever relapsing?

Would you say that's why children of addicts often become addicts themselves because they, from a young age are isolated or they are not shown the love?

What social problems have you seen are caused or cause drug addiction?

The four rehabs I saw in Johannesburg do a maximum 6 week stay, where as the two I have spoken to in Durban have a minimum of 3 months. How long do you think could be an ideal stay in a rehab if money were not an issue? Money and time and all of those things were not an issue?

How do you think community support for rehabilitation centres affects recovering addicts?

How did your old lifestyle encourage your addiction?

My impression is that the spiritual principle powerlessness, the higher power and the sense of community are the two, the sort of backbone of recovery. How do you prioritize them?

Did you have an a-ha moment? That one spiritual breakthrough or that one realization?

It seems to be doing the job that a lot of religions used to do and a lot of traditions and cultural traditions used to?

Practical ways to live?

C.5 Clint

Date: 8th May 2013

Time: 19:30-20:30

Venue: The researcher's residence

I'm approaching this interview quite loosely. I'd like you to tell me what you want to share with me, the points you feel are important in my understanding of the nature of this disease, it's possible origins and its possible solutions. So let's start with the survey questions and go from there.

What's your spiritual orientation?

Have you ever been homeless?

Was there anything specific that made you feel like you wanted to escape?

How old do you remember all this happening?

How old were you when started selling drugs?

How do you think that's affected your perception of relationships?

Why did you see her as your way out of poverty?

How old were you when you went to jail?

How were you able to behave like that? And at such a young age?

Then why are there so many people in recovery who have never lived on the streets, who don't come from bad homes and still abuse substances?

So you're saying taking drugs allows you to live comfortably in the now without feeling guilty about the past worrying about the future, then how does 12-step programme relate to being in the now?

So it's the same result but teaching people how to get there without drugs?

So your body's come to the point where it needs the substance to continue?

So then how do you get off it if it's gone so far physically?

Did you ever try going to a psychologist or psychiatrist?

Could you not say that we all have moments like that in our lives?

I've often heard insanity referred to in the meetings, what exactly do you mean when you say insanity?

Why did you do that?

Why didn't you get a job?

Were you ever scared? To live on the streets and find drugs?

You're a whole other person now. For 30 years you lived that kind of life and in 3 years you've turned your life around to the extent you have.

Alright, but then why are you not doing the same thing? How did you find recovery and how are you bringing up your son the way you are?

Is it all the power of the 12-step programme?

Do you find recovery hard to do? Even at first?

Did you feel powerless when you were young and when you were using?

I realise it may be difficult to answer this, but if there was one thing you could have changed to prevent you going down the path of drugs in your life, what would it be?

By surviving you mean getting drugs, getting your next fix?

What role does the fellowship play in your recovery and in your life?

Do you think the 12-Steps would be valuable for children to learn at school?

Do you think it would be possible having a rehab that had an out-patient facility open to the public and included non-addicts as well?

What if you could go to life-skills classes, adult-learning classes, parenting classes etc?

In the surveys only 4% of people wanted to be in a single sex rehab or meeting. Why do you think that is if people know how distracting to recovery those urges can be?

I'm quite surprised at the small number of African people at the meetings and the rehabs why is there such a difference?

What are the most important things to your recovery?

So how does that work when you consider that addicts are running rehabs like the one you went to?

So that is all about the therapeutic community where older members help newer members by sharing their experiences and listening?

How do you think fellowship helps your recovery?

How long did you stay in rehab each time?

What do you think is the most effective length of time?

Is self-esteem and setting personal boundaries difficult for you?

Why is routine so important to you?

So what do the people who don't have the education and skills to get jobs and to have that routine? What are those people doing all day? What do you think you'd be doing if you had not started work?

C.6 Keith Wilkes

Position: Recovering Addict, Addiction Counsellor, Co-founder and Co-owner of Cedars

Date: 16th May 2013

Time: 9:00-10:00

Venue: Cedars Rehabilitation Centre, Dududu, Scottburgh

How did you get to this point in your recovery and to owning and running a rehab?

Do you think the 12-step programme a guide that could help everyone?

So you don't think non-addicts can benefit from it?

What about the location and the property made you decide to situate Cedars Rehab here?

What is your approach to therapy offered?

What is the average day?

What is the connection between therapy and physical activity?

Are there any mandatory physical activities or duties?

Are those all geared towards learning responsibility and self-discipline?

There seems to be an ethos of contributing to the well-being of everyone as opposed to rigid enforcement of rolls and duties?

My impression is that forced responsibility is unhelpful and often met with resistance?

So that core of support is a major thing?

What is the usual length of stay?

I've seen places that offer 21 days and it seems quite short, do you think it's effective?

How do you think addiction treatment can be improved to increase recovery rates?

Why is that?

Where does shame feature in the seeking of help? Or does it feature at all?

Do you find that people aren't aware of the actual extent of damage drugs and alcohol can cause?

So that community is key to recovery?

So the step work is the work that you do yourself and the community is your group work and those are essential for sustained recovery?

How does the family structure fit into the rehab scenario? Do you think there's space for the accommodation in the workings of a rehab facility?

And child therapy?

What role does the family play in the recovery process?

With regards to using a variety of different therapeutic approaches as compared to a strictly 12-steps approach as is the case here, how do you think the two approaches compare?

What is your opinion of rehabilitation centres being run by recovering addicts who have trained professionally as opposed to professionals who are not recovering addicts?

What does your primary care process entail?

Why are prescription drugs so difficult to treat?

I understand the worst withdrawal and most life endangering is when you're coming off alcohol. How do withdrawals from the various substances differ?

Why is that? Has it got to do with the length of time the body can sustain consuming those substances without failing?

C.7 Focus Group

Qualitative Analysis of Quantitative Study Results

Participants: Recovering Addicts - Aldine, Clint, Gabby, Laura, Nick and Simon

Date: 16th May 2013

Time: 19:30 - 22:30

Venue: Primi-Piatti Restaurant, Musgrave Road, Durban

Why have the results shown the majority of recovering addicts are European which is contradictory to the current demographic of the province?

Where are the worst affected areas for drug abuse and trafficking in Durban?

Why is it that a lot of the guys who go to the Redhill and Malvern meetings also go to the Musgrave meeting on a Friday night whereas there are very few people from the Musgrave meeting who go to either of those?

I was wondering if the Friday meeting is more popular because it's conveniently located so more people will go?

What do you mean by comfort zones?

Why were there no African respondents?

How much do you think culture impacts becoming an addict and then whether a person will look for recovery?

Do you think language is a barrier, in the meetings you go to?

What are the elements of the physical environment that make you feel calm, like looking at natural materials, looking at a lot of light, natural ventilation etc?

What kind of facilities a rehab can include to make it work, to allow for people to live on the premises, who are recovering addicts but have become counsellors?

Do you think recovering addicts who become counsellors and psychologists are a good or bad idea? It seems just taking the idea of a sponsor one step further.

Where do you think education and skills development, parenting and life skills can fit into the rehab model and is that's even feasible or just not really on the cards at all?

Why have the recovery rates dropped so much and so steadily since AA started?

So what's the difference between a person who manages to stay in recovery and someone who relapses?

What reasons would you give for the huge difference between the amounts of men and women at the meetings?

Then how do you treat women within the framework of the 12 steps?

Why are the recovery rates between rehabilitation centre stays and only attending meetings so similar?

Especially considering the majority said rehab had helped them stay in recovery?

Why do you think almost all of the respondents not ashamed to be seen going to meetings or rehab?

What do you think about rehabs offering skills training and education as part of their recovery programmes?

Do you think rehabs can empower people and whole communities?

So the 12 step programme and the education and skills development needs to be quite separate?

So it may work in a facility that offered primary, secondary and tertiary care as part of the tertiary care section?

A lot of people can't give a year of their lives, if they're working or have families etc, so maybe the skills development and education part of the centre operates on an out-patient basis where people don't have to stay to make use of it?

Does the Kibbutz model risk becoming so isolated that never needs to look outside of itself?

Where should rehabs be located? Why?

If you could have improved your rehab experience what would you want to be done differently or added?

How do you feel about a dedicated silent space when you can just spend time sitting in silence whether you're meditating or not?