

# 02. Theoretical Investigation

## Introduction

This chapter investigates and synthesises established theories on the human experience of space, specifically relevant in the design of an environment that promotes healing. The investigation aims to identify universal design aspects that should be incorporated in the creation of healing environments for people in crisis, specifically in reference to the design of a homeless shelter.

*“Healing is a process that can only take place from within ourselves, but this process can be triggered and supported by things and actions outside us. We can, therefore, talk about healing environments and healing qualities of environments” (Day, 1990: 138).*

First the importance of the **role of place** in health experiences is discussed. Then, the qualities of a **healthy environment** that will not contribute to crisis are overviewed. Next, the **human experience of space** is summarised and it is found that although individual experience does shape perception, many experiences are universal and can aid in the healing process. Following this, is a synopsis of universal **environmental aspects** that contribute to a positive experience of space and to the process of healing. These aspects are discussed in terms of the **senses** and features such as light, peripheral vision, colour, touch, sound, smell and taste. Factors such as meaning, materiality and variety are also included. Subsequently the **experience of home** and homelessness is discussed. Furthermore, **healing environments** for people in crises, particularly the homeless, is investigated through examining **specific design strategies** employed by a number of precedents. Finally, conclusions are drawn from the investigation and universal design aspects that should be incorporated in the creation of a healing environment are identified.

There has been a revival in the understanding of the **importance of the role of place in health experiences** since the early 1990s and the influence of place characteristics has come into the spotlight (Macintyre, Ellaway & Cummins, 2002: 127). The studies discussed below show the influences that a particular place can have on the health of its inhabitants. Similar population groups do tend to live in similar areas, but even when taking this into account, the features of a place have an effect on health and wellbeing. Mahnke states that the positive influences of “correct environmental conditions” can be dramatic (Mahnke F. & Mahnke R., 1987: 97). Individual behaviour does have a great effect on health and wellbeing but it is not a solitary contributor. According to Macintyre, most research on this topic usually concludes with “where you live matters for health, although probably not as much as who you are” (2002: 128). Studies focusing on individualism have indicated that unhealthy individual lifestyles have an undeniable connection to low income, low education and low socioeconomic status (Lindström, Hanson & Östergren, 2001: 441). However, Lindström also states that improvement of the social environment, namely, social capital and social cohesion, has a positive effect on public health (2001: 449).

WHAT ARE UNIVERSAL DESIGN ASPECTS THAT SHOULD BE INCORPORATED IN THE CREATION OF HEALING ENVIRONMENTS?



Figure 2.1: Summary (Author)

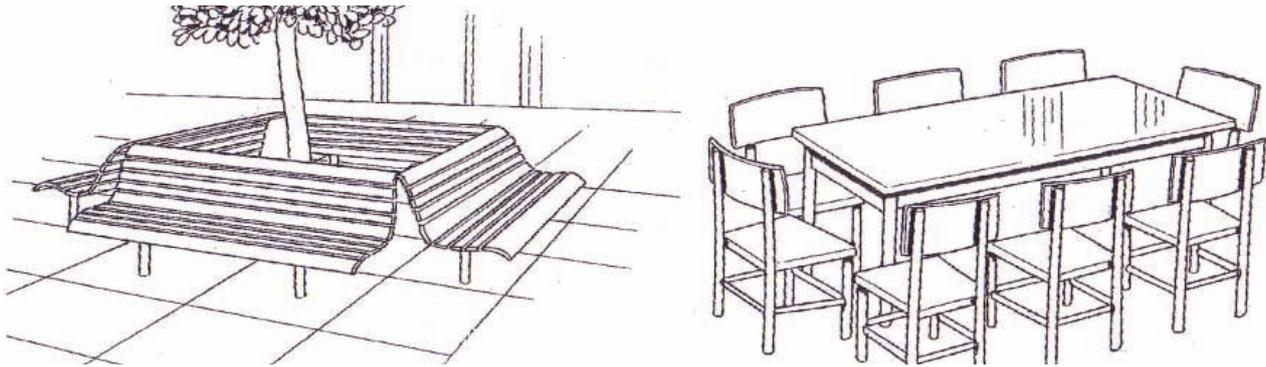


Figure 2.2: Image illustrating the effect of design on socialisation: benches placed around a tree do not encourage socialisation; whereas chairs placed around a table encourage group activities (Cave, 1998: 97).



Figure 2.3: Environment and social capital is as important as individual behaviour on wellbeing (Author).

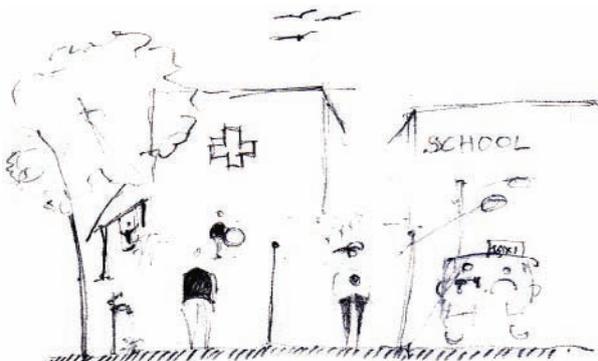


Figure 2.4: Material Influences (Author)

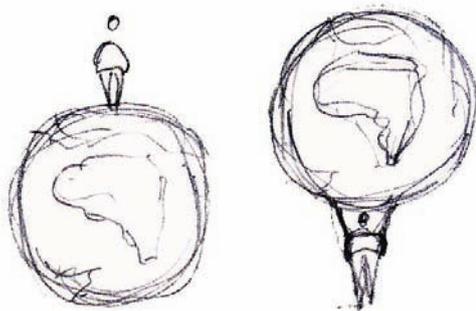


Figure 2.5: In order to create a healing and healthy environment, the environment must first be conserved (Author).

According to Macintyre, both collective social functioning and material infrastructure have an influence on health, be it physical or mental (Macintyre, 2002: 125). However, she states that there is a lack of adequate measurement tools to determine the effects of a place on wellbeing and functioning. She suggests a few reasons for this. Firstly “place effect” often seems to be thought of as having a mystical, indefinable influence that cannot be understood. Secondly, through the improvement of statistic gathering, researchers have been able to analyse and focus on individuals and less on the environment in which the individuals live. This means that individual lifestyle choices have become the focus for current studies on health. This idea of individualism developed out of the political resurgence of neo-liberalism in the 1980s in North America, as well as some developed countries around the world. This ideology was expressed through Margaret Thatcher’s statement “there is no such thing as society, there are only individuals” (1987). There has been a considerable amount of research done on the impact of social satisfaction on human health, however it has predominantly been focused on the individual rather than on individuals’ environments, be it physical or social. Lindström pleads for a shift in focus from “individual risk behaviour to patterns of civil and social engagement” (2001: 449). He goes on to say that improving the physical environment will result in an improvement of public health and wellbeing. A new movement of thought has started to resist the idea of individualism. “The new public health” is attempting to return the focus of theorists “towards structural and environmental influences on health and health behaviours”. The ideologies of “the new public health” in fact stem from the nineteenth century efforts to “clean up the dirty cities” realising that individual lifestyle was not the only contributor to ill health (Macintyre, 2002: 127). Individual health behaviour cannot be comprehended without taking the environment into consideration (Berkman, Kawachi, 2000: 336).

## Healthy Environments

Before we can discuss the healing possibilities of an environment, it is important to understand the qualities of a healthy environment that will not contribute to crisis. According to Macintyre there are two aspects of a healthy setting, namely: material features of the surroundings and psychosocial features of the population (Macintyre, 2002: 131). Material aspects relate to physical amenities such as houses and sport facilities. Psychosocial features relate to social cohesion, collective efficacy and empowerment. These aspects fall into five types of characteristics of a place that promote health and wellbeing:

Material Influences (figure 2.4):

1. *Physical features*: these relate to the most basic necessities of human wellbeing, namely unpolluted air and clean water.



2.6



2.7



Figure 2.6-8: Some socio-cultural features: politics, religion and identity (Online).

2. *Healthy environments at home, work or play*: this includes the provision of: safe controlled work environments, inclusive housing and secure, clean recreation areas.
3. *Services*: for example health, education, policing, transport, street cleaning, lighting and welfare services.

#### Collective Social Influences:

4. *Socio-cultural features* (figure 2.6-8): these include the norms and values of the community's economic, political, religious and ethnic history. This also relates to systems of community support and community integration and to the intensity of crime and threats to personal safety.
5. *Reputation*: this relates to the identity of a place, in other words, how it is perceived by the residents and outsiders. This influences the self-esteem and morale of the residents, who make choices as to whether to move to or away from the area, which may have a ripple effect on the infrastructure (Macintyre, 2002: 131).

Day (1990: 30) also emphasises that in order to create healing and healthy environments, they must be designed from an ecologically responsible stand point. This includes not only limiting the effects of buildings on the surroundings but also the effects on the occupants. He also writes that it is a well established fact that producing environmentally responsible energy is more costly than simply conserving it, through responsible design (1990: 33). Decreasing negative effects on people's health can easily be achieved through simple additions, for example, a water fountain in an outdoor space in the city can freshen air and reduces air pollution caused by exhaust-fumes in those areas (1990: 35).

In conclusion, when considering a healthy environment, it is important to note what the basic needs are, specific to the area. For example, in some areas of Africa a bicycle is the main form of transportation where as in North America it is mainly a recreational plaything. Although basic human needs are universal, e.g. transport, their realisation, e.g. is specific to a given society (Macintyre, 2002: 133).

**THERE ARE TWO ASPECTS OF A HEALTHY SETTING, NAMELY: MATERIAL FEATURES OF THE SURROUNDINGS AND PSYCHOSOCIAL FEATURES OF THE POPULATION.**

## The Experience of Space

It is true that people's individual experiences shape the way they perceive their environments although many experiences are universal and can aid in the healing process.

*"In this world we do not see things as they are. We see them as we are, because what we see depends mainly on what we are looking for."*  
Sir John Lubbock (1834-1913).

Day (1990: 23) suggests that although everyone has unique associations and preferences there are some physiological effects, that will be discussed, to which no one is immune. He states that there are many qualitative aspects of our surroundings that have a universal effect. Day (1990: 23) also views the human experience of space through the understanding that human beings have four levels of being, namely body, life, feeling and moral individuality.



Environments have the ability to either allow these four levels of being to be balanced or unbalanced (Day, 1990: 23).

Rowles (1980: 58) suggests that there are four interconnected experiential modalities: action, orientation, feeling and fantasy. Investigating space experience through these four aspects aids in the understanding thereof and ultimately, aids in the creation of meaningful spaces.

The first aspect is action, which refers to movement within a physical setting. Rowles (1980: 58) defines three distinct levels of action. The first relates to immediate actions within a proximate physical location, for example, answering a telephone in one's own home. There is a certain level of control over the environment of one's home, for example, disabled or elderly people will rearrange their homes, positioning objects that are used often close to them. Here it should be noted, that although homes do provide some level of control, the design of housing should allow for even further flexibility. The second level of action refers to the larger movement of daily activities, for example going to the shops or visiting friends. Here individual circumstances play a large role on these actions, for example, elderly and disabled people will be more restricted in this movement. Other circumstances that can effect people's movement are, for example, how safe the neighbourhood is and other considerations of the broader environment. A neighbourhood with a high incidence of crime might prevent people from moving around at night or alone, where as a well-lit city street with an abundance of activity and passive surveillance might improve the situation. For people in abusive relationships, actions might be limited by the partner preventing contact with friends and family, leading to isolation and loss of self-worth. The third level of action relates to long distance trips for holiday or business and this action is encouraged or limited by resources.

Orientation refers to "mental representations of physical-social space providing orientation within a 'known' world" (Rowles, 1980: 58). This refers to psychobiological orientation, which is a preconscious sense of up and down, left and right, and back and front. Within the known world, surveillance zones are formed which occur when residents can look out at the neighbourhood and learn the rituals of neighbours and know if someone belongs there or not. This changes the neighbourhood from a physical space to a social space, offering security. Rowles (1980: 59) states that the knowledge and understanding of ones surroundings leads to a "sense of partial control" which aids in the process of healing and empowerment.

The next level of experience is feeling. This is the experience of a place that has a significant meaning. Feelings are infused within places, which in turn, evoke feelings and become symbols aiding in the creation of individual identity (Rowles, 1980: 60). These spaces could have shared meaning which fosters a mutual sense of community and belonging.

The last modality of environmental experience is fantasy (Rowles, 1980: 61). This is purely the experience of thinking about something else, which means you are thinking about another place and permits transcendence of location. This could be through reflection or reminiscing which is the experience of a series of spaces through time. Fantasy can also be experienced through projection, which transports the individual to a spatially removed environment. Specific environments could trigger memories of other places, providing a completely different experience of the physical environment. Pallasmaa

Figure 2.9: Experience of Space (Author)



2.10



2.11



2.12



Figure 2.10-13: Some South African cultures and identities (Online).

(2005: 11) suggests that it is the profound reinforcement of one's sense of self that architecture should provide, that permits us the opportunity to participate in the "mental dimensions of dream, imagination and desire".

Godkin (1980: 73) also highlights the significance of the experience of feeling in a person's environments. He states "the places in a person's world are more than entities which provide the physical stage for life's drama. Some are profound centres of meanings and symbols of experience". He goes on to say that there is an important link between the attachment to meaningful places and the development of a **positive self-image** (Godkin, 1980: 74). A lack of self-worth, the feeling of being lost, and questioning one's identity and value is linked to the "sense of non-belonging to place" which Godkin defines as uprootedness (1980: 75). This feeling of "being apart and different from one's surroundings" can trigger feelings of self-doubt (Godkin, 1980: 75). Places that are perceived as threatening can impede the integrity of a person's identity. Places that foster feelings of rootedness are places where a person can anchor their uniqueness and be themselves in environments that also provide excitement (Godkin, 1980: 78). Places of rootedness show that a "positive image of place can provide a concrete focus for the attachment, retention and development of self-image" (Godkin, 1980: 79). Buttimer (1980: 166) states that cultural and personal identity is closely connected to place identity, for example, losing a home can often cause an identity crisis. For these reasons it is clear that physical settings play an essential part in the sense and experience of well-being (Godkin, 1980: 83). Pallasmaa (2005: 11) states that architecture should stimulate all the senses and thus "fuse our image of self with our experience of the world" before architecture can become life-enhancing. He suggests that architecture strengthens a sense of self and reality by articulating our experience of "being-in-the-world".

A positive self image is fostered in environments that offer health and healing. Day (1990: 23) simply states that "what feels better is better" which implies that environments that are enjoyable are also healthy for us to be in. According to him, the process of healing is "transformation at the inmost level". Outside stimuli, such as medicine, counselling and environment can initiate and support the healing process. Environment can support and balance the human spirit in the same intensity that it can starve and oppress it. This transformation is similar to the effect of **art**. Day (1990: 25) states that healing environments should have the same profound effect on a person as art does. He says that art has the ability to move and change a person so that they are never the same again. This experience is the process where an outer stimulus enables a person to make an "inner step".

*"To uplift the spirit, places need to be in some way artistic"*  
(Day, 1990: 25).

Pallasmaa (2005: 11) suggests that **art** and architecture are similar in the way that they should both strengthen one's sense of self. Architecture ought to do more than provide mere visual seduction; architecture should in fact offer meaning. The meaning of a building goes further than architecture; "it directs our consciousness back to the world and towards our own sense of self and being". He states that the function of meaningful art, including architecture, is to "make us experience ourselves as complete embodied and spiritual beings" (2005: 11).

**PLACES PROVIDE MORE THAN MERELY THE PHYSICAL STAGE FOR LIFE'S ACTIVITIES; THEY BECOME CENTRES OF MEANINGS.**

However there has been a shift in contemporary culture away from the sense of self and towards separation. Pallasmaa sates that contemporary **art** has adopted a “chilling de-sensualisation and de-eroticisation of the human relation to reality”. Art has stopped speaking to sensory pleasure or curiosity and started focusing on intellect and conceptualisation, isolating us from our surroundings. There is fortunately a new awareness of these issues and numerous architects, for example Pallasmaa, Holl and Day, are attempting to “re-sensualise architecture through a strengthened sense of materiality and hapticity, texture and weight, density of space and materialised light” (2005: 37).

*“If we desire architecture to have an emancipating or healing role, instead of reinforcing the erosion of existential meaning, we must reflect on the multitude of secret ways in which the art of architecture is tied to the cultural and mental reality of its time”* (Pallasmaa, 2005: 34).

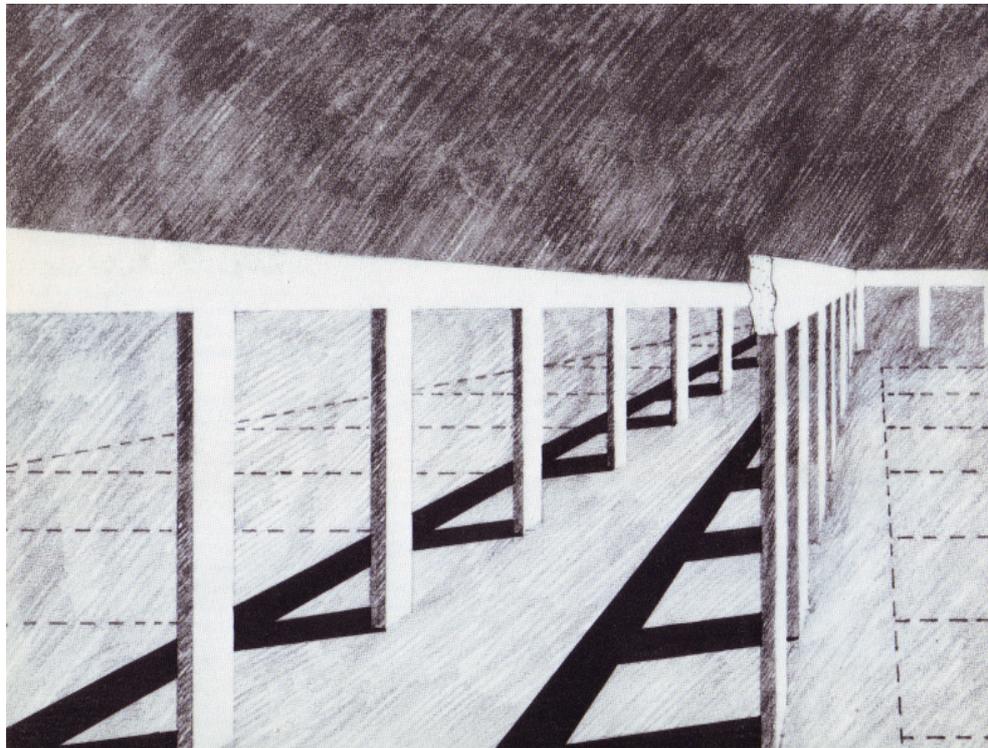
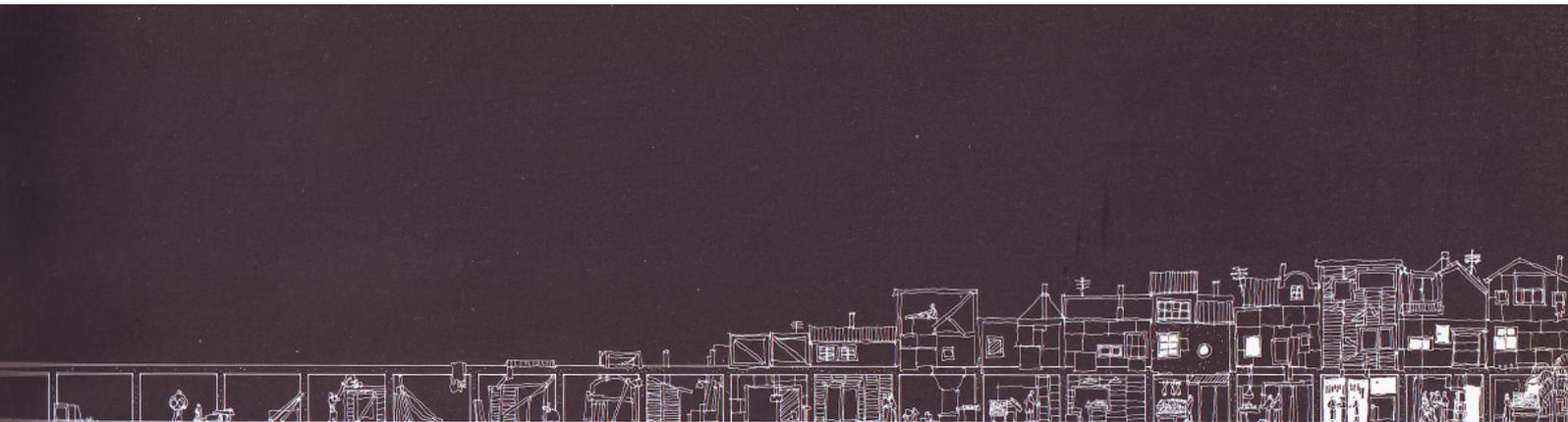


Figure 2.14 & 2.15: Holl's proposal for housing in the Philippines. **The degree of flexibility illustrates Holl's concern for the experience of the users** (Holl, 1989: 14+15).



Architecture is ultimately experienced through the **action** of utilising a building. This idea challenges the typical notion of architectural experience as a series of flat images, portrayed in the glossy photographs of architectural magazines. This action is what sets architecture apart from other art forms. Architecture becomes more than a visual experience; it becomes a series of encounters and confrontations. Distinct actions or activities frame or become the experience of home, for example, bathing, cooking, eating, sleeping and so on. Architecture's role is to order and initiate these activities and the movement associated with them (Pallasmaa, 2005: 63).

The **experience** of place is a main concern for the architect Holl. Holl's design philosophy is fundamentally based on phenomenology (Lippert, 1989: 4). He states that "architecture without idea –without a consciousness of the experience of architecture, its material, light, shadow, color, scale, and proportion –is only building" not architecture. Architects should be concerned with how people live, work and play within a space and focuses on the individual and the "poetics of life" (Holl in [Lippert], 1989: 4). The proposal for a competition for housing in the Philippines illustrates Holl's concern for the experience of the user as the project provides "the greatest degree of individual flexibility" (Holl in [Lippert], 1989: 15).

These views are similar to the views of the architect Aalto. He felt that architecture should serve man and that the role of architects is to discover the most appropriate form to serve this goal. According to Fleig, in all of Aalto's designs, it is visible that they were conceived through an intense understanding of human behaviour (Fleig, 1978: 6). His architecture was not motivated by theories but by the **observation of life**.

**ARCHITECTURE BECOMES MORE THAN A VISUAL EXPERIENCE; IT BECOMES A SERIES OF ENCOUNTERS AND CONFRONTATIONS.**

## **Universal Environmental Aspects that Contribute to a Positive Experience of Space and to the Process of Healing**

As discussed above, there are some experiences that affect us universally that can aid in the creation of a healing environment. These experiences are perceived by our **senses** and are interpreted by our minds. Gibson defines sensory perception and the experience of space, not as passive receivers but as mechanisms aggressively seeking stimulus. He categorises senses into sensory systems and not detached senses. These categories are: the visual system, auditory system, the taste-smell system, the basic-orientating system and the haptic system (1977: 33). All the senses play a part in the experience of a place. The visual appeal of a place means nothing if it has a bad smell. The best advertisement for a store is the smell of its product, for example, the smell of freshly ground coffee or baked bread, which has a greater influence than what the store looks like (Day, 1990: 49). Holl, in the preface of *The eyes of the skin*, (Pallasmaa, 2005: 7) suggests the way a place feels, with its smells and sounds, is as important as the way it looks.

Day speaks about a few universal qualities that create healing environments. A first and very important aspect is the quality of **light** within a space. He says that although a fireplace is quite energy inefficient in producing light, it adds a different layer of value, because people enjoy sitting by a fireplace. This is also true for the quality of candlelight. He also says naturally-lit spaces are



Figure 2.16: Lively natural light from two different windows within in room (Day, 1990: 21).

Figure 2.17: Curved corridor with different intensities of light and places to socialize (Day, 1990: 22).

Figure 2.18: Entrance into a building changes the inner state (Day, 1990: 23).



2.17



2.18

more inviting because certain hormones are stimulated by sunlight (1990: 21). Daylight, from two windows within a room, produces a light quality that is alive with ever-changing moods and colours throughout the day. Spaces should also have different intensities of light, focussing one's attention on what is important and preventing a sterile environment. Corridors that are straight, smooth and evenly lit create an institutional feeling, whereas passages that are not straight, with space for chance social meetings and differing light intensities, are inviting. The entrance to a building also has a significant effect on one's experience of it.

*“The sequence of preparatory experiences we pass through to approach, enter and use a building do more than affect our experience of it. They change our inner state which can both enhance our receptiveness to health giving qualities in our surroundings, and trigger transformative processes in our inmost being. All healing is found on such inner transformation, albeit initiated by outer agents. Threshold, sequence and ‘oasis’ have therefore important health-giving functions”* (Day, 1990: 23).

Holl emphasises the importance of light as he says space can not be experienced without it. He writes “light’s shadow and shade, its different sources, its opacity, transparency, and conditions of reflection and refraction intertwine to define or redefine space” (Holl, 1989: 11).

Pallasmaa (2005: 46) says that vision is the perception of distance and separation. When we are involved in overwhelming emotional experiences, such as listening to music or kissing a lover, we close our eyes and therefore stop the distancing and separation of sight. Therefore deep shadows are important within a place of healing to hinder vision and facilitate tactile sense and unconscious peripheral vision, both of which bring one into ones surroundings, integrating one, providing a sense of connection. This way imagination and daydreaming is inspired, allowing thoughts to wander and ideas to be born. Mist or twilight produces a quality of light that takes the importance away from vision and encourages thought and meditation which aids in the healing process. This means that the window is of utmost significance and is not merely the absence of wall. The window is the mediator between two opposite spaces: inside and outside, enclosed and open, shadow and light.

*“Homogenous bright light paralyses the imagination in the same way that homogenisation of space weakens the experience of being, and wipes away the sense of place” (Pallasmaa, 2005: 46).*

Pallasmaa writes that the quality of architecture is determined by the character of peripheral vision. The perception of reality in the unfocused realm of peripheral vision, which enfolds us within a space, is just as important to the experience of the space as the image that is in focus (2005: 13). The unconscious perception of peripheral vision provides us with a bodily and spatial experience which allows us to integrate with the space. This integration is opposed to the experience of focused vision, which “pushes us out of the spaces, making us mere spectators” (Pallasmaa, 2005: 13). Architecture which lacks stimulus in the sphere of peripheral vision makes users feel like outsiders. For example, the feeling of being outside, created by some contemporary buildings, is opposed to the experience of nature where all the senses and ones peripheral vision are stimulated.

*“A walk through a forest is invigorating and healing due to the constant interaction of all sense modalities” (Pallasmaa, 2005: 41).*

Although the experience of **colour** is highly personal, there are some physiological experiences that are universal. These effects are, for example, that metabolic systems are increased by the stimulation of the colour red and decreased by the colour blue. Colours that stimulate glands are, for example: yellow which affects thyroid; blue which affects the pituitary; red which affects male sexuality and violet which affects female sexual glands (Day, 1990: 47). The colour red stimulates autistic children to participate in activities and blue helps to calm hyperactive children (Day, 1990: 48). These effects are created through the whole experience of the specific colour and not merely through a few coloured dots or elements. Overwhelming amounts of colour pigments within a space, for example, the walls, ceilings and furniture all of the same colour, are overbearing and dominating, forcing a mood which makes the space feel uncomfortable. However coloured light seems to invoke or suggest a mood and not force it the way that pigment does, and therefore can comfortably alter the experience of space. Green has a calming and peaceful effect which creates balance. However a room which has been painted green often becomes heavy and dead. Reflected green light can turn people’s faces green making them look ill. A way to avoid all these negative effects is by simply allowing light to shine through foliage which produces a lively, peaceful mood (Day, 1990: 48). (See figure 2.19)

**VISION IS THE PERCEPTION OF DISTANCE AND SEPARATION. MIST OR TWILIGHT PRODUCES A QUALITY OF LIGHT THAT TAKES THE IMPORTANCE AWAY FROM VISION AND ENCOURAGES THOUGHT AND MEDITATION WHICH AIDS IN THE HEALING PROCESS.**

Figure 2.19: Pietermaritzburg Forest. Environments, such as forests, stimulate all the sense including peripheral visual which fosters a sense of connection and belonging (Online).





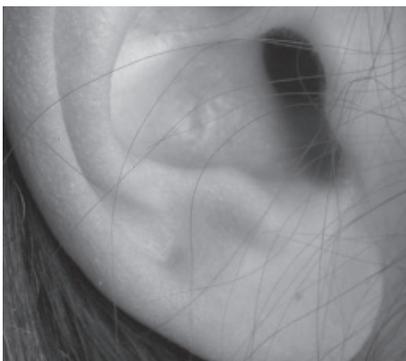
2.20



2.21



2.22



2.23



Pallasmaa (2005: 25) states that presently, vision is thought to be the most important sensory perception. This has changed from the past when hearing and touch were the dominant senses, before the event of writing and reading and more recently the advent of the television. It is interesting to note that many people in South Africa are illiterate and therefore connect and communicate through speech and listening. Therefore vision will not be of such importance for these people compared to the other senses. Visually dominated society results in the separation of one's self from the world, whereas we are united with the world through our other senses. Pallasmaa suggests that traditional or vernacular architecture has an established connection with the implied wisdom of the body and is therefore grounded in the sensory perception of touch and in movement (2005: 26). Pallasmaa states that visually based, detached architecture has never before been as rife as in the last 30 years. He says that contemporary architecture has taken on the strategy of advertising and that buildings have become image products, completely detached from experience and the user (2005: 30). This obsession with the visual, means that buildings are losing their tactility and with it "measures and details crafted for the human body" (2005: 31). Without this tactility, buildings become "repulsively flat, sharp-edged, immaterial and unreal" (2005: 31). This sense of unreality is perpetuated by the increased use of reflective glazing in contemporary buildings. These flat sharp buildings reflect ones gaze making it impossible to "see or imagine life behind these walls" adding to the alienation and isolation from the buildings around us.

The physical feel of an environment also has a great effect on one's experience of space. We continuously **touch** our environment through the surfaces on which we walk and sit and the door handles and counter tops that we touch with our hands. Pallasmaa states that door handles are the welcoming or hostile handshakes of buildings (2005: 56). Our skin interprets texture, temperature, density and weight of matter. Surfaces that are organic and that breathe feel more pleasant than artificial surfaces. An example would be the difference between plastics and woods (Day, 1990: 50). Pallasmaa says that there is a powerful feeling of connection between the sensation of home and the naked skin. The home is perceived or associated with the experience of intimate comfort and warmth, for example, the surrounding warmth of a fireplace (2005: 58). Perhaps in warmer climates than those to which Pallasmaa is accustomed, the home could be associated with refreshing coolness; a sanctuary from scorching heat.

*"Standing barefoot on a smooth glacial rock by the sea at sunset, sensing the warmth of the sun-heated stone through one's soles, is an extraordinarily healing experience, making one part of the eternal cycle of nature"* (Pallasmaa, 2005: 58).

The sounds within an environment also affect us, for instance the sound of water is calming, in contrast to the sound of harsh echoes or resonates (Day, 1990: 50). Hearing is a sensory experience of incorporation, whereas sight is isolating and directional, "sound is omni-directional". Sound approaches you. Buildings themselves respond to us by returning our sounds as echoes. Space can be perceived, understood and ordered through an echo, although this is usually an unconscious background experience (Pallasmaa, 2005: 50). This background experience of sound is perfectly illustrated by simply watching deleted scenes of a movie, before the soundtrack is added. The story becomes completely hollow and uninteresting.

Figure 2.20-24: The five senses that experiences are perceived with (2010).



Figure 2.25: Vegetation softens surroundings aiding in the healing process (Author).

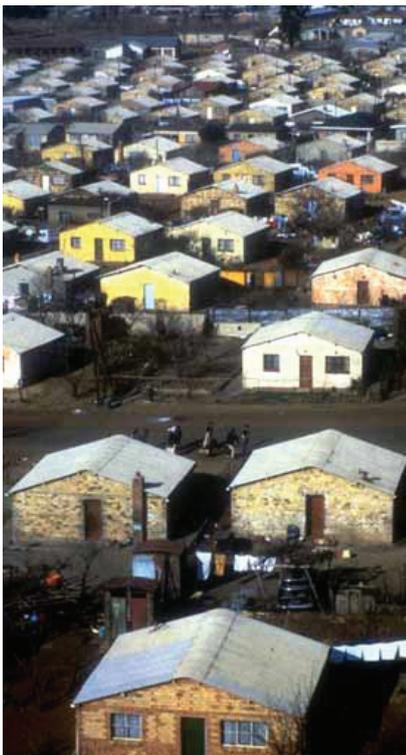


Figure 2.26: The horror of sterile, repetitive environments (Online).

*“The echo of steps on a paved street has an emotional charge because the sound reverberating from surrounding walls outs us in direct interaction with space; the sound measures space and makes its scale comprehensible. We stroke the boundaries of the space with our ears”*  
 (Pallasmaa, 2005: 51).

An important auditory perception that can be created by architecture is the experience of tranquility. Silence reminds us of the past and allows us to meditate. As Pallasmaa states “architecture emancipates us from the embrace of the present and allows us to experience the slow, healing flow of time” (2005: 52). Just as silence allows our minds to wander, so too do **smells**. A scent can trigger a memory of a place in great detail, transporting a person from one place to another in an instant.

However the design of only these surface phenomena of smell/ taste, sight, touch and sound create cosmetic environments. Day states that the **meaning** of an environment is conveyed through the spirit of place. For example, mass housing systems, cookie-cut and imposed onto the landscape will not acquire a profoundly better experience if the street noise is buffered or if the buildings are painted with attractive shades (Day, 1990: 50). The design process must be a holistic one.

*“The harder and more lifeless our surroundings are, the more tired, tense and sapped of life we tend to become. The softer and more alive they are the more renewed, relaxed and healed we tend to be. Soft lively air rather than rough funnelled draughts, absorbed sounds rather than hard echo, moderated enlivened light dancing perhaps off water or through leaves from different windows with their ever changing interplay of subtly different light and shadow. Vegetation brings softness, life and seasonal rhythm”* (Day, 1990: 52).

The sterile, alienation and flatness of contemporary buildings is perpetuated through the loss of **materiality**. Natural materials, such as brick, stone and wood add meaning to our environment. This meaning comes from the honesty of natural material, which expresses its age, history and origin. Artificial materials, for example sheets of glass and synthetic plastics, tell us nothing; they are scale-less, ageless and without a history or origin (Day, 2005: 32).

Day emphasises another aspect of the environment that is of utmost importance, namely **variety**. He says that we can get used to environments if they are all similar, for example a person will notice the bad smell of an industrial area at first but will soon get use to the stench (1990: 57). Day states that variety is what makes us aware of our experiences, which in turn, allows us to start perceiving the meeting or joining of elements. Elements can meet in different ways, at hard edges or with subtle blurs, and this adds to the experience of the space. The way that elements meet can be described as confrontation or conversation. If elements respond to each other they are in conversation and produce humane environments (1990: 70).

**VARIETY IS WHAT MAKES US AWARE OF OUR EXPERIENCES, WHICH IN TURN, ALLOWS US TO START PERCEIVING THE MEETING OR JOINING OF ELEMENTS. IF ELEMENTS RESPOND TO EACH OTHER THEY ARE IN CONVERSATION AND PRODUCE HUMANE ENVIRONMENTS.**

Aalto (in Fleig, 1978: 233) states that society should not grow indefinitely. He says that there must be some kind of meeting or amalgamation of individuals into groups because vast cities with no grouping isolates individuals. Being part of a group in an important aspect of the human experience of space. Aalto also warns against the dangers of mass production that leads to sterile environments, with no variety, instead of mixed environments that lead to the formation of groups and communities within a city.

In conclusion it is of utmost importance to have a holistic view of the experience of space and to consider all the aspects that contribute to experience. By designing with a holistic view of the experience of space, a meaningful, healing environment can be created. Through the use of universal aspects, spaces can be manipulated to best suit their proposed use while bringing meaning, healing and joy to their inhabitants.

## The Experience of Home and Homelessness

Maslow (1973: 374) states that humans are perpetually in want and motivated to relieve their state of need. He defines a hierarchy of needs; basic needs being physiological, safety and belonging; and being needs defined as esteem and finally self-actualisation. The need for a home falls into the category of the primary basic need for safety. When the first basic physiological needs, such as food, are not met, the other needs essentially do not exist for the individual, but as soon as the basic needs are met, the other needs become important. For this reason, all the basic needs of an individual must first be met before they can heal and ultimately become a contributing member of society.

The experience of home, according to Bollnow (1961: 33), is the special centre of a person's life. The profound task of man is to find his way home. Everyone is at home somewhere and this home becomes the central point from which one builds his/her spatial world. A person's lived space arranges itself around a central point which is a person's residence. This experience of home is related to the fact that all the nations of the world considered their land to be the centre of the world before Columbus's discovery of America (Bollnow, 1961: 32).

The activity of dwelling is not like any other. It is the process of realising one's true essence and this process is initiated through the experience of one's residence. Bollnow states that a person requires a firm dwelling place, rooted to the ground by solid walls, to prevent being "dragged along helplessly by the stream of time" (1961: 33). The characteristic of a house is the creation of a special and private space out of universal space and thus defining inner and outer space. Outer space becomes the realm of openness, abandonment and danger. The inner space is a hidden area of protection and offers relief from continual anxious alertness. This relief allows a person to return to him/herself and is the greatest purposes of a dwelling. Therefore a house should be an inviolable place of peace.

Avdinli (2005: 28) suggests that although a home is a space of peace and security, being locked up in it, to protect one from the dangers of the outside space, will soon turn a home into a prison. However dangerous the outside is, it must be explored. According to Bollnow, there are three dimensions of outside space. One does not immediately enter into a hostile place on leaving home, one first enters into a known neighbourhood and then progresses to



Figure 2.27: Maslow's hierarchy of needs (Maslow, 1973: 374 adapted by Author).



Figure 2.28: Home as the centre of ones lived world (Author).

**Extract from The South African Bill Of Rights:**

Section 26: Housing

(1) Everyone has the right to have access to adequate housing.

(2) The state must take reasonable legislative resources, to achieve the progressive realisation of this right.

(Constitution of South Africa, 1996, Chapter 2, section 26)

the comparatively unknown and then to the completely unknown. The first dimension of outside space is breadth. This is open space, outside the known world of the dwelling which allows freedom of movement and provides an absence of restrictions. These wide open spaces provide upliftment and joy. Strangeness is the second dimension which is the space that one no longer knows. This leads to a feeling of helplessness and one feels on the outside of the environment. This is foundation of the experience of being homesick. The last dimension of outside space is distance. This is the feeling of being allured or enticed by unknown things far away. This feeling comes from the desire to break away from the monotony of repetitive everyday life, but ultimately the traveller will return to the centre of the world - their home (Bollnow, 1961: 35). Housing is often defined as having a roof over one's head, but this is a purely quantitative and material outlook. In terms of qualitative aspects, a dwelling is the fundamental condition of humanity and a home becomes a space for thinking, remembering, learning and feeling.

The experience of home, according to Relph, is associated with the feeling of "insideness" which is related to the sense of place (1976: 49). This is the sense of connecting to the central place within the immediate experienced world, connecting to a home. This connection stems from the fusion of surroundings and humans (Cox & Holmes, 2000: 67). Sense of place and "insideness" is related to the feeling of being inside a place and not isolated from it. Being inside a place, as opposed to secluded from it, means one feels protected and enclosed. This experience of protection and safety is referred to as "at-homeness" by Seamon (1979: 90), which leads to "existential insideness". As Lang (1985: 201) suggests, this "existential insideness" is the process of assimilation and incorporation of the home into the "fabric of embodied existence".

Cox (2000: 68) suggests that the sense of at-homeness is composed of five elements. The first is rootedness, which is the experience formed by the ability of a dwelling to "organise the habitual, bodily stratum of the person's lived space" (Seamon, 1979: 79). The second is the experience of territory and appropriation, which is associated with control and possession which leads to a sense of empowerment. The third component of at-homeness is the experience of being at ease within one's home. This is related to the freedom of being who you are, without the pretence of a public façade. The fourth is the ability of a home to stimulate regeneration and restoration, through the provision of an environment which is peaceful and restful. The last aspect connected to at-homeness is the experience of warmth associated with home. This is associated with a tone of companionship, concern and happiness which is more a product of house-mates than of the space (Cox, 2000: 68). The experience of homelessness is referred to as "existential outsideness", which is the sense of un-attachment and alienation from place (Seamon, 1979: 90). Buttner (1980: 171) relates to the experience of rootedness and at-homeness with the notion of "horizons-of-reach". This refers to the notion of breathing, where breathing in relates to coming home and breathing out refers to moving beyond or outside the home. Reaching or breathing is movement through physical or emotional realms. It could be by imagination and thought, which Rowles refers to as Fantasy (1980: 61), through physical movement, or through passive communication by telephone or assorted forms of mail. The degree of reach is associated with one's level of at-homeness. A feeling of well-rootedness allows a person to explore, and excessive

**THE WORD HOBO COMES FROM THE SAYING "HOMEWARD BOUND".  
THE PROFOUND TASK OF MAN IS TO FIND HIS WAY HOME.**



Figure 2.29: Homeless man (Online). The definition of homelessness is not simply a person who does not have a roof over his or her head. Being homeless means being “deprived of the normal social and economic supports of home” (Bunston, 1992: 152)

exploration implies that a person is seeking further nourishment from outside the home (Buttimer, 1980: 172). The sense of rootedness could not be offered by a person’s primary dwelling place which renders them homeless. Some homes are experienced as cold, unsafe and unhappy environments, which means that rootedness could be found in a “place of temporary refuge”, for example a shelter, and not at the primary residence (Cox, 2000: 68).

## Healing Environments for People in Crisis: particularly the homeless

The **definition of homelessness** is not simply a person who does not have a roof over his or her head. Being homeless means being “deprived of the normal social and economic supports of home” (Bunston, 1992: 152). This definition includes people who have shelter but for whom the environment is “unstable, insecure or substandard” (Bunston, 1992: 152). Although there are many reasons why people end up on the street, according to Downie (in Brown, 2005: 24), they have one thing in common; they all lack peace. For this reason, safety is the most important aspect of a place designed for the homeless (2005: 25).

To investigate a healing environment, let us consider the **basic needs of homeless people** obtained by a study done in Toronto. The study suggests that the basic needs are “food, shelter, safety, belongingness and esteem”. The most important concerns stated by the homeless people in the study were “housing finance and employment, health, nutrition, personal appearance and hygiene, violence and social networks” (Bunston & Breton, 1992: 149).

**The aim of a shelter** for homeless people is to provide a space around which they can “focus a daily life path” (Bunston, 1992: 156). This is usually the role of a home, although these people’s experiences of home are very different, as they have been forced to leave. This means that a shelter will be their first experience of a true home. Institutions such as homeless shelters have people staying for an average period of a year, because some of the residents have mental disorders and other issues which may take quite a while to address. This extended time period means that the institution will become a home and therefore the physical and social environment becomes very important (Mahnke F. & Mahnke R., 1987: 97).

**The dilemma with shelters** is that they cannot replace “a sense of rootedness” which a home provides. This is because shelters most often lack a sense of privacy and create a sense of insecurity because of the time restrictions associated with them (Bunston, 1992: 151). Although shelters do emulate the home by providing shelter, other basic needs, and very importantly, a community network of other people in similar situations, these institutions also “encourage dependency on the staff” (Bunston, 1992: 150). This dependency results in a lack of self-esteem and despondency. According to Cave (1998: 109) institutions are frequently planned “for staff ease of use” instead of being designed for occupant comfort and intend on restricting the occupants’ control over the environment leading to dependency.

**THE AIM OF A SHELTER FOR HOMELESS PEOPLE IS TO PROVIDE A SPACE AROUND WHICH THEY CAN “FOCUS A DAILY LIFE PATH”. THIS IS USUALLY THE ROLE OF A HOME, ALTHOUGH THESE PEOPLE’S EXPERIENCES OF HOME ARE VERY DIFFERENT, AS THEY HAVE BEEN FORCED TO LEAVE.**

ALTHOUGH THERE ARE MANY REASONS WHY PEOPLE END UP ON THE STREET, THEY HAVE ONE THING IN COMMON; THEY ALL LACK PEACE. FOR THIS REASON, SAFETY IS THE MOST IMPORTANT ASPECT OF A PLACE DESIGNED FOR THE HOMELESS

## Design Strategies for Healing Environments Inhabited by People in Crisis: particularly the homeless

In the designs of institutions such as homeless shelters radial designs have been found to increase staff satisfaction without negatively influencing occupant spaces. For institutions with a dormitory set up, it has been found that suite designs, with two to three people in a room separated by internal partitions, are preferable to corridor designs with one to two people sharing a room (Cave, 1998: 109). Privacy can be improved by regulating the number of occupants sharing a room, by allowing the opportunity for occupants to make their own territory and allowing residents to keep their personal belongings (Cave, 1998: 110). Good self-esteem is maintained by giving the residents freedom of choice, which includes allowing them to determine their own routines and activities and giving them responsibilities. This will decrease the feeling of helplessness. Good self-esteem is related to socialisation and increased activity levels which are beneficial for healing (Cave, 1998: 110).



2.30



2.31



2.32



It is important for these facilities to eradicate an institutional appearance. An institutional atmosphere creates barriers between the staff and the occupants, which creates a feeling of hostility and mistrust. For these reasons it is important that staff do not wear uniforms so that they will be able to develop less formal relationships with the occupants (Mahnke F. & Mahnke R., 1987: 97).

A Californian **mental health centre** for mentally disturbed children used colour to create a successful healing environment. According to Day (1990: 22), despite people's personal taste, colours have universal physical characteristics and physiological effects. A variety of colours were used at the mental health centre, namely: pastel orange, yellows, peach, light green, turquoise and blue, combined with copper and rust. The rooms of the adolescents where painted alternately with warm and cool colours so that "staff could try to assign introverted personality types to surroundings that suited them best" (Mahnke, 1987: 98). The children's area had paintings which depicted scenes of gentleness and caring. The adolescents' space was filled with paintings of various styles, from impressionism to contemporary work. It is important to provide a stimulating environment for people with mental illnesses because in bland surroundings the mind seeks stimulation and with mental illness this stimulation often occurs in the form of hallucinations. On the other hand over-stimulation could be difficult to process and could overwhelm the patients. The careful attention to environment of the mental health centre had drastic results. As the facility was changed, the deliberate vandalism, which was a major problem, became less frequent and eventually ended. Some sceptics said that the results were purely because of a change in environment and not the environment itself. This however was unfounded because the facility had previously been redecorated with no effect. This illustrates that the correct use of colour, light and sensory variety can create more appropriate environments (Mahnke, 1987: 98).

Figure 2.30-33: Colour has a profound universal effect on peoples experiences (Online).

**Pine Street Inn**, in Boston, is an organisation which provides food and shelter for destitute and homeless people. **Estelle's Garden**, designed by Jennifer Jones, provides a "sense of safety, calm and quiet" for the women at the shelter (Brown, 2005: 24). The garden is designed as an enclosed place, to create a type of sanctuary which provides a sense of security. A gate, covered with vines, creates a secure barrier to the street while still providing a certain degree of screened visual connection to the world outside (Brown, 2005: 26).

Plants and water features soften the urban edge, bringing a glimpse of nature into the industrial area of Boston where the shelter is situated. Nesting birds, in one of the garden's trees, created much excitement for the women, illustrating the importance of nature in these environments.

Another important feature of the landscape is that it offers flexibility and choice to the users. There is specifically designed seating area for women who would like to socialise and individual seating for women who would like to sit alone and quietly enjoy the space. The curved form of the seating arrangement also allows people to "share the space without having to make eye contact" as they can face in different directions (Brown, 2005: 28). This is important because many of the users of the space may be troubled, which could lead to distrust of other people.

Although Pine Street Inn caters for both men and women it is very important that they are clearly separated. The inn has separate entrances for men and women at opposite ends of the large building. The staff offices and vast kitchen separate the two facilities. One of the female residents noted that that she was not even aware that the shelter catered for men for a long time.

Other important considerations for the space were as follows: the space had to have universal accesses for disabled people possibly in wheelchairs. An area, protected from the elements, was also to be provided for smokers. It was greatly important that the staff could observe all areas of the space from inside the building for security reasons.

Figure 2.34: Plan of Estelle's Garden (Brown, 2005: 24)

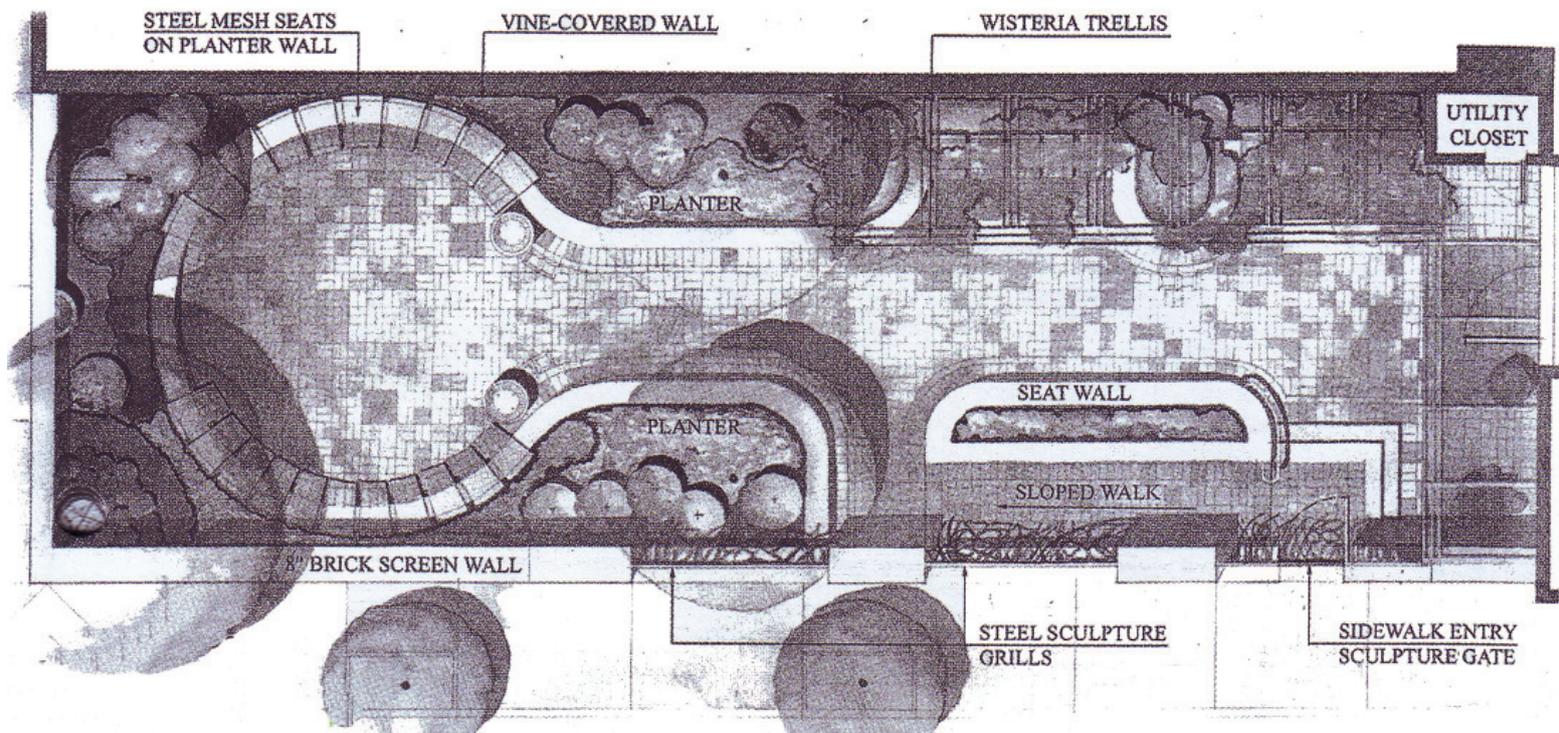




Figure 2.35: Van Ryn Place of Safety's quality of light (Comrie, 2003: 30)

**Van Ryn Place of Safety** is a home for people in crisis, which incorporates specific design considerations. The shelter provides accommodation for orphans and children under the age of 18 awaiting trial in Benoni. The architect Henri Comrie says that although they would “never be able to sense the real sadness” of these children and their stories, the architect’s ultimate aim was to give “lightness to the place” and to create intimate spaces. He states that the goal of the architecture was to create a “light hearted presence but without being frivolous” (Comrie, 2003: 27).

In this project, security and detention facilities were the main concern. This aspect created a challenge in producing buildings that were connected to exterior spaces. This connection was consciously achieved visually through larger than conventional windows to allow for natural ventilation and “abundant views” (Comrie, 2003: 30). The buildings were also arranged to create “positive in-between spaces or open-to-sky rooms” (Comrie, 2003: 28). These spaces provide the children with a choice of spaces in which they can interact and play.

Natural light for the interior spaces was also of utmost importance. Natural light was “invited in” through the use of large windows, polycarbonate sheeting and borrowed light from communal spaces through glazed interior walls (Comrie, 2003: 30).

A prevailing problem for architects in the design of institutional projects, such as Van Ryn Place of Safety, is that the client is focused on the “functional layout of plans” (Comrie, 2003: 27). It is therefore the responsibility of the architect to satisfy both the ultimate functional layout while still creating layering and ensuring the spatial integrity of the project. Although simple and affordable materials were used it was still possible to produce a competent design (Comrie, 2003: 30).

**THE GOAL OF THE ARCHITECTURE WAS TO CREATE A “LIGHT HEARTED PRESENCE BUT WITHOUT BEING FRIVOLOUS” (COMRIE, 2003: 27).**

Figure 2.36: Spatial layout creating intimate spaces (Online)

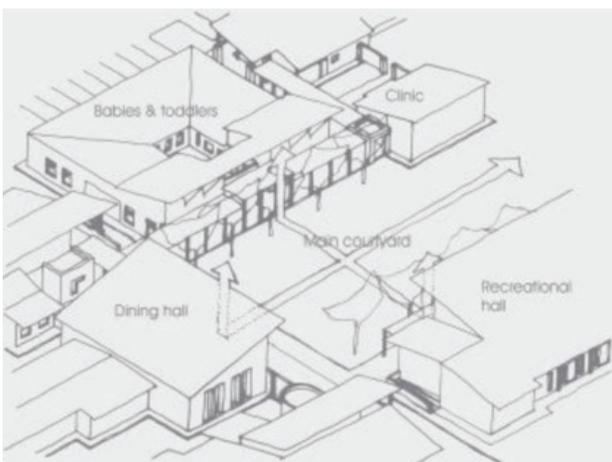


Figure 2.37: Drawing illustrating the concept of “Borrowed light” (Comrie, 2003: 30)

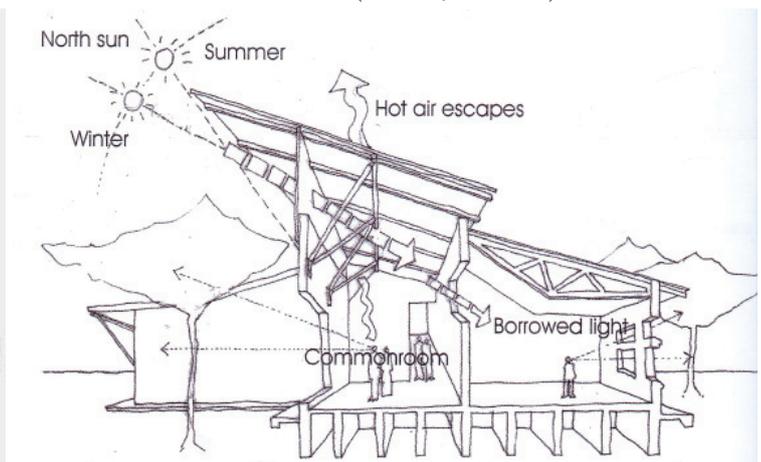




Figure 2.38: The southern wall of Cité de Refuge is a sheer glass curtain wall, to bring in an abundance of natural light. Due to excessive heat gain a brises soleils system was later installed (Online).

Figure 2.39: The trusses of Julian Street Inn's dining hall bring energy to the centre (Online).



Figure 2.40: Transitional space between inside and outside at Julian Street Inn (Online).



**Cité de Refuge**, a Salvation Army refuge in Paris, was designed by Le Corbusier and Pierre Jeanneret in 1933. The shelter was designed to house 500-600 homeless people. One enters into a round reception room, with the shared utilities found on the ground floor and separated from the dormitory block. The components of the building reflect Le Corbusier's interest in ocean liner design. This is evident in the series of large rooms on ground floor which imitates the sequence of lounges found on a ship. The steel canopy, over the entrance of the reception building, resembles a footbridge of a ship. The dormitories, on the upper levels resemble the decks of a ship. The sequence of modular dormitories replicates the "monotonous repetition of ships' cabins" (Cohen, 2004: 51). The apartments on the top level also resemble a command post of an admiral.

A radical approach was used to bring light into the space which was different from the dark neo-gothic and Victorian facilities that were previously used. The building's southern facade is a sheer glass curtain wall which was intended to work with a system of double glazing and air-conditioning, which was never realised. Due to the large amount of glazing on the southern facade, the fact that the windows cannot open and the lack of an air-conditioning system, means that the building became unbearably hot in summer. To prevent the occupants from overheating, Le Corbusier's trademark sunshades, brises soleils, were later added after the facade was destroyed in World War II.

**Julian Street Inn**, a homeless shelter, in San Jose, California, was designed by Christopher Alexander in 1987. The design approach for this project included a strong client participation and local construction materials and methods. According to Alexander, the use of patterns, in the design process, brought a positive emotion into the building form. The trusses of the dining hall, whose drawings were only done after construction had started, create a space which brings energy to the centre (Groat & Wang, 2002: 197). Although materials, such as mass produced concrete blocks and roof tiles were used, the building still has an overwhelming sense of being hand crafted (Fisher, 2000: 59).

**The Maternity and Children's Hospital**, in Madrid Spain, designed by Rafael Moneo was completed in 2005. This place of healing aimed to humanise the extremely large building by breaking the spaces up into sequences of smaller spaces ordered around courtyards. Instead of the fragmentation or breaking down of the large building, the design started by organising the smaller units that eventually grew to build up the whole (Bertolucci, 2005: 56).

The use of courtyards not only allows the building to be perceived on a human scale but courtyards supply a permeability bringing light and air into the spaces and providing the patients with views out. Patients have views onto courtyards and glazed corridors beyond them, making the activity and movement of the hospital visible and aiding in the feeling of connection to the outside world while still retaining patient privacy. Folding wooden shutters give the patients control over their environment by being able to close off the views and control the amount of sunlight in their rooms (Bertolucci, 2005: 57).

The building itself turns its back on the street creating an impervious exterior edge shielding the occupants from the world in a space that resembles a self



Figure 2.41: The Maternity and Children's Hospital draws patients in through a glazed wall which forms a break in the impervious exterior edge which shields the occupants from the outside world (Online).



Figure 2.42: The Health Centre's unimposing scale fits into the natural environment creating a welcoming atmosphere (Online).

contained city in its scale and complexity. Patients are drawn into the building by a break in the impermeable façade where a glazed wall extends the full height of the structure flaring out at above the entrance creating a protective canopy (Bertolucci, 2005: 58).

The notion of human scale is brought through to every detail as evident in the non-clinical furniture. This attention to detail means that although the hospital still conforms to the stereotypical efficient, hygienic environment, it is far from intimidating. The design takes care of not only the body, but the soul, which illustrates the designer's understanding of what it feels like to be a patient (Bertolucci, 2005: 58).

Guenther 5 are the architects who designed **The Patrick H Dollard Discovery Health Centre** in New York State, 2005. Their main focus was social responsibility. The client's belief that there is a strong connection between patient well-being and environmental health guided the design decisions. Energy efficiency is achieved through insulation, orientation, solar shading (brise soleil and reflective metal roofs), natural light and material selection based on recycled, biodegradable and life cycle costs (CS, 2005: 72). The architecture aimed to be intentionally un-institutional, modest and humanly scaled. The unimposing scale, views, use of natural materials and light creates a welcoming environment, alleviating the fear and stress usually associated with medical visits (CS, 2005: 68). In conclusion the environmental benefits as well as the humanity and dignity of the spaces and the connection to the surroundings have an "important enhancing effect on the quality of life" of the patients (CS, 2005: 72).

## Conclusion

It has been revealed that the environment does influence an individual's health and healing in different ways. Although people's individual experiences shape the way they perceive their environments, many experiences are universal and can aid in the healing process. Universal design aspects that should be incorporated in the creation of healing environments for people in crisis, specifically in reference to the design of a homeless shelter, will be summarised below.

In order to counter homelessness, through healing and rehabilitation, the environment must cultivate a sense of **empowerment** and self-worth. This sense of empowerment is achieved through the notion of **connection, independence and transition**.

In order to counter homelessness, the environment must foster a sense of **connection**. There are three main types of connections that should be promoted by one's surroundings. The first is the **connection to meaningful place**. This is achieved through a strong sense of place as there is an important link between attachment to meaningful places and the development of a positive self-image (Godkin, 1980: 74). This is also achieved through a sense of rootedness, which is the experience formed by the ability of a dwelling to "organise the habitual, bodily stratum of the person's lived space" (Seamon, 1979: 79). The second form of connection with one's surroundings should

foster to counter homelessness, is **connection to the world**. Pallasmaa (2005: 46) states that one must feel part of one's surroundings and not isolated from them. This is achieved through one's surroundings stimulating all the senses. Peripheral vision is very important in the process of connecting one to the surroundings and therefore, it should be stimulated. This is most effectively achieved through the use of changing light intensities. This means that a window is the mediator between two opposite spaces: inside and outside, enclosed and open, shadow and light, and therefore is of utmost importance (Pallasmaa, 2005: 46). The third type of connection is the **connection to life**, such as nature, fauna and flora. One feels connected to nature and at the same time this feeling of being part of something bigger places one's troubles into perspective as one sits under the shade of a tree that will be there long after you have gone.

In contrast to the feeling of connection, for a person to heal, a sense of **independence** is of utmost importance. This is fostered through a sense of **control** which is achieved within an environment by **flexibility** and **choice**. Passive surveillance, which also aids in the sense of connection, provides knowledge and understanding of one's surroundings which leads to a "sense of partial control" which aids in the process of healing and empowerment (Rowles, 1980: 59). **Ownership, responsibility** and **economic opportunity** also promote a sense of independence.

Finally the environment must allow for the process of **transition**. This refers to the healing process and moving through different levels of growth. Transition talks about layering, future, process and security.

The recurring universal design elements of focus, in the design of healing environments for vulnerable people in crisis are as follows:

- Connection to a meaningful place, to the world and to life
- Independence, control, flexibility, choice, ownership, responsibility and economic opportunity
- Transition and growth
- Natural ventilation, light and views
- Protection and security

By creating environments that focus on the above elements, an appropriate setting for the healing of people in crisis can be created.

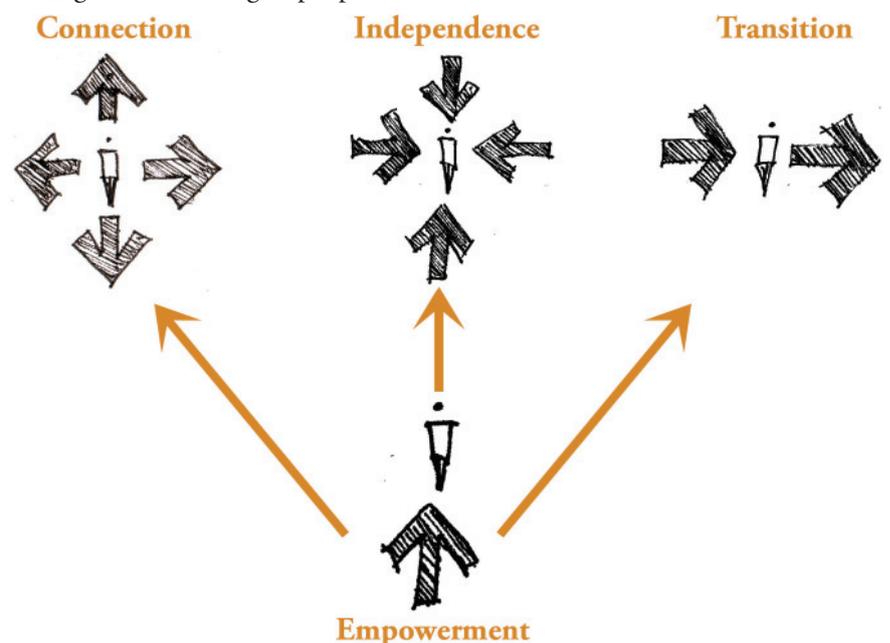


Figure 2.43: Diagram illustrating the sense of empowerment achieved through the notion of connection, independence and transition (Author).

## Summary of theoretical investigation

Below follows a summary of the knowledge gained by the theoretical investigation that is specifically important to the design of shelter for the homeless. In order to counter homelessness, through healing and rehabilitation, the environment must cultivate a sense of empowerment and self-worth. This sense of empowerment is achieved through the notion of connection, independence and transition. The design of the shelter will incorporate these notions in the following ways:

### 1. Connection

- Connection to meaningful place/ rootedness:

This is achieved through the design of an appropriate “home”, a place you can call “home”, a place that is unique, responsible and significant. This in turn is realised through truly understanding the problem and the context through investigation.

- Connection to the world:

This is accomplished through the design of stimulating surroundings that add value to everyday activities. This in turn is achieved through changing environments and avoiding monotonous and sterile surroundings. The shelter’s communal areas will have many different atmospheres, that transition into one another. To avoid long monotonous corridors and to promote independence, semi-private staircases will be used, catering for only two units per floor.

Connection to others within the world is also of utmost importance. This is achieved through the location of the site in an established residential area. The location means that the residents will be connected to the community through socialising, recreation, schools and religious institutions. Working in the shops and workshop will give the residents of the shelter further opportunities to interact with the greater community. The shelter itself will promote awareness of the social problem and the support available, through the prominent location of the shelter on the corner of Church and Hamilton Streets, through the Educational Community Centre and through the residents themselves. Within the shelter, the design will encourage social support by creating opportunities for chance meetings in spaces specifically designed to encourage people to linger. Seating is also designed so that people face each other in order to encourage socialising. The first phase of accommodation is shared, thereby offering social support.

- Connection to nature.

The shelter offers a large, open, green space for socialising and relaxing within a living, growing environment. The communal food garden gives the residents an opportunity to work with nature and harvest the benefits thereof. Fauna is brought to the upper floors through the use of planters at every unit so that the residents can be personally responsible for their plants, care for them and watch them grow. In many shelters pets are a welcome addition and provide a sense of connection for the residents. This is a possibility for the shelter to consider. The units are also naturally ventilated, are naturally lit and have views to the outside connecting to the surroundings.

### 2. Independence

This is achieved through ownership, responsibility and economic opportunity. Independence is also realised through a sense of control which is achieved within an environment of flexibility and choice. Flexible furniture within the units allows the residents to change their environment as it suits them, giving them control, ownership and responsibility over their surroundings. Movable shutters also give occupants

control over the level of privacy, light and views from their units. Choice is offered in the form of different communal areas. Passive surveillance of the inner courtyard and of the street, which also aids in the sense of connection, provides knowledge and understanding of one's surroundings which leads to a notion of control and in turn, independence.

### 3. Transition

This refers to the healing process and moving through different levels of growth. This is also related to the transition from being homeless, to having a temporary home at the shelter, to finally having a permanent home. Within the shelter, the stages of accommodation, first phase communal living and second stage private living, relate to the notion of transition. Hierarchy of space within the shelter from public to private spaces also relate to the concept of transition (see diagrams below).

In conclusion, the investigation gave rise to the above-mentioned universal design aspects that should be incorporated in the creation of healing environments for people in crisis, specifically in reference to the design of a homeless shelter.

## TRANSITION

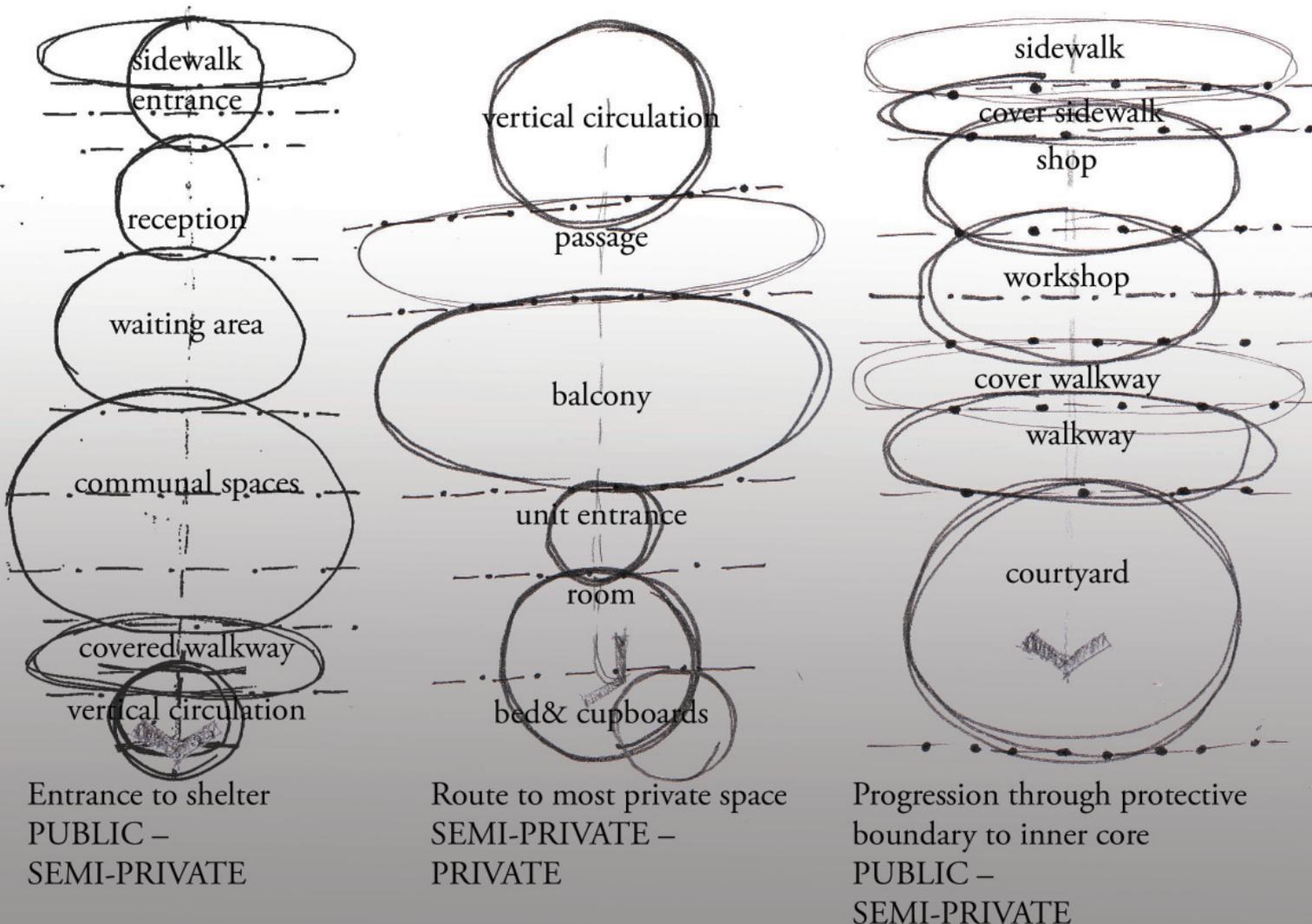


Figure 2.44: Diagram illustrating the concept of transition (Author)