

# THEORETICAL RESEARCH



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## 2.1. INTRODUCTION

Due to the increasing pressures on natural resources, sustainable design have become a major concern for Landscape Architects recently. Uzzel & Lewand (1990:34) suggests that in any environmental transaction the attention should be focused on the user as much as on the environment itself. When Landscape Architects alter the outdoor environment they should be aware that design interventions have consequences other than the visual appearance. It also influences human emotions and changes symbolic interpretation.

Environmental psychology is focused on the interplay between humans and their surroundings and stresses the profound impact the physical and social environment can have on human behavior and mental health. A study of Environmental psychology is helpful to understand the effect Landscape Architecture can have on human behavior and mental health by changing the environment through design interventions.

The thesis is focused on the potential of outdoor environments to assist in improving mental health. For this reason it is important to study human perceptions, emotions and reactions towards the physical and social outdoor setting. Investigating the impact of the physical outdoor environment on mental health can equip the designer with guidelines for designing a space that fosters healing. Research on the effect of the social environment on mental health can guide the designer in creating a physical environment that enhances healing. The theoretical research will involve a historical overview of outdoor environments at psychiatric hospitals and research about the influence of the physical and social environment on mental health.

## 2.2. HISTORICAL OVERVIEW OF PSYCHIATRIC HOSPITALS

### 2.2.1. THE OUTDOOR ENVIRONMENT AT PSYCHIATRIC HOSPITALS

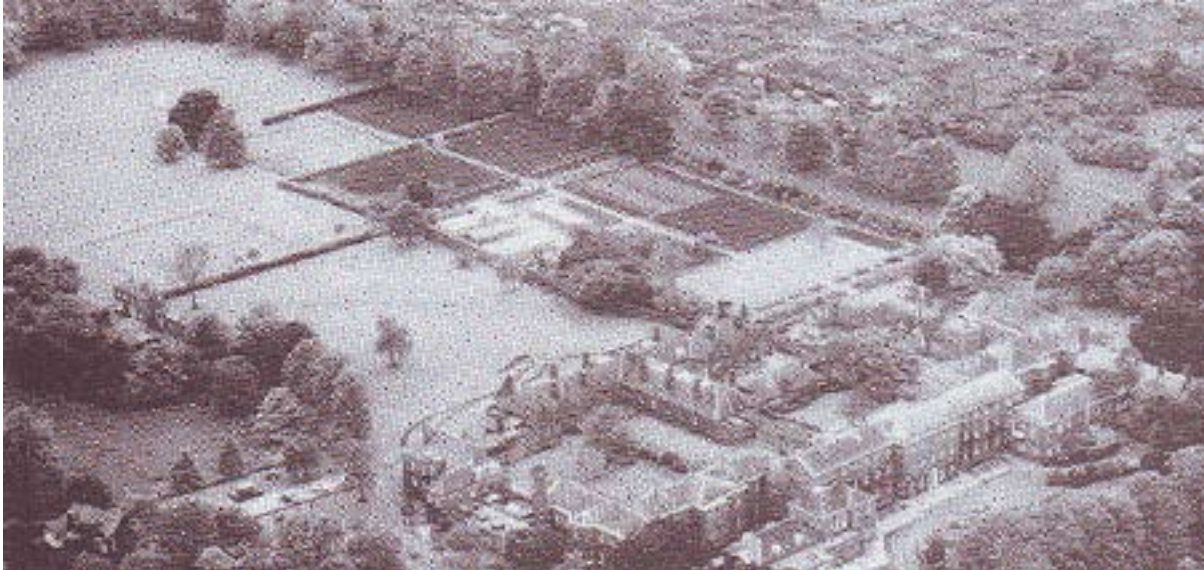
Throughout history the importance placed on the outdoor environment as a therapeutic component in the treatment of psychiatric patients varied. However as early as the 15th century, the outdoors was utilised as a therapeutic component in general health care and although the natural and designed environment's ability to improve physical, mental and spiritual well being is well documented it was not commonly utilised as part of psychiatric care (Sachs, 1999:236). The time period in which a psychiatric institution was established is usually reflected in the structure and characteristics of the outdoor space while the way it is used or has been used is representative of social and medicinal trends in psychiatric care (Sachs, 1999:235).

In Europe, the mentally ill was classified as prisoners and was subject to beating and confinement during the 1400's with one exception being the Hospital at Zaragoza, Spain which followed a different approach by allowing patients to work in vegetable gardens, on farms and in vineyards still setting an example for designers many years later (Sachs, 1999:237). Similar to Europe in the 1400's, seventeenth century colonial America regarded and treated the mentally ill as demoniacally possessed individuals and kept them in workhouses or prisons. The proverbial scars that this treatment instilled on the perceptions of mentally ill people is still visible in the 21st century. The author, through this thesis, strive to put forward a socially sustainable and systematic approach through which the natural environment, in conjunction with design intervention thereof, will not only become more humane but be transform into a "natural medicine" in the true sense of the word.

The European Romantic movement in the 18th and 19th century can be seen as a turning point in psychiatric care and sought to unite human emotions with morality and nature. The outdoors was highly valued for its ability to improve the mental health of psychiatric patients (Sachs, 1999: 237). By this time nature was viewed as physically and spiritually restorative and hospitals were designed to allow patients contact with nature through decorative gardens, vegetable gardens, farming programs and views of nature from the building interior. Philippe Pinel (1745-1826) a French psychiatrist played a significant role during this time and changed psychiatric institutions from prisons to hospitals.



He advocated what he referred to as “moral treatment” in which the social and physical environments at mental institutions were viewed as resources in the healing process. He believed that the physical setting should be restful and accommodate activities that aim to “re socialise” the patient. These included farming, gardening and daily walks outside (Sachs, 1999: 239). The Schleswig Asylum (1792-1820) in Germany and The Retreat in York, England (1796-present) are examples of asylums inspired by these views (Fig.2.2).



*Figure 2.2. Aerial photo of The Retreat, York, U.K (c. 1960) showing the buildings and extensive grounds. Over the 200 year history of the facility patients were encouraged to go outdoors in various ways. Seen here are a farm area, bowling green, cricket pitch and tennis courts as well as several smaller more protected courtyards (Sachs 1999:238)*

During the same time in America Dorothea Linde Dix and Horace Mann’s writings about the philosophy of public welfare gained popular acceptance and led to establishment of many Mental Hospitals across America. These hospitals were clearly inspired by the European model for mental institutions which included farming and other outdoor activities as part of the site design while characterised by rolling hills, groves of trees, paths and more intimate gardens close to the buildings (Sachs 1999:241-242).

By 1880 the mental hospitals became larger, highly populated and more hastily constructed due to a significant increase in demand for mental hospital beds. Once again access to the outdoors became limited resulting in the increased use of physical and chemical restraints.

### **2.2.2. OCCUPATIONAL THERAPY & HORTICULTURAL THERAPY**

Occupational therapy in the form of farming and gardening had long been used in mental hospitals in Europe and America. After World War 1 occupational therapy and horticultural therapy became increasingly used in mental and general care hospitals with the intent that veterans would turn their thoughts from their experiences of destruction toward acts of creation (Sachs, 1999:244). By World War 2 all aspects of the patient’s surroundings came to be considered as therapeutic. This approach was referred to as milieu therapy.

Scientific advances in health care as well as socio cultural and economical forces 1950 led to a shift from the emphasis on the physical and outdoor environment to technology and medication for the treatment of mental illnesses (Sachs 1999:246). In the late 1950’s and early 1960’s the new academic discipline Environmental Psychology emerged. Closely related to the earlier milieu therapy, environmental psychology was mostly focused on small quantifiable factors like colour, sound and room size. Although the focus was mostly on indoor environments, it laid the foundation for the growing interest in outdoor environments as part of the therapeutic environment (Sachs 1999:247).

### 2.2.3. ENVIRONMENTAL PSYCHOLOGY

The nature of the environment influences the way people feel towards it and how it is perceived, this in turn affect the way it is used (Cave, 1998:5). A positive change in the environment can therefore result in a positive change in the way humans use their environment and are influenced by it. Perception can be described as the process of interpreting and making sense of the information presented to us in an environment and adding meaning to it. This is then used to make a decision about how to behave and feel in it (Cave 1998:18). Problems that relate to the influence of the environment on human behaviour can be solved in a creative manner when a designer understands the public's perception of their surroundings.

Environmental psychologists have done detailed studies over the last few decades to identify and explain the relationship between people and the landscape. Their studies indicated that contact with nature can reduce tension, produce a calmer state of mind and help encourage positive behavioural change (Stoneham, 2000:23-24). When assessing humans relationship with landscape there is 2 approaches for research that should be taken into account. The first one is quantitative research that includes people's perception, assessment and preferences for particular landscapes. The other approach is qualitative and involves the meaning and value nature and the landscape holds for humans (Uzzell & Lewand, 1990:34).

## 2.3. THE ROLE OF THE PHYSICAL ENVIRONMENT

### 2.3.1. PERCEPTIONS OF NATURE

The notion that contact with nature can be beneficial to physical, emotional and intellectual well being is not new. In Britain, Victorian city planners established the public parks system on the basis of these beliefs (Stoneham, 2000:23). The Tshwane Open Space Framework (2006:26) states that the natural environment or open spaces increase self-esteem and reduce stress. In addition, nature has therapeutic potential and accommodates contemplation, solitude, privacy, intimacy and restoration of the soul. Frederick Law Olmsted emphasized the need for city dwellers to escape from the city to natural settings to sustain mental and physical health. This theory has been profoundly influential in the planning of open spaces in cities worldwide. An example of this can be seen in Central Park, New York.

Humans have physiological responses to stress which includes: high blood pressure, increased heart rate, increased muscle tension, change in brainwave functioning and mental concentration. One of Ulrich's studies involved exposing patients to a defined stressor. He compared and measured the physical responses of groups that were shown tapes with colour and sounds of natural settings versus urban settings. He found that the people exposed to natural settings recovered physiologically remarkably faster and felt better than the group that was shown the urban scenes. This fast response to nature indicate that the part of the nervous system that is not under conscious control is also influenced by the therapeutic effect of nature (Gerlach-Spriggs et al, 1998:37).

Cultural preferences are learned and different cultures respond in different ways to nature and prefer different garden styles. As part of their traditions and culture, people appreciate nature in different ways and forms. However, Mankind has an overall positive response to nature which seems to be universal and not merely a cultural or learned one. This intense preference for nature indicates that a need for nature originates in mankind's deeply rooted collective unconscious (Gerlach-Spriggs et al, 1998:36). The designed outdoor environment should satisfy this basic human need for contact with nature.

*"People often say that they like nature; yet they often fail to recognize that they need it... Nature is not merely 'nice.' It is not just a matter of improving one's mood; rather it is a vital ingredient in healthy human functioning". (South Africa 2006:26)*

### 2.3.2. EVOLUTIONARY PREFERENCES

Through evolution and 'survival of the fittest' humans have become genetically programmed to prefer certain types of environments based on their resources and survival value. Is it possible that these evolutionary remains in human sub consciousness are exactly what make nature so important and soothing?

Gerlach-Spriggs et al (1998:41) state that gardens seem to be preselected habitats, where nature is tamed and brought home to a human scale. To experience the healing effects of the garden requires no special preparation; we are all evolutionary prepared for its benefits. Even if we have never seen a garden the belief in nature's healing power seems almost genetic (Gerlach-Spriggs et al 1998:40).

Preference studies have been done by environmental psychologists to determine what kinds of environments are more attractive to humans than others. Slides were shown to a variety of different people and they were asked to choose their favourite scene. The studies indicated that outdoor settings were clearly more important to people while scenes showing human influence were the lowest in preference. Small structures in natural settings were also popular. Neither extreme openness nor dense blocked views were popular while open forests and parklands scored highly. Waterscapes were also highly preferred. In general scenes where it is the easiest to extract information needed to function properly was preferred. These include scenes that direct the attention to important areas through contrast, natural borders or lines that focus the attention on a particular point (Cave 1998:120). It is thus important that the healing landscape should be legible and easily understandable to the patient to reduce stress levels and increase comfort. Biophobia can be described as the predisposition to dislike environments in which we cannot function well. To reduce stress the psychiatric patient must be presented with an outdoor environment that allows independent functioning.

### 2.3.3. THE RESTORATIVE VALUE OF NATURE

Medical treatment is nowadays mostly scientifically based, and due to scientific advances, Health Professionals generally avoid the mystery associated with alternative healing. Most tests techniques and medications of contemporary medicine are quantifiable and therefore easier to budget for. Although there is no hard scientific proof that nature has therapeutic value, an increasing amount of evidence has build up to suggesting that nature and gardens play a vital role in the healing and recovery of patients (Gerlach-Spriggs et al, 1998:35).

A large number of studies confirm that wilderness experiences have therapeutic benefits. One example is a study on psychiatric patients taken on a 5 day hiking trail. The patients showed improvements in less dependency and fewer feelings of helplessness (Cave 1998:129). A study by Roger Ulrich with very good control and numerous variables, have also showed that patients with a view of nature had reduced delusions and depression and recovered more quickly and easily (Gerlach-Spriggs et al, 1998:35).

In order to survive in any society concentration is required. This can result in physical and mental exhaustion. Modern society is burdened by ever increasing stress, the requirements and blandishments of technological society forces us into directed attention. This attention, concentration and effort results in stress and fatigue. Directed attention can be relieved through restorative environments where effortless, automatic attention is allowed to facilitate recovery from fatigue. Contact with nature, whether visual or physical seems to be the most effective restorative experience (Gerlach-Spriggs et al 1998:36).

According to Kaplan & Kaplan (1989: 175-201) nature satisfies the requirements for restorative experiences, these include:

- Being away from the source of stress and the setting that requires concentration by changing venue.
- Extensive environments that promote the feeling that the individual and the place is connected to a larger but comprehensible whole.
- Fascinating environments that provide spiritual relief through involuntary effortless attention.
- Environments that satisfies other individual needs.

*According to Wilson's Biophilia (1984) our ties to nature are biologically based and part of our evolutionary heritage. The survival of Homo sapiens like other species depended on their ability to read the landscape and to detect clues that would enhance survival. Our present response to landscape originates from our need to choose habitats that provides the key elements needed for survival: prospect and refuge and the ability for sustenance.*

*Wilson's savannah gestalt (1984) suggests that whenever people can, they choose to be in savannah like places. The most famous parks and gardens from western and eastern cultures contain archetypal savannah-like features. Because we evolved in the savannah it attracts and soothes us (Gerlach-Spriggs et al 1998:39). This innate attraction is not accidental but linked with the human skill for survival. The savannah landscape contained all the key elements needed for survival. It is therefore not a surprise that mankind originated and developed as conscious species in the African savannah characterized by grassy plains, scattered trees and groves of vegetation with denser woods near rivers and lakes. (Gerlach-Spriggs et al 1998:39).*

Gerlach-Spriggs, et al (1998:2) state that restorative landscapes evoke rhythms that energize the body and inform the spirit and ultimately enhance the recuperative powers inherent in an infirm body and mind. Where recovery is not possible, intimate contact with the cycle and flow of nature can still calm the spirit.

#### 2.3.4. TIME AND CHANGE

Information presented to the user of an environment can be constant or subject to change (daily, seasonal or longer periods of time). When the information presented in the environment stays constant, adaptation will take place and the individual will respond less and less to it (Cave, 1998: 26). This can be cleverly used by the designer as a tool to make a conscious decision about what information needs to be constant and what information should be subject to change. The regular user of the environment will then feel familiar and comfortable while the element of surprise and change can still excite and intrigue him. As a symptom of institutionalization the psychiatric patient often completely lose track of time, and have difficulty to determine how much time have passed since first admitted. It is therefore essential for the outdoor environment of a psychiatric hospital to communicate time and change.

## 2.4. THE ROLE OF THE SOCIAL ENVIRONMENT

### 2.4.1. ISOLATION

*During her stay in a psychiatric hospital, journalist Norah Vincent expressed the intense need for emotional connection.*

*“Be a person with me, will you? I’m not a petri dish.’ I wanted to relate to them, to connect as a human being, but I also wanted to get a reaction that wasn’t preprogrammed.” (Vincent 2009:33)*

Being institutionalized is dislocating, and the patient is overwhelmed by the distortion of perception, sapping of identity and loss of connectedness to the external world. Due to this the recovery process in hospital settings is often slow. Research has indicated that design can enhance the therapeutic process and improve the recovery rate of patients in hospitals (Uzzell & Lewand 1990:34).

Due to Heavy medication and a lack of understanding, psychiatric patients are often further emotionally distanced from the people around them. Outdoor environments that encourage both formal and informal social interaction between patients, staff and the public can assist in creating a sense of belonging and familiarity.

Exposure to outdoor environments in the earlier stages of institutionalization could enhance healing and recovery process (Gerlach-Spriggs et al, 1998:3). A sense of connectedness to the physical environment could also be encouraged when a Landscape Architect allows interaction between humans and natural systems. By doing this patients can become more aware of their integral role as part of a complex whole .

### 2.4.2. BEHAVIOUR

*“Did the people make the place, or did the place make the people? Did we turn the place into a zoo, or did the zoo turn the people into animals? You become your environment, and you become what you are expected to be. The lower the standard the lower the result. The ruder the treatment, the cruder, the more animal, the man.”(Vincent 2009:27)*

Hagedorn (1990:21) argues that being outdoors is a normal human experience which many people are denied. Furthermore he states that certain behaviours that are unacceptable in indoor environments are acceptable outside. Social expectations are different outside and there is a sense of freedom because it is acceptable to shout, run about and sit on the ground while indoors these behaviours are generally unacceptable.

‘Environmental press’ is a concept used for creating therapeutic environments. This concept argues that the environment is composed out of socio cultural significance, objects and tasks. In a therapeutic environment these are combined to press the user to behave in a certain way to produce a level of arousal which may, if sufficient, be pleasurable and likely to promote exploration and a positive interaction with the environment. When an environment is boring no arousal will occur and there will be no reaction, where over arousal can cause stress, anxiety or aggressive behaviour (Hagedorn 1990:21).

A landscape that accommodates a variety of outdoor experiences and activities can counteract boredom and intrigue the user to explore and engage with the environment in a positive manner.



### 2.4.3. MENTAL ILLNESS STIGMA

“To set the sick apart sustains the fantasy that we are whole “(Scheffer 2003:3). Stigma is characterized by suspicion, stereotyping, fear, embarrassment, anger and avoidance. The negative effects of stigma include amongst others low self worth, isolation, hopelessness and poor social adjustment. It also affects families and friends through “stigma by association” (Scheffer 2003:4). Public views about the dangerous nature of mentally ill persons are exaggerated. 80-90% of people with mental illnesses never commit violent crimes and are more likely to have acts of violent crimes committed against them (Scheffer 2003:6).

Scheffer (2003:5) states that mental illnesses and psychiatric hospitals are greatly stigmatized due to the following factors:

- Label of mental illness
- Appearance
- Illness related behaviour
- Characteristics of treatment
- Socio-economic status
- Media depiction

Stigma negatively affects mentally ill patients while they are ill, in treatment and in the process of healing. Once the stigmatization has occurred it invades the identity of the one who experience it even after recovery (Scheffer 2003:3). Estimates indicate that two-thirds of people with mental health problems don’t seek help due to stigma associated with mental illness, its treatments and a lack of knowledge about the symptoms (Scheffer 2003:3).

Stigmas have a profound effect on the way organizations, employers, health care providers and schools respond to mentally ill persons. It also prevents mentally ill persons from seeking the necessary treatment and changes the way those that do seek treatment perceive themselves and are perceived by others.

### 2.4.4. CHANGING STIGMA

Changing stigma is a difficult and complex process because it involves changing people’s attitudes and understanding about mental illness. The gay and lesbian community as well as disability, AIDS, cancer and feminist groups serve as examples and proof that social stigma can be minimized by creating awareness through social marketing. Scheffer (2003:3) states that people cannot be supportive of the mentally ill if they fail to recognize and acknowledge their own mental health problems, and those of their family, friends and employees. According to Scheffer ( 2003:7) the most promising strategy to change negative perceptions about mental illnesses is increasing contact between the public and persons with mental illness. Attitudes can be positively changed by increasing contact with mentally ill persons who fulfil “normal social” roles.

Media cultivates public attitudes and perceptions and therefore news about mental illnesses and related crimes should be kept factual. Negative media about mental illness is a major contributor to stigma and gives a distorted impression about what is unknown (fig 2.3 next page). Positive activities and unique experiences at Weskoppies can lead to more positive publicity (fig 2.4 next page).

If it is true that humans become what their environment is, an outdoor environment with a cheerful positive identity have the potential to significantly improve people’s perception of themselves and how they are perceived by others.

# Weskoppies, ysterhek en depressie

was in 1907 geïmpeleer te  
nine years' imprisonment  
for his part in the death of

# Weskoppies 'sal g'n 'n 'Malstok'-fees kry

gevoel van algehele-depressie.

onaardse geluide wanneer hulle "nuweling" sien.

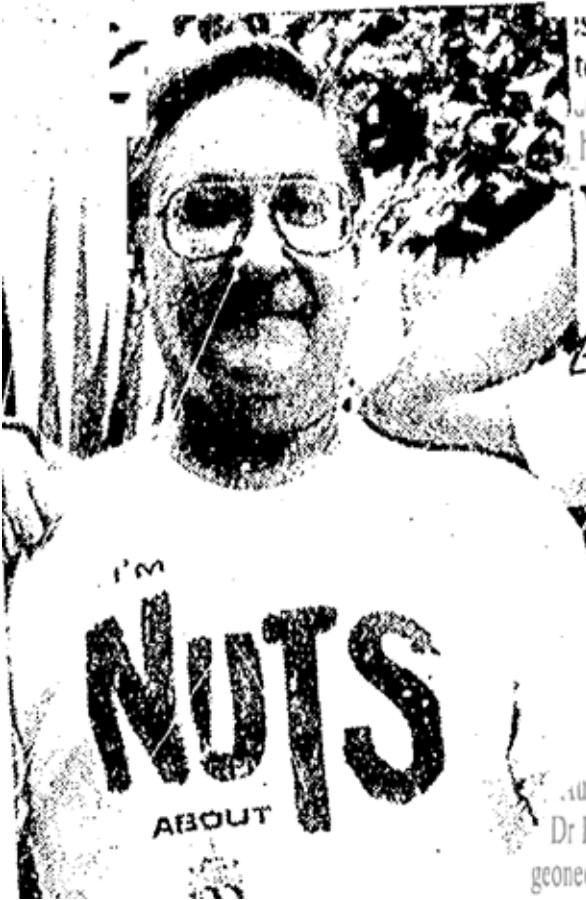
Die plek lyk vuil, ruik ook nie lekker nie en die toilette is nie...

Lawaai en 'n byna **dierlike geskree** is aan die orde van die dag in dié saal. Selfs van die personeellede lyk nie heeltemal op hul gemak nie.

Weskoppies T-shirts insensitive

**"I'm nuts about Weskoppies"**

**Nagmerrie-nag**



Van Rooyen ontsnap uit Weskoppies

vir man in Weskoppies

Death twice for brutal murder of psychiatrists

Beskuldigde se IK 55, hof stuur hom vir 18 dae na Weskoppies

ent to murder his  
id benefacto  
rs, Dr Leona  
nd Dr Rodi  
ivier at their  
swhouses in l  
Verwoerdbu  
August 11, 1993.  
Dr Rech was first blud-  
geoned with a pick-axe

He said it v  
again on th  
murder.  
... with a severely ag-



Fig 2.3 (previous page). Collage of articles from various newspapers in South Africa from 1985-present, depicting the negative media concerning Weskoppies that results in the stigmatization of psychiatric hospitals (Author 2009)

Fig 2.4 (below). Collage of articles from various newspapers in South Africa from 1985-present, depicting the positive more factual media concerning Weskoppies and leading to a more accurate perception of the hospital. (Author 2009)

**Bester wil 'Malstok' by Weskoppies hou** Geriewe vir alle soorte siekes

For the almost leisurely atmosphere of the institution and ordinary appearance of inmates differs vastly from the Gothic image of howling lunatics confined in dungeon rooms

die en ander opvattinge wat by Jan en Alleman bestaan. Marie te hou.

Weskoppies Hospital, which turns 100 this week, has a **colourful history.**

Weskoppies se ontspannings- of ander geriewe te verbeter, meen hy.

**Pasiënte aangemoedig om te werk**

have gone all out to make it a pleasant environment, which is positive for healing patients.

“The management, teamwork and love of looking after patients contributed towards the cleanliness of the hospital,” she said.

Hospital is given **thumbs-up**

Daar bestaan verskeie **wanopvattinge** oor die psigiatriese hospitaal en die pasiënte wat daar gehuisves word.

**Weskoppies 'clean and tidy'**

Die meerderheid pasiënte beweeg vryelik rond en 'n rustige, landelike atmosfeer heers op die terrein.

THE Gauteng MEC for Health, Gwen Ramokgopa, was impressed with the cleanliness and tidiness of the Weskoppies Hospital during her surprise visit to the facility in ...

**Werk by Weskoppies is 'wonderlik'**

She said the hospital had a few touches of paint on some walls ...

Oud en jonk – en misdadigers – versorg in **rustige omgewing** in Pretoria

**Die Einddoel is rehabilitasie**

## 2.5. CONCLUSION

A historical study of outdoor environments at psychiatric hospitals indicated that a restful physical setting with activities like farming, vegetable gardening and other outdoor activities effectively assists in the healing process. To further assist in improving mental well being a Landscape Architect should consider the influence physical and social outdoor environment on human emotions.

The theoretical research indicated that outdoor environments have the potential to support the emotional healing process when:

- it satisfies the basic human need for contact with nature in both its pure form and in the form of gardens or horticultural therapy.
- it is legible and easy to function in.
- time and change is enhanced in the design, heightening the level of consciousness and awareness.
- formal and informal interaction between patients, public and staff is encouraged to reconnect isolated patients and establish a sense of belonging and familiarity.
- interaction between humans and natural systems are encouraged establishing a feeling of connectedness to a larger whole.
- it provides a variety of uplifting experiences and activities.
- it aids in the de stigmatization of mental illnesses by exposing the public to patients that fulfil “normal” social roles.
- it has a strong identity resulting and enhanced by positive publicity.

