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# site location



southern africa

2\_01



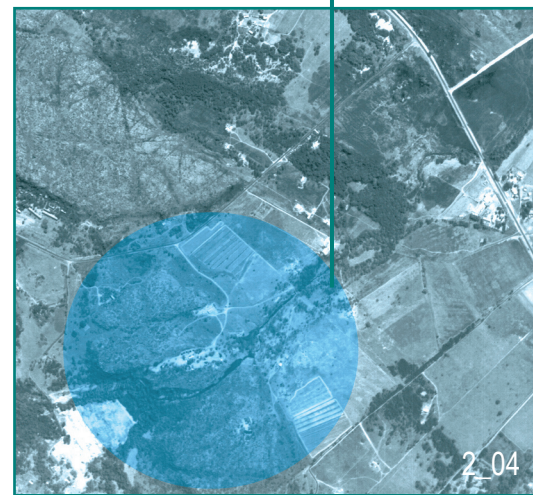
south africa

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gauteng

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site

## 2.1 Site Assessment

In 2002 a Strategic Environmental Assessment (SEA) was completed of the Bronberg, and a Basic information Document was drawn up as part of a Bronberg Conservation Initiative. The following is an extract from the document:

*“The unique ecological and physical features of the Bronberg make it worthy of protection from conventional urban development and other inappropriate uses. Both the Constitution of the Republic of South Africa, (Act 108 of 1996), and the National Environmental Management Act (Act 107 of 1998) recognise the importance of such assets and the need for their proper management and protection.”*

### 2.1.1 Location

The Bronberg is a prominent ridge that runs south-east from Pretoria between the R6 Lynnwood Road, and the R30 Garsfontein Road, to the R25. The site lies just off Lynnwood Road, approximately 14km east of the Lynnwood Road and Hans Strydom Road intersection. The site is known as Nkwe and is currently used as a recreational area and caravan park. This area is known as Tiegerpoort and the site is located in the Kungwini Local Municipality.

### 2.1.2 Climatic Data

The climate is moderate, summer day temperatures range from 15-30°C, and in winter 6-23°C.

Altitude of Bronberg 1595m

Average annual rainfall 700mm occurring mainly in the form of thundershowers.

Humidity 30-50%

Hours Sunshine 60-80%

Prevailing winds - North East in summer

North East / North West in winter

### 2.1.3 Biophysical study

- The properties that make up the site are sized as 8.5ha and larger.
- The land is zoned as vacant and residential.
- The site lies to the north of the Pienaars River, and falls in the Pienaars River catchment (SEA p.124)

The geology of the site is made up of Quartzite and Shale. The Bronberg consists of Daspoort Quartzite underlain with Silverton shale, both of the Pretoria group. The shale has a faster rate of weathering than the other rock types, and weathers to a clayey soil, and the quartzite into a gravelly or sandy soil. The area is covered in large boulders and rock sheets, shallow sandy soils predominate (SEA p.123).

According to the Bronberg Strategic Environment Survey, the land is zoned

- critically sensitive zone
- highly sensitive zone
- moderately sensitive zone
- conditional development area

Development and construction on site should be confined, as far as possible, to the moderate development and conditional development zones. This survey also states that the land has high conservation value, and moderate agricultural potential.

The broad land cover is the following

- Thicket, bushland and bush clumps (this is the majority of the land cover)
- Unimproved grassland (south of the river)
- Forest plantations (exotic) (most development will take place in these areas)
- The broad vegetation type is classified as Rocky Highveld Grassland.





summer



winter



The area harbours many species of animals including reptiles, mammals, birds, amphibians and invertebrates (SEA p.15). The area is said to have unique natural elements, and a wide variety of animal species.

The site has areas that are listed as a potential habitat for the following animals

- Brown hyena
- Wild cat
- Klipspringer
- Springhare
- Water rat
- South African hedgehog

The site is also a potential habitat for the *Eulophia coddii* and a potential habitat for Juliana's Golden Mole (red data fauna) on the adjacent farm. The conservation of this species is of high priority.

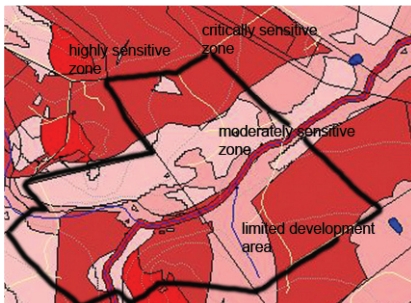
This area has been used since the early Stone Age. Cultural resources have been identified on adjacent farms. These include the site of a British fort to the south, and an early farm to the north-east.

The high conservation value of the site and its potential as a habitat for indigenous fauna and flora, dictate that development and construction on the site must take these facts into consideration. A building with minimal negative impact during construction and operation is necessary. Users must be educated, so that they are aware of the value of the site.

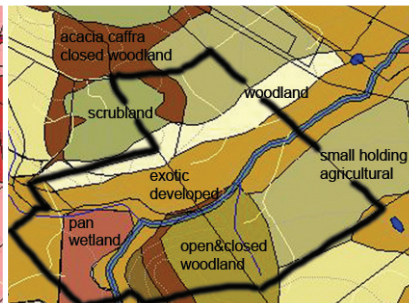
Recommendations of the SEA

- Controlling runoff
- Preserving indigenous species
- Removing snares
- Controlled burning
- Measures to retain the resource value of the Bronberg

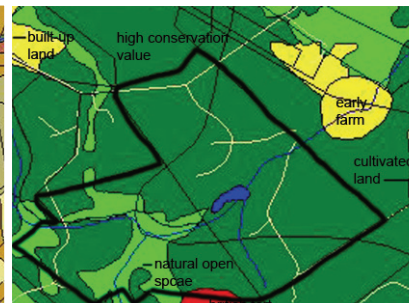
According to the SEA only 10% of the site may be developed on, and requires an Environmental Impact Assessment. The area must be managed so that any development will not have a negative impact on existing and potential habitats.



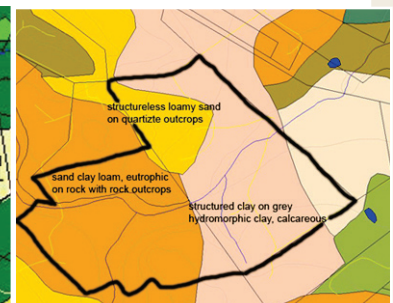
land development zones 2\_15



broad land cover 2\_16



conservation value 2\_17



soil types 2\_18

## 2.2 History

### 2.2.1 Oral History of the Manala occupation of the Bronberg. (As per Kusel in the Bronberg Strategic Environmental Assessment)

The main settlement of the Manala was on the farm Klein Sonderhoud 519JR and was known as Ezotshaneni, which they occupied from 1676-1717. The Manala's main *umusi* (living place) was on the farm Tierpoort 371JR where the remains of this settlement can still be seen today.

With the rise of the Zulu nation and move of Mzilikazi to the north settling in the Pretoria area, trouble began between the Manala and Mzilikazi's soldiers. After many attacks the Manala were scattered over a very large area. Most of the young men and women were initiated into Mzilikazi's tribe. By the arrival of the first Boer farmers in the area around 1840 the Manala's power had been broken. The first white farmers who moved into the area, Bronkhorst and Erasmus, eventually evicted the last Manala people off their land and recommended that they settle at the Berlin mission station at Wallmannsthal.

Iron Age Sites associated with the Manala Ndebele occur all along the Bronberg area. The sites which have been left in tact, are mainly on top of the Bronberg, and are concentrated on the farms Swawelpoort, Tierpoort and Klipkop. What is left is only a small portion of what once formed the empire of the Manala Ndebele people. Unfortunately through development most of the other sites have disappeared.

The Iron Age sites of the Bronberg are by far the most important pre-historic settlement sites in the whole of the Pretoria region. None of the sites have been excavated, thus little is known of the cultural material they contain. There are still known ancestral grave sites, as well as initiation sites on farms in the area.

The Bronberg with its diversity in ecosystems has been the ideal settlement area for many people. The area contains medicinal plants as well as many other species, which had been used in daily life. These include wild fruit, fibre for making mats, ropes, and building material.

Of the very first farms that were allocated to white settlers in Pretoria during 1839 and 1840 were farms near the Bronberg. Very little is left of the original homesteads as during the Anglo Boer War the British forces destroyed and burnt most of the houses in this area. Remains of old water furrows, demarcations of farm borders and stone walls can still be seen on some farms today.

During the Anglo Boer war the British built fortifications along the Bronberg. These were temporary fortifications on the highest points with many smaller redoubts towards the east in the direction of the Pienaars River. The fortifications were often build from stones from the Ndebele settlements.

The historic farms of Swawelpoort, Tierpoort and Klipkop, contain a number of important farm and architectural sites, including graveyards. These sites have development potential and are also protected by the National Heritage Resource Act (25/1999) because they are older than 60 years.

Today the area has a mixture of all possible architecture. On the northern portion of the Bronberg modern township development is taking over. On the eastern and especially on the western side small scale farming has replaced large-scale farming.



## 2.2.2 Pretoria

The topography of Pretoria is dominated by three parallel quartzite ridges, which run in a west-easterly direction (Heydenrych, Swiegers 1999:2). These ridges have necks and poorts through which the different parts of the city are connected. Fountains Valley is the site of an original spring, that gives rise to the Apies river, the main river running north through the city (Heydenrych, Swiegers 1999:3).

The first Iron Age people arrived in the area between the Vaal and the Limpopo about 1800 years ago (Heydenrych, Swiegers 1999:7). The earliest Iron Age settlement found in the Pretoria municipal area dates from 1200AD. According to the Black oral tradition the Ndebele tribe were residing in the area (Heydenrych, Swiegers 1999:7). The migration of Mzilikazi and his tribe to the area north of Pretoria in about 1820, lead ultimately to the downfall of the Ndebele due to clashes. Around the 1840's the first white settlers arrived and settled mostly along the water source of the Apies River.

The town of Pretoria was founded on the 16 November 1855, on the farms Daspoort and Elandsport along the Apies River. Pretoria was established as the capital of the South African Republic in 1860, with many African settlements around the town. In 1886 gold was discovered on the Witwatersrand, with it came the rush of British imperialists, and thousands of fortune seekers. In 1910 when the Union of South Africa was formed Pretoria remained the administrative capital, with Cape Town as the legislative seat of Parliament (Heydenrych, Swiegers 1999:13).

In 1952 Dr H.F. Verwoerd identified the 82 squatter camps and eleven locations that existed in and around Pretoria and consolidated them into three black areas: Vlakkfontein, Atteridgeville and another area that was not identified (Walker, van der Waal 1993).

Lady Selborne, to the north-west, was one of the few black residential areas where land could be owned (Walker, van der Waal 1993). This multicultural settlement, including Indians, Chinese, Blacks, Coloureds and Whites. In 1957 the Group Areas Act was passed, and Lady Selborne was changed to a 'white' area, later renamed Suiderberg.

By 1960 its residents had been removed mostly to Atteridgeville and Mamelodi. Coloureds were removed to Eersterus, just south of Mamelodi, and the Indians to Laudium.

In 1961 when South Africa became a republic outside the commonwealth Pretoria remained the capital, as it did in 1994 after the first democratic election (Heydenrych, Swiegers 1999:17).

The city has steadily grown in size with new townships and suburbs proclaimed from time to time (Heydenrych, Swiegers 1999:19). The black areas developed in a haphazard way and were poorly serviced. This is because the constitution excluded people of colour from citizenship and the right to own land, except in demarcated areas. In 1986 the pass laws were abolished, many blacks streamed from the rural areas to cities in search of work (Heydenrych, Swiegers 1999:22). Many settled in informal settlements, or squatter camps.



## 2.2.3 Mamelodi

(Extract from Walker and van der Waal, 1993)

Mamelodi lies 18km east of church square Pretoria, between the Magaliesberg mountains to the north, and the old Delagoa Bay railway line to the south. The Moreleta Spruit wanders through Mamelodi cutting it into the East and West sections. Black people had lived here from early times, evidence of their settlements can be found on the nearby hills.

Mamelodi is a large township compared to other townships. Almost one third of the population is officially homeless and living in the large informal area, Mandela village. Mamelodi West is the oldest part of the township. The houses are small, and often badly maintained. These houses were built immediately after the establishment of Mamelodi in 1953. There are a few wealthier neighbourhoods in Mamelodi West, with big houses and fences around them. Mamelodi East has small houses.

Mandela village is the large squatter camp in Mamelodi. Thousands of people live in Mandela village without electricity, and water is provided by means of taps on the street. The roads are un-tarred, and refuse removal does not exist.





## 2.3 Socio-cultural Environment

*"And what of the cities? Think of the imprisoning grey areas that encircle the centre. From here the sad suburb is an unrealised dream. Call them the no place although they have many names. Race and hate, disease and poverty, rancour and despair, urine and spit live here in the shadows. United in poverty and ugliness, their symbol is the abandoned carcasses of automobiles, broken glass, alleys of rubbish and garbage. Crime consorts with disease, group fight group, and the only emancipation is the parked car" (McHarg 1969:20).*

### 2.3.1 Urban Conditions

Urban areas seem to hold much promise, and 'pull' people towards them, there would appear to be more employment opportunities, better healthcare and educational facilities (De Beer 2000:7). In the early years of the twentieth century the 'poor white' migrated towards the cities looking for opportunities. For a long period the apartheid policy made it difficult for poverty stricken blacks to move to the metropolitan areas. The 1986 white paper on urbanisation started a process of normalising urbanisation in the country (De Beer 2000:8). This process accelerated after 1994, and increased numbers of migrants started moving into cities.

People from the rural areas, thrown into the strange environment of a squatter camp, react psychologically (Swanepoel 1997:67). Migration to the city means leaving behind the safe confines of the tribal community, its identity, culture, religious beliefs, the disregard for material wealth and the group support (Farier-Wessels 1989:24). In the urban culture some of the old values and beliefs are lost, others change, and new beliefs and values emerge, often with a mixture of western and traditional beliefs (Farier-Wessels 1989:24).

Some people manage better than others in the transition. The environment can quickly become a place of fear, tension and uncertainty. Today churches, clinics and burial societies provide the support networks that were originally given by the traditional community.

The subservient position of women in traditional society is a fact of life (Swanepoel 1997:66). Women fulfil a servile position and have little decision making power. Because of the absence of men, who often work in other areas, women are the caretaker heads of households. Most women carry a double load on their shoulders. They are busy running a household, but often have to do part-time work to augment the family income. Women suffer more than men do from poverty and are more at risk (Swanepoel 1997:66).

The more than seven million South Africans living in urban squatter settlements are poor (De Beer 2000: 8). Families of up to six people share one or two roomed shacks, equipped with only the most basic furniture. Poverty manifests itself through a lack of job opportunities, housing and other services. Informal settlements are found on the outskirts of cities, away from places of employment. Townships are predominantly working class, with residents having higher education and qualifications (Farier-Wessels 1989:40).



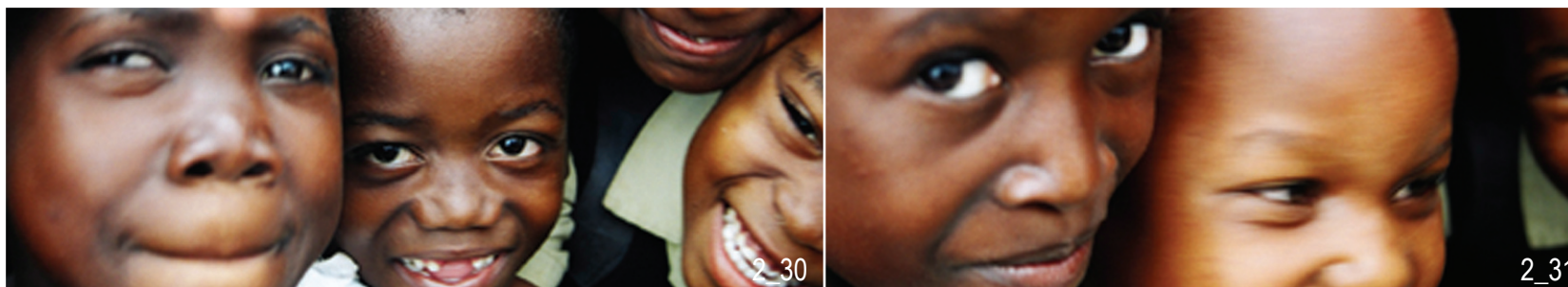
### 2.3.2 Health and Living Conditions

David Schmidt (1978) cites a number of studies demonstrating a positive correlation between poor health outcomes and the levels of stress in a home, measured by such things as unemployment, communication problems, having a member with a chronic illness, a recent experience of divorce, death or desertion etc. (Schmidt p305-310 in Loustaunau 1997:25).

It is suggested that while high density contains negative aspects, individual differences and situational and social conditions determine whether these are salient and whether crowding occurs (Bell 2001: 330). While density does not have a totally consistent negative effect on humans, it leads to aversive consequences in a variety of dimensions. It can lead to higher psychological arousal, aggression and lower prosocial behaviour, less liking for others, withdrawal from interactions, as well as being associated with illness.

Comparisons of urban and rural areas suggest that cities contain more stressful environmental features (Bell 2001: 340). Furthermore as the city size increases, so do risks of both physical stressors such as noise and pollution, and social stressors like crowding and divorce.

Urbanites most exposed to urban stressors (noise, pollution, heat, crowding and extra demand) are those with other problems as well (Bell 2001: 340). The poor are probably exposed to more urban crowding, noise and crime. Given the fact that these individuals are already vulnerable to stress, adding the environmental stressors characteristic of urban life can be especially problematic. Since poor people are sicker than the well-off, largely because of poverty conditions, their life chances, opportunities for acquiring favourable life experiences, are affected through loss of opportunities for advancement of personal and social goals (Gerth and Mills 1958, From Max Weber: Essays in Sociology).





### 2.3.3 Crime

A term used by Zimbardo (1969) called deindividuation, tried to explain why there is more crime in urban areas than in small towns (Bell 2001: 345). According to the theory a person feels anonymous as a member of a crowd, and believes it to be unlikely that identification and punishment will take place. Under such conditions, criminal behaviour is more likely to occur. Other explanations include unemployment, a greater number of antisocial role models, more goods to steal, more possible victims, as well as more outlets for stolen goods (Bell 2001: 345).

Fear of crime and associated stressors are a major problem in urban areas. Fear of crime has been found to be increasing faster than crime rates, and often not even related to the likelihood of being victimised (Maxfield 1984, Taylor & Hale 1986) (Bell 2001:346).

When comparing the crime figure for the areas of Brooklyn and Mamelodi, both in Pretoria, a large difference is noticed immediately. Brooklyn is a predominately white, high income residential area east of Pretoria city centre, and Mamelodi a township to the north-east of Pretoria. The greatest differences is in terms of murder, rape and assault, with Mamelodi having higher figures for assault. The only categories where Brooklyn is higher, is with, burglary and theft.

### 2.3.4 AIDS/HIV

An estimated 25 million people are living with HIV in sub-Saharan Africa (2004 global report on AIDS, p6 executive summary). Sub-Saharan Africa is home to just over 10% of the world's population, and almost two-thirds of all people living with HIV. In South Africa it stands at approximately 30% of the population.

According to the UNAIDS report, women are at a greater risk of infection and bear the brunt of the epidemic, as they have to take care of others, lose jobs and schooling due to illness, and face stigma and discrimination (2004 global report on AIDS, p4 executive summary). Older women often take on the burden of caring for ailing adult children, and later when they die, adopt the parental role of the orphaned grandchildren. Stigma also means that family support is not a certainty when women become HIV positive. Women may have property seized when their husband dies.

African women are at greater risk, becoming infected earlier than men. The difference is pronounced among 15-24 year olds. In South Africa the ratio of young women to young men is 2:1 (2004 global report on AIDS, p6 executive summary).

In general AIDS-affected households are more likely to suffer severe poverty than those not affected (2004 global report on AIDS, p8 executive summary). AIDS takes away the income and production capacity of the family members that are sick. At the same time it creates extraordinary care coupled with needs rising household expenditure on medical and other costs, such as funeral expenses. In South Africa, studies of AIDS affected households, found that their monthly income fell by 66-80% because of coping with the AIDS sickness.

## 2.4 Healing

*“A system of healthcare which is capable of keeping people healthy in both mind and body, must put its emphasis on health, not sickness... it must be able to encourage people in daily practises that lead to health. The core of the solution, as far as we can see, must be a system of small, widely distributed, health centres which encourage physical activities... swimming, dance, sports and fresh air.” (Alexander 1977:252)*

### 2.4.1 Traditional Healers

In attempting to understand and analyze health and illness in any society, individual's behaviours, interactions and social structures must be placed within a cultural context (Loustaunau 1997:10). Culture affects our perceptions and experiences of health and illness in many ways, and these perceptions and experiences change as culture changes (Loustaunau 1997:17).

Traditional healers have been practising in Africa for about 4500 years, before there was any knowledge of the Western medicinal system (Adler 1995:45). Before the European colonisation of South Africa, traditional medicine exerted great political influence in public and private affairs. Under missionary influence, as well as imperialistic political trends, traditional medicinal practises were prohibited (Adler 1995:45).

African traditional healers diagnose illness, prescribe and prepare herbal medicines, provide counselling and offer spiritual support (Schuster Campbell 1998: 7). Traditional African medicine and treatments address healing of both the body and the spirit and can be a catalyst for subtle yet profound changes.

The treatment used by the traditional healers, and diviners varies greatly and depends on the healers own knowledge and skills as well as the patients own illness (Hammond-Tooke 123:1989). Satisfactory healing involves not merely the recovery from bodily symptoms, but the social and psychological reintegration of the patient into his community (Adler 1995:44).

One of the many changes that came with the dismantling of apartheid in South Africa was the creation of a health system that would be applicable to the needs of all the people of the country (Adler 1995: 41). With a white minority government in control, the health system had also been 'white', that is, based on the Western approach to medicine. This automatically meant that the traditional African approach to healing, favoured by many of the 85% black population, was not officially and legally recognised, but disparaged by the white establishment.

It has often been stated that traditional healers are accessible because compared with modern medical practitioners, they have the advantage of cultural, social, psychological and geographical proximity (Adler 1995:47). The traditional healers form a crucial link between the community and the western medical professionals (Schuster Campbell 1998:4). Senior, credible traditional healers are well established, well-respected, accepted and trusted by the community. They are a precious resource for the dissemination of basic health care, especially in rural areas where access to information is limited.

(A detailed report on Traditional Healing is contained in Appendix B, as well as information on Trauma Intervention in Appendix C.)

## 2.4.2 Alternative Healing

### 2.4.2.1 Hydrotherapy

In hydrotherapy the waters can be taken in many different ways, internally or externally (Inglis 1983:22). Water can be used as a stimulant or as a relaxant, as a medium in which to exercises or in which to rest.

### 2.4.2.2 Herbal Therapies

As it is most widely practised, herbal medicine involves the preparation of roots, leaves, stems and seeds of plants, either for consumption, in the form of medicine, or for use on the skin. In aromatherapy they are rubbed into the skin, usually through massage (Inglis 1983:45).

### 2.4.2.3 Physical Therapies

Physical therapies include massage and reflexology. A well recognised benefit of physical therapies is reduction of the symptoms arising from stress (Inglis 1983:95). Soft flowing movements calm and soothe the nervous system, stimulate nerve endings in the skin and warm and loosen superficial tissues. Deep movements remove tension from the muscles and increase suppleness and mobility.

A further effect is that massage triggers the body's own inner healing process. It therefore naturally relieves many medical conditions over a period of time, to achieve positive and lasting health benefits (Reflexology Manual 2003:1). The combination of treatment and relaxation creates a powerful tool, and if used together with skills in counselling and nutritional advice, it provides a holistic health programme.

### 2.4.2.4 Other therapies

The eastern therapies that originally came from China and India, deal mostly with the balance of energy or 'chi'. Acupressure, acupuncture, yoga, T'ai Chi, meditation and Ayurvedic practises are just some of many.

Many alternative therapies are being developed today such as art therapy, dance therapy, music therapy and colour therapy. These are particularly beneficial for psychological and emotional problems, as they help with the expression of pent-up emotions and the release of tension associated with these (Inglis 1983: 150,193). (Detailed information on Alternative Healing is contained in Appendix D.)



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## 2.4.3 Wellness

Good health is often defined as the absence of disease, but in reality it includes physical fitness, emotional and spiritual health as well (Powers 1996: 9). A healthy lifestyle refers to behaviours aimed at reducing one's risk of disease and accidents, achieving optimal physical health, as well as maximising emotional, social, intellectual and spiritual health (Powers 1996:10). None of the components of wellness work in isolation; there must be a strong interaction among the five.

Although it is customary to distinguish between physical and mental health, this distinction is artificial in nature; it does not describe what happens to many patients who simultaneously suffer from physical and psychic distress (Gielen in Adler 1995: xvii). In contrast to the modern division between body and mind, traditional notions of healing have always perceived the patient as inhabiting a unitary world of visible and invisible forces.

The traditional healer must simultaneously cure body and soul; otherwise society will perceive him as a failure (Gielen in Adler 1995: xvii). Healing does not merely consist of the recovery of physical strength and health but must also result in the integration of the patient into his/her social group.

As medical science developed and advanced, so the dualistic approach of mind-body interaction grew, and dominated medical thinking up until the twentieth century (Adler 1995:7). The earliest attempt to take psychological causation into account in the disease process was the development of the concept of psychosomatic illness (Adler 1995:7). It stressed the role of the unconscious motivation, and reintroduced the human factor into the etiology of the disease process.

