Introduction

The aim of the Psychosocial Adjustment Centre is a very basic one,which is to instill an optimistic attitude towards disability in the users of the centre as well as the general public. Such an attitude can be summarized in one of the statements of Stephen Hawking, a disabled scientist suffering from Motor Neuron Disease:

"...while I was in hospital,I had seen a boy I vaguely knew die of Leukemia in the bed opposite me.It had not been a pretty sight. Clearly there were poeple who were worse offthan me. At least my condition didn't make me feel sick.Whenever I feel inclined to be sorry for myself,I remember that boy." Hawking (1994:20)

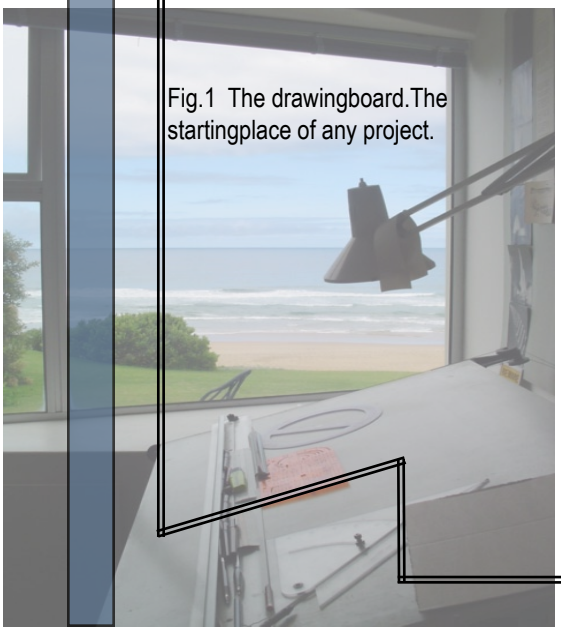


Fig.1 The drawingboard.The startingplace of any project.

Brief:

1.2 Terminology:

Psychosocial- The psychological aspect of one's mind that determines the ability to interact socially

The facility- the planned psychosocial adjustment center

On par- Putting things, people in this instance, on the same level

Generator- Inspiration for the design and the creative process to be followed

Equalizer- an aspect of the design that makes everyone (the users) equal and makes him or her come face-to-face in the literal sense

Building segment-A part of the Psychosocial Adjustment Centre like the counseling block for instance.

1.3 The real world problem and the background thereof:

1.3.1 Problem statement**:**

Disabled people are so easily excluded from our society without anyone even giving it any second thoughts. The question that arises from this is why this can be seen as acceptable while the prejudice towards other segments of our society borders sin? The systematic vanquishing of the injustice of Apartheid serves as a good precedent as to which steps ought to be taken in order to confront the problem of exclusion head-on.

The facts of the so-called real world are that we do provide for physically disabled people but in such a way that they can clearly recognize our pity and our feelings of superiority. The workplaces we design for these people, and they are intelligent people at that, are of a lowly standard and it houses the type of work we will associate with people of lower intelligence.

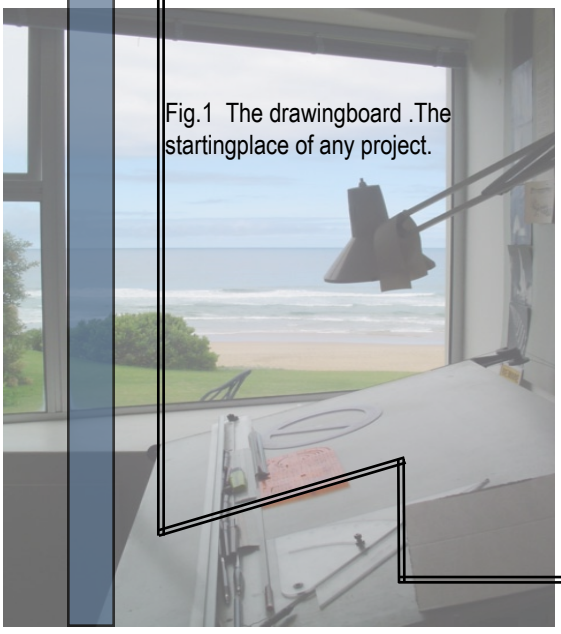


Fig.1 The drawingboard .The startingplace of any project.

The misconception of lower intelligence is a serious one since it crosses almost all the spectrums that physically disabled people has. How can you then help but become overly humble and have a feeling of worthlessness in such a society. Why is this acceptable while it is not acceptable to expect anyone else to live with such prejudices? The answer according to Hall, Imrie (2001:7) is that property development is seen as being hampered by inclusive design in the sense that designing an inclusive building is seen as expensive practice. Developers would rather spend money on developing their disability free image than build an inclusive building.

Disability is more often much more far-reaching than merely physical. Disability to adjust and become part of society is also largely psychological since people, especially adults, struggle to adjust to disability. Questions arise about who you are, what you are worth and how to over come these problems. There is a wide range

of responses possible after having suffered a spinal chord injury: Anger, Humor, Sadness, Pride and frustration. The question arises as to how a building would be designed in order to create spaces that will aid in the adjustment process while following stringent standards of building.

This facility will not exclude any part of the disabled society from the resources provided but the main focus will be on adults with spinal cord injuries.

Spinal cord injury is much more common than we think. You might have a car accident one day and never be able to do anything normally again. This will be the most difficult thing that anyone will have to adjust to. Psychological and social adjustment is a major problem in the life of newly disabled people who had been used to doing everything for themselves. The designer of a facility should test these feelings for a while in order to gain some knowledge in this regard.

The design will attempt to provide a facility where people with spinal cord injuries can go in order to receive the necessary counseling and help in adjusting to their new physical and psychological state. The beginning of the person's life as a disabled is very crucial, especially in the case of adults who has the most trouble in adjusting. A new psychological base needs to be laid and developed in order for the psychological adjustment to aid in physical rehabilitation.

Social interaction between able-bodied and disabled people is probably one of the most important aspects that needs to be designed into the building for according to Gutman (1968:3) Physical immobilization along with social exclusion may result in depression and total withdrawal form the societal mainstream.

The bottom line seems to be that the main problem encountered by disabled people, can be drawn back to the various contexts relevant to their world.
The way in which able and disabled people perceive their particular overall context should also enjoy particular attention in the design phase. A thorough investigation of the contexts relevant to the disabled should ensue in which the effect upon the disabled and on other contexts can be examined(one should for instance know what the influence of the physical context on the social context will be and visa versa.)

1.4 Clients and stakeholders:

1.4.1The site**:**

The major clients in this project will be the Northern Gauteng Association for the Disabled, The Pretoria Academic Hospital (more specific the hospital's department for spinal cord injuries) and the government who's responsibility it is to provide facilities and equal opportunities for society. **Gov plan here!**
The only real requirement for the clients is that they should have a real objective to develop this much-needed facility for the physically disabled. They should therefore realize that it is crucial to provide for the psychological development of the disabled. The vocational rehabilitation programs run by the schools, the unit of the hospital and the association of the disabled could be incorporated into the new facility and the patients that has problems with psychosocial adjustment could be referred to the facility.

The Northern Gauteng Association for the Disabled currently runs a facility near Pretoria Academic hospital that provides work for disabled people. The other benefactors like Pretoria School for the disabled, New Hope school for the disabled, Unica School for the disabled and Alma training center will gain from this development in the sense that a much needed aspect of the disability, that of psychology, will be addressed. The most significant problem faced by these stakeholders is the sterile and hospital-like feelings created due to the fact that they are in the direct vicinity of the hospital and sometimes are part of the hospital complex itself. This sterile feeling needs to be removed especially if psychological problems are to be addressed. Moving psycho-adjustment to a facility outside direct hospital vicinity can do this.

1.4.2 Stakeholders**:**

The main stakeholders in this facility and the development thereof are the local businesses, Femina Clinic, SA Nursing College, Orthopedic hospital, Pretoria Technicon, Damsa International College, Pretoria Academic Maternity, the Public Works Department, the National Association of the Disabled, the GDE, Pretoria School for the disabled, New Hope school for the disabled, Unica School for the disabled and Alma training center. These stakeholders would be required to take part in active debate around the social responsibility towards the disabled and the question around the position of the new facility and the role it will play in the community.

1.5 Keyword identification:

1.5.1 The problem subject**:**

The idea behind the design is to provide a needy sector of society with the necessary services in order to rejoin society with the least difficulty possible. A Psychosocial adjustment center for people with spinal column injuries will provide an answer to this problem.

1.5.2 Keywords**:**

The keywords of the problem will aid in the analysis of the problem statement within a certain context.

- Social acceptance
- Site: where?
- Context: physical, social, cultural, medical, psychological, legal, psychosocial, skills, services, vocational, educational and medical.
- Environmental
- Disabled access
- The mind: reactions
- Physical adjustment
- Client
- Outside stimulation
- Thought: coming to terms
- Urban setting
- Functions
- Building components: psychosocial reaction dependant
- Standards

1.6 Grouping keywords:
(Triple baseline related)

1.6.1 Social**:**

Social acceptance

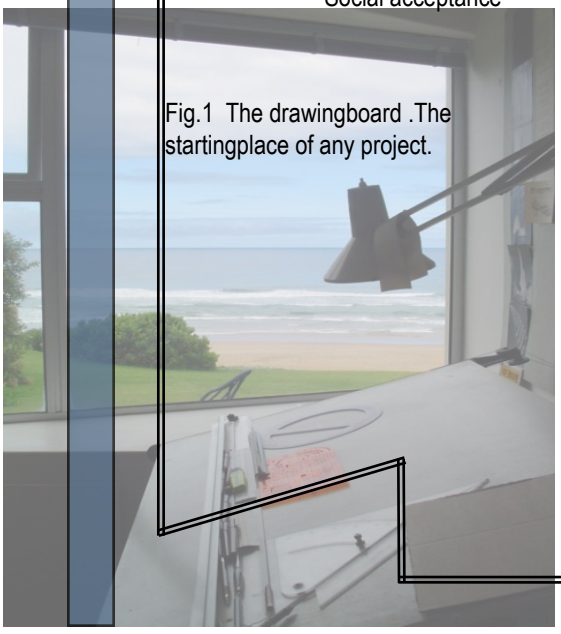


Fig.1 The drawingboard .The startingplace of any project.

The mind: reactions
Physical adjustment
Outside stimulation
Thought: coming to terms

1.6.2 Location (physical)**:**

Site: where?
Environmental
Client
Urban setting
Urban frameworks
Context: physical, social, cultural, medical, psychological, legal, psychosocial, skills, services, vocational, educational and medical.
Standards

1.6.3 Design baseline**:**

Disabled access
Functions
Building components: psychosocial reaction dependant
Interaction

1.7 Objectives and requirements for the study:
The response to the problem statement needs to satisfy some basic requirements and others that are more intrinsic. The objectives will serve as source to determine the goals that has to be reached in this thesis. These requirements are:

1.7.1 Who (Client substantiation)**:**

The provision of facilities for the disabled falls into the hands of the government since they are obliged to provide for the whole spectrum of people that live in our beautiful country. The rainbow of our nation, as with every nation, also has its parts that do not comply with the rigorous standards we set for being in our rainbow.

The client in this instance will also be one of the already existing facilities for spinal chord injuries such as schools, workplaces and hostels. These will be stakeholders in the project since they will gain from the project in the sense that they will be able to make a decisive contribution to the lives of the newly disabled.

Having a centre as planned nearby will also make it easier for these institutions to gain from the centre since new facilities will be provided that will enable interaction between newly disabled and those born with similar disabilities.

1.7.2 Where (Site choice)**:**

The choice of site relies heavily on vicinity to existing services, availability of land, exposure to society and the psychosocial needs of the clients (spinal column injured) and the urban framework and zoning.

Existing services that need to be in the vicinity:

- A community center for the provision of activities.
- Occupational and other therapists as well as medical staff.
- Theatres and other facilities housing the arts.
- Institutions that would be able to provide work for people coming from the center.
- Institutions of higher education and further skills training.
- Adequate housing to provide in this regard.

In looking at all these requirements for the proper site one needs also remember that the requirements will be much more far-reaching than just these few. It is only once the necessary interviews have been held and the right people have been spoken to that one can make the final decision about the appropriate site. The above-mentioned requirements are merely academic in nature. It is of utmost importance that the needs of the people themselves be considered and this can only be done by means of personal interview and questionnaires.The choice of site is a time consuming one and should be done with care and in such a way that the site can serve as generator for the design.

1.7.3 What (Type of building)**:**

The appropriate type of building would be a psychosocial adjustment center that houses the necessary functions needed in order to cater for the physical and social needs of the patients. The type of building will be influenced by the design investigation which will aid in the decision of the correct response to pressing matters.

1.7.4 How (Design norms and standards)**:**

The design would be generated from information relevant to all the parts of the building. The applicable generators need to be looked at in order to arrive at a proper solution to the problem. A significant problem facing disabled people is context. Almost all the contexts relevant to disabled people should be examined in order to generate a design that addresses the problems within them.

Design standards is directly related to physical standards like SABS and other regulations related to design for the disabled and more indirectly related to what is accepted as good and responsive design for the disabled, in other words, the intangible side of standards.

1.8 Design investigation (Generators of the design):

1.8.1 Physical design**:**

The way in which people with spinal cord injuries perceive proportion drastically change once they see everything from a wheelchair. Things that used to be within reach cannot be reached anymore. Big things are now super sized and present the patient with a strong feeling of being small and worthless.

The problem starts with the reduction in height, which a person in a wheelchair has to deal with as well as decreased mobility. Bearing this in mind we should design spaces that alters the perception wheelchair patients have of proportions and if possible put them on some sort of par with able bodied people. Able-bodied people literally look down upon wheelchair patients and act differently towards them. Interaction between people has to be designed for in such a way that the wheelchairs do not become a stumbling block.

One should bear in mind, when designing, that it is easier for an able bodied person to adjust to the perspectives of a disabled person than visa versa. Let the able person go through adjustment rather than the disabled person.

Textures and views are very important for these are two of the elements of a building that is often out of reach for people in wheelchairs. The architect would only understand the importance of textures and views once he/she experiences disability in some form. (see chapter of inclusive design in development)

The current social paradigms should be looked at in order to devise a design response to it. The design will be based on responses to a series of contexts, be they physical or metaphorical. These responses would lead to a set of generators, which will in turn lead to the design itself.

The site should satisfy the requirements flowing from the responses to the physical as well as metaphorical contexts. These requirements will be access, exposure to public, framework response etc. Access and movement in particular will serve to connect with the existing movement systems on site and in so doing, create a starting point for the design since movement is the greatest challenge faced by disabled people and should thus be the first problem addressed.

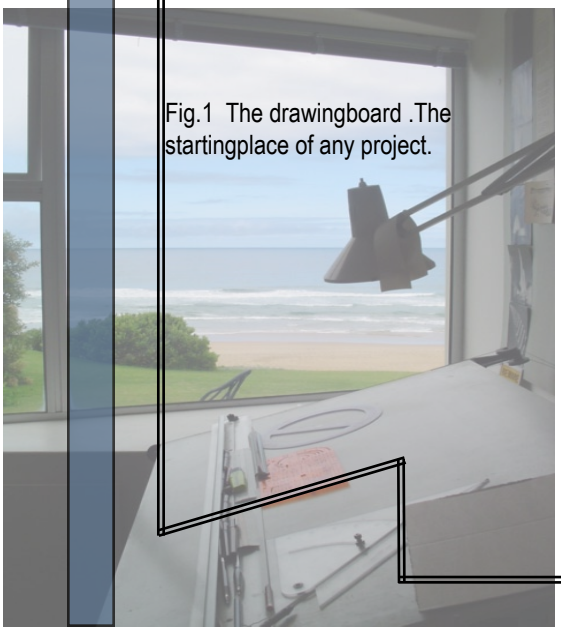


Fig.1 The drawingboard .The startingplace of any project.

A more in detail discussion of the subject of perception and proportion as generator will be necessary. This subject is somewhat less subjective which will enable the designer to make wider use of proportions without loosing meaning.

1.8.2 Theoretical base**:**

Having looked at the physical problems in design, it becomes the turn of the theoretical design paradigms at work globally and locally. The design paradigms at work in Pretoria (like the third vernacular) comes under the spotlight and are criticized in terms of response to the needs of the disabled. The way in which people designed buildings in the past have shown a tendency to exclude disabled people from the design as well as the construction phase. This is a fact that necessitates a deeper look as well as a response in terms of third party involvement.

1.8.3 When (The best stage to intervene)**:**

The best time to intervene with adjustment therapy into the life of a spinal cord injury patient is during as well as right after basic physical treatment and adjustment. The right time for intervention will however differ from person to person depending on how they are adjusting to their physical condition.

1.8.4 Why (Reason for social exclusion)**:**

The most common reason for social exclusion and a general paradigm of pity towards disabled people can be blamed on our upbringing for it is in the early stages of our life that our parents tend to tell us not to stare and in this way guide our perceptions. We interpret this as a command to ignore which in turn causes ignorant actions like teasing and exclusion from anything that we deem “normal actions”. The right thing to have been told would be not to stare but to look, to find out and to accept.

Social paradigms and reactions toward disabled people created (willingly or unwillingly) a number of barriers to the inclusion of disabled people into our society. The models of social thinking about disability would provide some insight into these barriers.

1.9 The working of the facility:

The facility will work on a phased system based on the psychological level of the entrants. The first phase will be the psychoanalysis of the entrants, which will determine the level of adjustment needed.
The second phase will be counselling in terms of legal matters, vocational matters, self-adjustment matters and social matters.
The other part of phase two will be physical analysis and treatment. Phase four will be social exposure and adjustment trough interaction. The final phase will be placement into productive jobs, which will mean that the patient have sufficiently adjusted to go on with his or her life without much or any assistance. The design of the facility would be done in such a way as to enable this phased system.

The whole philosophy behind the facility can be seen as the analysis of the problem, treating the problem in an interactive way and finally the introduction into an active role in society.

The site currently functions as a parking lot for occupational therapy students. The site is extremely under-utilised, even as parking. The facility should be designed and oriented in a manner that would enable it to fill the urban void left by the site in a way that would be beneficial to the needs of the site as well as the people and other buildings in the vicinity.

The technical development of the facility will rely heavily on the inputs of a third party as well as on the inputs from personal experiences for this is the only way to really cater for the needs of disabled people.

1.10 Research methods to be used:

What is required of the data collected as well as the manner in which it is done, is that it should consider the needs of the public, the precinct, disabled people, the current frameworks and lastly, stakeholders.

1.10.1 Data collection**:**

The psychosocial stages that the patients go through needs to be taken into account, for this is what will guide the finer details of the design, the details that will aid the adjustment of the patients. Seeing that people have different responses to spinal cord injury, it will be crucial to conduct personal interviews with patients and other people in the know. Academic information do not always cover the entire basis, especially not that of personal perception.

Site data as well as data about the community will be gained through academic means as well as through personal interviews. It is evident that personal feelings are important in almost all of the development stages of this facility (third party involvement).

In collecting data about the physical environment, one should always remember that third party involvement is crucial in determining the applicability of the information.

1.10.2 Data analysis and interpretation:

Looking at the facts gained from interviews and academic sources and interpreting them into architectural responses will be the way in which analysis of the data will be done. Interaction between able and disabled people as well as disabled and disabled people will form the basis for analysis of spatial data.

The interweaving of psychosocial and spatial data will be done on site-specific scale, local scale and regional scale. The Psychosocial will play a demanding role in all of the contexts relevant to the facility.

Correlation research, experimental research and simulation modelling along with logical argumentation will form the base of the research methods used. The use of case studies will also be very important. The range of research methods to be used will have a more enriched and thoroughly substantiated outcome.

1.10.3 Correlation research:

Correlation research will be important in determining the correlation between precedents and the facility as well as between third party experiences and academic information.

1.10.4 Simulation research and experimental research:

These two types of research will be used in determining the value of simulations and experiments run on the building model and on other aspects of the design. Test subjects will be put in various spaces and situations in order to test their responses.

1.10.5 Logical argumentation:

This will be important in thinking for one self how a disabled person will react to certain environments and design decisions.

1.10.6 Literature:

The human mind is a very vast topic that may ensue a very lengthy investigation. The stages of feelings that people with spinal cord injuries go through(and especially the social effects thereof) is the base of research that has to be adhered to in order to gain basic knowledge needed for an informed design.
Literature study will provide the pragmatic requirements needed for a facility of this nature. These will only serve as a design guide and not as a sole generator. The SABS and other sources on the needs of the disabled will serve this purpose. The pragmatic requirements of other countries will be looked at in order to compare to that of South Africa and to determine how sufficient South African standards are in this respect.

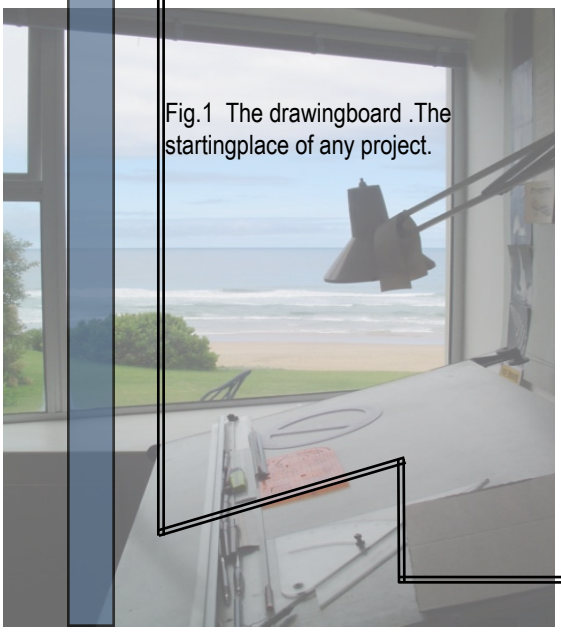


Fig.1 The drawingboard .The startingplace of any project.

A wide range of sources should be looked at in order to determine the most efficient way of providing systems and services for a psychosocial adjustment centre. The most recent sources will be taken more seriously in a modern context. This will be done especially on the pragmatic and psychosocial side of the investigation since there has been a lot of development in these fields.

1.11 Validity of material and research:

The fact that most of the sources used are very old necessitates that the information gathered from them be double-checked in order

to determine whether the applicable facts are still relevant. Research in respect to experiments and simulations will only be relevant if it has been carried out on spinal cord injured subjects or if the results of the same experiments done on able bodied people have been discussed with disabled people.

The Internet will be a source of government policies on the disabled as well as statistics about injuries and the frequency thereof. The Internet will only be seen as a reliable source once books can prove the information gained from it.

Personal interviews will be used and permission will be gained before use in any form. This will also be the case for photographs of the site or experiment subjects. Any assumptions made from the interviews and experiments by the author will be discussed with the subjects in order to ensure accurate assumptions.

Referencing will be done by means of the Harvard referencing model and any direct quotes will be indicated and referenced clearly whether it is out of a book sources or from personal investigation. The use of second hand information will be avoided as far as possible in order to achieve the highest accuracy possible in terms of references and sources. Use will be made of previous theses and the information and quotes used from them will also be properly referenced according to the Harvard method.

1.12 Accommodation:

1.12.1 Training facilities for basic skills needed to cope with disability**:**

- Vehicular access and parking
  (500m²)
- Pedestrian access (clients and public)
  Access to be covered and properly paved
- Dining area and lounge
  (100m²)
  Dining area to be multifunctional as restaurant for aspiring chefs (150m²)
- Lecture halls and practical areas

  Academic facilities for training in new skills
  (4*100m²)
  Smaller classes enable better attention from teachers
  (50m²)
- Main administration and lobby

  Serving as information headquarters and orientation
  _Director
  (15m²)
  _Secretary
  (10m²)
  _Accounts office
  (15m²)
  _Managers
  (4*10m²)
  _PR officer
  (15m²)
- Storage

  Instruments for music classes and materials for other practices
  (100m²)

1.12.2 Counselling facilities for problems such as employment, communication, social adjustment, legal and family counselling**:**

- Offices
  _Intake and screening
  (2*20m²)
  _Medical examination
  (100m²)
  _Psychological testing and consultation
  (4*20m²)
  _Social worker
  (20m²)
  _Vocational counselling and placement specialist
  (2*20m²)
- Waiting areas
  (20m²)
- Staff room
  (30m²)
- Secretary
  (20m²)
- Toilets
  (4*20m²)
- Outdoor counselling areas
  (50m²)

1.12.3 Trial period housing**:**

- Garage or carport
  (25m²)
- Kitchen
  (10m²)
- Porch
  (10m²)
- Living room/dining area
  (15m²)
- Bathroom with stall shower
  (20m²)
- Bathroom with tub
  (25m²)
- Two bedrooms
  (20m²)
- Guest room
  (20m²)
- Garden
  (30m²)

1.12.4 Teaching facilities for driver training and other self-help training**:**

- Driving yard
  (parking)
- Nursery
  (100m²)
- Multi-use hall
  (150m²)

1.12.5 Vocational and therapeutical training facilities:

- Physiotherapy and swimming pool (50m²)
- Workroom (100m²)
- Gymnasium (200m²)
- Electrotherapy 9 (50m²)
- Darkroom (2*20m²)
- Pottery workshop (50m²)
- Exhibition facilities (100m²)
- Hydrotherapy (150m²)
- Occupational therapy (200m²)
- Technical drawing department (50m²)

1.12.6 Recreational facilities:

- Tennis courts (200m²)
- Television and multimedia room with pool tables and dartboards (75m²)
- Indoor Basketball court and Table tennis tables (150m²)
- Gardens (100m²)

1.12.7 Details:

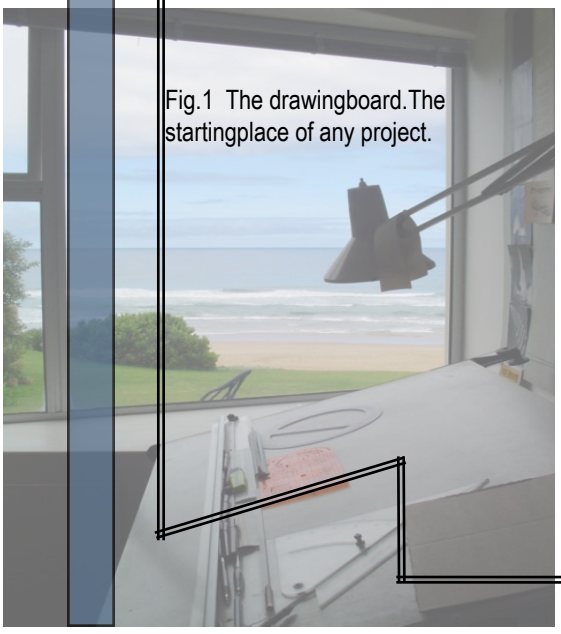


Fig.1 The drawingboard.The startingplace of any project.

- Walls
- Floors
- Ramps
- Windows
- Ceilings
- Toilets
- Doors
- Colours
- Patterns
- Texture
- Lifts
- Storage
- Chairs
- Tables
- Appliances
- Acoustics
- Illumination
- Heating and cooling

1.13 Context:

The context of the site is an institutional one. The site is surrounded by medical centres and facilities with the orthopaedic and spinal hospital nearby as well as maternal hospitals, Nurses College and Occupational therapy. The site and area is also zoned as medical and institutional by various urban frameworks. The area can be characterized as sterile since the sole function of the area is medical.

1.14 Precedents:

The precedents looked at would be of a physical as well as a theoretical nature. Practical experiments would also be used as precedents.

1.15 Conclusion:

Care must be taken not to produce a dissertation that is too pragmatic. This is the tendency in most of the dissertations about physically disabled people. The problem is however only solved once the pragmatic, the theoretical and all the other components of design (especially third party inclusion) has been looked at.There are not at present many such facilities in our country, which makes it rather difficult to look at local precedents as well as to talk to people who go to facilities like this. There are however a large number of schools and work institutions for the physically disabled that might be of use in terms of information and research. This will entail some travel in order to visit as many of these facilities as possible.

The existing precedents do not really have a strong social connection and certainly no markable consideration for it in the design stages. This makes the finding of a proper precedent rather difficult.

What can be seen as the single most important thing to remember in the design of such a facility is that everything you do has to work one hundred and two percent in order to be successful. The design must be legible as well as usable for a very wide spectrum of people, the design must correlate with the chosen framework, etc.

2 Design philosophy

Fig.2 Disabled person in Kimberley

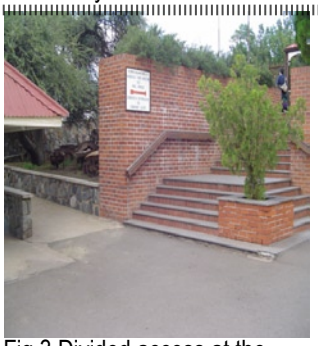
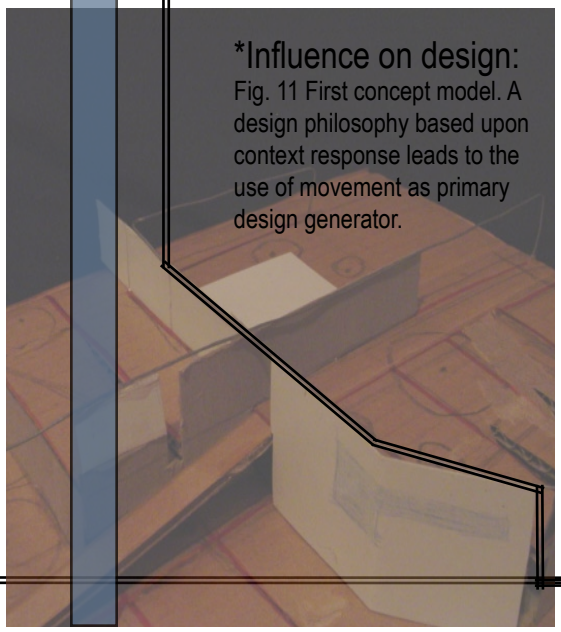


Fig.3 Divided access at the Big Hole in Kimberley-a positive experience for the person using the scenic ramp

Fig.4 Disabled person in Kimberley struggling to move



*Influence on design:
Fig. 11 First concept model. A design philosophy based upon context response leads to the use of movement as primary design generator.

2.1 Design philosophy:

The problem with urban sustainability lies in the nature of our society and in the general aims it has. The aims of society like social equity, diversity, opportunity and quality of life can only be addressed by physical development if the current political and economic contexts serve in guiding the process. A holistic approach should therefor be adapted if we want to achieve the aims set out by society. The holistic approach should also be expanded to make specific mention of the needs of various groups represented in society.

2.2 Response:

The problem statement asks for a design response that removes the stumbling blocks that are most common in the relationships between able and disabled people. These stumbling blocks are based on a combination of pragmatic and functional requirements on the one hand and social, theoretical and philosophical on the other hand.

The pragmatic and functional design responses will be based upon those basic needs of the disabled person, which he/she relies on in order to function properly in a building. The basic needs flowing from the functions housed by the centre, which will aid in psychosocial adjustment will also be taken into consideration.

The theoretical design response will be based upon the inclusive design principles commonly accepted within the world of the disabled person.

2.3 Context (physical and figurative):

The environment in which a person finds him/herself often has a detrimental effect on the way in which they are perceived. People's personal attributes are sometimes the only thing that is taken into account when looking at someone's life.

People, who find themselves in environments that are adequate to their needs, are often perceived as being more competent. This is especially true when failures and successes are being considered. Newly disabled people need to perceive others in similar situations in order to see and know the things they can and cannot do.

The power of positive thinking flows from positive perception.

2.4 Physical translation (difficulties):

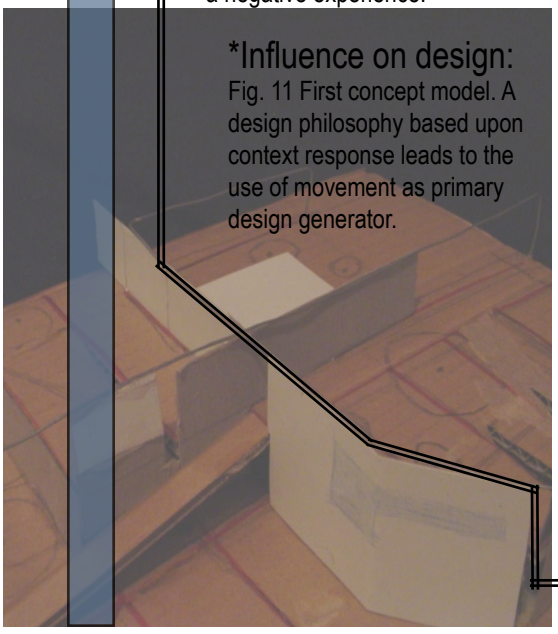
When difficulties are ascribed to the person, he/she becomes the locus of change. On the other hand, when difficulties are ascribed to the environment, the focus of alteration moves to the environment. The environment is often much easier to change than the person in it.

The physical environment, and not the individual, should therefor be the number one focus of remediation actions towards difficulties in the everyday environment. This will immediately take a fair amount of pressure from the disabled person in terms of necessity to change.

Fig.5 Disabled access in Kimberley

Fig.6 Disabled person in Kimberley in a negative context

Fig.7 Disabled access in Kimberley -a negative experience.



*Influence on design:
Fig. 11 First concept model. A design philosophy based upon context response leads to the use of movement as primary design generator.

Wright (1983:47) makes five suggestions in an attempt to remedy common attribution errors:

- "*Always remember that behavior is a function of properties of both the person and the environment. When a problem is attributed to traits of a person, insist that a review of possible contributing environmental circumstances be made."*
- *"Compare the behavior of the person in different situations, not only the behavior of different people."*
- "The environmental focus is more readily maintained when it is shown that an environmental change needed for a particular group is also helpful to people in general."
- "Keep in mind that when change or help is indicated, environmental accommodation is as important as personal adaptation."
- "Obtain the views of the person whose atypical needs and behaviour are being reviewed."

2.5 The importance of context:
(Centrality as contextual function)

The moment that two or more traits are linked to one person, they will cease to exist apart but will become one in a dynamic interaction. This process does have some resemblance to a system. It is this whole system of relations between traits that will determine which will become central. The central characteristic will then give direction to the total impression and will in itself be influenced by surrounding characteristics, thus the meaning and function of the trait changes with the context. The importance of character -context in terms of perception is very prevalent out of this.

Context does not only refer to a network of personality or character traits. Context will also be the broader situation in which a person is viewed. A disability will for instance only become the central trait when it somehow becomes the focus in a certain situation like when the person is asked to do something that he/she is not able to. A disabled person might on the other hand come over as even more positive in terms of traits when viewed in the right physically enabling context.

People who come into contact with disabled people generally have two regions of presence in terms of traits, be they physical or environmental: The region of visual presence and the region of visual concern. The region of visual presence represents the region in which objects are perceived but not inspected. The region of visual concern represents the region in which the perceived objects demand inspection. These regions are greatly influenced by the visibility of disabilities since less obvious disabilities will fall in the region of visual presence for not being noticeable. The role of the design in this regard is to stretch the borders of these two regions in order to make obvious disabilities less obvious in order for people to focus on the person and not on the disability, thus shifting centrality.

2.6 Atypical physiques in positive and negative contexts:

This question is raised about the relative potency of positive and negative attributes and contexts. It has also become evident in some cases that people have a much stronger tendency towards negative reactions. Should this indicate a general pessimistic tendency or negative contexts?

Wright (1983:58) proposes several explanations of the negativity bias:
"*First, negative information may become more salient than positive information because it arouses vigilance. Also, negative experiences do not let go of the person; the person ruminates about them, and in so doing their potency is increased. Moreover, the norms of society are positive: Anything that deviates sufficiently from these norms stands out and is perceived as being even more negative…*"


Fig.8 A stumbling block


Fig.9 Uneven pavement


Fig.10 Historic building with poor access

Environments to strengthen negative perception

The negativity bias thus poses an additional threat in the case of a negative attribute like disability for instance. The context in which these negative attributes are perceived, assumes special significance because of it. The desired context for the perception of this negative attribute is that of a person whose abilities are appreciated in terms of what he/she can do and not in terms of what he/she can not do. This means that the built environment should enable this desired context for both able and disabled people if a general positive disposition is desired.

2.7 The stranger's view:

The obviousness of the disability becomes the outstanding characteristic in a relationship between strangers. Other characteristics like sex and age are so general that they most often carry little if any weight. This then is also the reason for people viewing strangers with disabilities as less fortunate than friends with the very same disabilities. In the friend or family member's case, the disability becomes just as general as any other characteristic. This type of thinking about a characteristic is called peripheral thinking.

Tests with prosthetic limbs showed that the limb proved useful in the sense that it enabled a proper first impression between two strangers. The limb did not feature as the central trait of the person wearing it. The built environment should function as a metaphorical Prosthetic limb in the sense that it enables a proper first impression between strangers as well as strengthening family and friend ties.

Wright (1983:76) observed that others treated children in an everyday setting in a normal fashion. It almost appeared as if the disability has become an incidental trait. This is a very important fact to take into account since the creation of an everyday setting in a building like a psychosocial adjustment centre will then aid in the acceptance of the self and by the family. Designing an everyday setting would aid in the eradication of the sterility of the medical environment.

Tests have also shown that prolonged exposure may have a positive effect on the parties in both a stranger and a family/friend relationship. Both the parties become used to the nature of the abilities they both have. Prolonged exposure will be somewhat difficult to achieve in a setting like the Apies River, thus the initial focus should be on family and friend relations since this is where the social problem needs to be addressed first and foremost. The urban frameworks do however afford enhanced stranger contact in the future.

The psychosocial characteristics of stranger relations differ largely from that of known person relations. This is a difference that should receive specific design attention, each in its own way since these are the two basic relations on which the social interaction of disabled people are based.

Fig.12 Previous project by the author
Salvokop shed-context responsive

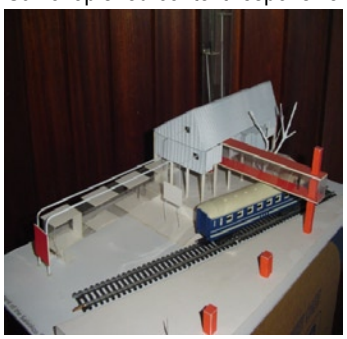
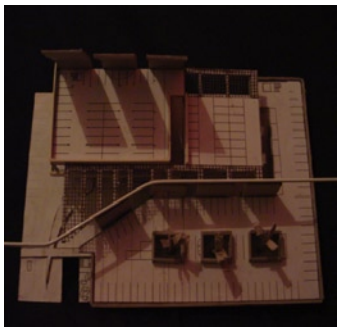
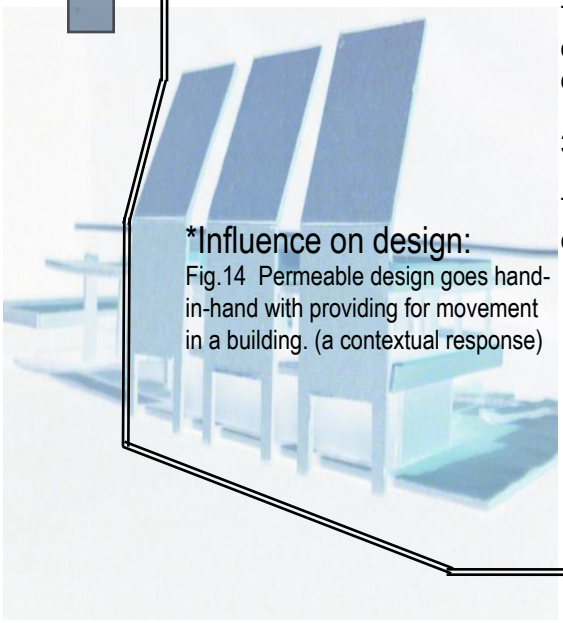


Fig.13 Previous project by the author
Parking garage-Movement context





*Influence on design:
Fig.14 Permeable design goes hand-in-hand with providing for movement in a building. (a contextual response)

3.1 Context recognition:

No project or building is a freestanding entity for it is surrounded by a series of contexts, which interact with it in a loop-back system. A design would therefor only be applicable to site, requirements, users etc. if it takes the contexts in which it finds itself into account.

One of such contexts, which would be applicable to a normative position, is design philosophy. The design philosophies of both local (local vernacular) and foreign philosophers were taken into account.

3.2 The design problem statement:

The design problem statement needs to be looked at in totality and it should be seen as a problem with a particular balance between components. Physical and psychological treatment goes hand-in-hand, a fact which influenced the choice of site as well as the manner in which the internal spaces are arranged and designed in relation to the outside spaces.

3.3 The problem with design:

The most apparent problem with buildings designed for disabled people is the fact that they have overly defined boundaries as well as access possibilities. My aim is to design a facility that loosens boundaries and enables the disabled user to take control of his access on a physical as well as a metaphorical level.

3.4 The focus of the project in short:

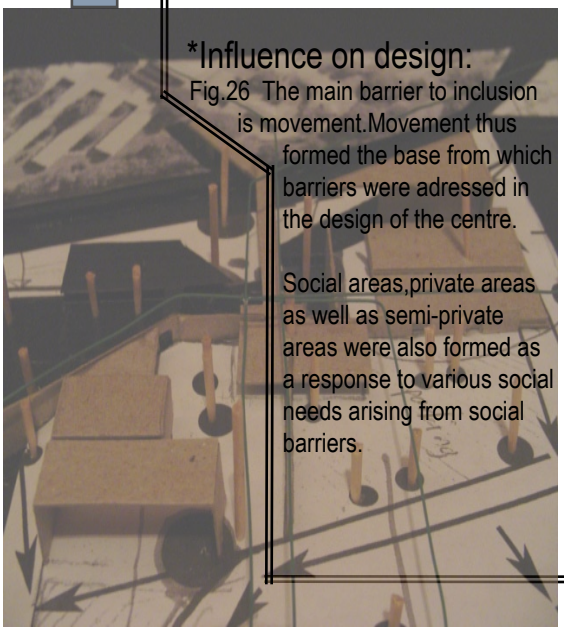
The focus of the centre will be to provide for the remediation of the signified for disabled people (their thoughts and psychological reactions), thus enabling them to interact and help change the signified that comes from society (prejudices and misconceptions).

The Architectural focus of the centre would be to provide for the access of disabled users within a building that recognises regulations but is not dictated by them.

3.5 Further reference:

The basic principles discussed here are substantiated in the appendices chapter.

4 Inclusion barriers



*Influence on design:

Fig.26 The main barrier to inclusion is movement.Movement thus formed the base from which barriers were adressed in the design of the centre.

Social areas,private areas as well as semi-private areas were also formed as a response to various social needs arising from social barriers.

4 Perceiving disabled people and acting for them:

4.1 The physical condition of disabled people:

Disability is a highly contested as well as culturally fluid term since there is no singular term that transcends time and place. Disability is popularly perceived as mobility impairment and more particularly wheelchair-bound mobility impairment. Government documents like the building regulations for instance also tend to identify disability with wheelchair-bound mobility impairment. Wheelchair-bound mobility impairment is seen as the problem to be solved which entailed ignoring the needs of a wide variety of physical conditions.

4.2 Social barriers:

Disabled people have always been perceived as being outsiders, people to be controlled, degenerate or defective people. This entailed their loss of individual status as well as becoming almost invisible to society. Asylums became a common means of reaching society's goals with disabled people.

"The general culture invalidates me both by ignoring me and by its particular representations of disability. Disabled people are missing from mainstream culture. When we do appear, it is in specialized forms-from charity telethons to plays about an individual struck down by tragedy-which impose the non-disabled world's definitions on us and our experience." Morris (1991:85)

The World Health Organization declared that the problem in facility provision is essentially an attitudinal one which becomes a human rights problem on a political level. This fact links up rather well with the social and political context of South Africa, which is still in its infant stages of re-development and adjustment.

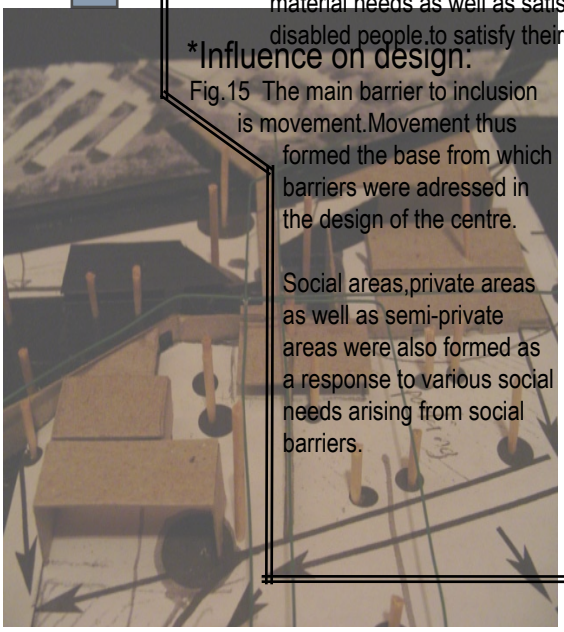
4.3 There arise two prominent models of conceiving disability and disabled people:

4.3.1 The social model**:**

The social model's understanding of disability cannot be reduced to either personal or interpersonal psychology. The aim is rather to seek the understanding of the manner in which values, attitudes and other related practices influence the lives and experiences of disabled people. This model further argues that a person's inability to access a building is rooted in thoughtless and inappropriate design that lacks knowledge and understanding of disability.

The proponents of the social model believes that disabling socio-attitudinal value systems can be found in most of the spheres, that disabled people move in.

An idea has developed about enabling justice, which describes new social spaces designed in response to the various social and psychological needs of various people. These spaces provide everyone with the basic material needs as well as satisfactory social and cultural participation. The aim of these spaces is to enable disabled people.to satisfy their own needs within a network of mutual obligations rather than in a hierarchical system of obligations where they will satisfy their needs last. The aim is thus to negate the out-of-place feeling often experienced by disabled people.



*Influence on design:

Fig.15 The main barrier to inclusion is movement.Movement thus formed the base from which barriers were adressed in the design of the centre.

Social areas,private areas as well as semi-private areas were also formed as a response to various social needs arising from social barriers.

4.3.2 The Medical model**:**

The main focus of the medical model is the fact that a person's inability to gain access to a building is a function of his/her impairment. It is believed that the eradication of the impairment will solve the problem. The effect in architectural terms is that buildings are designed for able-bodied use only since all disabilities would be eradicated leaving only able users

4.4 Bio-sociological approach (the answer?):

The social model, like the medical model does have the tendency to be partial in emphasizing only certain aspects of disability.

Some of the problems faced by disabled people cannot be solved on social terms only. What is needed is an alternative conception, which seeks the development of an understanding of the relations between biological and social values and attitudes. This bio-sociological approach is still in its infancy stage but it is an attempt to remedy the dualities between the social and the medical model. The approach is in essence an anti-dualistic approach. The way in which the Bio-sociological approach aims to remedy the differences, is by recognizing the interactions between psychology, sociology, culture and politics (the contexts of disability).

The bio-sociological approach can be seen in the World Health Organization's new classification of disabilities (ICIDH-2). ICIDH-2 is based on the integration of the social and the medical models. A bio-sociological approach is used to capture the integration of the various dimensions of functioning. This is done in order to achieve a synthesis that will provide a coherent view of the different dimensions of health (biological, social and individual)

The bio-sociological approach also argues that the physiology of a person's body as determinant of his/her actions within the broader environment. These very actions are however constrained or enhanced by the socio-cultural makers of our society like demeaning or prejudiced points of view. The approach also notes that disability is usually reduced to a series of generalized and chaotic categories like vision, hard of hearing and mobility. This does little to reveal and explain the complexities of disability. Disability is not static or confined to certain parts of society. Disability is actually a contingent condition that depends on circumstances.

What this suggests then is that developers and architects, who are mostly resistant to change in the process of development, should respond to the needs of disabled people in a manner, which is flexible and adaptable to the wide range of possible disabilities, and their specific circumstantial needs. In doing this they will remedy the discriminating and patronizing actions which have become so characteristic of the development process of the built environment.

4.5 Conclusion:
(Providing for accessibility by adaptations)

The medical model of thinking is very apparent in attempts made to alter the built environment to a place that is responsive to disabilities. The popular beliefs are that the development of better technologies and adaptive devices will eventually lead to the liberation of disabled people from their social and economic constraints. This way of thinking recognizes the physical limitations of the body as well as the compensatory possibilities presented by new technology, but this is where the problem lies. It acknowledges only that. The use of such devices and buildings (in terms of the built environment) only aid in stigmatising disabled people even further since they stand out in society as being abnormal. This type of approach will terefor not be followed in the design of the Psychosocial Adjustment Centre.

The only way in which the right balance between the social and physical needs of disabled people can be struck is by means of a programme and framework that enables continued change and development in the technology as well as the socio-cultural field.

Adopting the bio-sociological approach as primary perception model entails the fusion of the physical and social contexts. The physical context in the form of regulatory guides and the social context in the form of interaction between the users of the centre and others.If an approach like this is not followed, it could happen in the worst case scenario that a site is designed to fulfill only a physical function like parking for example. The problem arising from this is that the spaces will be wasted once the site is no longer used in the way it was intended. If the site was to have a social function like a tuckshop for instance, it would still have a function irrespective of the loss of function as parking.

Fig.16 Showing a site that was designed with a singular function, parking.

5 Physical Context:

5.1 History of the area:

The Afrikaner inhabitants moved into the Pretoria region after Mzilikazi left the area, which had been his capital. The consequence of the Afrikaners moving into the area was the establishment of a small trade and religious settlement. The town was later named Pretoria after a Voortrekker leader named Andries Pretorius on 16 November 1855. The town became the seat of government in1860. Pretoria eventually expanded into suburbs like Sunnyside, Arcadia and Brooklyn. This expansion took place in an east-west direction between two prominent ridges. The town received city status in 1931.

Three people drowned during the well-known Apies river floods in 1909, which lead to the canalization of the river. The Apies River stills runs in a sterile, and often dangerous canal, through the city.

The town was developed on a grid system but the grid changes to a more organic form around the Apies River that makes one realize the role the river has to play in Pretoria. There are urban design frameworks that address this role of the river as well as its surrounding areas in Pretoria.

The applied policies of segregation in the city started to disappear after the Democratic elections of 1994. This became noticeable in the change of use of the areas, like Skoonplaats and Marabastad, which was once used to segregate people.

Fig. 18 Marthinus Pretorius, founder of Pretoria. from http://www.museumpark.co.za/burgerspark.htm

5.1.1 History of places:

Church Square was founded in 1855. M.W. Pretorius ordered the brothers Devereaux, who were the initial town planners to design a square. This square would be for market and church purposes. The square also functioned as a sports field at times.The square's first church was finished in 1857.This church did however burn down in 1882. Thereafter the second Gereformeerde Church was built on the square in 1884-85 and was demolished in 1904-05. The Church eventually sold the square to the government in 1899.The government in turn handed it to the Town Council in 1905.(from http://www.museumpark.co.za/burgerspark.htm)

Central Mosque: The Pretoria Muslim Indians initiated efforts shortly after their arrival in South Africa towards erecting a mosque.This mosque would then function as the heart of the growing Muslim community.A group of muslim merchants purchased the land , in what can now be called the Pretoria CBD, from Mr David John Bower in 1887. Renovations on the structure was done in 1984 at a total cost of R92000 by Hajee M. Badder and his son. (from http://www.museumpark.co.za/burgerspark.htm)

*Influence on design

Fig. 17 Ramp configurations- Probably the main concern in terms of physical context due to the parameters set by SABS and the connection needs of the site itself.

Fig.19 Church square.from http://www.museumpark.co.za/burgerspark.htm

Burgers Park houses several structures that are of historical importance.These structures are the Kiosk (a typical feature of parks created in the late 1800's). The park was deigned by Vivian Sydney Rees-Poole in 1910.This was done to coincide with a visit from the Prince of Wales. The Bandstand is a fine example of the cast-iron structures that could be ordered from catalogues at the time. The badstand come from Glasgow, Scotland. The bandstand was regularly used by the 24th regiment of Voortrekkerhoogte. Another use for the stand was to house official receptions held for Prime Minister General Louis Botha.

Fig. 20 both from http://www.museumpark.co.za/burgerspark.htm

5.2 Preamble to the site:

The site is Prinshof 349JR/R/41 and is zoned as institutional and medical. The site does not currently have any real function, which makes it an unsafe place. It has an embankment on the edge of the Apies River. Access to the site from the riverside is very poor since a makeshift wall borders the site on that side. Vehicular access is by means of Theodore Hove Street, which turns out of Soutpansberg Road, one of the main vehicular spines into and out of the city.

The site coverage by means of buildings may be 60%.
The Floor Space ratio is 1,5 for blocks of flats and 2 for other functions.
The height restriction for the site is 19m.
The site has shade coverage of 40% coming from the nursing college to the north

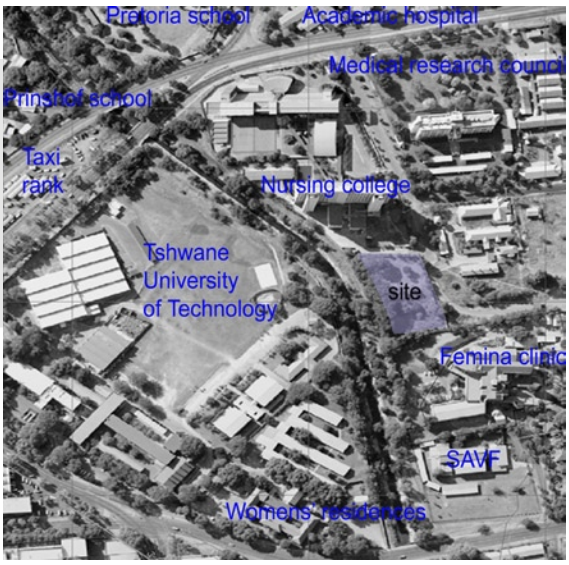


Fig.21 Site description

5.3 Sustainable or not:

The architectural response to the problem of psychosocial adjustment must make a public investment and should make use of public resources in the best possible way as to benefit the widest range of people. In order to be sustainable, the facility would be inclusive to the widest possible variety of people and should also integrate the requirements of this range of people. These requirements will also be site specific, since people of different bodily functions will place different requirements upon the site.

Fig. 22 Sustainable technology Dubai

5.4 Approach to the site:

The facility should cater for people from all walks of life and should also create a healthier lifestyle through a healthier urban environment. This is especially true for this site since it is a dysfunctional parcel of land within a functional environment. The site requires change and reclamation.The dysfunctioning of the site springs from a distantiation from the context.Thus the approach taken to the site as a physical entity is one of connection. The importance of the site will lie in the role it plays to connect itself to the context and to connect different precincts to each other.

5.5 Interpreting the city:

Our country has been dominated by many ideologies, two of which are separate development and Modernism. It can be said that the one has been used to strengthen the other in a way. The ideology of separate development has an un-official subdivision namely the separate development of disabled people.

The most significant impacts of the Modern Movement was that it introduced functionalistic thinking (form follows function). This in turn imposed a way of life upon the city which was dominated by efficiency and technological concerns. Efficiency was defined in terms of technology and the city and its parts were compared to a machine. The city and the life within it was compartmentalized which lead to the division of activities into various areas. The strongest central theme of the time was the spatial separation of these activities. This manner of development of the city lead to urban sprawl and the effect thereof was that great distances had to be travelled from home to work to play and visa versa. There is no measure of the impact this manner of development had on the disabled part of society for vicinity can be seen as the baseline for any form of development involving them.

A new approach to the city is needed if we want society to function as a whole. Dewar(1997:27) stated two major shifts in thinking about the city. The first of these was to scale the city on a model that used the pedestrian and public transport as baseline, and the second was to move from a programmatic to a non- programmatic approach to urban design.
The programmatic approach to design, which entailed the assembly of predetermined elements with their own spatial requirements into a whole, did not have anything that held the whole together and thus a sterile environment prevailed. It is this sterile environment that became the enemy of the disabled person for he is in dire need of an environment that is rich in physical and psychological opportunities and choice if he is to function properly.

5.6 Frameworks:

There are five urban frameworks that are applicable on this site. These are the hospital framework, the Apies River framework, the Mandela development corridor framework, the ISDF (inner city development framework) and the Struben Street development framework.

Nelson Mandela development framework**:**

This framework considered here is the one upgraded by Urban Solutions. The framework included Nelson Mandela Drive, Esselen, Schoeman and Meintjies Streets and the areas around them. The project will span over five years and will cost about R1-billion.

This framework is probably the most important since it is very recent (demolishers moved unto site in April 2002) and it has taken physical form, something that cannot be said of the other frameworks.

One of the main aims of the Nelson Mandela framework is to upgrade the Apies River corridor to a pedestrian spine that has activities along the route that will attract people and create a certain feeling.

*Influence on design

Fig. 17 Ramp configurations- Probably the main concern in terms of physical context due to the parameters set by SABS and the connection needs of the site itself.

5.7 Rationalising the choice of site:

The proposed extension of Nelson Mandela Drive will not be taken into consideration for the first stages of the design but it will be taken into account in designing the later stages of the development since it might then be advantageous to the facility and the precinct as a whole.

The site is situated in a very important and advantageous position in terms of pedestrian, disabled, vehicular and public transport access.
If the pedestrian and disabled persons access character of the site is properly handled, the necessary access to the nearby taxi rank and the vehicular main routes could be provided. The

pedestrian and disabled persons access function of the site can add to the character possibilities of the site in order to provide a much more aesthetically pleasing and informative view from Nelson Mandela Drive.

If the requirements of the previously mentioned frameworks are adhered to, the site can have an urban as well as a park-like character. This will be advantageous in the sense that the disabled as well as the able-bodied users of the facility on the site can gain from the psychological as well as physical opportunities provided by the site.

The close proximity that the site has to the Technicon, Medical Research Council, Bone Marrow Research Unit, Pretoria Nursing College, Prinshof and Pretoria School, The "Moedersbond", the CBD and the Academic hospital, will ensure the needed social interaction between the users, that will come from the hospital and the schools, and outsiders passing by or through the centre.

The site could be reclaimed and given a function that will simultaneously aid in combating urban sprawl and enhance the park-like character of the site.

5.8 Spatial framework:

5.8.1 Legibility**:**

The legibility of the future facility will depend on how users and non-users interpret the building from the interior as well as the exterior. Spaces should be designed in such a way that the use of that particular space is clear. The façade facing the river should for example encourage pedestrian movement and participation in the building while the part of the facility facing away from the river should be used for private and other peaceful activities and it should read in this way. The parts of the facility that will be visible from Nelson Mandela Drive as well as other vehicular and pedestrian spines should convey the identity and function of the building in order to be perceived in context and for it to be clearly recognizable.

The term legibility means something very different to blind and partially sighted people. The centre and precinct should be designed in such a way that these users can know and understand where they are going without much assistance from others. A more legible environment will contribute considerably to the safety of the blind and partially sighted users of the centre.

5.8.2 Accessibility**:**

The fact that this particular site is very accessible from both a pedestrian and vehicular point of view has been mentioned before. This is however not the only form of accessibility relevant to the site. Accessibility for disabled people is something much more complex than mere movement. The building should have a very high level of accessibility, which might lead to the creation of a building that does not consist of clearly defined walls, floors and roofs due to the necessity of ramps throughout the centre.

Fig. 23 Precinct Pretoria CBD (Governmant archive)

The original slope of the site has been altered severely when the river was channelled through a culvert. In changing the river back to its former glory, the one thing that will have to be discussed with developers is the maintaining of the correct slope as far as possible in order to make disabled access possible.

5.8.3 Vitality**:**

"The facility should provide enough visual stimuli to capture the viewer's imagination." Fourie(2002:15) This also entails that the level of detail provision for different people and ways of movement should differ. Wheelchair and sight impaired users should have more detail to experience than pedestrians than cyclists than motorists and in that order. One should also bear in mind that detail goes beyond the visible, it also includes the experiential.

5.8.4 Mass to space relation:

It is very evident from the figure-ground and ground-figure diagrammes that open space have the dominant role in the urban setting. The mass created by buildings do not have a demanding effect upon the open spaces,instead it only aids in defining certain spaces.

The open spaces are largely functionless and thus they need to be properly defined in a way appropriate to the nature of the space. This will be done in order to attribute some function to the spaces.

The site of the Psychosocial adjustment centre plays an unofficial orienting role since there are various movement routes that cross it en-route to other areas of the larger precinct. The function given to the site and emmediate surroundings according to the deductions made from the diagrammes should thus be one in accrodance with its current nature .

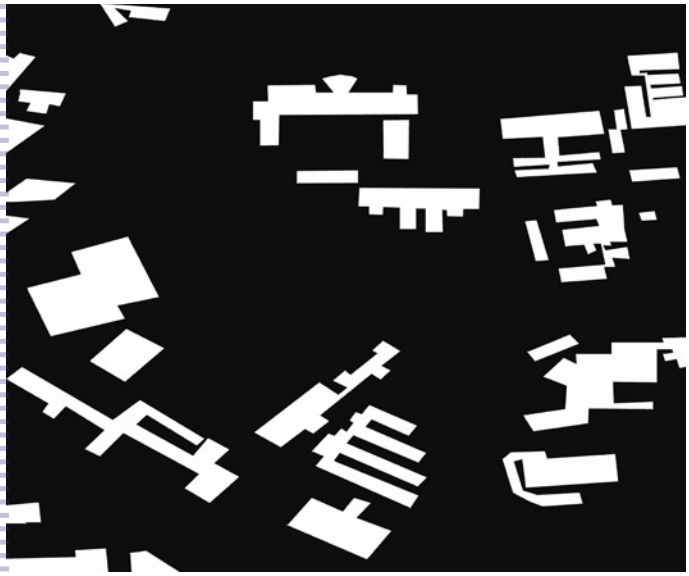


Fig. 24 Ground-figure

Fig.25 Figure-ground

*Influence on design

Fig. 17 Ramp configurations- Probably the main concern in terms of physical context due to the parameters set by SABS and the connection needs of the site itself.

5.8.5 Robustness**:**

The robustness of the facility refers to the range of activities the facility can accommodate. The planned facility will work on the principle of housing as many facilities that will enable psychosocial adjustment as possible. The human mind is an intricate thing and therefore it would be required that the facility provide for activities that might be necessary in future as psychology advances.

Advances in the medical treatment field will also be made, a fact that necessitates the creation of spaces that can accommodate these advances and the machinery involved. The created spaces will also allow for an

increase in the number of users accommodated at the centre.
The manner in which the design of the site is approached will also largely be influenced by the natural characteristics of the area. A site with a largely movement oriented function should for example not have temperature extremes or dangerous naural areas that may harbour crime or other dangers. A proper consideration of the natural parameters is thus of utmost importance.

5.9 Geological information:

5.9.1 Meintjieskop fault**:**
This is the fault that crosses central Pretoria and more specifically the southern tip of the site. The building of any structures in the southern end of the site should be avoided.

5.9.2 Hekpoort Andesite**:**
The soil produced by these formations is generally expansive in nature due to the presence of active clays in the soil. These soils are also characterized by various stages of decomposition of minerals. The soil tends to be more active in the upper profiles than in the lower profiles.

The greatest depth reached by these soils is 33m in places. The soils are much shallower on this particular site.One other feature of the soils in the region is that they will not produce significant heave due to the fact that moisture increases in content after the erection of a building on it. Moisture increase may however only occur when the soil is inundated locally. This behaviour of the soil indicates that a building that has stood for a long time might suddenly develop severe cracks due to a leaking drain.

5.9.3 Groundwater**:**
“The water table for this soil type is at a depth of 6-18m”(Purnell 1994:16)

5.10 Climatic information:

5.10.1 Temperatures vary between:
lowest min:-5,5 degrees celsius to average:12.1 degrees celsius
highest max:36.3degrees celsius to average 24.8 degrees celsius
(Meyer ,Pienaar,Tayob 1999:49;Schulze 1986)

5.10.2 Humidity:
min:57%@08h00-29%@14h00 (value for September)
max:75%@08h00-48%@14h00 (value for March)
(Meyer ,Pienaar,Tayob 1999:49;Schulze 1986)

5.10.3 Sun:
An average of 89 GigaWatt of solar radiation per year can be expected.
The prevailing summer sun angle is 88 degrees and the prevailing winter sun angle is 44 degrees.
(Meyer ,Pienaar,Tayob 1999:49;Schulze 1986)

5.10.4 Rainfall:
Precipitation occurs mostly during thunderstorms at a rate between 90 and 100mm/hour. Severe haelstorms have occured in the past of which the1949 storm had stones of approximately 142g in size. The region is one of summer rainfall (between October and April) The average rainfall of the region is approximately 674mm/year
(Meyer ,Pienaar,Tayob 1999:49;Schulze 1986)

5.10.5 Wind:
The prevailing wind direction is from NE in the morning and from nw in the afternoon. Thunderstorms are accompanied by turbulent wind patterns. Daspoort ridge can be expected to lessen the effects of morning winds and the pollution caused by them.
(Meyer ,Pienaar,Tayob 1999:49;Schulze 1986)

5.10.6 Cloud cover:
This may vary from 13% in July to 54% in December. The average however is 33%
(Meyer ,Pienaar,Tayob 1999:49;Schulze 1986)

5.10.7Micro climate:
The site-specific conditions may be influenced by the proximity to the Apies River culvert as well as the Daspoort Ridge.

5.11 Expanded movement mapped:

1 **The movement along the river is an extension of the MDC pedestrian spine. The extended spine provide access to the taxi rank as well as a steady supply of social interaction.**

Fig. 29 Movement along the Apies River

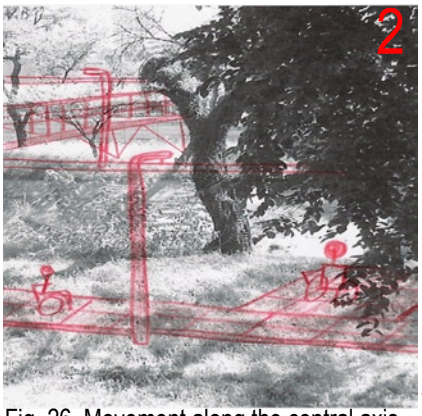


Fig. 26 Movement along the central axis next to the Apies River

2 **Movement along the river are provided with locations where nature can be enjoyed while a person in a wheelchair is resting. This in turn further provides for social interaction and exposure.**

3 **The bridge over the Apies river forms a link to the Techicon campus which houses a host of activities with social enrichment potential These activities include are sports, studies and recreation.**

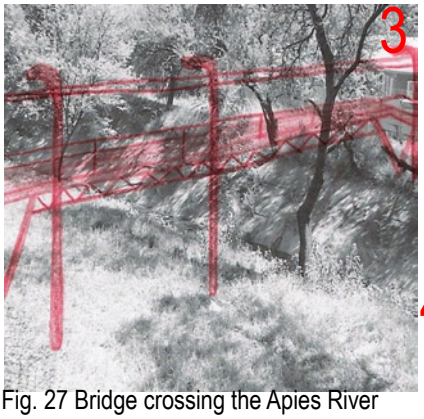


Fig. 27 Bridge crossing the Apies River culvert

4 **A proper and safe link to the CBD is of utmost importance since movement in that direction will enable disabled people to enhance their feeling of independence. This feeling will grow from organising certain things for themselves while movng in places they are traditionally shielded from.**

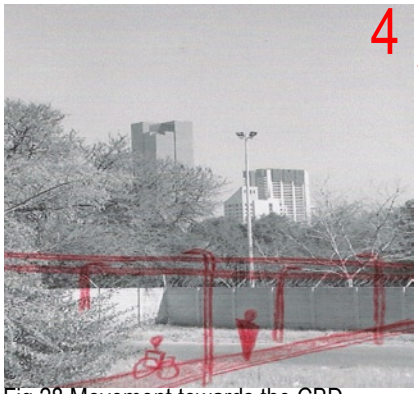


Fig.28 Movement towards the CBD

*Influence on design

Fig. 17 Ramp configurations- Probably the main concern in terms of physical context due to the parameters set by SABS and the connection needs of the site itself.

5 **Sight-seeing is also an activity that one should be able to do by yourself. This then is the reason for links to various sights like the Union buildings,Church square and City Hall etc.The distances that needs to be travelled in order to reach these places are problematic since disabled do not have the stamina of a walking person. The implimantation of rest areas or rest stops is very essential since this will enable a disabled person to travel a greater distance.**

Fig. 31 Movement towards the Union Buildings

Fig.30 Hospital Precinct Defined

6 **Movement willmake use of easily observable landmarks or buildngs in order to guide a person in a seated position to the various areas of importance to his/her movement.**

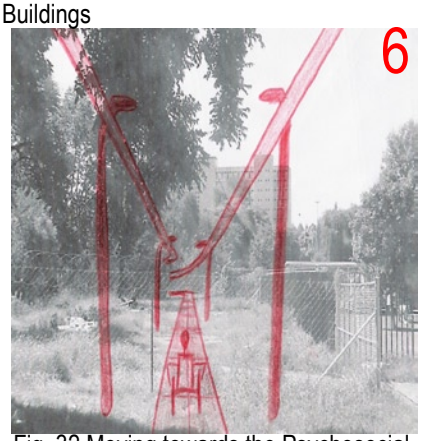


Fig. 32 Moving towards the Psychosocial Adjustment Centre

7 **The extension of the Mandela Development Corridor (MDC) to include the pedestrian spine towards the taxi rank will create a larger interactive spine that will aid in defining the CBD as a place of progress.**

Fig.33 Relations to the MDC in movement terms

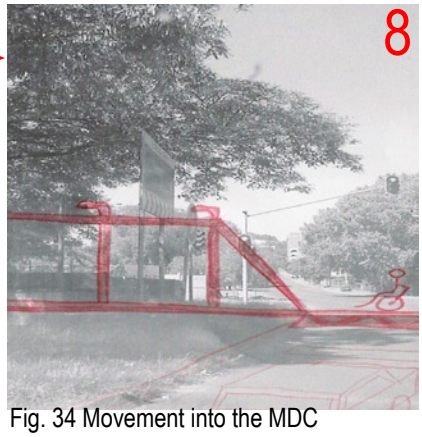


Fig. 34 Movement into the MDC

8 **Ease of access is vital to the movement of disabled people in a city. Raised crossings is only one example of a measure taken to enable people to access the city with ease.**

Fig. 35 Movement precedent: wooden pathways to provide easy access. The right balance of focus upon disability.

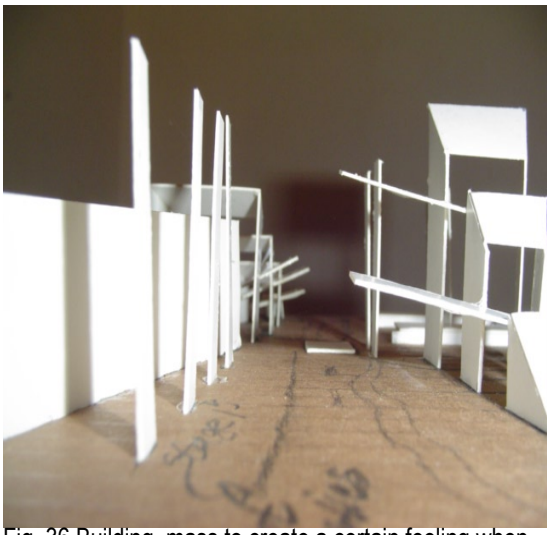


Fig. 36 Building mass to create a certain feeling when crossing bewteen.

*Influence on design

Fig. 17 Ramp configurations- Probably the main concern in terms of physical context due to the parameters set by SABS and the connection needs of the site itself.

5.12 The nature of movement:

Movement to a disabled person is an intensely personal experience due to the restrained nature thereof. It is therefor essential that the feelings and thoughts experienced by a disabled person during movement be understood by the designer.

A disabled person's feelings during movement is directly related to the physical context in which he/she finds him/herself.There are a number of feelings that can be provoked by ohysical contexts:

*One can feel overwhelmed
*One can feel unsafe
*One can feel left out
*One can feel focussed upon.
(Information gathered from experiment done by the author)

There exists a fine balance between all of these feelings in any environment. The art of designing spaces for disabled people lies in striking this balance:

*Building fabric need to be properly scaled in order to prevent the creation of an overwhelmed feeiling.
*Spaces should be designed to include places of refuge where a person can go to in order to escape from danger.Designing for passive surveilance will limit the creation of a feeling of loneliness in the user of a space.
*There should also be a balance between over designing for disabled people and neglecting them.Inclusive design measures should be done in a very subtle way.

Over-designing for a certain disability will emmediately place the focus upon that specific disability and the person harbouring it.

5.13 Levels of perception:

The manner in which a person perceive their surroundings are directly related to physical context and the built environment.The built environment should be designed while bearing in mind that it will be perceived from differing natural levels. The exposure of elements will be dictated by the level at which it will be perceived. The design will be enriched even further by making use of the physical environmnet and the vantagepoints it creates.Certain details will for instance only be visible from lower levels on the site while others will only be visible from above.

Perceptionlevels are especially important to disabled people since there is a distinct difference between that of able and disabled people. The Psychosocial Adjustment Centre was designed while bearing this in mind. There is various levels from which centre users can perceive their surroundings,thus enriching the overall experience of the building. Various details and elements become visible at different levels.Passers-by also become envolved in the building due to their perceptions of the centre and the users thereof.

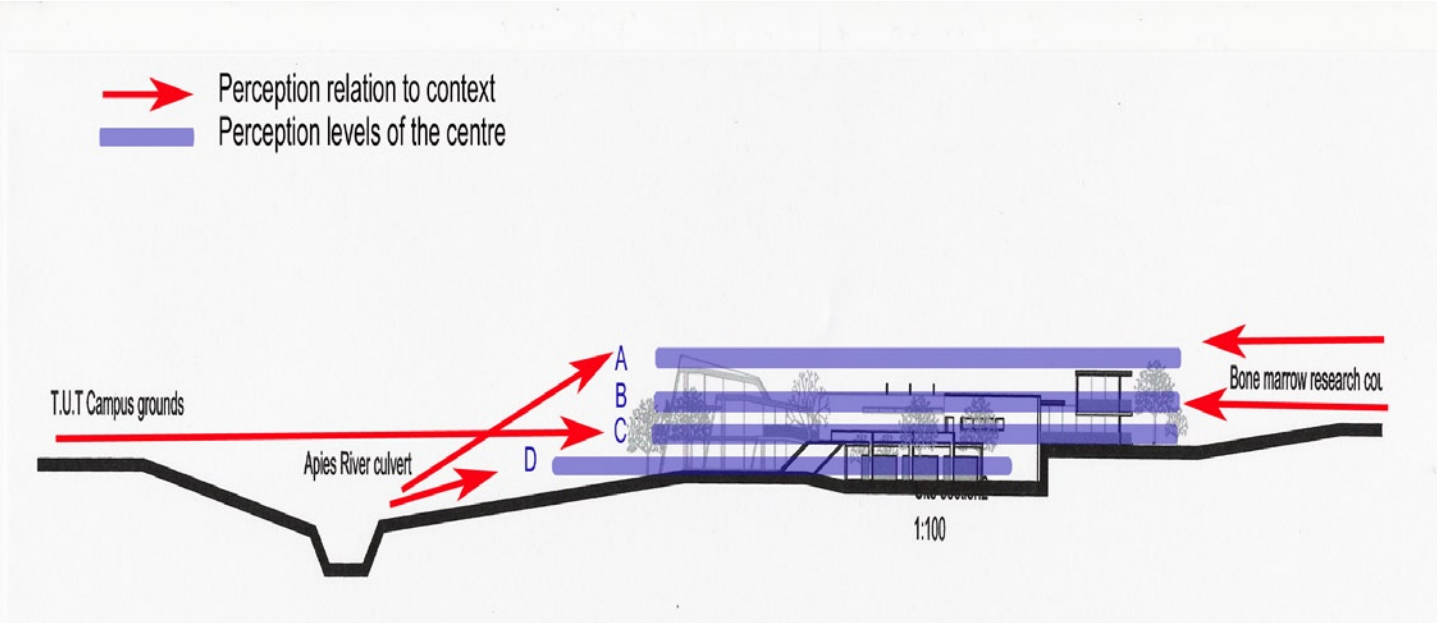


Fig. 37 Perception levels

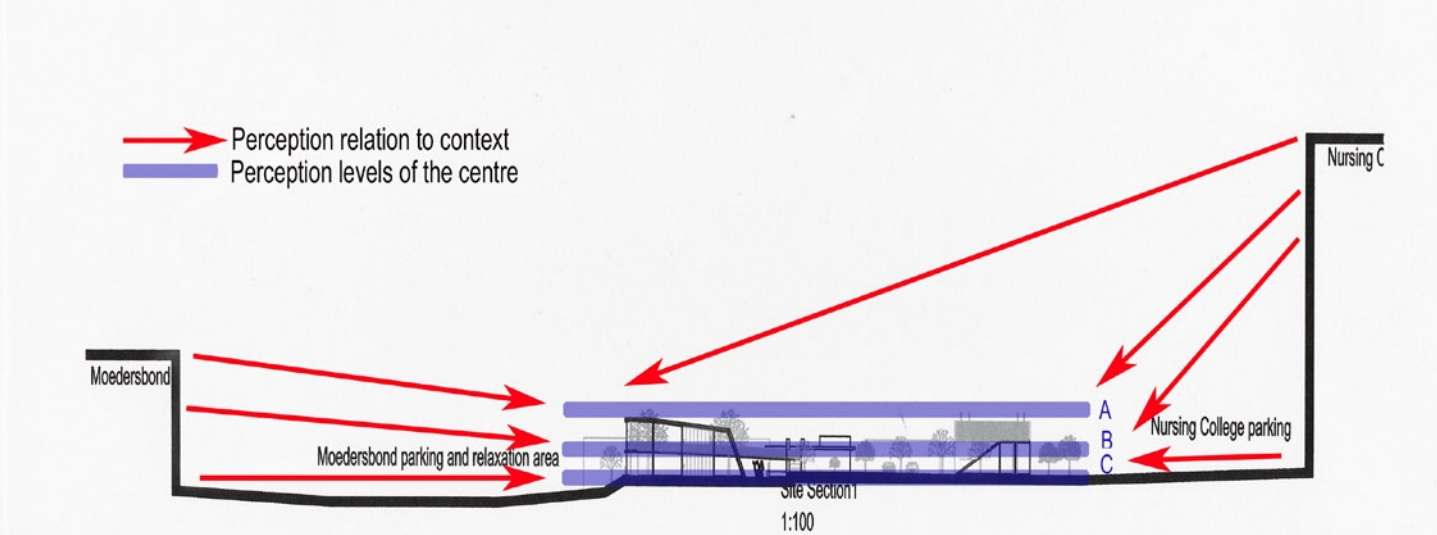


Fig. 38 Perception levels

5.14 Trees:

Trees have a very important role to play in the overall design of the centre. The feeling created in a certain area of the building is highly dependant on the particular trees in that area.The trees are not only a valuable resource in terms of the feelings created in a certain area, they are also of value in regulating temperatures. The centre have been designed to make use of the this fact. None of the indigenous trees on the site would be displaced from their original position during the re-instatement of the trees removed during construction. The trees on the site are all relatively young which means that the removal of the trees during construction as well as the later re-instatement will be possible.

The trees also aids in blending the building into the site. The centre seems less imposing due to the presence of trees throughout the spaces created by the centre. The trees can also be seen as a primary generator of design since they dictate the placement of functions as well as spaces. The trees play a further role in the design by bridging the scale gap created between the centre and the multi-storie buildings bordering it.

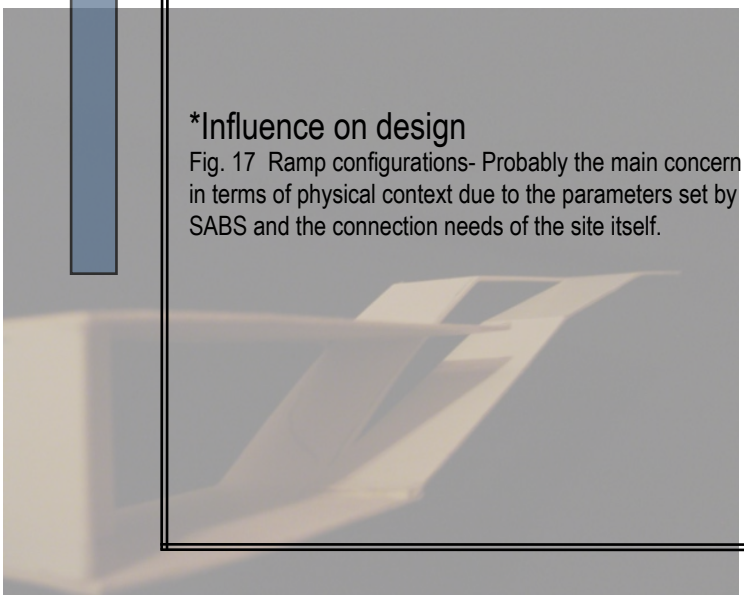
Q Waterpeer (Syzygium guineense)

S Ordinary Treefern (Cyathea dregei)

I Koorsboom (Acacia xanthophloea)

Q Waterpeer (Syzygium guineense)

R Jakaranda

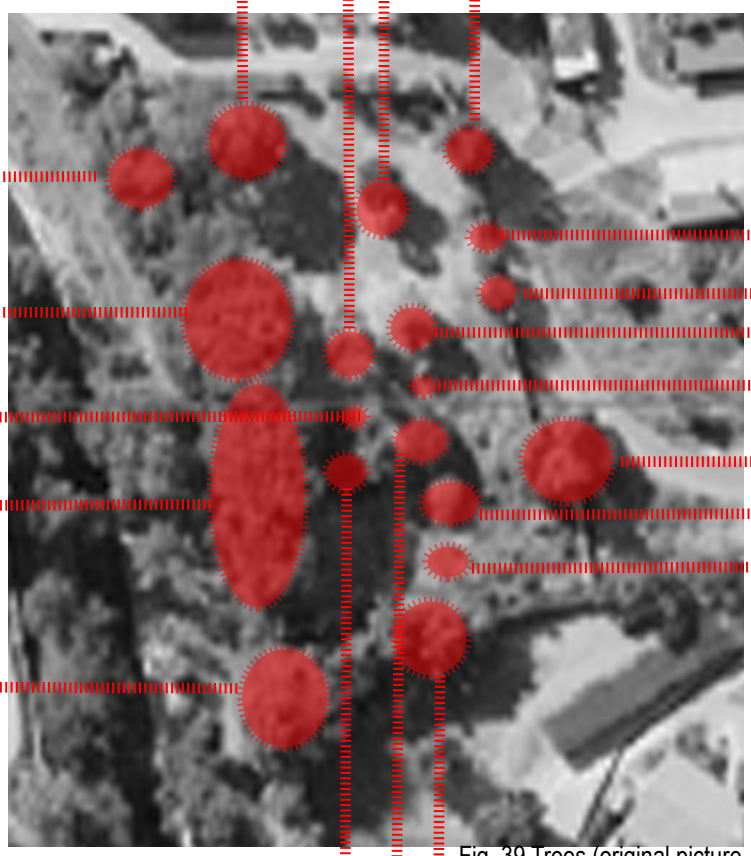


*Influence on design

Fig. 17 Ramp configurations- Probably the main concern in terms of physical context due to the parameters set by SABS and the connection needs of the site itself.

5.15 Conclusion to Physical context:

There are certain qualities of the physical context that can add to the overall design product. It is these qualities that will guide the deign in forming a building that is completely site responsive which will also entail that it blends in with the site on the appropriate level.The site and the larger physical context is a resource and the designer should realise this in order to make use of it. **5.15 Conclusion to Physical context:**



Q Waterpeer (Syzygium guineense)

E Mopanie (Colophospermum mopane)

B Kinaboom (Rauvolfia caffra)

A Moepel (Mimusops zeyheri)

F Lekkerruikpeul(Acacia nilotica)

O Driedoring
(Dalbergia melanoxylon)

H Bokappel

N Waterpeer (Syzygium guineen)

L Soetdoring(Acacia karroo)

M Doringkatjiepiering
(Hyperacanthus amoenus)

D Towerghwarrie (Euclea divinorum)

Fig. 39 Trees (original picture gathered from National Archive)

P Karee (Rhus lancea)

K Kinaboom (Rauvolfia caffra)

J Kierieklapper (Combretum hereroense)