14.1 Materials:

14.1.1 Pretoria Regionalism, a Brazilian influence:

"It could be argued that a regionalist architecture will be generated by the designer directly responding to the following aspects in a place-specific way: climate, materials, site, defence, economics, religion. To this could be added the particular cultural expression of the community. These factors, as generators of form and style of the vernacular house, could be extended to all building types, which have a regionally specific character. It could also be argued that any change in the circumstances of any one or more of these factors will lead to a change in the manner of this response, and that a different regional building character or "style" will emerge." Greig (1971:18)

The particular vernacular of Pretoria could be termed a third vernacular since there were two previous vernaculars in the history of South Africa namely the Cape Dutch of the 18th century and the Georgian of the 19th century.

The Pretoria regionalism had a particular way of responding to nature and the landscape through the use of natural materials and industrial materials with specific climatically responsive characteristics. The third vernacular is considered as a precedent mainly because of this consideration it gave to context in the design process. Following are some examples as to the contexts considered by the third vernacular, be it knowingly or not.

14.1.2 Materials of the Vernacular (materials context):

Pretoria established the brick aesthetic through the Public Works Department. President Kruger imported Dutch architects who were well versed in such aesthetics. These bricks were supplied by Kirkness, a Scottish contractor who made bricks and other decorative elements on the southern slopes of the Muckleneuk Hill. Buildings as far apart as the Groote Schuur Hospital (Cape Town) and the Post Office in Salisbury (now Harare) have been built with Kirkness bricks.

The phase in South African history, which saw Afrikaner Nationalism accumulate power, can be seen as the phase that attracted people of Nationalist sympathies to the Dutch and the National Socialist Germans. This attraction can also be seen in the Architecture of the time. The early practitioners of the Amsterdam style managed to establish an aesthetic and a sympathetic following of Transvaal architects at the same time. Berlage built his *Beurs* in Amsterdam with brick on a large scale in combination with steel and structural daring. De Klerck used brick in a much more expressionistic manner in his housing projects while Dudok exploited the cubistic properties of the material.

The question that arises here is why bricks had such appeal? Schinkel used the material because of its honesty and demonstrated its worthiness for Civic structures in his *Werder Kirche* and his *Bauakademie*. The proponents of the Arts and Crafts movement would laud the commonality and availability of brick. The adherents of the Amsterdam school would praise the classlessness and the democratic attributes of brick. The practitioners of functionalism, like Mies van der Rohe, demonstrated the inherent geometric qualities of the material in his country house project. All these aspects would find sympathy with the modern movement architects.

Norman Eaton was a great proponent of the use of brick in building. It must however be born in mind that he was working in an established tradition. He was responding to and honouring the context of Church Square when he convinced the Dutch to use brick in the Netherlands Bank.

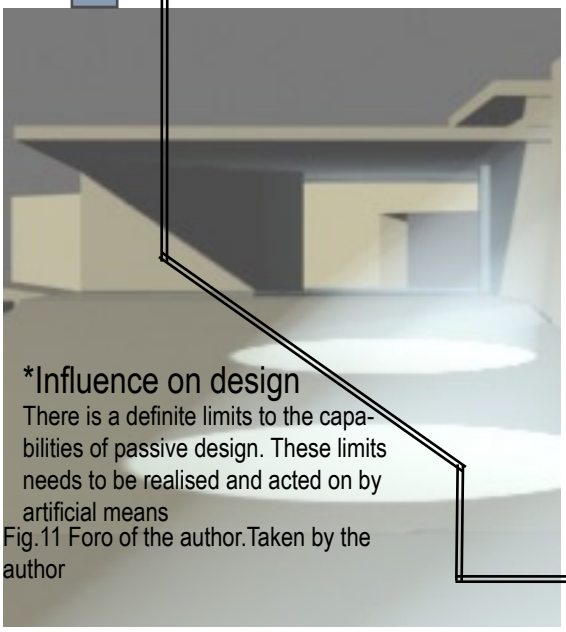


Fig.11 Foro of the author.Taken by the author

Norman Eaton also used Schmikl(an immigrant from Germany) for some projects which in turn enabled him to bring influence to these projects. Schmikl had a special touch with gum poles and thatch, materials of which Eaton deemed him the master. Other materials also became fashionable especially since it had become difficult for people to have buildings built. Some of these materials were malformed bricks and Pelindaba Slate. The use of these materials also ensued the use of local craftsmen.

Brick was an old material that received new significance and did not present the regionalists with much of a challenge. The challenge came from the local availability of materials like steel, concrete and glass which all had to be designed into buildings following the industrial revolution.

The Zuid-Afrikaansche Republiek were all for the local manufacturing of materials because of the fact that this signified a diminishing dependence on overseas resources. Cement was produced locally(*Eerste Cement Fabrieken*-Eduoart Lippert) along with corrugated iron(Iskor), which dramatically replaced the use of thatch.

Corrugated iron allowed for a lower slope of roof but the horizontality of the International style required a flat roof. The Style required more innovative materials of which concrete roofs was the first. The fact still remained that corrugated iron roofs were cheaper and thus more applicable to South Africa. The box rib profile later came to the rescue of the stylists for it offered an even lower slope than corrugated iron and it was not that expensive.

Apart from prefabricated roof sheeting, the other factor influencing the local stylists was window frames, for window frames only came in the modular size of 3 foot 4 inches. The later availability of catalogued window frames did not guarantee cost effectiveness since cartels were established which had the effect that it became cheaper to make use of purpose made window frames. This suited Jooste and his associates rather well since it gave them the opportunity to make use of le Corbusier's *Mudulor*. This made their task of applying modern movement principles to design somewhat easier.

14.1.3 Economic context:

The *Helpmekaar* (Mutual Help) organization raised R400 000 in 1914 to assist the boers suffering economic hardship following the Anglo Boer war. The helpmekaar fund was replaced in 1917 by Santam(South African National Trust and Assurance Company) The establishment of AVBOB and Sasbank soon followed. Volkskas and Uniewinkels also followed soon.

These newfound possibilities for economic wealth spread quickly to the countryside with the effect that the new institutions of the countryside had to build new facilities. This spelt opportunity for the modern movement proponents.

The use of local materials and craftsmen started to become very popular since it strengthened the local economy by creating employment. This unique response to economic and world context showed how resourceful the architects of old have been. They showed that even the most unwanted materials could have some liberty. What is needed in the psychosocial adjustment centre is that there is a response to as many possible resources, be they unwanted or not, and contexts as possible. Buildings do not just spring up out of nothing; they come to be out of a wide variety of influences and limits.

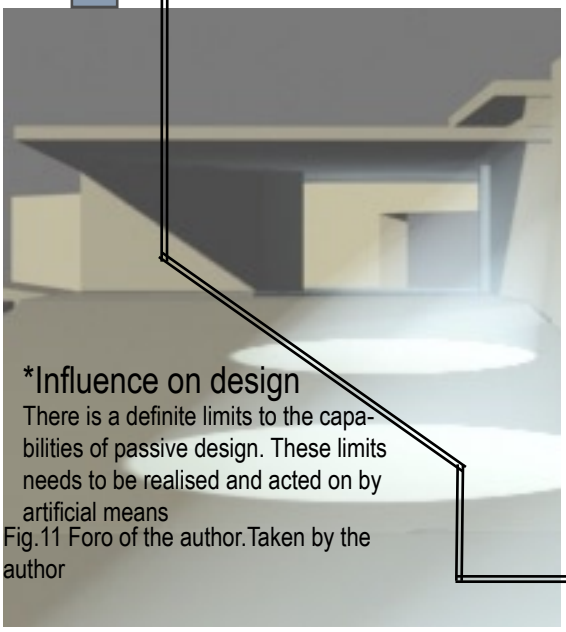


Fig.11 Foro of the author.Taken by the author

14.1.4 Climatic context:

Le Corbusier initiated the climatic responsiveness of the modern movement with his *brise soleil.*

The planning style that typified the Pretoria regionalists was dispersed pavilion-like buildings with protected interstitial spaces. Deep eaves and verandas gave the buildings an aesthetic typical of hot areas.The "stoep" received some negative criticism because of the fact that some saw it as a colonial influence.

The fact of the matter is that the “stoep” played its own specific part in the development of a regional architecture. The “stoep” did for instance address the differences in climate from the northern to the southern hemisphere. The “stoep” offered the inhabitants of the building a choice of sun and shade, depending on their position around the house. Architects tended to be of two minds as to the proper material for their verandas or “stoepe”. The ugliness and increased temperature underneath it, made corrugated iron the less chosen material for verandas. The use of thatch on the other hand offered a lower temperature underneath it as well as a better aesthetic value. The increased availability of corrugated iron did however have the effect that this material became the choice of the regionalists.
Another example of a climatic responsive move was the change from street-oriented designs to designs oriented in a site-specific sun related manner. The Pretoria students quickly understood the importance of the moves toward climatic responsive design. With the research support of the National Building Regulation Institute (NBRI) and the Council for Scientific and Industrial Research (CSIR), instruments like solar charts and solar scopes could be used to aid design. Although the focus of climatic research had been housing, the focus later shifted to research concerning any possible type of building and site.

The psychosocial adjustment centre should also be very climatically responsive since disabled people often find it difficult to control their body temperature.

14.1.5 Physical context:

The approaches that the regional architects had to the landscape and the joy it brings to whoever take time off to enjoy it, had an effect upon their particular architecture and that of those to follow. The regionalists made an attempt to make use of local materials only, and if possible, as natural material as possible. This happened because of the sentimental link they had with the landscape and others, like artists, who enhanced the possibilities it offered to society.

The Afrikaner, historically, always had a close relationship with and understanding of nature. The fact that the Afrikaner had to rely on nature in order to live during the Great Trek initiated his dependency upon it. The connectedness the Afrikaner farmer had with his livestock and crop furthered the idea while modern day scientists still state our dependency through publications like the Huisgenoot and other periodicals.

The Regionalists could be criticized for this focus upon the natural, due to the fact that it might lead to a lack in urbanity, which in some cases it did. This fact was blamed on the view the Afrikaner had of nature:” For the Afrikaner, the God-forsaken wilderness was the city while the farm, the tamed wilderness was God-imbued...” Meyer (1993:23)

The view the Afrikaner had of nature should also be seen in another light, namely that of the contributions and devices of Norman Eaton for example. The devices Eaton used in order to create spaces were aimed at creating qualities that he derived from his knowledge of African architecture and places. The lack of urbanity in this instance allowed for the emergence of an African urban form or in other words, a “Regionalist Urbanism” Fisher (1998:139).

14 Normative position:

14.2.1 Who am I:

I am Albert Olivier, only son of Dr. Allan Olivier and Mrs Bertha Olivier from Kimberley. My farther is an English teacher and my mother retired from teaching. I'm an active person by nature for I like all kinds of sports, especially mountain biking and Rugby.

14.2.2 Why Inclusive design and spinal cord injuries in specific:

The reason for my inspiration to study inclusive design is foremost personal and sentimental. My mother specialized in special education for disabled children, which enabled me to have contact with disabled people throughout my life. I developed a strong sentiment towards them as well as a drive to help them where I can.

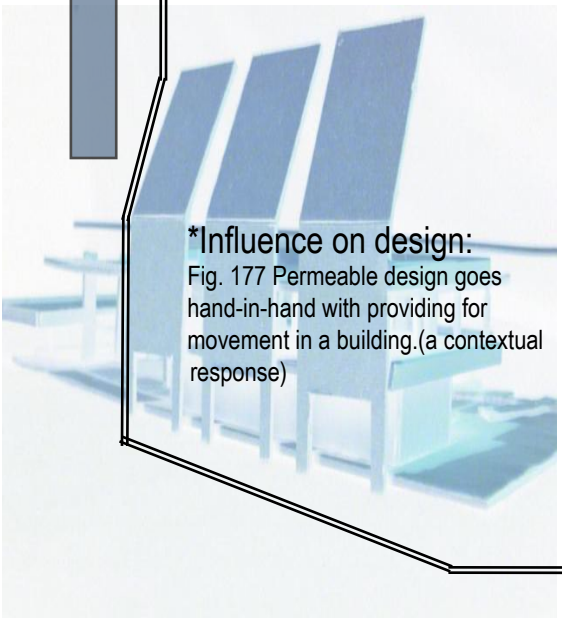
After much consultation with various experts in the disability field, it became apparent that there is a definite need for a centre that will fulfill more than just a physical or just a psychological function. There is a need for a place where injured patients can learn everything they need in order to adjust to their feelings and physical and their social surroundings.

14.2.3 Dualistic thinking :

Modern society often have a tendency to devide subjects of discussion into parts in an attempt to better understand the situation or problem. Dualities are thus created.

The dualities of most importance to disabilities are those of abstract versus figurative, social versus private and mind versus body. The mere fact that there is a definite separation between the entities comes in conflict with the nature of disability which is that it exists as two inter-related and co-existent components, namely the physical and the psychological components. These two components must be adressed as a whole in the Inclusive or Universal design process.

The hierarchical division of any of the components of disability is impossible and it would be impossible to treat the one without consulting and monitoring the effect it has on the other (they should be equal).



*Influence on design:
Fig. 177 Permeable design goes hand-in-hand with providing for movement in a building.(a contextual response)

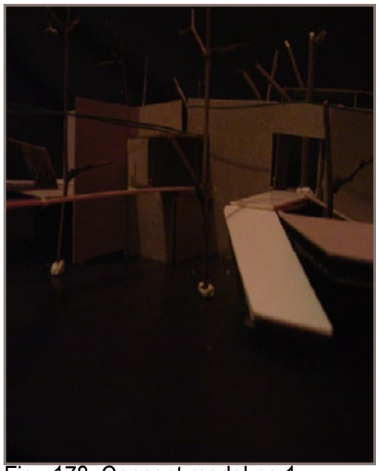


Fig. 178 Concept model no.1 western elevation

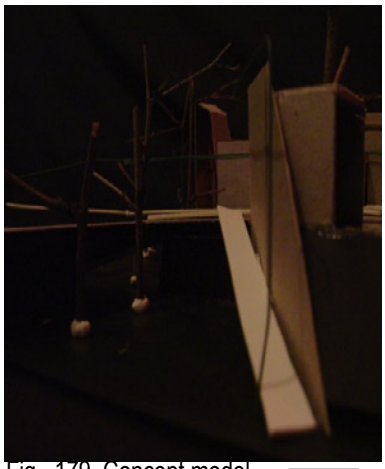


Fig. 179 Concept model no.1 southern elevation

14.2.4 Influence on normative position:

The centre should provide a setting that is in contrast with the sterile environments in which the patients find themselves most of the time during treatment, but in such a way as to not disregard the linkage with the precinct. A prolonged exposure to a single type of setting, a sterile environment in this instance, will inevitably have a lasting effect on you. This effect might be positive or negative.

14.2.5 Modern Philosophy:

Descartes (1650) emphasized subjectivity in his dualistic thinking through stating existence over mind while still acknowledging the existence of the idea. The product of the mind of the subject became more important than the mind itself. The role and needs of the subject is very important in thinking about disabled people.
If the extent to which a person is read can be seen as an indication of his importance, then Hegel must be the most important modern philosopher. The deconstructivists targeted his ideas partly because of this fact. Hegel was a dualist as well. He also furthered the subjective duality created by Descartes.

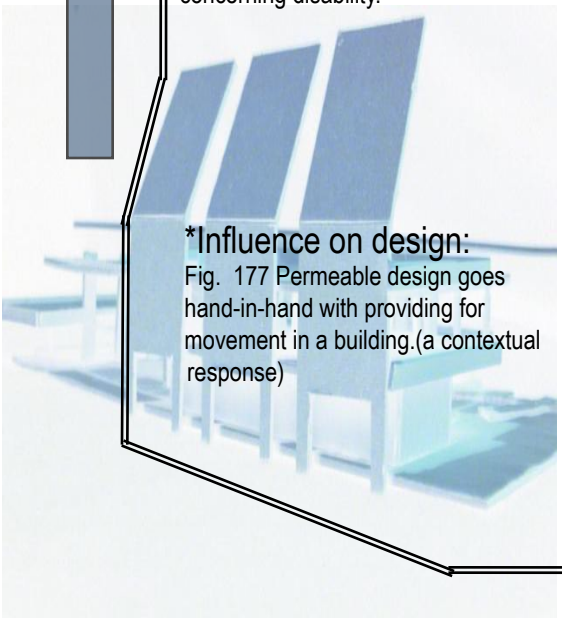
Hegel stated that subject and object were unified at the creation of man. He also stated that there was no opposition between God and nature. This unity proclaimed by Hegel was not seen by Derrida as being true unity for it excluded the possible existence of diversity.
The proponents of deconstructive thinking, like Derrida for instance, hammered Hegel (and Plato) for the fact that they did show the preference they despised (voice over writing).

The problem with the deconstructivist mindset on the other hand, came to the fore when people realized that the deconstructive mindset had to acknowledge the fact that both the self and the other existed and thus the philosophy had a flaw since it did not place total emphasis on one of the aspects as it claims. It is this very flaw that signifies the way in which thinking about disability has to be approached.

The positive aspect of the whole debacle is that people became aware that the only way that anything can be unified is when it encompasses all the necessary and applicable fields of the particular life subject.

14.2.6 Influence on normative position:

Useless and self-contradicting critique should be avoided. People tend to make comments for the sake of making the comment. What this holds for the normative position is that the selection of a third party to aid in the design process should be done very carefully. Overly pessimistic third parties will not make any helpful contributions to the eradication of common design problems concerning disability.



*Influence on design:
Fig. 177 Permeable design goes hand-in-hand with providing for movement in a building.(a contextual response)

Fig. 180 Concept model no.1 main entrance

Fig. 181 Concept model no.1 plan

14.2.7 Modern Movement:

The Modern Mvement has its fair share of intrinsic dualism in the form of figure versus abstract, functional versus dysfunctional, signifier versus signified etc. The modern movement can be interpreted as prefering the meaning over the creator of the meaning, the signified over the signifier.

The modern preference for the abstract was believed to enable us to go beyond the absolute and so the search for deeper meaning started. Some had even gone as far as stating that the open canvas, and in architectural terms the un-built, is the furthest away from the figurative. When looking at this from an inclusive design point of view, the un-built will actually be the best, if however drastic, solution to the problem of accessibility.

The modern preference for the one over the many may aid thinking about disability in the sense that the individual became more important. This in turn will enable personal contact and a better understanding of the needs of each individual. This leads to a one-on-one approach, one that has been used in schools for the disabled for years already. The focus on the many will only have the figurative as a product for abstract qualities can seldom be ascribed to a large number of people in the same way it can to one.

The reaction to this way of thinking came from the post-modernists and deconstructivists in the form of an emphasis on the link between the abstract and the figurative. The link between the abstract and the figurative becomes just as crucial if one is to consider treatment as a corresponding system between the abstract (psychological) and the figurative (physical).

14.2.8 Nietzsche:

Being one of the proponents of modern thinking, Nietzsche accepted the point of view that reality is in essence meaningless, thus a Nihilist way of thinking. In his book called The Birth of Tragedy, he tries to explain Greek culture. The Greek culture was full of conflict with itself and its neighbours. The conflict between Apollo (god of structure and harmony) and Dionysus (god of drunkenness and frivolity) also comes to the fore. Modern artists saw themselves as being part of the Apollonian mindset since they strived towards order and harmony.

The contexts in which people found themselves played a significant role in determining what they strived for in terms of ideas. The traumatic context of the First World War saw people striving towards the abstract while a more relaxed context saw people striving towards the figurative (the years following the war). This can be seen as one of the reasons for the conflict between the Apollonian and Dionysian mindsets.

14.2.9 Influence on normative position:

Context plays a very significant role in the life of a spinal cord injured person for it will determine which response he/she will have towards the healing and adjustment process as well as the ideas he/she will tend to follow (Apollonian or Dionysian)

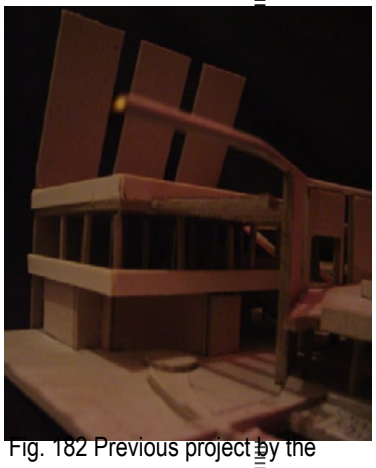


Fig. 182 Previous project by the author

Fig.183 Concept model no.1 plan

Fig. 184 Concept model no.1 bridge

The context is one aspect over which the architect has significant control and thus he/she must strive towards the creation of a context that will be supportive and beneficial to the largest number of people.
The conclusion that can be drawn here is that the architect has within his/her power the ability to swing the dualities between figurative and abstract needs and positive and negative contexts in which ever way is best for the occupants of the building.

14.2.10 Design culture (the modern movement +third vernacular South Africa):

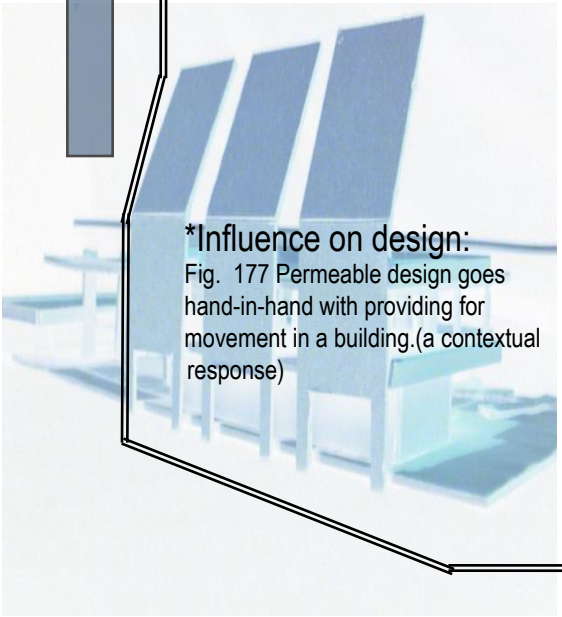
Disabled people and their bodies have never been the norm of design in any way. This is evident in books like Neufert's Architects Data and the Metric Handbook which clearly propagates the fact that the bodies architects design for revolves around a range of physiological norms which lacks variety.

The overall design process has failed in recognizing and responding to the needs of the disabled. This has given rise to the disablist nature of design today. Disablism in urban design is most evident in the modern movement of which the broad and enduring value bases have had a major influence in twenty first century design practice.

Modernism was predicated on the process of breaking down the social divisions and differences of society, conversely the close alignment with an abstract engineering aesthetic, which propagated the intellectual purity of the rational, did however lead to the exclusive nature of design both then and today. The modernist ideology promoted (post Second World War) certain conceptions of design and space, which failed to acknowledge social differences while claiming to be inclusive and neutral.

The claimed neutrality of modernist design, with its claim to de-contextuality, standardization and a homogenous public, is often not much more than a mere affirmation of the mainstream, white European male, norms, which exclude the disabled. The architecture and design conceived of on the basis of these norms was then based on a highly specialized system with a set of pre-determined technical goals instead of on the basis of a social art, which responds to real human desires and feelings.

The estrangement of disabled users from the design process was heightened by the inability of modernism to break with past ideas, especially that which saw architecture as artistic expression. Architecture as art was an abstract visual art and not a body-centred art. This gave rise to the emphasizing of architectural aesthetics and not human needs, a problem since buildings are supposed to be designed for humans and their needs. Doesn't the power of art lie in the feelings it exerts from the beholder thus in architectural terms, from the user?



*Influence on design:
Fig. 177 Permeable design goes hand-in-hand with providing for movement in a building.(a contextual response)

Fig..185 Previous project by the author
sustainability

Fig. 186 Previous project by the author.housing

The broader process of development and design has however shown some development in terms of the relations between the social and technical demands placed upon a building. Robert Venturi reflected upon the legacies of modern design as well as the machine aesthetic. Following this reflection, he called upon architects to recognize the complexities of modern life and to address multi-functional needs and programs. The Finnish architect, Alvar Aalto, was of the meaning that responsible architects should design buildings that would be of no harm to any user, nor should they be unsuitable for use by them. The provision of natural light in a building that harms the user is a form of reactionary architecture at the cost of the design and constructional qualities of that building.

This striving towards a social architecture was a reaction against that of abstract, one-dimensional, architecture, which had quite a list of documented failures in terms of unmet building and functional requirements. Aalto noted that:
"The only way to humanize architecture is to use methods which always are in combination of technical, physical, and psychological phenomena, never any one of them above the other" Ventre(1997:11)

A variant to this idea is what Harris and Berke(1997:backcover) calls the "architecture of the everyday". This type of building is anti-heroic and un-monumental, an architecture that draws its inspiration from everyday life and common routines. This type of design approach has particular relevance to the disabled person since the focus lies in creating buildings that satisfies everyday requirements of the inhabitants. Buildings do not become commodities or utopias, which are only accessible by the "elite few".

14.2.11 Influence on normative position:

The centre will be designed on the basis of reaction to the relevant contexts surrounding the site as well as disabled people today. The physical as well as psychological needs of disabled people will be one of the contexts considered as a design generator. A design reaction to the needs of the site and precinct will aid in creating a more holistic design, usable by a number of people.

Fig. 187 Previous project by the author
PIA

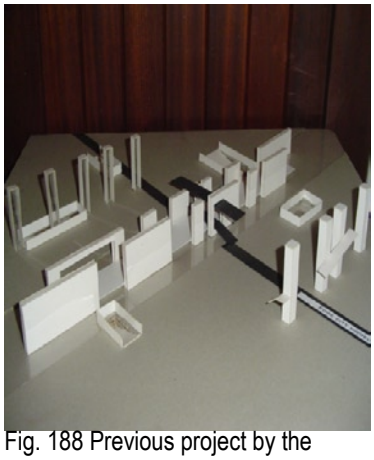


Fig. 188 Previous project by the author
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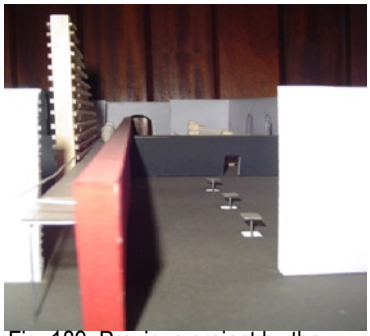

Fig. 189 Previous project by the author
exhibition

14.The influence of contexts, responsive design:

14.3.Pragmatic restraints:

14.3.1 Occupation:

The classification of the Psychosocial Adjustment centre according to table 2 of section A of SABS 0400 (1990:35) is a combination between E2 (places of treatment), A3 (lecture halls), A1 (relaxation), D3 (low risk industry) and G1 (offices). The occupation of the building was worked out on the grounds of this classification.

Building section	Total floor area	SABS classification	Total persons
Counseling first floor	53.73 sq.m	G1(1 person per 15sq.m)	3.582 persons
Counseling groundfloor	180 sq.m	G1(1 person per 15sq.m)	12 persons
Workshops	100sq.m	D3(1 person per 15sq.m)	6.67 persons
Physical therapy	151 sq.m	E2(1 person per 10sq.m)	15.1 persons
Games room	86.6sq.m	E2(1 person per 10sq.m)	8.66 persons
Conference /classrooms	370sq.m	A3(1 person per 5sq.m)	74 persons
		Total occupation	120(120.012) persons

14.3.2 Influence on design:

The size of the site as well as the number of newly disabled people during the year(see precedent studies) dictated the size of the building. The fact that there are about 500 new disability cases each year meant that the building must be able to accomodate at least a quarter of that amount at any one time of day. The amount of 120 persons fall within this parameter. The sizes of the building segments where designed in such a way as to keep the building as compact as possible due to the above parameters as well as the need for shorter travel distances.

14.3.3 Sanitary:

Disabled people have very distinct needs in terms of sanitary requirements. Proper provision have been made in order to accompany those people who are not yet used to the new state of their bodies. The sanitary requirements according to table 6 of section P of SABS 0400 (1990:126) is 3 wc,s for men and 9 wc's for women. There should also be 5 washbasins for women and men respectively. The parameters set by the SABS was followed with the exception of urinals, which will be useless to wheelchair-bound disabled people.

Influence on design:

Access had to be provided to wc's on all the floors and building segments in order to facilitate easy usage. The segments that houses the most activity as well as the largest number of people received the most attention in terms of sanitary provision.

14.3.4 Facilities for disabled people:

The nature of the centre entails that the whole building must be designed and built according to regulations for facilities for disabled people. All the floors as well as the access to them must responded to the regulations set out while still remaining true to the specific function housed on that particular floor. The regulations as set out by section S of SABS 0400(1990:152-155) are summarized as follows:

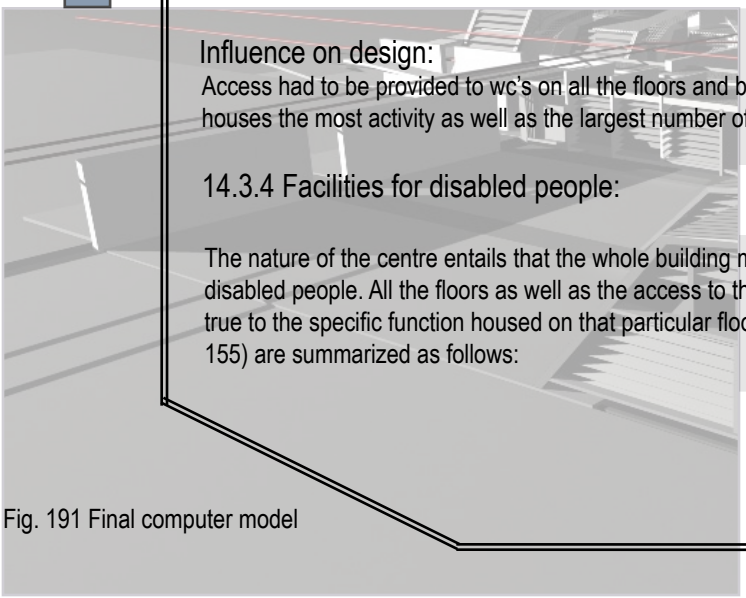

Fig. 191 Final computer model

Regulation aspect	Aspect summary
Ramps	A ramp must have a slope of maximum 1:12 if the height to be reached is more than 400mm above grounedlevel, which it is throughout the building.The surface must be at least 1.1m wide and slip-free.Landings every 1.5m rise.Doors opening unto the area at the lowest point of a ramp must not hamper the movement on and from the ramp.Any landing should be at least 1.2m long.The ramp should have a railing if the height to be reached excedes 600mm.This railing should be between 850 and 1000mm above ramp level.
Lifts	A lift should have a minimum inside measurement of 1.1m in width and 1.4m in length.The lift should have a door with a width of at least 800mm and a railing with a height of between 850 and 1000mm on two sides of the lift.
Doors	A door should have at least an opening of 750mm at 90 degrees to the movement direction.Door handles should be of the lever type and should be situated a maximum of 1.2m above groundlevel.Any height differences brought about by door structure must be a maximum of 15mm.
Toilets	A disabled person should move a maximum of 200m from his location in the building to a toilet facility.Buildings can be fitted with unisex facilities, providing the total number of facilities are sufficient.The door can be a sliding or a pivot door. A pivot door must open to the outside and must be fitted with a means to indicate occupation.The surface area of a compartment for use by disabled people must have a minimum surface area of 2.9 sq.m and a minimum plan measurement of 1.6m. Approved support handles should be placed on the walls behind and next to the wc. The distance between the centre of the wc and the wall next to it should be 450-500mm and the distance from the front of the wc to the back of the compartment should not be less than 660mm.The seatlevel of the wc must not be higher than 480mm from groundlevel. The wc must be servicable by wheelchair-bound users.The handwashbasin should be wall-mounted with no footing. The maximum height of the basin should not be more than 830mm.There should be a vertical open space of 680mm underneath the basin.Taps must be of the lever kind and must be reachable from the wc from a sitting position.
Auditoriums	The SABS has various regulations about auditoriums with fixed seats but states nothing about auditoriums with loose seats.The psychosocial adjustment centre has open auditoriums with no fixed seats. This fact has a positive effect on the seat organisation for it creates a number of possibilities that rules out the problems eith fixed seats.

Obstructions in movement paths	Any difference in floor level of more than 25mm must be provided with a proper ramp for access.Obstructions that protrudes more than 300mm into a movement passage should be indicated as a movement hazard if it starts at a maximum of 300mm above groundlevel..
Partking	Parking bays should have an approved length and a width of at least 3.5m.Parking bays should be as close as possible to the access points of a building. The parking provided for the psychosocial adjustment centre are all accessible and usable by disabled people. This is done because of the fact that non-disbled people adjust more easily to disabled access parking than the other way around.The site and immediate surroundings also have ample space for larger parking bays. The fact that the centre caters for a rather small number of people aids in rationalising the use of fewer, but larger bays.
Signage	The SABS states little in connection with proper signage for movement for disabled people through a building.The signage in the psychosocial adjustment centre was done in a manner that is legible and as descriptive as possible about the movement and tasks at hand. Signage for disabled persons must also be done in a manner that enables people with sight and hearing disabilities to use the building.

14.3.5 Fire regulations:

Escape route provision:
Section T of SABS 0400(1990;182) states that a building with a height of up to three levels and with 45m as a maximum travel distance to the nearest escape route need not have an emergency exit route in addition to the escape route. A building with an upstairs population of more than 25 must be provided with at least two escape routes. The psychosocial adjustment centre falls within these parameters. The centre need not have emergency exits.

Exit doors:
Section T of SABS0400 (1990;183) states that a room with a population of less than 25 people be provided with exit doors of at least 800mm. All of the rooms in the centre falls within these parameters and thus they need only have 800mm wide doors. The doors have been designed to be 1.1m wide due to the fact that a wider door facilitates easier movement.

Section T of SABS0400 (1990;183) also states that rooms with a population of more than 25 have at least two exit doors . These doors should open in the direction of movement and should have a width of at least 1.1m. The conference facilities of the centre falls within this category and thus the facilities have been provided with two exit doors per room.

Measurements of components:
Section T of SABS0400 (1990;183) states that an escape route should have a constant width as well as a headroom of at least 2m.

The access ramps of the centre forms the exit and escape routes. This fact entails that ramps should have a constant width as well as proper or sufficient headroom.

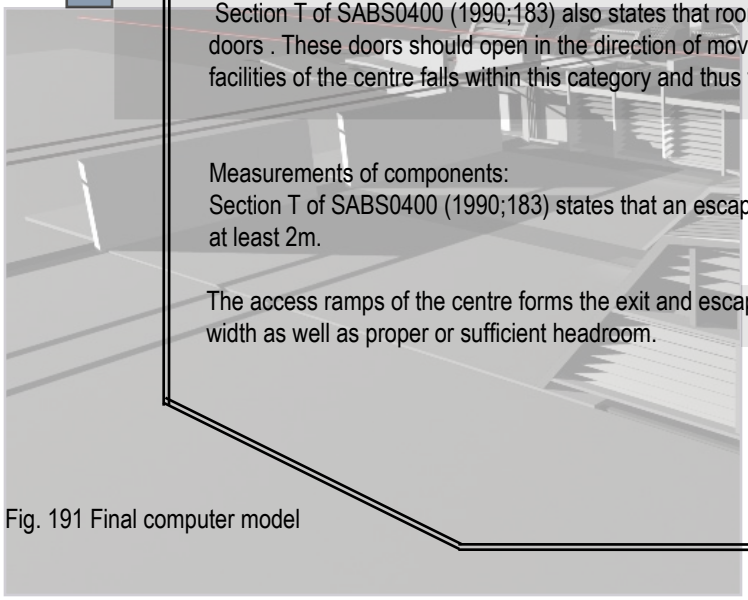

Fig. 191 Final computer model

Widths of escape routes:
Table 9 of Section T of SABS 0400(1990;185) aids in determining the proper widths for escape routes by relating building population to route width. A building with a population of 120 people should have escape routes of at least 1.1m.

The ramps (that form all the escape routes) all have a width of at least 1.5m due to the fact that they must be able to accomodate the movement of two-way wheelchair movement. This width is then also conveniently sufficient for use as escape route.

Level changes along an escape route:
Section T of SABS 0400(1990;187) states that the distance between any change in the floor level and the center line of a door opening in an emergency route be more than 1.5m. This fact also holds true for the distance between two changes in floor level in an emergency route.

External routes and ventilation:
Section T of SABS0400 (1990;185) states that buildings may only have an external emergency route if the building does not excede a height of 18m.

The psychosocial adjustment centre never excedes a height of 18m and therefor use may be made of external emergency routes. The use of external emergency routes will also contribute to proper ventilation of the routes. This principal was followed in the centre design seeing as the centre has quite a number of external ramps.

Lighting of exit routes:
There should be lighting installed 100mm above the floorlevel of a particular escaperoute according to section T of SABS (1990;190).This lightsource must provide at least 50 lux of illumination. Section T also states that an emergency lightsource must be provided for buildings with an occupation of more than 100 people.

The centre provides for these basic requirements by means of lighting installed at 100mm above groundlevel in all movement passages as well as by means of the external lighting pipes that are connected to the solar panels on the roof of the counseling block.

Portable fire-extinguishers:
Table 10 of Section T of SABS 0400 (1990;193) states that a building with similar occupation to the psychosocial adjustment centre should have 1 portable extinguisher per 200 sq.m.

The centre has a surface area of 1800 sq.m. which entails the installation of 9 fire extinguishers at appropriate places throughout the building.

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