

## CONCLUSION

With respect to the interviews and the information gathered the following points can be noted:

There is a prominent gap that exists between the intellectually challenged individuals and the able society which directly affects the manner in which these two societies interact. This gap is due to some of the following factors- feelings of intimidation and fear of being misunderstood by the mentally challenged individuals, -able society stigmatizing the intellectually impaired by deeming them incapable without understanding them and their abilities -able society afraid to interact with the mentally challenged individuals in fear that they may not be understood or that they may be faced with unpredictable behaviour or mannerisms which they would not know how to handle.

- There is a need for interaction between the able society and the mentally challenged individuals. This would result in a better understanding of the mentally challenged needs and capabilities.
- There is a need for more skills development programs, integration programs, support programs and social clubs.
- Currently there is a lack of facilities to accommodate these programs and support structures
- There is scope for high skilled mentally challenged individuals to work in the open labour market whereby they can substantially benefit mainstream organizations.
- There is a need for more awareness campaigns to educate, inform the able society and de-stigmatize the mentally challenged society.



www.yorku.ca/wellness.com



www.blogs.guardian.co.uk

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|                             |                                                        |                        |                                                                 |
|-----------------------------|--------------------------------------------------------|------------------------|-----------------------------------------------------------------|
| <b>FEBRUARY</b>             | <b>SIYU TUTI (5 - 17)</b>                              | <b>Free State</b>      | <b>National Board meeting (13)</b>                              |
| <i>National</i>             | <i>New integrated group initiative in the Cape (7)</i> |                        | <i>Radio Overval Stereo at 10:00 (16)</i>                       |
| <i>South Cape Kame</i>      | <i>Valentine Lunch (14)</i>                            |                        | <i>Radio Talk Show Radio IFM at 14:00 (23)</i>                  |
|                             | <i>Friends of EPILEPSY SOUTH AFRICA (75)</i>           | <i>Myunulanga</i>      | <i>Chef's Cook-out (16)</i>                                     |
|                             | <i>Anten at marhale: Outright Chair Challenge (18)</i> | <b>JUNE</b>            |                                                                 |
|                             | <i>Intimate Youth Progression (22)</i>                 | <i>National</i>        | <i>National Epilepsy Week (19 - 25)</i>                         |
|                             | <i>Sweet Collection (24)</i>                           |                        | <i>National Epilepsy Day (21)</i>                               |
| <i>Western Cape</i>         | <i>Open Day (14)</i>                                   | <i>South Cape Kame</i> | <i>Caraffle Launch (1)</i>                                      |
| <i>Free State</i>           | <i>Radio Overval Stereo (13)</i>                       |                        | <i>Judging: High School Art (10)</i>                            |
|                             | <i>Radio Talk Show Radio IFM at 14:00 (21)</i>         |                        | <i>Residence distribute flyers (19)</i>                         |
| <i>Durban &amp; Coastal</i> | <i>Awareness campaign (from February to end June)</i>  |                        | <i>Myemal Tea (20)</i>                                          |
| <i>Myunulanga</i>           | <i>Please be our Valentine! Mail drive (14)</i>        |                        | <i>Volunteer Tea (20)</i>                                       |
| <b>MARCH</b>                |                                                        |                        | <i>Doctors' Challenge (21)</i>                                  |
| <i>Free State</i>           | <i>Radio Overval Stereo (13)</i>                       |                        | <i>Candle lighting Ceremony (21)</i>                            |
|                             | <i>Radio Talk Show Radio IFM at 14:00 (25)</i>         |                        | <i>Sponsored Kati: P' sessions (22)</i>                         |
| <b>APRIL</b>                |                                                        |                        | <i>Sponsored Kati: final (22)</i>                               |
| <i>Myunulanga</i>           | <i>Golf Day Belfast (1)</i>                            | <i>Free State</i>      | <i>Sweet Collection: Kayana (23)</i>                            |
| <i>Free State</i>           | <i>Radio Overval Stereo at 10:00 (10)</i>              |                        | <i>Money-on-the-foot (24)</i>                                   |
|                             | <i>Radio Talk Show Radio IFM at 14:00 (25)</i>         | <i>Western Cape</i>    | <i>Jail to Ball (24)</i>                                        |
| <i>Western Cape</i>         | <i>Coin Collection (17)</i>                            |                        | <i>Church service and dance group (25)</i>                      |
| <i>South Cape Kame</i>      | <i>Friends of EPILEPSY SOUTH AFRICA (24)</i>           |                        | <i>Radio Overval Stereo at 10:00 (22)</i>                       |
| <b>MAY</b>                  |                                                        |                        | <i>Radio Talk Show Radio IFM at 14:00 (20)</i>                  |
| <i>National</i>             | <i>Doctors' meeting (8 - 10)</i>                       |                        | <i>Pre-Youth Day (15)</i>                                       |
|                             | <i>Epilepsy Conference (11, 12)</i>                    |                        | <i>Coin Collection (17)</i>                                     |
|                             |                                                        |                        | <i>Solstice dinner and candle lighting (21)</i>                 |
|                             |                                                        |                        | <i>Doctors' Challenge: Morning conference with doctors (24)</i> |

### Myunulanga/Inyanga Branch

April Fool's Golf in Belfast will take place on 1 April 2006 in aid of people with epilepsy and related disabilities. The following events will be available: Slingshot, start at R100.00 per person, including a football, IPS, racing. For more information, contact Brian on 082 823 8289 in Oudtshoorn.

More news from our Western Cape branch: The Western Cape branch has celebrated the opening of their new offices in Landshoven on 14 February 2006 by hosting an Open Day. According to Wendy Nefth, regional director of the branch, "this year, 14 February marks the official opening of the new offices and a positive move toward the centralisation of our services. The regional office relocated to the workshop premises at the end of August 2003."

The above document is an example of the yearly calendar of events held by the Epilepsy Foundation South African. According to Vinoo Singh - Events manager - some of the events don't take place due to the lack of venue or problems with transportation from venue to venue.

## ARCHITECTURAL PERCEPTIONS

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### THE PERCEPTION OF SPACE AND IDEA OF PLACE

We could begin to define space and place by comparing the understanding of the house (space) and a home (place). According to Pallasmaa a house is the container, the shell, for a home. Home is an expression of the dwellers personality and his unique patterns of life. Pallasmaa also draws a conclusion of whether or not home can be an architectural expression "Home is not, perhaps, a notion of architecture at all, but a sociology, psychology and psychoanalysis" (2005:114)

From the above analogy we can then define space as being a vessel in which experiences take place. This vessel is never empty. If occupied by any one living thing, it will become a space that evokes either positive or negative emotions. This then forces us to look closely at what are the architectural considerations that evoke emotions.

## ARCHITECTURE, BODY AND MIND

### Architectural elements contributing to space making

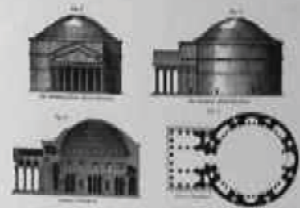
Spaces can generate a range of emotions. It can intimidate a person, or create a feeling of awe, excitement, even cause a person to feel trapped, or claustrophobic. What is it that can conjure these feelings? According to Yu - Fu Tuan, "spatial dimensions such as vertical and horizontal, mass and volume are the tools that space creator uses to express a meaning in a space. He goes on to say that it is these dimensions that are 'known intimately to the body' (1977:108)

**Scale:** A dimension that embodies all of the spatial dimensions; verticality, horizontally, volume and mass. The body is receptive to scale. The body's mind will immediately gauge its dimensions against the dimension of the shell, and cause a feeling of awe or emotion. If we could use the ancient temples such as the pyramids in Egypt or Hadrian's Pantheon we can immediately understand the extraordinary power of scale. These architectural wonders create a sense of awe, to most visitors. It displays a firm grasp of great architecture and great skill that many have not experienced in the everyday. Human scale is the most common scale. It is a dimension that is familiar to most of us. We live in a home that displays human scale. Ceiling heights, door way heights, windows, etc are all elements that showcase scale, and although they might be exaggerated in certain cases they are still a comfortable scale for most of us.

We might be able to successfully design with scale; with human proportions in mind, however there are other contributing elements that are able to work hand in hand to add more depth and meaning to a space. Light, colour, sound, temperature and orientation, all play pivotal roles in creating good architectural spaces.



The pantheon illustrating the power of scale  
www.about.com : 18 April 2008



The pantheon architectural drawings illustrating the power of scale  
www.about.com : 18 April 2008



The pyramids of Egypt: Another power of scale  
www.about.com : 18 April 2008

**Colour** is often related to trends, fashion and the dynamics of aesthetics and interior décor, however there is also a 'scientific' component that is often overlooked. Different colours have been found to have specific effects on the physical, mental and emotional states of individuals. (Day, 1990; Lilly, 2001; Pegrum, 2000)

Colour Therapy or Chromotherapy refers to the use of colours to change a person's physical, mental or emotional health. It has been rooted in many ancient belief systems of the east, but has more recently been acknowledged by the west. The underlying principle is that each colour has a different wavelength and frequency, and therefore a different energy, which in turn has a different effect on an individual. ([www.colourenergy.com](http://www.colourenergy.com))

There has been much agreement on the effects of colour, even from various independent sources, based on research and experience (Day, 1990; Gappell, 1995; Lilly, 2001; Pegrum, 2000).

Gappell (1995:116-117) suggests that: "Red stimulates the sympathetic nervous system, increases brainwave activity and sends more blood to the muscles, thus accelerating heart rate, blood pressure and respiration. Blue triggers the parasympathetic nervous system and is credited with a tranquillising effect."

This is probably the explanation for Gappell's further suggestion that: "Thermal comfort is also affected by colour; people feel cooler in cool-toned rooms and warmer in warm-toned rooms, although the actual temperatures may be the same."

Gappell also suggests that: "With the use of cool colours, time is underestimated, weights seem lighter, objects seem smaller and rooms appear larger. The opposite is true for warm tones."

Apart from the mental influence that colour has on the average person, colour coding in the physical environment is an effective aid in helping those persons with visual impairments. It has been concluded that by using certain colours in design would help to better orientate those who have visual impairments, in a space.

## RED

VITALITY, COURAGE, SELF-CONFIDENCE

Use when you need to meet a demanding day, or when you feel drained of energy. The colour red provides the power from the earth and gives energy on all levels. It connects us to our physical body. Everything that is to be commenced needs the life vitality of red.

**Personality Traits:** Courageous, confident, humanistic, strong-willed, spontaneous, honest, and extroverted.

The Root Chakra is governed by the red energy.

[www.colourenergy.com](http://www.colourenergy.com)  
September 2008

## ORANGE

HAPPINESS, CONFIDENCE, RESOURCEFULNESS

Brings joy to our workday and strengthens our appetite for life! Orange is the best emotional stimulant. It connects us to our senses and removes inhibitions and makes us independent social.

**Personality Traits:** Enthusiastic, happy, so energetic, sporty, self-assured, and constructive.

The Spleen Chakra is governed by the orange energy.

[www.colourenergy.com](http://www.colourenergy.com)  
September 2008

## YELLOW

WISDOM, CLARITY, SELF-ESTEEM

Gives us clarity of thought, increases awareness, and stimulates interest and curiosity. Yellow energy is related to the ability to perceive and understand. The yellow energy connects us to our mental self.

**Personality Traits:** Good-humoured, optimistic, confident, practical, and intellectual.

The Solar Plexus Chakra is governed by the yellow energy.

[www.colourenergy.com](http://www.colourenergy.com)  
September 2008

## GREEN

BALANCE, LOVE, SELF-CONTROL

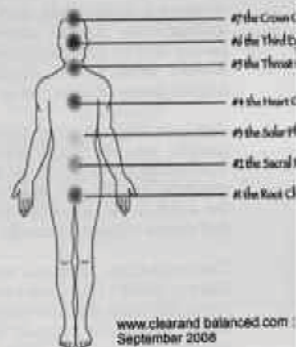
Helps relax muscles, nerves, and thoughts. Cleanses and balances our energy, to give a feeling of renewal, peace and harmony. Green connects us to unconditional love and is used for balancing our whole being.

**Personality Traits:** Understanding, self-controlled, adaptable, sympathetic, compassionate, generous, humble, nature loving, and romantic.

The Heart Chakra is governed by the green energy.

[www.colourenergy.com](http://www.colourenergy.com)  
September 2008

## CHAKRA LOCATION CHART



[www.clearandbalanced.com](http://www.clearandbalanced.com)  
September 2008

**Sound** can be divided into two types: that which agitates the mind and entire being, and that which brings about calmness and tranquillity.

The first takes the form of noise, whether it is mechanical noise from traffic, computers, refrigerators and other appliances, or noise from more natural sources such as children on a playground or people moving about continuously on a timber floor. Gappell (1995:117) submits that besides the generalised stress caused by a noisy environment, noise results in physiological changes in the blood system that impede blood flow and cause ailments such as high blood pressure, heart disease and ulcers.

Day (1990) suggests that we easily become conditioned to low-level noise, and don't notice it at all. However the fact that it causes some level of tension is evidenced by the great relief that we feel whenever it suddenly stops. He submits that noise is a recognised environmental pollutant, and that it is harmful to human health. Psychiatrists concur on this point and submit that noise pollution is the biggest cause of mental instability (Singh, Pers Comm 2006).

Buildings need to be designed to protect humans and animals from the harshness of noise, and Day suggests that this can be done through well-established techniques for noise-abatement. Creating distance between the noise source and people, or developing obstructions such as walls, banks or buildings, even helps to mitigate outdoor noise. Certain plants and building materials such as carpets and sound panels help by absorbing noise, and yet another technique is to zone sensitive and tolerant areas, with a masking of less disturbing sounds such as flowing water, rustling leaves or other 'living' sounds.

Day also suggests that noises from living sources such as school playgrounds become less irritating if the source of the noise can be seen. However, where mechanical noise (such as fast moving traffic) is present, the building should be screened visually and physically. This not only reduces the penetration of noise into the building, but also filters out the view of traffic in favour of a more pleasant view that can be created internally.

The second type of sound, which can bring about calmness and tranquillity, is music. Gappell (1995:117) submits that it is possible to effect physiological changes such as controlling heart rate and blood pressure by co-ordinating music to the rhythms of the body. Nature can contribute to a calming tranquil environment as well. The sound of flowing water not only masks sound but can contribute to a calm environment, similarly rustling leaves and animal sounds (birds, insects, etc).

**Texture/touch** - Scientist today seeks to bring back action, intent and emotion within the core of cognitive science research (www.springerlink.com: cited 12 February 2008). It is being argued that other sensory experiences apart from visual, along with desires and emotion – like pain, pleasure, sorrow or joy – are equally important building blocks that shape an individual's cognition of their immediate environment. This is probably nowhere more evident than in the world of the visually impaired. Deprived of visual sensory capability, they have to depend on other senses. But the dominant discourse in wider society plays a major role in determining what they (the blind) can do. A society built around visual symbols and the written word underplays other elements of cognition and in the process undervalues them.

Texture as an architectural subject often is explored with intent to bring through a new dimension in a space. It would sometimes be used together with light to create a theatrical atmosphere, sometimes the intention is to visually inform the able person and generate an urge to touch (in this case touch is a secondary sense that further informs).

Touch, sound, taste and smell are heightened senses for the visually impaired. By working together they play a vital role that helps them to orientate themselves and manoeuvre from space to space with little or no personal help.

"touch functions on many levels of adaptation, first to make survival possible and then to make life meaningful." TB Brazelton, 1990 (www.mlythgoe.com)



www.marazzigroup.com June 2006



The autonomy project is headed by Marazzi Group. The objective of this project is to try and solve the issue architectural and urban barriers and allowing an easy safe and independent fruition and use of all spaces a environment, for all. Autonomy is a simple system of tactile floor signals, made of ceramic tiles. Each tile provides - through texture - an information code that communicates in a direct and clear way with the user. Texture were conceived to stimulate the tactile feeling of the foot and to use the contact of the walking stick the tile. At the same time, the chromatic contrast are useful and further communication signals for the visual impaired. (www.marazzigroup.com June 2006)

## LESSONS LEARNT

In reference to the thesis objective the following clues would be considered when designing.

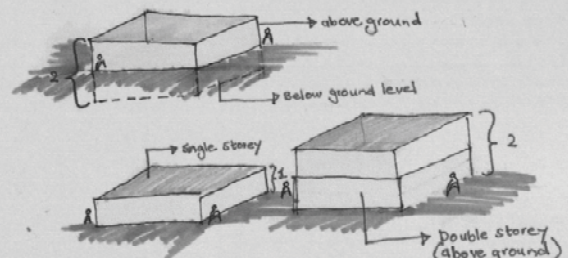
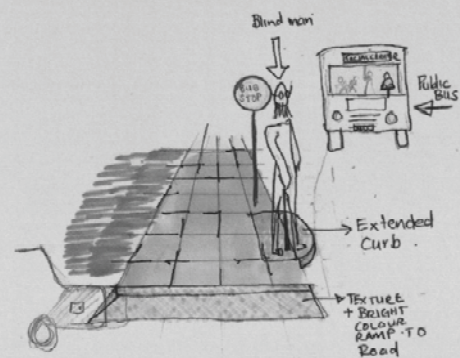
**Scale:** Careful consideration should be given to scale and proportion of spaces. Scale could be used as a hierarchy indicator in the landscape. Living spaces could Inturn relate to the dimension of the body allowing the user to feel more comfortable in his/hers environment.

**Light and Colour:** Neuroscientist insist that light and colour should not be elements that are dealt with individually. Lighting in terms of the differently able person, is extremely critically. For example the visually impaired individual quite often depend on the combination of colour and light to orientate them in a space and aid in continuous easy movement. The use of colour for those users that have full use of their sight, impact on their nervous systems. The right choice of colours in an learning environment for example can result in student focusing for longer periods of time.

**Sound:** noise is unwanted sound and more often than not it needs to be eliminated or at best reduced. Vehicles noise is one of the common problems faced by architects. Barriers need to be implemented in the design or the building could utilize existing foliage on site. Another design consideration could be to elevate the building above the level of, noise this would help in reducing noise. An example of positive noise emission are the sounds of nature. The design should include green spaces. This could also contribute to the uniqueness of the intervention.

**Texture/ Touch:** Texture could be one of the most intriguing elements in a building. In this thesis it becomes one of the most important. Since we are addressing the issue of accessibility, and inclusive design, texture becomes to some the differently able person almost a personal mute guide. A visually impaired person / blind person have a heightened sense of sound and touch. Therefore textures beneath their feet, for example, have the potential to warn or guide them to get to their desired destination with ease.

Textures to able society begin to inform as well. They begin to educate the able about subtle method that could be adopted in public and private spaces that will allow those people with visual difficulties to move with little or no assistance, demonstrating the misconception that differently able people are incapable of being independent.



"Architecture stands on the threshold of a new era. The enormous body of knowledge begin creating by neuroscientist is about to dramatically change what it means to be a professional designer. Architects will benefit from the new knowledge base made possible by neuroscience, but the real beneficiaries are future generations of school children, patients and office workers who will have their environments more carefully tuned to their needs and desires " Dubbs:2005 p1

## PRECEDENT STUDIES

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The following precedents studies have been selected as it has architectural elements that link closely to the elements explored in the architectural theory.

1



School for differently challenge children - Glasgow

2



School for visually impaired and deaf children- Ontario

3



Rehab Basel - centre for spinal cord and brain injuries - Switzerland

4



A psychiatric hospital situated in Denmark

5



Saynatsalo Town hall - Finland

6



Queen Sirikit Garden - Thailand

## PRECEDENT STUDY 1

### HAZELWOOD SCHOOL - GLASGOW 2007

CLIENT Glasgow City Council  
ARCHITECT Gordon Murray + Alan Dunlop  
COST 5.6 Million Pounds

'Hazelwood School is an education facility for up to 60 students with multiple disabilities providing education from nursery through to secondary stages. Each student at the school has a combination of two or more of the following impairments: visual impairment, hearing impairment, mobility or cognitive impairment. The design of the building has focused on creating a safe and stimulating environment for its pupils and staff. The ambition from both client and architect was to develop a building that would eliminate as much as possible the institutional feel that a project of this nature inherently possesses. The building snakes through the site creating a series of small garden spaces maximizing the potential for more intimate external teaching environments. Internally the curved form of the building reduces the visual scale of the circulation spaces removing the institutional feel that one long corridor with create. The majority of the classrooms face north and get natural uniform light deep into spaces through high level windows. The high level windows are used as some of the students with visual impairments can be easily distracted by movements/activities occurring outside' (www.murraydunloparchitects.com : June 2008)

In this project the architectural elements that were highlighted in the architectural theory play an important role in creating a user friendly and safe environment. As it was mentioned in the above extract and illustrated through the photographs, light, colour and textures are the elements that allow for quick orientations resulting in easy movement through the building. Classrooms are transformed into stimulating environments when the combination of height, colour and light merge. The meandering passage slows down movement and the varying texture of the wall cladding guide the children along the path. There is also a play of openings along the corridor. This could be a two fold design decision. Firstly it allows a visual link to landscape and secondly it could act as a device to orient oneself along the path.



Aerial view of school  
www.murraydunloparchitects.com



South elevation of school  
www.murraydunloparchitects.com



clerestory lighting allowing for natural light to penetrate deep into the learning spaces.

access from class room to courtyard.

brightly coloured walls creating a stimulating learning environment.

Typical classroom, illustration volume: colour and form



Passage showing clerestory lighting and visual links to courtyard spaces  
www.murraydunloparchitects.com

The wall cladding at waist height is different to the rest of the wall. The students use this as a guide to move through the space easily

The edges of floors are treated with a different texture, this warns the users that he or she is near an edge. It also acts as a guide helping the user move through the space.



Passage showing clerestory lighting  
www.murraydunloparchitects.com

a horizontal band continues to run at waist level throughout the building.

different textured flooring at thresholds are implemented to alert the students that they are moving off their path into another space.

## PRECEDENT STUDY 2

### W. Ross MacDonald school for the blind

CLIENT Ministry of education  
ARCHITECT G. Bruce Stratton Architects  
COST 9.5 Million Dollars

Architect Bruce Stratton was initially hired to retrofit the existing elementary school with an education wing for 32 blind and deaf students. The brief required him to design a learning environment that would make the transition into the education realm as easy as possible. After careful observation of the students, Stratton proposed to design a new building entirely that would better meet the student's needs. "Audio and tactile senses obviously take on much greater importance when sight is limited or non-existent" (Vansittart 2004:42). The objective from this point onwards was to create a strategically touch-sensitive environment.

#### Materials

As most of the students are sensitive to glare, precast concrete walls and poured concrete panels are angled around windows to limit direct sunlight. Sutton begins on the exterior with textures and colour, this sets the tone for what is expected within the building. It is in the interior that he finds the balance between over simplicity and complexity. He brings this out through circulations and detail. (Vansittart 2004:42).

"The single spine plan features 3 meter wide corridors and oversize doors with four class rooms on either side. Tactile markers orient the children at every stop along the daily route. Porcelain tiles on hallway floors segue into maple flooring at key junctions; classroom floors are clad with marmoleum. Conventional concrete walls are softened with cherry millwork and classroom windows are sandblasted for privacy and light control. Organic curvilinear shapes bull-nosed corners and a continuous trail rail protect against sharp edges while providing guidance. (Vansittart 2004:42).



Perspective of the entrance. (Vansittart 42)

● Frosted glass decrease glare.



Main entrance (Phillips, 2005:68)

● the coloured transparent panels cast colour patterns on the monotonous grey concrete surface and highlight a path.



textured wall cladding

3m wide corridor (Phillips, 2005: 59)



Classroom (Phillips, 2005: 59)

walls are brightly coloured  
this creates a more vibrant  
space for learning to take place  
the use of colour can also down  
play the volume of the space.

class room floors and wall  
treatment differ from materials  
use in circulation spaces



3m wide corridor (Phillips, 2008: 60)

interior corridor (Phillips, 2005: 59)

artificial light used together  
with natural light

clerestory windows

35cm broad handrails

transition space terminated  
with a brightly coloured wall

maple floor at atriums

Wide corridors allowing ample space for careful slow and easy movement. The maple floor at atriums cause a change in sound and vibration. The wood floor is more hollow than the solid floor and therefore the deaf user would easily identify his position within the space.

## PRECEDENT STUDY 3

### REHAB BASEL - A CENTRE FOR SPINAL CORD AND BRAIN INJURIES

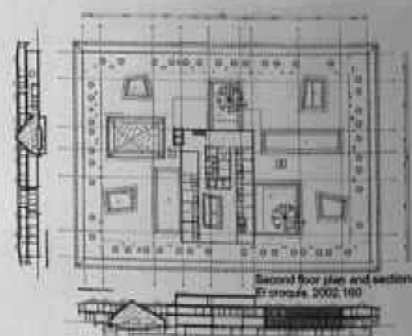
CLIENT •  
ARCHITECT Herzog and de Meuron  
COST •

Herzog was challenged by the client to design the Rehab building in a way that did not feel or look like a hospital. Herzog successfully achieves this goal by puncturing the block with courtyards, arranging living spaces and therapy spaces around these courtyards, allows for wide circulation spaces.

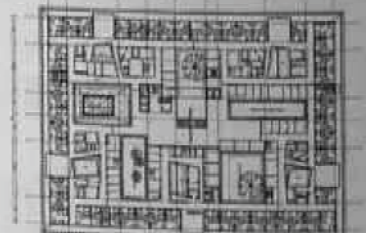
'The centre is a horizontal block on two floors, in which wheelchairs users and pedestrians can move easily from one place to another. The connection between the indoor spaces and the outdoor spaces were their primary concern. The complex is conceived from the outside in. The courtyards are placed in large rectangle spaces and serve as orientation as well as allowing daylight to penetrate deep into the interior. (El croquis 2002:158)



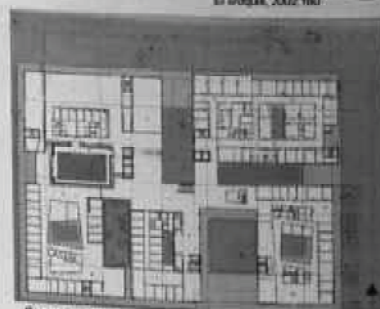
Model  
El croquis, 2002:158



Second floor plan and sections  
El croquis, 2002:160



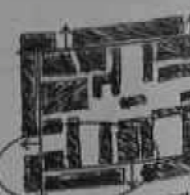
1st floor plan and sections  
El croquis, 2002:160



Ground floor plan  
El croquis, 2002:159



solid and void



the building is kept orientated  
with glimpses of the surroundings  
while walking down long passages



Exploration of the arrangement of  
solid and void



South Elevation. El croquis, 2002:183



Elevation of building from street edge. El croquis, 2002:183



View of courtyards. El croquis, 2002:182



Ground Floor interior view of non territorial spaces.  
El croquis, 2002:167

## PRECEDENT STUDY 4

### PSYCHIATRIC HOSPITAL - DENMARK

CLIENT Helsingør Hospital  
ARCHITECT Plot + Big + Jds  
COST Undisclosed  
SIZE 6000m<sup>2</sup>

'As the base of the design we interviewed patients, personnel and relatives related to the psychiatric hospital. No truth emerged, but a series of paradoxes became evident. The PSY needs to combine the efficiency of a central organization with the freedom and autonomy of a decentralized complex. It needs to allow control and protection while maintaining a free and open atmosphere. In terms of the function the PSY is a logistically optimized hospital and in terms of experience it is all but a hospital.' (www.big.dk, cited 15 April 2008)

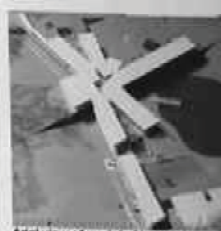
The building appears to sit close to the ground, stretching horizontally and vertically (in plan) across the site. The design successfully uses the landscape to help humanize the **scale** of the building. The architects build under ground, taking full advantage of the topography. They create **courtyards** or rather voids in the ground to bring in light and ventilation into the lower ground space. Roofs of the lower ground structure become habitable grassed roof terraces.



Aerial view of hospital  
www.jdsarchitects.com cited 15 April 2008  
22



Lower ground courtyard  
www.big.dk cited 15 April 2008



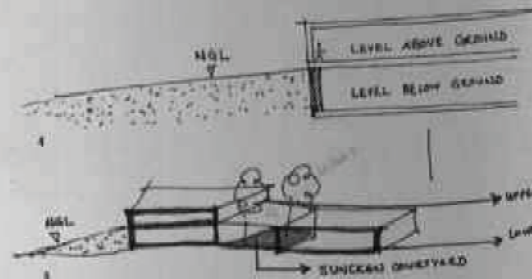
Aerial view of model of hospital



Lower ground plan model



www.big.dk cited



the topography of the site could be used to reduce the scale of the building (fig 4). courtyard spaces are successful method of bringing light into the lower ground level building.

## PRECEDENT STUDY 5

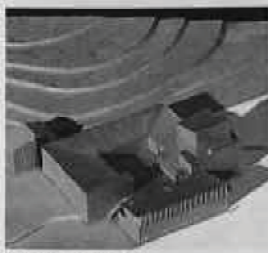
### SAYNATSALO TOWN HALL

CLIENT -  
ARCHITECT ALVARO AALTO  
CDEI -

The town hall was built on the island of Saynatsola as part of a new town on the island of the same name. It represents the citizens living there, who are a group of Karelians relocated there after the war. It is a public home for the new residence of the town.

This particular building highlights the meeting of urban fabric and nature. The different expression of public and private identity creates a sense of belonging that is necessary to feel at home in a space resulting in making that space - place.

The play of exclusion and inclusion of nature is made by the ring of the building around a central courtyard. Aalto deals with the courtyard in an interesting manner. Instead of having building engulf the central open space he allows for two apertures on opposite sides of the square. This allows some flexibility in movement. The user has been given a choice either to enter the building and then courtyard or to enter the building via the courtyard. He also allows for the courtyard to become a space that one might pass through to get from one point to the other.



Site model Reed, 1997:205



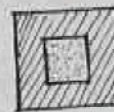
Paved stairs leading to courtyard Reed, 1997:207



Brick stairs leading to courtyard from public street edge Reed, 1997:223



Reed, 1997:220



a traditional courtyard diagram: building engulfing an central - open to the air



open ends allowing a choice in movement from one space to another

Another element that he uses successfully is natural light. 'Windows are principal devices that Aalto uses to bring in light' (Reed:1997:120). The incredible use of light defines routes and describes spaces. For example from the top-lit courtyard the side-lit foyer is entered transversely, then turning 180 degrees to ascend the clerestory-lit staircase, and again 90 degrees to finally enter the almost windowless council chamber.



foyer - high natural light intensity Reed, 1997:224



stairs leading to the chambers - clerestory lighting - small natural light intensity Reed, 1997:224

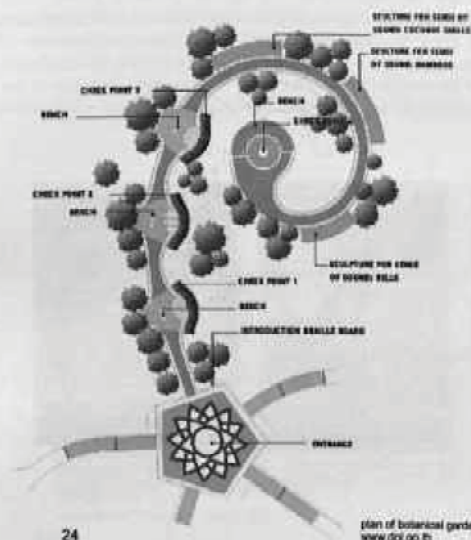


council chamber - no natural light Reed, 1997:224

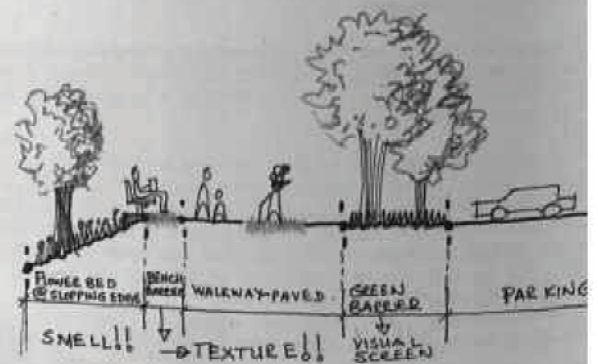
## PRECEDENT STUDY 6

### QUEEN SIRIKIT GARDEN - THAILAND

The Queen Sirikit Gardens (QSG), was founded in 1993 with the aim to be a garden and forest in the city and education place to enhance the plant conservation for the city. During the past 10 years of development, QSG has well served the city community and the general public, while very high attention was also given to school children. However a project for the visually impaired has been established. The garden has developed educational programs for a wide range of audience, including youth, schoolchildren, university students, community members and tourists. These aim to achieve the goal of botanical gardens to become models of sustainability through work and education programs, promoting the means by which everyone can become involved in creating a more sustainable way of life. [www.doi.go.th](http://www.doi.go.th)



plan of botanical garden  
[www.doi.go.th](http://www.doi.go.th)



the above sketch illustrates a section of a typical path through the site. flower beds, benches and trees line the sides of the path, and paving is treated carefully the combination of will aid in orientating the visually impaired user as well as bring through some dynamic a relatively long pedestrian route.

## LESSONS LEARNT

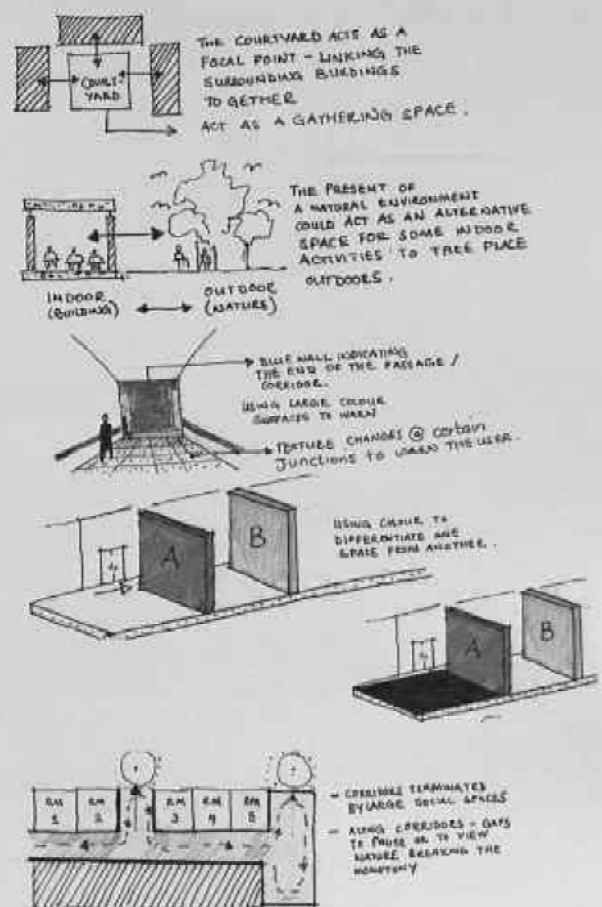
### THE IMPORTANCE OF EASY MOVEMENT – USING ELEMENTS THAT HELP ORIENTATE.

Orientation is highlighted in almost all of the buildings discussed in this chapter. It helps position oneself within the environment. To feel disorientated in a place can cause one to feel lost, scared and confused.

The following elements will be carried through the design process in some way or another to create a user friendly, safe and pleasant environment.

1. **The presents of nature:** The smell of flowers, trees and grass, the sound of birds and crickets all create a tranquil environment. It also can play a role in orientating the user within the environment.
2. **Natural Light:** Direct sunlight between a row of tree cast a rhythm of shadow along a route. The interruption of the warmth of the sun's rays creates a unique feeling as one passes by. This simple arrangement of planting acts as clues along the route. The interruption of light and visual links along a corridor can break the monotony of the movement, causing one to slow down or even pause.
3. **Colour and volume:** Large volumes of space can be intimidating however the right use of colour can create a more pleasant environment for the user, distracting them from the sheer volume of some spaces.
4. **Textures:** Rough vs smooth, the hollow sound of wood versus the sharp sound of porcelain under your feet – changing textures can be useful in identifying one space from the other through three senses – namely sight, sound and touch.

Taking all of these issues into account when designing will help independent movement for all users especially those who are differently able.



## THE CLIENT & BRIEF

## THE CLIENT

### 1.1 Choosing the client?

Throughout this thesis the underlying objective is to bridge the existing gap between the able and differently able communities by creating an informal space that would allow the two communities to interact and integrate on a social level. This Social scheme is directly related to 2 basic human rights issues which are stipulated below:

1. Every person has a right to equality
2. Every person has a right to freedom of movement

The above mentioned human rights issues form part of the Bill of Rights which in turn forms part of the South African Constitution, these human rights are also highlighted in the Mental Health care Act No. 17 of 2002.

Thus upon choosing a suitable client certain criteria needs to be fulfilled. These criteria are indicated below:

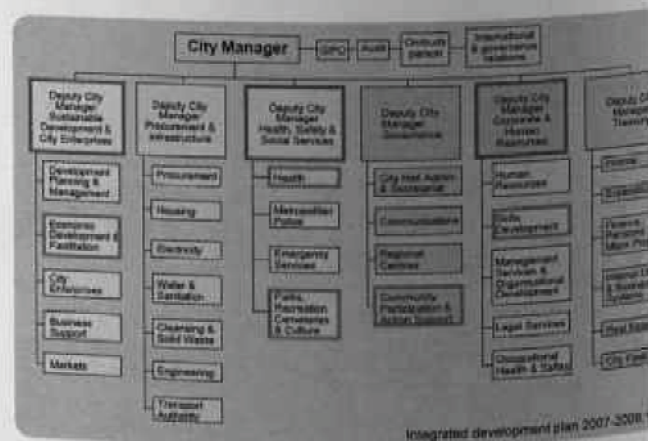
- 1) The client must abide by the South African Constitution
- 2) The client must have the society's best interest in mind
- 3) The client must have available funds to subsidize the project

There are 2 types of clients namely, a private corporation or a government corporation. Based on the criteria mentioned above the only client that would be most suitable for this type of project would be the government corporation. The reasons leading up to this decision is based on the fact that a government corporation is closely monitored by the government itself to ensure that every decision is made within the South African Constitution with the people's best interest in mind. Funding would also be available according to the government capital budget which would be discussed to greater extent later within this chapter.

The next step is to determine which government corporation will be chosen to be the client. This choice is based on the location of the site. Since the base of the project chosen resides within Kwa-Zulu Natal - Durban the logical choice would be the eThekweni Municipality.

### 1.2 Who is the eThekweni Municipality?

It is a body of authority who act mainly in the interest of the community. The diagram below illustrates the various sub bodies that make up the management team for the city.



- ☐ main management sector involved
- ☐ department within the sector

In order to address these matters during 2000-2005 a Long Term Development Framework aimed to direct the actions of the eThekweni's employees till 2020 documented and a 5 year Integrated Development Plan (IDP) was generated, focuses on 'turning ideas into actions'.

The Integrated development plan (IDP) is a document that highlights the cities goals aspirations for a better community for all. This report is released to the public and The vision is to turn eThekweni municipality into 'Africa's most caring and livable city 2020' ([www.durban.gov.za/eThekweni.html](http://www.durban.gov.za/eThekweni.html), cited 28 March 2008).