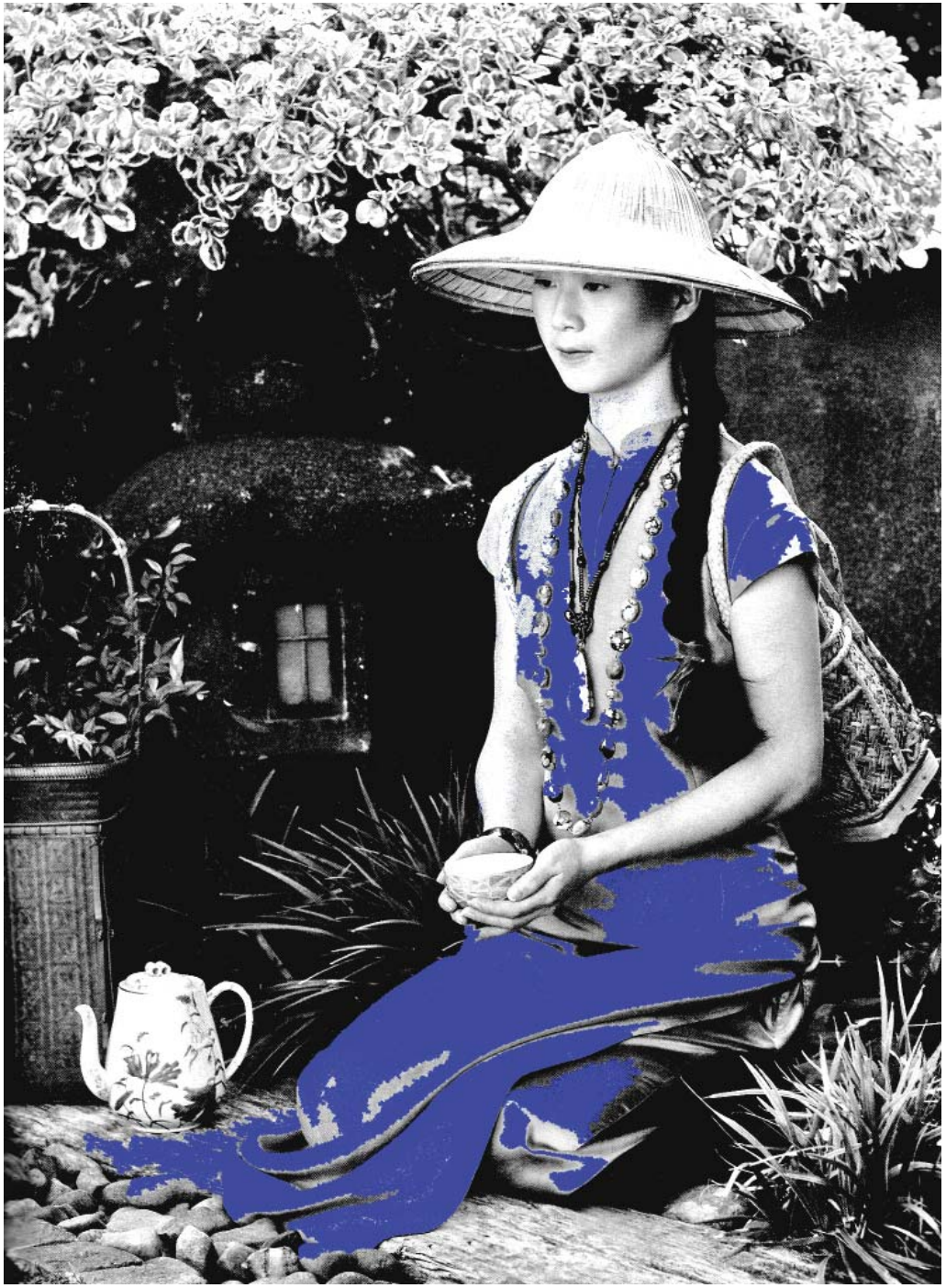

PRECEDENTS

International precedent: Theoretical

Paimio Sanatorium, Alvar Aalto (Finland, 1929)

This precedent was chosen since it is a building designed to heal people with a specific illness. This concept would be incorporated by carefully designing each space to its needs.

The Paimio sanatorium was a treatment centre for tuberculosis, but since the discovery of antibiotics, became a general hospital. The building needed to be isolated from pollution and noise of the city and was therefore located in a pine forest. It was believed that tuberculosis could be cured with ample fresh air and sunlight.

The building is functionally-zoned and in respect each wing is carefully placed for the specific demands of sunshine and view for the type of rooms it holds. The patient's wing was specifically orientated south, south-east to catch the full morning sun. The wards have shared sun terraces that overlook the landscape for patients to relax on.

Previous page
Figure 12: Vietnamese girl

While Aalto was designing the building, he himself was ill and took the opportunity to create a building from a patient's point of view. He designed the rooms with particular detail to a lying person's perspective - for example, the ceiling would be painted a darker shade than the walls to minimize the glare and the ceiling light would be mounted out of sight and upwards. The communal areas did not lack the amount of detail - different colour schemes were applied to ease the senses as appropriate in each space.

Aalto designed it in such a way that the outside speaks of what is happening on the inside. For example, the corridors have continuous ribbon windows, where as the patients rooms have individual windows.

Alvar Aalto moved towards a layered and multi-sensory architecture as described in the precedent study. This type of architecture makes the experience of time healing and pleasurable. It accepts the course of time. The Paimio Sanatorium was conceived as an analysis of experiential situations. It is an instrument for healing. The sanatorium is said to be the building in the history of modernity that contains the highest concentration of technical innovations, yet is firmly rooted in human experiential reality. (Pallasmaa. 2000: 80)

This building is in fact 'an organism that responds to its environment'. (Weston 1995:98)

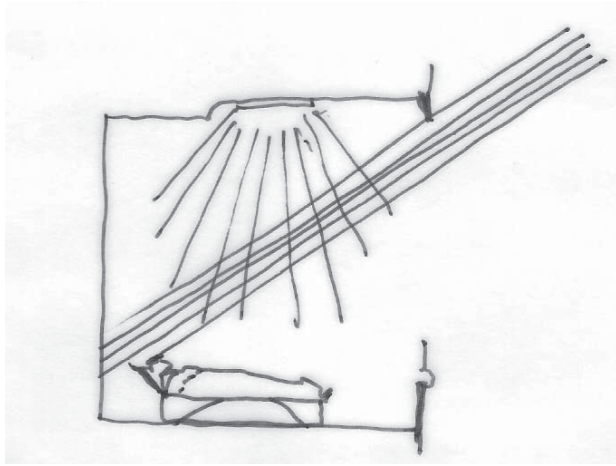

Figure 13: Room detail. Showing rooms specifically designed for patients lying down.

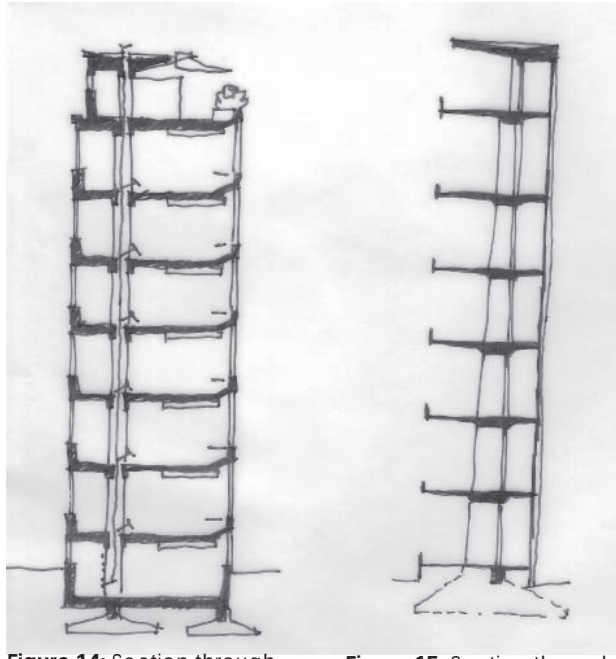

Figure 14: Section through hospital wing.

Figure 15: Section through balconies.

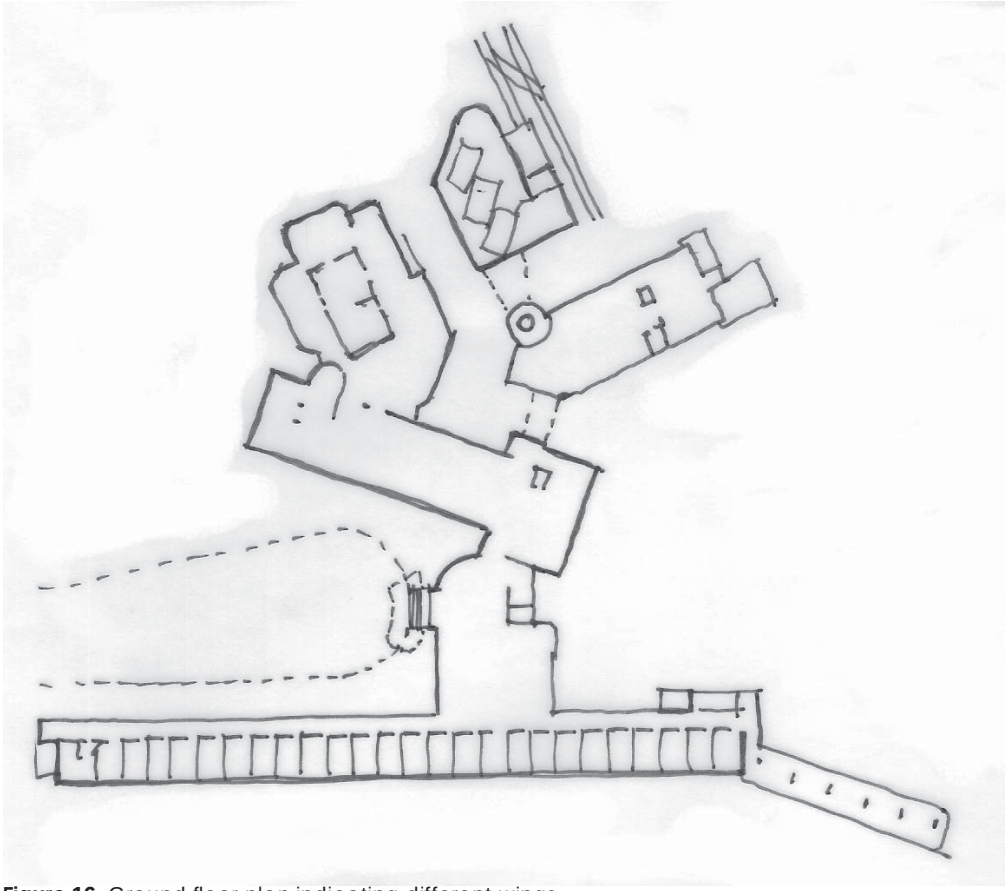

Figure 16: Ground floor plan indicating different wings.

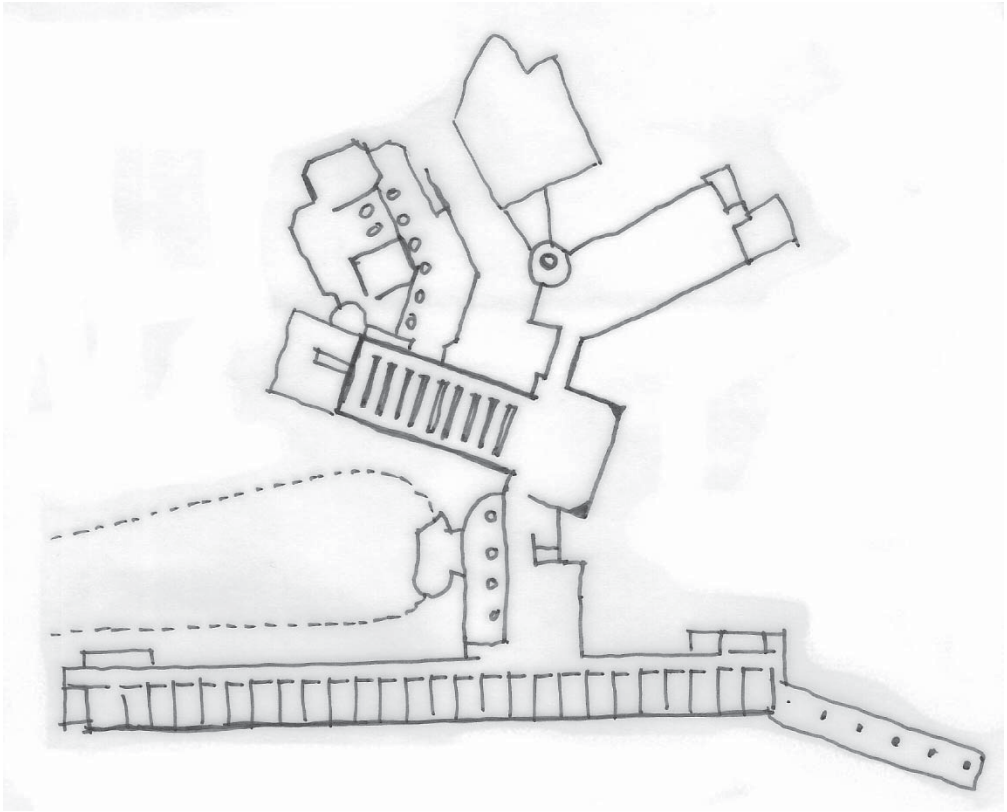

Figure 17: First floor plan.

Local precedents: Typological

Thakaneng Bridge Student Centre, University of the Free State, Roodt Partnership (Bloemfontein, 2003)

This precedent was chosen since it is a multi-purpose complex building on a campus. The way the building fits on its site, being a contemporary building and surrounded by historical buildings, will be applied in the design.

The student centre is literally a bridge over DF Malan drive. The building itself is a circulation route that forms a connection between the eastern and western campuses. It was a necessity that the Sasol library had to be accessible to the rest of the campus. The library and the new pedestrian routes, by architect Bannie Britz, played an important part in the design. (Joubert 2002:44)

It is a mixed use building which speaks a modern architectural language. The bridge with its single monopitch roof accommodates fast food outlets on the ground floor and student offices and support services on the first floor. The eastern flank accommodates a media centre and cafeteria and the western flank a range of commercial facilities. These extensions, perpendicular to the bridge, are covered by a range of monopithes. The architects used parallel walls and beams which echo the structure over the bridge. These then extend outwards to form open public spaces of different sizes for students to gather in. (Raman 2006:26)

It sits quite tight between rigid modernist buildings, but the Thakaneng Bridge gives a new dimension to campus architecture. (Deckler et al. 2006:94)

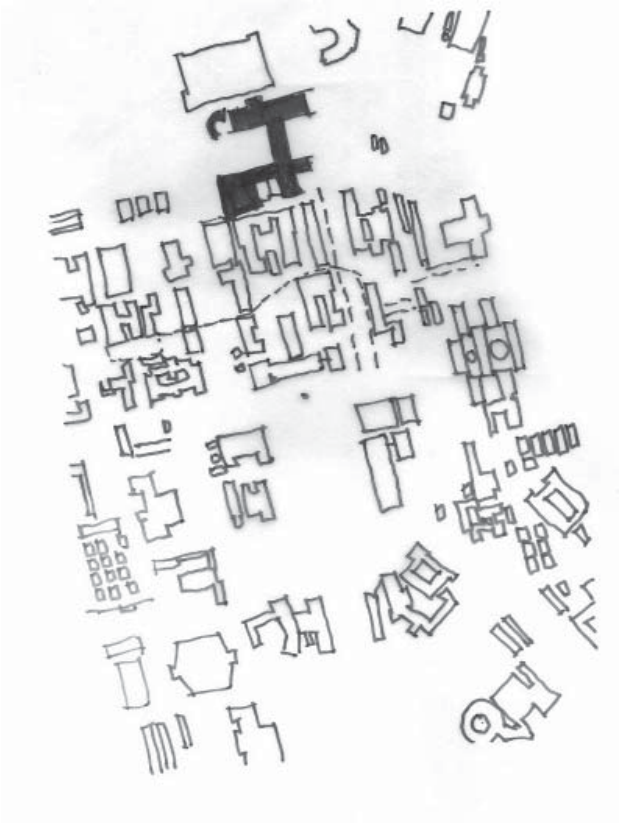

Figure 18: Site plan of University of the Free State.

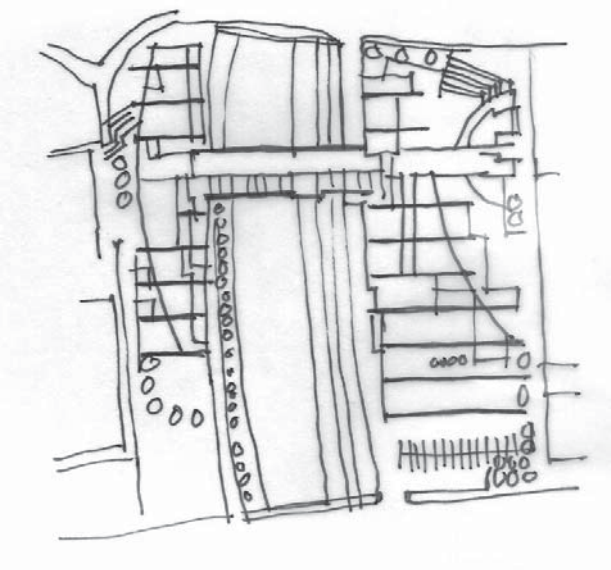

Figure 19: Ground floor plan indicating connection between the east and west campus.

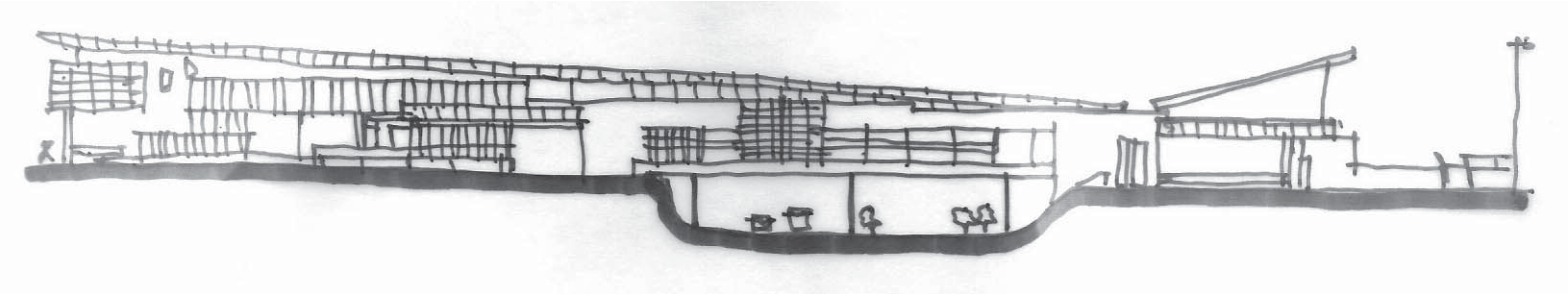

Figure 20: North elevation showing main monopitched roof.

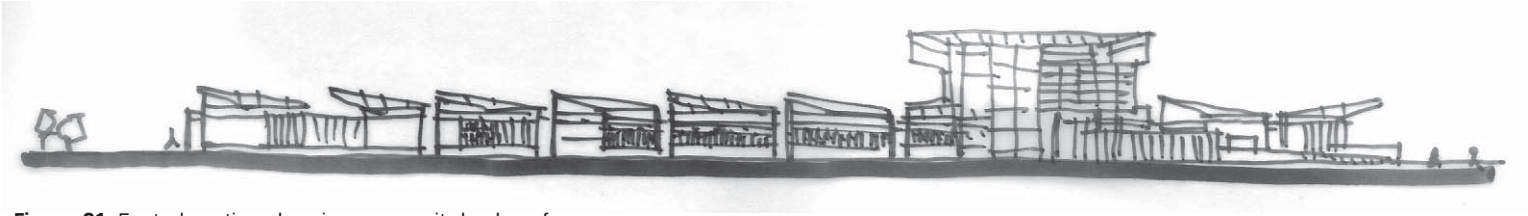

Figure 21: East elevation showing monopitched roofs.

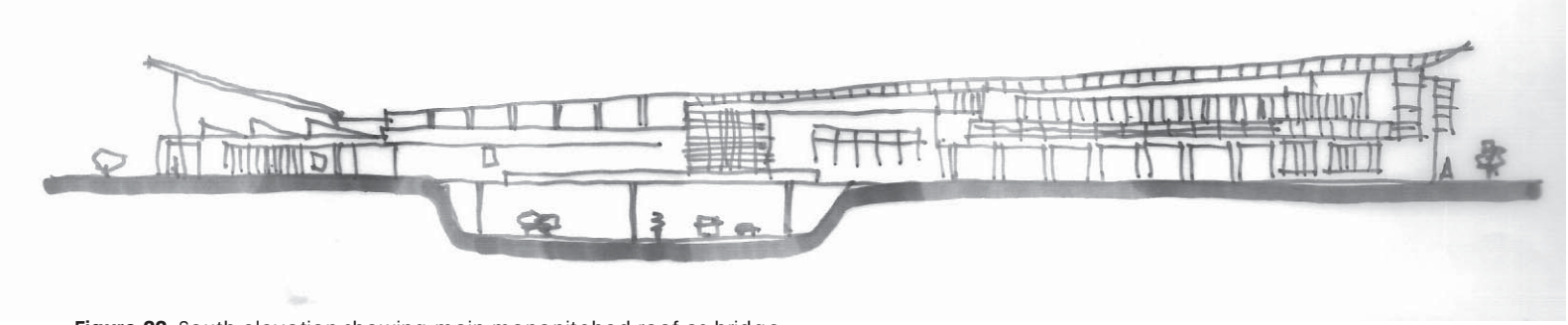

Figure 22: South elevation showing main monopitched roof as bridge.

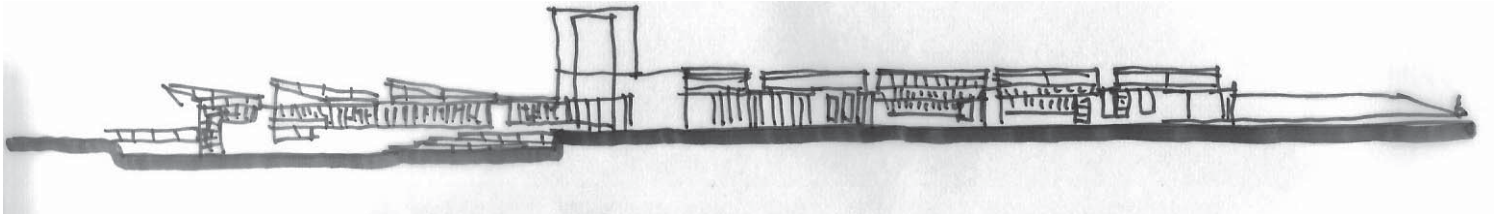

Figure 23: West elevation showing monopitched roofs and central entrance to bridge.

Umkhumbane Community Health Centre, Robert Johnson Architects and Associates (Durban, 2004)

This precedent was chosen since it is dealing with different aspects of health for a specific community. The variety of functions and how it is organised are a theme that can be applied to this project.

The Umkhumbane Community Health Centre forms part of the Cato Manor Special Presidential Development Framework. The design brief stated that the building should be limited to a two to three storey building, the main pedestrian entrance should be on the 'high street' and the separation between client and staff have to be clear.

The design concept developed into a 'place of wellness' where services are based on lifestyle, nutrition, diet, exercise, urban agriculture and different forms of therapy and counselling. All this are available in an atmosphere of learning, teaching and intellectual interchange. (Unknown 2004:38)

The building hosts a range of facilities including operating theatres, X-ray facilities, a dispensary and a community hall. These facilities are interlocked on the main spinal route. This circulation route could be described as a 'shopping mall for health services'. Waiting areas and open air play areas for children alternate on the route between the consulting rooms. The circulation route with its elevated roof allows for plenty of fresh air and sunshine. Tree-shaped columns support the elevated roof. (Saunders 2006:17)

Figure 24: Location plan.

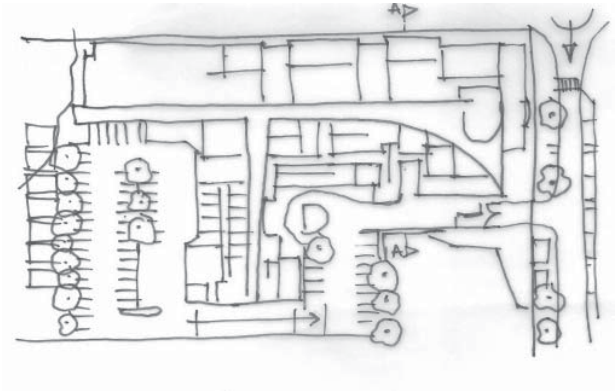

Figure 25: Ground floor plan.

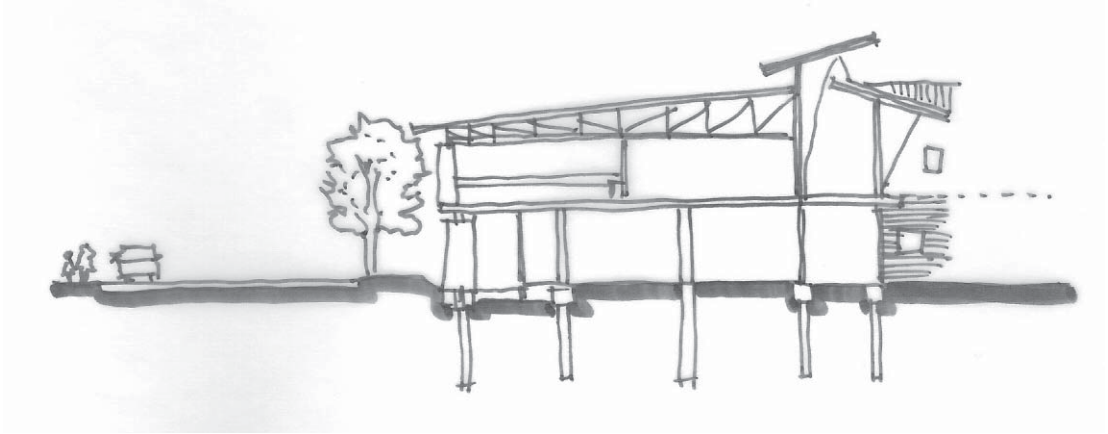

Figure 26: Detail section of main roof structure.

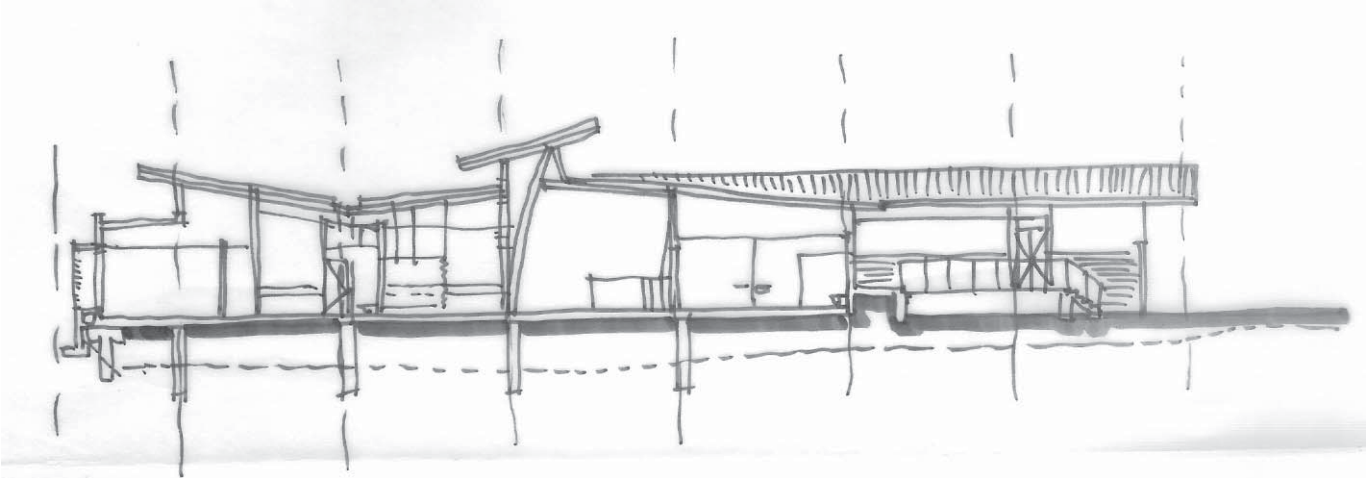

Figure 27: Longitudinal section through building.

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BRIEF

Problem statement

The current TUKS Health Centre at the University of Pretoria provides a basic medical service. The building is a small one storey building, with an uninviting and inaccessible appearance. It is a frightening experience for anyone who already has to cope with some other greater dilemma to visit the building. This is due to the fact that the building does not have a calming, stress-reducing effect on students.

People, animals and plants experience stress. Stress is a means to survival. When a living organism is in danger, its body will switch to stress-mode. In the case of people and animals, the brain releases chemicals and hormones that prepare every organ and system in the body for the danger ahead. (Van Der Merwe 2004:9)

Van Der Merwe (2004:14) differentiates between two types of stress:

- internal stress – it originates from within and reflects the body's ability to handle situations (in students visiting the Health Centre, this could be caused by the knowledge of an illness) and
- external stress – induced by the physical environment, like the appearance of the Health Centre.

At present the Tuks Health Centre contributes to the external stress of students – it is clear that an alternative is needed. A proposed new Health and Wellness Centre would need to address this by providing as much relaxation as possible to those visiting it.

Hypothesis

Traditionally scientists believed that healthy eating, moderate exercising, enough sleep, no smoking and minimum intake of alcohol would reduce stress. Research proved that prevention, control and management of stress to be the solution. (Van Der Merwe 2004:10)

There are two factors that can help reduce stress – stress management and relaxation techniques. (Van Der Merwe 2004:193) In the built environment minimum stress levels can be achieved by:

- Regular and maximum contact with nature;
- Natural ventilation at the work place;
- Maximum natural light;
- Correct ergonomically designed furniture and
- The use of different colours to enhance different emotions.

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Figure 28: "When will we be truly happy?"

Figure 29: Woman exercising

The architecture explored in this dissertation could play a role in the contribution to the wellness of people. The proposed intervention would be an application of guidelines researched relevant to the topic. The overall aim would be to make a health centre a pleasant place, which can be achieved by:

- Promoting wholesome foods;
- Offering relaxing exercises like yoga and Pilate's method;
- Housing therapies that reduce stress;
- Having access to medical specialists that can monitor one's health and give advice and
- Creating different spaces for meditation and/or being spiritual.

Building type

Proposed is a mixed-used institutional building that promotes healthy living through different treatment practices and healthy architecture by sustainable design. The programme would consist of retail space, offices, outside space(s) and different consulting and treatment rooms.

Client profile

The development would be funded and maintained by the Medical Faculty and Student Affairs of the University of Pretoria. Since the proposed building would accommodate all aspects of medical care (mind, body and soul) conventional and alternative practices will be allowed. Specialists in various disciplines would be able to practice at the centre.

Conventional medical professionals would include a dietician, a general practitioner, a dentist and a psychologist. Alternative therapies would include yoga, Pilate's method, aromatherapy, acupuncture, chromotherapy, herbology, homeopathy, hydrotherapy and reflexology. The medial personnel would be appointed by the university. Retail space would be available to tenants promoting health. This would include health restaurants and eateries, sports shops, bookshops, herbal shops and a pharmacy.

User profile

Students and personnel from the University of Pretoria would be able to use this facility. The facilities available would not be free; however the fees would be in accordance to a student's budget.

Figure 30: Different people

Site selection

It is important that this building should be accessible. Therefore a suitable site for this type of building would be near the Student Centre (a new proposed thesis project by Francois Malan), on route to UP residences. In other words - in the heart of student activities on the campus.

Figure31: Site plan of main campus with proposed site indicated in black.

Figure32: Site plan indicating positive and negative elements of the chosen site.

Accommodation schedule

Ground floor

Climbing centre	**(15x15m)**
Boulder bar	**(8x6m)**
Juice & Salad bar	**(4x5m)**
Kauai Health Food & Juice Co.	**(6x5m)**
Herbal shop and eatery	**(6x5m)**
Sports gear & clothing shop	**(7x5m)**
Pharmacy	**(5x5m)**
Ablution facilities	**2(4x6m)**
Store room	**(5x7m)**
Cleaners' room	**(2x3m)**
Hydrotherapy rooms:	
Sauna	**(3x3m)**
Steam bath	**(3x3m)**
Relaxation baths	**2(2x3m)**
Ablution facilities	**2(2x3m)**
Store room	**(2x2m)**
Reception	**(1x2m)**
Waiting room	**(2x3m)**
Relaxation deck	**(5x5m)**

Figure 33: Different people (ii)

First floor	
Exercise studio	**7x10m**
Treatment rooms	**5(5x5m)**
Consultation rooms	**4(5x5m)**
Waiting room/ reception	**2(4x5m)**
Accounting Department	**(5x5m)**
Meeting room	**(5x5m)**
Kitchen	**2(2x3m)**
Toilets	**2(1x2m)**
Store room	**3(2x3m)**
Second floor	
Meditation area	**(5x5m)**
Herb garden	**(15x15m)**
Treatment room	**(5x5m)**
Store room	**(2x3m)**

Figure 34: Different people (iii)