APPENDICES

Figure 10.1: Entrance gate at historic house on campus

9.1 Appendix A: Treatment of mental illness

	± 1800	± 1900	± 2000
PERCEPTION	In ancient times, abnormal behaviour was viewed as being caused by demons.  In the past, we saw demons that caused psychological disorders as largely external, subject to extrication via exorcism. Today, we see demons as largely internal, requiring psychological treatment.	"Both architectural historians and social historians have tended to frame their views of the Modern Period around the apparently increased institutionalisation of society since the mid-18th century in England. Foucault described the earlier French experience as the "Great Confinement", a product of Enlightenment thought that found expression throughout Western culture. Criticism of large-scale institutional care was a growing concern since the 1950's, coming from both the left and from monetarists. Decentralisation however, only became a reality in the UK in the 1980's. One sees an increasing move away from the older model toward an ever increasing de-centralisation and dispersal of social services to the local level, to 'community care'." (Weiner 2003:1)	Mental health care has begun to address issues that distresses people on a day-to-day basis such as crime, violence, HIV/AIDS, depression etc. Large-scale institutional care was greatly critisized, resulting in the increasing de-centralisation and dispersal of social services to the local level, to 'community care'.  It is now understood that we are all susceptible to some sort of mental illness. It is estimated that 1 out of every 5 Americans suffer from some sort of mental disorder.
TREATMENT	 Exorcism through flogging, drowning or starving the suspected demoniac in the attempt to drive out evil spirits. During earlier eras, persons who were behaving in ways that did not conform to societal expectations often were subject to torture techniques, such as "dunking", used for extracting confessions of witchery. The accused witch was repeatedly submerged. The longer it took her to die, the more fervently her accusers would assert that the devilish powers were permitting her to survive.	Patients were seen as having a psychological base of abnormal behaviour that needed to be treated. A lot of experimentation was done on humans and animals. During later years disorders were starting to become identifiable and could be treated with appropriate medication. Theory of personality development and psychotherapy.  French neurologist Jean Martin Charcot instructed medical students on the use of hypnosis as a method to cure hysteria and other mental illness.	Humanistic psychology: Focus on free will and self-actualization of human potential; focus on conscious rather than unconscious experience. Psychotherapy: advantages of group therapy may include reduced cost, greater social pressure to effective positive changes and greater diversity of persons who may offer a fresh perspective on a troubling situation. Health psychology: company-sponsered employee exercise programmes often yield financial benefits for the employer, as well as fitness benefits for the employees.  
BUILT ENVIRONMENT	Institutions resembled overcrowded prisons more than a true hospital and its inmates were treated more like prisoners than like patients. Many inmates were chained to the walls of the cramped quarters, often in positions that did not allow them to sleep properly. Others were chained to large iron balls, which they to drag along with them wherever they went. 	Small purpose-built 'community care' facilities providing specialized care.  Maap Architects' design for residential mental health care at Highcroft Hospital in Bermingham pioneers a new wave of small-scale facilities. Drawing of the older Adult Acute Unit.	The latest hospitals bring in the perspectives of patients, their families, and the local community, in addition to those of doctors and staff. Hospitals have adapted to a rapidly evolving health-care environment by becoming more inclusive places. 
CONCLUSION	Because society was afraid of the mentally, it resorted to not only confining the "possessed", incarcerating these unfortunate souls, but chained them to walls. This practice of imprisonment stemmed from a lack of understanding that produced warped perceptions and in turn inappropriate actions.	The better understanding of mental illness within the medical profession had a huge impact on the built environment. Suddenly the fear of the mentally ill started dissipating and the buildings used as prisons to incarcerate patients where increasingly criticized. De-centralized facilities were the next step. The aim of these units was to allow patients to become part of their communities, or be community based. The reality, though, is that these groups of people were still misunderstood by society, therefore rejected. A personal view is that this type of building type can not be called community care, as the patients do not stem from the community, but institutions. These facilities are not accessible for the general public to receive support and treatment, but are for the use of the institutions.	Modern day treatment facilities are primarily focused on maintaining health, rather than curing the sick. The perspectives of the people being served, their families and even the surrounding communities are being incorporated in hospitals. New perceptions of the needs of patients, carers and the community have posed new demands on design solutions, including siting, private space, gender, discipline, dependancy and responsibility, as well as sound, light and colour. "Very few overviews or assessments have been made in terms of the design of new community mental health centers - a new building type - either in terms of stated needs and ambitions or in terms of what these buildings say of the society that produced them." (Deborah Weiner, 2004). What do the new designs, spaces and sites mean for providers for medicine, for patients and community? What have been the contributions of architects and designers to this transformation in mental health care?

9.2 Appendix B: Newspaper Article 1

NEWS

Sunday Times, March 14 2004

5

State dumps the mentally ill

Thousands of chronically sick people are being turned out of hospitals, but community support services are in a shambles

ROWAN PHILP

OUTCAST: Simon Mabaso barks at a world that doesn't care   Pictures: SYDNEY SESHIBEDI

TRAGIC: Meisie Willemse is terrified of her chronically mentally ill son Fanie Botes, left

The many worlds of George Syllas

ROWAN PHILP

'The trick is to keep a sense of humour and not to let the two worlds get mixed up — a lot of the people I speak to are real to me'

New law emphasises patients' rights

Figure 10.2: Newspaper article from Sunday times, dated March 14 2004

ANALYSIS

Mental health care functions on three levels.

- Primary mental healthcare

This type of mental health care is integrated with other health care services and is supposed to be accessible to the general public as a first point of contact if help, information or treatment is needed.

- Secondary mental healthcare

General hospitals serve as secondary mental health care facilities, but are obviously not primarily concerned with the mental health of the general public. According to the new Mental Health Care Act the function of the general hospital is only to retain a patient for observation during a 72 hour period in order to determine whether the patient should be admitted to a institution.

- Tertiary mental health care

Weskoppies hospital is classified as a tertiary mental hospital. This is where patients are admitted when in need of specialist treatment. Weskoppies's primary aim is also not for community mental health, but if primary mental healthcare do not function optimally, it becomes their concern.

SYNTHESIS

- Patients are discharged into "community mental healthcare", but do not receive help.
- As most psychiatric hospitals are forced to cut their chronic beds by roughly half the levels of 1997, chronically mentally ill patients are being evicted from hospitals and dumped with unwilling or untrained families.
- A Sunday Times investigation has found that the comprehensive service which the government devised to replace psychiatric hospital care just doesn't exist.
- That same week, anguished state psychiatrists - whose acute wards are now swamped with relapsed de-institutionalised patients - declared community services a disaster.
- Doctors discharge patients knowing they are not ready because they are obliged to empty beds.
- About 70% of the patients in some hospitals are re admissions.
- The money saved by discharge - roughly R3 000 a patient a month - were supposed to go to community mental healthcare.
- Out patients are commonly not seen or assessed at clinics because there are now fewer that 80 state psychiatrists available to treat patients countrywide.
- The families the government counts on have so little involvement with relatives in hospitals that, in the case of Rand West, the Gauteng Health Department was forced last year to hire amateur investigators to trace 100 families who had never bothered to visit.
- Only 38 000 of 120 000 severely mentally ill people in Gauteng - the province with the best community health resources - receive any formal community care.
- Edith Madela-Mntla, head of the national Directorate of Mental Health and Substance Abuse, confirmed that "we are not even prepared to hide the fact that community services are far from what they should be. It is an enormous challenge; we are depending on the provinces to get it up to scratch."
- The new Mental Health Care Act of 2002 omits the rights of families and increases their role in caring for the mentally ill people in the community.
- Professor Melvyn Freeman, who led the team that drafted the law, said that "no assistance was guaranteed for the families of patients".
- Gauteng psychologist Dr Gale Ure, author of *Principles of Recovery and Psychosocial Rehabilitation*, said "The law sounds lovely, but if you really read it, it still basically says: ' We'll lock you up as long as we like'."
- The promised system of follow-ups and home visits by social and health workers simply does not exist, because there are no vehicles, and because of a chronic shortage of psychiatric nurses and social workers.

When primary mental healthcare is "not up to scratch" the patients become the burden of State hospitals, family and the community. This situation is worsened by the State trying to get rid of patients, and rightfully so. Weskoppies costs the State R8 million a month to sustain.

9.3 Appendix C: Newspaper Article 2


Monday February 28 2005
Sowetan
THE SOUL TRUTH
Late Final
R3.50
R100 000 up for grabs with Sunsilk
INSIDE
STOP THIS MADNESS
Jasper van der Bijl
Patients at Pretoria's Weskoppies Mental Hospital live under shocking conditions, a Sowetan investigation has revealed.
Our team spent two weeks investigating serious allegations of irregularities at the state-run institution.
The claims — all vehemently denied by management at the hospital — included:
Suicide is common at the hospital;
Patients are assaulted regularly;
Some security guards are corrupt and are often bribed by patients;
Dangerous criminals mix freely with other patients; and
Errant patients are banished.
See page 4 and 5
CRUELTY: A patient wanders the grounds of Weskoppies Hospital. PHOTO: JASPER VAN DER BIJL
CHAOS, CRUELTY
State patients subject to horrific abuse
DEREGULATION OF TELECOMMUNICATIONS
HOW YOU CAN EARN
LIMITED BUSINESS OPPORTUNITY
R24 000.00
"There are a minimum of 15 suicides a year ... sometimes we discover signs of assault in the post mortems"
Your future starts here
Career opportunities 2005

ANALYSIS

The mental institution can be an intimidating and frightening place for patients and visitors. Institutions can be damaging and there are many factors that contributes to this.

SYNTHESIS

Steffan Davies described his own personal experience gained in a high security institution where he worked. He contributes many of the problems to a lack of understanding by the media, politicians and even their own staff.

He describes the institution, based on E. Goffman, the author of *Asylums,* as possessing the following characteristics*:*

- a barrier to social intercourse with the outside and to departure, which is often built-in (e.g. high walls);
- all aspects of life are conducted in the same place and under a single authority;
- each member's daily activities is carried out in the company of a batch of others;
- all phases of the day's activities are tightly scheduled;
- the activities are brought together in a single rational plan purportedly designed to fulfil the official aims of the institution;
- a basic split between a large managed group (inmates) and a small supervisory staff;
- grossly restricted social mobility between the two strata;
- the staff control information, decision-making and access to the institutions hierarchy;
- being resident in an institution is incompatible with family life.

Some of the harmful effects according to Davis:

- *Loss of liberty* Patients may not be free to leave, move around the institution, have access to their own possessions
- *Social isolation* Difficulty for family visiting, restrictions on phone calls and letters, discouragement from staff, stigma on families, peers who may not be amenable/desireble social contacts.
- *Institutionalisation* Reduced interaction, impoverished social skills, loss of motivation, reduced communication.

AND CORRUPTION

What the hospital management says:

FACTS ABOUT WESKOPPIES

Figure 10.3: Newspaper article in the Sowetan on 28 February 2005

- *Deteriorating mental health* Lack of stimulation, depression, hopelessness, substandard psychiatric treatment.
- *Poor physical health* Poor diet, lack of exercise, poor physical health care, smoking, side-effects of mediation
- *Death* Suicide, neglect, lack of care, murder

Mechanisms of harm

- Consequences of poor practice
- Institutional needs taking precedence over patient care
- Insufficient quantity and quality of care
- Well-intentioned but misguided care
- Neglect
- Direct, malicious assault

Institutions are usually created to deal with social problems. Their inmates, residents or patients are therefore, according to Davies, often also economically deprived, mentally disordered, criminal, delinquent, poorly educated and poorly integrated in society. (Davies 2004:25)

Conflicts in care:

- Public attitudes, especially mixed message
- Punishment v. rehabilitation
- Public safety v. patient rights
- Empathetic therapeutic relationship v. disgust at crimes
- Caution and safety v. pressure to admit and discharge
- High quality v. cost pressures
- Victims v. aggressors (it is not unusual to be both)

INTERVENTION

From analyzing the institution the following interventions can be proposed:

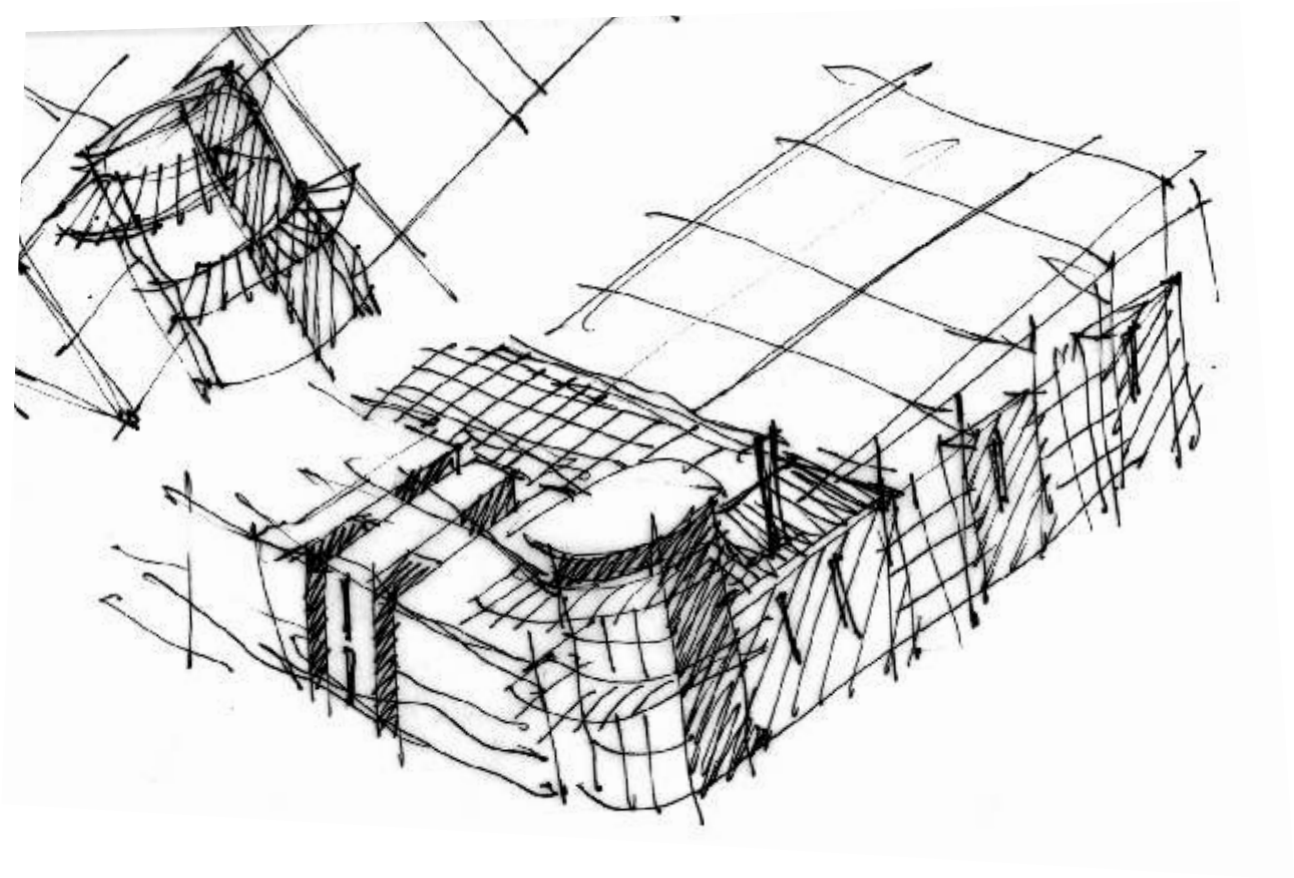
- Patient groups with differing needs can be more difficult to manage. Therefore, care should be given to ilness specific groups.
- Insufficient care can often be contributed to a lack of resources. Thus it could be a viable option for the community center to gain an additional income.
- Physical environments should be maintained as a poor physical environment can contribute to poor care.
- Every effort should be put in to combat a negative and demoralizing culture within the confines of the site.

IMPLEMENTATION

Some factors can be implemented to maintain healthy mental facilities:

- Openness to the outside world, to new ideas and external scrutiny. In the case of Weskoppies, they have functioned to long without community input and this contributed to negative publicity, that is not necessarily true.
- Political and public understanding of the facilities functions
- Clarity of purpose, realistic expectations and explicit values
- Good-quality physical environment and healthy therapeutic milieu
- An ability to tolerate uncertainty and to learn from mistakes
- Robust systems for training, development and supervision of staff. (Davies 2004:29)

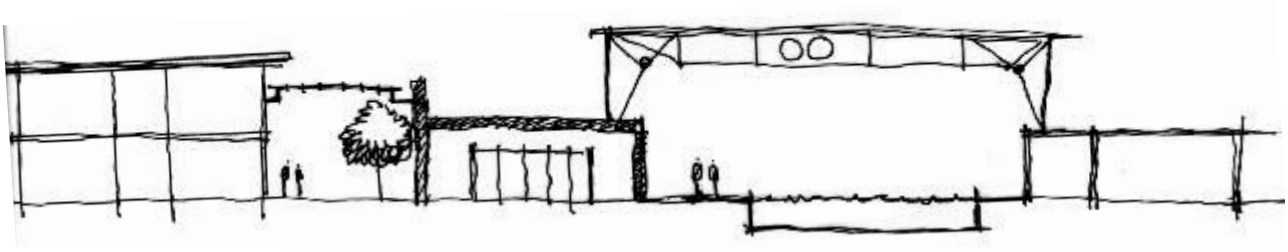
9.4 Appendix D: Concepts



9.4.1 CONCEPT 1

In this concept the building as a corner focal point was explored. The café formed a focal point on the main axis from where two wings radiated form it. The idea was that the edges of the site, where pedestrians moved, would be strengthened.

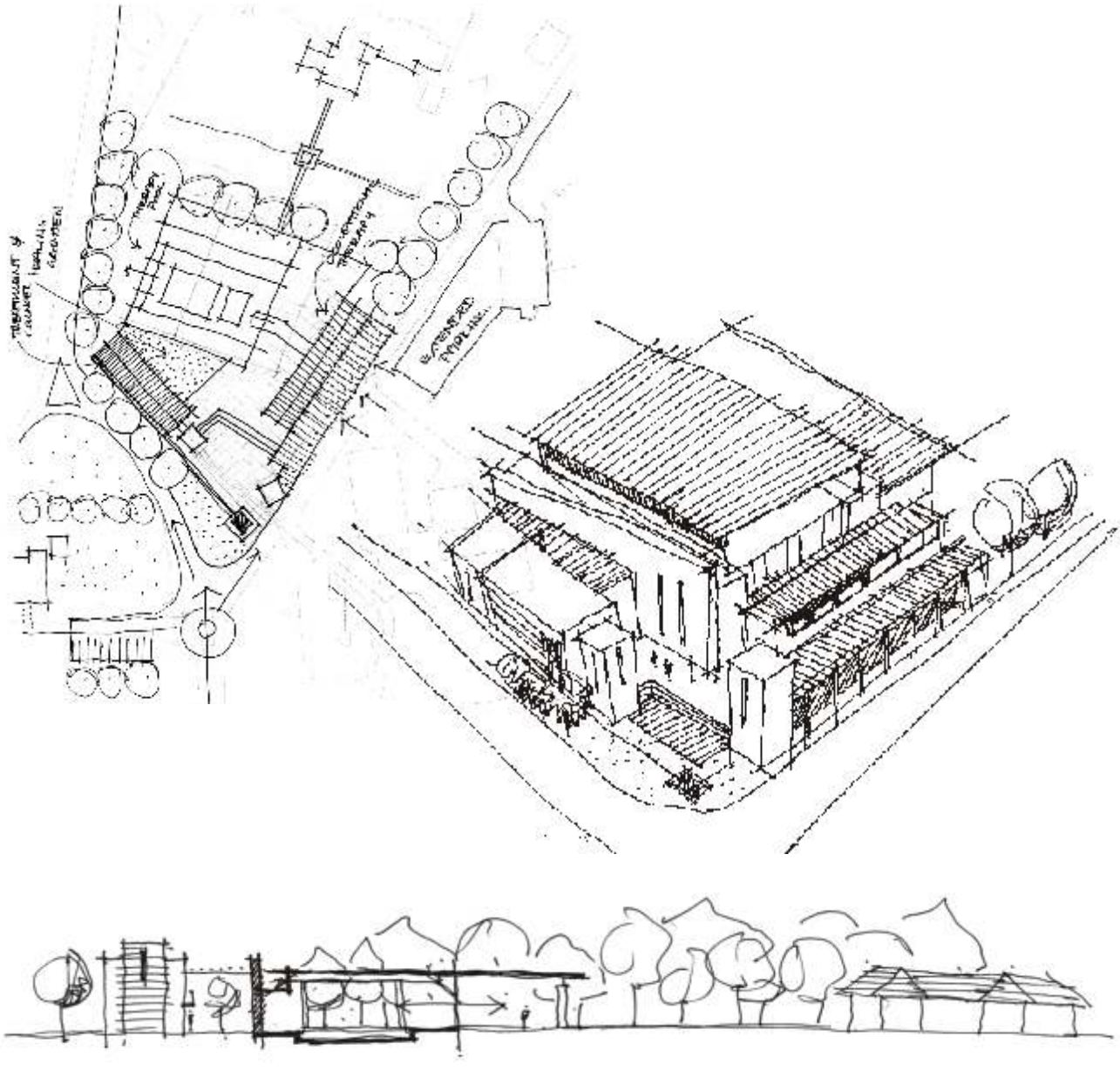
The architectural language of the this concept was to harsh and communicated as an urban form. The inside-outside connection was not successful.

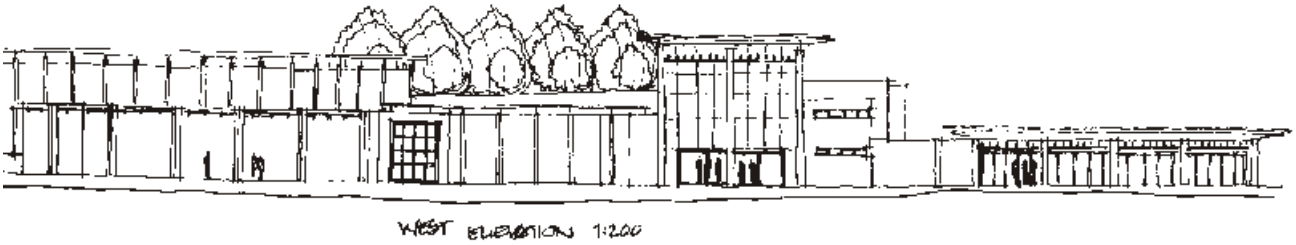


9.4.2 CONCEPT 2

From concept one it became clear that the corner of the site had to be open in order for the building to appear more receptive and welcoming.

The plan was kept the same, but alternative ways were sought to accommodate movement of pedestrians.





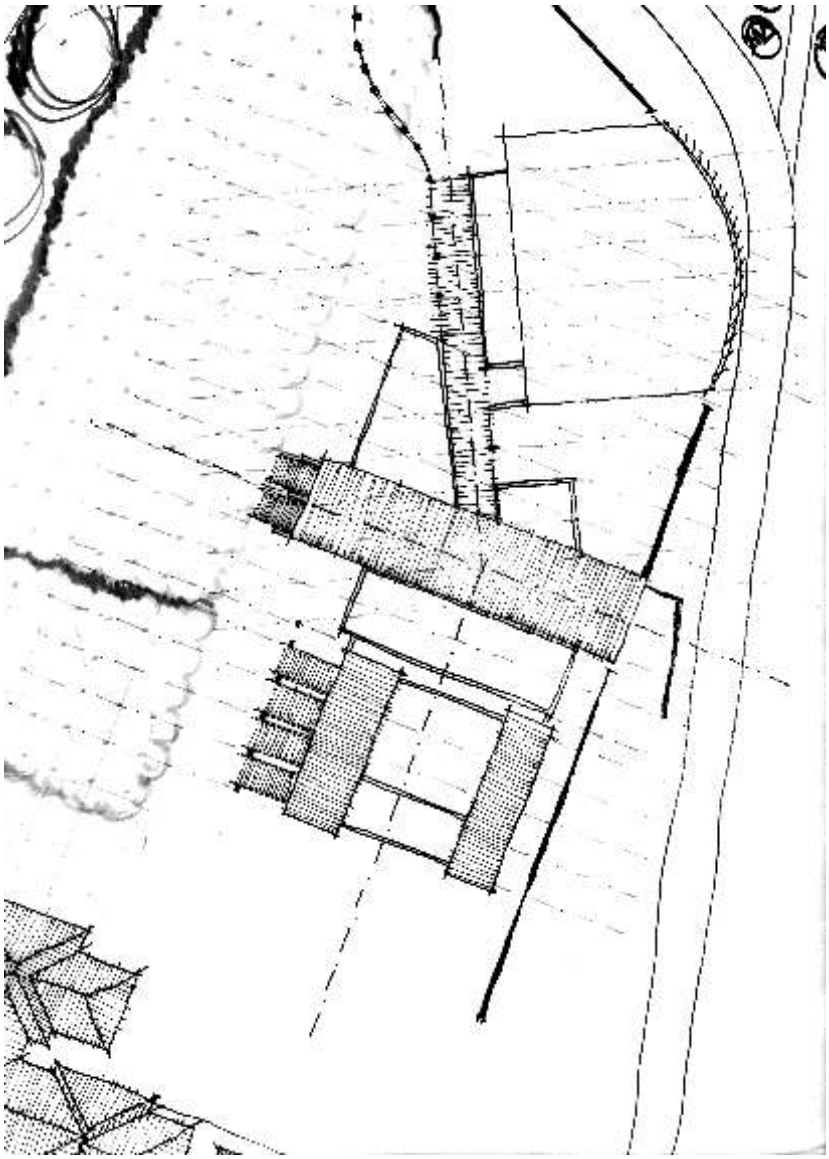
9.4.3 CONCEPT 3

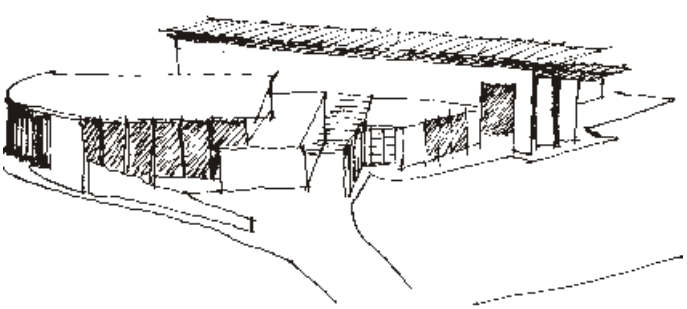
In concept three the building was placed on the eastern edge of the site, allowing visitors to view the building from a distance as they entered.

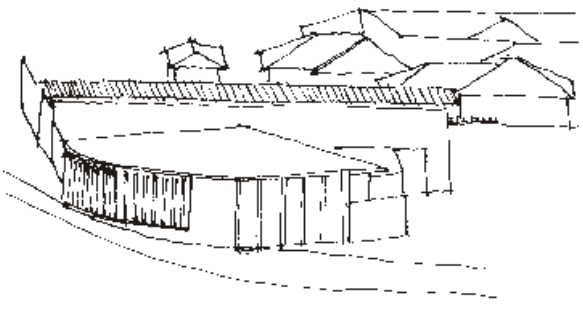
The axes of the city and site were merged and became the pivot around which the built spaces took shape. This later became an important concept.

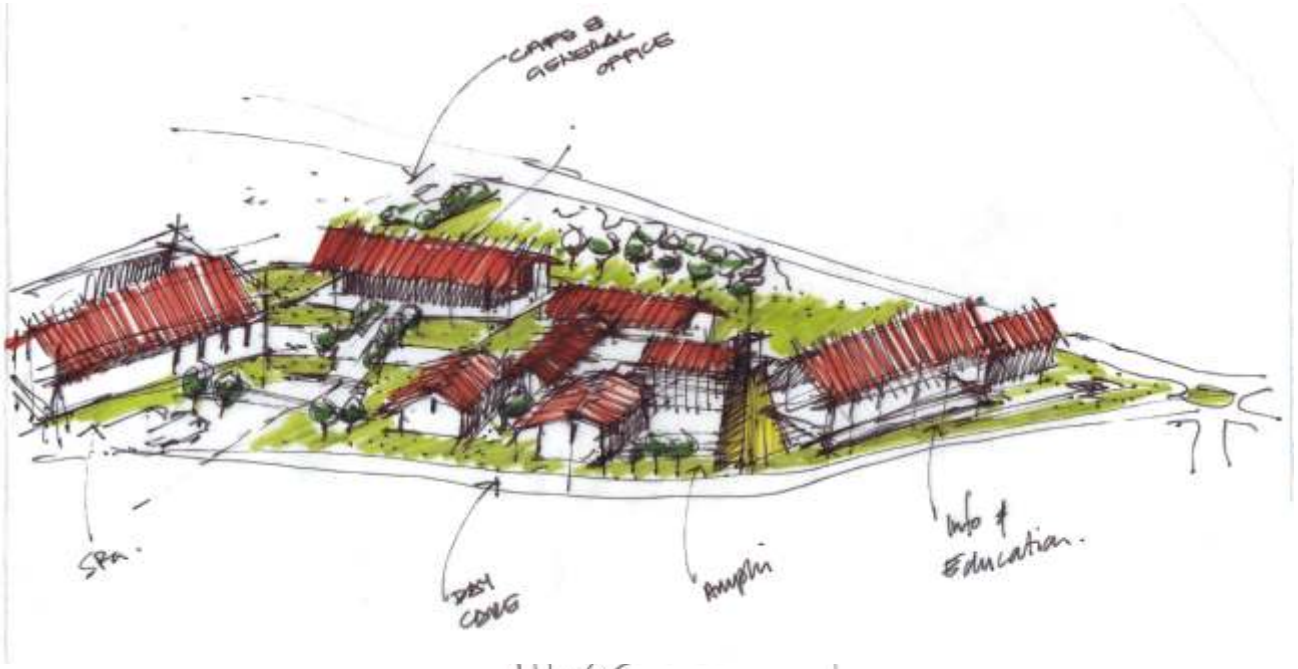
It became apparent, however that the enclosing of the spines stifled movement along these axes, exactly the opposite of the intension.

The building still did not seem to integrate with the site or landscape, but to a large extent, was imploding.









9.4.4 CONCEPT 4

In a reaction to concept 3, concept 4 aimed to maintain movement along axes instead of closing them up.

This was then an inverted built form of concept 3. Closed space became open and open space became closed.

This rendered a complex of buildings, linked by a system of open spaces. The buildings seemed to have a stronger link with the landscape.

The smaller buildings allowed the complex to achieve an intimate human scale more conducive to the user.

The pitched roofs further strengthened the concept of a safe, familiar environment to which the user would be able to relate and not feel challenged by.

9.5 Appendix E: Daylighting Calculations

Lighting

Situation	Standard service illuminance (lux)	
1. Corridors	100	2%
2. Stair	150	3%
3. Entrance lobby / waiting / enquiry desk	150 → 500	3% → 10%
4. Kitchen : Store	150	3%
Working	500	10%
5. Consulting / treatment	500	10%
Rest	150	3%
6. Canteen / dining	200	4%
7. Staff	150	3%
8. Workshop Casual	~~200~~ 300	6%
9. Libraries	300	6%
10. Teaching	300	6%
11. Art room	300	6%
12. Conference	750	15%
13. Computer	500	10%

Daylight	Daylight factor	Position	Limit
1. Foyer	1	~~treads~~ Workplane	24
2. Stair	2	treads	—
3. Classroom	5	Desk	21
4. Artroom	5		21
5. Staff	5		23
6. Pool	5		23

Daylight factor of 1% = 50 lux.

Area of glazing to provide daylight factor

= $p = 10 \times D$

p = area of glazing as percentage of floor area

D = minimum daylight factor.

∴ Floor area 100 m²

@ Daylight 2

20% of 100 m² = glazing

Daylighting glazing

1. Workshop: p = 10 x D (5)
= 50% of 80 m² = 40m²
2. Multi-purpose: p = 10 x D (5)
= 50% of 88 m² = 44 m²
3. crafts room: p = 10 x D (5)
= 50% of 88m² = 44 m²
4. Class room: p = 10 x D (5)
= 50% of 19 m² = 9,5 m²
5. Lobby + stair: p = 10 x D (2)
= 20% of 65 m² = 13 m²
6. Waiting: p = 10 x D (2)
= 20% of 40 m² = 8m²
7. Secretary: p = 10 x D (5)
= 50% of 12m² = 6m²
8. Office: p = 10 x D (5)
= 50% of 12m² = 6m²
9. Big consultation: p = 10 x D (5)
= 50% of 20m² = 10m²
10. Small consultation: p = 10 x D (5)
= 50% of 12 m² = 6m²

11. Staff p = 10 x D (5)
= 50% of 30 m² = 15 m²
12. Cafe p = 10 x D (2)
= 20% of 135 m² = 27m²

13. Kitchen p = 10 x D (5)
= 50% of 50m² = 25m²
14. Library p = 10 x D (4)
= 40% of 77 m² = 30.8m²

15. Spa lobby p = 10 x D (2)
= 20% of 61m² = 12,2 m²

16. Spa p = 10 x D (2)
= 20% of 44 m² = 8.8 m²

9.6 Appendix F: Natural Ventilation Calculations

Natural ventilation

	Ventilation allowance
Dining	0.33 l/s/m² °C
Recreation	0.33
Stair	0.50
foyers	0.50
Public rooms + Studios	0.33
Waiting rooms	0.33
Patient areas	0.67
Reading (Library)	0.25
Classroom	0.67
Swimming	0.17

ACR l/s:

1. Classroom 7,5 pp
2. Library 6,5 pp
3. Cafe 7,5 pp
4. Kitchen 7,5 pp
5. Spa 7,5 pp
6. locker 7,5 pp
7. lobby 5 ~~7,5~~ pp
8. Meeting 5 pp
9. Room with Shower 25 pp

$V = 0,6 \times A \times v$

V = volume flow rate (m^2/s)

A = area of openings

V = windspeed 90° to opening

45° flowrate is half.

= 1.

$\therefore \frac{\text{floor area}}{1000} \times ACR = V$

Training = 60 students.

Natural ventilation. Area operable window

1. Workshop : 80 m² ∴ 12 students @ 6,5 m²/student

NV = Floorarea : 80 m²
ACR : 7,5 ~~x~~ l/s
Windspeed : 1 @ 45°

V = 0,6 × A × V (V = 0,6 m²/s)

∴ A = $\frac{V}{0,6 \times 1}$ = $\frac{0,6}{0,6}$ = 1 m² (double for 45°)
= 2m²

2. Multipurpose + music : 88 m² ∴ 14 students @ 6,5 m²/s

NV = Floor area : 88 m²
ACR : 7,5 l/s
Windspeed : 1 @ 90°

V = $\frac{88 m^2 \times 7,5 l/s}{1000}$

= 0,66 m²/s

A = $\frac{V}{0,6 \times 1}$ = $\frac{0,66}{0,6}$ = 1.1 m²

3. Art room : 88 m² ∴ 14 students

NV = same as above

4. Class rooms (x2) : 19m² ∴ 10 students @ 1,9 m²/s

NV = Floor area 19m²
ACR : 7,5 l/s
Windspeed : 1 @ 45°

A = $\frac{V}{0.6 \times 1}$ = 0,24 m² x 2
= 0,5 m²

5. Lobby down stairs : 65 m²

NV = Floor area : 65 m²
ACR : 5 l/s
Windspeed : 1 m/s @ 90°
∴ V = 0,3 m²

$A = \frac{0,3}{0,6} = 0,5\ m^2$

6. Lobby upstairs : 40 m²

NV = Floor area : 40 m²
ACR : 5 l/s
WS : 1 m/s @ 90°
∴ V = 0,2 m²

$A = \frac{0,2}{0,6} = 0,3\ m^2$

7. Secretary : 12 m²

NV = Floor area : 12 m²
ACR : 7,5 l/s
WS : 1 m/s @ 90°
∴ V = 0,09

$A = \frac{0,09}{0,6} = 0,15\ m^2$

8. Head psychiatrist : 12 m²

NV = Floor area : 12 m²
ACR : 7,5 l/s
WS : 1 m/s @ 90°
∴ V = 0,09
A = 0,15 m²

(x2)

9. Big consultation : ~~15~~ 20 m²

NV = FA : 20 m²

ACR : 5 ℓ/s

Ws : 1 m/s @ 90°

∴ V = ~~0,16 m²~~ 0,1

$A = \frac{0,1}{0,6} = 0,16\ m^2$

10. Small consultation (x2) : ~~8~~ 12 m²

NV = FA : 12 m²

ACR : 5 ℓ/s

Ws : 1 m/s @ 90°

∴ V = 0,06

$A = \frac{0,06}{0,6} = 0,1\ m^2$

11. Staff room : 30m²

NV = FA : 30 m²

ACR : 7,5 ℓ/s

Ws : 1 m/s @ 90°

∴ V : 0,225

$A = \frac{0,225}{0,6} = 0,\cancel{4}\ m^2$

12. Cafe : 135 m² ± 90 @ 1.5 m²/person.

NV = ~~FA~~ = 135 m²

ACR = 7,5 ℓ/s

Ws : 1 m/s @ 90°

∴ V : 1,0

$A = \frac{1}{0,6} = 1,7\ m^2$

13. Kitchen: 50 m²
NU = FA = 50m²
ACR = 17,5 m² l/s
WS = 1 m/s @ 90°
∴ V = 0,875
A = $\frac{0,875}{0,6}$ = 1,5 m²

14. Library/audio visual: 77m²
NU = FA = 77m²
ACR = 6,5 l/s
WS = 1 m/s
∴ V = 0,5
A = $\frac{0,5}{0,6}$ = 0,8m²

15. Spa lobby: 61 m²
NU = FA = 61 m²
ACR = 5 l/s
WS = 1 m/s
∴ V = 0,3
A = $\frac{0,3}{0,6}$ = 0,5 m²

16. Spa: 44m²
NU = FA = 44 m²
ACR = 7,5 l/s
WS = 1 m/s
∴ V = 0,33
A = $\frac{0,33}{0,6}$ = 0,6 m²

17. locker = 7 m²
NU = FA = 7 m²
ACR = 7,5 m²
WS = 1 m/s
∴ V = 0,05
A = $\frac{0,05}{0,6}$ = 0,09 m²

18. Shower: $7 m^2$

$NV = FA = 7 m^2$

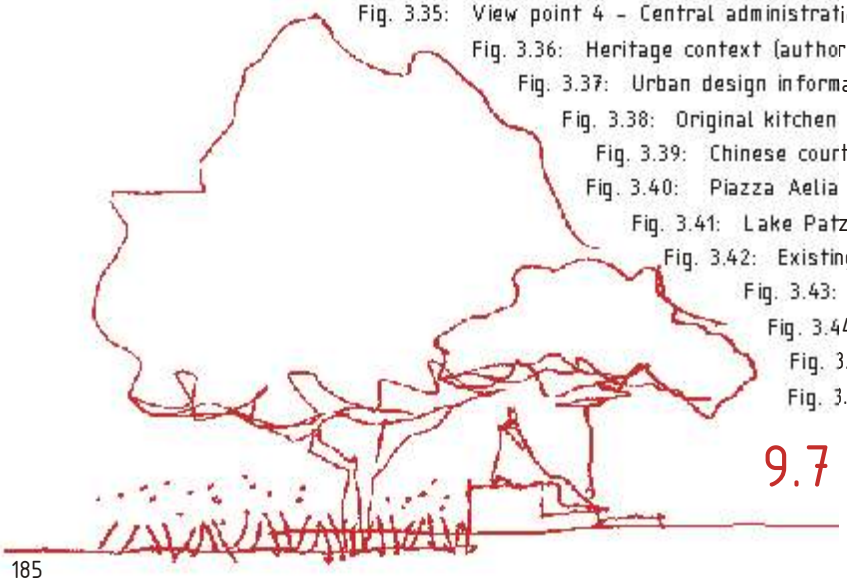
$ACR = 25 \ell/s$

$V_s = 1 m/s$

$\therefore V = 0,2$

$A = \frac{0,2}{0,16} = 0,3 m^2$

19. Spa office $= 0,15 m^2$



9.7 Appendix G: List of Figures

9.8 Appendix H: Bibliography

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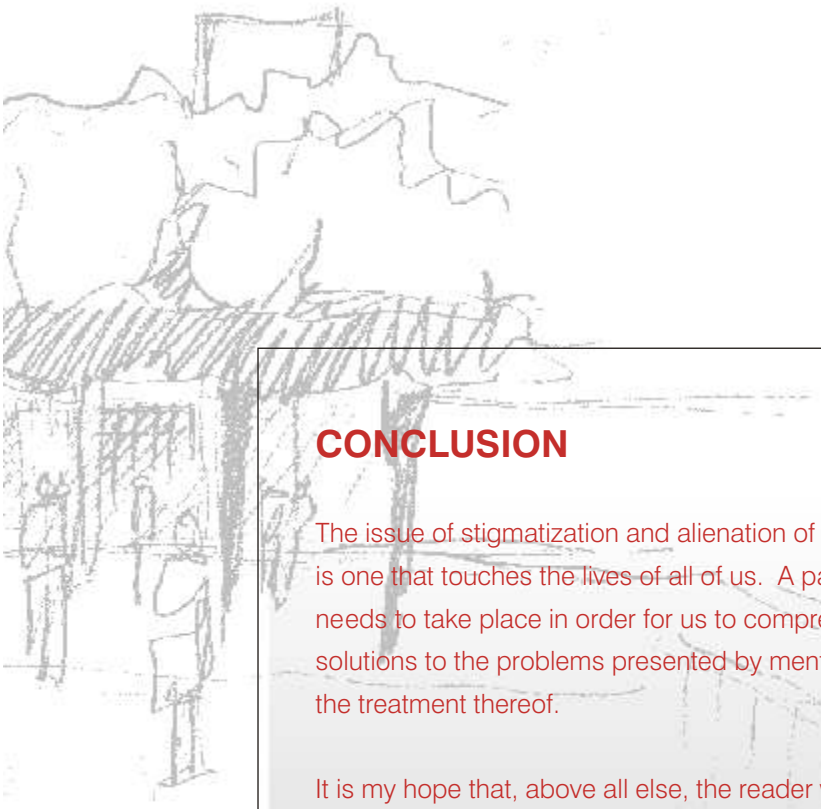

CONCLUSION

The issue of stigmatization and alienation of the mentally ill is one that touches the lives of all of us. A paradigm shift needs to take place in order for us to comprehend new solutions to the problems presented by mental illness and the treatment thereof.

It is my hope that, above all else, the reader will think differently now about the mentally ill than before he has read this dissertation. Every individual within our society deserves respect and dedicating our time and effort to afford them that is our profession's privilege.