

https://dspace.org/

Social detox

Hartmann, Renn

2010-07-12T08:50:59Z
http://hdl.handle.net/10539/8288

Downloaded from a DSpace repository. https://dspace.org/

social detox



This document is submitted in partial fulfilment for the degree:

Master of Architecture (Professional) at the University of the Witwatersrand, Johannesburg, South Africa, in the year 2009.

I, **Renn Hartmann** [0304986M] am a student registered for the course Master of Architecture [Professional] in the year 2009.
I hereby declare the following:

I am aware that plagiarism [the use of someone else's work without permission and/or without acknowledging the original sources] is wrong.
I confirm that the work submitted for assessment for the above course is my own unaided work except where I have stated explicitly otherwise.
I have followed the required conventions in referencing thoughts, ideas, and visual materials of others. For this purpose, I have referred to the Graduate School of Engineering and the Built Environment style guide. I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my unaided work or that I have failed to acknowledge the source of the ideas or words in my own work.

Author: Renn Hartmann

Supervisor: Ken Stucke

a.abstract

>document map

The extent of animal abuse, neglect and abandonment places increased pressure on animal welfare organisations to protect the welfare of animals. Such organisations operate under restricting circumstances, doing what they can with what they have and under heavy reliance on support from the public.

What is becoming inherently more recognised is that animal abuse has definite psychological implications on individuals within society, be they perpetrators or witnesses. More so, there is a definite correlation between the prevalence of animal abuse and the particular state of a social environment. The ability of a social environment to foster socially toxic (socially toxicity[1]) aspects not only influences the prevalence of animal abandonment, abuse and neglect, but more so, through these conditions and these acts of violation upon animals, individuals (perpetrators or witnesses) may become psychologically distanced from healthy moral and ethical behaviour in society.

An environment that is specifically attuned to the links between animal abuse and social-toxicity is the South African township. It is an environment predominated by social-toxicity and has little to no animal care facilities or animal welfare education initiatives and hence presents opportunities for the expansion of elementary ideas into a comprehensive solution.

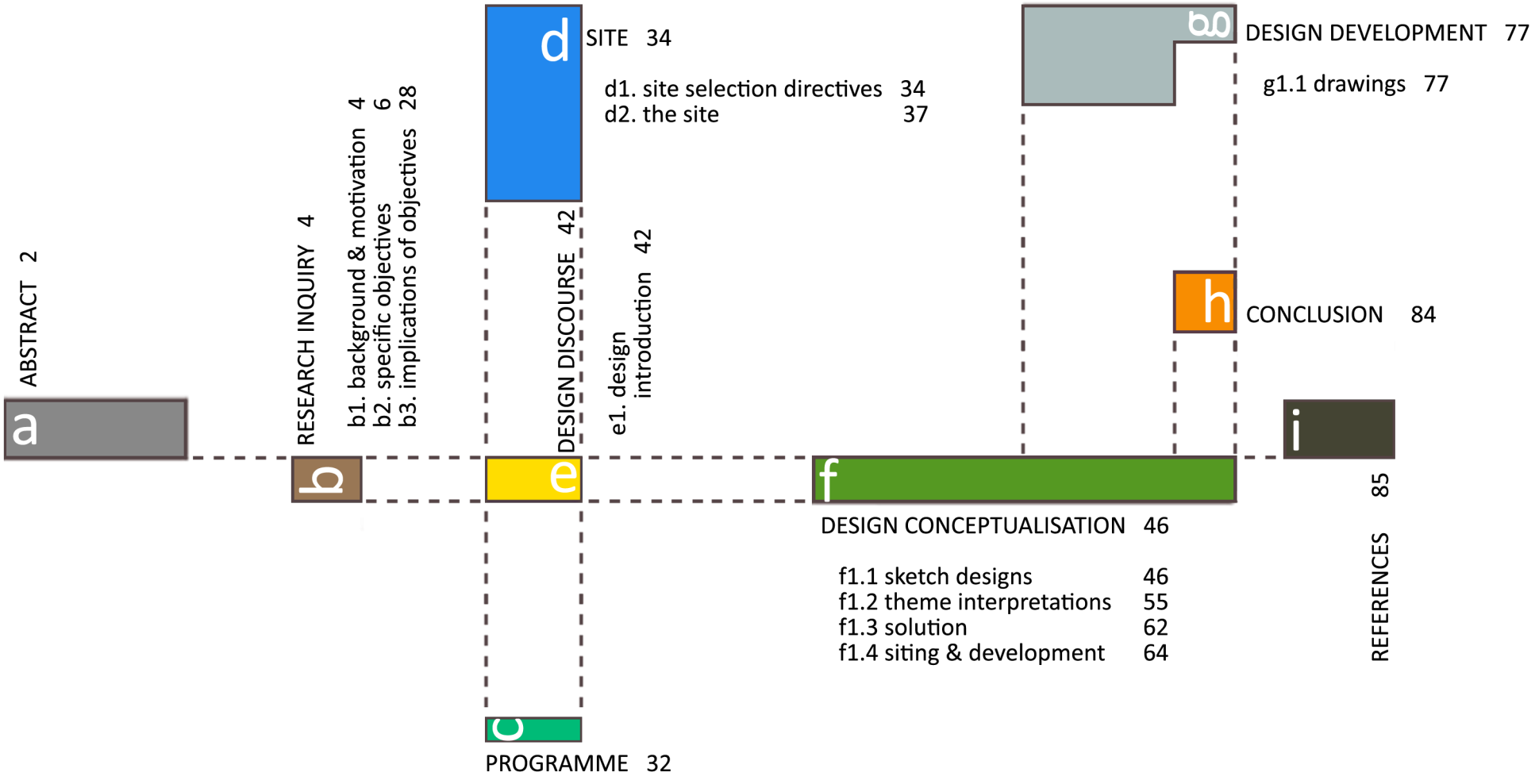
‘The greatness of a nation and its moral progress can be judged by the way its animals are treated’ (Mahatma Ghandi).

If one acknowledges the positive impacts of human-animal interaction on the psychological health of humans, then attempts at addressing the influences of social-toxicity on the psychology of humans, and in promoting animal care and animal welfare education, must stress the aspect of human-animal interaction within a succinctly tuned architectural environment. Stressing this aspect is achievable through Animal Assisted Activities (AAA)[2], Animal Assisted Therapy (AAT)[3] and critically, through the dissolution of ‘typical’ animal housing into an interactive environment that is beneficial to both the human and animal participant.

Of particular importance is the understanding of the synergistic nature of social conditions (i.e. how one condition does not act in isolation from another). This aspect, combined with attempts at rejuvenating the human-animal bond in townships, indicates the significance in the dissolution of theoretical knowledge, gained through the research process, into an architectural scheme; if purposeful sensitivity is to be achieved. Responses of an architectural nature not only articulate a dialogue between operational functions and space but are also based on the requirement of space, in itself, to formulate a dialogue with the user; an experiential dialogue based on spatial richness and variety taking cognisance of the fact that the built environment has its role to play in inferring positive spatial associations within disadvantaged areas.

1. I use the term ‘social toxicity’ in reference to a social environment fostering aspects adverse to the healthy development of individuals within society. Socially toxic aspects are high levels of unemployment, poverty, crime, violence, etc. that offer “serious threats to the development of identity, competence, moral reasoning, trust, hope, and other features of personality and ideology that make for success in school, family, work and the community” (Garbarino 2008, p.29) and are particularly applicable to the development of children and youths.
2. Animal-Assisted Activities (AAA), which “provide opportunities for motivational, educational, recreational, and/or therapeutic benefits to enhance quality of life and are delivered in a variety of therapeutic environments by a specially trained professional or volunteer, in association with animals” (Odendaal 2002, p.15).
3. Animal-Assisted Therapy (AAT), which is “a goal-directed intervention in which an animal is used as an integral part of the treatment process” (Odendaal 2002, p.15).

document map


a
ABSTRACT 2
b
RESEARCH INQUIRY 4
b1. background & motivation 4
b2. specific objectives 6
b3. implications of objectives 28
c
PROGRAMME 32
c1. programme description 32
d
SITE 34
d1. site selection directives 34
d2. the site 37
e
DESIGN DISCOURSE 42
e1. design introduction 42
f
DESIGN CONCEPTUALISATION 46
f1.1 sketch designs 46
f1.2 theme interpretations 55
f1.3 solution 62
f1.4 siting & development 64
g
DESIGN DEVELOPMENT 77
g1.1 drawings 77
h
CONCLUSION 84
i
REFERENCES 85

b.research inquiry

<document map >programme

b.1 background & motivation

For the sake of ensuring 'political correctness' of this thesis topic, it must be stated that it is formulated as a response to a particular urban environment: the township. The information contained in this document serves to elaborate on this topic and consequently provide sufficient accountability as to why the township is seen as the most suitable environment for the particular dynamics of this project. Most importantly, readers must not be misguided regarding the issue of animal abuse/neglect/abandonment and elements of social-toxicity, as these aspects are not confined to townships and do in fact occur throughout a range of urban environments. However, the specific nature of animal abuse/neglect/abandonment and extensive predominance of elements of social-toxicity in townships are aspects that intrinsically reinforce the ideas and themes of this thesis. Furthermore, animals as referred to in this thesis refer to domestic animals. The following paragraphs serve as an introduction to the various ideas and themes this thesis topic covers.

Animal shelters, within South Africa, such as the Society for Prevention of Cruelty to Animals (SPCA) and the Animal Anti-Cruelty League (AACL) are intensely reliant on the public for donations and more importantly they rely on the public to adopt the sheltered animals. With this dynamic evident, one would think that the relationship between animal shelter organisations and the public would be maximised in various ways, so as to facilitate animal adoption and animal welfare education. Such a maximisation ignores fund raising events or similar periodical events that facilitate community involvement with the shelter, but rather implies a multifaceted approach to the functions of the shelter, thus ensuring community-shelter engagement on a daily and more frequent basis.

There is no doubt that housing the animals and providing adequate care for them at shelters is far better for their well-being than them being on the streets or in abusive homes, however, the 'kennel' type housing common to animal shelters provides very little in terms of a varied stimulating environment for the animal. 'Kennel' type housing also provides little opportunity for human-animal interaction and where such interaction is possible there is not much in terms of interaction variation. What this thesis, in part investigates, is how the animal shelter typology can be improved and elaborated from a design standpoint and this is approached on two fronts:

1. The design of the shelter as an entity and the extent to which a multifunctional approach can facilitate community involvement
2. The housing of the animals

The most obvious and effective way of achieving a multifunctional animal shelter is to combine the utilisation of the animals in a legitimate manner, with specific functions of the shelter, thus forming a directive toward enhanced public involvement and a bettering of the living environment for the animals. In taking this approach the operational functions of this thesis project are diverted away from the common functions present in many animal shelters today. Not only does this enable relevant multifunctionality, but also creates possibilities of a greater well-being for animals in such an environment. Through investigating various ways in which the animals themselves could enhance the dynamics of an animal shelters' operations, two elements arose:

1. Animal-Assisted Activities (AAA), which "provide opportunities for motivational, educational, recreational, and/or therapeutic benefits to enhance quality of life and are delivered in a variety of therapeutic environments by a specially trained professional or volunteer, in association with animals" (Odendaal 2002, p.15).
2. Animal-Assisted Therapy (AAT), which is "a goal-directed intervention in which an animal is used as an integral part of the treatment process" (Odendaal 2002, p.15).

The provision of animal shelters and animal care facilities within South African townships is practically nonexistent. Many people would largely view such a service as irrelevant; however, on the contrary there is a significant population of domestic animals in townships. Furthermore animal welfare education is practically nonexistent and as a result animals are not sterilised and owners are not aware of the proper care they require. This enables over breeding, abandonment, neglect and abuse of animals in this environment. One must understand the nature of the township environment in order to implement architecture of significance and more importantly address and implement context relevant ideas, aims, and solutions. The lack of animal care facilities and animal welfare education in townships is evident and provides a justifiable basis within which my thesis can be introduced. An understanding of the township environment and the inherent inter-connected socially toxic conditions (poverty, unemployment, violence, crime, etc.) will provide a critical reasoning for an approach to multifunctionality.

Furthermore, the links between child abuse, domestic violence and animal abuse are becoming increasingly more documented, so much so that some welfare service agencies are treating animal abuse as a warning sign for possible future violent behaviour within the family and society. The harsh realities of township living where unemployment, poverty, violence and crime (elements of social toxicity) are rife, place increased pressure on inhabitants, to the extent where individuals may become desensitised to moral and ethical behaviour. In an attempt to gain some sense of control over ones environment, an individual (specifically males) may physically assert themselves over an animal, family member, or member of society. This act then permeates into the psyche of the perpetrator, victim and/or witness, including children, who are extremely susceptible to the negative influences of social toxicity.

It is through the need to create a multifunctional environment that addresses and responds to the nature of the township environment and the synergistic nature of social issues, that this thesis project strays away from simply being an animal shelter and becomes a form of welfare centre that synergises the welfare of humans and animals into one environment.

The general aim of this thesis is encapsulated in the question below:



Figure 1 - Children 'playing' in Alexandra township, Johannesburg [left] (Robinson 2009) & the indirect abuse of a pet puppy in Ivory Park, Midrand [right] (R.Hartmann).

can
architecture
attempt to revert the harmful
psychological influences of
social toxicity?

b.2 specific objectives

In order to successfully achieve a welfare centre that synergises the welfare of animals and humans, responds to inherent social conditions and is adequately contextually grounded, the following objectives are stated:

b2.1 Explore the 'commonality' of animal shelters and their operations

b2.2 Explore and enhance animal housing for the betterment of the animal and to facilitate animal welfare education initiatives

b.2.3 Implement aspects of multifunctionality, directed through the legitimate use of animals in AAA and AAT

b2.4 Investigate the nature of the township environment and its inter-related social conditions so as to contextually stabilise this thesis

b.2.5 Evaluate the links between child abuse, domestic violence and animal abuse so as to inform the development of this thesis and its relevance as a study

The nature of the objectives stated above begin to indicate my intention of shifting away from the animal shelter typology and through the combination of these various objectives, introduce a new typology whereby animal care, animal welfare education and human welfare are synergised into one environment.

2.1 The 'Commonality' of Animal Shelters and Their Operations

It must be noted that it is not my intention to negatively publicise the animal shelter organisations mentioned below, however, my thesis topic intends on addressing and capitalising upon the lack of exploration into the relationship such organisations could attain with the public. Secondly the majority of nonprofit animal shelter organisations operate under tight financial circumstances which is the most attributable reason as to why this 'commonality' in animal shelter organisations exists. I do not wish to investigate the financial issues attributable to these circumstances but rather explore and implement functional applications within the dynamic of the animal shelter, so as to break-away from this 'commonality'.

Within South Africa and abroad there are many animal welfare organisations looking after abandoned and abused animals. The two largest organisations in South Africa are the Society for the Prevention of Cruelty to Animals (SPCA) and the Animal Anti-Cruelty League (AACL), both with shelters throughout South Africa. When one looks at the operations of such organisations it becomes evident that they are generally arranged around a reliance on the public for donations of money, pet food and goods, whilst combining that with their own initiatives such as fund-raising events, charity shops, community recycling bins, etc.

If one ignores the financial constraints the SPCA and AACL operate under and focuses on the commonalities of such organisations, the following critical topics appear:

2.1.1 How are the animals housed?
2.1.2 What type of exercise/recreation space is provided for the animals?
2.1.3 How do the organisations facilitate community involvement?
2.1.4 How is animal welfare education addressed?
2.1.5 How is veterinary care provided to the public?

2.1.1 How are the animals housed?

Housing for animals at shelters is provided by means of small enclosures suited to the animals' size. These enclosures really provide the basics in terms of providing a healthy space for the animal and are typically comprised of an area protected from the elements, with some form of bedding for the animal, and a space open to the elements providing sunshine and fresh air. In some cases this type of housing does not apply to domestic cats and they are housed indoors with windows for natural light and vents for fresh air. Most of an animals' primary needs are catered for in this type of housing; natural light, fresh air, private space, bedding, food and protection from the elements.
Furthermore the Johannesburg Animal Anti-Cruelty League (AACL) provides separate housing units for elderly domestic dogs and cats. These units offer considerably more space compared to the traditional animal enclosure unit whilst also providing the animal with a generous stimulating outdoor environment. Within the veterinary hospital there are generally caged housing solutions used to house sick or injured animals for short periods of time, before they are discharged home.

The essential lacking elements in traditional animal housing are the interaction between animals and humans and the provision of readily accessible open space for the animals to move around. These two aspects are largely addressed through the commitment of volunteers who divulge some of their time to engage (walk/play/groom) animals at shelters.

The model of the SPCA and AACL, however, is about housing numbers of abandoned and abused animals in the most humane and efficient way possible and caring for them, in the hope that they will be adopted.

‘Animals can communicate quite well.
And they do.
And generally speaking, they are
ignored’ ~ Alice Walker



Figure 2 - The extent of enclosures housing numerous dogs at the Animal Anti-Cruelty League (AACL) in Johannesburg (R.Hartmann).



Figure 3 - Enclosures for small dogs [left], large dogs [centre] and elderly dogs [right] at the Animal Anti-Cruelty League (AACL) in Johannesburg (R.Hartmann).

2.1.2 What type of exercise/recreation space is provided for the animals?

Typically the SPCA and AACL will have an exercise run on the premises which serves as a grassed outdoor space to facilitate play and exercise for the animals, within a natural environment. Animals housed at the shelters are brought out to these exercise runs on a rotational basis. Such spaces are separate from the animal housing and require the assistance of an employee or volunteer to facilitate the engagement of the animal with the exercise run.



Figure 4 - An exercise run at Johannesburg AACL (R.Hartmann)

2.1.3 How do the organisations facilitate community involvement?

A large portion of community involvement with animal shelters occurs through various fund-raising initiatives. Being nonprofit and relying solely on the public to cater for its financial needs, these fund-raising initiatives are not only critical to the livelihood of most animal shelters, but form a crucial interactive element with the public, whilst reinforcing awareness of such organisations. Aside from the sale of goods (branded diaries, educational CDs, charity shop goods, etc.) the majority of fund-raising initiatives are periodical events (golf days, walk-athons, runs, school poster making competitions, etc.) and thus only facilitate community involvement on a periodical basis.

The SPCA and AACL both have educational programmes whereby educational officers visit primary schools to infuse animal welfare education and increase awareness of the needs of animals and their importance in society. The Johannesburg AACL branch also allows schools to visit their shelters and learn about animals within the animal shelter environment. These educational programmes are hugely beneficial to the welfare of animals in communities and hence indirectly beneficial to the operations of animal shelters as animal abandonment, neglect and abuse is reduced.

The adoption of animals is another facet of community involvement and to some extent allows a relationship to develop between the adopter and the animal shelter involved. Volunteering by members of the public enables more direct engagement with the operations of the animal shelter and is largely formulated based on human-animal interaction. This direct interaction with an animal is where my multifunctional approach is focussed and will be elaborated on later in this document; the crux of this idea is that such interaction is both beneficial to the animal and the human participant.

2.1.4 How is animal welfare education addressed?

The SPCA and AACL provide animal welfare education primarily in the form of educational programmes directed and carried out at schools and simultaneously through the facilitation of school visits to the animal shelter premises. Various other initiatives such as the AACL's school poster competition are also organised. 'To enter, children have to create posters / take photos depicting ways in which people care for, and affect the lives of animals in positive ways' (Steenkamp 2008). The AACL extends its animal welfare education efforts to corporate entities through their Puppy Socialisation Programme which is aimed at, 'treating corporates to a very different type of animal/social team-building exercise' (About Us-Puppy Socialisation Programme n.d.). Other methods include newspaper and

magazine articles, stalls at fetes/flea markets/fairs and SPCA clubs at schools.

2.1.5 How is veterinary care provided to the public?

Both the SPCA and AACL provide veterinary care through welfare hospitals on the animal shelter premises and through mobile clinics that provide services to underprivileged areas. Not all SPCA branches have on-site hospital facilities and in these cases animals are referred to private veterinary practices. The mobile clinics not only provide much needed veterinary care to animals in disadvantaged regions but at the same time, promote animal welfare in the cases they treat.
The use of the hospital facilities provided by both these organisations is primarily aimed at lower income groups who cannot afford the prices of private veterinary practices. Some people are in no position to afford animal health care costs and in these cases the organisation concerned will cover the costs with the money raised through fund-raising initiatives and donations.

b2.2 Animal Housing and its Ability to Facilitate Animal Welfare Education Initiatives

Typically, animal housing at the majority of animal shelters consists of small enclosures, set out in rows, housing large numbers of domestic animals. For the most part, cats are housed indoors and dogs outdoors. One must realise that in the case of the SPCA, AACL, and many other animal shelters, financial constraints and operational costs largely dictate what type of housing is possible. Furthermore animal housing is also directed by animal numbers (avoid overcrowding), adequate housing space per animal, minimising disease transmission, housing that supports an animal's resistance to disease, heating and ventilation, minimising stress to the animal and maximising welfare.

With all these directives for efficient and humane animal housing being evident, the ability to enhance and expand on the traditional 'kennel' type housing becomes relatively restricted. As stated previously, the combination of the objectives of this thesis enable and reinforce its diversion from simply being an animal shelter. With that stated, the topic of animal housing within the welfare centre must be clarified. With the majority of domestic animals in townships being domestic dogs and to ensure a level of realism in the architectural outcome of this thesis, the project directs its multifunctional response to the specific objectives (b.2) by focussing efforts toward domestic dogs. Domestic dogs are also typically associated with AAA and AAT initiatives. This, however, does not entirely exclude various other animal species. The veterinary hospital will cater for all domestic animals and its associated housing component will be designed to suit. The animal adoption programme within the welfare centre will house domestic dogs with other animal species being placed up for adoption at nearby animal shelters.

Within townships the nature of animal abuse/neglect/abandonment is predominantly a product of a lack of animal welfare education, so it is this educational aspect that is crucial to address, rather than the provision of

animal shelter housing. Therefore, animal housing, within the context of this thesis, is broken down into three distinct divisions:

2.2.1 Animal housing as part of the veterinary hospital
2.2.2 Animal housing for animal rehabilitation and adoption
2.2.3 Animal housing to facilitate AAA, AAT and animal welfare education

2.2.1 Animal housing as part of the veterinary hospital

Animal housing within this section of the welfare centre is not very adaptable. This is due to the particular nature of the housing in that it is housing sick or injured animals periodically and for short periods of time. The aspect of the animals' health and well-being can certainly be addressed when designing housing for the hospital, however, the aspect of animal welfare education is not of particular relevance with this housing.

General guidelines will be followed when designing this type of housing and will include an exploration, of some level, into how the specific housing units and the environment they are placed in can be beneficial to the recovery of an animal (minimise stress, improve behaviour through incorporating sufficient amounts of fresh air, daylighting and sufficient space for each animal, etc.).

Below is an example of the minimum requirements for the provision of housing for domestic cats:

Space requirements for cats –
Minimum 1m² floor space (Kessler et al. 1999)

General guidelines to be followed –
Enough space to stretch to full body length
At least 0.9m between feeding, resting and elimination (urination, defecation, spraying) areas
Space for a litter box and hiding box
Sufficient floor space for locomotion and play (Kessler et al. 1999)

Animal housing within the veterinary hospital will be composed of two units:

1. Intake isolation housing which houses animals with transmittable diseases until they are healthy enough to be housed in
2. The general veterinary hospital housing where all veterinary hospital animals are housed until discharged to their owners, or, if abandoned/abused/neglected, they are transferred to the rehabilitation housing section (only domestic dogs). Other 'homeless' animal species are discharged from the vet upon reaching full health and incorporated into the pet adoption programme which will operate in part from the welfare centre (domestic dogs) and at surrounding animal shelters (other animal species).

2.2.2 Animal housing for animal rehabilitation and adoption

As indicated previously, abandoned/abused/neglected domestic dogs will be brought back to health at the veterinary hospital and then housed in the rehabilitation section and rehabilitated through the expertise of an animal behaviourist. The rehabilitation of domestic dogs will ensure the welfare of abandoned/abused/neglected dogs whilst promoting animal welfare education as this aspect of the welfare centre will offer some exposure and levels of engagement to visitors of the welfare centre. Visitors will be able to view the dogs during their rehabilitation exercises, form a part of the rehabilitation exercises and simultaneously be exposed to their housing units.

Once a domestic dog is rehabilitated it can either be integrated into the AAA and AAT sections of the welfare centre (provided it is of a suitable temperament and there is space available) or will be placed in the pet adoption programme within the welfare centre or transferred to a suitable animal shelter.

2.2.3 Animal housing to facilitate AAA, AAT and animal welfare education

Domestic dogs that will be utilised as part of the AAA and AAT programmes provide the greatest opportunity for their housing to be explored and enhanced. This opportunity is afforded due to the fact that these dogs will be housed at the centre on a permanent basis and more importantly, because they are facilitating functions that are intensely based on human-animal interaction. This interactive nature and the exposure of the dogs within the centre will provide visible animal welfare education, engaging not only participants of AAA and AAT but simultaneously engaging general visitors of the centre, thus promoting the acknowledgement of the benefits of domestic animals in our communities.

With the primary aim of this project being the utilisation of architectural language and tools to enhance and form a critical part of a welfare service; the aspect of animal housing, in combination with the incorporation of a multifaceted operational functions setup, has taken on an interesting dynamic. The animal housing has deviated from the typical form it commonly takes on at animal shelters. Such a deviation has provided a distinct opportunity to aid in the animals' health and well-being and created unique opportunities to expose animal welfare education throughout the welfare centre.

This housing is visualised as an outdoor space that weaves through the centre providing an interactive element to buffer and link various spaces throughout the welfare centre. The space will essentially co-house dogs in one environment ensuring healthy interaction between the dogs and ensuring interaction between the dogs and visitors of the centre. This type of housing is completely distanced from the typical 'kennel' type housing and is visualised as a stimulating and varied environment, thus reducing stress and improving comfort for the dog.

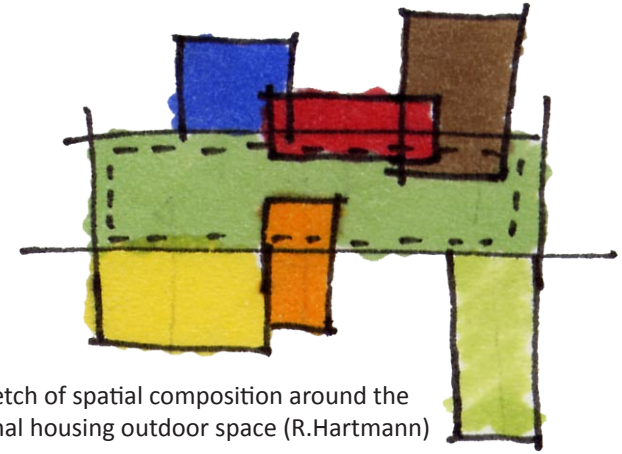


Figure 5 - Early sketch of spatial composition around the AAA and AAT animal housing outdoor space (R.Hartmann)

Case Study: Maddie's Pet Adoption Centre, San Francisco SPCA, USA

Maddie's Pet Adoption Centre forms part of the San Francisco SPCA and at the time of its construction, was the first animal shelter that pushed the envelope and started to cater for a multitude of functions. It is not only relevant from this aspect of multifunctionality but also through its attempts at shifting away from the typical animal housing found at most animal shelters. Founded in 1998, it took an existing warehouse and converted it into an animal shelter with a homelike environment for dogs and cats. Spread over three floors, the building houses cats on the top level, dog and cat housing on the main middle level and a Behaviour and Training Department on the lower level. Also on the lower level is a large space for public dog training classes, space for humane education and events. The animal housing is referred to as 'apartments' for the dogs and 'condos' for the cats of which both are decorated and furnished to resemble a homelike setting. The benefits of housing the animals in such a fashion are that stress levels on the animals, as well as visitors, are reduced significantly. Visitors to the centre are presented with an extremely comfortable environment for the animals which also enables them to engage with the animals, as each 'apartment' or 'condo' is accessible. This type of environment in shelter design has increased animal adoption rates and goes to prove the point that architectural innovations can aid and better facilitate service provision.



Figure 6 - An interactive interior street with comfortable dog 'apartments' on either side (Kennel Design: The Essential Guide to Creating Your Perfect Kennels n.d.)

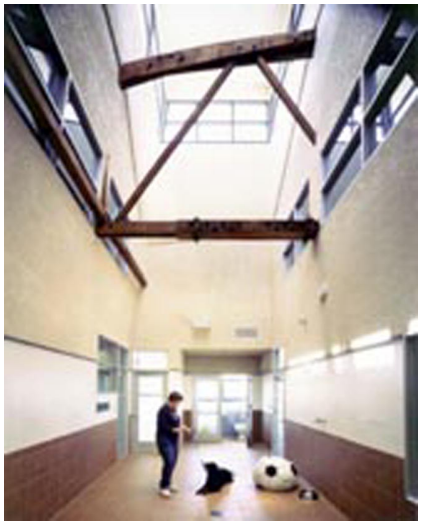


Figure 7 - A multi- function interior courtyard enabling potential adopters to engage with the animals (ARQ Architects: Technology focus n.d.)

'The canine apartments open onto multifunction interior courtyards where the dogs can socialise together in groups. In addition, these courtyard spaces between dog apartments provide a temporary home for the dogs while their apartment is being cleaned, or they are used to separate them so that a potential adopter can meet a particular dog, alone' (Kennel Design: The Essential Guide to Creating Your Perfect Kennels n.d.)

why?



Dare, a two-legged Sheltie dog used in therapy for disabled people gets therapy himself by swimming in a pool for 30 minutes in Denver, Colorado July 15, 2009. Dare was born with all four legs but his back left leg was bitten off and his left front leg was caught in a cage and broken in several places.

Now Dare visits amputee clinics, special needs schools and multiple scelerosis patients to inspire them and help them forget their problems. (Rick Wilking/Reuters)

2.3A Multi-Functional Approach Directed Through the Legitimate Use of Animals in AAA and AAT

Upon investigating the nature of animal abuse/neglect/abandonment in disadvantaged areas it became evident that a large portion of abuse/neglect/abandonment occurs as a result of a lack of animal welfare education being provided to these communities. As a result, such negative impacts on many animals are in actuality due to indirect abuse; abuse caused by an owner's/individual's negligence as to the value of an animal in society and the proper care it requires. With this dilemma clear, any approach to multifunctionality needed to be inherently linked back to the required provision of animal welfare education. This crucial educational aspect became the backbone for efforts to incorporate a composition of various functions into the welfare centre and in addition it narrowed down relevant possibilities.

What became clear is that the simplest and most effective way of directing animal welfare educational efforts within the centre, would simply be to ensure human-animal interaction. Such interaction within comfortable, controlled conditions could prove incredibly beneficial, not only for the animal, but at the same time, for the human participant (as this section aims to indicate). Interaction between humans and animals is crucially beneficial to the health and well-being of animals and gives way to a stimulating and varied environment for them.

According to a Director and Professor in Psychiatry, 'Pet dogs in a psychiatric residential setting provide a wide spectrum of helpful benefits to patients — uncritical affection, comfort, tactile resonance, the joys of energy release, the opportunity for responsibility, the bridge to relationships with fellow residents as well as outside neighbours' (Odendaal 2002, p. 69). Although the above quote refers to a psychiatric facility, the positive effects an animal can have on a human are applicable throughout a range of environments. The effects are largely therapeutic in their nature, be they in a controlled environment for therapy (AAT), or in a relaxed recreational environment providing human-animal interaction (AAA).

It is hoped that AAA will engage and aid in the social development of community members, where as AAT will provide inherent psychological benefits to a select group (substance abusers, victims of domestic violence, survivors of child rights violations, mentally and physically disabled, etc.), who are commonly under catered for within townships in South Africa.

2.3.1 Animal-Assisted Activities (AAA)

AAA can not only be viewed in its therapeutic nature but also in its ability, through human-animal interaction, to reinforce animal welfare education in participants. Typical types of activities making up AAA include visiting, grooming, walking, playing catch, etc. The basis behind these activities is that they involve direct recreational interaction with the animals. Where education can be introduced is through the interaction between the animals, participants and trained professionals (animal behaviourists, veterinary professionals, animal welfare education officers, etc.) or volunteers/AAA facilitators. Furthermore, educational efforts can be more focussed and take place in a classroom type environment with individuals or groups of people; essentially taking the AAA a step further and specialising its application through directing it at students within a classroom environment. AAA is seen as the focal point for animal welfare education initiatives within the centre and also forms an integral part of animal welfare education initiatives out of the centre (at schools and crèches), where educational programmes can be performed.

Where AAT is specifically driven towards therapeutic treatment, AAA is primarily recreational/educational in nature and allows a more open-ended level of engagement between human and animal. AAA has the inherent ability of being the formative and all encompassing link with the community in which my thesis project is placed.

Due to its unrestricted nature, the aspect of AAA provides increased impetus for the dissolution of multifunctionality. For example, a small after-school area formulated around AAA could engage surrounding school children through the implementation of elements such as a living classroom, whereby suitable small domestic animals form part of the classroom environment. The PAL (People.Animals.Love n.d.) programme in the USA states that, 'Participants benefit from the hands-on contact with the animals and learn nurturing behaviours through the care and feeding of the "pocket pets"'. As stated previously, it is the child that is most susceptible to the negative influences of social-toxicity, as he/she develops and engages with his/her environment and tries to make sense of it (environmental psychology). With this in mind, and backed up by the type of environment my thesis is placed within (township), children form a large target group for the implementation of AAA.

'The pet is a powerful tool for more fruitful teaching. When a child is confronted with a living object, his interest and attention are captured. Learning becomes reality-oriented, giving the child emotionally satisfying experiences' (Levinson and Mallon 1997, p. 110).

Other aspects will be investigated during the design process, such as the possible creation of a family-type environment that takes advantage of the benefits of AAA. Thus not only inducing the mental and physiological benefits of human-animal interaction but using this interaction to promote and enhance the family relationship. 'Mental health is, in a sense, indivisible, and anything that strengthens the mental health of the individual strengthens the mental health of the family and ipso facto also of the community' (Levinson & Mallon 1997, p. 122). Essentially, AAA in their recreational nature, create interesting avenues within which community involvement and the human-animal bond can be explored and implemented in this thesis.

2.3.2 Animal-Assisted Therapy (AAT)

The earliest documented use of animals for therapy was at the Air Force Convalescent Centre, New York, in 1942. 'K-9' dogs were used in the rehabilitation of airmen, specifically aimed at bringing them out of deep depression. To date, the most influential work on the potential value of animals to human health has been by Dr. Levinson and the Corsons, inspiring the subsequent worldwide use of animals in a variety of therapeutic environments with children, adults and the elderly. Within South Africa, the late Prof. Odendaal is considered as the leader in research regarding the role of the pet in human-animal relationships. He not only stressed the importance of animals for therapy but also for ordinary relationships in a person's daily environment.

AAT is a form of therapy, directed at a specific audience (mentally & physically disabled, substance abusers, victims of domestic violence, survivors of child rights violations, at-risk youths, elderly, etc.), whereby a therapist legitimately utilises an animal as part of a directed therapeutic process. In the case of applying AAT to children with special needs, 'it can change behaviour, create a sense of responsibility and even improve a child's ability to participate in therapeutic treatment leading to achievement in relation to identified goals and objectives. Children are often extremely trusting and easily achieve a level of intimacy with animals. This special bond contributes to pets' effectiveness as co-therapists' (Oakley & Bardin n.d.). The underpinnings of AAT are similar to that of AAA, however, AAT involves a more goal oriented form of human-animal interaction. Where AAA are using the positive effects of human-animal interaction on a recreational level, AAT, through its specificity, is used on a more prescribed and professional therapeutic level. It utilises the fact that animals provide unconditional love and are non-judgemental; they do not criticise and pay no attention to disabilities or psychological issues. Doctor Levinson has even go so far as to report on the value of pets as catalysts to human interaction.

In the case of children, therapists often find it extremely difficult to analyse a child's behaviour due to the fact that a child will tend to hide within him/herself. The therapist is seen as an unknown individual who's relation to the child is to study the child's behaviour. The nature of this relationship causes the child to, at first stages of the therapy, keep his/her guard up. For this reason, methods of therapy for children have begun to incorporate play. 'When a child's attention is captured by a play object he temporarily forgets his fears of the therapist and relaxes. The child is less likely to sensor his replies or disguise his feelings' (Levinson & Mallon 1997, p. 45). In AAT the inanimate toys that facilitate play are replaced, or used in combination with, a living playmate: the pet. With the child distracted from the work of the therapist, he/she becomes completely engaged with the animal and it is through these engagements that the therapist is aided in deducing and resolving issues the child may have. For example, in work with his pet dog Jingles, Doctor Levinson states that, 'A child who perceives my dog Jingles as an aggressive animal or one who misperceives the dogs stance as threatening, may do so because the child feels
aggressive tendencies stirring within himself which he finds difficult to control. It may also indicate that the child perceives the world as a dangerous place' (Levinson & Mallon 1997, p. 46).

The application of AAT is useful for children through to adult patients and in all cases it is through the use of human-animal interaction that therapists are able to obtain swifter and keener insights into patients. 'Pets do and can provide for the therapist who has become alerted to and sophisticated with the value of these tools, a vital source of clues and insights into personality disturbances. What is even more startling is the way in which the changes in a patient's relationship to a pet generally coincide with an increasing ability to handle his other problems' (Levinson & Mallon 1997, p. 57).

The specific relevance of AAT to this thesis is in its ability to provide a varied form of therapy to a population living in an environment of considerable hardship to what many are commonly exposed to. It forms an element of multifunctionality, places emphasis on human-animal interaction and utilises this interaction for the benefit of individuals succumbing to the pressures of their social environment, individuals harmed by others within their social environment, or those living with a disability. The following chapter indicates how AAT is a critical component of my thesis for resolving some form of rehabilitative dialogue with not only the surrounding community, but also with the social service operations existent within that community.

2.4 The Nature of the Township Environment and its Inter-related Social Conditions

One could argue that animal abuse, neglect and abandonment occurs in wealthy suburbs just as it does in disadvantaged townships. This is true, but the following section argues for the explicit relevance of the township environment to this thesis and gives indication of how the elementary idea of an animal shelter has developed into a topic inherently more comprehensive, primarily in response to social conditions intrinsically rooted in the township. The social dynamics of the township have inspired this shift, creating the requirement to address the welfare of both animals and *humans*.



Figure 8 - Children and domestic animals in New Brighton, Port Elizabeth (Deckler et al. 2006)



Figure 9 - Lady walking her pet dog in Katlehong township, south-east of Johannesburg (R.Hartmann)

2.4.1 Domestic Animals in Townships

With the environment of the township being largely dominated by poverty and unemployment, one would be hard pressed to believe that animals/ pets are common. The existence of animal welfare organisations such as Township Animal Rescue, Pet Empowerment in Townships (PETS) and African Tails is testimony to the fact that there is a definite need for animal aid and rescue in townships; hence supporting the fact that there are numbers of domestic animals in townships. Similarly, there is the common misconception that underprivileged people in townships should not own pets or that it is not in their capacity to look after pets. The existence of rescue organisations, such as those mentioned above, could support this statement; however, there is validity in the word 'misconception'.

Where animal abuse/abandonment/neglect are evident in townships, it is predominantly due to a lack of animal welfare education on the importance of animals in society and the care they require. A lack of animal welfare education in townships has resulted in the Animal Rescue Organisation (ARO) stating that, 'We have found that within poverty stricken communities, the general attitude towards animals is ambivalent with a general worthlessness being attached to them' (Animal Rescue Organisation n.d.). With that said, the argument over the health and well-being of animals in townships is twofold; some of the people love animals but are not educated on the proper care they require, while others, due to a combination of reasons (social issues, personality issues, lack of animal welfare education, etc.), simply disregard animals. Being particularly ambivalent towards animals *could* result in an individual being more likely of perpetrating acts of abuse/neglect/abandonment against animals.

A particular example of the pride some township folk take in their pets is presented in the Township Dog Show (in it's sixth year in 2009). During April 2009 it took place at Mpophomeni Township near Howick in the KwaZulu-Natal Midlands.

Entrants pay R5.00 to enter their pets; a fee which includes a health check, de-worming, vaccinations and dipping by the Umngeni SPCA. Once an entrants' dog has been through the clinic, he/she receives a new collar and lead before entering the show. 2008 Brought 120 dogs and their owners to the dog show while that figure rose to 286 dogs in 2009!

According to SPCA volunteer and Township Dog Show founder, Adrienne Olivier, 'The general impression is that dogs in townships are uncared for, unloved and allowed to run wild; that black people don't love their dogs and that is simply untrue' (Tolsi 2008).



Figure 10 - Nonhlanhla Ndlovu with her 'Best in Show' dog, Happy, at the 2009 uMngeni SPCA/Hill's Township Dog Show; taking home her prize of a dog kennel and Hill's dog food (Mutts strut their stuff at biggest ever Township Dog Show 2009).

2.4.2 Animal Care and Welfare Education in Townships

Permanent animal care facilities are the minority in townships within South Africa. The predominant form of animal care and welfare education occurs through the work of animal welfare organisations operating mobile clinics in underprivileged areas. The Society for Animals in Distress (SAID) is one example. They operate from premises outside the township areas but have mobile units that visit townships to the North of Johannesburg, on a daily basis. These units provide primary veterinary care (sterilisations, vaccinations, etc.) to those who cannot afford it. Sterilising the animals is intensely important to the welfare of animals in townships as it halts over breeding and hence minimises the number of unwanted and abandoned animals. Whilst providing veterinary care, SAID's mobile units simultaneously educate pet owners on the proper care (shelter, fresh water, food, exercise, etc.) their pet requires. To ensure the lessons taught are implemented, SAID's mobile units always do follow-up visits, once again checking the health of the animal and that the owner is providing the pet with an adequate standard of living.

To further the educational aspect of their work, SAID employ Education Officers who provide animal welfare education programmes to schools in and around the townships they serve.
The education programmes utilise various teaching mediums but none more critical than the inclusion of animals to teach, through human-animal interaction.



Figure 11 - Some of SAID's mobile unit workers providing a township pet with dog food after having given the dog vaccinations and educated the pet owner on animal care (R.Hartmann).

One of the rare permanent animal care facilities in South African townships is based in Khayelitsha, near Cape Town. The Mzananda Animal Clinic was founded in 1996 and is the only permanent facility providing primary veterinary health care services to the million plus population who live in Khayelitsha. The clinic provides free sterilisations (critical to stopping over breeding) and low-cost or free treatments such as dipping, de-worming and vaccinations of dogs and cats and on weekday afternoons they perform mobile outreach clinics. The mobile outreach clinics are provided to the outlying communities of Khayelitsha who cannot reach the clinic themselves. These outreach clinics operate on a roster basis ensuring communities are aware of when to expect the Mzananda mobile clinic staff. They visit pet owners to educate them on animal care and provide health care services with specific emphasis on sterilisations.

2.4.3 The Township Environment

Township areas fall into the category of 'exclusion by design' (largely as a result of the Apartheid era). In part, it is through the nature of their design and their location in relation to the larger urban fabric, that townships in South Africa have become predominantly socially-toxic environments. Social-toxicity is characterised by poverty and crime, high levels of unemployment, social frustration, alienation and decaying infrastructure. If one investigates the occurrence of social-toxicity in townships, much of the basis for the development of these social issues is inherently linked to the design of the township and its relationship, or lack thereof, with the surrounding urban fabric....



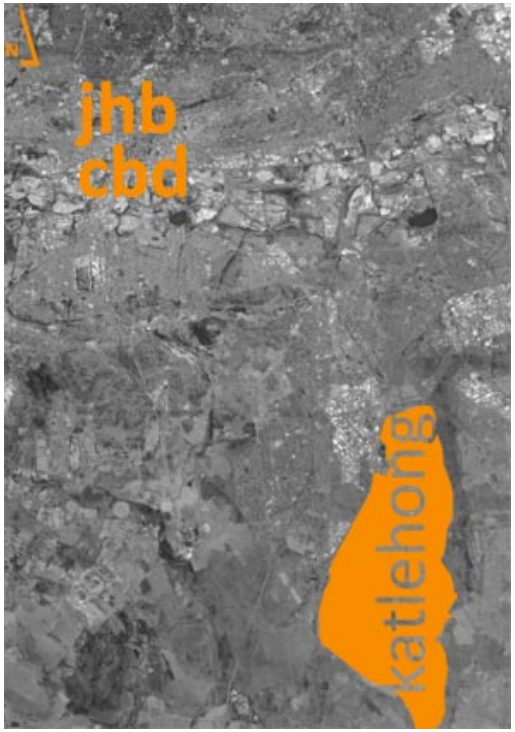


Figure 12 - Google Earth/R.Hartmann

'South African cities have inherited a dysfunctional urban environment with skewed settlement patterns, which are functionally inefficient, and costly, huge service infrastructure backlogs in historically underdeveloped areas and large spatial separations and disparities between towns and townships.' (Training for Township Renewal Initiative n.d.).

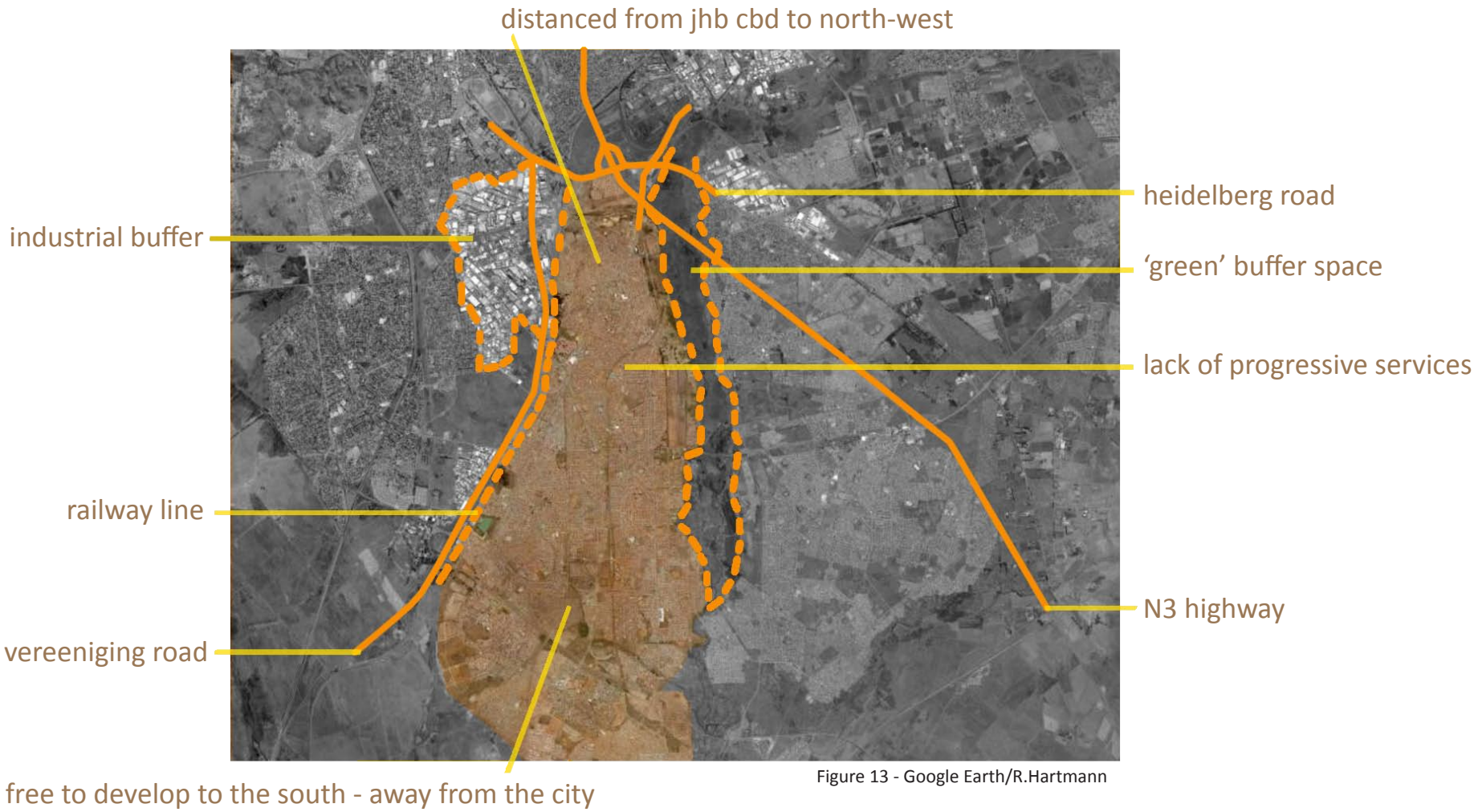


Figure 13 - Google Earth/R.Hartmann

The above image is an aerial photograph of Katlehong Township (highlighted) to the South-East of Johannesburg, with overlaid aspects indicating some elements of 'exclusion by design'. It is through an understanding of Katlehong's design that the evolution of social issues, predominating the township environment, become evident. Essentially the fact that Katlehong was designed by exclusion has setup the parameters through which socially toxic conditions can flourish. I use Katlehong as an example; however, the issues discussed are generally applicable to other townships within South Africa.

Four critical elements reinforcing 'exclusion by design' are discussed below:

2.4.3.1 Buffering
2.4.3.2 Fragmentation
2.4.3.3 Access
2.4.3.4 Infrastructure

2.4.3.1 Buffering

As I have indicated in Figure 13, the designers of Katlehong have clearly made use of various geographical and urban elements to buffer the township from surrounding areas. Katlehong is buffered to the west by Vereeniging Road, a railway and an industrial area; to the North by the N3 Highway and Heidelberg Road and to the east by a large green space running north to south. The combination of these buffer elements formulated a set of boundaries, essentially implemented to contain and exclude a once segregated race. However, the containing is not merely of a population of people, but also of their social, economic, and cultural development. Buffering, fragmentation and limited access were the physical implementations enforcing segregation. What is interesting about the nature of the buffering elements and their relation to the Johannesburg Central Business District (CBD), is that they are arranged leaving the southern edge of Katlehong open. The township is free to develop to the south; in the opposite direction from the city to the north-west.

2.4.3.2 Access

Katlehong's location, with the N3 Highway junction (off-ramps and on-ramps) to the north, created a focal point for access to the township. Buffering elements to the west and east minimised opportunity for access points to develop and so reinforced the N3 Highway junction to the north, as access. The few access points that were used, essentially induced an environment of control over people living in townships like Katlehong.

What is interesting about the location of the N3 Highway junction to the north of Katlehong, is that it reinforced the seclusion of inhabitants even when out of the township environment, in that upon leaving the township they were immediately on a highway system; no driving through suburbs or areas of positive social and economic development. Simply put, point-to-point travel from Katlehong to a specific destination was emphasised.

2.4.3.3 Fragmentation

Katlehong, as with most townships of the apartheid era, was located on the periphery of the city. Distancing Katlehong from the city and designing the township along exclusionary ideals, created an area spatially marginalised from social and economic opportunities. Creating a fragmented relationship between Katlehong and the city, where the opportunities were, induced higher living costs for the poor as they had to travel greater distances to the city.

2.4.3.4 Infrastructure

Living in an environment distanced from the city and buffered from surrounding areas, inhabitants of townships like Katlehong were, to some extent, forced to utilise infrastructure provided within the township. Social and economic infrastructural elements provided in townships were elementary and inspired little impetus for development.

The combination of these and other exclusionary aspects in the design of Katlehong, created a framework for a built environment to develop. However, the nature of this particular framework was largely based on restrictive ideals and hence has played a pivotal role in the evolution of the poor social ability of Katlehong to provide for its inhabitants. The township environment is predominated by unemployment and poverty, where internal economic opportunities are restricted as such an environment is not inviting for private capital, leaving many townships trapped in an under-development lock-in.

According to the URP (Urban Renewal Programme) Implementation Framework, there are three core outcomes or external objectives that the development of areas such as townships must strive for:

i. Integration into the city: sociopolitical integration, economic integration, and spatial integration
ii. Enhancing the autonomy of the areas: improving intra-area access to services, information and infrastructure
iii. Enhancing human and social capital: focussing on crime, violence, education, skills, local economies and capacities of local institutions

(Training for Township Renewal Initiative n.d.)

The implementation of a welfare centre for animals and humans, programmed in the way I have, sets out to address items (i), (ii) and (iii) as stipulated by the URP Implementation Framework. Although there are development initiatives aimed at improving the social conditions within townships; rectifying the influences of how townships were designed and the effects this has had on inhabitants is definitely not a simple process, but something that over time and through various social, economic and cultural interventions, can be achieved.

What is distinctly evident is how exclusion by design has devalued the social capacities of a large population of people. Being distanced from opportunities, having minimal access to services, living in an environment predominated by poverty , unemployment and a low level of education and skills, induces a negative psychological stigma on it's inhabitants; particularly dominated by a sense of a lack of control (powerlessness) over one's life and environment. It is this lack of control over one's self and environment that facilitates the dissolution, through sheer desperation, of an individual's moral and ethical standpoint, to the point where violence (animal abuse, domestic violence, murder, rape, etc.) and crime become 'realistic' attempts at gaining a sense of control. 'So violence, or the threat of violence, gives learners a real sense of power in their schools and communities' (CSVR 1994). 'This mind-set (or culture) then feeds into the violence cycle already bred by domestic violence and aggravated by factors like high rates of unemployment, family disruption, and substance abuse' (Matthews et al. 1999).

As has been stated earlier in this essay, children living in townships are most susceptible to the negative influences of social-toxicity and hence form a large focal point for the implementation of this thesis project. Children, like animals in townships, are to some extent powerless entities and are inherently a product of the social environment with which they interact. A critical determining factor in the healthy development of a child is the level of supervision they attain from parents or role models. A study on township youth and the impact of poverty on morality resolved that, '…..these township youth frequently fail to reflect, yet given caring adult intervention, they do so with enthusiasm. Sadly, in impoverished contexts, adult supervision, both at home and at school are in short supply. Furthermore, poverty results in a multitude of physical and psychological sequelae, many of which make it difficult to make moral judgments and act on them' (The Youth Institute n.d.).

A study by the Independent Projects Trust (IPT) in 1999 looked at the issues surrounding youth violence and the relevance of interventions aimed at enhancing their resilience to becoming involved in acts of violence. The study identified and quantified risk factors which are inherently influential in the likelihood of criminal behaviour or victimisation. 'The longer the exposure, the greater the likelihood of criminality. Research shows that risk factors multiply their effects rather than simply accumulating' (Matthews et al. 1999). In supporting my argument on the ability of a built environment to induce, promote, or demote various social conditions and the ability of these social conditions to influence an individual's behaviour, particularly criminal and violent behaviour, the following risk factors are listed and reinforced by a reference from the IPT study:

2.4.4.1 Poverty

'The National Crime Prevention Council of Canada (1995) argues that poverty is not so much the problem as the fact that poverty brings with it a host of associated risk factors: poor nutrition, increased familial stress, higher risk of domestic abuse, lack of access to learning resources i.e. poor schooling, poor parenting, harsh erratic discipline, criminal or alcoholic parents, drug abuse, violence, and neglect' (Matthews et al. 1999).

2.4.4.2 Age

'Although most researchers agree that youth commit the majority of crimes, there is some uncertainty about the age range most at risk and some researchers argue that adolescence itself is a risk' (Matthews et al. 1999).

2.4.4.3 Sex and Gender

'Many studies link peer pressure and the need for some power and status among peers as a major cause of youth crime (Segal 1999). The male need to be seen as brave, doing stuff with your friends, and having the 'right' girlfriend can lead to criminal incidents. This is true for all South African boys but is aggravated by township conditions where poverty and deprivation make feelings of self-esteem and power among peers difficult to achieve' (Matthews et al. 1999).

2.4.4.4 Location

'The inability to offer a decent family life is widely offered as a key reason for violence in townships and informal settlements. The impermanence of illegal squatting, poverty, the lack of facilities, and violence so burdened family lives that it appeared almost impossible to properly nurture and socialise children in a healthy and satisfying way (McKendrick 1991)' (Matthews et al. 1999).

2.4.4.5 Victimisation

'Both international and South African studies show that a history of victimisation is a key risk factor for those who become perpetrators. Often the perpetrator was a victim of crime and abuse from an early age (Children's Safety Network 1996; Segal 1999; Wolmaranns, Seef and Jacobz 1994) and particularly in the family environment (Wolmaranns, Seef and Jacobz 1994)' (Matthews et al. 1999).

2.4.4.6 Families

'Broken homes and dysfunctional families are two of the most commonly identified social factors in turning youth to crime (Segal 1999; Wolmaranns, Seef, and Jacobz 1994). Lauren Segal (1999) rates a dysfunctional family life as being the most important factor in producing criminality. Youth perpetrators often have family backgrounds in which they were abused, emotionally and physically neglected or removed from their primary families for some reason or even abandoned to become street children' (Matthews et al. 1999).

2.4.4.7 School Performance and Drop-outs

'Crime Concern (1995) "The Prevention of Criminality" a briefing paper for crime prevention partnerships states that pupils, especially boys, who under perform or fail at school are more likely to become involved in delinquent behaviour than those who succeed. Wolmaranns, Seef and Jacobz (1994) concur that perpetrators of violence are often drop-outs or those with poor academic records' (Matthews et al. 1999).

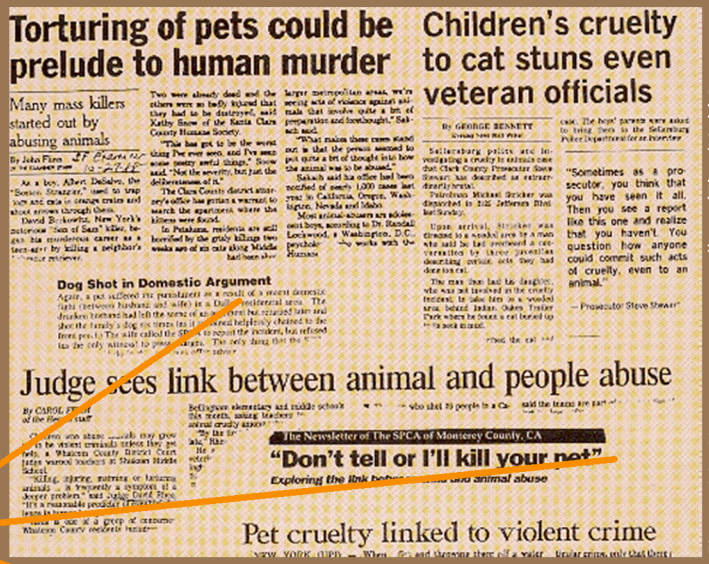
2.4.4.8 Substance Abuse

'Drug and alcohol abuse are widely identified as a source of increased crime and violence among youth (Children's Safety Network, 1996; National Youth Commission 1997; Daily News 1999). Drugs are intrinsically connected to violent crime owing to conflicts over drug sales, drug usage and changes in behaviour. Rape, murder, sexual assault occurred mainly over holiday periods and at weekends when drug usage is also high' (Matthews et al. 1999).

In response to the township environment and its inherent associated risk factors (socially toxic conditions), the architectural response must provide and facilitate resilience factors (factors that can help ensure a child does not become a victim or perpetrator). Resilience factors are addressed by promoting family relationships (nurturing, accepting and sensitive), promoting a child's individual characteristics and expression (self esteem, confidence, optimism, socialising, compassion, etc.), supporting social adjustment and interpersonal skills through role models and mentors and promoting and supporting emotional well-being (tell right from wrong, in touch with feelings, etc.). 'Many of the factors of resilience would appear to be innate or a matter of luck such as having good parents. However, well functioning schools and other social institutions can help create a form of social cohesion that prevent youth from becoming involved in self-destructive activities like crime and drug abuse' (Dawes and Donald 1999).

What is also evident about the risk factors is their interdependence and the ability of one risk factor to influence the occurrence of another. The nature of the risk factors begins to imply the need for coordination between various services, ensuring issues are not dealt with in isolation from others, and hence the need for a service to be multifaceted.
In response to this, Matthews et al. (1999) states that,

'future interventions should build on existing efforts rather than replicate work already done'.



Torturing of pets could be prelude to human murder

Many mass killers started out by abusing animals

Children's cruelty to cat stuns even veteran officials

Dog Shot in Domestic Argument

Judge sees link between animal and people abuse

The Newsletter of The SPCA of Monterey County, CA

"Don't tell or I'll kill your pet"

Exploring the link between child and animal abuse

Pet cruelty linked to violent crime

Figure 14 - Newspaper story collage (The 'Link' Between Animal Abuse, Domestic Violence, and Child Abuse n.d.)

b2.5The Links between Child Abuse, Domestic Violence and Animal Abuse

The issues discussed in the previous section contextualise the investigation of this thesis and inform any approach at creating a sensitised architectural response. However, to further inform this thesis, the links between child abuse, domestic violence and animal abuse must be discussed. 'At the level of the individual, since 1987 (American Psychiatric Association 1987, 1994), the psychiatric and psychological communities have considered physical cruelty to animals as symptomatic of antisocial mental disorder in youth and adults' (Ascione and Arkow 1999, p. 52).

The links between child abuse, domestic violence and animal abuse are becoming more evident as many social service organisations are beginning to treat animal abuse as a warning sign for possible future violent behaviour within the family and/or society. If these links are evident in a variety of social environments around the world, then within the township environment, with its associated social instabilities, these links should most definitely be heeded.

'There is ample evidence to suggest that individuals who engage in acts of animal cruelty have a greater probability of committing acts of violence against people as compared to individuals who have no history of committing acts of violence against animals. Early evidence that supports this correlation has come from single anecdotal case histories of serial and mass murderers. Such criminals include Albert DeSalvo, also known as the "Boston Strangler", who in his youth trapped dogs and cats in crates and shot arrows at them through the boxes; Ted Bundy, who was executed in 1989, spent much of his childhood torturing animals; and, serial killer Jeffrey Dahmer impaled frogs and staked cats to trees in his backyard during his youth' (Ascione and Arkow 1999, p. 64).

One example which indicates the extent to which domestic violence can be critically detrimental to an individual is presented in the case of Francine Hughes. Upon marrying Mickey Hughes in 1963 she was practically immediately a victim of abuse (domestic violence).

Once the abuse began it continued for 14 years and through 4 pregnancies; from slapping through to kicking, burning, choking and stalking, his abuse of her would occur whether he was drinking or not (substance abuse). Mickey was extremely controlling over Francine, threatening to kill her if she dared try leaving him, all the while forcing her to eat off the floor, kicking their baby and locking the dog out of the house so it froze to death (animal abuse).

In this particular case Mickey had refused to allow his family to help their pet dog, Lady, while she was giving birth, leaving her alone outside in the cold until she eventually died. In another instance Mickey had openly killed their pet cat in front of their one daughter, Nicky: "A moment later Francine heard Nicky scream….'Nicky was crying so hard she couldn't talk. I'd never heard a child cry like that. I…..held her in my arms until she calmed down enough to tell me what had happened. Mickey had warned her that if he found the cat on the porch he'd wring its neck. When he caught her with it the second time he took it out of her arms and just broke its neck in his two hands'" (McNulty 1989, p. 165).

The abuse of the family, pets and incessant abuse of Francine finally drove her off the edge: 'In March 1977, Francine returned home from the business school she was attending and put a TV dinner in the oven for her husband. That night, apparently furious at the idea that school might be more important to her than serving him, Mickey threw the dinner on the floor, forced Francine to clean it up, and then slapped and kicked her. Next he ordered her to put her textbook and school notes into the trash can and burn them, which she did. He told her she would quit school. She argued, and he beat her again. Later, her daughter called the police, and Mickey threatened Francine in their presence. After the police left, she told her four children to wait in the car, retrieved a gasoline can from their garage, returned to the house, entered the bedroom where Mickey was sleeping, poured the fluid on and around the bed, and set the fire that burned the house to the ground, killing Mickey.

Then she drove to the Ingham County sheriff's office and confessed' (Stark 2007). Francine was later acquitted on the grounds of temporary insanity in that this definite act in resisting Mickey's abuse was inherently contrasting to her years of submissiveness.

This case serves as a clear example of the relation of animal abuse to domestic violence and how in both instances the abuse was a means of enforcing control/power. Furthermore, although not documented, one would believe the exposure of their children to the abuse would have been incredibly detrimental to their healthy development.

It must be noted that childhood acts of animal cruelty may not necessarily lead to future violent behaviour; however, much of this is reliant on the influence of a parental figure or role model in making the child aware of the consequences of their behaviour and aiding in the development of empathy and compassion for animals. Similarly, the ability of a social environment to provide for healthy childhood development is critically important.

Much of the composition of childhood development is then a product of the nature of the family environment and the nature of the immediate social environment. If one of these elements is lacking then it is required of the other to provide some level of support to healthy childhood development. The nature of the social environment is not only relevant in providing healthy development of the child, but also in maintaining the healthy psychological makeup of adults too, as the pressures imposed on adults could permeate into various negative responses (domestic violence, substance abuse, child abuse, animal abuse, etc.).

If deficiencies are evident in a social environment then increased focus should be placed on the provision of social services within that environment. What is critical in addressing issues surrounding the links between child abuse, domestic violence and animal abuse is that the provision of a welfare service should be formed based on collaborative aspects with other welfare services (i.e. a centre for the welfare of humans and animals, with the knowledge of the inter-related social conditions and the relationship between child abuse, domestic violence and animal abuse, must in some way collaborate with SAPS, trauma centres, People Against Women Abuse (POWA), Childline offices and other relevant services or organisations).

'Some of us, however, recognise that the foundation for child protection is childhood protection, because child maltreatment is at least in part a social indictor, that is, an indicator of deficiencies in the supportive quality of the social environment' (Ascione and Arkow 1999, p. 12).

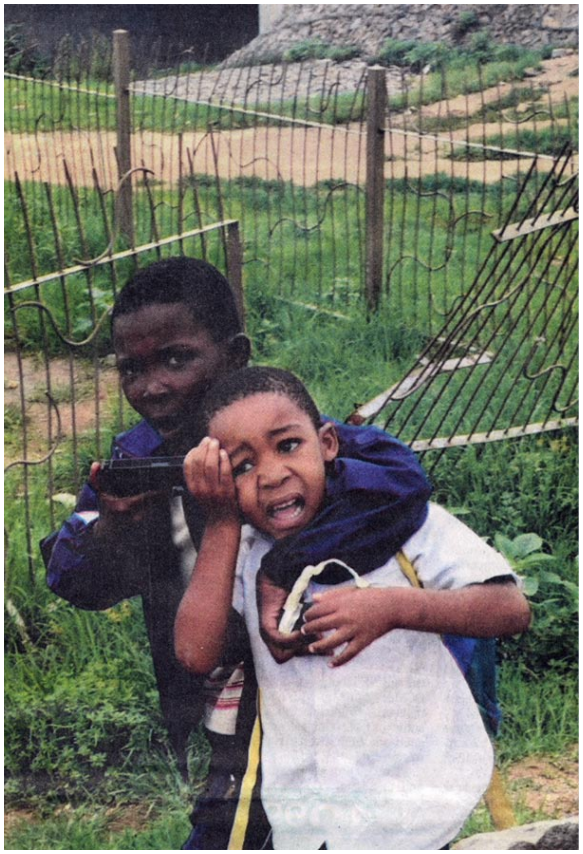


Figure 14 - 'Playing a dangerous game: Over the past few years toy guns have changed from the cap guns that bore no resemblance to the real item to highly realistic guns that are modelled after the weapons carried by police and the army. So, it is no surprise to see that children in our townships have adapted their games to resemble scenes from the daily life that they most probably experience in places like Alexandra township' (Robinson 2009).

Then she drove to the Ingham County sheriff's office and confessed' (Stark 2007). Francine was later acquitted on the grounds of temporary insanity in that this definite act in resisting Mickey's abuse was inherently contrasting to her years of submissiveness.

This case serves as a clear example of the relation of animal abuse to domestic violence and how in both instances the abuse was a means of enforcing control/power. Furthermore, although not documented, one would believe the exposure of their children to the abuse would have been incredibly detrimental to their healthy development.

It must be noted that childhood acts of animal cruelty may not necessarily lead to future violent behaviour; however, much of this is reliant on the influence of a parental figure or role model in making the child aware of the consequences of their behaviour and aiding in the development of empathy and compassion for animals. Similarly, the ability of a social environment to provide for healthy childhood development is critically important.

Much of the composition of childhood development is then a product of the nature of the family environment and the nature of the immediate social environment. If one of these elements is lacking then it is required of the other to provide some level of support to healthy childhood development. The nature of the social environment is not only relevant in providing healthy development of the child, but also in maintaining the healthy psychological makeup of adults too, as the pressures imposed on adults could permeate into various negative responses (domestic violence, substance abuse, child abuse, animal abuse, etc.).

If deficiencies are evident in a social environment then increased focus should be placed on the provision of social services within that environment. What is critical in addressing issues surrounding the links between child abuse, domestic violence and animal abuse is that the provision of a welfare service should be formed based on collaborative aspects with other welfare services (i.e. a centre for the welfare of humans and animals, with the knowledge of the inter-related social conditions and the relationship between child abuse, domestic violence and animal abuse, must in some way collaborate with SAPS, trauma centres, People Against Women Abuse (POWA), Childline offices and other relevant services or organisations).

'Some of us, however, recognise that the foundation for child protection is childhood protection, because child maltreatment is at least in part a social indictor, that is, an indicator of deficiencies in the supportive quality of the social environment' (Ascione and Arkow 1999, p. 12).

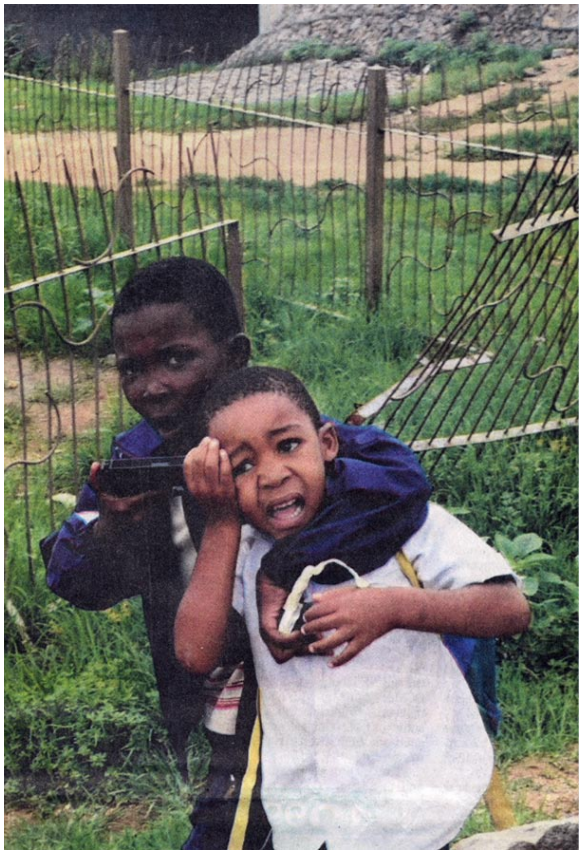


Figure 14 - 'Playing a dangerous game: Over the past few years toy guns have changed from the cap guns that bore no resemblance to the real item to highly realistic guns that are modelled after the weapons carried by police and the army. So, it is no surprise to see that children in our townships have adapted their games to resemble scenes from the daily life that they most probably experience in places like Alexandra township' (Robinson 2009).

The objectives I have identified and elaborated on provide the theoretical grounding for this architectural thesis. The information gathered in this theoretical study has begun to direct and focus an architectural response, primarily through the application of 3 keywords which have been extrapolated from theoretical interpretations:

SYNERGY - MEDIATE - COGNITION

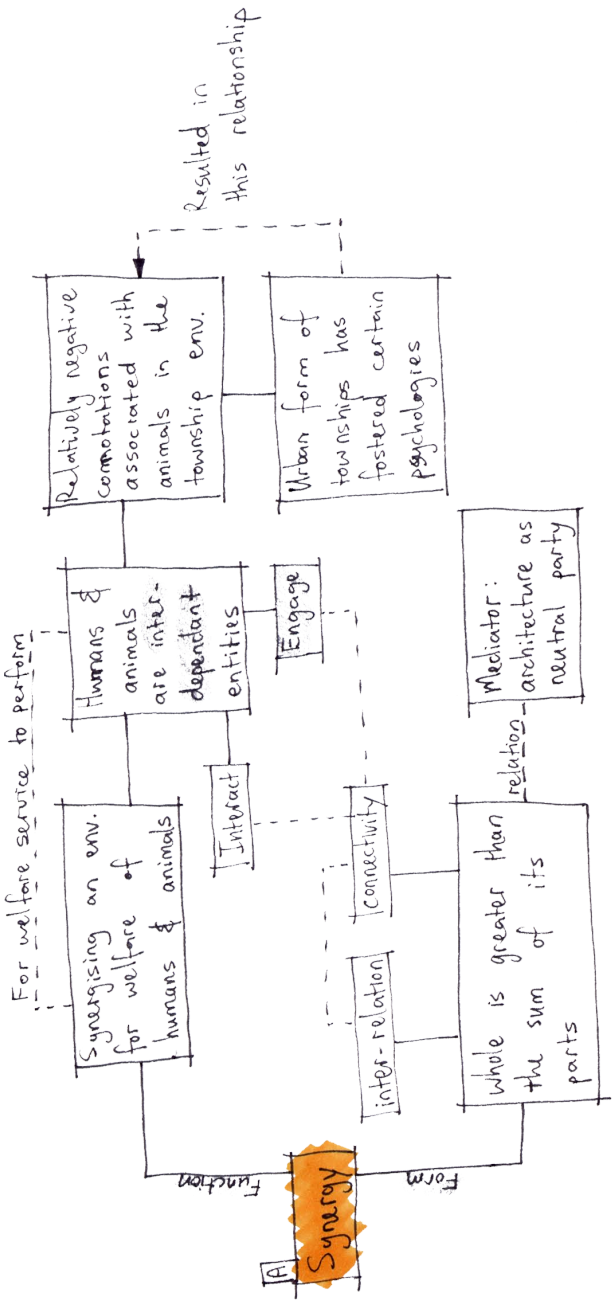


Figure 15 - Sketched diagram of the theme Synergy (R.Hartmann 22.04.2009)

3.1 Synergy

Simply defined, synergy is, 'the interaction of two or more agents or forces so that their combined effect is greater than the sum of their individual effects' (Answers.com). Through investigation into township social conditions (2.4.3 The Township Environment) it became apparent that no one social condition operates in isolation from another; there are synergistic attributes to the way social conditions operate and influence people (interaction/cooperation). This synergistic disposition is not confined to the township environment and is evident in many social environments; however, what sets townships apart is the extreme prevalence of socially toxic conditions (poverty, unemployment, violence, crime, etc.). It is this synergistic disposition that essentially exacerbates various social conditions (e.g. , the implications of being unemployed and living in poverty can perpetuate the ability of an individual to become involved in substance abuse, gangs, violence and crime; similarly a person who commits acts of direct animal abuse may become desensitised to acts of violence and commit inter-personal violence (child abuse, domestic violence, etc.)).

The identification and elaboration of predominant social conditions inherent in townships has informed the use of the word 'synergy' and established its application as a theme behind the architectural methodology of this project.

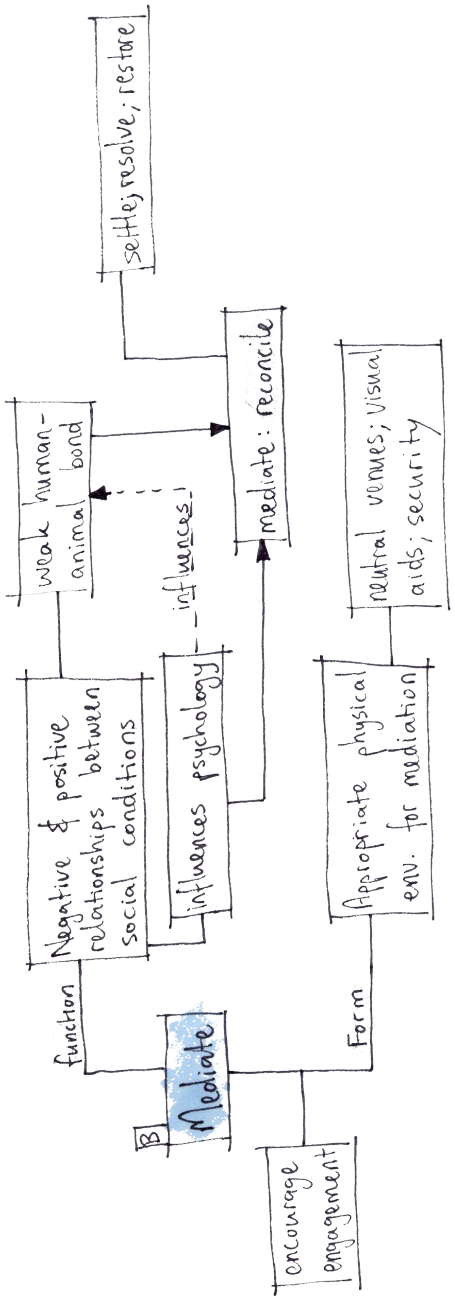


Figure 16 - Sketched diagram of the theme Mediate
(R.Hartmann 22.04.2009)

3.2 Mediation

Mediation is essentially a method of dispute resolution between parties, through the involvement of an intermediary. Sections 2.4.1 and 2.4.2 give indication of the undermined relationship between domestic animals and humans living in townships and the resultant common misunderstanding of domestic animals. In order to dissolve this misunderstanding, I aim to emphasise human-animal interaction through intuitive architectural resolution. Hence, I am utilising architectural tools and language to mediate a healthy connection between these two 'generally' conflicting entities - humans and animals. In a metaphorical sense the architecture takes on the role of the intermediary in supporting the resolution of the conflicting parties, namely humans and domestic animals; whilst the identified programme serves to reinforce such resolution.

With the links between child abuse, domestic violence and animal abuse having been discussed in section 2.5, the aspect of mediation is then expanded to that of between perpetrator and victim. The welfare centre may be well attuned to aid victims of domestic violence and child abuse, but the architecture must also afford the aid of the perpetrator. Having therapeutic functions available to both victim and perpetrator provides insight into the necessity of careful spatial resolution.

Another aspect where 'mediation' can be applied, is in the relationship between a socially toxic environment and the individual. Socially toxic environments harbour adverse conditions to an individual's healthy social development. The programme of the proposed centre (specifically AAA and AAT) is a mediatory attempt at aiding an individual's development within a socially toxic environment, but, the architecture must also perform a mediatory role in this sense: a built form of positive development that the individual can associate with and be aware of, and more so, this built form as an inspiration for the emergence of future positive development in the township. Furthermore, the architectural response will incorporate the associated themes of mediation such as: neutrality, security, interaction, communication, facilitation and visual aid.

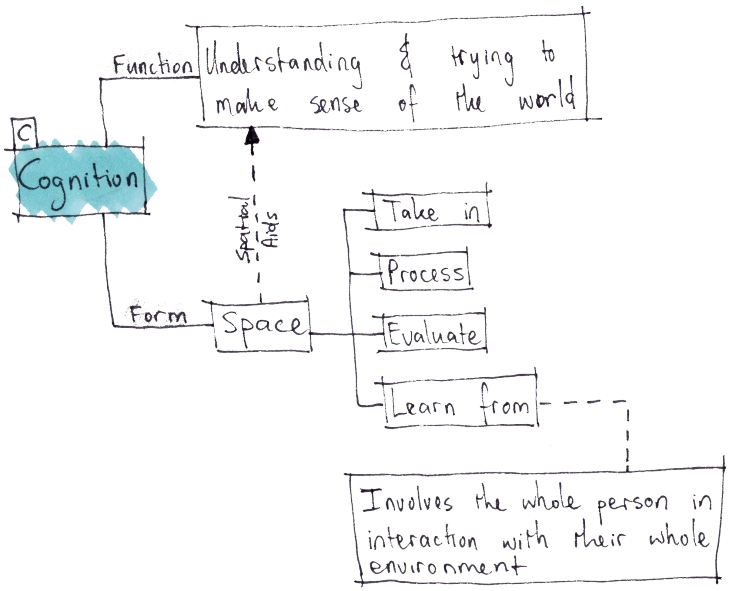


Figure 17 - Sketched diagram of the theme Cognition (R.Hartmann 22.04.2009)

3.3 Cognition

Cognition can simply be interpreted as 'understanding and tying to make sense of the world' (Wikipedia n.d.). Hence, this aspect is a result of the ability of an environment, in social condition and built form, to influence one's perception of their immediate environment and the world; through the processes of being aware, knowing, thinking, learning and judging. This is critically applicable to the child and the nature of the environment influencing a child's cognitive development: how a child perceives the world.

A socially toxic environment with relatively poor development has definite implications on an individual's perception and thus on his/her associated behaviour. 'Perception of the environment is a complex interaction of both physical and social factors; of individual and group factors. It is also interactive and cyclic. Perception influences behaviour which in turn influences perception' (Lee 1973).

This emphasises the importance of the architectural intervention to have functional relevance and contextual sensitivity; and of an architectural presence that infers positive conceptualisations within a social environment. For the purposes of this project, the aspect of cognition is primarily informed by environmental psychology which is specifically concerned with the interplay between humans and their surroundings.

'In a very real sense the city (and environment) is what people think it is' (Carr 1967).

The following topics, within the field of environmental psychology, are briefly discussed:

3.3.1 Personal Space and Territory

This topic is concerned with how certain spatial characteristics afford an individual cognitive control over a space, through the use of elements such as barriers or through the personalisation of space.

3.3.2 Place Identity

This relates to the relationship between the individual and place: the experience of place as an extension of self. Proshansky et al. (1983 p.59) defines place identity as the 'sub-structure of the self-identity of the person consisting of broadly conceived cognitions about the physical world in which the individual lives' and that 'five central functions of place-identity have been depicted: recognition, meaning, expressive-requirement, mediating change, and anxiety and defence function'.

3.3.3 Place Attachment

This concept can loosely be defined as the bond between people and places. 'We connect to certain places, thereby increasing our sense of self-esteem and happiness, creating a sense of belonging that can best be termed as feeling at home' (Wikipedia n.d). Secondly, 'place attachment involves an elaborate interplay of emotion, cognition, and behaviour in reference to place' (Wikipedia n.d).

3.3.4 Behaviour Settings

Many people can identify with this aspect of environmental psychology, whereby social settings have the ability to influence human behaviour. Prime examples of this are in shops where people assume the role of customer and the associated behaviour and schools and churches where people assume the role of proper behaviour in these particular settings. Respective behaviours are induced through certain spaces or places and are inherently bound to a particular place.



These 3 keywords and their theoretical underpinnings form the basis for an approach at a critically purposeful architecture. In essence, I view the themes of synergy, mediation and cognition as the 'bridge' between the research component and the architectural response of this thesis. They are well-informed, contextually grounded aspects that pick-up on the crux elements of my theoretical study and will inform my architectural approach. This architectural approach or methodology is formulated through the application of themes arising from synergy, mediation and cognition, their design implications, aspects pertaining to site and the identified programme. In formulating an architectural methodology, I will begin by elaborating on the project's programme, then site and finally design discourse and conceptualisation.

c.programme

An article about women and children in violent South African townships stated that, '.....the first and most obvious requirement is the establishment of a system of victim aid. Not only does this treat the short term problems, but it deals with the long-term imperative as well. We have to do no more than consider the high proportion of child abusers who were themselves abused as children, to realise the long-term imperative of victim aid. This must be legal, psychological and physical and, perhaps more than anything, it must be easily accessible in the form of a social welfare net to catch those who are marginilised by society' (Simpson 1993).

<research inquiry >site

programme description
c.1

The programme for the building is a direct response to the issues raised in the theoretical study (animal welfare education, animal care, social toxicity, etc.). As has been mentioned previously, this project is a centre for the welfare of humans and animals; with a critical emphasis being placed on human-animal interaction. The issues raised in the theoretical study and the aim of addressing both the welfare of humans and animals indicates the multifunctional dynamics necessary for a project of this nature to be successful. Being multidisciplinary in nature, a social service can better interpret inter-related social issues and hence better facilitate efforts at resolution.

The evident overlapping and interactivity of various sociological phenomena stresses the importance for this centre to not only collaborate with existing services, but through this collaboration, enable a positive framework for welfare services to develop within Katlehong. The synergistic nature of social conditions also indicates that welfare service 'A' may indirectly and positively influence a host of social conditions outside of the direct realm of influence of welfare service 'A'. Although children are seen as the root for important positive social development, the functions of the centre need to provide a level of engagement with adults. The responsibilities placed on adults within an environment of unemployment, poverty, crime and violence can be distinctly degrading to the stature of their social entity; and with the psychological implications of this environment having been discussed, the psychological health of adults must also be addressed.

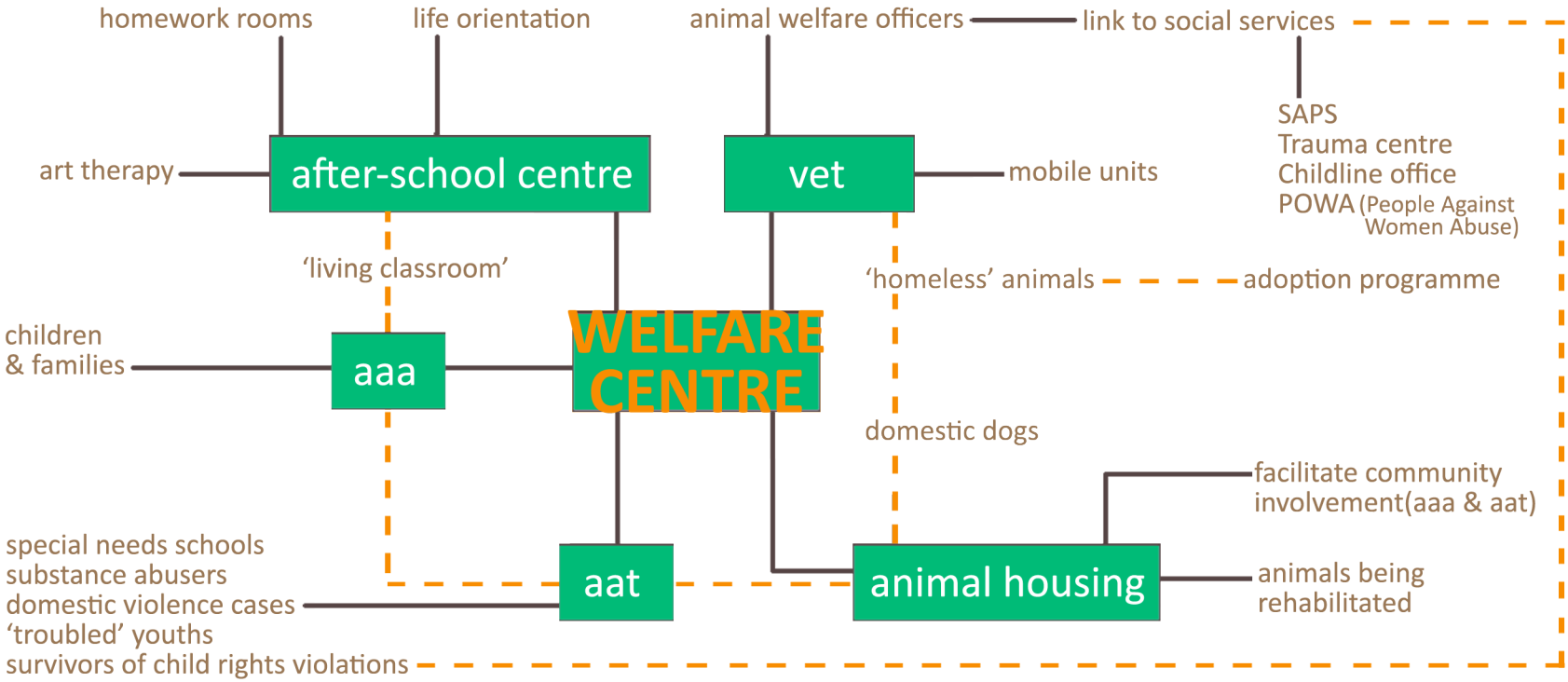


Figure 18 - Programme diagram indicating the core operational functions of the welfare centre (R.Hartmann).

The research objectives in section ‘b. Research Inquiry’ give indication of the elaborate dynamics of this thesis topic which has naturally led to a relatively dynamic programmatic brief for the project. Each component of the brief, indicated in the operational functions interaction diagram (Figure 19), is a response to some element, or combination of elements, from the theoretical inquiry.

Figure 19 begins to indicate a common dialogue: that the various functions of the welfare centre are inherently linked to the aspect of animal housing (particularly in its application for AAA and AAT). The evolution of this dialogue results in a central design element, referred to as ‘interactive animal housing’, which is discussed in section ‘d. Design Discourse’. Also indicated in figure 19 is the requirement of a spatial dispersion between the veterinary hospital and the other operations of the welfare centre (the operations of the veterinary hospital needing their privacy).

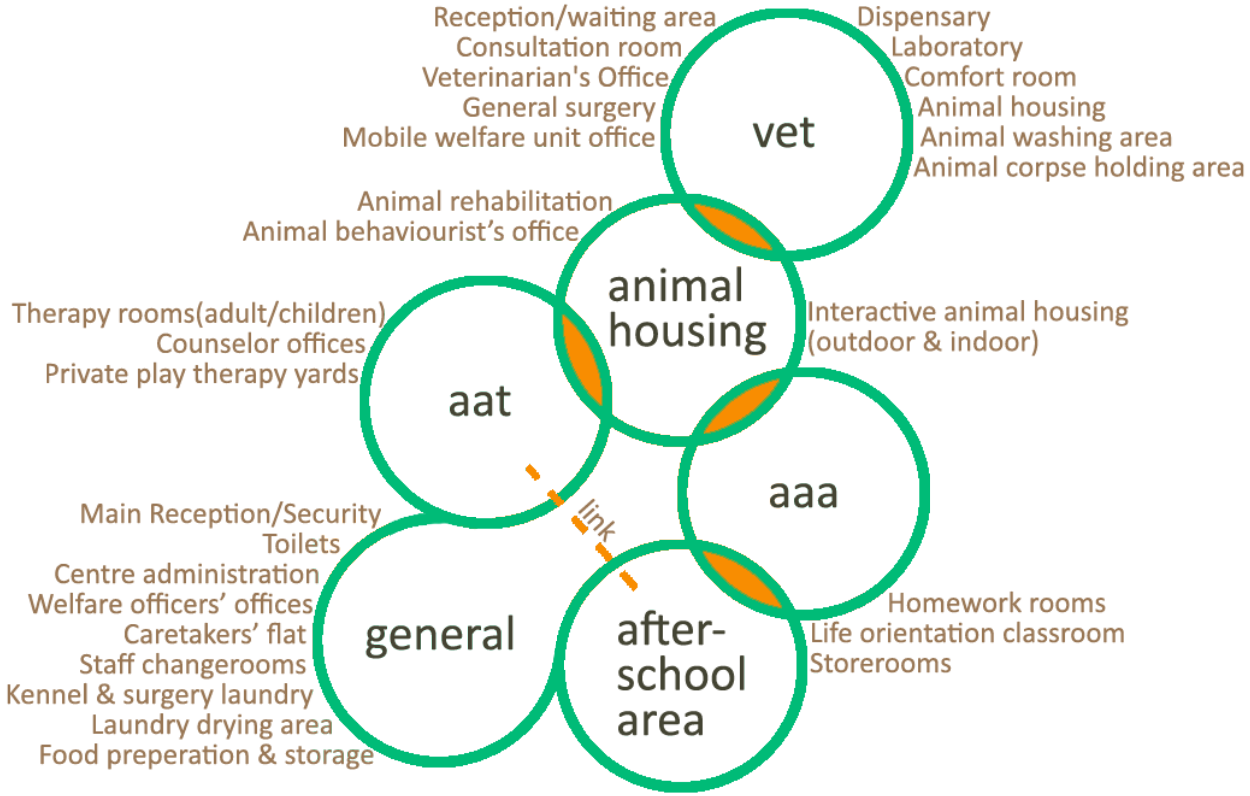


Figure 19 - Operational functions interaction diagram (R.Hartmann).

Figure 20 displays the dissolution of the idea of animal housing having some level of commonality with the various operational functions of the welfare centre; in that the animal housing component becomes an interactive element reinforced by the need for animal welfare education. It is also a compositional element within the programmatic realm of the welfare centre; an element that links functions through to an element establishing boundaries (gradations between public and private areas).

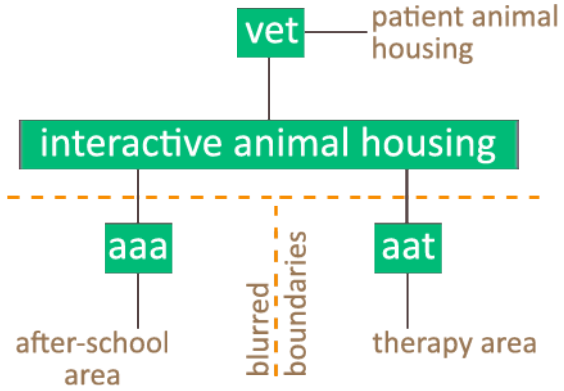
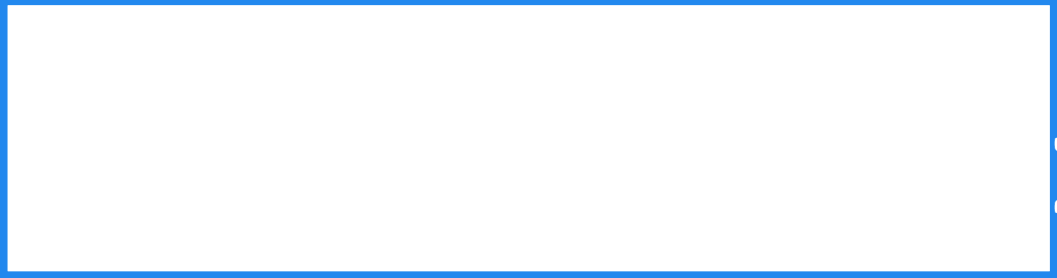


Figure 20 - Interactive animal housing (R.Hartmann).

d. site

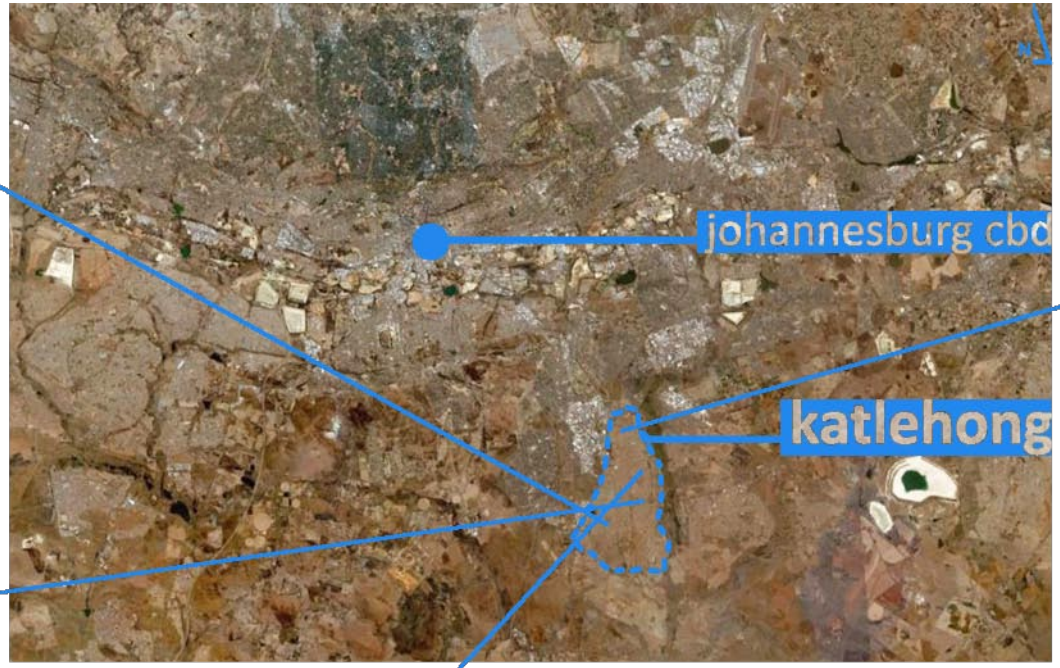


<programme >design
discourse

a.1 site selection directives

The research conducted has given sufficient indication that the siting of this thesis is inherently relevant within the context of a South African township and this standpoint has been argued in section 'b 2.4 The Nature of the Township Environment and its Inter-related Social Conditions'. Katlehong Township, to the south-east of Johannesburg, has been identified as an area that has existing conditions providing adequate challenges in directing responses to the stipulated objectives.
Existing conditions that support this thesis' implementation within Katlehong are indicated in figure 21 below:

Figure 21 - Katlehong and Johannesburg CBD aerial photo (Google Earth/R.Hartmann).



Elements of social-toxicity are evident (unemployment, poverty, crime, violence, etc.), partly a result of being 'designed by exclusion'.

There are no *permanent* animal care facilities or animal welfare education initiatives in the area (the Bedfordview-Germiston SPCA provides some level of animal care and welfare education via their mobile units). The work of the Bedfordview-Germiston SPCA within Katlehong indicates a population of people and domestic animals requiring animal welfare services.

Direct and indirect animal abuse can prevail.

There are existing welfare services (SAPS, Trauma centre, People Against Women Abuse (POWA) branch office, Childline branch office, etc.) providing opportunities for collaborative service provision which is critical to the success of the operations of this welfare centre.

The following topics were identified in an approach to site selection:

1.1 Site Visibility

The aspect of community involvement with the welfare centre is crucial to its success and therefore forms a critical driver in siting the project within Katlehong. The welfare centre should be central and easily locatable. Views to the site should be used to facilitate a discourse between the site and its surrounds. Hence, the visual exposure of the site is critical to the centre's success in creating positive visual associations with the surrounding community and built environment. Views from the site could be used to facilitate the therapy experience, however, it is doubtful that the Katlehong landscape will provide for this. It is for this reason and functional reasons that the centre may become inwardly focussed in its activities.

1.2 Topography

There are no specific topographical requirements besides the need for adequate outdoor space. A sloped site could create advantageous situations for play therapy areas (AAA) as well as setting up an interesting element in the dynamism of various spaces throughout the welfare centre. A flat site would rely more on architectural resolution to deal with spatial articulation.

1.3 Surrounding Visual Context

This thesis is an attempt at reversing the negative psychology, inhibited in the Katlehong community, through social-toxicity. The operational functions of the centre are the direct means through which attempts are made at reversing negative psychologies, whilst the architecture enhances and reinforces such means. Much of social-toxicity is inhibited through the nature of the built environment of Katlehong and its segregation from the surrounding urban fabric. Positive development within Katlehong serves as one form of combatant against the proliferation of social-toxicity.
Due to the therapeutic nature of the operations of the centre and the use of this therapeutic ideal in directing architectural resolution, it would be advantageous if the surrounding visual context displayed some level of congruency with these aspects. Furthermore, as the centre aims for collaboration with other welfare services, a visual collaboration can enhance this aspect and will consequently serve to enhance the ability of welfare services to positively impact the community.

1.4 Behaviour Patterns of the Site Users and Neighbourhood

The welfare centre is only operational during the day, aside from medical emergencies where the vet is concerned. Although the centre needs to operate within the public realm of Katlehong, the behavioural patterns of the surrounding context should follow that of the centre: active during the day and dormant at night. To further promote the use of the centre's facilities by youths, the proximity of schooling institutions and scholar transport routes will be inherently advantageous to the location of the welfare centre.

1.5 Available Facilities/Organisations

The facilitation of a collaborative network of social services will require close connections between the welfare centre and existing surrounding services. The following organisations and services are currently operational within Katlehong:

1. Local SAPS
2. Katlehong Resource Centre (KRC) housing the following organisations –
   a) Agape Family Church
   b) A Childline Branch Office
   c) Child and Family Welfare Office dealing with fostering children

d) FAMSA (Family And Marriage Association of South Africa) Office providing marriage and family counselling
e) KELRU which trains preschool teachers and provides future support to them
f) Khanya Family Centre providing psychological counselling, care and support services to children, adults and families
g) NICRO (National Institute for Crime Prevention and the Reintegration of Offenders) Office aiding in the rehabilitation young offenders
h) Together As One Youth Club providing cultural activities
i) SANCA (The South African National Council on Alcoholism and Drug Dependance) Office aiding in the rehabilitation of former sub

3. Counselling centres
4. People Against Women Abuse (POWA) branch office
5. Art Therapy Projects organised in various locations throughout Katlehong
6. School Institutions (crèches, primary and secondary schools, high schools and special needs schools)

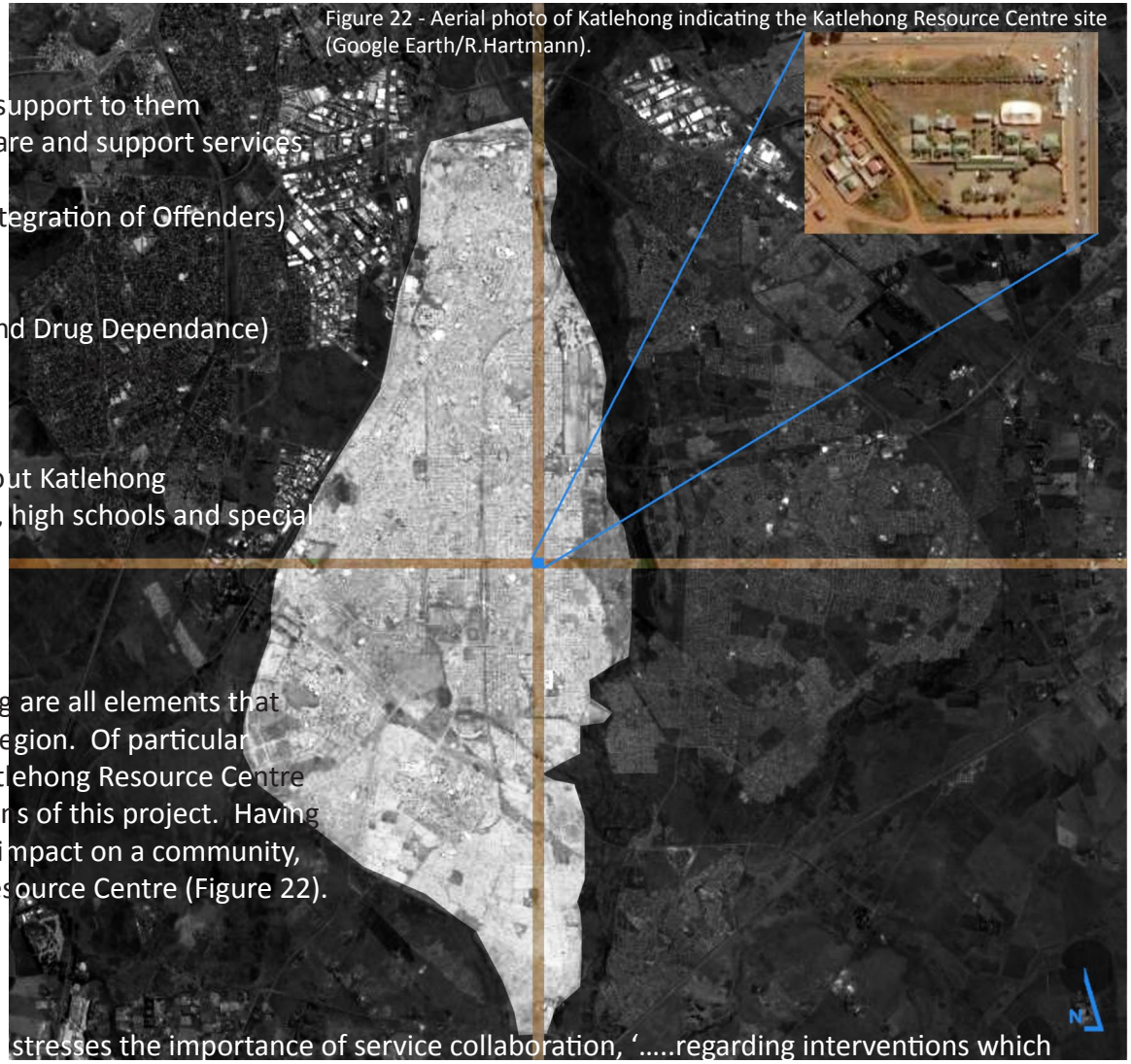


Figure 22 - Aerial photo of Katlehong indicating the Katlehong Resource Centre site (Google Earth/R.Hartmann).

The above list of organisations and services operational in Katlehong are all elements that reinforce the implementation of a welfare centre in the Katlehong region. Of particular interest is the overall nature of the services operating out of the Katlehong Resource Centre (KRC); they all inherently complementary to the operational functions of this project. Having stated the necessity for service collaboration in maximising service impact on a community, site selection for this project was focussed toward the Katlehong Resource Centre (Figure 22).

An article regarding interventions associated with crime prevention stresses the importance of service collaboration, '.....regarding interventions which are occurring within South Africa, some key issues emerge. One is the lack of any form of coordination between various service providers. The majority of interventions occur in isolation at a local or regional level. The sharing of information between organisations, regarding the interventions being run, occurs on a very limited basis if at all. It was particularly striking for us, as an organisation which has been involved in providing school based interventions over the last 9 years, that although we knew of the majority of the organisations, we have had only a limited interaction with a few of them and none with most others. This means that a potentially valuable opportunity to share information regarding processes, successes and also failures, is being missed' (Matthews et al. 1999).

d.2 the site

Having focussed site selection toward the Katlehong Resource Centre (KRC), the ideal situation was viewed as an opportunity to site the welfare centre as close as possible to the KRC. Combining site selection directives with a focus on the KRC led me to an open piece of land within the existing KRC site boundary. Figure 23 (below) shows no shortage of open land around the KRC site itself, however, for varying reasons (poor levels of enclosure, inadequate street frontage, poor exposure and levels of activity, etc.) siting the welfare centre somewhere upon this vacant land is not suitable.

Public park as buffer space (potential expansion area) yet currently suitable to serve as activity 'spill' from the welfare centre

Exposed corner at intersection of main roads





Emphasis is then placed on the open piece of land on the north side of the KRC site and its ability to facilitate a myriad of new operational functions whilst satisfying the site selection directives set out in section 'd.1'.

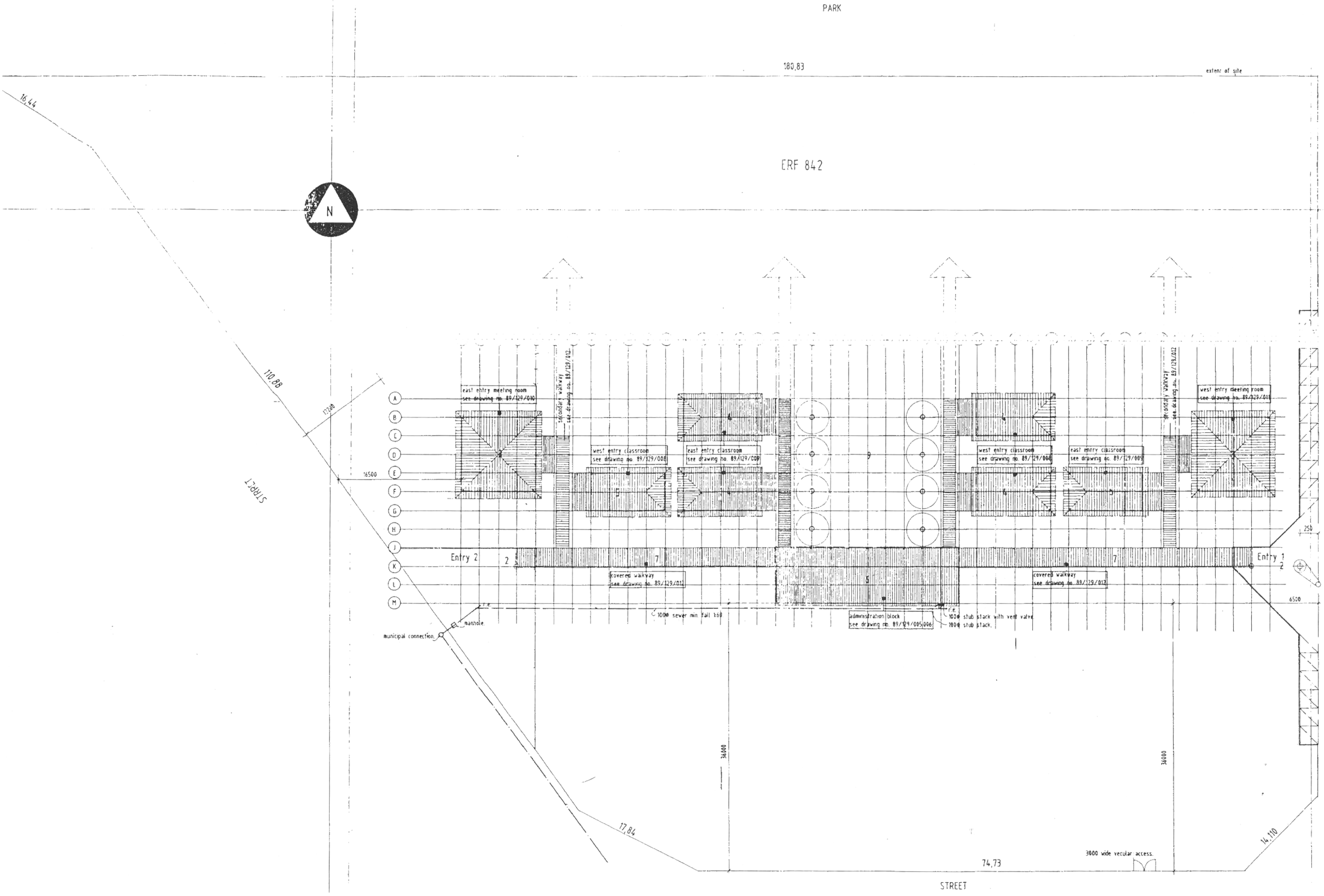
Figure 23 - Aerial photo of existing KRC site (highlighted) and surrounds (Google Earth/R.Hartmann).

Ramakonopi Police Station

Ramakonopi Creche

'Sterile' visual surroundings create increased opportunity for architectural impact of welfare centre on surrounding built environment

Busy Maphike Street


PARK
180,83
extent of site
16,44
ERF 842
N
110,88
12200
STREET
16500
east entry meeting room
see drawing no. 89/129/010
secondary walkway
see drawing no. 89/129/012
west entry classroom
see drawing no. 89/129/008
east entry classroom
see drawing no. 89/129/009
west entry classroom
see drawing no. 89/129/008
east entry classroom
see drawing no. 89/129/009
west entry meeting room
see drawing no. 89/129/010
Entry 2
Entry 1
covered walkway
see drawing no. 89/129/012
covered walkway
see drawing no. 89/129/012
1000 sewer min fall 1:60
manhole
municipal connection
administration block
see drawing no. 89/129/005/006
100ø stub stack with vent valve
100ø stub stack.
6520
250
34600
34600
17,84
14,110
74,73
3000 wide vecular access.
STREET

A more focussed analysis of the site resulted in the indication of a few more complementary aspects to the welfare centre's operations and concurrently resulted in some definite design implications.

2.1 A strip of vacant land along the north site boundary: This area of vacant land is titled 'park' on the original drawings for the KRC. Having an open section of land between the site boundary and the relatively busy Mosako Street allows for a decent buffer space between the welfare centre and the street itself; however, this section of 'park' space allows for this project to incorporate an urbanising aspect through the landscaping of the park. Doing this not only activates the north boundary but also allows for activity-spill from the welfare centre into the park (not only informal gatherings of people but formal activities like dog-shows too, etc.).

2.2 Informal Taxi-Rank: The north-east corner of the site has an informal taxi-rank which could be formalised in conjunction with the landscaping of the park space along the north boundary.

2.3 Retail: Part of the east boundary is bustling with small retail stores facing onto Maphike Street. Some of these retailers have access from the KRC site and this needs to be considered during design conceptualisation.

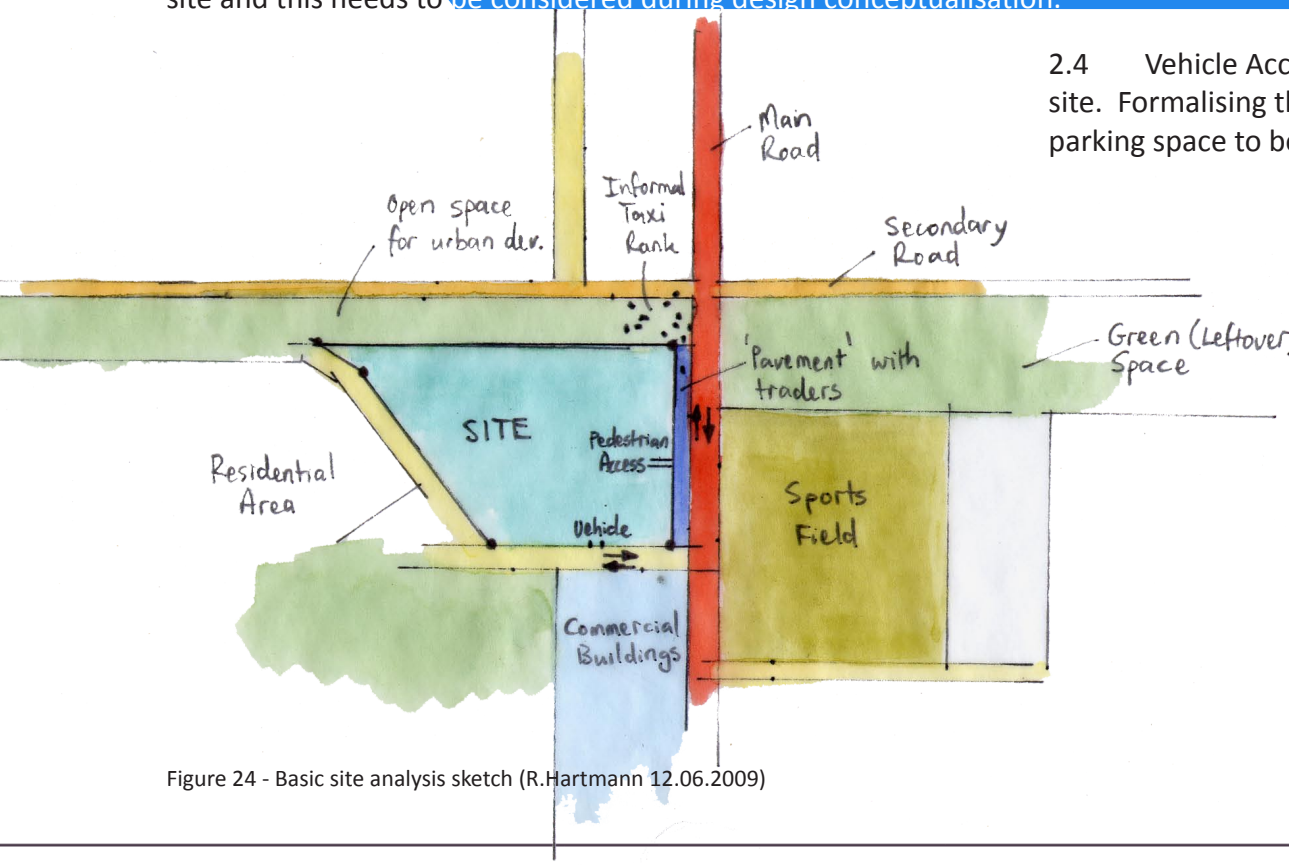


Figure 24 - Basic site analysis sketch (R.Hartmann 12.06.2009)

2.4 Vehicle Access: Vehicles currently access and park on the south side of the site. Formalising the taxi rank and landscaping the park allows an opportunity for parking space to be implemented as well.

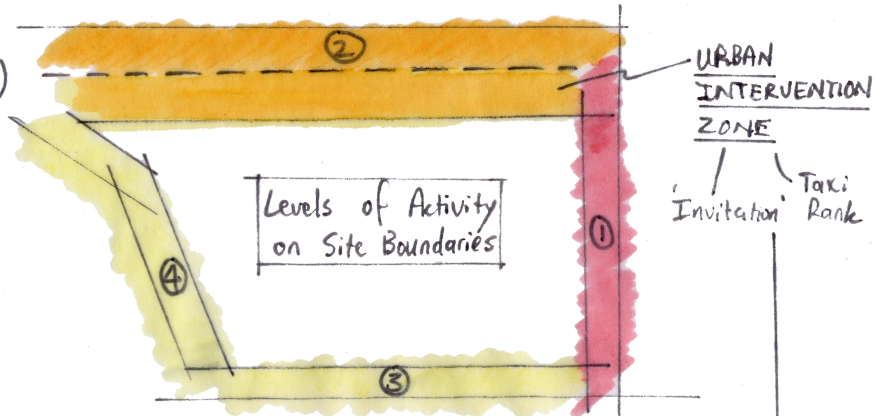


Figure 25 - Sketch indicating levels of activity around site from highest (1) to lowest (4) (R.Hartmann 12.06.2009)



Figure 27 - Site photo with existing KRC buildings in the background (R.Hartmann).



Figure 28 - Site photo with existing KRC in foreground (R.Hartmann).



Figure 29 - Site photo looking toward the north-east corner. The service entrance into a Maphike Street shop is visible (centred turquoise door) (R.Hartmann).



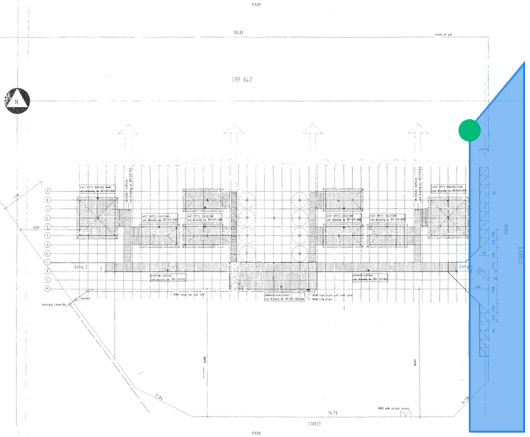


Figure 30 - Photo looking onto Maphike Street (R.Hartmann).



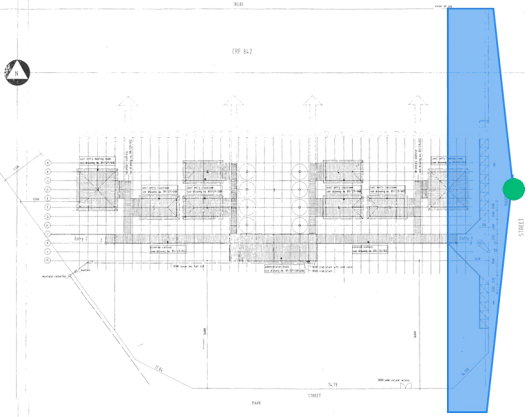


Figure 31 - Photo looking toward the site's east boundary across Maphike Street (R.Hartmann).





Figure 32 - Site photo facing the site's north boundary (R.Hartmann).



Figure 33 - Aerial image with the site in blue and surrounding schools (creche, primary and secondary) in green (Google Earth\R.Hartmann).

e. design

discourse

>design

<site conceptualisation



Much of what has been discussed are the connections between social conditions and elements of a psychological nature. What needs to be resolved is how these conditions, which are largely being addressed through the provision of a welfare service (function), resonate into an architectural design methodology and resolution (form): an architecture that encapsulates responses to the theoretical notions raised and investigated.

In section 'b.3 Implications of Objectives' I indicated how a 'bridging element' had been developed, linking the theoretical study to an architectural approach or methodology. This 'bridging element', composed of themes emanating from the keywords of synergy, mediation and cognition, sets the tone for architectural exploration, holding the binding links to the theoretical foundation of this project.

I refer back to section 'b.1 Background and Motivation' which states the general aim of this project:

Can architecture attempt to revert the harmful psychological influences of social toxicity?

The implications of this question, in an architectural sense, indicate that the solution lies in the inter-relation of various functions forged within a programme in response to synergistic social conditions and the response of form to these relationships. The built form must complement the themes that dictate the organisation of functions in the centre and concurrently aid and enhance the attempts at reverting the harmful psychologies inhibited through social-toxicity. There is a mutual responsibility in the utilisation of function (interdependence, cooperation and interaction) and in the utilisation of architectural language and tools (void, mass, structure, layering, orientation, materiality, scale and colour) if the identified aim is to be successfully achieved.

Of particular importance is the realisation that this welfare centre and its associations with the Katlehong Resource Centre (KRC), form part of the public spatial environment of Katlehong. In an environment fraught with social toxicity and predominantly of an architectural disposition of sterility there is increased emphasis placed on public space. It is within the realm of the public environment that a significant portion of disadvantaged people play out their lives; a realm where people experience and engage in collective life. Successful public space (defined, scaled and pleasant) has the ability to dignify and give a sense of permanence and belonging to people living in disadvantaged conditions.

e1.1 An Architectural Language of Synergy

The theme of synergy has been a predominant force in the formulation of a programme for the project and as a result has produced a project of definite comprehensiveness. The response to social conditions has directed the various functional elements of the centre and also indicated architectural responses that pick-up on the theme of synergy.

Having dictated the functional aspects of the centre, the theme of synergy also forms part of the method for developing architectural resolution. Of particular relevance is the idea of having the built form respond to the synergising aspect of function, essentially creating a cohesive unit whereby spatial solutions react to the multifunctional aspirations of the centre. Such a reaction is primarily developed through an understanding of what synergy implies when applying it to architectural language.

The focus of this is on the development of a language of spatial layering, its associating themes and articulation of space that affords maximum impact of multifunctionality.

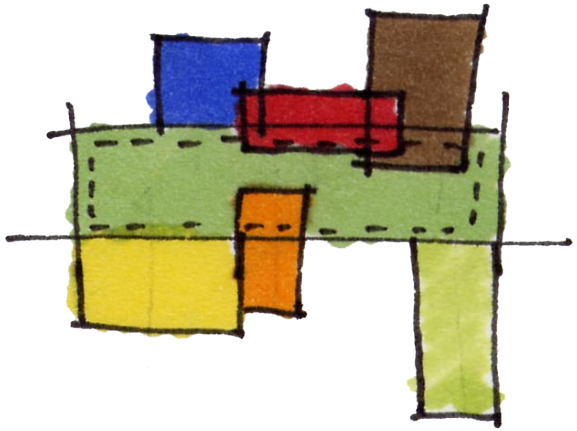


Figure 34 - Diagrammatic sketch of synergy (R.Hartmann).

Figure 32 is a sketch displaying aspects that pertain to the idea of spatial layering as an architectural method of capturing the theoretical notion of synergy.

Such aspects are:

- Collective space vs. private space
- Openness vs. enclosure
- Distinct boundary vs. blurred boundary
- Spatial overlapping
- Spatial multiplicity
- Spatial clarity
- In-between space
- Scale
- Order
- Integration
- Movement through space

Exploring the theme of synergy through these aspects has a definite causal response in terms of the composition of material, colour and structure and how these elements capture the essence of spatial layering, whilst concurrently supporting the themes of mediation and cognition.

e1.2 An Architectural Language of Mediation

This aspect relays the idea of intermediary between disputing parties to that of building as intermediary between human and animal. In a direct sense the intermediary is a neutral entity that offers a sense of security to disputing parties, all the while facilitating communication and interaction, with the aim of achieving dispute resolution.

With this idea being clear, there is increased emphasis placed on the interaction between human and animal, to the extent that it has become the dominating idea behind the articulation of the various functions of the centre. Interactivity between humans and animals has been crucial to the project since its inception. With interactivity being of inherent importance, I have deduced that the animal housing and recreation space is composed as a core around and within which the functions occur and circulation takes place. The result is an element I term 'Interactive Animal Housing' which allows for mediatory attempts and is afforded varying levels of interaction through the application of spatial layering principles indicated above. As well as being formed through spatial layering principles, the interactive animal housing concurrently produces its own contributions to the realm of spatial layering as indicated in the diagram below. Being a core element in the welfare centre, the interactive animal housing is not only a binding element but also a disposing element. Essentially, there is an interaction interface that, although having varying levels of interactivity, is a constant along a circulation route.

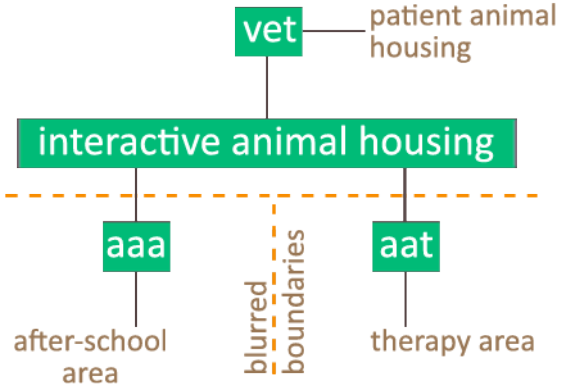


Figure 35 - Diagram indicating 'interactive animal housing' at the core of the welfare centre and as an element that can be utilised to blur boundaries between the operational functions of the centre, whilst at the same time being a compositional element too (R.Hartmann).

Hence, the interweaving element that blurs boundaries within the centre are the animals themselves and their placement within the 'interactive animal housing'. Placing the animals within the core of the centre and articulating functions around this core creates a relatively inwardly focussed centre and further design explorations must be done to indicate the possibilities of achieving some level of outward exposure. For example, the idea of interaction must not be confined within the centre but incorporate aspects of exposure to the surrounds, enabling visual and aural interaction to passers-by. It is the role of the architectural resolution to counter this inwardly focussed aspect, particularly in the treatment of boundary frontages.

What does mediation mean to the architecture of this project?

Mediation as a theme has a particular influence on the quality of space created and the associations thereby induced. With the domestic dogs in the welfare centre being overtly exposed and human-animal interactivity being activated through spatial layering principles, it is the sensitivity of the two in their intimate combination that will successfully allow a mediatory dialogue to take place between human and animal and human and environment (primarily relative to the theme of cognition).

A mediatory dialogue is strengthened by:

Spatial articulation and form that is empathetic of the existence of conflict
Spaces of seclusion and security
An architectural composition of inherent invitational potential
Space affording a variety of sensory perceptions
Spatial definition and clarity
The allowance of a level of informal activity within the formal order

e1.3 An Architectural Language of Cognition

The theme of cognition is chiefly concerned with how I create an architectural environment of variety and richness that enables a multiplicity of spatial associations for the visitor; and hence, in combination with operational functions, activates the realm of perception.

Townships and informal settlements and in particular Katlehong, are all too often landscapes of spatial sterility. Katlehong is a flat and dry landscape with very little spatial dynamism breaking up the monotony of the extent of small residential dwellings. The aspect of perceptual conceptualisation must be operational within the welfare centre itself and also around it, so that the sterile monotony of the surrounding landscape is broken.

A critical component that is referenced within all three themes of synergy, mediation and cognition is that of interactivity. The interactive component is an inherent informant of functionality within the programming of the welfare centre and just as much a driver of architectural spatial resolution. The spatial and structural resolution must then be attentive to the extent of interactivity between various functions and equally associate with the varying levels of interactivity afforded to visitors of the welfare centre. Appleyard (1970) suggests that 'purely physical characteristics are an important element in only one of three characteristic types of urban perception he has identified; 'responsive' perception. The other two types 'operational' and 'inferential' perception emphasise respectively the important role of active interaction with the physical environment in shaping our perception of it, and the importance of established expectations in shaping our perception of any new experience (Bruner 1957). With regard to complexity, he suggests that, for example, an 'operationally' complex environment (one which can be used in many ways) is likely to be more satisfying than (i.e. noticed and preferred to) one which merely creates complex images' (Lee 1973).

What does cognition mean to the architecture of this project?

The idea of cognition, when applied to the architecture of this project, is largely concerned with the creation of *place*; that is space of considerable stimulating capacity enabling it to be sensed and thus perceived.

Applying cognitive ideas to my building will be achieved through:

Material variety
Compositional qualities and variation
Spatial complexity and multiplicity
Its accommodating potential
The interplay between function, spatial articulation and circulation
Engaging in the senses

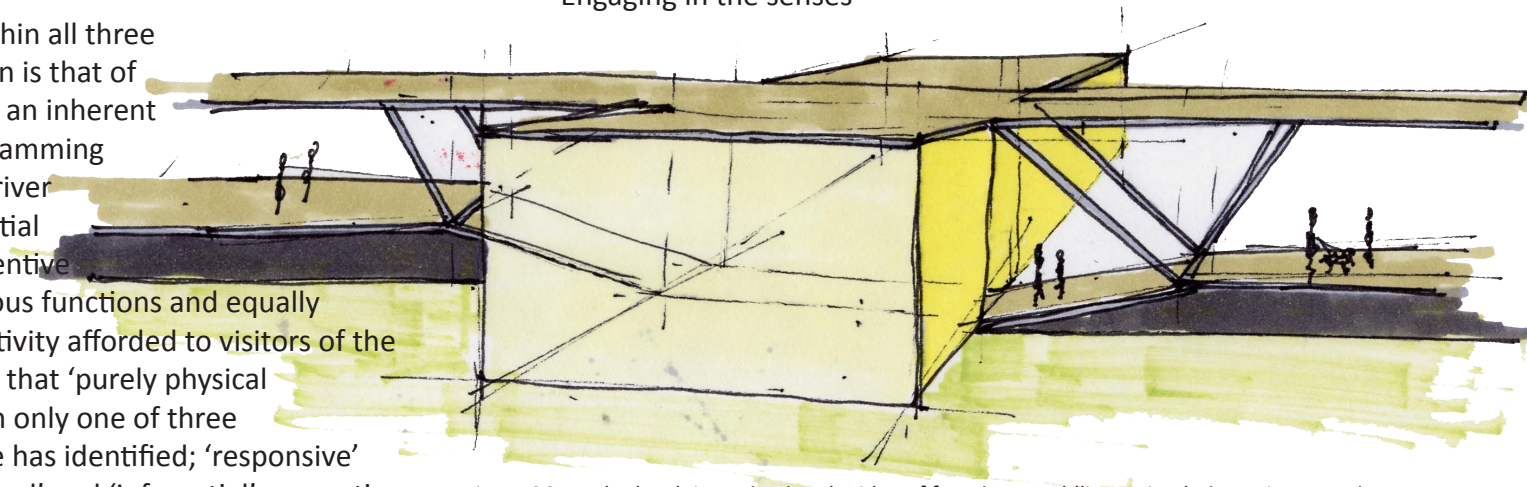


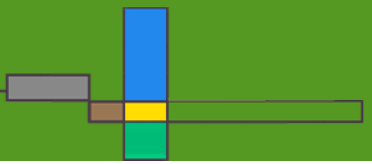
Figure 36 - Early sketch investigating the idea of function straddling a circulation spine, creating interplay between movement through circulation space and within the realm of operational function (R.Hartmann).

Having identified and expanded on the three core themes (synergy, mediation, cognition) informing the design methodology, the following section (f. Design Conceptualisation) will indicate how these themes have been implemented in attaining an architectural scheme.

<design discourse

f. design concept-ualisation

>design development



f1.1 Sketch Designs

The sketch design phase led to various schemes of which I would like to highlight two in this section. The primary reason these schemes were discarded was due to their lack of a definitive response to the themes originating from the theoretical study. Furthermore they failed to adequately address the existing buildings on site and also failed to attain a level of synergy with the existing site operations. However, various aspects of these schemes were carried through and incorporated into the final design response.

1.1.2 Sketch Design 1

This design scheme primarily evolved in response to the 'future expansion links' (green arrows) developed in the existing KRC design scheme. In attempting a level of synergy I tried to use these links as a starting point from which I could develop a design response.

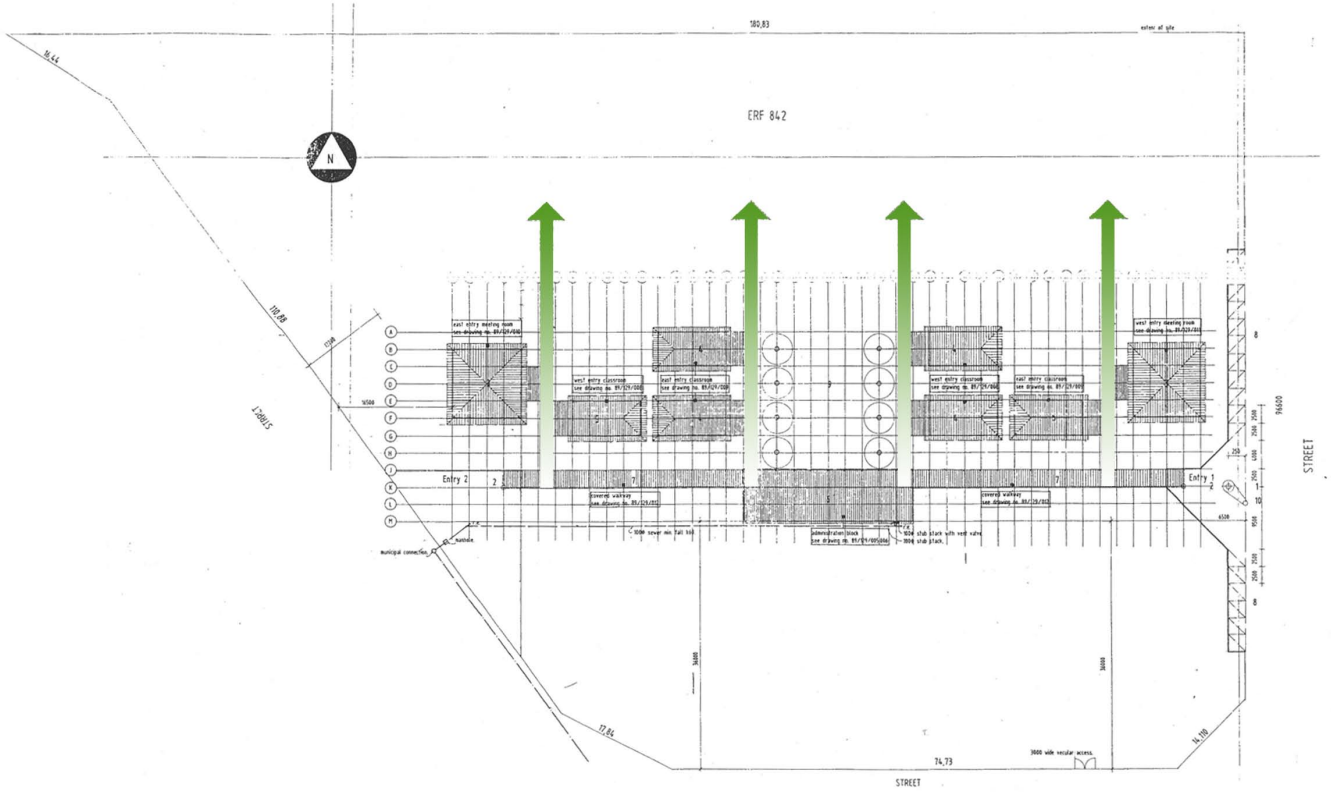


Figure 37 - Site plan showing existing KRC buildings. I have highlighted the arrows originally drawn to indicate future expansion possibilities and links. (Noero Wolff Architects\R.Hartmann)

These links are then realised in the following sketch. Essentially utilising these linking points as architectural elements that latch onto the circulation route of the welfare centre. This circulation route also begins to hold a central courtyard space (the interactive animal housing).

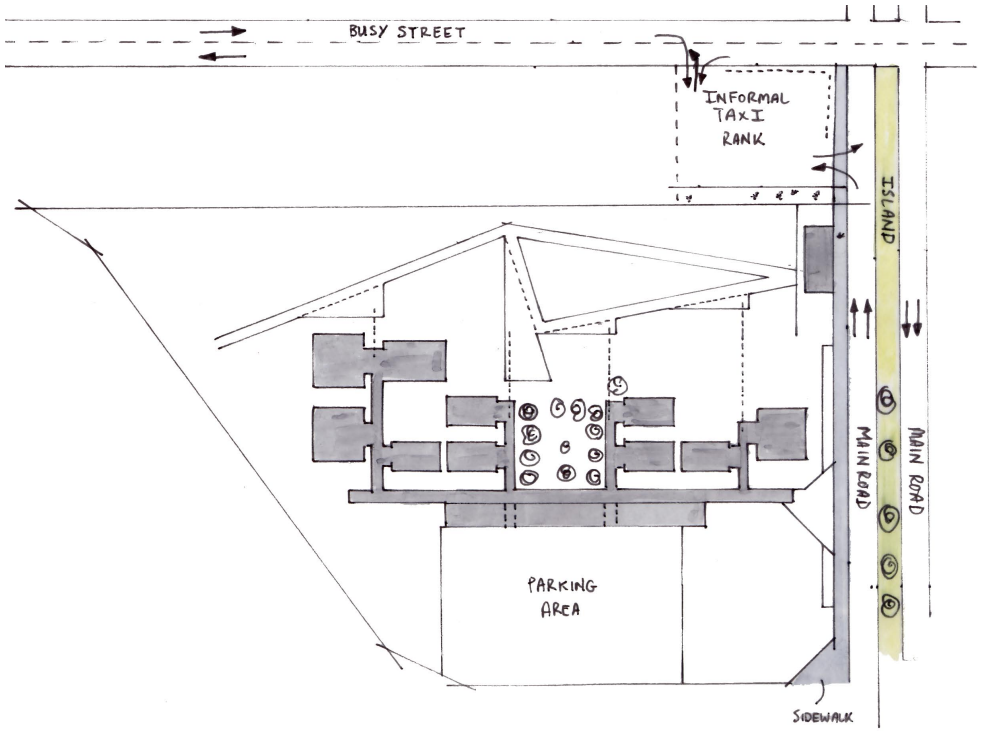


Figure 39 - Circulation sketch plan. (R.Hartmann)

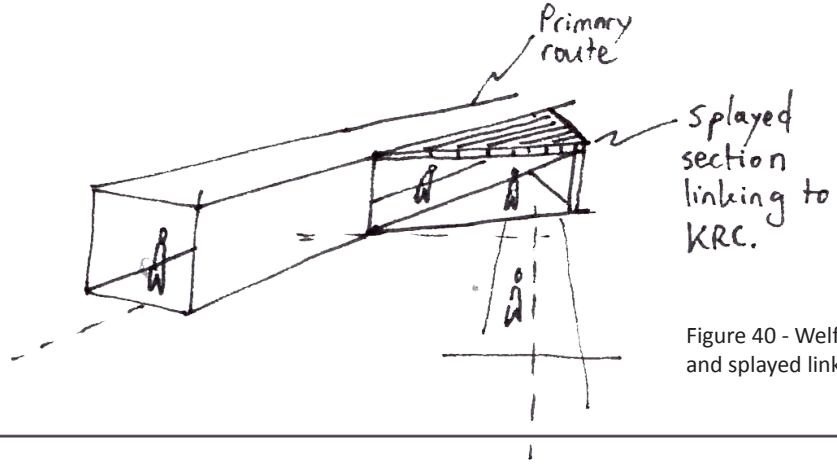


Figure 40 - Welfare centre circulation route and splayed link to KRC. (R.Hartmann)

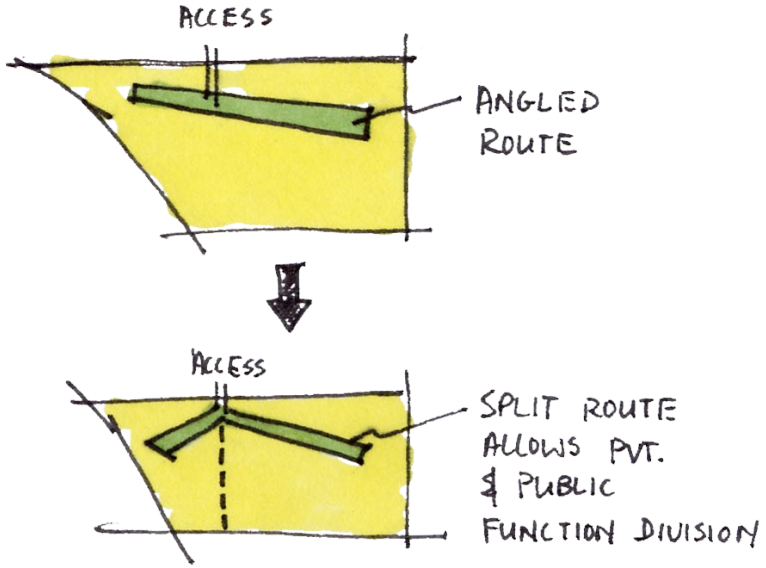


Figure 41 - Circulation route division sketch. (R.Hartmann)

The triangulated shape of the circulation route originated from the above sketch. The junction is utilised as a point where private and public functions can be separated.

Incorporating a pedestrian access point on the north boundary, off the park, implicates one of the triangle vertices as a divide between public and private functions and also as a junction with the park space (public interface).

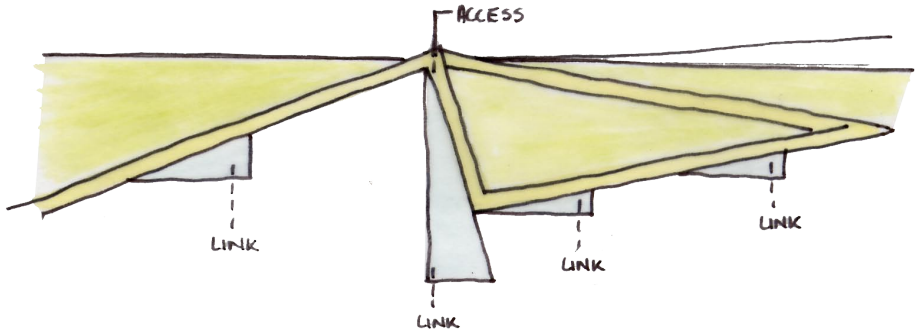


Figure 42 - Circulation sketch plan with pedestrian access point. (R.Hartmann)

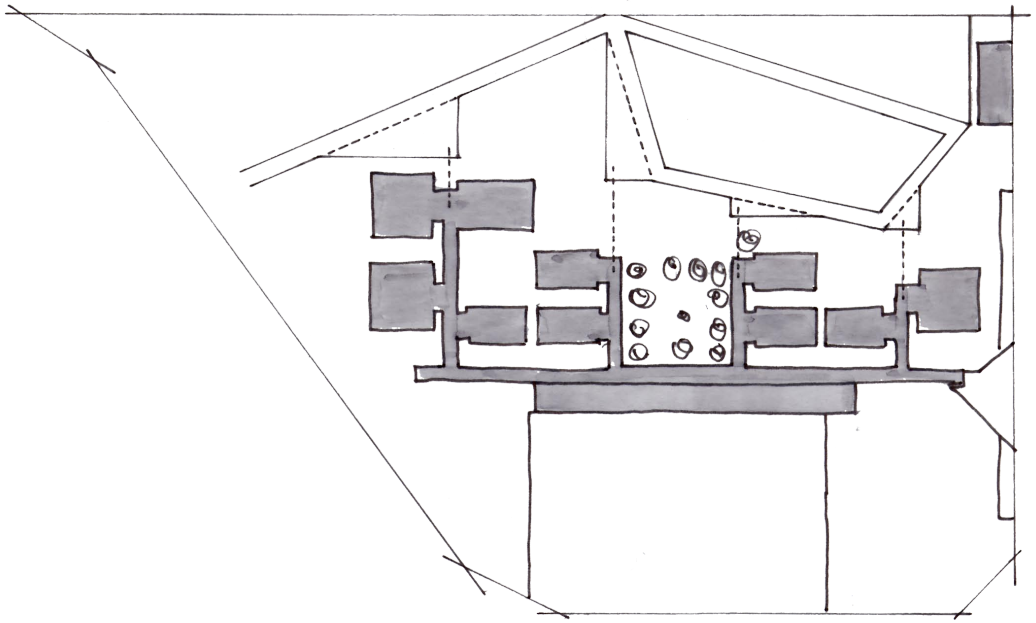


Figure 43 - Circulation route takes on a different shape. (R.Hartmann)

The shape of the circulation route is altered for functional reasons and also enables a greater area for the interactive animal housing courtyard which is visualised as an interactive space containing Animal Assisted Activities (AAA).

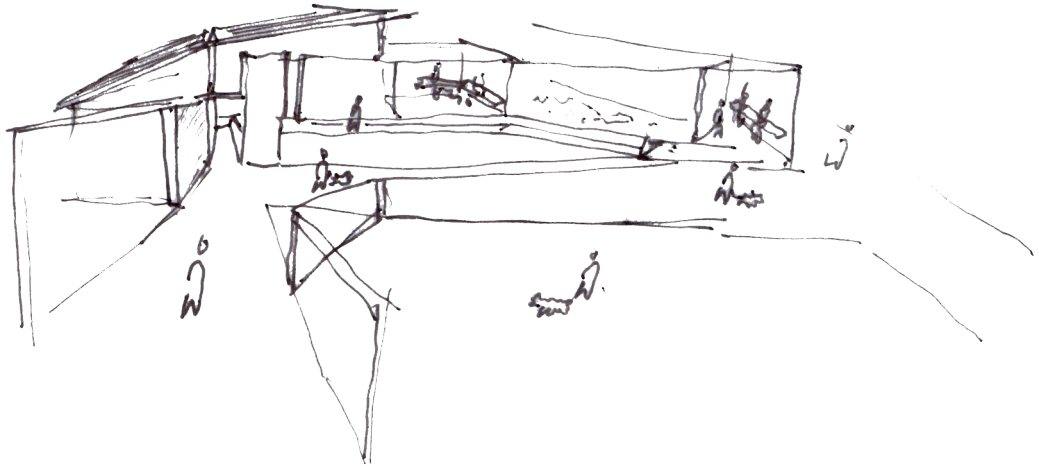


Figure 44 - Perspective sketch of the circulation route around the interactive animal housing courtyard. (R.Hartmann)

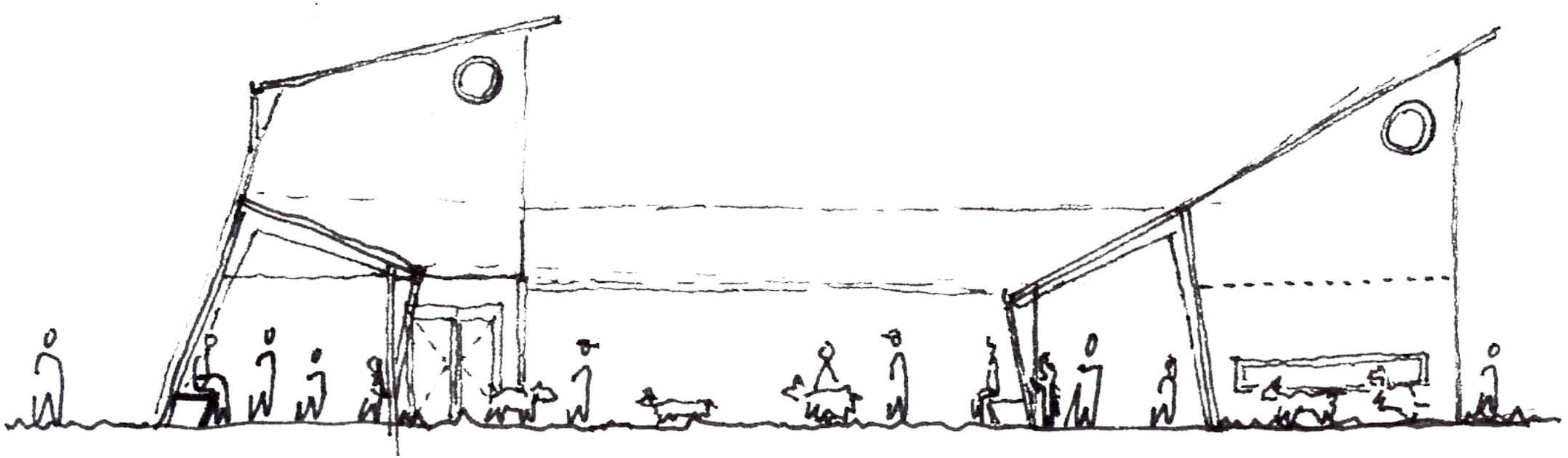


Figure 45 - Sectional sketch through circulation route and interactive animal housing courtyard. (R.Hartmann)

The above sketch really captures the idea of having a circulation route around the interactive animal housing courtyard, thereby facilitating human-animal interaction. Another idea captured in this sketch is that of having operational functions straddle the circulation route and depending on their programmatic requirements, they either orientate themselves toward the courtyard space or away from it. In doing this, the circulation route meanders through operational functions and the courtyard space, thus enabling variation in human-animal interaction along the route.

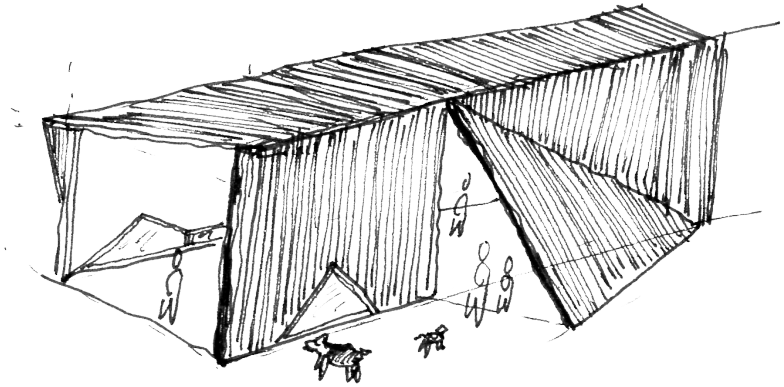


Figure 46 - Perspective sketch of circulation route. (R.Hartmann)

With the circulation route evidently being a dominant element of the welfare centre, it is concurrently visualised as an aspect that must contribute to the user's experience of the welfare centre. Therefore, as an architectural element it must explore aspects such as volume, mass, scale, materiality, perforation, fenestration, etc.

1.1.2 Sketch Design 2

The second sketch design was formulated along very different ideals compared to the previous design.
It began to pay more attention to the existing KRC spatial dynamics and although its response to these dynamics was not ideal, it did however provide some more knowledge as to what an appropriated response could be.

The essence of this sketch design was to capture the existing spatial character of the KRC, particularly the open informal spaces (courtyards); in that they currently have unbounded views out toward the township. The sketch design tried to maintain some level of this exposure and hence was born from an implication of sight lines, views and associating spaces.

The following series of sketches will display the progression of a sketch-form, born from the idea of maintaining some of the existing character the informal spaces currently have.

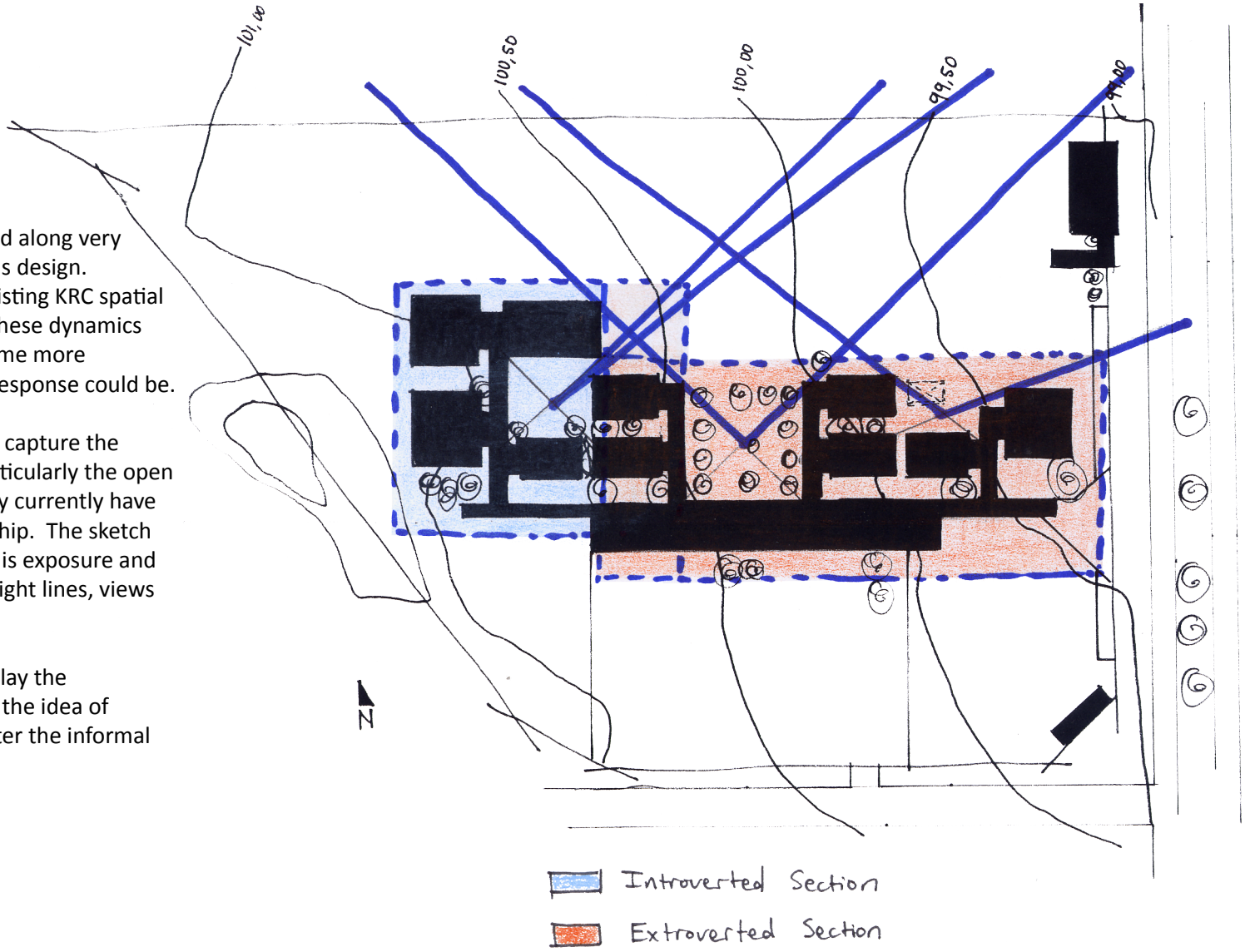


Figure 47 - Existing building form having introverted and extroverted zones with sight lines in blue. (R.Hartmann)

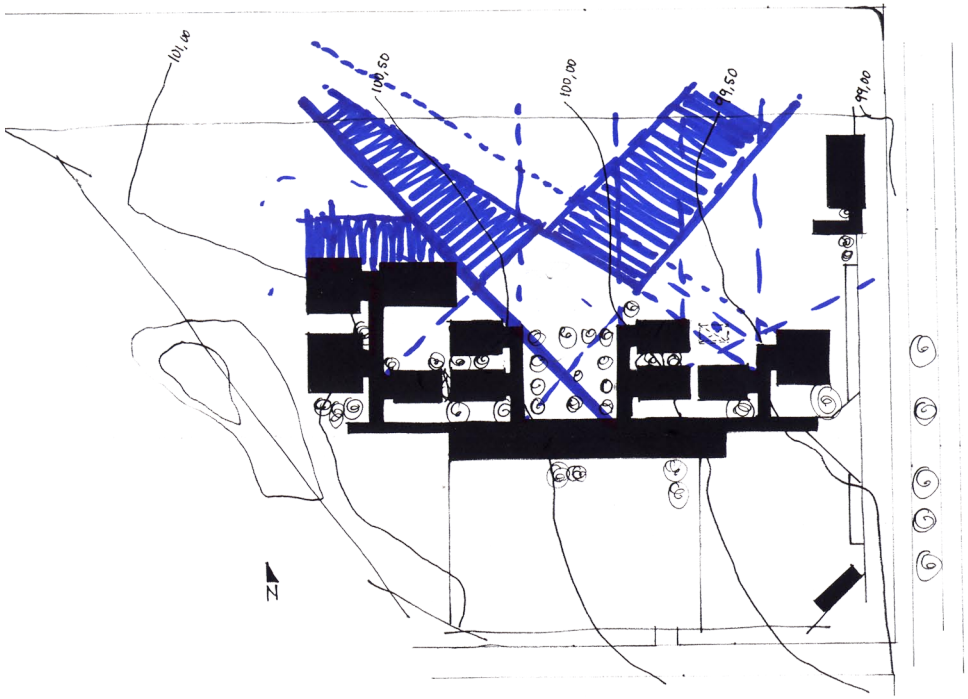


Figure 48 - Sight lines from the centres of courtyards begin to inform the articulation of new building edges. (R.Hartmann)

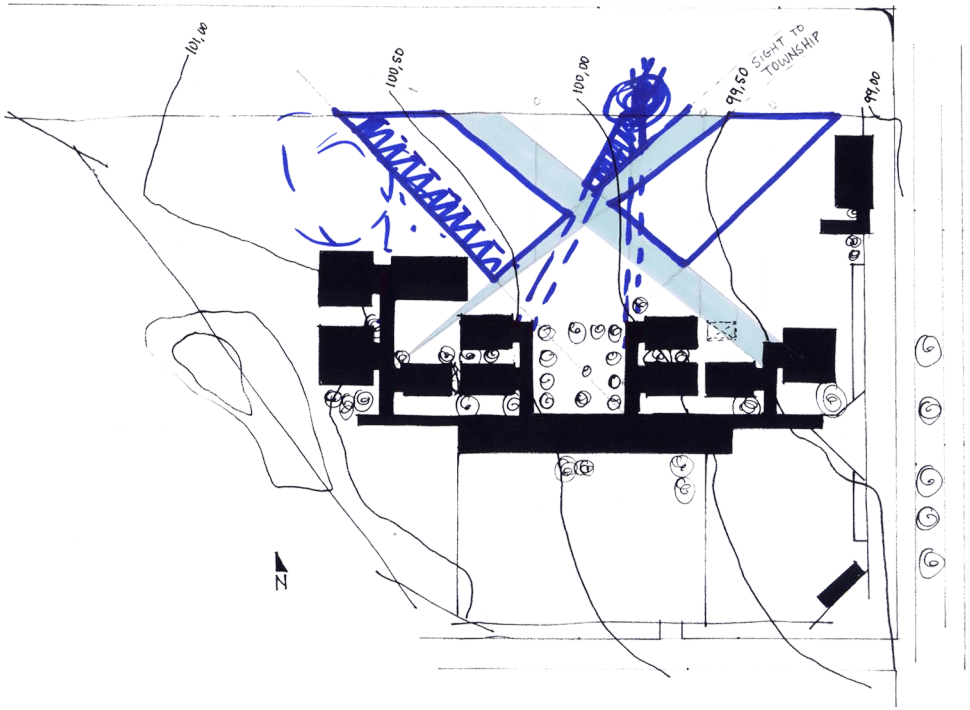


Figure 49 - Shifting the new building edges allows existing exposure levels to be somewhat maintained. (R.Hartmann)

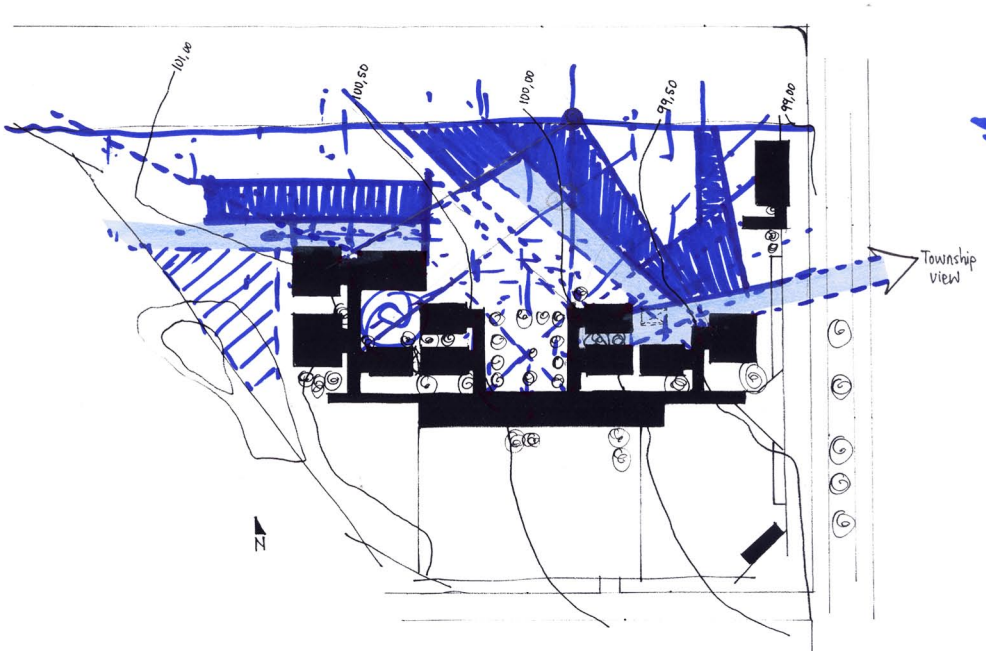


Figure 50 - Manipulating sight lines further develops building edge articulation. (R.Hartmann)

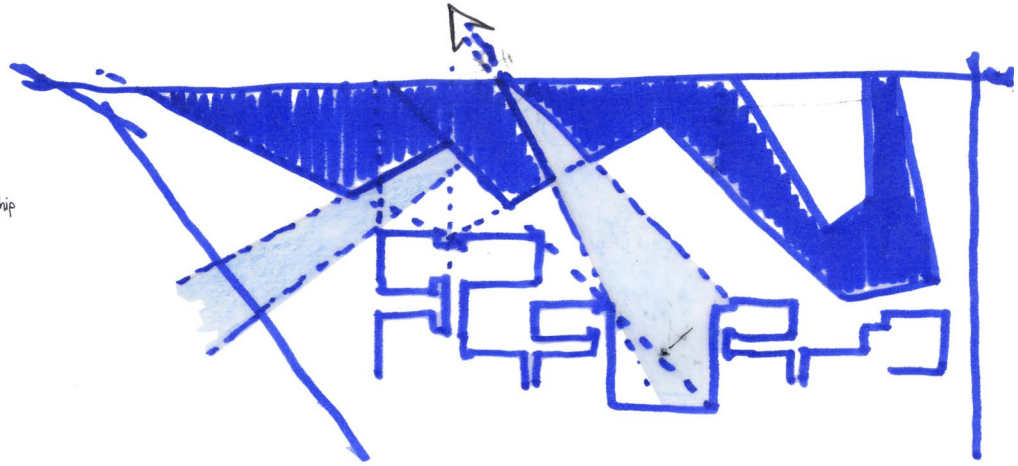


Figure 51 - The result incorporates views, exposure and provides an edge to existing courtyard spaecs. (R.Hartmann)

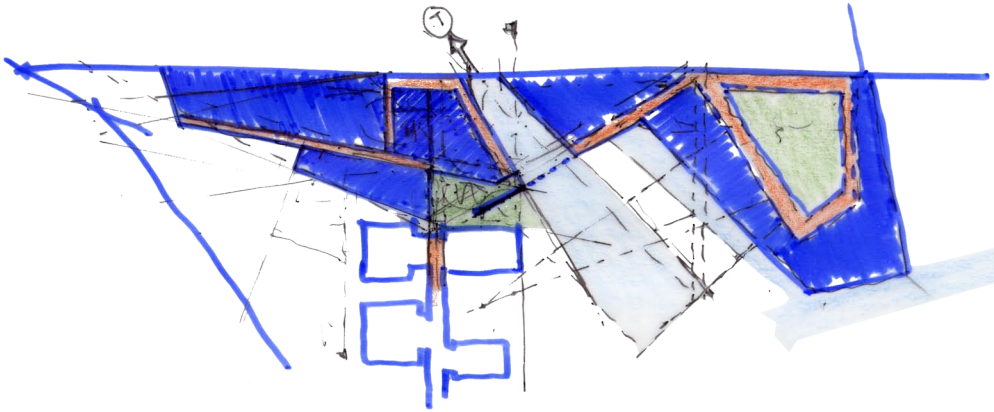


Figure 52 - A circulation route is indicated in orange while the interactive animal housing courtyard is visible in green. (R.Hartmann)

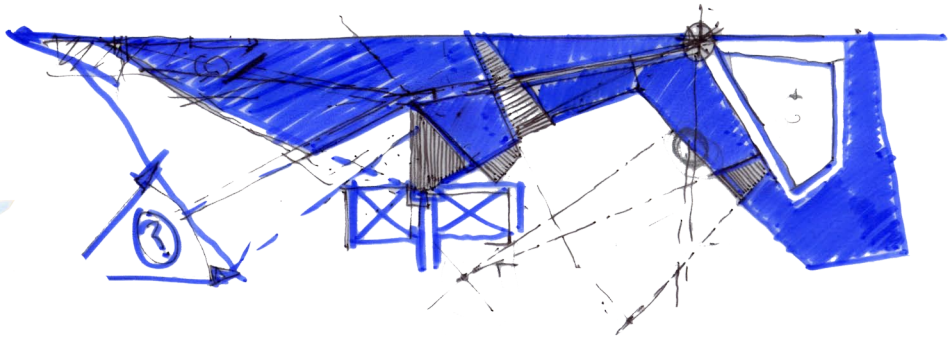


Figure 53 - The building mass is punctured with semi-covered pause spaces. (R.Hartmann)

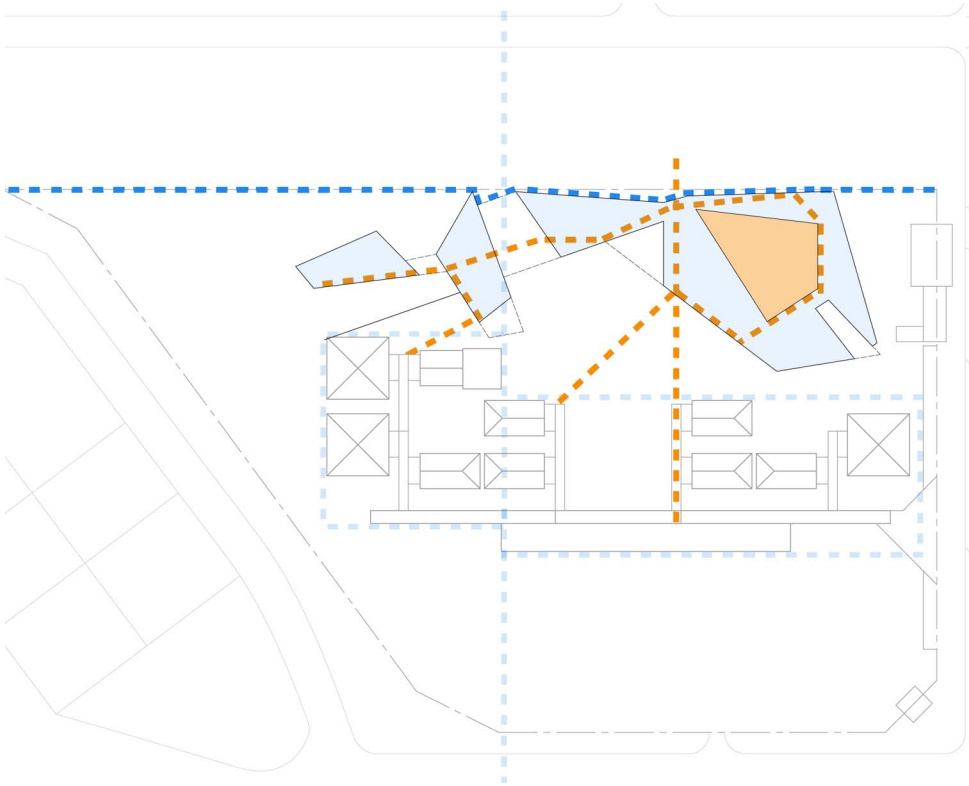


Figure 54 - Circulation routes and links to the KRC are indicated by dashed orange lines. (R.Hartmann)

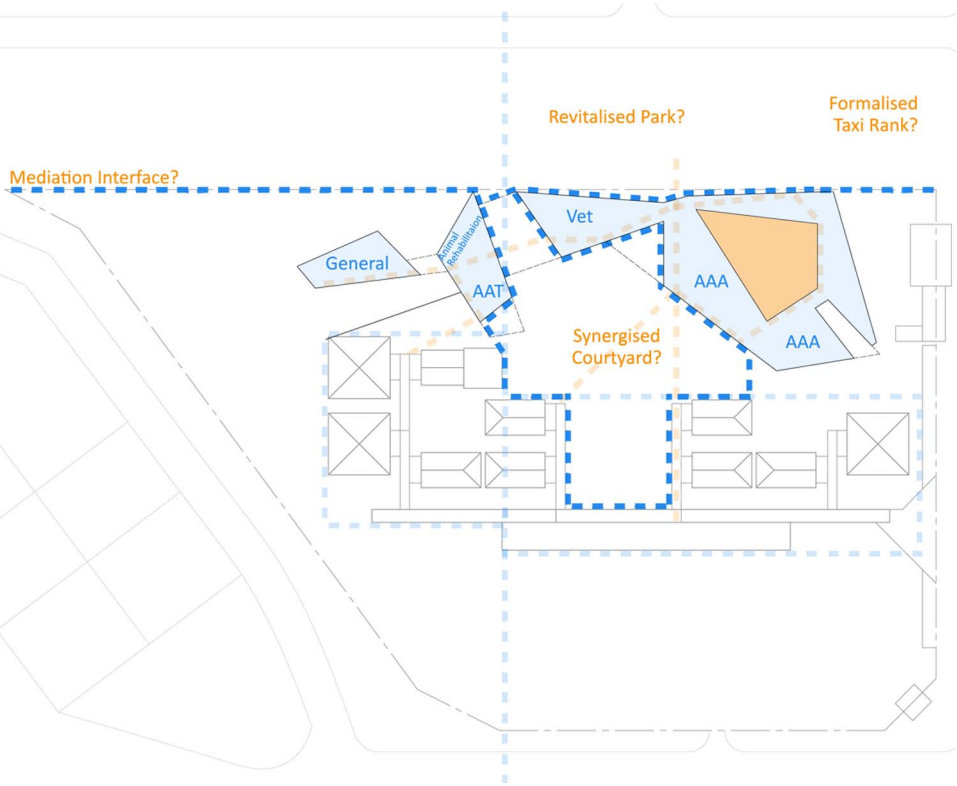


Figure 55 - Generalised programmatic requirements are indicated in blue text while the orange text indicates aspects requiring further attention. (R.Hartmann)

Whilst the design was born in response to certain spatial characteristics on the site, its formulation was too literal and although it had a greater level of synergy with the existing buildings on site than the previous sketch design, it failed to adequately respond to them. In particular, the spaces created between the new welfare centre and the existing KRC are too disjointed and the vastness of open space is not appropriate to the aim of supporting service collaboration between new and existing operational functions.

Both of these sketch designs, although flawed, produced certain aspects that were carried through into the final design and also indicated where more design focus was required in order to attain a successful scheme. The following section elaborates on the dissolution of ideas into a final design scheme.

1.2 Theme Interpretations

The design has largely evolved from the application of the theoretically informed themes of the project and concurrently through exploration into the architectural responses required on a site with an already operational architectural language and set of functions. The premise of the site integration was to allow a level of synergy between the new welfare centre operational functions and the existing KRC functions, however deviating from the existing architectural language as shall be elaborated further in this section.

In beginning to divulge on the evolution of an architectural scheme I will first offer insight into how I have interpreted the three core themes of the project.

1.1.1 Synergy

This theme is essentially operative on 3 fronts; that of the welfare centre and the existing KRC, the welfare centre as an entity and lastly the composition of individual spaces within the welfare centre as a whole. The theme is approached through an understanding of how the relationship of individual spaces to one another alters the nature of the synergising space they share.

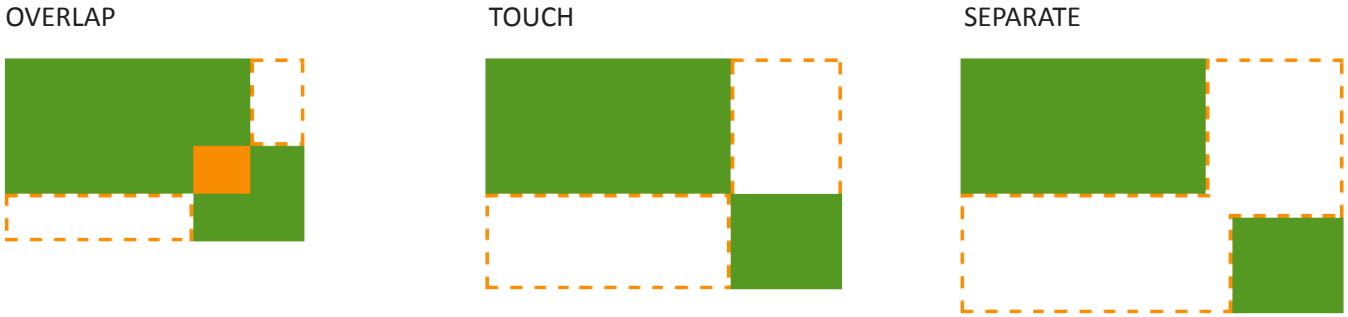


Figure 37 - Spatial relationships with regard to synergy (R.Hartmann)

The above diagram represents the individual spaces in green and their 'shared' space highlighted in orange. The idea is that the relationships between spaces determine the nature of the 'shared' space between them.
This 'between' space is either :

1. The Space Between - As is seen in the diagram of overlap and indicated by the orange block; whereby there is an amount of space common to both individual spaces, i.e. the space between them.
2. The In-Between Space - As is seen in all three diagrams whereby there is an area of in-between space that the two spaces share and concurrently are synergised by.

It is the resolution of the 'space between' and the 'in-between space' that affords individual spaces a level of synergy with one another. Such a resolution could be attained by similar facade treatments, material usage, spatial orientation, spatial layering from interior through to the shared space, etc.

1.1.2 Mediation

When initiating the response of this theme to the project it became applicable in two aspects. The first is in the mediation of the strained human-animal relationship (reasoning having been elaborated in section b2.4) and the second is in the mediation of the architecture of the welfare centre and its surrounding built environment.

In mediating the human-animal relationship, the architectural response aims at offering varying levels if interaction between the two parties throughout the welfare centre, so that there is an amount of 'give and take' between human and animal in the space they utilise within the welfare centre. This allows a multitude of interactions and affords these interactions based on levels of individual user comfort. To promote human-animal interaction, the circulatory route through the welfare centre is visualised as a mediation interface as described in figure 36 and figure 37. The interface is essentially a plane along the circulatory route that affords varying levels of human-animal interaction and consequently indicates responses of form and function. The composition of form, function and material will allow the interface its variation throughout the welfare centre.

The aspect of mediating between a new architectural entity and the existing built environment is primarily a method of contextualising the new architecture with it's surroundings; essentially sensitising the architectural response (primarily along the welfare centre edges) so that it is adequately grounded in place. On one hand the project advocates for a complete architectural deviation from the monotonous sterility of the existing built environment of Katlehong, particularly in response to the theme of cognition (environmental psychology) and the psychological associations an individual develops with built space and on the other, the project requires a level of sensitivity in its architectural response.

In mediating with the surrounding built environment the architectural response along boundary edges becomes restrained and instead of being an entity out of place in it's environment, it utilises compositional elements common to the surrounding built environment in contrasting ways. This affords a definite level of deviation from the existing, thereby creating an architectural entity that is distinguishable from the surrounding Katlehong built environment, but at the same time, of a distinct sensitivity to place.

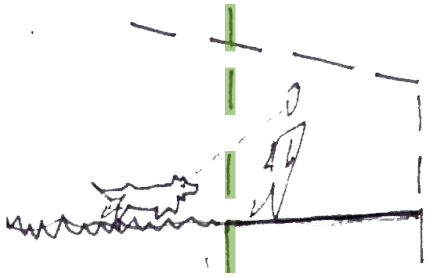


Figure 38 - Mediation interface (R.Hartmann)

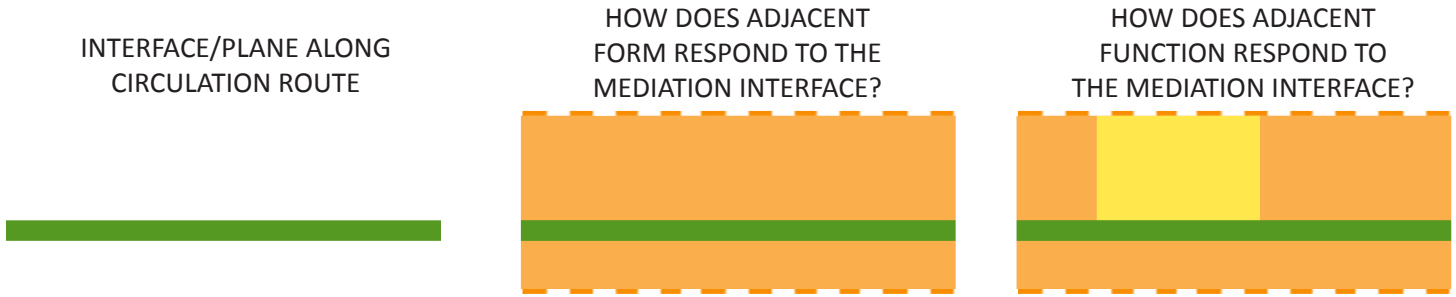


Figure 39 - Mediation interface and the response of form and function to this interface (R.Hartmann)



Figure 40 - Mediatory interface along welfare centre edges (green) with existing KRC buildings on the southern edge (blue). (Google Earth\R.Hartmann)

Along with having a mediatory interface within the welfare centre, arranged to facilitate human-animal interaction, so the idea of the mediatory interface is also operational along the edges of the welfare centre (Green edge in Figure 38). It is particularly along these edges that the architecture must take on a level of restraint in its expressive identity, rather incorporating a subtlety in its deviation from the typical built environment of the surrounds. Such a subtlety is primarily achievable through intriguing composition of material and an exploration of facade composition.

With that said, the park along the north boundary (yellow) is perceived as the threshold between the welfare centre's northern mediative edge and the township built environment (orange). In essence the park is an area where two worlds (the existing built environment and the welfare centre) overlap and as will be seen further on in this section, I have distorted this edge to facilitate a spatial overlap.

The incorporation of the mediatory dialogue in the architectural scheme also serves to reinforce efforts at synergising a new architectural entity with its surrounding built environment (orange) and the existing KRC buildings (blue) on the chosen site. The themes of synergy and mediation result in predominantly subdued architectural responses, however, these responses are most applicable on the outward facing edges (green). This leaves inwardly focussed edges the inherent ability to expose their expressive identity in order to respond to the theme of cognition. Having a subdued outward edge and an expressive inward edge concurrently facilitates a level of intrigue for visitors to the centre as there is a marked change from what one perceives the centre to be (outward edges) and what one experiences within the centre (inward edges).

1.1.3 Cognition

The theme of cognition is chiefly concerned with creating an architectural environment of richness and variety so that there are a multiplicity of spatial associations afforded to the user. Such a multiplicity has been incorporated into the range of operational functions of the welfare centre (Section c. Programme) and must now be translated into spatial responses to suit. Aside from the requirement for spatial and operational richness and variety, the theme of cognition is concurrently informed in response to the spatial organisation of the existing KRC buildings.
Understanding the spatial organisation of the existing KRC buildings reinforces the idea of creating an architecture of a greater capacity to afford a multitude of positive spatial associations for users.

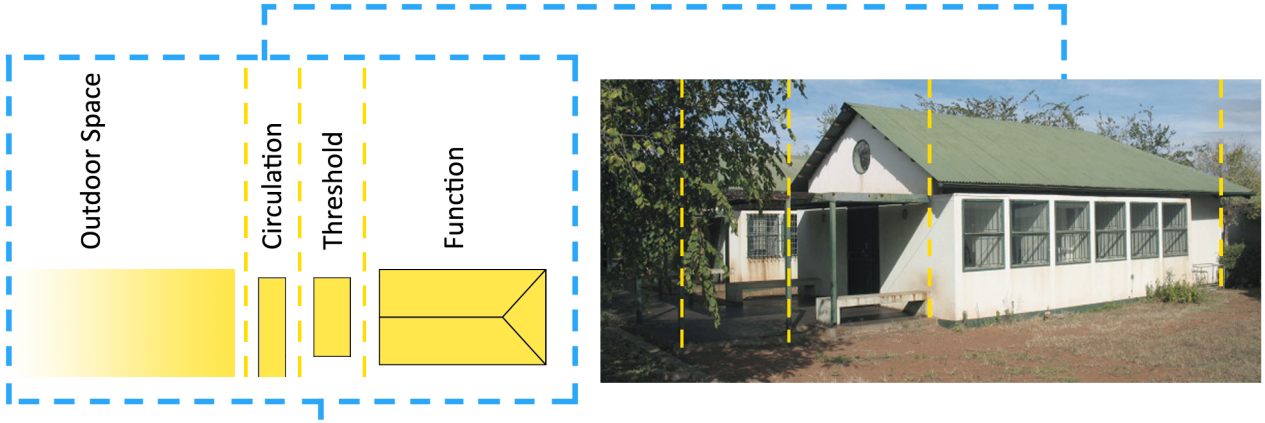


Figure 42 - Diagrammatic breakdown of the spatial organisation used throughout the KRC and an image of a building (2) showing this spatial organisation. (R.Hartmann)

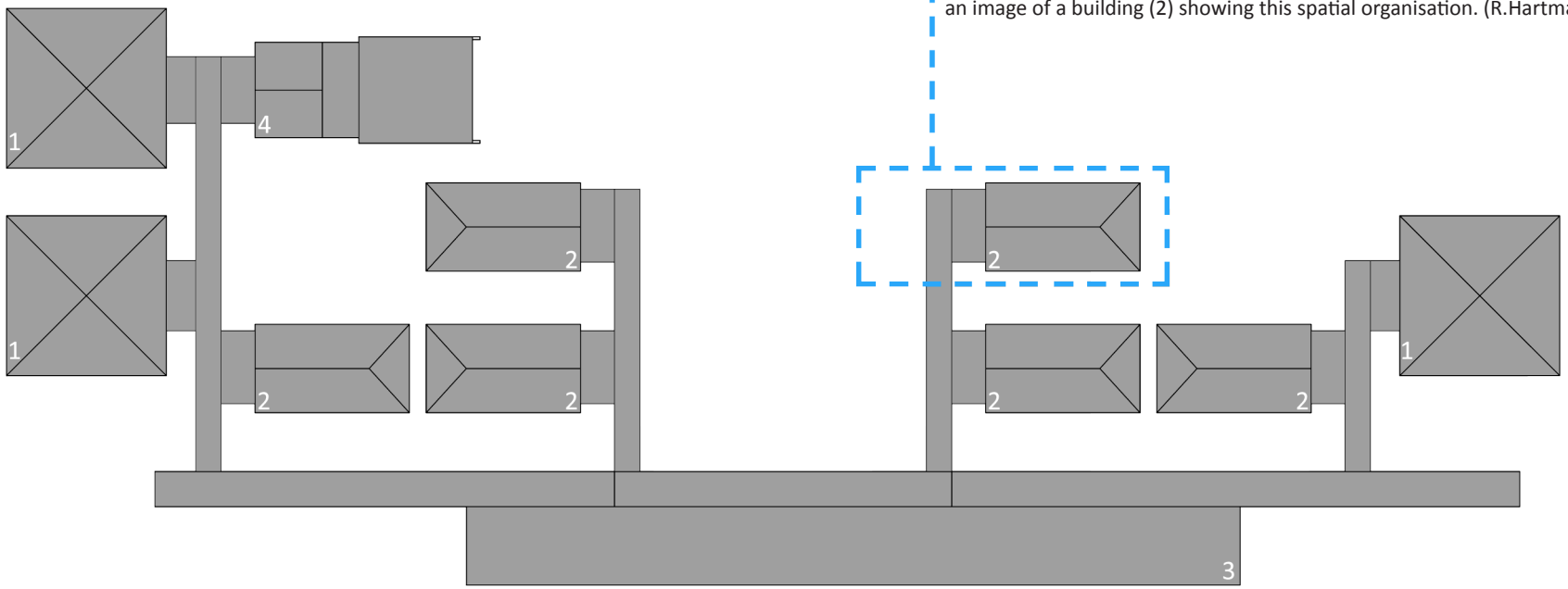


Figure 41 - Roof plan of the existing KRC, composed of 3 building typologies (1-3) and a later addition (4) all linked by a series of circulation passages. (R.Hartmann)

What is clearly evident in figure 39 and figure 40 is the definite formality with which the spatial organisation of the KRC is composed; essentially a repetition of building typologies and a subsequent repetition of the spatial qualities that define them (spatial organisation is repeated, materiality is repeated, composition of construction components is repeated, volume is repeated, spatial boundaries are distinct, etc.).

This project responds to the existing spatial dynamics in two contrasting ways :

1. To attain a level of synergy between the KRC and the welfare centre (collaborative service provision), the existing spatial dynamics must be recognised and utilised as a starting point in the articulation of the operational functions of the welfare centre as is captured in figure 41 below.

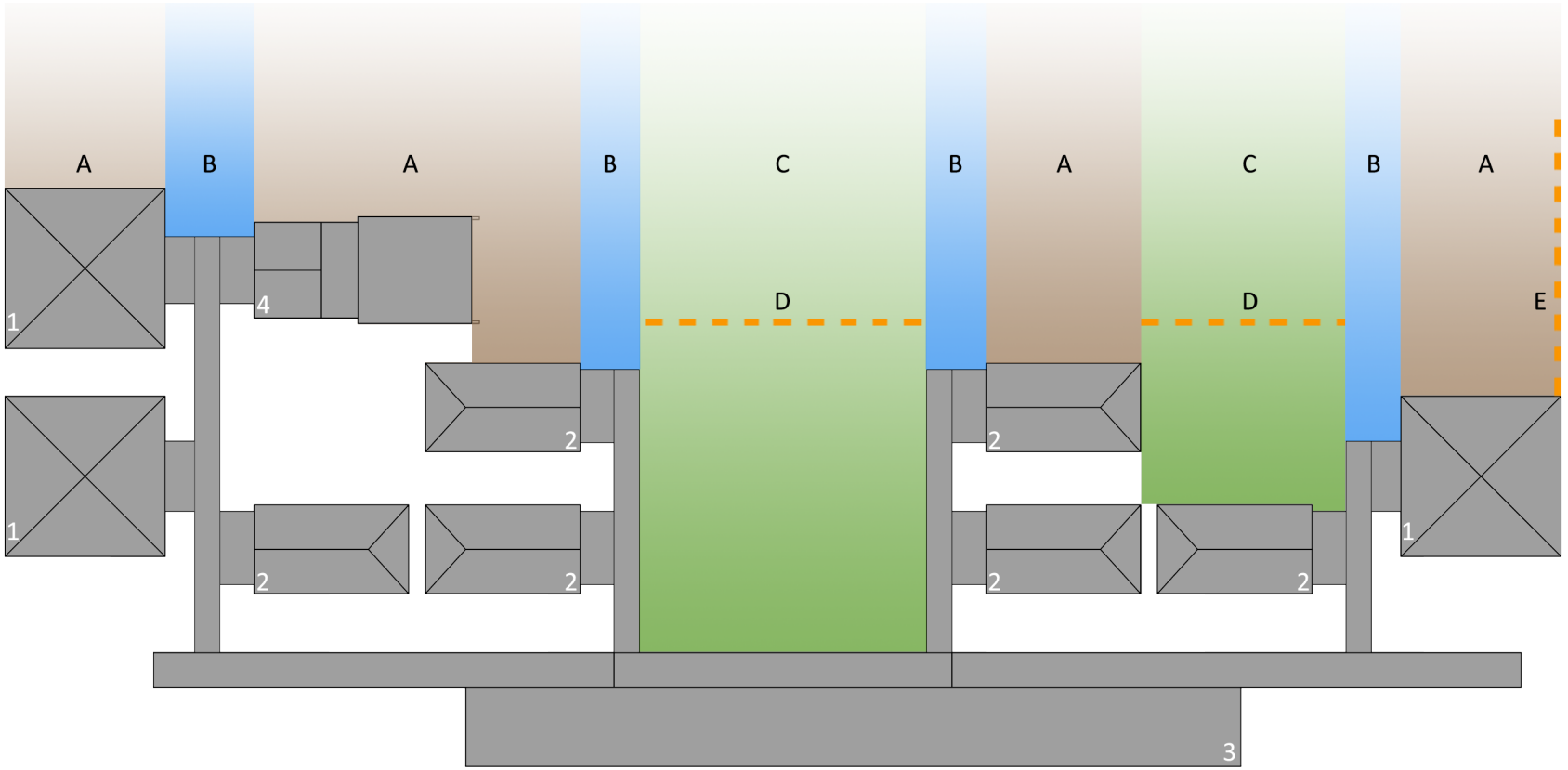


Figure 43 - Diagram indicating aspects requiring a synergistic response. (R.Hartmann)
A: Functional/built form zone
B: Circulation/threshold zone
C: Courtyard/informal activity zone
D: New building to provide an edge to the courtyard
E: Exposure onto Maphike Street (mediative edge)

2. In contrast to attaining a level of synergy between existing and new, this project aims to deviate from the formality with which the KRC buildings are composed in order to successfully address the theme of cognition.

The combination of these two contrasting responses has resulted in two design axes :

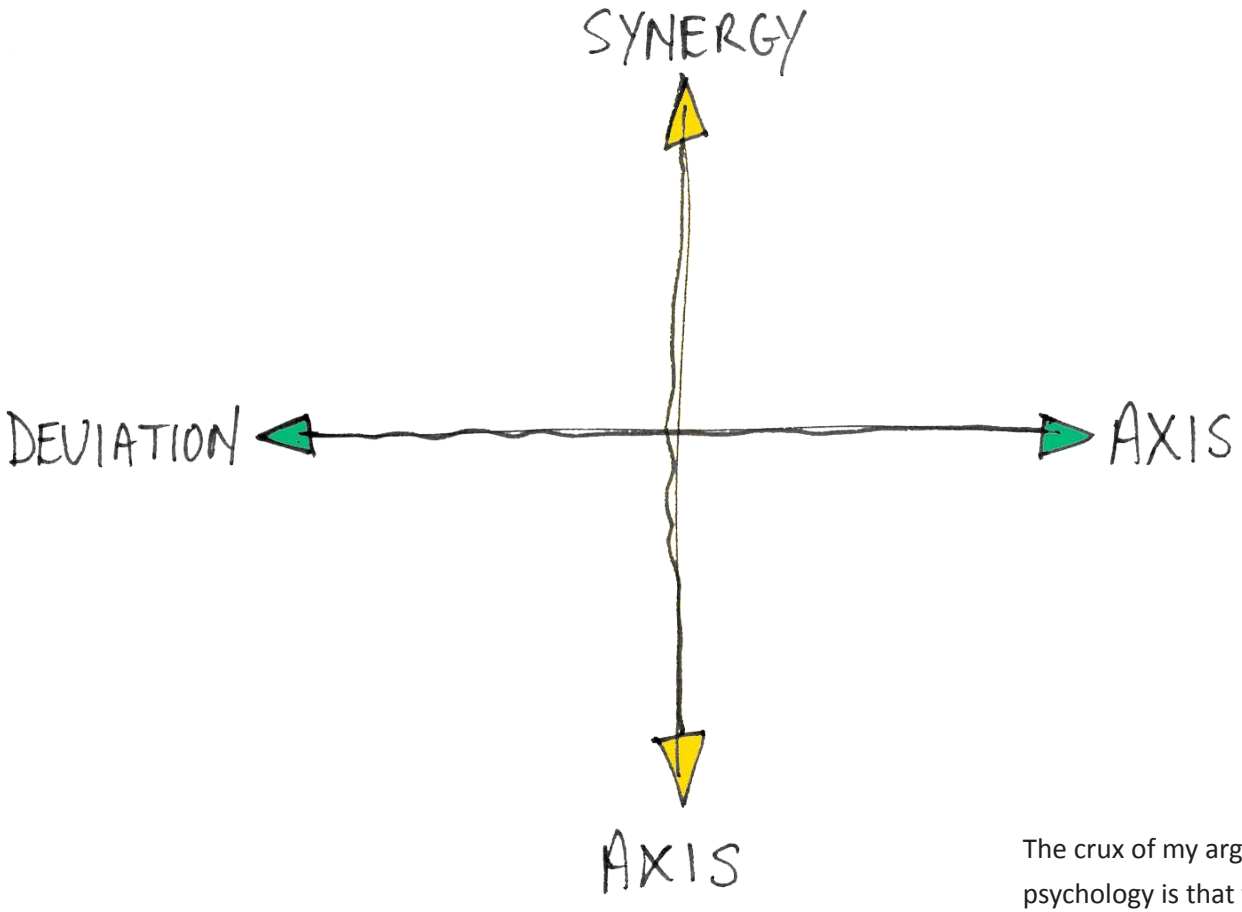


Figure 44 - The north-south synergy axis and east-west deviation axis encompassing the approach to developing a design response that enables a unification of existing and new and a design of inherent cognitive potential. (R.Hartmann)

The crux of my argument regarding cognition and environmental psychology is that the combination of the formality with which spaces of the KRC are designed and the repetition of these spatial typologies, as well as materials and construction components, has created a built environment offering a bland level of possible spatial interactions to the visitor and consequently variations in visitor-space interaction are minimal.

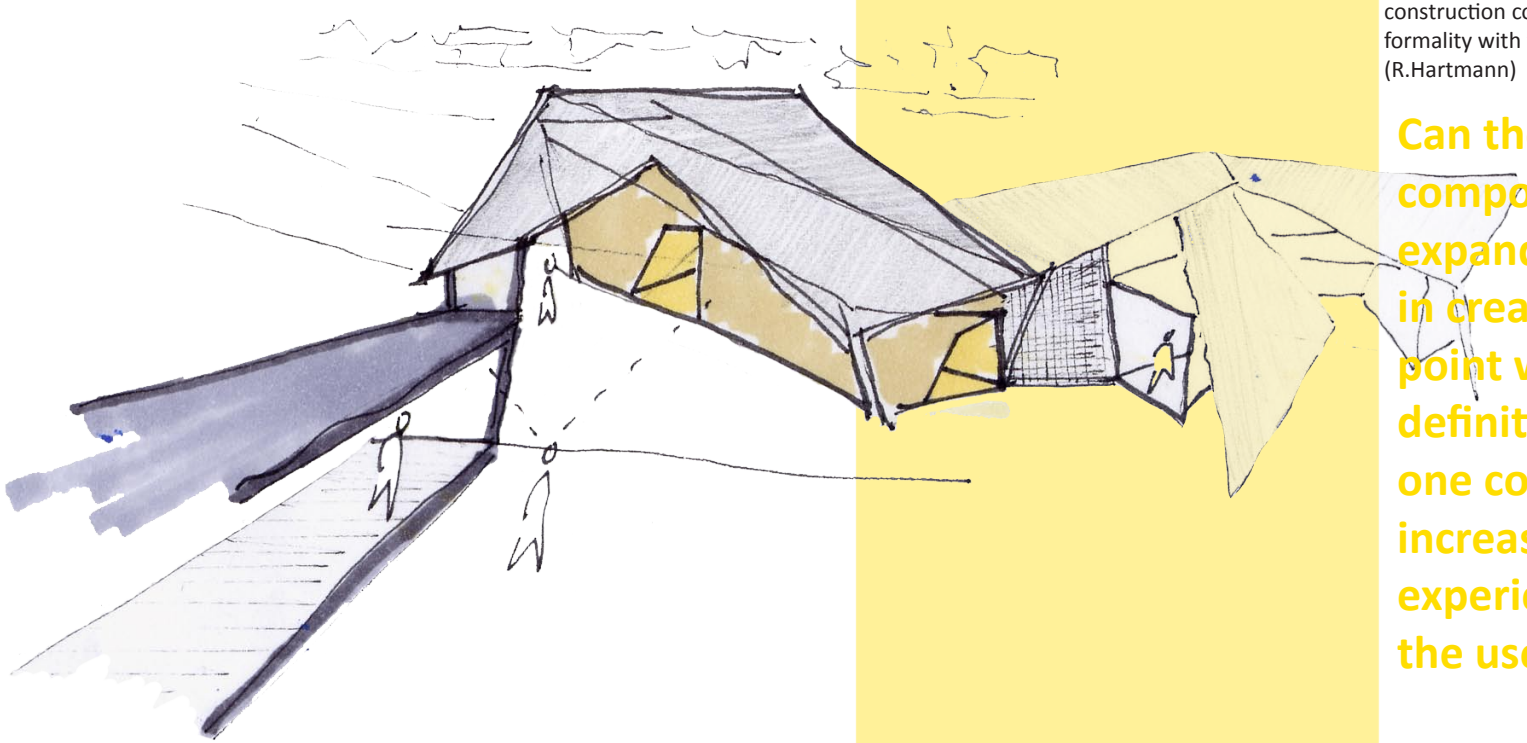


What associations can I link to my experience of this space?

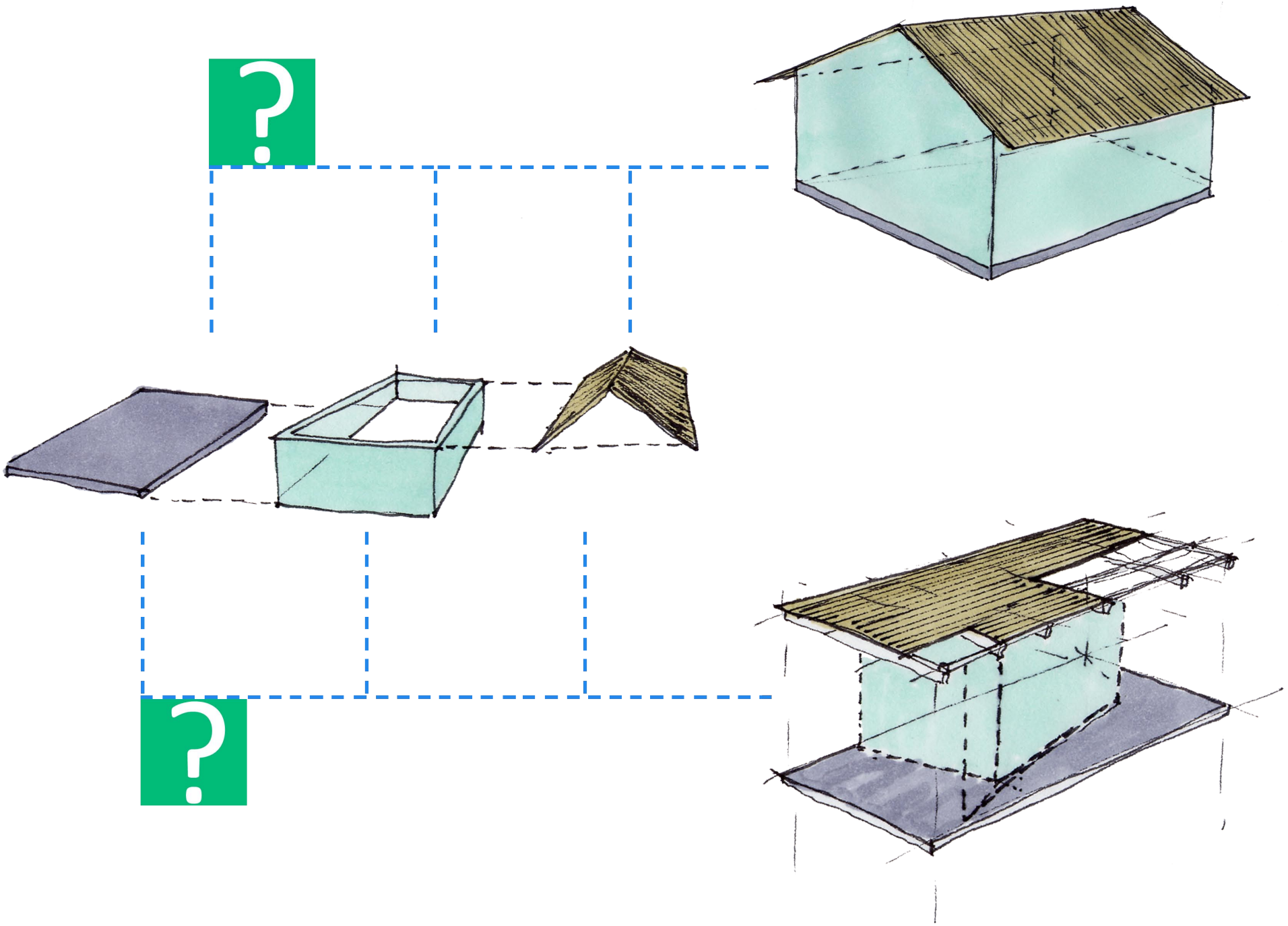
Does this space relate to the activity it carries?

Figure 45 - Images of some of the existing KRC buildings on site. (R.Hartmann)

Figure 46 - Sketch indicating the expansion of the application of typical construction components and materials allowing a breakdown of the formality with which these elements create and hold space. (R.Hartmann)



Can these typical construction components and materials be expanded in their application in creating built form? ... to the point where their application is definitively divergent from what one commonly perceives, thereby increasing spatial interpretations, experiences and associations for the user.



1.3 Solution

The combination of the theoretical themes and a response to the existing on-site dynamics has clearly defined an approach to an architectural solution. The essence of this approach is in utilising materials and construction components common to the township environment, however abstracting their use to create a rich and varied spatial environment; and as a scheme, mark a break in the sterility of the surrounding built landscape.

In using this approach, there is a layering of elements that combine to create an entity and concurrently this layering reinforces a break from the formal rigidity of the existing KRC buildings; enabling a dissolution of threshold and boundary thereby freeing up user-space interaction, experience and association.

The three elements typically making up a building, namely floors, walls and roofs have each been appropriated to the design in varying ways:

Floors - The floor slab has been applied as an element that creates a formal edge. Programmatic aspects had an area applied to them and a slab shape was designed to suit the area and functional requirements. The slab shape always remains, however, floor finish and materiality enable it a level of deviation from its typical overall resolution.

Walls - Within the confines of the defined slab edges, walls distort, angle and articulate themselves in response to spatial qualities being striven for (eg. mass, volume, scale, circulation, threshold, boundary, etc.).

Roofs - Roofs have been utilised as definitive elements in creating an architectural scheme of distinct deviation from its surrounds. In doing this, they typically follow the same area requirements they would in their usual application of providing cover to a floor area; however their response is free from the articulation of walls below (supporting structure is oriented toward slab edges) and hence frees up their expressive quality and possible levels of contribution to an environment of multiplicity.

Placing structural elements on the slab edge extents and beyond also creates added possibilities for the exposure of such elements within the scheme and hence possibilities for their composition to be expanded.

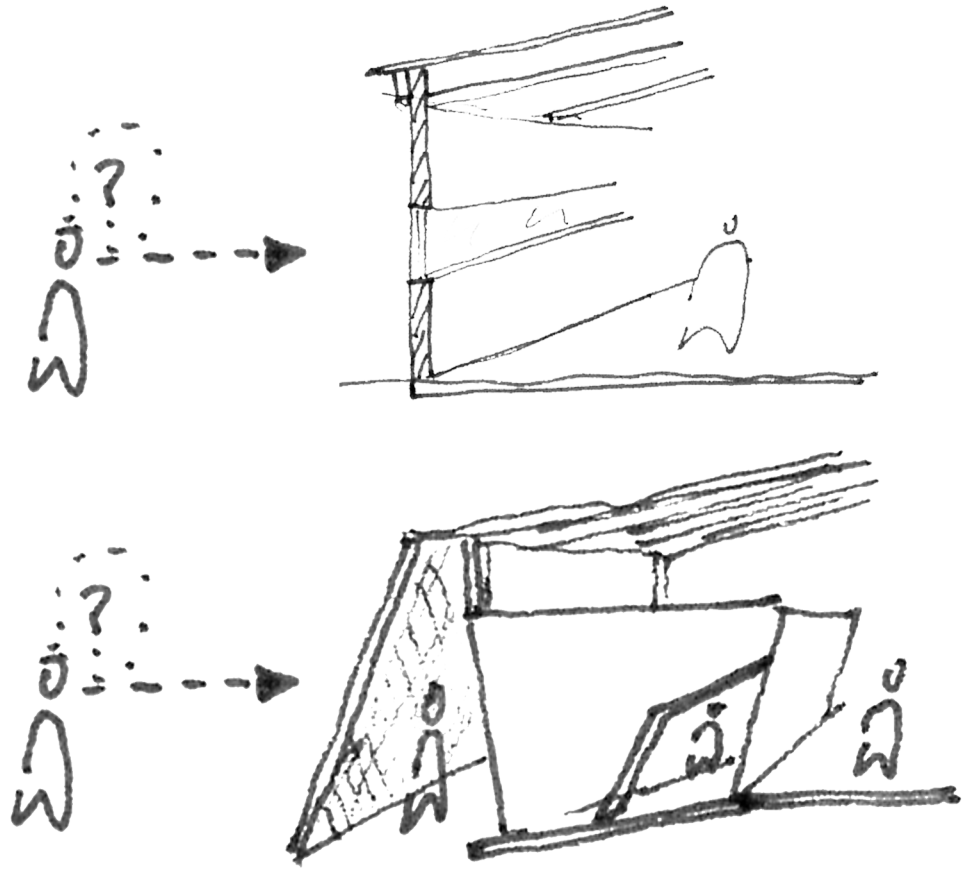


Figure 47 - Sketch showing the abstraction of the composition of typical construction components and materials. (R.Hartmann)

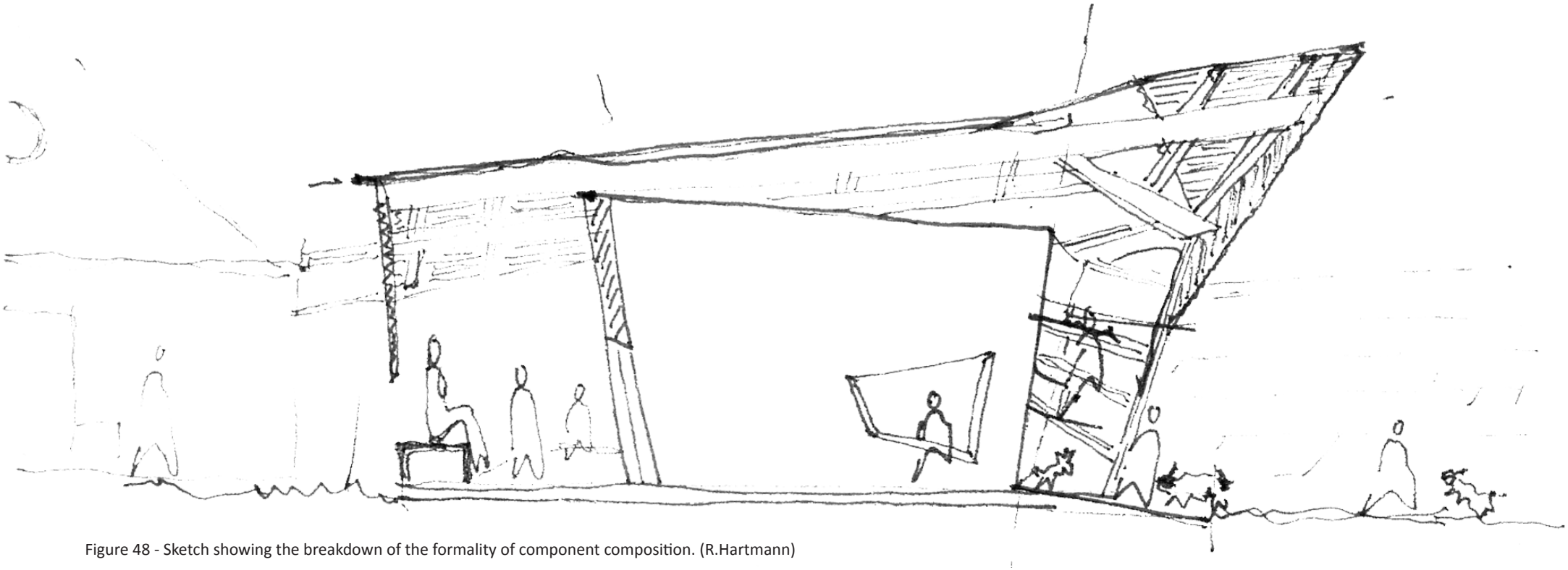


Figure 48 - Sketch showing the breakdown of the formality of component composition. (R.Hartmann)

Composing these ideas together allows each element the ability to take on its own identity thereby enhancing its contribution to the final product. The above sketch is an example of this methodology being applied, whereby varying spatial attributes and qualities are achieved; all within the confines of a floor slab area (structural elements become ladders for children to climb, roof overhangs create an extended threshold zone while support columns are a means of containing informal space, etc.).

1.4 Siting

The interpretation of the three themes has indicated a definite design methodology that is particularly applicable to the composition and resolution of built form. Implicating this methodology was possible after site constraint and site design informants had been realised.

Firstly existing welfare services were mapped out providing a base from which to introduce new operational functions, as set out in the project's programme. Service collaboration is a critical driver of the placement of new functions on site and hence this mapping exercise was the primary informant of the siting of the various functions making up the programme.

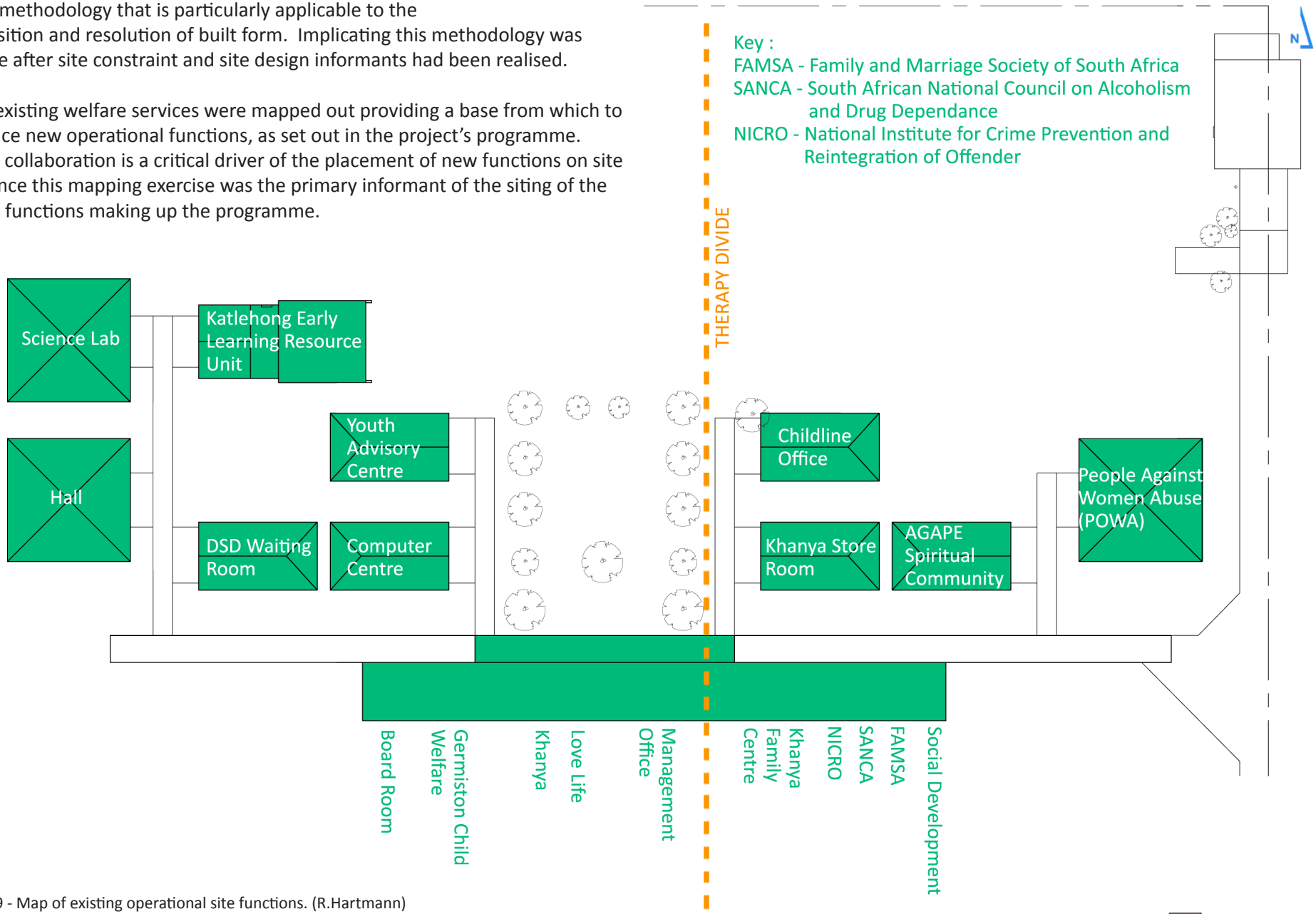


Figure 49 - Map of existing operational site functions. (R.Hartmann)

Mapping out the functions gave rise to a divide line across the site (therapy divide). To the east of this divide line are currently functions inherently appropriated to aid individuals in Katlehong. This indicated that the predominantly therapeutic and welfare type functions of the project be placed to the east of this divide line to ensure service collaboration and facilitate a link to a section of the KRC.

To the west of the divide line are more informal functions such as the Youth Advisory Centre and the computer centre. These functions are more applicable in associating with the informal/recreational activities of the project; specifically Animal Assisted Activities (AAA).

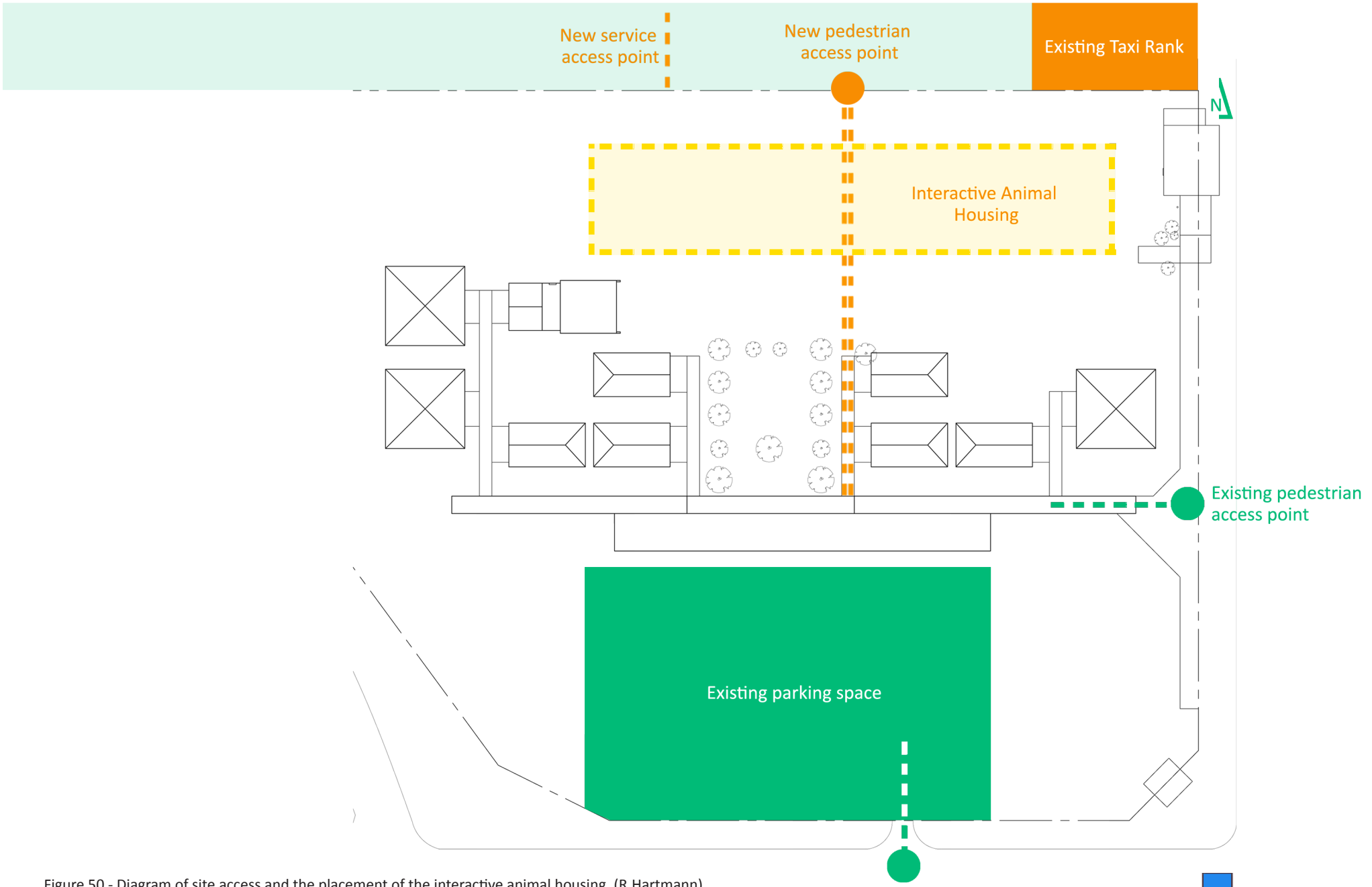


Figure 50 - Diagram of site access and the placement of the interactive animal housing. (R.Hartmann)

A new pedestrian access point is located on the north boundary, off the park. This access point coincides with a circulation link to the KRC and this circulation link coincides with the therapy divide line indicated in figure 49. The pedestrian access point is placed to allow a comfortable walking distance from the taxi rank and in order to line up with one of the circulation passages of the KRC.

Parking for visitors and staff was explored but never seemed appropriate given the large, barely used, existing parking lot on the south side of the side. For this reason the new welfare facility would use the existing parking lot and access would be through the KRC.

A service access point needs to be incorporated and is proposed to be somewhere along the north boundary. I am of the belief that this service 'street' will provide an edge to the area of park space in front of the new welfare centre, essentially enclosing an area that can be directly appropriated to the welfare centre (responsibility/ control/maintenance).

The interactive animal housing (a courtyard space that houses domestic dogs and is a space that facilitates AAA and AAT) is loosely placed on site in accordance with its area requirements and hence its orientation. By placing this core functional element of the welfare centre other programmatic requirements can begin to be planned out.

With an idea of where operational functions of the new welfare centre would be suited in their siting, I began massing studies that incorporated the information from the siting exercises and theme interpretations, but began to develop responses in 3 dimensions.

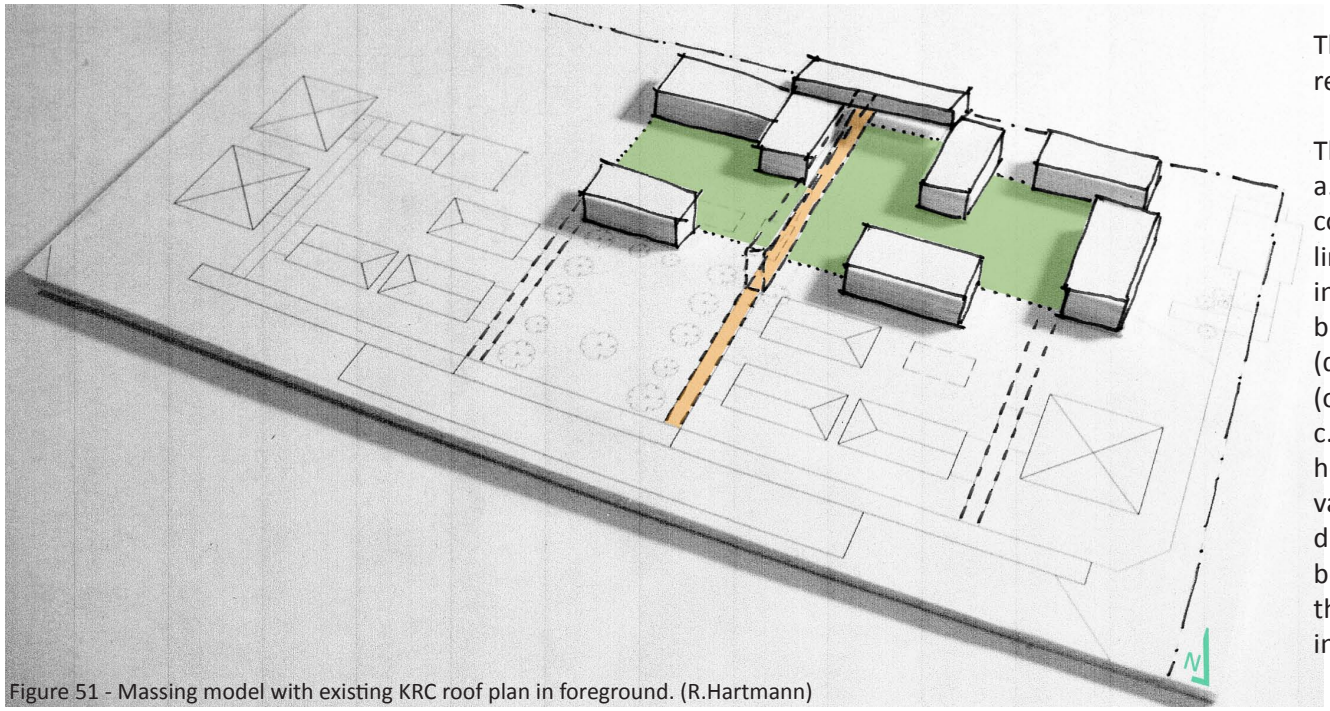


Figure 51 - Massing model with existing KRC roof plan in foreground. (R.Hartmann)

The massing model begins indicating adequate responses previously missed in other sketch designs.

This model indicates -
a. A building edge to the existing courtyards yet not completely enclosing them, thus allowing an 'activity' link between the KRC courtyard spaces and the interactive animal housing courtyard (green).
b. A continuation of the circulation/threshold axes (dashed lines) and the prominent circulation link (orange).
c. Building mass puncturing into the interactive animal housing courtyard (green) thus providing spatial variation.
d. The building mass at the access point on the north boundary is raised to facilitate a direct continuation of the activity zone from the KRC courtyard, through the interactive animal housing courtyard and into the park.

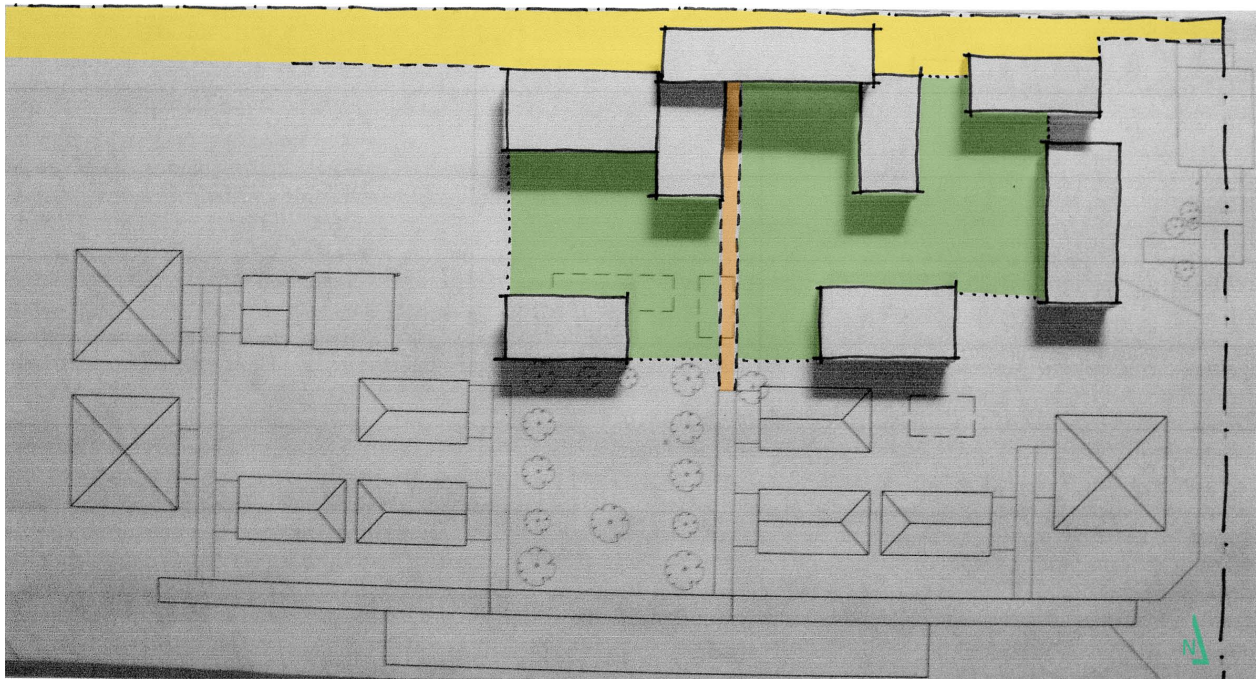


Figure 52 - Aerial image of massing model. (R.Hartmann)

Figure 52 displays the distortion of the northern building line in that it is set back allowing a spatial overlap between the new welfare centre and the park. In setting back the building line the building mass steps back until the entrance. The yellow region shows the area of spatial overlap.

Figure 53 displays a bit more of the building mass being set back from the building line whilst also indicating the continuation of the 'activity' space through to the park space (green). The raised mass over the entrance also acts as an element that can be associated as the entrance point when viewed from afar. As a heightened building form, it concurrently forms a break in the surrounding built landscape.

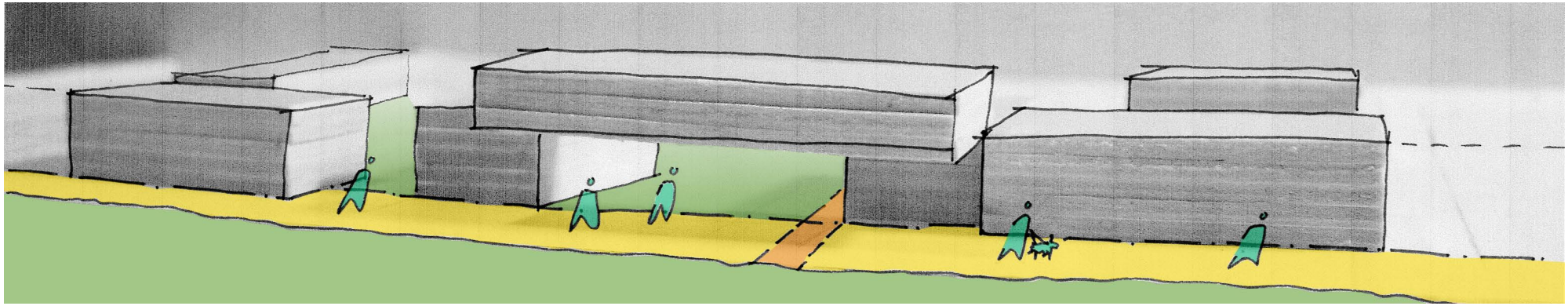


Figure 53 - North west perspective image of massing model. (R.Hartmann)

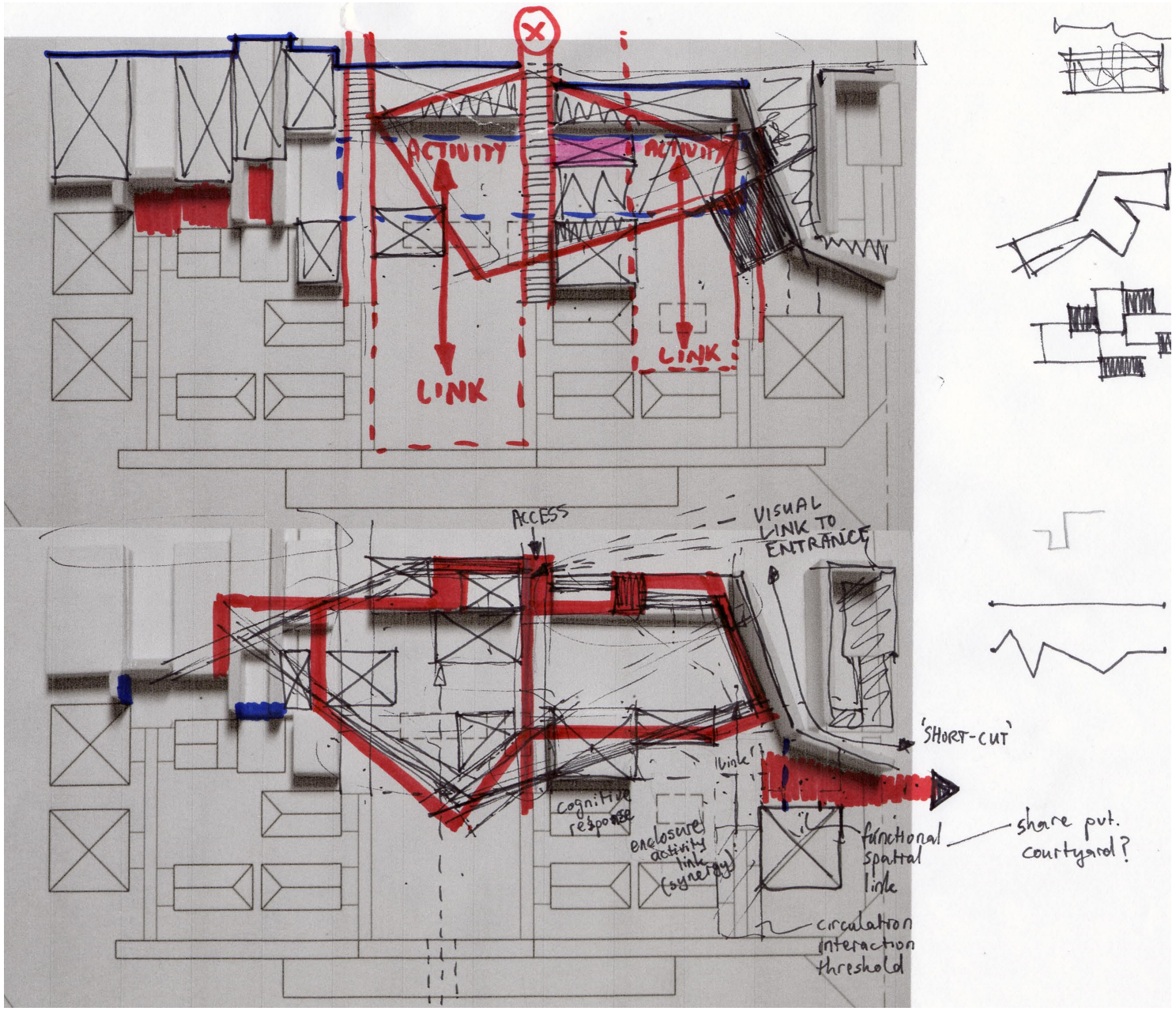
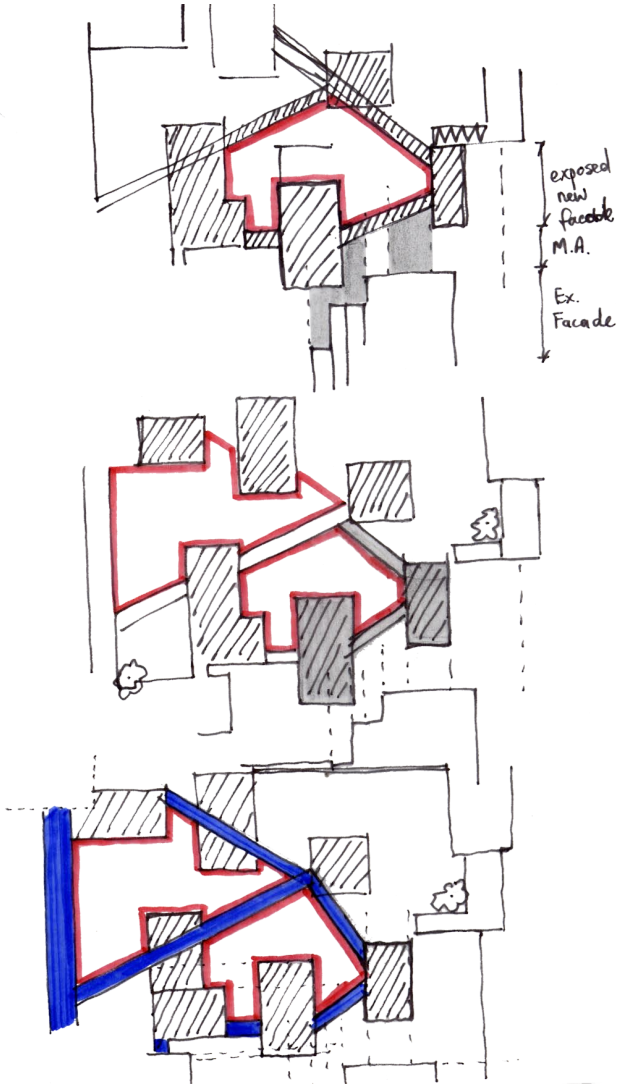


Figure 54 - Sketch of circulation route possibilities. (R.Hartmann)

Following the massing model I began to explore the articulation of a circulation route.
The following series of sketches capture some of the exploration into how a circulation route could be incorporated; keeping in mind the idea of the route meandering through operational functions and the interactive animal housing courtyard.

Figure 54 - figure 57 show some circulation route possibilities.



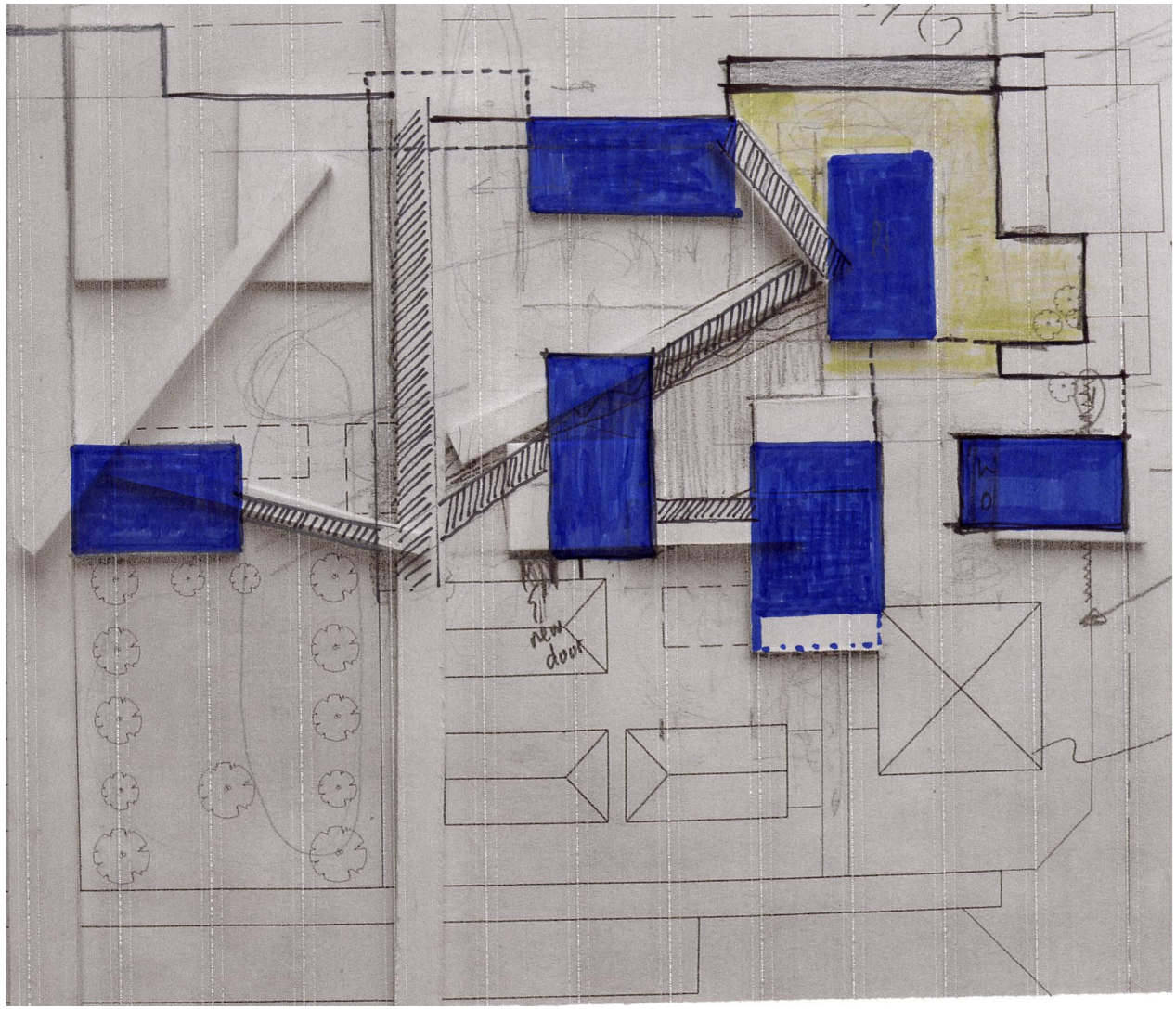


Figure 55 (R.Hartmann)

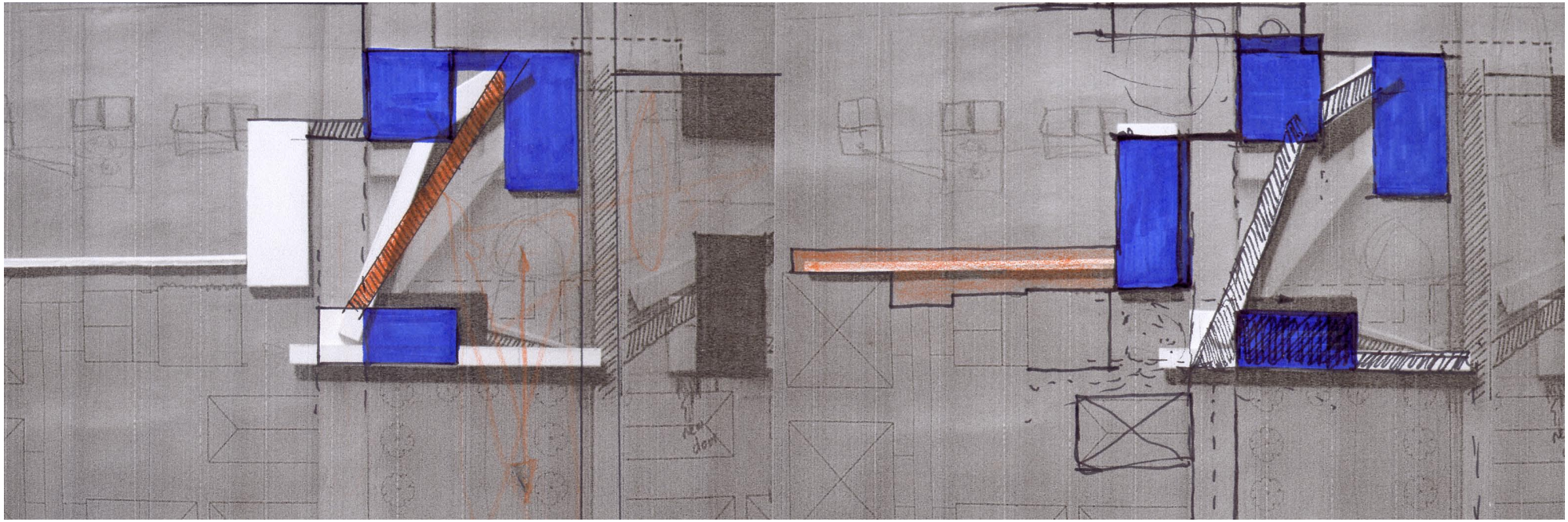


Figure 56 (R.Hartmann)

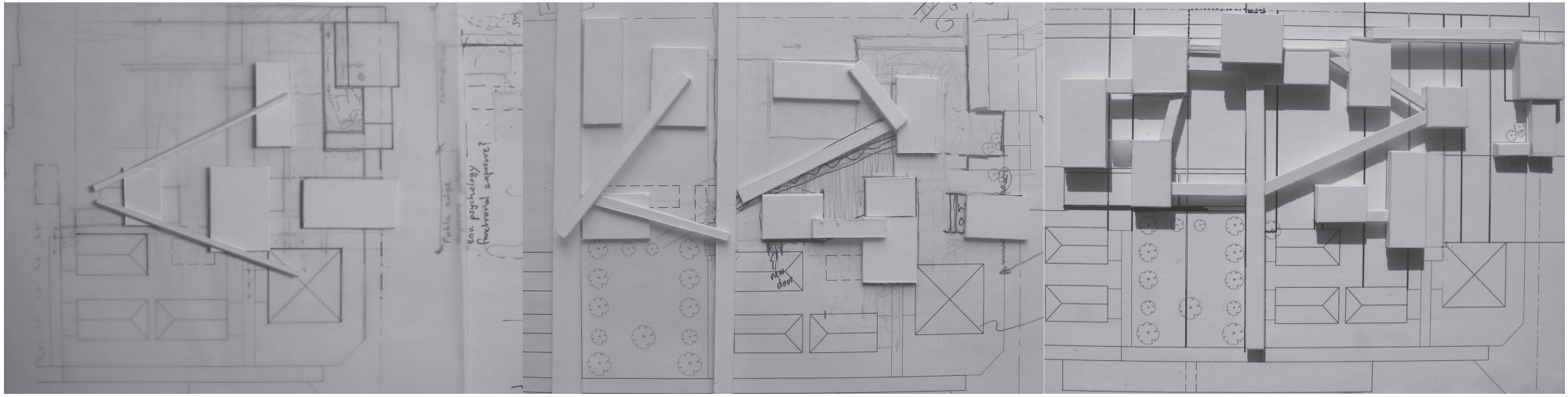
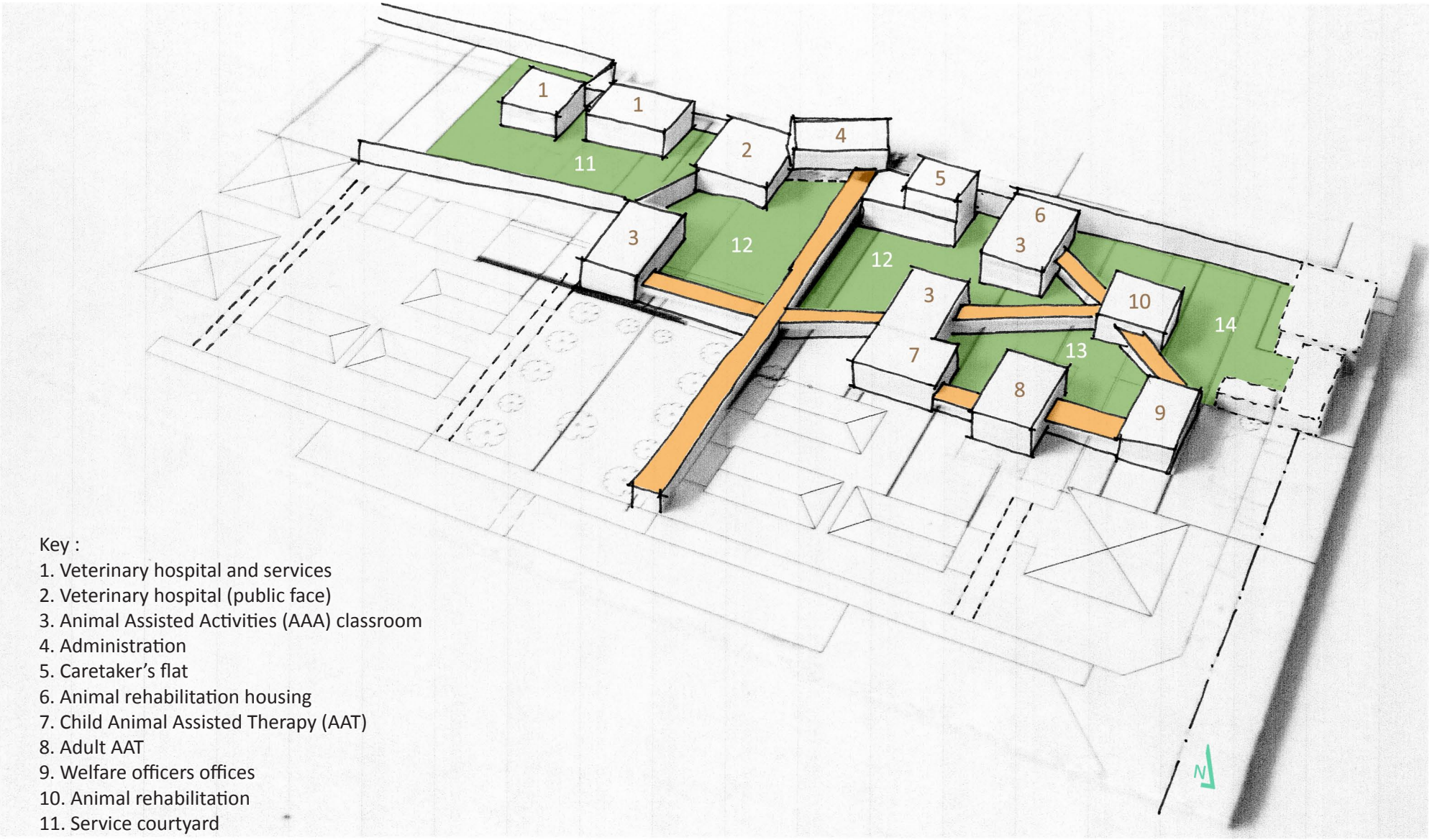


Figure 57 (R.Hartmann)



Key :
1. Veterinary hospital and services
2. Veterinary hospital (public face)
3. Animal Assisted Activities (AAA) classroom
4. Administration
5. Caretaker's flat
6. Animal rehabilitation housing
7. Child Animal Assisted Therapy (AAT)
8. Adult AAT
9. Welfare officers offices
10. Animal rehabilitation
11. Service courtyard
12. Interactive animal housing courtyard
13. AAT courtyard
14. Animal rehabilitation courtyard

Figure 58 - Updated massing model with circulation route (orange). (R.Hartmann)

Figure 58 shows an updated massing model with the circulation route included. Notable changes include the twisting of the mass above the entrance off the park which allows a further extension of the courtyard space toward the park. Twisting this block also breaks up the park elevation and further implicates the elevated mass as an identifiable element within the landscape.

In keeping with the 'therapy divide', the welfare centre's therapy functions are located toward the east of the site with recreational/informal functions located toward the centre of the site. The adjoining courtyard between the therapy section and the KRC is more enclosed in coherence with the private nature of the therapy functions.

The central KRC courtyard is enclosed by a small building mass and its circulation link which attempts to continue some of the existing spatial character the courtyard currently has. In doing this there is more exposure than enclosure; thus adequately providing a continuation of the 'activity' zone from KRC through to the welfare centre through to the park.

The circulation route (orange) is also utilised as an element that buffers and creates an edge to courtyard spaces within the welfare centre, enabling pockets of courtyard spaces servicing varying areas.

The west courtyard (11) is a service courtyard and is most suitable in this position due to the introverted section of KRC buildings it adjoins. A wall provides a definite edge to the service courtyard and concurrently provides a certain level of enclosure to the introverted KRC section.

The final series of images are the concluding images to the design conceptualisation section. These particular images capture the theme interpretations more coherently and begin to speak of a variation of design resolutions applicable to the various building masses composing the scheme.

Figure 59 shows the beginnings of a schematic response to the theme interpretations. Disjointing wall edges from floor slab extents creates a threshold area within the slab edge, softens the building edge, enables a level of visual synergy throughout the scheme and enables the area between the wall plane and the exterior to take on characteristics of either or both.

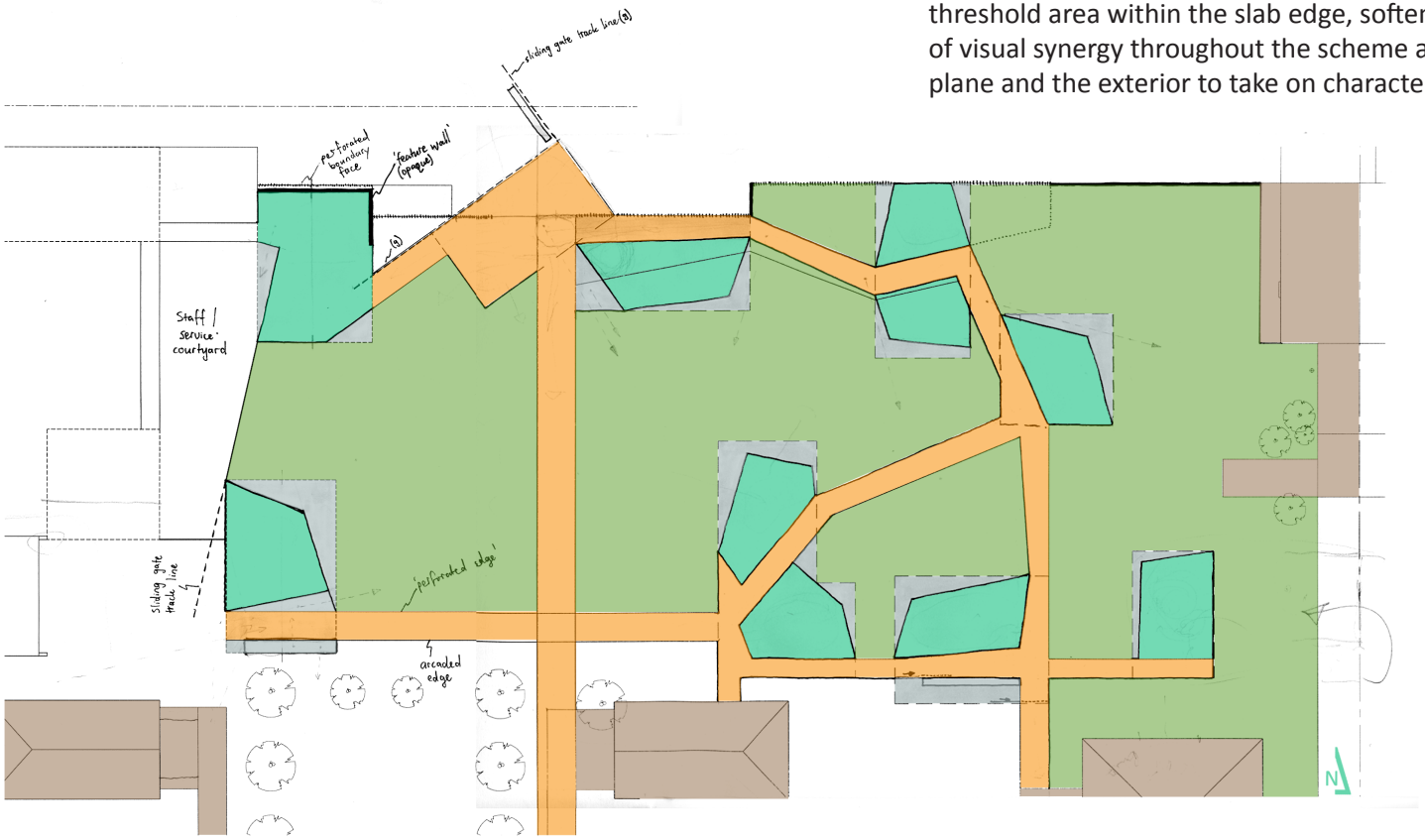


Figure 59 - Sketch plan beginning to indicate spatial deviation within floor slab extents. (R.Hartmann)

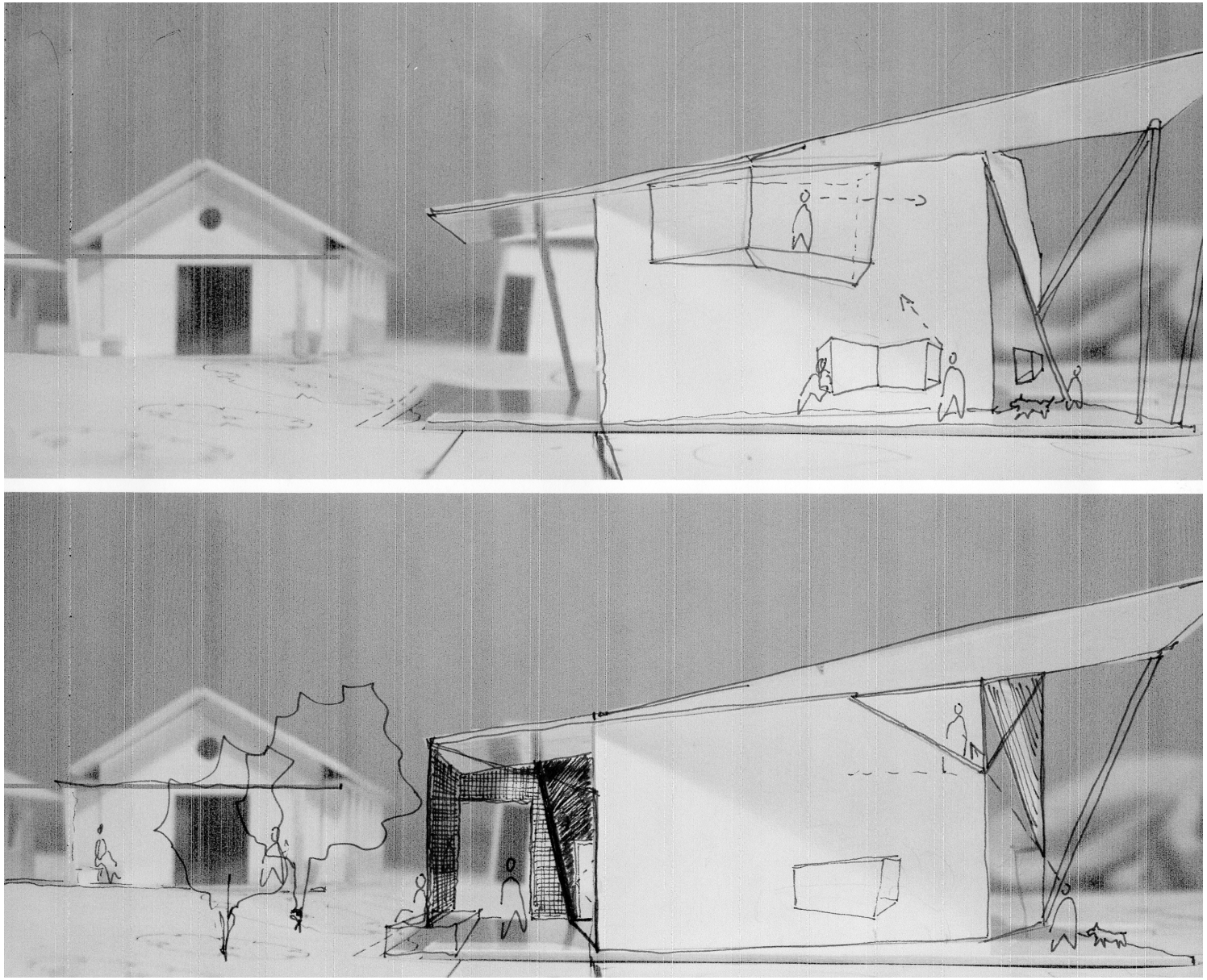


Figure 60 - Composing the theme interpretations into a built model and sketching over structural and component resolution. (R.Hartmann)

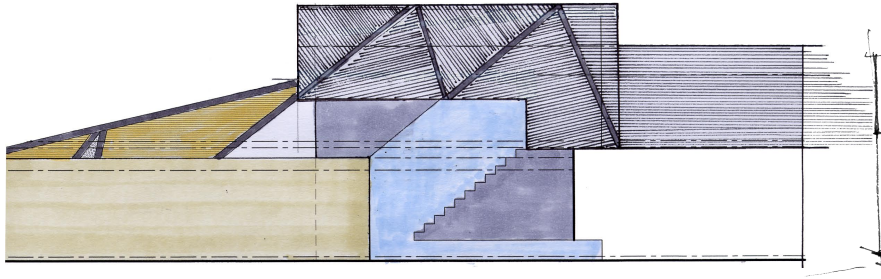


Figure 61 - North elevation of a possible facade treatment for the caretaker's flat. (R.Hartmann)

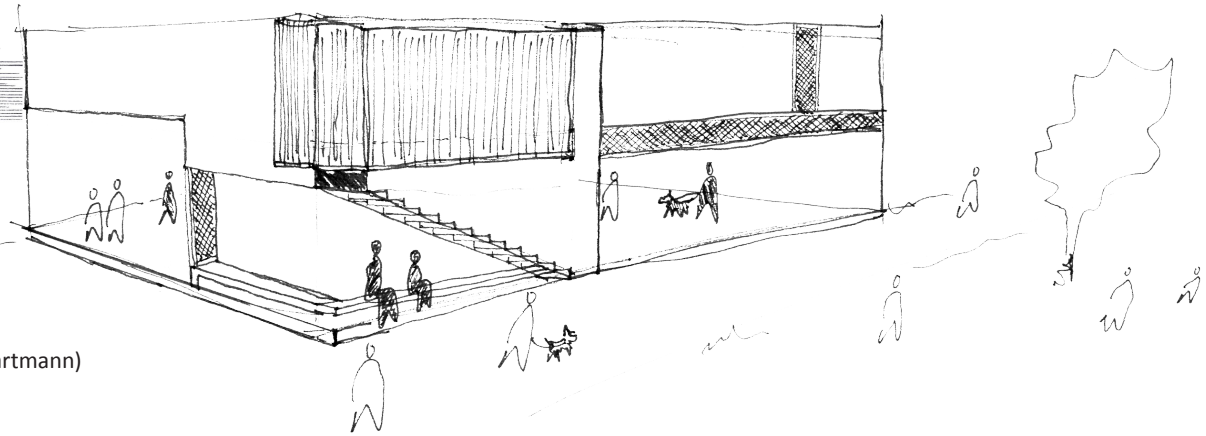


Figure 62 - North east perspective sketch of the welfare centre entrance from the park. (R.Hartmann)

Figure 61- figure 63 are elevation sketches of parts of the scheme facing onto the park (figures 61 and 62) and street (figure 63). All three facade treatments require a subtlety in their expressive identity (mediation) and rather utilise intriguing material composition and facade depth to enable the building a level of obscurity and hence result in an interesting built form in the landscape.

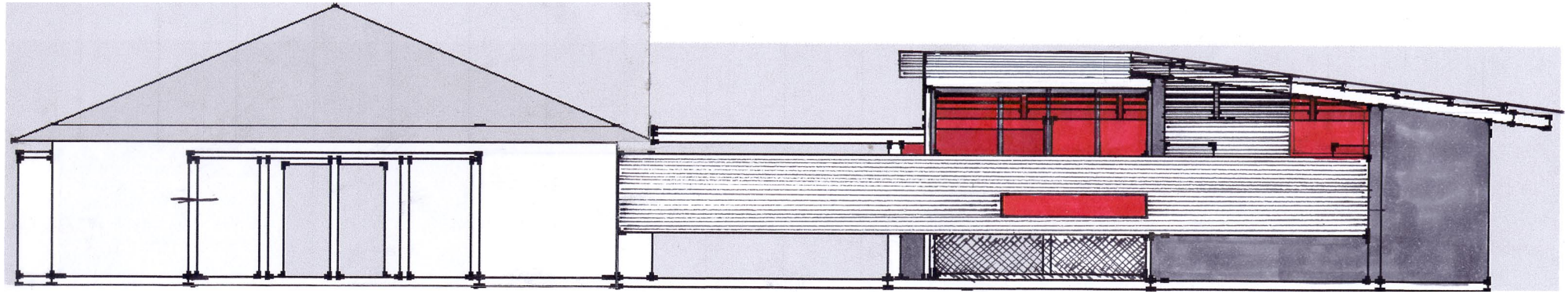


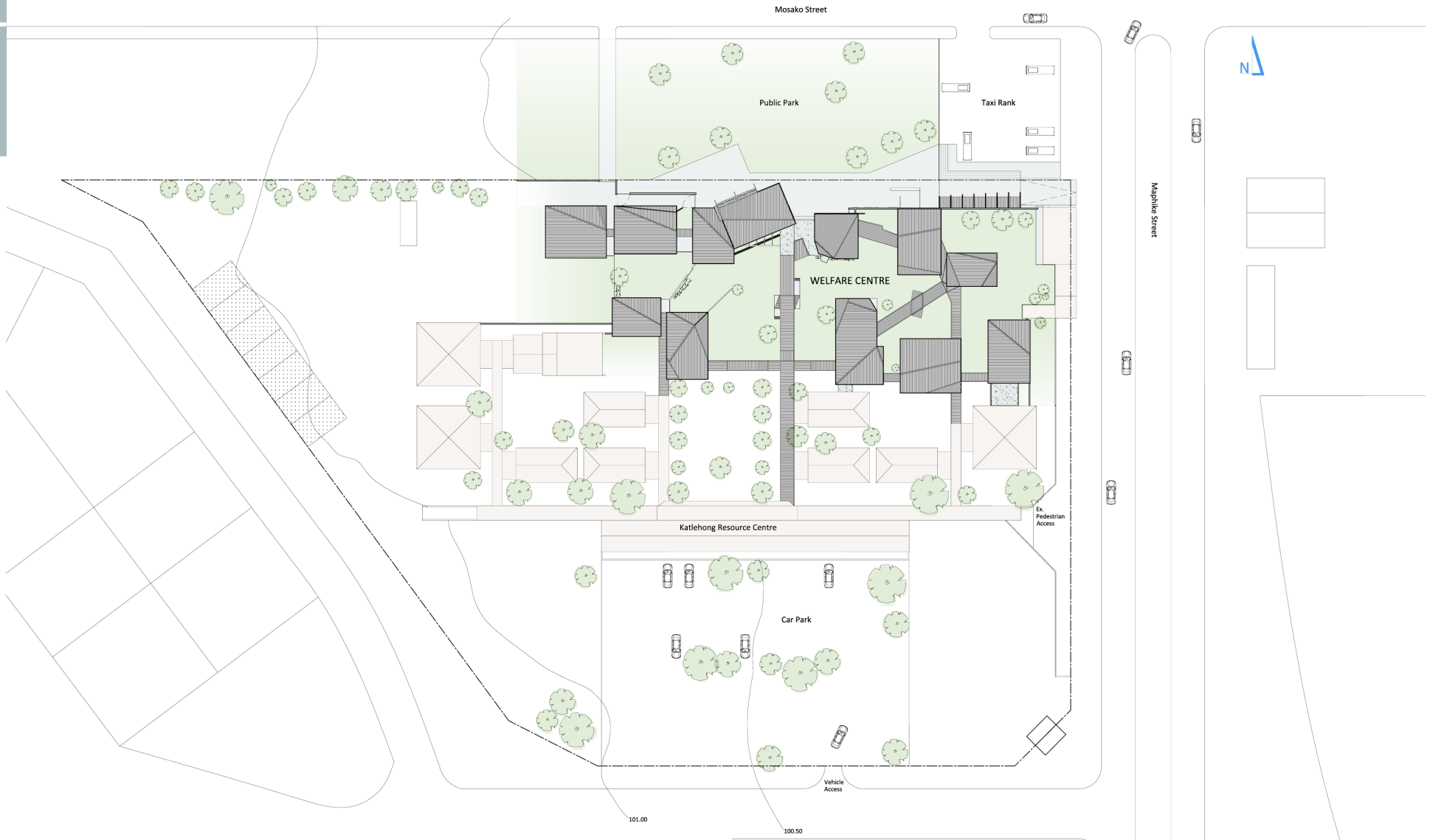
Figure 63 - East elevation of a possible facade treatment for the welfare officers offices. (R.Hartmann)

g. design development

<design

conceptualisation

>conclusion



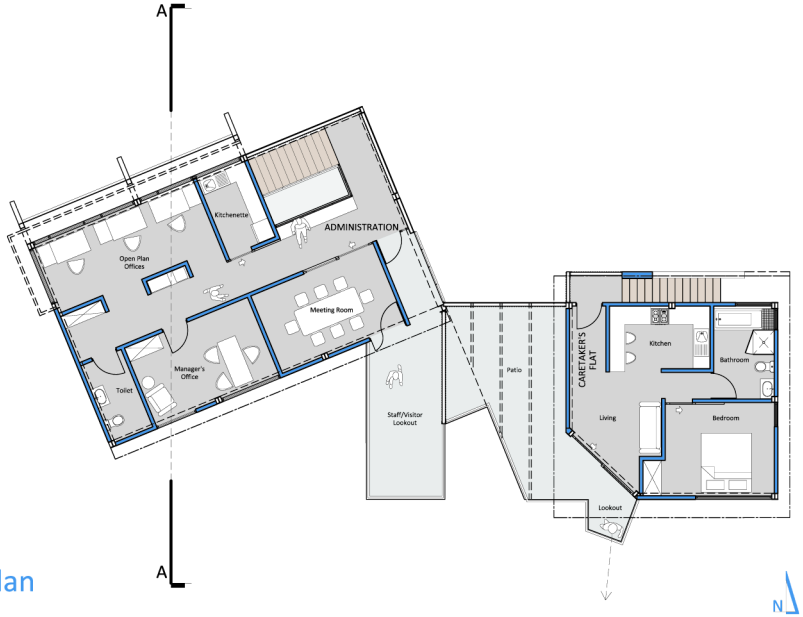
Site Plan
1:1000

SERVICE ACCESS
PET MEMORIAL COURTYARD
Pet Memorial Wall
SERVICES BLOCK
Ladies Toilets
Refuse Area
Animal Corpse Holding Room
Mobile Unit Operations Office
Mobile Unit Parking
Mens Toilets
Staffroom
Laundry
Laundry Drying Area
Laboratory
Vet's Cat Housing
Surgery
Comfort Room
Comfort Courtyard
Vet's Dog Housing
Dog Washing Area
Vet's Office
Dispensary
Reception
Consultation Room
VETERINARY HOSPITAL
Dog food storage & preparation
ENTRANCE LOBBY
Drop-box
Security
SICK/INJURED ANIMAL EXERCISE COURTYARD
ANIMAL ASSISTED ACTIVITIES LANDSCAPED COURTYARD
LIFE ORIENTATION CLASSROOM
Drop sleeping pets indoors
Link to Youth Advisory Centre
AAA CLASSROOM
LIFE ORIENTATION COURTYARD
KATLEHONG EARLY LEARNING RESOURCE UNIT
PRIMARY LINK TO KATLEHONG RESOURCE CENTRE
YOUTH ADVISORY CENTRE
DSD WAITING ROOM
COMPUTER CENTRE
ANIMAL REHABILITATION COURTYARD
Ramp Up
Ramp Down
LADIES TOILETS
Shower/DisC
MENS TOILETS
ANIMAL REHABILITATION HOUSING A
ANIMAL REHABILITATION HOUSING B
Drop-off
AAA CLASSROOM
ANIMAL ASSISTED ACTIVITIES LANDSCAPED COURTYARD
Slide Down
Public access to courtyard
AAA CLASSROOM
CHILD AAT
Private Child AAT Courtyard
ANIMAL ASSISTED THERAPY COURTYARD
Private Adult AAT Courtyard A
Private Adult AAT Courtyard B
ADULT AAT A
ADULT AAT B
THERAPY CENTRE LOBBY
Reception
Link to Childline Office
EXISTING KRC CHILDLINE OFFICE
Link to Welfare Services
EXISTING KHANYA FAMILY CENTRE
EXISTING AGAPE OFFICE
TRADER STALLS
EXISTING STREET SHOPS
ANIMAL REHABILITATION
Covered Outdoor Rehabilitation Space
OUTDOOR ANIMAL REHABILITATION SPACE
Welfare Officer's Office
Welfare Officer's Office
WELFARE OFFICES
Link to People Against Women Abuse (POWA) Office
Meeting Room
Pause Courtyard
EXISTING KRC PEOPLE AGAINST WOMEN ABUSE OFFICE
BOARD ROOM
GERMISTON CHILD WELFARE
GERMISTON CHILD WELFARE
TOILETS
KHANYA FAMILY CENTRE
LOVE LIFE OFFICE
TOILETS
KHANYA FAMILY CENTRE
KHANYA FAMILY CENTRE
NICRO
SANCA
FAMSA
SOCIAL DEVELOPMENT
SOCIAL DEVELOPMENT
A
B
C
N

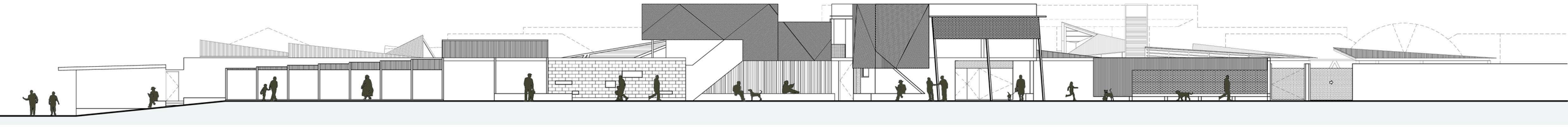
Ground Floor Plan
1:250

The first floor was primarily implemented to allow for an elevated mass at the entrance to the welfare centre. With the ground level operational functions being overtly exposed and of a public nature the first floor block is an area that was particularly suited to the private functions of the programme. The administration functions are thus enabled an appropriate level of private operation whilst still being easily accessible from the public realm of the welfare centre. A balcony area off the administration offices has been implemented with the idea that visitors to the administration block (corporate sponsors, business associates etc.) are afforded a visual tour of the welfare centre's operations from one point.

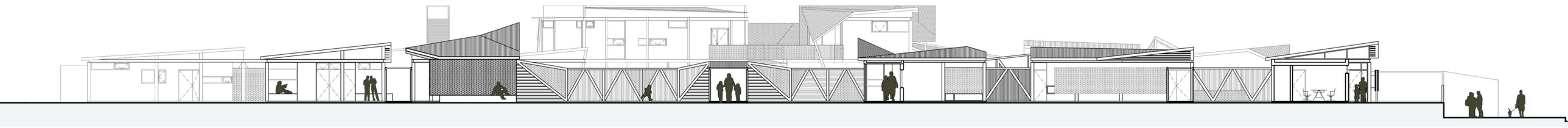
On the eastern side of the first floor level is the caretaker's flat. The caretaker resides at the welfare centre and is there to ensure the resident dogs are cared for when the welfare centre is closed. In facilitating a level of supervision over the dogs from the caretaker's flat, there is a lookout point off his patio area. From this point the caretaker is able to oversee the interactive animal housing courtyards and the facilities beyond. The location of the flat is central to the welfare centre's operations and thus enables the caretaker easy access to the various sections of the welfare centre.



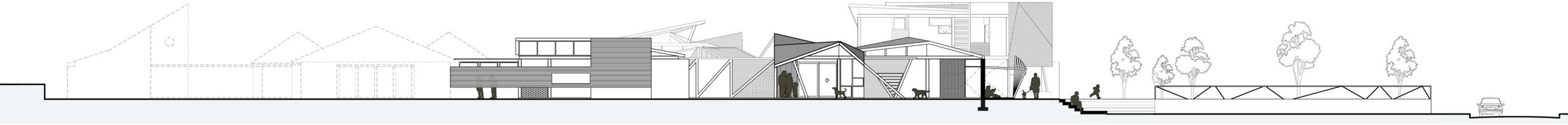
First Floor Plan
1:250



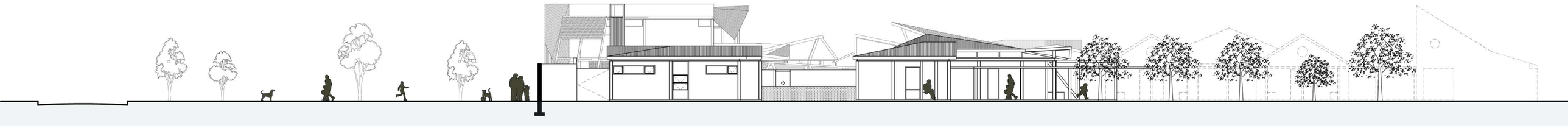
North Elevation
1:250



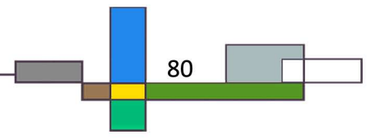
Sectional Elevation CC (South)
1:250

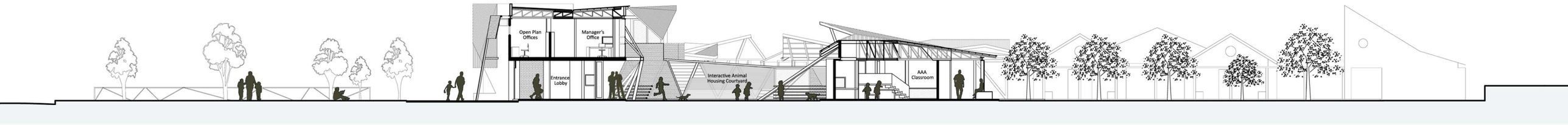


East Elevation
1:250



West Elevation
1:250





Section AA
1:250



Section BB
1:250

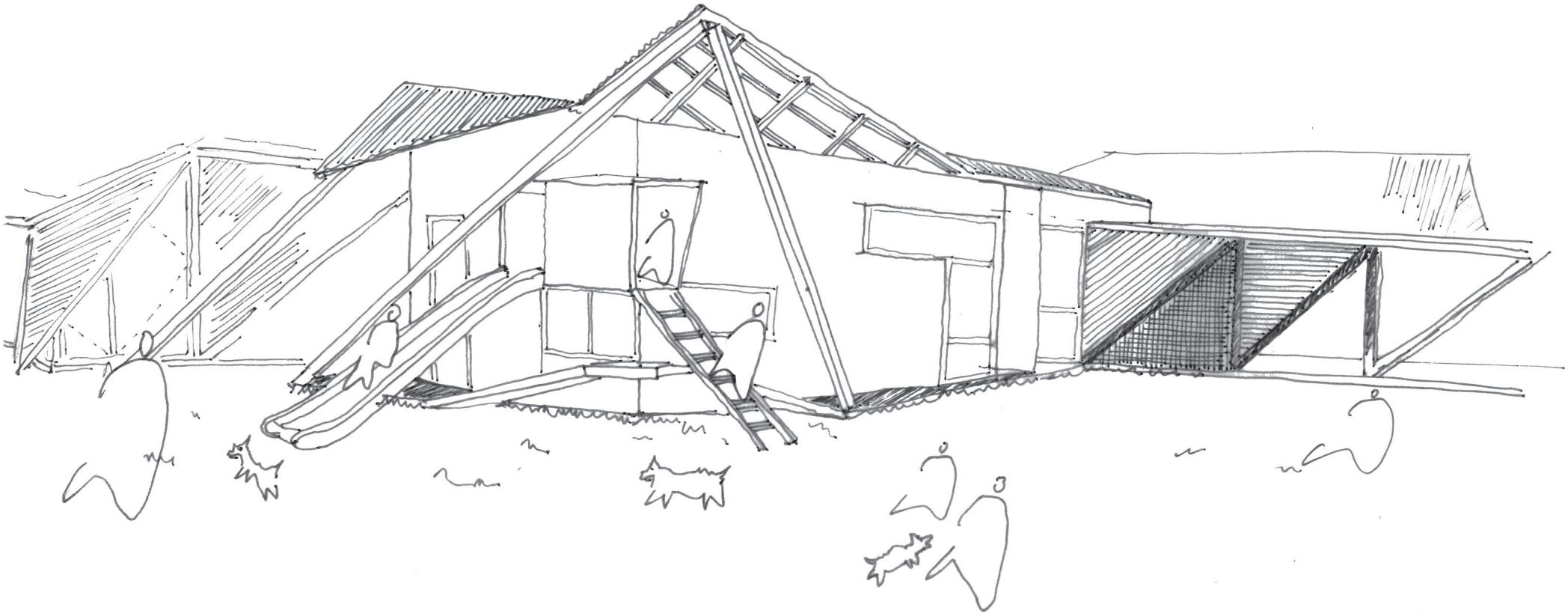


Figure 64 - North-west perspective sketch of an AAA classroom. (R.Hartmann)

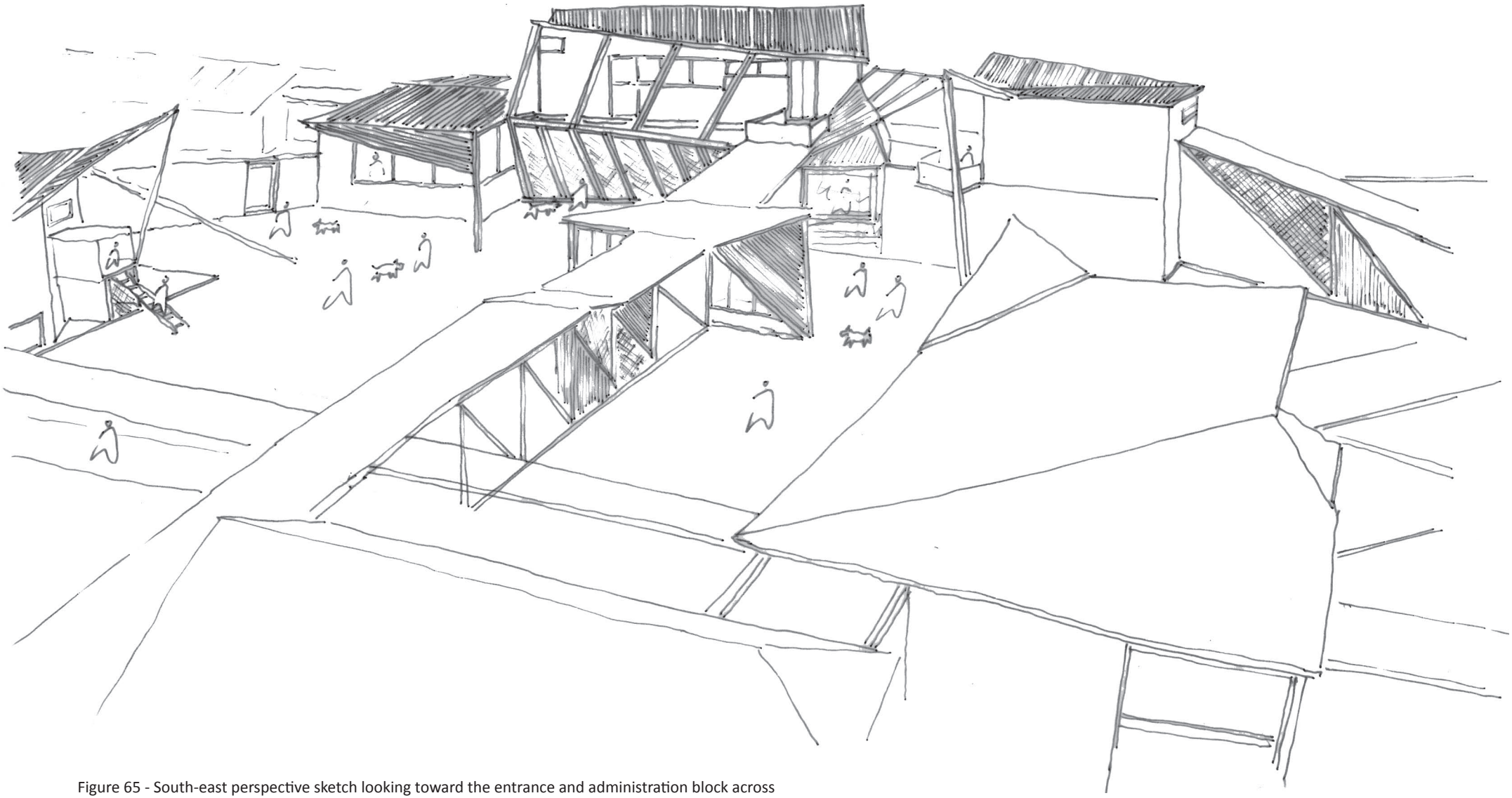


Figure 65 - South-east perspective sketch looking toward the entrance and administration block across the interactive animal housing courtyards (R.Hartmann)

h. conclusion

<design
development

>references

In concluding this thesis documentation I would like to reaffirm the primary aim of this project:

Can architecture attempt to revert the harmful psychological influences of social toxicity?

With the hypothetical nature of this project one may never know the exact answer to that question, however, the architectural response of this project (in both its operational function and form response) offers a level of insight into the possibilities architecture presents beyond the generality of creating habitable space. Implicating such a question with the aim of an architectural response has led to far more opportunities than what would have been presented had this project approached the topic of township built space differently. Consequently, architectural responses have been far more relative to their environment whilst at the same time having a suitable level of deviance in order to achieve an optimum result.

I believe the resultant design scheme is a well rounded and dynamic response, not only to the project's themes, but similarly to an environment (the township) one would think would offer very little in terms of architectural design clues. The entire methodology behind the design of the project, is in fact a product of the investigation into the township environment; specifically Katlehong and the Katlehong Resource Centre (KRC) and it is through this investigation and the knowledge it provided that the architectural response is, on one hand inherently grounded in place, yet concurrently of an architectural presence of divergence.

i. references

<conclusion

.

References

Animal Anti-Cruelty League n.d., About Us-Puppy Socialisation Programme. Retrieved April 03, 2009, from http://www.aacl.org.za/index.php/about

Animal Rescue Organisation (ARO) n.d., Youth Programme. Retrieved March 02, 2009, from http://www.animalrescue.org.za/youth_new.html

Answers.com n.d., Synergy. Retrieved July 10, 2009, from http://www.answers.com/topic/synergy

ARQ Architects: Technology focus [Image] n.d. Retrieved April 02, 2009, from http://www.arqarchitects.com/

Ascione, F.R. and Arkow, P. 1999. Child Abuse, Domestic Violence, and Animal Abuse, Purdue University Press, Indiana.

Bergesen, F.J. 1989, 'The Effects Of Pet Facilitated Therapy On The Self-esteem And Socialisation Of Primary School Children', Thesis (M.ED), University of the Witwatersrand, Typescript (Photocopy)

Bernhardt, B. 1992, 'Between Ideals And Reality', Dissertation (B.Arch), University of the Witwatersrand

Carr, S. 1967, 'The city of the Mind', in S.A. Lee 1973, Environmental Perception, Preferences and the Designer, Studentlitteratur ab, Lund 1, Sweden

Chapman, D. 1996, Creating Neighbourhoods and Places in the Built Environment, Spon, London

Dawes, A and Donald, D 1999. 'Improving Children's Chances: Developmental Theory and Effective Interventions in Community Contexts', Addressing Childhood Adversity, David Philip, Cape Town.

Deckler, T, Graupner, A. and Rasmuss, H. 2006, Contemporary South African Architecture in a Landscape of Transition, Double Storey Books, Wetton, Cape Town

Dewar, D. & Uitenbogaardt, R.S. 1995, Creating Vibrant Urban Places to Live: A Primer, Cape Town

Garbarino, J. 2008, The Right to a Healthy Social Environment: Protecting Children from Social Toxicity, Springer, New York

Hertzberger, H. 1991, Lessons for Students in Architecture, Rotterdam, Uitgeverij 010

Horsthemke, A.K. 1985, 'Animal Rights', Thesis (M.A), University of the Witwatersrand, Typescript (Photocopy)

Kennel Design: The Essential Guide to Creating Your Perfect Kennels n.d., Case Study: 21st Century Dog Apartments. Retrieved April 08, 2009, from http://www.kenneldesign.com/book/excerpts/sfspca.pdf

Lee, S.A. 1973, 'Environmental Perception, Preferences and the Designer', Proceedings of the Lund Conference, Studentlitteratur ab, Lund 1, Sweden

Levinson, B.M. and Mallon, G.P. 1997. Pet-Oriented Child Psychotherapy, Charles C Thomas Publisher Ltd, Illinois.

Lockwood, R. and Ascione F.R. 1998. Cruelty to Animals and Interpersonal Violence, Purdue University Press, Indiana.

Matthews, I, Griggs, Dr. R, Caine, G 1999, The Experience Review of Interventions and Programmes Dealing with Youth Violence in Urban Schools in South Africa. Retrieved March 06, 2009, from http://www.ipt.co.za/litreview.pdf

McNulty, F. 1989. The Burning Bed. Avon Books, New York.

Moabelo, T. 1986, 'Katlehong Shopping Centre', Dissertation (B.Arch), University of the Witwatersrand

Mutts strut their stuff at biggest ever Township Dog Show [Image] 2009. Retrieved July 22, 2009, from http://www.pwmc.co.za/client-news/0904-hills-township-dog-show.html

Odendaal, J.S.J. 1999. A Physiological Basis for Animal-Facilitated Psychotherapy.

Odendaal, J 2002. Pets and Our Mental Health, Vantage Press, Inc., New York

PAL (People.Animals.Love) n.d., PAL After-School Club. Retrieved March 16, 2009, from http://www.peopleanimalslove.com/programs.php

Proshansky, H.M. 1987. The field of environmental psychology: securing its future. Handbook of Environmental Psychology, D. Stokols and I. Altman. New York, John Wiley & Sons.

Robinson, S 2009. The Star Newspaper. Playing a Dangerous Game. Retrieved February 26, 2009.

Shaw, M and Louw, A n.d. South Africa's Urban Poor: Major Victims of Crime. Retrieved March 06, 2009, from http://ww2.unhabitat.org/mdg/documents/africa/Vol4_No1_urban_poor_major_victims_of_crime.doc

Simpson, G 1993. Centre for the Study of Violence and Reconciliation. Women and Children in Violent South African Townships. Retrieved March 10, 2009, from http://www.iss.co.za

Stark, E. 2007. Coercive control: the entrapment of women in personal life, Oxford University Press, US.

Steenkamp, J 2008, AACL's 14th Annual School Poster & Photography Competition. Retrieved April 02, 2009, from http://www.aacl.org.za/index.php/comp

The 'Link' Between Animal Abuse, Domestic Violence, and Child Abuse n.d. Retrieved July 22, 2009, from http://www.animaltherapy.net/animal%20abuse.html

The Youth Institute: What's moral for township youth? n.d., The impact of poverty on morality. Retrieved February 25, 2009, from http://www.theyouthinstitute.org/print.php?news.5

Tolsi, N 2008, Every mongrel has his day. Retrieved February 28, 2009, from http://www.mg.co.za/article/2008-06-22-every-mongrel-has-his-day

Training for Township Renewal Initiative n.d., The Place of Township Transformation Within South African Policy and Strategies. Retrieved March 10, 2009, from http://www.treasury.gov.za/divisions/bo/ndp/TTRI/Day%201%20-%2029%20Oct%202007/2a%20Policies%20&%20Strategies%20Bernadette%20Leon%20Paper.pdf

Van Robbroek, L. 1991, 'The Ideology And Practice Of Community Arts In South Africa, With Particular Reference To Katlehong And Alexandra Arts Centres', Thesis (M.A), University of the Witwatersrand, Typescript (Photocopy)

Wikipedia n.d., Cognition. Retrieved March 06, 2009, from http://en.wikipedia.org/wiki/Cognition

Wikipedia n.d., Environmental Psychology. Retrieved May 28, 2009, from http://en.wikipedia.org/wiki/Environmental_psychology