

***An architectural strategy for the rehabilitation and integration  
of street children***

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***An architectural strategy for the rehabilitation and integration  
of street children back into society  
:A Durban case study***

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Durban, in fulfilment of the requirements for the degree of  
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## **DECLARATION**

I hereby declare that this dissertation is my own unaided work. It is being submitted to the School of Architecture, Town Planning and Housing, University of Kwa-Zulu Natal, Durban, for the degree of Master in Architecture, and has not been submitted before any degree or examination at any other University.

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## **ABSTRACT**

In Durban as well as many other cities around the world one can find the phenomenon of street children. Studies have highlighted various factors such as historical, political, social and economic, which have contributed to the formation of this phenomenon.

The aim of this project is to analyse these factors in an attempt to understand the underlying issues and circumstances that lead to the phenomenon of street children. In conjunction with this, one needs to study existing examples of architectural solutions both local and abroad in order to identify the fundamental requirements that a design of this nature would need to include. It is also important that one analyse the local context as it may hold region specific needs that may not be evident from studies of foreign examples.

This project seeks to identify the specific methods of rehabilitation and development, in order to create a successful architectural solution. In order to achieve this, one needs to recognise the specific design needs of children in an attempt to create a more conducive environment for rehabilitation.

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## INTRODUCTION

Architecture can be a powerful force in the shaping of one's environment, in both a negative and a positive way. Le Corbusier's theory of a revolution or architecture is found on the belief that the built form can make a difference to the lives of people in many different realms, including their health, psychological, physical comfort and environmental balance. Of course, the question of street children cannot be tackled in isolation of its many historical and socio-economic roots. These include the factors which have brought about the problem in the first place, which transcend the "cover-all" bogey of apartheid and extend into national social welfare and housing policies.

Crime in contemporary South African society plays a significant role in the way in which South African's have come to live their lives; in terms of freedom of movement, and the economic growth and the type of architecture that is being developed. Therefore it is important that we analyse the connection between crime and the presence of street children. Research has shown that street children, the formation of gangs and anti-social behaviour are intimately linked. However, membership of a gang not only offers the individual a place in a social hierarchy which gives rise to a wider peer group acceptance but it also exposes them to many new influences that could give rise to distinct behavioural patterns. It does not follow that abandoned children will automatically gravitate toward gangs, but it is possible to interpret the levels of violence experienced amongst these youths is an expression of their anger towards a social system that forces them into a pattern of anti-social behaviour. During the course of this study I have also examined the different methods of communication, of graffiti, and of music as a means of displaying anger towards existing social structures and creating a common voice among the youths.

Another factor has been the AIDS pandemic and the role it has played with regard to the lives of street children in South Africa, as well as looking at its effect upon family structures (du Venage, G. 2002). In recent decades the HIV/AIDS virus has begun to play a substantial role in our country, with resultant effects upon our economy. The manner in which the AIDS virus has contributed to the phenomenon of street children in South Africa as well as the shift in traditional family structures is

difficult to quantify, and this is beyond the scope of this study. For the purposes of this research, however, I have accepted the published figures of other authors, but I have also assumed that this is a major contributory factor to this problem.

In order to create an architecture that can address the issues of street children, one needs to identify the focus of the study. This is important as children of different ages each have different requirements. One also needs to quantify the fundamentals for child development over various age groups, in order to determine what the built form will have to provide in terms of physical buildings as well as the nature of the environment.

Various precedents consisting of both local and international have been included in this study, in order to show what strategies one could employ in order to achieve the rehabilitation and development of street children. This includes the integration of physical and cultural activities in the form of sport, music and art.

## **FAMILY IN TRADITIONAL AFRICAN CULTURE**

The traditional family structure in rural African culture consists of extended family systems comprising of several generations as well as cousins, uncles and aunts all living within a structured settlement form.

Shorter suggests that the social structure within traditional African communities was based predominantly on the family structure. When one looks at the traditional African family structure, one can see there is a strict hierarchy of authority, where the men ruled and were responsible for the women. In this patriarchal typology the brothers took precedence over their sisters, sons even their mothers when they came of age or obtained their inheritance. Women did not share in the responsibility or authority of the household; it was entirely run by the husband.

In African culture, the family is responsible for the care and up-bringing of all the children, by means of providing security for the individuals in the form of economic (land and farming etc.) social and psychological security. There is a hierarchical system which operates within the family structure, it is imperative that this system is dominated by elders so as to maintain social control especially within the youths. These systems within the family structure help develop social and moral norms as well as providing and maintaining spiritual customs and traditions. They also provide the youth with role models to look up to and prepare them for adulthood. (Degbey: 2005)

Traditionally mothers carried the main responsibility for child rearing and development in African culture; however it is often shared among all the members of the family when the mother is unable to care for her children. This method of child development instils a strong sense of social responsibility within the child and as a result they learn to be respectful, responsible, and supportive of the family. A lack of these cultural influences can often result in the individual growing up feeling inferior, which could result in them exhibiting anti-social behaviour in the form of joining gangs and committing crime. When one looks at the phenomenon of street children, there have been little if any instillments of social responsibility within them and as a result they will never feel as though they are an important part of any family structure or community.

Traditionally, children played a central role within the family structure with the responsibility of social development being shared by the members of the community. This form of nurturing creates a scenario that eliminates the idea of illegitimate children; even in the case where both parents are dead the child will still have care givers in the form of "foster parents".

The traditional African family has been subjected to many different conditions and as a result has undergone considerable strain and forced adaptation; which has impacted on society's configuration as well as contributed to the distortion of social structures.

These changes within the traditional family make-up can be attributed to the mobility of the modern population, economic factors, social influences in contemporary society such as poverty, unemployment and AIDS as well as historical influences to a degree such as apartheid. These factors have caused members of the family to improvise their roles in the absence of its other members, with a result this has obstructed certain members from being able to performing their traditional roles such as mother = rearing the children, father = bread winner etc. This adaptation of the family creates scenarios where members of the family must act out roles that they are unaccustomed to, resulting in a disrupted structure where the individuals are unsure of their place in the family community. These shifts within the traditional African family structure in response to negative social changes has resulted in an erosion of society's composition; which has lead to the family's inability to fulfil its primary functions of socialisation. (Shorter: 1977).

One can see how in urban communities there have been more rapid appearances of the nuclear family system over the last few decades. This can be observed as detrimental to society as it eliminates any sense of cohesion that could previously be found in traditional African family structures; therefore the creation of a more introverted emphasis on family living i.e. individual's life, house, possessions unlike the traditional structure of sharing, support, loyalty as well as responsibility to ones family and elders. (Degbey: 2005)

One can look at the phenomenon of street children as being just one of the results that the breakdown in traditional family structure has brought about in our society.

Therefore, one can identify how the lack of various factors has both directly and indirectly contributed to this phenomenon:

- Family hierarchy
- Structured roles of family members
- Cultural influences and social responsibility
- Community upbringing
- Discipline and instilment of moral values

Family hierarchy is very important in the upbringing of a child as it gives them perspective of where they stand within the family structure. A hierarchical system also provides the child with a role model to look up to as well as examples on how to conduct themselves. In cases without this structure the child could grow up with no one to look up to or to learn from which could possibly result in the feeling of isolation and loneliness. If members were to have fixed roles within the family the child would always receive the necessary care and attention. In many cases there is a lack of structured roles within the family and with a result the members are forced to assume roles that they are unaccustomed to which could lead to insufficient nurturing and care that the child needs to develop correctly.

Cultural influences are important as they tie the child into something much greater than themselves; they receive a sense of belonging and place within a community. A result of being part of something larger than them can promote a sense of social responsibility; this is often instilled by the concept of community upbringing where the community provides a backup development of the child after the immediate family. A lack of these influences could lead to a lack of discipline and moral values which are keys components to the development of a child into a functioning member of society. In terms of an architectural solution to the phenomenon of street children one needs to synthesise these ideas a strategy that can help alleviate the problem. One would need to use these above factors as the one of the driving forces in the development of a design strategy that addresses the problem.

## **HISTORICAL AND POLITICAL FACTORS: APARTHEID'S LEGACY**

The street children phenomenon is a relatively recent problem for South Africa that has its roots in the apartheid regime. During apartheid the group areas act was imposed by the white government as a mechanism to segregate the different population groups from one another. Baker identifies how the Group Areas Act in conjunction with the relaxation of the migration laws aided in the demise of the traditional African family structures. During the 1980's the urban migration laws; which restricted the movement of black South Africans to the "white areas" were relaxed and with a result there was a rapid rural migration to the "white urban areas". A consequence of this overwhelming number of people moving to the urban areas a large number of the migrants failed to find employment; which resulted in them falling into circumstances of poverty. The economic and social stress that families endured often gave rise to neglect and the inability to provide children with the material and emotional support that they need. These children were often compelled to flee to the streets as there seemed to be a freer and more exciting life on offer for them. With a result these factors had a direct impact on the increase in the numbers children living on the streets.

The traditional family structures were subjected to stress in the form of the roles that the members played: children were denied the right to be children; they were required to assume the responsibility that was customarily taken up by the adults. Therefore, they didn't have a chance to develop naturally like other children who were unaffected by apartheid. This shift in the family structure was partly a result of the implementation of the group areas act, the migrant labour system and the influx control system. These strategies collectively prohibited an entire family's ability to migrate to the cities, as a result just one or two members would go leaving the family in a state of disequilibrium. A further cause to the upset in the balance of the family structure was the fact the black people who lived in towns and worked on white owned properties were largely separated from their families. (Baker, R 1974)

*"...if poverty is a root cause of children's reliance on the streets, then the apartheid system that condemned such a large proportion of South Africa's black population to live in poverty must be considered as*

*important factor in the escalation in the numbers of street children.”  
(Baker, R 1974)*

There are various other factors that played a significant role in the creation of the street children phenomenon:

Firstly – during the apartheid era: black children who were in need of social care were predominantly neglected by the government as the facilities provide were based on racially segregated system. Therefore, while the black: white ratio of the population was 5:1 the care facilities were distributed in a disproportionate 9:200.

The second factor suggests as the source for a child’s dependence on the street is that of poverty; by creating a generation of poverty stricken people whom depend on the street as a means of survival, there is therefore going to be a large proportion living on the streets.

The third factor that contributed to the phenomenon of street children was that of political violence during the apartheid era. Many children were forced to flee their homes as a result of the social unrest that plagued the country at that time. The streets then became a haven for the homeless and poverty stricken. *(Baker, R 1974)*

During the apartheid era separate development policies were put in motion to confine the black population to specific designated areas, these comprised of 17% of the county’s land. This land was poorly developed and with a result the black population were forced to migrant into the cities in order to find work and earn money to support their families. This migration from the rural areas to the mines and other industries, negatively contributed to the destruction of the traditional family structures. These policies have played a major role in the creation of the street children phenomenon; and in conjunction with other factors have increased the numbers from 5,000 in the mid 80’s to 10,000 in the mid 90’s. These figures comprise of children ranging between the ages of 0 and 18; which 80% are male and all of which are black. Due to the effects of apartheid creating a poverty stricken environment these children often turn to unlawful activities such as glue-sniffing, prostitution, drug use, and violent crimes. They also suffer form poor health, physical violence as well as psychological trauma often induced by hostility from

the public. They reach adulthood with little or no education and skills and only having learnt from their experience on the hardships of life. (Brittain and Minty: 1988)

Many government and private initiatives to combat the phenomenon of street children have proven unsuccessful in meeting the needs of these children or reducing their numbers. Many of the facilities provided are viewed by them as lonely and frightening places, which hold prison-like qualities. One needs to analyse the current status of these facilities within the country and integrate a more positive and family-like environment into them.

## **SOCIAL AND ECONOMIC FACTORS EFFECTING STREET CHILDREN:**

### **Poverty and Crime**

Poverty is one of the main factors that contribute to the dissolving of society bonds. Poverty can be viewed on both the macro and micro scale:

On a micro scale the individual is the focus: the individual's quality of life becomes compromised when ones basic needs aren't fulfilled. A lack of amenities such as health, shelter and employment all contribute to ones demise in quality of life. When looking on a macro scale at society as a whole; it is evident as each individual's quality of life declines society becomes fragmented and faces possible collapse.

The effects of society's breakdown can most profoundly be felt by children and young people, as when the family becomes dysfunctional the children become disconnected with the family and the community which results in them permanently abandoning their home for the streets. (Clinard and Abbott: 1973)

It is on these streets that the children are lead to crime and other anti-social activities. One can observe that a lack of family connection and influence impacts negatively in the lives of these children and as a result promotes anti-social activities. Without the foundation of family values and traditions these children have no positive precedent on which to base their lives, resulting in only the negative imagery of the streets.

*"...without question, poverty in any country, developed or developing, seriously affects health, life expectancy, infant mortality, housing, quality of family life, community as well as individual living and educational opportunity. Above all, individual and collective poverty limits social participation, particularly in political, social and economic spheres."*

Clinard and Abbott p.173 (1973).

Poverty, as described by Clinard, is a relative concept as it differs from one region to the next such as America will be different to that of Africa. He further states that most persons that are arrested, prosecuted and imprisoned for crime in both developed and underdeveloped countries, do come from the lower

socioeconomic groups. One can as a result deduce that the social structure can be linked with crime rates in a particular area. However, the link between poverty and crime is inconclusive as there is just as much white-collar crime within the affluent socioeconomic groups.

High crime rates in slum areas are produced by general social conditions rather than the physical buildings and surroundings. Criminal behaviour results from a state of conflict between institutional means and cultural goals, as well as attaining these goals through legitimate means. In most societies there is an emphasis on material success in the form of the acquisition of wealth through education, however in a developing country where there aren't the resources for providing the necessary institutional means for the lower classes in order to achieve these goals. These people can be described as anomic, as they are powerless to achieve money, higher education, and general affluence within society. These people become frustrated with the system and as a result they turn to stealing and crime in order to achieve these unreachable goals. (Clinard and Abbott: 1973)

Studies have shown that the difference of opportunity has been linked to the development of gangs as well as attributing to their delinquent behaviour. Delinquent gang behaviour has been found to grow wherever legitimate means to the attainment of the success of goals has been blocked. They suggest that there is a disparity between what lower class youths are led to want and what is actually available to them. They are faced with limitations on legitimate possibilities of success, therefore due to their inability to reach their aspirations they become frustrated and as a result exploring other alternatives i.e. crime etc. (Clinard and Abbott: 1973)

Education can be highlighted as one the primary means of attaining goals and economic success. Other skills are also obtained through education such as values and socially accepted mannerisms in order to be accepted into as well as advancement within society. One can observe the connection of poverty to that of anti-social behaviour through insufficient income and poor school facilities for the lower class youth as well as limited access to good education which results in fewer opportunities of a better paying occupation. Many of these youths react to this restriction on their future opportunities by means of illegitimate activities such as crime in order to attain the level of wealth that the upper class has acquired.

Clinard suggests that it is important to consider the limitations of access to education, training and to opportunities for social and cultural advancement in the less developed countries. These issues are particularly important in societies that are undergoing a transformation in terms of development such as South Africa in 1994.

*"That crime is directly related to the lack of economic and educational opportunities"* Clinard and Abbott pg173. (1973)

In Freed's study of crime in South Africa; he relates delinquency among youths to the lack of education among Africans as well as schooling institutions only being available to 1/3 of the children. Freed's study of juvenile delinquency in Rhodesia (Zimbabwe) linked gang delinquency to the lack of opportunities for increased educational and economic opportunities. He found that gang members were unemployed youths from poverty stricken backgrounds who had little opportunity to attend school. These individuals that have found themselves on the negative side of the economic scale have the perception that they have less chance of achieving success and with a result illegitimate means is necessary in order attain success. Therefore, they have been left with little or no alternative for economic advancement; hence they turn to illegitimate activities.

### **Prostitution**

Figures have shown that in South Africa, there is an 80% - 20% split of boys and girls on the street. One therefore needs to pose the question on why this is.

A possible answer to this question is that most street children live in groups and often the girls are sexually abused within the group and forced into prostitution as a way of earning money for their gang. Therefore in many cases where statistics are collected regarding street children, one is misled to the actual numbers of both sexes as the girls would be classified as girl prostitutes rather than street children (Baker, P. [www.gg.rhbnc.ac.uk](http://www.gg.rhbnc.ac.uk)).

Prostitution in South Africa can also be linked to poverty and unemployment, where children as young as 8 years old are being given to pimps in exchange for money and food for their family. This scenario is a common reality in poverty-stricken communities within South Africa as well as in the rest of the world. (Unknown author: [www.hartford-hwp.com](http://www.hartford-hwp.com)).

Studies have shown that prostitution in South Africa plays a role in adding to the problem of street children. In many cases when one of these girls falls pregnant on the streets, typically they fall into the cycle of living on the streets and having to continue with prostitution as a means of income to sustain their family. Once the mothers have given birth they have no means of providing access to any suitable education or medical facilities due to lack of money, therefore condemning them to a life on the street. (Fortune: [www.shareintl.org](http://www.shareintl.org) 1998)

### **Effect of AIDS**

In the beginning of the 1980's, when the first cases of the HIV AIDS virus was being detected in South Africa, these cases were predominantly found among the homosexual white population. This followed the same trends seen in other countries, as the numbers increased in the mid-1980's the virus began spreading to all areas of society. One could find the virus spreading more rapidly within the black heterosexual population ([www.avert.org](http://www.avert.org) 2004).

This rapid spread of the disease can be in part attributed to the lack of education about the virus; Berry suggests that this could be attributed to the diversity of the South African population consisting of 11 official languages as well as 86% of the population being illiterate. Therefore this made the task of educating the population very difficult and as a result there is a lack of awareness today. During the early 1990's when the disease was becoming more rampant there was a lack of focus in South Africa due to the political changes that were happening ([www.avert.org](http://www.avert.org) 2004).

*Gavin du Venage* looks at how the HIV AIDS epidemic has contributed to the street child problem. Currently there are around 13.4 million children in the developing world who have lost at least one parent to AIDS. These children that have lost their parents are left to fend for themselves; as a result they turn to the streets or to prostitution as a means of support as they are too young to be eligible for any type of financial assistance. In many circumstances when one parent dies as a result of AIDS the remaining parent has to support the entire family. In many instances the income proves to be insufficient, as a result forcing them to turn to the streets ([www.sfgate.com](http://www.sfgate.com) 2002).

According to Monasch and Boerma the average age of AIDS orphans across various AIDS stricken countries is fairly consistent, their surveys identify that about 15% of orphans are between the ages of 0 – 4 years old, 35% are between the ages of 5 – 9 years old, and 50% are 10 – 14 years old.

According to UNICEF the normal percentage of AIDS orphans in developing countries is around 2% whereas in South Africa the figure is as high as 17% and expected to rise in the forth coming years. This creates a huge problem within a city or community as there often aren't the necessary care facilities for the volume of children left to fend for themselves, one needs to identify an architectural response that could contribute to solving this problem at the same time providing the essential needs of these children i.e. education, shelter and health care etc. In some cases these orphaned children do continue to attend school after their parents have passed away which enables the authorities to trace them and take care of them. However the majority of children end up dropping out and as a result end up on the street. This is a result of relatives being reluctant to take in the children of AIDS victims due to the stigma attached to the disease. This means that there is no education and health care available to them and consequentially their predicament is worsened. (Du Venage: 2002)

According to Fredriksson, Kanabus and Penninngton, AIDS is generating orphans so rapidly that the current family structures can no longer cope. AIDS is creating a generation of orphans that are left to be raised by their grandparents or other adult relatives and in some cases they are left alone to fend for themselves. In many communities the resources needed to take on additional members into families are not available, which results in the children becoming orphaned and left with nowhere to turn other than the streets. "...HIV slowly but surely erodes this good traditional practise by simply overloading its caring capacity by the sheer number of orphaned children needing support and care. HIV also undermines the caring capacity of families and communities..." Unicef representative Bjorn Ljungqvist.

Extended family networks play an important role with regard to orphaned children, as they provide these children with surrogate families who can assume the roles that would traditionally be carried out by the parents. This is particularly important with regard to AIDS orphans as the projections for the future are seen to escalate quite

substantially. Communities need to be supportive of children who are orphaned through which ever circumstances, they need to be accepted as part of the social structure and have access to the necessary facilities that other regular children have. Access to education is another factor that plays a fundamental role in determining what the future holds for these children; by providing accessible education facilities one can help break the cycle of poverty as well as giving them a greater advantage in later life. (Fredriksson, Kanabus and Pennington, [www.avert.org](http://www.avert.org): 2005).

Emotional and physical neglect can often affect an AIDS orphan long before they actually become an orphan. Negative changes within their family can emotionally scar the children such as becoming an outcast within the community and being stigmatised because of their parents having AIDS. This emotional neglect often begins with the parent's progressive illness; ultimately the death of one or both parents causes an engrained emotional trauma. Due to the losses they experience, there is the requirement for them to adjust to a new situation with little or no support. This scenario can often result in them becoming victim to exploitation or abuse. There is often a stigma attached to the HIV AIDS virus within communities, whereas the children connected to dying or dead parents infected with AIDS are often singled out by the community. As a result of this irrational fear of AIDS children are often denied access to education and proper health care facilities one can attribute this to the mysteriousness created by lack of knowledge and education on the AIDS virus within the community. (Fredriksson, Kanabus and Pennington, [www.avert.org](http://www.avert.org): 2005).

A means of prevention is the way forward, educating the adult population as well as the children about AIDS will hopefully in the future help curb the virus. Those who are infected need to be given treatment and care and at the same time lift the veil of mystery surrounding the virus and create awareness of it. This could possibly be achieved through an architectural strategy that creates an environment which caters to the needs of these individuals.

## **CLASSIFICATION OF STREET CHILDREN**

According to Mac Pherson there are various categories of street children that each contribute differently to the common definition of the street child. The first category is that of the *children on the street*. This is the largest group that makes up the street children population – they consist of working children who have regular family connections. They earn a living on the street and attend school irregularly and most return home at the end of each day (Mac Pherson: 1987).

The second category contributes 1/3 of the total street children population. These children see the street as their home, and it is to the street that they primarily relate. They often have sporadic contact with their families but choose to live independently. These children could possibly have turned to the streets as a means of independence as well as income. There are many factors that could have driven these children away from their families and onto the streets:

- Poverty at home – the need to earn money
- Desire to see friends who live on the streets
- Fighting or civil unrest in the home settlement
- Difficulties in school i.e. paying fees
- Find employment

The third group comprises of children that have been abandoned or orphaned, these children are almost identical to those of the second group in terms of their daily activities however with no connection to their families; there are various factors that could be attributed to this:

- Discord with member of the household
- Violence within the family
- Alcohol or drug abuse by a member of the family
- Problems within the neighbourhood
- Household collapse – homeless, AIDS.

The three different groups mentioned have very different needs therefore any strategy or architectural response implemented needs to take into account these needs. Strategies such as Child welfare programmes, institutional care facilities,

education facilities, psychological programmes etc. need to be cognitive of who they are trying to help as well as what these individuals need in order to be helped (Mac Pherson: 1987).

## THE FORMATION OF STREET GANGS

*"...a person becomes criminal by intimate association with others who present favourable definitions of criminal behaviour..." (Clinard M, Abbott D: 1973).*

This statement deals with the concept of social conditioning, as an individual becomes more involved within crime circles over time they become conditioned into becoming a criminal. This depends on how early these contacts between various individuals start as well as how frequent they occur and over how long a period.

The movement of youths to the streets away from their home and community is a result of factors; such as poverty, violence, drugs, AIDS etc. Therefore, the need for adaptation to their new environment is required in order to survive. The youths need to create a community or social structure on the street so as to fill the void that is left by the lack of a family. One such adaptation is the formation of gangs comprising of a number of individuals with similar needs, backgrounds and experiences. These gangs function like micro communities within the street environment and they provide the individuals with security and the sense of belonging that one would normally find within a family unit.

The identification with gangs is a result of many needs such as: social acceptance, the creation of a sense of place, personal security as well as the rite of passage from a child to an adult.

*Pinnocks states "...that the traditional society provided support and a sense of direction to young people graduating to adulthood. Youths were made to feel accepted and important in the society, goals we set which motivated and challenged them to strive for social acceptance. If they failed, the community intervened to restore harmony." (Dissel A: 1997)*

One can observe that how the lack of guidance from responsible members of the community can have an adverse effect on the youths and with a result the possible creation of unstable adults.

*"...the importance of ritual has been submerged in the struggle for survival and young people devise their own rites of passage."* (Dissel A: 1997).

One can observe that when these youths enter the urban context the act of survival prevails over the importance of tradition and ritual as a result the youths invent their own rites of passage through the formation of gangs. Therefore, these troubled youths identify with street gangs as they can find some sort of social acceptance within them. They gangs provide a route form adolescence to adulthood There is the argument that traditional society provided the support and direction to the youth in order to proceed to adulthood.

In Toronto, Canada, the street youth scene is disproportionately, but by no means exclusively male. The street youth comprises of about 2/3 male and the remaining 1/3 female with the ages averaging at 18yrs for males and 17yrs for females – Hagan and McCarthy suggest that the reason for this difference in age is that the streets are more threatening for young females than for males therefore they tend to leave earlier in their lives. There are many reasons for these youths taking to the streets such as: incompatibility with family and step family members, disrupted and dysfunctional families, neglectful parents, abusive parents, parental rejection as well as conflicts in school. (Dissel, A: 1997)

### **Anger and Violence**

Family violence such as child battering and spouse abuse, rape, assault, armed robbery, murder, terrorism and war are all instances of various types of aggression. The ability to regulate and control such acts could have a crucial contribution to the improvement of the quality of life. Violence and aggression has an effect on ones quality of life – by being able to control ones actions there can be a positive contribution to the quality of life within communities as well as society as a whole.

The regulation and control of aggression in children and youths can have also profound effect on the family unit as well as the education system, by looking at how one can condition children and youths to control their aggression at an early age so as to eliminate the future effects during adulthood. (Kaplan: 1984)

## **Graffiti and Communication**

Graffiti can be defined as "words or drawings scratched or scribbled on a wall." It was derived from the Greek term "graphein" which means to write and the word "graffiti" itself is the plural of the Italian word "sgraffito".

(Tucker: [www.graffiti.org](http://www.graffiti.org) (26-09-05)).

Communication within human society is one of the most vital aspects of life, this continual exchange of data is as vital as food and water. Graffiti is a method of communicating through the medium of art often on a canvas of buildings and walls. In order to understand the concept of graffiti, it is imperative that one must be given some historical and social orientation of the environment and community so as to better appreciate why it occurs as well as what message it is trying to convey. (Tucker: [www.graffiti.org](http://www.graffiti.org), 26-09-05)

Graffiti was first started by Puerto Rican and African American youths from poor inner city neighbourhoods in America – this initiation of graffiti was a result of the youths wanting to express themselves in terms of their views towards their community or the government. Graffiti represents man's desire and need for communication, and it can be dated back to man's first communicative acts i.e. primitive drawing as well as complex art works. It also represents rebellion against oppressive structures such as the government or law enforcement agencies.

Graffiti is appealing to youths as it is a means of elevating ones self to above the law – becoming a folk hero within the communities. This type of anti-establishment activity can draw similarities with gangsterism *"both seek recognition from their peers, use aliases, take part in illegal activities, see themselves as noble outlaws and are young and most often poor."*

(Tucker: [www.graffiti.org](http://www.graffiti.org), 26-09-05)

Graffiti could possibly be used as a social barometer; it could highlight what is moving society at the time as well as giving insight into what people are being influenced by. It could act as an early warning system to underlying issues within society or the community i.e. giving one an indication that there are problems within society's structure or issues about the political climate of the area etc. Graffiti can

also act as a means of communication to otherwise deaf ears; it can indicate that there is an awareness of problems within society as well as even further fuel this awareness among the community. One could observe in East Germany during the cold war the Berlin wall became a canvas of expression opposing the divide within their society. (Tucker: [www.graffiti.org](http://www.graffiti.org), 26-09-05)

Tucker suggests that graffiti is a way of transmitting information that possibly would not be exposed to mainstream society; for various different reasons i.e. political or cultural etc.

*"...communicative aspects of sub-cultures with their specific languages and traditions (race-conflicts) and even have been used by psychological warfare." (Tucker, D: unknown)*

Tucker highlights how graffiti is used as a tool in order to emphasize as well as illuminate any issues being felt in society i.e. the environment in which these individuals reside, a response to the varying factors such as poverty, unemployment and politics that have contributed to their negative environment.

Management research has shown that reading walls within a community can provide relatively uncensored information to the social climate of the area. It is this freedom of expression and anonymity that allows society to have a collective voice regarding problems within society. As a result of this freedom of expression graffiti in the past has been completely forbidden within dictatorship societies. (Tucker, D: unknown)

Graffiti can also be used as a means of making one's presence felt, i.e. a gang in the community can use a symbol that everyone understands. One can see how the use of this type of communication using graffiti can have a negative effect on society. The same tactic was adopted by the 3<sup>rd</sup> Reich in Germany during WW2, when they used to deface Jewish property with swastikas, eventually the swastika became a common symbol of power and fear. Therefore graffiti can be used as a way of identifying sub-cultures within society as well as possible threats to the community.

Graffiti is often seen by the artists as a means of brightening up the community by creating a more colourful and vibrant environment in which to stay. Often areas of a country or city have negative connotations either from historical or other oppressive events; therefore graffiti has been used as a means of defeating these wrong doings of the past. Often architecture can become repressive either from its form and composition i.e. high blank walls; or the motives used in the design i.e. low-cost housing etc. As a result of these factors often individuals within the community take actions into their own hands a try beautify their environment. When one looks at the low-cost housing projects in rural areas in South Africa one can see how the individuals try personalising their individual units with the use of colour and materials, similarly to the graffiti artists they are trying to create an identity of their own at the same time striving for the creation of a more vibrant environment.

*"It doesn't even have to be "Graffiti Art" but something that can beautify the community, something that when a person takes the time to look at it, they can take something away with them when they leave." (Tucker, D: unknown)*

Graffiti and art can become a powerful tool in the design of an architectural scheme; it can offer children a way to personalise their environment and create a sense of belonging that they were previously unable to do. Art can be used as a means of highlighting any subconscious problems that the children may or may not be aware of. Similar to how graffiti was used as a social barometer one could incorporate it into an architectural design so as to gage the mood and the mental states of the children.

## REHABILITATION AND DEVELOPMENT

Human interaction plays an important role in the development of ones self, a child will learn how to act form its parents. Across cultures children must learn to interact socially in many different ways that are acceptable to that of the community. Doyal suggests that individuals are the by-product of interaction with others. It is these influences that determine who we are and how well integrated into society we become.

The concept of social development needs to be achieved through programmes that offer the children a safe and healthy environment. This environment must provide the children with freedom of movement as well as the sense of a home, if the architecture has elements that might be associated with oppression and negativity, the children could become introverted and often end up back on the street. The children need to obtain a sense of control over their environments, similarly to when they were living on the street they had freedom of movement and choice to do as they please. Architects need to incorporate these methodologies into their designs in order to create a building that create environments that the children feel in control of and comfortable in, but at the same time not giving them ungoverned freedom.

Various programmes are currently in motion that uses children as the core of the design process; this is done in order to provide them with a sense of belonging and self-worth. Skills development is also promoted as a means of giving the children the ability to shape their environment. Many of the children that come from the streets have been subject to drugs and substance abuse, therefore in order to rehabilitate them one needs to incorporate health care facilities into the architecture. These health care facilities need to address both the physical and mental health and development of these children. The architecture could possibly incorporate physical environments that initiate exploration and learning as well as providing an opportunity for physical activity.



**Figure 1:** showing the different means of providing interesting environments for children (Zevi: 1996, p.458)

Education is an important issue as it provides people with the means to improve their lifestyle as well as to optimise their environment to peak comfort. Basic development is learnt through ones experiences and interactions, therefore it is important that one design ones surroundings so as to encourage learning and discovery. The architecture can use various types of terrain, materials, textures, shapes and colours to promote exploration and development. As children play and interact with their environment they establish bonds with one another, resulting in developing their social skills. As part of the education of street children one needs to create an awareness of the various realities such as AIDS, and the danger of substance abuse and gang involvement. It is only through education that the street children will be able to fully disintegrate themselves from their previous lives on the street. Many of the influences that these street children lack are often acquired through family relationships and interactions. Therefore, architecture can be an important tool in providing them with some of these needs.

## CHILDREN IN ARCHITECTURE

*"One of the reasons for adults' lack of participation in the development of the environment lies in their having been educated to passivity as children" (Zevi: 1996)*

Designing with children means then first of all to capture their way of giving life to environments characterised by a highly ordered disorder, in which each part has its place. One could interpret this disorder as a diachronic order, one that incorporates a fourth dimension of design and doing. This disorder is not limited to the restrictions imposed by manufacturers of monodimensional or monofunctional spaces, they have the ability to manipulate objects and spaces, resulting in an extended usage. (Zevi: 1996)

This "operational" role of children, possibly assisted by their relatives, can take on an important role in regard to the dynamics of social participation. In modern society the concept of social participation has largely been lost, by integrating children into an environment that encourages this participation, not as a means of inciting child labour but rather as a game. Children could possibly develop a relationship with nature, and therefore, contribute to their education.

Zevi suggests that in order to fully integrate children to the level of conscious operators, one must move in two specific directions:

- The carrying out of changes capable of enabling them to enjoy a growth process that allows them to develop their own learning and experimental routes
- The ability of a world to experience the production and development of ones environment, instead of simply enjoying the consumption aspect of it.

These two directions are not isolated from one another, they are meant to work in tandem. The basis of progress lies within the hands of children, by creating and instilling a methodology in them, one can create an attitude that will last a long time. Children, if stimulated enough, have the potential to see into something that seems blatantly obvious to us "...see the movement that is hidden within a motorway; flying city that is hidden within a space ship; the living ecosystem

*enclosed in an artificial satellite.*" (Zevi: 1996). The role of the architect can be transformed into that of a facilitator, by interpreting their input for the improvement of gardens, plazas, pedestrian routes etc.

*"Over the past fifty years the city, which came into being as a place of encounter and of exchange, has discovered the business value of space and has turned all the concepts of balance of well-being and of being together upside down, so as to follow plans of profit and self-interest."* (Zevi: 1996).

The cities of today are focused firmly on the ability to generate profit out of various avenues; people have become self involved, and only striving for their well being instead of the greater good. One can observe this in the way in which the former historic city centres have become havens for businesses, and as a result the poor are transferred to the outskirts of the city, and into houses that are all alike. When the work finishes in the city at 5pm the lights go out and the people migrate to their homes in the suburbs. The city is left uninhabited and as a result eligible for the criminal element to move in. People therefore; become afraid to venture into their city by themselves. The cities development can be attributed to the separation and specialisation of spaces, functions as well as the separation of people. People don't know what to do with their children, therefore they provide nurseries; similarly people don't know what to do the aged, therefore old age homes are provided, and so on. One can observe a dull comfort level that has crept into society, a long as the government is providing some sort of facilities the public is content. Through adopting an attitude such as this the children are often affected, as most services that are provided by the government are generally geared towards the adult population and are not suited to children. (Zevi: 1996).

*"If recreation areas in front of children's houses are taken away and then returned to them a mile away from their house (even if they have been enriched a hundred times over) the ultimate conclusion is that they have still been taken away, full stop."* (Zevi: 1996).

Zevi suggests that; the needs of the children are not taken into account, and as a result the facilities provided are often not of any use to them. When one observes the example of a child's play area being re-located, there are resultant implications that are imposed on them: the child then is only able to use the park if an adult accompanies them, therefore being in line with the adult's schedule. Before the child was able to play freely in close proximity to the house; now the child has to play under surveillance, which inhibits their freedom and ability to play. Therefore adult orientated changes within society have had a direct impact on children by means of trivialising their needs, resulting in a lack of freedom to develop.

The state of things causes discomfort in children, and anxiety in families. Two avenues are available: one private and personal, resigned and individualistic and the other social, political and cooperative. The former, consists of an introverted approach to living. The home is planned to keep the dangers from the outside getting in, the use of bars over the windows, armour plated doors and video intercoms etc. The gated community is a perfect example of this – the use of every possible measure to keep strangers out. The second method is that of a social one: rethinking the city in terms of the child as one of the main parameters. The problem is not individual; therefore by ourselves we cannot solve it: it is a social and political one. In the past decades city planning has been designed with the parameter of the average citizen in mind: the characteristics of adult, male and worker. This has resulted in the misplacement of other citizens such as children. This plan deals with the city to lower it's the gaze of cities administration down to child height; so as to cater more to children's needs. (Zevi: 1996).

*"...if in the city children can be found, by themselves, who are playing, walking around, it means the city is healthy; but if no children are encountered in the city, this means that the city is sick." (Zevi: 1996).*

Zevi suggest that the goal of a city should be to enable children to venture out of the house by themselves without being in any danger; this provides society with an indicator on the health of the city. In order to achieve this freedom of movement: the city must change, it must go back to being beautiful and secure. Therefore work needs to be done on various levels:

- The relationship between the pedestrian and the vehicle: the two must co-exist, however being designed around the pedestrian and their movement.
- The creation of a beautiful city: giving one the ability to walk around, pause and appreciate the cities fabric. The challenge is to make the outskirts of the city beautiful and secure, so that it is normal for citizens to walk freely and for children to play.
- The need for social solidarity: the creation of allies for children, a scenario where children are protected by their community. The ability for children to approach members of society who are on the street for help or aid.

## PRECEDENT 1: TRAINING CENTRE FOR STREET CHILDREN

**Architect** : Antonella Vitale  
**Client** : Khmer Angkor Development Organisation (KADO)  
**Place** : Cambodia

### The Khmer people in Cambodia

The Khmer people form 90 per cent of the Cambodian population, estimated at around 7 million in the 1970's. The family structure is in the form of a nuclear cell with the language of Khmer being spoken, as well as being Buddhist by belief. The environment of the region consists of a central plain that is partly covered by the Mekong River each year, as well as supporting various types of tropical forests. The topography consists of a plain which is bordered by mountains and a plateaux in the west, the north and the north east. The temperature varies between 16° C and 40° C during the day throughout the year, with the rainfall reaching 1400mm.



**Figure 2:** image showing Cambodia (<http://geology.com/world/cambodia-satellite-image.shtml>)

The traditional houses are built on stilts about 1.2m in length and access to the front door is via a simple step ladder. The walls are generally constructed to a height of 3m, with the length of the dwelling being dependant on the means of the family. The houses were traditionally built of vegetal material with the main supports being

constructed of several kinds of woods; these were stripped of their bark and branches. Lianas and mortise and tendon joints were traditionally used however these have been replaced with nails. The roof construction is comprised of either straw or palm leaves which have to be replaced after each rainy season.

Traditionally an astrologer or healer must endorse the choice of place, as well as strictly abiding by the ritual codes for building a house. The positioning of the front door and the main column are designated by the astrologer. The Khmer people believe that the spirit of the house resides within this column and offerings are regularly given to the spirit.

In traditionally Khmer culture; the parents, their children and often the grandparents stay in the house. There is no integration of furniture, only the use of mats. The houses are separated into two levels: the private section is generally half of the room; this is reserved as the sleeping quarters. The area saved for the husband and wife to sleep is traditionally screened off with bamboo or wooden partitions. This sleeping level is 30cm higher than the social level and is therefore referred to as the superior level. In more current forms of the house the main room has a detachable panelled door and window integrated into the design as well as having a double pitched roof; which extends over balconies on either side. Which ever configuration is adopted, the wife's sphere comprises of the kitchen; whereas the man's sphere is comprised of the social spaces. Under the main room, agricultural materials as well as charcoal are stored. Cattle stay there during the night, with the pig residing under the kitchen in order to recycle any scraps that are generated from the preparation of the meal.

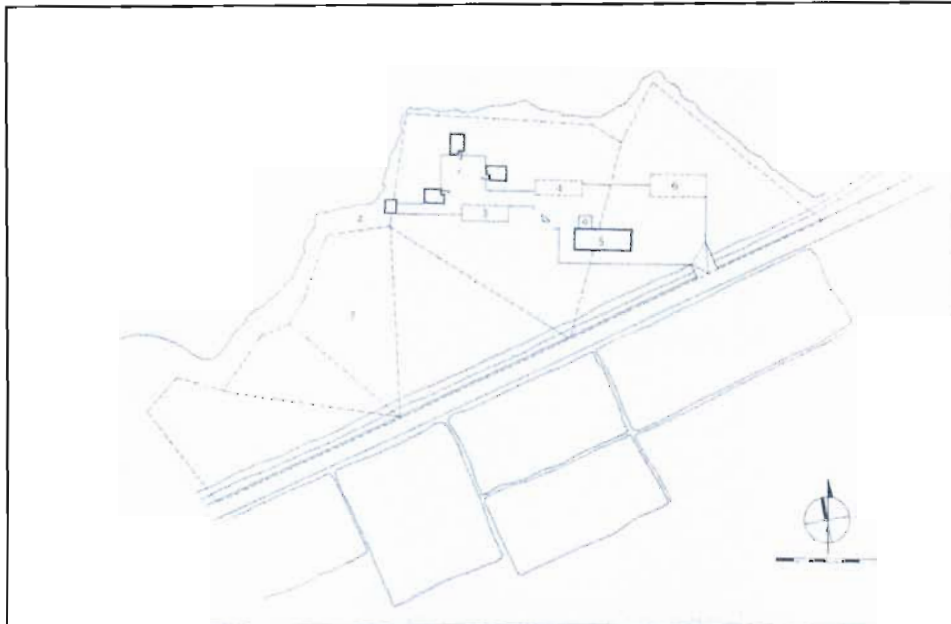
Since the civil war, the domestic organisation has changed with women adopting more of the roles traditionally carried out by the men; in the form of the division of labour. This has however, not had any major implications on the architecture of the rural house.

### **The design of the Training Centre**

It is important for architects to try to understand the social and technical cultures in which they work. Working outside their own cultures, architects are exposed to many

other perspectives on architecture as well as having the opportunity to learn many lessons.

*Even within the context of development aid, architecture can contribute to southern cultures all that it contributes to northern cultures, although care is needed when interpreting the meanings of these contributions". (Vitale: 2002)*

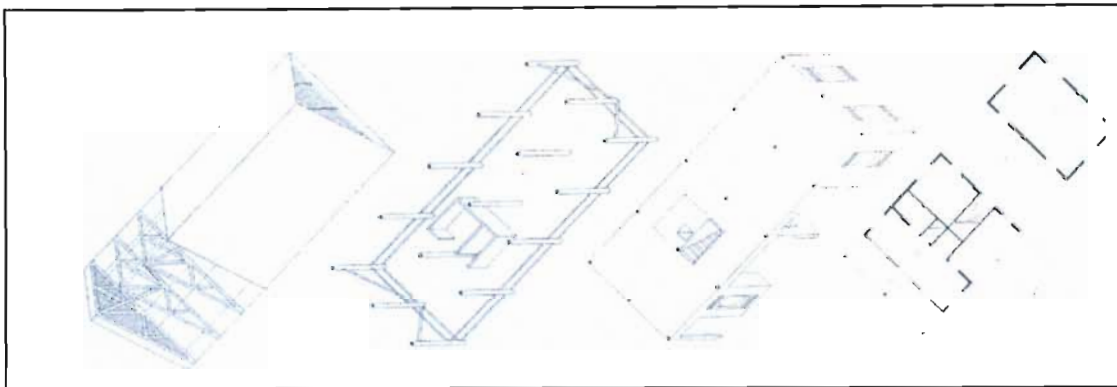


**Figure 3:** left image of site plan of phase one of the design (Vitale: 2002)

The Training Centre for Street Children in Cambodia was funded by the Italian Aid Agency (Progetto Continenti) to build and later manage the first phase of the centre. This included the first four buildings designed by Antonella Vitale; they are shown outlined on the site plan above: offices, communal facilities, a kitchen and a store in one building, and three dormitory buildings for the residential children. As shown in figure 2. The second phase was funded by the Italian ministry of foreign affairs, and was completed in 2002 with seven additional buildings; which included more specialised teaching areas, a small clinic and more dormitories. On completion the centre will house 40 children on a full time residential basis, as well as another 40 on a daily visiting basis. These children will take part in its teachings and cultural initiatives. The project timeframe was only six months before the first phase was due to be handed over. The size of the site was around 3 hectares, two of which were reserved for growing crops, for agricultural training, and to feed the children. The positioning and orientation of the buildings were determined by the direction of the prevailing winds, in order to provide the maximum possible

ventilation. Arrangement of the buildings was determined by the functions that they housed, this was to promote movement and flow through the site.

The building permits required the use of local materials, one of the challenges of construction of the scheme was achieving a large span over the main building. With only limited construction skills and financial resources available. There were limited imports of material such as cement, reinforcing steel and paint to tint the whitewash. In order to minimise imports the design used local technology and skills for the carpentry work.



**Figure 4:** Axo showing the ground and first floors of the communal building  
(Vitale: 2002)

Khmer vernacular examples have no obvious cross bracing, as planked walls prevent the structure racking. The first floor of the communal building was designed without walls, in order to maximise its flexibility use, as well as for the promotion of cross ventilation. As shown in figure 3. The three wooden dormitory pavilions were constructed on stilts; these were slightly modified versions of a very common Khmer house typology. This design type was integrated into the scheme as the trainees were familiar with their construction. These structures can be mounted in a few days and can be as easily dismantled, transported and remounted in a different location. There were a few modifications in their design, such as a regularised structural design and improved ventilation. As shown in figure 3. At completion of the second phase of construction 5 more buildings were erected, so as to reach the full housing capacity of the centre for 40 residential children. Each pavilion will have 5 children aged between 3 and 16 years old, and an adult looking after them,

this will provide the children with a family environment modelled on the traditional nuclear cell.

As shown in figure 4 below.



**Figure 5:**  
showing the 3  
dormitory  
pavilions  
(Vitale: 2002)

One of the concepts of the centre is to integrate the children into their wider environment; this was achieved by providing the children with the opportunity to go to school outside of the centre. This plan for the integration of the street children is encouraging as it provides them with freedom of movement similar to what they found by living on the street. The implementation of a scheme such as this can shift the children's perception of the centre from that of an oppressive environment such as a jail forcing them to stay put, to that of a home or village environment which encourages their freedom. On the other hand, by encouraging the children to come and go could possibly aid in their reintroduction to the environment and all the negative aspects that they were previously part of. Measures would need to be put in place so as to keep them from falling back into their old routine.

Cambodia is rich in its diversity of architecture, from ancient Khmer temples and French colonial period buildings to the traditional wooden houses. However, the design of the centre called for a more traditional approach, so as to reinforce the connection of family and traditional social structures. Therefore, the planning and detailing of the centre was informed by studying and researching the local vernacular. In the traditional vernacular design the bathroom was situated away from the house, however in contemporary design of Khmer houses, bathrooms situated indoors are common place. Cooking often takes place outdoors in open air structures with a simple lean-to roof for shade. This typology is a result of the very

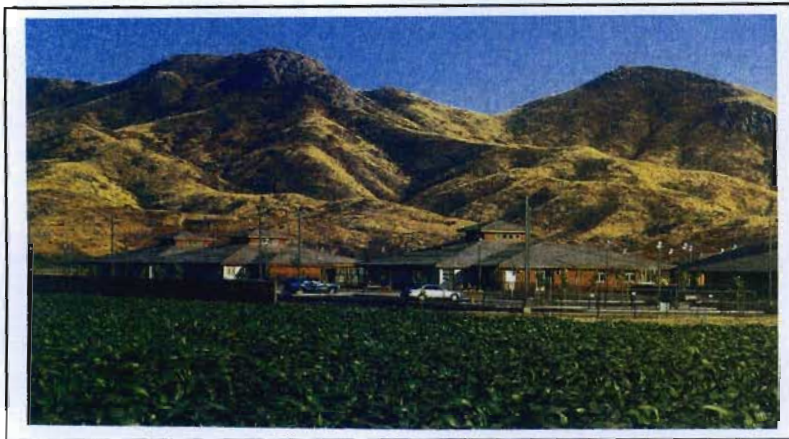
hot and humid climate. Similarly to that of traditional architecture, the design of the centre used various aspects such as outdoor space, social distinctions as well as integrating shade and ventilation.

The promotion of local initiatives is an important aspect of the scheme; as over the past 2 decades from 1970, the population was encouraged to undertake only agriculture labour, knowledge of any other traditional crafts and skills were often used as the pretext for execution. Following that period; little traditional knowledge was left to transfer to younger generations and the desires to teach and to learn were stifled. Therefore, the Progetto Continenti appointed a local technical school (Chantiers Ecole) with the contract for construction of the project. The school's various programmes from silk weaving to wood carving as well as building construction offered an opportunity for the children to further develop their skills. Domestic carpentry skills were alive within the remnants of a system of apprenticeship.

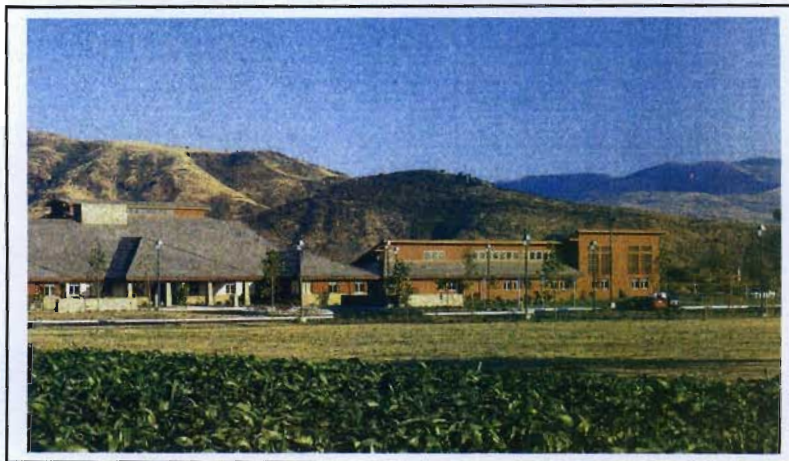
Similarly to Cambodia, South Africa has a great need for development of skills. Therefore, the creation of an apprentice programme could be implemented, which could involve technical schools working in conjunction with a construction companies so as to develop skills.

lifestyle. Although, the architecture aesthetically offers much the same as that of a theme park; providing a visual image of something that is not really there, one cannot argue with the success that it has provided.

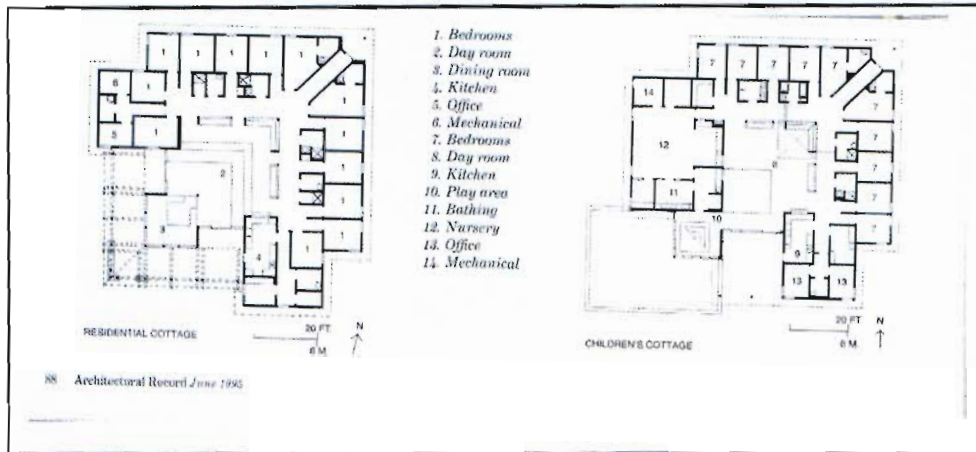
The rural setting also offered the children a place to work; this was seen as one of the key components to making the children's stay successful. By integrating the children into the workings of the scheme, they were given a sense of responsibility for their environment and with it a sense of values.



**Figure 5 (left) and 6 (below):** showing the ranch typology of the centre (Anonymous: 1995, p.86)

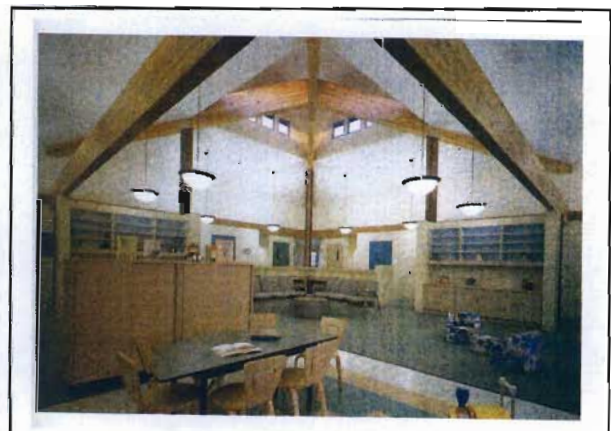


The children's cottages are planned in such a way so as to allow them a sense of privacy, but at the same time allowing the carers to observe them. One can observe this figure 6.



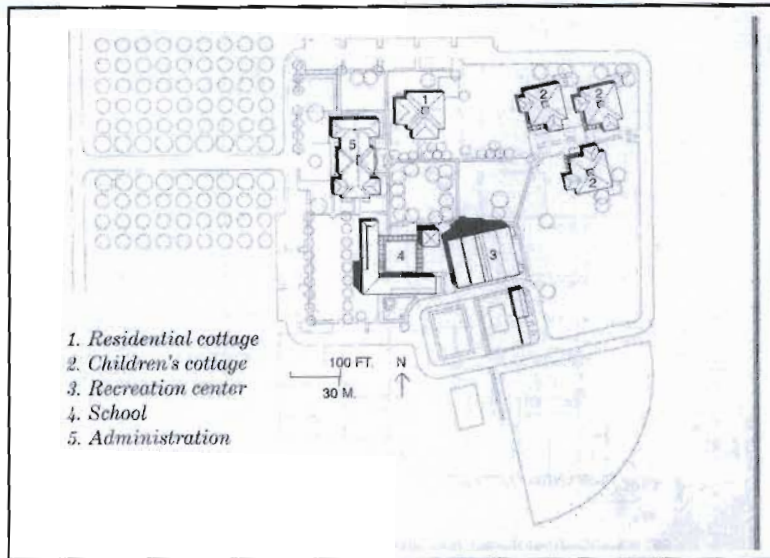
**Figure 7:** showing the different plans of the residential units (Anonymous: 1995, p.88)

The roofs and pergolas are supported by laminated-wood beams; this further suggests the connection to agricultural shed construction. Although the exterior was given a very rustic appearance in accordance with the typical ranch attributes, the interiors on the other hand, had more attention to detail. The architects used traditional post and beam construction in conjunction with carpeting, drywall ceilings and walls. Day lighting was also introduced so as to maximise the natural light within the buildings.



**Figure 8 (right) and 9 (left):** showing the interiors of the centre (Anonymous: 1995, p.89)

The planning of the centre consisted of a residential cottage for the teachers, with a number of children's cottages situated adjacent to them. This planning logic appears to isolate the carers from the children; by not integrating them with one another there could possibly be a lack of cohesion between the adults and the children.



**Figure 10:** showing a site plan of the centre (Anonymous: 1995, p.87)

Initially over the first two years the centre's focus was on programme implementation and organising the roles of all the participants in the scheme. The centre's growth is evident as it expansion provided a programme for day students, whom the majority were graduates of the initial residential programme but were still in need of special education. Further expansion has subsequently taken place in the form of an after-school component and a parent support group.

### PRECEDENT 3:

The following projects of the study look are social experiments that in general deserve to be known more for their potential and methodology; rather than for the physical manifestation.

### WATER-PLAY AREA (1996)

**Architect** : Sybolt and Jan Meindersma Architects

**Client** : Netherlands government

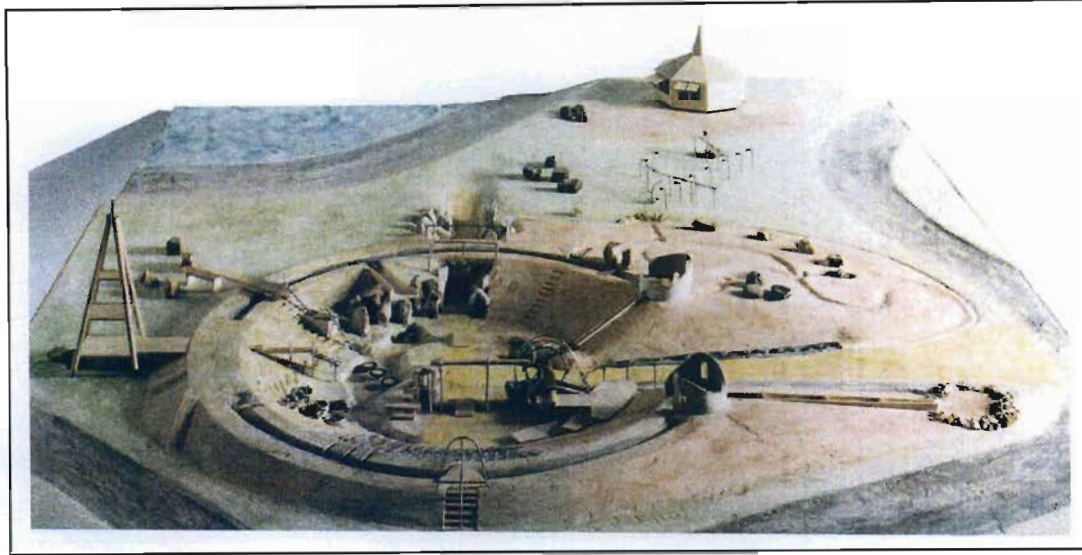
**Place** : The Netherlands

The architects analysed the way in which children learn by discovery, by using simple elements placed correctly in the environment, children can use these to develop their concepts of high and low or in and out etc. With this knowledge, children can create games with one another, resulting in increases in their social and mental development.



**Figure 11:** showing an image of the water park (Zevi: 1996, p.454)

The water play ground was developed for children between the ages of 7 and 12 years old. The architects designed the play ground with an area for each age group such as more adventurous areas where the older children will more than likely gravitate towards, and safer areas supposedly where the younger children will play. The children can be observed by their parents on the side, this will provide the children with an element of freedom to play but still being under the eye of their parents.



**Figure 12:** showing the 4 quadrants of the water play area  
(Zevi: 1996, p.454)

The play ground is divided into 4 quadrants, each with their own atmosphere. The first quadrant is a river-landscape where the children have control over the flow of the water. This provides them with the ability to change and alter their environment, even if it is only at a rudimentary level. The second quadrant was designed to demonstrate the difference between falling down and water. The concept of this stage was to reinforce team work among the children. The third quadrant uses water fed from the North Sea, with the direction of the water being controlled by the children. The element of time is introduced in this quadrant by means of a sun clock and its end; this is in place to develop the children's concept of time. The fourth quadrant incorporates water and sound. As the water falls, it makes various sounds as it hits the ground; the children have the ability to control the falling water, to make sounds that can become melodies. This play ground gives the children the opportunity to manipulate their environment, in order to see, feel and experience the properties of water and its movements.



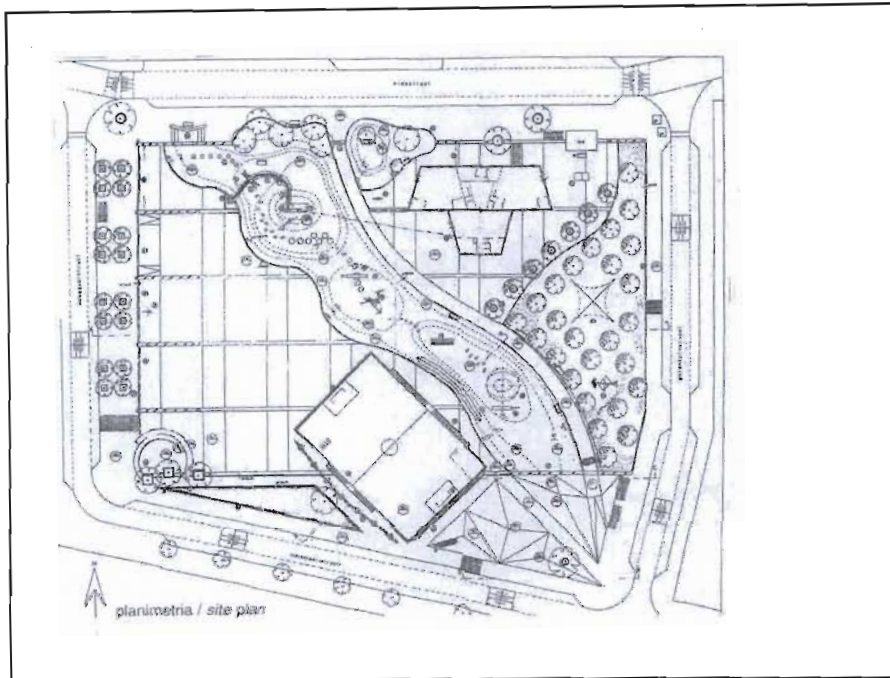
**Figure 13:** showing construction of the water park  
(Zevi: 1996, p.455)

## MAKASSARPLEIN (1994)

**Architect** : Sybolt Maindertsma and Anna Trouerbach

**Client** : Unknown

**Place** : Amsterdam



**Figure 14:** sowing a site plan of the square (Zevi: 1996, p.457)

The square "Makassarplein" was once a playground called "de Archpil", however in the 1980's activities ceased and with a result the square became excluded from the rest of the neighbourhood, this was attributed to the fence around it. The architects looked at redeveloping its function together with the neighbours and social welfare institutions.

The brief was to rejuvenate the square into a place where the young and old can meet. The architects incorporated the children of the area into the design of the new square, this proved very successful as it gave them a sense of ownership in the project, as well as showing how they can be a part of shaping their environment.



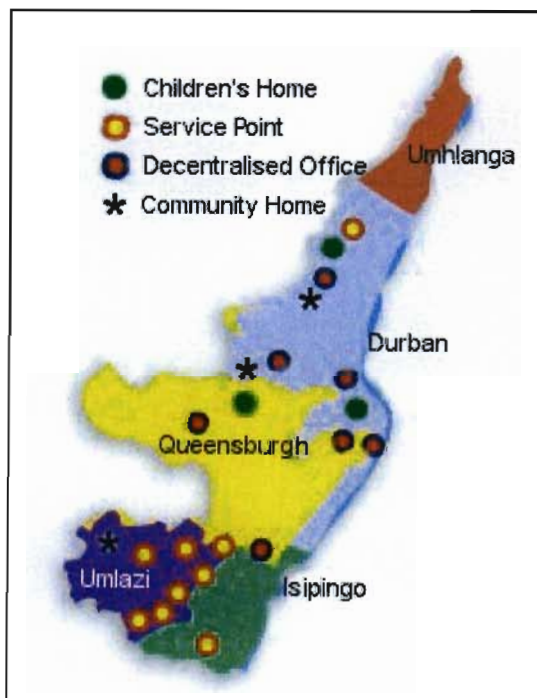
**Figure 15:** showing the different geometries of the square  
(Zevi: 1996, p.457)

One can see in the images above how the square has been designed to incorporate various modes of experiencing ones environment. Textures, movement and varying horizontal and vertical planes were incorporated into the design do as to provide children with constant stimuli. The square offers up opportunities for the children to play different types of games, which can aid in the development of their physical and mental health at the same time strengthening their social bonds.

## CASE STUDY 1: The Durban Children's society

Durban Children's Society is a merged entity, encompassing the former Child Family and Community Care Centre of Durban, founded in 1927; Durban Child and Family Welfare Society, founded in 1919 and Umlazi Child and District Child Welfare Society, founded in 1925.

The core function of the Society is child protection, operating primarily in the poor and previously disadvantaged communities, including informal settlements within Durban. While the main aim of the society is to preserve the family unit, it is sometimes necessary to place the children in alternate care such as either with another family or children's home. The Society offers a wide range of services to abused, abandoned and orphaned children and children who are wilfully neglected. Services are aimed at improving the lives of children in need, namely protection of children at risk, Educare, Children's Homes, Homes for Street Children. The Society's services are targeted at children living in dangerous and difficult circumstances due to physical, sexual and emotional abuse and neglect, Abandonment as well as the effects of HIV/AIDS. The society has a series of facilities ranging from children's homes, administration offices, community homes and crèches; these can be found from Umhlanga down to Umlazi. As seen in figure 16 below.



**Figure 16:** showing the different facilities around Kwa-Zulu Natal  
(Durban Children's Society  
Annual Report: 2005)

The society runs various programmes such as:

**Satellite Homes** – the society is studying the feasibility of establishing satellite homes within selected communities. They will act as an extension of existing children's homes, however not necessarily being directly connected to them. The satellite homes would be owned by the society and would provide pseudo-family care for up to six children in each dwelling. It is envisaged that as these satellite homes are developed, the children's homes they are attached to would become for more specialised catering for children with special needs. The satellite home has the potential to create a more family type environment as well as offer the children more individual attention.

The concept of the satellite home system could have a profound impact in the design of architectural strategies regarding centres for street children. Traditionally the approach to the design of these facilities was to create a sanctuary that removed the child from society in order to undergo rehabilitation. This new line of thinking is a more integrated approach whereby one is rehabilitating and reintegrating the child back into society. Therefore, architectural design will have to respond to this new mode of thinking by producing design proposals that are more integrated with the surrounding context at an urban scale. (Durban Children's Society Annual Report: 2005)

**Child Protection Programmes** – this is the core service that the society provides. The society offers it to all children from 0 – 18 years who are at risk, this includes children who are abused, neglected, abandoned, orphaned as well as infected with AIDS.

**Prevention Programmes** – as part of the child protection program the society also looks at prevention as a cure, this programme is in place to create awareness and combat abuse, neglect, desertion and abandonment. According to the figures published in the 2005 annual report this programme has reached 28890 children and 3690 adults.

**Kinship Care Programme** – the kinship care programme includes assessment and statutory procedures involved when placing orphaned children in the statutory care

of their extended family or of their community caregiver, as well as ongoing support and supervision of the children. The programme is aimed at legalising foster care grants for orphaned children living with caregivers and extended families. At present the majority of orphans are living with extended families, however in many cases the families cannot cope financially due to the added load of an extra child.

**Community Family Homes** – provide affordable, family type care for up to 6 children within the community. Similarly to that of the satellite homes, the community family homes would also be run by a community mother who is from the community and who would be responsible for the upbringing of the children. The mother would receive a government grant for each child in her care.

*(Anonymous. 2005. Durban Children's Society Annual Report)*

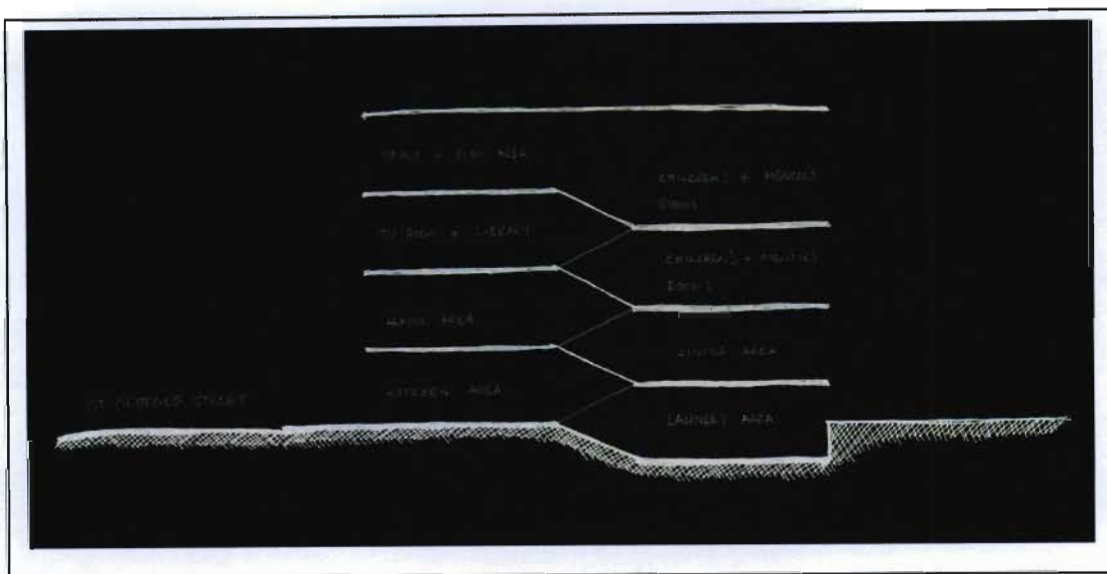
The following case studies will focus on existing street child facilities in both Durban's CBD and rural areas. The objective of these case studies is help identify the specific needs of facilities in Durban, and with a result arrive at a set of basic principles that one could incorporate into a future design proposal for a street child facility in Durban.

## CASE STUDY 2: The Sinethemba Shelter

**Location** : Durban's CBD, 88 St. Georges Street

**Manager** : Muhle Ngcobo

The Sinethemba Shelter is situated at 88 St. Georges Street in Durban's CBD. The shelter's current premises was previously used as a block of flats which was donated to the Durban Children's Society a few years ago, it was then subsequently converted into a children's home with the various facilities spread across the floors of the building as seen in figure 17.



**Figure 17:** showing a diagram of a section through the shelter

Their staff complement is currently comprised of 6 child workers who alternate on a shift basis, 1 social worker who is the manager as well, a secretary, a driver and 2 domestic workers. Many of the staff assumes the roles of other positions as well as their own as there is a shortage of funds to hire additional qualified staff. The shelter also has many volunteers who help with this lack of staff; there is a doctor who visits the children on a frequent basis, as well as teachers who cover subjects such as mathematics, science, English etc, sporting coaches, and tradesmen who instruct the children in the different trades. The Sinethemba shelter is currently licensed to house a maximum of 60 children, however at present there are 45 children living there with the shelter only catering for boys. They range from the age of 8 – 18yrs

old and share rooms with each other; the number of children per room varies from between 4 and 12 depending on the size of the room. Figure 18 below.



**Figure 18:** showing an image of the inside of the children's room

The shelter offers mostly basic amenities such as: kitchen and dining areas, laundry facilities, and children's and mentors rooms, TV space, and study area with a basic gym attached, a few activity spaces and an admin floor. In the below diagram one can see how these functions have been spread through the building, this however is not ideal as there is a lack of continuity between the different functions.

While having informal discussions with the employees and the manager of the shelter it became evident that there was a serious lack of facilities which could possibly hinder the efficiency of the shelter. One could also observe that the current state of some of the existing facilities was far from adequate; such as the shower and ablution facilities. This was due to the lack of funds needed to properly maintain them. The provision of a hall was an important component as social activities such as plays, music recitals, as well as art and craft exhibitions form an integral part of the rehabilitation process. The need for open space is also a vital component that is lacking in the existing centre, the provision of vegetable gardens or spaces to keep animals could provide the children with an excellent opportunity to learn responsibility as well as create a sense of self worth. The nearest open space that the shelter uses is Albert Park, which is situated a few hundred meters south from the shelter. Therefore, sporting facilities and playgrounds on the premises would be ideal as it would eliminate the need for walking on a busy road, as well as the children could play freely and when ever they want without having to make a special excursion with their teachers.

The classrooms that the shelter has are insufficient in accommodating all the activities that are required in a design of this nature, therefore one would need to include workshops and additional classrooms in order to accommodate activities such as woodwork, steel work and the other trades. In conjunction with the classroom there is a library, however it is quite small and does not cater to the needs of the children.

Due to the nature of the existing building some of the functions had to be grouped together and with a result their functionality has been compromised; an example of this is on the 5<sup>th</sup> floor there is a study as well as a small gym occupying the same space. It was discussed that a future design proposal could possibly incorporate a combination of individual study areas off the children's rooms so as to provide quite space to learn in. However this would be extremely difficult to incorporate into the existing building as it would require major alterations to the existing configurations with virtually no budget at their disposal.



**Figure 19 (left) and 20 (right):** showing the shelter's study and basic gym facilities.

Concern was expressed over the area that the shelter currently finds itself in; according to discussion with some of the employees there is a high level of crime, drugs and prostitution in the area. This type of environment does not lead itself to the efficient rehabilitation of these children; therefore the possible relocation of the centre to a more suburban location could prove to be appropriate.

### CASE STUDY 3: The Streetwise Centre

**Location** : Marianhill, Pinetown  
**Manager** : Sister Helena McKinney



**Figure 21:** showing the entrance to the centre with the old church adjacent.

The Streetwise Organisation for Durban was setup in 1989 and is based on the principle of care, compassion and empowerment. The centre is based on a strategic approach which operates on a 4 phase programme aimed at rescuing the child from the streets and empowering them as members of their community.

The 4 phases are comprised of a prevention project, a street educator's team, rehabilitation centre and an aftercare programme. The first phase is a community based project that promotes family preservation which in turn reduces the number of children turning to the street. The project tries to achieve this through community empowerment programmes, community education, workshops and parenting skills.

The second phase is a street educator's team, who are outreach worker whose aim is to identify the children on the street and build relationships with them. Their aim is to offer the children the opportunity of leaving the street, while at the same time instilling in them the sense of choice of destiny. Through the elimination of force and the promotion of the child's freedom of choice, one can initiate a far more efficient path to rehabilitation.

The third phase is the rehabilitation Streetwise Centre in Marianhill. This is a halfway house that offers the street children basic amenities such as care, counselling, shelter, food, education, and cultural activities. The centre performs reconciliation

work with the children's families in an effort to reunite them as well as reconnect them with their communities.

The fourth phase is the aftercare programme which provides follow-up services to the children who have been returned home, it also includes providing the family with counselling and assistance with school fees.

The Streetwise Centre is situated in a quiet rural area about 30kms from Durban, this provides the children with a tranquil environment without the influences and the tensions experienced in a centre located in the city such as the Sinethemba Shelter. However, this disconnection from the familiarities of the city can often drive the children to run back to the streets that they know. The centre is housed in an old building that was initially part of the Marianhill Monastery, similarly to the Sinethemba Shelter the Streetwise Centre had to adapt to an existing building as there were no funds available for the design of a new building. However, in the situation of the Streetwise Centre there is much more open space available which enables them to provide many more facilities than the Sinethemba Shelter. This can be attributed to the nature of the area it is in and the availability of land. One can see this in figure 22.



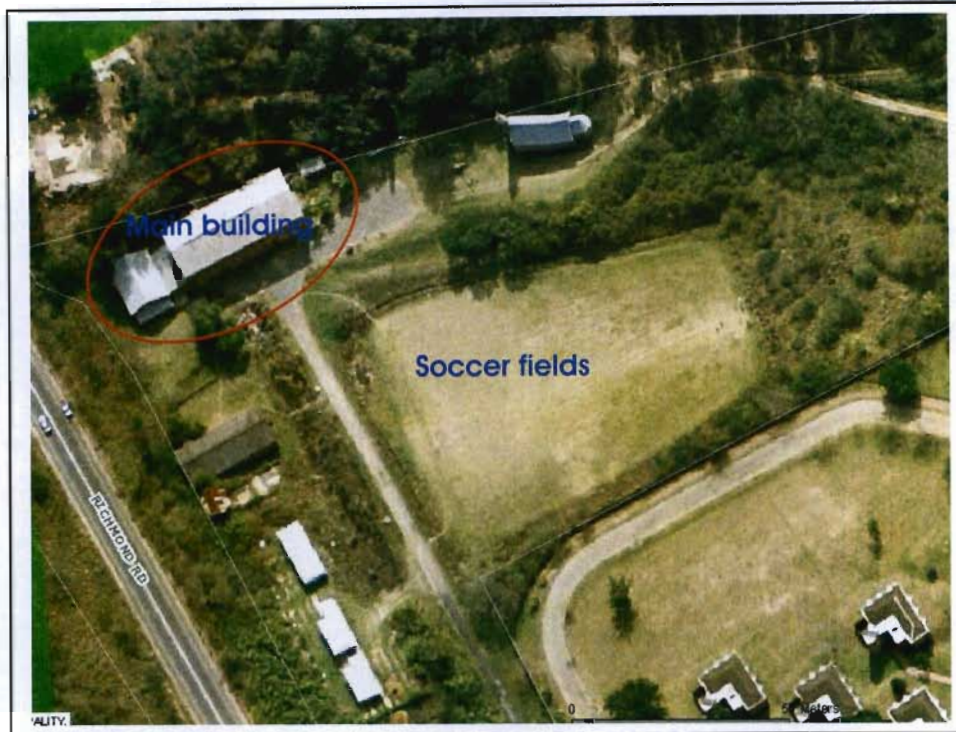
The centre currently houses 30 children between the age of 8 – 18, 9 of whom go to schools in the surrounding areas and the rest are educated at the centre. The centre offers various facilities such as: Accommodation for both the children and the mentors, the children are grouped in rooms of up to 4 per room as any more

can often result in lack of privacy and space. The children are also grouped according to their ages and the length of time that they have been at the centre – this is done in order to eliminate the children being influenced by new comers and possibly being convinced in going back to the streets. There is a ratio of about 10 – 15 children per mentor, any more could possibly result in a lack of individual attention.



**Figure 23:** showing an image of the kitchen and dining area

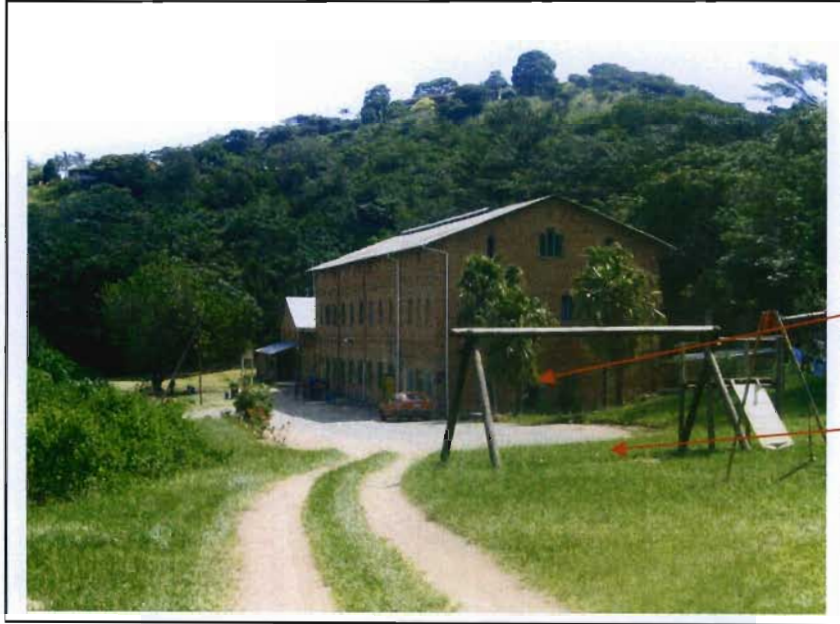
Other facilities include a kitchen, dining areas, classrooms and a library, workshops as well as open spaces for sports activities and food gardens. The kitchen is not only used for food preparation but also as a tool for teaching the children cooking skills. By involving the children in the preparation of the meals, they start to feel they are part of a community; this teaches them social responsibility and develops their self esteem. As seen in figure 23.



**Figure 24:** aerial image of the centre showing the soccer fields and the main buildings.  
(Anonymous: [www.citymaps.durban.gov.za](http://www.citymaps.durban.gov.za))

One can observe the configuration of the centre's plan in the above figure 24. The main building which houses the primary functions of the centre such as: the classrooms, administration offices, dining and kitchen areas and the residential components is situated adjacent to the steel and wood workshops.

On arrival one can see an old church that is currently not utilised, however there are plans for its incorporation in the design of future alterations. Directly opposite the administration offices one can observe a playground, this is to cater for the younger children. It's positioned in such a way that the teachers and staff will be able to watch over them without there being any obvious supervision, this is done in order to create a sense of freedom within the children enabling them to bond with each other. Facilities for the older children such the soccer pitch and basketball net have been situated further away from the administration offices, enabling them to have a greater sense of freedom and space to move. Planning such as this displays an element of trust toward the child and as a result offers the child more responsibility which aids in their rehabilitation and development.



**Figure 25:**  
showing  
proximity of the  
playground to  
the main  
building of the  
centre.

Administration offices

Playground area

In conclusion, one can observe that the phenomenon of street children is wide spread, with its effects being felt across the board from first world countries such as the United States of America to developing such as South Africa. However, one can see that in developing countries the problem is further fuelled by other more region specific factors such as apartheid. Apartheid played a significant role in the problem of street children in South Africa with its Group Areas Act forcing the labour force to become migratory. The family structures were subsequently effected, which resulted in many of the children being forced to the streets. Other social factors such as family violence and abuse, AIDS, and poverty also played major roles in contributing to the problem. One can observe how the phenomenon of street children has impacted on society, through its connection to various anti-social behaviours such as crime, prostitution and the formation of street gangs.

Therefore the rehabilitation and development of these children plays a significant role in their ability to become contributing members of society. One needs to identify the fundamental requirements for rehabilitation and development in order to achieve the goal of rejoining society. Elements such as the development of social skills, mental and physical health, a sense of social responsibility and accountability etc all contribute to the achievement of this goal. Architecture is a powerful tool that moulds our environment for both better and worse; we are constantly changing the configuration of our surroundings in an attempt to be comfortable and secure. One could possibly use architecture as a mechanism to help resolve the current problem of street children; however one needs to identify the major elements that are successful in promoting rehabilitation and development in the children. Various examples of architectural precedents have been analysed in order to arrive at the major elements one could incorporate into a design proposal.

Elements such as: Freedom of movement, social interaction, social responsibility, self reflection, education, accountability, physical and mental health, the sense of being part of a greater community; these elements play major roles in the creation of an environment that is conducive to rehabilitation and development.

## BIBLIOGRAPHY

ADAM, H. and MOODLEY, K. 1993. *The Opening of the Apartheid Mind: Options for the New South Africa*, Los Angeles, California, USA, University of California Press

ALEGI, P. 2004. *Laduma! Soccer, Politics and Society in South Africa*, South Africa, University of Kwa-Zulu Natal Press

ANONYMOUS. 2005. [citymaps.durban.gov.za](http://citymaps.durban.gov.za)

ANONYMOUS. 2005. *Durban Children's Society Annual Report*, Durban

ANONYMOUS. 1995. *Safe House*, Architectural Record Vol. 183 April – June, p.86 – 89.

BAKER, P. 1974. *Urbanisation and Political Change – The Policies of Lagos 1917-1967*, London: University of California Press

BAKER, R. *Children of the Street: A re-interpretation based on evidence from Durban, South Africa*, [www.gg.rhbnc.ac.uk](http://www.gg.rhbnc.ac.uk), (07-09-05)

BERRY, S. 2004. *HIV and AIDS in South Africa*, [www.avert.org/aidssouthafrica.htm](http://www.avert.org/aidssouthafrica.htm), (14-11-05)

BRITAIN, V. and MINTY, A. ed. 1988. *Children of Resistance*, London, Kliptown Books

CLINARD, M. and ABBOTT, D. 1973. *Crime in Developing Countries: A comparative Perspective*, New York: John Wiley and Sons

DEGBEY, J. *African Family Structure*. [www.jicef.or.jp/wahec/ful217.htm](http://www.jicef.or.jp/wahec/ful217.htm). 2005

DISSEL, A. Youth, Street Gangs and Violence in South Africa.  
<http://www.csvr.org.za/papers/papganga.htm> (07-09-05)

DIXON, J. ed. 1987. *Social Welfare in Africa*, London, New York and Sydney: Croom Helm

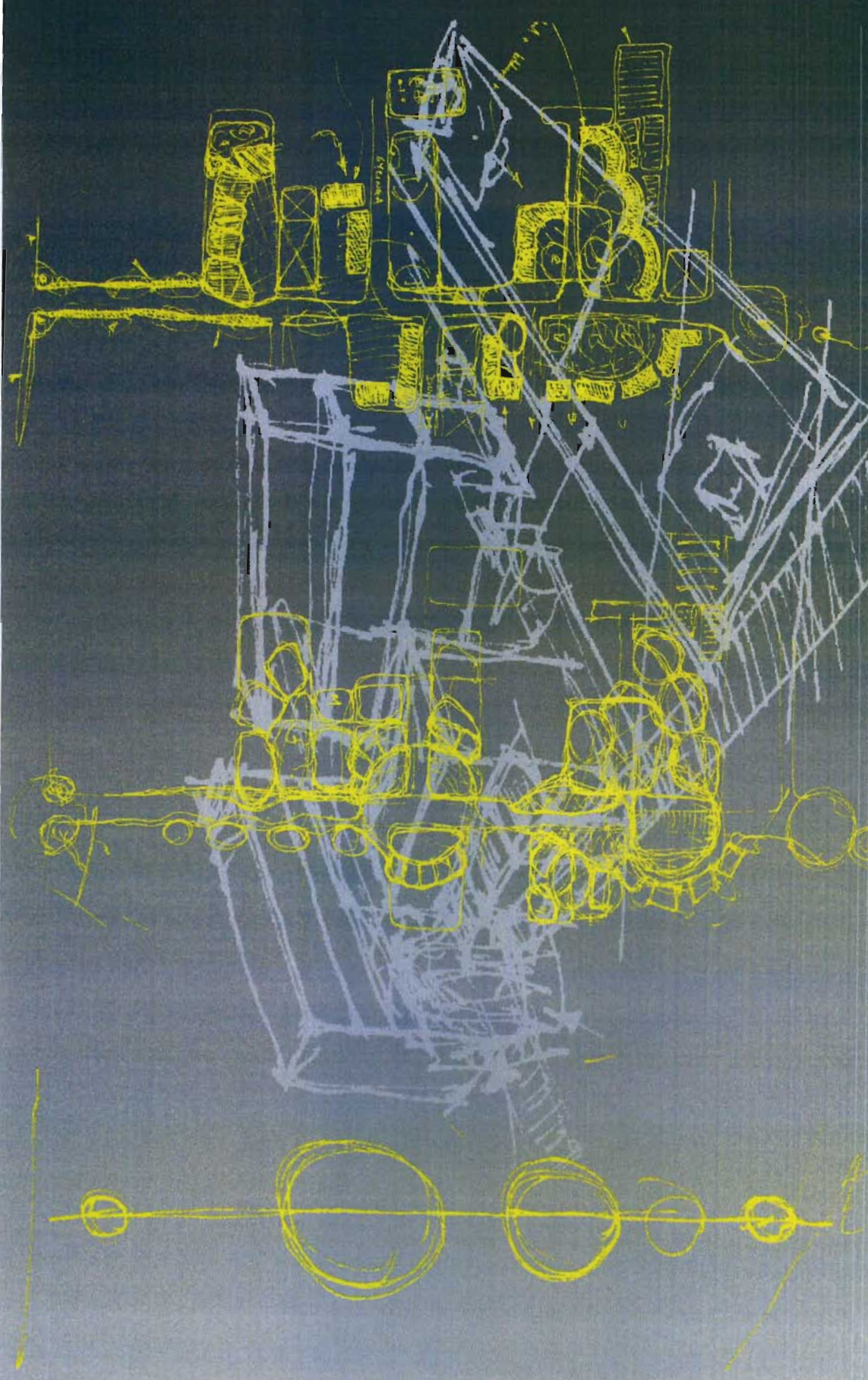
- DOLGOFF, R. and FELDSTEIN, D. and SKONLNIK, J. 1993. *Understanding Social Welfare*, New York and London: Longman
- DOYAL, L. and GOUGH, I. 1991. *A Theory of Human Need*, Hampshire, London, MacMillan Ltd.
- DU VENAGE, G. 2002. *AIDS orphans strain South Africa*, <http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2002/07/11/MN38988.DTL>, (12-11-05)
- J. FREDRIKSSON, A. KANABUS and J. PENNINGTON. 2005. *AIDS Orphans - The Facts*, <http://www.avert.org/aidsorphans.htm>, (13-11-05)
- HAGAN, J. and MCCARTHY, B. 1997. *Mean Streets – Youth Crime and Homelessness*, USA, Cambridge University Press
- JOHNSON, R. 1979. *Juvenile Delinquency and its Origins*, USA, Cambridge University Press.
- KAPLAN, R, KONECNI, V. and NOVACO, R. 1984. *Aggression in Children and Youth*, the Hague, Boston, Lancaster, NATO Scientific Affairs Division
- MAC PHERSON, S. 1987. *Five Hundred Million Children – Poverty and Child Welfare in the Third World*, Sussex and New York: Wheatsheaf Books and St.Martins Press
- MONASCH, R and BOERMA, J. 2004. *Orphanhood and Childcare Patterns in Sub-Saharan Africa: An analysis of national surveys from 40 countries AIDS 2004*, 18 (suppl 2): S55-S65
- MURRELL, M. and LESTER, D. 1981. *Introduction to Juvenile Delinquency*, New York, MacMillan Publishing Co. Inc.
- OLIVER, P. 1997. 2.1.11.1 *Khmer (Cambodia)*, Encyclopaedia of Vernacular Architecture of the World Vol. 2 Cultures and Habitats, p.1056-57

ROHWER, Jr. W, AMMON, P. and CRAMER, P. 1974. *Understanding Intellectual Development: Three Approaches to Theory and Practice*, Hillside, Illinois, USA, The Dryden Press

SHORTER, A. 1977. *Concepts of Social Justice in Traditional Africa*,  
[www.afrikaworld.net/afrel/atr-socjustice.htm](http://www.afrikaworld.net/afrel/atr-socjustice.htm), (12-11-05)

TUCKER, D. *Graffiti: Art and Crime*. [www.graffiti.org](http://www.graffiti.org) (26-09-05)

ZEVI, L. 1996. *Child a Challenge to Project*, *Architectura Cronache E Storia* Vol. 42  
Nos. 489 – 491, p.446 - 467



# CENTRE FOR STREET CHILDREN

BRENDAN KERR

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**CENTRE FOR STREET CHILDREN**  
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## CLIENT INFORMATION

The Streetwise Organization

Contact person - Sister Helena

The Streetwise Organisation operates on a 4 phase programme in dealing with the issues of street children:

- Phase 01** prevention strategy, going into the community in order to identify potential problem areas, as well as holding workshops a means of creating awareness and promoting education on the issues that children face on the street.
- Phase 02** a street team holds day workshops on the street as a way of familiarising themselves with the children, as well as gaining their trust. They offer them the choice of rehabilitation which they could obtain in phase 03.
- Phase 03** provides shelter, education through skill development workshops and an environment that is conducive to a physical and mental health.
- Phase 04** follow up programme, checking up on children that have moved on from phase 03.
- The design of a centre for street children will primarily cater for the third phase of the street wise programme, however administration offices for the other phases will also be integrated into the design.

**CENTRE FOR STREET CHILDREN**  
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## BRIEF

The aim of the project is to create a safe haven for the street children of Durban. One of the main objectives of the design is to create an environment that is conducive to the rehabilitation and skills development, so as to help with the transformation of the street children into functioning members of society. Rehabilitation is another primary objective of the design, both in terms of physical and mental health. Sustainability in terms of both environmental and financial are fundamental components of the design. Rain water harvesting and solar water heaters should be looked at as part of the environmental strategy. In terms of financial sustainability one should look at including revenue generating elements such as arts and crafts, services as well as recycling etc.

The brief is comprised of an urban proposal for the willis road precinct that will be seen as a phase development, the design of the gateway building as the first phase of the development as well as conceptualization of a clip on residential element that can be used within the greater community as part of a government subsidy strategy.

The design will comprise of residential components for both the children and the mentors, workshops and classroom need to be provided as well as social and multi-purpose spaces.

The design should comprise of:

**Residential component** - One of the design requirements is for a residential component for both the mentors and the children, with the mentors units having a degree of visual control over the children's rooms. The children's rooms need to accommodate up to 4 children as well as provide a work space and storage space.

**Workshops** - the design must incorporate skills development workshops which cater for steel work, wood work and craft making.

**Classrooms, music and art rooms**

**Gallery and display area** - for arts and crafts made by the children in the workshops classrooms. This is an important component of the design as it can offer the children a sense of achievement as well as self esteem when their crafts are displayed. This can also potentially provide the centre with a source of funds to help with the running costs. The gallery area should also incorporate a tourist information area, which can create awareness among the greater public.

**Administration offices**

**Dinning multi-purpose space and kitchen**

**Integration with existing amenities** - incorporate existing playgrounds and the soccer pitch adjacent to the site into the design of the first phase of the development.

**Sporting facilities** - Physical activity is very important as it promotes healthy living as well as creating a sense of team work and

**Social spaces** social interaction is important in terms of bonding and developing social connections within the centre.

**Quiet spaces** the design needs to incorporate quiet spaces in order to provide study areas as well as the opportunity for reflection.

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## SITE INFORMATION



## CENTRE FOR STREET CHILDREN BRENDAN KERR

Willis road is situated perpendicular to Lancers Road which connects to Warwick Ave; Willis road is comprised largely of residential buildings with small commercial and informal trade components near the intersection of Lancers Road. Willis Road has a series of empty sites start from Syringa Road and work their way up. These empty sites lower the density of the precinct as well as the potential productivity of the area. Therefore, the urban proposal calls for utilisation of all the sites directly off Willis Road, in an attempt to revitalise the area as well as meet the requirements of the brief.

- Willis Road currently has a low vehicular traffic flow, which could therefore be conducive to creating a good environment for children.
- The majority of the area is zoned as general residential, therefore it is unlikely for any major industries to develop on the road. This further emphasises the idea of an area for children.
- The site is situated near existing amenities, such as playgrounds, sporting facilities, transportation nodes (Berea station and taxi ranks) and the Morning and English markets.
- Willis road experiences relatively high numbers of pedestrian traffic, therefore one has the opportunity to tap into this passing trade as a means of revenue for the development.

Refer to appendixes for further information on site selection

## DESIGN CONCEPT and RESOLUTION

### CONCEPT and DESIGN GENERATORS

The idea of the street has featured quite prominently in the lives of the street children thus far; it has become the driving force in the development of their personalities, behavioural patterns as well as their emotional status. The street has provided them with the ability to survive as well as an education on being street wise. Therefore the idea of the street plays a significant role in the conceptualisation of the design. The urban proposal uses this concept as a means of transforming the street into a positive force, which acts as a catalyst for rehabilitation in the children. The urban proposal will look at using Willis Road as the central artery whereby all the components of the design are focused. The use of green urban space connecting the future developments to the road will further reaffirm the connection with the street.

### PHASE 01 of the DESIGN

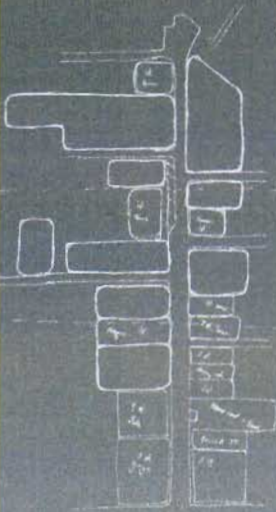
Phase 01 will be the gateway building of the urban proposal form which the other phases will grow. It will house various facilities such as admin offices for the organisation, residential for both the children and the mentors, workshops, as well as a public information space. The design is focused around a series of central courtyards that each express a different character according to their proposed function.

With the road playing such a dominant role in the design of the urban proposal, the idea of transparency is vital in the design. Therefore the concept of the Willis Rd wing is to maintain the connection with the street through transparency and use of light weight materials such as timber, glass and aluminium roofing.

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Refer to appendixes for further information on accommodation schedule

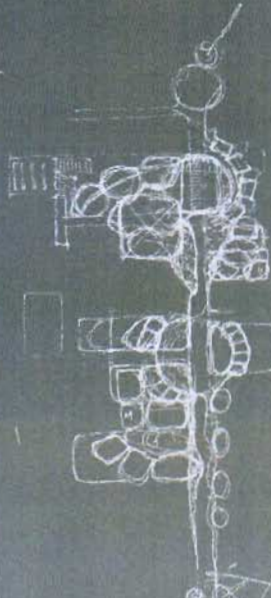
# DESIGN PROCESS



ABOVE: sketch of Willis Rd showing empty sites



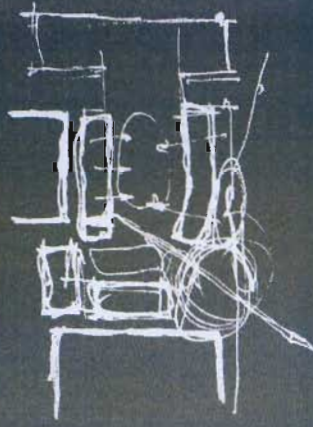
ABOVE: sketch of concept for urban proposal along Willis Rd



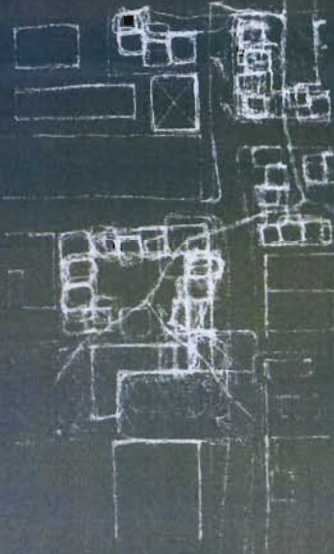
ABOVE: sketch of concept for urban proposal showing possible collection of spaces along Willis Rd.



ABOVE: sketch of urban proposal figure ground study showing relationship of building vs open space



ABOVE: concept sketch for the first phase development



ABOVE: concept sketch of the first phase development, showing connections to future phases of the project



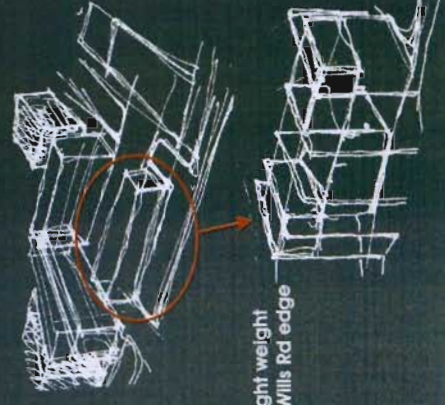
ABOVE: sketch of gateway building showing possible arrangement of buildings around central courtyard



RIGHT & BELOW: concept sketches of Willis Rd, showing proportions of spaces along road with existing buildings



RIGHT & BELOW: volumetric sketch showing possible proportions of gateway building with its immediate context



RIGHT: showing light weight structure on the Willis Rd edge

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## CONCLUSION

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In conclusion, I think the design is successful as it stays in accordance with the main concept of the road being the focal point and movement artery of the development as a whole. The design addresses the connection with the road in both the physical and visual realms, through the use of transparent lightweight materials as well as the use of roller doors that allow the facade to be opened fully. This therefore allows the central spaces of the building to be fully integrated with the road as well as providing the ability to be an enclosed building.

There were various challenges experienced in design process, such as the connection to future phases as well as the integration of the gateway building with the road. In keeping with the concept of expansion one had to incorporate multi-functional spaces into the design so as future allow for the possible change in function in the future. The design has dealt with this by using framed construction methods.

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**APPENDIX A - comparative site analysis**

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# VICTORIA PARK SITE - BEACHFRONT

## ADVANTAGES:

- ABUNDANT OPEN SPACE FOR RECREATION
- CLOSE PROXIMITY TO TOURIST PEDESTRIAN ROUTES - POSSIBILITY FOR THE SALE OF CRAFTS
- CLOSE PROXIMITY TO EXISTING CRAFT MARKETS ON THE BEACHFRONT
- LOW VEHICLE TRAFFIC VOLUMES - SAFE ENVIRONMENT FOR CHILDREN
- OPPORTUNITY TO UTILIZE DEAD SPACE BEHIND THE HOTELS

## DISADVANTAGES:

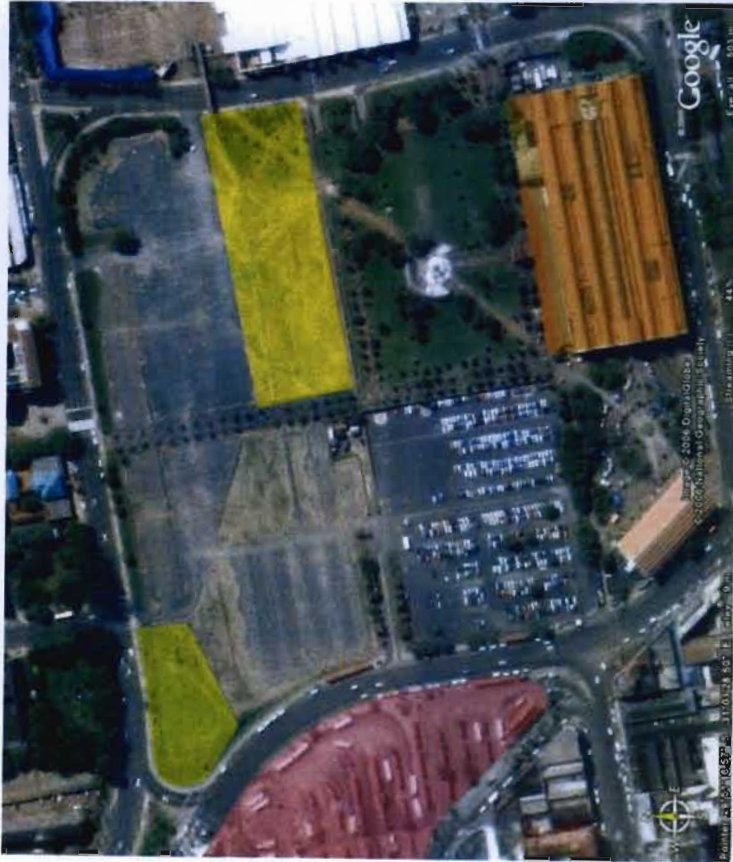
- NOT LOCATED NEAR ANY MAJOR TRANSPORTATION NODES
- PART OF EXISTING PUBLIC OPEN SPACE - POSSIBLY WILL DIMINISH PUBLIC AMENITY
- THE AREA LENDS ITSELF PREDOMINANTLY TO HOTEL DEVELOPMENT
- CRIME HOT SPOT
- SITE NOT SITUATED ON MAIN PEDESTRIAN ROUTES

## GENERAL KEY

- TRANSPORTATION NODES
- POSSIBLE SITES
- TRADE AREAS
- PUBLIC OPEN SPACE
- GENERAL BUSINESS ZONING
- GOVERNMENT AND MUNICIPAL
- PLACES OF WORSHIP
- SITE LOCATION



**CENTRE FOR STREET CHILDREN**  
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**WORKSHOP SITE - CBD**

**ADVANTAGES:**

- SITUATED AT ONE OF THE ENTRANCES TO TOWN - CENTRAL LOCATION, FOCAL POINT OF MANY MAJOR ARTERIES
- BUILDING CAN BECOME A MEANS OF CREATING AWARENESS DUE TO ITS CENTRAL LOCATION
- CLOSE PROXIMITY TO TAXI AND BUS NODES
- LOCATED ADJACENT TO THE WORKSHOP, FLEA MARKET, EXHIBITION CENTRE AND THE ICC
- HIGH VOLUMES OF PEDESTRIAN TRAFFIC
- OPPORTUNITY TO SELL CRAFTS
- CLOSE TO THE TOURIST JUNCTION

**DISADVANTAGES:**

- THE PROPOSED SITE IS PART OF A VERY LARGE VACANT LOT - COULD POSSIBLY BECOME ISOLATED
- HIGH VOLUMES OF VEHICLE TRAFFIC - NOISE AND AIR POLLUTION
- CRIME

**GENERAL KEY**

- TRANSPORTATION NODES
- POSSIBLE SITES
- TRADE AREAS
- PUBLIC OPEN SPACE
- GENERAL BUSINESS ZONING
- GOVERNMENT AND MUNICIPAL
- PLACES OF WORSHIP
- SITE LOCATION



# WILLS ROAD SITE - WARWICK JUNCTION

## ADVANTAGES:

- CLOSE TO TRANSPORTATION NODES
- TAXI RANKS DURBAN STATION
- ZONED AS GENERAL RESIDENTIAL
- CLOSE PROXIMITY TO THE MORNING MARKET AS WELL AS THE DURBAN STATION MARKET
- HIGH VOLUMES OF PEDESTRIAN TRAFFIC THROUGH THE DURBAN STATION AND THE MARKETS
- OPPORTUNITY TO SELL CRAFTS
- OPPORTUNITY FOR SKILLS DEVELOPMENT FOR THE AREA
- WARWICK JUNCTION IS AN INTERFACE BETWEEN VARIOUS CITY DISTRICTS

## DISADVANTAGES:

- HIGH VEHICLE TRAFFIC VOLUMES
- AIR AND NOISE POLLUTION
- CRIME IN THE AREA
- LACK OF PUBLIC OPEN SPACE AND SPORTS INFRASTRUCTURE
- LOCATION NOT ON MAIN PEDESTRIAN ROUTES

## GENERAL KEY

- TRANSPORTATION NODES
- POSSIBLE SITES
- TRADE AREAS
- GENERAL RESIDENTIAL ZONING
- GENERAL BUSINESS ZONING
- INDETERMINATE



**CENTRE FOR STREET CHILDREN**  
BRENDAN KERR

**APPENDIX B - accommodation schedule**

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**CENTRE FOR STREET CHILDREN**  
BRENDANI KERR

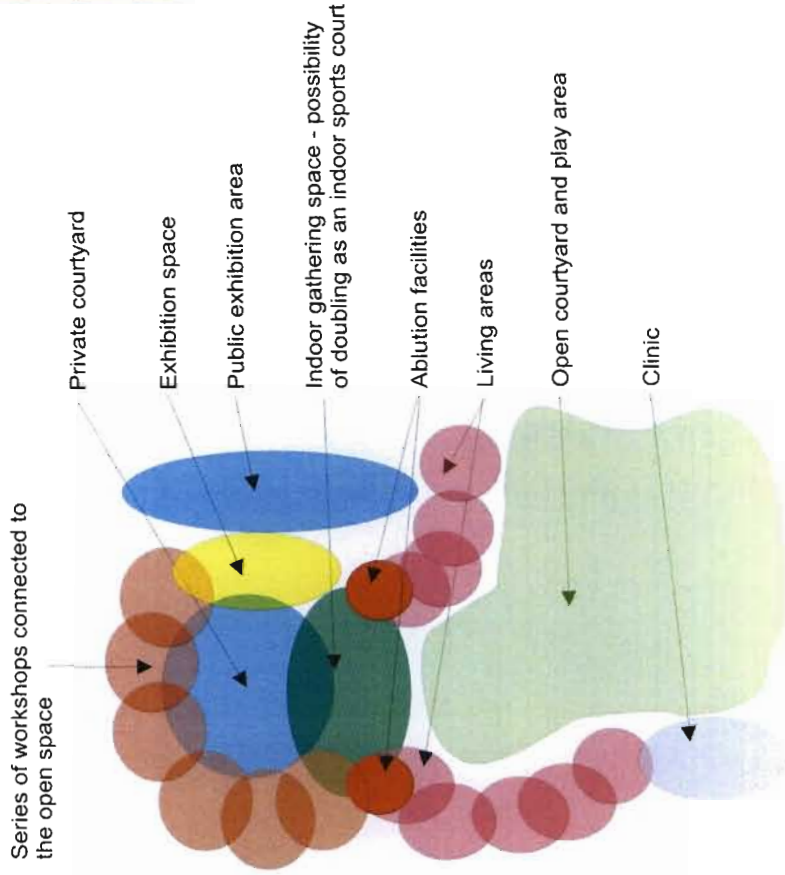
# INITIAL BRIEF and ACCOMMODATION SCHEDULE

## AIMS and OBJECTIVES:

- To provide a safe haven for the street children of Durban.
- The design must provide an environment that is conducive to the development of skills, so as to provide the street children with a means of becoming functioning members of society.
- Rehabilitation is one of the primary goals of the centre. This should be provided in the form of a clinic component in the scheme, catering for both physical and mental ailments.
- A means of income needs to be incorporated into the centre so as to create a self sustaining building. This could be in the form of making crafts or providing services that have been learned through workshops in the centre.
- The incorporation of physical activity is important as a means of maintaining physical health.
- The scheme can be used as a means of regenerating underutilized spaces as well as introducing skilled labour into the area
- The primary objective is to enable the street children population to re-enter society as contributing members through the skills they acquire through the centre.

## SITE CRITERIA:

- Located in close proximity to transportation nodes
- In order to promote the trading of crafts, the site needs to be located near pedestrian routes
- The aspect of safety is another major criteria, as the site needs to be situated in a relatively low vehicle traffic zone.
- The site needs to be located near public amenities such as libraries, sporting and health care facilities.
- The site is required to have space sporting facilities such as basketball and netball courts etc.



# ACCOMMODATION SCHEDULE

## ADMINISTRATION:

FUNCTION	NO. REQUIRED	TOTAL AREA
Offices	6 @ 15sqm	90sqm
Reception	1 @ 30sqm	30sqm
Staff Room	1 @ 35sqm	35sqm
Meeting Rooms	2 @ 35sqm	70sqm
Ablutions	2 @ 20sqm	40sqm
<b>TOTAL</b>		<b>265sqm</b>

## EDUCATION COMPONENT:

FUNCTION	NO. REQUIRED	TOTAL AREA
Classrooms	3 @ 75sqm	225sqm
Workshops	2 @ 75sqm	150sqm
Storage	1 @ 30sqm	30sqm
Music Room	1 @ 90sqm	90sqm
Arts and Crafts Room	1 @ 90sqm	90sqm
Ablutions	2 @ 20sqm	40sqm
Gallery and public info space	1 @ 150sqm	150sqm
<b>TOTAL</b>		<b>775sqm</b>

## RESIDENTIAL COMPONENT:

FUNCTION	NO. REQUIRED	TOTAL AREA
Children's rooms	13 @ 30sqm	390sqm
Mentor's unit	2 @ 75sqm	150sqm
Ablutions	2 @ 20sqm	40sqm
<b>TOTAL</b>		<b>580sqm</b>

## OTHER COMPONENTS:

FUNCTION	NO. REQUIRED	TOTAL AREA
Dining / multi-purpose area	1 @ 100sqm	100sqm
Kitchen	1 @ 50sqm	50sqm
Store	2 @ 8sqm	16sqm
Laundry	1 @ 15sqm	15sqm
Ablutions	2 @ 20sqm	40sqm
<b>TOTAL</b>		<b>221sqm</b>

**APPENDIX - B**

**THESIS DESIGN PROPOSAL**

## CLIENT INFORMATION

The Streetwise Organisation operates on a 4 phase programme in dealing with the issues of street children:

Phase 01 prevention strategy, going into the community in order to identify potential problem areas, as well as holding workshops a means of creating awareness and promoting education on the issues that children face on the street.

Phase 02 a street team holds day workshops on the street as a way of familiarising themselves with the children, as well as gaining their trust. They offer them the choice of rehabilitation which they could obtain in phase 03.

Phase 03 provides shelter, education through skill development workshops and an environment that is conducive to a physical and mental health.

Phase 04 follow up programme, checking up on children that have moved on from phase 03.

The design of a centre for street children will primarily cater for the third phase of the street wise programme; however administration offices for the other phases will also be integrated into the design.

## SITE INFORMATION

Wills Road is situated perpendicular to Lancers Road, which connects to Warwick Ave; Wills road is comprised largely of residential buildings with small commercial and informal trade components near the intersection of Lancers Road. Wills Road has a series of empty sites start from Syringa Road and work their way up. These empty sites lower the density of the precinct as well as the potential productivity of the area. Therefore, the urban proposal calls for utilisation of all the sites directly off Wills Road, in an attempt to revitalise the area as well as meet the requirements of the brief.

Wills Road currently has a low vehicular traffic flow, which could therefore be conducive to creating a good environment for children. The majority of the area is zoned as general residential, therefore it is unlikely for any major industries to develop on the road. This further emphasises the idea of an area for children. The site is situated near existing amenities, such as playgrounds, sporting facilities, transportation nodes (Berea station and taxi ranks) and the Morning and English markets.

Wills road experiences relatively high numbers of pedestrian traffic, therefore one has the opportunity to tap into this passing trade as a means of revenue for the development.



## CONCEPT and RESOLUTION

### CONCEPT and DESIGN GENERATORS

The idea of the street has featured quite prominently in the lives of the street children thus far; it has become the driving force in the development of their personalities, behavioural patterns as well as their emotional status. The street has provided them with the ability to survive as well as an education on being street wise. Therefore the idea of the street plays a significant role in the conceptualisation of the design. The urban proposal uses this concept as a means of transforming the street into a positive force, which acts as a catalyst for rehabilitation in the children. The urban proposal will look at using Wills Road as the central artery whereby all the components of the design are focused. The use of green urban space connecting the future developments to the road will further reaffirm the connection with the street.

### PHASE 01 of the DESIGN

Phase 01 will be the gateway building of the urban proposal form which the other phases will grow. It will house various facilities such as admin offices for the organisation, residential for both the children and the mentors, workshops, as well as a public information space. The design if focused around a series of central courtyards that each express a different character according to their proposed function.

With the road playing such a dominant role in the design of the urban proposal, the idea of transparency is vital in the design. Therefore the concept of the Wills Rd wing is to maintain the connection with the street through transparency and use of light weight materials such as timber, glass and aluminium roofing.

## DESIGN PROCESS



ABOVE: Site plan showing empty sites



ABOVE: Site plan showing empty sites



ABOVE: Site plan showing empty sites



ABOVE: Site plan showing empty sites



ABOVE: Site plan showing empty sites



ABOVE: Site plan showing empty sites



ABOVE: Site plan showing empty sites



ABOVE: Site plan showing empty sites



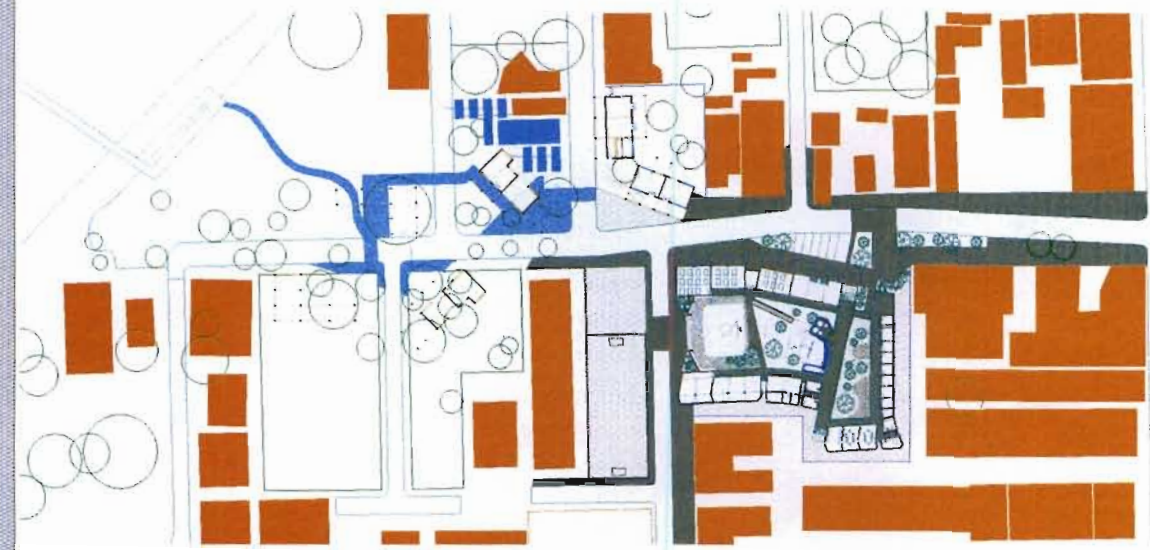
ABOVE: Site plan showing empty sites



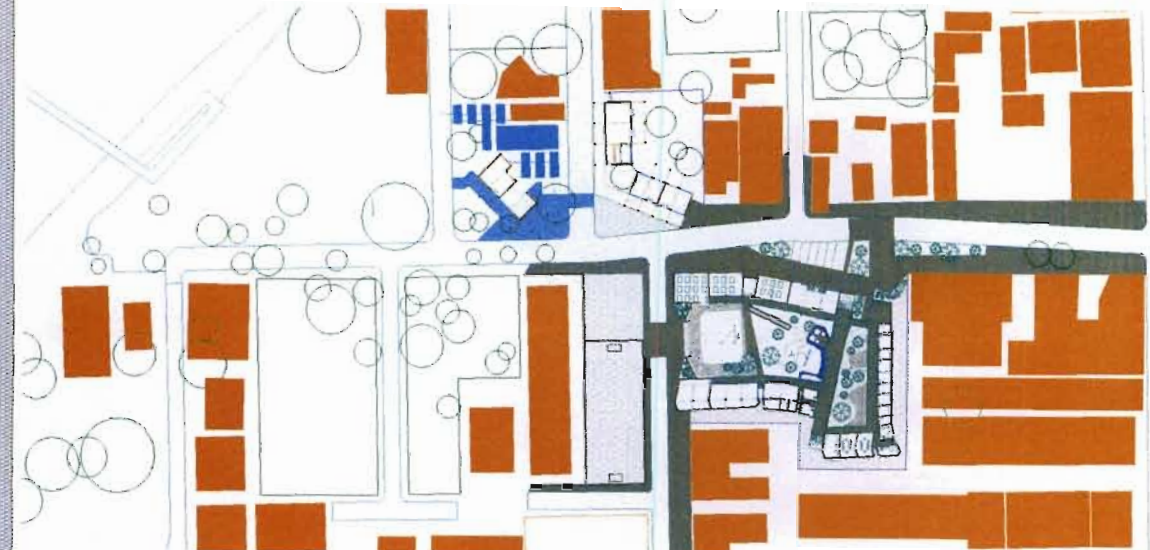
ABOVE: Site plan showing empty sites



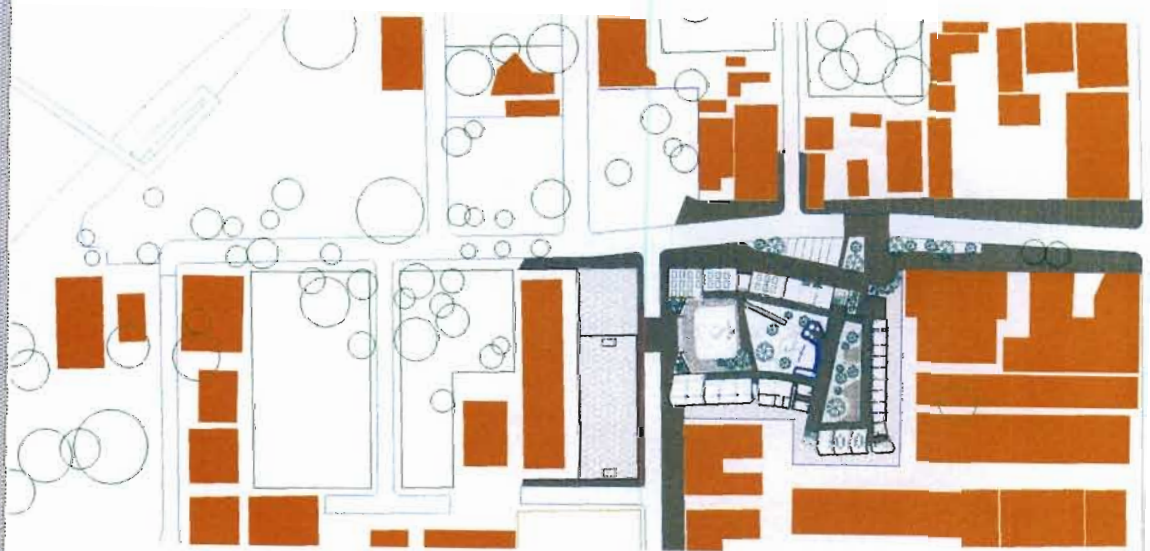
ABOVE: Site plan showing empty sites



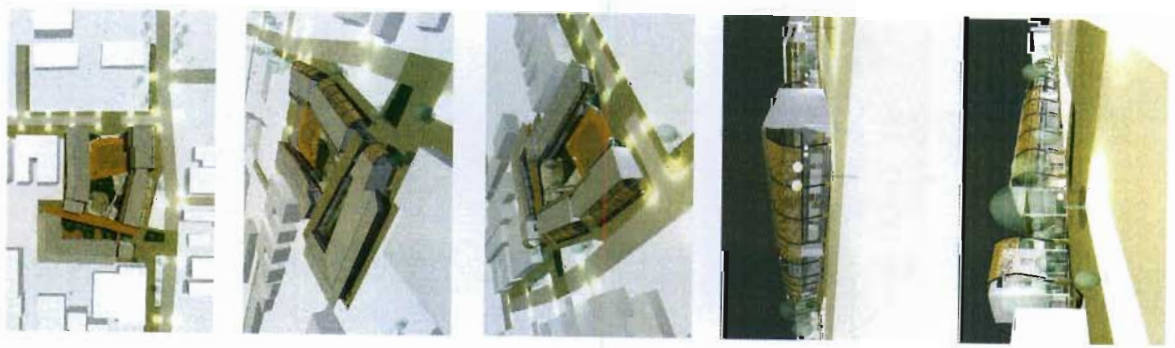
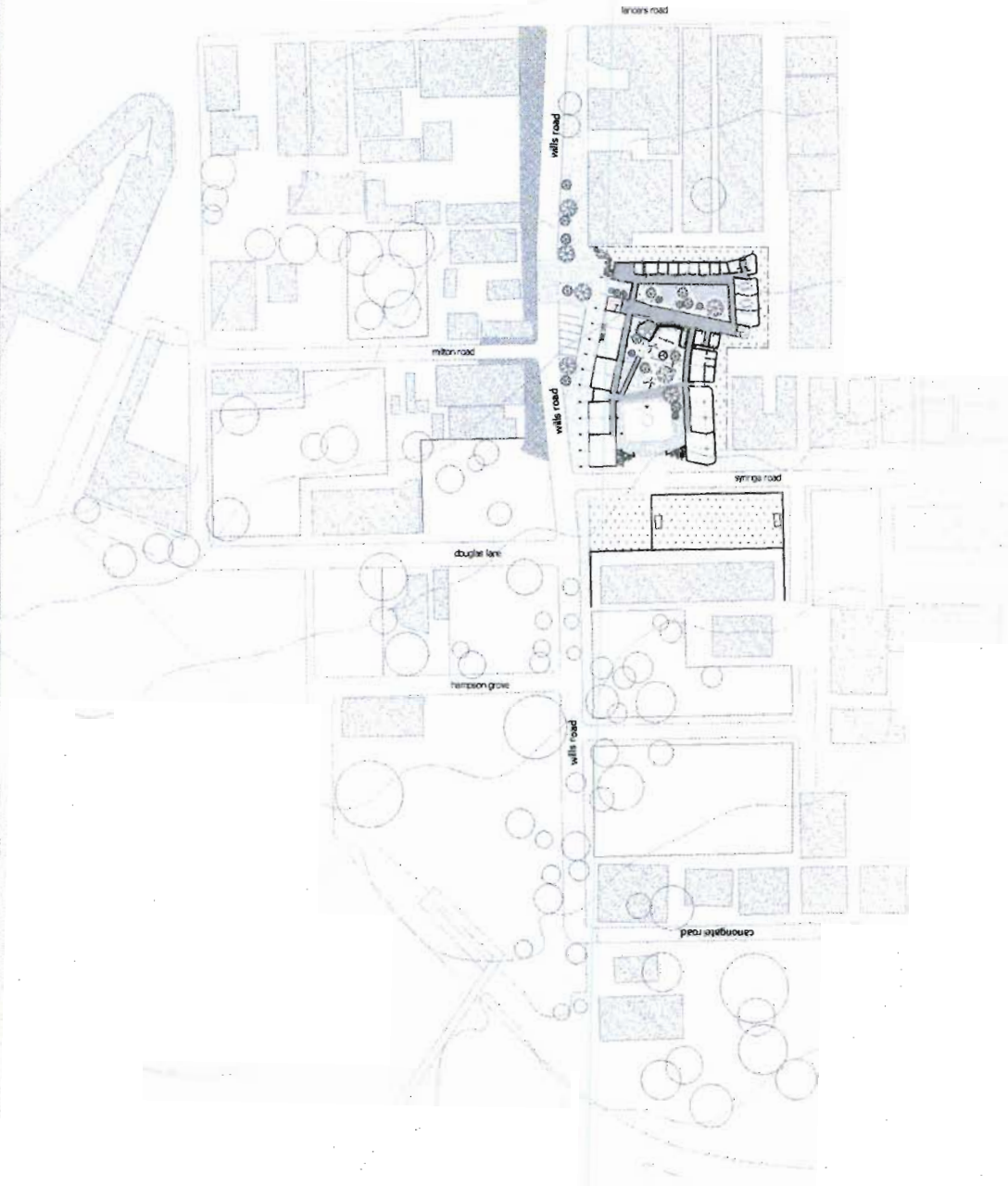
PHASE 03



PHASE 02



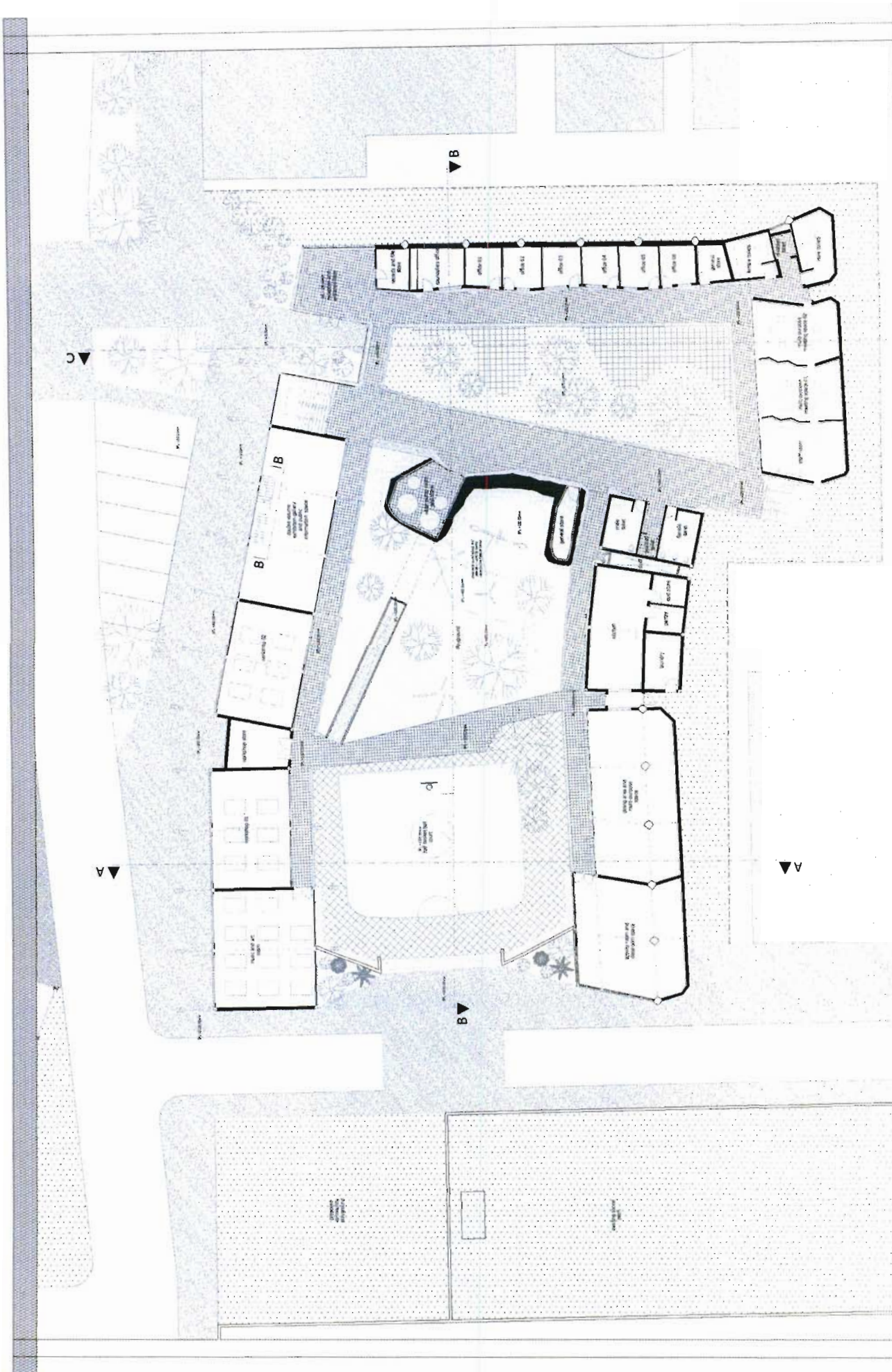
PHASE 01



SCALE: 1:500  
BRENDAN KERR

TITLE: SITE PLAN and PERSPECTIVES

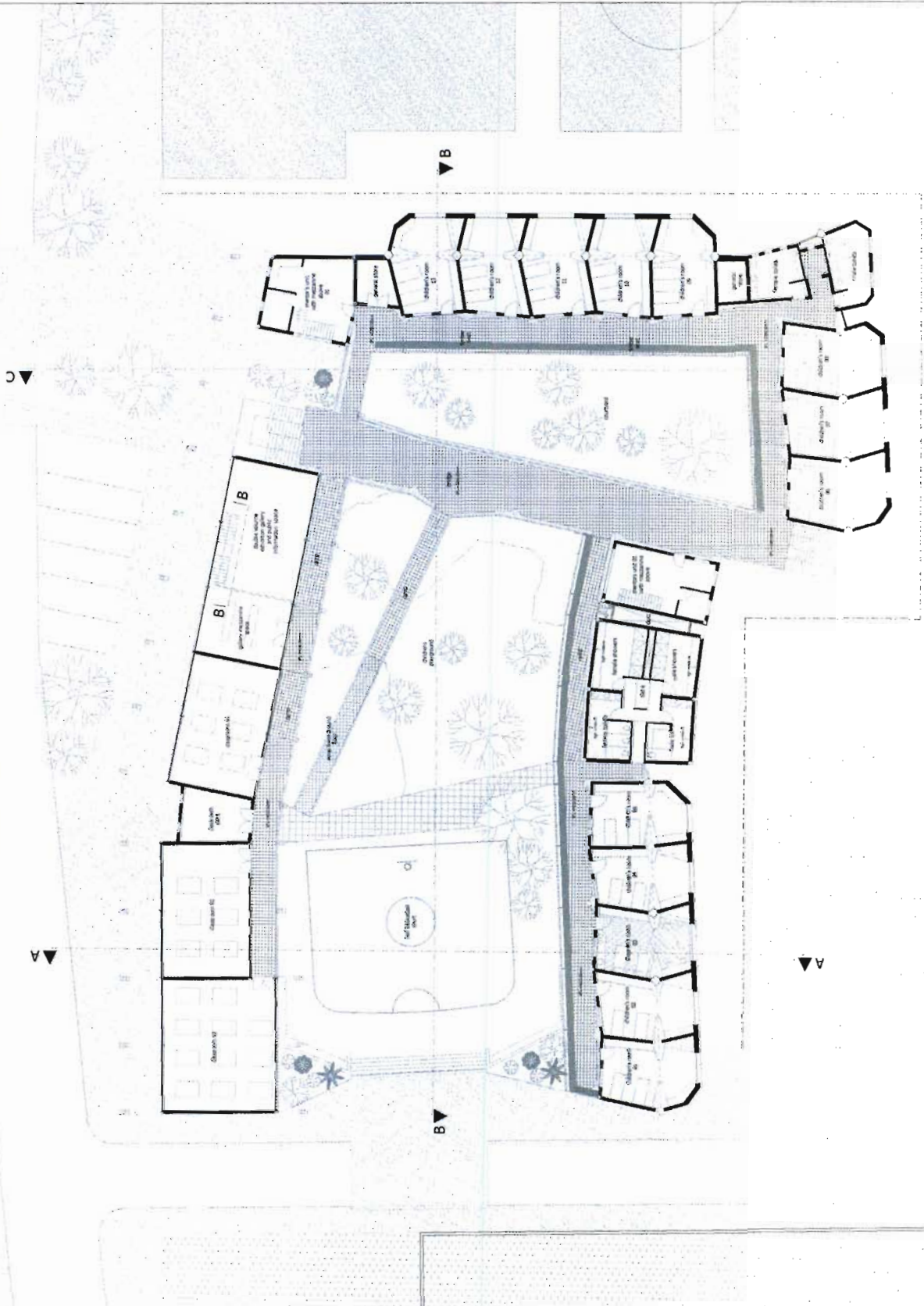
CENTRE for STREET CHILDREN



TITLE: CENTRE for STREET CHILDREN 

SCALE: 1:100

BRENDAN KERR



BRENDAN KERR

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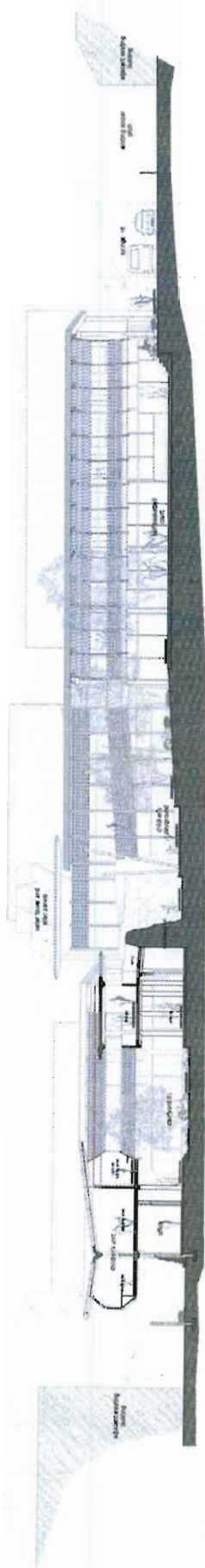
TITLE: FIRST FLOOR PLAN



CENTRE for STREET CHILDREN



SECTION A-A



SECTION B-B



SECTION C-C

CENTRE for STREET CHILDREN

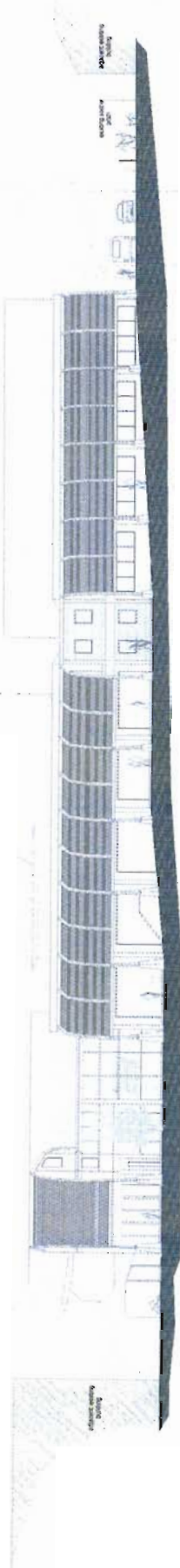
TITLE:

SECTIONS

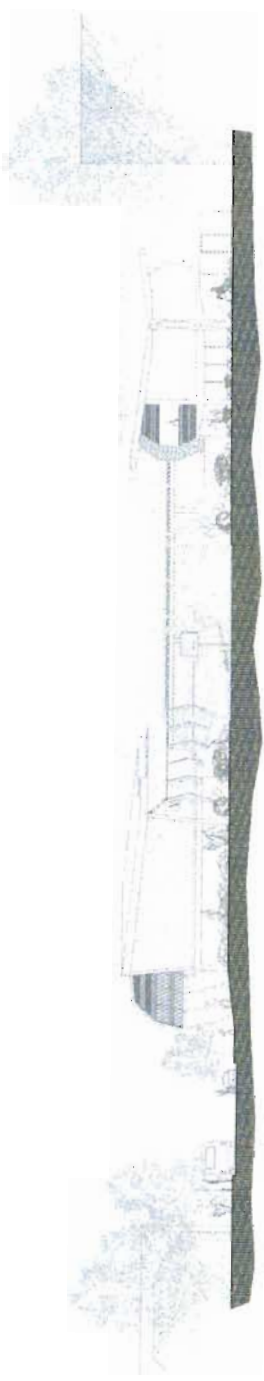
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WILLS ROAD ELEVATION



SYRINGA ROAD ELEVATION

CENTRE for STREET CHILDREN

TITLE:

ELEVATIONS

SCALE:

1:100

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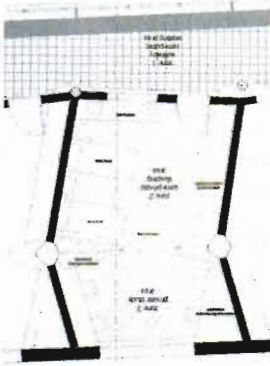
TECHNICAL SECTION 1:50



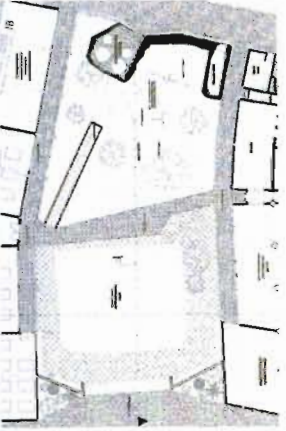
CHILDREN'S ROOM SECTION



PERSPECTIVE OF BASKETBALL COURT and PLAYGROUND



CHILDREN'S UNIT PLAN 1:50



PLAN of BASKETBALL COURT and PLAYGROUND 1:200

TITLE: TECHNICAL SECTION  
PLAYGROUND DESIGN  
CHILDREN'S UNIT DESIGN

SCALE: 1:50

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CENTRE for STREET CHILDREN