

# Community Art Training Centre **ALEXANDRA**

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It seems that Architecture has a more profound and crucial influence on people's daily lives than many other professions. In measuring its importance, one need only imagine the negative consequences of a badly designed building, space or any other architectural component in order to understand the significance of good design on people. Architecture deals with aspects of human life, and in order to be effective in fulfilling its purpose, it is duty bound to understand the psychology which drives human behaviour.

The thoughts behind the concept of the project, which will be described further on, try to combine thinkers' thoughts from different professions on which some Architectural concepts rely.

In the proposed project, I will attempt to integrate the "Hierarchy of Needs" as described by Maslow, and to be assisted by the philosophy of the "Everyday Life" as described by Lefebvre.

In his famous "Hierarchy of Needs" pyramid, Abraham Harold Maslow, an American psychologist, tried to grade human needs into five levels of importance. The basic are physiological needs, then safety and security needs, to be followed by love and belonging needs, after which are found esteem needs and finally, the highest needs are for self-actualisation.<sup>1</sup>

(1) Maslow, A. 1968. *Toward a Psychology of Being*.

According to Maslow, the higher one climbs in the pyramid, the better off one is. Without fulfilling the basic need, one can't proceed further, to other needs.

In light of this theory, I tried to examine the necessity of different functions and aspects in the project - as will be described further on.

In the last few decades, Architects such as Deborah Berke, Steven Harris and others tried to apply Henri Lefebvres' philosophy of the "Everyday Life" into the Architectural realm. Lefebvre, a French Philosopher, attempted during half a century (1920-1970) to define his ideas of everyday life and the nature of space, mainly in urban environments.

"What is the goal? It is the transformation of life in its smallest, most everyday detail".<sup>(2)</sup>

Lefebvre was very active and influential in the French urbanism in the 60's and the 70's, when he called for more centrality in the city, street life, residential participation and opportunities for spontaneity

In order to meet the community's everyday needs, the Architect's goal is to be a professional interpreter of people's needs into form and

(2) Henri Lefebvre - *Critique of the everyday life*, 1947

space. He does this first, by identifying and analysing the real needs second, by interpreting them into Architectural language and third, by implementing them.

The township of Alexandra can be seen to be progressing along Maslow's hierarchy. The physiological needs are cared for in the vast effort of establishing a new infrastructure. The highest needs of self-actualisation are, at that stage, not relevant for the majority of the community.

The Art Centre then, would try to provide functions, which cater to the three - main needs according to Maslow's pyramid.

Transparent spaces encourage trust and a sense of security. Along with a gradual system of spaces - public-semi public-private, which defines the hierarchy among the functions, the need for safety and security, is fulfilled.

As a gathering place for groups and varied activities, the need for love and belonging can be reached. Self-esteem needs can be fulfilled by the creation of art, the selling and presenting of one's own products and receiving appreciation for one's work.

In terms of the "Everyday Life" philosophy, the Art Centre tries to create different types of closed

and open spaces for its functions. It takes into consideration daily activities happening within the township, and creates similar but varied spaces as a platform for additional activities.

A few principles of "Everyday Life" philosophy were at the base of the design.

First, strengthening existing pedestrian movement instead of creating a new system. Second, catering to and improving domestic art activities instead of inventing new ones. Third, connecting and widening surrounding community spaces into the centre instead of creating unique and isolated spaces. Forth, using local materials instead of imported ones.

To sum up, in this unique context of community, the ability to let people feel comfortable with the Architectural outcome, relies on the consideration of their daily known patterns of behaviour. The building and the space should not be the goal but the tool to carry out people's activities, whether in private or in public.

Through the design discourse, I will try to investigate the roll of the Community Centres - assisted by the Israeli nation wide concept - within a daily local fabric of the township.

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# PRECEDENT STUDY



## Alexandra Network of Community Centres

### Background

Since its redevelopment in early nineties, Alexandra Township has had to bridge over a few decades of neglect social infrastructure, as well as in other basic services. From Governmental Centres to NGO's which operate private centres, there is an effort to establish a proper network of social services in order to address the community's vast needs.



Figure 1  
Computer laboratory. Alexan Resource Centre.

### Operational Concept

Community centres divided to two types:

Governmental/municipal centres which are operated by the Government or by the community, and NGO's which operate private Centres according to their understanding of the local needs.

The Alexandra Development Centre (ADC) and the Alexandra Development Forum (ADF) are the main local organisations which are involved in these activities.

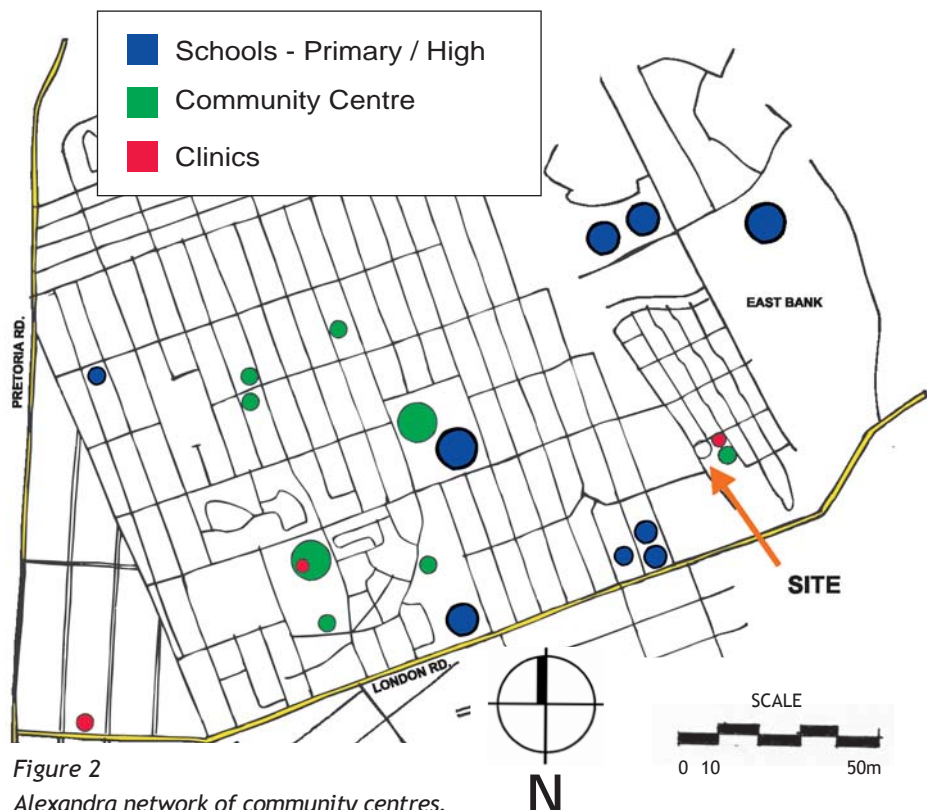


Figure 2  
Alexandra network of community centres.

## Community Centres - Alexandra

The main and most important centres are, Alexan Resouce Centre and MPCC.

The Alexan Resource Centre is run by the Community’s Trust and serves the whole Alexandra community as a multi purpose activity centre. Based in the middle of Alexandra and combined with the local stadium and high school, the Centre is easily accessible to the entire population. The main functions are multi purpose hall, library, computer lab, youth advisory, medical office, pension pay point, as well as municipal services like heritage office and Alex Chambers of Commerce.



Figure 4  
Main square around the tuck shop.



Figure 3  
Youth Library.

*Alex Resource Centre - Alexandra: Many activities for the community.  
The interior open space disconnected from the main street.*



Figure 5  
Amphitheatre towards the library.



Figure 6  
Main entrance towards the square.

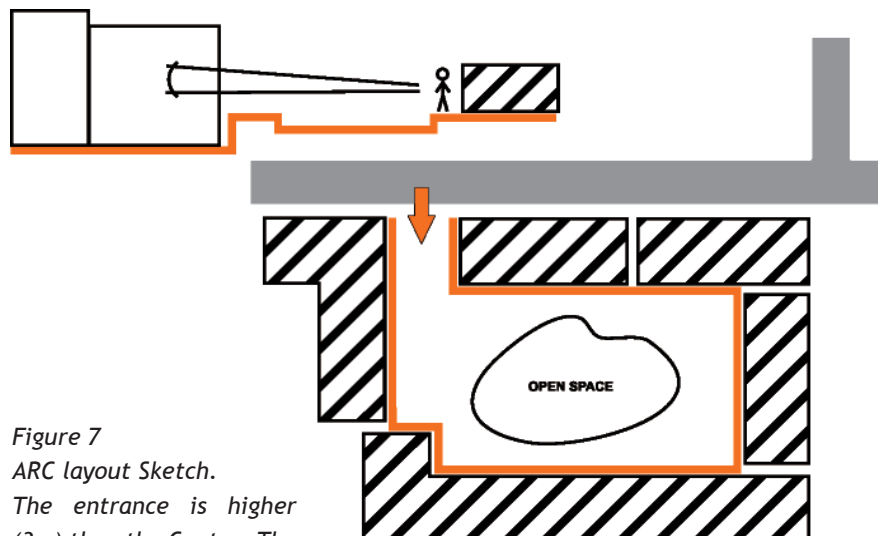


Figure 7  
ARC layout Sketch.  
The entrance is higher (3m) than the Centre. The Centre isolates itself by its surrounding buildings.



## The MultiPurpose Community Centre

The Multi Purpose Community Centre (MPCC) is run by the Government. Its guiding principle was to concentrate maximum services in one place in order to simplify access to those services. Its vast variety of public services includes municipal services, Governmental departments, education centre, library, post office, social security, youth advisory and clinic. Based on Roosevelt street, it is easily accessible to the community.



Figure 8  
MPCC offices - more an offices complex than a community gathering centre.

## Nelson Mandela Museum

Architect - Peter Rich

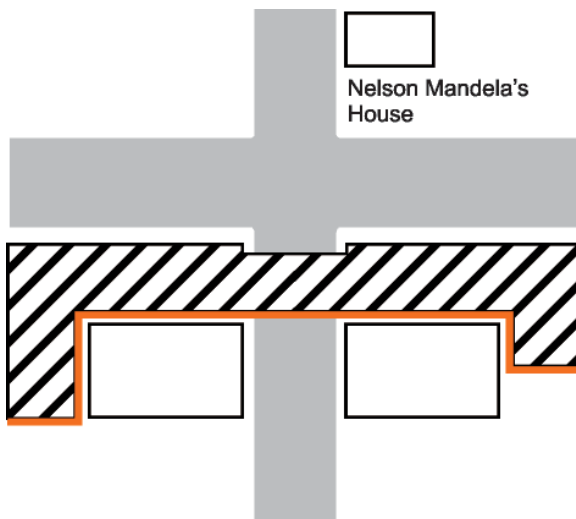


Figure 9  
Nelson Mandela Museum  
Sketch - Two story building enables continuous pedestrian movement under the building, in order to “open” the museum to the public. The design includes a commercial shop to improve economical sustainability.

## Centre for the Elderly

The Centre for the Elderly runs by an NGO, it concentrates on activities for the elderly in the main hall, clinic and sewing rooms. Future developments will include kindergarten for children who lost their parents and are now under their grandparents responsibility. The main hall serves as a lecture and function space, while on weekend it is used as a church.



Figure 10  
Lecture in the main hall. The operational concept promotes the opportunity the elderly people to come for a set of activities: prayers and bible reading, physical exercise, sewing workshops and lunches.

## Community Centres - South Africa

Figure 11

Guga S'Thebe Arts, Culture and Heritage Village  
Architects - S.C Studio.

Fragment village organisation around outdoor stage generically close to the fragmentation of squatter camp. Various separate indoor and outdoor rooms able to contain many activities at the same time. The centre combines old buildings as a reminder of the conditions people lived in.

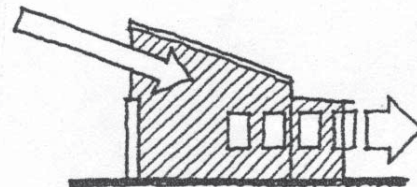
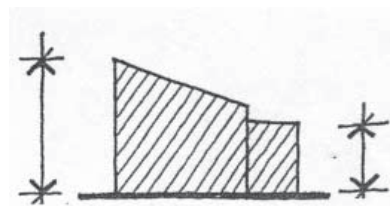
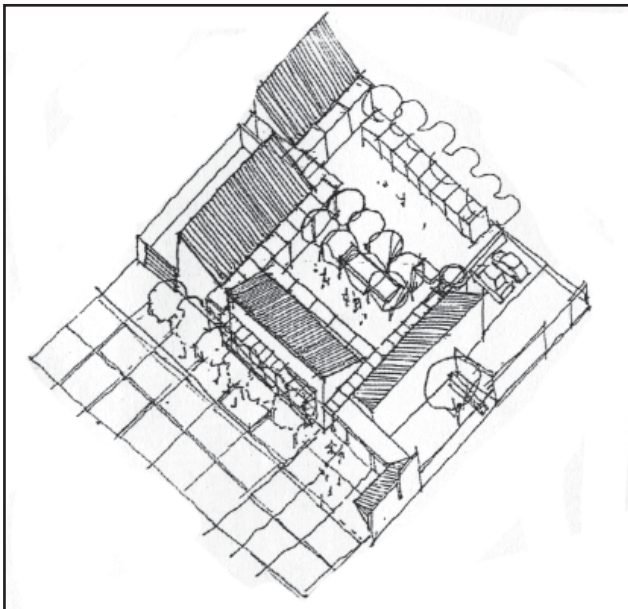
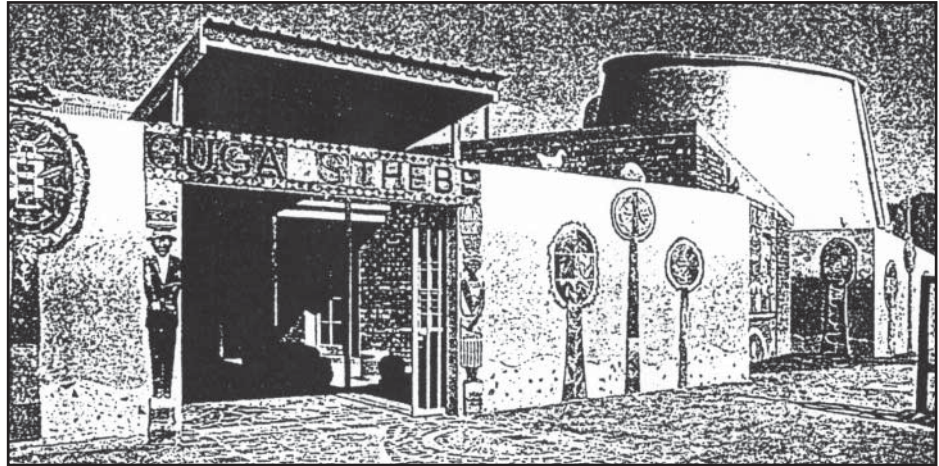
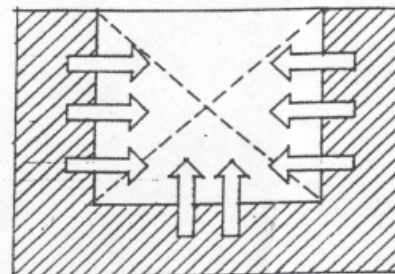


Figure 12

Early Childhood Development Centre, Brown's Farm, Cape Town.  
KrugerRoos Architects & Urban Designers.

The idea is of a building as a 'kit of parts'. A public space with seating serves the street and functions as a linked space. Glazed walls and doors from the room frontages to the courtyard so that every space is visually linked.





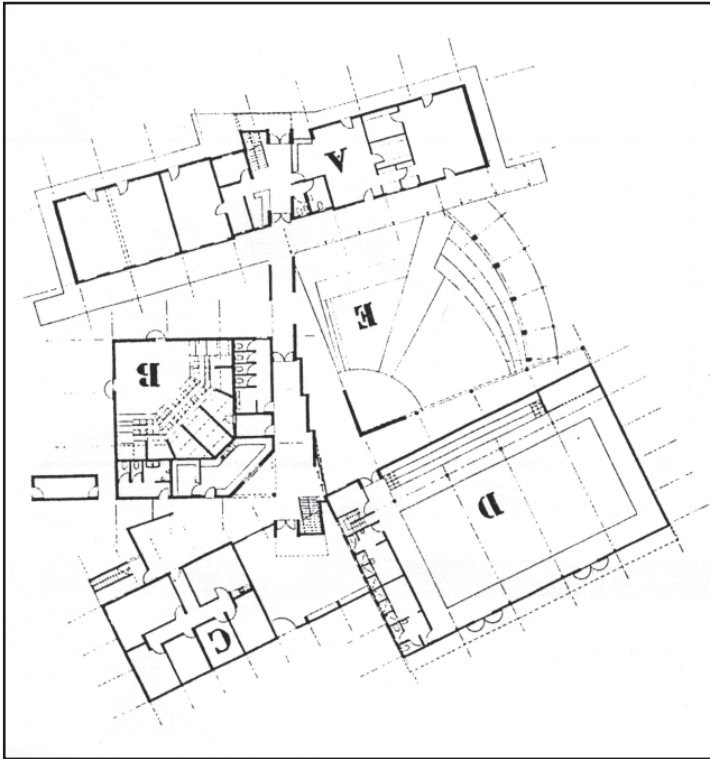


Figure 13

*Unobuntu Multi-Purpose Centre - Worcester  
C.S. Studio Architects  
(Source - SA Architect - 7/8 1999).*

*Principles of the centre: integrated and sustainable development, community-driven initiatives, capacity-building, transparency and democratisation. Simple individual units enlivened by rich in-between spaces for divers activities.*

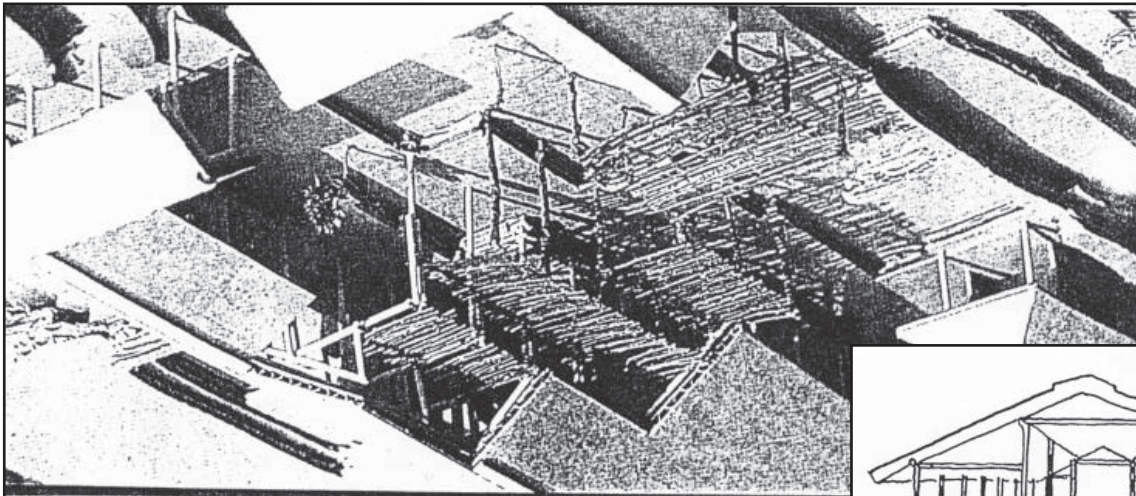
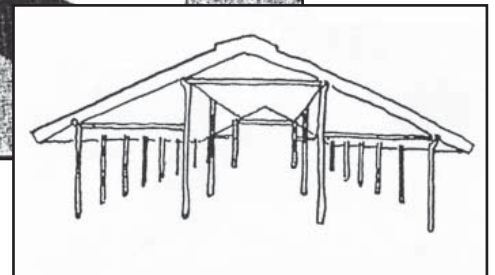


Figure 14

*Bopitikelo Molatedi Community and Cultural Centre.  
Peter Rich Architects (Source - SA Architects).*



*The centre is linked to commercial usage to provide a place for contemporary social interaction. Architectural elements such as lapa, hall and shade structure.*

## Lateral Conclusions

The concept of the multi purpose community centre gives a proper answer to one main need, which is combining a variety of services under one roof. Although this concept could create a nice gathering place, concentrating on functional aspects alone misses the opportunity of providing a more meaningful space for the community:

- \* Shaded areas for people, who wait for formal activities.
- \* Outdoor spaces for which can cater for formal activities (workshops, classes).
- \* Spaces for various daily street activities (checkers etc.), for people who do not come for a specific activity.

While combining a few functions, one must consider consider the creation of an overlap between them. It means, activities that complement one another and create a continual process for people who come for one activity and continue to another.

Most of the centres lack the crucial link between daily street activities the centre's and activities. In this type of community, in which pedestrians are active on the streets most of the day, this emphasis must be much more dominant.

The majority of the centres, obviously, deal with the community's basic needs. However, at this stage of suburban development, the community should try to develop facilities for some more "advanced" needs such as art training, in order to expand the variety of activities for the population.

From an operational point of view, many centres offer a set of continue activities for the public.

By providing these activities, people come for a half or full day, experiencing formal and informal activities and meeting each other.

One of the main emphases in new centres is the concentration on training activities. By doing so, people acquire basic skills which can help them to find a job later on. Some training centres help their students to look for a job and to promote themselves.

In all of the centres, a shortage of money for current maintenance is the most bothersome issue, undermining existing activities and future development.

## An Israeli Model for Integrated Community Centres

### Background

Operating mainly in development towns and distressed neighbourhoods, the CYSC (Culture, Youth and Sport Centre) Company plays a central role in Israeli society. It was established in 1969 by the Israeli Government, following researchers' recommendations, which identified an urgent need for community centres.

Until the establishment of the Company, services like culture, art, youth activities and sport were provided by divisions and departments of the local municipalities.

This system created a narrow view of the community needs, with each department



creating its own building for its own use, without having an overall view of individual, family and community needs.

The CYSC provides a three dimensional response to these needs:

First - value aspect - is the creation of a meeting place for the community, responding to different needs of different groups and different fields of interest.

Second - administrative aspect - one management including representation from the community, which decides about the concept according to the local resources.

The management implements the programme through one manager and professional coordinators. This structure enables maximum utilization of resources with maximal use of the buildings and facilities most of the time.

Third - economic aspect - it minimizes the use of public areas, and when built nearby other public facilities (education, sport and others) can make communal use of them.

*Figure 15*  
*Art Centre and outdoor Amphitheatre -*  
*Kiryat Shmona.*  
*Reconstruction - Architect D. Kaplan*  
*(Source - Perach. H. 1995).*

## Operational Concept

As a Government company, it is operated by the Ministry of Education, Culture and Sport.

The CYSC is a local social creation, based on high involvement of individuals, groups, institutions and organizations working to upgrade the life of the community.

The CYSC is an independent body and operates as a non-profit association, or a limited company. At its head is a management, which is responsible for the administrative programme as well as for the substantial programme as determined by the general concept according to the community's needs.

In light of the company's guidelines, which emphasize the importance of skilled and qualified personnel, the company provides the managements, managers and staffs with professional support and guidance.

As a communal, social and educational institute, the CSYC is open to all members and participants from the community. It is based on active members, professional staff (employee/volunteer) and intensive cooperation with public bodies.

## Basic Assumptions

Above all, the CYSC is an administrative system which fulfills the community's needs. Through the flexibility of the system, each CYSC adapts to the specific needs of its community and to periodic updates.

There is a common basis for all the CYSC's, as reflected by their fields of action: informal education, culture and art, social and sport directed at the community as a whole and at specific age groups or interest groups. The unique programmes derive from specific needs and community characteristics in each place.



*Figure 16*  
 CYSC Zafed.  
 Conversion to a CYSC and reconstruction, Architect - A. Frenkel.  
 (Source - Perach.H. 1995).



## Conceptual and Physical Programme

### Community Profile

Mapping the population which the CYSC dedicated for Mapping the community services that exist in the area Physical mapping of the site and its framework.



Figure 17  
Art workshop - CYSC Kiriya Shmona.

### Fields of activities and issues with which the centre should deal

Analysis the community characteristics and needs will be the base for determining the fields of activities for the centre.



Figure 18  
Children library - CYSC Rishon Letziona.

### Defining the functioning concept of the centre

Defining the functioning concept of the center The common model of CYSC includes united facilities in a site “centre” and other facilities spread over the place “branches”.



Figure 19  
Sport hall - CYSC Yarca.

## Three Common Types of Centres

### 1. Centre with branches

In that model, the main centre provides the whole community with its basic services and the branches deal with specific services.

In this model there are two basic types of branches:

#### *The Neighbourhood branch*

This type of branch serves mainly groups within the surrounding neighbourhoods. The main aim of the branch is to make the basic services more accessible to the relevant population and more tailored to the community's needs. In addition, the branch can reach out to specific

groups, which tend to isolate themselves from the community. Sometimes, the decision where to situate a branch is made mainly because of considerations of walking distance, geography, topography and public transport. In the neighbourhood branch, the emphasis is on developing feelings of belonging and autonomy through bilateral relationships of the individual with the community.



Figure 20  
Kindergarten yard - CYSC Eilat.

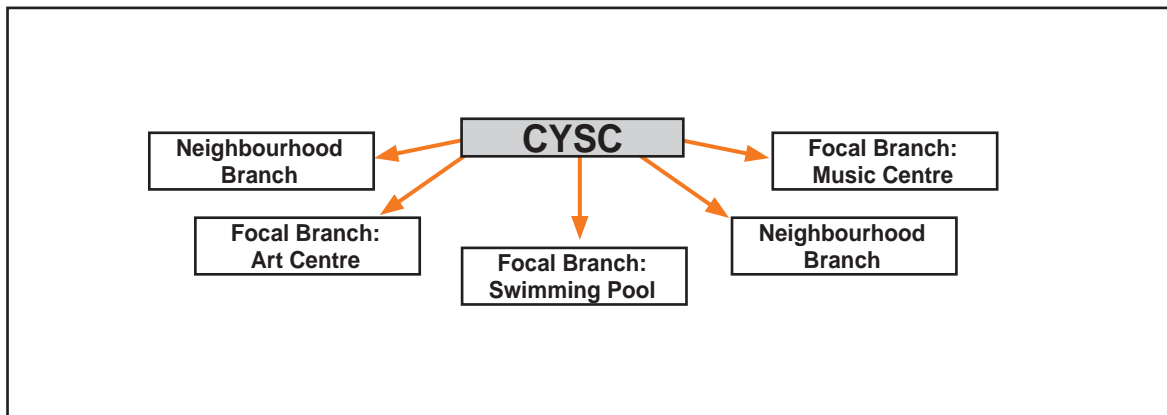


Figure 21  
Basic Scheme of Neighbourhood branches.

### *The Focal branch*

This type of branch is dedicated to specific interest groups such as art, biking and so on. Thus, it serves the whole population who are interested in that specific subject. The aim is to create a node for meetings on the base of common interests, as an expression of a social-cultural perception. Some of the focal branches can be used both as neighbourhood branches for the surrounding population and as focal branches for the whole population.

## 2. Network of centres

A network of centres occurs in towns of up to 150,000 people. The significant characteristics are:  
Central management of all centres. Central

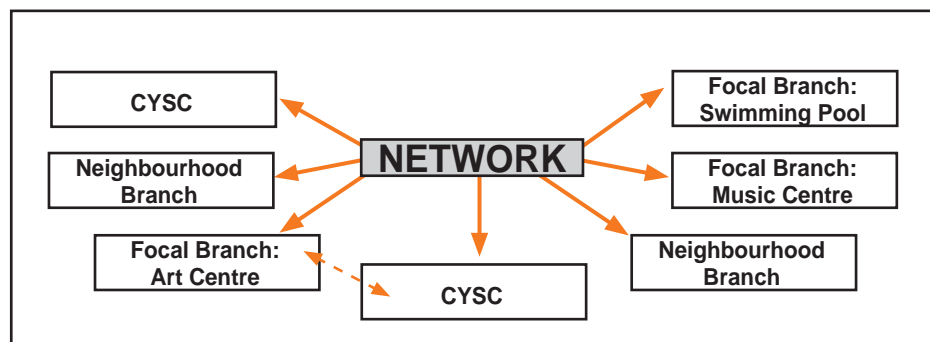


Figure 22  
CYSC network

employment, administration, manpower, accounting and maintenance.

In that type of CYSC, it is recommended that the centre should provide for the major activities

such as the main hall, workshops, sport facilities, etc, and the branches would provide for daily functions such as a child and family centre, elderly club, aftercare, studio etc.

## 3. Urban Company in cooperation with the CYSC Company

Mainly recommended for towns with more than 150,000 people, the characteristics are:

- Common management by the City Council and the CYSC Company
- One manager for the urban company
- One central bank account for money transfers from the City Council and the CYSC Company
- The urban company distributes the budgets.

among the CYSCs in the city, employs its own management and collects budget and external resources for the CYSCs.

The benefits of establishing an urban company:

- An urban company enables the City

Council to implement its urban general view according to its policy.

- The City Council delegates to and empowers the urban company management and thus simplifies the decision process.
- The urban company respects the CYSC

autonomy which provides the majority of the community needs.

Sports facilities - common use of sport facilities can be very economical to the benefit of all.

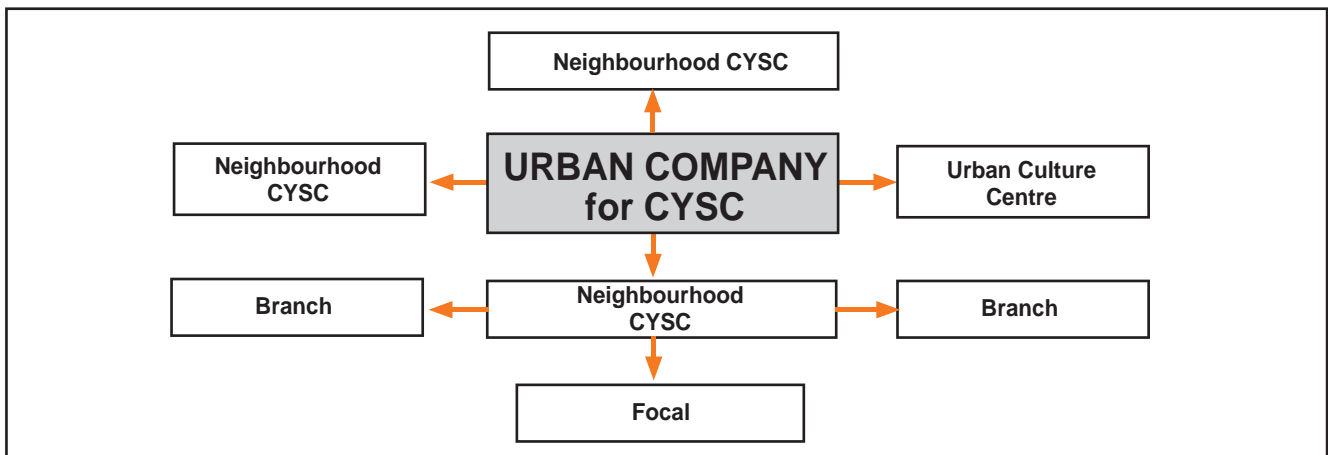


Figure 23  
CYSC urban company.



Figure 24  
CYSC Shefar'm - old fortress converted to a CYSC.  
Architects - Gordon/Amar.



## Physical Planning

### Connections to public facilities:

First priority connection will be to education, Culture, sport and public facilities:

Schools - common facilities can be used by both the school and the CYSC, and (by operating in different hours) thus, saves in land use. In addition, the CYSC facilities can be used for unique activities as part of the school programmes. In some places, connection to the high school will enable students to stay in the same place for the CYSC activities.

Cultural facilities - common use of library, conservatorium, galleries etc.

Transport - in urban areas there is no problem using public transport. In a small place, where there is insufficient transportation, it is important to locate the CYSC near the neighbourhood.

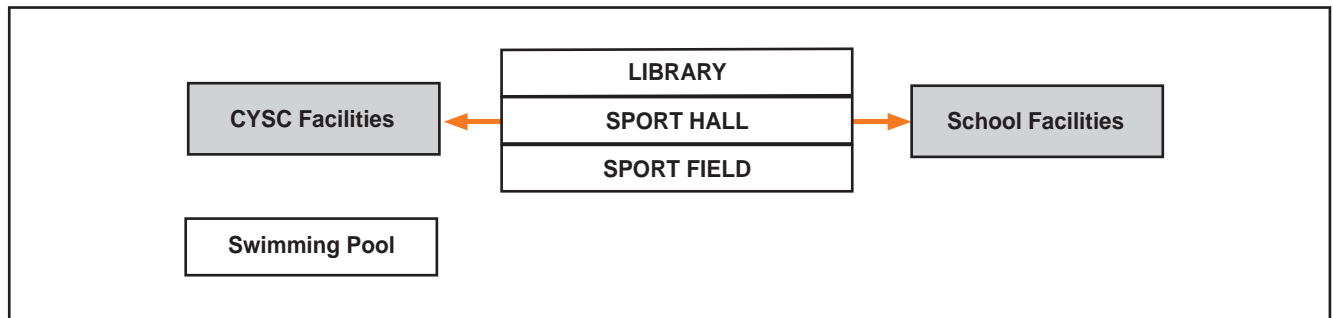


Figure 25  
CYCS Physical planning.

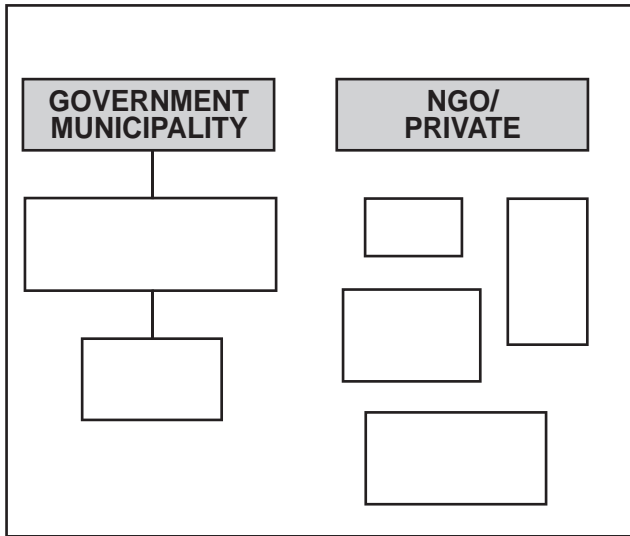
Figure 26  
CYSC Pisgate Ze'ev -  
Jerusalem, Architect -  
P. Keinan.



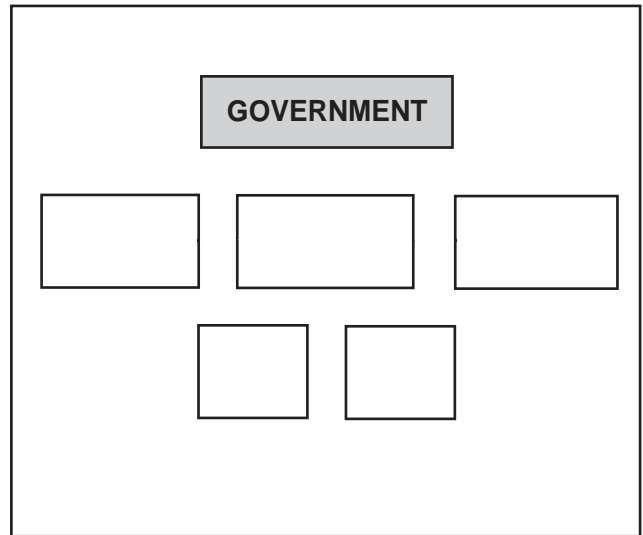
## Main Characterisations of Israeli/South African Community Centres

### Structure of Networks

#### South Africa:

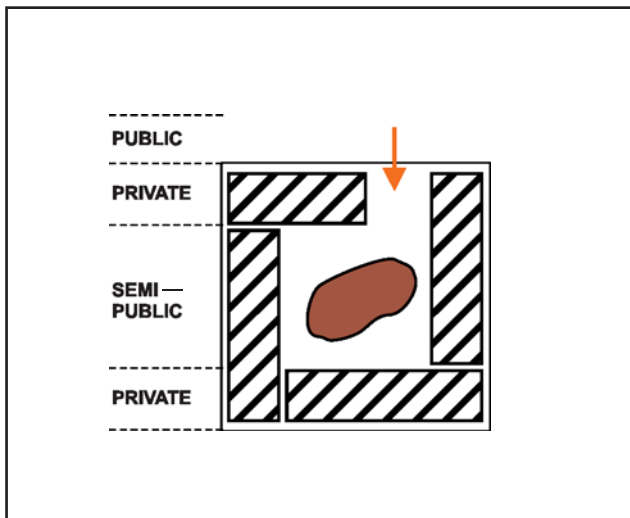


#### Israel:

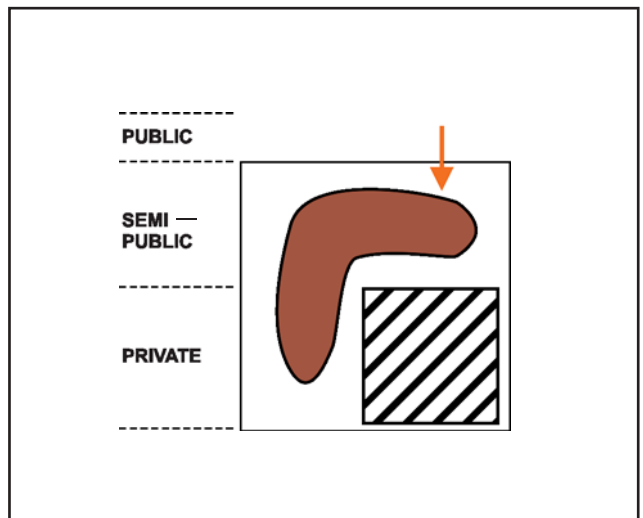


### Gradual Connection Process

#### South Africa:

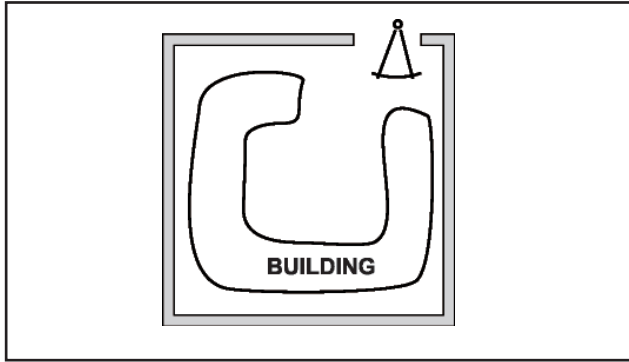


#### Israel:

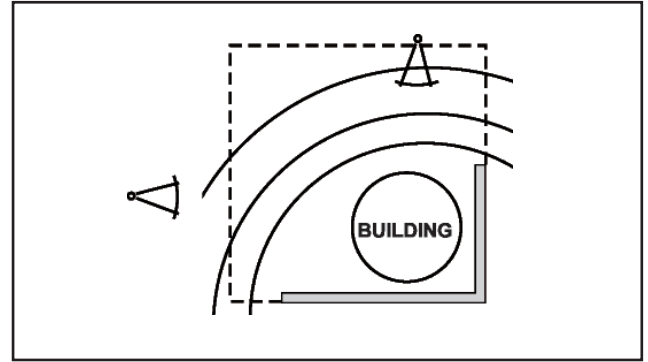


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South Africa:

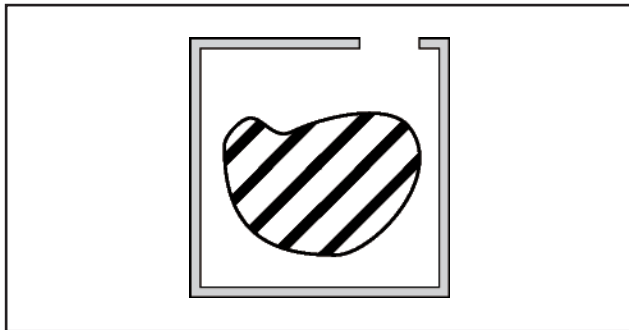


Israel:

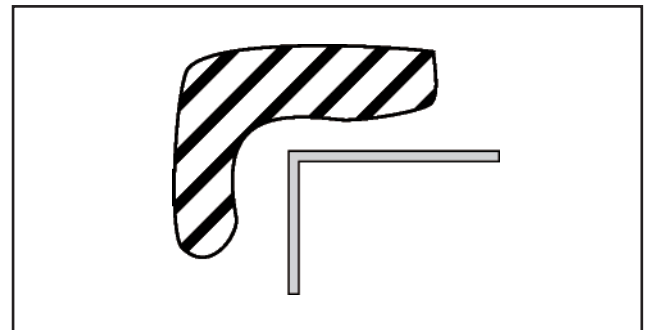


*Open Space*

South Africa:

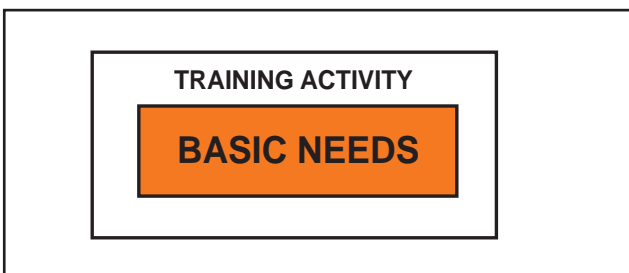


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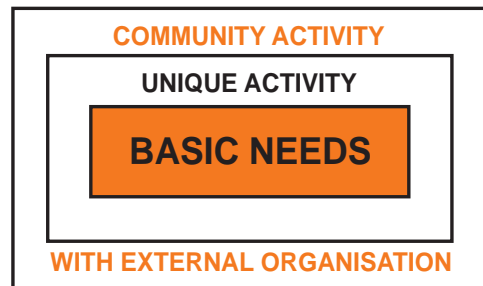


*Contents*

South Africa:



Israel:



# CONCEPT



Over many decades, the South African Government's segregation policy created an extreme lack of basic infrastructure, mainly in the Black townships. The resulting unemployment in turn led to crime. Both of these factors are connected with the spread of HIV/AIDS. All these socio-economic problems affect high percentages of the population, and are a daily reminder of the continuing deprivation of that period.

A vast and comprehensive multi-faceted effort, launched by the Democratic Government and Non-Governmental Organisations<sup>(1)</sup>, has somewhat slowed the process of deterioration, although as of now, it can only be viewed as part of a long and complex chain of interventions towards rehabilitation.

The concept of the Community Art Centre springs from an effort to provide a further link in this chain. It attempts to explore an architecture that will encourage people to gather together in a place in order to share simple art activities, and in doing so, to equip themselves with skills. At the same time, local artists will have access to facilities which will enable them to express themselves.

Art is an integral part of everybody's needs, as can be seen while walking through Alexandra's street. There is a positive feel about the place

*(1) Alexandra renewal project 2004. Proceeding Revised Summit 2004.*

in the sense that something can be created from one's experience of daily life. This experience can be instrumental in uplifting people who have become used to the idea that just coping with daily life is of necessity a struggle. The concept for this Art Centre was thus born from a desire to cater for the positive and uplifting role which art can play in people's lives and from the recognition that there is an acute shortage of art activities in townships.

It is envisaged that the Art Centre will become an integral part of various community services, which will complement each other by offering different activities for various groups of people of differing ages. It is hoped that in this way, the Centre will become an active and vibrant node for its community. Its location will enable it to be not only an Art Centre for the artists but, in addition, a nexus where the community will be able to experience a daily "street art" which can be developed and presented by means of indoor or outdoor workshops, activities and exhibitions.

As the Art Centre is connected closely to a residential neighbourhood to the north, those residents would in time become an important part of the art activities, both through participation and by active promotion through a network of art shops.

At a further stage of growth, awareness and participation, the neighbourhood could well be characterised by artists living and working there.

In the light of the massive unemployment and lack of art activities, the Centre would concentrate on providing practical art skills for its community.

Short and long term courses would be available for people who want to acquire these skills, through different workshops that are offered by the Centre.

The benefits of acquiring art skills, combined with the creative experience of art itself, could be a major response to the actual needs of the community.

Since the Centre is located on the edge of the Jukskei River, it aims to promote environmental awareness within the community.

As part of the attempts (launched by the Alexandra Renewal Project [ARP]) to create a more environmentally friendly way of daily life, the Centre would emphasis four main aspects: First, water storage and purification; Second, positive re-use solid rubbish that is dumped in the river; Third, combating air pollution and the increased negative usage of fossil fuels for house

heating and cooking; Fourth, use of solar energy for personal needs.

The environmental centre would enable school learners and other participants to experience educational methods which encourage awareness through enjoyable activities such as art creation from river rubbish, testing of water from different sources and so on.

In these ways the Art Centre would be used as a focal point for art activities in the macro-view of the township, while still being intimately connected to its surrounding neighbours through the facilitation of emotional and creative upliftment.



Figure 27  
Sewing workshop - "learn to earn" Centre - Khayelitsha, Cape Town

# CONTEXT STUDY





## Alexandra History and Planning

Alexandra was established in 1912, before the 1913 Land Act, and thus was one of the few areas where black people could own land. It originally belonged to a farmer who named it after his wife.

### Plans and Struggle

In 1916 when there were about 30,000 people in Alexandra, market garden plots with brick houses were a frequent sight on properties that sloped down to the Jukskei River.

In the late forties, after the Second World War, shack living began. Under apartheid, the main



Figure 28  
Alexandra during the “struggle” years.  
(Source - ARP web site ).

strategies were the reduction of population growth and the control of movement. Since Alexandra was a valuable labour pool to serve Johannesburg’s northern suburbs it was never the intention to remove it completely.

During the forties and the fifties the residents of Alexandra were actively involved in the liberation struggle. A few significant events were the 1942 bus boycott, the 1956 women’s marches against the extension of the pass law, and in 1957 again, a bus boycott against price increase.

In the sixties, the idea of a “hostels city” with no families was mooted, but after establishing three of them the plans were shelved.

In 198, a Master Plan was prepared. The plan, described Alexandra as a “Garden City”, divided into suburbs, business areas, light industry, a sport complex and parks. Since it required a huge demolition of houses, the plan was not implemented.

In February 1986, the “Alexandra six day” violent uprising occurred, it was mainly to reject the Black Local Authorities and force the resignation of the councillors.

The period from 1991 to 1992, was one of political turmoil in which people died or were injured as



a result of local struggles in the Township.

This period was followed by widespread peace initiatives, which finally led to the first democratic election held on April 17, 1994, in which Nelson Mandela became the first democratically elected black president of South Africa. (Source: ARP web site: About Alexandra, History of Alexandra)

## Demographic characteristics

Over 4.6km long and 3km wide, it is officially estimated 360,000 people while unofficial estimation rise to 500,000 people. Divided to a basic grid of 300m long and 100m wide, the Township consist of approximately 4,060 formal houses and 34,000 shacks (ARP summit review, 2004).

employment, an average income of R200-R1500 amongst those who do work, over 70% of unskilled residence, more than 93% of household heads with only matric or below, the investment in social infrastructure is crucial.

Since its establishment, Alexandra is a multi culture society which reflects all local tribes and languages, with growing international squatters from Swaziland, Lesotho, Mozambique, Zimbabwe and so on, who find a fertile ground for easy accommodation close to Johannesburg.

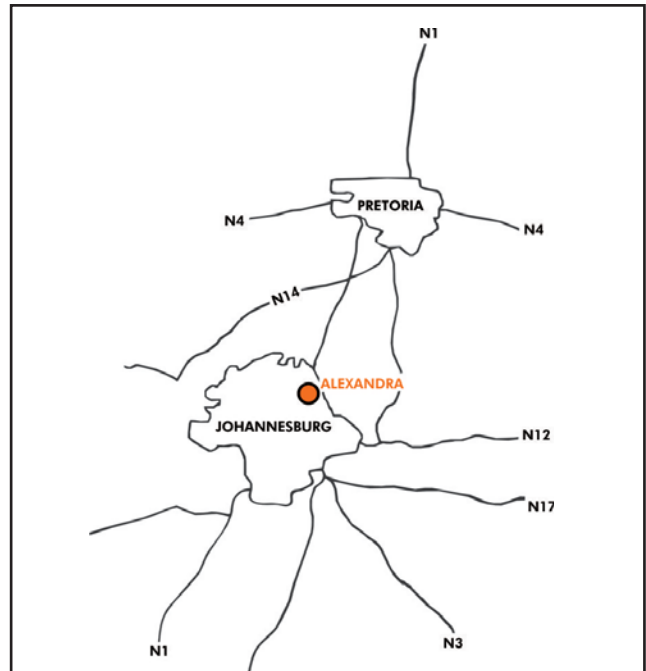


Figure 29  
Central Gauteng Province.

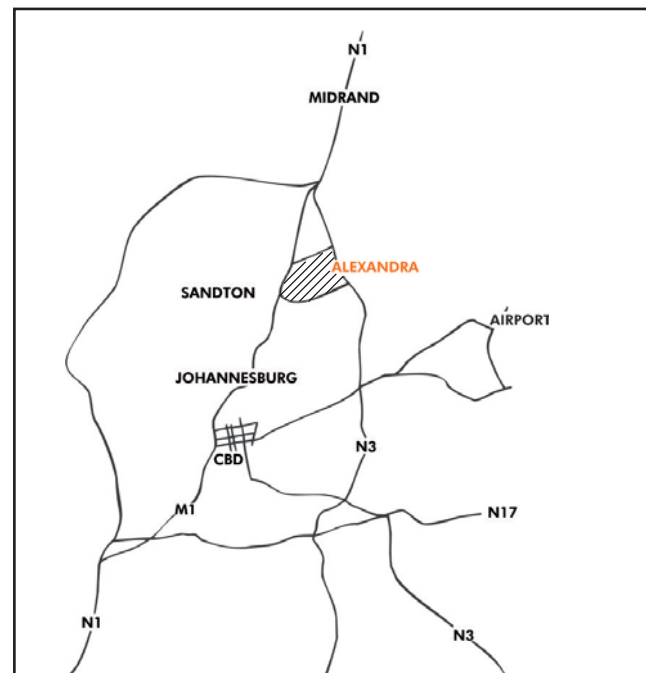


Figure 30  
Johannesburg area. Alexandra is based on the northern side, well connected and accessible.

First, the struggle and distrust, which became part of people's daily lives, must be converted into a feeling of trust, where public spaces are visible and well accessible (despite security constrains).

Second, the lack of control over one's own life should be a basis for community participation in the design process, as well as the daily running of the Centre. Third, the high rates of unemployment and poverty should be recognised in a concept that trains people and creates economic conditions for their development.



Figure 32  
Aerial topographical map.

## Location

Based in the northern part of Johannesburg, Alexandra is a central location for its people who work at surrounding neighbourhoods and for its main vehicular routes.

Bordered by the M1 highway in the west, N3 highway from the east, Marlboro Drive to the north and London Road to the south, the Township is well connected and accessible to its surroundings.

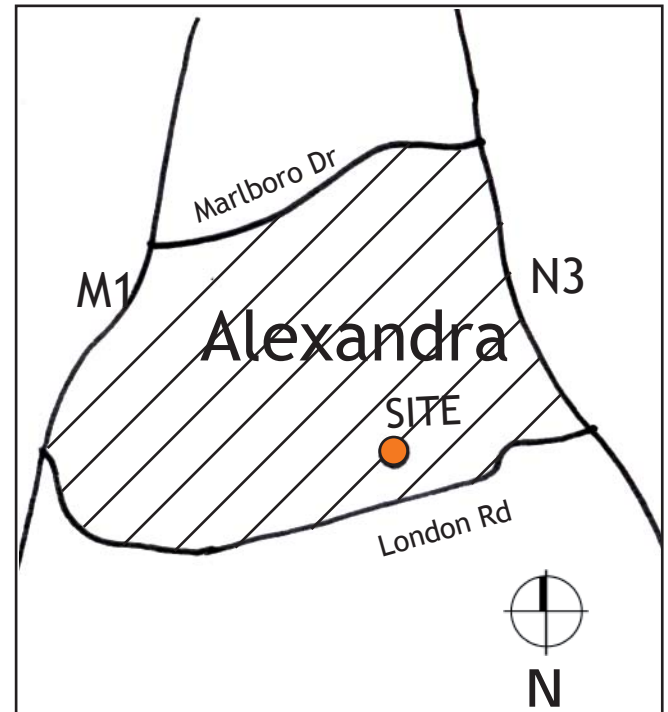
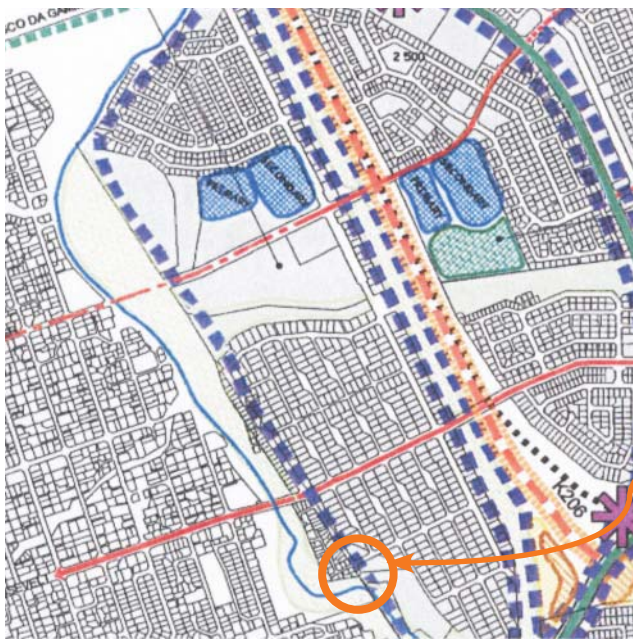


Figure 31  
Alexandra's layout.  
A Map of Alexandra showing its central and accessible location.

## Alexandra Renewal Project (ARP)

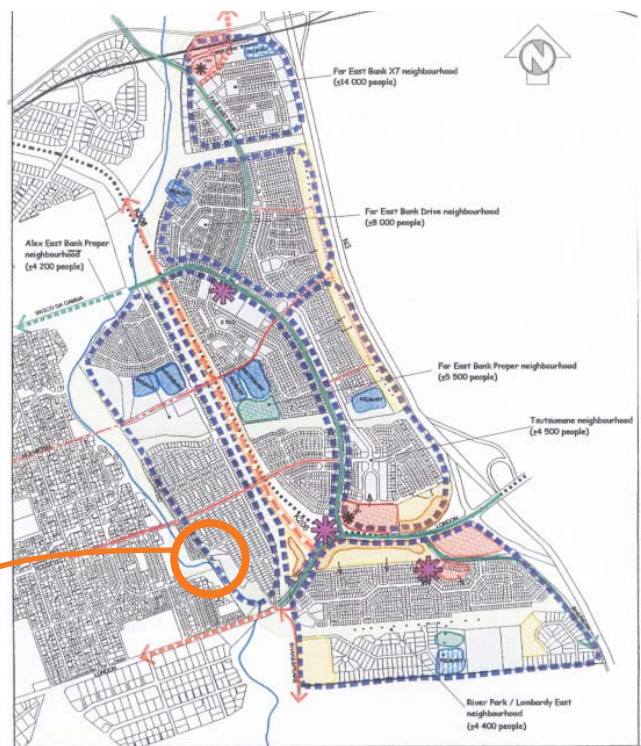
The ARP is an urban renewal project which aims to fundamentally upgrade living conditions and human development potential within Alexandra. Established in March 2001, the seven-year project, budgeted at R1.3 billion, is now midway through its implementation.

The project is a joint venture between National, Provincial and Local Government. Divided into four clusters, it deals with Economic Development, Social Development, Physical Development and Precincts.



**Figure 34**  
East Bank Precinct Housing and green Areas Development as planned by the ARP. Intensive cleaning and development of the Jukes River. Medium/high density housing (2-4 storeys).

Amongst the hundreds of projects which the ARP runs, are: the upgrading of London Road and Roosevelt Street to make a better connection between the M1 Highway and the N3 Highway and thus a better connection between Old Alexandra and East Bank; a residential and commercial development of East Bank with its new K 206 road as a high density (3-4 storeys) residential area and a development of the Jukes River as a green strip of outdoor activities.



**Figure 33**  
East Bank's Development map as planned by the ARP. London Rd. and Roosevelt St. connect the two banks. Community nodes are located in main junctions. The K206 Road creates a new spine for the East Bank.

# Site Documentation

Location - Alexandra, Johannesburg

Domain - Alexandra East Bank

Plot - 1. Vacant part of TB settlement (informal) precinct

2. Vacant municipal area

Street - Corner of Springbok and Impala

Surface - 2820 m<sup>2</sup>

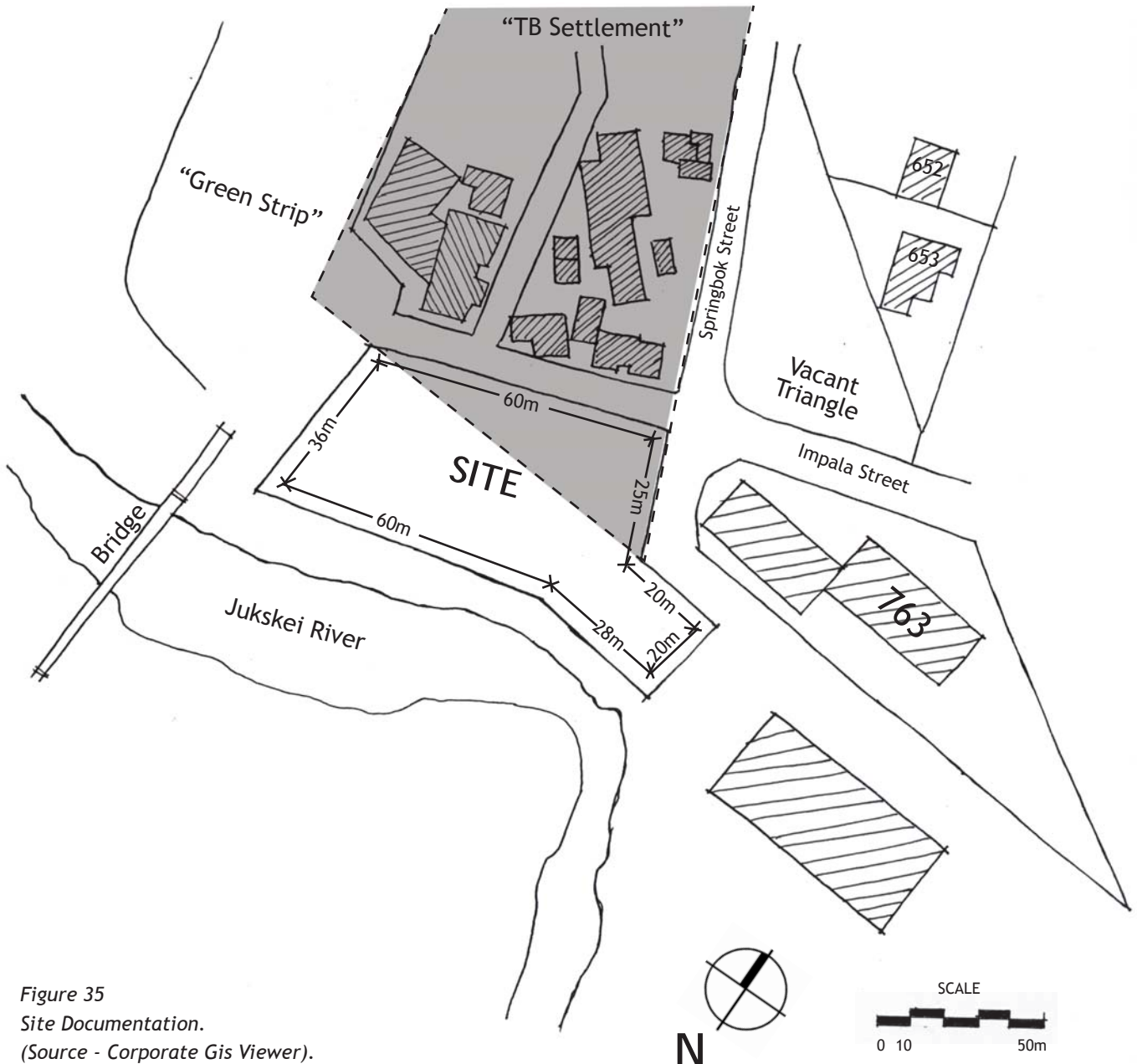


Figure 35  
 Site Documentation.  
 (Source - Corporate Gis Viewer).



## Site Location and Characteristics

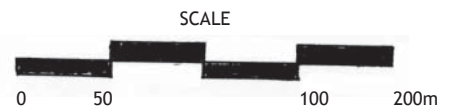


Figure 36  
Regional air photo - Alexandria.



## Regional Analysis

Adjacent to the East Bank Community Centre (which includes a community hall, clinic, electricity pay point, swimming pool and sport fields), the Art Centre will expand the services offered by the complex into which it will be incorporated, thus creating a unique focal point for local art.

Located between Old Alexandra, with its unique cultural texture and the new East Bank, currently undergoing advanced urban development of trade and housing, the complex has exceptional potential concerning the integration of the two neighbourhoods, varied services to needs of different population groups and a focus and informal meeting point for assorted population. The centre is also an integral part of the new environmental development strip near the Jukskei River, which includes various facilities for formal and informal outdoor communal activities. Combined with the pedestrian bridge (linking the river banks for pedestrian movement), the Centre thus lies in the heart of an active and vibrant area with potential for a large variety of events.



Figure 37  
Functional regional map.  
The Site in relation to regional functions and characteristics.

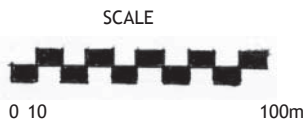


Figure 38  
Site Location.  
(Source - Corporate gis Viewer).

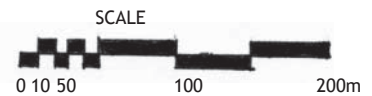
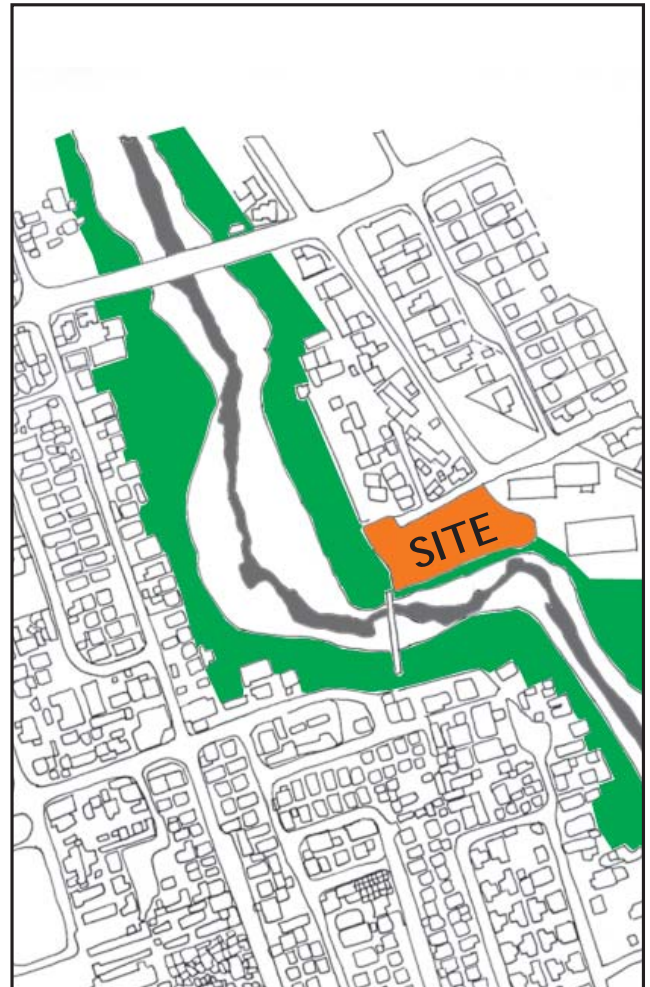
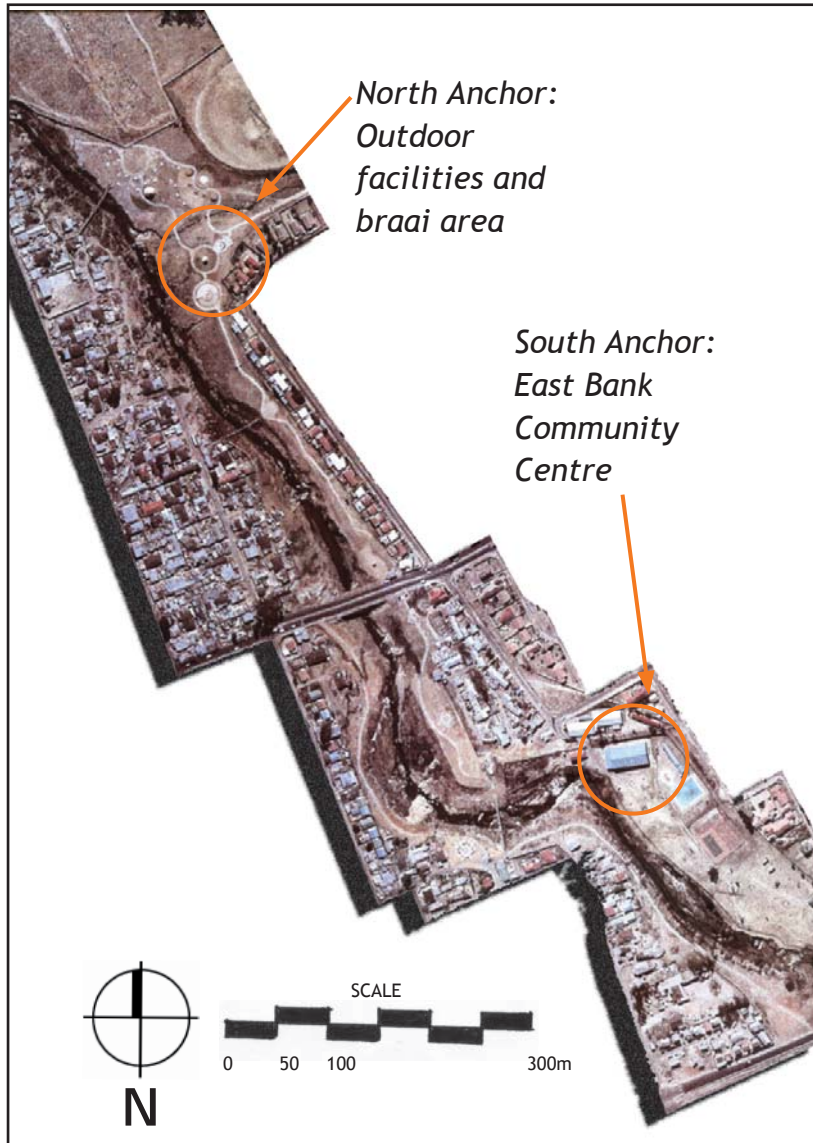


Figure 39  
The green strip development alongside the Jukskei River.





*Figure 40*  
*The Jukskei River corridor, with its two anchors. The river's edge in the Eastern side is wider (20-30m) and enables a main pedestrian path and space for outdoor activities.*

Moreover, the Centre is easily accessible to passengers. It is situated between London Road, a central transportation axis which is destined to serve as a commercial hub from the south and Roosevelt Street, which is also a major route connecting neighbourhoods, in addition to being a street for informal trade from the north.

The Centre is thus accessible to the public, both in vehicles and on foot.

Finally, as it is close to three primary schools from as the southwest and two high schools in East Bank - the Centre can naturally be used for learners' after school activities.



## Housing



Figure 42



Figure 43



Figure 44

### Old Brick Houses

- Built since the establishment of Alexandra
- Spread all over Old Alexandra
- Originally belong to the owner
- Monthly rental between R1 - R50

### Shacks

- Built mainly from the late forties
- Placed into vacant spaces
- Reflect the ongoing legal/illegal immigration
- No rental payment

### East Bank Houses

- Built in the new development of East Bank
- Owned by local residents
- Monthly rental between R100 -R300
- Relatively high socio-economic level

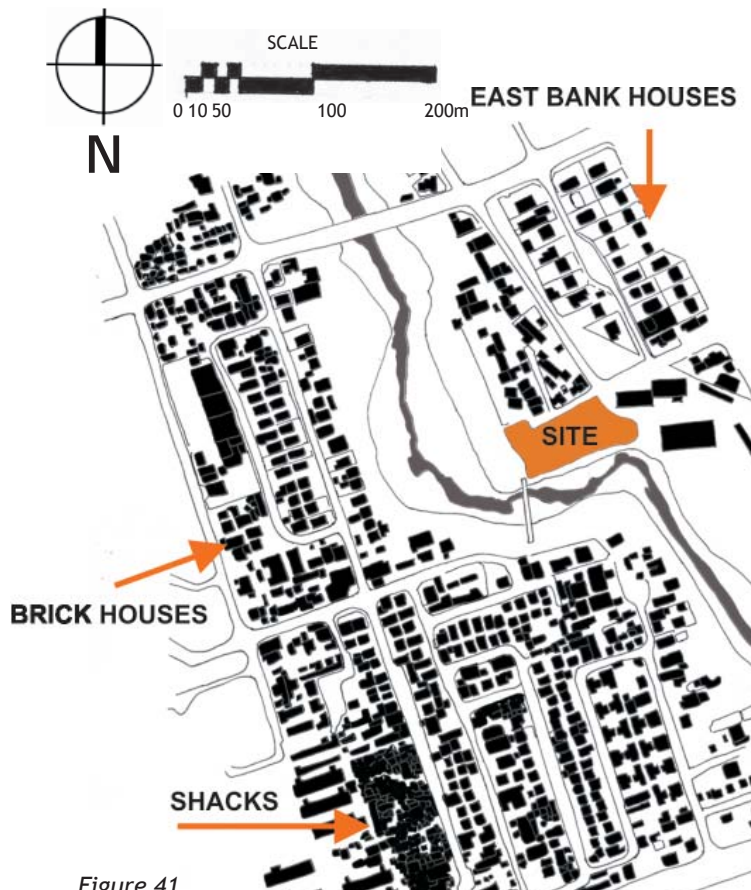


Figure 41

Housing around the site.

Regional grid and housing types within the area.

The site is located within a mixture of classes and cultures. Thus, the Centre should provide different functions and mainly different spaces, which can be relevant for each of the surrounding populations. Training facilities should also be flexible, to adapt to different levels of skilled (East Bank) / non skilled (Old Alexandra) people.

As it aims to strengthen the existing East Bank Community Centre, the Art Centre should be closely linked to it. In addition, while locals in a focal crossroad, it should be accessible from all entrances. The “urban entrance” is defined as the main entrance of the Centre because of its vehicular access and the pedestrian movement to the East Bank Community Centre. Still, its centrality requires a multi access approach where people can naturally move into the centre.

# Movement System

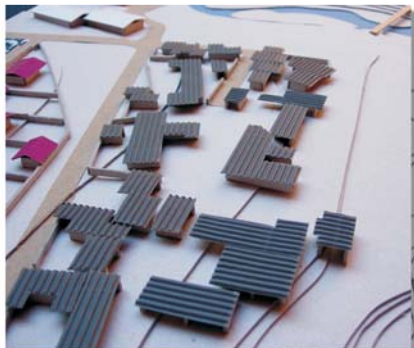


Figure 45  
The natural entrance links the green strip into the site.

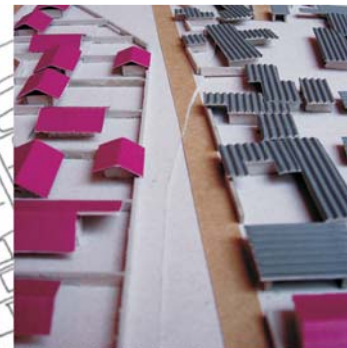


Figure 46  
The urban entrance links the main Roosevelt Street to the site.

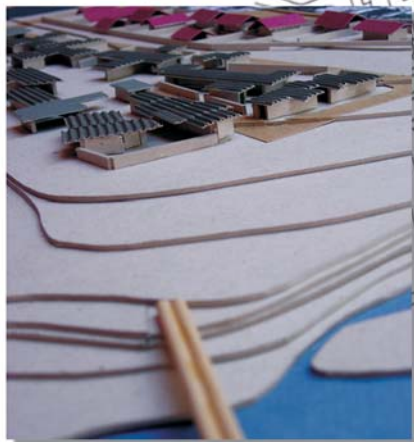


Figure 47  
The bridge. Main movement from old Alexandra to East Bank (workers, students).

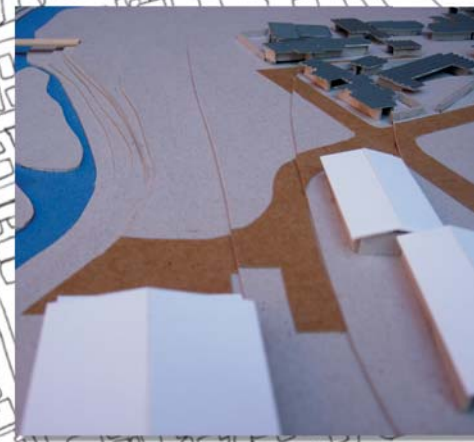


Figure 48  
Eastbank Community halls.  
Internal Connecting with the site.



# East Bank Community Centre

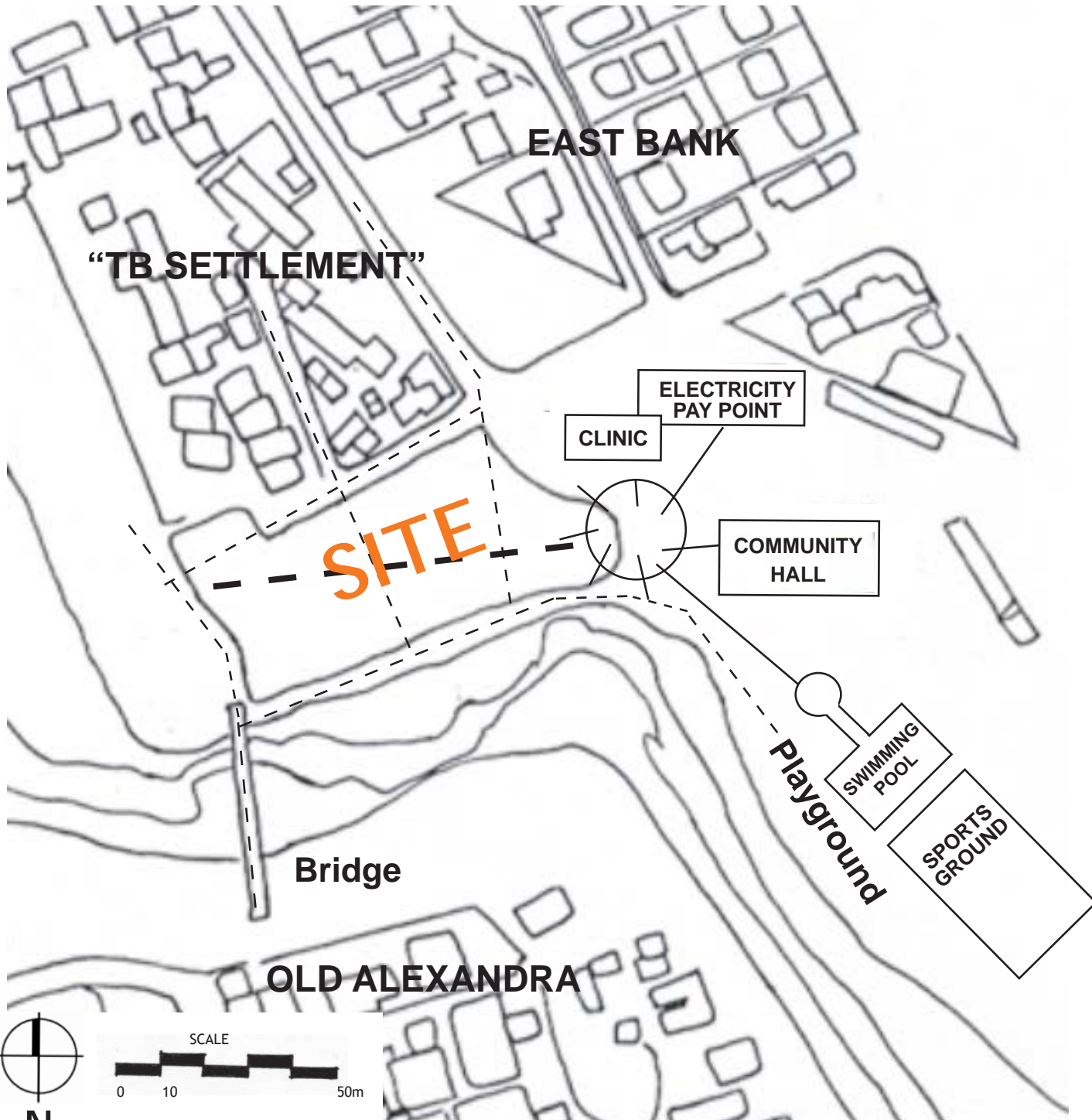


Figure 49  
East Bank community centre.

The Municipality runs East Bank Community Centre.

With the exception of the swimming pool, which serves the entire Alexandra community, this complex only serves the surrounding neighbourhoods. It includes a sports field, multi purpose hall, clinic and electricity pay point. It is located on the Jukskei River East Bank, close to the pedestrian bridge and Roosevelt Street.

According to the graphs showing the use of the Community Centre one may conclude as follows:

1. The Community Hall (800m<sup>2</sup>) is used mainly for large functions. Thus, a medium sized hall (100m<sup>2</sup>-120m<sup>2</sup>) in the Art Centre would be suitable for activities of smaller groups (10-15 persons) in order to respond to various community needs, as part of the operational concept.
2. The open space between the Community Hall and the new Centre, together with the waiting area of the East Bank Clinic, could be used as a semi shaded gathering point, outdoor play ground (basketball, soccer) and as an exhibition

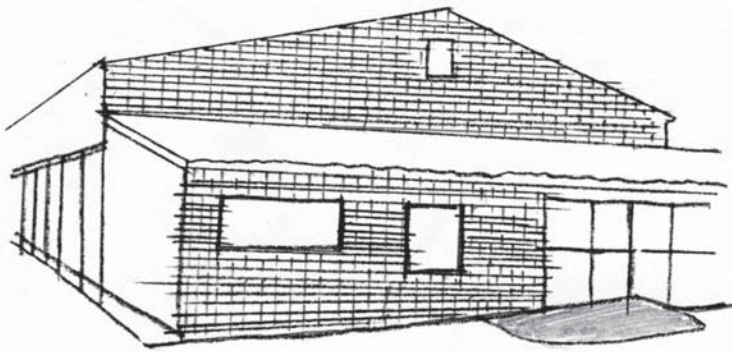
area. This node would be a connecting hinge between the existing Centre and the new Art Centre.

3. Security operation - a front main guardroom will be located near the Art Centre entrance. This location has excellent control over the access to East Bank Community Centre and the new Art Centre. It will also make efficient use of the existing two guards who now stand in front of the Clinic and the Community Hall.

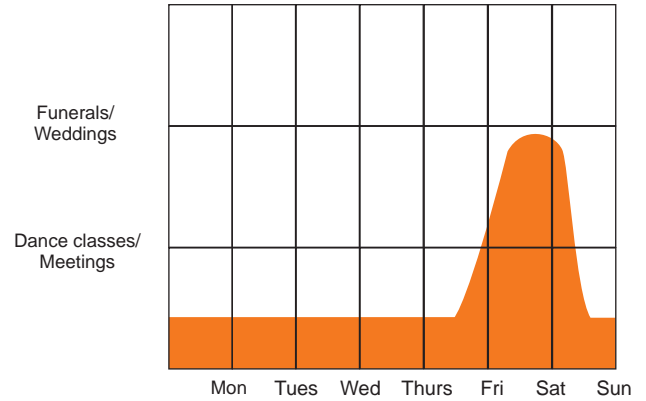


Figure 50  
East Bank clinic seen from the site.





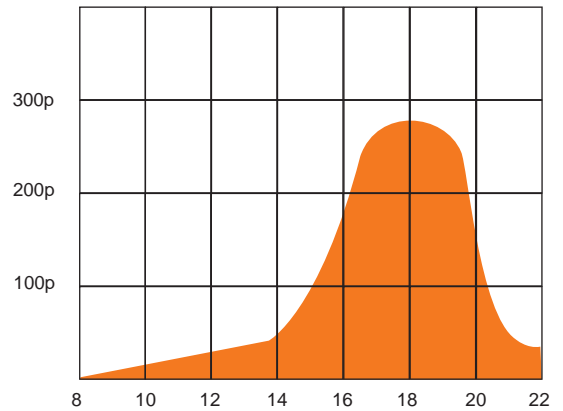
**Figure 54**  
**Community Hall.**  
 The main hall operates mainly on weekends for weddings, funerals, functions, etc. During the week it is used as a dancing studio and for other community activities.



**Figure 52**  
**Community hall graph.**  
 Weekly uses of the community hall.



**Figure 51**  
**The swimming pool.**  
 The swimming pool (adult and children) operates during the summer season for approximately six months, from October until March. It serves mainly youth from all over Alexandra who come mainly after school ends, and also younger children who come during the morning.



**Figure 53**  
**Swimming pool - daily use by hours**  
 8000-10 000 people per month (October - April).

# The Site



**Figure 55**  
*The site. A view of the site from the West Bank of the Jukskei River. To the south, the site faces the river. From the west, the connection with the bridge.*



**Figure 56**  
*The green strip.  
 The green strip north to the site.*



**Figure 57**  
*Viewpoint.  
 A view to the western edge of the site.  
 Two existing trees mark the end of the ramp and the main view point from the site to Old Alexandra and the green strips playground.*



Figure 58  
Pedestrian bridge.  
The pedestrian bridge over the south edge of the site.

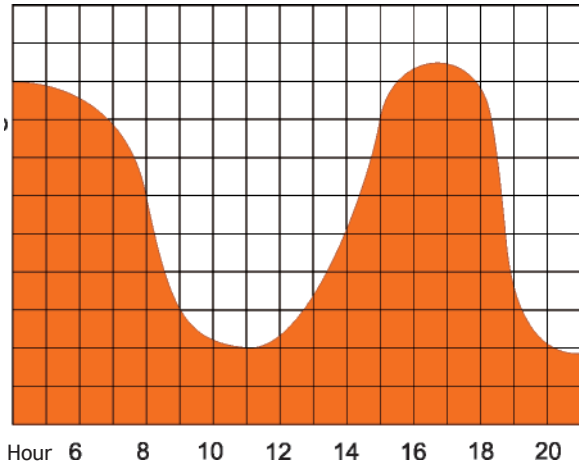


Figure 59  
Pedestrian bridge graph.  
Daily pedestrian movement over the bridge.  
Approximately 1200 - 1500 per day.

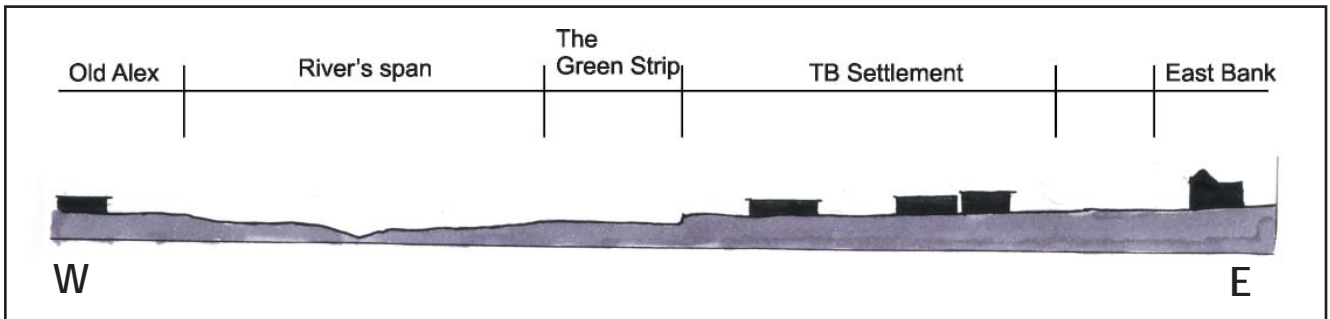


Figure 60  
Site Section (w-e).  
Typical section through the neighbourhood.

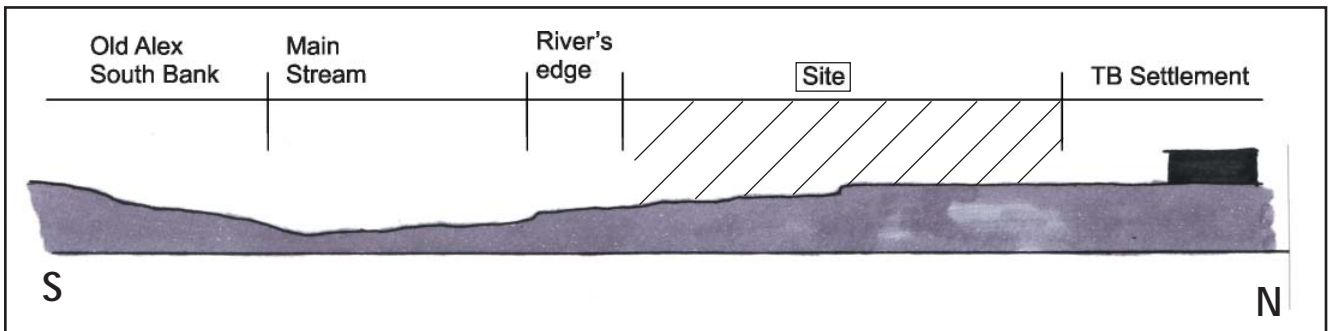


Figure 61  
Site section (s-n)  
Section through the site.



Local children's games on the site and its surrounding houses. The internal street of "TB settlement" is used as a local and secure open space for the children. The design aims to move the activities into the main square by providing different kinds of activities for children.



Figure 62  
Local games.  
Children play in the street. The house walls define a secure edge and form an intimate area for these activities.

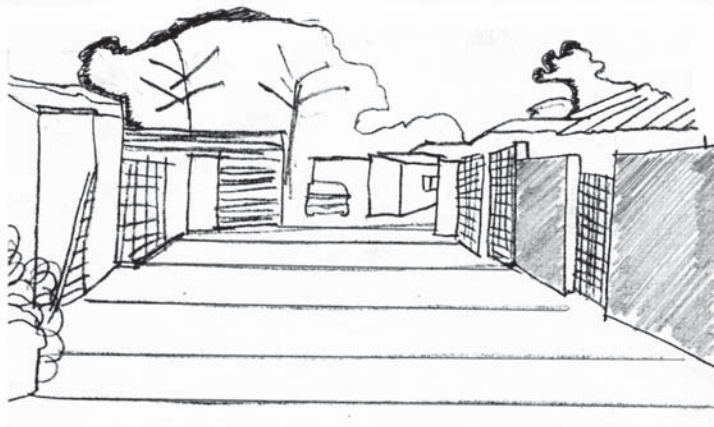


Figure 63  
Internal street,  
The internal street in "TB Settlement".



Figure 64  
Marabaraba.  
A concrete block approx. 80x80x80cm serves as a platform to play "Marabaraba".







Figure 65  
Saturday prayers.  
Saturday prayers at the vacant “triangle”. The Triangle is used as a temporary open space church. That vacant space could be useful for outdoor activities under a simple roof. The area will be a transportation node where people come to the centre and wait to be picked up.



Figure 66  
Taxi rank.  
The main taxi rank in the corner of Twentieth and Rooth St. 200m from the site. It operates as a pick up point to Johannesburg CBD and its suburbs. It is still a reasonable distance for people to get to the centre.

## The Jukskei River

The River flows through Johannesburg and continues through Alexandra until finally spilling into the Hartbeespoort Dam.

Water pollution - In the last decade, many efforts were made in order to remove tons of solid waste from the river and to educate the community for more environmental awareness.

The river's major pollution is caused by sewage within the Johannesburg precinct and by the two tributaries spilling into the river from Old Alexandra area (further down the river). This polluted water caused a high level of pollution within the Hardbetspoordam.



**Figure 67**  
Until 2002, the 1:50y flood line was the official measurement for the building line. Since 2002, it has changed to the 1:100y flood line. As can be seen in the diagram, the 1:100y flood line covers many residential areas.  
(Source - ARP Infrastructure)



**Figure 68**  
Gabions works at the Jukskei River. About 2/3 of the stabilizing work in the river is already completed. The next phase of implementation includes the area which is bordering with the site.  
(Source- ARP infrastructure)



**Figure 69**  
The Jukskei river today. A view of the bridge and Old Alexandra can be seen.



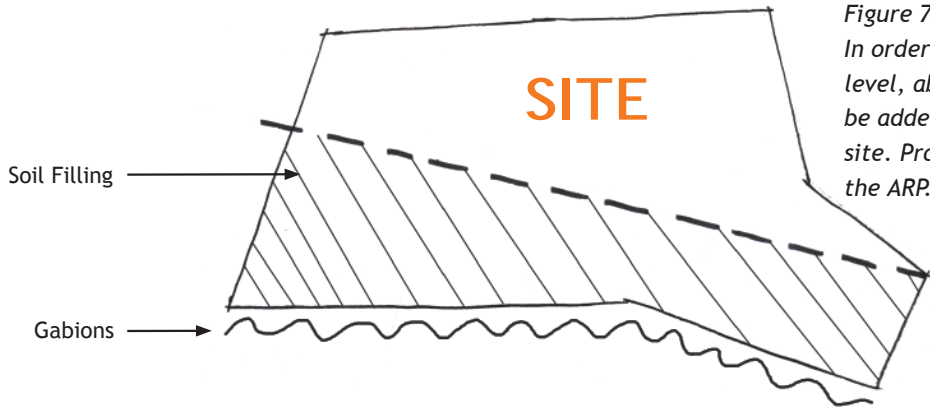


Figure 70  
In order to keep the site on the same height level, above the flood line, soil needs to be added at the lower southern part of the site. Proposed Gabions works to be made by the ARP.

Air pollution - A huge amount of vehicles pollution from the Johannesburg area is swept down the Jukskei River's valley because of its topographic shape. Together with coal fuel used by the people to cook and heat, the outcome is a cloud of pollution over Alexandra. In order to cope with this phenomenon, the ARP department tries to educate the community to use electricity and gas equipment, rather than coal. The air pollution monitoring beam, located on the East Bank clinic's roof is used to measure pollution levels in the valley.



Figure 72  
Ablution unit.  
Local ablution unit supplied by the authorities.



Figure 71  
Coal usage.  
Along Alexandra's streets - using coal for cooking meals/snacks.

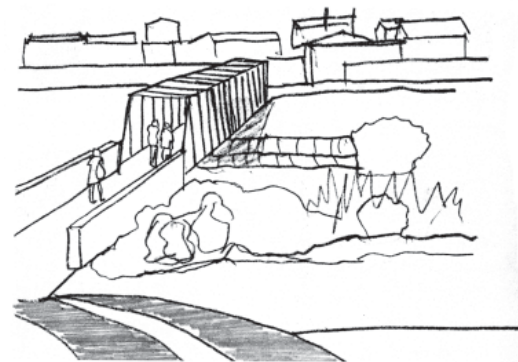


Figure 73  
The bridge  
The pedestrian bridge towards Old Alexandra.

## Scrap Metal and Street Art

Scrap metal is part of every courtyard. Whether it is to fix the roof, or support the wall, or to express art abilities, it is a crucial part of everyday life.



*Figure 74*  
Backyard of a brick house in old Alexandra. Iron sheets for the roof, tyres to hold it and a stock of materials in the backyard.



*Figure 75*  
Local road sign to inform the people of a permanent improvised garage.



*Figure 76*  
Scrap metal sculpture on the green strip alongside Jukskei River.



*Figure 77*  
Local locksmith workshop near the site.

In order to encourage local small businesses, the ARP established a programme, which enables car mechanics to rent a well equipped garage on an hourly basis, with minimal rental costs. When a client arrives, the mechanic can take the vehicle to the garage while he pays only for the time using the place. This concept can be implemented in other sectors as well.





Figure 78  
 A local craftsman in Old Alexandria. Most of the arts and crafts activities happen in the streets.  
 (Source - ARP website).



Figure 79  
 Pedestrian community. Students leaving East Bank High School on their way home. An average walk of 20 - 50 meters.

## Street Graffiti

Every wall is a potential screen for paintings. It may be the local way to hide and blur the security bars and to express the people's feelings.



Figure 80  
 Street graffiti.

## Security Concept

The Centre is supposed to serve the community as a gathering area for art activities as well as other activities. In order to transmit a new message of openness and trust amongst the people, it should follow a few stages of rehabilitation.

The rehabilitation process relies on a symbiotic relationship between the population and the

authorities, in order to establish a place, which gives the people a feeling of belonging and responsibility, rather than isolated centres responding only to security constraints.

The principle can be summarized as such:

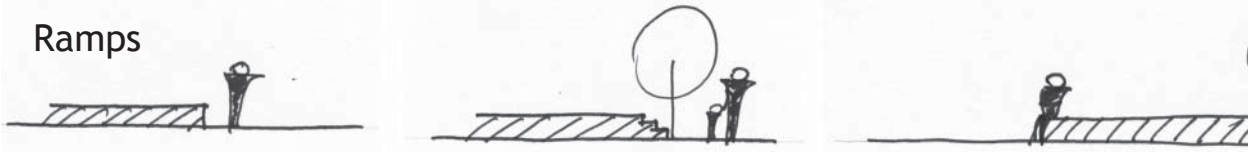
Encourage trust, as if there is no crime.

Fight crime, as if there is no trust.

### Architectural principles of trust:

1. Defining the public areas by soft edges such as ramps/steers/benches/trees and other street furniture instead of walls.

#### Ramps

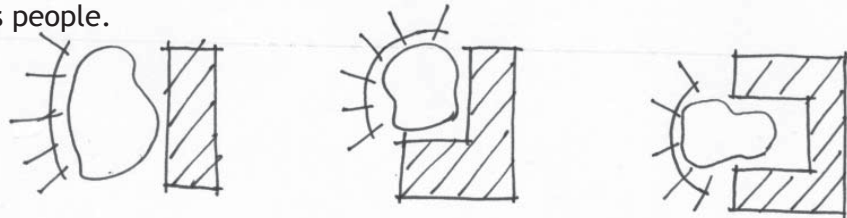


2. Using transparent glass for the front of the building in order to make their activities visible to the public.

3. Gradual approach to the centre, from the public (street), through the semi-public (square) till the private (workshop), creates an openness feeling on the one hand and responds to security needs on the other hand.

4. Creating an understandable plan, avoiding hidden spaces, presenting its activities to the public and visibly inviting its people.

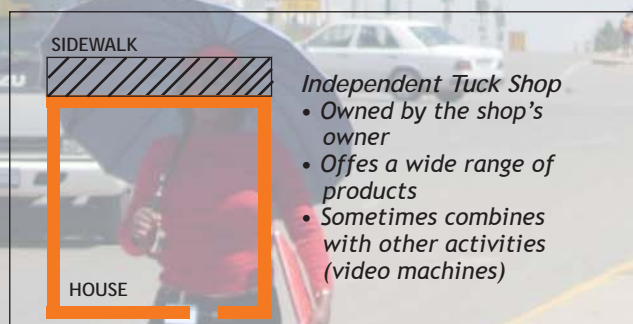
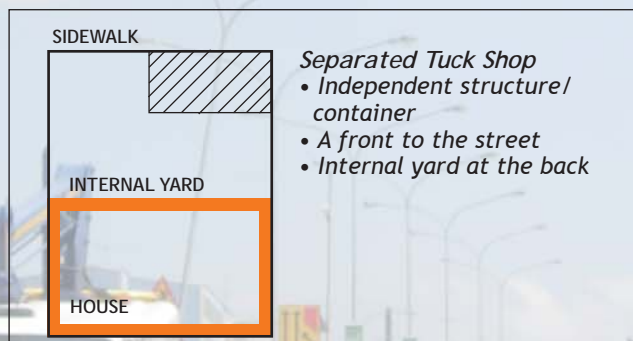
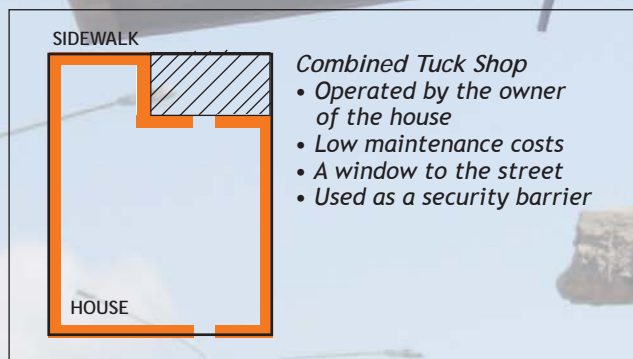
#### Square



By designing a centre which truly follows the principles mentioned above, the symbiosis process of “trust reduces suspicion”, begins.

## Tuck Shops

One of the most common phenomena of commercial adaptability are the tuck shops, spread alongside main streets, easy to establish and maintain and respond to the need of simple and functional income, the tuck shop is the outcome of the people's daily life struggle. Many times it serves as a security barrier when it's location in front of the house provides another security barrier.



Most of the tuck shops are located on the edges of pavements. This emphasises the immediate relationship between street activity and the shop. Therefore, the design principle should consider close and immediate links between the street and the occurrences in the Centre. Often the tuck shop either responds instantly to a temporary need, or closes down when not required. Therefore, providing basic and equipped spaces within the Centre could be a useful platform for both artists' workshops and art shops. To protect clients from the sun, tuck shops commonly use corrugated sheet metal attached to steel/timber frames. This simple but effective system can be used in the Centre.

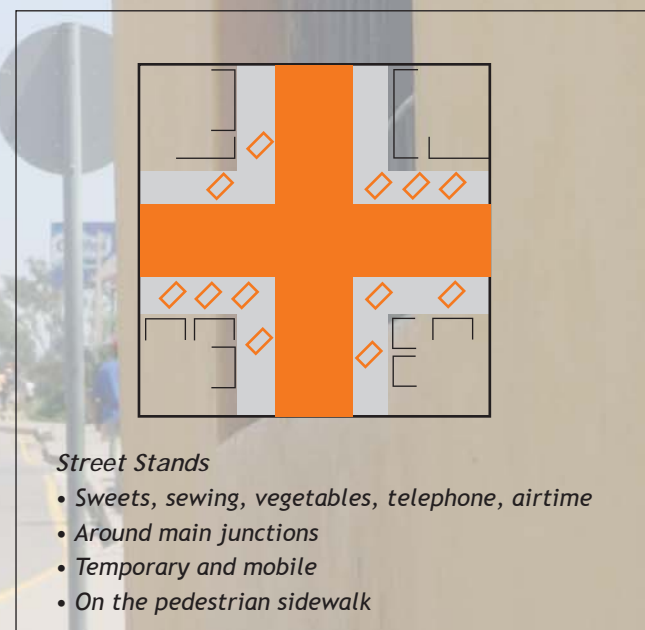


Figure 81  
Tuckshop characteristics.



# PROBLEM STATEMENT



## Introduction

In the light of the country's political history and the circumstances surrounding apartheid, South African cities suffer from disintegration. On one hand, the city maintains its formal functions for residents, such as offices, community buildings, municipal services, etc. on the other hand, security and many others constraints, create a lack of informal spaces for public gathering. Such cities become places which discourage social interaction, where sometimes residents do not even know who their neighbours are.

By contrast, in South African townships these social circumstances generated a unique quality of community life. It might be that the segregation policy, despite many disadvantages, enabled this community life to exist on the outskirts of the cities.

The major goal of the Art Centre would be to contain and strengthen this natural manifestation of community life. This paper will attempt to provide a proposal along these lines taking a section of Alexandra near Johannesburg as an example.

## Township Problems

An examination of township life yields several problems which should be addressed.

For example, a lack of facilities that enable the community to experience diverse activities together as part of street communal life and an absence of a place with which people can identify.

Undoubtedly, there is a large group of people who did not have the opportunity to get a proper education in their youth. They need a springboard to join the workforce by developing some skills.

Since meeting the fundamental needs for food, health and employment has the high priority, the township has not responded adequately to its artistic needs. Mainly because of the fertile ground for natural art to evolve such as hardship and stress in daily life which push people to find simple but real personal expression, it is crucial to create a place for these activities.

## General objectives

The following are the objectives for the Art Centre:

1. To enable the community to experience art activities and participate in them.

By creating different types of workshops with varied open spaces, the Centre should be a place for common art for the public, while serving as a gathering place.

2. To create a space for local artists in order to express their talent.

The Centre will enable local artists to have basic conditions in which to work and create art. These workshops will have basic equipment at the level to which an artist can make beneficial use without great personal expense.

3. To connect the Art Centre to the existing Community Centre in order to create a significant community gathering area. By doing so, the whole complex would have a critical mass of attractive activities, which will encourage people to join in.

## General assumptions

The centre will serve as an Art Activities Centre for skilled and non-skilled people.

The centre should be able to liaise with the existing Community Centre by means of complementary functions and mutual facility usage. The community representatives will be the main role player which runs the Centre.

Funds for the establishment of the Centre will be the responsibility of the Alex Chamber of Commerce. However, the existing operation and maintenance will be funded by income from selling the art products and come from the municipal authorities.

## Main design points

### Functionality:

#### *Macro scale*

- Continuity of the existence the natural pedestrian route by strengthening it with various open/closed spaces, as part of the new Art Centre.
- Connecting space to the community hall and its entrance.
- Adaptation to existing Centre activities for the local community (neighbourhood branch) and providing unique activities, which serve the whole of the Alexandra domain (focal branch).



*Micro scale*

- Multi purpose rooms/spaces, which can cater different types of activities
- Combine street Arts (scrap metal sculpture, graffiti) with indoor Arts (ceramic, sewing)
- Create a platform for a mixture of arts to enrich each other, and thus people to liaise and enjoy common experience.

*Permeable secure space*

Gradual entry process: public - semi public-private.

Visible building and activities, which invite people to be part of the happening.

Ramps and other elements define a soft edge and protect the space (Instead of walls etc.).

*Link to the outdoor development of the Jukskei River:*

- A plan, which opens visible and physical gaps among the buildings in order to experience the river's qualities.
- Provide outdoor activities, which combine with the river's activities.
- Gradual steps to bridge over the heights between the Centre and the river bank.

*Interaction with the joined northern neighbourhood ("TB settlement"):*

- The Centre takes into consideration the neighbourhood's public space (internal street) - creating a common space open to the public.
- A future development of art factories/shops in the residential area is part of the concept of the Centre.
- Springbok Street can be used as an "entrance" to the Centre with benches, tuck shops, verandas and other light facilities.

*Sustainable Architecture for long-term maintenance:*

- Design principles, which express the simplicity of local materials, in order to make the project viable in both the social and economic climate.
- Materials, which have a long-term resistance and good insulation.
- Solar tanks for water heating.
- Recycle system for water usage.
- Maximum use of daylight.
- Maximum use of insulation materials to cool down/heat the spaces.

## Administrative concept

According to the research, the majority of the community centres readily obtain funds to establish the facility. The shortage of money starts immediately after that stage. Sometimes, donors and the community authorities announce the opening of a centre, with no proper planning for its daily funding.

However, the Art Centre has three legs of financial support:

First, participating artists will be chosen on the basis of productivity and viability. The Centre will provide shops and exhibition space, which exposes the community to art and enables the artists to sell their work

.

Second, the Centre will rent out well-equipped workshops to artists who want to have permanent facilities. The idea (as done already with the car technicians light industry) is to enable artists to rent the workshops on an hourly base according to their needs. This concept also enables young artists to have a place to work at a reasonable cost, and provides some income to the Centre as well as to the artists.

Third, adding the site to the tourist route of Alexandra, showing/selling local art products to tourists and using the restaurant's ideal location with its great views of Alexandra.

# DESIGN DEVELOPMENT





## Functional Characteristics

### Multi Purpose Hall-

Size: Main hall - 110s/m<sup>2</sup>

Program:

Ablution room 42m<sup>2</sup> - direct connection to hall

Store: 12m<sup>2</sup> - direct connection to hall

Admin office 6m<sup>2</sup> - entrance control

Flow scheme:

People arrival: external waiting area

Admin + queries: admin office

Dress for training: ablution room

Equipment: storage

Training: main hall

Instructor equipment: control cupboard

Watching area: external benches (stairs)

### Martial arts -

Capacity - 20-30 p (2-3m<sup>2</sup> p.p)

Equipment - basic

Method - Instructor with a group

Population - mainly youth

Hours - noon/afternoon

### Dance class -

Capacity - 20-30 p (2-3m<sup>2</sup> p.p)

Equipment - music

Method - instructor with a group

Population -all ages

Hours - afternoon

### Drama -

Capacity - 20 p

Equipment - chairs, podium, curtains on windows

Method - instructor with a group

Population - youth/adult/old age

Hours - all day

### Lectures -

Capacity - 50p (0.46m<sup>2</sup> p.p)

\* Maximum capacity 200p for special occasions

\* Over 50p would use the community hall

Equipment - chairs, podium, music, speakers,

Method - lecturer with audience

Population - youth/adults

Hours - afternoon/evening

Unique needs - acoustics

### Gymnastic activities -

Capacity - 20-30p

Equipment - mattresses, weights

Method - instructor with a group

Population - youth/adults

Hours - all day

## Restaurant

Size - 245m<sup>2</sup>

Program:

Tables' area: 165m<sup>2</sup>

Kitchen area: 80m<sup>2</sup>

Seats: 114 (72 in house + 42 outdoor)

Vehicle Offloading area: Check + Unpacking area

Store: general, cold, frozen, vegetables

Preparation area: three secondary areas

Cooking area: grill, oven, fry, boil

Finishing: put food at the plate

Serving - waiters take food / bring back dishes

Wash up area: prepare, rinse, washing machine, dry, storage

\* Rubbish - hidden outdoor area close to preparation area

\* Sinks - wash up area, hand washing area (staff)

\* Ablution - female + mail toilet

\* Ventilation - above cooking area

\* Waiters - one waiter per 10-16 people (depends on peak time)

## Scrap metal workshop

Size: 198m<sup>2</sup> + upper storage 27m<sup>2</sup>

Capacity: 20-25p

Program:

Working hall 144m<sup>2</sup> - working benches surrounded by machines

General storage 60m<sup>2</sup> - ground + first floor

accessible to working area

Tool box storage + sink 6m<sup>2</sup> - direct access to working area

Dressing room + toilets 14m<sup>2</sup> - upper floor

Display courtyard in front of the working area

Flow scheme:

Offload area: back ramp Washing area: rinse, immerse, dry

Store: portable trolley/racks (lever upper floor deck)

Cutting area: abrasive cutting (2x1.2), hand guillotine (1x1.5)

Processing stations: forge (2x1), welding plant (2.8x2.5), brazing (co2+asetilen 2x3), drill (1x2), hand grinder (1x2), work bench (2.5x2)

Finishing area: painting (2x2), acid (1x1.5)

Store: indoor display (shelf), upper floor

Space budgeting for scrap metal and wood workshops

Benches - 15% - 30%

Machines - 10% - 20%

Assembly - 5%

Storage - 20% - 30%

Amenity - 3% - 5%

Desks - 8% - 10%

Display - 3%

Circulation - 25% - 30%

**Wood workshop**

Size - 64.5m<sup>2</sup>

Capacity - 6-10p

Flow scheme:

Offloading area: back ramp of metal workshop

Store: open area (racks)

Cutting area: radial saw (1.5x3), power saw (2x1)

Working area: carpenter's bench (3x4.5),  
lathe (2x3), dust Collector (1.5x2)

Finishing: painting / brushing (3x2)

**Environmental centre -**

General: activities for primary school classes during day hours, and for youth/adult at afternoon

**Classroom (water issues)**

Size: 84m<sup>2</sup> (classroom + library & homework)

Capacity: 20-25 students

Equipment: 12 double tables, 4-6 sinks, open to square

Art workshop:

Size: 60m<sup>2</sup> environmental art workshop

Capacity: 20-25 students

Equipment: 12 double tables, painting board, sink, paper cupboard, store

**Ceramic workshop**

Size: 173m<sup>2</sup>

Capacity: 20p

Programme: Store 3.5m<sup>2</sup> - direct connection to delivery

(40k.p.bag x 250k.p.week)

1000k. delivery per month = store for 25 bags

Preparation room 14.5m<sup>2</sup>

Working area 96m<sup>2</sup>

Kiln room 12m<sup>2</sup>

Office 7.5m<sup>2</sup>

Flow scheme:

Offload: trolley from restaurant to stairs  
hand lifting through stairs to store

Store: 25 powder bags on floor

Preparation: water, mixer, pug mill, bench

Processing: wedge (1.5x2), wheel (1.5x1.5),  
throw (0.8x1.6 p.p), paint (0.7x1.4 p.p)

Drying: shelves

Firing: kiln (1x2), shelves-

Display: shelves

**Painting workshop**

Size: 108m<sup>2</sup>

Capacity: 15 - 20p

Equipment: drawing table (3.45p.p),  
regular tables (2.0p.p), store,  
easels, sink, paper cupboard

**Sewing workshop**

Size: 62m<sup>2</sup>

Capacity: 10p

Equipment: working table + machine (2.2 p.p),  
store.

## Conceptual Diagrams for the Site

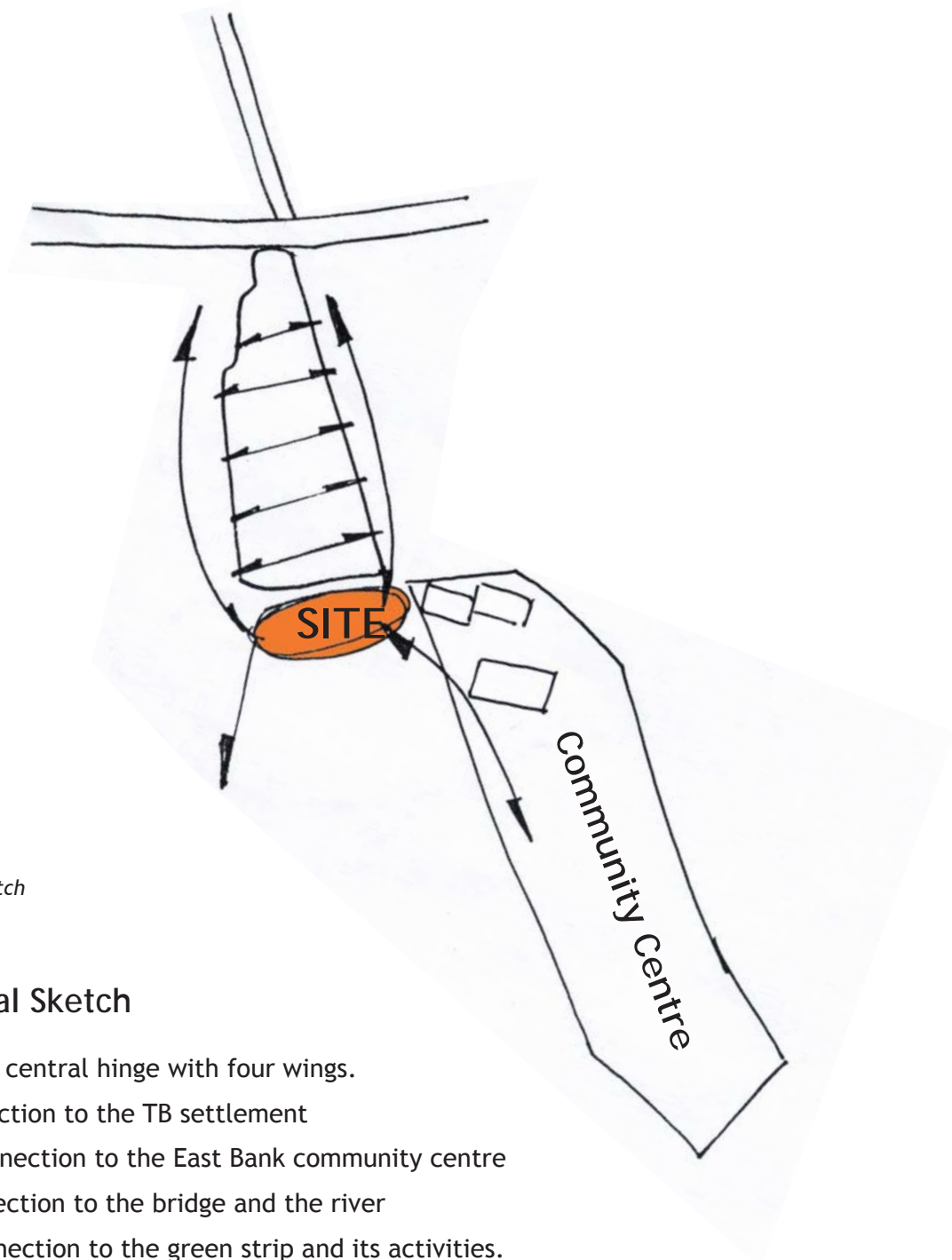


Figure 82  
Conceptual sketch

### Conceptual Sketch

- The site as a central hinge with four wings.
- First - connection to the TB settlement
  - Second - connection to the East Bank community centre
  - Third - connection to the bridge and the river
  - Fourth - connection to the green strip and its activities.



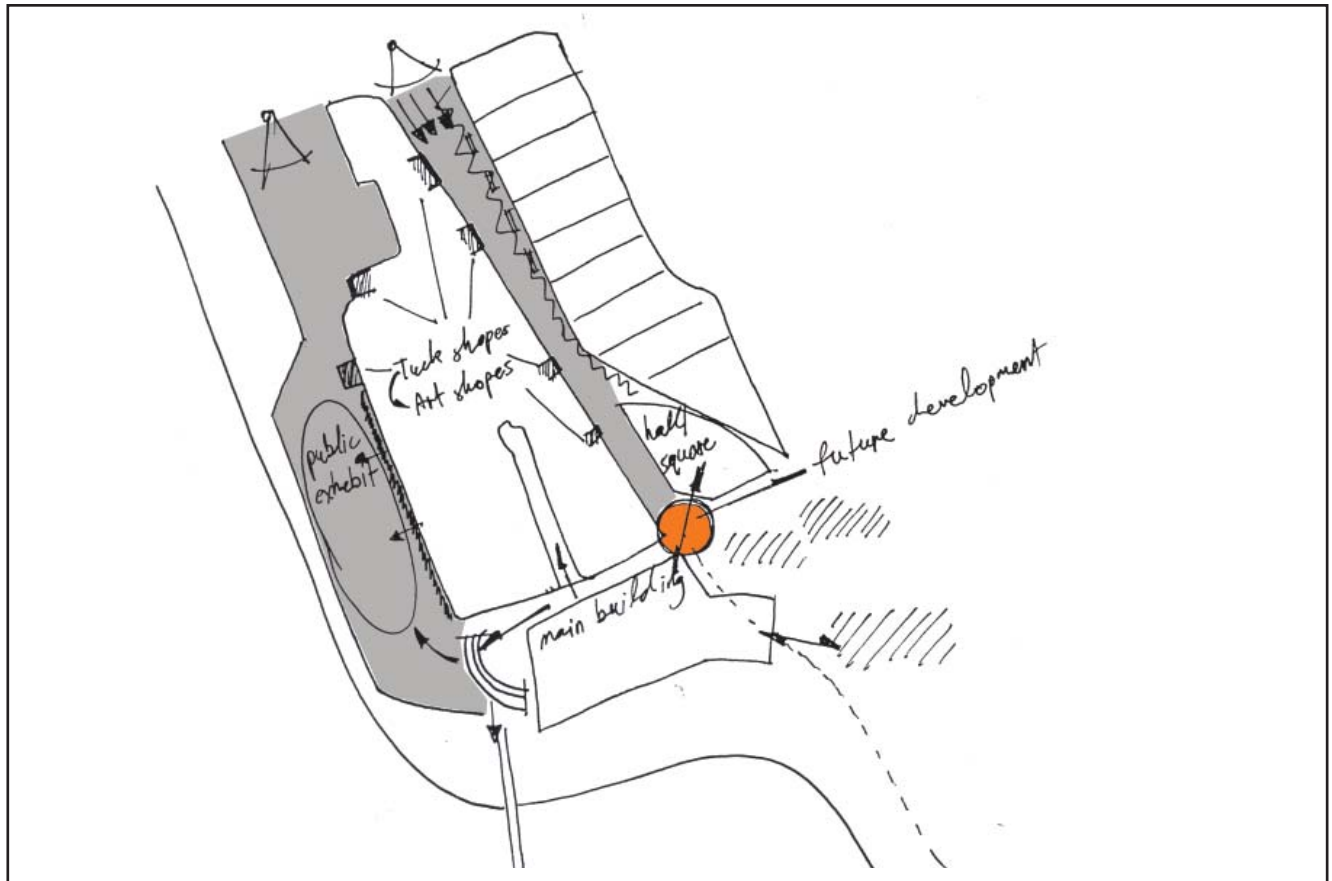


Figure 83  
Main corridors which lead to the site.

## Corridors to the site

Two main corridors leading to the site:

The “urban” corridor which links the site with the main street. That space is characterised by tuck shops in front of the TB settlement houses. On the other side, the East Bank new houses are surrounded by walls. The settlement houses open to the street with shops.

That space will serve as a lobby to the centre and probably gather a lot of street activity.

The “natural” corridor mainly gathers pedestrian movement through the green strip alongside the river. That movement is characterised by youth who come to play and enjoy outdoor activities.

This space would serve as outdoor exhibition/function area with a strong link to the centre.

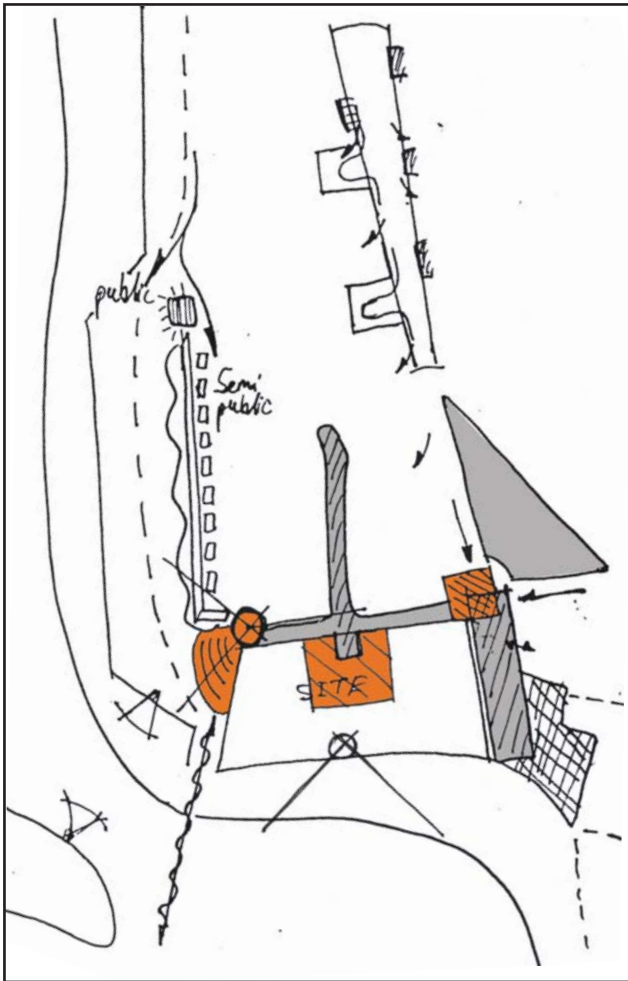


Figure 84  
Spaces around the site.

## Public spaces around the site

Various types of spaces surround the site and create an opportunity to unite the different existing activities with the new centre. The ability to unite both sets of activities at an interesting gathering space will be a key to the design of the centre as a community gathering place.

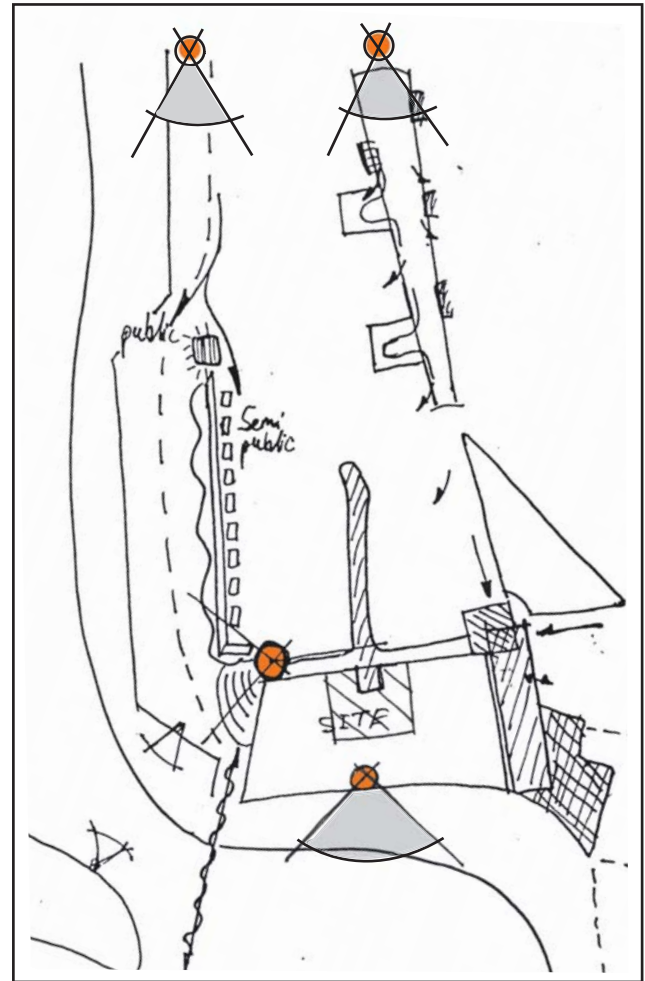


Figure 85  
The main view points located around the site.

## View points

The main view point is located at the western part of the site. It is higher than the green strip area and has a great view of Old Alex, the river and the playground activities. From the south, the site also lies on the edge of the river and should be open with easy access to the river's edge.

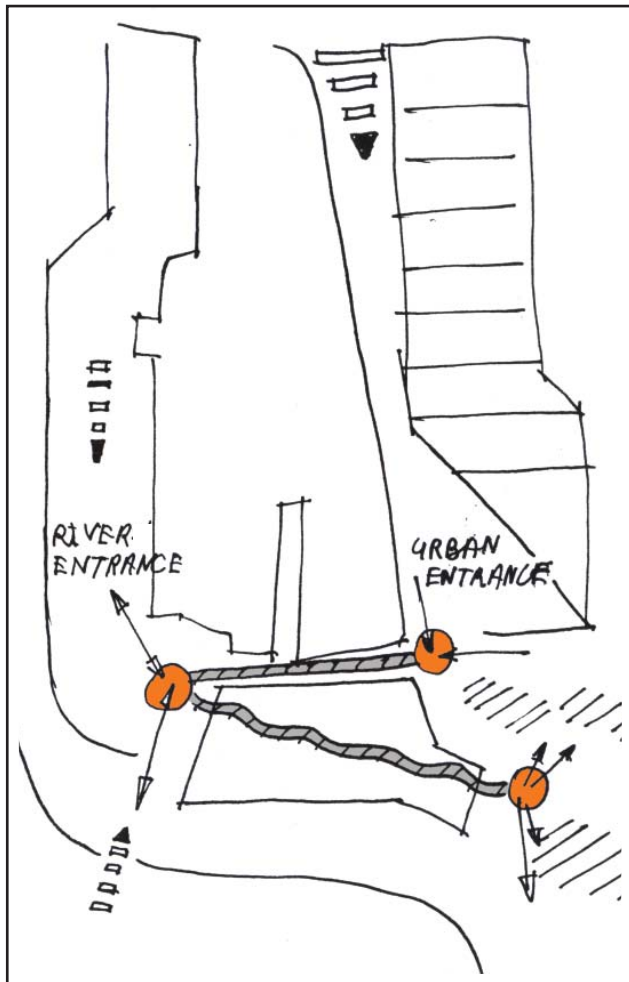


Figure 86  
There are three focal points around the site.

## Focal points

Three focal points surround the site in a close circle; the “urban” entrance functions as the main entrance. The “natural” entrance from the west. The community centre’s focal point gathers the main activity at the existing centre. There is natural movement between the community centre’s gathering space and the “natural” entrance from the green strip and the bridge.

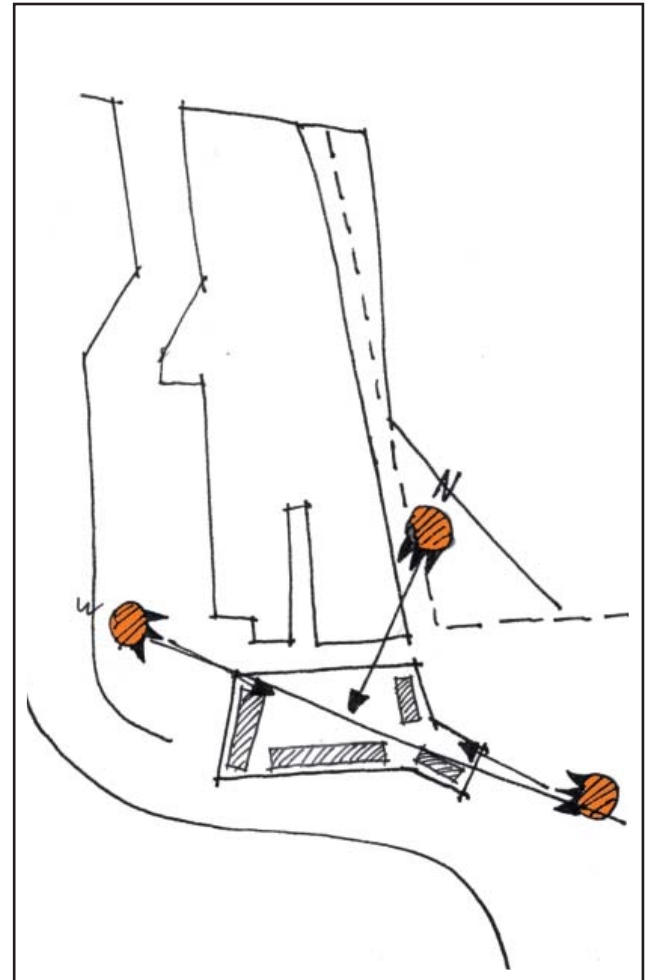


Figure 87  
The site is exposed to sun as it faces north.

## Climate

The buildings would face the main public space within the northern part of the site. This enables all buildings to be exposed to the sun.

## Development of the Plan



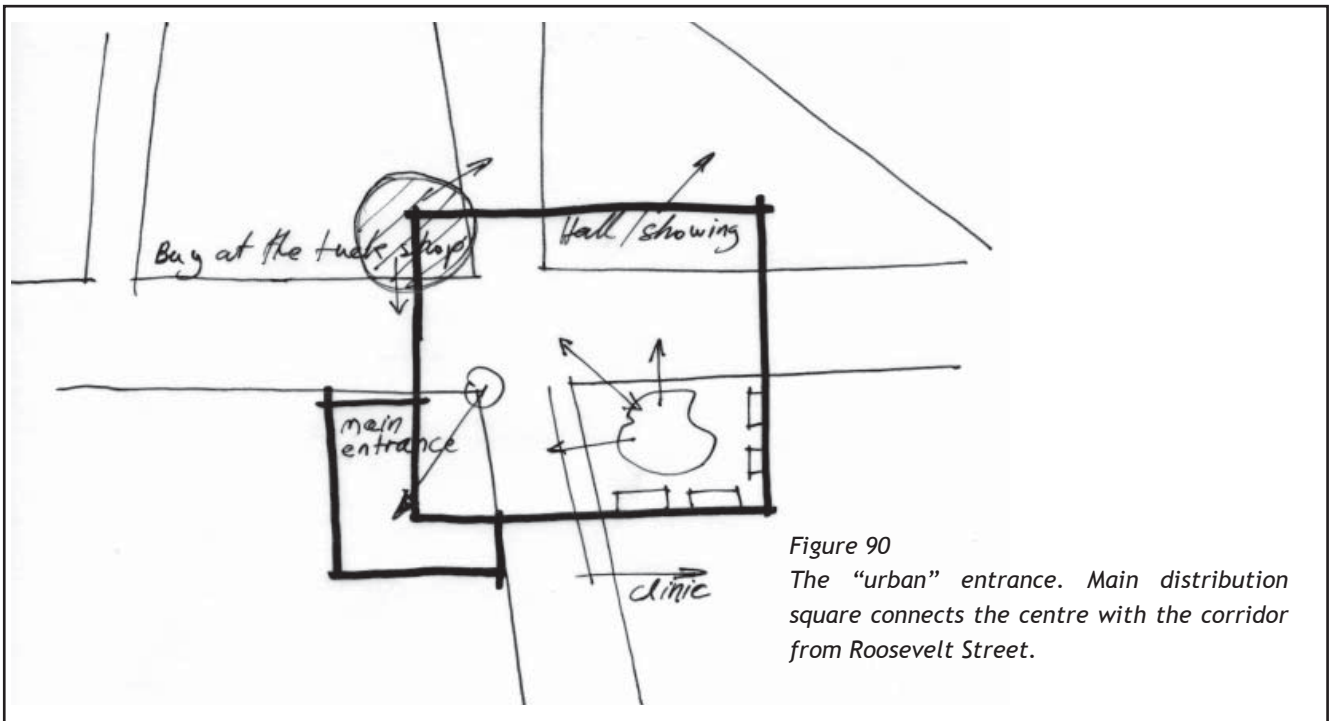
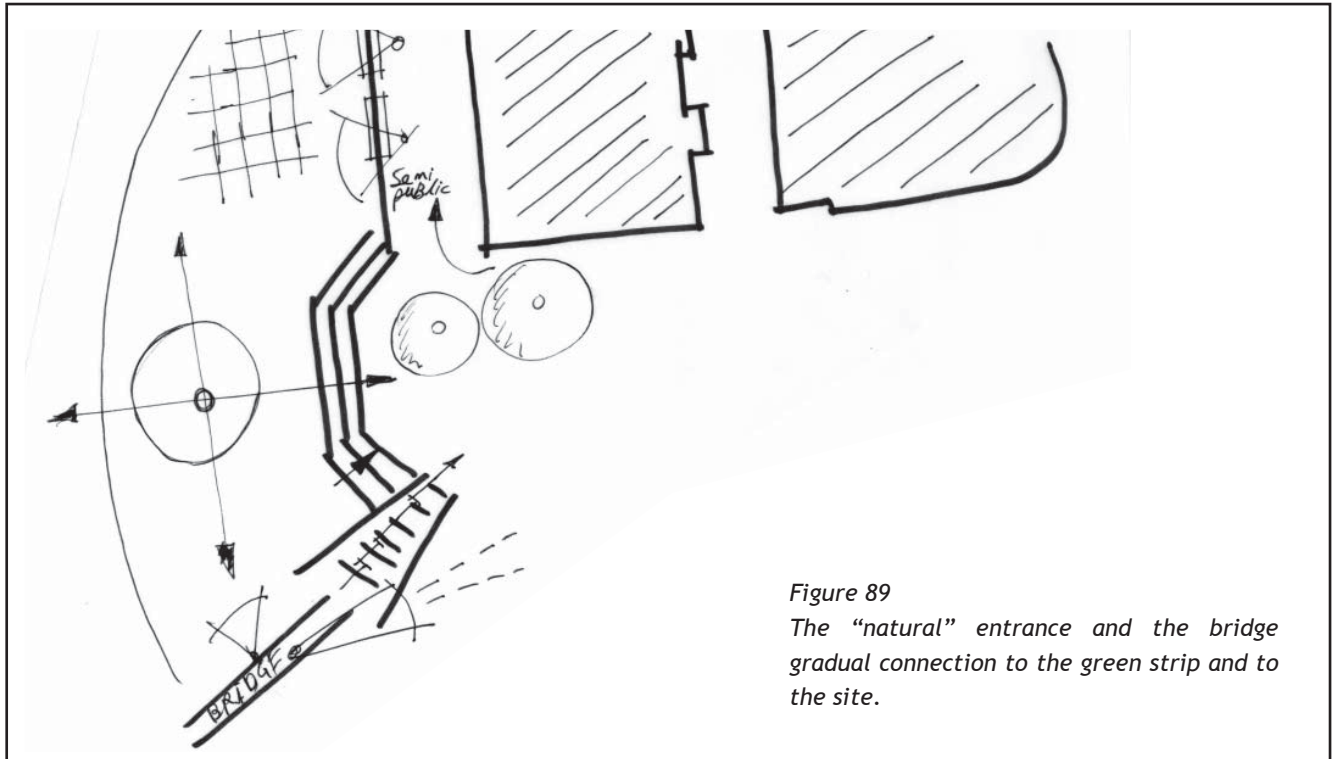
Figure 88  
Aerial view of the site.

### Aerial Model - Primary model of the centre

- Main semi-public square faces to the neighbourhood in the public area.
- “Urban” entrance link to the main junction.
- “Natural” entrance opens to the green strip and the bridge.
- The existing community centre hall connects to the new development.
- The whole elevation to the river defines the edge.



## Sketches of the Focal Points



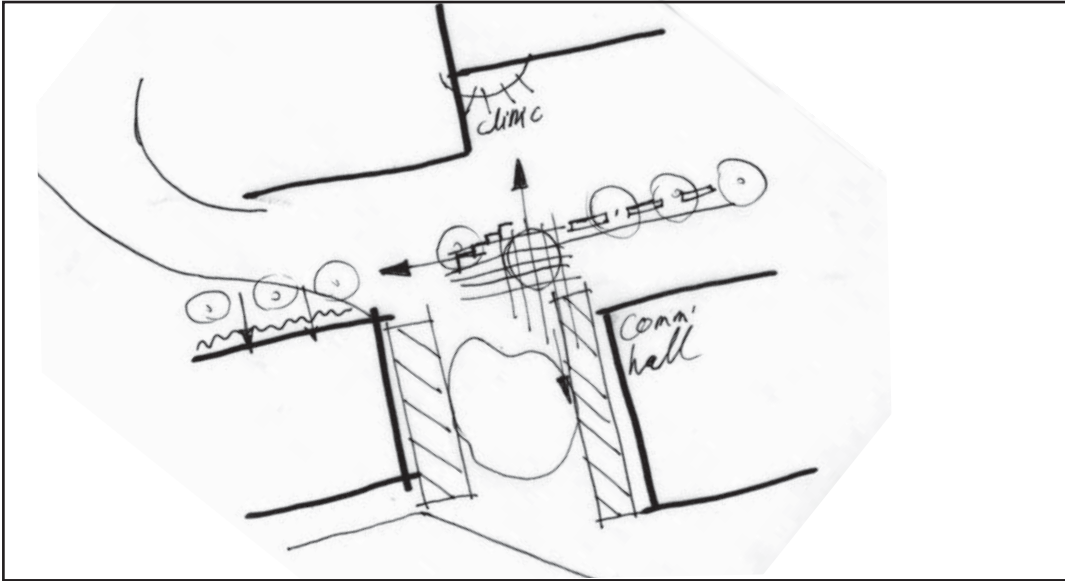


Figure 91

The space between the community hall and the clinic to the new Art Centre.

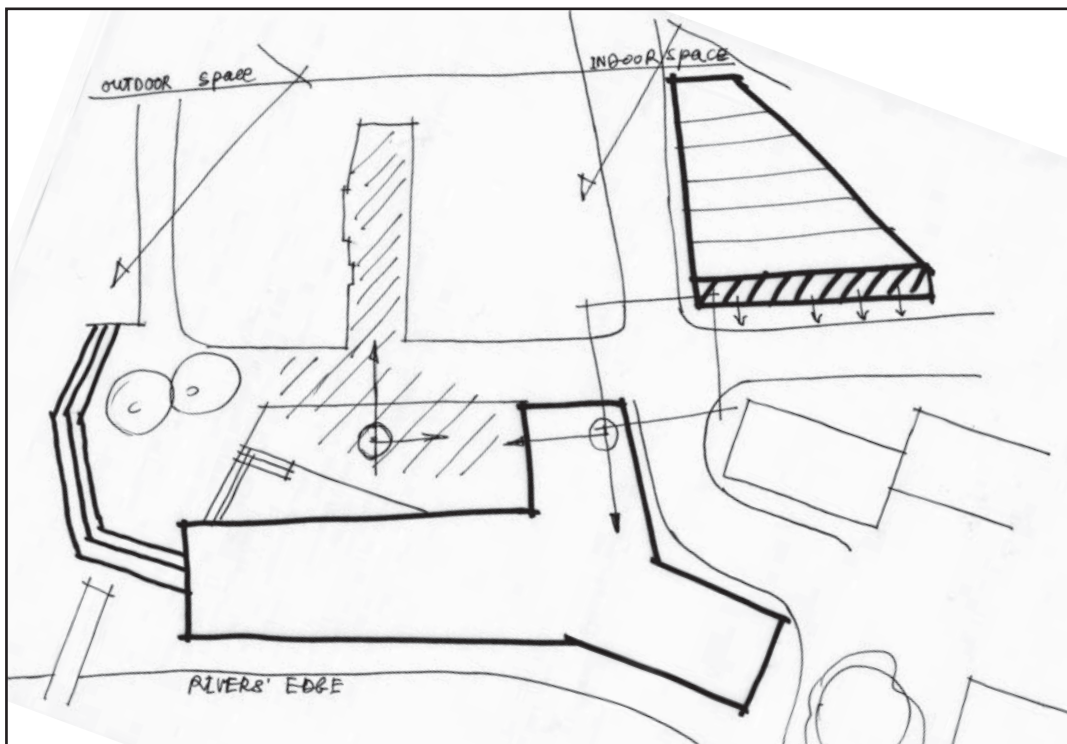


Figure 92

Sketch of the Centre with possible connection to the vacant triangle. The western side of the building opens to the green strip and its activities.

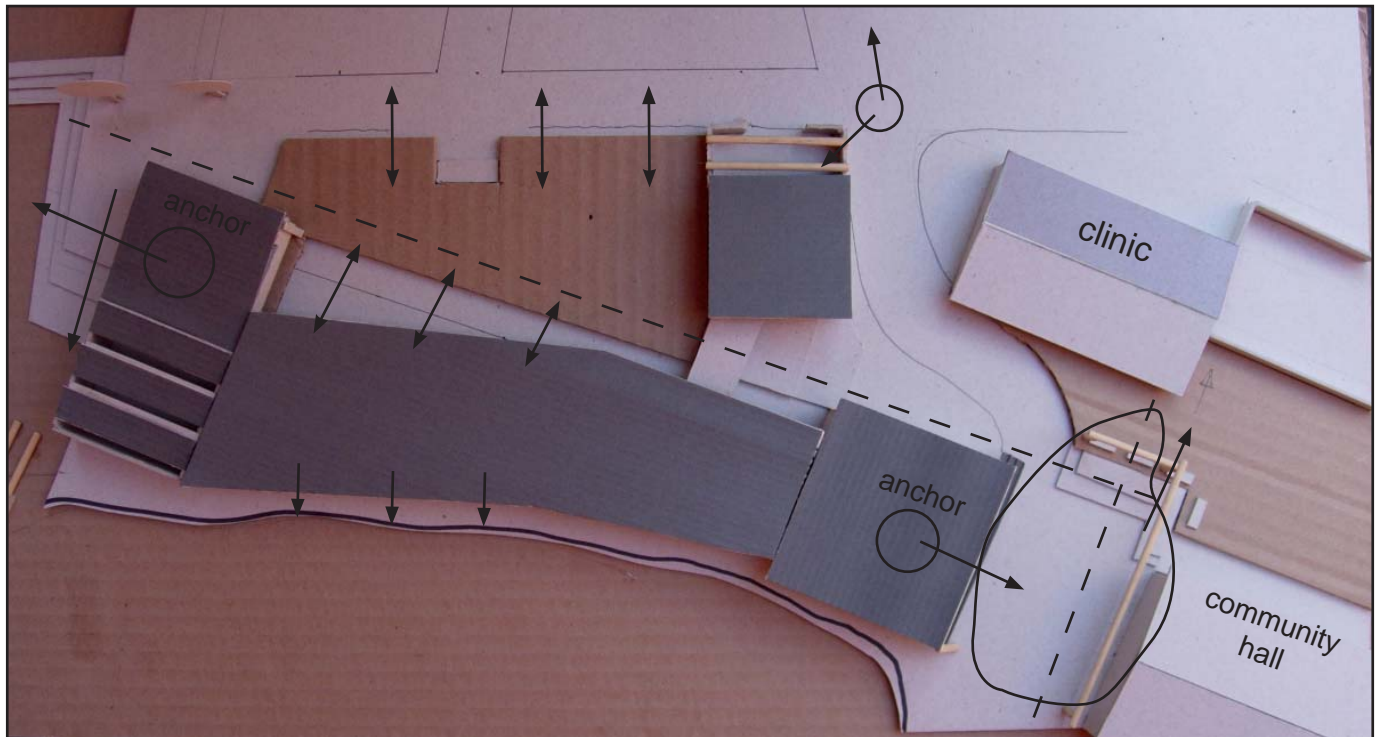


Figure 93  
A model of the site.

## Site Model 1

- Main building as an entrance lobby with gradual heights
- First anchor - (medium size hall) to the side of the community hall as a link to the centre
- Second anchor - (scrap metal workshop) faces the green strip and the bridge as a potential outdoor extension to the exhibition area.
- Developing of the natural movement line between the community hall and the green strip.
- Create an open square to the public area.

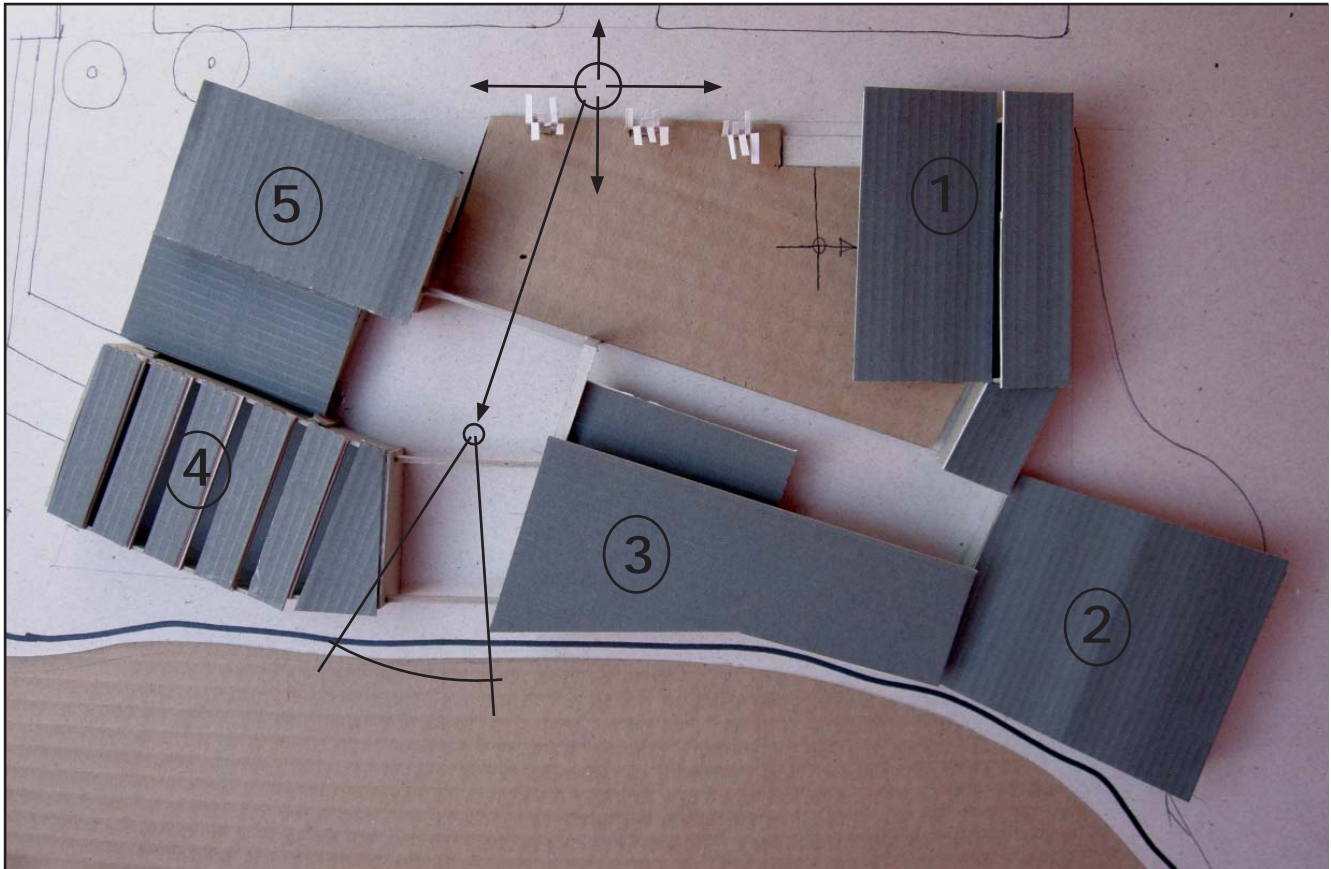


Figure 94

Site Model 2 shows how the site is divided into 5 different components.

## Site Model 2

Dividing the centre into different components:

1. Entrance/lobby/exhibition hall
2. Medium size hall
3. Workshops building
4. Scrap metal workshop
5. Restaurant/entertainment building

- The main movement line is blocked in order to check the movement system with one main entrance.
- A space between the buildings was made in order to open the centre to the river and give access to it.



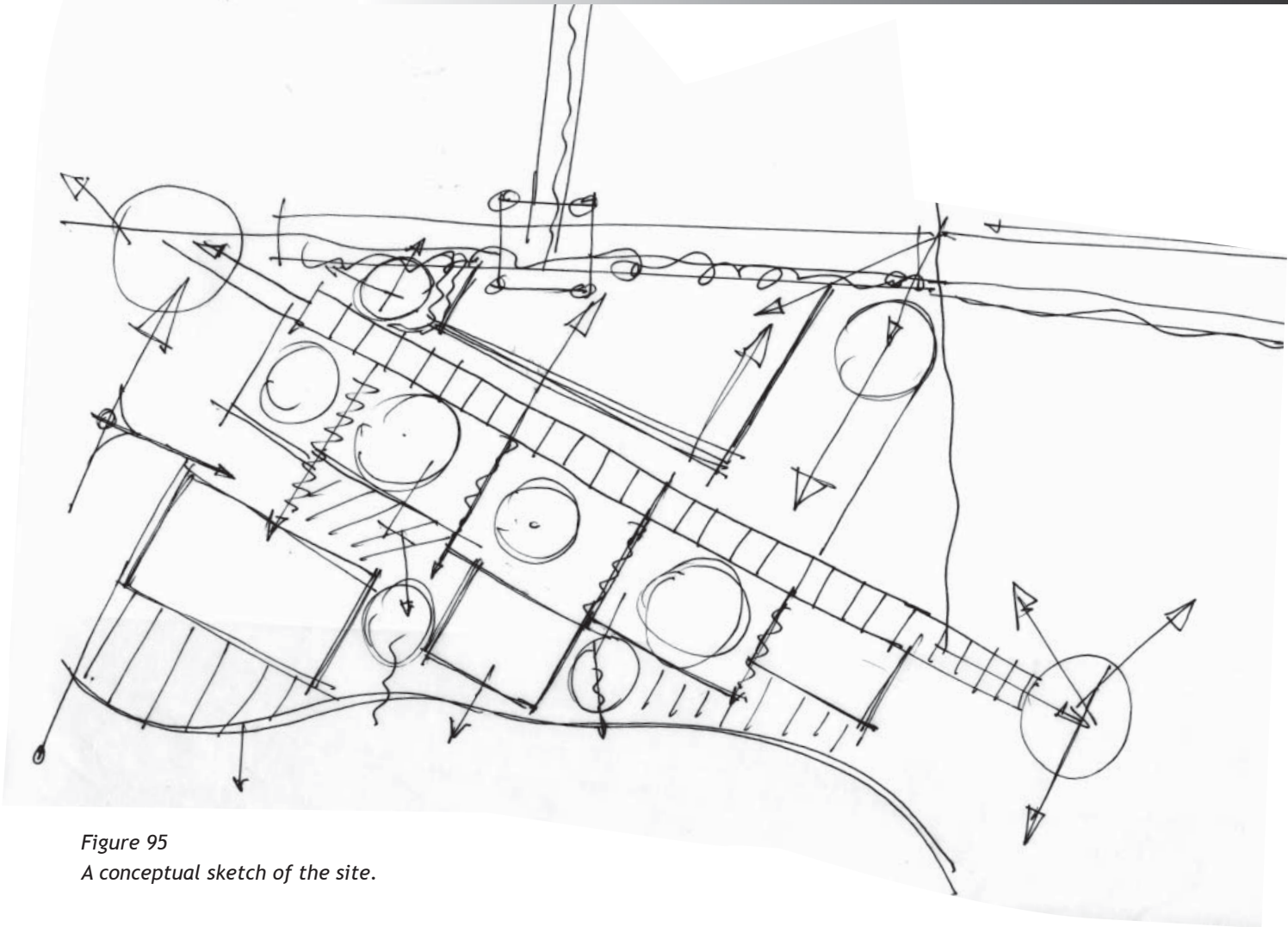


Figure 95  
A conceptual sketch of the site.

## Conceptual Sketch

- Emphasizing the “distribution line” as the main movement system.
- Defining the grid system for the plan.
- Creating a public/semi-public more open area to the north of the “distribution line”
- Creating a private/semi-private area between the “distribution line” and the river, with more dense buildings.

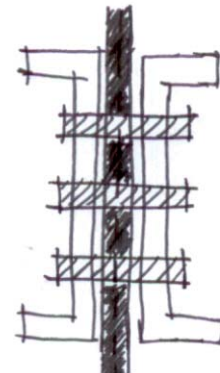


Figure 96  
Conceptual sketch - capturing the movement path.

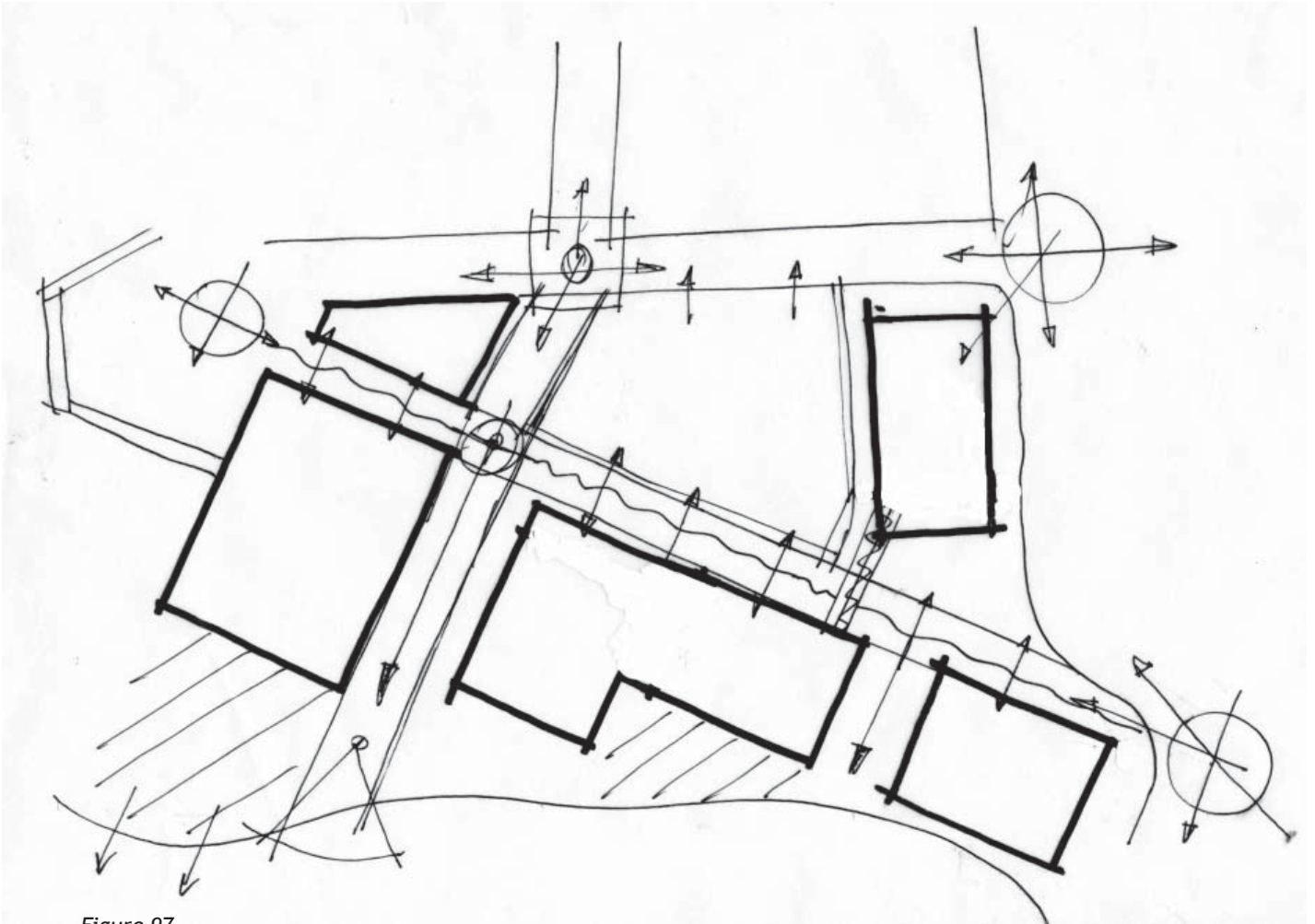


Figure 97

*Conceptual sketch translating to form blocks.*

## Conceptual Sketch translates to form blocks

- Locating of the blocks according to the movement system and its grid.
- The entrance block breaks the grid in order to to create boundaries for the site.
- The site is divided into the public area (north of the main movement line) and the private area (south of the movement line).

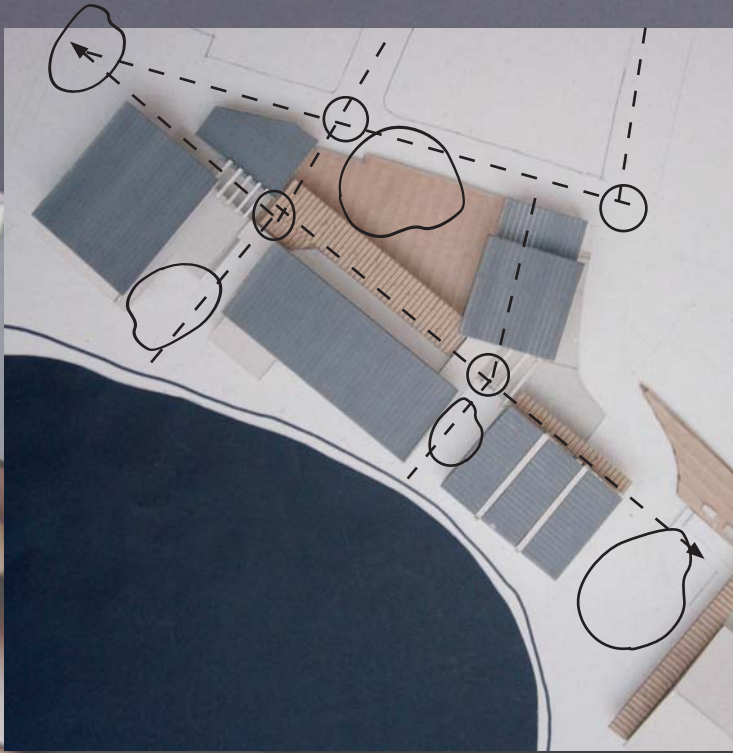
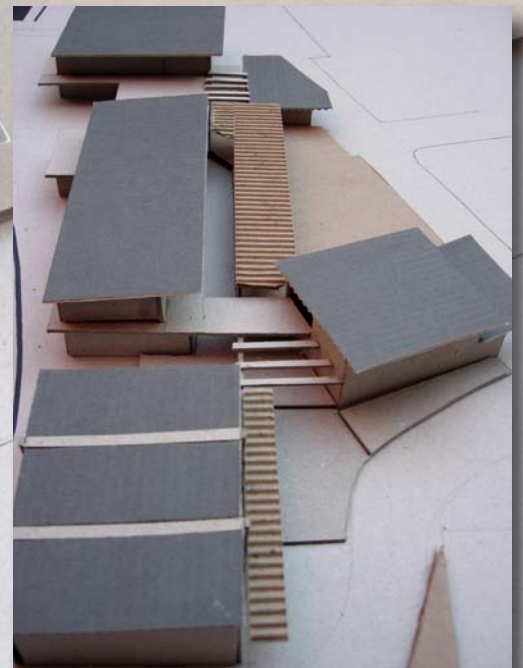


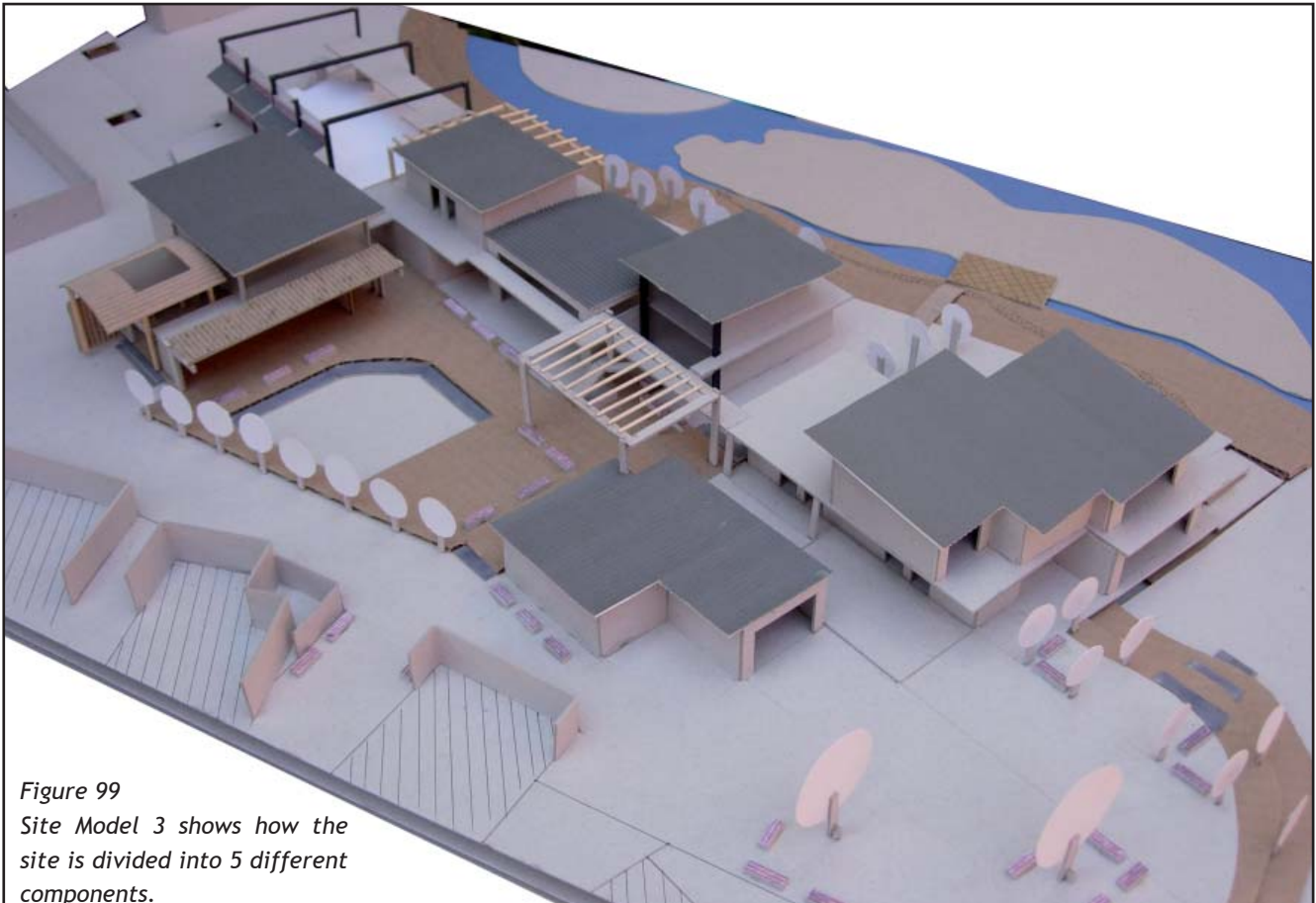
Figure 98  
Final concept model.

## Final Concept Model

- Main distribution line covered/semi-covered
- Main buildings as an activity component
- Different spaces as an informal activity area
- Permeability through the centre to all directions as part of the theoretical concept.







## Site Model 3

- \* All buildings linked to main path which opens to the main square.
- \* Defining entrance building by gradual roof heights from the street level up to exhibition hall.
- \* Articulation movement point emphasized by gum pole canopy.
- \* Western workshop's building defines open space for environmental activities and link to the river.
- \* Gradual steps and landscape works define natural balcony and concentrate both pedestrian movement lines from the green strip and the bridge.



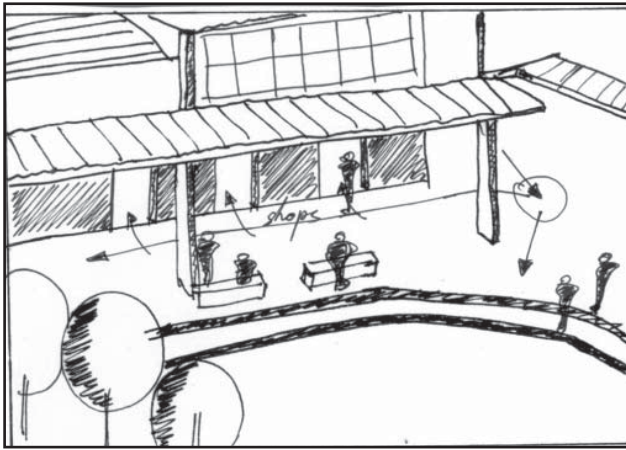


Figure 100  
Main square.  
Relations between artshops to main square.

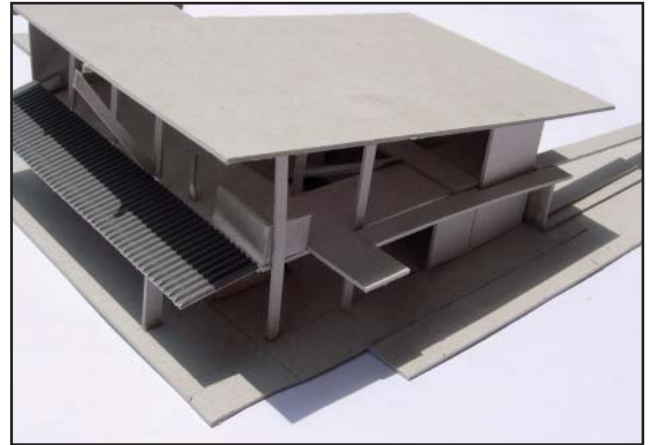


Figure 101  
Exhibition hall. The main roof in relation to the lower canopy above the artshops.



Figure 102  
Exhibition hall and lobby model.

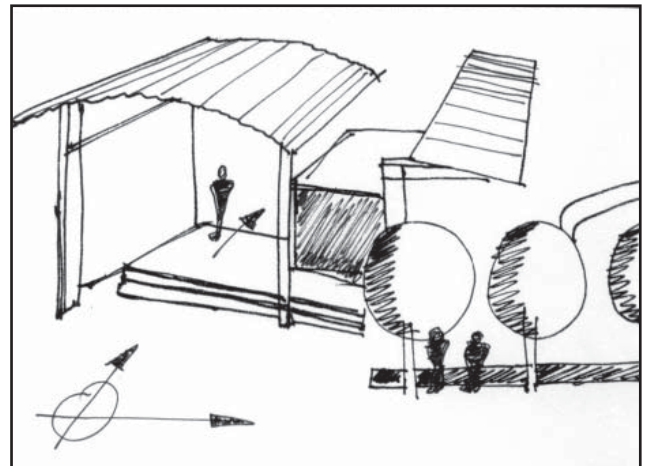


Figure 103  
Entrance sketch. An early sketch of the entrance.

## Lobby and Exhibition hall

- \* Gradual roofs slope, points to main square as indication for important space.
- \* Light canopy to shade over art shops, and to create comfortable watching area equipped with benches towards the main square.
- \* A long ramp located in parallel to the path until it reaches the exhibition hall's bridge .
- \* Glass wall faces to the south and to the west with sun louvres.

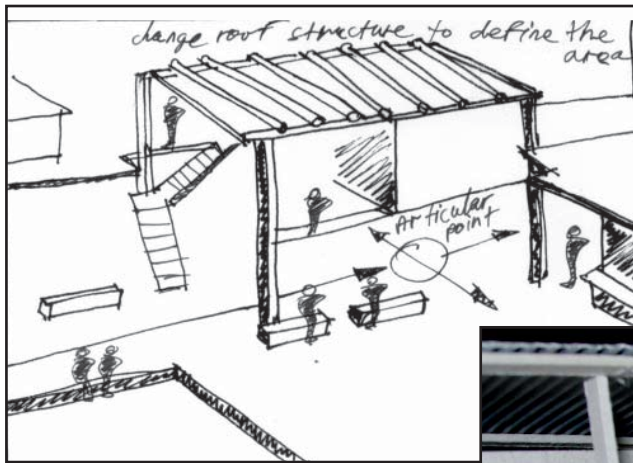


Figure 104  
Articulation point.

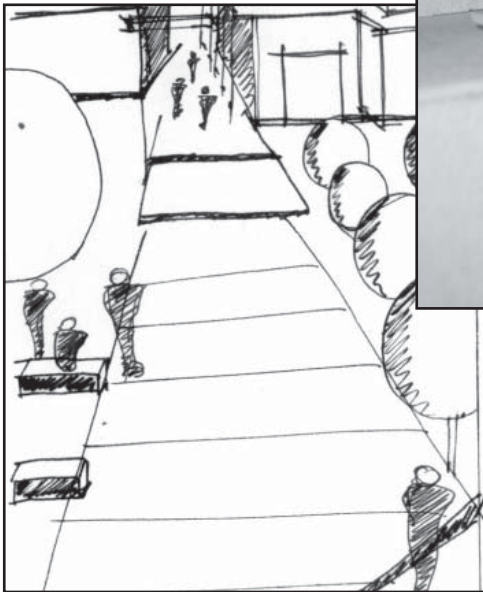


Figure 106  
"Natural entrance".

## "Natural Entrance"

- \* Defining the movement line by trees and benches
- \* One storey building from north side (restaurant) enables penetration of sunlight, while the roof and canopy provide shade.

## Articulation movement point

- \* Visible to pedestrians and first floor workshop
- \* Stairs and benches be used as seats
- \* Main entrances to restaurant, multi purpose hall and art workshop linked and define the space



Figure 105  
Articulation point model.

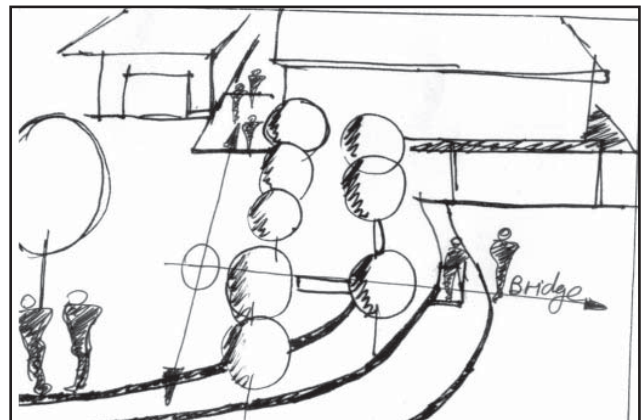


Figure 107  
Connection to the bridge by gradual steps and trees.

## Multi purpose hall

- \* Gradual stairs for seating used as guidance for activities at the hall and defines the main path to the courtyard and the hall itself.
- \* First floor path used as a canopy above courtyard and also as a balcony, to enable visual connection with the hall's activities.



Figure 108  
The hall and the courtyard.

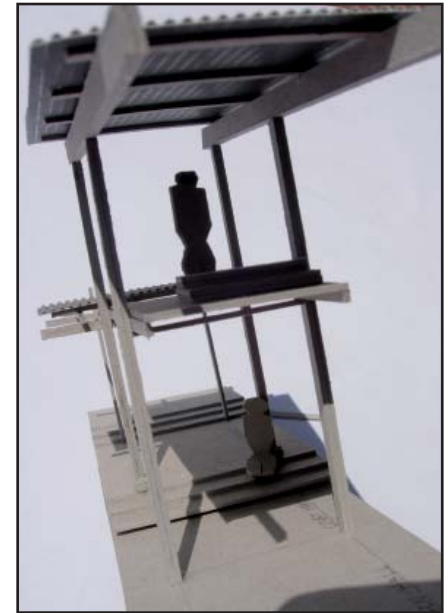


Figure 109  
The viewing deck to the main hall.

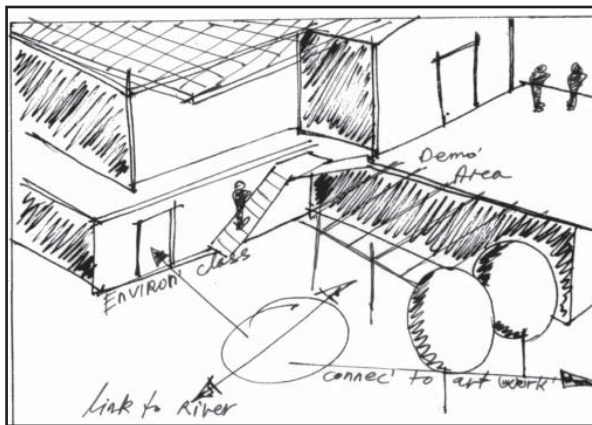


Figure 110  
Environmental centre.

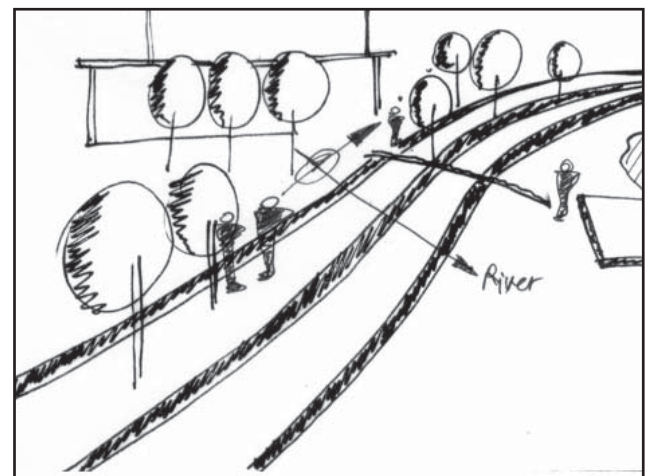


Figure 111  
Connection to the river.

## Environmental centre

- \* Linked directly to the river but still defined by ramp and trees.
- \* The building defines the space from the north and west side to show relation to the river.
- \* The flat roof above the artist's workshops, which is used for solar demonstration, exposed visually to the ground open space.



## Accommodation

1. Exhibition hall -  
Ground floor - 193m<sup>2</sup> : 154m<sup>2</sup> public service  
39m<sup>2</sup> art shops

First floor - 125m<sup>2</sup> : 50m<sup>2</sup> offices  
75m<sup>2</sup> exhibitions

Total: 318m<sup>2</sup>

2. Scrap metal workshop -

Ground floor - 198m<sup>2</sup>

First floor - 45m<sup>2</sup>

Total: 243m<sup>2</sup>

3. Central building

Ground floor -

Wood workshop - 62m<sup>2</sup>

Art shops - 28m<sup>2</sup>

Multi Purpose Hall - 110 + 84 = 194m<sup>2</sup>

Environmental art workshop - 77m<sup>2</sup>

First floor -

Sewing workshop - 62m<sup>2</sup>

Painting workshop - 108m<sup>2</sup>

Total: 531m<sup>2</sup>

4. Environmental building

Ground floor -

Environmental class - 107m<sup>2</sup>

Artist's workshops - 90m<sup>2</sup>

First floor -

Ceramic workshop - 172m<sup>2</sup>

Total: 369m<sup>2</sup>

5. Restaurant - 225m<sup>2</sup>

Total ground floor - 1174m<sup>2</sup>

Total first floor - 512m<sup>2</sup>

Total build area- 1686m<sup>2</sup>

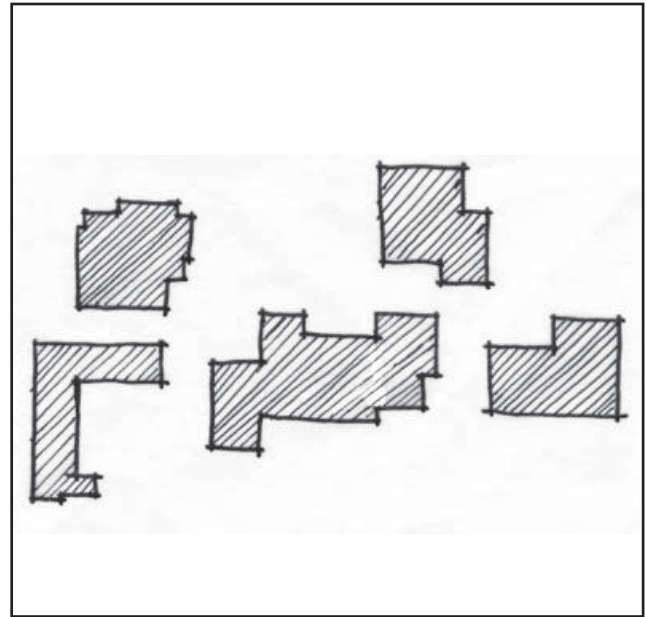


Figure 112  
Ground floor plan - 1174 m<sup>2</sup>

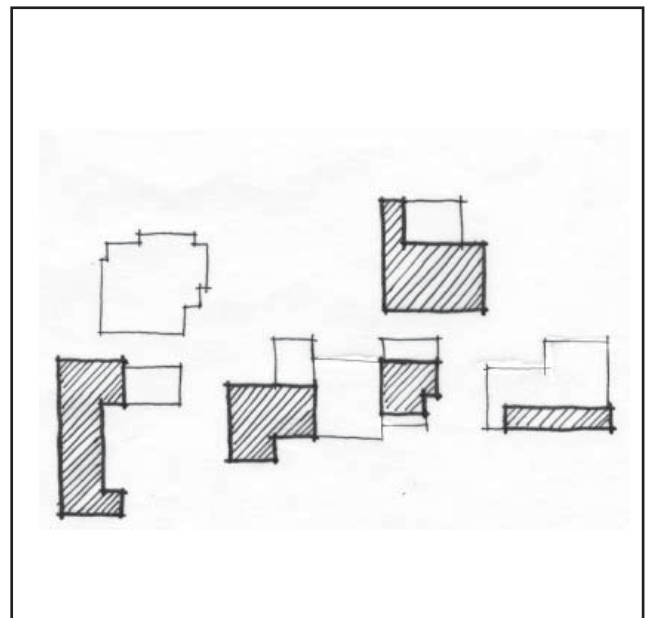


Figure 113  
First floor plan - 512 m<sup>2</sup>



## Allocation of functions

The Centre is divided into four circles:

*First circle* - Public spaces surround the Centre, developed to increase interaction with the area around the site.

*Second circle* - Public facilities within the Centre, located on the edge of two main entrances, continue into the Centre.

*Third circle* - semi-public open spaces, designed to cater for informal activities.

*Fourth circle* - private facilities/workshops, divided into four categories:

- \* Training art workshops
- \* Artists' workshops
- \* Students' environmental centre
- \* Multi purpose hall

The *First circle* is composed of a few spaces: the square and the vacant triangle in front of the main lobby, the space proposed to serve as a transportation node, public parking and outdoor space; the sports ground in between the Community Hall to the scrap metal workshop, designed to contain youth activity and also gather people who wait for the East Bank Clinic; the natural balcony connected to the green strip and the bridge.

The *Second circle* contains the main lobby and exhibition hall, which function as a welcome and a presentation area for art products, information desk and administration offices. In addition, the restaurant, which defines the “natural” entrance, slopes with its seats into a view of the river and Old Alexandra.

The *Third circle* composes of small shaded spaces, connected to buildings' entrances, and creates a gradual entering process.

The *Fourth circle* is composed of a few functions: training workshops, located on the main path that define it; artists' workshops that define the “natural” entrance; the multi purpose hall which has a transparent façade to the main path and the square; the classroom at the Environmental Centre concentrates the connections to the river.

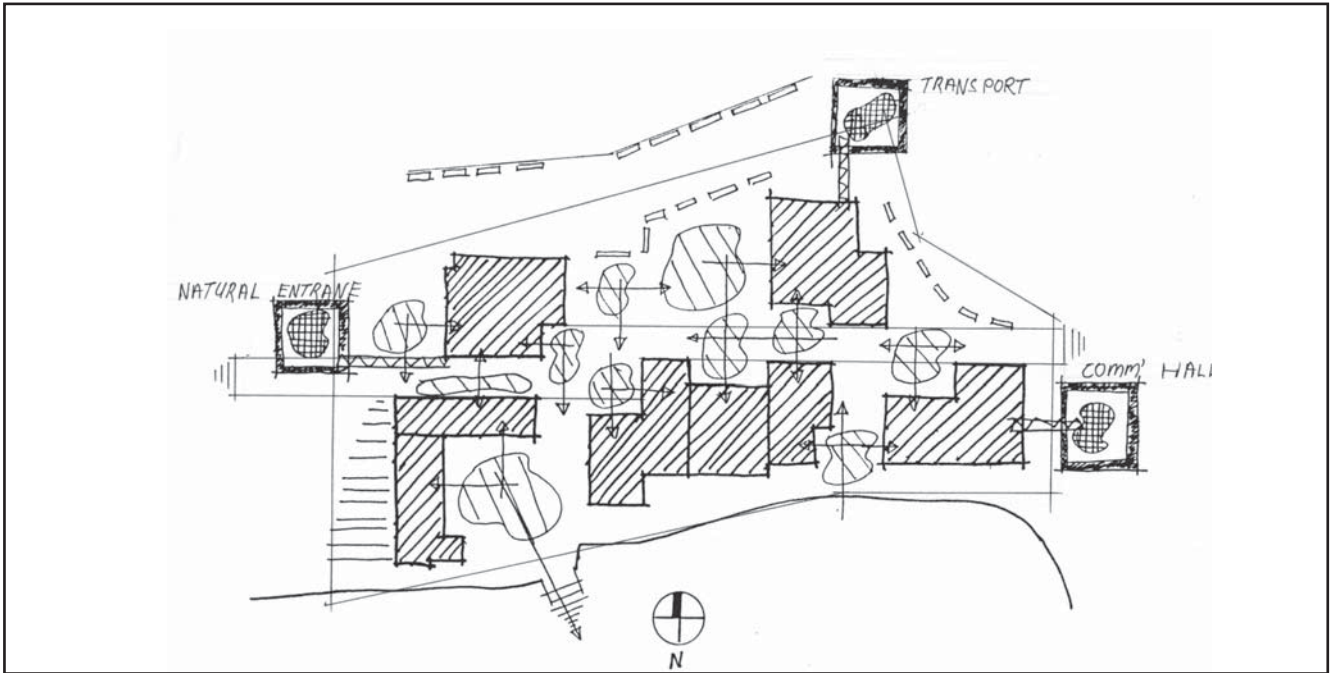


Figure 114  
Entrance and internal spaces.

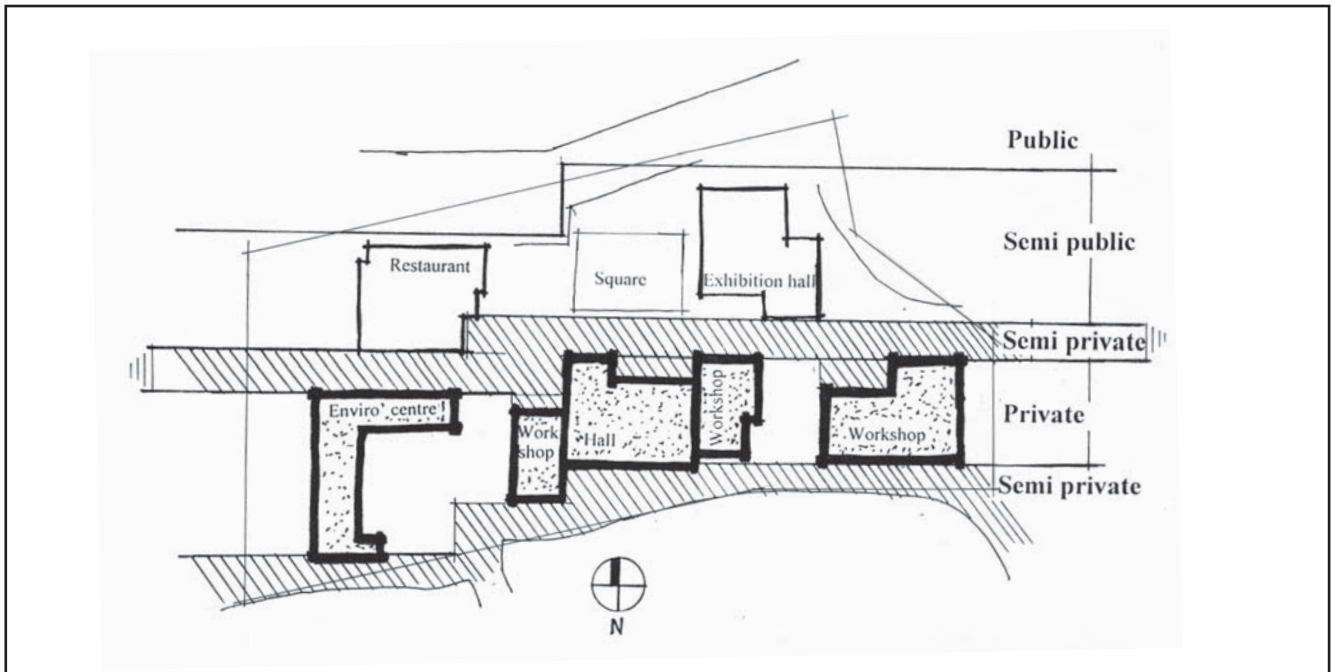


Figure 115  
Public/private division of the site.

## Climate concept

Latitude: 26 degree south

Longitude: 28 degree east

Altitude: 1515 meters above sea level

With hot and rainy summers (but not humid), and sunny winters, Johannesburg's climate allows people to have outdoor activities almost all the year.

This data led to design concept that takes into consideration the significance of outdoor spaces as a unique opportunity for communal activities.

### Sunshine

Johannesburg experiences intense sunshine in summer (50%-60%) while in winter, the intensity is less, but 70%-80% days are sunny.

Outdoor spaces will be fully/partly covered, while the main square is exposed to direct sunlight with shaded areas around it.

Workshops are designed to have a central activities room with an overhang roof to the north that caters for outdoor space beneath in order to protect from summer sunlight and rain. On the southern side, the workshops have a shady and cooler balcony, facing to the view of the Jukskei River.

### Ventilation

Corrugated sheet metal with thermal insulation sheets designed to decrease the heat of the sun. In addition, open roof construction with windows enables better ventilation to remove hot air.

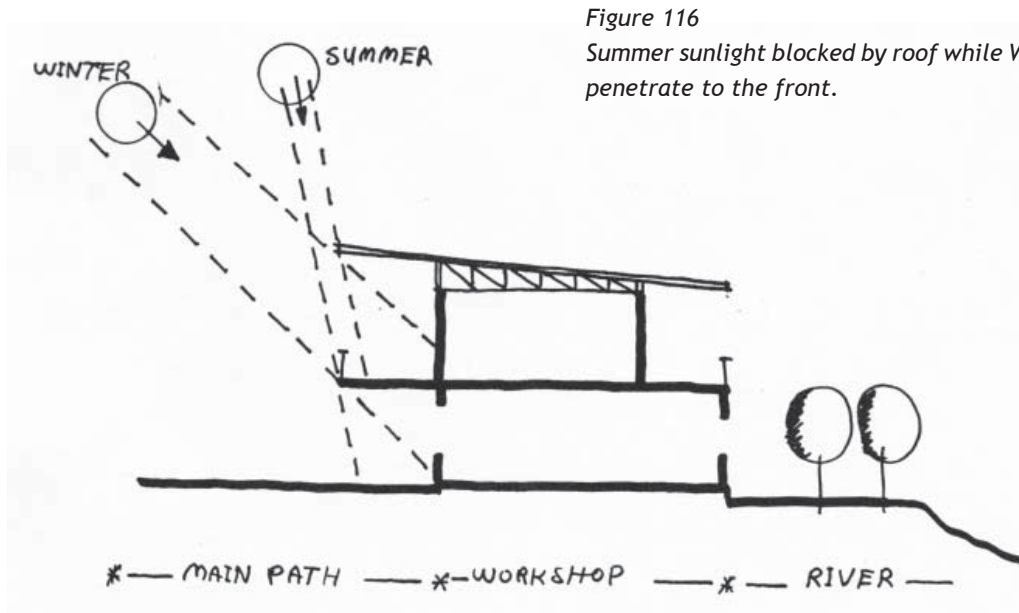


Figure 116

Summer sunlight blocked by roof while Winter sunlight can penetrate to the front.

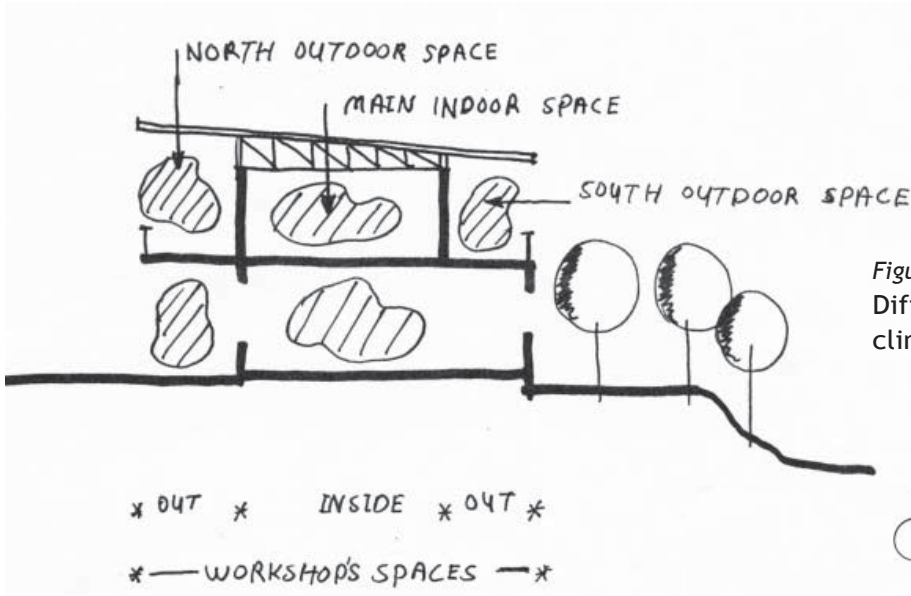


Figure 117  
Different types of spaces according to climate changes.

Figure 118  
Ventilation scheme uses cold air from the south to cool down the workshop.

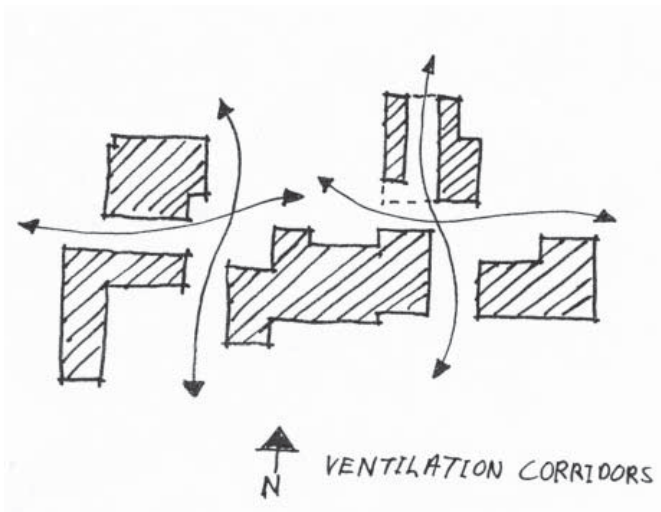
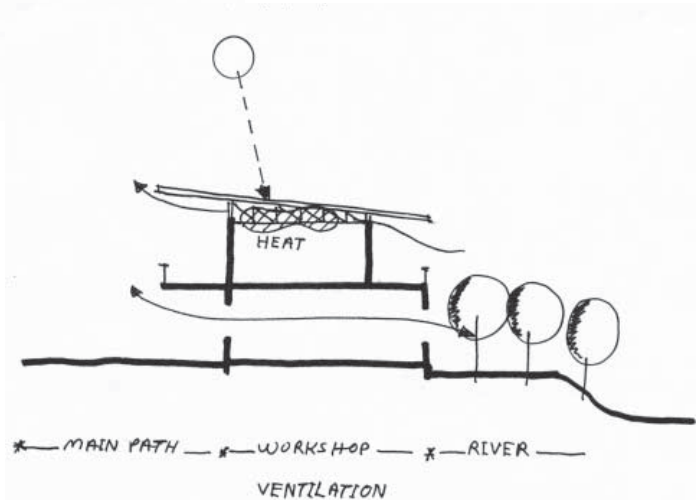


Figure 119  
General view of building's location in relation to ventilation.

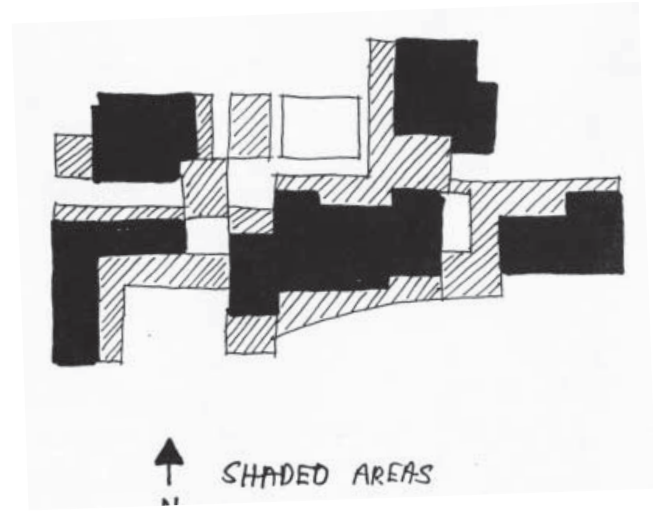


Figure 120  
Shaded areas around buildings, created by roof/canopy/tree/building.



## Design Influences

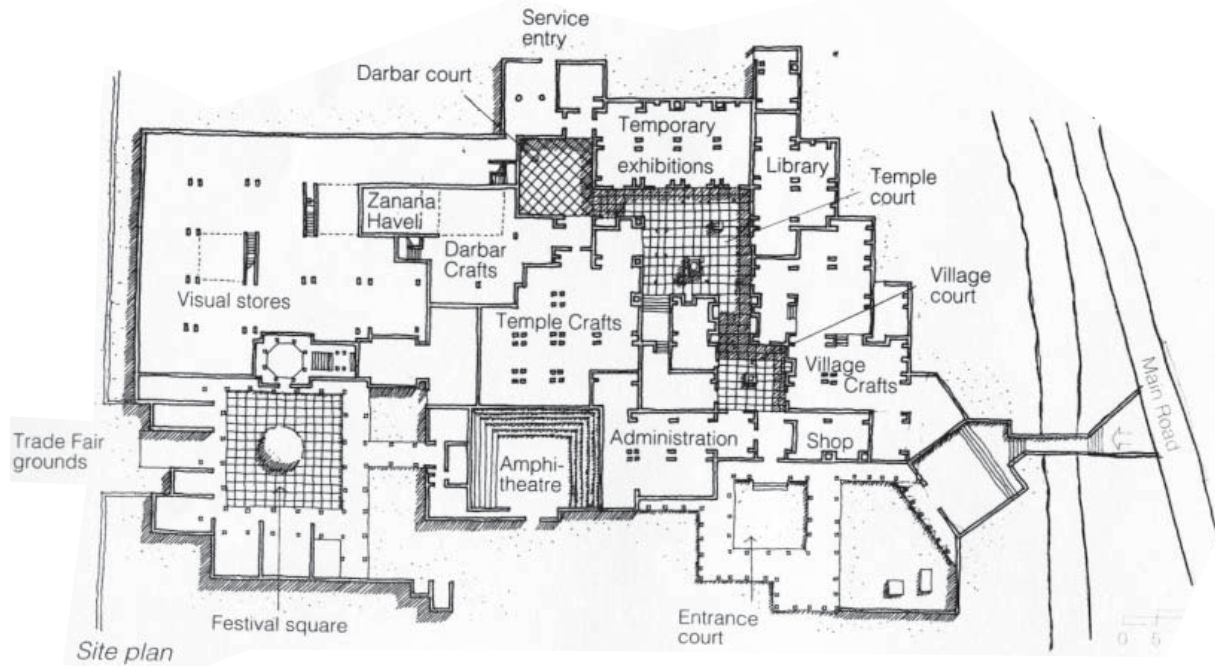
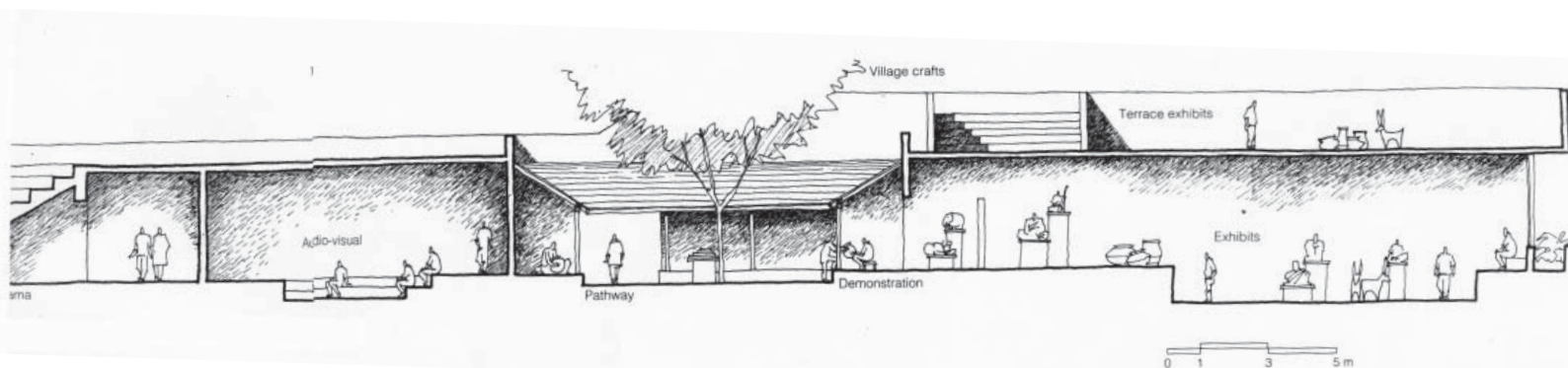
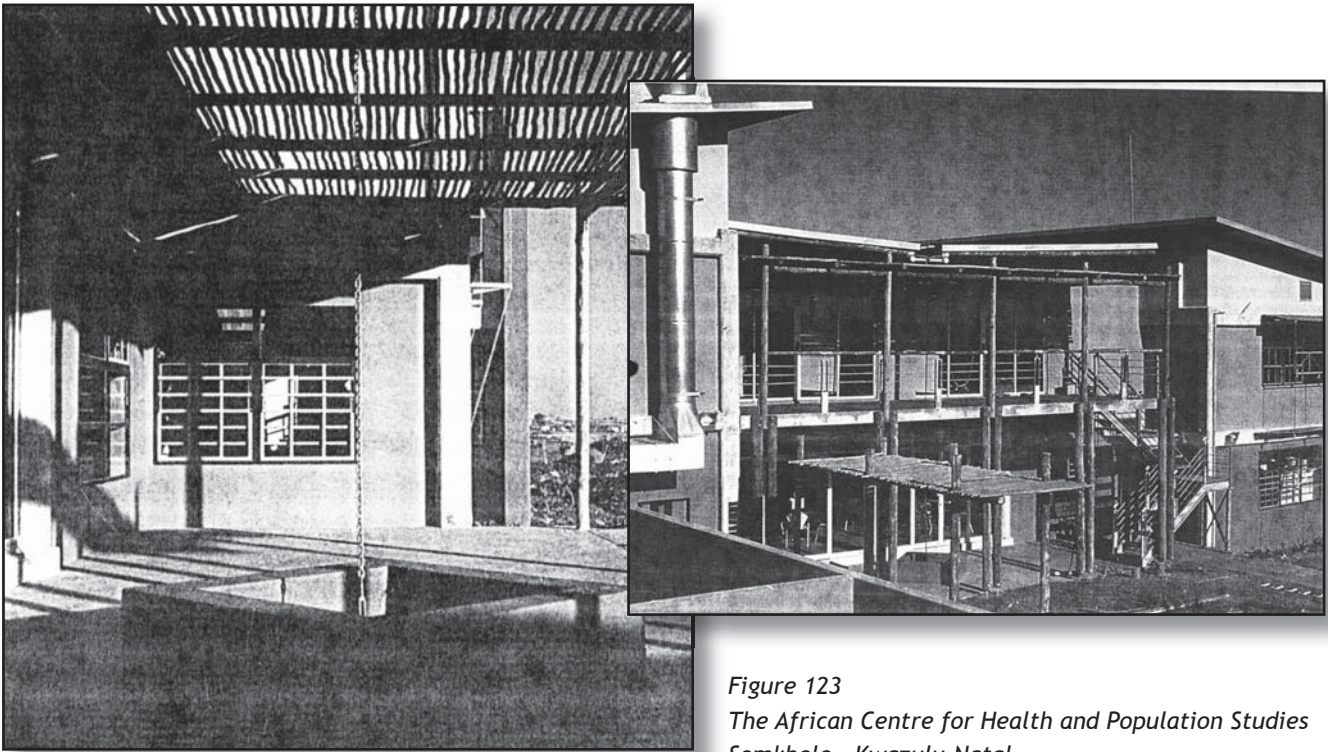


Figure 121  
National Crafts Museum - site plan  
Delhi 1975-90.  
Architect - Charles Correa

Simple shapes of buildings with varied public spaces. A pathway used as a spine, which takes the people through the Museum's halls, a metaphor of the Indian street where you go from a village to temple to palace.

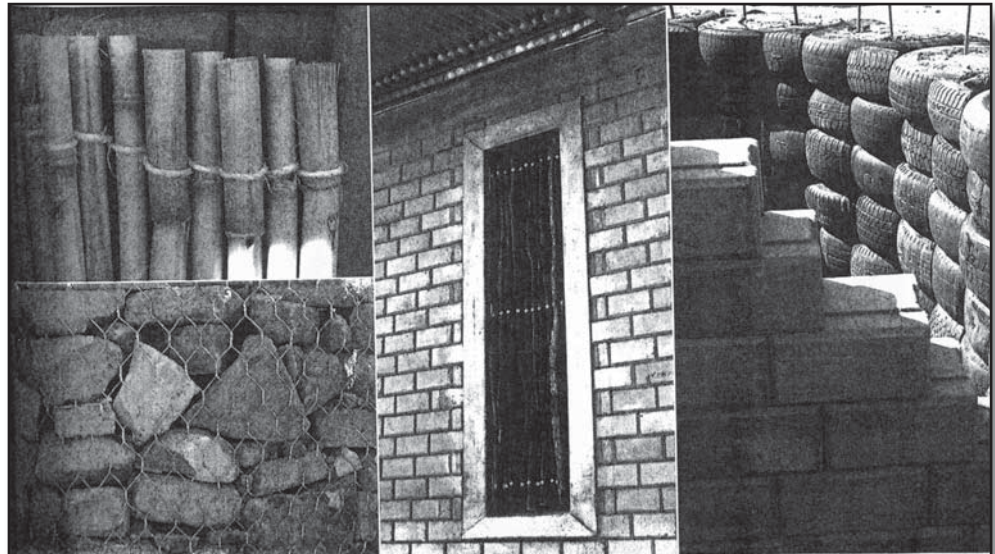
Figure 122  
Section of the National Craft Museum.





*Figure 123*  
*The African Centre for Health and Population Studies*  
*Somkhele - Kwazulu-Natal*  
*Architects - East Coast Architects*  
*Using gum poles as a double column and as shading material.*

*Figure 124*  
*Habitat Research and Development Centre,*  
*Katatura, Namibia*  
*Architect - Nina Maritz*  
*Daily materials used for specific details at the centre and enrich the texture of the buildings.*





# TECHNICAL DOCUMENTATION



## The Building

The Art Centre is basically a low cost building. Thus, the use of standard components and construction details will be essential.

### Concept

The basic assumption is that simple construction works would be done by local workers, as part of a training process. Brickwork, steel work, plumbing and other basic components, could be “home made” elements, which achieve two aims: first, creating jobs for unemployed people and second, involving the community with the establishment of the centre from its beginning.

Using the scrap metal workshop as a main space for preparation, could be efficient for that purpose.

### Structure

A structure of load bearing walls is used in most of the centre’s components. Masonry columns with steel beams used to support roof overhangs.

All outdoor construction (shading etc.) consists of steel/brick components that demand low maintenance for the long term.

### Roof

The concept of the roofs is to have low pitch in order to create vast shaded areas while keeping

reasonable height. In addition, all slopes rise to the core of the centre to define its importance.

This concept requires corrugated sheet metal with IBR profile.

Roof structure in the exhibition hall and multi purpose hall combines laminated timber beams supported by masonry columns. This combination distinguishes the two halls, which have double volume space, from the other workshops. Still, use of timber keeps a warm feeling within the space.

Timber structure is used for all roofs in the workshops, to give a warm feeling within a community centre. The scrap metal workshop is the only one with a steel structure.

### Materials

Gates, windows louvres and hand rails are made of steel and when most of the work, as mentioned, can be done by local workers at the scrap metal workshop.

The outside walls are rough plastered painted with exposed brickwork for columns and benches.

Internal walls are plastered and painted.



## Solar Heating

In order to reduce electricity costs for water heating, solar systems will be allocated in high consumption facilities. Usage of solar systems will also serve an educational purpose.

### Assumptions

- Solar systems serve for showers and workshop sinks (toilet sinks don't need hot water).
- Costs - reduce electricity heating consumption by 80%.
- System's pay back period is between two and three years.

### Technical Database

- Normal system for sinks usage contains 200l tank and two panels.
- Panel angle to the north should be 30 degrees.
- Water tank should be higher than panels.
- Plumbing to be installed into masonry wall.

## Allocation of Solar Systems

### 1. MultiPurpose Hall

Consumption - two showers and one sink

Showers - 30l pp x 10p/day

Systems - 300l tank (with three panels) and 2--l tank (with two panels)

Installation - connecting to south pitch roof (5 degree) on metal sheets

### 2. Restaurant

Consumption - five sinks

System - 200l tank (with two panels)

Installation - on toilet's concrete roof.

### 3. Artist's Workshop and Ceramic Workshop

Consumption - five sinks

System - 200l tank (with two panels)

Installation - on concrete roof for demonstration purposes.

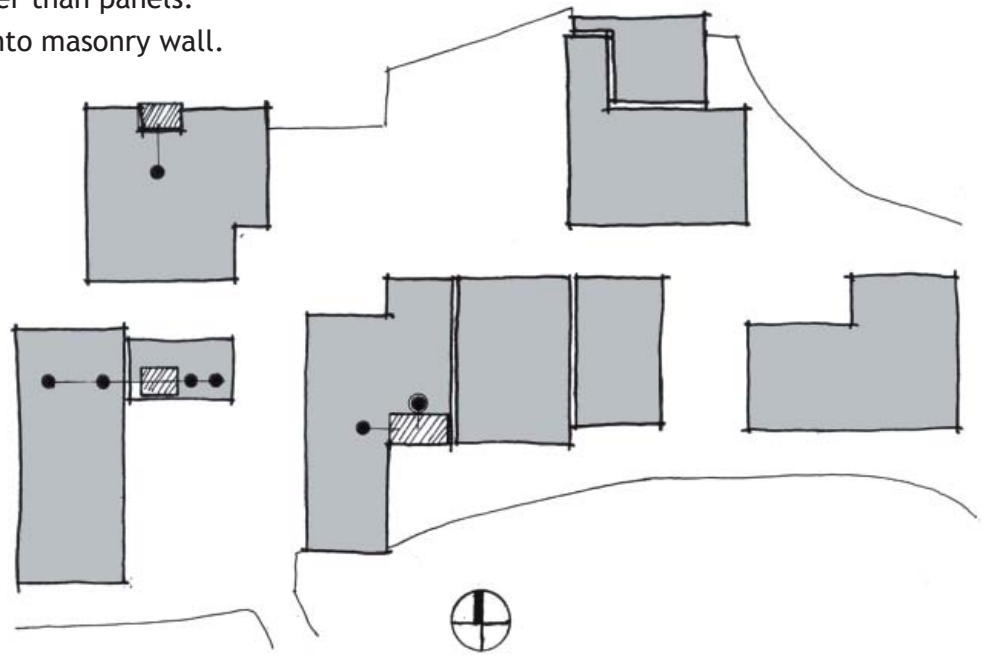
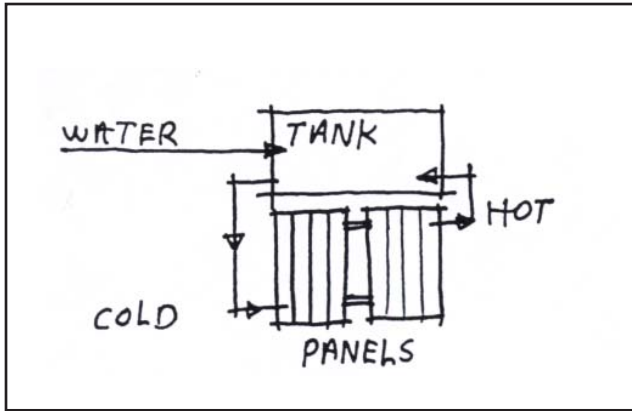
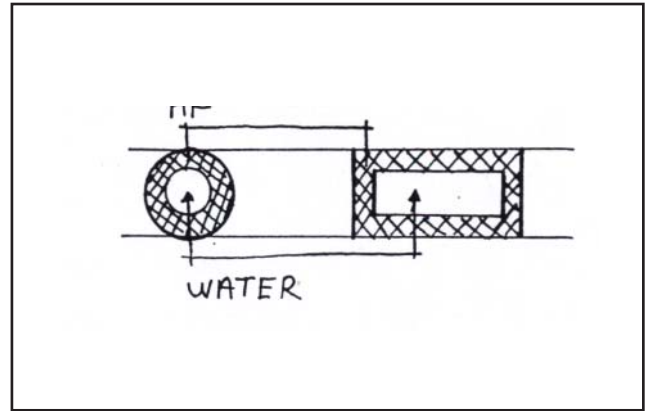


Figure 125

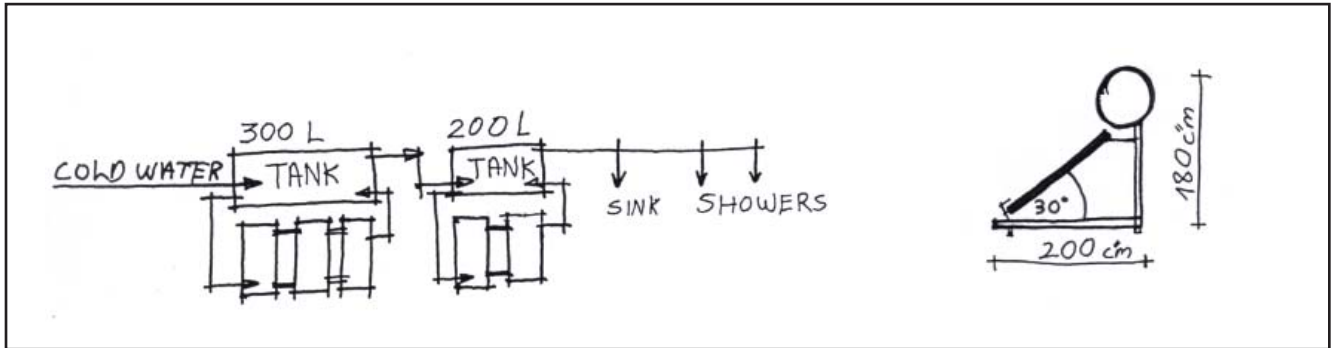
Allocation of solar systems.



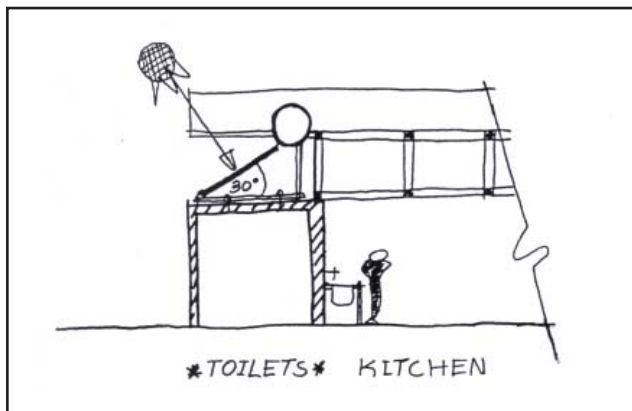
Solar scheme.



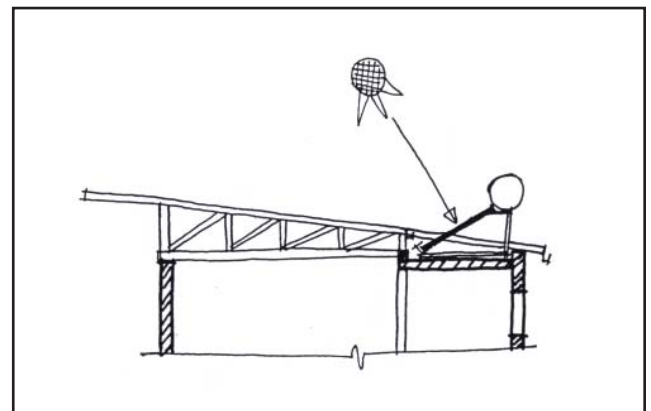
Solar tank. Cold water surrounded by Anti-freeze liquid.



Combined system for shower and sink.



Installation on the restaurant's roof.



Installation on the workshop's southern roof.

Figure 126  
Solar systems.

## Rainwater Harvesting

In order to increase economic water usage, water tanks, for rain harvesting, will be allocated near main toilets. Since toilet usage is the major water consumption, it could save a major amount of maintenance expenses.

### Assumption

- \* Rainwater harvesting to be used only for toilets (not for drinking/sinks)
- \* Water tanks serves toilets' facilities which are connected to them for vegetation watering.
- \* Water tanks capacity should be enough to gather rainfall of three average days (10 rainy days per month).
- \* Water tanks lean on a stand, which raise the water to cistern level.

### Data

Annual average rainfall (Johannesburg) - 713 m<sup>3</sup>/m  
 Total summer rainfall (October - April): 654 m<sup>3</sup>/m  
 Average monthly rainfall- 93m<sup>3</sup>/m  
 Average rainy days (1 m<sup>3</sup>/m +) per month: 10-15 days

## Allocation of Watertanks

### Exhibition hall

Roof surface - 290m<sup>2</sup>  
 Monthly water gathering from roof:  
 290m<sup>2</sup> x 93m<sup>3</sup>/m = 26.9 kilo litres  
 2.6 kilo litres per rainy day = Tank size  
 Consumption - 8 public toilets

### Scrap metal workshop

Roof surface - 200m<sup>2</sup>  
 Monthly water gathering from roof:  
 200m<sup>2</sup> x 93m<sup>3</sup>/m = 18.6 kilo litres  
 1.8 kilo litres per rainy day = Tank size  
 Consumption - washing area

### Multi purpose hall

Roof surface - 390m<sup>2</sup>  
 Monthly water gathering from roof:  
 390m<sup>2</sup> x 93m<sup>3</sup>/m = 36.2 kilo litres  
 3.6 cubic water per rainy day = Tank size  
 Consumption - 4 toilets + vegetation watering

### Environmental centre

Roof surface - 250m<sup>2</sup>  
 Monthly water gathering from roof:  
 250m<sup>2</sup> x 93m<sup>3</sup>/m = 23.2 kilo litres  
 2.3 cubic water per rainy day = Tank size  
 Consumption - 4 toilets + vegetation watering

### Demonstration flat roof

Roof surface - 60m<sup>2</sup>  
 Monthly water gathering from roof:  
 60m<sup>2</sup> x 93m<sup>3</sup>/m = 5.5 kilo litres  
 0.5 cubic water per rainy day = tank size  
 Consumption - education water tests + vegetation watering

## Restaurant

Roof surface - 250m<sup>2</sup>

Monthly water gathering from roof:

250m<sup>2</sup> x 93mm = 23.2 kilo litres

2.3 kilo litres per rainy day = Tank size

Consumption - 4 toilets + washing

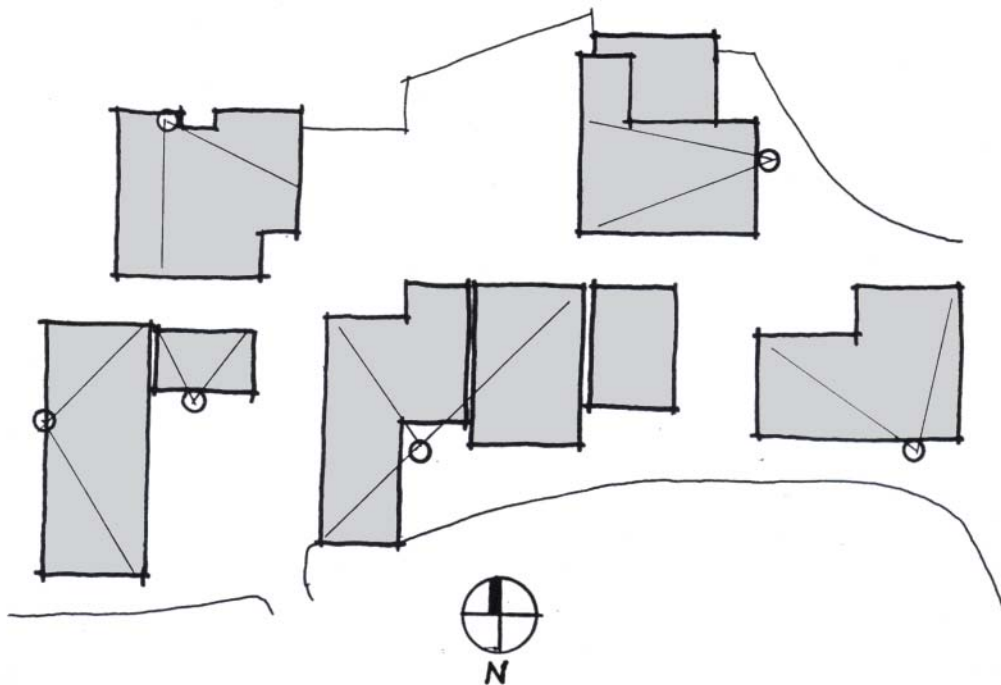
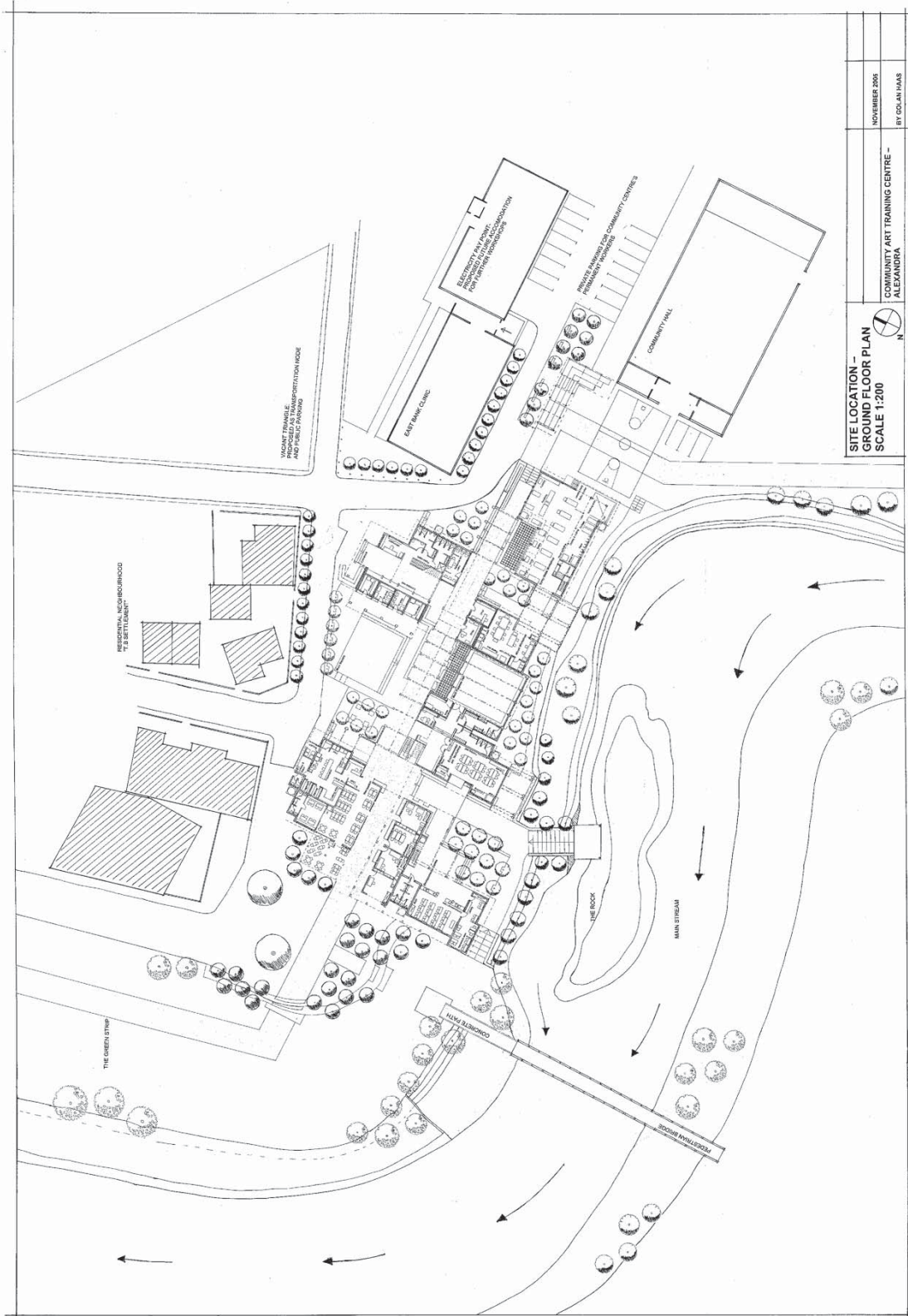


Figure 127

Allocation of water tanks in relation to roof slope.





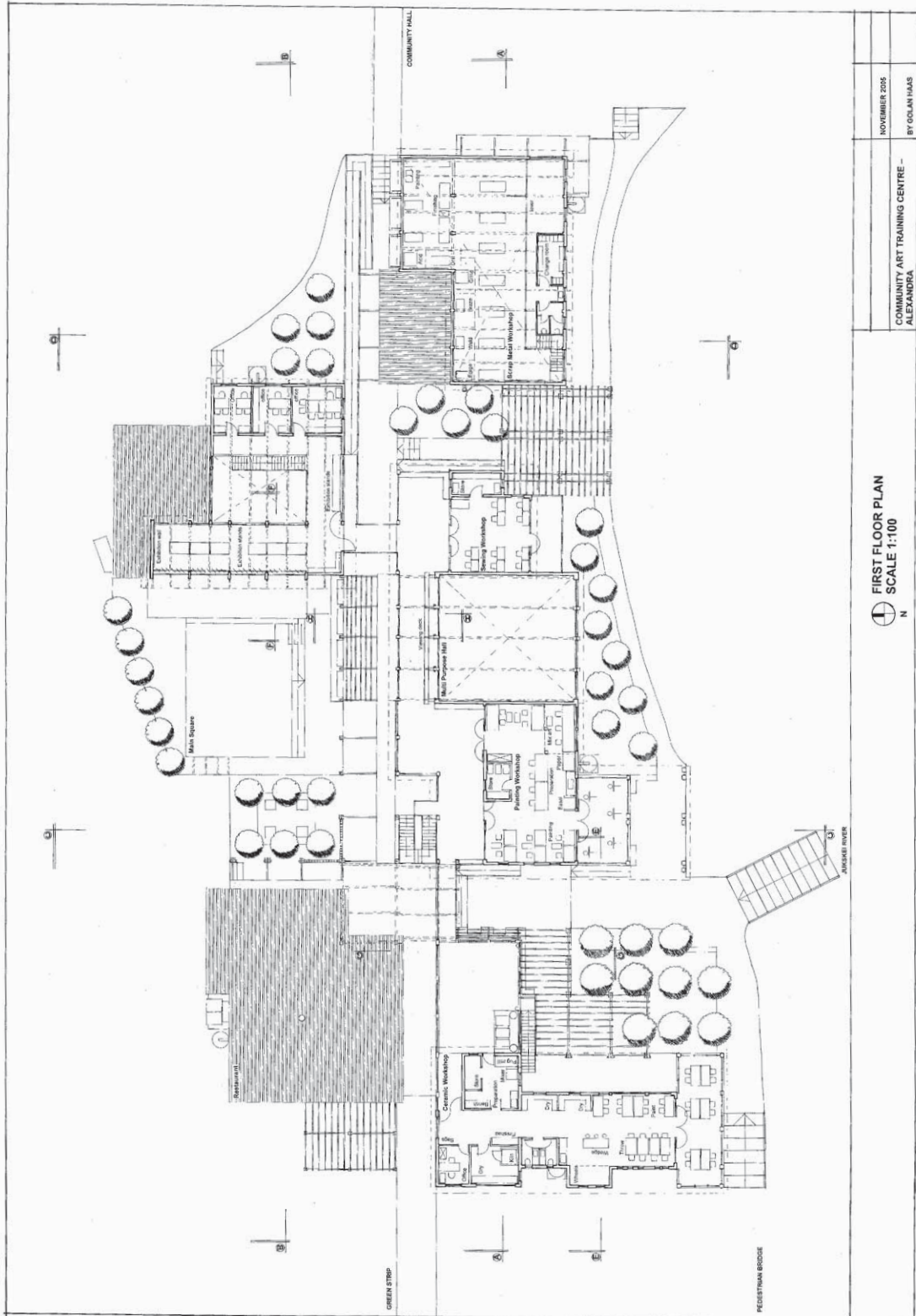
SITE LOCATION –		NOVEMBER 2005
GROUND FLOOR PLAN		BY EDUAN HAAS
SCALE 1:200		
COMMUNITY ART TRAINING CENTRE –		
ALEXANDRIA		



GROUND FLOOR PLAN  
SCALE 1:100



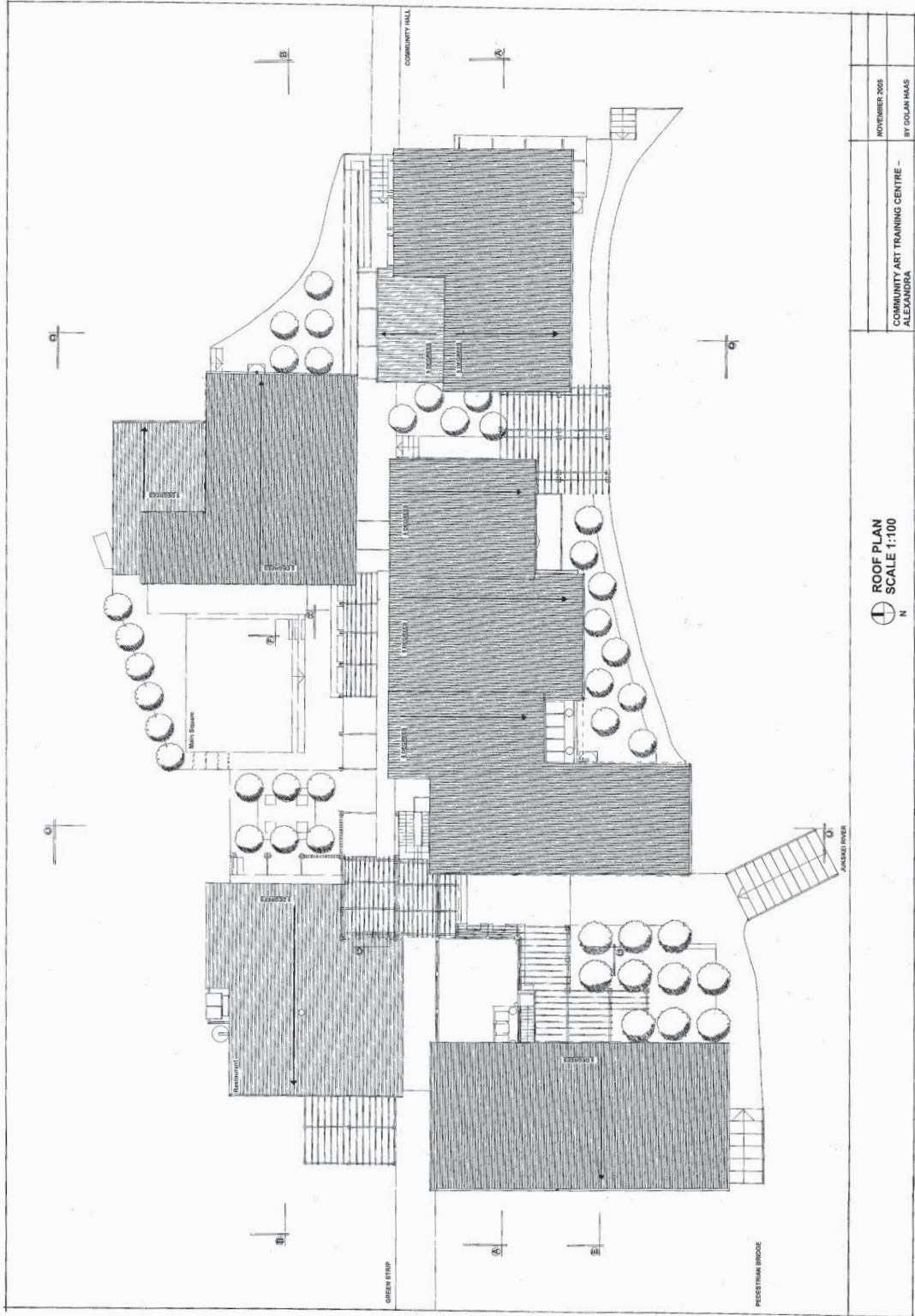
COMMUNITY ART TRAINING CENTRE – ALEXANDRA
NOVEMBER 2008 BY GOLAN HAAS



FIRST FLOOR PLAN  
SCALE 1:100  
N

NOVEMBER 2005
BY OCLAM HAAS
COMMUNITY ART TRAINING CENTRE - ALEXANDRIA





ROOF PLAN  
SCALE 1:100

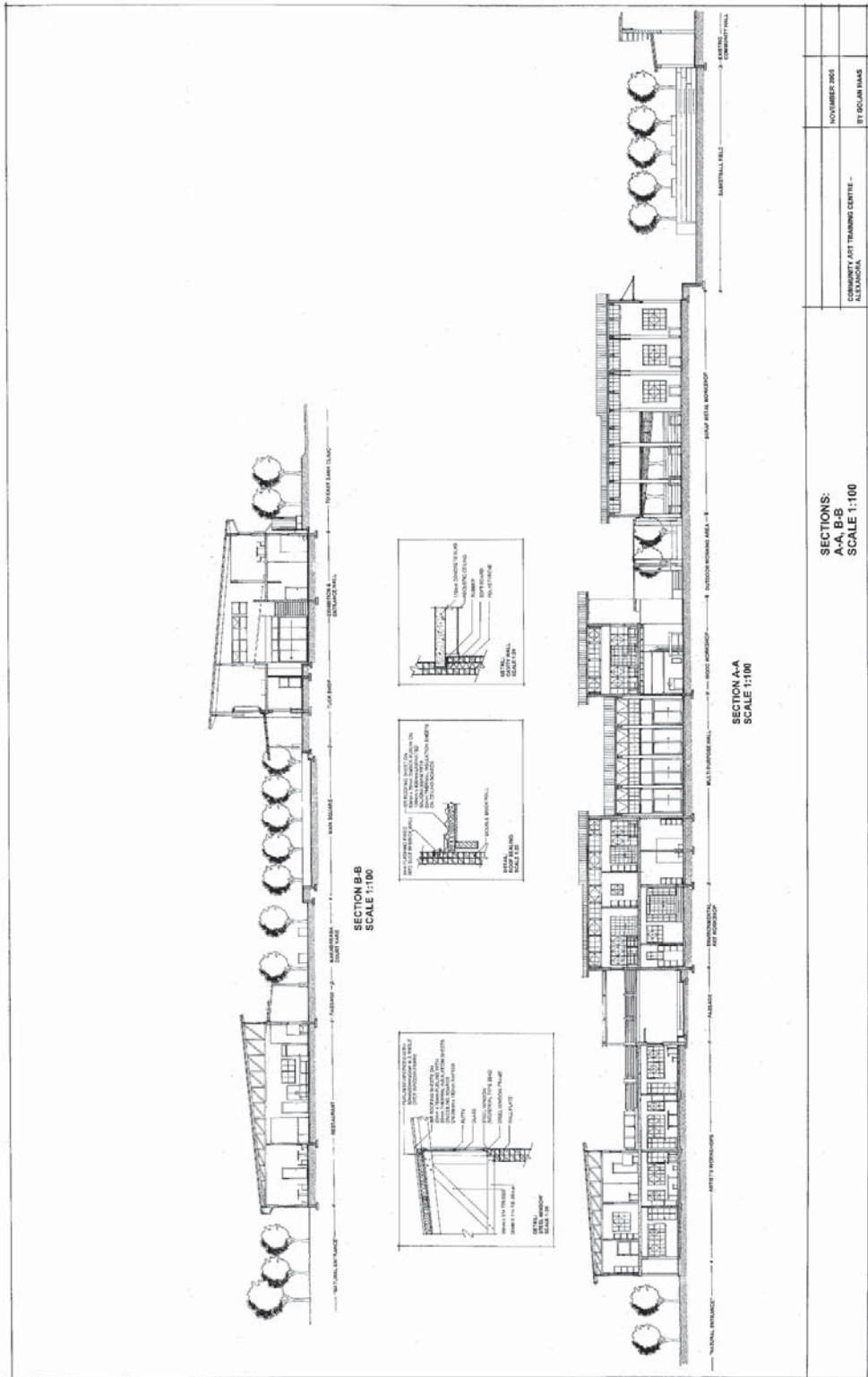


N

COMMUNITY ART TRAINING CENTRE –  
ALEXANDRA

NOVEMBER 2005  
BY GOLAN HAAS





<p><b>SECTIONS:</b> A-A, B-B SCALE 1:100</p>	
<p>COMMUNITY ART TRAINING CENTRE - ALEXANDRIA</p>	<p>NOVEMBER 2005 BY GULAN HAAS</p>

**SECTION E-E**  
SCALE 1:100

**SECTION D-D**  
SCALE 1:100

**SECTION C-C**  
SCALE 1:100

**FRONT ELEVATION**  
**PRESTOLA COLUMN**  
SCALE 1:30

**FRONT ELEVATION**  
**CANOPY COLUMN**  
SCALE 1:30

**FRONT ELEVATION**  
**HIGH COLUMN (ABOVE 3m)**  
SCALE 1:30

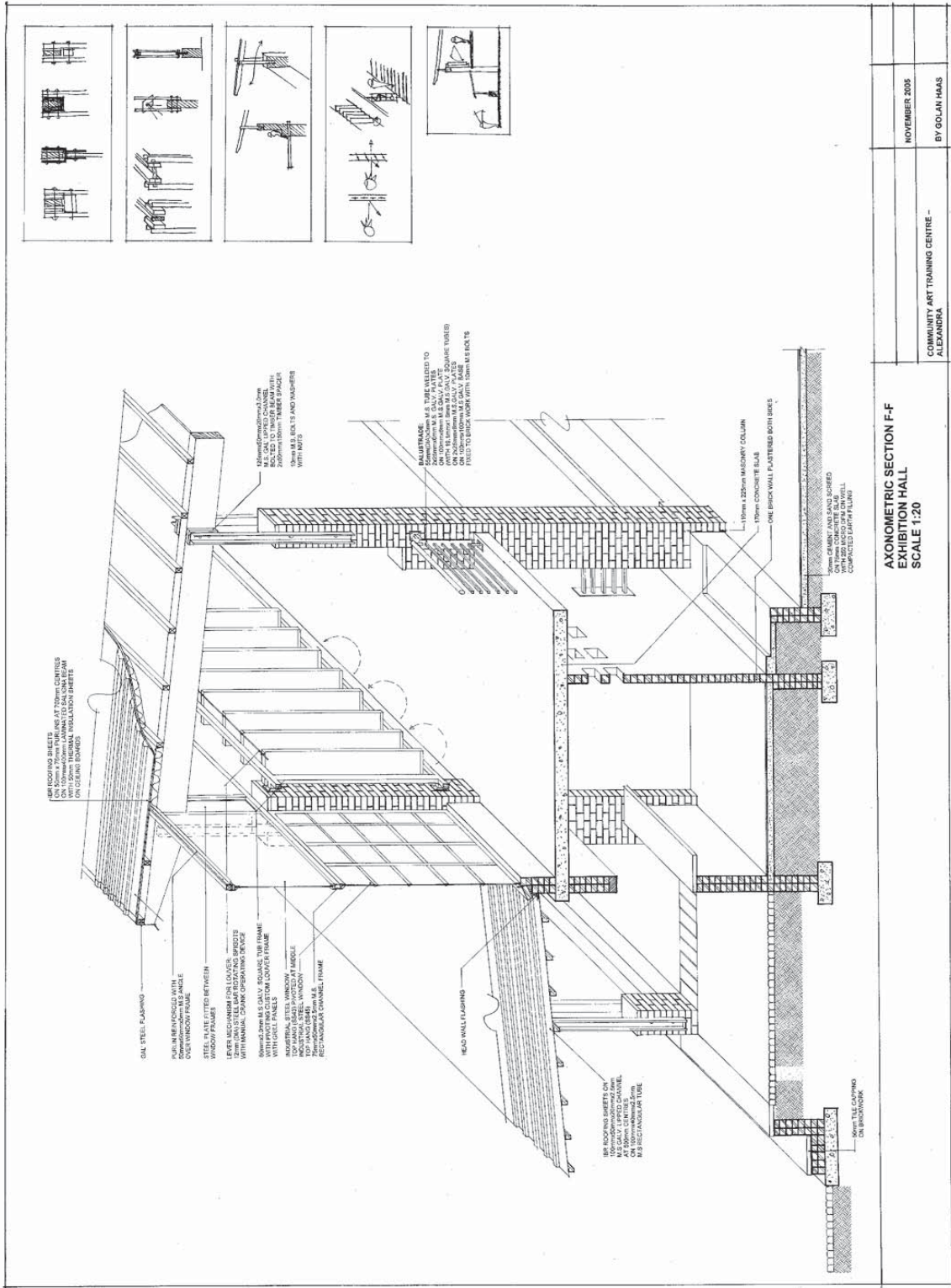
**FRONT ELEVATION**  
**ROOF SUPPORTING COLUMN**  
SCALE 1:30

**CONCRETE VERANDA**  
PLAN

**SECTION C-C, D-D, E-E**  
SCALE 1:100

**COMMUNITY ART TRAINING CENTRE - ALEXANDRIA**

NOVEMBER 2005  
BY GOLAN HAAS



AXONOMETRIC SECTION F-F  
EXHIBITION HALL  
SCALE 1:20

COMMUNITY ART TRAINING CENTRE –  
ALEXANDRIA

NOVEMBER 2005

BY GOLAN HAAS







## Financial Strategy

### 1. Calculation of design parameters

Site area	
Gross construction area m <sup>2</sup>	2,828
Coverage allowed	45%
Ground floor area m <sup>2</sup>	1,270
First floor area m <sup>2</sup>	205
Total paved area m <sup>2</sup>	1,020
Green Strip area m <sup>2</sup>	1,500
External parking m <sup>2</sup>	250

### 2. Estimated current building costs

Description	Total construction area of building - m <sup>2</sup>	Cost per m <sup>2</sup>	Total
Ground floor + first floor (Sum of ground floor area and first floor area)	1,475	R 4,200	R 6,195,000
Passage area	525	R 120	R 63,000
Landscape area (Gross construction area less Ground floor area less Total paved area)	538	R 70	R 37,660
Paved area	1,020	R 160	R 163,200
External parking (1 row x 15 bays)	250	R 120	R 30,000
<b>Building cost at start of construction</b>			<b>R 6,488,860</b>

#### ADD: Escalation

**R 483,394**

	Escalation	Cumulative
Pre contract escalation for 6 months period @ 0.5% p/m comp	R 194,666	
Building cost at start of construction		R 6,683,526
Construction escalation for 12 months period @ 0.6% p/m comp adjusted by Draw Down factor of 0.6	R 288,728	R 6,972,254
<b>Estimated total escalated building costs (start costs+ adjusted escalation)</b>		<b>R 6,972,254</b>

#### Add: Professional fees

**R 906,393**

	Per Item	Cumulative
<b>Professional fees @ 13% of total escalated building costs</b>		R 906,393

#### Add: Sundry fees

**R 64,000**

	Per Item	Cumulative
Legal fees	R 25,000	
Rates & Taxes @ 2,000 p/m	R 24,000	
Plan approval fees	R 15,000	R 64,000

<b>Total cost excluding land and cost of capital</b>	<b>R 7,942,647</b>
--	--------------------

<b>Add: Land related costs</b>	<b>R 454,200</b>
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	Per Item	Total
Land cost @ R150 per m <sup>2</sup>	R 150	R 424,200
Rezoning of 2 plots	R 0	R 0
River edge stabilization (100m) - N/C	R 0	R 0
Landscape development of Green Strip @ R20 Per m <sup>2</sup>	R 20	R 30,000

<b>Total costs before cost of capital</b>	<b>R 8,396,847</b>
---	--------------------

<b>Add: Cost of capital</b>	<b>R 396,138</b>
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	Item	Cumulative
Cost of capital for construction period @ 11% p/a - Land	R 46,662	R 46,662
Cost of capital for construction period of 12 m @ 11% p/a including Draw Down allowance factor of 0.4 - Construction	R 349,476	R 396,138

<b>Total project cost</b>	<b>R 8,792,986</b>
---------------------------	--------------------

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Alexandra Renewal Project: Urban Redevelopment Initiative.

<http://www.alexandra.co.za>

Learn To Earn: Skills Training and Job Creation Organisation.

<http://www.learn to earn.org.za>

## PERSONAL CONNECTIONS:

Jho Manana. CHAIRMAN: Alexandra Chamber Of Commerce. February/March 2005.

Neels Letter. Director for infrastructure. ARP - REGION 7. April 2005.

Galit Cohen, Fumane Phatedi. "MA'AFRICA TIKUN". January/March/August 2005.

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My wife, Sharon, and my children,  
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Professor Karel Bakker

Architect Michael Hart

Joan and Yoram Gur - Arie

Golan Haas