STREEKSTAAL

Urban Analysis + Context + Framework

Context.
Urban Analysis

LOCATION

African Union

South Africa

By P. South Africa

According to the United Nations High Commissioner for Refugees, the lack of structured and democratic governments is insufficient use of natural resources and low employment opportunities drives hundreds of immigrants over South Africa borders every day in the hope of finding a better livelihood. United Nations High Commission for Refugees 2012.

Currently, Olivenhoutbosch houses international immigrants from Nigeria, Malawi, Somalia, the Democratic Republic of Congo, Zimbabwe and Mozambique (SMCR 2012). This vast diversity of cultures partnered with a very high crime rate caused the xenophobia reaction in 2008 and 2009. However, it is not only the international immigrants that cause the diversity of culture within Olivenhoutbosch. A multitude of refugees from the East Coast of South Africa are currently being with family and friends within the township due to droughts in 2010 and 2011 (Olivenhoutbosch 2012).

According to Mr. Shikumbane, local school principal, this has particularly made the educational system very difficult. Schools haven’t rented for a variety of languages, including IsiZulu, Afrikaans, Twana, Khosa and Zulu. Also, children are not forced to play with one another across cultural boundaries. It is the opinion of the author that the lack of sport programs at schools could provide prejudice between cultural groups. Sport is a language that transgresses cultural and linguistic barriers and it is of central importance to enforce intercultural exchange among scholars from a young age.

Olivenhoutbosch, in Pretoria, South Africa will be the ideal setting for the proposed sport-for-development architectural intervention. NGO’s such as Telkom Learn to Swim, the United Nations High Commission for Refugees, Gustonics Soccer and Fieldball South Africa all situated within Gauteng and within range of the proposed facility.

Touring international teams will be able to use the facilities for training and competing against local talent.
**Historic Summary**

The illustration clearly depicts the morphological nature of Olivenhoutbosch from 2005 to 2011. This is due to the sudden development of informal housing on the western side of the RSS in 2007 to 2009 followed by the relocation of those residents to RCP focusing on the Eastern side of the RSS between 2009 and 2011. Currently, the only permanent residential area on the Western side of the RSS is Extension 4, as indicated.

For further analysis, the author will focus on the developing area and their influence on the proposed site for intervention and architectural response.

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**Expansion + Development**

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**Heritage**

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Fig 39.2. North map of Olivenhoutbosch.

Fig 40a. Ruins of Oldskool rise.

Fig 40b. Ruins of Oldskool rise.

Fig 40c. Ruins of Oldskool rise.
**Transport and Schools**

**Intention**

The diagram depicts the disconnectedness of the western areas of the township to the road grid as a result of the camouflage by the nature of the townships’ transportation nodes on the East. The intention is to create an internal transport system within the community that will not only link East with West but also North with South.

This proposal of a system will mitigate interaction among different cultural groups that tend to cluster together within the different respective extensions as well as interaction amongst schools.

**Access**

**Proximities**

The reasons for the rapid expansion of Obenwengeshoek lie in its geographic location with relation to Centurion, Midrand and Sandton.

According to the census of 2001, 60% of the population is 30 years and younger, 24% self-employed and 26.5% unemployed. This results in a powerful labour source that is dependent on public transport to the respective CBDs.

**Roads**

The road conditions within the township is one of the primary reasons for the unbalanced distribution of transportation nodes. The figures above indicate the gradual progression of gravel roads on the southern areas to more formalised tarred roads on the northern hemispheres of the township. At closer investigation the footpaths indicate that the primary pedestrian movement occurs along a East-West axis, especially along the strip of interconnected green spaces that form a belt across the width of the township, as shown in Fig 42.
**DIVISION AND DENSITY**

Current connecting route

The connecting route spans through different zones and reflects the inherent densities and road conditions throughout. These zones are divided by overhead Edison power lines and the notorious RES road that is responsible for the death of the local children in the last three years (Dhiklawinda 2012). Further analysis will occur along the analysis spine by identifying nodes and activity spaces than run parallel to or intersect with the chosen route.

The aim is to establish a connection between nodes by means of promenades, green spaces and pedestrian bridges that are informed by the investigated theories to make urban design decisions. These urban design decisions will ultimately aid in the process of community building and provide a platform for the architectural interventions.

**ANALYSIS NODES**

Occupancy per lot [5 people]

Occupancy per lot [13 people]

Occupancy per lot [33 people]

At every analysis node, the interface between the public and private realms differs.
GREEN SPACES AND EXISTING SPORT FACILITIES

Background
Currently, most of the green spaces within the township are informal pieces of land around the fluctuating areas of two water springs. These green spaces pose potential for the establishment of parks and sports but are currently unused. Injuries and dangers in terms of crime and violence as well as occasional flooding. In 2010, two young boys drowned during the rainy season when they attempted to cross one of the streams on their way back from school. The municipality canalized the water streams to avoid damages but this only intensified the velocity of storm water and made these streams even more dangerous.

Intent
The Streams: Both streams on Glenhindiebush sprout from a subsurface spring and flow in a southeasterly direction where it joins the Roodepoort river. The potential of these streams should be optimised by rehabilitating the indigenous plant life, aquatic and bird species and for irrigation of community gardens.

Bridges: As mentioned above, there is a need for bridges that create safe passage for people over the streams. These bridges will ultimately aid in connecting a divided community.

Surroundings: The Eikembere power lines currently divide the community in three zones. These three zones have very different identities and densities. The intent is to utilise the areas within the surroundings for agricultural purposes and re-use Functional park space

Existing Parks: The existing parks are used for play and performance by the local community. The intent is to replace these parks and connect them where possible with safe walkways that connect nodes with educational routes.

The public/private interface
The sections are drawn to analyse the effect that architectural elements such as lighting, land elevation, width of walkway, scale and surface material has on the interface or threshold that determines public and private space.
A thorough understanding of the flavour and identity of the host community will provide the design with an intangible undertone that communicates with the subconscious of the user.

Transport
Considering the poverty rate within the township, it is not uncommon that most of the residents are dependent on public transport. Taxis are the most common means of public transport. But due to recent events of taxi violence in 2011, the government issued a fine that ‘grounded’ taxis for a certain period of time. Tshwane buses have been employed to fulfil the role of the mini bus taxis, but according to Karim Kroue, journalist for the Beeld, residents are unhappy with the bus system as drivers drive recklessly (Beeld 2011: 6).

The flavour of the community refers to the intangible elements that cannot be directly analysed but only understood when the architect allows himself to engage with the community and understand how they think, live and interact.
What is striking when observing the community of Olievenhoutbosch is the amount of umbrellas, thus, the author refers to it as ‘Umbrella town.’ Umbrellas are used in all weather conditions to protect the individuals from the elements, whether rain or shine. The umbrella has a flexible characteristic by which it transforms from an object into a space creator. These spaces can suggest directionality, safety, unity, romance and relaxation. These characteristics should amalgamate in the architectural response.

- Absent space
- Present space
- Directional
- Romantic space
- Relaxed space
- Kinetic value of facade or roof
- Sheltered space
The Players
Olievenhoutbosch has a Top 8 league in soccer and Top 4 league in netball. Every team has five different age groups that compete with teams from Attrigeville, Desplatoft and Alexandra. Only two fields are available for the young teams to play and only on Saturday mornings, as the other members of the community occupy the gravel pitches on Saturday afternoons and Sundays.

For 24% of an estimated 180 000 residents, the ‘game’ is self-employment. This ranges from brick making, metal and plastic recycling, entrepreneurship etc. Some of the other more fortunate residents work as domestic workers (women) and builders (men) in nearby developing communities.

The ‘Games’
Urban Framework Design

Introduction

The most challenging aspect of township architecture, especially on a greenfield site, is the absence of permanent built form and structure. Existing built form provides the architect with constraints and opportunities to respond to and essentially give form to the architecture.

Oleverenhoekbosch started to develop in 1996 and given its adolescent state, the township has very few plans of heritage value. This deprives the architect of the opportunity to respond to the past.

This emphasizes the importance of the framework design. The framework allows the architect to respond to something that will eventually influence everyone. It creates the platform to design buildings that evaluate the present condition and respond to the future.

A public building possesses the inherent potential to become a node in a network of future developments and thus becomes the stimulus in the process of creating a new urban condition.

A process by which molecules of a solvent tend to pass through a semipermeable membrane from a more concentrated solution to a less concentrated one, thus equalizing the concentrations on each side of the membrane.

Osmosis

The concept of the framework (osmosis) developed as a response toward a stake community that is divided by a series of membranes.

These membranes range from physical objects of separation to cultural divides. The framework attempts to establish a flow that will cause the water molecules to move across boundaries.

The trigger to this reaction is the introduction of a polar molecule (sugar, noted) that will initiate the movement of the water molecules across the problematic.