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The people of Slovo Park, for guiding my critical stance on social Architecture and accepting me into their homes, that I will forever carry.
My parents, thank you for constantly reminding of what I should be doing.
PLATFORMS of ENGAGEMENT

Submitted in partial fulfillment of the requirement for the degree
MArch (Prof)
Faculty of Engineering, Built Environment and Information Technology
University of Pretoria
South Africa

Study Leaders:
Ida Breed
Barbara Jekot

Year Coordinator:
Jacques Laubscher

Mentor:
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JHONO BENNETT
10231341
DEPARTMENT OF ARCHITECTURE
BOUKUNDE 2011
The South African population has been experiencing an unprecedented rate of urbanization that has left government bodies struggling to meet the qualitative and infrastructural demands of the emergent sector in undeveloped areas. (Todes et al., 2007: 14)

This dissertation aims to focus on the intensive networks found in these developing areas of vulnerability that display strong cohesion due to activities surrounding the production process. The premise presented is that in order to intervene architecturally with these networks, designers should critically engage these networks through participative processes of research, design and ideally construction.

Through the authors own process of engagement, several key architectural principles for an intervention emerge. Primarily the concept that a built intervention in a vulnerable settlement should first seek to associate itself with a network for its initial survival, and then aim to exist in a symbiotic relationship with this network through a mutually beneficial relationship.

A context specific intervention programme is thus proposed based on the process of engagement, and guided by the observed genius of the site.

What emerges is a piece of architectural infrastructure that aims to facilitate ground-up-growth, while guiding larger scale development. This unit of growth allows network members to take ownership through a self-build building and control system.

This 'Infra-tecture' piece is then hypothetically placed on-site, and a small section of the larger development is explored architecturally with an identified network as user.
LOCATION: PIENAARSPOORT, EXT 12
MAMELODI, GAUTENG
SOUTH AFRICA

25°44'43.43"S
28°25'36.31"E

PROGRAMME:
CEMENT DEPOT IN A
PUBLICLY DEVELOPED PRECINCT

Illus. 2 Location and Programme of Dissertation (Author, 2010)
Historical flux around development of Mamelodi (Author, 2011) (Nice & Walker et al, 1991)

The author involved in a process of critical engagement in Slovo Park (Author, 2010)

A new RDP scheme being handed over in Mamelodi, an example of the fluxual dynamics of South Africa’s current Context (Author, 2011)

Diagram depicting the Methodology of emergence through states of fluxual growth as seen in Mamelodi (Author, 2011)

Double Storey Self-build onto RDP (Author, 2011)

Analysis of respect as a social organism (Author, 2011)

GAPP FRAMEWORK PROPOSAL & site of intervention (GAPP, 2010)

Interaction Centre - Mobile elements within ordered structural system (GAPP, 2010)


Diagram depicting the appropriation of support and infill (http://www.elementalclinic.co.za/viendelas/quinta-mornero/quinta-mornero, 2011)

Diagram depicting the discovered network of production around cement brick makers (Author, 2011)

Identification of connections between brick makers and supply points through lens of participation (Author, 2011)

Diagram depicting the analysis of network through respect as a social organism (Author, 2011)

Diagram depicting the network of social capital (Author, 2011)

Diagram depicting an example of extraction of strengths, weaknesses, threats and opportunities of network through a process of participation and engagement (Author, 2011)

Mindmap of ideas from process that led to research and eventual design (Author, 2011)

Author undertaking the process of engagement (Author, 2011)

Diagram depicting the brick makers process of appropriation (http://www.elementalclinic.co.za/viendelas/quinta-mornero/quinta-mornero, 2011)

Profiles of cement brick makers in Mamelodi (Author, 2011)

Diagram depicting the discovered network of cement brick makers around Slovo Park (Author, 2011)

Diagram depicting the relationship between brick makers and supply points around Slovo Park (Author, 2011)

States of observed flux within self built homes (Author, 2011)

Diagram depicting the states of flux within Mamelodi homes (Author, 2011)

Observation related between temporary brick makers and permanent housing around Slovo Park (Author, 2011)

Observation related between temporary and permanent building elements in structural growth (Author, 2011)

Double Storey Self-build onto RDP (Author, 2011)

RDP with potential future growth (Author, 2011)

RDP with sheet addition and brickworks waiting (Author, 2011)

Building with future bricks laid in yard (Author, 2011)

Diagram depicting the Methodology of emergence through states of fluxual growth as seen in Mamelodi (Author, 2011)

Interpretation of Habraken’s patterns of permanence in settlement (Author, 2011)

Larger connections between RDP and brick makers through temporary housing, (Author, 2011)

Simplification of current human permanence being replaced by digital temporality and mobility - 21st Century (Author, 2011)

Diagram depicting elements of flexibility in Architecture and examples (IfStt, 2011) (Author, 2011)

Diagram depicting where the niche intervention lies within the tangible and intangible networks (Author, 2011)

Occur: Platforms of engagement (Author, 2010)

Location and Programme of Dissertation (Author, 2010)

A new RDP scheme being handed over to Mamelodi, an example of the fluxual dynamics of South Africa’s current Context (Author, 2011)

Mamelodi residents moving temporary home to make way for RDP (Author, 2011)

The author involved in a process of critical engagement in Slovo Park (Author, 2010)

Frame and infill hierarchies as described by Habraken (Habraken, 2011: http://www.habraken.com/html/downloads/type_as_a_social_agreement.pdf)

Fig: 1 Project Synthesis Diagram (Author, 2011)

Fig: 2 Urban and rural population by development regions in millions (GN, 2007: 23)

Fig: 4 Calculation of timespan (Fig: 2006: 29)

Fig: 5 Rates of urbanisation for the last century in South Africa (Kok & Collinson, 2006: 22)

Fig: 11 Example of a Network of Cohesion, A group of Women workers in Protest (GN, 2007)

Visual Thessaurus exploration of terms around ‘Networks’ (Author, 2011)

Diagram depicting the connections within a family network (Author, 2011)

Diagram depicting networks around family network (Author, 2011)

Layering of networks to gain better understanding of the connections (Author, 2011)

Analogy of the social organisin in regard to networks (Author, 2011)

Concept for analysis of networks, a social organism (Author, 2011)

Visual Thessaurus exploration of terms within ‘engagement’ (Author, 2011)

Diagram depicting the author’s understanding of participation (Author, 2011)

Slovo Park: Engagement through research (Author, 2011)

Slovo Park: Engagement through participation (Slovo Group, 2010)

Slovo Park: Engagement through construction 2 (Author, 2010)

Slovo Park: Engagement through process (Author, 2010)

Slovo Park: Engagement through completion of Slovo Hall (Author, 2011)

Diagram depicting the network of social capital (Author, 2011)

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Diagram depicting the states of flux within Mamelodi homes (Author, 2011)

Models of self-sufficient communities in Mamelodi (Author, 2011)

Diagram depicting the discovery of network around cement brick makers around Slovo Park (Author, 2011)

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States of observed flux within self built homes (Author, 2011)

Diagram depicting the states of flux within Mamelodi homes (Author, 2011)

Observation related between temporary brick makers and permanent housing around Slovo Park (Author, 2011)

Analysis of the industrial part of the intervention (Author, 2011)

GAPP FRAMEWORK PROPOSAL & site of intervention (GAPP, 2010)

The framework proposol development for Mamelodi (Author, 2011)

Key frames of framework plan (Author, 2011)

Proposed Framework by Author for Development (Author, 2011)

Proposed Development by Author for Development (Author, 2011)

Summary of analysis Elements found in Framework Area (Author, 2011)

Identification of Temporary & Permanent Mobility Elements in Mamelodi (Author, 2011)

Identification of Temporary & Permanent Elements in Slovo Park (Author, 2011)

Identification of Movement Routes in Pienaarspoort (Author, 2011)

Identification of activities in Point, line, plane and volumetric context - (Author, 2011)

Diagram depicting the network of social capital (Author, 2011)

Diagram depicting the analysis of network through respect as a social organism (Author, 2011)

Diagram depicting an example of extraction of strengths, weaknesses, threats and opportunities of network through a process of participation and engagement (Author, 2011)

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Author undertaking the process of engagement (Author, 2011)

Diagram depicting the symbolic capital - the act of self guidance and control (Author, 2011)

Permanent structural elements exemplifying their temporality - the bricks (Author, 2011)

Mamelodi in context (Author [GAPP, 2010:56], 2011)

Permanent structural elements exemplifying their temporality - the bricks (Author, 2011)

Symbol of the social capital - the act of self guidance and control (Author, 2011)

Diagram depicting the analysis of network through respect as a social organism (Author, 2011)

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Permanent structural elements exemplifying their temporality - the bricks (Author, 2011)

Symbol of the social capital - the act of self guidance and control (Author, 2011)
GLOSSARY OF TERMS

COMMUNITY - In this dissertation the notion of the community has been replaced by concept of the relationships between people and place within an intangible network.

CRITICAL ACTIVISM - term describing the academic stance on social issues that require objective and productive activist attitude.

GROWN/GROWTH - used in place of development or structural construction. The term growth implies a more organic process of development.

GROUP AREAS ACT - The mandate law segregating the people of South Africa into areas by race, enforced by the government during Apartheid.

NETWORKS - dissertational term used to replace the relationships that currently define ‘community’.

RDP HOMES - Reconstruction and Development Programme Government subsidized housing

RESILIENCE - the term indicative to the ability to survive and bounce back from adversity in any form; political, natural social etc. (Hamdi, 2010: 54)

SELF-BUILD/SELF-BUILT - Structures built by inhabitants of permanent materials (bricks, steel or concrete)

SOCIAL CAPITAL - networks and alliances and neighborhoods not easily visible. through quantitative methods of analysis. (Hamdi, pg 80, 2010)

STALLETJIE - roadside stand selling vegetables, cigarettes, airtime e.t.c

MOKHUKU/SHACK/ZOZO - Term to describe temporary housing made from sheet metal or any other ‘temporary’ material.

URBANIZATION - process of transition from a rural to a more urban society. Statistically, urbanization reflects an increasing proportion of the population living in settlements defined as urban, primarily through rural-to-urban migration.

URBAN GROWTH - increase in the number of people who live in towns and cities, measured either in relative or absolute terms. (UN, 2007:6)

URBAN TRANSITION - passage from a predominantly rural to a predominantly urban society. (UN, 2007:6)

VULNERABILITY - term used to describing defenselessness, insecurity and exposure to risk, shocks and stress.

Vulnerability stands out as recurrent concerns of people living in poverty which professional definitions of poverty overlook. (Hamdi, 92;2010)
PLAGIARISM DECLARATION

In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and theses, I declare that this dissertation, which I hereby submit for the degree Master of Architecture (Professional) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

I further state that no part of my dissertation has already been, or is currently being, submitted for any such degree, diploma or other qualification.

I further declare that this dissertation is substantially my own work. Where reference is made to the works of others, the extent to which that work has been used is indicated and fully acknowledged in the text and list of references.

Signature: ________________________________

Jhono Bennett