

TOWARDS EFFECTIVE SELF-HELP HOUSING DELIVERY:
CONTRIBUTIONS THROUGH NETWORK ANALYSIS IN NAIROBI,
KENYA AND JOHANNESBURG, SOUTH AFRICA

Alfred Odhiambo Omenya

Thesis submitted to the Faculty of Engineering and the Built Environment, University of the Witwatersrand, in fulfilment of the requirements for the degree of Doctor of Philosophy (Architecture).

Johannesburg, 2006

Dedication

This work is dedicated to my wife, Tabitha and my son Carey, whose personal sacrifices have made my studies possible.

Acknowledgement

I would like to acknowledge the contributions of: my supervisor and academic mentor: Prof. Marie Huchzermeyer; the invisible, yet invaluable contribution of my parents, Joseph and Marsella Omenya; the support of members of staff of the School of Architecture and Planning, University of the Witwatersrand, especially former Head of School, Prof. P.G. Raman and former Head of Department of Architecture, Prof. Lindsay Bremner. I would also like to thank the committee that agreed to read my draft report, including: Prof. Phillip Harrison; Postgraduate and Research Committee Chairperson, Dr. Aly Karam; Dr. Daniel Irurah from the Department of Architecture and Fana Shilongonyone from Planning Department, Wits University. I would also like to acknowledge the following fellow PhD students in the school of Architecture and Planning for finding time to go through parts my draft chapters: Stanley Gichia, Salah El-zain, Georgine Peter and Grace Lubaale. In the same vain I would like to acknowledge my long-term friend and PhD comrade, in Wits School of Public and Development Management, Collins Miruka. I would like to thank Prof. Marcio Valença of University of Rio Grande do Norte, in Brazil, for finding time to go through aspects of my work and pointing me to some literature and Dr. Paul Jenkins, of Herriot-Watt University, in Scotland, for some initial ideas on networks and for general intellectual support. I also had useful discussions with Prof. Marcello Lopes de Souza from Brazil and Prof. Xavier de Souza Briggs of Massachusetts Institute of Technology (USA) who pointed me to some network literature, while Dr. Malcom Tait, University of Sheffield, U.K., helped me prepare a paper for publication. I also had useful discussions with Prof. Washington Olima, Dean School of the Built Environment, University of Nairobi. I got a lot moral support from the Principal, College of Architecture and Engineering, University of

Nairobi, Prof. Francis Aduol and colleagues from the Faculty of Architecture, Design and Development, University of Nairobi.

This work would not have been possible without generous sponsorships of the German Academic Exchange Services (the DAAD); my other sponsors, the University of the Witwatersrand, who awarded me the Postgraduate Merit Award for four years running and my employers the University of Nairobi. The DAAD team including a friend, Dr. Ingrid Lauren, Michaela Mix of the Bonn Office and Inger Seitz of German Embassy in Pretoria, ensured that I was always comfortable in South Africa. Additional support came through teaching both in the Postgraduate Programme in Housing and at Department of Planning in Wits. I would like to recognise the contributions of research assistants, especially Ben Omenya, who coordinated the Nairobi fieldwork and many other people who contributed directly or indirectly to my studies at the University of the Witwatersrand, between 2002 and 2005.

Sections of this study have been subject to seminars, conferences and publications, including the ones described hereafter. Theoretical material from Chapter Four and case study materials on Dandora and Ivory Park (from Chapters Five and Six respectively) was published as conference proceedings at the *National Conference on Housing in the Next Decade: Quo Vadis?* Cape Town, 3rd to 6th October 2004, under the title: “Housing networks in different political economies: the cases of Ivory Park, Johannesburg and Dandora, Kenya”. Some material, in Chapter Three and Four, was used to develop the publication: Omenya, A. (2005) A Networks Approach to Understanding the Role of the Market and the State in Housing: the Cases of Nairobi, Kenya and Johannesburg South Africa, *Discovery and Innovation*, 17(3/4): 148 - 155). An earlier version of the paper was published as conference proceedings in an international conference on *Housing in the 21st Century, Challenges and Commitments*, in Hong Kong, 2nd- 4th February 2004. Some material from Chapter Six was used in another conference paper: Omenya, A. (2004) “Myths and realities of segregation in post-apartheid human settlements in Johannesburg”, presented at an *International working-conference on Countering Urban Segregation*, Amsterdam, 14th-15th October 2004. Sections of Chapter Three contributed

to a conference paper: Omenya, A. & Talukhaba, A. (2005) “Bottlenecks of access to housing finance by the low-income in Kenya and South Africa”, presented in the Construction Industry Development Board (CIDB) Conference, Johannesburg, October. The paper received an award for the best paper in that conference and has been accepted for publication in *Development Southern Africa*. Some material from Chapter Three has been used in a paper titled: “A thin veil of protection: fragility of informal tenure in Nairobi and Johannesburg”, presented at an international conference on: *Homelessness a Global Perspective*, New Delhi, India 9th – 13th January 2006. At a more general level, the study on housing policy in Nairobi informed the book chapter: Omenya, A. & Huchzermeyer, M. (2006) Slum upgrading in the complex context of policy change: the case of Nairobi, Chapter 15 (pp290-311) in Huchzermeyer, M. & Karam, A. (Eds) *Perpetual Challenge? Informal Settlements at the Local and Policy Level*. Cape Town: Juta/UCT Press.

The research work, in progress, was awarded the ‘Housing Student of the Year Award’ (2004) by the Institute for Housing in South Africa (Gauteng Branch).

Declaration

I declare that this research thesis is my own, unaided work. It is being submitted for the Degree of Doctor of Philosophy (Architecture) in the School of Architecture and Planning, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

10th day of October 2006

Abstract

This thesis deals with self-help housing networks in Nairobi, Kenya and Johannesburg, South Africa. It starts by discussing some of the current manifestations and challenges of self-help housing in the two contexts. It locates these against neo-liberal development paradigms in Kenya and South Africa. It reviews some of the main theories and concepts that have been applied to understand self-help housing, arguing that there are many issues that these lenses fail to explain. Amongst these are the relationships amongst actors and the ways resources are exchanged in self-help housing. The thesis discusses some of the key resources used for self-help housing in Nairobi and Johannesburg, namely: land, finance, labour, materials and technology, and infrastructure and services. It develops a case for network analysis of these resources and actors in self-help housing.

The second part of the thesis is dedicated to analysis of self-help housing networks in Nairobi and Johannesburg, based on empirical data. The three categories of networks analysed are: individual-based ego-centric networks; group-based networks of collective action; and content-of-ties-based networks of exchange. The study compares self-help housing networks in Nairobi and Johannesburg. On one hand, lack of the state intervention in Kenya has resulted in self-help housing in Nairobi being accessed almost exclusively through networks. On the other hand, state intervention in South Africa has resulted in weakening of ties within local groups and domination of state/market hierarchies in access to various self-help housing resources in Johannesburg.

The major conclusion from this study is that, in both cities, networks remain a viable third way of provision of housing, in addition to (not instead of) housing production through state/market hierarchies and decentralised models. Networks tend to overcome lack of inclusion dominant in state/market hierarchies and lack of capacity, endemic in decentralised models. In terms of analysis, the study shows that network theories are relevant to understanding the operations of actors and access to resources in low-income housing, complementing sector-based understanding, which remains dominant in analysis of low-income housing today.

Table of Contents

Dedication.....	ii
Acknowledgement.....	ii
Declaration	v
Abstract.....	vi
Table of contents.....	vii
Abbreviations.....	xvi
Photos, Figure and Tables.....	xviii

Chapter One: Introduction - a case for housing network analysis in Nairobi, Kenya and Johannesburg, South Africa

<i>1.1. Introduction.....</i>	<i>1</i>
<i>1.2. Political economy perspective of housing in Nairobi and Johannesburg.....</i>	<i>2</i>
1.2.1. Neo-liberalism and the state.....	2
1.2.2. Comparative socio-economic realities in Kenya and South Africa.....	4
1.2.3. The past context of the current housing challenges in Nairobi and Johannesburg..	9
1.2.4. Some initial questions arising from housing challenges in Nairobi and Johannesburg.....	13
<i>1.3. Situating housing networks in relation to social capital literature</i>	<i>15</i>
1.3.1. Social capital and social networks.....	16
1.3.2. Social networks as support systems in urban contexts.....	18
1.3.3. Social capital, structure and agency.....	21
<i>1.4. Potential for application of network concepts to analyse self-help housing in Kenya and South Africa.....</i>	<i>22</i>
1.4.1. Network studies in Sociology and Economics.....	23
1.4.2. Network studies in housing and urban research.....	24
1.4.3. The Actor-Network Theory in organisational analysis.....	25
1.4.4. Towards a working definition of housing networks.....	28

1.4.5. Networks versus hierarchies.....	29
1.4.6. Spaces of prescription and spaces for negotiation.....	32
1.4.7. Other network terminologies.....	33
 1.5. <i>The main objective of the study: resources and networks</i>	 34
 1.6. <i>Research Design and Methods</i>	 35
1.6.1. Overview of the research method.....	36
1.6.2. Relativist and qualitative approaches to network studies.....	37
1.6.3. The comparative case study, within case study approach.....	39
1.6.4. Provision, production, and levels of analysis.....	40
1.6.5. Units of analysis and variables.....	41
1.6.6. Data collection methods.....	42
1.6.7. A cyclical research strategy.....	47
 1.7. <i>Conclusion</i>	 48
 1.8. <i>Summary and Roadmap</i>	 49

Chapter Two: Neo-liberalism and self-help housing in Kenya and South Africa: policy, practice and theory

2.1. <i>Introduction</i>	53
 2.2. <i>Self-help housing policy positions of the World Bank and the UN-Habitat</i>	 54
2.2.1. From sites and services to enablement: macro-economic orthodoxy in the World Bank's approaches to housing.....	55
2.2.2. Pragmatism, under neo-liberalism: UN-Habitat and self-help housing policy.....	59
2.2.3. Other influential international and bilateral development agencies involved in self-help housing.....	62

2.3.	<i>Reflecting on World Bank, UN and international donor agencies' influences on self-help housing policies in Kenya and South Africa.....</i>	64
2.3.1.	Neo-liberalism and housing policy in South Africa.....	65
2.3.2.	The space for self-help in South African housing policy.....	71
2.3.3.	The hidden hand of the World Bank and the UN-Habitat in South African housing policy.....	73
2.3.4.	Ineffective, neo-liberal, housing policy framework in Kenya.....	75
2.3.5.	The roles of the World Bank and UN-Habitat in Kenya's housing policy.....	77
2.3.6.	Tensions in self-help housing policies in Kenya and South Africa.....	80
2.4.	<i>Theoretical context of the self-help housing debates.....</i>	81
2.4.1.	Neo-Marxist and neo-liberal debates on self-help housing.....	83
2.4.2.	Contesting neo-Marxist positions on self-help housing.....	84
2.4.3.	Other useful concepts for reflecting on current self-help housing issues in Kenya and South Africa.....	86
2.5.	<i>Conclusion.....</i>	88

Chapter Three: Resources for self-help housing in Nairobi and Johannesburg.....84

3.1.	<i>Introduction.....</i>	89
3.2.	<i>Access to land by low-income groups in Kenya and South Africa.....</i>	90
3.2.1.	Problems with legal and legislative frameworks for access to land in Nairobi and Johannesburg.....	91
3.2.2.	Failure to redress racial and economic class-based land access.....	94
3.2.3.	Land subsidies and invasions.....	96
3.2.4.	Entrenchment of informality and illegality in access to land.....	98
3.3.	<i>Access to finance for low-income housing in Kenya and South Africa.....</i>	99
3.3.1.	Funding the housing policy: the role of state subsidies.....	100
3.3.2.	Failure of the private sector finance to reach the low-income.....	101

3.3.3. Inadequacy and inappropriateness of mortgage and micro-finance for low-income housing.....	105
3.3.4. Low-income housing delivery through savings: cases from Kenya and South Africa.....	107
 3.4. <i>Labour, materials and building standards</i>	 113
3.4.1. Local labour and small-scale contractor networks in Nairobi and Johannesburg.....	113
3.4.2. Low uptake of alternative materials and technologies for low-income housing.....	115
3.4.3. Contradictions in search for appropriate building standards.....	115
3.4.4. Collapse of developmental control in Nairobi.....	117
 3.5. <i>Infrastructure and services</i>	 121
3.5.1. Access to basic services.....	121
3.5.2. Infrastructure and service standards.....	123
 3.6. <i>Summary and conclusions</i>	 124

Chapter Four: Network analysis for self-help housing in Nairobi, Kenya and Johannesburg, South Africa

4.1. <i>Introduction</i>	128
 4.2. <i>Implications of transformation of the neo-liberal state for self-help housing</i>	 129
4.2.1. Transformations of the state in developing countries and their implications for self-help housing.....	129
4.2.2. Informational capitalism and consumption.....	131
4.2.3. ‘Modes’ versus ‘systems of production’ in self-help housing.....	132

4.3.	<i>A network view of households, communities and their social and economic interests.....</i>	<i>134</i>
4.3.1.	Looking at households and community from a network perspective.....	135
4.3.2.	‘Community without propinquity’	137
4.3.3.	Overlap of social and economic interests in the ‘self-help market’	138
4.4.	<i>From sector to network understanding of the state, market and civil society.....</i>	<i>140</i>
4.4.1.	Mainstream understanding of the roles of the state, the market and civil society in self-help housing	140
4.4.2.	Re-conceptualising the relationships among the state, the market and civil society	142
4.4.3.	Actors, sectors and networks.....	144
4.5.	<i>Outline of key network concepts applied in analysing the field data.....</i>	<i>146</i>
4.5.1.	Ego-centric networks.....	147
4.5.2.	Networks of collaborative action.....	149
4.5.3.	Networks of exchange.....	151
4.5.4.	Hierarchies.....	152
4.6.	<i>Explanation of key relational attributes described in data collection sheets.....</i>	<i>152</i>
4.7.	<i>Conclusion.....</i>	<i>157</i>

Chapter Five: Self-help housing networks in non-developmental state, case studies from Nairobi

5.1.	<i>Introduction.....</i>	<i>159</i>
5.1.1.	Introduction to Dandora, Nairobi.....	160
5.1.2.	Introduction to Kawangware, Nairobi.....	163
5.2.	<i>Ego-centric networks towards self-help housing in Dandora, and Kawangware, Nairobi.....</i>	<i>164</i>
5.2.1.	Networks amongst low-income investors in self-help housing.....	165
5.2.2.	Contrasting networks of support with those for exploitation.....	167

5.2.3.	Insights from the study of ego-centric networks in Dandora and Kawangware.....	174
5.3.	<i>Networks for collective action towards self-help housing in the Nairobi case studies.....</i>	<i>177</i>
5.3.1.	Networks of the Welfare Advisory Council, Dandora.....	178
5.3.2.	Networks of the Kabiyo Human Development Programme (KHDP), Kawangware.....	181
5.3.3.	Networks and hierarchies around the K-Rep Development Group in Kawangware.....	186
5.3.4.	Insights from analysis of networks towards collective action in housing in Dandora and Kawangware.....	190
5.4.	<i>Networks of exchange in self-help housing in Nairobi's case study settlements.....</i>	<i>193</i>
5.4.1.	Extensive networks for access to land and finance.....	193
5.4.2.	Intensive local ties towards labour, materials and technology.....	198
5.4.3.	State/market hierarchies dominate supply of infrastructure and services.....	202
5.5.	<i>Conclusions and recommendations.....</i>	<i>205</i>

Chapter Six: Networks and hierarchies in an interventionist state - cases from Johannesburg

6.1.	<i>Introduction.....</i>	<i>207</i>
6.1.1.	Introduction to Ivory Park, Johannesburg.....	209
6.1.2.	Introduction to Diepsloot, Johannesburg.....	211
6.2.	<i>Ego-centric networks in Johannesburg case studies.....</i>	<i>213</i>
6.2.1.	Entrenched versus weak networks of survival amongst the poor in Diepsloot.....	214

6.2.2. Networks for protection, the story of Mr. Sibisi.....	220
6.2.3. Insights from ego-centric networks for self-help housing in Johannesburg	221
6.3. <i>Analysis of networks for collaborative action in the Johannesburg case studies.....</i>	225
6.3.1. Networks around the Ivory Park Eco-city Programme.....	225
6.3.2. Networks of the Masisizane Women’s Group.....	231
6.3.3. Networks of other PHP support organisations in Ivory Park and Diepsloot.....	236
6.3.4. Insights from studies of networks for collaborative action in the two settlements in Johannesburg.....	240
6.4. <i>Exchange networks in self-help housing in Diepsloot and Ivory Park, Johannesburg.....</i>	247
6.4.1. Networks and hierarchies in access to finance.....	247
6.4.2. Discontinuities in the supply of labour, materials and technology.....	251
6.5. <i>Conclusions.....</i>	256

Chapter Seven: Self-help housing networks, insights through a Nairobi-Johannesburg comparison

7.1. <i>Introduction.....</i>	258
7.2. <i>Comparing and contrasting ego-centric networks in Nairobi and Johannesburg.....</i>	259
7.3. <i>Insights through comparing networks of collaborative action in Nairobi and Johannesburg.....</i>	261
7.4. <i>Insights from networks of exchange in Nairobi and Johannesburg.....</i>	264

7.5.	<i>Key lessons for housing policy from a Nairobi-Johannesburg comparison of self-help housing networks.....</i>	<i>269</i>
7.6.	<i>Towards appropriate methods for the study of self-help housing networks.....</i>	<i>273</i>
7.7.	<i>Applications of network theories to self-help housing.....</i>	<i>275</i>
7.8.	<i>Conclusion: summary of contribution to knowledge.....</i>	<i>277</i>
8.	References.....	279
9.	Appendices.....	307
9.1.	<i>Sample data collection sheets: networks for collaborative action, Nairobi.....</i>	<i>307</i>
9.2.	<i>Sample data collection sheets: networks for collaborative action, Johannesburg.....</i>	<i>323</i>
9.3.	<i>Sample data collection sheets: ‘ego-centric networks’, Nairobi.....</i>	<i>331</i>
9.4.	<i>Sample data collection sheets: ‘ego-centric networks’, Johannesburg.....</i>	<i>337</i>
9.5.	<i>Case study sites photos.....</i>	<i>343</i>
9.6.	<i>Key informants, Nairobi case studies.....</i>	<i>352</i>
9.7.	<i>Key informants, Johannesburg case studies.....</i>	<i>358</i>

Abbreviations

ADB:	African Development Bank
AFRACA:	African Rural Agricultural Credit Association
AML:	Association of Mortgage Lenders (South Africa)
AMREF:	African Medical and Research Foundation
ANC:	African National Congress (South Africa)
CBD:	Central Business District
CBOs:	Community Based Organisations
CBS:	Central Bureau of Statistics (Kenya)
CDC:	Commonwealth Development Corporation
CIA:	Central Intelligence Agency
COHRE:	Centre for Housing Rights and Evictions
COSATU:	Central Organisations of South African Trade Unions
CSIR:	Council for Scientific and Industrial Research (South Africa)
CSOs:	Civil Society Organisations
DACEL:	Department of Agriculture, Conservation, Environment and Land (Gauteng Province)
DAG:	Development Action Group (NGO-South Africa)
DANCED:	Danish Agency for the Environment and Development
DANIDA:	Danish International Development Agency
DFA:	Development Facilitation Act No 7 of 1995 (South Africa)
DFID:	Department for International Development (UK)
EABS:	East African Building Society (Kenya)
EBS:	Equity Building Society (Kenya)
ESTA:	Extension of Security of Tenure Act 62 of 1997 (South Africa)
FBOs:	Faith Based Organisations
FFBS:	Family Finance Building Society (Kenya)
GDP:	Gross Domestic Product
GEAR:	Growth, Employment and Redistribution (South Africa's macro-economic policy framework)
HABRI:	Housing and Building Research Institute (University of Nairobi)
HCDD:	Housing and Community Development Department (Nairobi, Kenya)
HFCK:	Housing Finance Corporation of Kenya
HLGC:	Home Loan Guarantee Company (South Africa)
HRDU:	Housing Research Development Unit (University of Nairobi)
IDP:	Integrated Development Plans (South Africa)
IDT:	Independent Development Trust (South Africa)
IDTFC:	Independent Development Trust Finance Corporation (South Africa)
IFAD:	International Fund for Agriculture and Development

IFC:	International Finance Corporation
ILO:	International Labour Organisation
IMF:	International Monetary Fund
ITDG:	Intermediate Technology Development Group
LDOs:	Land Development Objectives (South Africa)
LPM:	Landless People's Movement (South Africa)
LEFTE:	Less Formal Township Establishment Act, 113 of 1991 (South Africa)
KANU:	Kenya African National Union
KENSUP:	Kenya National Slum Upgrading Programme
KPLC:	Kenya Power and Lighting Company Ltd.
MIDEV:	Midrand Development Company (Johannesburg)
MIF:	Mortgage Indemnity Fund (South Africa)
MINMEC:	Meeting between a national minister (MIN) and Provincial Member of the Executive Council (MEC) in similar portfolios (South Africa).
NACHU:	National Housing Cooperative Union (Kenya)
NARC:	National Rainbow Coalition (Ruling Coalition in Kenya)
NCC:	Nairobi City Council
NCCK:	National Council of Churches of Kenya
NCPD:	National Council for Population and Development (Kenya)
NHFC:	National Housing Finance Corporation (South Africa)
NHIF:	National Hospital Insurance Fund (Kenya)
NIMBY:	Not In My Backyard
NISCC:	Nairobi Informal Settlements Co-ordination Committee
NGO:	Non-Governmental Organisation
NHC:	National Housing Corporation (Kenya)
NHBRC:	National Home Builders' Registration Council (South Africa)
NHRF:	National Housing Research Foundation (South Africa)
NMC:	Nairobi Municipal Community
NPO:	Not For Profit Organisation
NSSF:	National Social Security Fund (Kenya)
NURCHA:	National Urban Reconstruction and Housing Agency (South Africa)
ODA:	Overseas Development Agency
PAC:	Pan Africanist Congress (Political Party, South Africa)
PHP:	People's Housing Process (South Africa)
PHPT:	People's Housing Process Trust (South Africa)
PIE Act:	Prevention of Illegal Eviction from and Illegal Occupation of Land Act 19 of 1998
RDP:	Reconstruction and Development Programme (First Post-apartheid policy framework, South Africa).

RLDP:	Rapid Land Delivery Programme (Johannesburg)
RoU:	Record of Understanding (Between the banks and government to lend to the low income in South Africa)
ROSCA:	Rotating Savings and Credit Scheme
RTPC:	Rural Trade and Production Centres (Kenya)
SANCO:	South African National Civics Organisation
S&L:	Savings and Loans (Kenya)
SAP:	Structural Adjustment Programme
SDA:	Seventh Day Adventists
SDI:	Slum Dwellers International.
SEED:	Sustainable Energy, Environment and Development Programme (South Africa)
SIDA:	Swedish International Development Cooperation Agency
SMMEs:	Small and Medium Micro-Enterprises
UF:	Urban Foundation (South Africa)
UNCHS-Habitat:	United National Centre for Human Settlements - Habitat
UNDP:	United Nations Development Programme
UN-Habitat:	United Nations Habitat
UNICEF:	United Nations Children's Fund
USAID:	United States Agency for International Development
USD:	United States Dollar
WAC:	Welfare Advisory Council, Nairobi
WWF:	World Wildlife Fund

Photos, Figure and Tables

List of photos

Photo 3.1	Housing and Community Development Department Offices, Dandora Phase 1.....	119
Photo 3.2	Six-storey development in Dandora Phase 5.....	120
Photo 3.3	Informal developments on un-serviced plots in Dandora.....	120
Photo 5.1	Section of Dandora Phase Four.....	162
Photo 5.2	Mixture of formal and informal settlements in Kawangware, Nairobi, today.....	164
Photo 5.3	Agnes Njoki, Corrugated Iron Sheet Structure in Dandora.....	169

Photo 5.4	The Gateres' block of flats in Dandora Phase Five.....	169
Photo 5.5	A building on power and road reserve in Dandora.....	176
Photo 5.6	Relatively high quality construction through K-Rep Loans.....	189
Photo 5.7	Concrete columns in a low-income construction in Dandora.....	202
Photo 5.8	Open Sewer in Marigoini, Dandora.....	203
Photo 5.9	Sanitation initiative by Dandora Community Development Project.....	204
Photo 6.1	Ivory Park Ward 78.....	210
Photo 6.2	Government offices in Ivory Park.....	210
Photo 6.3	A section of Diepsloot East.....	212
Photo 6.4	Burnt City of Johannesburg offices in Diepsloot.....	212
Photo 6.5	Mr. Radebes's shack in Diepsloot.....	214
Photo 6.6	Ms Khoza's shack in the site and service area of Diepsloot.....	215
Photo 6.7	Section of Sibisi's house in Diepsloot.....	220
Photo 6.8	A seven roomed house next to a shacks on a site and service site in Diepsloot.....	254
Photo 6.9	Shack with foundation awaiting top-up subsidy in Diepsloot.....	255
Photo 7.1	Small-scale labourers constructing a multi-storey house in Dandora, Nairobi.....	266
Photo 7.2	Material piling in Diepsloot, Johannesburg.....	267
Photo 7.3	Construction of bond housing in Diepsloot, Johannesburg.....	268

List of figures

Figure 1.1	Location of Kenya and South Africa.....	5
Figure 1.2	South Africa's administrative regions.....	6
Figure 1.3	Kenya: administrative regions.....	6
Figure 1.4	Nairobi City Regions.....	9
Figure 1.5	Johannesburg city regions.....	11
Figure 1.6	Hierarchical patterns from Turner, 1976; Alexander, 1986 and Scott, 1994.....	30

Figure 1.7	Section of data recording sheet: mapping of relational attributes.....	45
Figure 1.8	Section of data collection sheet: physical impacts.....	46
Figure 1.9	Research Strategy.....	47
Figure 1.10	Conceptual Framework for the whole study.....	49
Figure 4.1	Implications of transformation of capitalism to the market, the state and civil society.....	131
Figure 4.2	Housing as a system, after Turner, 1972.....	133
Figure 4.3	Relationships amongst the state, the market and civil society in mainstream theories.....	141
Figure 4.4	Sector/actor relational diagram.....	143
Figure 4.5	Sector/actor/agent relational diagram.....	144
Figure 4.6	Integrated sector-actor analysis of housing from a network perspective.....	145
Figure 4.7	Outline of analytical framework for field data.....	147
Figure 4.8	Diagrammatic representation of the relational attributes.....	154
Figure 5.1	City of Nairobi map, showing location of Dandora and Kibera amongst others.....	160
Figure 5.2	Network towards access of resources by Mrs Wanyiri.....	167
Figure 5.3	Networks Towards Access to Resources by Njoki, Kairi Brothers Self-help, Dandora, Nairobi.....	172
Figure 5.4	Networks Towards Access to Resources by Mrs and Mr Gatere, Dandora, Nairobi.....	173
Figure 5.5	Networks Towards Access to Resources by WAC.....	180
Figure 5.6	Network diagram for the Kabiro Human Development Programme (KHDP).....	184
Figure 5.7	Networks Towards Access to Resources by Through K-Rep.....	188
Figure 5.8	Networks Towards Access to Land and Finance in Kawangware.....	195
Figure 5.9	Networks Towards Access to Land and Finance in Dandora.....	196

Figure 5.10	Networks towards access to labour, materials and technology in Kawangware.....	199
Figure 5.11	Networks towards access to labour, materials and technology in Dandora.....	200
Figure 6.1	City of Johannesburg, map, showing location of Ivory Park and Diepsloot.....	209
Figure 6.2	Mr Radebe's networks, Diepsloot.....	218
Figure 6.3	Ms Khoza's networks, Diepsloot.....	219
Figure 6.4	Mr Sibisi's networks, Diepsloot.....	221
Figure 6.5	Networks of the Ivory Park Eco-city.....	229
Figure 6.6	Networks of <i>Masisizane</i> , Ivory Park.....	234
Figure 6.7	A comparison of typical house plans by Masisizane and the 'RDP'	235
Figure 6.8	Networks of <i>Inzimi Mpumelelo</i> , Ivory Park.....	237
Figure 6.9	Networks of <i>Izwe Lethu</i> , Diepsloot.....	239
Figure 6.10	Networks towards access to finance for self-help housing in Diepsloot.....	248
Figure 6.11	Networks towards access to finance for self-help housing in Ivory Park.....	249
Figure 6.12	Networks towards access to labour, materials and technology in Diepsloot.....	252
Figure 6.13	Networks towards labour, materials and technology in Ivory Park.....	253

List of tables

Table 1.1	Comparative economic data on Kenya and South Africa.....	8
Table 1.2	Socio-economic data on Kenya and South Africa.....	8
Table 2.1	Outline of the World Bank approach to housing policy based on Pugh 1995.....	56
Table 2.2	An outline of UN-Habitat policy shifts.....	59

Table 2.3	Comparison of UN-Habitat and World Bank housing policies.....	61
Table 3.1	Similarities and differences in access to land in Nairobi and Johannesburg.....	126
Table 3.2	Similarities and differences in access to finance in Nairobi and Johannesburg.....	126
Table 3.3	Similarities and differences in access to labour, materials and technology in Nairobi and Johannesburg.....	127
Table 3.4	Similarities and differences in access to infrastructure and services in Nairobi and Johannesburg.....	127

Exchange rates: 1 US Dollar = 6.3 Rand = 74.4 Kenya Shillings (13th September 2005)