

A Top-structure is Not a Home

Densification of Low-cost Housing
with a Women Users' Perspective

Anna Sophia Eliasson

Anna Hessle

Anna Leonsson

A Minor Field Study in
Cato Manor, Durban, South Africa



Lund Centre for Habitat Studies

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A politician is like a boy in love. He will promise you everything in order to win your love. But as a woman you know that bad days as well as good days will come. Then when you are married you have to stick together and struggle together.

Cindy Khumalo, 1997
Resident of Wiggins 5A

Preface

We are three architects who graduated from the School of Architecture at Lund University in the middle of 1997. The main theme of our education was the design of buildings and built environments with consideration for human and social needs and within the limits of the environment and natural resources.

The programme lasts 4.5 years and consists of two years of basic training, followed by two years of problem-oriented studios. After a final diploma work the student is awarded the Degree of Master of Architecture.

The three of us first met in 1992 when we worked together on a student project in Zanzibar¹, run by the Department of Architecture and Development Studies, Lund University. The studio provided the opportunity to shift and review perspectives, and we became interested in development issues.

In February 1997 we were granted a scholarship from the Swedish International Development Cooperation Agency (Sida) to carry out a Minor Field Study (MFS) in Cato Manor, Durban, South Africa. The fieldwork took place from the middle of September to the end of November 1997. Dr Anita Larsson Architect, Associate Professor of Architecture and Development Studies at Lund University, was our supervisor in Sweden. Neil Klug, Dip of Urban Design, Scott Wilson Urban and Regional Planners, was our supervisor in Durban, South Africa. The Minor Field Study gave us a unique possibility to link university studies to practical experiences in a new context.

The overall approach of our field study, in the informal settlement called Wiggins 5A, was to develop low-cost housing from the perspective of women and their everyday life experiences. We wanted to go beyond looking at the house only as a technical top-structure.

It is our hope that this report will be an input to the current discussion on housing development in Cato Manor. The method which was used is as important as the ideas of different types of higher density low-cost housing.

Many people were involved in this study and without their help this project would not have been possible. We want to thank the Development Committee of Wiggins 5A who gave us permission to conduct fieldwork and specially the wonderful women: Thembi Mdabe, our field assistant and interpreter; Gloria Gcwensa, Nompumelelo Juau, Cindy Khumalo,

1 Eliasson, Ericsson, Hessel and Leonsson, *The Architectural Grammar of Zanzibar Stonetown*, Department of Architecture and Development Studies, Lund University, Lund, 1995. The report was part of the student project called *Zanzibar, Urban renewal and restoration*.

Florence Khumalo, Grace Thatho and Precious Thabethe. Their participation was essential for our project. Thank you for letting us visit your homes!

We are very grateful to Paul Brink, Development Facilitator; James Copley, Project Manager; Robynne Hansmann, Town Planner; and Richard Jordan, Town Planning student who participated in the feedback meeting at Scott Wilson. Special thanks to Graeme Bird, the Project Manager of the Wiggins 5A Project. Heather Maxwell, architect and Housing Project Officer at Cato Manor Development Association (CMDA), and Nicola Budd, town planner and Project Manager at the Durban Metropolitan Council, deserve thanks for their active participation in the feedback meeting in our home. Bernd Rothaug, architect and town planner, and Nathan Iyer, town planner, gave us useful input during interviews and feedback at their office. Derek van Herdeen, Laura Hunt and Joanne Lees, architects, shared their professional views on low-cost housing with us.

Thanks to Rodney Harber, Associate Professor, and George Norval, Senior Lecturer and Quantity Surveyor, in the Faculty of Architecture and Allied Disciplines at the University of Natal for input and assistance, the Built Environment Support Group (BESG) for letting us use their library and Shelley Gielink, Manager of Office and Public Relations at CMDA, who guided us through Cato Manor in spite of a storm. We are in debt to Graham Smith, Heather Maxwell and Nicolas Webb who supported us with accommodation.

The Department of Architecture and Development Studies and Lund Centre for Habitat Studies (LCHS) gave us financial support for the printing of the report, working space and professional advice. Sigrun Santesson at the Centre for International Studies (CIES), Sweden, gave her help and Sida the funding for the fieldwork. Fredrika Bremer Förbundet, Sweden, gave us extra financial support. To all of them, we are most thankful.

Last, but not least, our supervisors have been more than helpful. We want to thank Neil Klug for his true engagement as a supervisor and friend in South Africa and Anita Larsson who gave us inspiration and encouragement in Sweden.

Lund, April 1998

Anna Sophia Eliasson

Anna Hessle

Anna Leonsson

The Long and the Short of It

The overall aim of this field study is to investigate how to design low-cost housing from a user's perspective taking into consideration a minimum of financial resources. The report focuses specifically on how the women's perspective on housing can be used in the design process. Furthermore, it explores the possibilities of densification of low income housing settlements. The study is based on interviews with seven women and documentation of their houses in Cato Manor, an informal settlement in Durban.

A synthesis follows in the form of design ideas. The ideas aim at socially sustainable low-cost housing suitable for Cato Manor, although we have not been able to cover all economical and technical issues.

The funds available for housing development in South Africa today are mainly based on governmental subsidies. These subsidies have to cover costs for construction of roads, street lights and services, and the remainder is used for the house. Since the design of the house is left to the end of the planning process there is not much money left for the so-called top-structure. We have started from the user and the house and developed the proposals from there, keeping in mind the given restrictions. We have used much space to illustrate the working process leading to various types of houses with possible future additions.

Part one of this report gives of some general facts about housing policies in South Africa and the city of Durban. The context in which the development of informal settlements is taking place today is also presented.

As we consider our approach to be a contribution to the development of housing in South Africa, part two covers the methods and tools used in the design process. How the information was gathered during two and a half months in Durban is also evaluated.

Part three presents what we found during the fieldwork and in meetings with the seven women and with professionals. This is followed by an analysis and conclusions from the findings.

Part four consists of four proposals of high density low-cost housing with comments and explanations. It is shown how the house can be placed on the plot and how houses can be grouped, in relation to contour lines.

Background

A Secure Place to Live in Peace and Dignity

The diverse and multi-ethnic population of South Africa is currently estimated at almost 42 million. The struggle and liberation of a racial majority against a repressive, first colonial and then Apartheid Regime was complex and violent.

A turning point was the 2nd of February 1990 when the ban was lifted on the African National Congress (ANC) and other anti-apartheid parties, and it was announced that ANC's leader Nelson Mandela was to be released from imprisonment after 27 years. Four years later Mandela became president of the country, as the ANC won a historical victory in the first free elections in South Africa after a long history of apartheid, injustice and inequality.

Naturally enough, housing was a key issue in the struggle against apartheid. *Housing for All* was a common slogan of urban social movements such as the United Democratic Front in the 1980s, and it became a major ANC issue during the first democratic election in 1994.² Housing has remained a dominant question in the post-apartheid period.

The lack of adequate housing and basic services in South African urban townships and rural settlements has reached critical proportions today. The housing backlog is currently estimated at about 2.9 million units and is steadily increasing.³

The *Reconstruction and Development Program* (RDP) from 1994⁴ endorses the principle that all South Africans have a right to a secure place in which to live in peace and dignity and that housing is a human right. One of the government's first priorities based on RDP⁵ is to provide for the homeless, and the goal is to construct one million low-cost houses over five years. These units should be especially intended for low income households.

In the beginning of 1998 President Nelson Mandela held his last annual opening speech for the nation. He then admitted that almost four years after the RDP was settled, the goal to deliver one million houses to the people in five years time will not be reached.

2 Tilman, *Housing Generator Book*, Marx, p. 91, 1996.

3 Minister of Housing, Ms Sankie Nthembu-Nkondo, 1996.

4 The ANC's socio-economic policy framework for the new South Africa.

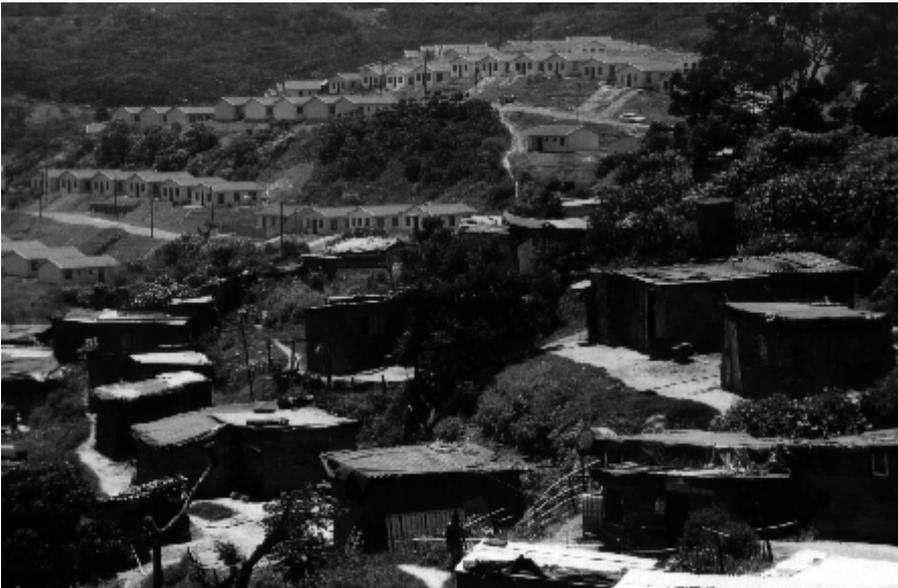
5 The key programmes of RDP are meeting basic needs, developing our human resources, building the economy, democratizing the state and society and implementing the RDP.

The Housing Subsidy

To reach the target of one million new houses over five years, the government provides housing subsidies for disadvantaged individuals according to household income. The National Housing Forum was established in 1992 as a forum for all major stakeholders in the housing sector to develop a new housing strategy and policy for South Africa. This resulted in the Department of Housing's *White Paper – A New Housing Policy and Strategy for South Africa*. One of the eight priority areas included was the housing subsidy scheme. As an extension of the RDP program, the housing subsidy scheme provides a possibility for disadvantaged individuals to gain access to housing.

As a result of many years of racial discrimination and segregation, where limited educational opportunities was one of the apartheid methods to repress the non-white majority, there are high levels of unemployment among the people living in informal settlements. The average income of those who are employed and live in informal settlements is also low. Consequently the ability to contribute to the cost of housing is severely limited in most of these families.

Households in South Africa are divided into five categories according to monthly income. The first category comprises households that earn more than R 3,500 per month (13.9% of households). They do not get a subsidy but have access to long-term loans (bonds) from a bank or building society. The second and third category are households with an income between R 1,500 and R 3,500 per month, which have access to both a subsidy and bonds. They represent 17.4% of the total households. The fourth group consist of those earning R 800 to R 1,500 and the fifth group those earning



Informal and formal housing.

less than R 800 (29.0% and 39.7%, respectively, of the households). These two groups cannot get long-term financial loans and are therefore totally dependant on the subsidy.⁶ Subsidies have to cover all housing costs including costs for professional services, construction of roads, street lights and services, and the house.

The subsidy can be increased by 15% for locational, topographical or geotechnical reasons. Subsidies are based on household income as follows:

<i>Monthly household income</i>	<i>Subsidy</i>
– — R 800	R 15,000
R 800 — R 1,500	R 12,500
R 1,500 — R 2,500	R 9,500
R 2,500 — R 3,500	R 5,000
R 3,500 —	–

Women's Situation

Many African women in South Africa have in the past faced the triple disadvantages of being black, female and single head of the household. In some urban areas in South Africa the number of woman headed households has risen to over 55%.⁷ These households are generally poorer. The single woman's position in peri-urban informal settlements is often dependant and vulnerable. The unemployment rate among black women is 44.2%, which is the highest figure among race-gender groups.⁸ Women have more difficulties in finding regular jobs than men and may have to quit work due to pregnancy or lack of child care facilities. Because of unemployment the woman may be dependent on welfare or remittance from household members based elsewhere.⁹

The house stands for both short-term and long-term security for women. In the short term housing provides the woman with a shelter and a refuge. In South Africa violence has become part of everyday life, and violence directed at women is common. Because of this the women are often forced to spend much time indoors.

In the long term housing becomes an important issue for these women since owning a house means that they are able to generate income from letting rooms. Being able to contribute to the income of the household

6 Department of Housing, *White paper – A new Housing Policy and Strategy for South Africa*, p. 9, 1994.

7 Budlender, *The Women's budget*, p. 123, 1996.

8 The definition of unemployment is "those who were available for" and "took specific steps during the four weeks preceeding the interview to find a paid employment" but the figure used also includes discouraged, which means people who has given up hope to find a job. The group researched is people in age of 16–64 years. Budlender, *The women's budget*, p. 42, 1996.

9 Wilkins and Hofmeyer, *Here to Stay*, p. 16, 1994.

through the informal sector operating from home, for example sewing, is also an important aspect of having a house.

In the new housing policy the problem of gender inequality is acknowledged, and there is a strong commitment to ensure that women are not discriminated against in accessing housing.¹⁰ According to the constitution women and men have the same legal rights, for instance in relation to property. Nonetheless, women seldom play a part in the housing process. Today's subsidy system discriminates against household constellations other than the nuclear family, as the household's income is estimated on the earnings of both a husband and a wife. The table for subsidy according to household income is based on the assumption that the household is a nuclear family. This means that it is difficult

as a single parent with only one income to meet the qualifying income for a loan. Research shows that the women less often than men default in repaying housing loans. Their priorities for using their money are, besides meeting expenses for the daily necessities, to repay building costs and pay children's school fees.¹¹



*Housing in its various aspects including access, ownership, quality, has a very definite gender dimension. Women in their multiple roles are the main consumers of housing – be it on behalf of their households. Therefore, any housing project has a role in either reinforcing or deconstructing gender stereotypes.*¹²

The vulnerable situation of women is also affected by the reality of AIDS. Already in 1990 an article in the Journal of the Natal Provincial Institute of Architects¹³ noted that AIDS will be a component in the social aspect of architecture and planning. Current estimates present the nightmare vision of 170,000 dying each year of AIDS-related diseases within five years. In the province of KwaZulu-Natal 25% of the population is HIV-positive.¹⁴ In a future perspective this will lead to a growing number of

10 Budlender, *The Women's budget*, p. 132, 1996.

11 Larsson, "Governmental Housing Strategies versus Women's Housing Strategies in Southern Africa", *Gender, Culture and Power in Developing Countries*, Vol. 2, 1991.

12 Quote by Nolulamo Gwagwa.

13 Robinson, "Durban as you know it", *Journal of the Natal Provincial Institute of Architects*, pp. 2-3, 1990:4.

14 Rodney Harber.

single parents and orphans, and a large variety of household constellations are likely to emerge.

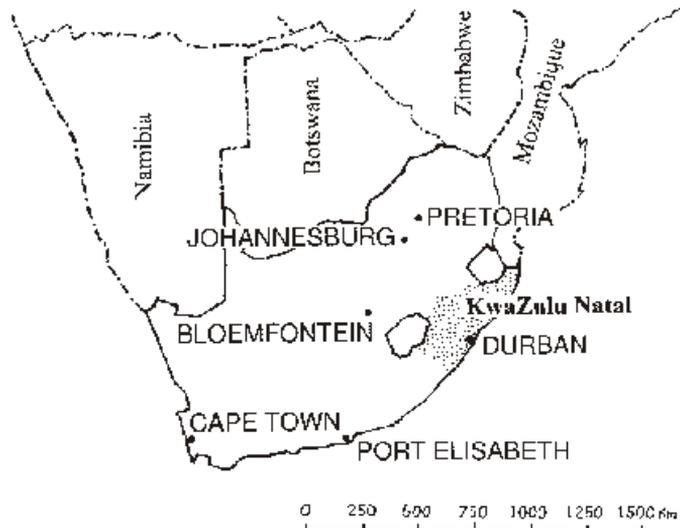
D'Urban

Durban originated as an imperial port in 1824 and was named after Sir Benjamin D'Urban, the Cape Governor who annexed Natal in 1843.¹⁵ By the turn of the century the city's economy was centred on the harbour. The city's industry and commerce expanded during the early 1900s and created employment opportunities. The form of the growing city was determined by transport routes and the difficult coastal topography.¹⁶

The city is characterized by a compact high-rise business centre, a busy harbour and sprawling formal and informal residential areas with low densities. Conventional residential areas consist of free-standing villas on large, single plots. The informal settlements develop into more and more dense settlements, but because of the limited building technology available to their inhabitants, the shacks are mainly single story constructions. The racially divided residential areas coincide with income levels as a direct result of apartheid planning. The city is very dependent on the private car, with poor public transport for the majority living in informal settlements at the periphery of the city.

The Durban Functional Region (DFR) is the fourth largest urban area in Sub-Saharan Africa, with about 3.5 million inhabitants. 41% of the DFR's population – over one million households – live in black informal settlements.¹⁷ This number is increasing by 150,000 households per annum.¹⁸

South Africa.



15 Mead, *Odyssey Illustrated Guide to South Africa*, 1997.

16 Tilman, *Housing Generator Book*, p. 20, 1996.

17 Ibid., p. 17, 1996.

18 CMDA, *Annual report*, 1996.

Durban is an important educational centre for the province of KwaZulu-Natal. The University overlooks the city centre to the East and the green hills of Cato Manor to the West. It has from early years been the breeding ground of radical thought in urban planning, with the Built Environment Support Group (BESG) as one of its allied departments.

The Development of a Multiracial Durban

Before the late 1920s there was no real attempt to impose any kind of racial residential segregation in Durban.¹⁹ A combination of rural poverty and new work opportunities due to the rapid growth of manufacturing industry led to a massive growth of informal settlements outside the city boundary during the 1920s.

Durban has since quickly developed into one of the most racially segregated South African cities. Africans and Indians were denied the right to own land inside the city boundary. The only formal type of accommodation available for Africans at that time were hostels, which housed single male migrant workers. This gave the opportunity for white and Indian landlords to let rooms and backyard premises to African tenants. The extension of the municipal boundaries after 1932 meant that many of the African settlements were incorporated in the city and developed as formal townships. The attempts to deliver housing were however inadequate compared to the numbers of people flooding into the city.

After 1950 further townships were established outside the city in an attempt to cope with the migration from rural areas. The National Party (NP) produced a Master Plan for the separation of races in South Africa after their victory 1948. This resulted in the forced removal of urban settlers from the white inner city. During the apartheid era the Native Urban Areas Act and Squatters Act also prevented the formation of squatter areas in urban areas. This legislation continued to develop a city in which the poor African majority lived furthest away from the urban centre.

Cato Manor

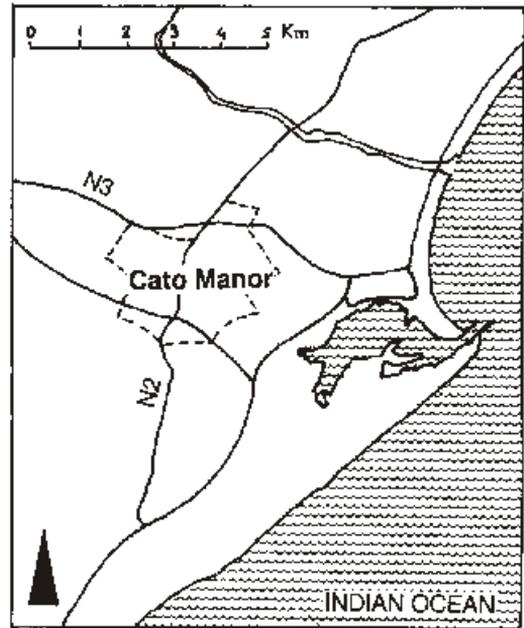
Squatting, Riots and Removals

Cato Manor is a vast area 7 kilometres west of the city centre of Durban. The land was acquired by Georg Cato the first Mayor of Durban in 1844 and sold in parcels to white smallholders after the turn of the century. The owners began to hire out or sell plots to Indians who, until the 1930s, used the land for market gardening.²⁰ By then there was a steady flow of African work seekers into the city, but influx control laws regulated their liv-

¹⁹ Edwards and Maylam, *The peoples City*, p. 4, 1996.

²⁰ Robinson, "Cato Manor: a legacy of South Africa's past or a model for reconstruction?" *South African Planning Journal*, 42 June 1997, p. 6.

Durban.



ing conditions. The influx control laws meant that Africans could either be accommodated in barracks controlled by city officials or at their places of employment. Many Africans, however, became tenants of Indian landowners in Cato Manor.

More and more labourers were arriving from the impoverished rural area, seeking work. They built their shacks on land rented from Ahmed. These people were poor and Shaik wondered how Ahmed could charge them so much. Once, after prayers at the beautiful mosque in Bellair Road, reputed to be the finest in the southern hemisphere, he ventured to tell Ahmed it was not right to charge them so much when there was no water and toilets. Ahmed got very angry and Shaik never broached the subject again.²¹

In 1949 serious conflict erupted between Indians and Africans around the issues of rental and the lack of services. This was followed by the Cato Manor *Beerhall riots* in the late 1950s. These incidents together with the emergent government policy on urban Africans resulted in Durban Municipality taking action.²² Between 1958 and 1963 in spite of strong resistance 120,000 Africans and 80,000 Indians were forcibly removed from the Cato Manor shack settlement under the Prevention of Illegal Squatting Act.²³ By 1965 both landowners and tenants in the area had been removed by force. From then until recently Cato Manor lay dormant, largely be-

21 Govender, *At the Edge and other Cato Manor Stories*, p. 122, 1996.

22 Robinson, "Cato Manor: a legacy of South Africa's past or a model for reconstruction?" *South African Planning Journal*, 42 June 1997, p. 7.

23 Edwards and Maylam, *The Peoples City*, p. 23, 1996.

cause of the controversy surrounding its history. It was only in 1987 that squatter activity began, prompted by the scrapping of the Group Areas Act, township violence and the demise of apartheid.²⁴ Today approximately 4% of Durban's informal settlements are situated within Cato Manor.²⁵

The area covers 1,830 hectares. However only about half of it is suitable for development due to flood zones or steep slopes. It is bordered by the N3 national freeway and the Pavilion Shopping Centre in the north and traversed by the N2 motorway. Much of the land is vacant and in public ownership. The fact that such a large area of inner city land is still substantially vacant is unique and is seen as an opportunity to "restructure the apartheid geography of Durban."²⁶

In 1994 the population of Cato Manor was about 21,600.²⁷ The structure plan shows the potential of Cato Manor to house up to 179,000 people in the future.

Climate and Topography

The KwaZulu-Natal area is characterized by dry, mild winters and humid, hot summers.²⁸ The sub-tropical climate creates an environment characterized by lush vegetation. The summer rains between October and April can result in serious flooding. The heavy rains often cause fatal problems in the informal settlements, which are mainly situated on unsuitable ground and steep slopes. Many shacks literally float away each year due to the lack of maintenance, leaking roofs, bad foundations or cracked wattle and daub walls.²⁹

The topography of Durban is very hilly. The fact that the least suitable land for development has been left to the African poor to occupy does not make low-cost housing an easy issue in the Durban area.

Erosion is a problem. When platforms for buildings are constructed the vegetation which protects them from erosion is damaged. Therefore the new earth layer does not have the same nourishment as the old top-soil. The topography also demands high building skill when it comes to retaining walls. The heavy rains are the greatest threat even here.

24 Hindson and McCarthy, *Here to Stay*, p. 56, 1994.

25 CMDA, *Greater Cato Manor Structure Plan*, 1997.

26 CMDA, *Annual Report*, 1996.

27 The figure is based on aerial photography in July 1994 by Urban Strategy Department, City of Durban. *Settlement Areas and Population Estimate Project Durban Metropolitan Area*, 1995.

28 The temperature during winter has a minimum of 10°C and a maximum of 22°C in average. The temperature during summer has a minimum of 21°C and a maximum of 29°C, with the highest temperatures at 40°C.

29 Wattle is rods, branches, etc. forming a framework for a wall especially when interwoven. Daub is a soft sticky material such as clay often used as covering for walls. Wattle and daub is wattle plastered with mud as a building material.

METRO NEWS

Landslide rescue mission to go ahead

Sanlam bid to keep squatters away from shops quashed

CRIME, ILLEGAL

LANDSLIDE victims Sanlam this week faced the prospect of being compensated for the loss of their homes. The company's bid to keep squatters away from shops was quashed.

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UNDER THREAT: Residents of Cato Manor, the black settlement in Durban, try to clear away the damage caused by the recent heavy rains. **Picture: Michael Walker**

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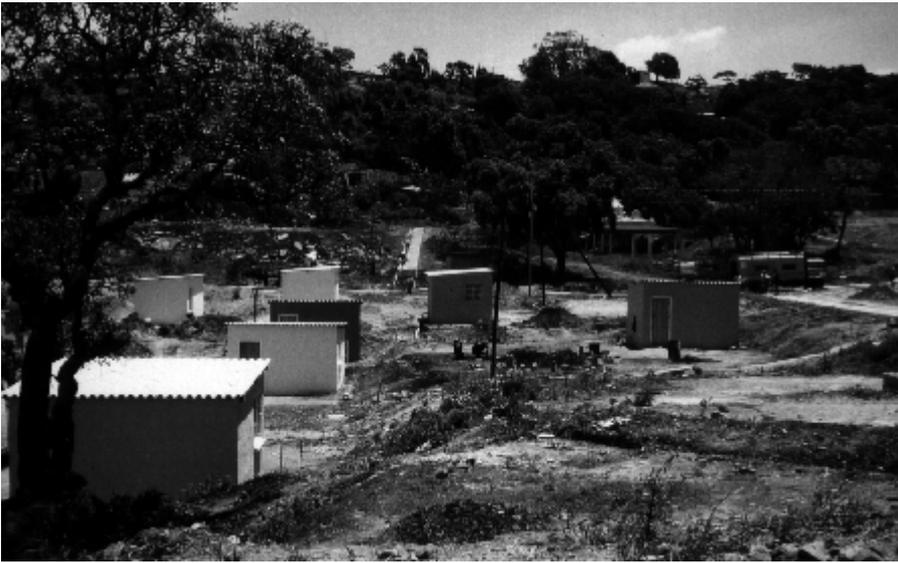
The bid to keep squatters away from shops was quashed. The company's bid to keep squatters away from shops was quashed.

Common news after heavy rain.

Organizations Involved in Cato Manor

Cato Manor Development Association

During 1990 intensive discussions on the future of Cato Manor began, resulting in the establishment of the Greater Cato Manor Development Forum made up of community organizations, major land owners, public authorities, political parties and private sector organizations in January 1992. They agreed to work towards a non-racial, democratic implementation vehicle for Cato Manor, which resulted in *The Greater Cato Manor Structure Plan*. The Forum presented a vision document entitled *A Policy Framework for Cato Manor* in 1992. Its central point was to create "a city within a city" providing affordable housing close to the city centre, with



New houses in Wiggins Umkumbane, Cato Manor.
One of several housing projects developed and managed by CMDA.



Test row houses
built by CMDA.

access to education, health care, shopping and recreational facilities, as well as opportunities for jobs. The idea was to create a structure consisting of activity corridors, that would give character to Cato Manor.³⁰

In 1993 the Forum was renamed the Cato Manor Development Association (CMDA), and was established as a non-profit agency to manage the redevelopment of the area. As a part of this initiative a structure plan was prepared. In 1995 Cato Manor was identified as a *Presidential Lead Project* in the Urban Renewal Category of the RDP programme with funding of R 130 million to the project as a result.³¹ There is currently a wide range of planning and implementation projects in progress in the area at the same time as new squatter areas are formed.

30 Robinson, "Cato Manor: A legacy of South Africa's past or a model for reconstruction?" *South African Planning Journal*, 42 June 1997, pp. 5–17.

31 CMDA, *Annual Report*, 1996.

Built Environment Support Group

The Built Environment Support Group (BESG) was formed in 1982 by staff of the Faculty of Architecture and Allied Disciplines at the University of Natal, Durban. Their intention was to provide planning and design services to community organizations who were unable to afford such services on a fee paying basis. It was then a voluntary organization with staff and students contributing their time and skills.³²

BESG is still a not-for-profit, non-governmental organization and has today twenty two staff members with skills in town planning, architecture, engineering, organizational development and adult education. The organization is currently involved in a wide range of housing and community facility projects, to provide training and organizational support to community based organizations and to undertake research and policy work.³³ Many of the professionals involved in housing development issues in Durban and its surroundings are previous staff members of BESG.

BESG was appointed by CMDA to design and implement a pilot social housing project in Cato Manor. The project will provide a mix of accommodation types with a housing association to manage the rental stock.³⁴

32 BESG, *Annual Report June 1994 – May 1995*, p. 3.

33 BESG, *Annual Report June 1996 – May 1997*, p. 3.

34 *Ibid.*, p. 9.

Process and Methodology

The main focus of this study is women, their needs and priorities, as users of housing. The study has a bottom-up approach. The process started with fieldwork among people living in an informal settlement. The aim was to get as close as possible to them and their homes. In South Africa the term top-structure is used for the house describing the physical structure constructed on top of the serviced site. We see the house as a home, not a top-structure.

The tools used for gathering information in Durban were interviews with women in the black community of Wiggins 5A in Cato Manor and documentation of their squatter homes. These investigations were combined with interviews with professionals involved in squatter up-grading, attending lectures and critical reading of written sources.

Fieldwork in Wiggins 5A

With help of Neil Klug, our supervisor in South Africa, we contacted the community of Wiggins 5A in Cato Manor. The community allowed us to use their settlement as a study area.

We were kindly introduced to the Development Committee at a meeting where we first met Thembi, one of two women in the committee. Thembi became our field assistant and arranged a meeting with a group of women interested in being part of our study.

These seven women, including Thembi, formed the so-called “Women’s Club”, which became our group of reference. Thembi also acted as interpreter if it was needed. It can be argued that the seven women represented women in general in Wiggins 5A, if their profiles are compared to the results of a survey done in the area.³⁵

The women are between 25 and 41 years old. One of the women is at home as a housewife, two are seeking work, one is employed part-time and three are employed full-time. Among the women three are involved in informal activities.

The household structures in our reference group were three woman-headed households and four man and woman headed households. One of the women is largely dependant on her brother, although she lives in her own house. Another lives with her parents and brother. All the women in the group have children.

35 A socio-economical survey made by DELCA research for Scott Wilson Kirkpatrick Project and Development Management in September 1996.

None of the women live in a traditional nuclear family consisting of a wife and husband living together with their children. They all illustrate common family patterns of South Africa today. Only one of the women is married, but she lives in an extended family and shares the household with her husband and children, her sister and her sister's husband and their daughter.

Two of the women live together with their boyfriends, but also their individual situations vary. One lives together with her boyfriend and their child and the other woman lives with her boyfriend and his son, but her own children stay with her mother.

Four of the women are single mothers, but their individual situations are different. Two live alone with their children. One woman lives alone with one of her children and has three other children who stay with a relative. One woman lives with her mother and brother and has a child staying with a relative.

According to the survey 33% of the households in the area have a monthly per capita income below R 200 per month. These income data should be estimated as "soft estimates", since the surveyors found difficulties in obtaining accurate figures on household income and expenditure. Because of this we did not ask about the women's economic situation, but we found that all of them lived under economic pressure.

Most of the women interviewed were busy during working days and we needed at least half a day together with them for each interview. The "Women's Club" therefore always meet during weekends.

Interviews and Documentation

A way for us to learn more about these women and their houses was through interviews. The interviews were carried out in two steps. The first interview was held in each of the women's homes. As a guide we used a questionnaire³⁶ with both open and structured questions. The woman was



*Fieldwork.
The organization
of the plot was
studied and the
vegetables grown
were documented.*

³⁶ See appendix.

Fieldwork. The size of the house and the building materials used was documented.



questioned about her daily life and asked to show us how she used the space during day and night, in summer and in winter. One of the women is deaf mute and we communicated with her through a woman who knew her sign language. Direct observations with photographs, sketches and notes were made to record arrangements made for activities inside and outside the house. In the interview we focused on the following activities and spaces used for them:

- Sleeping
- Storing, preparing and cooking food
- Eating
- Bathing
- Toilet
- Washing, drying of washing and ironing
- Gardening
- Income generating activities.

After the interview we measured the plot and drew a quick sketch of it, the same for the interior and the exterior of the house. The sketches were refined at a later stage.

To interview one woman and to document her house took approximately half a day. From the concrete level we moved to a more abstract discussion with the woman in the second follow up interview.

Ranking Cards

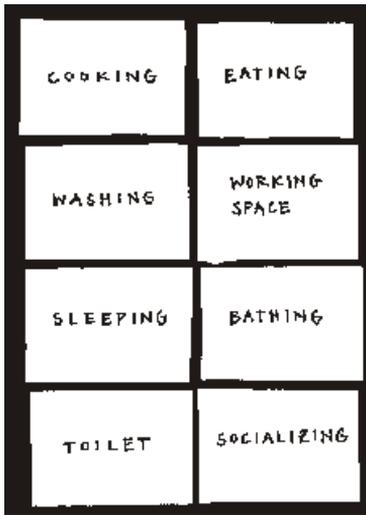
The follow-up interview was held in Thembi's house where we interviewed the women individually about their priorities and visions for the future. To approach these theoretical issues and lead the discussion, ranking cards were used. Options were given on the cards and the woman was asked to rank the options from her own values and to motivate *why* she made the choices. The options were chosen by us and the ranking questions were:

- What is most important for you?
Options: *health, family, house, car, security, garden and work.*
- If you were to build a house, what material would you use in the walls?
Options: *concrete blocks, corrugated iron, bricks, soil blocks, wattle and daub, masonite and wood.*
- What is most important in a house?
Options: *electricity, tap water, big room, security, light, insulation and ventilation.*
- What activity in your house is most important?
Options: *bathing, cooking, eating, washing, insulation, sleeping, socializing and toilet.*

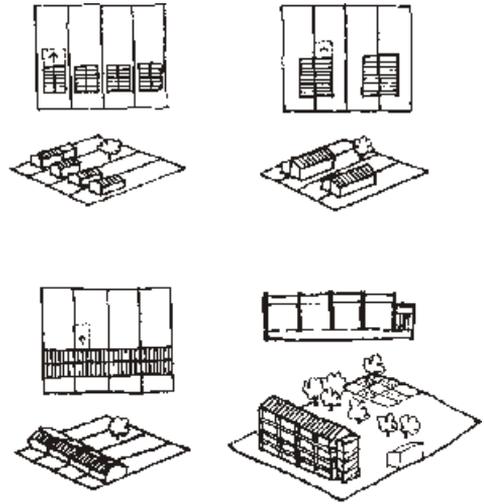
The women were also asked what they thought about different types of housing. Schematic pictures of a single house, a semi-detached house, a row house and a block of flats were shown. This question was given to stimulate her thinking of theoretical options of housing and had to be rather delicate. The community and the developer of Wiggins 5A were at



An interview carried through with the help of ranking cards.



Our rankingcards used in the interviews.



Images of types of housing used in interviews.

this stage engaged in sensitive negotiations on what types of housing were to be build in the area.

The women's visions of their future and their views on the development of Wiggins 5A, Cato Manor and South Africa were approached with the following open questions:

- What do you think you will be doing in ten years time?
- How and where will you live in ten years time?
- What are you dreaming about for your future life?
- What will Wiggins 5A look like in ten years time?
- What will Cato Manor look like in ten years time?
- What will South Africa look like in ten years time?

Professionals

Parallel with the fieldwork in Wiggins our supervisor helped us to get in touch with several professionals who recommended other persons whose experience could be useful in our study.

Interviews

We met and interviewed project managers, architects and town planners involved in the development of informal settlements. A questionnaire was used from which the interview was developed. We asked them questions about:

- Their background and how they got involved with low-cost housing and development issues.
- Experiences from low-cost housing projects in Cato Manor or other squatter areas.
- Their part in the development process.
- The housing subsidy system.
- Densification, different housing types and plot sizes.
- Additions to the low-cost house core.
- The future visions of Cato Manor.

All meetings were held in the professionals' offices for us to learn more about their working situation.

Feedback

At the end of our stay in Durban we gathered the professionals, whom we earlier had interviewed, for feedback discussions. We divided the professionals into three groups: consultants from Scott Wilson, representatives from the Cato Manor Development Association and the City Council, and private practising architects and planners. We had three separate meetings on the assumption that smaller groups generate more discussion. To direct the discussion we used a poster³⁷ with issues which we had found central in our project. Some of the words had illustrations. During the three meetings with different groups of professionals, each group had the opportunity to add words, statements or sketches to the poster.



Professionals gathered around the poster used in the feedback meeting.

³⁷ See appendix 2.

Critical Reading

We prepared in Sweden by reading books and reports recommended by our Swedish supervisor. In Durban we continued to gather written information on women's situation in South Africa, low-cost housing, squatter development issues and the Cato Manor area. The literature read is found in the *Bibliography* and is, in many cases, cited as references in this report.

The critical reading also included an active and reflective mind, while we "read" the environment of Durban and its surroundings. Several opportunities were given during our visit to have guided tours with professionals in Cato Manor and other squatter areas. Listening to the information given and reading the environment during these tours was also part of the study.

Lectures

The Architectural Department of the University of Natal gave a course called *The Several Cities of Durban* during our stay. The topic was the architectural history of Durban. The lectures were all given in the evenings and open to the public. One of the lectures, *Cities Apart*, focused on the townships and informal areas of Durban.

To our great joy Charles Correa came to Durban at the end of November and held a inspiring lecture about his work and his views on architecture in South Africa.

Methodology Evaluation

Instead of doing a superficial study through questionnaires we preferred to undertake in-depth interviews with a smaller group of women and detailed studies of their houses. It was our aim to achieve personal relationships with the women we met. We wanted them to be part of our study as individual subjects, not as objects. It was our hope that this approach would result in capacity building for all parties involved, Swedish as well as South African. It was our feeling when we left that we had achieved our aim.

The meeting with the Development Committee of Wiggins 5A was the starting point of our fieldwork. As the housing delivery system has a strong political tension, it was important that we emphasized that we were doing a study that would not directly result in better housing for the women who participated. We had to be careful not to raise expectations.

The gender perspective of the study was important to explain. The male dominated Development Committee, however, had no problem to accept that only women would be interviewed.

The only disadvantage with undertaking our fieldwork on weekends was that the men were often drunk in the late afternoon, and a foreign woman could feel uncomfortable in that environment. The advantage was that we

could spend a whole day in Wiggins, and Thembi was able to guide us through difficulties. All the first interviews and documentation of the women's homes were successful, except in one case. The difficulties appeared during the documentation, when a few male relatives of one woman did not like us being around. The problem probably occurred because the men were not given any attention and that they felt insecure about us being there while they were relaxing with beer and joints. The situation would perhaps not have happened if we had done the interview during a week days.

There is a handful of devoted people involved in low-cost housing and development issues in Durban. We had no problem getting in contact with these persons, since they all had good contact with each other on both professional and private bases. The three Swedish Annas were soon well known, and we always felt welcome to ask questions.

The feedback discussion was a way to present our project and the design process for those professionals we had been in contact with. The poster used during the feedback got a good response and was a useful tool for obtaining more knowledge and options about issues related to the study. Some of the professionals were too occupied with work to be able to attend the feedback sessions, but we are grateful to those who came and gave us some of their time. We found that the small discussion groups worked well.

Our aim was also to have a feedback discussion with the Women's Club about the proposals for different housing types. Unfortunately the risk of raising expectations was too high and the result of that discussion could have, according to project manager Graeme Bird, damaged the on-going development project.

What We Found

Wiggins 5A

The area of our field study is named Wiggins 5A. Driving on the N2 freeway in a northerly direction you can see a community of shacks on the right hand side, just before you reach the intersection with the N3 freeway. If you travel on Booth Road you will find Cotswold Road running up the hill splitting into two paved winding roads continuing on the summit of the ridge. Houses are clustered along the contours and a lush vegetation fills the spaces in between. Where Cotswold Road splits, an open space is formed. Two containers are placed here. If you visit during the day you



Wiggins 5A. Aerial photograph taken 5 April 1997.



*Attached houses
in Wiggins 5A.*

will find a crèche for the local children in one of the containers. If you, however, pass the containers on a Sunday, you may hear ear-splitting sounds from a church meeting.

Opposite the containers is a shared water standpipe and further down the road you find one more. There is a lot of activity – washing, chatting – around the standpipes and the water-selling business is guarded by men in small shacks.

The houses are built of all kinds of materials, but dominant are second hand and reused materials from the city dump combined with the traditional wattle and daub. There are only one story houses but the density is high. A common sight is attached shacks.

Garbage is placed somewhere close to the road and is collected once a week by Durban Waste and Water Management. During the dry season the prevailing wind,³⁸ which blows parallel with the coast, reaches the hills and blows dust all around. During the wet season the dust is transformed into mud and rainwater runs from the top of the hill through the houses down the steep slopes.



*Members of the
community in
Wiggins 5A
preparing for a
church meeting by
the containers.*

³⁸ The medium strong winds generally blow parallel to the coast, in a north-easterly or south-westerly direction. During winter the wind is relatively calm. In summer the wind is stronger. Winds from the south west bring in the majority of the rainfall during this period. Thunderstorms are common over Durban.

Second hand wood board used as wall material.

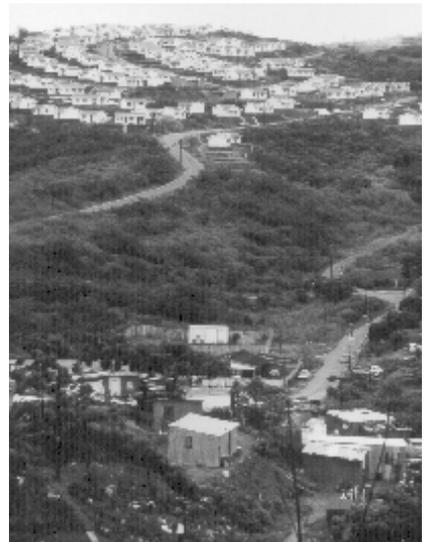


The dominant view for the people living in Wiggins 5A is the largest shopping mall in the southern hemisphere, The Pavilion. The shopping centre is totally foreign in its context, and it is impossible to reach “The Pav” from any direction other than the freeway. There is no pedestrian or public transport access to this fort. Nobody we spoke to in Wiggins 5A had been to the Pavilion.

In 1992 informal settlers, the Community of Nsimbini, were relocated from an intended school site to Wiggins 5A. Some services such as communal standpipes and communal toilets were provided at this time. Houses were to be provided to the 130 families that were moved from the school site. Roads and street lighting were constructed. Fully serviced houses (54 m²) were constructed on 69 sites. These were intended for coloured families but were illegally occupied by Africans. Another commu-



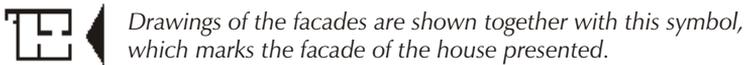
Wiggins 5A with the pavilion in the background.



Overlooking the next hill from Wiggins 5A.

nity, Emantendini, was later relocated to Wiggins, adjacent to the existing community, from an intended hospital site. The two communities of Nsimbini and Ematendeni have since been extended with people from other areas. The main reason for these people moving to Wiggins 5A was to get away from violence.³⁹ The number of households today are estimated at 368 with a population of 1756 people. During 1997/98 development has been taking place with Scott Wilson as the professional consultants and CMDA as the building developer. The planned Wiggins 5A area today comprises 288 residential sites.

Legend for drawings in chapter What We Found



³⁹ During the early years of political transformation in South Africa 1989–95 there was significant levels of political violence in these areas, mainly between ANC and Inkatha Freedom Party followers.

Seven Women and Their Dwellings

Cindy

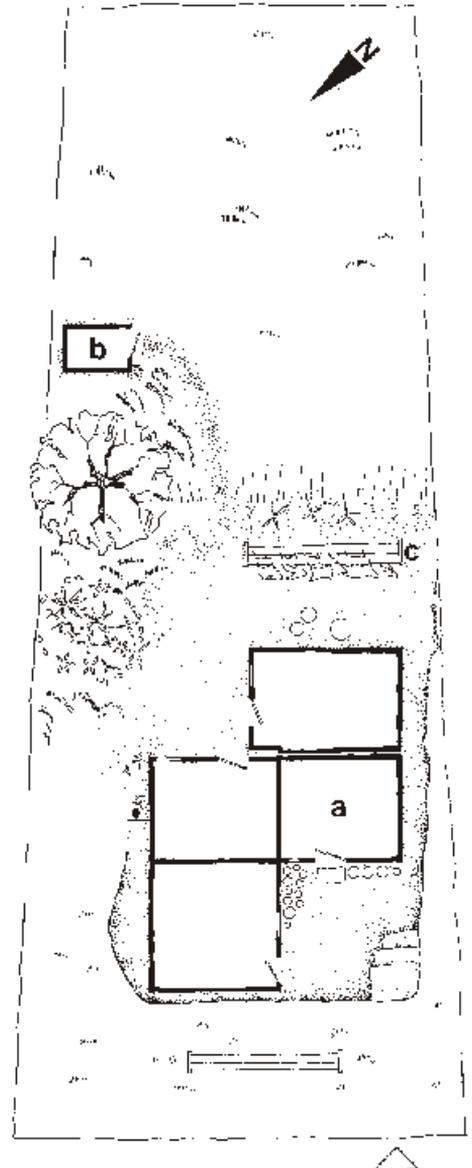
*You [yourself] are the security of the house,
because if you are good, people know and will help you.*

Cindy's house (a) welcomes you with green plants flourishing in pots in the yard just outside the door. When a pair of slippers is lying on the door-step, it means Cindy is at home, since she takes them off before entering her house. She is very careful about keeping her home clean and tidy.

Cindy is 33 years old and a single mother to her two year old daughter. She moved to Wiggins 5A in 1994 when she got the opportunity to build a house of her own next to a friend's house. Before she moved to Wiggins she lived in Chesterfield, but she did not like staying there because people drank too much, and as a single woman she did not feel comfortable.

She works in a child care centre, where she looks after children from the age of three months to three years. During her working hours her daughter is in the care of the community crèche. As a single mother she is very aware that she has to manage on her own. She talks very sensibly about the advantages of living next to other people, how you support each other by helping and simply being around.

Cindy's plot lies close to the road. The plot slopes and there is a differ-



Cindy's house, plot layout.

Facts about the house

Number of household members: 2

Tenant: no

Wall material: wattle and daub

Roof material: corrugated iron

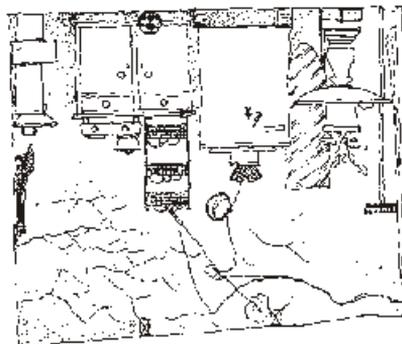
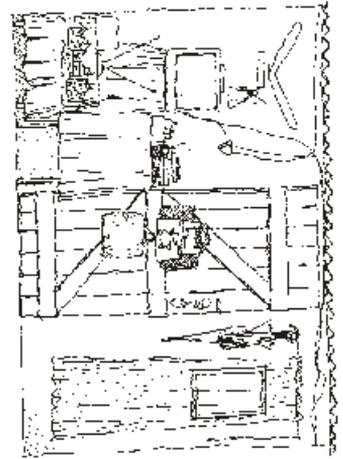
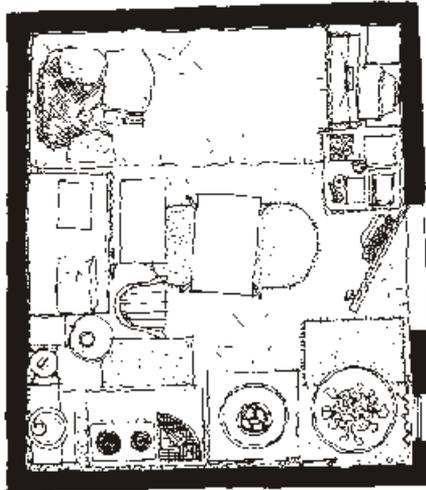
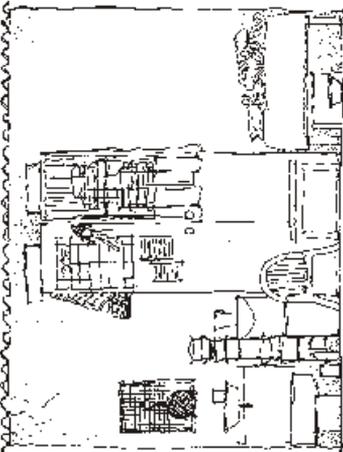
Number of rooms: 1

Number of m²: 7.5

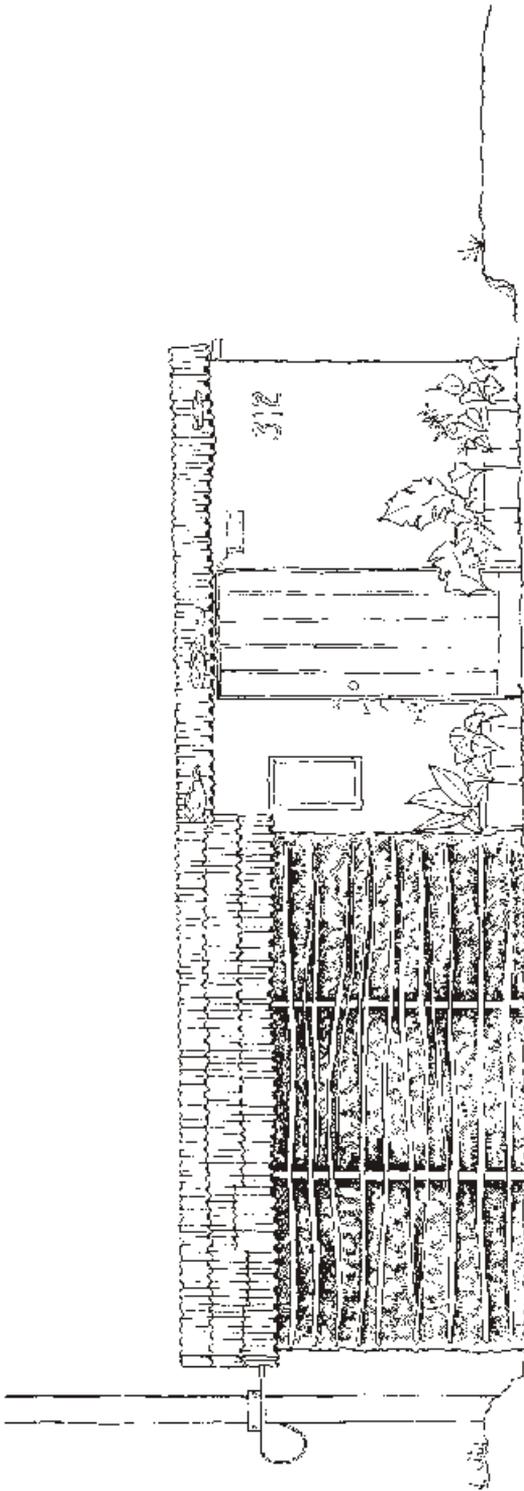
Electricity: yes

ence in level between the road and the house. To level the floor surface, the part of the plot where the house is situated, is partly dug out. The plot has a rectangular shape and extends down the slope. There is a pit latrine (b), washing lines (c), a tree and vegetables growing at the back of the house.

Cindy's house is attached to three other houses, in a way that they all together form one house with a yard in front of each door. Her house con-



Cindy's house, plan and interior elevations.



Cindy's house, facade.



sists of one room and measures about 3×2.5 meter. Within this room Cindy carefully organizes her furniture and belongings – bed, wardrobe, table, dressing table, TV, radio, fridge, cupboards, stove, buckets of water, container with different kinds of meal and pedestal with a green plant – to have enough space for everything.

Functionally the room is divided into two halves – a cooking area along one of the walls and a sleeping area along the opposite wall. The house is supplied with electricity, and she uses an electric stove for cooking. Next to the cupboard, on which the stove sits, there is a stand for pots. Vegetables are stored on a net rack next to the stove and fresh food in her fridge. China is kept in cupboards. She uses a fold away table for eating, which is placed out of the way when it is not being used.

The sleeping area is compactly arranged with her bed, wardrobe and dressing table.

Cindy has built her house herself using the wattle and daub method. Much clay has been used, and the intertwined branches are not visible. The roof is made of corrugated iron sheets and kept in position by heavy

stones. The door is made of wood and is painted red. There is a window next to the door.

As her house lies on a slope, she has problems keeping the rainwater out. She shows us how the water, in spite of the high threshold of the door, sometimes floods the floor.

Cindy is interested in gardening and dreams about living on a farm in the countryside and making a living from growing vegetables to sell in her vegetable shop. She explains that living in a town is hard since you have to buy everything you need. In the short term she is looking forward to a new house where she will plant her avocado, orange and Christmas trees, that she in the meantime nourishes with eggshells and soil fertilizer.



Cindy's house, facade.

Precious

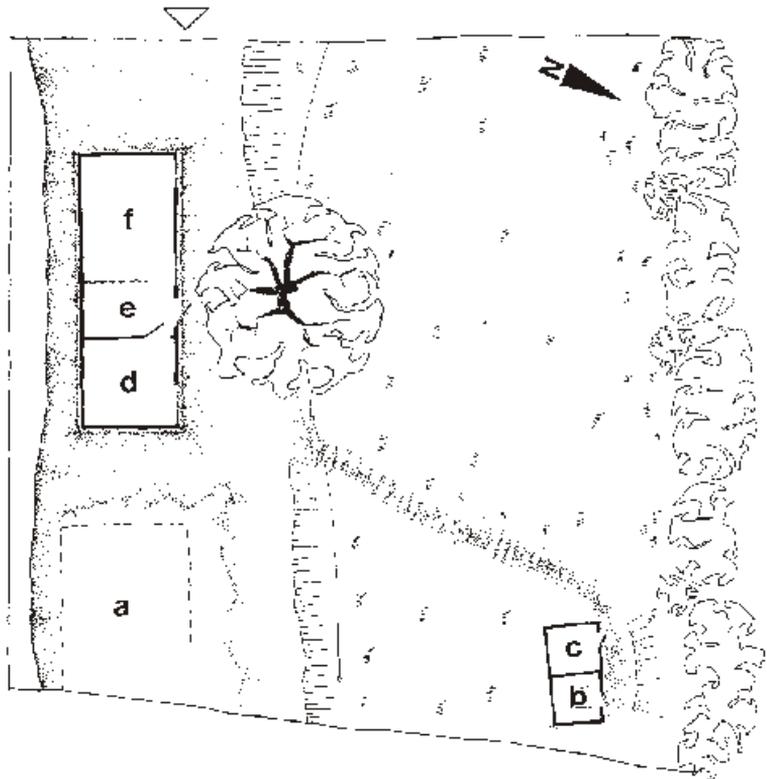
I want my house to be surrounded by a concrete wall.

Precious's house rests in the shadow of a mango tree. The plot slopes and the house overlooks the opposite hill. Precious likes the view. She likes it here. It is quiet. There are no drunk people around and no drinking places nearby.

Precious is 25 years old and lives together with her boyfriend and their six year old daughter. The three of them live in a house they bought for R 2,000 from the former owner.

They have a tenant living in one of their rooms, an arrangement Precious is not at all happy with since he brings in problems that she has to sort out.

Precious has temporary work as a domestic servant. She is not satisfied with the job as she has problems with her leg which has not healed correctly after a minibus⁴⁰ accident she was involved in some time ago. While she is at work her daughter goes to the community crèche.



Precious' house, plot layout.

⁴⁰ A minibus, called a taxi, frequently drives a route from the inner city to the informal areas. The minibuses have more expensive fares than the ordinary buses, but they drive more frequently, faster and pick people up and drop people off all along the route.

The house is situated close to the main road. It has a rectangular shape and lies along the contour lines. A half demolished house (a) lies next by. The plot is green and surrounded by luxuriant vegetation. A pit latrine (b) and an outdoor enclosure for bathing (c) is situated at the far end of the plot.

The house is divided into a large and a small room. The tenant lives in the small room (d), which occupies one third of the house. The large room, where Precious and her family live is divided by a curtain into two spaces – a kitchen area (e) by the front door and a sleeping area (f) further in. There is a paraffin stove on a table in the cooking area. Buckets of water are put by the table. The house is not supplied with electricity. Precious therefore stores fresh food in a fridge at a friend's house. To prevent draught in the house, newspaper is put along the joint between wall and roof.

The walls of the house are made of a steel frame and masonite cladding. There is a door and three windows at the front facing the sloping garden. The house has a curved roof, which is made of corrugated iron.

Precious thinks the wall material, masonite, is not a suitable material for a house. It has no insulation properties, and she tells us the house gets very hot in summer and cold in winter.

Her boyfriend is a very handy person and has built them the temporary enclosure for the pit latrine and bathing space. While we are talking to Precious, he is calmly painting the window frames red, and later on Precious shows us the trolley he has made specially for fetching buckets of water at the communal tap.

Precious is an active member of her church. She tells us that her religion comes first. The priest has blessed some water and a soap for her. She mixes some holy water with ordinary tap water. Before the family goes to bed they wash their faces with the water and the soap. A little is enough, she tells us.

Precious often spends her evenings reading and studying. She sits on a chair between the two beds, and if she needs to do written work she takes the TV down from the table. She hopes to finish her studies and work as a receptionist or a nurse. She wants to know more about computers, which she says is the thing of the future.

One week later we visited Precious again and some changes had been made. The tenant living in the spare room had moved out, and they had made this room into the parent's bedroom. The kitchen area was bigger, and the daughter had a space of her own.

Facts about the house

Number of household members: 3

Tenant: yes

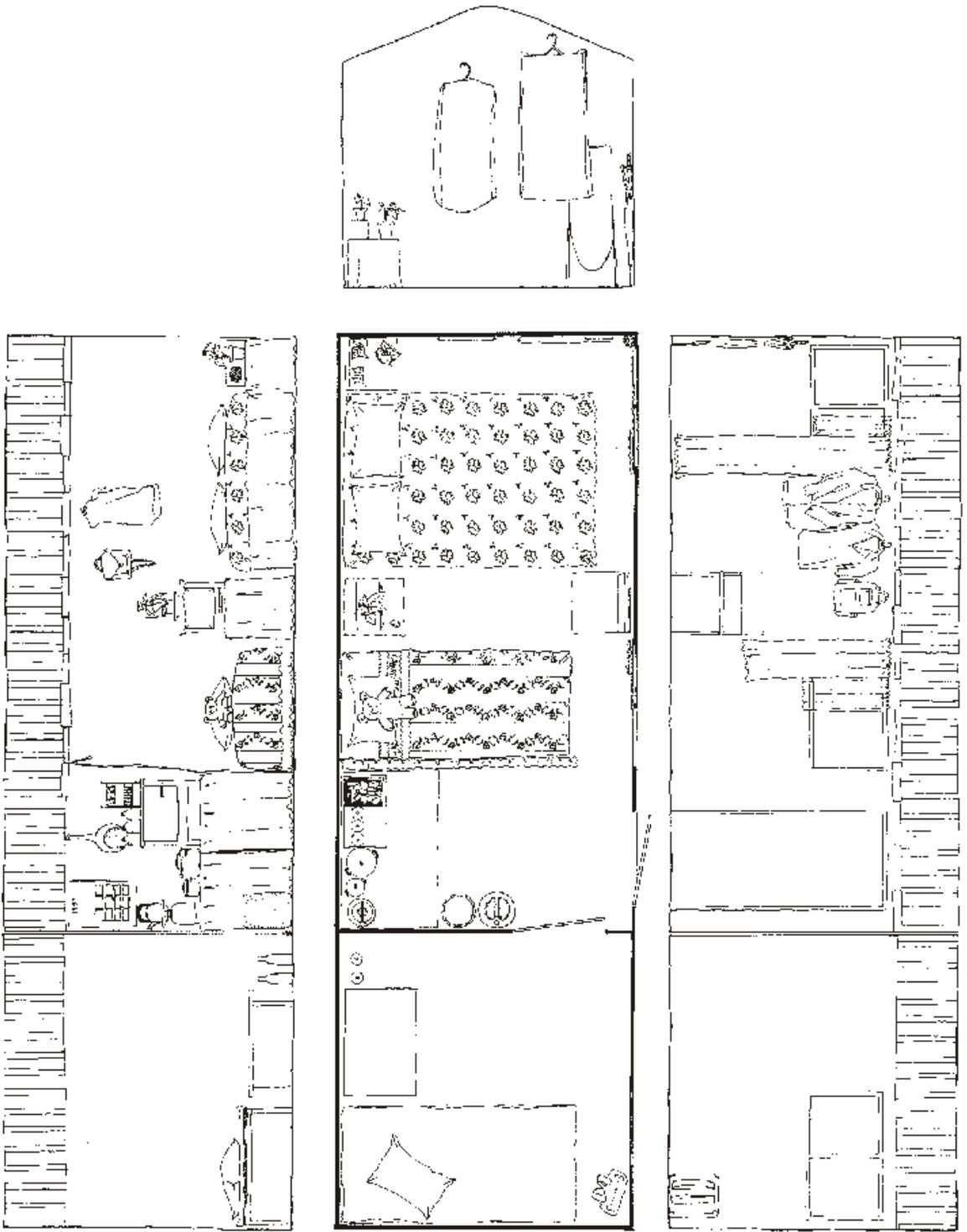
Wall material: steel frame with masonite cladding

Roof material: corrugated iron

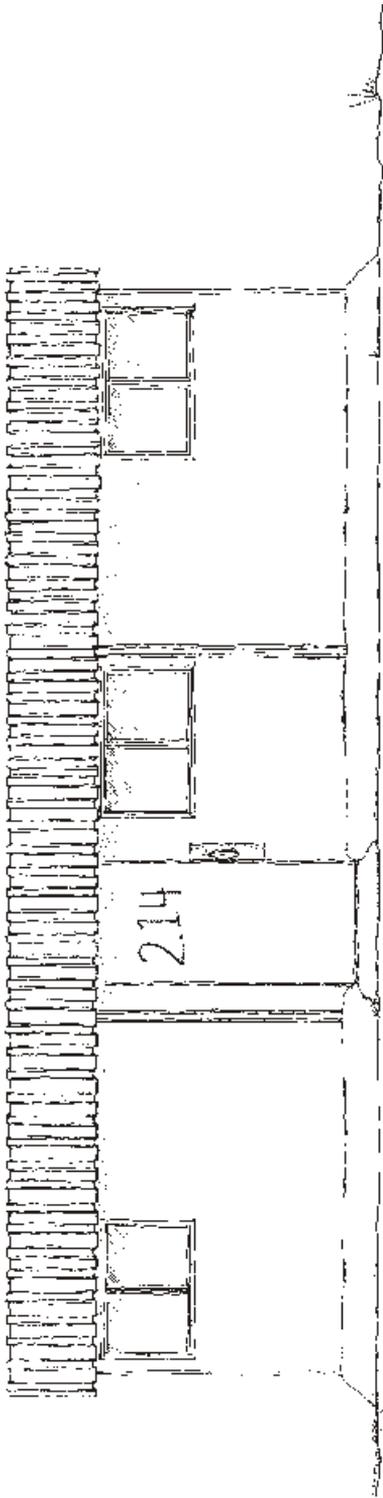
Number of rooms: 2

Number of m²: 17

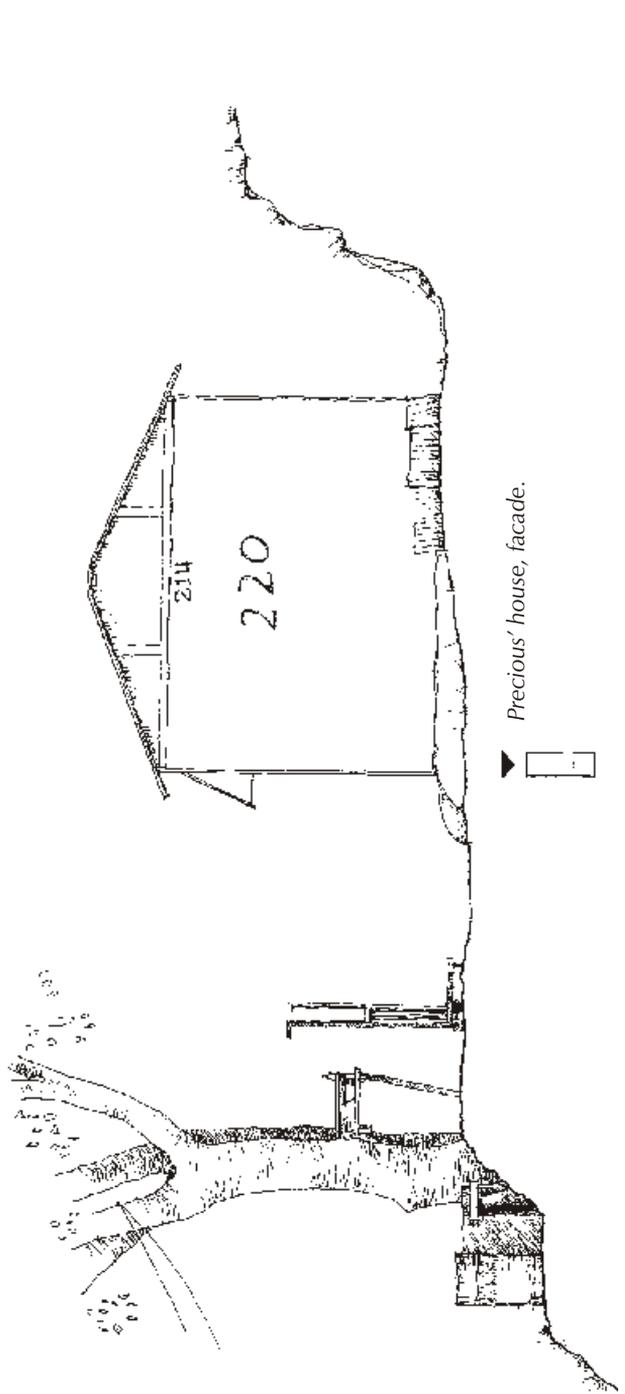
Electricity: no



Precious' house, plan and interior elevations.



▲ Precious' house, facade.



▲ Precious' house, facade.

Gloria

I'm sick and tired of wattle and daub.

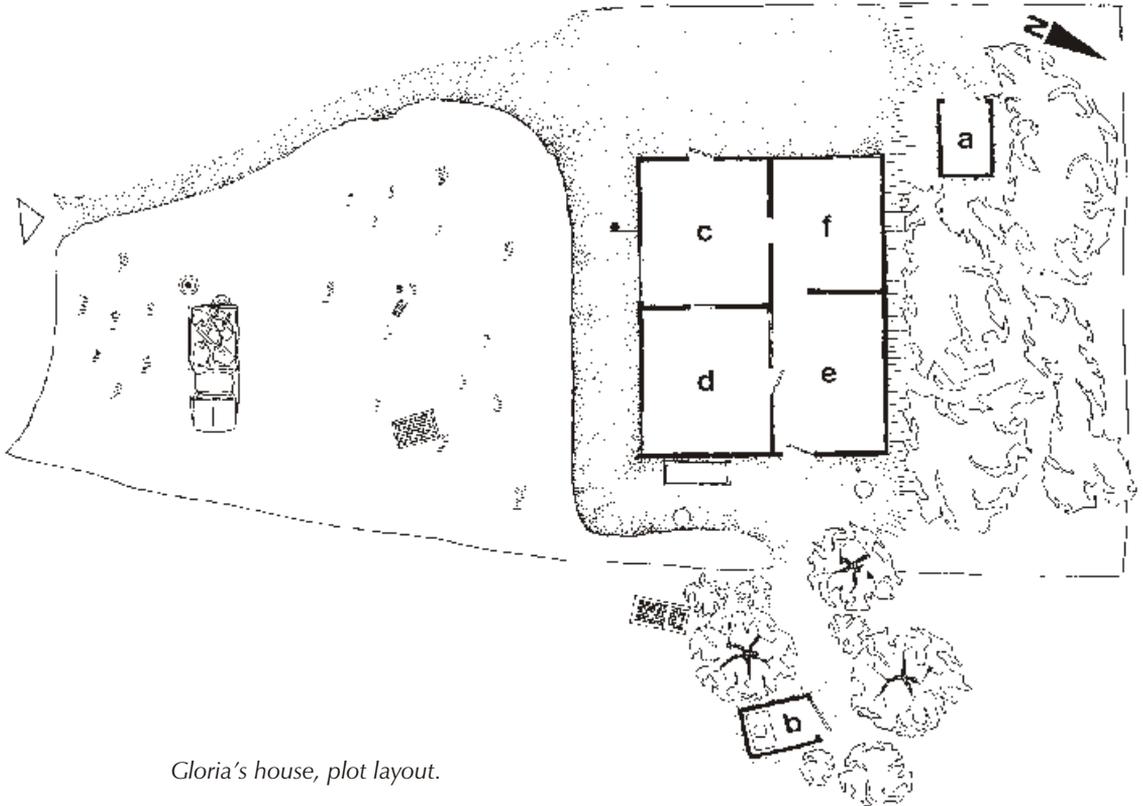
Gloria's house stands out against the surrounding houses since it is bigger and prefabricated. Gloria seems to be a very busy woman. She tells us she does not feel very attached to her house and that the best about it is her sewing machine.

Gloria is a 33 year old married woman. She lives together with her husband and their five children in a house they bought in 1992. Later on her sister's husband extended the original house with two additional rooms, and he and his family are now living in one of the rooms.

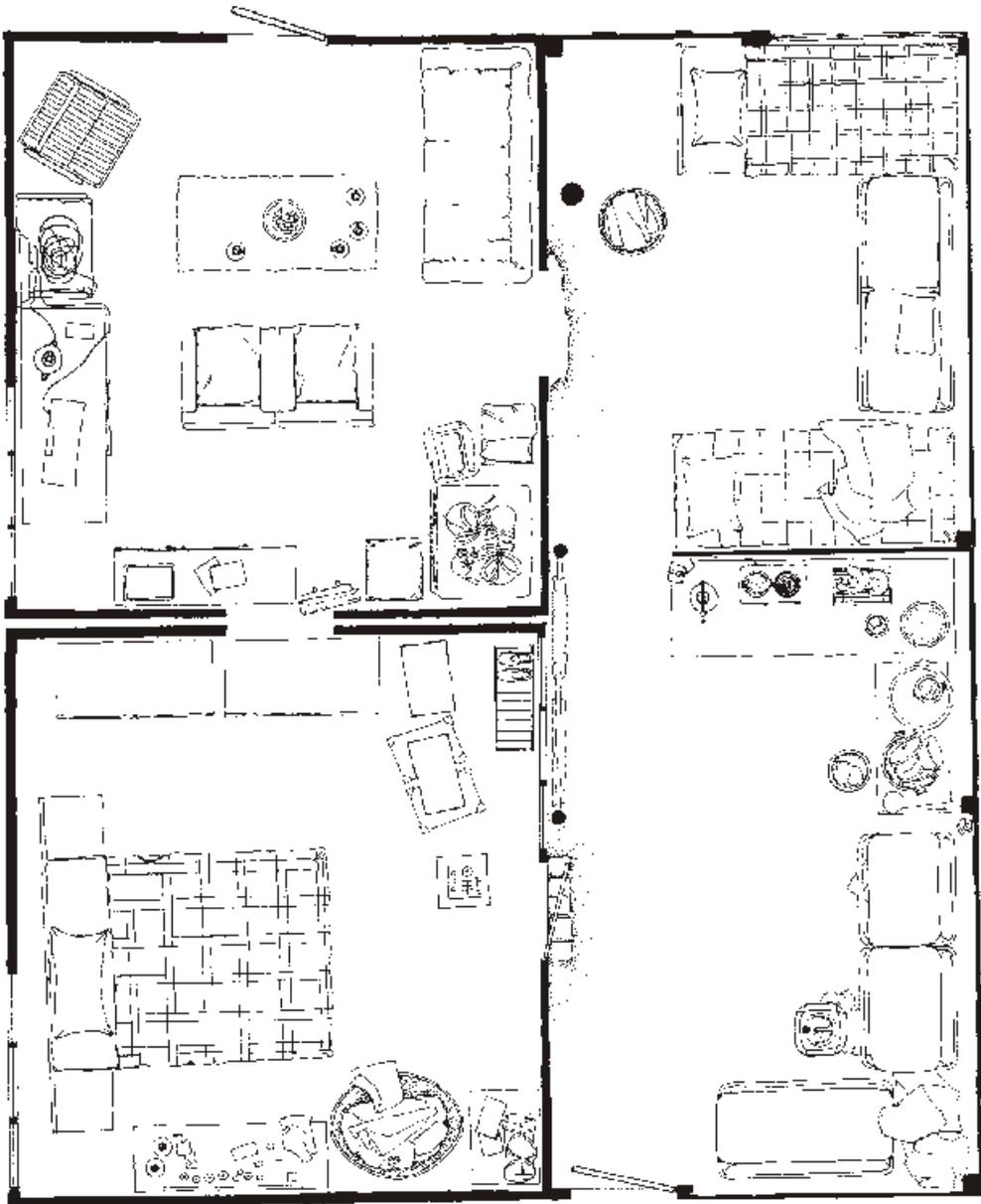
Gloria is a housewife, but she makes money from sewing dresses that she sells about twice a month.

From the main road there is a path leading down to Gloria's house. The house lies on a slope and overlooks the N2 freeway. The lowest part of the plot is so steep that one can hardly walk there. A small shack (a) that seems to be on its way down the hill lies next to the house. Gloria uses the shack for storing fabrics. A path leads to the back of the house and further on to the pit latrine (b).

The original house with the extension covers a square area and has two opposite entrances, one on either gable. We enter the house into a lounge

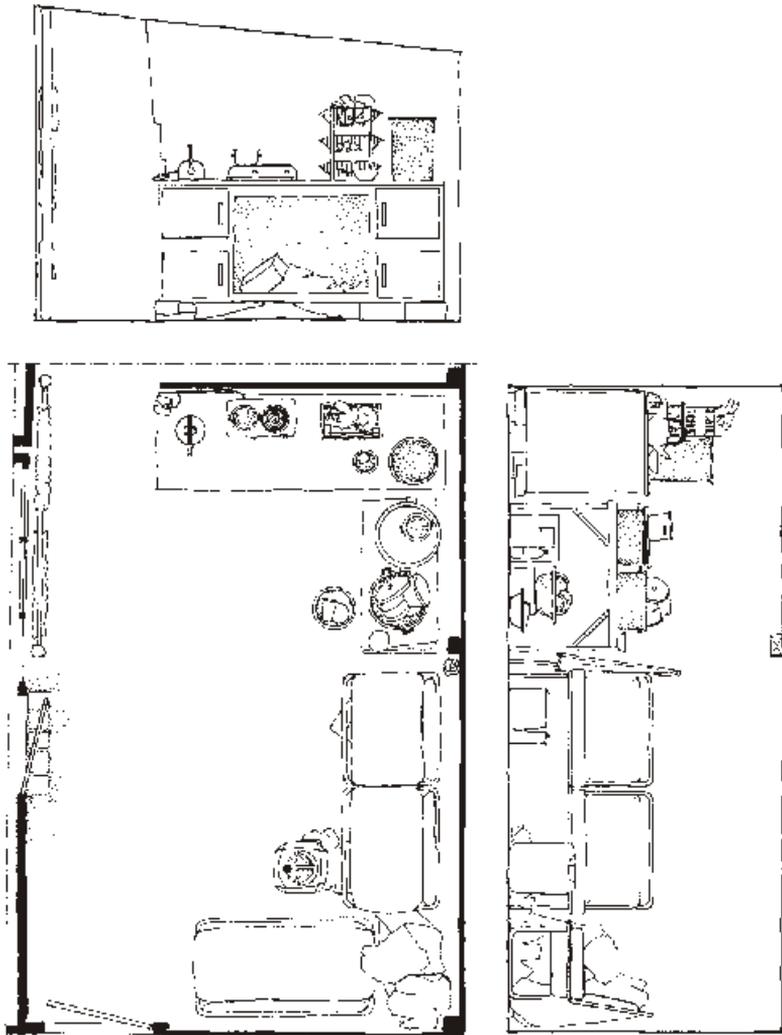


Gloria's house, plot layout.



Gloria's house, plan.

(c) with a sofa and two armchairs arranged around a table. An electric stove, a fridge and some kitchen utensils are also kept in the lounge. The original house is made up of two equally large rooms – the lounge and the parents' bedroom (d). These two rooms have one window each. The bedroom, where Gloria's two daughters also sleep, is, apart from the bed, furnished with a dressing table, a wardrobe, a cupboard and a shoe shelf. Her sewing machine is placed on a small table. Buckets with washing are kept



Gloria's house, plan of cooking area and interior elevations.

Facts about the house

Number of household members: 10

Tenant: no

Wall material: corrugated iron,
wood, cardboard, wattle and daub

Roof material: corrugated iron

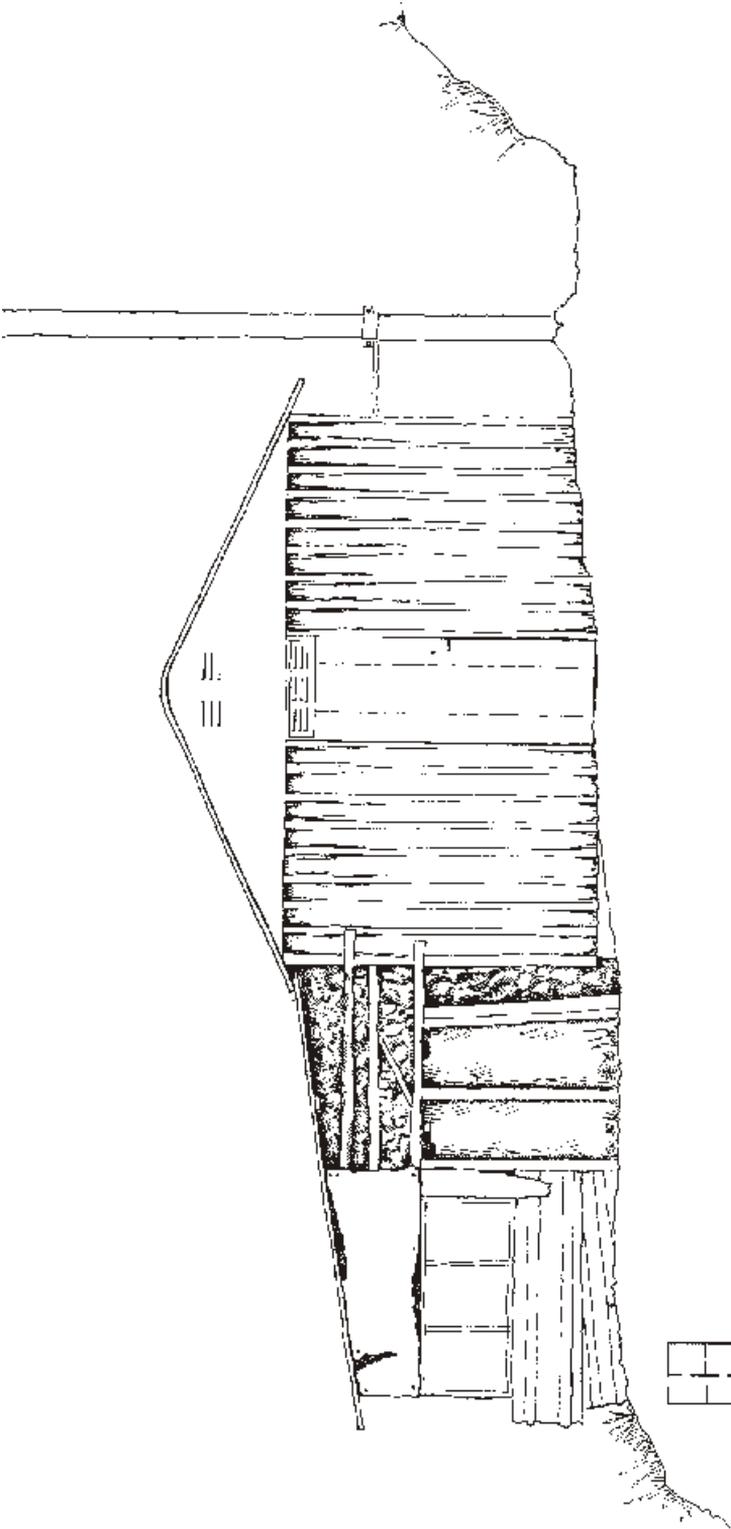
Number of rooms: 4

Number of m²: 47

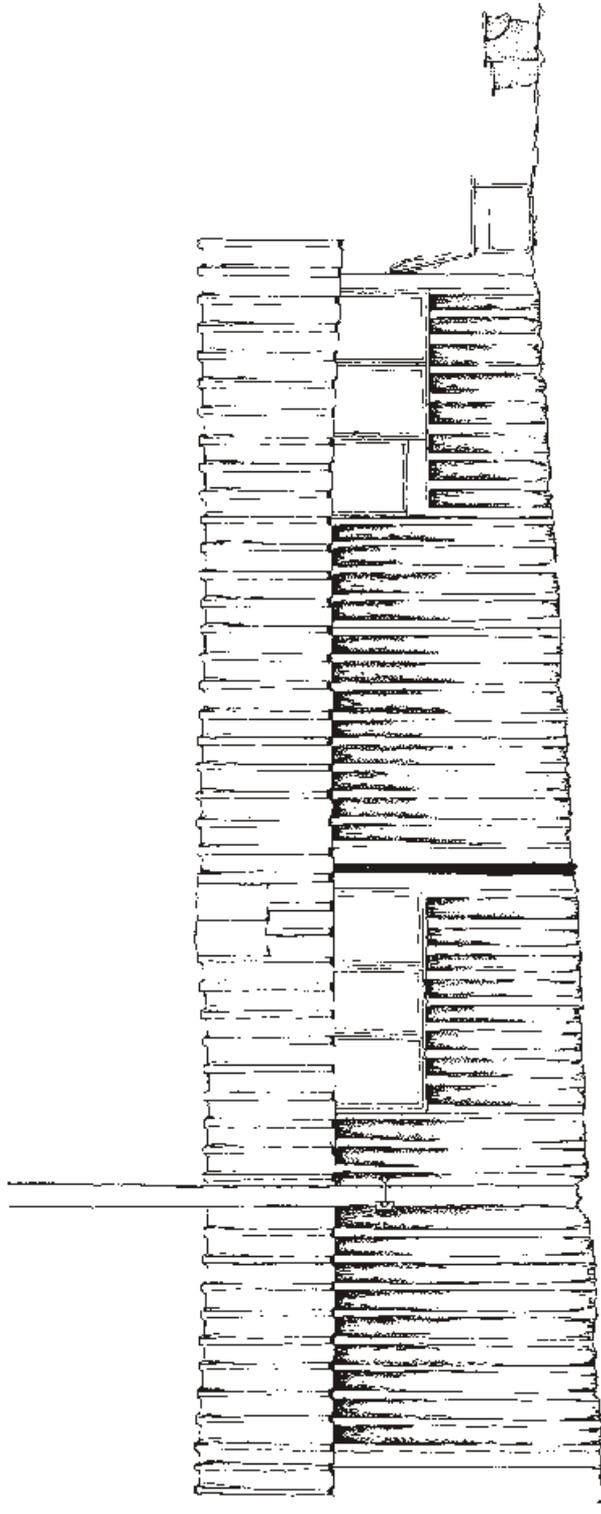
Electricity: yes

in the room as well. The original house is big – 8 × 6.5 metres – and the ceiling height generous – 2.8 metres to the ridge. Gloria points out the advantage of having a spacious house; it makes the indoor climate more comfortable.

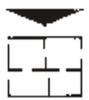
One of the rooms of the extension house functions as a cooking area (e). This room is



Gloria's house, facade.



Gloria's house, facade.



dark, without a window, but light gets in from the back door. An electric stove – the house is supplied with electricity – sits on a counter. A gas stove, not in use, works as a table for setting pots, china and containers. Plastic basins full of china and pots are on the floor. The second room of the extension house works as a bedroom (f) for Gloria's sister's family and for her three sons.

The walls as well as the curved roof of the original house are made from corrugated iron sheet that came as a kit from a company, which delivered and assembled the house in one day.

The extension of the original house is made of wood, cardboard, wattle and daub and corrugated iron.

Gloria is much involved in organizing church meetings on Sundays and sings herself in the choir. She often has people visiting, and she says it is important to have a space in the house for visitors.

Gloria finds gardening boring and time-consuming and tells us she would rather buy vegetables in the supermarket. The family has a car and her husband sometimes drives her to town to shop. In the future Gloria hopes to make money from car business, renting out trucks.

Thembi

It is important for me to have a job, so I can earn money and be able to pay rent for a house.

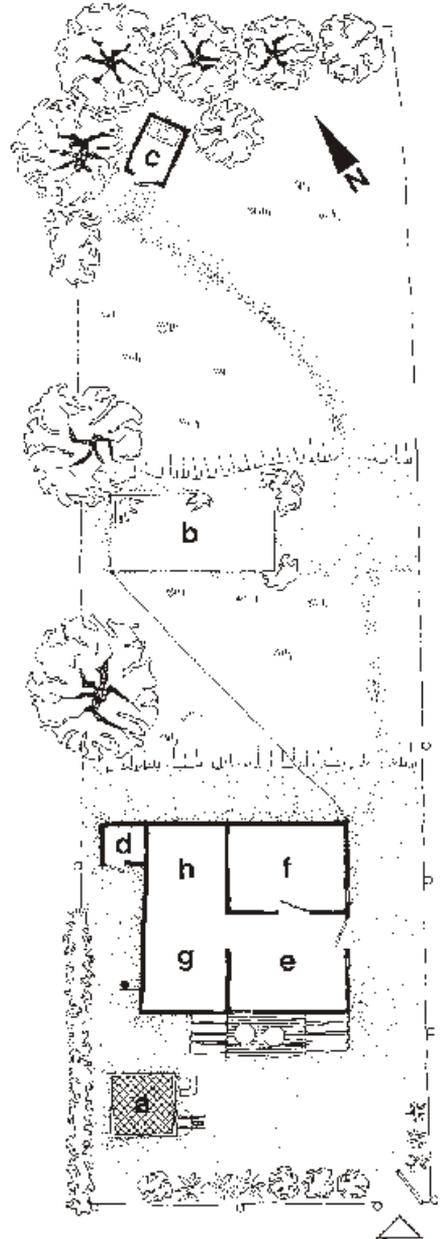
Thembi's house is surrounded by a fenced garden which we enter through a gate from the road. Thembi shows up in the doorway of her house wearing a beautiful scarf on her head. It is Sunday and she will take us along to the tent where a church meeting will be held later today.

Thembi is 27 years old and lives with her boyfriend and his 13 year old son. Her own children, six and two years old, stay with her mother on a farm.

She works five days a week as a domestic servant and sells sewing, which she does in her spare time. She shows us a tablecloth with flowers and glittering decorations she has made.

Thembi is one of the two female members of the Wiggins 5A Development Committee. Some time ago she started a part-time leadership course at university, that unfortunately was forced to end due to lack of funding.

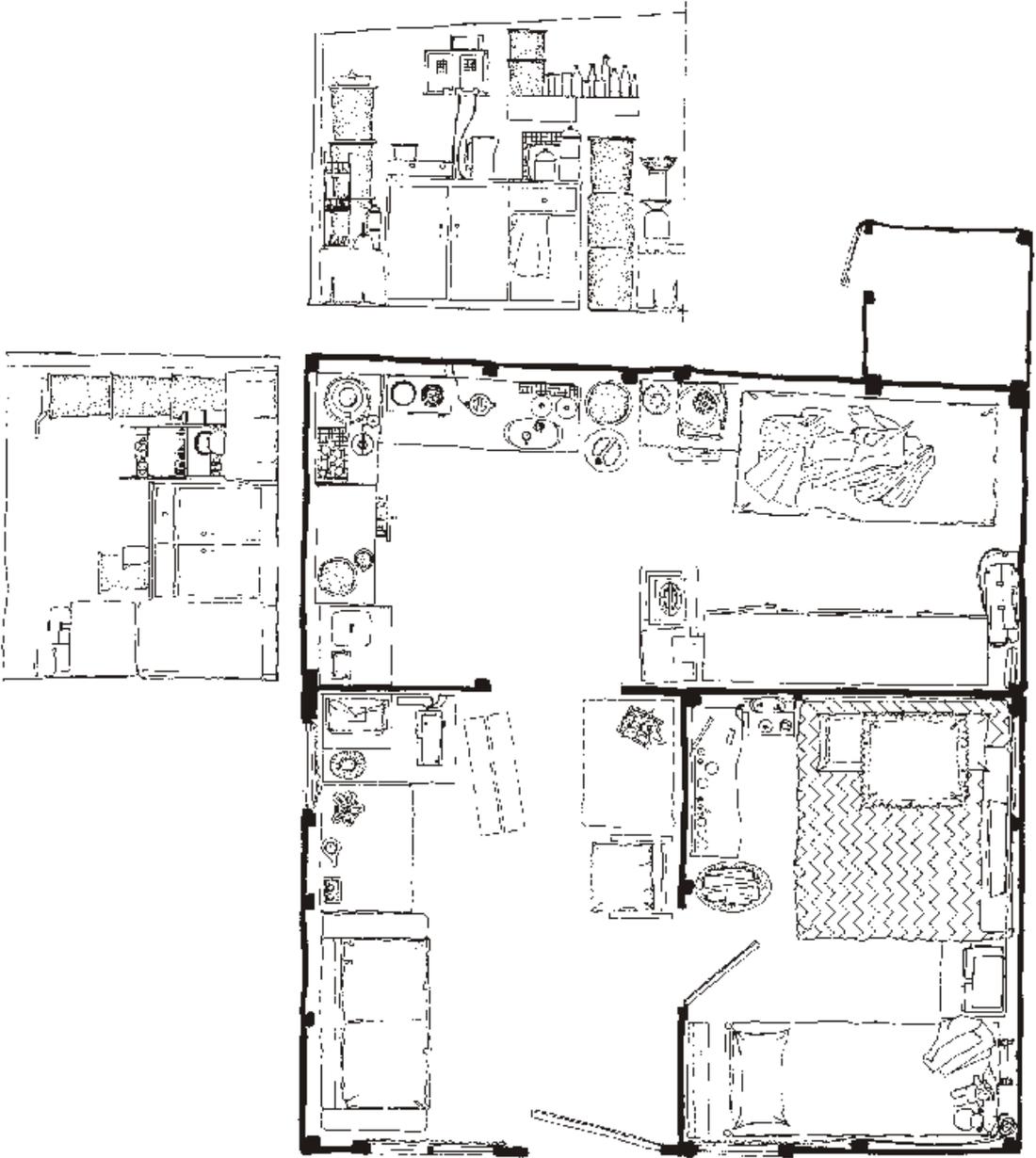
Thembi's plot lies above road level and a slope leads up to the gate from the road. In the front yard along the fence, plants grow in a straight row. A coop (a) and corrugated iron sheets, piled up along the wall of the house, are found in the front yard. She used to keep chicken in the coop, but they were stolen and now she uses the space for storage. The ground is levelled from the front yard to the back of the house. A washing line is put up between the house and a demolished house (b), situated further down on the plot. The backyard slopes down the hill and a pit latrine (c) lies at the far end, at the lowest point of the plot.



Thembi's house, plot layout.

An outdoor enclosure for bathing (d) is situated at the back of the house, close to the border of a neighbouring plot. The enclosure basically consists of a wood structure covered with cloth.

The house is divided into three rooms. The entrance door leads into a lounge (e) furnished with a sofa, a chair, a bench and three tables. A TV and a sewing machine is placed on one of the tables. This is the room



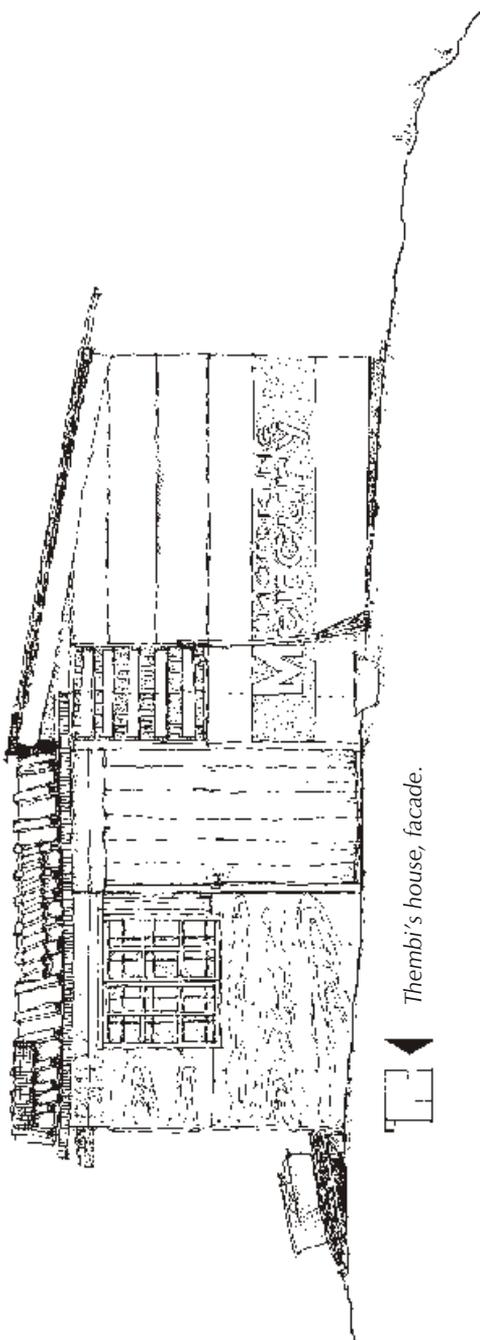
Thembi's house, plan and interior elevations.

where Thembi sees her friends when they are visiting. The room also functions as a working space for sewing and preparing food. The room is well lit, with light coming in from the door and two windows.

Thembi has a separate bedroom (f) for herself and her boyfriend. In this room there is also enough space for a dressing table and a bed that her children sleep in when they are visiting. To prevent draught, the walls are entirely covered with, milk cartons. The boyfriend's son sleeps on the sofa in the adjoining lounge.

There is a separate space for cooking and preparing food (g). The room is dark and without a window. The most dominating in the room is a cupboard with an electric stove and a kettle on top of it, a fridge, and many buckets piled on top of each other. The house is supplied with electricity, which she thinks is very convenient. The space close to the cooking area is used as a storage room (h) – this space also without a window – and is furnished with a spare bed for visitors and a wardrobe. Thembi's mother sleeps here if she visits during weekends.

Thembi and her boyfriend built the house in one week in 1992. They used building materials they found at the municipal dump, along with bought second



Thembi's house, facade.

Facts about the house

Number of household members: 3
Tenant: no
Wall material: plywood boxes, wood, corrugated iron, milk cartons
Roof material: corrugated iron
Number of rooms: 3
Number of m²: 24
Electricity: yes

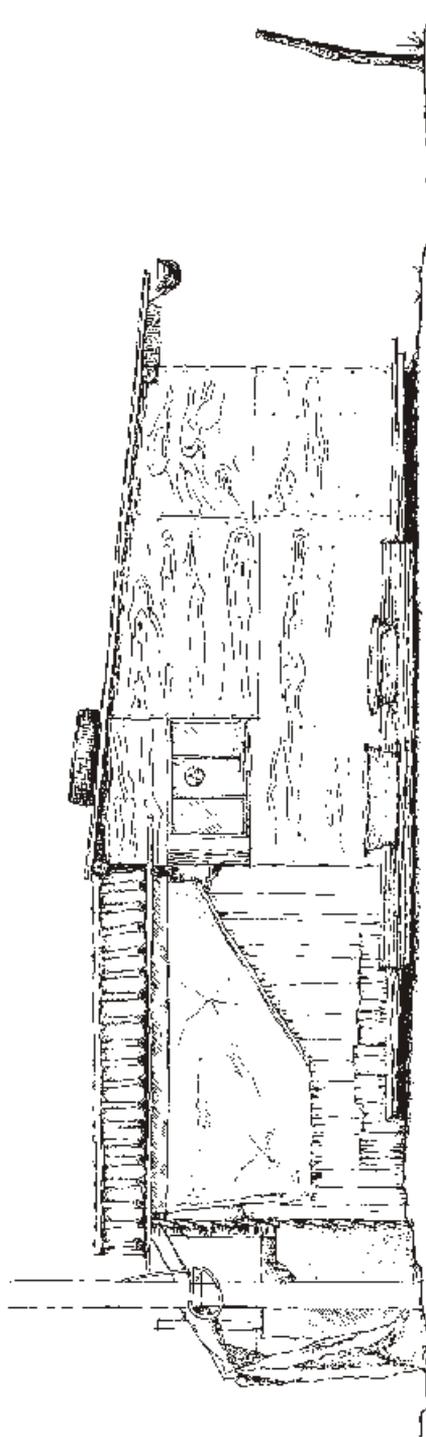
hand material, such as plywood boxes, corrugated iron, wood and milk cartons. In 1995 an additional room was built using the same kind of materials.

Thembi thinks that the best quality about her house is that it comforts and protects her. This does not alter the fact that the house is poorly constructed. She tells us she has problems with keeping the storm water out of the house and that the water sometimes floods the floor. The walls are very thin and there is a draught coming through the joints, something she is not satisfied with. But at least, she says, they have an electric heater that can be used when it gets too cold.

She collects rainwater from a gutter hanging from the roof above the door. The rainwater is useful for washing clothes, washing up and as bath-water.

She tells us that since the soil is very poor, it is a good idea to grow plants in a barrel cut in half lengthways; something she learned from a gardening project she participated in.

In the future Thembi hopes to have a nice and clean house. Her kitchen would have a fridge full of fresh food; she would have a microwave, and the cupboards would be built in. The bathroom would have a big basin and hot and cold water. The walls of the house would be painted white, and the house would be very light.



Thembi's house, facade.

Florence

A good house for me means a place where I feel secure and have everything under control and that is the way I feel inside my house.

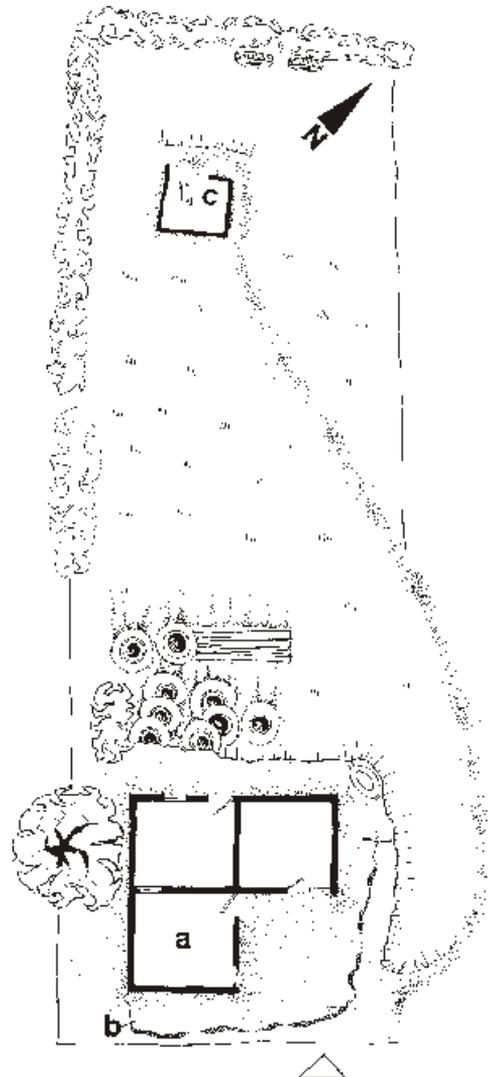
Florence's house (a) is attached to two houses creating a yard at the front of the houses. The yard is empty and the house looks a bit deserted. Only a fence (b) and a washing line is put up along the border of the plot.

Florence is a 41 year old single mother living with her 18 month old daughter. She has another three children staying with her brother on a farm outside Pietermaritzburg. She has been unemployed for three years and her only income is from selling second hand clothes. Her boyfriend, who lives somewhere else, has put her in a dependent position. He supports her with money but he only comes visiting from time to time.

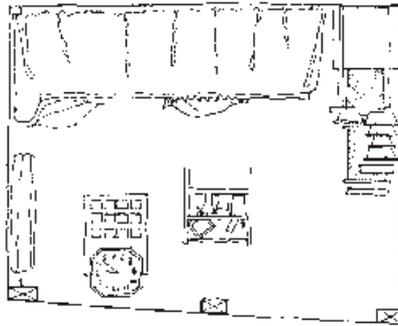
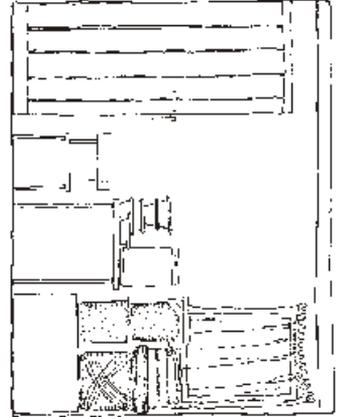
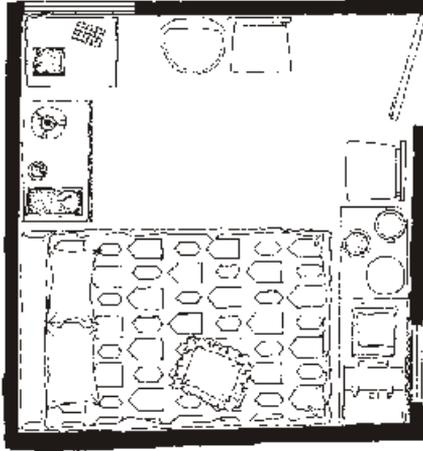
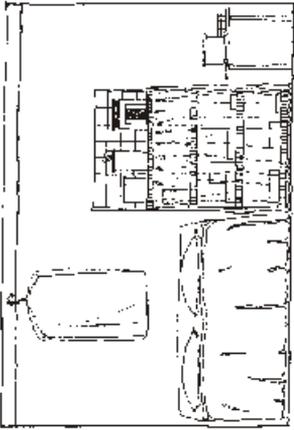
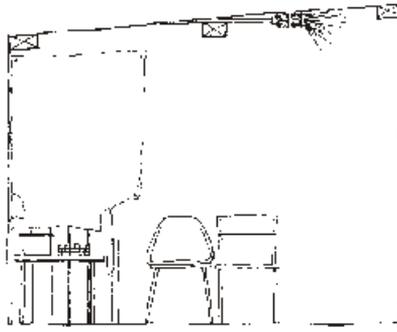
Florence's sister built a house attached to hers in 1995 and is now completing a second room. A third sister is on her way to settle close to the others as well. Florence finds it good that the family clusters in one place.

The last week has been chilly and her daughter has caught a cold. While we are visiting she is resting on Florence's back.

Florence's plot is situated just off the main road. The fence along the road in the front yard is put up to hinder her child from running out onto the road. At the back of the house the plot slopes down the hill. To prevent erosion the earth is supported by tractor tires at the steepest part of the plot. She grows plants in the lower part of the plot. A pit latrine shack (c) is situated at the far end. She tells us she has to mind her step when visiting the toilet after dark, as there are no proper steps leading down the slope.



Florence's house, plot layout.



Florence's house, plan and interior elevations.

Facts about the house

Number of household members: 2

Tenant: no

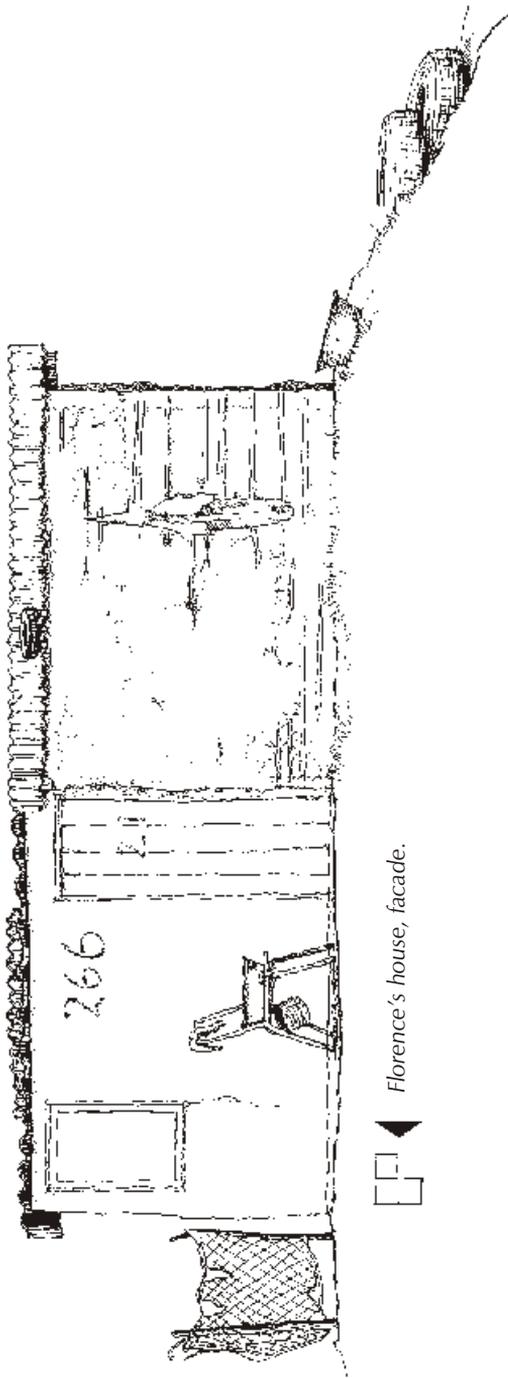
Wall material: wattle and daub

Roof material: fibre cement

Number of rooms: 1

Number of m²: 6

Electricity: no



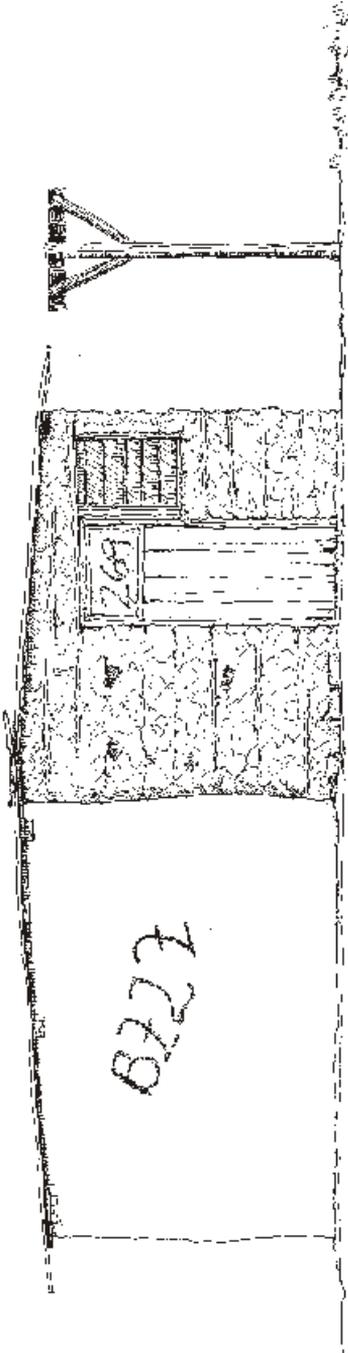
Florence's house, facade.

Florence's house consists of one room. In spite of it having only one window, the room is not too dark. The room is furnished with a bed, two tables, three chairs and an open rack of shelves. There is a paraffin stove – the house is not supplied with electricity – set on the top shelf. Some pots are on the table next to a chair by the door. This is the table where she sits to prepare food. She keeps her clothes and other things in buckets and a basket. A broom is wedged between the roof and a beam. Even though she has few belongings, the room is filled by her furniture, and there is not much open floor area.

The house was built by her boyfriend using the wattle and daub method. The roof is made of fibre cement and the door is made of wood.

There are some problems with the house, she tells us. There is a bad draught in the room. The low ceiling height – 1.9 metres – makes the indoor climate hot and the room unpleasant to stay in during the summer. The house easily gets dusty and is therefore hard to keep clean.

We only met Florence once. She was away from Wiggins 5A during a couple of weeks, since she had to spend some time at the farm because her children were ill. Later on she got a temporary job as a domestic servant as Christmas was coming.



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Florence's house, facade.

Nompumelelo



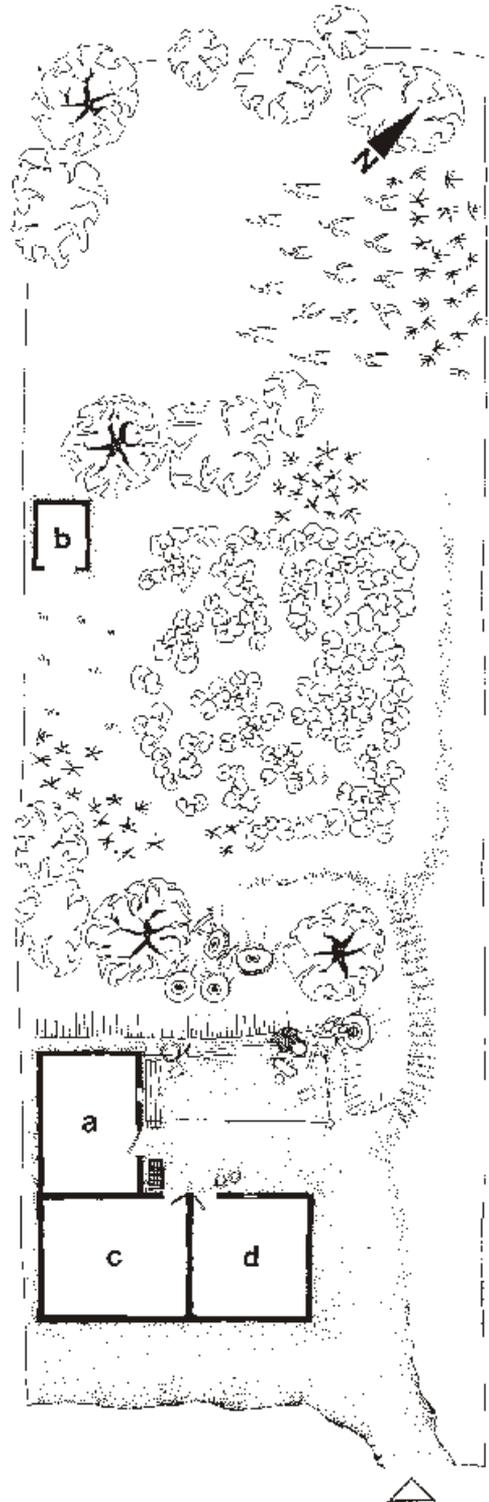
Nompumelelo's house is hardly visible from the road as it is situated on a slope some distance from the road. There is a lot of activity near her house. Her brother has gathered some male friends around his tape recorder, and they are relaxing on a bench in the shadow.

Nompumelelo is 32 years old and lives in a house (a) attached to her parents' house, where her brother also stays. She has a 13 year old daughter who lives on a farm.

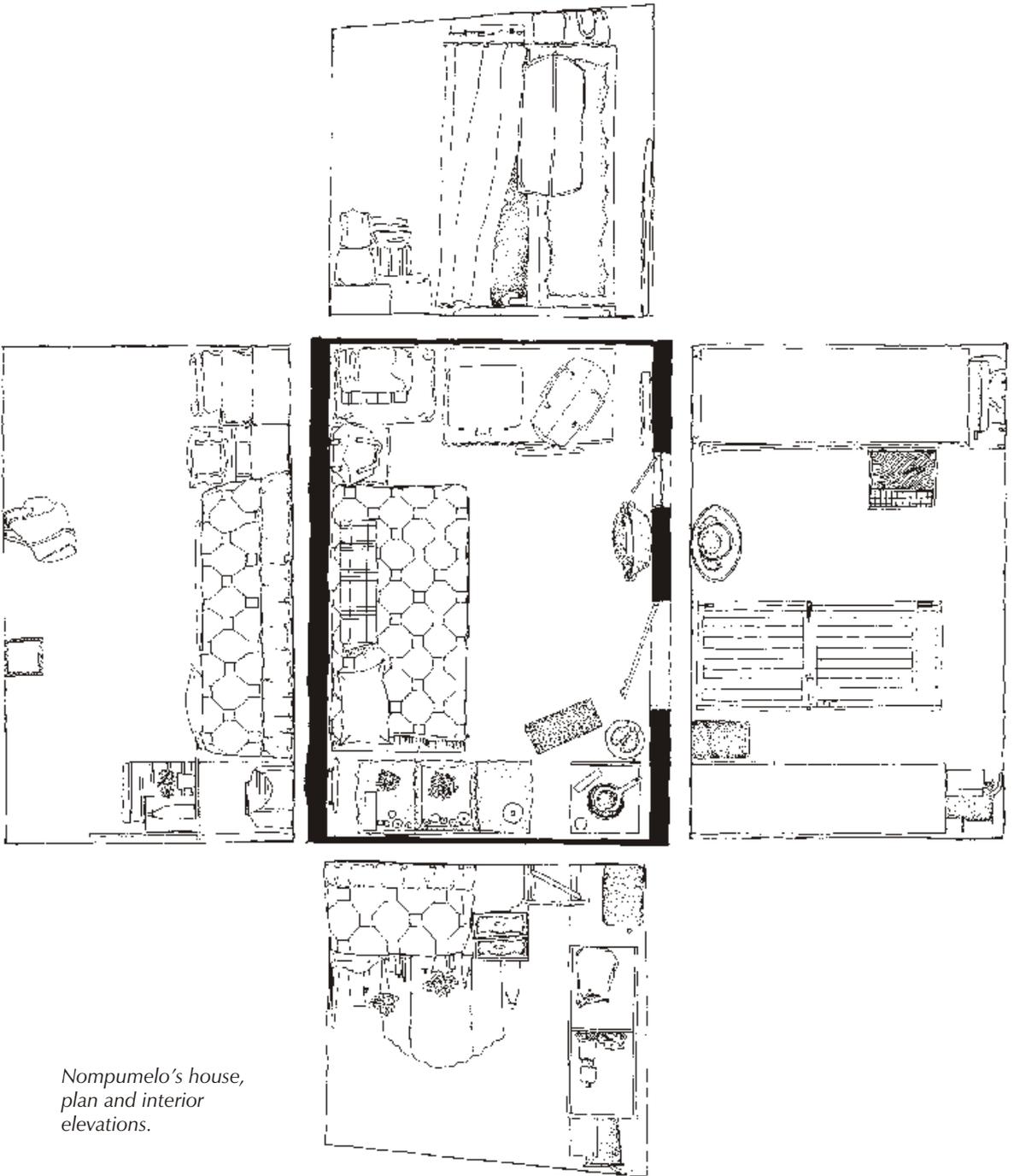
Nompumelelo is a deaf mute and communicates with sign language. If she does not make herself understood with sign language she writes the message down quickly on her hand.

As Nompumelelo is handicapped, she is very dependent on her family, and finds it convenient living next door to them. She works as a domestic servant one day a week for an Indian family. During the rest of the week she stays home and helps her family by fetching water, washing, cleaning and cooking. She also has a big garden that needs to be tended. She is very proud of her garden and wants us to take many photographs of it.

A path from the road leads down to the house. The ground is levelled around the house, but slopes steeply further down on the plot. The house overlooks



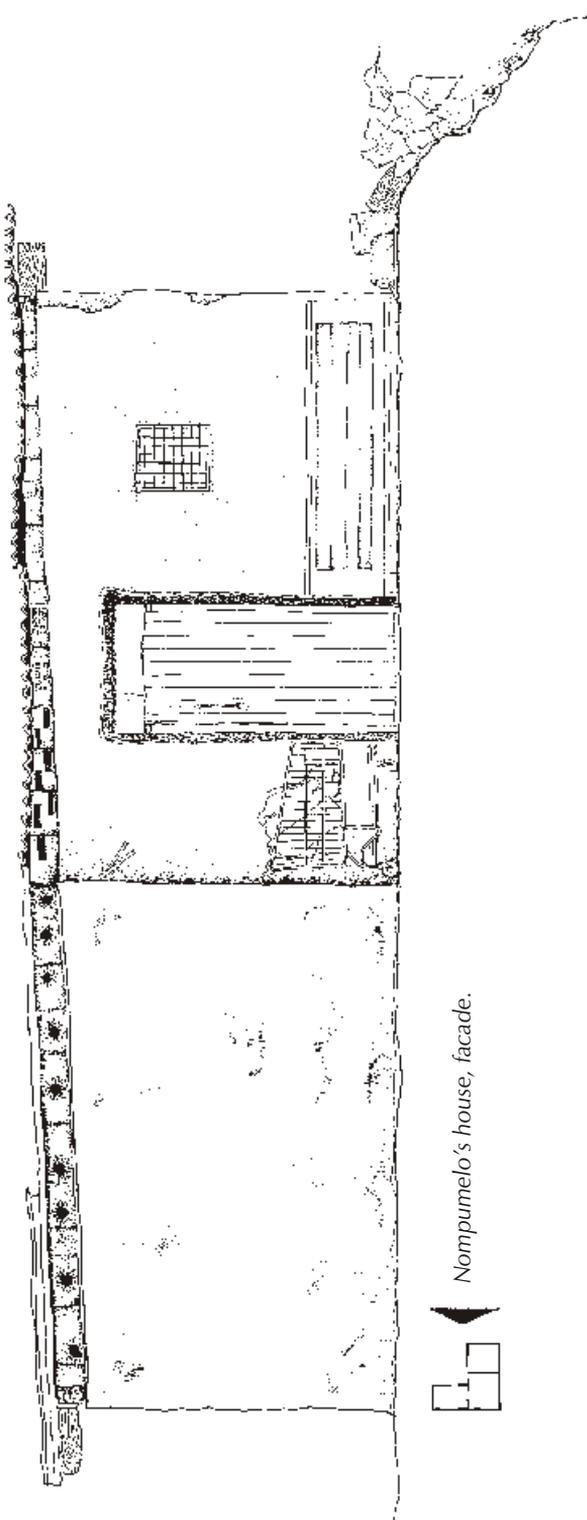
Nompumelelo's house, plan layout.



*Nompumelo's house,
plan and interior
elevations.*

the green and lush garden, which is reached by steps leading down the slope. The pit latrine (b) is hidden among trees and bushes.

The house is made up of three rooms. Apart from Nompumelelo's room there is a room with a cooking area and her mother's bed (c), and a



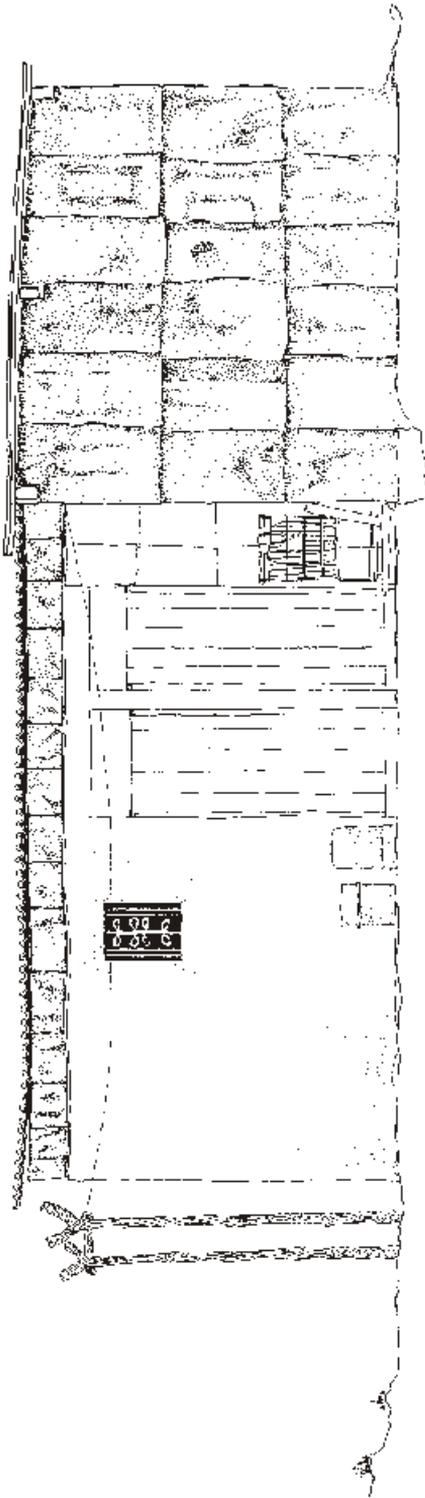
Nompumelo's house, facade.



third room (d), also belonging to her family. The house forms an open space in front of the doors. This space, furnished with a low bench, is used as an outdoor living room, where socializing takes place. Two washing lines are there as well.

Nompumelo shares the kitchen with the rest of her family. She stores some kitchen utensils and food in a cupboard in her room. The room is narrow and her furniture is therefore placed in a row – dressing table, bed, wardrobe. Her room has a small window, and with the door closed the room gets dark. To prevent draught the walls are partly covered with cardboard. She has a lot of belongings, put in bags and big plastic bags, piled up in one corner of the room. Two stuffed suitcases are on top of the wardrobe.

Her father built the house of materials bought in a garbage shop. Two walls are made of wattle and daub and the other two of metallic sheets from second hand containers. The roof is made of corrugated iron.



Nompumelo's house, facade.



The interview was carried out with the help of Precious who, as an old friend of Nompumelelo, was able to translate their own special sign language into English.

Some signs:

- rub chest* = good, happy, something she likes,
- thumb up* = OK,
- clap hands together* = meeting or 10,
- point at breasts* = woman,
- big head* = her brother,
- no teeth* = her mother.

Facts about the house

- Number of household members:* 4
- Tenant:* no
- Wall material:* wattle and daub, metallic sheets
- Roof material:* corrugated iron
- Number of rooms:* 3
- Number of m²:* 29
- Electricity:* no

Grace

Shacks are not good for health.

Grace's house is one of several houses in a row, connected by a footpath. Her brother lives next door, something she is very happy about, she tells us, since it makes her feel more secure.

Grace is 28 years old and lives on her own with her 4 year old set of twins. Grace is Sotho and not Zulu, but says she has no problems understanding Zulu.

She has a boyfriend but he lives somewhere else. When she moved to Wiggins 5A in 1995 her brother helped her to build her house. She does not feel entirely secure here and explains about an incident that happened not long ago where a man was stabbed to death just a few meters from her house.

Grace is unemployed and looking for all kinds of work. She is doing a correspondence course at the moment and tells us she is struggling to get a better education.

Before offering us *Fat Cookies*, Grace washes her hands carefully. Her twins are dressed the same and cling tightly to her during the interview. She is pregnant with a third child, but says it is her last one. Three is enough.

Grace's house lies close to the N2 freeway and there is a constant noise from the passing cars. The houses of the area – Wiggins 5A – sprawl down the hill to the freeway, and Grace's house lies on one of the settlement's lower points. A short walk on a footpath links the main road to her house. Grace's house occupies most of the plot – a small yard in front of the house and a narrow strip at the back is left over. There is not space enough for growing vegetables around her own house, but she grows some on her brother's plot. She has no pit latrine of her own but uses a neighbour's a few houses away.

Grace lives in a single room house. The space is limited, and the furniture is placed close together along the walls. There is a cupboard and a table with a paraffin stove on top of it in the corner opposite the door. She stores food and china in the cupboard. The house is not supplied with electricity. The bed is, with only a chair in between, close to the table with the stove on top. A dressing table is next to the bed and next to it buckets

Facts about the house

Number of household members: 3

Tenant: no

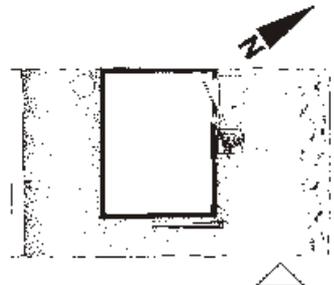
Wall material: wood, bricks, corrugated iron, fibre cement

Roof material: corrugated plastic

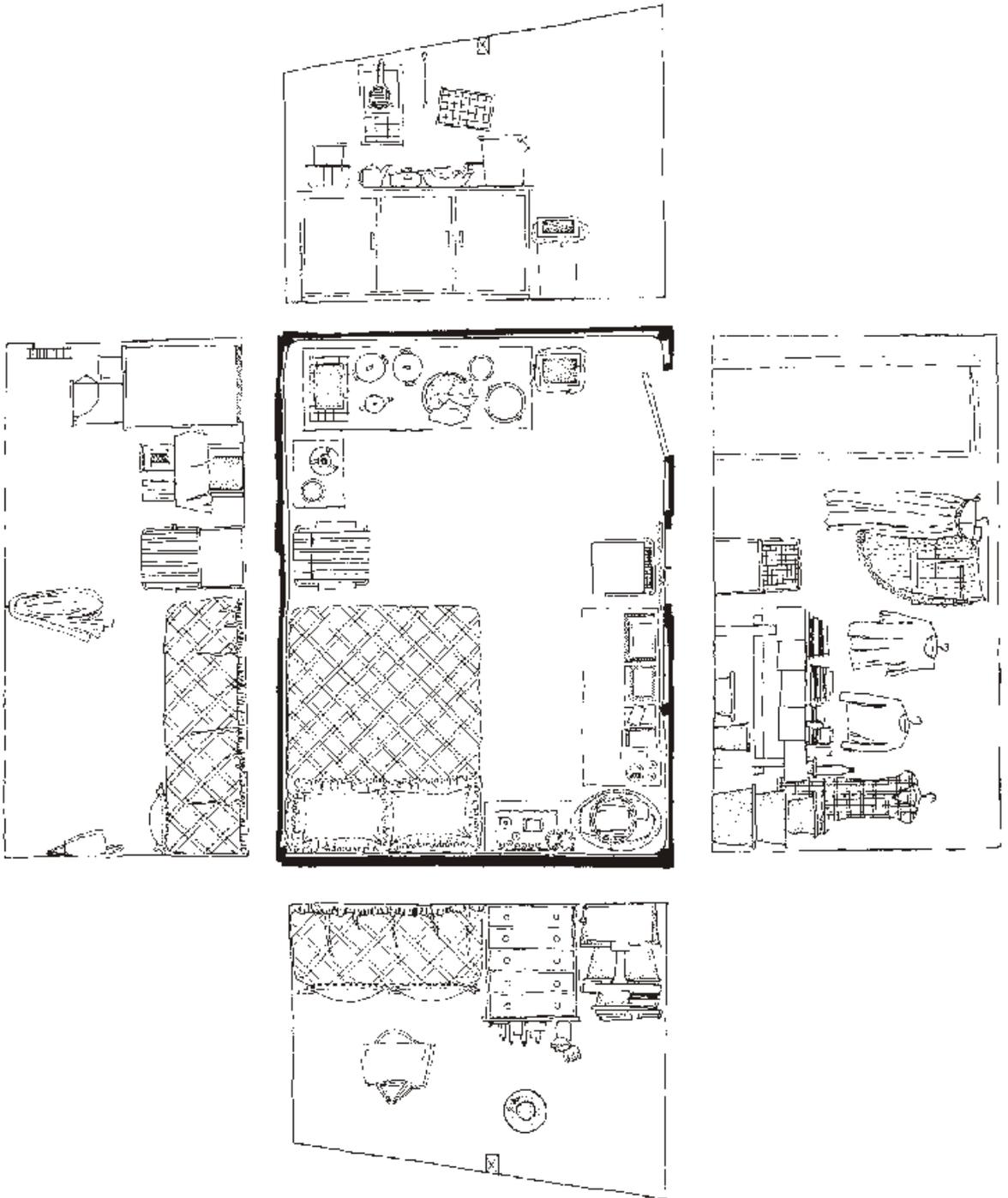
Number of rooms: 1

Number of m²: 11.5

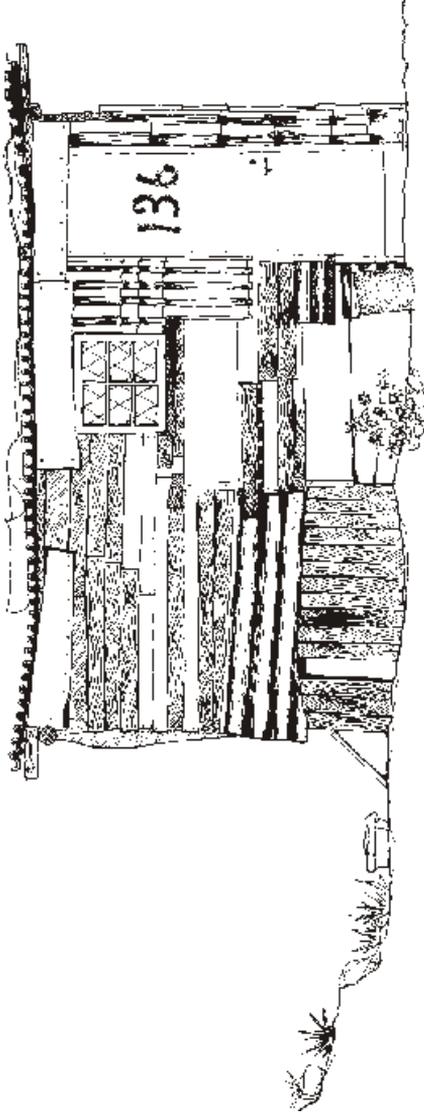
Electricity: no



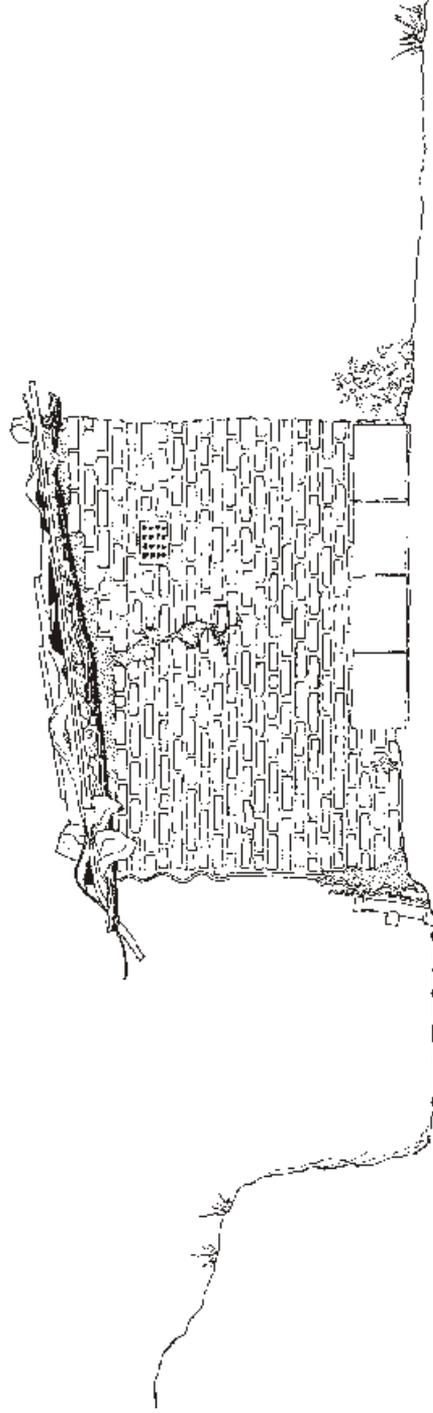
Grace's house, plot layout.



Grace's house, plan and interior elevations.



▣ ◀ Grace's house, facade.



▣ ◀ Grace's house, facade.

with her belongings are stacked on top of each other. Piles of books are placed on a table. Clothes on hangers cover the wall by the door. A little light comes in from the only window of the house, in this wall.

Grace and her brother found most of the building material for the house – wood, bricks, corrugated iron – at the dump, with the exception of the wall material, fibre cement, which was bought from a neighbour. One of the walls is made of bricks and has a ventilation block. Because of the draught, the ventilation holes could not be used as intended, since she later had to fill the holes with pieces of rag.

On the inside the walls are covered by cardboard to prevent the wind from blowing through the house. She tells us she would feel much safer living in a house built of concrete blocks.

She usually studies for a couple of hours in the afternoon while her children play or visit their aunt. She sits by the table and by keeping the door open, enough light fills the room. Since she has no electricity, she uses candle light if extra light is needed.

Grace dreams of having enough money to be able to send her children to a good school. She wants to give them a proper education so they will be able to live a better life in the future.

Everyday Life – Organization of the Dwelling

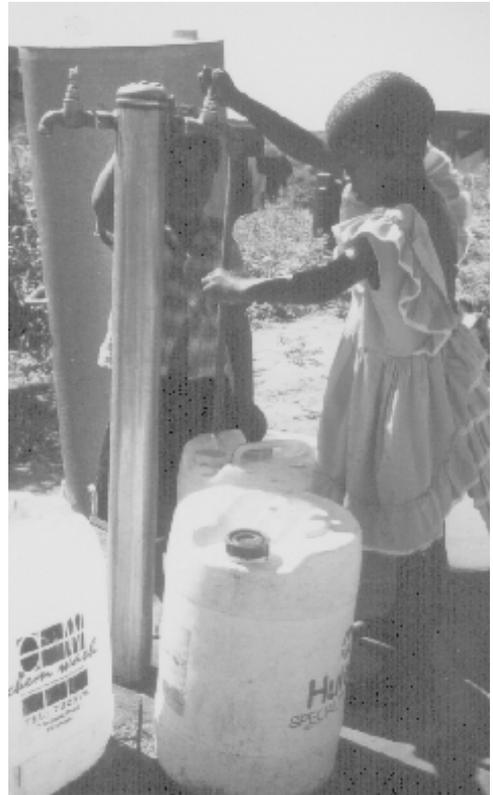
From the information gathered one can draw conclusions about how the women organize their dwellings. We have chosen to look at activities in their everyday life to see if there is a common pattern in the arrangement of space.

Gardening

The plots are, along with other things, used for growing vegetables. The most common vegetables grown are maize, pumpkin and beans. One of the seven women has a big food garden where she grows tomatoes, spinach, potatoes, and onions as well as the three mentioned vegetables. One of the women is not interested in gardening at all, but she grows some pumpkin. All women grow vegetables on small scale and see the crop as a supplement to their normal purchases. It is a way for some of the women to have an alternative source of food, which can feed them when they lack money. Gardening is seasonal and only done in summer. Two of the women keep chicken, another two of them used to but theirs were stolen.

Water

Water is fetched from the communal tap and kept in 20 or 25 litre buckets. All women, except two, are responsible for bringing water to the house. In the two cases where the woman does not fetch water, it is the boyfriend in one family and a son in the other who supply the family with water. Three of the women carry the bucket of water on their heads. Some of the families use second hand shopping trolleys, one a wheelbarrow, and another one a specially made trolley for fetching water. How much water they fetch depends on the size of the family and what the water will be used for. It varies between two and six buckets a day. The average for the single mother with one child is 75 litres a day. The water costs 15 cents for a 25 litre bucket.



Child fetching water by the communal water standpipe.

Storage of Food and China

Maize and rice meal are found in all women's cupboards, and they are kept in boxes or buckets. All women, apart from one, store food and china in closed cupboards. One woman stores her food and china on open shelves with a net curtain covering it. She finds this solution a problem since the open shelves easily get dusty. Three of the women have an electric fridge for storing fresh food. Those who do not have a fridge have problems with food going bad, especially during the hot summers.

Cooking

Cooking is done inside. Three of the women have a separate room for cooking and preparing food. The rest of them have a single room house that works as a multifunctional space. Here the cooking is done in one corner of the room. Since the houses are small and the space is limited, the bed and the stove are sometimes next to each other. In one of the houses a curtain divides the room into a sleeping area and a cooking area. Most of the women use the same table for preparing food and for eating at.



A cooking area.

Stoves

Three of the houses are supplied with electricity. The women living in these houses use electric stoves for cooking, while the rest of the women use paraffin stoves. These produce a lot of smoke, and the women find



Situation of the cooking area in the house. A comparison.

this a problem. The stove is sometimes placed on a low table in easy reach of children, which means that there is a risk for the children to get injured.

Kitchen Arrangements – Summary

Two of the women are generally satisfied with their kitchens. Both have a separate kitchen supplied with electricity, own a fridge and a stove and think they have enough space for preparing food. Most of the women, though, are not satisfied with their kitchen arrangements. They lack space, think the smoke from the paraffin stove is bothering and have problems with ants getting in the food. They all want to improve their homes, as one woman puts it:

If I could improve my house I would first build a separate kitchen, then install electricity and at last buy a fridge, a stove and red and white cupboards.

Bathing

Bathing is in most cases done inside the house. Two women have an outdoor enclosure for bathing, which they use regularly. One of them is not happy about the arrangement since men can see her going there and she is worried about being raped. Another woman washes herself by the corner of her house, after dark when nobody can see her, covering herself with an umbrella.

Toilets

All the households have pit latrines. Most of them are situated on the plot at least ten meters from the house. One woman needs to walk a few houses away, since she shares a pit latrine with a group of



A woman washing her hands inside the house.

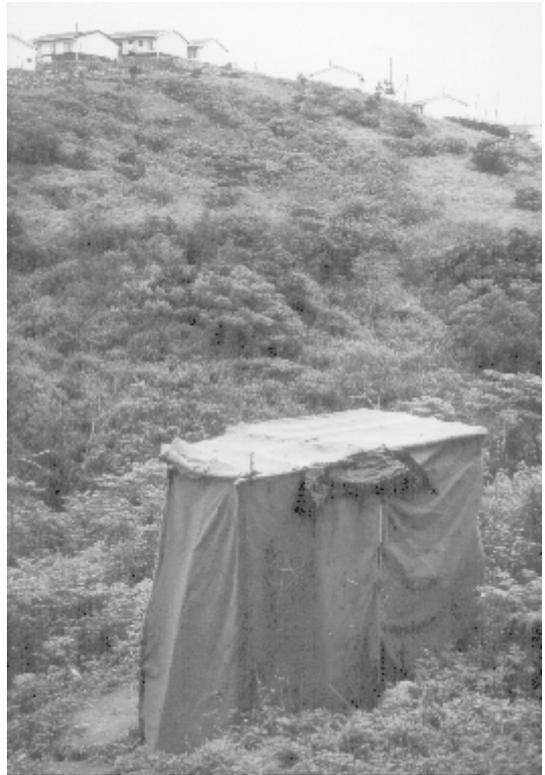


Distance between house and pit latrine. A comparison.

households. Another woman shares her pit latrine with the people living next door. One woman expresses fear of visiting the toilet, since she once encountered a snake there. The toilet is often placed at the far end of the sloping plot, something that makes going to the toilet after dark unsafe.

Washing

Washing is done outdoors by all these women. One woman washes her clothes in a tub at a specially made washing table under a tree in her garden. Another woman does the washing by the communal tap to save time and energy by not having to carry the water to the house. The washing is hung up to dry on washing lines outside the house. If it rains, and they need to wash, the wet clothes are dried inside. This is a



The pit latrine is often situated at the far end of the plot and surrounded by lush vegetation.



Washing is done outside.

problem since their houses are small and the high humidity makes the drying slow. All women iron their clothes. The women who have houses that are supplied with electricity use electric irons. The rest of them use irons that they heat on the paraffin stove.

Sleeping

Most of the women sleep in the same room that they cook, eat, do the dishes, take baths, study and socialize in. One woman sleeps in a space separated by a curtain from the cooking area. In all single room cases, apart from one, the bed is in the corner furthest away from the door, creating a more sheltered space for sleeping. Two of the women have a separate room for sleeping.

The single mothers sleep in the same bed as their children. The ones who are married or living with their boyfriends, share beds with their husband or boyfriend. In the extended family the two young daughters sleep in the parents' bedroom. The sister of the woman in this family, her daughter and the woman's three sons sleep in a separate room.

One woman sleeps with her new boyfriend and has a spare bed in the same room, in which her daughter and son from a former relationship sleep when they visit from the farm. She says that she would like to have separate bedrooms for the daughter and the son, which is according to the tradition. When the son turns 18 years old it will not be possible for them to sleep in the same room. Her boyfriend's son sleeps on a sofa in the next room. When her mother is visiting from the farm she sleeps in a bed near the cooking area.

None of the other women have spare beds, so if there are overnight visitors they have to sleep on the floor.

If the women need to rest during a hot day, they sleep either inside on the bed, on the floor or outside on a Zulu mat under an umbrella. During the hot season they sometimes sleep on the floor even at night.



Furniture and belongings are compactly arranged in the house.

Situation of the sleeping area in the house. A comparison.



Sleeping Arrangements – Summary

Most of the women are satisfied with the sleeping arrangements, but say they lack space. The ones who live in single room houses would prefer to have a separate room for sleeping. The women are not happy about having

to expose their sleeping place to visitors due to lack of space for socializing.

*I do not like to socialize and sleep in the same room,
because I do not want other people in my bedroom.*

Storage

Clothes and belongings are stored by all women in buckets, baskets or bags. Four of the women have a wardrobe for storing clothes. If there is no closed space for storage the clothes are put on hangers on the wall. Bags and plastic bags are often found hanging on the wall as well. Bags and buckets are compactly piled on top of each other in some of the houses. Plastic basins used for washing and buckets with dry or dirty washing is put wherever there is space. The women have to make sure all their belongings are kept indoors at night. Although Wiggins 5A is considered a safe area to live in by most of the women, theft is common.



*Belongings are stored in bags piled on top of each other.
Clothes are stored in wardrobes or put on hangers on the wall.*

Socializing

Two of the women have a room, separate from the sleeping and kitchen area, in which they can socialize with friends and visitors. This space is also used for working, for instance sewing or ironing, and for watching TV and eating. Homework is also done in this room. The women who live in single room houses, find it a problem not being able to invite people in because they lack an appropriate place for socializing. When relatives come visiting they often stay overnight and sleep on the floor. The women also miss a private room for discussions. If they need to talk undisturbed with their female friends they now have to go outdoors.

Priorities and Future Visions

The result of the follow-up interview is presented below. The result indicates what these women find important in their lives and in their homes. Ranking was a way for us to get an understanding of their opinions and priorities. The ranking questions gave us the possibility to discuss rather abstract issues.

From these interviews we can see that the women's answers very much reflect their personalities and situations in life. Our conclusion from this is that you can never generalize what people want, because their choices are very individual. In our small group you can however find some interesting common opinions indicating their cultural background and human needs.

Below we present the common views based on the ranking made by the women. The choices are presented in order of average preference from the highest ranked choice down to the lowest.

What do you value most of all in your life?

Options: *car, family, garden, health, house, security, work.*

This question was both an open question and a ranking question. The free answer mirrored their personalities and their answers were very different from each other. The ranking question gave us an indication that the *house* is the most important issue for these women. This could be because our earlier discussion had focused on houses and also because the women were taking part in a housing development process at the time. In spite of this they all stated clear and sensitive grounds for putting the house among the most important issues in life. "As I am a human being I need a house." A house is a necessary condition for being healthy. Another argument for putting *house* first was that it is the place where you spend most of your time and is therefore important. *Health* and *work* were also highly ranked as necessary conditions for a good life. There was a clear connection between house and health. "Shacks are not good for health." *Work* always meant the possibility of earning money to the women we spoke to and was therefore important. "To look after all this I have to work hard and make an effort." The train of thought – work, earning money and being able to

pay rent – was present in the answers. *Family* was considered moderately important. This could be because of the women being independent. Even though they have a strong connection with their own families, they often have to cope without husbands. All the women included the well-being of their children in their future dreams. The influence of the family shows in one example where the woman sends money and clothes to her mother. The *garden* was one of the lowest ranked priorities, much to our surprise. This might have been because we used the word *garden* and not *food garden*. Our mistake was to assume that the garden meant the possibility to grow vegetables. We know from our fieldwork that all of them grow vegetables on their plots and see this as a supplement to their normal purchases. *Security* was constantly ranked low among the women. Also this surprised us. This could have been due to their conception that they do not have anything worth stealing. *Security* was linked to *car* for most of the women. “If I do not have security I cannot have a car.” The *car* was connected to amusement. “After I managed everything I can enjoy myself. I would have a car just for pleasure.”

If you would build a house, what material would you use?

Options: *bricks, concrete blocks, corrugated iron, masonite, soil blocks, wattle and daub, wood.*

The most popular material was *brick*. All of the women believed this material to be the strongest. The maintenance and durability were important to all the women when making their choices. They had thorough knowledge about building materials which most probably is because they have built their own houses and also tried different materials. The choices indicated how much time and money the women wish to put into building and maintaining their homes, which is a very realistic and practical approach. Their opinions about *wood* varied a lot. Some of them thought it was very strong and others did not like it because it could burn easily. The traditional wall material *wattle and daub* also got varied and sometimes strong reactions. “I am sick and tired of this, because when it rains it falls apart.” *Concrete blocks* got low ranking. Several women thought that *concrete blocks* was good for security walls around the house but not for the house. One woman pointed out that the blocks easily break and that you always have to buy more than you actually need. *Corrugated iron, soil blocks* and *masonite* all got the lowest ranking.

What type of house would you prefer to live in?

Options: *block of flats, row house, semi-detached house, single house.*

The most popular options were the *single house* and the *semi-detached house*. The result contradicts the myth that black people only prefer to live in one-storey single houses on a single plot. For two of the women the single house was the one and only option. One of these women said, “The

single house is possible to extend and the kids have a yard to play in.” If you had the option of choosing your neighbour, the semi-detached house was seen as the best option “Africans with different surnames can never stay close together.” One of the women saw the possibility for her brother and his family to live in the other half. She would then feel very safe. Another argument was that it is good to have support from your neighbours as a single woman “If I cry the first person to hear is my neighbour.” The possibility to keep a tenant was seen as an advantage, and both the single and the semi-detached house gave this possibility according to the women. The tenant could also have a courtyard if the main house was not situated in the middle of the plot, but in the front, creating free space at the back of the main house. The advantages of sharing one wall (better use of the garden and more space around the house) was seen as greater than the disadvantages (sharing a wall with a neighbour) by one woman. She already planned how to build a wall separating the two plots. One woman said “Some people go to church other people drink.” She did not mind sharing a wall, but sharing a yard would cause problems because of different lifestyles. The *row house* and the *block of flats* were equally unpopular. The row house did not give them the option to keep a tenant because “the tenant would have to pass my private rooms.” “Human beings can’t live in trains” was a spontaneous reaction when the row house was discussed. The block of flats got the comment, “I would not stand the noise from a neighbour’s high heeled shoes.” Even if the block of flats would offer a more organized place for washing the women did not see this as an advantage, “I want to be able to choose when to do my washing.” “If you share washing space your things can get stolen. You have to watch your wash until it is dry.” To live in a high-rise house meant a risk for one woman “If your husband would go mad, if he is drunk, he can throw you down.” The problem with neighbours can be summed up with the comment, “Africans are friends in the street but neighbours bring in trouble.” Worth mentioning is that one of the women’s highest priority was the block of flats. The woman is handicapped and feels comfortable surrounded by people.

What is the most important in a house?

Options: *big room, electricity, insulation, light, security, tap water, ventilation.*

Tap water was ranked highest by the women. “You must have water. It is basic for drinking, cooking and washing.” Fetching water takes a lot of time and energy. The health aspect was also important. “The tap water is cleaner than fetched water.” *Electricity* was the average second choice. The motivation for this was that it saved time and money (cheaper than paraffin). “It makes life easier.” Housework becomes easier, being able to have a fridge and safety reasons were also arguments for *electricity*. *Big room* was the third average choice. “Big family needs big room.” Another motivation was that it created a better indoor climate. *Ventilation* came in

fourth place motivated by the fact that getting cool air inside is important. *Security* and *light* were ranked surprisingly low. "Security comes later, if chaos comes." This means that most of them feel quite safe now, but are unsure about conditions in the future. Last among the priorities came *insulation*. "It is not necessary in South Africa because it is a warm country." This motivation was given even if we explained insulation was needed in both hot and cold climates. Their way of improving the indoor climate during hot days was through good ventilation. Insulation was a word that needed to be explained. The alternative was first confused with air conditioning. A better term for the concept of *insulation* would have been *resistance against heat and cold*.

What activity in your house is the most important?

Options: *bathing, cooking, eating, sleeping, socializing, toilet, washing, working.*

The question was followed by the explanation that this ranking included the space of the activity. This ranking together with ranking materials seemed to be the easiest to make for the women. *Toilet* was clearly the most important mainly because of health reasons, "A good toilet protects yourself from diseases." Secondly ranked was *bathing* and *working*. Bathing was also important because of health reasons. "You feel better after bathing." The working space was important, because working from home is quite common. Working space also meant space for housework, as ironing, and space for doing homework. Some of the women are taking part in adult education. Therefore they need a space to study. *Cooking* was closely followed by *eating* and *washing*. The women seem to feel responsible for keeping the family clean and tidy. Washing is an activity that, according to the women, can be done outside, even though they pointed out the disadvantages of having it outside. "Outside the dust flies on to the washing making it dirty." *Sleeping* and *socializing* was bottom ranked. "The waking state is the most important." We knew from the first interview that socializing was important, because comments were made about how good it would be to have space for friends who come to visit. The fact that socializing was low ranked by the women is probably because the other options were far more urgent and essential for them.

What activities can you do in the same room?

They all agreed that *cooking and eating* can successfully be done in the same room. The wet core including *washing, bathing and toilet* was a common suggestion, even if one of the women pointed out that "If somebody has a runny stomach and another is taking a bath it is not good." *Working and socializing* were according to some of the women a possible combination.

What activities can you not do in the same room?

All women believed that *sleeping* has to be in a separate room. “The bedroom is the secret room. People must not see this room.” If there is not enough space sleeping could possibly go together with working and socializing. Two of the women said that they wanted a special *socializing* room. “The separate socializing space is important if the women want a secret place for discussion.” The socializing also includes space for the children to play. The women discussed if socializing also could be done in the kitchen and some of them agreed on this.

What will the area Wiggins 5A look like in ten years time?

Most of the women were positive about the future of Wiggins 5A. One woman imagined that “Wiggins 5A will look like the area of new houses that I can see on the next hill. It will be clean. The rubbish will be taken away, people will have nice dreams, there will be shops, a park and schools.” Another woman thought “There will be proper, nice houses, schools, crèches, community facilities. The living standard will be high. More money will be funded to realize all this.” About the ongoing development one woman said, “In 1998 the houses will be built. In 2000 all homes will have security. If the house has security it can protect you.” One woman was more negative about the future of Wiggins 5A, “Because of the situation and the people living here things will not improve. The youngsters don’t have any understanding. If an improvement has been made they damage it. Just a few people know how to look after their houses and there is too much corruption. The women don’t develop because they do too much drinking.”

What will Cato Manor look like in 10 years time?

All the women were positive about the future of Cato Manor. “Cato Manor will be like the white people’s areas with parks, swimming pool, flats, shopping centres and every facility you need.” “Cato Manor will look very, very nice with single houses, semi-detached houses and row houses.” “The people of Cato Manor will not have to worry about houses, because they will already have this. They will be able to worry about schools, swimming pools and other things that they need.” It may seem strange that the swimming pool is mentioned in this context, but it can be seen as a symbol for the privileged life these women have never had. Most of the women had an image of Cato Manor as being a part of the city. “I think Cato Manor will look like Durban.” Even the woman that was negative about Wiggins 5A’s development was more optimistic. “It is trying to improve. Cato Manor is more mixed with more Indians.”

What will South Africa be like in 10 years time?

The future vision of South Africa differed amongst the women. One woman, who has a clear political conviction, was pessimistic, "I believe that the National Party will be in power after the next election 1999, because the people do not have patience to wait for ANC to clean up the mess after the apartheid system. The people want rapid changes. Nelson Mandela made too many promises that he cannot keep. People will vote for NP to see if they can manage better than the ANC. It will be very unstable." Another woman is tired of politics. "People don't understand. Fighting between different parties is no good. The people should have one mother and father [one party]. Life comes first, then politics." She does not have much confidence in politicians. "The person you are dying for is just sitting in his office. It is important to stop drugs and drinking because the people don't understand that the politician just makes promises." About the criminality of South Africa she thought that education and employment is the answer. "If people learn to work hard it is much better. The education is going down. If a worker makes a pencil, the shopkeeper orders it and then someone steals it. The shopkeeper will not order the pen again and the worker will not have work and there will be no pens to steal." That the South African future will offer more employment and higher education for the black people was the vision of another woman. "South Africa will be a nice country. There will be more jobs. The new generation South Africans will have high schooling and Africans will be qualified." Housing was often mentioned as something people in the future would not have to worry about if it is delivered. "South Africa will be better, when the government gives houses to the people."

Eight Professionals and Their Views

What the Housing Subsidy System Creates

All professionals we talked to agreed that the housing subsidy is too low to cover costs for both infrastructure and top-structure. One of the architects thought it was insulting to a human being having to propose the kind of houses that are currently being delivered. "As many people have experienced personal tragedies caused by previous governmental treatment the government should be able to give people a decent house."

The housing subsidy system creates a certain kind of architecture, another architect explains, as it is suitable for low density projects with single plots and detached houses. The system encourages urban sprawl that in its turn obstructs an efficient public transport network from developing. The people living in informal areas in the periphery of the city did not have access to the city during the apartheid era. Today they still live in the



outskirts and are, now because of economic reasons, denied access to the city.

One can argue that the subsidy system permanent the segregated city since it encourages the development of areas for a certain economic group, not mixing income groups in the same areas. The areas are planned with the presumption that if the inhabitants gain a higher income they will move to another area. The planned low income areas are, in order to save costs, not designed for the households to own a car. This inflexible structure contradicts the idea of the areas developing over time. One professional revealed his disbelief in the possibility for the area to change by saying, “Even if they can’t afford shoes they want roads.”

Another negative effect the system generates, a town planner stated, is that it destroys people’s initiative and the process of people building their own houses. The legacy of apartheid also plays a role, since the previous government taught people to look at the state as a supplier. One must not overestimate people’s willingness for involvement in the building process, another architect reflected. She tells about a project, in which they relied on people to build their own houses. It did not turn out successfully, as the people involved lived too far away from the site where their new houses were to be built.

The current subsidy policy determines the nature of housing delivery system today. Housing is very much a political issue. The common attitude that housing should be provided, and not incremental, puts a lot of pressure on the government to deliver a finished product.

The system relies on the statement that people want to own their houses, though many people in reality want to rent temporarily in town and spend their money on their rural houses. As the housing subsidy system is not suitable for high density proposals, it is very difficult to find financing for these kind of projects.

Building houses that are dependant on technical systems which cost money to maintain calls for the user to contribute. As one planner put it, “This means laying costs on people with no income.” This can result in the breakdown of systems. He referred to the choice of sewage system; pit

latrines or waterborne sewage. Among the interviewed professionals the opinion on what sewage system was most suitable in urban Cato Manor was very varied.

One can also ask oneself what the current housing policies create. Is it sustainable? When we talked about alternative energy sources and environmentally sustainable solutions, we got the answer from one architect that “environmental issues are quite low on people’s agenda right now. People are scrambling for a living. Environmental issues are luxury.” The shortage of water in South Africa, on the other hand, was something which concerned the planners and architects.

Need for Higher Density

In Durban, planning has been dominated by low densities outside the city core, and the perception of density varies among the professionals interviewed. About Cato Manor and density, one architect said that the only project that has reached the aim of high density is the social housing project (100 units/ha, 3 – 4 story buildings) currently under development. The other projects, such as Wiggins fast track, has a density of 40 units/ha, which is considered low density.⁴¹

One architect explained that in the near future there will be a shortage of land in Cato Manor and therefore other alternatives than low density houses must be proposed. As the idea with developing Cato Manor is to use its advantageous position close to town and to give as many people as possible the opportunity to live close to the centre, professionals have an obligation to make better use of the land.

One of the architects summarized the change in the housing process in these words, “The former product oriented approach used by developers based on Service, Build and Occupy was reversed into a process of Occupy, Build and Service.” Working with occupied areas meets many obstacles which complicates densification. One architect explained, “There is a strong perception of land being wealth.” Because of this the communities undergoing development argue for as big plots as possible.

Can the conservative views of the communities on high density also be explained by the squatters needing the plot for agriculture? Also here the opinions differ among the professionals. People living in informal settlements are described, by one architect, as lacking urban skill, since many are rural migrants. “We are no farmers” is an answer one town planner got from the community on proposing urban agriculture in a project. This contradicts that assumption and describes the complexity of the situation. The comment from the community fits well into the common reason, wanting to live a modern life, for people migrating from rural to urban areas.

41 Density Range, measured in dwelling units per hectare; Low 30 – 40, Medium 40 – 60, High 60 – 80, Very High 80 – 100, Highest > 100. English, Lees and Southworth, *A Catalogue and Simple Analysis of housing types Applicable to Cato Manor for CMDA*, 1994.

One town planner thought it is almost impossible to provide anything else than detached houses because of the conservative views of the communities on high density housing. On the other hand, one architect said that it is difficult to get a positive reaction on high density housing as long as there are no physical examples to show.

Additions

The quantity surveyor we spoke to said, as the subsidy is not enough to build a complete house with, that the best way to use it is to build as large a structure as possible. The immediate needs outweigh the advantages of a sound structure. The idea is that people can improve their houses themselves later on, step by step, when they can afford it.

The core house that is built in the development projects today is small. We were curious about what kind of additions people do. One architect referred to research in a former informal settlement⁴², where they had looked at core units and what later additions had been made by the owner. The most common addition was, according to this research, to take off the roof and build a 40 cm higher wall and to add burglar bars on the outside to make the house seem more impressive. The core units of this example were bigger than the ones being built in Cato Manor today. Therefore the extensions made on the more recently built houses could show another pattern of additions.

If additional rooms are constructed, the foundation of these can cause problems. Since the plots often are divided into cut and filled earth through earthworks, it is important that the additional room stands on the same kind of earth as the original house.

Image of a House

Expectations of the low-cost houses that will be delivered to the communities in Cato Manor are high and difficult to live up to because of the lack of funds. One architect stated, "The houses you deliver are always under people's expectations." The image of the South African house is a single house, like the ones in white areas, on a plot surrounded by a concrete wall. This image does not correspond with the houses that have been built so far.

The subsidies are not index-linked and the inflation is not taken into account. The house you get today, you will not get tomorrow. This is a fact which adds to the disappointment of the developing communities. Peoples dreams about their future houses are influenced by what they see. Since the different communities are economically segregated, it is natural for people to compare what they get to what the neighbouring community on the next hill has.

⁴² Umlazi, Durban.



Building Materials

We discussed building materials for low-cost housing with the professionals. One architect said that the communities want modern “western” materials, because they look at what the white communities have. “They are on the road to modernity.” He also talked about a survey which pointed out that modern materials are preferred even if traditional materials are better, when it comes to thermal comfort, security and weather protection.

One professional believed that the most appropriate wall material in low-cost housing is the concrete block. The cost of sand is minimal because there is plenty in the riverbanks of the area. Concrete blocks are also resistant against moisture and termites. Corrugated iron is not a good wall material, he thought, since it is neither heat resistant nor soundproof. According to the housing standard you are not allowed to build a house out of this material.

One of the architects has been involved in a project in Cato Manor where people were able to choose their own house. The majority of people chose the system built houses, consisting of prefabricated elements. The reason for this was that these systems provided the largest house and the houses were delivered and assembled by the building companies. The architect felt that the building systems have not given these people value for their money. The foundation was poor and the wall material – a steel cage covered in plaster – were neither long lasting nor stable.

It was explained to us that these houses are not suitable in the humid and salty climate of Durban. Up to 11 km from the sea this construction is inappropriate. The system-built houses mentioned above are a negative example of this. The mesh is already visible in some walls because of the iron corrosion.

The cost of the roof construction is about 15% of the total cost of the house. We learned that two materials are suitable for roofing of low-cost housing: corrugated iron and fibre cement. The corrugated iron material is cheaper than fibre cement, but the total cost for the roof construction is higher if corrugated iron is used. Timber is expensive in South Africa and corrugated iron needs supporting pole rafters, unlike fibre cement which on its own spans three meters. The disadvantage of fibre cement is that the fibre used is asbestos.⁴³

⁴³ Asbestos is a fibrous silicate mineral that is incombustible. Inhalation of asbestos particles results in the lung disease Asbestosis. In Sweden cellulose fibre is successfully used instead of Asbestos.

BUILDING STANDARD

URBAN-RURAL

ADDITIONS



AGRICULTURE

DENSITY

MYTHS or FACTS

HOUSING SUBSIDY

TOPSTRUCTURE?

TOILET

THE IMAGE OF A HOUSE



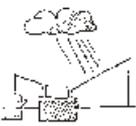
ESTHETICS next?



sustainability

WOMEN

WATER



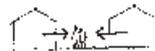
INDOOR-OUTDOOR

SECURITY



long term perspective

NEIGHBOURHOOD



CLIMATE



PRIVATE PUBLIC



OWNERSHIP-RENTAL

TRANSPORT

ACCESS for who?



Four Proposals

Design Criteria

On our “journey” in the land of South African housing we recognized a few issues that became a point of departure for the design process. After the first democratic election many things have changed to the better, but the everyday lives for many people are still unchanged. Race boundaries have become economic class differences. The task of upgrading the growing informal settlements that seem to fill every space left in the sprawling urban environment is an enormous challenge for planners and architects. Four proposals of low-cost housing are presented in this chapter. They are not to be seen as final solutions, but as ideas to be developed and discussed.

The fieldwork in Wiggins 5A, and the interviews with the professionals, led us towards these ideas about low-cost housing.

We have, besides using a woman user perspective, focused on a few of the many issues involved in a low-cost housing project in Cato Manor.

One issue is densification. Most of the housing subsidy is spent on infrastructure and therefore it is important to look at ways of reducing these costs. Through densification infrastructure costs for each unit would be lower and more money could be spent on the actual house. Even if Cato Manor’s difficult terrain gives the advantage of the extra housing subsidy⁴⁴ the costs of developing these settlements often exceed the limited budget.

The concept of a single house on a plot, which is common in South African planning, is a space consuming solution. Higher density can also create an urban environment with spatial outdoor qualities. Attached houses in combination with public spaces can be used to form an urban streetscape. Moreover the open space of the plot can be more efficiently used if houses are attached. In the case of Cato Manor, the still unplanned land will not house the number of people it is intended to accommodate. Because of this, densification has a high priority in future development of the area.

AIDS gives another perspective of the advantages of densification. Single mothers today are dependent on the social network in the neighbourhood for security and child care. In the future a larger number of the population will have AIDS-related diseases, and therefore a functioning neighbourhood network will be equally important. A well designed urban environment, with public, semi-public, semi-private and private spaces can create possibilities for improved social interaction and security.

⁴⁴ The maximum subsidy is R 15,000, but R 2,500 can be added.
See under heading The Housing Subsidy, chapter Background.

All the proposals present solutions of densification of low-cost housing. The intention to create a dense urban fabric does not contradict the intention of providing a plot for a vegetable garden, as three of the proposals show.

Another issue is incremental housing. Three of the proposals are based on the idea of providing a starter unit that is easy to extend in an adequate way. Poor foundation in combination with heavy rains and steep slopes often cause damages in informal settlements. One way of reducing this problem is to provide a starter unit that is part of a larger structure consisting of a foundation and a roof. The slopes of the roofs are worked out in a way that the house is easy to extend by people unskilled in house construction. Walls can easily be added by the owner to form rooms of different size. The intention is to provide a starter unit that can be gradually extended in a safe way as the household can afford it.

A third issue is topography. The proposals are adjusted to the sloping terrain of Cato Manor and show how the slope can be an advantage when forming houses and groups of houses. In the steep topography of Cato Manor, it is important to plant trees and bushes to provide protection against erosion.

In a long term perspective the choice of sewage system is of importance, and we agree with CMDA that uses a waterborne system in their projects in Cato Manor. A flush water closet with low water consumption is the best alternative in an urban environment. A waterborne sewage system is therefore a condition for the following design proposals.

The most suitable form of housing should take into account social and cultural issues, and we have tried to find sustainable solutions that could be applicable in Cato Manor. The proposals represent different types of housing forms, since one housing form does not suit everybody. Each house is presented with a layout for a group of houses, with our vision of how the dwelling can be combined to form urban space. The house is presented through a plan, facades and sections. If the starter house is possible to extend, feasible additions are presented. Additional text explains the ideas of the proposal.

We are aware that the housing subsidy and the economy of future owners limit the amount of money that can be spent on the house itself in development projects in Cato Manor. We have not been able to explore all technical issues. The houses can be built with conventional materials and techniques that do not present a health risk. We recommend corrugated iron as a roof material, rather than fibre cement, which is a hazardous material.

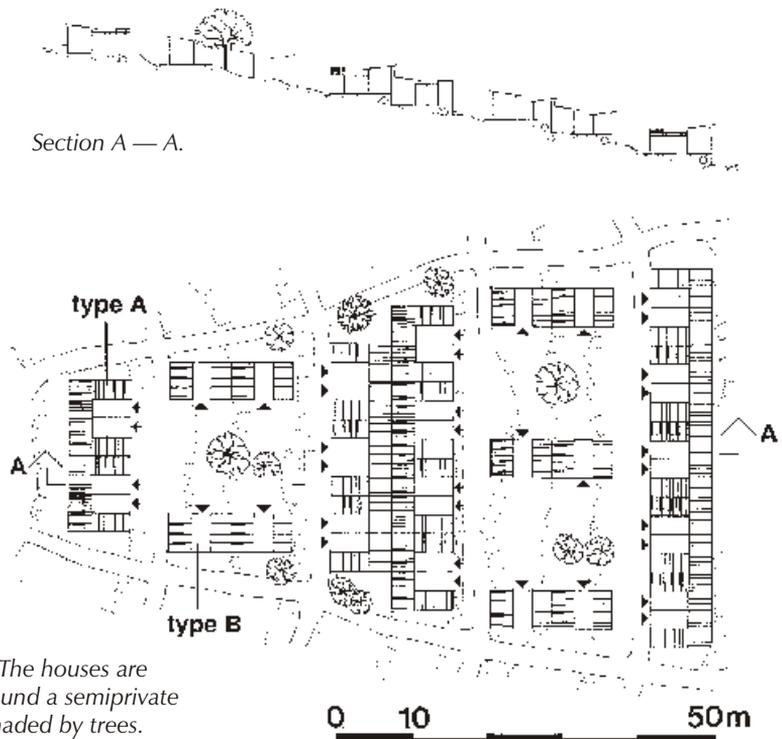
The House of Sustainable Security

Living in a dense urban settlement can have a positive effect on security, especially for single women.

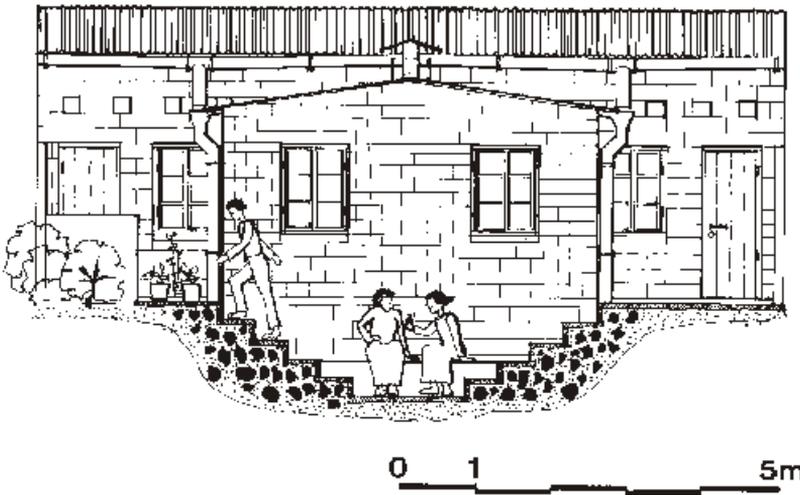
If I cry, the first person to hear it is my neighbour.

The houses based on this idea are grouped around a semi-private courtyard. The courtyard belongs to the houses situated around it, as they all have their entrances from this space. The purpose of this is to create possibilities of social interaction. The courtyard will become a place of meeting as well as a safe playground for children. This space can play an important role in the tasks of everyday life for women, such as child care and washing. In most informal areas today the natural place of meeting for women is around the common standpipe. One of the conditions for the courtyard is therefore a common water standpipe. Trees are planted to give shade in the courtyard. Temporary roofs can also be added to give shade. The main streets run down the hill and foot paths run along the contour lines.

The houses grouped around the semi-private courtyards are of two types, type A and type B. They cover the same plot area and floor area. The plots size is 40 m². The house has a floor area of 19 m² and includes a separate room for living and a second part containing a wet core and a kitchen. The two parts face a private yard from which all rooms are reached. The kitchen has space for a fridge. The wet core contains a combined toilet and shower room, which is big enough for the type of basin



Plot layout. The houses are grouped around a semiprivate courtyard shaded by trees.



Type A, facade.

commonly used as a bath. The wet core also includes an outdoors washing space (hands, clothes and dishes) situated in between the toilet and the kitchen and covered by a roof.

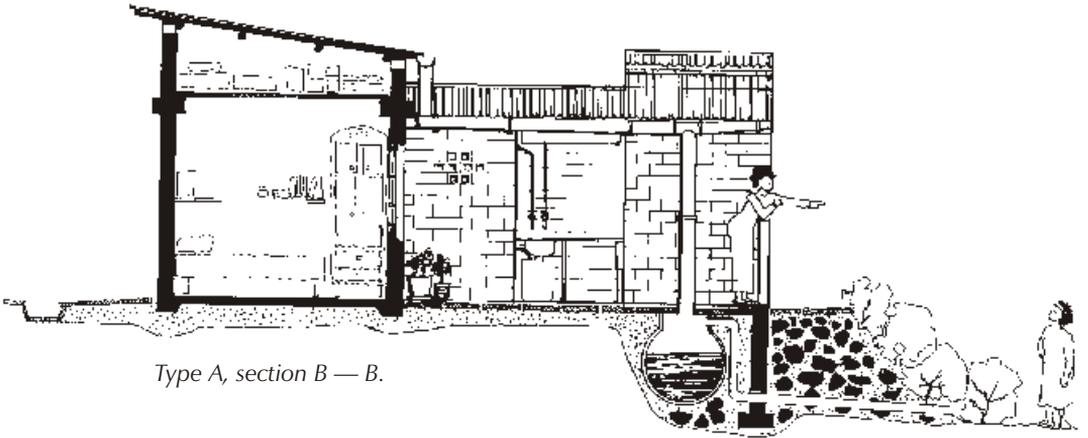
Collecting rainwater is an important way to save water. The wet core in this house is built on top of an underground water tank where rainwater is collected from the roofs. Under the roof in the wet core there is the possibility of having two tanks. One for rainwater (for personal hygiene, washing clothes and dishes) and one for water from the communal water supply (for cooking, drinking and, in case of rainwater shortage, for personal hygiene). The rainwater is pumped up by hand from the underground rainwater tank to the tank underneath the roof. The outdoor washing space and the shower are provided with two taps, one tap from the rainwater tank and one tap from the water tank with the communal water supply.

The reuse of washing water is also an important way to save water. The water used for washing clothes and washing up dishes is collected in a water bucket under the sink and reused for flushing the water closet.

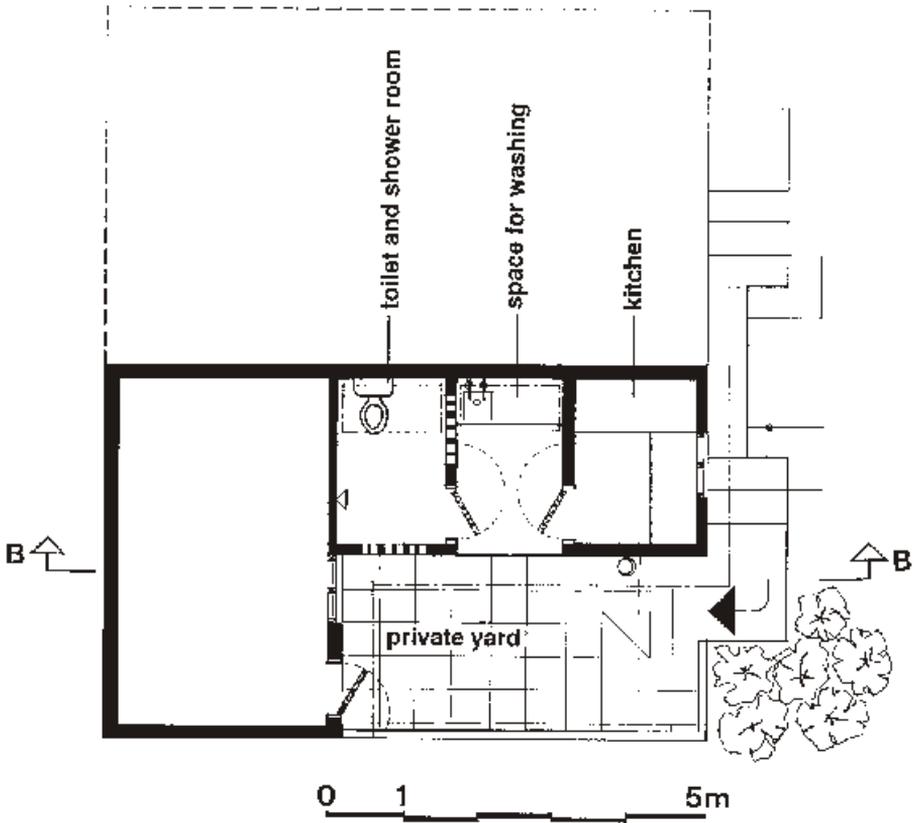
Under the roof in the living area a ceiling made of reused materials, such as cardboard or plywood, can easily be added by the tenant. The heat from the corrugated iron sheets can be absorbed by the added ceiling to create a better indoor climate. The space between the roof and ceiling is ventilated and can be used as storage space.

Different types of ventilation are provided for better indoor air. The ventilation holes have to be covered by insect netting. To minimize heat absorption the corrugated iron roofs are painted white. The paint has to be non-toxic. To add light to the washing space corrugated translucent plastic sheets can be used as a roof material.

The houses are ready built for renting and suitable for single parents or smaller families. The renting form is motivated by the fact that the houses are not possible to extend when the family grows.



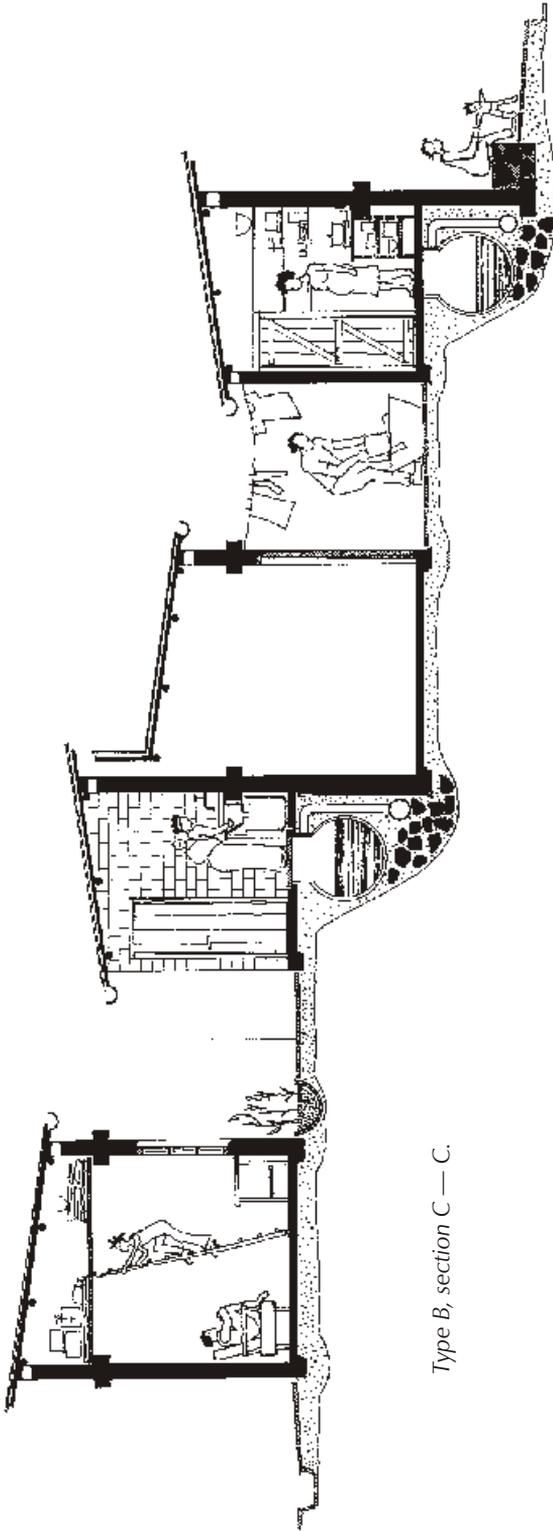
Type A, section B — B.



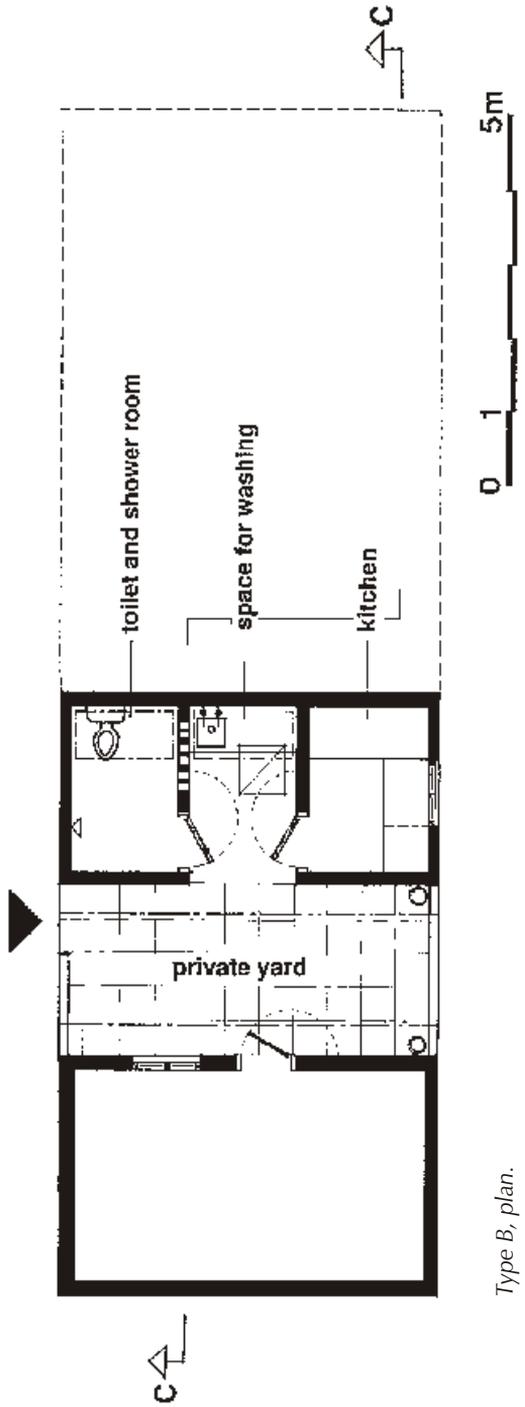
Type A, plan.



Different types of ventilation are provided for better indoor air.



Type B, section C — C.



Type B, plan.

The Garden Club House

Gardening plays an important role in the life of the interviewed women.

A neat garden like the ones in the white areas is not important for me, but I would like to grow vegetables.

A vegetable garden can provide the household with food, to keep household costs low for the family. It also provides sustainability in a wider context.

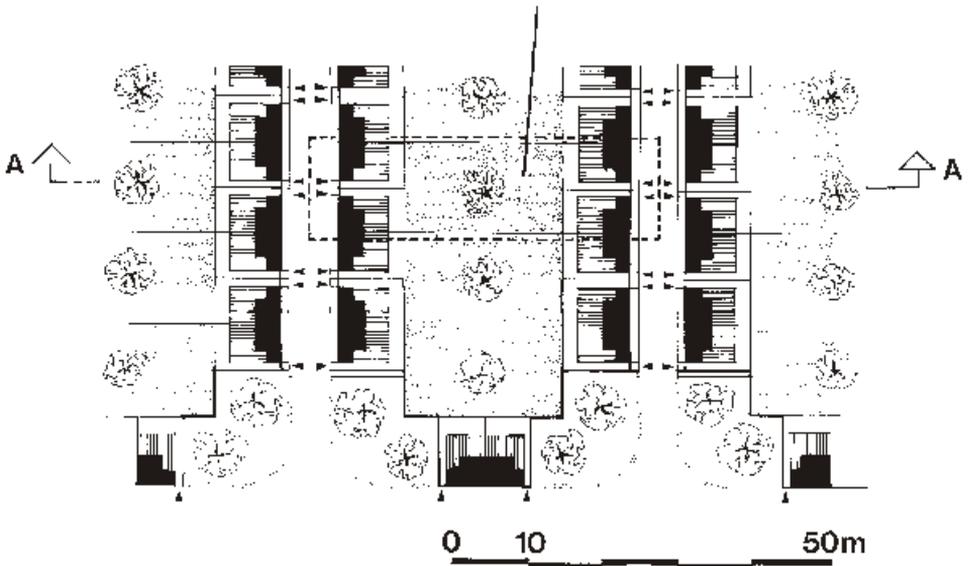
This housing idea presents semi-detached houses. Each unit of the semi-detached house is on a plot of 63 m². A common vegetable garden covering 204 m² is at the back of the semi-detached houses. It is shared by four households. The intention of the shared plot is to contribute to social interaction between neighbours. Chores such as child care and gardening can be shared. A tree shades the garden. The common vegetable garden lies protected between the houses and is not accessible from the street unless one passes through the private space of the plot.

The semi-detached houses lie along the contour lines and are situated close to a road to form an urban streetscape. Raised platforms, by the

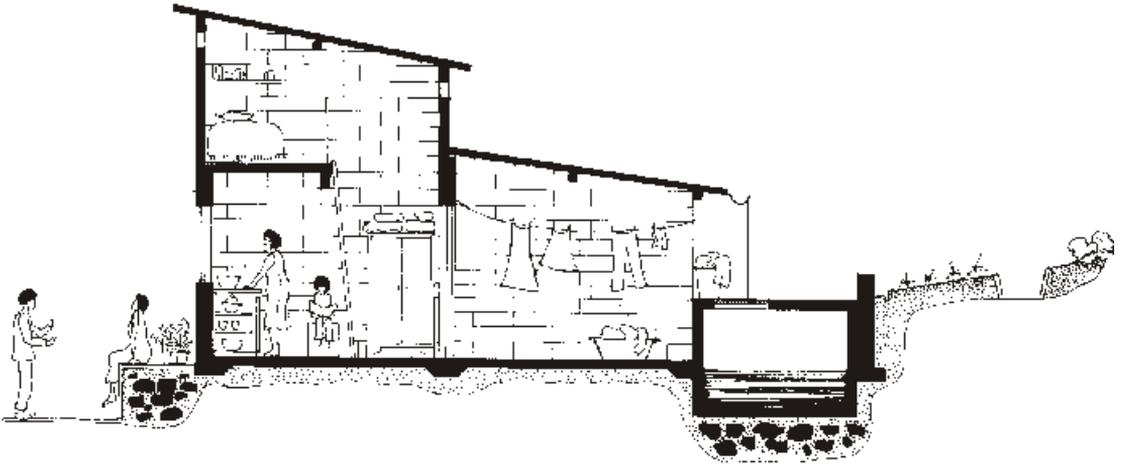


Section A—A.

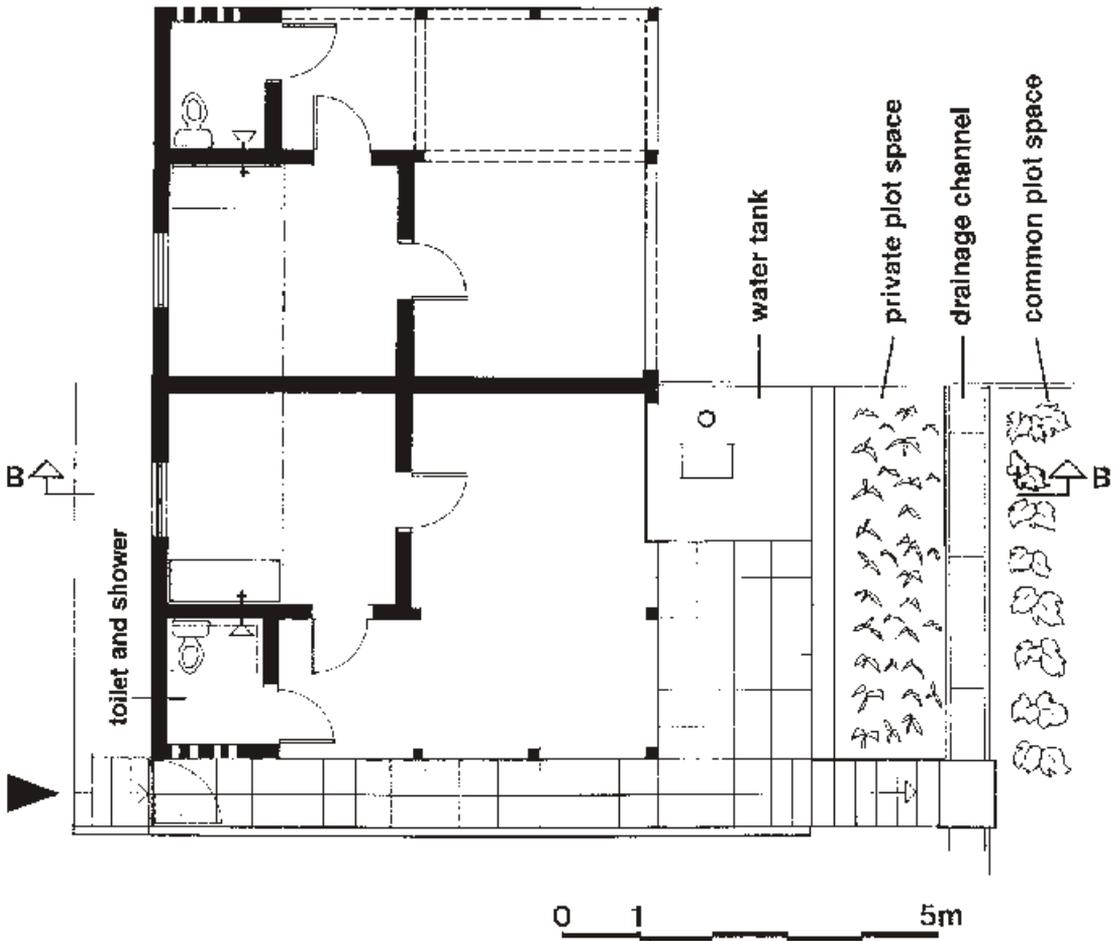
four households share a common vegetable garden



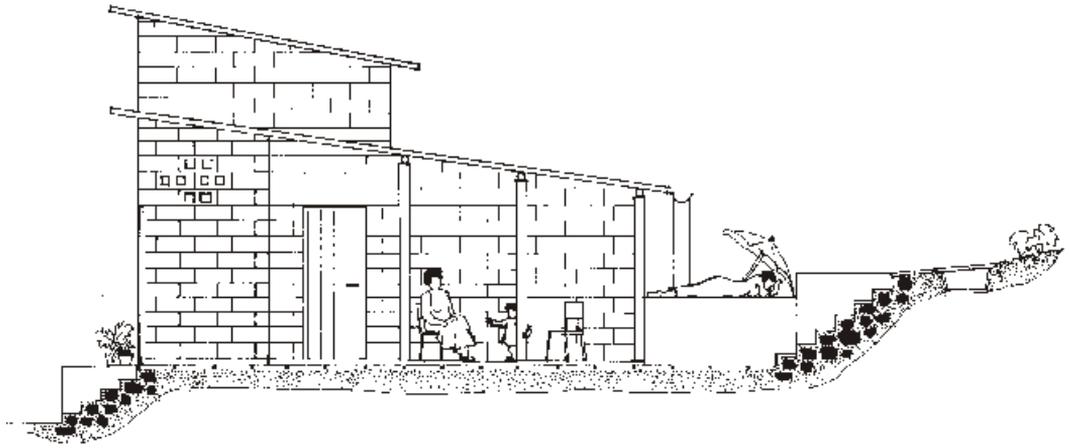
Plot layout.



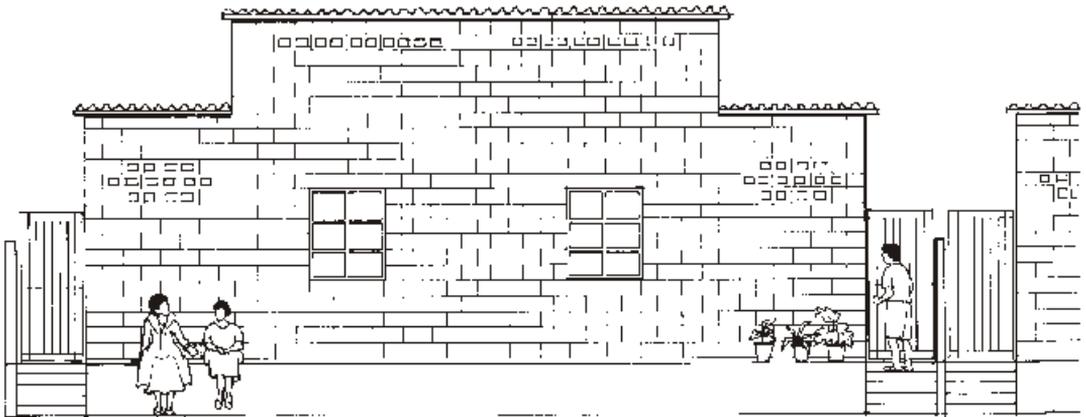
Section B — B.



Plan of the semi detached house.
On the upper unit possible additional rooms are marked.



Facade, facing the private plot space.



0 1 5m

Street facade.

front facade, fill sloping ground at the same time becoming a place for meeting and inviting people to sit. By making the street, and the activities going on outside, visible through a window in the front facade, there is the possibility of creating a more secure neighbourhood.

Each unit of the semi-detached house consists of a starter house and a covered outdoor space. The starter house has a floor area of 10.5 m². It consists of a double height room intended for cooking and is provided with a tap. A loft is included in the double height room and provides sleeping space set aside from the activity on the ground floor. A wet core with a toilet and a shower, where bathing can take place in privacy, is also included in the starter house. The foundation consists of a concrete bed and

covers a larger area than the starter house. The roof covers as large an area as the foundation. Since the foundation and roof are provided the starter house is easy to extend in a safe and adequate way. As the household can afford it the walls between the pillars can be gradually filled in, even with temporary materials such as mud blocks. The starter house can be extended to a maximum floor area of 26.5 m².

The high ceiling height of the starter house makes the indoor climate more comfortable. To save material costs the upper part of the wall can be built with stone of a smaller dimension, in this case also creating a support for the loft. Concrete bricks turned 90° are used as air bricks and form ventilation holes in the wall by the loft and the toilet. Several window panes are to be preferred to one or a few. If a window breaks one pane is cheaper to replace.

Washing and drying clothes can be done outside with or without a covering roof. Hard paving, which protects the foundation from rainwater, and prevents the washing from getting dirty, covers the surface around the house.

Rainwater is collected in a partly dug down water tank, which also acts as a retaining wall at the back of the house. Rainwater must be lead away from the building by natural slope or drainage channels.

The Four-leaf Clover House

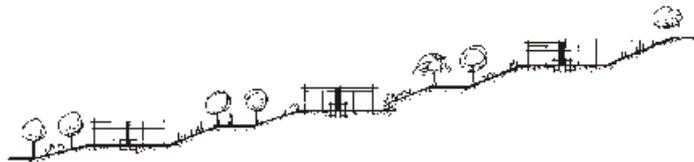
The fact that some of the women were negative to attached houses is more a matter of sharing private, semi-private and public space, than a matter of a common wall.

*I don't mind sharing a wall with a neighbour,
but sharing a yard would cause problems.*

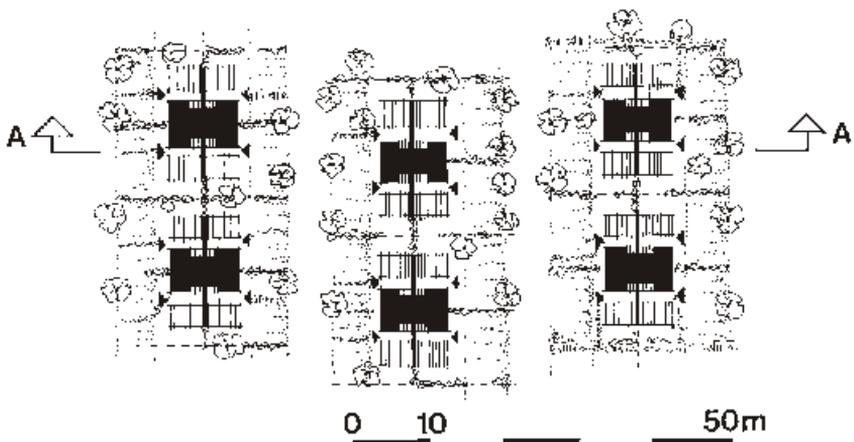
The Four-leaf Clover House consists of four attached units facing different directions. The units are surrounded by a plot of 100 m² and is big enough for gardening in small scale. The Four-leaf Clover House has several advantages compared to the single house on a plot. By gathering the built mass, the earthworks can be concentrated to fewer places in the sloping topography. Since the unit is placed in the corner of the plot it means that one can make better use of the plot and consequently make them smaller than they usually are. By sharing walls, costs for wall material can be reduced and infrastructural costs can be kept low.

Each unit in the Four-leaf Clover House includes a starter unit and an outdoor covered area. The starter unit covers a floor area of 7.5 m² and consists of a kitchen with a tap and a wet core with toilet and shower.

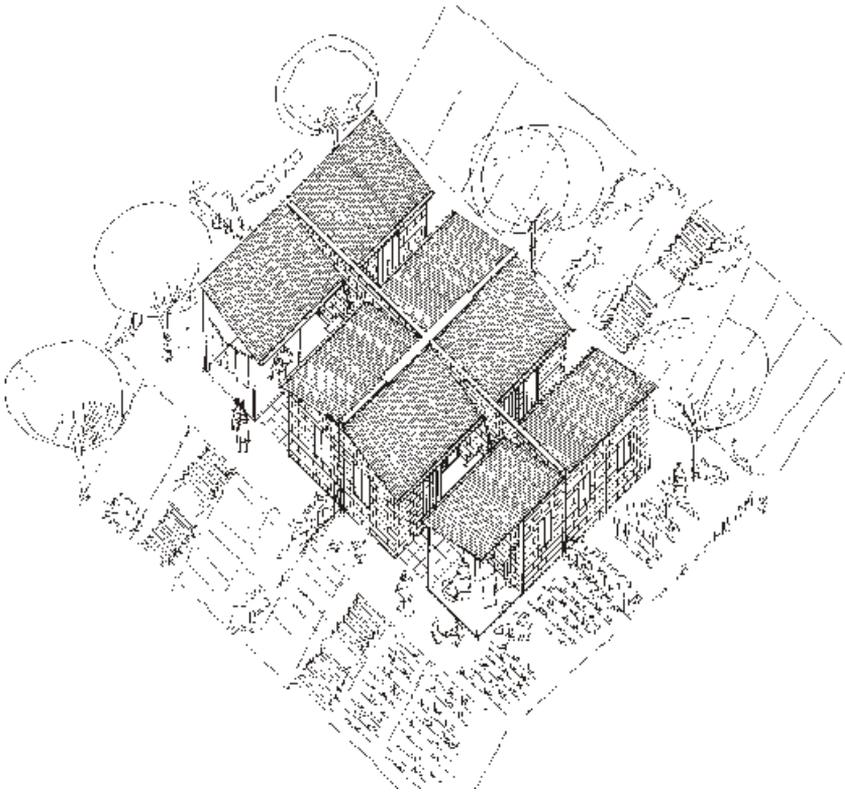
The outdoor covered area consists of a concrete slab covered by a roof and is separated from the starter unit by a paved courtyard. Walls can



Section A — A.



Plot layout.



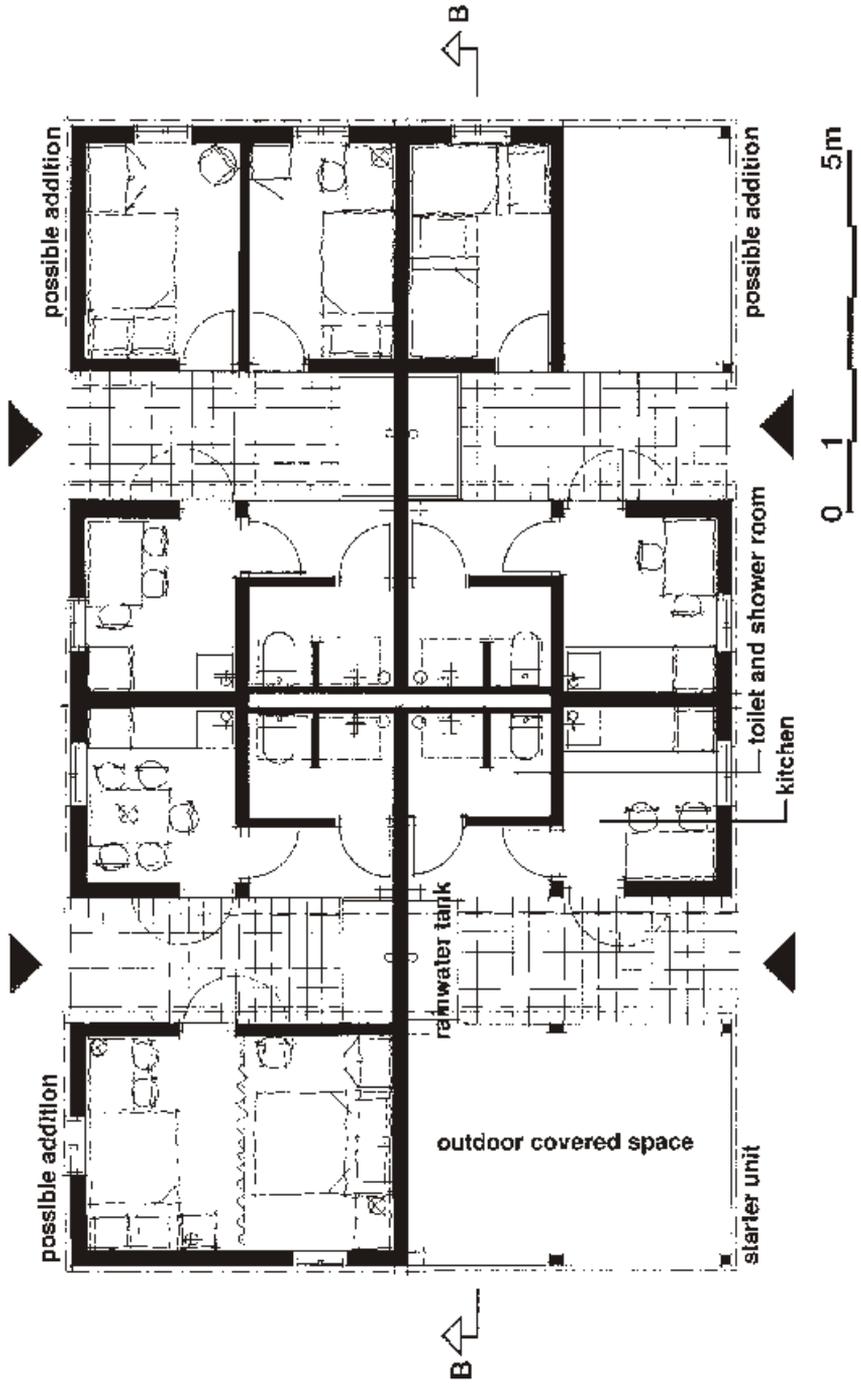
Axonometric.

easily be added to the covered space by the owner. The maximum floor area when walls are added is 19.5 m².

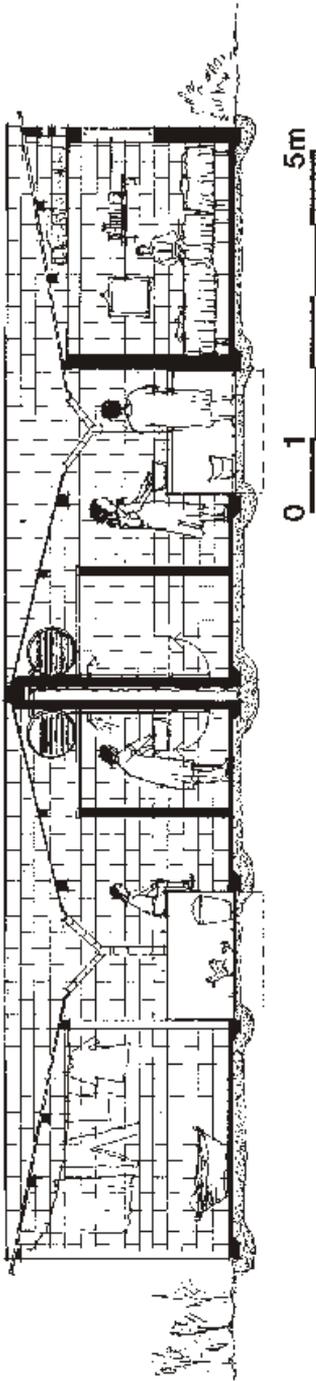
The walls dividing the units are built with 190 mm blocks, while other walls can be of a smaller dimension to save costs. The double wall dividing the four wet cores contains the necessary piping and sewage. In the shower room a bench can be folded up from the wall for washing clothes and dishes. The water tank is situated under the roof of the wet core.

The two roofs slope towards the yard, where rainwater is collected in a water tank. It is important that gutters and drainpipes are big enough and easy to clean. The top of the tank can be used as a work bench for washing or cooking activities. Water from the tank is pumped up by hand and can be used when washing and bathing.

Since there is no living area included in the starter unit, this housing idea relies on the condition that the owner has the opportunity to build the walls of the outdoor covered space before moving in.



Plan. Four dwellings forming a four leaf clover house.



Section B — B.

The Sneak in Row House

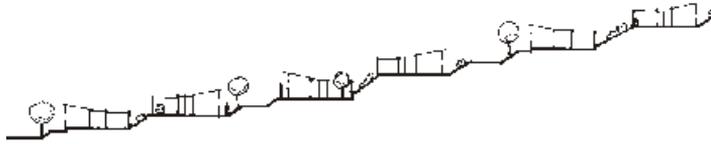
This idea sprang from hearing that negative feelings for row houses are common among the informal communities.

I don't want to live in a train.

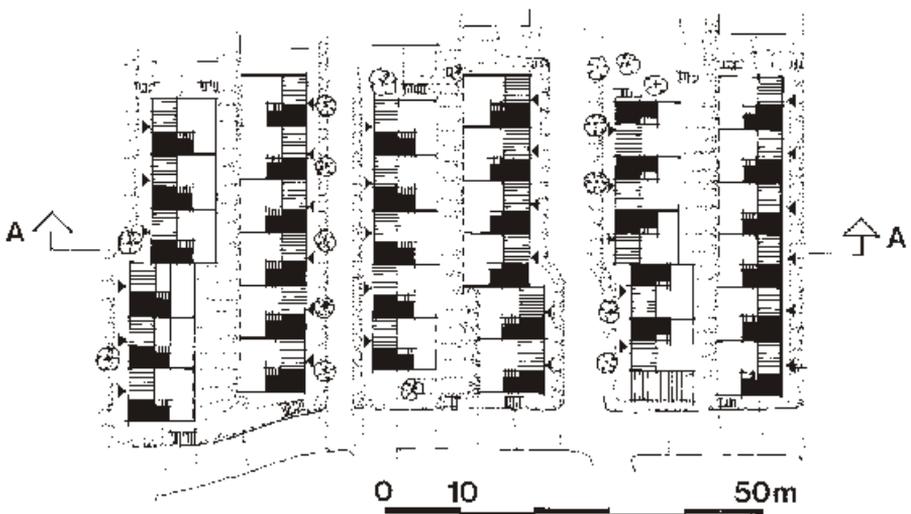
With the need to build denser urban neighbourhoods new ways of creating these have to be explored.

This housing idea shows detached starter houses that are built in rows along the contour lines. Each plot covers 62 m². There is a small yard at the back of the starter house, enough for gardening in small scale. Apart from the starter house, there is an outdoor covered area on the plot. This outdoor space is formed by a concrete slab and a roof extends from the starter house to the plot dividing wall. The starter houses are in this way not connected. The house can easily be extended by the owner, to fill the gap between the starter houses, which in time will form it into a row house. Since the additions are made by the owner in different materials and ways, each house will have an individual appearance and will give the streetscape a variety that an ordinary group of row houses would lack.

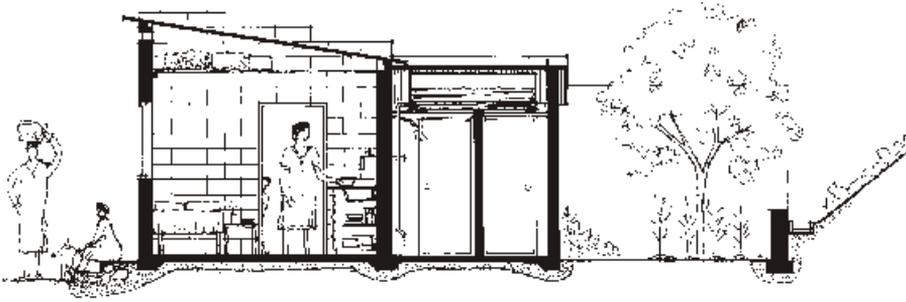
The starter house has a floor area of 9.5 m². It contains a single room which is intended to be used as a kitchen after additions have been made.



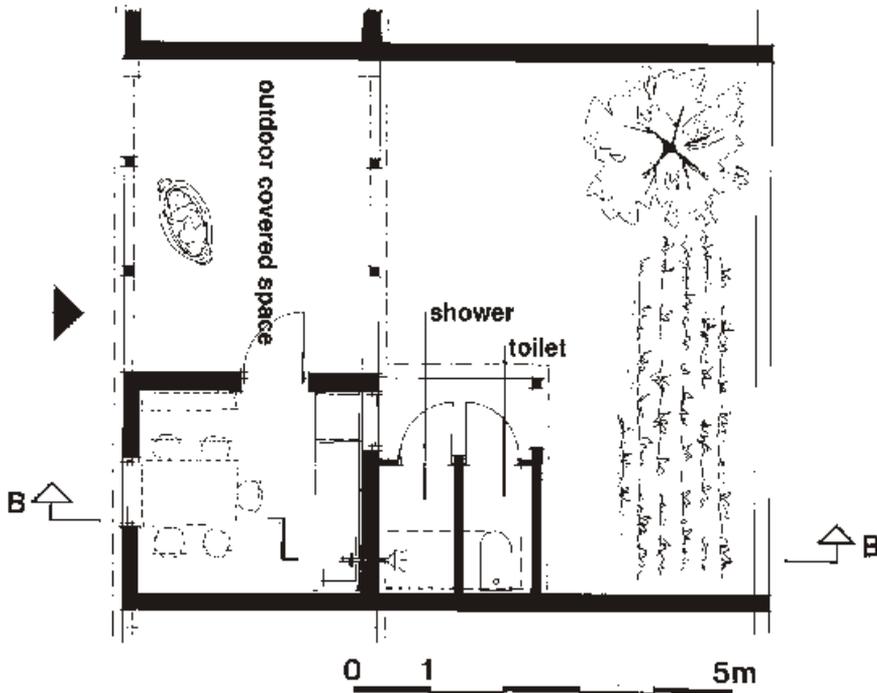
Section A — A.



Plot layout.



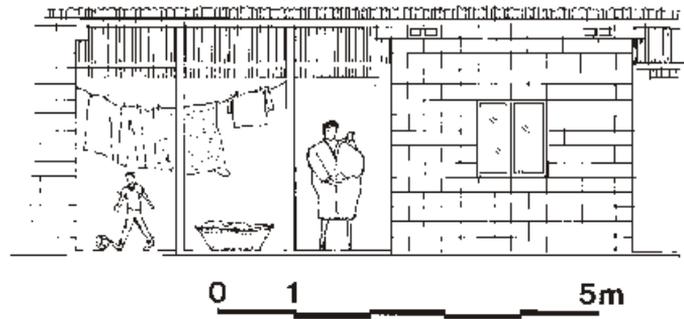
Section B — B.



Plan.

The room has a tap and space for a fridge. The starter house also includes a toilet and a shower room, with the water storage tank situated underneath the roof covering them.

The starter house can be extended to a maximum floor area of 22 m². The addition can be in the form of a separate unit, with the possibility of having a tenant, or directly linked to the starter unit. The covered outdoor space can, before additions have been made, be used as a shop, as a working space in the shade or for drying clothes when it rains. The starter house can also be extended in the backyard by building against the plot di-



Facade. The top concrete blocks of the starter unit support the beams carrying the roof of the outdoor covered space.

viding wall. For security, a gate can be put up in the passage that is created to the back yard.

The roofs slope towards the yard making it possible to collect rainwater and reuse it when washing clothes, washing dishes and watering plants.

To save material for wooden pillars, which is expensive, the top concrete blocks of the starter unit can corbel out to support the beams carrying the roof on each side.

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A report prepared for CMDA in April 1994 by a group of architects and planners called ACCESS. Joanne Lees was assistant project leader. The aim of the project was to make a high density (one and two storey houses) pilot project for further development in Cato Manor. The project was in the line with Cato Manor Development Framework. The project was phased and wanted to maximize the use of R 10 million grant. The proposal was not realized as planned.

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The issue contains articles about the then present housing situation in South Africa. First world architectural projects are presented side by side with shanty town and community projects. Articles worth mentioning are "*Complexity and Contradiction*" by various contributors and "*Hopes in Hell?*" by Rodney Harber. The outrage object in this issue is the Durban shopping mall "The Pavilion" on the edge of Cato Manor.

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The RDP is ANC's socio-economical framework for the future development of a new democratic South Africa. It was drawn up by ANC by means of a far-reaching consultation process with its members, its allies, and a range of experts in the fields covered in the document. One of the fields is *Housing and services*.

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- 1996 *Urban Governance: Why Gender Matters*, (Gender Development Monograph Series 1), United Nations Development Programme, New York.

Beneria, Lourdes and Savitri Bisnath

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Bränngård, Björn

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The report was produced with funding from Sida. The author, a Swedish architect worked together with architect Joanne Lees during three months in Durban. The project was not realized as proposed.

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The book examines the gender impact on South African budgets work; welfare; housing; education; public services and taxation.

1997 *The second Women's Budget*, IDSA, Cape Town,
ISBN 1-874864-54-3.

The second volume covers the gender impact on South African budgets concerning health; land affairs and agriculture; safety and security; justice and correctional services; transport; energy and home; and foreign affairs.

Correa, Charles

1985 *The New Landscape*, The Book Society of India, Bombay.

The metropolises in the world grow rapidly and Correa points out that our urban images will have to change fundamentally. A range of issues are discussed; housing for the poor and squatter settlements are two of these.

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A collection of essays concerning the African everyday life in Durban. The book is divided into three parts; City Life, Working Life and Life on the Margins and tells the reader interesting stories from real life with a historical perspective.

English, Larry, Joanne Lees and Barbara Southworth

1994 *A catalogue and simple analysis of housing types applicable to Cato Manor*, August 1994.

The catalogue by Larry English, Barbara Southworth and Joanne Lees is a first draft of a compilation of work from various sources, some of which was done previously for the CMDA. It is also a consolidation of workshops on housing held by CMDA. Examples have been selected for their suitability for use in Cato Manor. The criteria for their analysis are based on the development principles advocated by the CMDA and relate to spatial concepts developed thus far. The catalogue shows a range of typologies in their basic form.

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- 1982 *About Understanding – Ideas and observations on cross-cultural communication*, Dag Hammarskjöld foundation, ISBN 91-85214-09-4.
The book has the aim to show how to communicate without words. It has the ambition to make the visitor in an African country aware of cultural differences.

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- 1997 *Shanty Upgrading*, Overseas Development Administration, London, 1987, ISBN 0 9512952 0 9.

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A documentary fiction in which Africans in South Africa tell their stories of everyday life during the Apartheid era.

Govender, Ronnie

- 1996 *At the Edge and other Cato Manor Stories*, ENZA press, Pretoria, South Africa, ISBN 1 91690 14X. Softcover.
A collection of fourteen short stories about the Indian communities in Cato Manor during the forties, fifties and sixties, at the edge of apartheid upheavals in South Africa. In 1997 the author received the Writers Prize of the Commonwealth.

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- 1993 *A Policy Framework for Greater Cato Manor*, Final Draft. Visionary report from June 1993 at an early stage of the development of Cato Manor. The report shows the exceptional possibility to integrate the area with the city of Durban. Greater Cato Manor Development Forum was later reorganized and was renamed Cato Manor Development Association.

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The book deals with general environmental problems in the third world cities. It gives specific examples from different cities. Urban agriculture is one of the issues mentioned to improve the cities.

Hindson, Doug and Jeff McCarthy

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The book comprises 24 papers written by different researchers. The papers provide insight into various facets of informal settlements in KwaZulu Natal. The region has the largest shanty sprawl in South Africa.

International Development Research Centre

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Different researchers present facts about urban agriculture and how this can be used as a positive addition to the local economy.

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1984 *Messica – Planning and Land Use*, Department of Building Function Analysis, School of Architecture, University of Lund, Sweden, ISBN 91-7740-011-9.

A thorough study and evaluation of a planning project in a small new industrial town in Mozambique.

Journal of the Natal Provincial Institute of Architects

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The issue contains several articles which stress the fact that architects must take a leading role in the development process of the shanty towns and squatter areas in the surroundings of Durban.

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A report from a study done by a Swedish group of students in October 1995, supervised by Dick Urban Vestbro, Germán Perotti and Sven Thiberg. The report is divided in four independent parts; *Politics, Housing and Communities* by Mika Rajala, Jessica Björklund and Klas Groth; *Durban Strategic Opportunity* by Tor Lindstrand, Anna Rothman, Christina Shutrik and Bolle Tham; *Conquering the Red Soil, Black Urbanization in Cato Manor* by Peder Hallkvist, Christian Hedlund, Torsten Livion, Åsa Lundberg and Martin Wiese; *A Field Study in the Informal settlement of Burlington Station, Durban, South Africa* by Karin Ekbohm, Christina Isomaa, Douglas Johansson and Froste Nylander.

Kuzwayo, Ellen

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Larsson, Anita

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A comprehensive study of traditional and modern low-cost housing in Botswana. The methods used in the research are well presented. The women's perspective is in focus.

1991 "Governmental Housing Strategies versus Women's Housing Strategies in Urban Southern Africa", *Gender, Culture and Power in Developing Countries*, Vol. 2, Centre for Development and the Environment, Occasional Papers from SUM, Series B No. 4/91: Development Studies, Oslo.

A paper about the housing situation for women headed households in the capitals of Botswana, Zambia and Zimbabwe. The paper is based on findings of a research project with comprehensive case studies in those three countries.

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1992 "Women, Houses and Domestic Sphere in Tswana Society", *Open House International*, Vol. 17, No. 1.

The article describes and analyses women's relationship to traditional housing in Botswana. Examples are given on how modernization has changed the traditional role and influence of women on housing.

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Planact

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The kitchen is seen as a space for culinary activities and is described through three aspects; the stove, the function and the climate.

Recommendations are given where to place a kitchen in a dwelling and where to place the stove.

Scott Wilson Kirkpatrick Project and Development Management

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Tilman, Harm, et al.

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The Rotterdam Academy of Architecture and Urban Planning initiated the Housing Generator Project and developed it together with the Urban Sector Network and several other institutions in South Africa and the Netherlands. The theme of the project was low-cost housing in the context of the South African city. Cato Manor in Durban was one of three sites where the competition was launched. The other sites were Duncan Village in East London and Wattville in Benoni, Greater Johannesburg. The official overture includes briefs for the three sites, locations, contexts and goals, programme and themes of the competition. The winning proposal for the site in Cato Manor was a team from Durban; Town Planner Teresa Gordon, Architect Joanne Lees and Architect Barbara Southworth.

Wästberg, Per

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Åhstrand, Johnny et al.

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Contains handy practical advice for building technology; building services; kitchen and stove; maintenance and repairs; climate design; construction and building materials in developing countries.

A book based on 235 Swedish builders experiences.

Appendix 1

Name:

Age:

Address:

Married/Single

Education

Members of the household: Adults Children Total

How many generations:

Where did you live before?

When did you move here?

Why did you move here?

Do you have a job? Yes No

Where:

seeking work

self-employed

employed full time

employed part time

pensioners

How do you get there walk car bus taxi

other:

Who takes care of your children?

Where do the children play?

Plot

Show the borders. Why border here?

Do you keep any animals?

Yes

No

Do you grow vegetables, fruit trees, etc.

Yes

No

Specify:

If you don't have animals or grow vegetables, what's the reason?

Describe your daily life Activity Time Indoor/Outdoor

- 1.
- 2.
- 3.
- 4.
- 4.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.

sleeping, take a bath, personal hygiene, storage, prepare food, how many maels, how many persons, cooking, eating, washing up, washing clothes, dry clothes, gardening, social life, guests, homework.

Is one day during **summer** same as
one day during **winter** Yes No

If different:

Sleeping

Are you satisfied with the sleeping arrangements
for your family in this dwelling? Yes No

Why:

If you want to rest during the mid-day heat, where do you do that?

Kitchen

Fuel

stove placed, height above floor:

water tap:

Are you satisfied with the
cooking arrangements? Yes No

Why:

Where do you keep china?

Fresh food and leftovers?

Sugar, tea, canned food?

Maize?

Are you satisfied with the storage arrangement
for your household equipment? Yes No

Why:

Where do you buy your food?

How often do you go to DC?

How do you get there walk car bus taxi other:

Who built your house? Self built other:

Materials:

Orientation? Why?

Security

Do you feel secure here? Yes No

Is there any place in your home where you feel more secure? Yes No

If, where, why:

General. What do you consider being the best about this building?

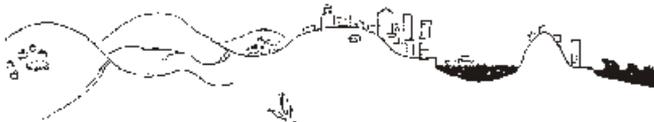
What do you consider being poor about the dwelling?

What improvements do you consider most urgent at the moment?

BUILDING STANDARD

URBAN-RURAL

ADDITIONS



DENSITY
Relocation / upgrading

HOUSING SUBSIDY

MYTHS or FACTS

AGRICULTURE

bird waste?

SMIT

Medicines

Star

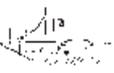
Active of the State
(to secure water delivery
subsidies from a different
source)

Economic pillar
policy support
water system

TOILET

House of systems

TOPSTRUCTURE?



Can state build housing
as solution

THE IMAGE OF A HOUSE



expensive
plans of 10
minutes

sustainability

WATER



slipping
MOS
transmission
water
clean

WOMEN

Next word - total involvement

all experience of
living in the house
in plant, water, information

ESTHETICS neat?



to do something?
time

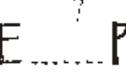
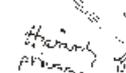
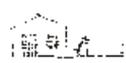
INDOOR-OUTDOOR

NEIGHBOURHOOD

Blue team
to be attached
to the blue

SECURITY

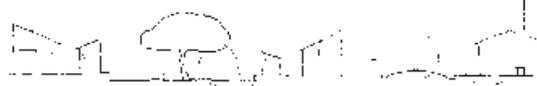
Are you the most
insecure house
in your village?



CLIMATE



PRIVATE PUBLIC



OWNERSHIP-RENTAL

Current Housing Policies
TO USE DOWN POINT
FULLY!

Not providing the range of
life cycle circumstances

ACCESS for who?

TRANSPORT

density
& possible
to support

CAR



long term perspective

