

Fig 4.6 Illustrating Courtyard Housing with hierarchy of spaces

## 5. PRECEDENT STUDIES

### 5.1 South African – Precedent Studies

Several new urban housing projects in various areas of urban South African cities appear at first review to be relatively unsustainable. The latter is inter alia due to poor performance of the building fabric; a lack of responsiveness in the design to the harshness and forces of the climate; and an absence of a significant deficiency in a more comprehensive environmental strategy.



Figure 5.1 Image by author. Nellmapius, 2008, illustrating new residential projects with poor urban principles.

Some new projects seem to apply urban and spatial qualities, integrating sustainable settlement principles with housing. According to Cooke (2005: 5), in context of housing in South Africa, new cities and neighbourhoods should be densely built and offer everyone similar access to pleasant places and necessary facilities, and ample choice in shops, markets, schools and recreational places. Erskine (1998: 22) indicates that housing is more than only building units, but more the design of a whole environment that provides accommodation, jobs, education, health services etc.

### 5.1.1 Graca Machel Residence, University of Cape Town

<b>Project</b>	Graca Machel Residence, University of Cape Town
<b>Architect</b>	Kruger Roos Urban Architecture Design
<b>City</b>	Cape Town
<b>Country</b>	South Africa
<b>Address</b>	Lower Campus, Rondebosch
<b>Building Type</b>	Perimeter block Slab, point-access
<b>Number of Dwellings</b>	384
<b>Date Built</b>	2007
<b>Dwelling Types</b>	studio, one and two bedroom units
<b>No. Floors</b>	3
<b>Section Type</b>	Flats
<b>Exterior Finish Materials</b>	plaster, concrete, glass, steel,

**Construction Type** RC frame



**Figure 5.2 Graca Machel Residence, Cape Town**

The University of Cape Town commissioned Kruger Roos Architects for a new 384-bedroom women's residence on the lower campus of the university. The framework called for the making of a *Great Street* to the west of the site, linking the lower campus to the middle campus. The architects perceived the building as a city, with a public arcade and shops on the street and public functions at the crossroads of Show Road and the Great Street, treating the street as social space with multi function.

A large roof supported by concrete columns, covering a public balcony, marks the entrance. Three internal courtyards are linked with an internal arcade, which lies parallel to the external arcade. The 11 500m<sup>2</sup> three-storey building steps down the slope terraces. The slope is further utilised to create a number of neighbourhood clusters, each accessible through the courtyards with circulation stairs doubling up as fire escapes.

The three courtyards have diverse characters that are reflected in the use of different trees, shrubs and groundcover. The legibility of the residence was supported by a system of colour coding and coloured glass in the cores. The upper courtyard adjacent to the dining hall serves as the more public space that can be used for special events. The other two are more intimate and private.

Solar panels and ventilation chimneys from the ablutions, express the energy harvesting and passive cooling system (Digest of South African Architecture, 2007/8 : 174)

### 5.1.2 N2 Gateway – Joe Slovo



Figures 5.3 - 5.7, N2 Gateway Joe Slovo Social Housing

<b>Project</b>	N2 Gateway Joe Slovo
<b>Architect</b>	JSA Architects and Urban Designers
<b>City</b>	Cape Town
<b>Country</b>	South Africa
<b>Address</b>	Langa Cape Town
<b>Building Type</b>	Perimeter block Walk up residential
<b>Number of Dwellings</b>	705
<b>Date Built</b>	2005
<b>Dwelling Types</b>	Bachelor, 1-2 Bedroom units
<b>No. Floors</b>	3
<b>Section Type</b>	Flats
<b>Exterior Finish</b>	plaster, concrete, glass, steel,
<b>Construction Type</b>	Pre cast floor slabs with load bearing masonry walls

(SHIFT, Project Review Series, 2006)



Figure 5.8 N2 Gateway Joe Slovo

### 5.1.3 International House Students Residence at Wits

<b>Project</b>	International House, Students Residence Wits
<b>Architect</b>	Kate Otten Architects
<b>City</b>	Johannesburg
<b>Country</b>	South Africa
<b>Address</b>	Old Campus, Johannesburg
<b>Building Type</b>	Perimeter block Slab, point-access
<b>Number of Dwellings</b>	89
<b>Date Built</b>	2003
<b>Dwelling Types</b>	one bedroom units

<b>No. Floors</b>	3
<b>Section Type</b>	Flats
<b>Exterior Finish</b>	plaster, concrete, glass, steel,
<b>Materials</b>	
<b>Construction Type</b>	RC frame

The building is sited within the old campus on a north-facing, well-wooded area. The building is on three levels, lower ground, upper ground and first floor. Entry is on the upper ground level and accessed from a public pedestrian way through the campus. The entrance canopy invitingly covers this path creating a meeting space at the front door and integrating internal with external, public with private.

The building comprises 89 bedsit units with associated communal facilities. Each unit self-contained and consists of a kitchenette, shower room, single common rooms encourages interaction en route to and from private accommodation.

Common rooms open onto balconies to the north, overlooking the courtyard spaces between apartment blocks and the extensive garden to the south. Six or seven unit are grouped together and accessed via covered walkways. Small groups are connected to other groups via balconies and covered patios – promoting interaction between units. Indoor and outdoor spaces merge freely, with trees invading bedrooms, giving shade and character to courtyards

The building is designed with the specific aim of engendering a sense of community among those living there. It creates a feeling of inclusion and strives to promote ongoing and positive interaction between residents. bed and workspace. Access between the common rooms connects the blocks at all levels.

## 5.2 Global Housing Precedent Studies

Several international housing projects, facilitating the integration of mixed tenure and residential open building oversee the regeneration and reconstruction of urban wasteland.

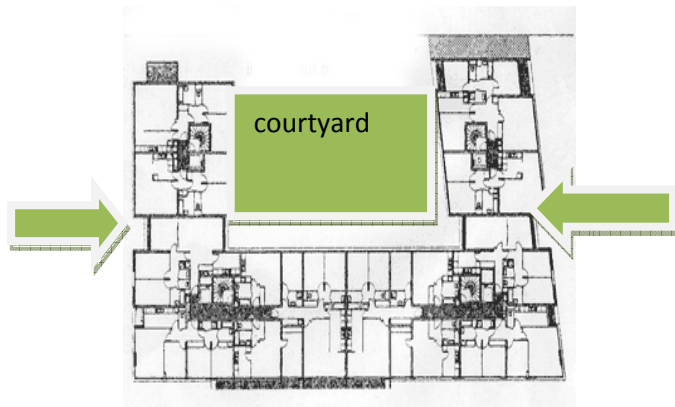
### 5.2.1 Housing at Parc de Bercy, Paris, France

<b>Project</b>	Bercy-Gabriel Apartments
<b>Architect</b>	LLTR Architects (O. Le Boursicot, P. Loth, G. Testas, Y. Robert)
<b>City</b>	Paris
<b>Country</b>	France
<b>Address</b>	14-16 Rue l'Aubrac/51 rue Francois Truffanu2th)
<b>Building Type</b>	Perimeter block Slab, point-access
<b>Number of Dwellings</b>	187
<b>Date Built</b>	1997
<b>Dwelling Types</b>	studio, 2,2, & 3 BR flats, some penthouse maisonettes
<b>No. Floors</b>	7-9

<b>Section Type</b>	Flats
<b>Exterior Finish Materials</b>	plaster, stone, concrete, glass, steel,
<b>Construction Type</b>	RC frame
<b>Ancillary Services</b>	below grade parking, shops at grade

#### Project description:

Housing comprise of apartment buildings, 514 units, and some apartment buildings eight/nine storeys high. Blocks facilitate the integration of mix tenure such as private housing, social housing and rentable units. Mixed use comprise of residential, shops, schools, nursery school and offices. Some units are duplexes and grouped around circulation cores. All buildings have access to courtyards within the blocks for communal use. All units overlook the park and have balconies. The park as the primary green element is visually and spatially linked to the housing courtyards and transverse streets.



**Figure 5.9** Parc de Bercy , Paris



**Figure 5.10** Parc de Bercy, Paris

Apartment buildings (Fig 5-10) are grouped around courtyards. Openings/entrance spaces filter the link between the courtyard and the park. The latter allows visual permeability in the courtyard and park.



**Figure 5.11** Parc deBercy , Paris

The central concepts and key success of the Bercy Housing is that of the highly positive relationship between the housing and the park. Without being dominating, the housing units frame the park and make it feel safe and well overlooked. Housing units gave the park a necessary strong and defining edge. Surveillance is maximised with balconies running along and projecting from the park façades. Units are designed in such a manner as to maximise lateral views towards the park, courtyards and street.

No visual distinction between social, rent and market housing are made. Different tenure units are well integrated and provided for. A key success to Bercy Housing is the fine balance that was struck between transparency and definition of the housing blocks. Housing blocks function well as perimeter blocks, making clear distinctions between public and private space, remaining visually permeable with links to the park.

Courtyard gardens (Fig 5.11) form a tranquil inner realm removed from the public and transport activity on the street façade. 120-birch tree form a canopy of foliage above a grass and narrow paved walkways. The seven story walls at the sides and rear of the (Housing at Parc de Bercy, www, 2008)



**Figure 5.12 Growth Homes**

## 5.2.2 Growth Homes, Almere, The Netherlands

**Project** Growth Homes, Almere, The Netherlands

**Architect** Herman Hertzberger

**City** Almere

**Country** The Netherlands

**Address**

**Building Type** Residential Open Building

**Date Built** 2002

Units can be extended without difficulty. All units have the same basic unit plan plus a variable zone that can be fitted with discretion of the occupant. Occupants can modify these zones over time and add extra rooms to their houses (fig 5.12). Modifying is about excluding and as well as including (Growth Homes, www, 2008)



## 5.3 Housing Support Centre

### 5.3.1 Galeshewe Housing Support Centre (HSC)



**Figure 5.13 Housing Support Centre Galeshewe**

The Housing Support Centre in Galeshewe, a township in Sol Plaatje, was established in 1996 to facilitate access to subsidies and speed up housing delivery to the poor.

The support centre was initiated by Sol Plaatje Municipality and the community, and was supported by the provincial Department of

Housing and Local Government and Sida, which financed the operating costs during the first three years.

The Housing Support Centre (HSC) is a municipal structure that manages low-cost housing projects to increase housing delivery to families eligible for the housing subsidy.

The centre provides information on subsidies, facilitates community participation in housing programmes and assists poor people to build and improve their houses, e.g. by introducing the self help concept.

The HSC target group is poor people entitled to a housing subsidy, and who were in need of assistance with housing, services, urban environment and household economy issues.

The HSC facilitated the planning of a project that included the construction of 5000 houses. The community was heavily involved, alongside other stakeholders from the municipality, the Province, and private business. The construction required compliance with

the IDP, standard planning regulations and the municipal housing plans and budgets. The proposal was approved; the municipality allocated land and the provincial Department of Housing and Local Government provided subsidies.

The HSC has been the main channel for user involvement in housing processes and related services. Numerous meetings have been held at the centre, which manages information on the recipients of housing subsidies and is responsible for the housing waiting lists that ensure fair and transparent allocation.

Women were motivated to participate on an equal basis in information and decision making processes related to housing delivery. Single female-headed households were encouraged to apply for housing subsidies and female contractors were provided with special technical and administrative support.

Not only the recipients of housing subsidies but also the wider community have through the project gained new insights into different housing solutions, alternative building materials and

ecological solutions. People have also learned more about their rights and obligations as citizens. This has made them more confident to require service delivery from the municipality and to engage with the municipality and other stakeholders regarding services ([www.citiesofopportunity.com/booklets/housing](http://www.citiesofopportunity.com/booklets/housing))

### **5.3.2 Waterloo Housing Support Centre (HSC)**

The provision of a housing support centre at Waterloo was seen by the Local Authority as an opportunity to establish a regional facility in the Northern Sub-Structure. It was proposed that the CSC/HSC provided would cover issues relevant to the project of the housing process. The intention was to provide a “one-stop” centre where people could obtain information, advice and assistance, which would enable them to take control of their own housing needs.

Support would be given on the following aspects of housing:

- ***Technical Support***

This would entail the provision of advice and assistance with the selection of a housing option, construction method and materials, the preparation, submission and approval of building plans and preparation of cost estimates. It was envisaged that this function would dovetail with that of the residual administrator, who would be responsible for the release of the subsidy residuals for payment for building materials. It was at this stage that the beneficiary would be given sufficient information and advice to make an informed decision on the size, type and cost of house they required as well as the delivery method. The options available were:

- Contractor Built – where a beneficiary enters into a building contract with a contractor to deliver a house.
- Self-Help – where the beneficiary undertakes the construction using the self-help process via the approved self-help provider.
- Self-Build – where the beneficiary uses whatever means at his or her disposal to construct the house.

The CSC/HSC would provide opportunity for the people engaging in the self-help and self-build process to manufacture materials and receive training and support within the centre.

- ***Legal Advice***

The centre would provide people with basic legal assistance with contractual matters relating to housing. This would be more specifically aimed at individuals who elected to make use of contractors/builders to construct their houses. Advice on the National Home Builders Registration Council (NHBRC) its functions and role in housing would also be made available.

- ***Finance***

The provision of end-user finance and access to finance are often problems encountered by beneficiaries who make use of the Provincial Housing Board (PHB) subsidy scheme. The centre would facilitate the participation of lending institutions in the project and provide advice and assistance to beneficiaries on sources and procedures to access finance. The centre was built at Waterloo where a site on which the building erected had been identified. The North Local Council, the Local Authority for the area, had agreed to make the land available at no cost.

([www.dab.uts.edu.au/ebf/conferences/earthbuild.2005](http://www.dab.uts.edu.au/ebf/conferences/earthbuild.2005))