Meanings and perceptions of the built environment in peri-urban areas of Maputo, Mozambique

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Abstract: This research project aims to explore practices through which residents in informal settlements in Maputo, create their home-space and how these practices underpin urban development. At the centre of the research are the residents’ notions of the home. The study focuses on the socio-cultural values with which people imbue their living environments and the architectural notions of these. Informal settlements are received limited concern from governments, and if so, it relates to infrastructure rather than to homes. This marginal position is true further among architects, whether from the developing or developed world. Albeit there is an interest in ‘architecture without architects’, this focuses on vernacular architecture and not on the mundane and contemporary ‘everyday architecture’ of simple homes developed by the urban poor. The quest is to establish a scientific based knowledge on how communities are ‘resourcing themselves’, and ‘being resourced’ by initiatives from local and national governments, NGO’s and the international community.

Keywords: Informal settlements; everyday architecture; vernacular architecture; living spaces; slum; home making.

OBJECTIVES

This research project aims to explore local practices through which residents in informal and low-income settlements in Maputo, Mozambique, create their home-space and how these practices underpin actual urban development. At the centre of the research are the residents’ shared notions of home. The study thus focuses on the socio-cultural values with which people imbue their living environments and the architectural notions of these, a perspective absent in most architectural studies of informal settlements.

Though a study at the micro-level would vary from country to country and even within the same city between settlements, such studies contribute to an understanding of the macro-level reality of Saharan African urban development in general. Informal settlements are characterised by little concern by governments, and if any attendance, it relates to infrastructure rather than to homes and housing. This marginal position is even truer among architects, whether from the developing or developed world. Albeit there is an interest in ‘architecture without architects’, this focuses primarily on vernacular architecture and not on the mundane and contemporary ‘everyday architecture’ of simple homes and spaces developed in the South by the urban poor.

1 This paper draws on the research programme ‘Home Space Maputo’, funded by the Danish Research Council for Innovation 2009-2011, under the management of Prof. Jørgen Eskemose Andersen of the School of Architecture, Copenhagen. The programme is based on a conception and research design by Prof. Paul Jenkins of the School of the Built Environment, Heriot-Watt University / Edinburgh School of Architecture and Landscape Architecture. It is implemented in partnership between the above institutions (led by Professors Andersen and Jenkins) and the Centre of African Studies at the ISCTE- Instituto Universitário de Lisboa (represented by Dr. Ana Bénard da Costa) and the centre for Development of Habitat Studies at the Faculdade de Arquitetura e Planeamento Físico, Universidade Eduardo Mondlane, Mozambique (represented by Prof. Júlio Carrilho and Dr. Carlos Trindade). The fieldwork was undertaken with participation of students of architecture and anthropology from Universidade Eduardo Mondlane, and had key involvement from architect Silje Erøy Sollien and Mozambican academics Adriano Biza and Judite Chipenembe. Generous support from Mozambican Faculty Director Prof. Luís Lage, and time donated by Edinburgh and Lisbon institutions for their academics’ inputs have been a key aspect of the programme’s success.

2 These are the terms used in the international literature (in the English language) for housing built by the poor people themselves at the periphery of the formerly built city. Other terms used are ‘peri-urban’, ‘unplanned’, ‘compounds’, ‘townships’ or ‘squatter settlements’.

3 In this study ‘home-space’ refers to the house which households themselves considers and perceives as their home, including the territory which households occupy and make use of e.g. for home based industries (tailors, shoemakers, vendors etc.).
Based on case studies the research will analyse home-space with regard to:

1. Everyday architecture
2. The social and cultural notions of residents
3. Wider socio-economic and political context and
4. Impact of 1 and 2 upon urban development and planning

This leads to two research questions:

1. How are home spaces created and organised and what values and notions do they ascribe to?
2. What are the implications of the processes of individual home making for fast-growing urban areas of Sub-Saharan African cities?

Ultimately this may lead to a broader understanding of which forms of urbanism are emerging in Sub-Saharan big cities and hence we see 5 scenarios in the case of Maputo:

1. Will the expansion of the formal city absorb and transform the informal city?
2. Will the rise in land values promote a vertical expansion and the establishment of local centres?
3. Will increased polarisation between the majority poor and the emerging middleclass turn into a violent competition right to the city?
4. Will the development of gated communities further consolidate the divided city?
5. Will new forms of urbanism surface with urban morphologies without obvious references?

BACKGROUND

Approximately 70% of the urban population in Sub-Saharan Africa are slum dwellers, many living under health-threatening circumstances, with inadequate infrastructure provision and lack of security of tenure. Given that a large and increasing proportion of these housing areas lack assistance from state and municipal agencies, the tendency is for both state and civic actors and a wide range of researchers to define them as ‘informal’ (Kombe & Kreibich 2000; Rakodi & Leduka 2005; Skuse & Cousins 2007).

Little has been studied concerning home-space in the informal and low-income settlements, despite the significant levels of investment this represents in African cities. Indeed, only few Sub-Saharan African researchers and architects acknowledge the qualities that can be identified in the informal settlements on the African continent (Lekule 2003; Mrema 2008). Housing issues in the South have, however been a strong issue of investigation since the 1970’s, with a significantly more limited strand of study in architectural aspects of urban housing (e.g. Andersen, Andreasen & Tipple 2006; Tipple 2000) and a very limited focus on cultural issues.

Research within the vernacular tradition, does not pay any attention to contemporary buildings in the informal settlements in Sub-Saharan African cities. Research into what has been termed ‘everyday architecture’ and ‘structure of the ordinary’, however, values the built environment without the involvement of architects, but primarily focussed on issues in the northern hemisphere (Habraken 1998; Berke & Harris 1997; Ahnfeldt-Mollerup 2004; Tietjen 2007). In a study at the Royal Danish Academy of Fine Arts, Welling, Livø, Mortensen & Nordberg (2006) explored Danish homes and their flexibility to changing family patterns; they refer to the ‘open dwelling’ and quote Gullestad (1989) for criticising the sociology for being blind to ‘everyday life’ and the ‘trivial’.

While the term informal is rooted in a binary set of values from which it is accorded the negative connotations of an unauthorised and illegitimate settlement, the informal settlement is generally seen by residents themselves as legitimate despite displaying some form of ‘illegality’ (Feireiss et al. 2005; Jenkins 2004; Vaa & Hansen 2004; Nielsen 2006a).

4 The lack of an internationally agreed definition led in 2003 the UN-Habitat to argue in favour of the term “Slum” (UN 2003:10) and there is an acknowledgment that this term covers most of what have been used over many years in the literature concerning “…neglected parts of cities where housing and living conditions are appalling poor”.
5 Most studies concentrates on socio-economic activities and the social processes forcing people to operate within the informal sector. Other studies highlight issues related to land and housing at a general level (Vaa & Hansen 2004). Few studies deal with the built environment.
7 Knauder 2000; Larsson 1984, 1988, 1990; Schlyter A & T 1979; Schlyter 1991, 1996. The cultural focus was more prevalent in the 1970’s – e.g. Oliver 1971 & 1975; Rapoport 1969 – but is also returning as a focus: e.g. Oliver 2007.
Terms such as ‘informal’, ‘illegal’, ‘squatters’, ‘unplanned’ distances the majority of the low-income and poor urban population from state services and civic rights and permits manipulation to the advantage of different influential groups along the formal/regulated – informal/irregular continuum. Speculative practices by the political and economic elite (e.g. capturing rising land values) through corrupt practices within local authorities and exploitative practices of informal private sector operators (Hanlon 2004; Hansen 1996; Jenkins 2001a, 2006a, 2006b; Nielsen 2006b; Rakodi & Lloyd-Jones 2002) has become the order of the day in many informal settlements. Few legal contractors operate in the informal settlements; hence few architects take an interest in this form of housing that accommodates the majority of urban dwellers in the South. As it were, concern of architect researchers has focused on open space rather than buildings. This research aims to contribute to filling the gap.

CONCEPTS AND THEORETICAL FRAMEWORK

The research focuses on three main facets of the concept of home:

- The material (architectural form and spatial function/use);
- The socio-cultural (relationships, emotions, meanings and values) and
- The political economic (power relations, economy and state).

Blunt & Dowling (2006) argue that home is best understood as the relationship between the above three facets. Hence, an exploration of diverse meanings of ‘home’ entails understanding the practices of ‘home-making’. A home is not simply a product of collected material objects but, equally, the actions through which meanings are ascribed to this ‘home’, in turn conditioned by wider social, cultural, economic and political practices (Ingold 2000; Lawrence 1987). Thus the key issues to be investigated in ‘home-space’ cut across the architectural as well as socio-cultural and political-cum-economic domains through an exploration of the active and imaginative practices of creating homes by the residents. While the unit of analysis is the single household; it is also the ambition to establish a broader understanding of the factors conditioning actual urban development in Maputo, based on the assumption that the micro level underpins the macro level.

Inquiries into these issues in complex cultural settings, such as the urban scene in Maputo, poses a challenge with regard to congruence of terms and concepts. One example: In Mrema’s (2008) interviews in Tanzania concerning what is ‘beautiful’, the term does not translate into Kiswahili. The term nzuri is used, but with a much wider connotation including also quality, strength, usefulness and process. The landscape of terms and concepts is, therefore, of fundamental importance to, and shall be developed during the pilot phase of this research.

Thus the research aims at applying concepts used in nascent Sub-Saharan African research focused on informal settlements and not least by residents interviewed. This research is inspired by academic work focusing on everyday architecture and ‘the ordinary’ emphasising process, meaning and what is banal, and quotidian. According to Ballantyne (2002:10) “Buildings do not turn into architecture because they are big or because they are expressive, but because they have some sort of cultural content - some sort of meaning”.

According to Mrema (2008), architecture of a certain culture is like a receptacle of the lives of the people animating it. Forms and functions/activities with cultural bearings make up the nzuri of (everyday) architecture. In developing their homes residents relate to fellow actors (neighbours) through unwritten rules, moral values, common sense, and tacit knowledge. Meanings are dynamic and can only be explained through long narratives; homes are built up over decades as a crucial part of their life worlds.

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9 Spoken from northern Mozambique to Congo, Tanzania and Kenya.
THE IMPORTANCE OF UNDERSTANDING HOME-SPACE CONCERNING HOUSING AND URBAN DEVELOPMENT IN SUB-SAHARAN AFRICA

Slum dwellers are excluded from the attributes of urban life that are critical to citizenship e.g. political voice, safety and rule of law, access to education, access to health service, access to water and sanitation, access to transport and access o secure land tenure (Garau & Sciar 2005). What compounds this situation is growing urban poverty and according to UN projections almost all urban population growth in Sub-Saharan will occur in low-income areas and slum areas.

The Millennium Development Goals (MDGs) are the main focus for international assistance from the Northern countries and the key MDG of relevance to housing is that of improving the lives of 100 million ‘slum’ dwellers worldwide by 2020. In Sub-Saharan Africa alone, however, the number of urban slum dwellers is likely to more than double from 166 million to 350 million by 2020.

In this context of stagnating economies, weak states, small private sectors, reduced international investment and limited international aid, the housing strategies of poor urban residents need to be in the focus for increased attention. Rather than replicating urban programmes and housing policies from other regions, this project takes as a premise that analytical and practical approaches to urban housing must emanate from the lived realities of actual urbanization processes; hence the research is rooted in the case study tradition, focusing on the smallest unit of analysis – the individual home.

As argued throughout this proposal the urbanization processes can best be understood in taking point of departure in everyday life amongst ordinary low-income and poor residents in the slums (in this case of Maputo).

RESEARCHING HOME-SPACE IN MAPUTO – THE OPPORTUNITY AND CHALLENGE

Maputo represents a fairly typical urban situation for a big city in Sub-Saharan Africa. Over 70% of the urban dwellers are residing in informal and low-income settlements, where most houses are constructed using rudimentary building materials e.g. waste wood, cardboard, plastic bags, and reeds.12 As even the majority of the houses built with conventional building materials are left unfinished (but yet inhabited) for years, these precarious houses contribute to creating images of poverty and slum. The authors aim to cast a more subtle and complex perspective on the living environments created by poor and low-income people themselves, having experienced certain qualities in such areas through many years of practical work there. However the research must avoid romanticizing life in informal urban settlements as we acknowledge the hardships the residents are facing daily.

The informal settlements of Maputo tend to become ever more densely occupied as alternative housing options are virtually inexistent or placed far from the central areas.13 Service provision (water and sanitation, drainage, waste management, electricity and access roads) is poor and many sites are inaccessible during the rain season where many houses are flooded.

Maputo is chosen as the site for this research as the researchers have extensive experience in and data from the city dating back to 1980. This provides a unique basis for longitudinal investigation, as well as wide range of material already accessed, and a strong set of contacts for undertaking the research, including research partners. Furthermore the human settlement sector in Maputo has proven to be information rich in terms of the objective of the research.

THE RESEARCH PROGRAMME

To fully understand productions of ‘home-spaces’, it is necessary to go beyond traditional analyses of architecture, space and culture to investigate the imaginary and concrete practical actions of home-making. The research emphasises the importance of inquiries into how residents themselves perceive, explain and create

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12 Widespread use of reed as building material in poor areas of Maputo gave rise to the ‘reed’ townships, known as the Caniço.
13 Living densities of up to 700 persons per hectare is not unusual, which is very dense in areas with single story structures.
their living environment. To do this the research programme combines the following four components which all draw on the research methods outlined above.

1. **A base line study** will be carried out stipulating the socio-economic data necessary to establish a broad understanding of the housing situation a given number of household.

   The sample must cover enough households in order to sufficiently to be able to argue in favour of generalization of the data. It will furthermore serve as an updated analysis of sites in low-income areas of the city (building on Chalmers 1977; Carrilho, Bruschi, Menezes & Lage 2001; Jenkins 1991, 1999, 2001a, 2001b; Andersen 2007) which will provide some longitudinal perspective for the research through re-visiting sites surveyed between 0 - 15 years ago.

2. **Study of the built environment.** This study will investigate selected sites previously studied by research team members. The analysis will draw on the previous studies for longitudinal comparative purposes and will build in new study issues to bridge to the anthropological survey work. The key factors to be surveyed and documented will include the material form of the sites in the sample, the nature of physical development on the housing sites, the physical relationship to the neighbourhood and the immediate surroundings (access roads, paths, public urban spaces and their use) and the material manifestation of home-making (decoration, space-use, furnishings etc), basic demographic and household characteristics, as well as qualitative assessment of household socio-economic situations.

3. **Anthropological study.** This will be undertaken in close conjunction with the study of the built environment described above and will investigate and document the actions, imaginaries and aspirations involved in home-making processes. Based on particular case-studies of strategically selected house-building projects, the study aims to explore how spatial meanings erupt, are contested and interlink with broader conditioning socio-political and economic processes. Taking home-spaces to constitute a nexus of house and land, it will be analysed how kinship-based and communitarian relational identities affect and become affected by current house-building practices in the informal settlements and low-income areas. It builds and elaborates upon analyses previously undertaken by the researcher (Nielsen 2006a, 2006b, 2006c, forthcoming).

4. **A Documentary.** This will communicate the findings of the three components described above in a way that is accessible to a wide range of viewers, especially non-specialised and local viewers as well as policy-makers.

**RESEARCH METHODOLOGY**

This research is basically qualitative and inductive and will thus take point of departure in the narrative case study tradition (Flyvbjerg 1999; also Burawoy 1998; Gerring 2007; Mitchell 1983, 1984; Yin 2003). During the process it may however become evident that some quantitative surveys are needed in order to support the validity of certain findings. The case in this context is a number of selected home-spaces in the informal settlements in Maputo.

The research team has long time experience in applying the case study approach and will be carried out using the following methods:

The unit of analysis is the single home. The case study method is useful for both generating and testing of hypotheses and for theory-building. The closeness of the case study to real-life situations and consequently multiple wealth of details are central to the aim of this research.

*Qualitative interviews* shedding light on perceptions and aspirations of home making.

*Physical surveys* of individual home-spaces will discover land use practices and relations to the immediate neighbourhood.

*Interviews with planning authorities* shall help understanding the institutional framework within which the individual settlements are located and furthermore assist in understanding the regulatory formalities and practises carried out by local municipal representatives.
Interviews with local and traditional leaders are considered key to understand the local power relations and de facto control of the settlements.

Focus group sessions with residents at the neighbourhood level are tools in confronting the inhabitants with the preliminary findings in order to refine and further develop these.

Production of a documentary film in a continued dialogue between residents and the research team.

The long experience of the research team in working with the human settlement sector in Maputo will help identify interesting and information rich cases in a paradigmatic context (Seale 2004). The mode of executing the case study plays a crucial role as does the reactions to the study by the researched community, the sites studied and the broader public. The value of the case study will depend on the validity claims which the researchers can locate on their study.

RESEARCHERS AND INSTITUTIONS

This research is a multidisciplinary, cross-country initiative involving 6 institutions in 4 countries:

1. The Department for Human Settlements (DHS), School of Architecture, Royal Academy of Fine Arts, Copenhagen, represented by Associate Professor Jørgen Eskemose Andersen14 (lead institution).
2. The Centre for Environment & Human Settlements (CEHS), School of the Built Environment, Heriot-Watt University, Edinburgh, directed by Paul Jenkins, Professor of Architecture & Human Settlements.15
3. Institute of Anthropology (IA), University of Copenhagen, represented by PhD candidate Morten Nielsen.16
4. The Centre for Studies of Development of Habitat (CEDH), Architecture and Physical Planning Faculty, Eduardo Mondlane University, Maputo, represented by Director Dr. Julio Carrilho.17
5. Centro de Estudos Africanos, ISCTE, Instituto Superior de Ciencias do Trabalho e da Empresa, Lisboa, represented by Dr. Ana Benard Da Costa Senior researcher in Anthropology.18
6. The Scottish Documentary Institute (SDI), directed by Professor Noe Mendelle, who is also Head of TV and Film Studies, Edinburgh College of Art.19

The division of responsibilities for the research include:

1. Overview of housing and urban development in Maputo: CEHS and DHS with inputs from CEDH.
2. Longitudinal study report on the architecture and the material provision of housing and use of space: DHS and CEDH with inputs from CEHS.
3. Anthropological study report describing the actions and imaginaries: ISCTE, with inputs from IA, CEHS, DHS and CEDH.
4. Synthesis report: CEHS, DHS, ISCTE, IA, SDI, CEDH
5. Documentary film: SDI with inputs from all partners.

14 Associate Prof Eskemose Andersen has worked in Mozambique for extended periods (1983-1989 and 2003-2005) and recently for 14 months from March 2007.
15 Prof. Jenkins has been continuously active in urban development and housing issues in Mozambique since 1980 and has undertaken several research projects in Maputo in recent years.
16 Mr Nielsen has completed his Ph.D. dissertation on perceptions of corruption in relation to land conflicts in Maputo where he has undertaken substantial fieldwork.
17 Dr Carrilho has directed the centre since its inception, having previously been Minister of Public Works and Housing in Mozambique from 1974 to 1984, and has directed several local research projects into housing and urban development issues in Mozambique (including previous collaboration with Prof Jenkins). Other local partners may be identified in time.
18 Dr Benard is an anthropologist with extensive experience of working in Mozambique, specifically in Maputo.
19 Prof. Mendelle is a sociologist by training and acclaimed film-maker, with extensive experience in Sub-Saharan Africa through co-directing AfricaDoc.
DISSEMINATION

1. Workshops in Maputo involving community members, local and traditional leaders and planning authorities (2009, 2010 and 2011).
2. Workshops in Denmark involving researchers from the partner universities and additional researchers with experience within the field (2010 and 2011).
3. Articles in international peer-reviewed journals (2010, 2011, 2012). Seven articles is the goal.
4. 1 book-length manuscript synthesizing all the previous findings and background material. It is the ambition that the book contains photo documentation as well as maps, drawings and various graphics presenting the findings in a relatively popular yet still scientific manner. The manuscript will be expanded with accumulated material the researchers have gained over the years since the early eighties.
5. A Synthesis Report summarising findings and recommendations. It will argue the core thesis concerning the importance of understanding how people act in developing residential land in Sub-Saharan African cities, and examine the relationships between home-space production and wider societal context.
6. A Film documentary. The film aims to capture the spontaneity and immediacy of the characters that are key elements of the research. It will communicate key findings through individual stories, seeking new ways of understanding how the participants imagine their world and their life’s inherent complexities and contradictions.

FIGURE 1: Poor drainage often causes serious floods in the informal settlements. Maintenance and infrastructure management are major problems as the municipal authorities devote their meagre resources to the formal city.

FIGURE 2: Roads with vehicular access are few, thus most traffic is on foot. Drainage and sanitation are major problems and no informal settlement in Maputo is served with a sewage removal infrastructure while few have efficient storm water drainage infrastructure.

FIGURE 3: High density housing and overcrowding depict a life of squalor. However, these settlements are the homes for millions of residents and hence cannot be continuously ignored by the authorities.

20 The workshops will have a two-fold purpose as they will disseminate findings at the given time and at the same time receive critique and comments from workshop participants.
FIGURE 4: Residents in informal settlements aspire to modern living just like anybody else.

FIGURE 5: Maputo city as seen from the outskirts with huge informal settlements encapsulating the city.

FIGURE 6: A suburb demarcated in the mid 1980’s as ‘site-and-service scheme’ targeting the poor. Twenty-five years later a gentrification process is emerging.

FIGURE 7: A typical dense informal settlement in Maputo with small modular units, each with a roof related to the length of corrugated iron sheets.

FIGURE 8: A modular small villa is the idea of a of the dream house for many residents in the informal settlements. The house has a veranda, two bedrooms and a sitting room. Kitchen and bathroom are separate units in the back yard (Quite wealthy families are also found in the peri-urban areas – often the architectural style of their dwellings will bear reference to the small Portuguese villa type).
FIGURE 9: A typical new house construction with two rooms, built from concrete blocks with a reinforced concrete ring beam cast in situ, and with roof covered with corrugated iron sheets.

FIGURE 10: The formerly abundant caniço (reed) house has now almost vanished and has been substituted with buildings built from concrete blocks.

FIGURE 11: Most housing provides shelter for families consisting of an average of five members. Cooking mostly takes place outside, using charcoal as the prime source of energy.

FIGURE 12: Rental accommodation in the informal settlements is limited and mostly comprising of single rooms for entire families and/or individuals. Landlords normally live on the same plot.

LIST OF SOURCES


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