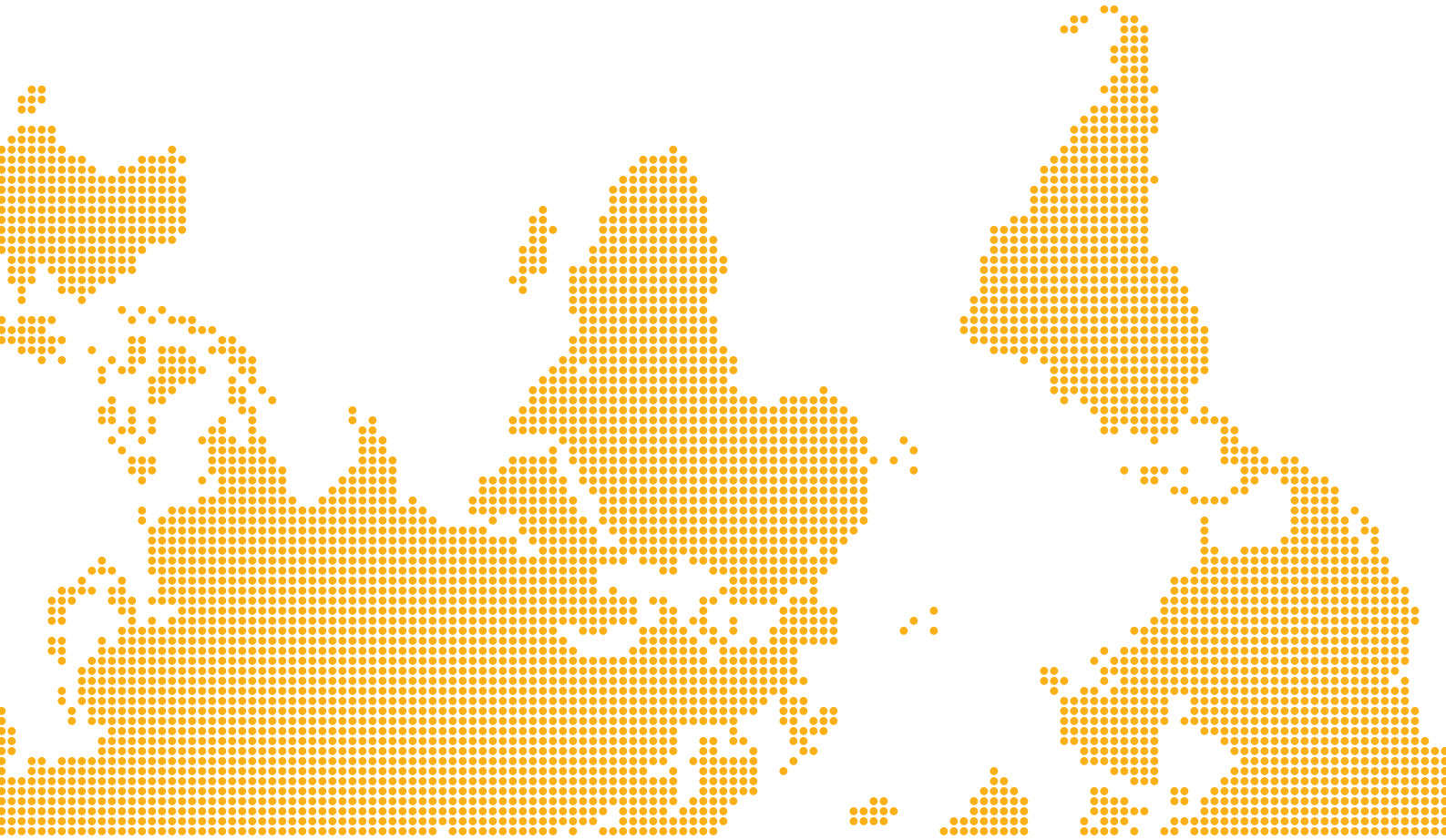

CITIES TO BE TAMED?

Standards and alternatives in the transformation of the urban South

SECTION 1

PLACES OF INFORMALITY

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Contents

Section 1. Places of informality

Abstract Section 1

As a growing number of regions are presently embroiled in the process of urbanisation, informal settlements develop unabated in the territories of the 'global South'. In the last fifty years, design-related disciplines have informed a multitude of practices and conceptual frameworks exploring ways to qualitatively transform these sites. An enduring and highly disputed problem, however, has remained the difficulty in assessing within which processes, and to which extent, the production of design strategies can acquire agency and have significant leverage effects within the informal sectors of contemporary cities – thus effectively contributing toward the feasible amelioration of living conditions for their inhabitants.

What role do design-related disciplines currently play, in relation to the self-produced transformative logics that shape informal cities across the world? What place might be accorded to design products and processes, at the crossroad between the social and spatial dimensions of urban poverty and inequality? Under which conditions and at which scales can design have a strategic function, and contribute to producing structural modifications on the longer term?

Cities to be tamed? Standards and alternatives
in the transformation of the urban South
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The Transnational Dimension of Contemporary Urban Landscape in Morocco[1]

Alice Buoli[2]

The paper intends to provide a critical overview of contemporary urban landscape in Morocco from a transnational perspective, by addressing: (a) the role of the State and international investors in the current governmental development programs and mega-projects; (b) their effects on local communities (processes of urban renewal involving informal settlements); (c) bottom-up transnational practices and flows (of people, remittances, goods) affecting the micro-urban transformations (e.g. the appropriation of colonial leftovers).
The *transnational dimension* is the interpretative 'lens' through which these issues will be addressed.
A historical and trans-scalar approach is assumed: from a general overview of the Euro-Mediterranean borders and the Spanish-Moroccan region, to a brief touch on to some specific urban contexts. What emerges, as a possible conclusion, is a complex system of different levels of 'negotiation', involving various geographical contexts and a larger network of actors.

Keywords: Transnational processes, Euro-Mediterranean borders, Morocco, Post-colonial city, Urban landscape, Bottom-up practice.

[1] This paper presents the first outcomes of a side topic of the PhD research thesis by the author (PhD program in Territorial Government and Project – DiAP, Politecnico di Milano).

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Introduction

During the last decades, cities in the Maghreb area have assumed a decisive role, both at a local scale and in relation to the European Union (EU) neighbourhood policies (e.g. The European Neighbourhood Partnership Instrument - ENPI), as 'gateways' to the region and as main nodes of a network of economic and cultural relations within the Mediterranean (Staley 2005). Moreover, in the light of the recent political events related to the 'Arab Spring', cities seem to have gained even more relevance in the MENA (Middle East and North African) area.

In this context, Morocco is playing an even more remarkable role: as an important actor involved in a *border region* (the Spanish-Moroccan one) and as a member of the Euro-Mediterranean Partnership (EUROMED[3]), it has become the 'hinge' between different political and cultural systems, as well as different economical interests[4].

As in other border areas, the condition of Morocco is exemplary of the intertwining of a series of different phenomena: transnational production processes, global migration movements, gender inequities, security concerns, new colonialisms.

Within this dissertation, the transnational dimension is assumed as a common condition to various territorial 'materials', experiences and processes observed at different scales; at the same time, as a key-element and the interpretative tool for the comprehension of the on-going *territorial and urban processes* in Morocco.

From this perspective, two main issues will be addressed:

- at an institutional level: state interventions, development mega-projects, related to the presence of international / transnational actors;
- at a bottom-up level: transnational practices and flows (of people, remittances, goods) affecting the micro-urban transformations, such as the forms of appropriation of public spaces and modern-colonial heritage, carried out by different populations.

The aim of the paper is to 'draft' a possible research trail on the effects of transnational processes over territorial and urban contexts. Moroccan urban areas are assumed as exemplary cases, to look at the outcomes (both physical, social and cultural) of the complex interaction among different institutions and subjects, acting at the local scale, at the regional level (Spanish-Moroccan region, Maghreb area, Mediterranean countries) and within a global framework. To this extent, the paper will assume a multi-scalar approach in order to look at the complex relationships that involve the Moroccan territorial and urban phenomena.

In order to exemplify the direct effects (from various viewpoints) of the transnational processes at stake, two specific urban contexts will be briefly and pervasively addressed as 'magnifying glasses' on the Moroccan urban landscape: the Tanger-Tetouan region and the Casablanca's metropolitan area.

[3] Known as the 'Barcelona Process', the Euro-Med Partnership was constituted in 1995. The Euro-Mediterranean Association brought together the EU Member States and other 16 Mediterranean countries to a broad program of cooperation based on three distinct aspects: political and security dialogue; economic and financial partnership; social, cultural and human partnership. In 2008 the program was implemented with constitution of the Union of the Mediterranean (Source: http://eeas.europa.eu/euromed/index_en.htm)

[4] Such as the Gulf countries and the USA.

The main transnational framework

The Euro-Mediterranean macro-region[5]

In the context of a progressive 'hardening' of global political borders, Europe has assumed a contradictory image, even more complex than the 'Fortress Europe' metaphor (Biemann & Holmes 2006): we could describe it as an expanding 'nebula' without boundaries surrounded by buffer zones constantly changing. In this sense European borders could be seen as entities that are not only material (declined into a variety of images and spatial forms) but also immaterial. Variable filters, porous membranes, which react differently to diverse fluxes and exchanges.

This image is particularly pertinent if we look at the most 'sensitive' region of the Schengen Space[6]: the Southern border of Europe, the Euro-Mediterranean border (Leontidou 2004), where geographical elements, symbolical meanings, economic, social and cultural issues overlap over each other creating a complex fabric of relationships and dynamics.

In this context, the path taken by the European Union in the management and 'externalisation' of its own common borders was integrated with the implementation of partnerships with the bordering countries. The fulfilment of the ENPI policies and the EUROMED Partnership went in this direction.

Of particular significance is the regional perspective (Cugusi & Stocchiero 2012), directly related to crucial issues that characterize the relationships across the Euro-Mediterranean border. One of the most interesting regions, for historical, symbolical, political, economic and territorial reasons is the Spanish-Moroccan one.

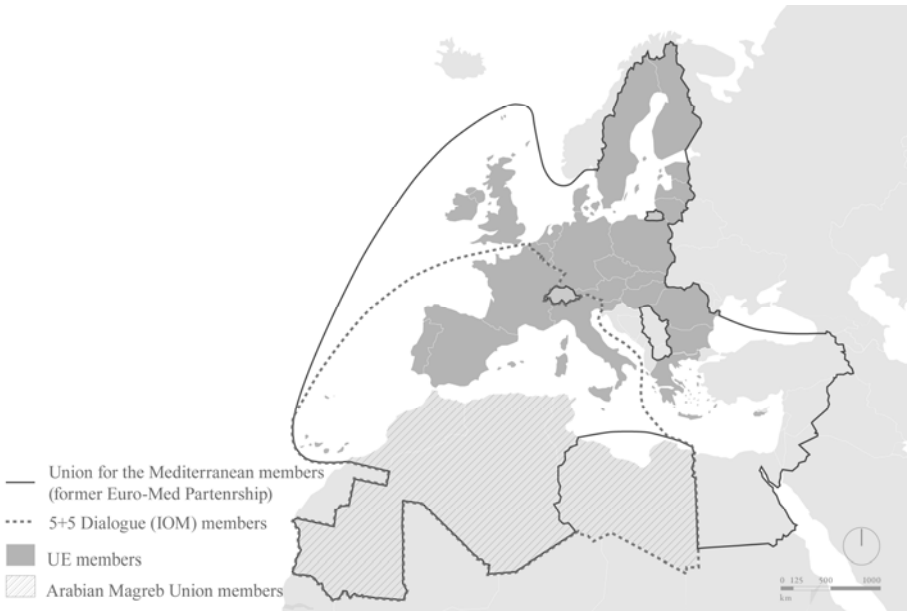

Figure 1. The Euro-Mediterranean overlapping geographies. (Source: Own drawing based on multiple images and data from the EU web site, 2008[7])

[5] For the definition of the Mediterranean as a macro-region see Cugusi & Stocchiero 2012.

[6] The Schengen Treaty had lead since the first agreement in 1985 to the progressive 'elimination' of European internal borders.

[7] http://www.eeas.europa.eu/euromed/index_en.htm, accessed 13 September 2012

The Moroccan-Spanish border region

Region of exchanges and conflicts, the Spanish-Moroccan border area is acquiring a more and more important role on the international scene. Despite the presence of disputes between the two sides of the Gibraltar Strait (related to illegal migration issues, the definition of maritime borders, the Western Sahara issue, the last Spanish colonial leftovers in Morocco), the maintenance of economic relations has always been a strategic priority for both the countries.

In the framework of economic and financial cooperation, Morocco and Spain have signed a series of agreements covering financial program: predominantly regarding Spanish investments in different sectors of Moroccan economy[8]. Like other cross-border areas (e.g. the USA-Mexican one), the region has experienced the implantation of free trade zones and infrastructure networks, the construction of new production plants (mainly owned by multinational firms of the chemical, food and textile sectors), which employ young Moroccan women, coming from the poorest areas of the country.

Figure 2. The Spanish-Moroccan border region. (Source: Own drawing based on multiple data from FAO[9])

[8] Among the most interesting aspects of these agreements it should be mentioned the mechanism of conversion of Moroccan foreign debt in private investments by Iberian firms already present in Morocco.

[9] FAO - www.fao.org/ag/AGP/AGPC/doc/Counprof/Morocco/morocco.htm

It is worth noticing how the presence of the border generates here transnational mechanisms and places of production: global capitalism finds in the absence/suspension of national 'norms' (implied by the presence of the border itself), a prefect terrain where to flourish.
Moreover another main issue concerns this border area: the irregular migratory routes those, starting from the sub-Saharan countries, go through Morocco and reach the southern coasts of Spain and Europe (Ferrer-Gallardo 2011). The presence of the Spanish exclave of Ceuta, one of the last leftovers of European colonialism in North Africa, is one of the main reasons of dispute between the two countries. Here the border materializes itself as an element of control and defence: an 8,3 kilometres militarized fence surrounds the city, in order to discourage and prevent the illegal entrance of migrants, trying to reach Europe through one of its last territorial legacies in North Africa. The presence of the Spanish wall acts not only on a political level, but also symbolically as the sign of a function that the exclave had performed in the past: the defence from the 'others', the 'outsiders' (the Arabs during the last four centuries, the migrants today). For all these reasons the Spanish-Moroccan cross-border region seems to be a privileged point of observation of four main overlapping and interdependent systems:

- the international/transnational level of global market and financial dynamics;
- Euro-Mediterranean policies and cooperation programs;
- Spanish-Moroccan regional cross-border cooperation agreements;
- local spatial planning and administrative systems.

Moroccan urban landscape: trans-scalar and transnational processes

In this context and at a macro-regional scale, Morocco is becoming one of the most important partners not only for Spain, but also for Europe, the Mediterranean and Arab countries, both economically and politically.
Urban areas, in particular, are experiencing a rapid change due to the presence of growing financial investments (both from the Arab and Western countries), and the implementation of the touristic and business sectors (Kanai & Kutz 2010).
Along with informal settlements, at the boundaries of marginal consolidated urban areas and according to a bundle of transnational 'rationalities', we are witnessing the rise of entire new neighbourhoods, luxury residential districts, free trade zones, huge commercial areas, new ports and infrastructure nodes. These projects should be considered in the light of the development strategies and programs launched by the Moroccan Government, aimed at realising an advantageous and attractive 'environment' for international investors.
The Tanger-Tetouan province, for instance, is experiencing a moment of complex mutation and development due to the combined presence of different international and national interests that are deeply changing the urban landscape of the region (Kanai & Kutz 2010; Le Tellier 2008).
Together with the transnational processes connected to global capitalism and governmental initiatives financed by international actors, at the base of urban change there is also a series of bottom-up processes and practices that are deeply affecting the way in which cities are being built and transformed. These processes, which are rooted both in a complex system linking local and international economies, are dealing with:

- migrants' remittances and investments;
- the complex networks of relations among migrants and families / non-migrants (Chattou, Gonin & Hily 2010);

- new forms of mobility and circulation of people, goods and money (Breuer 2011).

One of the main interesting outcomes of the superimposition of these processes regards the way in which families incomes and savings are being invested in new houses or in the renewal of the existing built heritage, in order to fulfil their needs and improve their living conditions. This last process involves as well the modern colonial leftovers, generating an interesting mechanism of connection between transnational money flows and local urban context 'forming global patterns that concern not only mobility but new approaches and contributions to existing city structures as well (von Osten 2009). Many of these initiatives belong to a complex series of space occupation forms that are referred to cultural and social practices. These practices are crucial not only for the implementation and appropriation of the built environment but also for the usage and transformation of urban public spaces (Navez-Bouchanine 2010).

The role of the State in urban development[10]

Within this complex framework of international, regional and local processes, the recent Moroccan urban development factors seem to be multiple and fragmented. Nevertheless, three processes, that have been already mentioned, can be assumed as main vectors of change:

- the constant flux of population from rural areas into urban centres, both from other region of the country (internal movements) and from other areas (international migrations);
- the 'economies' derived from migrants remittances and savings;
- the presence of foreign investors, from both the Arab world and the Western countries, cooperating at the development of governmental initiatives.

The juncture between these phenomena has deeply influenced Moroccan urban development, producing: a pressing demand for housing solutions (often left to the individual informal initiative); the need to create infrastructures and services for a growing population; the increasing presence of private companies interested in investing in the financial sector and in the real estate field. As a result of these overlapping processes, urban planning has progressively shifted from the control of the public actor to public-private partnerships.

Despite the role of the private sector, it is worth describing the role played by the State (namely the Monarchy) in urban development (Barthel 2008; Kanai & Kutz 2010; Le Tellier 2008). In particular, King Mohammed VI should be seen as the first promoter of to the process of neo-liberalisation of Moroccan economy and growth.

"Under the tutelage of his monarchy, new development agencies and public-private partnerships have been created to steer the entrepreneurial globalisation process and expand the increasingly integrated city-region. Priorities have shifted from (a) earlier forms of state-led regional development through import-substitution industrialisation to (b) reliance on strategic nodes to territorialise transnational flows into the urban fabric" (Kanai & Kutz 2010: 347).

In fact, the role of the King had become more and more important since the early 2000's and it has been focused at giving a new image of the country, and in particular of urban areas. The theme of the 'presidential' or 'state' project is emerging as common category to many other countries in the Maghreb region (Barthel 2008: 5).

Looking at the case of Casablanca, for instance, in 2006 the King announced a development program based on some main points: the revival of the metropolitan strategy; the implementation of public

[10] The term 'urban development' is used throughout the paper in a general sense, without connotative sense and without any specific reference to the 'urban development' literature.

transport; the implementation of tourism as a development strategy; the launch of some major urban projects (Barthel 2008: 5-6).
In fact, the role of the State in urban development appears to be pervasive at different scales, and in relation to different issues, both from the political side and from the cultural one.
The complex relationship between the State and the citizens, in Morocco (and in general in the Arab world), is particularly meaningful as regards to the maintenance of public and collective spaces in the cities (Navez-Bouchanine 2010: 218). In fact Public space is still perceived as a good that belongs to the State (the *Makhzen*) rather than to the community. These believe is particularly meaningful if we take into consideration the forms and practices of space occupation and use in urban context and the way in which people conceive common goods and spaces. The 'paternalistic' role of the State is both promoted by the State itself and reinforced by citizens' spatial practices and behaviour. At the same time, some examples of civil resistance and social conflicts are progressively emerging both in the political arena and in urban contexts, mainly in relation to the access to some primary 'resources'.
In fact, along with the mega-projects that are part of urban development programs[11], a series of interventions on public and collective spaces are witnessing the will to define these ones as international 'windows' in order to attract investors and tourist (Choplin & Gatin 2010).
Moreover, since the 80's the State has assumed particular measures to control and redefine its authority over places of worship, namely the mosques. From one side exercising a political control over the localisation of new mosques, from the other, applying for an injunction (never formalized) to their closure outside ritual prayer times (while traditionally mosques remained open all the time) (Cattedra 2002: 259).
The role played by the Head of the State, displayed as the indispensable actor of 'growth', is twofold: from one side it reveals a desire of control over urban development and urban environment; from the other, it is functional to attract foreign investors by referring to the authoritarian 'good-father' rhetoric, as guarantee for international enterprises.
This strategy seems to have been effective: in the Tanger-Tetouan the total amount of foreign investments in the industrial sector had passed, in the period 1994-2006, from 307,467 to 1,053,466 (1,000 dh) (Kutz 2010: 20).
The presence of international actors, agencies and investors (mainly coming from other Arab countries and from the Gulf) had deeply affected the territorial development policies of the Government. For instance, in Casablanca, the signatures of investment agreements with the Arab Emirates coincide with the maturation of a metropolitan strategy. The convergence of international economical actors and political subjects, lead to different actions and partnership on the territories: construction of roads, logistics platforms, specialized industrial parks, a new towns policy (Barthel 2008: 5).
It is worth noticing that the principal territorial and urban projects carried out by the Monarchy are perceived and conceived not only as 'vectors of development', but also as important 'windows' for the country on the international scene and as 'gateways' in relation to the Euro-Mediterranean context, the Arab world and the USA (Choplin & Gatin 2010).
It is in the overlapping of different international interests that lays the peculiarity of the urban condition in Morocco: the results of this 'unstable balance' are more than banal.

Mega-projects and transnational dynamics in the Tanger-Tetouan region
Considering the development plans launched by the Moroccan Government, it is possible to observe how the whole northern coast of the province of Tanger-Tetouan is subject to an intense construction activity

[11] National Program *Villes sans bidonvilles (*2004) and the *Initiative Nationale pour le Développement Humain* (2005)

of financials poles, residential dwellings, services and infrastructures.
Among the different development projects carried out in the region, the largest ones that have emerged in recent years include: the Tanger-Med Port (Tan-Med I); economic free zones; and new towns developed beyond the edges of older built-up areas. These initiatives are particularly interesting for their features and for their territorial outcomes and altogether contribute to configure the Tanger-Tetouan region as a huge international system at the service of global economy.
The Agency in charge of the construction of the main two sites (Tanger-Med and Tanger Free zone) is the Tanger Med Special Agency (TMSA), which is an interesting case of public-private venture.
The first project is a new cargo harbour, 30 km away from Tanger city, near the Strait of Gibraltar. With this new hub Morocco is aiming at becoming the new 'bridge' between the Atlantic and the Mediterranean. The area of intervention covers a broad portion of land (about 4 km of coastline), housing the functions of loading and unloading of goods carried in large containers.
Since 2002, for want of the King, 'the project was implemented under the strategic choice to turn the region into an area conducive for investment, in an integrated regional development approach' (Source: TMSA)[12].

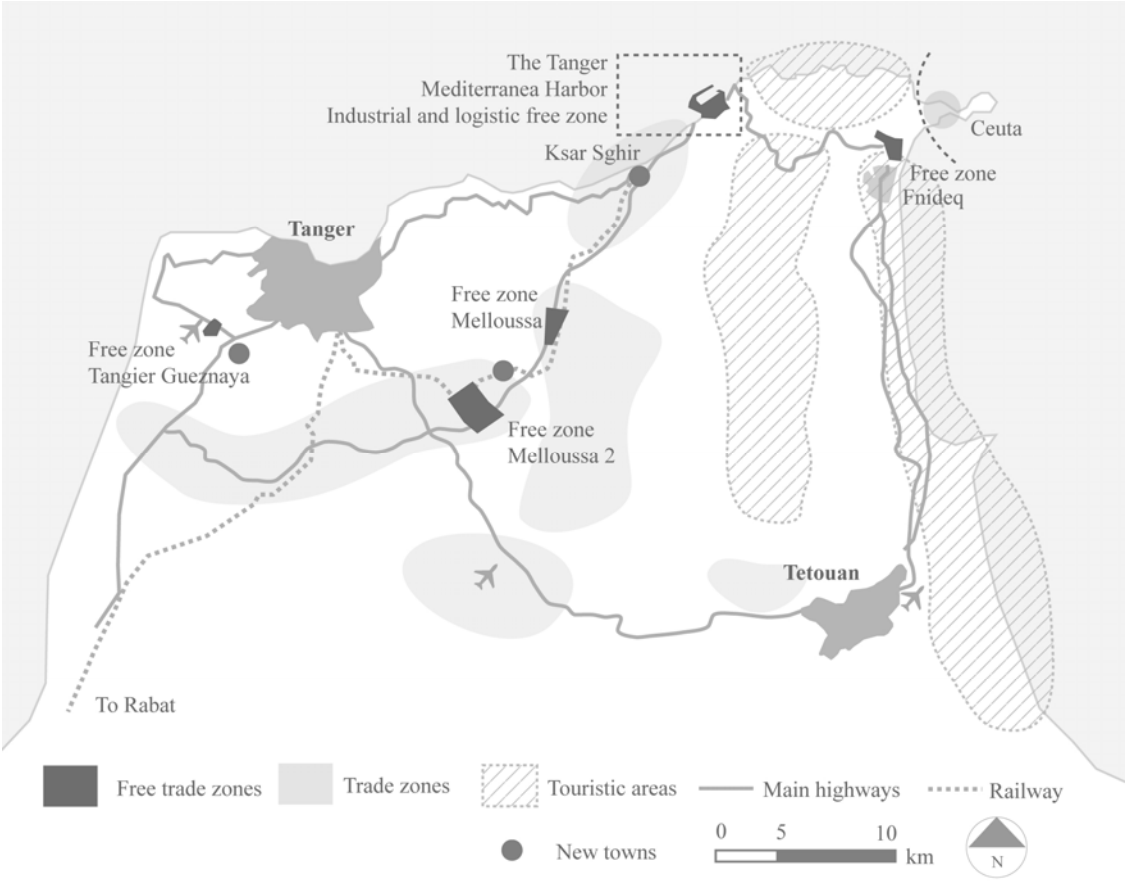

Figure 3. The Tanger-Tetouan region (Source: Own drawing based on multiple images and data from TMSA 2008 and Kanai & Kutz 2010)

Inside the harbour it is also present a huge *free trade zone*, where companies are able to store, pack and label

[12] TMSA website: http://www.tmsa.ma/?lang=en&Id=5, accessed 13 September 2012

their goods, using the internal industrial area and taking advantage of the transnational economy of the region.

The presence of the *free trade zone* is to be understood in the context of the signing of free trade agreements between member countries to Euro-Mediterranean partnership, which should lead to the creation of a *free trade zone* in the Mediterranean basin. Investments for the construction of the port come mostly from Abu Dhabi. To date, a second phase of expansion of the port, Tanger-Med 2, is under construction, which will double the size of the project and will bring the total capacity of the port to 8.5 million containers.

The presence of the new harbour is to consider not only at the international scale (as well as the Mediterranean level) but also in the light of the Spanish-Moroccan relations, at the regional scale, involving the presence of other important hubs (such as the Algeciras one). In the coming years, the 'competition' between the two countries in strategic sectors, such as tourism and commerce, will probably lead to a new economic and political balance in the region.

The second site is the Tanger Free Zone that was established in 1999, with the aim of attracting international holdings and companies: '475 companies of all sizes boosted by foreign investment from the European Union, United States of America, North Africa and the Middle East have generated more than thirty different activities' (Source: Tanger Free Zone)[13]. It is located next to the new town of Gzenaya, one of the growth poles indicated by the State in the '90s.

Three main new towns that are rapidly growing in the inlands, outside the consolidated city-centre are a widespread phenomenon, common to other urban areas and part of the governmental program, called *Villes Sans Bidonvilles* (PVSB), which is going to be discussed more in the following paragraph. In the Tanger-Tetouan area all of them are located in the outskirts of the main urban centre, at the confluence of important transportation and infrastructure axis.

The direct and indirect consequences of these new settlements, on the city-region and on the socio-economic context, are not easy to assess. From one side the creation of new workplaces and opportunities for local communities are to take into account and can generate forms of 'emancipation' for some sectors of the population (e.g. for women assuming a new economic role inside the traditional family). At the same time, the creation of new dwellings, despite the efforts to put forward the program of slum clearance, can be seen as a positive externality. On the other side, there are some negative effects that should be taken into account. Among all: social and gender inequalities and fragmentation (Kutz 2010: 18); the worsening of environmental and housing conditions. One example is the rising of informal settlements (mainly shacks) in the outskirts of these sites, built and inhabited by people working in the areas[14]. Moreover the implementation of some of these sites brought to the destruction of many informal and irregular settlements, as in the case of *Villa Harris,* a 'historic' slum located in the northern-east coast of Tanger, in order to permit the implementation of the touristic settlement of Ghandouri in 2004 (Le Tellier 2008: 165). The hasty reallocation of the inhabitants appeared to be dramatic: the new settlements turned to be new slums without any service and connection with the city and the related facilities.

The 'Ville sans Bidonville' program

In this context, the governmental initiatives carried out since the early 2000s to deal with informal settlements issues, appear to be contradictory. In 2004 Moroccan Government has launched, throughout the country, a development plan for slum clearance and the realization of 15 new cities (*villes nouvelle*)

[13] TFZ website: http://www.tangerfreezone.com/?lang=en&Id=3, accessed 13 September 2012

[14] A similar phenomenon is observable at the USA – Mexican border.

within 2020. The program should be considered in the light of the previous initiatives promoted by the State (mainly the *Programme national d'action pour la résorption de l'habitat insalubre* PARHI, 2001) in order to reduce and substitute the informal settlements. While PAHRI aimed at restructuring the existing slums *in situ*, PSVB's main goal is to reduce the pressure of housing demand on the major urban centres, progressively eliminating *bidonville* and irregular settlements (Le Tellier 2008: 160). Moreover PSVB should be considered as the Moroccan reply to the UN 2020 strategy *Cities without Slums*. The development of the new towns program is mainly assigned to local and foreign real estate companies and financial groups. A rich business, of which is mainly taking advantage not only Al Omrane Group, the real estate owned by the Moroccan State, but also foreign investors. For instance, the construction of the new town named Tamesna[15], has involved firms from the following countries: Spain, France, Portugal, Malaysia, Qatar e Libya. Beyond the formal aspects of urban design, it should be noticed that the choice of placing new cities near the main urban centres of the country (on the outskirts of Marrakech, Casablanca, Tanger, Tetouan and Rabat), it deals with a well-defined program of transformation of the national territory, which does not seem to be focused on promoting the development of backward areas and marginal lands (the south-eastern regions at the border with Algeria and Mauritania), but rather on 'exploiting' the attractiveness of the main urban poles and supporting a more diffuse territorial control.
On a less critical side, one should mention the innovations introduced by PSVB in comparison with PAHRI, which mainly consist of: the introduction of social engineering tools (social support to people moving from the slums to new houses); creation of 'guarantee fund'[16] for the poorest people and finally a broader commitment and funding in social housing initiatives.

Colonial modern heritage and bottom-up spatial practices

Despite these interesting innovations concerning social housing promotion and slum clearance, it is worth suggesting that some of these initiatives, mainly regarding the new town implementation, seem to have some 'elements of continuity' (mainly the need of territorial control and slum clearance) with the projects promoted and financed during the first half of the 20th century by the French colonial Government in Morocco. Studies and plans aimed at giving an accommodation to a growing rural-to-urban population and, the same time, at controlling in a rational way the colonized territories and inhabitants.
Since World War II, the French colonial Government had financed a series of studies and projects to address, on the one hand the housing needs of a growing urban population and, on the other, the need to control in a rational and systematic way the colonized territory and population. The study, conducted since the early '50s by the research and planning group *ATBAT Afrique* (directed by Michel Ecochard), had as main aim the design and building of a series of new settlements for local inhabitants, living in the *bidonville*, according to the principles of local architectural culture and the new concept of 'habitat'.
It represents one of the first attempts of 'multidisciplinary' analysis in territories outside the borders of the Western world: introducing the study of pre-modern forms of dwelling (and in this sense the study would have a broad influence on Team X). At the same time the project is one of the first interesting examples of how transnational experts in the field of architecture and planning were recruited to give shape to the *colonial project* (Avermaete 2010).
The research revealed a strategy of intervention in the territory ranging from the reorganisation of the shanty towns, the temporary accommodation of the 'mobile' population, till the creation of new residential developments on the outskirts of the main urban centres (outside the perimeter of the *villes nouvelle*,

[15] http://www.tamesna.net/
[16] *Fonds de garantie en faveur des populations revenus irréguliers ou/et modestes* - Fogarim

addressed to Europeans) based on a modular grid inspired by the traditional patio-house of the Moroccan *medinas*. In this direction were developed two pilot projects carried out in Casablanca: the *Cité Vertical* (1952) a complex of two high-density building designed by Candilis and Woods inside the informal Muslim quarter *Carrières Central* and the district of *Sidi Othman* (1953 - 1955) designed by the Swiss architects Jean Studer and André Hentsch, further expressionist interpretation of the Moroccan *kasbah*. Elements and styles of local architecture were assumed as compositional elements employed to suggest continuity with the traditional forms of local architecture (An Architektur 2008).
The outcomes of these experiences appear to have had a strong 'political' content, but towards different 'directions': from one side they can be seen as the 'reification' on the territory of colonial 'culture' and 'space organization' (aimed at rationally organize and control the social fabric of the colonised territories); on the other, many of the protests, demonstrations and strikes that lead to the independence of Morocco (1956) started in these settlements.

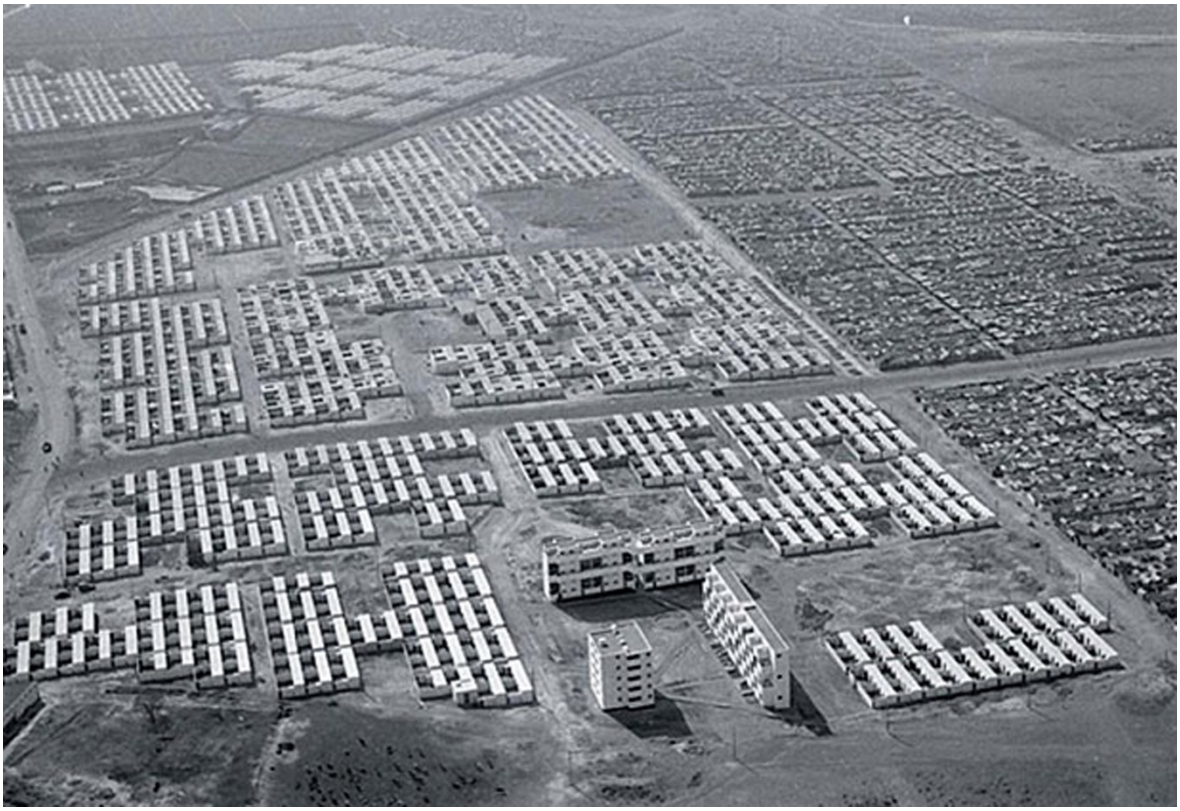

Figure 4. The *Carrière centrale* development in Casablanca (Source: von Osten, 2008)[17]

After more than half a century, the experience of colonial Modernism seems to have 'failed' in its main objectives. As witnessed by a recent study (Avermaete, Karakayali & von Osten 2010), the current conditions of the buildings designed by the architects of ATBAT Afrique are far from their original ideas.
Both the lodgings ad facades of the *Cité Vertical* and *Sidi Othman* have been broadly changed by their inhabitants: closing the suspended patios, adding closure elements and gardens, opening windows and

[17] Found at http://www.e-flux.com/journal/architecture-without-architects%E2%80%94another-anarchist-approach/ , accessed 13 September 2012.

doors. These are some of transformations that users have made over the years, adapting the houses to their needs. The same 'fate' occurred to the buildings made on thebasis of the *grid Ecochard*[18], where the original structures have substantially disappeared.

These transformations lead to identify a particular character of the experience of Colonial modern in developing countries[19] (among which Morocco represents a particular case) and that concerns the way in which the architecture originally designed and built to be part of a process of change and 'modernisation' of local societies (from a colonial perspective) have been deeply transformed by the inhabitants, according to traditional forms of 'occupation of space', referred to the historic city, the *medina*. It is in the space 'in-between' on the border among inside and outside space, between private and public life that we can define a landscape of proximity in which complex and multi-layered spatial practices overlap (Navez-Bouchanine 2010; Trovato 2005).

Figure 5. Housing project in Casablanca, *Sidi Othman* settlement (Photo: Marion von Osten, 2008)

[18] It was a structural grid of 8x8m each side, according to which entire low-rise neighbourhoods were built.

[19] Features shared by experiences even radically different in different countries, like the case of the Pilot Plan Previ Lima (1972) in which, after more than thirty years from the physical implementation, housing designed by Aldo van Eyck, James Stirling, Candilis with Josic and have been radically changed by the inhabitants.

Conclusions and further research

The paper drafted the overall framework within which urban change is taking place in Morocco. To this extent different urban conditions have been explored, under the 'magnifying glass' of their *transnational dimension*. Plans and practices that are shaping Moroccan urban landscape seem to be refereed to global and international processes, mainly related to issues such as: global capital production, international financial flows, global migrations, etc. To this aim, the paper tried to understand the effects of the 'landing' of these processes on urban landscapes and their outcomes on local spatial practices.

Some of these effects critically question the urban development models gaining more and more relevance in the overall Maghreb region and address some unresolved issues related to the fuzzy linkage between economical and territorial development, colonial leftovers and social/spatial justice.

From one side the implementation of productive plants, free trade zones, touristic settlements are strongly linked with the presence of transnational capitals and enterprises that had triggered some positive externalities on local economies.

On the other, the above mentioned public-private initiatives and mega-projects seem not to have given adequate answers to the emerging demands of local communities (mainly related to the quest for better housing conditions and more equal job opportunities) often contributing in exacerbating social inequalities and asymmetries.

At the same time, the economic fluxes generated by remittances from abroad have led to the possibility of improving housing conditions for migrant families in their own countries. The transformation of the modernist legacy in the countries of North Africa is, therefore, in some way related to the more general system of transnational mobility and migration, in a complex 'circuit' made of different levels of 'negotiation' (von Osten 2008), involving distant geographical contexts (former colonies and former colonial powers) in a game of formal references and cultural relations between the two shores of the Mediterranean.

Nevertheless the considered bottom-up practices appear to be lacking in a common and collective vision, mainly due to the traditional relation between the citizens and the State in the Arab world. A possible clue of change is emerging thanks to the recent protests and strikes that have involved the youngest and most educated strata of society, claiming for reforms and more political freedom. These ones, in turn, should be read within a complex system of transnational networks and relations at different scales and across different geographies. This can be an interesting trail of research that needs to be implemented and explored.

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Pragmatic planning: extending water and electricity networks in irregular settlements of Lima, Peru

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To understand how informal settlements access to urban services in emerging cities requires to go beyond theoretical debates on urban planning and on liberalisation of utilities. Spontaneous urbanisation challenges traditional urban and infrastructure planning by imposing a built-up framework and organised population. In Lima, in order to extend their networks, service companies develop innovative technologies and techniques to adapt to unplanned contexts. They also enter into informal governance arrangements to work and negotiate with CBOs. This pragmatism has the potential to create institutions for a planning practice in coherence with the urban fabric. However these ad hoc sociotechnical practices are ignored by official authorities in charge of foreseeing the urban development of Lima, thus hampering the possibility of innovative planning.

Keywords: Urban planning, Basic services, Informal settlements, Pragmatism

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Introduction: Planning spontaneous urbanisation

Spontaneous urbanisation challenges urban planning, encompassing by definition all the unplanned and irregular settlements of a city which do not follow the conventional cycle of urbanisation (Baross 1990). To think about it in terms of legality or poverty only does not allow grasping the reality of this process. Beyond socioeconomic and legal issues, spontaneous urbanisation is a political, spatial and urbanistic challenge for urban planners and service providers, imposing an existing and functional built-up framework, as well as the presence of an organised population. Urban actors have to shift from traditional planning to a catching-up, demand-driven and adaptive logic. Since the 1950s, a variety of planning theories have emerged to cope with the failure of traditional Master planning in the North: incremental planning, strategic planning, collaborative planning, pragmatic planning, visioning… Nevertheless, the relevance of these models is challenged in emerging cities (Devas & Rakodi 1993; Huxley & Yiftachel 2000; Robinson 2005; Roy 2011; Todes et al. 2010; Watson 2009). The case for indigenous or Southern theories is growing up, in order not only to understand the actual fabric of emerging cities, but also to develop some thoughts on planning for already built-up and functioning settlements.

Basic infrastructure services, as socio-technical systems that combine a physical dimension in structuring a metropolis and a social impact on communities' living-conditions, constitute a key tool for urban planning (Marvin & Guy 1997). For long in Lima's history, the regularisation and upgrading of spontaneous settlements have been considered a viable option (Turner 1976). Beyond the trend in favour of property formalisation as promoted by Hernando de Soto (Durand-Lasserve 2006; Payne et al. 2009), we argue that the issue of extending water and electricity networks is as much, or even more, determinant for urban integration and consolidation (Rakodi 2000; UN-Habitat 2009). Indeed, spontaneous settlements are actually getting access to the network, meaning that service companies do work at extending their coverage in unplanned zones, regardless of their legal status.

To understand how utilities extend their networks in irregular contexts requires to look at the actual fabric of the city, the process of consolidation and upgrading of spontaneous settlements, as well as to the coping strategies, technological innovations and informal arrangements that actors enter to adapt to an unconventional situation. By definition, spontaneous settlements do not respect plans, norms and forecasts that planning an infrastructure network may require. How then do utilities work in these contexts? We observe that the complexity of irregular settlements and the involvement of different actors at the local level prompt them to create technical and political arrangements, necessary for a sustainable urban development through service provision. These dynamics have the potential to reconcile spatial, social and political dimensions of planning with the actual process of informal urbanisation.

This study is based on a field research in spontaneous settlements of Northern Lima, a representative cone of invasions on desert lands in the 1950s until recent colonies on steep hillsides. We look at the practices actors have developed to extend water and electricity infrastructures, in order to show how engineers change their working habits to fit with the context of irregular settlements (Connors 2005). First, the process of urbanisation in Lima is presented to understand the extent of spontaneous urbanisation, and the specificity of Peruvian policies to deal with it. Second, a review of the legal and institutional framework is done to analyse the rules and norms that frame actors' strategies and capacity. Then, on the basis of interviews realised with CBOs and NGOs as well as decision-makers and engineers in utilities, sub-contractors and municipalities, we shed light on the actual practices for network expansion and their physical and social impacts. The discrepancies between rules and practices are here considered coping strategies and adaptation to the actual situation (Leitmann and Baharoglu, 1998), that do shape the city fabric of Lima and function as socio-political institutions.

Spontaneous urbanisation of Lima

Urban growth and informal urbanisation

Lima grew at an annual growth rate around 5% in the 1950s and 1960s, due to rural-urban migration, now stabilising at an average of 2% in the last decades, mainly from natural increase. In the 1950-1960s, the insufficient of housing provision pushed migrants to invade land in the peripheries (Sakay et al. 2011). The vast majority of these areas being State land, the authorities tolerated these invasions, and even passed in 1961 a path-breaking law declaring of public necessity and of national interest the remodelling, sanitation and legalisation of marginal settlements[2]. With this law, the State recognised and promoted low-cost progressive housing through organising and planning land invasions by migrants, a process later called 'progressive development by John Turner (Turner 1976) and spread internationally as 'self-help housing' (Bromley 2003; Fernández-Maldonado & Bredenoord 2010). Until the 1980s, migrants thus settled on land without facilities, but respecting a basic layout plan that fulfilled the urban requirements for regular dimension and shape of streets and plots and reserved land for future equipment (Ramirez Corzo & Riofrío 2006). This process of encouraging self-help housing, though not urban planning per se, constituted a coherent and innovative answer to housing for the urban poor.

From the 1990s, easily urbanizable land was less and less available, and the population started to invade smaller areas, on steep hillsides or desert land, with less supervision from public authorities and less organisation from civil movements. Beyond the issue of property formalisation, the economic and political crisis of the 1980s hampered the State's capacity to support urbanisation by bringing services. Moreover, technical challenges have started to appear for extending services in these uneven, remote and dense settlements, as well as legal difficulties to regularise settlements located on archaeological, at-risk or agricultural land (Caria 2008).

In 1993, according to the national census, 66.6% of Lima's population had a water connection within its house, 63.8% were connected to the sanitation network, and 85% had an electricity connexion. In 2007, 75.6% had in-house water connection, 75.4% in-house sanitation and 94.5% electricity. Nowadays, the majority of the population still lacking urban services live in these recently-built settlements.

Legal framework for formalisation and access to services in irregular settlements

Lima has never had a tradition of urban planning. The Institute for Metropolitan Planning, depending from the Metropolitan Municipality of Lima, has been weakened in the 1990s, mainly due to the take-over by the central State over urban development. As to the forty-two district municipalities, they do not have the competency for land-use zoning nor land registry. None of these two levels of local government really has a say in infrastructure policies, utilities being directly run by the central State or private firms. The institutional framework for urban development in Lima thus depends more on national policies and laws than on municipal guidance and control.

The election of A. Fujimori as president in 1990 marked the beginning of neo-liberal reforms in Peru (Fernández-Maldonado 2008). After decades of tolerance and progressive consolidation of informal urbanisation through invasion, the need for services as well as the economic difficulties encouraged a change in the policies directed at spontaneous settlements. In the early 1990s, the sectors of telecommunications, electricity and water and sanitation were opened to privatisation. As to urban

[2] Ley n°13517 'Declarando de necesidad y utilidad públicas e interés nacional la remodelación, saneamiento y legalización de los barrios marginales o barriadas, existentes en las áreas urbanas y sub-urbanas del territorio nacional'.

development, A. Fujimori's government created in 1996 a centralised agency for formalising informal properties – the Cofopri[3] – supported by a loan from the World Bank, on the basis of Hernando de Soto's theories (De Soto 1986).

In Lima's context, this was mainly the beginning of a new process for urban consolidation: while until then, the property title was the ultimate step in the process of urbanisation, this same title began to be the prerequisite for accessing urban services (Calderón 2005).

'[The Cofopri] argue that its approach rests on an alternative theoretical perspective dating from the 1950s which posits the merits of "strategic planning" – prioritizing narrowly focused and prepared to leave loose hands for tying up later – a perspective critical of the "comprehensive" planning tradition still well entrenched in Lima' (Leonard 2000: 441).

But the aim of the government with this strategy has been widely criticised for looking for fast and massive results instead of coping with the issues of spontaneous settlements in an integrated way as the previous approach of *saneamiento fisico-legal* did. The legal focus of this policy contradicted the city planning process and the actual city fabric, and moreover, did not succeed either in improving access to financial credit nor to basic services (Ramirez Corzo & Riofrío 2006).

In 2006, the inadequacy of the legal framework for improving living conditions in spontaneous settlements and the demands from the population for urban services urged the newly-elected government of A. Garcia to reform the housing sector. A Law of development and complement for the formalisation of informal propriety, access to land and provision of basic services[4] – water, sanitation and electricity – was passed that ease up the process for land titling and access to urban services. This law created a new tool, the 'certificate of possession', issued directly by the district municipality. The requirements to get this certificate are simple: an official request, a copy of the national identity document, a boundary plan of the plot, and the certificate of verification by a municipal civil servant. This certificate of possession is only valid for basic services, and is not a recognition of property rights. Without changing the process of formalisation followed-up by the Cofopri, this law permitted to disconnect the access to urban services from property title in a pragmatic and needs-oriented strategy.

The procedure for requesting basic services is simplified too, only requiring the certificate of possession and a boundary plan. Utility companies must attend to all settlements within their area of concession, including informal ones, by delivering a notice of feasibility. However, companies keep on planning and executing projects applying economic and technical criteria of their own. On the one hand, this 2006 law has facilitated the process of application for urban services, allowing firms to implement large-scale extension programmes. On the other, the general character of the law does not encroach upon the capacity of utility companies to set up their own criteria and requirements for considering the applications. Therefore, they have developed specific tools that help gather the necessary information as to the urban layout and development of irregular settlements to examine the requests.

[3] Decreto legislativo n°803 'Ley de promoción de acceso a la propiedad formal'

[4] Ley n°28687 'Ley de desarrollo y complementaria de la formalización de la propiedad informal, acceso al suelo y dotación de servicios básicos'

Infrastructure extension: adapting to the built-up framework

Facilitation and innovation for rapid electrification

When the electric sector was privatised in 1992, Lima was split into two areas of exclusive concession: Edelnor in the North of Lima, Luz del Sur in the South. We will here focus on Edelnor's strategy in Northern Lima. The main objective of the electrical concessions Law of 1992[5] was to increase access to electricity (Campos et al. 1999). In order to reduce the cost and accelerate electrification, the Law authorised to lay overhead lines, which was not the case until then in Lima (Museo de la Electricidad 2001). For informal settlements, the law also created a special provisional system for in-block sales of electricity.

Using this provisional option, Edelnor started a programme of massive electrification and reached to cover 100% of its zone in 1996 (i.e. 100,000 additional connexions in a two-year time). This process started with provisional macro-meters for every twenty to forty households, from which people pulled the wires and put in wooden posts on their own; Edelnor then upgraded with definitive infrastructure within two years. Neither the property title nor the settlement plan was a prerequisite; electrification was done in 'obviously consolidated parts of the city' (interview with an engineer from Edelnor, 04/09/2012), with a simple approval from the municipality that secured the settlement's tenure. Today, this provisional system is still used for the newest neighbourhoods, the only requirement being to have the residents' association registered by the district municipality.

From the end of the 1990s, only remained the newer, remote, risky, smaller settlements. At the same time, the Cofopri started its regularisation policy, and the property title was enforced as legal prerequisite to any urban project. Edelnor reduced its activity of electrification in irregular settlements down to around 10,000 connexions per year, and focused on improving high and medium-voltage capacity. It is only with the 2006 Law that massive electrification started again, and the pace increased even more in 2009 thanks to an Emergency Decree[6] announcing that the Ministry of Energy will reimburse connexion charges for a two-year period (then extended until the end of 2012). From that time, Edelnor has sped up electrification, with an average of 35,000 new connections per year.

In the last few years, Edelnor has also developed some technological innovations to facilitate the installation of infrastructures in remote places with difficult access and topography. A simple one is the utilisation of single-post transformers for medium-tension lines. To maintain equal stability in the seismic zone of Lima, these posts have to be driven-in deeper, but they also require less space. But the main innovation is the use of fibre-glass posts: weighting only fifty kilograms, four workers only can carry it up to settlements on tops of the hills, where trucks or machines cannot get. Though the price of the material is higher than traditional concrete posts for now, Edelnor bets on the expansion of the market to lower it down. The economic calculation is that the reduced labour costs in terms of direct labour and security for workers is sufficiently reduced to compensate for the price of the fibre-glass post (interview with an engineer from Edelnor, 18/07/2012). This search for technical efficiency (Pérez-Reyes & Tovar 2010) have also largely contributed to the expansion of Edelnor's coverage in the most recent and remote settlements of Northern Lima, which reaches 95% today.

[5] Decreto Ley n°25844 'Concesiones eléctricas'

[6] Decreto de urgencia n°116 'Promueve el suministro del servicio público de electricidad en zonas urbano marginales del país

Figure 1. Innovations for electrification: Macro-meter and wooden provisional posts, Single-post transformer yet to be connected, Installation of fibreglass post (Settlement *Año Nuevo*, District of Comas, photos by the author, 16/08/2012).

The mixed picture of the water and sanitation sector

The outbreak of cholera in 1991 was the sign of large-scale inadequate access to water and sanitation in Lima's peripheries, urging for a reform. In 1994, the General Law for water services[7] opens the Peruvian water sector to private investments. But social and political resistance impeded the privatisation of Sedapal, the water and sanitation company of Lima, leading the State to take responsibility for the reform (Fernández-Maldonado 2008). Sedapal is now a public firm under the supervision of the national Ministry of Housing, Construction and Sanitation. It has implemented several programmes to reform its management and expand its services to Lima's informal settlements.

The first programme was financed from 1994 to 2001 by the European Union; the aim was to bring safe and drinking water to marginal settlements that would not get a network connection in the near future (Ioris 2011). Building reservoirs to be filled up by trucks – which themselves get the water from Sedapal's selling points – and the main network line from reservoirs to public standpipes, the idea was to lay down a basic, but progressive infrastructure to be reused by Sedapal when extending its definitive network (Bonfiglio et al. 2002). Indeed, with this system, the only missing parts to build would theoretically be the connexion from main transmission pipes to the entry point of the network, and the connexion between standpipes and in-house pipes. The sanitation option was conventional latrines. But this programme was not only a technical option; it went with an extensive social intervention for community capacity-building. Beyond water use and hygiene education, the population was organised into neighbourhood committees for the administration of drinking water[8] in charge of the payment and safe distribution through hosepipes. In total, 214 autonomous systems were built for around 335,000 people. However, the social and technical innovations developed in these progressive systems have faced some difficulties in sustaining the momentum. First, the main pipes that were supposed to be reused are more often replaced or abandoned by Sedapal when shifting to definitive connection. Both technical reasons (age, size, quality etc.) as commercial arguments are brought up: Sedapal's subcontractors themselves recognise that the lobbying from material firms encouraged changing pipes rather than recycle old ones… Secondly, the

[7] Ley n°26338 'Ley General de Servicios de Saneamiento'
[8] Comité Vecinal de Administración de Agua Potable

social organisation of communities is fragile: some settlements managed to administrate their system and build a sense of ownership and maintenance, but others have stopped functioning soon after (Bonfiglio et al. 2002). Nevertheless, some NGOs keep on implementing this system in small and remote settlements with a long-term follow-up, thus having excellent results in community involvement and then connection to the main network.

Figure 2: Progressive water system from community standpipe to individual tankers through hoses (Settlement *Señor Cautivo de Ayabaca*, District of Comas, photos by the author, 29/08/2012).

In 2002, under the influence of the Water and Sanitation programme for the Andean region of the World Bank, a new innovative experiment came out: the condominial project. Adapting the Brazilian technology, Sedapal developed these cheaper, smaller, less deep and less long networks that appeared to be particularly adequate to the uneven zones built-up in the 1990s on the hillsides. Social intervention was a key component since the smaller size of the pipes required a good maintenance and use of water and sanitation to avoid collapsing of the systems (Conza & Macedo 2004). Hence, to bid for Sedapal's tenders, the condition was to be consortium of engineering firms and NGOs. These condominial systems, both for water and sanitation, cost 40% less than the conventional technology (Miranda 2004), and around 25,000 connexions were realised. Nevertheless, despite some exceptions, the acceptation of this low-cost technology by the population has been low, and several conflicts between Sedapal and the communities have hampered the success of the experiment (Ioris 2011). Additionally, some reluctance from within Sedapal itself to implement unconventional approaches and to collaborate with social workers, as well as the populist and political utilisation of the notion of 'technology for the poor' slowly led to discrediting condominial networks.

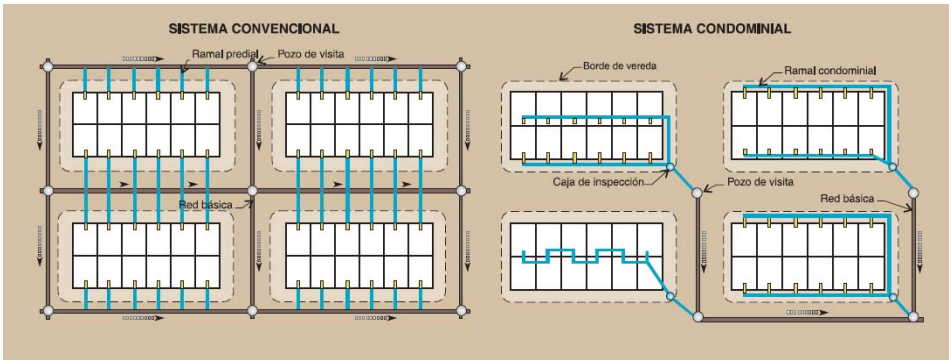

Figure 3: Comparison of conventional and condominial systems (Melo 2007, p.39)

In 2006, the World Bank's project got to an end, and coincided with the launching of the programme '*Agua para todos*' by the newly elected president A. Garcia. This programme was led by the Ministry of Housing, based on a 'shock of national investment' and ten large schemes for water and sanitation in Lima were designated by law. '*Agua para todos*' is based on the traditional approach for infrastructure extension, with conventional technologies and networks, and much less social capacity-building. It must be noticed that even though Sedapal has officially abandoned the condominial systems, it actually keeps using this technology, especially on steep hillsides where it is particularly adequate. It is today called 'small-diameter pipes' technology, and is not implemented along with specific community capacitation. Though some projects are still at the implementation phase and do not permit to get a complete evaluation, the programme has obviously benefited from the simplification of legal requirements for spontaneous urbanisation, and has managed to reach irregular settlements without waiting for the property regularisation.

In both sectors, some technological innovations have been developed by utilities to adapt to uneven built-up contexts, showing that the topographical difficulties that utility companies face in unplanned urbanisations are not definitive obstacles to the extension of infrastructure networks. The technologies have been adapted or created to fit to external constraints, and actual urbanisation processes and situations are pragmatically taken into account.

Informal arrangements and institutions: creating urban tools

Beyond material constraints overcome by technological innovation, the difficulties in expanding infrastructures to spontaneous settlements are the governance challenges involving communities that interfere in projects' implementation. Pressuring the State for access to urban services has for long been the motto of Peruvian civil society, overflowing the State's capacities in Lima by a pacifist, gradual and progressive movement (Matos Mar 1984). Once registered as a settlement, CBOs immediately mobilise and organise themselves to request services to municipalities and service utilities (Jaime 1999; Calderón 2004).

The layout plan as a tool to draw infrastructures' lines

The link between urban settlement consolidation and extension of services, or the adequacy of infrastructure to urban patterns, is articulated through the layout plan[9] that utility firms require to emit the feasibility advice. This is the inheritance from the period when the legal regularisation of the settlement by the Cofopri was the precondition for obtaining services. In the process of formalising properties, the Cofopri emits an official layout plan that presents the plots, roads and public spaces respecting urban norms and registered by the official administration. Utility firms used these plans to draw their own network lines and identify the topographical, technical and spatial feasibility of extension projects. When the condition of property title was levied in 2006, so was the requirement of the layout plan. Nevertheless, based on sector-specific laws and the law for regulating private investments in public services, utilities have kept the competency of defining their own list of requirements. Thus Edelnor and Sedapal took advantage of the new 'certificate of possession', but have maintained the layout plan as the document on which they base their feasibility study.

Utility firms ask for this plan mainly in order to be sure of the roads where they will lay down their network, as it is the first and main spatial criteria (Baharoglu & Leitmann 1998). First of all, they need to

[9] Plano de trazado y lotización.

be sure to have enough space and stability to dig and put safely their pipes or posts, on spaces secured from future encroachments. Second, signed by municipalities, this is the guarantee that the main roads where they will locate their infrastructures will not move or change. Otherwise, when for the need of another project, the municipality or the community present a viable layout plan, utility firms have to relocate their infrastructures, as for instance Edelnor has nowadays to move many of its posts – too quickly – installed in the 1990s.

Another issue in Lima is that many settlements are on the slopes of hills, where platforms and streets are not consolidated. The risk of mudslide is important, considering also that Lima is a highly seismic zone. Therefore, in many cases, there is a need for retaining walls to consolidate the places where infrastructures will be built. Sedapal can require for example the building of retaining walls before starting the infrastructure works, but do not include these into its budget. Communities therefore use their layout plan to apply to other financing schemes to get their walls done. Through this process, the layout plan is the tool that not only utility firms, but also municipalities, NGOs or other institutions use to consolidate the urban pattern. The application for urban services initiates a general process of urban consolidation around streets and roads, even though neither legal formalisation nor city planning is actually at stake.

The layout plan as a tool for urban consolidation

The layout plan is thus not only the key document for communities to access services, but also to start thinking about the future of their settlement. When communities enter into the process of organising their settlements to get the notice of feasibility for urban services, they have to obtain their certificate of possession as well as the layout plan signed by the district municipality. Community leaders contract an engineer or architect to draw the layout plan, which cost between PEN 60 and 100 per plot (EUR 15-25) depending on the size of the settlement and its topographical situation. This layout plan not only shows the plots, but also the roads and public spaces, including the places that the community wants to preserve for future parks, colleges, sports areas etc. The district municipality is then entitled to stamp these plans, provided they respect the road plan from the metropolitan municipality, though they are not registered and do not have any urbanistic, planning or official value.

Based on the actual pattern of the settlement, the process of elaborating the layout plan in a way officialises the pattern of the future living environment. Respecting urban norms, foreseeing the public equipment, and anticipating the needs for stairs and retaining walls is a complex process that community leaders coordinate. In a collaborative way, incorporating progressively the comments from utility firms and municipalities, CBOs draw a plan that identifies the works and investments to be done in their settlement for urban integration. These layout plans thus have a hybrid dimension to fit with the context of irregular settlements: there is a part of strategic planning (Albrechts 2006), with the entry point of urban services to start urban consolidation, and of collaborative planning (Healey 2006), in the sense that inhabitants work on defining their priorities and needs for the future.

The layout plan constitutes a new policy instrument (Lascoumes & Le Galès 2007), which is not a simple, neutral, technical tool but acts as a coordinating institution that structures the urban fabric of spontaneous urbanisation. Therefore, as a technical and political device, this layout plan could bring significant change in urban policy and planning practices, mainly for its capacity to coordinate actors and its context-sensitivity. However, the bottleneck in this process is in its scaling-up. Indeed, the layout plans are like working documents that have no official value as to the urban planning and formalisation process. Neither the Cofopri nor municipalities take into account these plans when they implement their own development strategy, for the plans are not registered and have no official value.

Conclusion

From the 1990s, utilities have worked in Lima to extend their infrastructure networks to catch up with informal urbanisation. In order to overcome the physical constraints, they have developed a range of adequate technologies. Though more efficient in the electricity sector than for water and sanitation, there have been experiments that enlarged service coverage, and helped in identifying the key factors for success, mainly community participation. The inhabitants have always been highly mobilised in Lima to pressure public authorities in bringing services. Today, this involvement has transformed them into ex-post pragmatic planners that do use access to services as the entry point for some kind of strategic planning, for which all the relevant actors agree on an operational layout plan. Meanwhile, the Peruvian State has developed a legal framework aiming at facilitating the integration of spontaneous settlements into the urban setting. Even if property regularisation remains the ultimate objective of public authorities, they have worked pragmatically to disconnect access to services from legal status of land ownership. Nevertheless, the relatively informal character of the practices developed at the micro-local level of settlements hampers their consideration by urban planning authorities. Far from engaging into a bottom-up process, the disconnection between metropolitan and conventional planning and the urban fabric on the field creates a cognitive dissonance (Sager 2001) that impedes scaling up pragmatic practices and informal arrangements which actually shape urban consolidation through infrastructure extension.

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Lessons from 'The Other Side'. Post-colonial Ideals and Everyday Inhabitation in the Michenzani blocks, Zanzibar.

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This paper tells the narrative of the everyday inhabitation of the Michenzani blocks in Zanzibar and is a case study of the extensive transformations that have been made to a post-colonial modernist housing project, relating to the notion of 'lived-in architecture'. Extensive fieldwork observations and interviews reveal various changes into and onto the Michenzani blocks and are categorized according to their functionality. While *dwelling* relates to the strategies used by the extended family structures to fit the units in the block, *dwelling* + expands upon the stories where several functions are combined within the units. The category of *collective activities* relates to the adaptations inherently linked to the immediate outside spaces of the blocks, re-transforming them into more traditional social spaces. Microstories thus illustrate how the very static modernist frame of the Michenzani blocks contains extremely dynamic inhabitants and inhabitation.

Keywords: Post-colonial, Housing, Zanzibar

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Introduction

Historically being a colonial and slave traders' city, Stone Town has an incredibly multicultural character. Its position on the Western tip of the island of Zanzibar is one of defined edges. The colonial town borders the sea in the West and a creek forms the division with the 'indigenous' African town, ironically labeled Ng'ambo or 'the Other Side', in the East.

Figure 1. Zanzibar city. Stone Town (on the tip) and Ng'ambo with Mi;chenzani (the cross-figure) are recognizable entities within the tissue. (Zanzibar Planning Dept., 2005)

Embedded in post-colonial socialist thinking, the urban redevelopment of the Michenzani neighbourhood in Ng'ambo, was initiated in 1964, following the big revolution in 1963 and the succeeding Zanzibar Town Planning Scheme. The 10-block structure, designed by a team of East-German architects under Hubert Scholz, was a vigorous attempt to establish simultaneously a just and an egalitarian balance in a city until then characterized by colonial order.[2]

The redevelopment is brought about as the (re)foundation of the indigenous city on the tabula rasa of the 'cité'.

[2] The original 'Zanzibar Town Planning Scheme' made by the East Germans envisioned 6,992 apartments in 229 buildings of five to fifteen stories, with no less than 30,000 inhabitants. But ultimately, the regime under president Karume implemented very little of the original plan and replaced it by the set of slabs of 300 m long and six to eight stories in height, now known as Michenzani. The total complex of the Michenzani "Trains" had about 1,102 completed apartments, a number that is already impressive, but stays far below the initially envisioned intervention. (Myers 1994: 455, 457; Wimmelbücker 2012: 424, 427)

It invents the African city (besides the Arab/colonial slave traders' Stone Town) and therefore proper, post-colonial urbanism reversed the order of terms: Michenzani and its surroundings were no longer the 'other side', but the very core of a new urban reality. Nonetheless, the everyday construction of the urban fabric has continued to be unrelentlessly transformed. Thus, if the new neighbourhood of Michenzani can be read as a post-colonial inscription on a former colonial condition, the ways in which the everyday construction of the city has continued to transform Michenzani is an inscription on an inscription. As Garth Myers has described: "The Michenzani project began as the centerpiece of a program to make Zanzibar a socialist city and society. Instead, the area has become a set of structures into and onto which Ng'ambo residents write their own texts." (Myers 1994: 463). The continuous transformations of the blocks illustrate attempts of not only re-appropriating the urban artifact, but also re-writing their histories. The duality evident in both colonial and immediate post-colonial urbanism is broken apart by a myriad of micro-stories, where indigenous realities embody the multiple reflections on the goals, accomplishments and deficiencies of the project.

Figure 2. Michenzani. The 10-block structure as a rigid figure within the tissue. (Author, 2012)

This paper specifically aims to unravel some of these texts and the life-stories of Michenzani's inhabitants. It will consider the spatial transformations of a range of meaningful dwelling units during their life span. Not only do inhabitants change and are apartments adjusted according to needs, but also the common spaces that link the several blocks are being transformed by indigenous life patterns. Although the city landscape of Ng'ambo was written over by introducing the blocks, the process these buildings have undergone ever since is constantly rewriting the story of the Michenzani blocks, often referred to as 'trains' because of their longitudinal appearance. The architecture of the dwellings was reflecting the East German idealist view on standardization in architecture, introducing rationality, order and control within public housing projects, often referred to as Existenzminimum housing. The East German design expresses a very functionalist view on architecture and is at the same time largely influenced by the (monumentality of) Soviet models. The interplay that is therefore being introduced between the socialist state's spatial ideals and the 'inhabited' ideas inherent in the dwellers' material is made manifest by the 'lived-in'- chronicles of the 300m-long iconic slabs. This 'lived-in' architecture is characterized by the valuing of the physical structure as the base for a continuous change in use. As South African Hannah le Roux has claimed, 'Modernism, at worst, is a sort of landscape of recyclable material and at best serves as scaffolding for the renewal of the city's social structures.' (2005: 52) Besides this flexibility that can be

found in modern housing types, dwellers' eager and inherent attitude to progressively adjust dwellings to fit their expectations, - also embodies the interpellations space is subject to over extensive periods of use. The narrative presented here is equally on people and places. It tells the story of the lives in/of Michenzani, and most importantly, the interrelation between the people and the space.

Adapting Lifestyles and Transforming Concrete Frames

Interviews and observations in the Michenzani neighbourhood allow us to distill out of individual stories common patterns. Even though the 10-block structure has a very uniform setup at first sight, the complexity of its inhabitation becomes apparent through the diversity of dwelling experiences. At the same time, the positioning of the different blocks within the urban figure, as well as the time span over which the project has been realized, make that there are inherent differences between the buildings and the image of uniformity is being nuanced. Significant categories of change that occur within the Michenzani blocks were already investigated and defined by Garth Myers in the early 90s. He discusses various adaptations (of the life patterns within the blocks) and transformations (of the architecture itself) through the 'Voices of the Other Side'. Those express that the apartments originally were out of character with local customs as they were rather an attempt to make a shining example of socialism out of the chaotic mass of underdevelopment that was Ng'ambo (Myers 1994: 455, 458). Adaptations are mostly applying to the changes in dwelling culture due to the profound impact of the Michenzani 'Trains'. They are not adapted to traditional family dwelling- and lifestyles and therefore often change lives completely. Consequently, the apartments are used for the more extra-ordinary family compositions compared to the ones that are appearing within the Swahili compounds in the low-rise tissue along the blocks. Apart from the 'specialized' destination for the younger couples (with few children) or second/third wives, Myers also discusses how the flats become the base for speculative investments or illegal activities, like prostitution or drug trafficking. Moreover, there is the aspect of accessibility, where the lower floors are considered more suitable for old people, leading to transfers of apartments to the elderly amongst the family (Myers 1994: 459-460). Transformations on the other hand apply really to the aspect of (re-)introducing the material culture of the Swahili families back into the foreign, and at the same time idealist, project. This mostly becomes evident in the creation of meeting places in front of the buildings. Moreover, there is an extensive development of kiosk-shops, common in all of the urban fabric. Other, more practical, aspects of transformations are the introduction of water pumps, because of the very low pressure on the higher floors, as well as the protective iron gates and bars, for crime prevention (Myers 1994: 461).

Beyond the duality

Being a witness of the processes of change after at least one more generation of Michenzani inhabitants, it becomes a valuable exercise to build upon, re-think and question the categories of adaptations and transformations that Myers had set up. It is precisely the interplay between and overlap of both categories that seem very relevant in the investigation of today's Michenzani neighbourhood and its multitude of changes. Thus, a frame can be proposed which is based on another logic, one of processes and activities happening in and around the blocks, revealing simultaneously the diversity of Michenzani's inhabitants and inhabitation. For this specific narrative, the social structures are investigated through the spatial changes that occur. This overlay of physical and non-physical elements becomes an indication of the transformations within the 'trains', their relation to societal shifts and the positioning of the Michenzani project within Zanzibar city.

Another element that becomes evident from the investigations in the field is the dynamism that appears in various ways throughout the cases. Not only are the inhabitants of the blocks extremely mobile. They move throughout the urban landscape from place to place, they also allow dynamism between the different blocks by inhabiting multiple units within one extended family. Moreover, dynamism is sensible in the high range of activities expanding onto the common spaces and is as well part of the evolution of the interior of the units. Leaning therefore more towards a definition of the (African) city as composed of flows, Michenzani can be labeled as a strong frame that is subject to a continuous flux.
Consequently, three categories are defined to structure the socio-physical changes: dwelling, dwelling +, collective activities. Whereas the first two apply on the inside of the dwelling units, the latter one focuses on the interface zone linking the Michenzani blocks with the surrounding (low-rise) tissue.

Inside

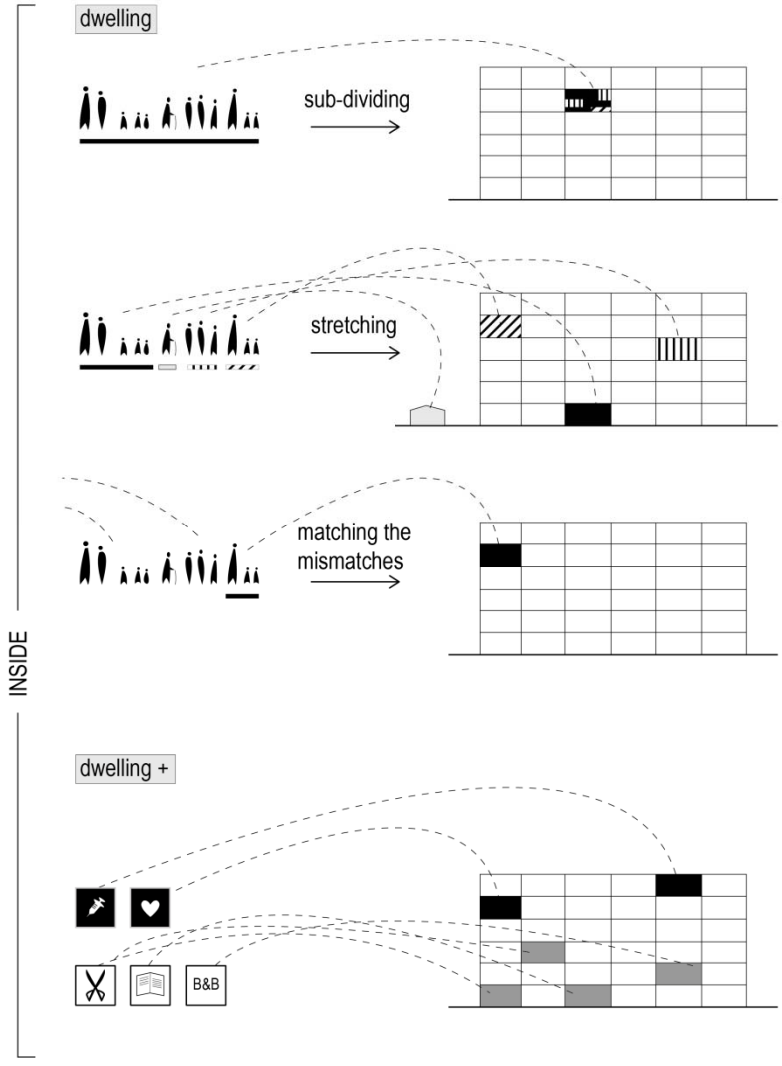

Figure 3. Inside transformation strategies. (Author, 2012)

Dwelling

In the first part of the paper, the significant elements of change appearing in the inside of the Michenzani units are identified. A first category then considers the act of dwelling, under which three specific strategies of inhabitation are outlined. Those strategies are reflected in the spatial results of the everyday residential landscape of Michenzani and its environment.

Whenever discussing the act of dwelling in an Eastern African urban condition, a reflection has to be made on the notion of the extended family. Tradition allows families to live in a nucleus, where generations cross, occupations are shared and space is communal. The compound architecture that is related to this type of inhabitation was and is omnipresent in Ng'ambo. Although current trends of younger members that move out of the family unit are more common, fieldwork has confirmed that attachment to this compound lifestyle is still very present. Nonetheless, these extended family structures are not always possible within the socialist German architecture of the Michenzani trains. Therefore, there are several solutions that have been investigated during intensive fieldwork observations. Mr. Aboud summarizes as follows: 'If you live in a place, you have to adjust to it and like it. And the Michenzani flats, that's what they call development.' (interview Mr. Aboud, 03/08/2012)

Figure4. Extended Family. (Author, 2012)

A first strategy that is employed, working on the tension between family size and architectural delimitations, is *sub-dividing*. Staying within the limitations of the apartment, often obtained as a resettlement house, is for some families the only option or exactly what they desire out of custom. Therefore, the unit is filled as efficient as possible, while trying to keep the cultural identity of the compound architecture as close as possible. Traditionally, there should be at least a separate room for the parents, one for the boys, one for the girls and preferably one for the grandparents. Since Michenzani flats

only have two to three bedrooms, typological problems occur and creative solutions are sought. In this respect, the Existenzminimum dwelling is still divided into parts that are even more minimal. Another aspect of friction is the courtyard, which is traditionally linked to the kitchen, and replaced in the apartments by a balcony. Again, families use the spaces creatively and adapt mostly to the new and often inconvenient conditions. The case of Ms. Mwanajuma, a 63-year old woman living in a two-bedroom apartment in block two, illustrates how the physical space is restructured according to the needs of a growing (and shrinking) extended family structure. After having received the flat as a compensation house, she lived there with her husband, parents and subsequently with up to seven children. In order to meet the demands for bedrooms, an extra partition wall was made in the living room, where the boys then could sleep. Two years ago, when she divorced and all but one son had left the house, she decided to remove the extra wall in order to have a larger living room again. One could recognize a certain pride with Ms. Mwanajuma concerning the house; although its typology is difficult to live in with eleven people, she is not planning to move out. 'I was very proud about the new house when I received it! Others that didn't like this kind of house, tried to get money instead. We stayed and built up our lives here…' (interview Ms. Mwanajuma, 01/08/2012). A significant case study is the one of Mr. Hatib and his family, who live in a two-bedroom apartment in block 5. The compensation house they received was very welcome, since the family lives in extreme poverty. Almost nothing has changed in the apartment since their arrival; the walls have received one coat of paint. Similar to the former family, the apartment was too small for the parents and five children; therefore the storage room had been transformed into a bedroom about ten years ago, in order to provide more privacy for everyone. Sometimes also bedrooms are split up into two parts by division walls. This is the case for Ms. Salama, who lives with her husband's family in a two-bedroom flat in block 7. Although the family is not extensive at the moment, the structure of two bedrooms is still inconvenient. Salama and her husband have one room, while her mother in law and the niece of her husband share the divided room. When they will get children of their own, she thinks the living room will be divided in order to have even more rooms. All three cases thus illustrate transformations of the units that go along with the changing family structure and a dynamic approach to interior architecture. The units are filling up and being subdivided against all odds, according to the family size and inventiveness of its inhabitants, reflecting the logics of the extended family in the low-rise compounds.

Whenever the spatial conditions are expanding over the borders of one unit, a second strategy identifiable is the one of *stretching*. This implies that an extended family is taking up multiple apartments or even reaching over the interface zone towards the low-rise tissue. In a certain sense this is a vertical translation/ interpretation of the traditional compound, since it works as a cluster of (family) units, sharing the same common space. Only now the traditional courtyard is suspended in a certain way; it became the staircase, corridor or the interface area. It allows also a certain degree of privacy, which is not possible in the courtyard house and is therefore welcomed mostly by the younger couples. The following cases illustrate, in various degrees, the spreading of units over the blocks, being part of one cluster. Whenever possible, families try to group within one block or its vicinity. The family of Samir for example has a flat in block 7, where he has lived until he got married and moved to his own apartment in the same block. According to Samir this was necessary for allowing his own household to have enough space. But at the same time he is convinced about the advantages of being close to the rest of his family and he is happy that they often go to the parental unit for visits. The idea of the compound where the kitchen is the gathering place becomes more evident in the case of Salma. She lives, together with 11 family members, in a three-bedroom apartment on the ground floor of block 1. In the same block, her sister rents a flat (4th floor) and her brother as well (5th floor). The distribution along the different floors does not keep them to spend most of

the time all-together in the apartment on the ground floor. Basically, only during the night, the family members spread out to their own flats. The ground floor apartment has the advantage of the link to the outside space (where it is easier for the women to cook and dry laundry and where the children can play), and in this case it is also the larger unit. Similar cases have been crossed, for example in block 6, where the family of Rukaiye is spread over 3 flats throughout the block. Again the ground floor flat is used as meeting point, where family members discuss life, where children play and women cook together. The extended structure of Rukaiye's family reaches several generations, includes divorced family members and many children. The possibility to still live in the same block is very valuable for them and helps to get things sorted out easily; verticality in that sense does not really create a problem. 'We moved to Michenzani to have enough space. But then it is a very complicated project, especially with the extended family structures that do not fit in the flats. It is sometimes difficult for families to manage, but we are lucky to all be in block 6.' (Ms. Rukaiye, 15/08/2012) A more extreme condition can be observed with a family that is spread out over the interface between block 3 and the low-rise tissue surrounding it. Since one of the two family houses was demolished for the Michenzani plan, the son could live in block 3 as compensation. A strong relation has been established between the family flat and the family house since the beginning and is being reinforced by the direct visual relation between both. Although the entire family considers the flat still as the "new" house, the family gatherings almost exclusively take place in the traditional house. It seems thus as if the apartment is "something extra" and not completely part of the compound. At the same time, this setup is triggering a more semi-private use of the interface. The stretching out of families over different floors, blocks and tissues is thus quite common and shows almost always a re-interpretation of the traditional life in the compounds, adapted to the physical reality of the blocks.

If we leave the well-defined context of the extended family-structure, while staying in the same category of dwelling, another strategy is called *matching the mismatches*. This strategy implies a certain shift in thinking from the traditional family to new forms of living. The dwelling, which is not applicable to the norm, becomes the destination for types of families that are ab-normal too, creating thus a match of mismatches in the physical and social sense. One case shows how Mr. Mbaruk lives in a two-bedroom flat in block 4 together with his wife, sister and 4 grandchildren. The parents have left the flat after the first child was born and are living and working in the countryside. This jump in generations leaves the flat more spacious for the inhabitants (although the living room still has to be transformed in a bedroom at night to fit all); the children are close to good education, while the parents are able to make a living in the countryside. In the same block lives Mr. Hamid, 27-year old and looking for a job, together with his brother. The family flat has known a very dynamic inhabitant structure since their uncle received it from the government in 1982. After most of his family members have left for the countryside, he and his brother are the ones left in the flat, allowing each of them a room. Nevertheless, they still transformed the (never used) kitchen into a bedroom, which allows friends or relatives to stay over more easily or it can be rented. This illustrates how the extended family structure is sometimes reduced to fit the limits of the Michenzani apartment. Another type of re-organization, which leans towards the bachelor housing that Garth Myers has elaborated on, is a student house in block 7, where at that moment 11 boys collectively live in a two-bedroom apartment. Most of the parents live in the countryside, but they want their children to have good education in the city and therefore they rent one flat together where the boys study and sleep collectively. As one of the students says: "It is very easy here, because it is the city centre" (interview Mohammed, 28/07/2012) We could thus say that re-organization or re-structuring of the inhabitants can result in

'specialized' compositions beyond the family sphere, which illustrates the capability of people to leave the traditional idea of the extended family behind if the house demands this.

Figure 5. Inside the living room of a unit. (author, 2012)

Dwelling +

Next to the category of dwelling, a second category of dwelling + is defined, where the flats are used for other activities apart from dwelling, mostly linked to commerce or occupation. Reaching from commercial activities, over renting pieces of the apartment, to 'illegal' activities like prostitution and drug trafficking. The case of Mr. Salum illustrates how a compensation house in block 3 got partly transformed (one bedroom) into a beauty saloon where his wife has an informal business. Although no advertisement announces the business on the second floor, there are enough customers, which indicates that it is based

on a network of fixed clients, mostly from the neighbourhood itself. The combination of having the beauty saloon in the apartment, allows for Salum's wife to take care of the small children at home while earning some more money.

Figure 6. Informal hair saloon inside block 3. (author, 2012)

Sometimes however, this combination of living and working in one apartment becomes impossible, as was the case for Ms. Turkiye, who owns a hairdressers saloon on the ground floor in block 9. Whereas she started several years ago as a combination working – living, this became impossible since she has a son and the two-bedroom apartment became too small and thus she moved to the countryside, but kept working here. A vast amount of changes have been carried out in the apartment, as the living room was completely changed into her hairdresser's corner, the balcony was taken up as part of it, the two rooms had been transformed quite a bit in order to combine working and living there. "The extra door at the roadside was officially not allowed, but people did it anyways. Recently they started to allow these things that stimulate private businesses." (interview Ms. Turkiye, 07/08/2012) This case shows a more formal business with official announcements along the street, where customers are mostly from outside Michenzani. Another type of business is the renting out of one room to guests, as is the case with Mr. Hamid, who rents himself a two-bedroom apartment on the ground floor of block 4, making it an illegal business. He decided to transform one of the bedrooms to get international guests, while the entire family then sleeps in one room. More out of social than financial motivation, Hamid sets up this extra business. One more example of flexible use of the flats is demonstrated in the house of Ms. Asha (two-bedroom apartment, block 3, ground floor). The house is a family flat, where has always been a muslim school during the daytime. Therefore, the living space can easily be transformed into a classroom and the blackboard is permanently hanging to the wall. Most pupils come from the neighbouring houses.

Although this cannot be interpreted as a straightforward business, it is still an extra occupation held in a structure solely intended for dwelling activities. These cases clearly illustrate how transformations in and the flexibility of the block allow businesses to be established, especially on the ground floor. Whereas the formal commercial structures are on the lower floors of the blocks, the more illegal and 'unseen' activities are taking place on the higher floors. There, prostitution is more common, as well as drug trafficking, which goes hand in hand with the presence of the drug addicts on the upper stairs and rooftops. A vertical section through the blocks thus reveals different aspects of the dwelling + category and its changes according to the floor levels.

Outside

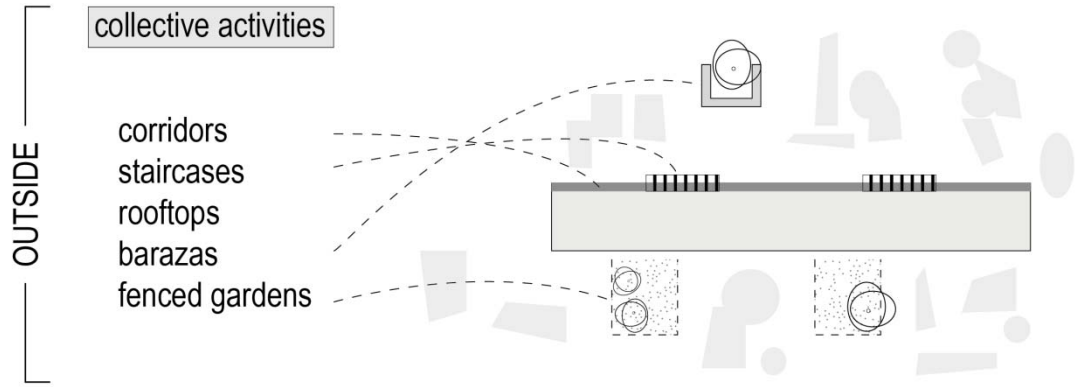

Figure 7. Transformation outside of the block. (author, 2012)

Collective Activities

The second category is looking at the transformations, appropriations and adaptations concerning the immediate outside space of the blocks. This external space consists of the staircases and rooftops of the buildings as well as an intriguing interface zone between the traditional low-rise tissue and the modernist high-rise blocks. In a way the transformations and use of these spaces are incorporating cultural elements back into the concrete giants.

The baraza, a stone bench that appears traditionally in all built environments in Zanzibar and that is a place of reception, gathering, business, discussions, can be seen as a male place of socialization while it bridges the threshold between the semi-public and the private spheres. This aspect of urban life was completely absent in the design of the Michenzani blocks and is therefore, in various ways, re-introduced by local organizations or the inhabitants themselves. These newly introduced barazas are providing meeting places, shade and often water access for the blocks. Obvious differences can be seen between the both sides of the blocks, giving a different degree of domesticity to the baraza with the backside being the more semi-private. Field observations have confirmed the widespread use of the baraza structures and their role in building relationships amongst the inhabitants of the Michenzani area.

Figure 8. The baraza as a meeting place. (author, 2012)

Another type of outside space that is balancing between public and private is the fenced garden. Often just claimed by the inhabitants of the ground floor apartments, these outside spaces on the front side of the blocks, are used as protected green space, spaces to dry laundry, hold a few chickens, prepare the cooking and are occasionally transformed into private parking lots. Often, these gardens also help to prevent garbage to be thrown from the upper floors in front of the building. Being more linked to direct household tasks, they are rather associated to the female space, opposed to what the baraza is. In this sense, the appropriation of these spaces corresponds apparently to what the courtyard is for the traditional compounds.

Looking at these first two examples, an extra reflection has to be made related to the compound typology. The baraza as well as the fenced garden explicate elements that used to be part and parcel of the compound architecture and were missing in the original design of the blocks. By adding them, even in another format, one could see these changes also as a re-introduction of the 'inside' dwelling architecture, rather than outside. Question thus remains whether they are more part of the family sphere or of the collective activities, traditionally and today.

Looking at the collective spaces that are inherently part of the blocks, important elements are the activities on the staircases and the rooftops. They could be seen as platforms for collective activities of inhabitants of one floor or even an entire block. However, reality is not always as positive. While children are playing in the corridors and on the roofs, criminal activities are equally happening. The upper stairs as well as the roofs are linked to drug users and criminality and therefore often the inhabitants of the upper floors close the access to the roof with a gate. This links evidently with the vertical logic in general which is present in the Michenzani case and indicates territorialities at different levels of appropriation. The higher the unit, the less positive its positioning for water and accessibility, but at the same time the social status is lower

and the criminality increased. Between direct neighbours, the corridors and stairs often are a meeting place and thus important as a social landscape. The corridors are used to dry the laundry even more than the balconies, which indicates again the function of the courtyard that is being re-introduced into the public sphere.

Figure 9. Appropriations of the outside spaces. (author, 2012)

The list of transformations and appropriations of the outside space is evidently not exhaustive. Anyways it clarifies how processes of change are constantly adjusting the dwelling environment to the cultural habits of the Michenzani people.

Conclusion

A paradox is being revealed through the lecture of several dwelling processes in the Michenzani area: the very static modernist frame contains extremely dynamic or fluid inhabitants and inhabitation. Hence, the reality of inhabiting a socialist container seems to be one of flows. Everything in Michenzani is always in motion, as nothing and nobody wants to get caught standing still.

The changes made are bringing the local culture and tradition into the blocks, mostly trough introduction of the compound typology. The stereotypical visions of the German socialist typologies are becoming a base for everyday reshaping, where the enduring reality of the extended families and their Ng'ambo logics and compound structures become evident.

It should also be noted that the inhabitants are not making the adaptations solely out of necessity, but merely as a cultural expression. Michenzani does not house the lowest class only; hence the transformations described are more than survival architecture. Therefore this reading tries to go beyond this basic layer to understand the complexity of the processes that relate to the inhabitants, the architecture and the positioning of the project within the (idea of) the city.

Another element that becomes evident from the case studies is the vertical logic of the Michenzani blocks, something which is in contrast with the pronounced horizontal logic of the traditional tissue. Verticality becomes a scale for social status, age, water access as well as commercial activities. The reading of this (new) direction of dwelling is something that brings lessons for collective housing projects within the Zanzibar context.

Thus, it could be stated that the ideological design in this case seems to work as an appealing condition for everyday transformations, which leads to the questioning of fixed functional designs in a dynamic dwelling culture more in general. The most standard and traditional family-structures often result in the most pronounced transformations, something that indicates at the same time a sufficient flexibility of the frame and a devoted dynamism of its inhabitants.

Figure 10. Drying laundry in the corridor (block 1 looking towards block 5) (author, 2012)

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Collective activity as a traditional knowledge behind the physical design. Case of urban *kampungs* in indonesia

Adiyanti Sutandyo-Buchholz[1]

A domain of kampung (informal settlement) is playing a dominant role in Indonesian urban development. Despite their unorganised and spontaneous settlements, kampungs take part in shaping the character of a city and bring a dynamic sense in urbanisation.
It investigates how the existence of urban kampung is designed through a traditional collective activity which is proof of local knowledge through generations, known as gotong-royong; an Indonesian term for traditional voluntarily mutual act where the result is equally benefited.
Yet, the collective activity is not only the matter of community, but also involves other stakeholders. It emphasises the partnership between kampung community and the government, but it is questionable whether gotong-royong can function, since the government has different perspectives and approach in the matter of power holder. Can this traditional approach function as an alternative to tame the informal city through creating 'an appropriate urban kampung'?

Keywords: traditional collective activity, gotong-royong, urban kampung, partnership, Indonesia

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Characteristics of urban kampungs in Indonesia

Urban *kampungs* are unique settlements and comprise some 70 per cent of the big cities in Indonesia and play a dominant role in urban development. Inevitably *kampungs* are a part of urban settlements.

A *Kampung* is favoured and constitute real-estate settlement, because to live in a *kampung*, one does not need to accomplish a long complicated procedure with spending much money. A house can be built without standardisation and does not fit the state-sanctioned code. Both to live and to build a house in *kampung*, one has to reach an agreement with other residents in the neigbourhood which occurs without legal status instead of formal process.

Historically, *kampungs* haven existed since about 600 centuries during Hindu civilisation until today, though their development depends on political, economical and social transformation in urban development. The existence of *kampung* related to urbanisation and its transformative process can be observed through different aspects. They are either a result of rural migration or changes traditional forms of rural to urban social life where the push and pull factors between rural and urban play a significance roles (Geertz 1965).

Physically, a *kampung* is the living settlements for low income class with poor physical condition (Rutz 1987), but it is not compared to a slum or squatter (Baros 1980). It is described as a settlement with high density, poor deprived environment, provided with rudimentary if it is not lack of infrastructure and services (Steinberg 1992). *Kampungs* can be located either on vulnerable places (i.e. flooded and landslide areas), vacant land, on the riverbank, or along railway tracks.

Based on the social class, the urban *kampung* community is heterogeneous, between low to the low-middle income. *Kampung's* life is marked by strong bonding among the residents because they still carry their habit of rural life which is related to the close familial ties. Yet, culturally, the background is diversely, since they can come from all regions of the Indonesian archipelago. Otherwise, *kampung* residents have various occupations; from informal street vendors and housemaids to teachers and civil servants, from working in manufactures to governmental offices (Herbasuki 1984 and Sullivan 1992).

Today urban *kampungs* supply cities with informal sectors. Hence, in Indonesia neither urban nor *kampungs* can merely stand alone; mutualism between them takes place (Amirrol 2011). This is a unique condition since on the one hand *kampungs* are often 'an obstacle' for the urban authority because they occupy prohibited land to settle. A *kampung* is identical to unofficial, irregular, less bureaucratic systems, whereas a city has regulation, authority, control, and is organised. So, due to the government, *kampungs* are marginal and informal. On the other hand without their existence, urban dynamic will be disturbed. From the point of *kampung* habitants, to immigrate to city is a common hope to improve their lives.

Traditional collective activity known as gotong-royong

Since centuries a traditional collective activity has existed as a cultural heritage and a local knowledge through generations which is called *gotong-royong*. Originally it is a Javanese word. *Gotong* means to carry and *royong* collectively.

Gotong-royong as the term for mutual self-help indicates that an activity/task is manifested voluntary and spontaneous. Characteristics of *gotong-royong* are reflected by loyalty and based on a sense of belongingness, a collective consciousness, a willingness to share a burden, a strong solidarity, and a sense of community, which shows harmony in society (Flor 2001, Suriptono and Newman 1999).

Gotong-royong is born out of reciprocal principles according to their respective capabilities to reach a certain target, and the result is equally benefited. So, related to reciprocity, to help and expect to be helped is a mutual obligation between people knowing and needing each other. As collective society individuals are

expected to toe to the line to the principles of the society and the in-groups to which they belong (based on Hofstede's dimensions of national culture).[2]

As a part of the Indonesian cultures, this traditional collective activity is based on unwritten traditional rules. It is taking place if all participants understand and commit to the rule of the game how it functions. Thus, in order to understand a collective action it is crucial to understand its social context via the common knowledge generating process that underlies it, otherwise with their absence the game will not occur (Rao 2005). Relationship harmony is important to be maintained and solidarity has priority, so that conflicts are as possible avoided. If there are, conflicts are solved through compromise, negotiation or using a third party as mediator. Moreover, who disobeyed, it was believed that s/he would get material and spiritual sanctions (Larasati 2007). Activities of the traditional collective activity mostly take place in rural areas with nearly homogenous social environment. In urban areas *gotong-royong* occurs much more intensive in the lower social class. It is an emphasis on everyday life which is reflected by loyalty and cohesiveness within family and work units, since individuals belong to a family and the family is a basic unit of society (Wirawan and Irawanto 2007, compared also to Howell 2007). The activities are i.e. cleaning the neighbourhood environment or improving local paths, through helping in a case of death in the neighbourhood, or planned to build a community-building or if a resident in a neighbourhood needs work to be done for her/his house. The tasks are mostly in terms of material needs. Nevertheless, g*otong-royong* does not always mean that communication among people occurs every day, yet they are ready to do something together if they are asked.

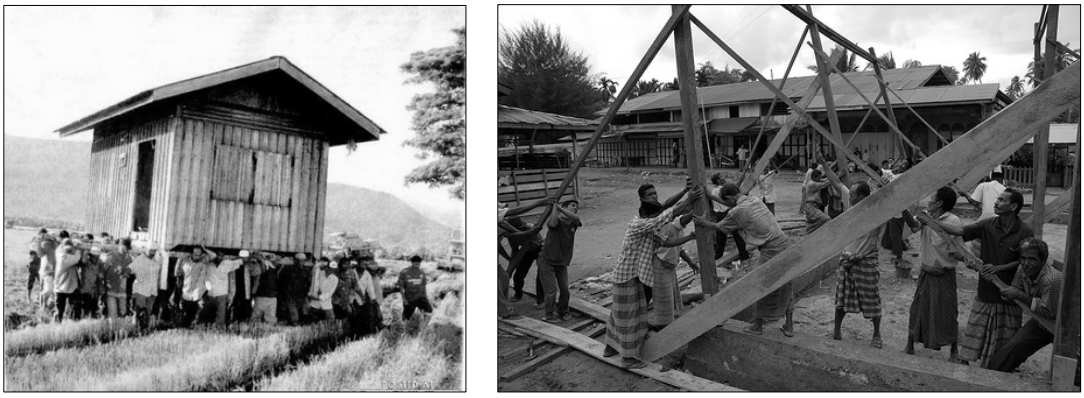

Figure 1 Gotong-royong as a traditional collective activity. Source: Sudarman, 2011 and Sai, 2009

Gotong-royong as a collective action is actually not only practiced in Indonesian. Such of collective activity is practiced ditto by several countries, such as *Bayanihan* in the Philippines, *Dugnad* in Norwegian, *Naffir* in Sudan, etc. (see Wikipedia about *gotong-royong* 2011).

Physical design and social product through collective activity in urban kampungs

Generally the existence of *kampungs* is marginalised and *kampung* dwellers have to carry out their needs by their own capacity and respective self-help, they are used to struggling and have capability to survive in middle of a crisis. To accommodate this capability, collective activity is an important tool to implement it.

[2] Geert Hofstede distinguished countries from each other into four clusters, i.e. individualism vs. collectivism (IDV)

One experience is shown by a *kampung* renovation project in Surabaya. Surabaya is the second largest city in Indonesia with a population of over 2.7 million (5.6 million in the metropolitan area). As the capital of the province of East Java, Surabaya is an important industrial and commercial centre in the eastern region of Indonesia. To promote the city as an international trade centre the government prompted beautification programmes which ultimately threaten the livehoods of the poor, including unorganised and informal settlements like *kampungs*. Some *kampungs* are legalised through *Kampung* Improvement Programmes, but others are threatened to be demolished and the dwellers relocated. One of the threatened *kampung* was *kampung Strenkali* in Surabaya.

The *kampung* which consisted of 3,000 families was on the area of the delimitation of settlement of the river (*strenkali*) regarded as a dirty region and endangered to pollute the river; therefore the local government had planned to relocate the residents. Instead, through solidarity based on their strong bonding to the settlement unified them to struggle for renovating their houses through some actions.

The *kampung* residents persisted to keep living there because the *kampung* has already existed more than 40 years where some of them have been living for generations. They have jobs close to the location with most of them working in the informal sectors. Moreover, according to the study by community executed with help from an NGO and a university, the river pollution was not mainly caused by the community but rather from several factories disposing chemical contamination and solid waste. To defend their settlements and to persist to keep living there, the riverside community used the *gotong-royong* strategy.

To change government policy from relocation to renovation, the communities formed a group dynamic namely *paguyuban* (social organisasiton) called Paguyuban Warga Strenkali Surabaya (PWS or Riverside Community Organisation); a half formal Indonesian association since it is only notarised. This organisation is formed to response to riverside eviction threats which began in 2002 with concrete actions in the negotiation process between riverside community and the government, i.e. to propose a technical approach of the riverside. The government planned to make concrete V-shaped riversides to prevent future flooding (Figure A). They stipulated that a 12-15 meters space should be created between the riversides and the settlements to provide better access for regular cleaning. This would demolish more than 3.000 houses. Yet, the technical study from the riverside community showed if the river were deepened with vertical riversides, only three to five meters would be needed on each side to allow river cleaners to pass (Figure B). Therefore, the communities would only need to vacate manageable amounts of space between their houses and the river. From that design it can be find out that a *kampung* community does know the best about their settlement. Beside they can still live there, the riverbank is also able to be cleaned from the river side.

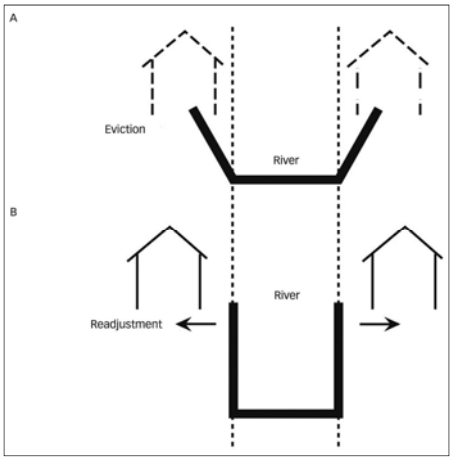

Figure 2. Government vs. paguyuban Warga Strenkali Surabaya (PWS) models. Source: Some, 2009

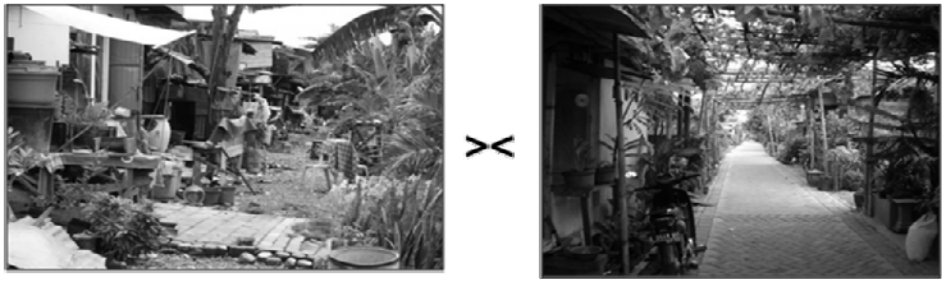

Figure 3. Before and after renovation. Source: Pudyanto, 2009 and Kusworo, 2009

The wider impacts of community organising is a better physical environment, for example from a crowded to a clean and green location. Socially, the riverside community has organised many activities to build positive public opinion, such as once a year they organise traditional ceremonies that are open to the public, to show that they are part of the river and must honour it.

Empowerment mechanisms in the group over the years are achieved through 'internal and external activities'. Some 'internal activities' such as saving, making handicraft from recycling materials, children activities were organised through *gotong-royong*, in order to strengthen the communities themselves. These activities were financed through the organised saving groups and moreover community members could gather regularly which creates solidarity among them. The savings programme was established besides for household finances and income generatings, also for housing renovations. Savings can bring people much closer and meet each other regularly and to tie them creating negotiating power to face bureaucratic regulations. Through the community saving, women were more organised and have more power and were active in organising. They do organise daily expenditure and through regular meeting they exchange and distribute information and from outside as well so that they also have the same knowledge as men. Whereas, 'external activities', like doing offensive through demonstrations, rallies and using the press to have their voice broadly heard, were arranged as well. Practice shows that the conduct of environmental communication requires time and flexibility, so to proceed at its own pace since participation takes time (Flor 2001).

The idea of this empowerment mechanism is to strengthen the communities themselves since this is their own struggle of the riverside community without direct support from the city administration. This is also the way to gather and to organise people, to create solidarity, and to foster trust among community. Instead of staying passive and crying: '*Help us because we are poor*' they were active to improve themselves and shouting '*Listen, we have this problem and here is a possible solution*'. The result, since the communities are closer, they have good opportunity to learn about laws, planning and architecture. Through this social activity the *kampung* residents can share their problems to each other and attain better feeling of taking care between neighbours which in Western mind may be something uncommon (Malau and Pennells 2008).[3]

The whole process of that housing renovation project evolved out of geographic area, since an eviction of the riverbank settlement could bring serious social and political consequences to the city, destroying the social foundations within urban society; for example between communities in that *kampung* and other residents along the rivers and other city dwellers through the economic needs and dependency of city on informal sectors. The results of the project benefit not only the *kampung*'s residents but also more to establish social stability through maintaining to clean the river by the community (Some et al. 2009).

[3] Those participatory collective actions occur through communication and social mobilisation is verified as well by Flor 2001.

Yet, on the wider level, the result of the housing renovation project echoed beyond their thematic range to a greater scale with other situations. What the community had achieved through working together as a local organisation influenced other locations with other environmental concerns, such as natural and man-made disasters to follow this project.[4] The resonance brought also a large coalition of several community organisations, NGOs and the government to come to an agreement about commitment to the environment.

Partnership between kampung community and the government

From the above renovation project we can see that only to be active among community is not enough. The project involves different parties outside the community itself. To support activities and attain their objectives the *kampung* community worked together with other parties.

During the project process the community organisation was advocated by the UPC (Urban Poor Consortium, an Indonesia-based non-profit and non-governmental organisation, dealing i.e. with community organisation for housing rights and eviction, urban poverty and urban environment) and supported by Misereor (the German Catholic Bishops' Organisation for Development Cooperation). They were also assisted by some universities, research units, advocacy and law groups. From experiences, however, the *kampung* community found out that it is important to work with partner organisations that understand the history and process of their struggle and effort during the project and to let them being independent.

This paper emphasises on participation between community and the government. By comparing to NGOs there is almost strain between them because of different approach, perspectives and needs, since community tends to come from bottom-up approach in the matter of non authority and the government from top-down of authority. Partnership between those actors can be accomplished if the government who has political power allows and gives community freedom to decide their own problem, as long as agreement reached between them functioned. So, it is a challenge for both parties to commit a win-win solution, which is normally the result of negotiation from both sides. Thus, cooperation with formal institution such as the government needs regularity and continuity that people have to discuss and bargain frequently. Otherwise, it is questionable as well how the traditional collective activity functions, as soon as other party involves and moreover in the level of urban area, such as the urban government, whether traditional term of *gotong-royong* that based on loyalty, solidarity, voluntary, or reciprocity is able to occur in partnership between community and the government.

Related to the project in Surabaya, partnership between riverside community and the government takes place only after a tough negotiation process about the agreement of the riverside. After a long struggle (2002-2008), persistent and both physical and social activities based on *gotong-royong* of lower social class can influence and let themselves be heard. The communities could convince the regional parliament to legalise the squatters with compromises that the residents keep distance between their huts and the river, no more new building and not contaminate the river. That was the first time in Indonesia that a regulation was established with three parties; the government, parliament and community. The city parliament as the third party is needed because different perceptions and technical approaches between the riverside community organisation and the city administration were difficult to negotiate. So, the city parliament was required as mediator and a respective judge. More detail about this best-practice project see Some et al. 2009, Deutschlandfunk 2008, and Youtube 2010.

[4] To mention some, see some activities based on *gotong-royong* in the recovery process after disaster in Yogyakarta 2011, International Recovery Platform 2010, and Recovery Status Report 2006.

The collective activity does not function well in partnership if there are obstacles from both a community and the government sides. From a community side if there is lack of clear information about problems they face to and information about chances they can achieve through *gotong-royong*, as well as lack of motivation and how to mobilise the community to move together. Moreover, a psychological factor is a challenge for community in implementing *gotong-royong*, if they face difficulties and stress both from internal and external sides. Therefore the commitment of a community organisation to motivate its members and to keep togetherness is essential.
An obstacle from the institution side is if *gotong-royong* is only a one-off process instead a precedent instrument. Another obstacle is if collective activity is manipulated as a political purpose from the state for example during government election. Thus, participation of the *kampung* inhabitants is more symbolic. Instead of their own welfare to living sustainable in urban *kampung*, they are indoctrinated with different slogans, only during the election (Arnstein 1969).

Traditional collective activity as an alternative to tame the informal city?

To create the collective activity as an option to tame the informal city, first of all we have to be clear about some points which can be an obstacle in utilising the traditional collective activity, but also as a lesson learned.

Application of the term gotong-royong

This term is often abused beyond its original sense as collective action in political, economic and social spheres. According to Magnus-Suseno and Koentjaraningrat in Yumarma 1996, *gotong-royong* was used as a central part of a national development strategy. Communities, in turn, were expected to provide volunteer labor, building materials and money for use with central government transfers (see also Kobbe 2007, Okten and Osili 2007). In 1960 there was *Gotong-royong* Parliament, during the New Order era[5] *gotong-royong* had been 'fossilised' by sloganeering, and in 2001-2004 the Indonesian cabinet also used the name *Gotong-royong* Cabinet (mutual assistance Cabinet) [see Wikipedia about *gotong-royong* and mutual assistance cabinet].
In modern time, related to economic factors, where urban development is accelerated by rapid economic growth, *gotong-royong* for the sake of togetherness is often misused through individual goals where relationships is based on for example business interests instead of on emotional bonds. The meaning of *gotong-royong* has been twisted and does not survive well with human being's effort to pursue comfort and the continuation of personal life, since solidarity, fraternity, and the spirit of camaraderie surrender and is shifted by materials (see Hikam 2010 and Wijaya 2011). Several foreign institutions have used this word for a competition with a topic '*gotong-royong* city' that the spirit of *gotong-royong* is interpreted into physical urban and architectural design (e-architect 2009).
Moreover, the term *gotong-royong* was often used for humanitarian activities by international institutions (NGOs) in providing relieve after disasters, such as tsunami, in rebuilding infrastructure although the proper application in the project is doubtful and if it was, *gotong-royong* was more a slogan to accelerate realisation of the projects on location. Some examples of recovery project after Tsunami in Aceh in 2004 or in Yogyakarta 2006 see Hendra 2005 and Grootenhuis 2007.

Function of traditional collective activity between community and society in Indonesia

Collective activity seems to be implemented rather on the level of community instead of society.

[5] The New Order is the term coined by the Indonesian governance system during 1966 and 1998. Since 1998 until today Indonesia is in the era called Reformation era.

Different to the West, in Indonesia where it is less individualistic, neighbourhood is categorised as 'community' instead of 'society'. Without starting to build relationship with adjacent neighbours, if someone comes and lives in a settlement, s/he is already part of the community of the neighbourhood and 'committed' to participate in *gotong-royong*. The sense of community is stronger than of society and is inherent in Indonesians since generations. The feeling of bonding, togetherness, solidarity, equality and similarities in common has existed already. Yet, inside (family and) community where a regular relationship is taking place, consensus, moral behaviour, etiquettes and mutual obligation help (obligation to help and expect to be helped) is more upheld, that if it is violated, s/he will face rather moral sanctions from the neighbourhood than formal consequences. Here *gotong-royong* can take place. On the other hand the Indonesians pay less attention to the meaning of society with written rules and generality, such as traffic regulations or queuing up (Sekarani 2009 and Mayra 2010).
Nonetheless, the functioning and effectiveness of realisation of *gotong-royong* are also influenced by household variables, the distribution of benefits across social and economic groups, and the quality of community leadership, as remarked by Bowen (1986) and Warren (1993) (see Okten and Osili (no date), Abdillah 2011, Rao 2005, and Wikipedia about *Pancasila* 2012).

Hierarchy both in community and the government

It does not matter whether collective activity is accomplished in which level of society, since due to paternal social behaviour, the Indonesian society is dependent on hierarchy between power holders and non power holders. Thus, according to Wirawan and Irawanto (2007), *gotong-royong* has to do with the obligations of the individual toward the community, the propriety of power, and the relation of state authority to traditional social structures.
Hence, from its position both in the community and the society, we can observe that the traditional collective activity on the one hand is a pure mutual-help inherited from the Indonesian culture and originated spontaneously from community itself without interferences, such as people come and help during an event of death in neighbourhood based on own initiatives and solidarity. On the other hand it can be controlled by top-down authoritarian rule or a political interest, for example during annual Independence Day celebration where residents in every neighbourhood are required to clean the environment. This is a decision from a head of urban community unit (RW) as the authority in the lower level of the administration structure in Indonesia, which is in turn it is an order from the authority in the higher level.
That top-down authority takes place since the New Order era. In order to maintain the political and cultural unity of the Indonesian state which has ethnic and religious diversities, the spirit of *gotong-royong* was forced by strongly centralised authoritarian. It was propagated as a collective action which was obligatory to mobilise from head of village in rural areas or head of urban community unit. In the 1970s self-help and mobilising *gotong-royong* were central parts to the implementation of development policy through a uniform system of community organisations, such as a neighbourhood security arrangement (*siskamling*), an irrigation association (*subak*) and neighbourhood health posts (*posyandu*). There was no choice except to participate, otherwise s/he could easily be labeled unpatriotic or uncooperative and consequently face social, political, material, and even physical sanctions (Rao 2005).
In the Reformation era (1998 to present) the authoritarian power has become less centralised and instead more decentralised to the local authority in order to accelerate a project. Local officials are elected by regional committees and observed by watchdogs (kind of ombudsman) drawn from local journalists and NGO workers. Nevertheless, the communication between the government and community should not be

merely instructive, neither merely consultative, nor merely informative, because these can only create force upon community and token obedience to authority. Environmental communication in community participation should not be accomplished by extremely bottom-up approach, since sign of commitment for the community is not clear (Flor 2001, Arnstein 1969, and compare to Winkelmann 2000).

Sustainable gotong-royong

Taking an example of the *kampung* renovation in Surabaya, it is questionable that after the renovation project terminated, whether collective activity in the urban *kampung* would be still ongoing and respectively be maintained sustainable, since the community has achieved its mutual purpose to keep living there and to renovate their houses. Besides, the land value of renovated and legalised settlement may increase and becomes attractive for private sectors to change the land use, or many houses might be rented or sold which causes many new residents that could decrease the feeling of togetherness and further might possibly disintegrate the *gotong-royong* spirit (see Plewes and Stuart 2007).

Another obstacle to sustain the function of collective activity if there is disintegration in the internal affairs of community organisation. It can occur either through failure factors like economic and political issues, such as corruption for personal use (Hendra 2005), political purposes for the credit of individual or certain party, 'money economics' and area expansion for making profit, lack of economic skills and understanding, or income/wealth gap among community members impacting difficulty to mingle and do things together (Larasati 2007). Other factors in social aspects could also restrain success of *gotong-royong*, such as lack of maintenance in the development of a *gotong-royong* organization structure without updating in current situation, degradation of the kinship principle through influence of individual lifestyle and lacking a sense of belonging to collective facilities, and pressure from huge number of group members that cause ineffective efforts.

From these points it can be summarised that as far as the collective activity is not just a slogan and is implemented in the community level, it can be formulated as an alternative to deal with the informal city. Yet, a strong centralised authoritarian approach can impede this ongoing collective mutual help. Changes appear for example after the renovation project is completed and the problems occur in the community organisation, can affect sustainability in implementing the traditional collective activity.

Conclusion

We can distinguish between collective activity in informal and formal conditions. The traditional way of *gotong-royong* about solidarity, voluntary, togetherness, and harmony occurs mostly in **informal** and spontaneous situation inside community itself. Spontaneous *gotong-royong* functions naturally which mean it is not a cash-for-work duty although the expectation to be helped later is culturally distinctive.

Yet, in a formal condition where community is organised to achieve a certain goal and the community needs to collaborate with other parties, thus partnership between community and the government, ex. renovation instead of relocation project, the traditional sense of *gotong-royong* is modified. It means, *gotong-royong* can be no more voluntary and harmonic anymore, but it is executed through negotiation, to pressure government to convince them about equally benefited for both sides, and causes psychological stress.

Related to collective activity in informal situation, in urban area it is more represented by the community low social class. Since the poor have no much choice to obtain their basic needs (i.e. formal housing) unless they join together as a collective unit. *Gotong-royong* among the poor (mostly as worker class and in informal sectors) is stronger in contrast of the situation of the other social classes because as individual

s/he cannot fulfil her/his own basic needs rather as communal. If the poor could improve themselves in a better life, collective activity may decline because togetherness among them is not a requirement anymore. Yet, the fact is, urban poverty will keep continuing as long as city develops and the city has a role as a pull factor for migrants including the poor. For them, due to collectiveness, collective activity is anchored in their life.

Nevertheless, g*otong-royong* is able to exist inside high-middle social class and in the urban society level if there is a necessity to reach a mutual purpose and they have no alternative except doing something together. Continuity of *gotong-royong* is unnecessary once the requirement is fulfilled. For example during riots, because of economic crisis in 1998, suddenly all social level did neighbourhood security arrangement because they have a same purpose to protect themselves from the riots, while hired securities were not able to protect them. Today in the normal and peaceful situation the rich in housing estate areas can run their business individually as usual without depending on collective activity.

Can collective activity be an instrument to tame the city in relation to poverty reduction through creating 'an appropriate urban *kampung*? The collective activity is not a recipe for reducing poverty. If we look back to the case of the riverside *kampung* settlement, maybe the community does not come out completely and directly from poverty, but today they can live without worrying to be evicted or relocated, so that they can work and live properly, and keep maintaining their social life. So, the positive impact of collective activity is beyond the poor themselves. Since they can live properly and have sufficient basic needs, it creates stability and benefits all urban dwellers.

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The Mischievous City. The Kolkota Poor and the Outsmarting of Neoliberal Urbanisation

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It is hardly difficult these days to come across academic research done and papers written on the victimisation and marginalisation of the urban poor due to the processes of neoliberal urbanisation. It is, however, in the very nature of things, that tales of defeat do not inspire one to victory and narratives of powerlessness hardly ever empower. The present paper however has a different story to tell. It is a narrative of creative mischief – a narrative of the outsmarting and out-manoeuvring of neoliberal urbanisation at the hands of Kolkata's urban under-dogs. The two cases presented in the paper show two, apparently contradictory but intrinsically inter-related, faces of neoliberal urbanisation. In one case, the urban poor were embraced and in the other the residents of an informal settlement were booted out of their homes. In both the cases, the people resisted, evaded, rejected and ridiculed the projects in their own curiously creative ways.

Keywords: Neoliberal urbanisation, Taming, Informal settlements

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A Few Words on Theory

This is a story of two slums, its people and how they tackled and outsmarted two large-scale urban development projects. Unfortunately, this is also an academic paper. Therefore, before we get down to the story certain theoretical matters would have to be dealt with first. In the case of the present paper, these would be the theories surrounding neoliberal urbanisation, a phenomenon which has arguably caused the maximum misery to the urban poor of both the developed and developing nations in the recent years. However, while discussing theory it is always worthwhile to remember Oscar Wilde's words that "nothing that is worth knowing can be taught." Over the last decade a voluminous literature has come to exist on the themes of neoliberalism and neoliberal urbanisation. Much is known about what these particular species of capitalism are, but hardly anything is known about what to do about them. It is a bit like trying to understand the nature of a man-eating tiger roaming freely through the streets of a city, when the primary task should be to try to put it in a cage. There shall be plenty of time to study it then. The people of the slums discussed in this paper seemed to have tackled the tiger better than most academic scholars would be able to, and it is needless to mention, that none of them did it after a serious reading of the books and articles of Harvey, Brenner, Theodore, Swyngdeouw or Baeten. They don't know what the "N" word is or what it means. After digging through the literature it does make one wonder and question - are we reading the right books at all? David Harvey stresses this very point right at the beginning of his new book *Rebel Cities*.

> "We academics are quite expert at reconstructing the genealogy of ideas. So we can take Lefebre's writings...and excavate a bit of Heidegger here, Nietzche there, Fourier somewhere else...But what we academics so often forget is the role played by the sensibility that arises out of the streets around us, the inevitable feelings of loss provoked by the demolitions, what happens when whole quarters (like Les Halles) get re-engineered or *grand ensembles* erupt seemingly out of nowhere" (Harvey, 2012: X-XI).

Personally, for me, the 'sensibility that arises out of the streets around us' has been a far more effective one than the wisdom I mistakenly believed to have acquired by reading the books. It is of course an unfortunate fate of themes on which the writing never stops that after a while the books start talking to books and the scholars start talking to scholars and the people go farther and farther away from this largely ineffective intellectual acrobatics of the neo-Brahmins. I felt that the existing literature on neoliberal urbanisation and the planning responses to it, suffer from two limitations. Firstly, they largely dealt with cases from North America and West Europe, that is, from cities of the developed countries where neoliberalism meant a departure from the welfare oriented policies of post-war Keynesianism. That post-war Keynesianism was itself part of a larger political project of keeping radical socialist tendencies at bay at a time when the Soviet Union was a reality, that it was intrinsically linked to the politics of the cold-war and disruptive intervention in the affairs of third world countries, that it was essentially a way of keeping capitalism alive and vibrant through troubled times and that neoliberalism could arise due to these very contradictions that were inherent in it, is generally left out of the literature. This whole understanding of neoliberalism that one finds in the writings of Brenner, Theodore, Peck, Tickell, Swyngdouw and even Harvey, is a very developed-country affair. The crisis that comes in the form of neoliberalism follows a period of development and prosperity during which the economic and political position of the working classes was strong. In most third world countries, the working classes can look back to no such period of well-being which is being snatched away from them. Here it is a story of replacing one kind of misery with another kind of misery; replacing the apathy and stagnation of a bureaucratic government with the energetic greed and efficient exploitation of the capitalist.

It is true that the characteristics of neoliberal urbanisation mentioned in the literature – 'closed architectural competitions, compliance in the local press, a focus on the very construction of the project as a main motivation, the virtual absence of social matters, and the virtual absence of debate, dispute or disagreement altogether' (Baeten 2012: 21) are all very familiar things even in an Indian context, but they were a reality, and perhaps a stronger reality, even before the advent of neoliberalism in the early 1990s. Rather, in some ways it can be said that the eagerness to attract investment to the cities and making them globally competitive often make the authorities consider the plight of the poor in ways that are far more energetic than before. Of course, the energy may translate into brutal evictions, but with a reasonable check kept by civil society and activists, it often translates into a slum up-gradation project. The situation here is therefore more complex. Neoliberalism throws tempting crumbs at the poor while constructing an over-arching geographical, political and economic system which is unequivocally in service of capital. This is a situation in which the poor themselves speak up and defend the rich and the lowers hail the uppers in the hope that more will trickle down. During an interview with Shyamal Chakrabarty, one of most senior and respected members of the Communist Party of India (Marxist) and the Centre of Indian trade Unions (CITU), a national level trade union allied to the socialist parties, the veteran Marxist lamented that in the present times the workers themselves opt for temporary contract jobs in private firms rather than permanent ones, with benefits, in a sick ailing government industrial units. (Interview with Shyamal Chakrabarty, August 2010). In such a situation, an organised political assault on the forces of neoliberalism might be resisted and opposed by those who are supposed to be the victims of it.

The other limitation of the existing literature on neoliberalism is that they are largely end up being narratives of woe where the forces of neoliberalism always get the better of the forces of the people. Following the triumph of capital, the scholars use very correct and very complex terminology and language to explain the process in detail. The irony is that a very correct and comprehensive description of despair generally compounds it. Moreover, the complex academic language alienates the analysis from the ordinary people, the activists and the political leaders who are usually the main forces to issue a credible challenge to neoliberalism. The scholars can't wage this battle alone, but they seem happy enough to be heard, understood and published by each other.

In such a situation, opening ones ears and eyes to the streets and acquiring the sensibility that arises from that seems to be a crucial task. This paper is a modest attempt in that very direction.

The Story of Two Settlements

Based on ownership rights, the settlements of the urban poor in Kolkata fall within two broad categories – the regularised slums which have security of tenure and the informal slums which do not have any security of tenure. The informal settlements in the city are in a far worse state than the regularised slums, which have benefitted from slum up-gradation projects. The former, on the other hand, are deprived of the most basic physical and social amenities. Moreover, they are often located along crucial infrastructure corridors such as arterial roads, railway lines and urban waterways. Any attempts to up-grade these infrastructure corridors have to tackle the problem of the informal settlements too.

In the case of third world cities in general and Kolkata in particular the forces of neoliberal urbanisation first have to deal with the problems of urban poverty and shabby infrastructure before the commodification of the city can be undertaken. However, the attempts to address these problems assumed a very contradictory nature in Kolkata as the planning authorities took two totally different approaches viz-a-viz the two kinds of settlements – participatory slum up-gradation in the case of the regularised slums, and swift eviction in the case of the informal settlements.

One of the settlements presented in this paper is a regularised slum called Pyarabagan which was targeted under a USD 400 million, Asia Development Bank funded project called the Kolkata Environment Improvement Project (KEIP) to undertake, among other things, a comprehensive physical improvement of one hundred and forty-one regularised slums in the city from 2003 to 2010. The other one is actually a cluster of informal settlements located along a prominent urban waterway system called the North Canal System, which was targeted for dredging and beautification by the government in the year 1998.

Pyarabagan and the KEIP

Pyarabagan slum is located adjacent to the prosperous Ballygunge neighbourhood in ward number 69 in southern Kolkata. It is inhabited by approximately 750 families and is spread over an area of approximately one hectare. The up-gradation project in the slum focussed on physical aspects such as creation and repair of community water supply and sanitation systems, paving and lighting of streets and a social aspect which focussed on creating women's self-help groups in the slum (www.keip.in). A stakeholder consultation process preceeded the commencement of physical up-gradation to ensure that the process remained a participatory one and the views and opinions of the residents were fully taken into account. This crucial component of the project was entrusted to a local non-governmental organisation (NGO). The NGO in its turn resorted to a range of participatory activities to involve the residents of the slum in the project right from the start (interview with NGO field-workers, June, 2004). They undertook baseline surveys, interviews, group discussions, community resource mapping exercises, pasted posters and organised street-theatre shows on environmental awareness and organised meetings for young women in the slum urging them to form self-help groups. Despite, all their efforts, the NGO workers hardly seemed satisfied with their work when I interviewed them about it. According to them, it was impossible to win the trust of the slum residents no matter what they did. The more they tried to inculcate a spirit of project ownership and participation, the more the people seemed to be interested only in petty and selfish concerns.

"The slum residents are not so ignorant about development projects. Often, the community refused to cooperate with us unless some tangible development was undertaken in the slum. For example, the residents would ask us to repair a toilet which is in sound condition just because they have found out that toilets are being repaired in another part of the slum. Sometimes, they would damage the toilets themselves and then ask for it to be repaired" (Interview with NGO workers, June, 2004).

Indeed, even in my visits to the slum, despite the otherwise vibrant nature of the settlement, I did not sense any marked enthusiasm about the up-gradation project. A resident of the slum Narayan Jana threw some light on the matter.

"Have the people spent their own money that they would feel a great sense of ownership regarding this project? All this was done with the Government's money. Everything came from outside and the people got the benefits of the project. Obviously, you would get only that much participation as is natural under such circumstances!" (Interview with Narayan Jana, June, 2004).

According to another resident Lokhhi, "They took all our views and opinions and then did exactly as they felt like!" (Interview with Lokhhi, June, 2004).

Somehow, the people sensed that there was more happening behind the scenes in this project than was being shared by the NGO in all its participatory openness. And indeed, there was a whole lot that was screened from the community, but it was totally outside the power of the NGO to take that story to the people. The NGO workers had reasons to be disillusioned after all the hard work they had put in. However, the crucial point that seemed to escape them was that the very design of the project and the

priorities of the funding agencies seemed to betray a lack of interest in genuine participation. The amount of money allotted to the slum improvement component, the number of slums to be targeted for upgrading across the city, the amount of time to be spent on participatory activities and even the type of physical upgrading to be undertaken in each slum were all more or less fixed from before. Some amount of standardisation of process and intervention is expected in a project of this scale which has a city wide scope, but one wonders how any participatory stakeholder consultation process, under such circumstances, can avoid being anything but cosmetic. If, in such a situation, the slum residents expressed a quick disinterest in the intangible processes of the project and demanded tangible deliverables, then it can be said that they appraised the true nature of the project rather correctly.

I could witness the mismatch between the intention and the outcome of the participatory process first hand when I attended one of the meetings of the self-help groups. The NGO workers tried very hard to convince the women present about the benefits of pooling in their savings, receiving some vocational training and setting up their independent businesses. In all these tasks the NGO would give any guidance necessary. However, they were also disturbed that most of the women did not attend the meetings regularly. When they shared this concern, it became clear that most of the young women already had jobs inside or outside the slum. Meeta Mandol, one of the most vocal participants of the meeting spoke up.

"How can we come for every meeting? Don't we have work to do? I myself take several tuitions in the slum! It's a good job and I like it. The women of the neighbourhood are already employed! Every one is doing some job or another to earn some extra income for the family. They are already so busy. If you want to take their time then it has to be for something that they really need" (First meeting of Self-Help Group Maitri, July, 2004).

This response made it clear that while the NGO was under the illusion that they were 'helping' the community, it was actually the community that was being considerate and helping the former in their work by giving them time out of their busy schedule. They simply did not need any help.

They had understood very clearly, that the city at large needed the slums to be clean and hygienic to prove to the whole world that Kolkata was a clean place to be in. Lokhhi told me in one of the interviews how foreigners were brought to the slum in teams after the up-gradation project was over.

"They (the NGO workers and engineers) never shared any information with us, never gave us any reports or any maps, which we ourselves prepared. But when the project was over, foreigners started coming along with the project officials to see what had been done. Finally one South African delegation came. The slum residents were amazed. Earlier they thought all rich foreigners were white. Now even the black people were coming! Ha ha!".

Truly, the slum residents wanted the physical improvement of their slum, as anyone would under the circumstances. But even when it came to that aspect of the project they did not seem particularly desperate. According to Madhob Moira, one of the oldest residents of the slum: "The condition of the slum was alright even before the project. Yes, the work done has been good. They came and they did it. We had our own work to do" (Interview with Madhob Moira, June: 2004).

One of the wisest ways in which the people cooperated with the project had nothing to do with the visually appealing activities of cosmetic participation. A few young girls in the slum explained that to me:

"We knew that some development work was going on and most probably it would benefit us. We participated by not complaining about the inconveniences caused to us when the workers were digging the streets, laying the pipes and paving the streets. If one street was being worked on we started using other streets even if we had to walk more. We cooperated with the process and tried to make it smooth and quick" (Discussion with Meeta, Shefali, Reeta and Shona, July: 2004).

Interestingly, in a rare case of co-incidental justice, the people ended up treating the state exactly as the state was treating the people – as a way of getting the main job done. The state needed the slums cleaned up for attracting capital into the city, and the slums needed some physical benefits on the site to improve their living conditions a bit and get on with their lives.
However, the condition of the informal settlements was a totally different one. These were the ones that needed physical and social up-gradation the most, and yet, by virtue of being informal, and therefore illegal, the state had no qualms about showing them very clearly what the whole big picture was about.

The North Canal Reclamation project

The second story of this paper is of a cluster of informal settlements lying along the banks of a prominent urban waterway system called the North Canal System. The strategy to revive the canal system consisted of two main parts. The first part consisted of dredging the canals and the second part consisted of initiating various post-dredging services and development projects, such as operating a ferry service on the canals, improving and widening the roads along the canals, developing recreational and commercial uses along the canal banks and around the proposed ferry terminals etc. In 1998, the state transport department, appointed ICICI-Winfra (IWIN) a joint venture company, to prepare a feasibility report for the canal reclamation project. In the month of September IWIN approached British Waterways for assistance regarding the preparation of the feasibility report (www.icici-winfra.com). The report prepared by IWIN and British Waterways was submitted to the Chief Minister of West Bengal in 2000. It covered all the technical, market and financial feasibility aspects and expressed the view that the canal project was both technically feasible and financially viable. The report estimated a project cost of USD 12 million approximately. It is important to note that the feasibility study excluded the cost of evicting and resettling the informal residents from the canal banks (Dutta 2001, www.icici-winfra.com).
The eviction of informal settlers from the canal banks and the dredging of the canals was to be undertaken by the Irrigation and Waterways department of the Government of West Bengal in cooperation with various local governments through which the canal system passes. Following the clearing of the canal banks and the dredging, a private developer was be appointed for implementing the second phase of the project on a 30 years build-operate-transfer basis (www.icici-winfra.com).
Despite all the planning, practically no implementation happened on the ground for the next two years. The political and human costs of evicting the informal residents continued to haunt the implementation process. In 2002 and 2003 massive eviction drives were undertaken in various stretches of the canal system. Four contingents of the anti-riot Rapid Action Force and scores of normal police personnel were present to keep the bull-dozers from harm during the 2002 evictions (The Telegraph, 11 Dec 2002 and 29 July 2003). Yet when I visited the sites in 2004 and then again in 2005 I still saw substantial number of hutments still standing. The informal settlers knew that in their case no mercy would be shown. They were not familiar with the human side of development projects which strives to ease the blows of change with various kinds of participatory techniques.
The residents of the informal settlements outlasted these eviction drives using a range of techniques which operated at such a local level that the project authorities could not spot them on their radar. The residents of one settlement of about two hundred hutments, had made a working arrangement with one of the local youth clubs, which in turn was allied to the ruling Left Front. For a small fee paid to the club, which in turn ended up in the party coffers, the residents ensured that their settlement would not be demolished. One resident Meena Ghosh described the arrangement.

"To tell you the truth, all the residents have to pay a onetime fee to the Shiv-Kali club. When I first came here four years back, I had to pay Rs 3000. Now it must have gone up to Rs 5000 or 6000. The club works for the Left Front. We are all very active during elections" (Interview with Meena Ghosh, July 2005).

She also described the advantages and dis-advantages of living in an informal settlement:

"It is a hard life without any civic amenities. But we don't have to pay any rent. Moreover, most of the people in the slum are involved with garbage collection and sorting. How can they possibly do that in a decent neighbourhood? Do you think we could carry on with our work if we lived in a formal neighbourhood?" (Interview with Meena Ghosh, July 2005).

Most of the settlements also got into informal arrangements with local municipal councillors and even the local police who were sympathetic towards them. The informal residents knew well, that none of the middle-class neighbourhoods near their settlements would survive a week without the crucial services they provided. One informal resident told me how she was saved from eviction by the middle-class household where she works as a maid.

"The gentleman who employs me works for the government himself. He used his contacts to ensure that our huts don't get demolished" (Interview with Lathika Sarkar, July 2005).

Another resident called Azad told me of his arrangement with the local police station.

"The police never bother me at all. I have a monthly arrangement with them. I give them Rs 50 or 60 every month and that settles it. When the project teams came and started dredging the canal, my family moved a bit further away for some time. After they were gone we returned and set up our huts again" (Interview with Azad, July 2005).

However, in the case of this project the top down nature of the process meant that the authorities could not even make use of the negative side participatory techniques in terms of knowing what the people were clandestinely doing to avoid eviction. The heavy handed approach made the project authorities assume that once the eviction drives had been completed the canal dredging would happen smoothly. It did happen smoothly, but in a very different sense.

There were many bamboo bridges constructed by the informal settlements at different points on the canal so that people could cross over and go to the other side. It was assumed that before the dredging happened, these bridges were demolished. However, only the local residents knew that many of the bridges in prominent locations were never demolished because the people put up a stiff resistance. Even the local councillors of the Left Front supported the people against their own government. The result was that the dredging was done incompletely but it was never reported to the higher authorities. All this resulted in a rather embarrassing situation on the day of the inauguration of the ferry service on the canal.

On 8 August 2006, two launches carrying important political leaders, governmental officials and other dignitaries set off from one end of the canal system but got stuck before reaching even half way down. One journalist described the debacle in the following words:

"The VIPs made quite a picture, clutching on to their clothes and hopping to the ground from the wooden plank with great relief. Hundreds of spectators from the shanties, including many children, cheered and clapped" (The Telegraph, Kolkata, 9 August 2006).

Finally, a project official confessed to the media that "the launches got stuck due to low depth. The excavation work was not carried out properly" (ibid).

The plans to run a ferry service on the canal and undertake the beautification and commercialisation of the banks were abandoned and remain so till the present times.

The Sensibility of the Streets

The above two cases illustrate how the people of the two settlements refused to be fooled and overwhelmed by the two contrasting but intrinsically linked faces of neoliberal urbanisation in Kolkata. Be it the face of benevolence or brutality, the people, in their own way, saw through the overall design of the projects, and decided to get the best of them. In the case of Pyarabagan, the slum dwellers frustrated the efforts of the agents of participation; got whatever physical benefits they could get from the project and then got on with their lives. In the second case, the people knew that hardly any benefits would accrue to them from the project and the primary aim was to survive the eviction drives using any means possible. It also got revealed at the end that the very tactics used by these poor informal residents not only protected them from eviction but also dealt such a blow to the project itself that it got suspended altogether and gave the settlements a new lease of life. Just as the slime mould in the introductory chapter of Nabeel Hamdi's book *Small Change,* 'solved the problem of the maze and found the food' without the aid of any 'power elite' or 'single brain' (Hamdi, 2004), the residents of the settlements described in these two cases solved their own mazes. The planners and decision makers were, in both cases, puzzled and frustrated, as their roses and their batons were equally shunned. But rather than any grand 'emergence', to use Hamdi's term, happening at the end of it all, the people just got on with their lives – as normal, sensible, regular people would.

In both the cases, the upsetting of the designs of neoliberal urbanisation was not done through a thorough understanding and investigation of the phenomenon itself, which may have overwhelmed the people more than the projects themselves could, but by the sheer will to survive and to keep their aspirations alive. The task of academic researchers and scholars in such a situation is not to sit within the safe confines of the academia and re-invent the complex language of theoretical correctness but to ally themselves directly with these processes and create the new theory by both learning from and giving guidance to the sensibility of the streets.

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Rational Utopias/ Irrational Dystopias? Sites and Services in Eastlands, Nairobi

Bruce Githua[1]

The history of public housing provision in Nairobi is synonymous with the history of urban development in Nairobi's Eastlands. The mid 1920s saw the start of an exceptional six decade period during which a series of large scale public housing projects, including Nairobi's sites and services, were constructed in the east of the city. Sites and services attempted to master the city by determining the terms of incorporation into the city for the disenfranchised urban dweller, with the attainment of 'urban order' as the ultimate utopian goal. They represent a singular convergence between pragmatism and idealism in that they engage with the contextual realities of need and yet impose an ideology of what the city should be. Today, these projects have been extensively transformed from their original plans. By using the notions of 'Framing' and 'Reframing' to analyse the planning and transformation of three former sites and services in Eastlands, the paper reflects upon the role of 'the state apparatus' in intervening in a context where 'informality' is the mode of producing urban space.

Keywords: Sites and Services, Nairobi, Eastlands, Urbanism, Reframing

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Introduction

With respect to the provision of housing and infrastructure, the occupation of Nairobi's Eastlands[2] from the city's inception at the end of the 19th century to date may be conceptualised in three phases. Prior 1920, there was no official attempt to provide housing for locals[3] in Nairobi. However, from the mid 1920s and intensifying in 1940, more attention was paid to the 'African housing problem' and many public housing projects were built in Eastlands. This continued after independence in 1963 to the mid 1980s when the big projects all but stopped. The first and the last phase are here termed 'the private construction of Eastlands' and are defined by the virtual absence of welfare driven intervention in the construction of housing east of the central business district (CBD). In between these two periods an exceptional six decade period occurred during which a series of large scale housing projects were constructed in Eastlands mainly by the government or the council responsible for Nairobi.

This city making project had a colossal ambition: to determine the terms of incorporation into the city for the disenfranchised urban dweller by leveraging control over housing and infrastructure. The establishment of 'urban order' was its ultimate utopian goal (Myers 2003). This quest to rationalise the city partially employed the notion of 'aided self help', the quintessential example of which was the sites and service project. Each of the three sites and services projects discussed here represents a singular attempt at mastering or establishing control over the city under specific geopolitical circumstances. All three are underpinned by a similar extractive capitalistic imperative: the need to stabilise the supply of urban labour.

The Quest for Urban Order: Aided Self Help

The link between housing and the stabilisation of the urban labour force has often been made: 'In many contexts during the late colonial period the promotion of housing for African urban residents was intended, both by improving conditions and promoting 'self-help' and homeownership, to secure social stability and order and strengthen an emerging urban middle class in the face of unrest and political mobilisation' (Gruffydd-Jones 2012: 30 after Rakodi 1995). Elaborating the evolution of housing policy in Kenya, Richard Stren confirms that unrest among urban workers played no small part in the advancement of housing conditions for locals in colonial Nairobi and Mombasa (Stren 1970).

From 1939 onwards, self-help increasingly became the method of choice in housing urban workers, gaining greater influence in the early 1970s when the World Bank began actively supporting urban housing in 'developing countries'(Harris 1970: 165-166). To overcome 'the unplanned and uncontrolled growth of slum and squatter communities', the World Bank threw its weight behind 'site and services' and 'squatter upgrading' projects (Laquian 1977: 291-292). According to Robert Ayres however, the Bank made no pretence of attempting to solve the housing problem; rather its housing related goals were designed to fit within its overall goal of 'modernising the international economy in its capitalist variant for the sake of its long term preservation' (Ayers 1983: 11 quoted in vad der Linden 1986: 19). With respect to housing, these overall goals may be broken down into three as follows: one, to counter the political threat posed by massive urban poverty (McNamara 1975: 20 quoted in vad der Linden 1986: 26); two, the use of housing as a tool of macroeconomic development by increasing the productivity of the poor and three, to enhance

[2] During the colonial period, Nairobi was primarily occupied by people of African, European or Asian origin. Eastlands was almost exclusively occupied by 'natives'; that is people whose origin was neither European nor Asian. Eastleigh which from the 1930s was occupied by the 'poorer Asians' was an exception to the rule (Nevanlinna 1996: 175). In the post-colonial period, Eastlands has been the reserve of low-income housing (see Huchzermeyer 2011).

[3] The term 'locals' is henceforth substituted for the term 'natives' throughout the paper.

the development of economical housing patterns as orderly, more efficient alternatives to squatter invasions' (TUE 1982: 4 quoted in vad der Linden 1986: 26).

The Quest for Urban Order: The Segmenting Plan

This quest for 'urban order' embodied in colonial and post-colonial urban policies is spatialised in *Verandahs of Power*, Garth Myers' reflection on colonial urbanism in Africa. Myers builds upon Timothy Mitchell's '"enframing" as a means of articulating how British colonialism and then its inheritor states worked on the physical form of cities to reshape societies' (Myers 2003: xii). For Mitchell, 'enframing is a method of dividing up and containing, as in the construction of barracks or the rebuilding of villages, which begins by conjuring up a neutral surface...called space' (Mitchell 1988: 44). Mitchell identifies three strategies of enframing space. The first is transforming African 'orders without frameworks' in settlement design to an order reducible to a segmented plan. Second is creating a fixed distinction between inside and outside and thus extending the segmentation strategy to the micro scale. And third, abstracting and objectifying the build environment by providing a space from which the individual could observe or survey the city (Myers 2003: 8-9).

The segmenting plan[4], Myers suggests, was a means for the (colonial and post-colonial) state to achieve its three central tasks: accumulation – securing the conditions for extraction commodities, legitimation – securing stable political order over the indigenous population with their consent and domination – instilling security, order and control (see Berman 1990 and Holmes 1997). The segmenting plan was a means to normalise the elite's notions of urban culture (Myers 2003: 13). These three goals coincide with those of the World Bank described above. Myers sets this imperative by 'the state apparatus' to rationalise the city through policies and plans (Scott 1998) against the inevitable 'reframing' or the responses of the (disenfranchised) urban dweller. The result is the emergence of an urban culture that bears little resemblance to that envisioned in the 'framing' policies and plans.

The interaction between 'framing' and 'reframing' forms the background to this discussion of the three sites and services cases in Eastlands. It is used as a platform to reflect upon the role of 'the state apparatus' and specifically the planning and development control department in intervening in a context where 'informality' is the mode of producing urban space.

Eastlands: A Strategy of Containment

Nairobi is a colonial city that started life in the late 19th century as a provisioning post for imperial British enterprise in East Africa to secure the Nile's headwaters. This enterprise was to be greatly aided by the construction of a railway linking Mombasa at the coast to Lake Victoria in Uganda, which was then thought to be the source of the Nile. The urban nucleus that has grown into today's teeming metropolis of 3.2 million inhabitants[5] was initially a railway camp born of this Uganda Railway project (Owuor and Mbatia 2007: 120). Right from the beginning, as urban settlements are wont to do, the nascent settlement threatened to grow wild (King'oriah 1980: 99 – 101). In anticipation, the team of railway engineers responsible for the embryonic railway camp prepared the 'Plan of Survey at Foot of Hill and Edge of Plains' in 1898 before the railhead arrived at the site one year later.

Early descriptions of the site clue us in onto the nature of this boundary between the foot of the hill and the edge of the plain. The site was located at the junction where the flat, grass-covered Athi plains meet

[4] Myers uses the term 'segmented plan' which I understand to mean a plan that is used to divide and contain space. I find the term 'segmenting' more appropriate to express this notion and have therefore used it instead.

[5] 2009 census figures

the first rise leading up to the heights of the Aberdare Mountain range. The contrast between the two is captured in a description of the site by railway engineer of the Kenya Uganda Railway and Harbours (K.U.R&H), R. O. Preston as 'a bleak, swampy stretch of soppy landscape, windswept, devoid of human habitation of any sort, the resort of thousands of wild animals...the present Parklands area [*on the higher ground*] was one magnificent stretch of impenetrable forest...the flat land on which Nairobi itself stands did not boast one single tree'.[6] A lot of work would be needed to convert this 'bare plain three hundred and twenty seven miles away from the nearest place where even a nail could be purchased, into a busy railway centre'.[7] Work to tame both the site and the nascent settlement began in earnest.

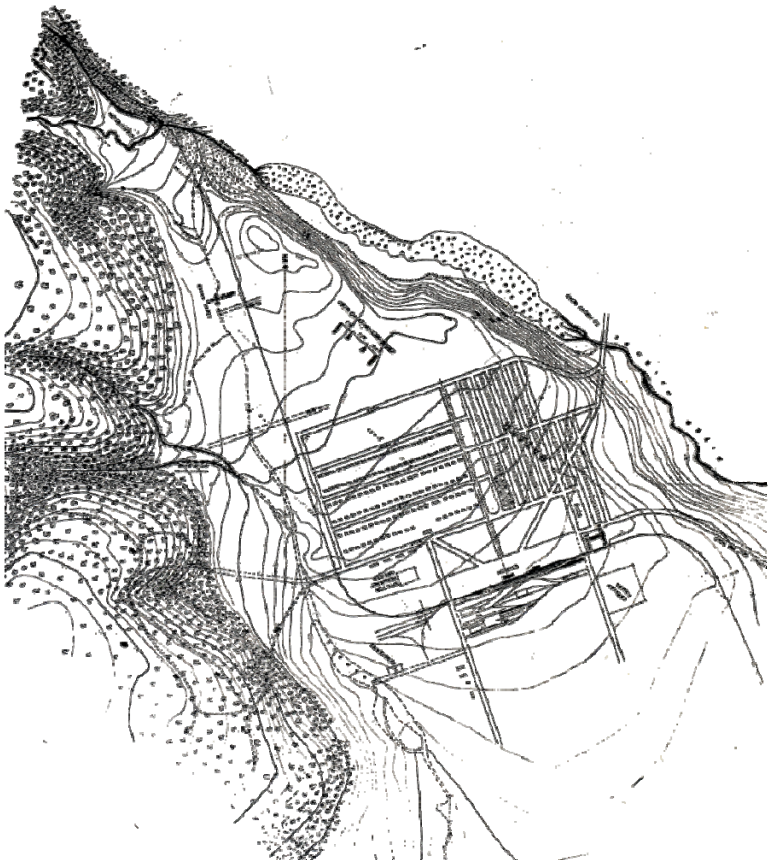

Figure 1. Plan of Survey at Foot of Hill and Edge of Plains, 1898. Emig and Ismail 1980: 13.

The 'Plan of Survey at Foot of Hill and Edge of Plains' represents one of the earliest efforts to tame site and settlement. It outlines a layout for the embryonic railway camp nestled in triangular formation between the higher ground in the west and the swampy Nairobi River running from north to east. In addition to the natural features, the plan indicates seven buildings on the high ground, a barrack-like development on the plain, a commercial area next to the river and the railway yard in the south. A second plan, the 'Uganda Railways General Plan of Nairobi' dated 1901, elaborates the features of the incipient urban nucleus. In this plan, the development on the high ground is marked as the protectorate officers'

[6] R.O. Preston (Kenya Graphic, 1922) quoted in Huxley (1968: 61)
[7] Patterson 1907 (1934 edition: 295f.) quoted in Hill 1949: 191.

quarters and railway officers' quarters on the higher ground in the west and the military officers' quarters on the higher ground in the north across the river. The barrack-like development on the flat ground in the earlier plan is described as (railway) subordinates' quarters. At the extreme east of the railway town are located the labourers' quarters. Thus, even at this early stage, the boundary between the hills and the plains appeared to take on a rather unholy significance.

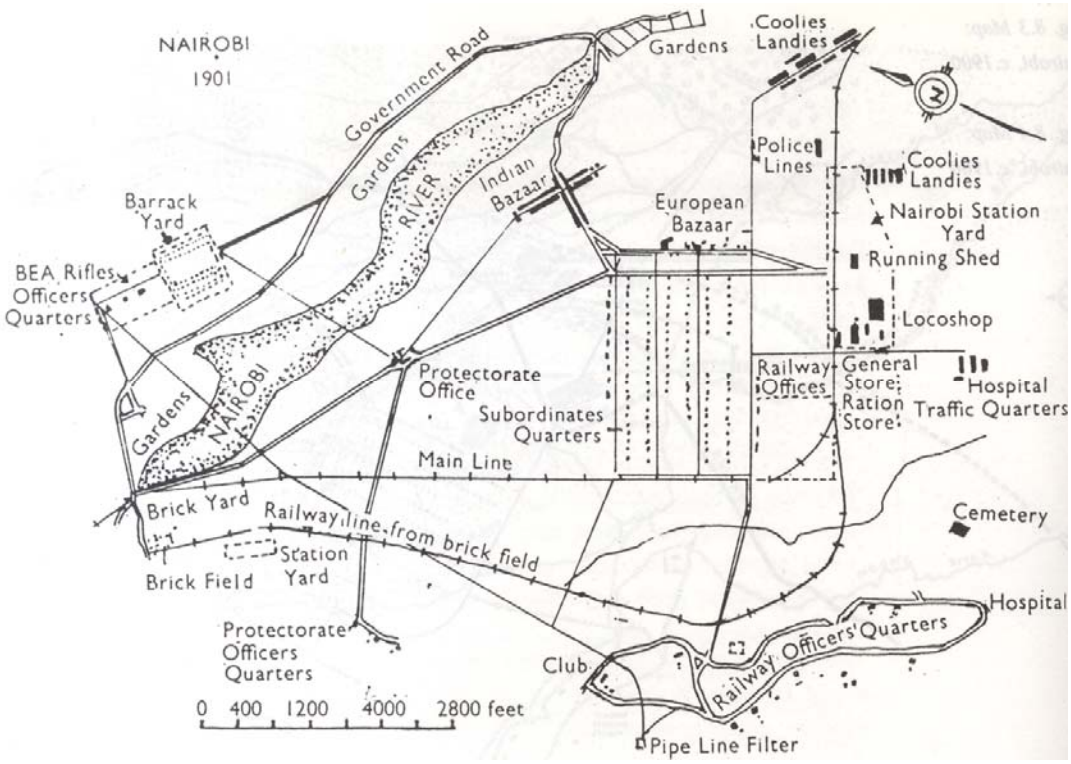

Figure 2. Uganda Railways General Plan of Nairobi, 1901. Nevanlinna 1996: 100.

Accommodating the higher socio-economic class on the higher ground quickly became an enduring pattern in Nairobi's socio-spatial structure.[8] As Nairobi approached its Golden Jubilee, a South African team was appointed to prepare a vision to guide the city's development for the next twenty five years. Among other proposals, this *Nairobi Master Plan for a Colonial Capital* classified the city's residential space into two. Extensive territories from north east to west were envisioned as 'areas for economic residential development' while the south and east were designated as 'official housing zones'. The areas for economic residential development were allocated twice as much space as the official housing zones and were to be developed at half the density; resulting in a nearly equivalent target population in both zones. The official housing zones were meant for workers' housing 'erected by the Municipality, the Government, the K.U.R&H., [*railway company*] and any similar schemes which may be erected in the future by the private enterprise of commercial and industrial firms to accommodate their own workers'. The location of these zones was 'strategic with respect to the location of the envisioned workplaces of this working class (Thornton-White et.al 1948: 64-65).

[8] That this was the plan and intention right from the very first survey of the site is captured in Sir Guildford Molesworth's inspection report of the proposed railway route and camp. See Hill 1949: 184.

Figure 3. Nairobi Master Plan for a Colonial Capital, 1948. Thornton-White et.al, 1948: 100.

In contrast, as Emig and Ismail claim, the economic residential areas 'were intended only for people who could afford to buy plots and build their own houses or those who could afford to rent houses or apartments (Emig and Ismail 1980: 40). These proposed new economic residential areas were to be an extension of and modelled upon the existing residential areas (Thornton-White et.al 1948: 64). Geographer W.T.W Morgan reports that speculation was rife in these pre-existing residential areas. 'Large tracts of land were acquired by speculators... Occasionally houses were built on these and as a result dwellings were scattered over an area of several square miles in and around the town. There was also a lack of land use control and a vehement respect for the rights of land owners' (Morgan 1967: 104). In this plan, in contrast to the largesse of provision in the economic residential areas, the workers' housing areas are isolated and contained with the intention of determining precisely how the worker would dwell.
Summarising Nairobi's socio-spatial structure a few years later, Morgan says that 'the pattern has persisted that the better residential areas are on the elevated ground, [*in the west and north*] well drained and formerly wooded and with friable red soils. Cheaper housing is confined to the extremely level plain in the eastern side with its intractable black clay soil. Here are the main municipal estates and housing provided for factory and other workers' (Morgan 1973: 315-316). This pattern survived largely unchanged into the post-colonial period and has become the enduring identity of Eastlands (Wachira 2006: 187).

'Enframing' Eastlands: Nairobi Sites and Services

The question of housing for locals in Nairobi remained undecided for the first two decades of the city's existence. For the local, legitimate presence in the urban area depended on his being employd and it was generally assumed that employers of local labour would provide accommodation for their employees. The deficiency of this approach was clearly seen in presence of a large 'floating population' of undocumented locals in Nairobi before the First World War (King'oriah 1980: 207-210).

The colonial state, keen to regulate the presence of these 'others' in the municipality, resorted to arresting and repatriating those who were 'illegally' present. The post-WWI influx of locals into Nairobi exacerbated the problem and arrests intensified. As a result, an indigenous political movement began to gather momentum resulting in greater instability in the urban labour force (Myers 2003: 39). This instability finally forced a decision and in 1920, the governor ordered the immediate occupation of a site approximately 2 km north east of the railway station (King'oriah 1980: 210).

Pumwani Sites and Services, 1922

This site, Pumwani meaning 'breathing spell' in Swahili, was both Nairobi's first 'native location' and Nairobi's first site and services scheme. A precedent was thus set. Legislation limiting local presence in Nairobi was enacted. Locals were compelled to live only in 'native locations' and directly related to this, several of their squatter camps were demolished between 1920 and 1930. Unemployed locals were repatriated to their tribal homelands; those 'who had jobs' were compelled to live in Pumwani' (ibid: 211). Myers goes on to demonstrate what is now generally accepted about cities of the global south: the use of planning and building control to combat the persistence of disorder is rarely a successful enterprise (cf. Anyamba 2008).

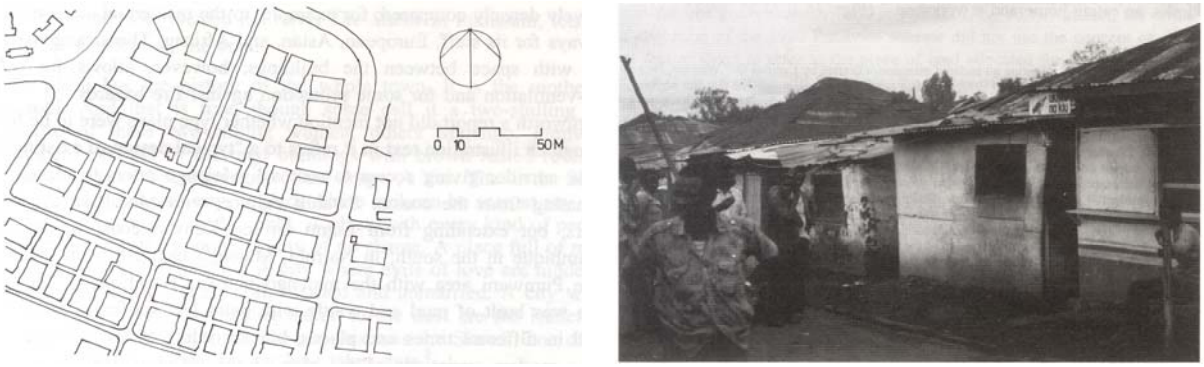

Figure 4. Self-built residential area, Pumwani partial site plan and image of dwellings. Nevanlinna, 1996: 278.

Reporting on the 'first urban attempt [in Nairobi] to explicitly make a segmented plan from an order without framework', he says '[Pumwani's location] was aimed at increasing the spatial efficiency of the [indigenous] labour force while at the same time protecting European areas from racial or health-related "contamination"'. Squatters from all over Nairobi were forcibly relocated to the Pumwani's regular, rectangular grid. The project was located across the Nairobi River marking it off from the town centre, with limited access from the urban road (ibid: 50). The new inhabitants had to build their own homes 'according to the guidelines of the newly introduced municipal building codes. In practice, few of the codes were ever followed or enforced (ibid: 51). Almost all the houses exceeded the maximum sizes [originally allowed] ensuring plot coverages of 80-90% instead of the 50% stipulated and most sub-let rooms while sub-letting was technically illegal (McVicar 1968: 108 quoted in Myers 2003: 51).

Inter-War Municipal Housing, 1928-1939

Besides Pumwani, several other developments impacted the housing of locals in Nairobi. One was the economic boom in Nairobi between 1927 and 1929 (White 1990: 73). In addition, changes in British colonial policy with respect to indigenous populations resulted in the encouragement of local labour '...as

wage earners outside the reserves' from 1922 on (Stichter 1975: 28).[9] These factors together stimulated a housing program for locals and in 1928, the Nairobi Municipality built Kariokor the first housing estate for its workers not far from Pumwani, followed a few months later by a similar one (Starehe) built by the government. Despite the economic slump of the 1930s, a third estate, Shauri Moyo, was built by the municipality and occupied in 1938 and a fourth, (Makongeni) in 1939 by the K.U.R&H. (King'oriah 1980: 212-214). All this housing for workers comprised either of dormitories or 4 – 6 person cubicles and was based on the 'bachelor bed space' concept (Hake 1977: 64). No accommodation was foreseen for female partners; rather this was housing for a (transitory) male labour force provided solely to ensure its stable supply.

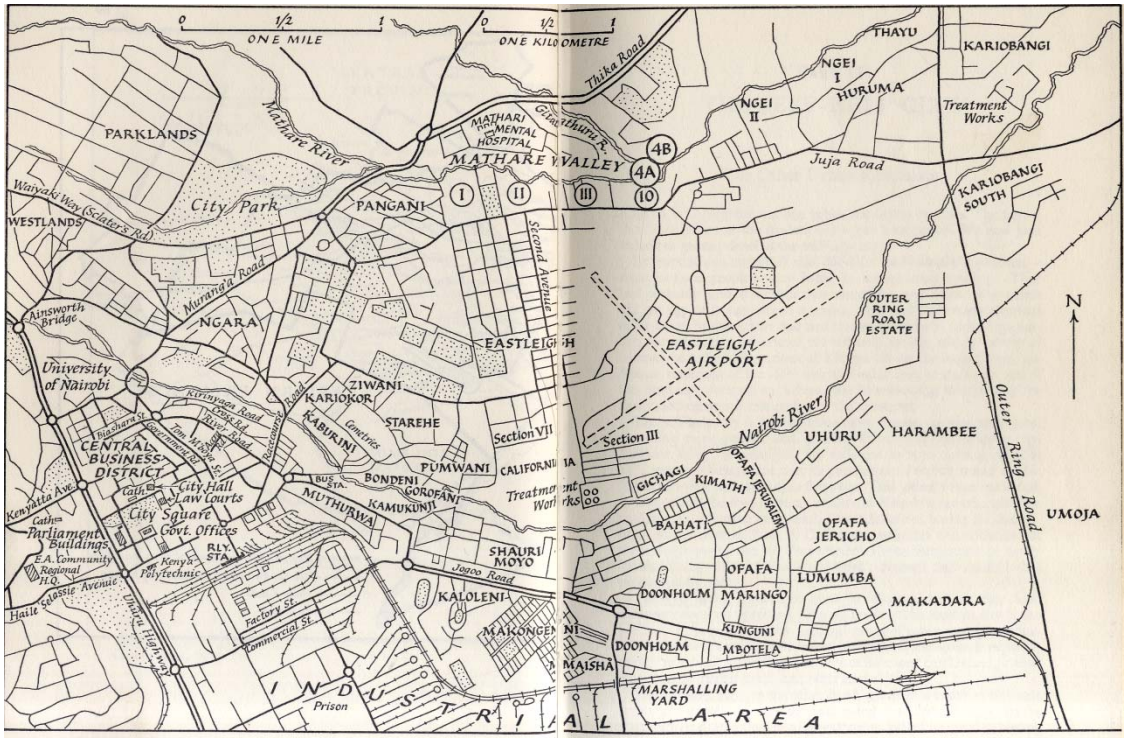

Figure 5. Eastlands in Colonial Nairobi. Hake, 1977: 90-91.

Post-War Municipal Housing, 1940-1970

From 1940 on, the geo-political upheavals resulting from the War forced more drastic changes in British imperial policy in Kenya (King'oriah 1980: 225). Once again there was an economic boom driven by the war-time demand for agricultural produce which was intensified by the shrinking of sea-borne trade (ibid: 229). The policy of keeping Kenya peripheral to British economy was partially abandoned. Instead, a policy of promoting development by encouraging primary production came into place.

[9] Debate on the future of the Kenya Colony reached high levels in the Empire resulting in among other things, the 1923 Devonshire White Paper. This paper declared 'African Paramountcy' the prevailing policy of governance in the Kenya Colony: 'Primarily, Kenya is an African territory, and His Majesty's Government think it necessary definitely to record their considered opinion that the interests of the African natives [sic] must be paramount, and that if and when, those interests and the interests of the immigrant races should conflict, the former should prevail' (H.M.S.O 1929: 37).

The Colonial Development and Welfare Act of 1940 instituted the legal mechanism for financially aiding this project. The result was a complete turnaround from the previous notion that locals had no place in the city. The ever increasing need to provide a stable population of local labourers in the city became paramount (Anderson 2002: 145). Naturally, this was reflected in Nairobi's housing policy which under the then prevailing conditions of prosperity again focussed on social provision (Hake 1977: 62). Over the next two decades, eleven housing schemes added an additional 30.000 bed spaces to Eastlands, seventy five percent of which were employer controlled (ibid: 65).

Figure 6. Workers Housing in Eastlands, Mbotela Estate, 1950s. Hake, 1977: 108.

Between 1952 and 1960, Kenya was under a state of emergency declared in an effort to suppress the indigenous resistance to colonialism. By 1954, the instability caused by this violent repression had brought an end to the economic boom (cf. Anderson 2002: 139). The apparent inevitability of indigenous self-rule kicked off a period of capital flight from the country which did not end until 1964 (King'oriah 1980: 295-296). By the time the Mau Mau War ended in 1960, Kenya was in the throes of a deep depression and by the end of formal colonialism in 1963, the housing program had ground to a halt (Hake 1977: 83). To solve the economic crisis, the new government bent over backwards to make and present Kenya as an attractive destination for private investment (King'oriah 1980: 316-320). As a result, the economy improved and within a five year period beginning in 1966, six housing estates containing an additional 3.800 houses were added to the housing stock in Eastlands (Hake 1977: 85).

This provision of housing by the Nairobi City Council continued until around 1970 at which time, the ideas John Turner and Charles Abrams began to erode the 'provider approach' to housing in Nairobi.

Kariobangi Sites and Services, 1964

Upon arrival on his famed mission to Nairobi in 1964, Charles Abrams found 'a grave situation of overcrowding' in Nairobi. The state of emergency had ended on 12 January 1960 and with it the most stringent restrictions on access by locals to the city had been formally lifted. The rapidly increasing political wherewithal resulted in an eighty percent increase in the average wage for locals. A flood of new comers half of whom settled in Eastlands ensued and the conventional housing schemes were no longer adequate to cater for the housing needs of the population in Eastlands (Hake 1977: 80-81). The resulting explosion of squatter settlements in Eastlands was a visible threat to urban social order.

In response, the Nairobi City Council (NCC) implemented Kariobangi, Eastlands' second sites and services project in 1964. Intended as a squatter resettlement scheme, this social experiment was located well away from any other housing area to minimise the risk of depreciating existing municipal housing. An observer present at the relocation of squatters to Pumwani by the colonial Nairobi council forty years earlier, would have experienced an eerie sense of *déjà vu* at the re-housing of squatters in Kariobangi by the post-colonial Nairobi council. The establishment of urban order (securing safety and control) was top of the list of priorities. Reporting in 1927, the 'chief native commissioner' opined:

'I consider that it is important, in the interests of natives generally, as well as of other communities, that the ingress of natives into towns and their residence therein should be strictly controlled. Land for the occupation of native tribes has already been set aside by Government [Pumwani], and natives should not be encouraged to come into towns except for the legitimate purposes of employment or trade...It is unfortunate that among those to whom a town offers attractions are idle, vicious or criminal natives, who seek to avoid...any control...[and]...who come to town...to "live on their wits," which generally means either begging or stealing and they become...a menace to public security...'[10]

In 1964, at a meeting attended by those responsible for planning Kariobangi, the district commissioner for Nairobi area reported that:

'an increasingly dangerous security situation was being created in Nairobi by the continuous migration of work seekers into the city...Immigrants...are continuously rebuilding their illegal houses as fast as they are demolished...the construction of Kariobangi has not even started and the Police and city council staff are faced with an increasingly difficult and unpleasant task.'[11]

The construction of Kariobangi was part of an overall plan to deal with the anticipated long term rural-urban migration and the attendant squatter problem (Weisner 1976: 80).

[10] G.V.Maxwell, Memorandum on Natives in Urban Areas in vol.1 of the Report of the Local Government Commission 1927, Colony and Protectorate of Kenya, p157-158.

[11] Minutes of the working party on illegal squatting in Nairobi held on the 15th January 1964. Mimeographed, Nairobi City Council. Quoted in Weisner T.S (1976) *Kariobangi: The Case History of a Squatter Resettlement Scheme in Kenya* p80.

Figure 7. Kariobangi site layout 1964 and 2003. Caminos and Goethert 1978/Survey of Kenya 2003.

Each Kariobangi plot measured 188 square meters (13,7m by 13,7m) and was served with its own toilet and sewer line (ibid: 81). The new homes were to be laid out in an orderly fashion, shops and community facilities were to be provided in a separate location. The rules were strict: allottees had six weeks to build a structure of acceptable standard in temporary materials and 10 years afterwards to complete the conversion from temporary to permanent materials. The NCC retained the right to repossess the plot if the house was or became sub-standard. The structure erected could only be used 'as a private dwelling for the owner and his/her family' With the Town Clerk's written permission, lodger's accommodation could also be constructed but this was 'restricted to a maximum of two rooms...[permission to sublet] may be refused if in [the Town Clerk's] opinion such provision would cause overcrowding'. No shops, trade or cottage industry was permitted outside the designated area (ibid: 82).

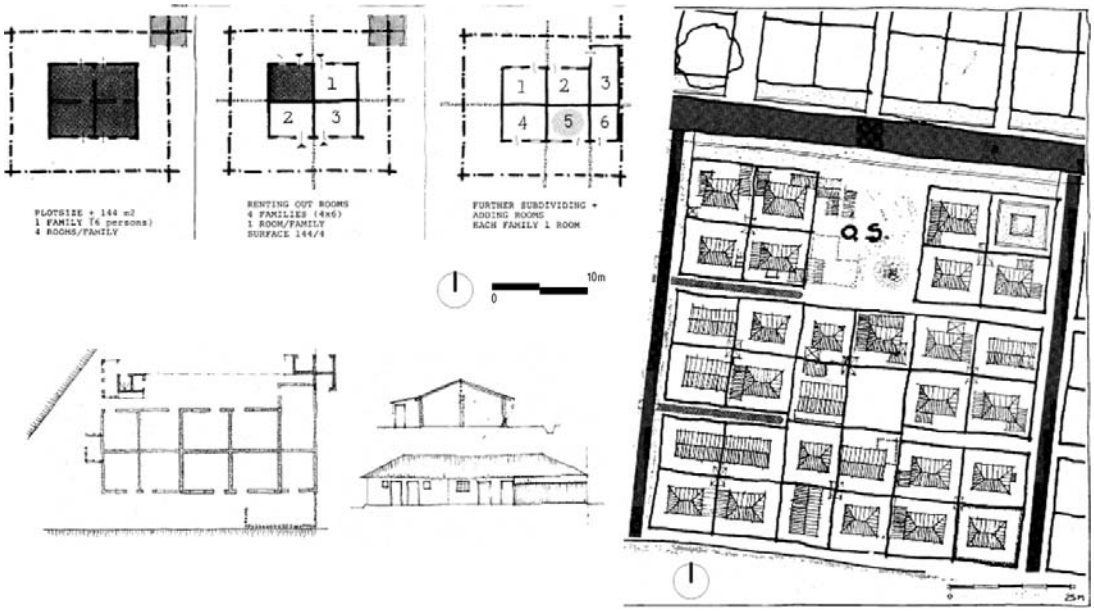

Figure 8. Kariobangi's uncompromising functionalism, negation and disconnection. Loeckx and Wouters p15.

Like Pumwani before it, a post-occupation evaluation conducted of Kariobangi in 1970 revealed that the original intentions of the planners had been altered in almost every aspect. To mention just four: 60-70% of the plots had been transferred to non-squatters through 'illegal' sales, the density was twice what had been anticipated, incidence of squatting had increased and of the three hundred and forty five shops counted, two hundred and ninety five were located within the residential fabric outside the designated market area (Weisner 1976: 85-87). Disappointed by their 'failure', planning officials advocated greater controls in future projects: 'the Chief Architect would design the lowest standard of two and three bedroom houses...acceptable in an urban setting, loans...would be made available to allottees, the council would purchase all materials in bulk and set up...supervision, casual labour to be recruited from allottees and 50% of allottees wages to be kept back and used as deposit for the house'.[12]

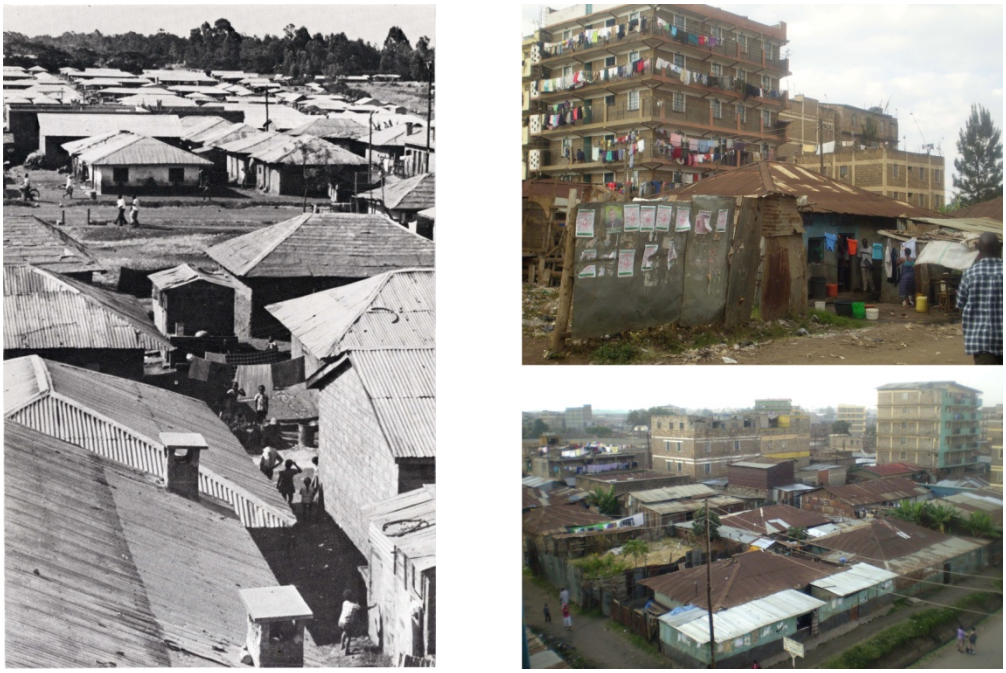

Figure 9. Kariobangi1964 and 2010. Caminos and Goethert 1978/Maina Njeru.

Kayole Sites and Services, 1979-1985

By the late 1960s and early 1970s, it had become generally accepted that a change in international housing policy was needed. During the colonial period, the approach to housing was driven by the need to mediate between the pragmatics of economic extraction which required proximity between coloniser and colonised, with the maintenance of social order which demanded the physical demonstration of the colonisers' racial supremacy through separation (Gruffydd-Jones 2012; cf. Myers 2003). Two years after the end of formal colonialism, the new government issued the 1965 Sessional Paper No. 10, *African Socialism and its Application to Planning in Kenya*. A key point of the policy outlook presented in this document was the equality of all races.

[12] Nairobi City Council Minutes of Committees and Sub-committees 1964 – 1968 quoted in Weisner T.S. (1976: 92).

'The sharp class divisions that once existed in Europe have no place in African Socialism and no parallel in African society. No class problem arose in the traditional African society and none exists today among Africans...Kenya has the special problem of eliminating classes that have arisen largely on the basis of race' (Republic of Kenya 1965: 12-13).

But this policy paper like the Devonshire White Paper before it was in part simply lip service politics.[13] As the events of the next two decades would reveal, the role of Eastlands in taming the city for financial and economic ends was not to change. The new circumstances however dictated that a new less explicit means of doing so be found.

Post 1970 housing development in Eastlands occurred east of Outer Ring Road, the eastern boundary of the colonial city. This 'eastern extension' was framed within the 1973 *Nairobi Metropolitan Growth Strategy*. This 'strategic plan' was prepared by the Nairobi Urban Study Group and emerged out of early 1970s World Bank 'concern' at the proliferation of squatting in Nairobi (NUSG 1973a: introduction). The plan's preparation was funded by the World Bank and received technical support from the United Nations Technical Assistance Program 'to ensure a pre-investment approach' (ibid). The Nairobi Urban Study Group itself comprised of local and foreign technocrats backed up by NCC staff. In the plan, the Eastern sector was reserved for low and middle income households (ibid: par 106).

Consequently, between 1970 and 1985, five more projects were built following the same model of opening up new tracts of urbanised land and turning it into serviced plots. These sites and services projects would be funded by the World Bank or the USAID. Among this was Kayole, the apotheosis of sites and services in Nairobi (Loeckx and Githua 2010: 87).

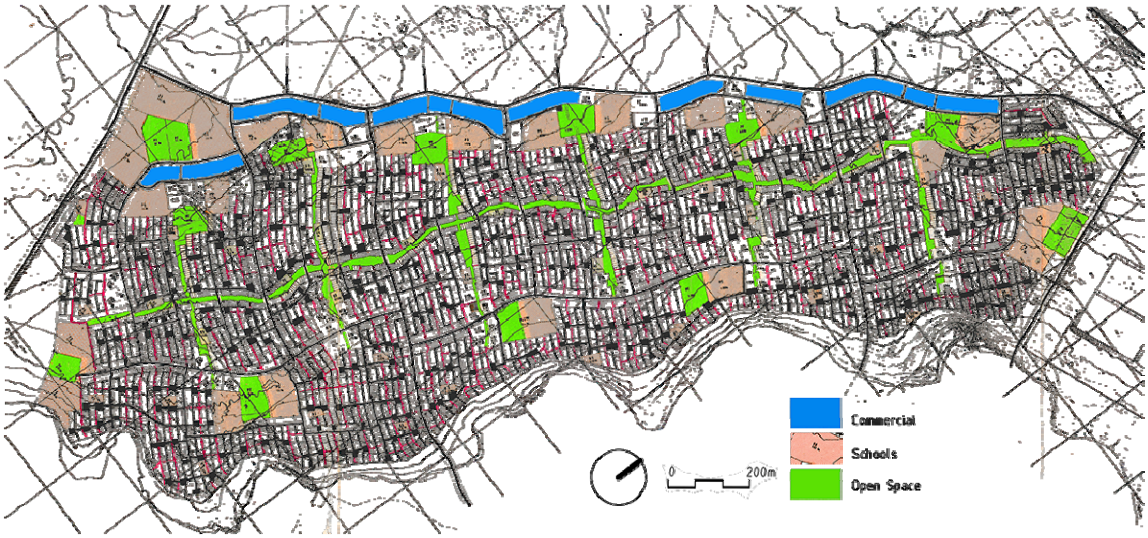

Figure 10. Kayole segmenting plan. Mutiso Menezes International (MMI).

[13] By way of clarification, perhaps needlessly, the background to this assertion is the neo-colonialism thesis (Nkrumah 1965). In his article 'Whose Dictator is Gaddafi?', Yash Tandon equates the neo-colonial government with the Empire: 'the neo-colony is ruled by the Empire...indirectly through its agents...these are two sides of the same coin; they are the same phenomenon' (Tandon 2011). Kenya has been labelled a neo-colonial state (Ochieng' and Maxon 1992: 259; cf. Leys 1975). Myers (2003: 4) also claims that colonial legacy is an enduring cornerstone for the analysis of contemporary African urban culture.

Kayole sites and service was developed on freehold NCC land located 9km east of Nairobi's CBD. Its design revealed several features that set it apart from its predecessors. Chief among this was the attempt to integrate it into the landscape and into the urban transport frame. Careful attention to scale was paid including the provision for the development of an urban scale facade on the linking Spine Road. Like Pumwani and Kariobangi, Kayole employed a segmenting plan that clearly defined and located each function albeit with public facilities evenly distributed within the scheme. Nearly identical type plans with little room for manoeuvre were stipulated for each allotment. The dwelling had to be designed and signed by a registered architect and was not to exceed two floors. The plan comprised of a double loaded corridor down the middle of the plot with single rooms on either side opening into it; a wet core was to be located at the rear end. No provision was made for shops within the residential development, however incremental development and sub-letting was foreseen.

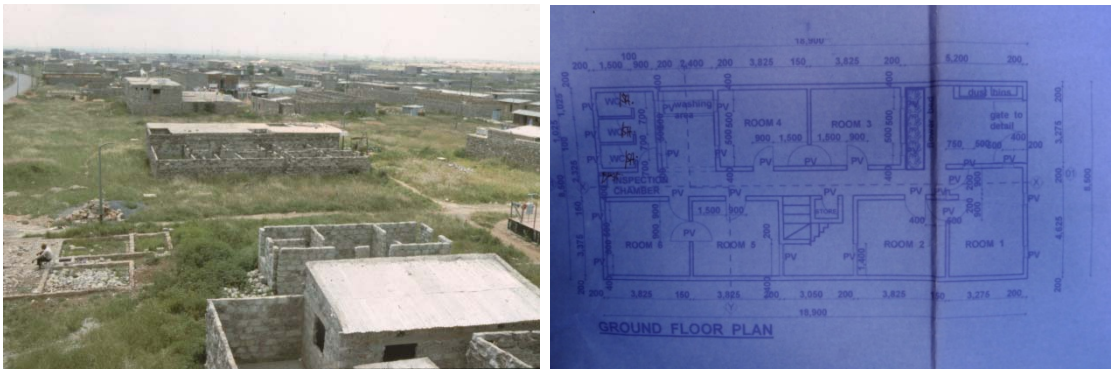

Figure 11. Early development in Kayole / Type plan. Photo courtesy of Loeckx A./Plan Site study 2010/2011

With respect to economic aspects, Kayole sites and services tried to 'correct' Kariobangi's 'mistakes'.[14] Of the 6.400 plots made available, 2.500 were meant to resettle squatters and a third of the remaining were market plots to be sold to and developed by the man of means at market rates (Nzainga 1991: 7). At the end of the day, the financing provided by the World Bank was to be fully recovered from the Kenyan tax payer. Eventually, only the southern half of the site available was developed into sites and services. The northern half was developed into middle class mortgage housing financed by the Commonwealth Development Cooperation.

Fieldwork conducted on site by the author in 2010 and 2011 revealed that Kayole today is vastly altered from the vision outlined of its segmenting plan and building codes of the 1980s. Vestiges of the original urban structure remain, however many designated public spaces have been irregularly developed into housing and those that remain are very poorly designed and often house squatters. The most actively used public space is the street which is lined on both sides with small scale informal activity. Several plots originally assigned a residential function have been converted to other uses (schools, churches, commerce) and many of those that retain their original residential function have been developed at more than twice the 'permitted' density.

[14] Observing that 'practically all the original allottees [at Kariobangi] had defaulted' on their loans, the Director of Social Services and Housing described sites and services as a 'solution for the man who had money and the desire to build'. Weisner goes on to recommend the mixing aided allottees with men of means. (Nairobi City Council Minutes of Committees and Sub-committees 1964 – 1968 quoted in Weisner T.S. (1976: 93).

Integration of the development into the landscape has not been successful: the river spaces are without exception neglected backyards. The squatter settlement is confined to the extreme southern tip of the site, suggesting that their integration falls short of expectations.

Figure 12. School on residential plot, street market, unintended mixed use & multiplied density. Fieldwork 2010.

'Reframing' Eastlands

Anthony O'Connor has argued that 'the physical form of cities [in Africa] is being influenced to a very large extent by the planning decisions of a few foreign firms and thousands of local individuals and families rather than by the decisions of any town planning department' (O'Connor 1983 quoted in Myers 2003: 14). Branwen Gruffydd-Jones has argued that international housing and urban development policy represents a form of Western intervention in Africa whose aim is to construct the market: '...policy must assume a more interventionist form in order to actively construct, assemble and cultivate the appropriate environment for the competitive market to flourish and expand' (Gruffydd-Jones 2012: 24; cf. Foucault 2008:120-121). In this scenario where notions of urban culture originating at the supra-national level interact with the 'reframing' activity of the 'urban majority' in co-producing the city, the 'state' appears to be left out. Even where the imperative originates from the local state, the emergent urban form through time reveals the state's inability to compel compliance with the plan.

An Impotent State?

This picture however, needs to be refined. Studying tenements[15] in Nairobi's Eastlands, Marie Huchzermeyer has recorded the complicity of the NCC's development control department in perverting the intentions of the segmenting plan (Huchzermeyer 2011: 170). In addition, Omenya has revealed that personal networks (including networks of political patronage) through which resources flow are crucial in the production of tenements in Nairobi (Omenya 2006: 175 in Huchzermeyer 2011: 171). This appears to coincide with King's earlier notion of Nairobi as a *Jua Kali*[16] city (King 1996: 50) and to support Anyamba's assertion that informality is Nairobi's urban spatial process (Anyamba 2008).

The three cases presented, have traced the evolution of the guise under which the segmenting plan was produced in Nairobi's Eastlands. In each of the three cases, the production and transformation of urban space is aided (not constrained) by the segmenting plan.

[15] These tenements have emerged largely out of dweller initiated transformation of former sites and services projects.
[16] During the 1980s the term *jua kali* (Kiswahili for 'hot sun') came to refer to anybody working in self-employment in Kenya.

The rational utopian space of the segmenting plan makes possible the acting out of the spatial and socio-economic practices that generate urban form in Eastlands even though this form differs from that envisioned in the plan (cf. De Meulder and Heynen 2006). Most of these practices are underpinned by a pragmatic economic logic that bears little resemblance to the assumptions of the project brief (Anyamba 2008: 235). Due to the massive extent of "reframing", many of these practices have arguably been little impacted by influences from the international stage.[17] Rather they have emerged from locally based power customs and ideologies. The unique urbanism of Eastlands has resulted from the interaction between the 'framing' of the segmenting plan and the 'reframing' local practices. And as Huchzermeyer points out, this is partially enabled by the 'state apparatus'.

Conclusion: Activating the Agency of the Segmenting Plan

It is clear that the 'state apparatus' in Nairobi often acts in ways that contradict its official role as guardian of a high modernist 'urban order'. Certain representatives of the state play a pivotal role in perverting the intentions of the segmenting plan. They must, because at the end of the day, in spite of the pragmatism embodied within the notion of sites and services, the attempt to engage with local realities succeeds only to a limited extent. The vision of the plan (like every plan, but more so here) is in many ways a rational utopia imposing an external (perhaps even elitist) notion of urban culture. In a city that is transforming as rapidly as Nairobi is, a flexible means to cater for these rapidly changing needs is required. By turning a blind eye to or actively aiding the perversion of the plan, the 'state apparatus' has not been an impotent bystander, rather it has been actively involved in making the plan flexible. This allows the plan to transcend its constraining characteristics and become a stage upon which a local urban culture can evolve.
Finally, the sites and services projects are among the very few instances in Nairobi where the 'state apparatus' managed to deliver and install infrastructure before development occurred. The greatest power that the state has in shaping the form of the city lies in its near monopoly over large scale infrastructure provision. The state should focus on this potential by designing and installing infrastructure services that allow and support the flourishing local notions of urban culture.

[17] Diaspora remittances contribute significantly to financing the production of the city but these are considered to be an extension of local spatial practices.

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Re-envisioning Informal Settlements and HIV and AIDs Together

Colin Marx[1]

A spatial confluence of urban informal settlement and HIV and Aids in sub-Saharan Africa provides a unique opportunity to challenge inadequate state responses to both phenomena. UN-Habitat (2011) estimates 62% of Africans in sub-Saharan Africa live in informal settlement. 28% of people living with HIV and AIDS live in just 14 cities in southern and eastern Africa equating to 15% of the global epidemic and 29.1% of the total estimated number of new HIV infections take place in informal settlements (van Renterghem and Jackson 2009).
Inadequate responses to either phenomenon are traced to a calculation that (neoliberal) macro-economic stability is more critical to maintaining national wealth than adequately resolving problems faced by poor women and men in informal settlements in epidemics. This paper explores how this confluence offers ways of developing alternatives to the current urban imaginaries of informal settlements and epidemics that inform such problematic policy calculations.

Keywords: Informal settlements, Sub-Saharan Africa, HIV/AIDs, Epidemics

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Introduction: Planning spontaneous urbanisation

How the interactions between urban informal settlement and HIV and AIDS epidemics in sub-Saharan Africa – as two specific social phenomena – are conceptualised has important political consequences. Whether expressed in terms of hegemonies or discourses, protagonists in different debates have long realised the importance for claims to 'truth', legitimacy, authority and hence, the scope for action depend on how socio-political processes are conceptualised and represented. Examples abound in relation to the politics of conceptualising both urban informal settlement and HIV and AIDS epidemics and what different claims to legitimated conceptualisations mean for the different stakeholders and interest groups – and particularly for the ability of marginalised and disadvantaged groups to make claims for redress or improvements. In short, the politics that seek to normalise conceptualisations of informal settlement and HIV and AIDS, and the resistance to this normalisation, matters for enabling and circumscribing social demands to be made.

When it comes to the interactions between informal settlement and HIV and AIDS epidemics, much of the struggle has been around getting acknowledgement (from the state) that informal settlement and HIV and AIDS do indeed interact – often synergistically reinforcing vulnerabilities of poor women and men. Work in this vein has been particularly important in highlighting how poverty and inequality are important co-factors in driving HIV and AIDS epidemics and identified disturbing parallels with informal settlement as an example of spatial and economic poverty and inequality. Although neither HIV and AIDS nor informal settlement are the same as poverty there are important interrelationships (Shisana, Zungu & Pezi, 2010; Farmer, 2005). Some of the most significant interactions relate to the physical and psychological conditions encountered in informal settlements by people living with HIV and AIDS. Insecurity of tenure, inadequate access to water, sanitation, privacy, health care – to name just a few aspects – dramatically sharpen the vulnerability of people living with HIV and AIDS. In turn, the consequences of HIV and AIDS undermines informal settlement upgrading processes, threatening their financial viability, the models of individual property ownership they tend to promote and stability. Such approaches have led to important calls for urban planning to integrate HIV and AIDS concerns with informal settlement responses (Joseph, 2010; Barten, Mitlin, Mulholland, et al., 2007) or, for example, for intersectoral approaches (Vlahov, Freudenberg, Proietti, et al., 2007) or comprehensive approaches (Merkel, Otai, Archer, et al., 2008).

However, there has been comparatively less focus on *how* the interactions of informal settlement and HIV and AIDS epidemics are conceptualised. And, perhaps justifiably so. There is a searing urgency for societal engagement with the existing visceral and material vulnerabilities of poor women and men living informally in HIV and AIDS epidemics. Other considerations have simply been overridden and there have been notable successes through agencies such as UNAIDS picking up the cause. But, the constant inadequacy of the level of resources attributed to informal settlement/HIV and AIDS epidemics suggests that perhaps a political limit has been reached in the social demands that can be made against the combination of phenomenon. It appears to be worthwhile to examine *how* the interaction is conceptualised – and in particular, to examine a tendency to represent the role of the state as being outside of processes of informal settlement and HIV and AIDS.

The next section sets out the background in order to identify existing work and draw out how the state, in particular, is appealed to as outside or above the debates and is therefore able to act as an arbitrator. I then address how HIV and AIDS demands an ethical response while studies of informal settlement reveal the constant involvement of the state – leaving no outside role for the state.

Background

The argument that I seek to develop draws on a wide set of scholarship – relating to demography urban planning, urban public health, and HIV and AIDS modelling and so on – that cannot be adequately represented here. My intention is therefore to signal some of the influences on the argument and, more humbly, to identify what directions the argument might have some validity. In traversing these vast and multi-disciplinary fields the key point that I wish to highlight in this section is that a view of the state emerges across this literature of the state being somehow 'outside' of daily processes producing informal settlement and HIV and AIDS – despite nuanced conceptualisations of the state being an arena of contestation itself.

The estimation of a remarkable spatial confluence of both informal settlement and HIV epidemics in eastern and southern Africa brings new urgency to the development of new conceptual frameworks. Based on 2007 figures, estimates are that, 28% of PLHA live in just 14 cities in eastern and southern Africa. These cities include: in South Africa (Johannesburg/Pretoria, Durban, Cape Town, Port Elizabeth, Pietermaritzburg, Bloemfontein, East London), in Zimbabwe (Harare and Bulawayo), in Mozambique (Maputo), in Tanzania (Dar Es Salaam), in Zambia (Lusaka), in Kenya (Nairobi), in Uganda (Kampala), Ethiopia (Addis Ababa) and in Angola (Luanda). This equates to about 15% of the global epidemic. The same set of calculations also suggest 29.1% of the total estimated number of new infections take place in informal settlements (van Renterghem & Jackson, 2009). They go on to predict that by 2015/20, 50% of PLHA will live in urban areas – making urban informal settlements important and also for HIV treatment and prevention. The data on which these calculations were based are now five years out of date and while the trend indicated that more PLHA would live in urban informal settlements, there is no data to confirm this. However, the point of this data is to point to a remarkable confluence rather than determine the precise figures.

Urban public health is rising as a policy priority. As Corburn (2004) notes, urban planning and public health have a common history, but for most of the 20th Century developed in separate directions. But it is increasingly acknowledged that the 'urban-ness' of cities has specific implications for health (consider the debate set of by the seminal work of Duhl, 1986). The health challenges in the coming century will be urban (Vlahov, Freudenberg, Proietti, et al., 2007). This is partly because the majority of people will be living in urban contexts and partly because urban areas throw up specific health issues that will need to be dealt with. As a result of broadly bringing the 'urban' together with health issues, the need for new thinking has been recognised and the space to engage in the interactions is reinvigorated.

In addition to this confluence, both responses to informal settlements and HIV appear to share a common feature. In relation to, HIV and Aids, Piot, Greener and Russell (2007) claim that national governments are required to be more (neoliberally) attuned to foreign exchange rates and trade regimes to protect national wealth than the wealth associated with the well-being of poor women and men.

There are two ways in which these calculations figure. In terms of the impact of HIV and AIDS on economic growth and the cost of treating and preventing HIV and AIDS. Barnett and Whiteside (2002: 311) summarising a range of attempts to model impact on economic growth note that – notwithstanding a series of acknowledged problems with the models – " one certainty of all the models is that AIDS causes economies to grow more slowly, the predicted order or magnitude has remained consistently in the range of 0.5%-1.0% lower per year than in the absence of the disease. In no case has it been predicted that economies will actually contract. The impact on per capita incomes is uncertain". In terms of the cost of responding to the epidemic by the states, figures vary widely and wildly but the slow down in growth by donor countries is bringing the issues into sharper relief (Nosyk & Montaner, 2012). Sophisticated models

are being developed to respond to this situation (for example, Schwartländer, Stover, Hallett, et al., 2011; Lasry, Zaric & Carter, 2007).

There is little doubt that the epidemics impose financial costs on individuals and households living in informal settlements (Kim, Pronyk, Barnett, et al., 2008). Adapting Wratten (1995) it is possible to highlight some of the costs arising from living and working in informal settlements in HIV and AIDS epidemics. Urban environment and health costs emerge from a tendency for urban informal settlements to be in close proximity to industrial land uses because the land is least desirable because of pollution and toxicities or because people are locating close to work to minimise transport costs. Locational costs emerge from marginal, peripheral and/or dangerous land and the high densities required to minimise shelter costs. There are costs associated with living in more commercialised environments. People require money for water, food, rent and energy. The most vulnerable are the poorest strata in income poverty terms. This creates pressure for employment but jobs are typically insecure. People work longer hours or take additional jobs. Earnings are irregular and low and real incomes have been falling for the lowest income groups (UN Habitat, 2003: 97). With little social welfare provision illness induced loss of employment is higher. Unemployment introduces new dynamics of role and identity in society and within kinship and family networks. Evictions and fires are a constant danger that people have little insurance against. Rental reduces the opportunity to own an asset that appreciates over time. There are costs associated with accounting for the social diversity, fragmentation of social groups and crime which appear higher in urban areas and in slums in particular. There is a greater diversity of household types which create new tensions and survival strategies and violence (Pieterse, 2010) which threaten supportive social networks in the HIV and AIDS epidemics.

Yet, despite these issues being well known – even in the absence of HIV and AIDS epidemics – not enough is done to address informal settlement. The critique is even more damning considering that formal economic growth rates are outstripping population growth rates in many sub-Saharan countries. However, the number of people living in informal settlements continues to increase. Thus a similar calculation to that identified in relation to HIV and AIDS appears to be at play with respect to informal settlement. Despite significant investment in urban housing and land for poor women and men, we would be hard pressed to identify a country in eastern and southern Africa where the supply of adequately serviced land has outpaced demand. In my view, this suggests that the state's policy makers consider the lower productivity associated with poor women and men living in squalid conditions as problematic – unfortunate even – but ultimately less important to address than macro-economic stability and foreign exchange rates when maintaining national wealth. The net effect is that policy makers are able/required to make calculations about the allocation of national resources that do not appear to account for, or address the scale of, the problems that informal settlement and HIV and AIDS create for poor women and men.

There has been a strong and consistent call for integrating urban planning and HIV and AIDS – particularly in the context of extensive informality in cities in the global South. There are many calls demonstrating the need to integrate HIV and AIDS into urban planning responses to informality (Joseph, 2010; Isandla Institute, 2007). To my mind, such studies tend to go beyond those focused solely on informal settlement upgrading or improvements in their grasp of the complexity of the issues. Some studies draw explicit attention to the fact that physical and social environment improvements are not enough and that an integrated approach is needed that is informed by an analysis of immediate and underlying factors. For example, Barten, Mitlin, Mulholland, et al. (2007) identify the need for a "long-term multisectoral approach to address the social determinants of health in urban settings". This requires "meaningful participation, empowerment, and participatory governance in enhancing the social

determinants of health" (Barten, Mitlin, Mulholland, et al., 2007: i65). While these studies move the debates decisively forward in terms of recognising the role of participation, in one respect the exhibit a curious feature. They are built on deeply nuanced analyses and insights and yet when it comes to relating to state policy, the insights are shoe-horned into call for a *response* that is 'multi-sectoral', 'multi-layered' or 'comprehensive'.

Understandably, such calls recognise that there is no single solution to the problems presented by informal settlement/HIV and AIDS. But, what I am concerned with here is the effects on the representation of the state. It exists as external that can arbitrate, as something that can be called upon, as the sole agency with the scope to address a phenomenon as pervasive as informal settlement/ HIV and AIDS. Thus, by being charged with responding or coordinating the response can not simultaneously be part of producing the problems. Thus, one reason why governments can make calculations that privilege foreign exchange rates, terms of trade and macro-economic stability in relation to national well-being is because the state is perceived as being outside of normal, everyday processes. The state – or, at least this type of policy decision-making – is, typically, represented as above and beyond the biases and messy interest politics. Indeed the very appeal or claim on the state to co-ordinate societal responses to informal settlement and HIV and AIDS places it in this position.

The notion of *responding* to informal settlement and HIV and AIDS has been normalised. Informal settlement demands a response. HIV and AIDS demands a response. In one sense, this is an entirely valid call. Quite viscerally and materially, some people live in terrible conditions in the midst of HIV and AIDS epidemics and this must surely be alleviated. However, in another way the discourse of response has the effect of positioning those who are called on to respond, as outside of, or external to the phenomena. Thus, one reason why policy makers can make callous calculations is because they are represented as being 'outside'. The way that we learn about HIV and AIDS allows this to continue because it hides the loss that requires a different interaction based on the subjectification of the respondents.

The interactions between HIV and AIDs and informal settlement

In this section, I deal with considering how we conceptualise informal settlement and HIV and AIDS interacting is important for making a different set of claims for addressing both phenomena combined. The suggestion I outline here is that a HIV and AIDS-perspective brings a greater ethical urgency for engaging with poor women and men living in informal settlement while an informal settlement-perspective sheds greater light on how the state is always already entangled in producing specific urban environments.

HIV and AIDS

Protevi (2001: 108), drawing on Nietzsche, advises us to "beware the nihilistic impulses behind the attempt to render suffering meaningful, to turn a profit of intelligibility from pain". He argues that it is the notion of 'learning from HIV and AIDS' that is the gravest injustice because it means that the suffering and death of others become a heuristic device – suffering and death are engaged with only to understand HIV and AIDS rather than the tragedy that they are. For Protevi, the answer lies in opening up the meaning of HIV and AIDS to multiple possibilities of continual resignification. In this way, it is possible to resist the attempts to normalise particular conceptualisations of the interactions between informal settlement and HIV and AIDS. However, it is less clear what is lost in creating the possibilities for continual resignification. And, what do we gain from "acknowledging a loss from which no gain can be made?" (Protevi, 2001: 109).

Somehow we need to find a way not to interpret the suffering and death of HIV and AIDS in terms of a totalising system of thought in which the meaning is predetermined. Instead, the meaning of suffering and death needs to be significant in its occurrence and in the response it evokes, a response that evokes an ethical dimension. In order to do this we need to acknowledge that the normalisation of HIV and AIDS discourses and the resistance to this normalisation (learned in opening up the discourse to wider resignification) both need to learn that "it is the very structure of learning about AIDS that hides that unlearning, that loss, which motivates the struggle against AIDS" (Protevi, 2001: 109).
Learning through suffering and death as a heuristic device places the learner at one step removed. The loss that motivates the struggle against AIDS is hidden by way we objectify HIV and AIDS by placing this loss in a totality where the objects meaning is predetermined. Instead he advises us to engage in interaction that subjectifies suffering and death – this is a non-learning - where there is no longer an outside. In his view, we need to keep a focus on loss by interacting to create subjectification of respondents as we both learn and unlearn about HIV and AIDS.

Informal settlement
Despite repeated representations of urban informality as anomalous, temporary features of cities, other approaches consider informality to be a fundamental feature of contemporary cities. This is because informality is expanding in many cities and because there are strong interrelationships between what is considered to be formal and informal. For Roy (2009a: 8) informal settlement is a "mode of production of space defined by the territorial logic of deregulation". From this perspective the definition of compliance with state law is always open to interpretation making informal settlements states of exception where it is difficult to determine who can legitimately own or use land. While Roy's (2009b) work on the periphery of Calcutta highlights the ability of authorities to 'unmap' cities, in cities in eastern and southern Africa the deregulation of well-located and peri-urban land within cities is more likely entangled in complex overlapping arrangements with customary land tenures and their associated institutions and authorities (Rakodi & Leduka, 2004). The end result is similar however. Such areas of states of exception afford the state "considerable territorialised flexibility to alter land use, deploy eminent domain, and to acquire land … [where] the state itself is a deeply informalised entity, one that actively utilises informality as an instrument of both accumulation and authority" (Roy, 2009b: 81). The key point, then, is that studies of informal settlement reveal the state can no longer be considered to be outside of their daily production and reproduction.
In sum, both learning and unlearning from HIV and AIDS evokes a different ethical engagement with the epidemic and informal settlements are always already part of state processes suggesting that claims to an objective outside where demands on the state can be made commensurable is no longer tenable. The combination of informal settlement and HIV and AIDS demands the prioritisation of a different register within which to calculate national wealth and its sustenance.

Conclusion

Certainly, the allocation of more of a national budget to addressing both informal settlement and HIV and AIDS is only part of the solution – but it is an important part. A greater budget allocation is no single magic bullet for informal settlement/HIV and AIDS but making resources available at a national level is both an important statement of intent and a means to addressing a multi-faceted issue. While thinking about what ways in which HIV and AIDS and informal settlement interact we should also be paying attention to *how* such interactions are conceptualised. In the context of multi-faceted, complex social

phenomena, this paper has highlighted the representations of the role of the state as requiring further examination. This paper has argued that one of the reasons why informal settlement and HIV and AIDS have not been ameliorated more effectively by societies in eastern and southern Africa is because the claims for responses to the individual phenomena and combined on the state have relatively less traction when compared to neoliberal notions of macro-economic stability. This is because of the nature of the claims (are made commensurable with competing claims calculation) and how the claims simultaneously position the state as outside the phenomena (enable to objectively view the claim) despite recognising that the state is itself an arena of contestation. However, attending to how the role of the state is conceptualised in studies of informal settlement and what it means to learn about HIV and AIDS in the context of informal settlement offers insights into a different urban imaginary where the state is entangled in both phenomena and there is no objective outside from which to operate. The struggle to establish a different urban imaginary and entangle the state demand a different interaction between social actors/institutions in engaging with the combined phenomenon in a more supportive ways.

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(Re)designing land tenure to meet housing needs of the urban poor. Implementing community land trusts in Kenya

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The sheer pace of urbanisation in Kenya today far outstrips the ability of the state to provide housing for the ever-expanding urban population. Implicated in this housing crisis are existing forms of land and housing tenure, which are either inequitable, inefficient or both. Hardest hit by the inadequacies of the housing system are poor households who are rendered incapable of accessing land and housing through formal means. As a departure from conventional land and housing tenure, recent settlement upgrading projects in Kenya have sought to (re)design the institution of land tenure, by adopting communal forms of landholding premised on the community land trust (CLT). CLTs are created specifically to hold land in trust for given communities, in perpetuity. This paper analyses the Tanzania-Bondeni CLT recently implemented in Voi town, and concludes that CLTs are a powerful innovation that can be usefully mobilised in response to the urban housing problem. CLTs however employ an intricate legal framework that can be daunting, while their long-term success requires commitment and effective leadership at the community level, which can be challenging to sustain.

Keywords: Community land trusts, Land tenure, Settlement upgrading, Kenya

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Introduction

In many cities of the Global South, matters land run deep. This is so because access to and ownership of land directly affects people's livelihoods, opportunities and freedoms (Payne, 2001; Blomley, 2008). Yet access to affordable land for the rapidly growing population of developing world cities remains a moving target. Despite an increasing raft of strategies put in place to shore up low-income households in the urban land and housing market, the ability of the poor to access and retain land on a long-term basis largely remains unachieved (Payne and Majale, 2004; Gulyani and Bassett, 2007).

In Kenya today, the sheer pace of urbanisation has far outstripped the ability of the state and the market to provide affordable land and housing for the ever-expanding urban population (Midheme, 2010). While the demand for housing in the country currently stands at 200,000 units per annum, the combined output of the official government and market channels only amounts to 50,000 units a year (World Bank, 2011). As can be expected, the hardest hit by this housing deficit are low-income households who are in effect rendered incapable of accessing land and shelter through formal means. An unavoidable consequence therefore has been the steady proliferation of informal settlements as the poor seek an alternative source of shelter and livelihoods (Midheme, 2010).

Partly implicated in the Kenyan housing crisis are existing forms of land and housing tenure, premised as they are, on individual property (Yahya, 2002; Bassett, 2005). In classical economic-legal theory, individual titles supposedly deliver the highest level of efficiency and freedom to the individual owners, thereby allowing land to be put to its 'highest and best use' (Needham, 2006). However, individual property is also known from experience to have precipitated a wave of dispossession among poor households neither able to meet stringent planning regulations nor withstand the vicissitudes of the land market (Payne et al., 2009; Durand-Lasserve and Selod, 2009). It has thus increasingly become clear that individualised forms of landholding may not work well for the urban poor. Accordingly, alternatives to individual land ownership have been proposed to bolster the ability of low-income households to hold onto land for their long-term sustenance, amidst the cut-throat competition that characterises today's urban land markets (Turnbull, 1983; Payne, 2001; Boonyabancha, 2009). One such proposal involves the use of community land trusts (CLTs) as a means of holding and managing urban land for the benefit of the urban poor (Yahya, 2002; Bailey, 2010).

This paper has two aims. First, I seek to demonstrate that the conventional wisdom of private land tenure presents an obstacle to the provision of sustainable housing solutions to the urban poor in Kenya. Secondly, I examine recent attempts to (re)design the institution of land tenure in Kenya as a response to social exclusion spawned by past policy frameworks. Specifically, I investigate the use of CLTs as an innovative form of pro-poor landholding, employing the case of Tanzania-Bondeni CLT recently implemented in Voi. I highlight the successes and failures of the Voi initiative, together with how the gains made there may be broadened and problems resolved. The aim is to help Kenyan urban planners and policy-makers devise more nuanced, context-aware interventions capable of improving both efficiency and equity objectives of land and housing policies, particularly for the urban poor. In what follows, the paper is organised into four sections. First, I present an overview of land tenure in urban development. I then look briefly at past low-income housing policies in Kenya and how these policies have dealt with the substantive issue of land tenure. Next, I introduce the concept of community land trusts, before presenting the Tanzania-Bondeni case.

Conceptualizing land tenure in urban development

Land tenure refers to the rights, privileges and obligations that individuals and communities have with respect to land (Payne, 2001; Durand-Lasserve and Selod, 2009). These rights in effect define people's ability to occupy, use, develop, inherit and transfer land and its products. It is these rules regarding what one may (or may not) do on a parcel of land that gives rise to property rights in land (Needham, 2006).

In broad terms, urban land can be held under individual (private), public or communal tenure (Payne, 2001; Durand-Lasserve and Selod, 2009). Private tenure permits the greatest freedom with regard to use and conveyance of land and is billed to ensure the most intense and efficient use of landed property (Payne, 2001). However, individualisation also breeds inequity as land tends to accumulate in the hands of the elite, to the disadvantage of the poor and powerless (Krueckeberg, 1995; Blomley, 2008). Public ownership may achieve higher levels of equity than private tenure (Payne, 2001), but invariably suffers from bureaucratic inefficiency and is often captive to systems of patronage and clientelism (Durand-Lasserve and Selod, 2009). Communal tenure on its part is more equitable and sustainable in the longer term (Turnbull, 1983; BSHF, 2005; Bailey, 2010), but is often mischaracterised and shunned, especially in modern Western societies in which people lay premium on autonomy and individual ownership (Libby and Bradley, 2000; Blomley, 2008).

Land tenure and past low-income housing programmes in Kenya: a review

Kenya has gone through three basic responses to informal settlements: demolitions, relocations/sites-and-services and in situ upgrading (Bassett and Jacobs, 1997; Bassett, 2002; Gulyani and Bassett, 2007). Of particular importance to our discussion here is how the question of land tenure and the substantive treatment accorded to it has contributed solutions and generated problems in the course of implementing low-income housing policies in the country. I provide an overview specifically of past sites-and-service and in situ upgrading programmes in the country, and highlight three basic problems that have characterised such programmes, namely: undue emphasis on individual titling, inadequate involvement of targeted communities, and insufficient focus on tenants (Midheme, 2010).

Undue emphasis on land titling

Upgrading projects in Kenya have tended to confalte land regularisation with tenure individualisation (Yahya, 2002; Bassett, 2005). Thus for example, the sole policy option pursued in tenure regularisation initiatives has been to award individual titles as the default form of property. As already pointed out, while individualised landholding may in theory confer the highest possible benefits to the owner, titles have on the flipside precipitated a wave of dispossession and post-project displacement driven by both voluntary and distress sales by poor households (Payne and Majale, 2004). Examples include the Dandora site-and-service scheme in Nairobi, funded through the World Bank's Urban I programme and completed in 1977. Originally meant for the poor, Dandora has since 'transformed into a multi-storey tenement district with profits extracted by middle- to high-income landlords residing elsewhere' (Huchzermeyer, 2008: 27). A similar fate befell Umoja II settlement project, also in Nairobi, where 70% of the original allottees have either sold their units for profit or got displaced owing to their failure to amortise loans and meet other project costs (Otiso, 2003). Further cases of market-induced displacements have been reported in the USAID housing project in Kisumu (Macoloo, 1988) and the Chaani settlement scheme in Mombasa (Macoloo, 1994). These dispossessions ultimately hamper social equity as well as project effectiveness in general (Gulyani and Bassett, 2007).

As a stop gap measure, two strategies have been tried in Kenya to arrest the wave of post-project displacement. The first strategy has been to impose five-year moratorium on sales involving allotted property (Bassett, 2005). Such restrictions are however time-consuming and costly to implement. So much so that over time, the cost of policing the conveyancing process becomes an unnecessary strain on resources and inevitably shifts focus away from the primary goal of settlement improvement (Gulyani and Bassett, 2007). Furthermore, owing to inability to regularly update land records, registers eventually became largely at variance with actual possession and use of land, precipitating a gap between *de jure* rights and entitlements as reflected in official land records and *de facto* rights and entitlements as valorised by users on the ground (Midheme, 2010).

An alternative to sale restrictions has been to adopt inhibitive space and infrastructure standards in project design. In recognition of the fact that upgrading transforms informal neighbourhoods into coveted pieces of real estate overnight, Kenyan planners have sought to dilute outside demand by lowering infrastructure standards. It was thought for example, that communal water points and toilets, open sewers, narrow earth-paved roads, restrictions on the number of developable storeys, limited car access and on-site parking, as well as small-sized parcels would stave off the influx of middle-class 'gentrifiers' (Bassett, 2002; Gulyani and Bassett, 2007). On the contrary, it has been reported that in several low-income settlement projects such as Dandora and Umoja in Nairobi, middle-income buyers simply move in, amalgamate several parcels and put up multi-storey rental tenements, in disregard of regulations put in place by project designers (Muraya, 2006; Huchzermeyer, 2008).

Inadequate involvement of targeted communities

Another critical failing that has characterised past relocation and upgrading initiatives has had to do with the question of community participation. Settlement upgrading plans in Kenya are typically prepared top-down, with state planners single-handedly taking charge of project design and implementation (Midheme, 2010). Under such institutional arrangements, upgrading initiatives incorporate minimal input from the targeted beneficiaries. The latter are thus excluded from the determination of crucial matters like space and infrastructure standards, project cost-recovery mechanisms, as well as land tenure and administration (Otiso, 2003; Bassett, 2005). In other words, residents are hardly afforded the opportunity to determine the future of their own neighbourhoods, leading, unavoidably, to project failure (Yahya, 2002).

According to Imparato and Ruster (2003), the success of settlement improvement is predicated on a process led by the residents themselves. In designing *in situ* upgrading schemes, it is important to remember that residents have been building their homes and by extension the larger settlement over the years. They thus already have a 'project' of sorts underway. To impose an alien project without reconciling it with the on-going one is thus courting failure. The authors further argue that unbeknown to many external experts, 'residents have their own priorities and visions for the future', if only these have not been conjoined with those of fellow residents into a coherent plan (Imparato and Ruster, 2003: 1). As a point of departure therefore, planners must strive to understand the local dynamics and engage residents when exploring ways of supporting them, thus helping the community sharpen the focus of its latent vision (Midheme, 2010). This is necessary to avoid foisting external solutions that misdiagnose real problems on the ground. Importantly, it would be useful to think of informal settlements as more than just a bunch of hovels and their dwellers. Often forgotten is that undergirding the functioning of these settlements is an intricate set of social relations that need to be harnessed for long-term success of upgrading initiatives.

Insufficient focus on tenants

Like elsewhere around the world, upgrading programmes in Kenya were largely inspired by the work of John Turner in Latin America, particularly in Peru (Turner, 1967; 1968). Important to note is that the situation in Latin American at the time of Turner's writing was such that the majority of the squatters also owned the structures they occupied (Imparato and Ruster, 2003). Under such circumstances, tenure regularisation made plain sense as squatters would, as a matter of course, crave the opportunity to incrementally improve their own dwellings over time.

In Kenya however, studies have consistently shown that the majority of slum residents are actually tenants who are often the poorest of slum dwellers (Amis, 1984; Andreasen, 1996; Kigochie, 2001), paying exorbitant rents to (absentee) 'landlords' (Gulyani and Talukdar, 2008; Huchzermeyer, 2008). In Kisumu – Kenya's third largest city – a mere 14% of slum residents were owner-occupiers in 1998, with the rest being renters and sharers (UN-Habitat, 2003). In Nairobi's slums, an extraordinary 92% of the households are rent-paying tenants rather than home-owning squatters, with 95% of all structure owners living off-site as absentee 'slumlords' (Gulyani and Talukdar, 2008). These revelations constitute a serious challenge to conventional wisdom and settlement upgrading policy. An obvious corollary of this policy oversight is the observation that tenants are often the hardest hit when rents rise in the wake of settlement upgrading. Thus tenants easily become the largest group faced with displacements (Payne and Majale, 2004). Similarly, because they are never recognised as stakeholders in their own right, tenants lack the incentive to actively participate in settlement improvement matters, hence attenuating social capital that would be crucial for community building during and after settlement upgrading (Midheme, 2010). Tenants have thus been excluded from shaping the spaces within which they live and work. This has led to calls for planners to seriously rethink the plight of tenants as a substantive target group in settlement improvement initiatives (Gulyani and Talukdar, 2008).

Among other issues, these inadequacies in past upgrading initiatives call for a serious rethink of the role of land tenure in low-income housing initiatives and bring to the fore serious questions pertinent to both planning practice and scholarship. Can we continue relying as we have done, on the conventional off-the-rack forms of property and conventional planning methods, knowing full well that their uncritical use only exacerbates the very social exclusion that the planning enterprise is set up to reverse? Or do we venture beyond the strait-jacket of prescriptive forms of property and top-down planning, in search of more innovative forms of landholding better attuned to the plight of the majority urban dwellers? It is with these questions in mind that we now turn our attention to the community land trust, a new form of landholding recently piloted in Voi.

Community land trusts: a new frontier of property for the urban poor?

A community land trust (CLT) is a grassroots institution specifically created to acquire and hold land in trust for a given group (Bailey, 2010). The defining characteristic of CLTs is that landed property is split into its two constituent parts: land, and the improvements upon it. Individuals own improvements but lease the underlying land, which is held jointly by all homeowners via a registered trust (Libby and Bradley, 2000). Because they are formed to hold property in perpetuity, CLT land is taken out of the market and separated from its productive use so that the impact of land-value appreciation is 'locked' into the community (BSHF, 2005). This enables long-term affordable and sustainable local development. Since members own their buildings but not the land, gains on resale can be earned only from appreciation in the value of buildings, and those gains are limited to just a fraction of the increase in the buildings' market value (Davis, 2006; Bailey, 1010). A pre-emption right is included in the lease of every parcel, giving the

CLT preferential rights to buy property when owners opt out (Davis, 2006). These conditions are designed to restrict the buyback price so that housing remains affordable to the next buyer, while at the same time allowing for a modest return on individual investments. This way, housing prices can be kept affordable, in perpetuity (Lipman and Rajack, 2011).

The CLT draws its inspiration from among other sources, customary tenures in Africa (Bassett, 2007), the legacy of Henry George (Davis, 2006) and Ebenezer Howard's garden city movement (BSHF, 2005). The US has had the longest experience with CLTs, with the state of Vermont being home to one of the most developed CLTs is the world (Libby and Bradley, 2000; BSHF, 2005). Elsewhere, the CLT is quickly gaining currency as the model is recognised not only as a viable means of overcoming the problem of social exclusion caused by escalating land values, but also as a vehicle for community-building (Kelly, 2009; Bailey, 2010). Despite their immense prospects however, CLTs are yet to be widely adopted in cities of the Global South. To date, the only notable examples of CLTs in the South remain the Maria Auxiliadora CLT in Cochabamba, Bolivia (Lipman and Rajack, 2011), and the Tanzania-Bondeni CLT in Voi, Kenya, to which we now turn our attention.

Implementing the Tanzania-Bondeni CLT, Voi

The Tanzania-Bondeni CLT is located in Voi, a Kenyan town of about 50,000 inhabitants. The project was implemented between 1991 and 2004 as a component of the Tanzania-Bondeni settlement upgrading project (Midheme, 2010). At the launch of the initiative, the settlement hosted some 4370 residents occupying 530 structures (Yahya, 2002). Most dwellings consisted of dilapidated hovels, typically 100 square-feet rooming apartments accommodating household sizes as large as seven persons. Up to 62% of the dwellings were constructed of temporary material. The residents were generally poor, with 70% either unemployed or earning less than US$8 a month (Bassett, 2005). There were no access roads, water or sanitation facilities. Furthermore, the neighbouring Voi River, on which residents depended for their livelihoods, had been heavily eroded due to uncontrolled sand-harvesting, brick-making and unchecked cultivation on the banks. The river bank had broken at several points, exposing residents to frequent floods. With neither access to financial credit, nor security of tenure, households' prospects for housing improvement were severely limited. Despite the squalid conditions however, the settlement was notably characterised by internal stability. At the onset of the project, up to 47% of the residents had lived on the site for more than 30 years (Midheme, 2010).

Origins of the Tanzania-Bondeni CLT initiative

In early 1991, residents of Tanzania-Bondeni petitioned the Voi municipal council to have their settlement upgraded. The local authority subsequently partnered with the Ministry of Local Government and the German development agency, GTZ, to implement the Tanzania-Bondeni upgrading project (Midheme, 2010).

Project objectives and institutional design for implementation

The project set out to achieve four main objectives: to (1) legalise the settlement by providing tenure security to residents; (2) enhance the delivery of municipal services to the settlement; (3) improve the environmental quality of the project area; and (4) boost the council's land-based revenues through increased land rates (Yahya, 2002; Bassett, 2005). These objectives were to be realised within the framework of certain guiding principles agreed upon at the start of the project, between the community and the other stakeholders. In short, these principles recognised that the upgrade would be a gradual, step-

by-step process to ensure community participation, learning, ownership and long-term project sustainability. It was also agreed that external interventions would be in support of, and supplementary to local efforts, rather than in replacement of it. A consultative forum would also be established to ensure structured communication between the community and the other project partners. Finally, it was agreed that the community would decide on the land tenure system they preferred, in order to enhance sustainable benefits and community-building (Bassett and Jacobs, 1997; Midheme, 2010).

True to the project objectives, the planning process was consultative and actively involved residents working closely with the project planners. A physical layout plan was eventually produced with provisions for residential and commercial plots. A market, schools, health centre, community centre and open spaces were also provided for in the plan. Furthermore, a riparian strip was set aside along Voi River to provide space for subsistence gardening, and to serve as a check against flooding risks. The final plan realised a total of 818 plots, far beyond the number claimed by original structure owners. Once the original claimants got their share, the extra plots were democratically allocated to other residents, with preferential treatment accorded to the elderly, the sick and the very poor; followed by long-term tenants (Midheme, 2010). The layout plan then became the basis for subsequent land surveys and subsequent land administration (Yahya, 2002; Bassett, 2005).

Land tenure and administration

Wary of post-project displacement that had characterised similar initiatives in the past, the Voi project team sought an alternative form of landholding that would deliver sustainable benefits to the community. In keeping with project objectives however, the residents themselves had to decide on their preferred form of landholding (Midheme, 2010). Accordingly, residents were introduced to three tenure forms: a housing co-operative, individual titles, and a CLT (MoLG, 2004). Each form was then presented to the residents, alongside its respective abilities to meet the project goals. A vote was subsequently called, in which 239 out of the 258 structure owners picked out a CLT as their preferred form of tenure (Midheme, 2010). What followed was the design of rules and other institutional organs necessary for CLT administration.

Implementation hurdles and their resolution

Being the first CLT initiative in Kenya (Yahya, 2002; Bassett, 2005), the Voi project had to contend with several practical implementation hurdles. To begin with, the CLT in its classic form could not easily fit within the Kenyan land law and administration system, owing in part to inadequate policy and legal support for communal landholding (Midheme, 2010). A further hurdle concerned the mode of incorporation. In the American system for example, CLTs are incorporated as not-for-profit entities (Davis, 2006). However, incorporation under Kenyan law is ordinarily reserved for profit-making concerns, which would not be a suitable organ for the management of CLT affairs. Yet another major obstacle was presented by the 'rule against perpetuities', which restricts permanent alienation of land from the market in common law jurisdictions such as Kenya (Bassett, 2005; Midheme, 2010). Because CLTs are by design established to hold and manage land 'outside the market', the rule presented a direct threat to the Voi project right from the outset (Yahya, 2002). The project team therefore had its work cut out: to explore alternative avenues of embedding the CLT into the local legal framework, while striving to preserve the model's original objectives as much as possible.

To circumvent the rule against perpetuities, two separate legal instruments were crafted. Residents first organised and registered themselves as Tanzania-Bondeni Settlement Society. Secondly, a trust deed was

drawn outlining guidelines on the appointment of a managing board of trustees. Trustees were subsequently appointed and registered as the Tanzania-Bondeni Community Land Trust (Midheme, 2010). The community then applied for a headlease from the Commissioner of Lands. Through the headlease, the government (who retains the radical title) leases the land to Tanzania-Bondeni CLT. The CLT in turn issues subleases to individual trust members as proof of property-holding within the settlement. For long-term operations, the CLT is administered by a nine-member board of trustees. The board is assisted by a residents' committee, which is responsible for the day-to-day running of the CLT. Thirteen members sit on this committee, with three seats reserved for women (Yahya, 2002; MoLG, 2004). Members are charged annual fees to enable the Trust finance its recurrent budget. The CLT's audited accounts are approved by members during the annual general meeting (Bassett, 2005; Midheme, 2010).

To ensure housing remains within the community, the Tanzania-Bondeni CLT reserves pre-emptive rights of purchase whenever a member leaves. Absentee landlordism is restricted, as homeowners are obliged to reside on their property. Although lessees are required to pay for collective services, such payments are staggered to accommodate individual circumstances. Furthermore, the money so collected is converted into a development fund and reinvested into community projects for long-term development (Midheme, 2010). More importantly, to cushion CLT members from displacements instigated by official building standards, the headlease incorporates conditions that bind the local authority into recognising existing dwellings on as-is basis. The owners are however required to gradually improve their houses to conform to municipal building by-laws, over time (MoLG, 2004).

Taking stock of the Tanzania-Bondeni CLT

Achievements of the initiative

The greatest accomplishment of the Voi CLT has been its ability to help residents gain legal access to urban land that had eluded them for decades. By ensuring protection against market-induced displacements, the CLT has facilitated the poor's access and retention of urban land and housing in a manner that could never have been possible in the open market (Midheme, 2010). The boost in tenure security has since led to increased construction of improved dwellings and social facilities. The upgrading initiative has further created opportunities for on-site employment (Yahya, 2002; MoLG, 2004). Besides, social facilities like schools, playgrounds and dispensary provided under the initiative have substantially contributed to the betterment of the residents' quality of life.

The initiative featured strong community participation, with both landlords and tenants alike actively involved throughout the process (Midheme, 2010). Tenant participation was especially enhanced by the fact that all residents (tenants included) are full members of the CLT. Accordingly, tenants too are entitled to housing ownership within the community in the longer term. They are equally protected from arbitrary increases in rents that often characterises conventional upgrading projects. As a result of this inclusive framework, all residents have banded together into one strong community (Yahya, 2002; Midheme, 2010). The CLT has thus been able to foster active participation in the creation of urban space by all users, beyond the landlord-tenant dichotomy ordinarily imposed by individual property ownership. Moreover, by inhibiting post-project displacement, the CLT has further contributed greatly to neighbourhood stability and the maintenance of social cohesion (Midheme, 2010).

From field interviews conducted between March and May 2010, it is clear that residents of Tanzania-Bondeni greatly value social solidarity – those symbiotic relations of trust, reciprocity and obligation among neighbours that are so essential for community life. The CLT has created the incentive for

residents to unite under a one-for-all, all-for-one philosophy designed to prop up each other in times of adversity. To them, the CLT is more than just a form of land tenure. It has provided a basis for the growth of a vibrant community premised on the principles of democracy, inclusiveness and horizontality (Libby and Bradley, 2000; BSHF, 2005). The initiative has further enabled residents to marshal resources from hitherto untapped sources. For example, residents have formed housing co-operatives to assist in housing finance. These co-operatives have formally been linked to the National Cooperative Housing Union (NACHU), from where members have been able to draw funds for housing development (Midheme, 2010). Self-help is also deployed in actual house construction and is premised on Kenya's long standing *harambee* tradition (Ngau, 1987). In essence, residents collaborate rather than compete, and believe that their community is only as strong as its weakest member.

The CLT has also conferred additional unique benefits. Intuitively, homeownership, restrictions on absentee-landlordism and incorporation of all residents into the Trust should all promote wealth accumulation, property maintenance, neighbourhood stability and social cohesion over time (Midheme, 2010). All these contribute to the building of stronger communities. Moreover, the CLT has provided a vital springboard for expanding civic engagement by building upon the bases of social organisation created under the project. This has long-term impacts on social action and community development, besides broadening the range of resources available to residents. Lastly, the CLT has afforded the poor residents an avenue to the coveted status of homeowners, with which comes the satisfaction of 'making it' (Libby and Bradley, 2000), a feat that most households could never have hoped to achieve, unaided.

Today, the housing situation in Tanzania-Bondeni had vastly improved, with the settlement housing close to 8,000 people in decent dwellings. But by the same token, about 20% of the original structures are yet to record any meaningful improvement owing in part to high levels of poverty among the homeowners. This confirms the disparities that exist in household capabilities to improve their dwellings. It is this same reason that reinforces the need for special arrangements to cushion such slow 'consolidators' from the onslaught of 'gentrifiers' seeking to benefit from the windfall of upgrading initiatives (Midheme, 2010).

Project drawbacks and proposals for improvement

There were weaknesses in the Voi initiative that will be pointed out in the hope of improving future initiatives premised on the same model. The first drawback experienced during implementation concerns the legal conundrum that governs CLT operations. As captured in the foregoing discussion, these can be long and unwieldy (Yahya, 2002; Bassett, 2005). Matters were exacerbated by the incongruence between Kenyan land law and principles of the CLT concept. Of particular importance are rules against perpetuities and restraints on land alienation, both of which conflict with the CLT's central concept of setting land aside indefinitely. To facilitate their future development therefore, the legal framework surrounding the operation of CLTs will have to be simplified to facilitate easier administration than is the case now.

Longevity and resoluteness of community participation is another area likely to derail long term CLT sustainability (Bassett, 2005; Bailey, 2010). Essentially, a CLT is a bottom-up edifice whose construction and success depends, on the ability of local residents to build a functional community. It cannot be imposed from above, either by the state or any other external agency. The reason may be simple but is rather a powerful one: external actors do not build communities; residents do. It is upon residents that the task of building and sustaining a CLT must thus be entrusted. This creates a practical problem however – that of managing community dynamics. Fundamentally, long-term sustainability is a major issue for CLTs as it depends on long-term community commitment which, however-rewarding, can be very demanding.

The challenge of longevity and stewardship is thus a real one and may call for long-term institutional support and facilitation from external partners, from time to time.

Conclusion

This essay has been an attempt to articulate an alternative to the hegemony of individual titles as the archetypical form of property, all in the hope that a modicum of land and housing rights may finally accrue to the urban poor. The main argument has been that prescriptive forms of property have yielded lamentable outcomes among vulnerable groups in urban Kenya and that alternative forms of landholding are urgently needed to stem the tide of social exclusion in access to urban land and housing.

On many fronts, there is room to cultivate alternatives to the hegemonic forms of property. However, such alternatives can only find meaning if they are made relevant to the needs of those currently shunted to the fringe by the prevailing state and market mechanisms of access to urban land and housing. As the Tanzania-Bondeni CLT initiative demonstrates, it is possible to creatively (re)design property rights by reconceptualising them to suit evolving social needs and realities of contemporary urbanism. That way, we can innovatively modify the sticks in the property rights bundle towards more socially-just ends. This however will entail a critical push beyond the hegemonic 'invisible hand of the market' and the 'visible fist of the state' that today characterise the landscape of neoliberal urban development (De Angelis, 2003).

In urban Kenya today, there are fewer issues that are more emotive than that of land (Syagga, 2006). Worse still, if our cities are shrinking in terms of developable land, it certainly is expanding in terms of new claimants to that land (Doebele, 1987; Blomley, 2008; Harvey, 2012). A possible way out of this crisis then, is to support an even broader range of approaches to facilitate access to the growing number of claimants. It is in this light that further development of communal forms of land tenure such as the CLT should be encouraged, recognizing that access to land is ultimately a political issue driven in many respects by concerns for distributive justice and concerns for human dignity (Syagga, 2006; Miraftab, 2009).

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Cities to be tamed? Standards and alternatives in the transformation of the urban South
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Informal growth of housing in Belgrade under the impact of transition to global economy[1]

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Increase in importance of cities in globalization has resulted in economic, demographic and spatial growth of cities. In the developing countries it induced informal growth of cities. Belgrade, as the capital of Serbia, developing country, has not escaped this process. Transition from socialist to open liberal economy, economic and planning conditions, together with the rise of migration from other parts of Serbia to Belgrade, induced very high growth of informal housing areas in the surrounding of Belgrade. Today informal settlements in Belgrade make 43% of total housing area. This paper will explore two case studies of informal housing in Belgrade. It will present the condition which caused and lead to the informal growth, the ways how it grew through two decades. The main aim of the paper is to present the specificity of these informal housing and to give general recommendation for improvement of informal urban areas and possible approach to taming its further growth.

Keywords: Informal settlements, Transition, Belgrade

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Introduction

Increase in importance of cities in globalization has resulted in economic, demographic and spatial growth of cities. The growth of economic importance of cities, especially in the context of investment inflow, has induced further migration intensification of citizens to the major cities, and consequently the spatial growth (Sassen 2001). Here the duality of globalization becomes visible - on the one side the development of high-rise business dwellings and on the other, informal settlements, especially in the developing countries. Belgrade, as the capital of Serbia, developing country in the Eastern-Europe, has not escaped process of informal growth. Informal growth and housing in Belgrade is specific and different from other cities of developing world, since Serbia is a post-socialist country and has experienced recent civil war and refuges migration from other countries in region. The economic and planning conditions, together with the rise of migration from other parts of Serbia to Belgrade, induced very high growth of informal housing areas in the surrounding of Belgrade. Today informal settlements in Belgrade make 43% of total housing area. They occupy large previously rural areas. Scale and character of informal growth put Belgrade peri urban growth somewhere in between the third-world sprawl and post-socialist housing transformation process (Tosics 2005).

This paper will explore two case studies of informal housing areas in the Belgrade in Serbia. It will present the condition which caused and lead to the informal growth, the ways how it grew through two decades. The main aim of the paper is to present the specificity of these informal housing and to give general recommendations for improvement of informal urban areas and possible approach to taming its further growth.

The growth of Belgrade till 1990s

Brief introduction to Belgrade historic development

Belgrade is the capital city of Serbia, located in the south-east of Europe, in the North-Western part of the Balkan Peninsula. It is a vibrant metropolis of 1,6 million residents in metropolitan area, situated on the river banks of the Danube and Sava. Belgrade is "the largest city in Serbia and throughout the territory of the former Yugoslavia. It is the third largest city on the Danube (after Vienna and Budapest) and the fourth largest city in Southeast Europe (after Istanbul, Athens and Bucharest)" (Hirt 2009: 293).

First archaeological remains suggest that the first inhabitation of today's Belgrade territory goes back to the 5000 BC. Belgrade received its present name in the sixth century. In the 15th century Belgrade was designated as capital of Serbian Empire. Through history, with the occupation of Serbia by Ottomans and Austrian empire it lost its capital status, but stayed one of the largest and most important cities of the region. From the begging of 19th century Belgrade reclaimed its status as the capital of Serbia (Norris 2008). During 20th century Belgrade changed its capital status, from centre of small nation-state, to centre of multi-national federation Yugoslavia, to capital of nation-state once again (Hirt 2009).

Urban growth of Belgrade in the socialist period

After the Second World War Belgrade grew rapidly as the capital of the Yugoslavia, socialist country. Population nearly doubled in the late 1940s, reaching over 600 000 inhabitants. The growth was a result of natural increase, but much more of immigration from rural areas as a consequence of industrialization. Urbanization process induced very high growth of Belgrade, and by the 1970s it doubled its population again, reaching more than 1,2 million inhabitants (Statistical Office of the Republic of Serbia 2002). During the process of rapid urbanization city did not have adequate infrastructure and housing to

accommodate all the new industrial workers. The solid transportation system allowed them to settle in the surrounding areas of urban centres. 'As a consequence increases in population were most significant in the surrounding areas of urban centres' (Tosics 2005: 50), and a growth of city area. At the 1950s Belgrade territory was 2090s sq km. Intensive growth of Belgrade resulted in its sprawl and by 1970s it reached today area of 3222 sq km (Gligorijevic et al. 2007). The development of socialist cities was centrally controlled and planned through long term, deterministic plans. The state owned most urban land, was almost the only developer of urban buildings, and was responsible for the construction and providing of housing (Tsenkova and Nedovic-Budic 2006). Although the ideal was to insure housing for all citizens, this ideal was never achieved in socialist cities. In the metropolitan area Belgrade, in the 1980s two-thirds of housing was publicly owned (Petrovic 2001). Those who did not manage to ensure governmentally provided flat in collective housing were left to find the solution outside the plans. The first informal settlements started to develop during the socialist period, but the amount was small.

Informal growth of Belgrade in the period of transition

Informal settlements and housing

Process of high urbanization and expansion of cities often induces illegal construction and creation of informal settlements. In most cities of the developing world, informal settlements are not only a fundamental part of urban structure, but also a principal impetus of urban expansion (Cruz 2001). Informal settlements in this paper will be seen as those settlements 'that have developed through unauthorised occupation of land' (Huchzemeyer and Karaam 2006: 3). The informal settlements are constructions carried out 'without previously acquired building permits and authorized blueprints, on a site that is not foreseen for construction and building purposes in existing plans of all levels' (Zegarac 1999: 365), without paying regard to dominant law and order.

Informal settlements are irregular in their physical settings and illegal in the appropriation of land and/or building rights (Mahmud and Duyar-Kienas 2001). 'Informal settlements provide shelter for a large and growing percentage of the urban population of cities in the developing world' (Abbott 2002: 317). The lack of formal institutional solutions for housing of new migrants to the city causes the private informal creation of houses by the migrants themselves in order to solve their existential problems. The character of such spontaneous settlements is different in each country.

Transition from socialist to global economy

The period of globalization for the post-socialist countries was marked by two parallel processes: the process of incorporation into the global flows, and the process of re-establishment of the market economy (Rykiel 1998). For the most post-socialist cities it is not difficult to determine the point when the transition started. It was the collapse of socialism in 1989-1990 (Tosics 2005). At the same time they moved from the closed, state-managed socialist economy to more open systems based on market principles, from socialist towards the capitalist society. The transition from socialist to global economy for Serbia was much different. The transition was slowed due to armed conflict in the 1990s in the surrounding areas of Serbia and international isolation. The legacy of late 1980s Yugoslavia, with decentralized political structure and quasi-capitalist reforms, with the beginning of 1990s and election of nationalist elites was erased. The transition was stopped. The 1990s for Serbia were marked by very difficult economic situation: hyperinflation and GDP fall of over 60% in four years. The situation was followed by the loss of the municipal powers and trust in government (Gordy 2004).

For Serbia the transition process started with one decade delay comparing to the other socialist countries. In 2000 Serbia elected its first democratic government, and the process of global integration and economic changes started. Serbia opened its market and re-integrated to the international organisations and markets. The general control over the development has been eliminated. Economic situation stabilised, and through foreign investment its economic situation started to improve, but it still has not reached the level before of 1980s (Zekovic 2009). In this paper the term transition in Serbia will be used to mark the whole period from 1990s till 2012, no matter the fact that the real transition started at year 2000, with the aim to mark the first changes in socialist cities.

Socio-political framework of informal growth of Belgrade in the period of transition

The transition brought about fundamental changes in the sphere of housing ownership and planning regulation of urban land. The transition brought back the private ownership of housing and land use, instead of the public government. One of the basic characteristics of the socialist city-model was the non-existing private urban land and real estate market. 'The most common theme in housing reform in the transition economies has been the privatisation of state housing, normally sold to existing tenants at below-market prices' (Stephens 2003: 1021). By the 1994 95-98% of public housing in Belgrade was privatized (Petrovic 2001). With the privatisation of housing the real estate market was re-established (Tosics 2005), and economic elements started to influence housing development. On the other hand, the process of urban construction land privatization started only recently, in 2009.

The introduction of real estate market in the 1990s, with the characteristics of those of capital cities, marked by extreme economical crises and high poverty of most of its inhabitants, had the negative effect on the city development. Public sector stopped investment in housing production and maintenance and the number of dwellings built per year dramatically declined (Vujovic and Petrovic 2007). Private investors have entered the process of housing production, but the crises of local planning institutions and state power pushed them to the illegal sphere. On the other hand, market prices of the housing in the city were too big for most citizens and new migrants to the city, economically exhausted by sanctions, inflation and unemployment. As a result, for many citizens and migrants of Belgrade the only chance for acquiring accommodation was private building of modest huts on the periphery of Belgrade (Zegarac 1999). The share of individually built dwelling in Belgrade grew from 35% in 1990 to 75% in 2000 (Hirt and Petrovic 2011). The further demographic growth of Belgrade during the period of transition, from 1,4 to 1,6 million of inhabitants (Statistical Office of the Republic of Serbia 2002), have induced sharp increase in housing demand, which, without adequate supply resulted in the informal sprawl of Belgrade. There was a great deal of illegal construction on agricultural land on the fringes of the city, as well as in the areas inside city borders on the urban construction land designated for public use. Although the overall metropolitan area of the city has remained mostly the same, the percentage of non-built land (agricultural land, green and protected areas) have drastically decreased. The problem was severely aggravated by the influx of refugees from the other parts of the former Yugoslavia, when approximately 100.000 of them have settled in Belgrade (Hirt 2009). The informal and illegal construction became dominant form of housing development in Belgrade city, ignoring the urban plans and legal frame. Informal and unplanned growth became the reality and dominant model of Belgrade housing development. After 2000, democratic changes and international integration dramatically changed the development in Belgrade. The inflow of foreign capital and the rise of GDP resulted in the expanding of construction work in Belgrade. In the period from 2000 to 2005 the amount of construction increased seven times. The collective housing

dominates the construction sites of Belgrade, together with offices. The amount of single-family housing building decreased, but it still mostly stays in informal and illegal sphere.

Spatial analysis of informal settlements in Belgrade

Informal settlements and housing in Belgrade in the period of transition

Informal settlements and growth of the city has always been present in the history of Belgrade. But from the beginning of 1990s, informal growth of Belgrade has reached very high level. It became the dominant way of city growth and development. Informal growth started to mark the development of Belgrade, especially its periphery. Regardless, the importance of the informal growth, the detailed study of the areas affected by informal settlements, determining the number of dwellings and inhabitants that live in these settlements, was never conducted. As a result, exact data about informal growth does not exist. Only, general approximations about the area and the number of informal housing were given through several studies. The estimates about the amount of illegal construction in Belgrade vary. For example Janic (1998) estimates that in Belgrade there are about 150.000 illegal housing unities. According to another approximation Belgrade had around 76700 illegal buildings in 1995, while by 1997 number increased up to 84000 illegal object. But this is not the real number. Officials estimate that the number is up to 30-50% higher in reality than estimates (Zegarac 1999). Only 20% of the buildings in the peripheral areas were actually planned or regulated by some urban plan (Djukic and Stupar 2009). Third estimate is based on the applications for the legalization. By this estimate the Belgrade has about 147000 illegal buildings (Petovar 2005). But this is not the final number and it in reality few times higher, since not all owners of the informal housing applied for the legalization.

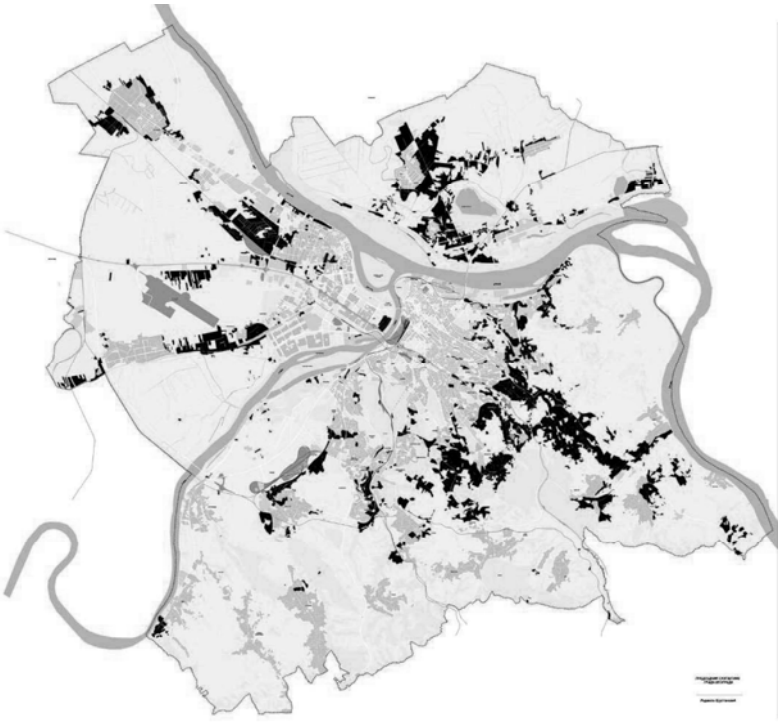

Figure 1. Distribution of informal settlements in Belgrade, according to Belgrade Master Plan 2021. (Dark areas present informal settlements)

The informal settlements develop on the periphery of the city, changing the overall perception of the Belgrade, and becoming large semi-urban semi-rural city periphery. The city informally grew around the main roads that connect city with the surrounding area, and with time merged with the rural surrounding. The informal settlements developed on the previous agricultural land, through unauthorized subdivision of agricultural land and conversion to building land. Belgrade Master Plan (2009) designated 12 653 ha for housing in total, while informal housing by 2005 occupied 5430 ha. This way, the amount of informal housing growth of Belgrade reached unbelievable 43%. Almost half of all residential land was informal (Ferencak 2006), making a Belgrade unique city of post-socialist country, in the amount of land occupied by informal settlements resembling to the third-world cities.

Spatial analysis of case studies of informal settlements in Belgrade

For the spatial analyzes of informal settlements in Belgrade two most specific and largest informal housing settlements have been chosen, Kaludjerica and Jelezovac. The former has been chosen since it is by far the largest and the oldest informal settlement, while the latter, although also large, has been chosen because it is the newest, still unfinished illegal area in Belgrade. Their development has started in different time and political periods and with different social background, nevertheless their spatial organization and urban pattern is very similar. These were additional, also important criteria for taking the two settlements as case studies.

Informal settlement Kaludjerica in Belgrade

Huge illegal settlement Kaluderica is the largest and the oldest illegal settlement in Belgrade region. It is positioned by the north east Belgrade continually built area and is part of Grocka local municipality. It is claimed to be the largest illegal settlement in Europe. Kaludjerica is bordered by two main traffic corridors – highway E-75 and Belgrade – Smederevo regional road, though it has partly expanded by the other side of regional road too. Estimated size is around 1200ha, with average density of 150-200 inhabitants/ha. According to the Statistical Office of the Republic of Serbia, officially there are around 32 000 inhabitants, while the unofficial estimation says there are more than 100 000 inhabitants.

Figure 2. View over the Kaludjerica informal settlement.

Kaludjerica became known as informal housing settlement during the 70s, though till the beginning of 90s it was much smaller, approximately one third of the present size.

Its origins are related to the social and housing problems of socialistic Belgrade. Namely, immigrants from other parts of Serbia, in search for jobs came to Kaludjerica to settle since they couldn't solve their housing problems through official ways of getting accommodation in high rise collective residential areas. From a small village, Kaludjerica has grown to a big informal settlement in short period.

City has faced a big dilemma of whether to demolish such a big residential area or to try to direct its development into regulatory framework. Since demolishing would have been very unpopular and would have caused a great social problems and new pressure to the city and state government, Kaludjerica was left to itself – to rise and grow by its own logic. Over a long period of almost four decades a single comprehensive regulatory plan has not been made. Meanwhile, Kaludjerica experienced great expansion and tripled its spatial and demographic size without any regulatory plan or direction.

Kaludjerica is situated in a hilly part by the north east Belgrade city outskirts. The terrain is relatively convenient for building and there is still a decent share of green areas. The concentration of buildings is the highest along the regional road Belgrade – Smederevo, while further to the south the density is much lower. Dominant land use is for residential areas – approximately 90% of total surface, but there is significant share of non-residential land use, such as retail, services and other commercial activities, mostly concentrated along the main traffic corridors. Traffic network is irregular and insufficient. Except the electrical network the infrastructure mostly does not exist. Some parts of the settlements are provided with water supply. Streets are narrow, without drainage and often are lined with large slope, so driving is difficult during winter period. There are almost no sidewalks for pedestrians. Since all kinds of transport overlap in a narrow corridor, safety is low. In the future, street regulation could be very difficult since it would cause massive demolishing of houses facing such streets in order to provide safe width of streets and sufficient place for infrastructure equipment. One of the main problems about Kaludjerica land use structure is lack of public spaces and services, such as schools, health and children day care facilities, which are a direct effect of illegal building process and absence of regulatory plans. Although the Institute of Urbanism Belgrade has started the formulation of planning strategies and regulatory solutions for this part of Belgrade area in 2010, it is not yet brought to public.

Figure 3. Areal photo Kaludjerica informal settlement (Source: Republic geodetic authority of Serbia).

Urban structure of Kaludjerica is irregular and spontaneous. There is no firm urban matrix with defined size of blocks or parcels. Parcels are often irregular and of insufficient size, not enabling good orientation and position of a house towards neighboring houses. Therefore, privacy is often threatened since the space between houses is very narrow. Architectural design shows the spontaneous nature of building – houses are simply designed and in most cases without any particular characteristic of style. Decorations are rare and often inappropriately applied. The interior organization also lacks good architectural design but housing units are functional in its simplest meaning. Unfortunately, there are no reflections to the traditional Serbian housing. Concluding, it is easy to say that instead of being respective residential area, with high quality of life, great green areas and good urban pattern with minimum of planning intervention, Kaludjerica is mostly perceived as impersonal and disharmonized residential area, being neither quite urban, nor rural settlement.

Informal settlement Jelezovac in Belgrade

Jelezovac-Suncani Breg settlement is located in the southern part of Belgrade, in Rakovica municipality, with total size of 220ha and estimated density of 100inhabitants/ha. The settlement is located near Railway station Jajinci, Rakovica monastery, legal residential area Miljakovac and monastery forest, and is connected to the other parts of Belgrade by regional road to Avala mountain and Belgrade southern ring road. It is hilly area with outstanding position and very good natural conditions. According to the Institute of Urbanism Belgrade research (2011), there are 2160 inhabitants.

Suncani Breg-Jelezovac settlement is a new residential area, constructed since 2000, still under construction. Until 2011 there was no regulatory plan for this area. Although the housing was built illegally, the owners took initiative to start a regulatory plan for this area in 2005 Since the procedure of plan making took 6 years, most inhabitants have applied for the legalization. The draft version of regulatory plan for Suncani Breg and Jelezovac has been made in 2010 by Institute of Urbanism Belgrade, after building of most dwellings was finished, but the plan and the planners have not taken the real situation into consideration. During the long procedure of adopting the plan, the citizen have put significant pressure to the local municipality and city government bodies, managing to change the planning solutions, specially referring to the traffic network and infrastructure.

Figure 4. View over the Jelezovac informal settlement.

Suncani Breg-Jelezovac has been built on agricultural land, it is almost entirely residential and is completely without infrastructure equipment, with the exception of electricity.

Surface	**Existing land use:**	**Proposed land use:**
Residential areas	23%	35,4%
Agricultural areas	71,5%	0%
Green areas	5,4%	16,4%
Public areas and services	0%	47,5%
Commercial areas	0,1%	0,7%
TOTAL-SURFACE 220ha	**100%**	**100%**

Table 1. Existing and proposed land use, defined by Regulatory Plan of Suncani Breg-Jelezovac (2011).

In present situation is clearly evident the lack of public services and areas, as well as the lack of traffic and infrastructure corridors. By implementing the regulatory plan, this situation should significantly change for the better, especially in providing public services (such as public schools, health and children day care facilities etc.) and forming sustainable traffic and infrastructure network. Now chaotic and unfinished urban matrix should also be improved by forming urban blocks aimed for residential and other uses.
The typology of existing housing units is very simple – there are simply formed houses of good quality, without decorations or characteristic of architectural style, of average size around 150m², with ground and first floor only. Form of plots is mainly regular with significant presence of greenery (approximately over 50% surface). The street network is irregular and not adapted to the terrain characteristics, very narrow, without sidewalks. On the other hand, housing units are mostly good positioned with proper distance between each other.

Figure 4. Areal photo of part of Jelezovac informal settlement (Source Republic geodetic authority of Serbia).

The above analysis shows that even though Suncani Breg-Jelezovac settlement was built illegally, since the entire area is still not completely used for illegal building there are still chances for its upgrading and transformation to high quality resort in Belgrade suburb area. The collaboration of local inhabitants and professional planning institution and good timing have given a good result, making it possible to shape the settlement toward regulatory framework and according to the strategic vision of Belgrade development, as it was defined in Belgrade Master Plan 2021 (2009).

Characteristic of informal settlements of Belgrade

After the spatial analysis of case studies the general conclusions about general characteristic can be made.

Form and structure of Belgrade informal settlements show that they have developed spontaneously, from bottom up, without urban plans and regulations, through daily struggle of its citizens for the living space in the country capital and regional metropolis.

Urban pattern of these settlements is irregular, without real urban matrix as a result of division of previously agricultural parcels in smaller units for housing development. The streets are narrow, usually wide just to provide one car passing at the time, and winding as they follow the borders of previous agricultural parcels. The infrastructural equipment of streets is poor. Infrastructural equipment of informal settlements ranges from very poor to basic, depending of the area in the city. According to findings in 1995, around 10% of housing units in the informal settlements do not have electricity, 35% are not connected to the public water system, and 80% do not have connection on sewage system (Djukic and Stupar 2009). The rainwater drainage of streets is not built so the rains present problem for stability of streets and housing, especially when having in mind that most of the settlements are built on potential landslides.

Service provision is low in the informal settlements. The public services are not adequate for the number of inhabitants, since the whole settlement was not planned and there were no planned public services. As the result the inhabitants are for the basic needs oriented to the nearest public services in neighbouring parts of the city. This, together with the inadequate traffic infrastructure worsens traffic jams.

The character of houses in informal settlements of Belgrade is especially interesting. Although the urban pattern of Belgrade informal settlements is somehow similar to the sprawls of other cities in developing world, the character of buildings is completely different. Buildings are not temporary improvised structures. They are permanent houses built of solid material, made to serve several generations. No matter they are built from concrete and brick, they are in most cases built without any plan and design, and built by the citizens themselves or not adequately trained workforce. This puts under the question the stability of these objects, especially in the case of natural disaster. The height of buildings varies from 1 to 3 stories and their size from 50 to more than 300 sq meters. Poorer informal settlement inhabitants build small houses of total surface sufficient only for basic need for the family. Richer citizens build big exclusive villas. The middle class, so to speak, starts building bigger houses, which in many cases remain unfinished due to the lack of finances. As a result many houses in the informal settlements stay unfinished.

The informal settlements of Belgrade show dual character of transition. They are the areas where the illegal construction is done by urban poor, urban migrants and refugees with the aim to provide essential living space. At the same time the developed houses in many cases are not basic huts, with minimum needed square meters of living space, but rather big houses with more than 150 sq m. Built in informal settlements without adequate urban plans they do not have access to basic infrastructure, but often have exclusivity of modern villas. At the same time informal settlement in Belgrade are the places for migrants

and urban poor to find accommodation in city, but as well places where urban rich build their dreamed houses without restrains of urban plans and legislations. The duality of globalization is easily visible at most of the informal settlements of the Belgrade.

Recommendations for improvement of informal settlements in Belgrade

'Most governments would agree that informal settlements are an indication of failure of the public sector, the legislative framework and the economic conditions' (Huchzermeyer and al. 2006: 20). The failure to provide adequate plans at adequate time, to follow the need of Belgrade inhabitants and Belgrade growth has resulted in high informal growth of Belgrade. '[S]cale of informal settlements in country is an indicator of the performance of a number of sectors of government and of the economy' (Huchzermeyer and al. 2006: 20). Taming the city growth of Belgrade requires different approach, more comprehensive. Instead of simply dealing with the symptoms it needs to deal with the causes. Recommendations and suggestions for improvement of informal urban areas in Belgrade reflect the idea of comprehensive approach to the solution, the approach which is realistic according to habitants and economic conditions of city:

- Adopting the set of special laws and regulations referring the urban planning aspect of these settlements and including urban upgrading principles and indicators. They would enable the infrastructure and traffic equipment of the most of the illegal buildings and settlements with minimum of investment. The regulations would also refer to the lower standards and 'softer' criteria than the ones defined for the rest of the city territory.
- Intensifying the production of urban land use plans for these parts of the territory, which will be the legal basis for the construction of necessary transportation, utility and social infrastructure. The appropriate timing for making plans as well as fast implementation is crucial for the process of 'taming' the illegal – 'wild' settlements. Planning action should quickly respond to the building initiatives, no matter if they are legal or illegal (World Bank Institute 2012).
- Definition of special fiscal instruments exclusively for these city areas, so that the citizens can do their commitments according to their realistic economic possibilities (e.g. lower payments for the use of urban construction land and infrastructure).
- Intensifying the displacement of areas with low sanitation conditions and which cannot be upgraded. (Some of them are even a threat for health conditions and social safety). It is also necessary to provide areas for displacement in urban land use plans, as well as the areas where these citizens could organize some of the economic activities that will enable them economic survival and social integration.
- In the context of climate changes, it is necessary to plan public facilities which would provide the shelter for the most threatened groups of people, such as refugees.
- Having in mind that settlements lack the social infrastructure, especially education facilities, it is necessary to enable the introduction of additional lines of public transportation or school buses that would allow children a relatively quick and safe access to schools. In this regard it is necessary that regulatory plans provide for adequate street widths for the movement of school buses. As for the day care facilities for children, is necessary to foster building of affordable private units, since there is no chance to provide public construction land in already dense built informal areas.

- Planning the sports and recreation facilities and areas, as well as other public places, meeting the social and other needs of youth and children. The implementation should involve facilities in private sector, as well as public private partnership in this field.
- Finally, the most important recommendation refers to the set of future actions for planners and city government: a/defining the city border in order to prevent further re-use of agricultural land out of the city territory; b/fast planning action (regulatory plans) with the aim to provide planned areas for further residential needs of the city within the city border; c/preservation and acquisition such planned areas for traffic and infrastructure equipment, using the model of public and private partnership.

Conclusion

In the context of sustainable urban planning it is important to emphasize mutual dependence between land use and growth of the city on one hand, and ecological, social and economic development on the other. In the case of Belgrade its correlation is even more obvious since the spatial consequences of imbalanced 3E are more than visible. Wise governance instead of governing as a way of implementing institutional sustainability will result in balanced land use planning and inner city growth, replacing the practice of spreading and widening the city territory.

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Visioning how Small Scale Projects Could Be Strategically Extended to Large Scale Long Term Interventions. A Lesson from Uganda

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This paper describes how small scale design intervention could have a strategic function within longer term interventions. The concept will be explored through students and a community incremental housing unit project conducted recently in Kisenyi community (Kampala) in Uganda. The project demonstrates the important potential of giving the "right to the city" also to low-income earners through practitioner-developed design alternatives. The author in the role of practitioner, together with students, encountered merits and challenges in their roles played alongside of other city actors throughout the project. While this project does not set guidelines for scaling up, it does uncover crucial challenges and actors to be considered when setting the strategy for large-scale, long-term interventions. The importance of housing from a holistic development perspective is embedded in the students' work. This project demonstrates further implications and potentials for 'scaling up' to city level development.

Keywords: Design, Role of professionals, Scaling up

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Introduction

Every year thousands of new scholars join the international architecture community, but they hardly manage to play their role facing the rapid changes in urban development. In the last fifteen years, small scale interventions are happening all around the globe, such as Torre David's project called 'The world tallest squat', which was presented at the Biennale de Venice to address the 'other 90%', achieving a lot of attention from the jury and visitors. There are more and more study programs focusing on understanding the relationship between formal and informal city fabrics. The architecture firms started to cross the boundaries of their professional expertise and to discover the overall complexity of the city. But still this is probably more out of curiosity than out of the actual recognition of the emergent need that calls for professional change and bigger scale of action. Hence, what role should we as professionals play?

There is a professional challenge to be taken which was traditionally not addressed in architecture, planning or design schools. One thing is to recognise the basic needs of affordable shelter without design qualities, design products, which are more practical than esthetical or new service interventions, which are assisting people who are left behind the city grid. But when it comes to scale, a larger impact and long term interventions, we struggle due to the lack of knowledge and good practice.

As it was stated in the World Urban Forum 6 by Joan Clos at the opening ceremony 'the antidote to slums is planned urbanization'. But how do we compete with rapid urbanisation changes which shape our cities and how do we actually plan/design the informal city? Even though there is fifteen years of 'production' of successful small scale interventions, these are not seen as potential pilot projects which could be scaled up and have a larger impact for the future urbanisation of the cities.

In this paper I will discuss and explore how small design interventions could strategically be extended and how city actors might become crucial for a successful scaling up process. My discussion will be based on incremental housing unit intervention done by students and the community in Kampala.

This intervention will be used as a lens for exploring the steps that need to be taken for scaling it up. Addressing the affordable low cost housing issues in Kampala will uncover not only the lack of proper legislation - like housing and urban policies improvement -, but it will also bring a better understanding of some city actors who are crucial elements in order to achieve the changes in policies and urban development. The understanding of the dynamics and the complexities of good urban governance will help us to define the steps to tackle the challenges we might face during the scaling up processes in our interventions.

Design as resource - Rediscovering the role of professionals

Design has been involved in development for the last 50 years as an element of humanitarian assistance. Only for the last 15 years design has started to be seen as a resource for development, but it is still struggling to be seen as more than merely a short-term action.

Today there are examples of successful design interventions that cultivates choices for the ones who hardly have any, but making these practices to strategy for scaling-up, rather than site specific isolated projects, is still a big challenge for professionals to face today.

The last years and especially months role of 'design' is not anymore exclusively questioned in the academic world, but also in the daily design media. Maybe this is due to the last event - the Biennale de Venice- that brought so much attention to the fact, that the informality needs to be addressed and rapid urban change in our cities should not be ignored any longer. As was shown in Tore David's project, if we will not recognise 'them', 'they' will adapt to 'us' and 'our' cities anyway.

'The tallest squatter' is just an example how professionals like architects, politicians, economist and others, who were involved during decision making, are now confronted with a reality that is out of their control. The attention in media shows a new turn in the profession, giving a stronger recognition for the 'other 90%' but neither our education, nor our experience as practitioners has prepared us for the changes or the different attitudes.

Acknowledging the values which our professions hold, the changes and challenges today brought for us by city dynamics calls for a need of different kind of professionals. Referring to it, our professional trainings need to be supplemented with 'reality studios' were students could be exposed to the real tasks of real projects. And it still leaves us with a challenge: how do we prepare the future generation of professionals to avoid just the role of charity and to act differently. In this paper, I will focus mostly on the challenges and role changes which architects and planners are facing today. Even though I will try to limit myself thematically, I will still be crossing the boundaries of our own disciplines, since it is probably the only way to work, when we venture into unknown territory to which we have never been exposed from before.

Whether and how we can scale it up?

The importance of design in informality has thus been recognized, the need for the changes of professionals' attitude also discussed, but the main question still has not been addressed over: whether and how, small design interventions can influence and impact city development.

What actually is scaling up and how much of success of this process can be influenced by design professionals? Referring to an urban theory scaling up complexity goes beyond impact in size and requires active political will. 'Scaling up means expanding, replicating, adapting and sustaining successful policies, programs or projects in a geographic space.' (Hartmann and Linn, 2008).

As a design interventions have its own limitations on how much they can be scaled up, it is still important the way we start the project at the community level and small scale intervention which will set the success for upgrading or up scaling to horizontal and vertical dimensions on the urban and national levels.

Up scaling is a complex process where the critical development issues need to be addressed and good city governance plays an important role.

The city governance is not just about the formal structures of the city government, but it includes a broader range of actors and relationships among them. 'It is these interactions and relationships – informal as much as formal' (Devas 2004). I see the scaling up as a learning process for all the stake holders when they are involved from the beginning of small scale intervention. Learning from mistakes and adding resources, knowledge leads to scaling it up to the city scale and even national wide interventions.

However, the scaling up is complex exercise for Urban development practitioners, but I will try to narrow it down to everyday practice where small design intervention can be successful 'kick off' for scaling up. I will use fieldwork intervention in Kampala from Norwegian University of Science and Technology (NTNU) Master Program of Urban Ecological Planning (UEP) as an example which has a potential for scale up. I will not go deep into to the discussion of steps for scaling up or good city governance, but rather focus on its constitutive elements.

In case of Kampala I will group these elements (city actors) as: community, practitioners and institutions (See figure1). City actors will work as a lens to analysed as crucial elements for successful scaling-up of urban development interventions. The discussion will be based on my previous practices and students design intervention in Uganda.

Work with people for people

Every second year our students have an opportunity to discover and understand the complexity of urban development by working with communities in Kampala city for two months. Last year, we had an extraordinary chance to be invited to participate in Uganda's slum Dwellers federation (USDF) on-going land sharing project in one of the centrally located slums in Kampala city (Image 1,2). Results of the fieldwork were so 'real', that it was hard to evaluate them just as a typical students' project. During the fieldwork students were challenged by real problems on the ground.

Community based organizations	Practitioners	Institutions
SDI Slum Dwellers International	**NTNU** Students	**Local Authorities** Councillor of Kisenyi Paris Chairman of Kiti Zone
USDF Uganda Slum Dwellers Federation	**Makerere University** Students	**KCCA** Kampala Capital City Authority
NGO Act together	**SDI** Architect	**Ministry of Lands, Housing and Urban development**
	Actogether Engineer	

Figure 1. Structure of actors during the project. Elena Archipovaite © 2012

They tried to understand the community and work with them, to get familiar with local authorities, find out and discover leadership power tensions among organisations. It was their first introduction to the dynamic city's functions and experience of incidences when formal and informal interests meet and clash most of the time.

When students joined the project, the negotiation process among the squatter, federation and the land owner had been going on for some months. At first, students were given a task to get familiar with people who stayed on the land and shared the plot and then map it.

The second stage of the project was held together with the community discussing and trying to model the housing space design solutions considering their cultural, economical and physical aspects. At the end the community come up with space design for incremental housing unit which could be expanded according to the family needs and income.

During the project a presence of federation in Kisenyi settlement was crucial for the successful exercise. Without them, the common ground, which community and students found at the beginning of the project, would never have been realised and had continuity, as it is now.

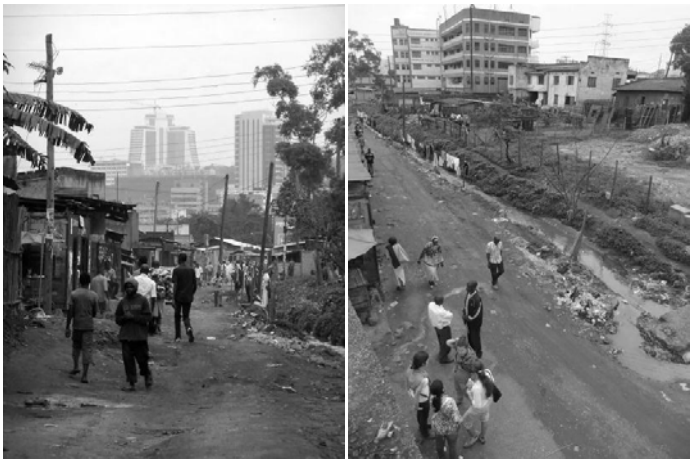

Image.1,2. Kisenyi settlement. Hans Skotte © 2011

The role we play

The exercise with students in Uganda is just an example which actually shows the needs of reconsidering and crossing the boundaries of our profession. It starts with an education and the need for students to be exposed to real projects. Even most of our students had a professional experience to work with informality; they were lost and affected by the Ugandan reality for the first two weeks. A possibility for the students to be exposed to reality during their studies makes them more responsible for their own presumptions, opinions and actions, which they never came across in their profession. This student's exercise showed us that there is a need for different professional approaches in urban development. Our students had architecture, engineering, geography and planning backgrounds. However if somebody would ask them, whether they managed to act in this project according to their education as professionals, their answer would be negative. 'Thinking outside the box', 'dreaming beyond the bricks', crossing the boundaries of their professions were the biggest challenges they faced during the fieldwork. It was not only to discover the unknown or to go to other disciplines' topics, but also to cross unknown relationships which actually created insecurity and tension among partners on the ground, without even knowing it. It happened for students when they interviewed the property owners in the fieldwork without informing federation and this caused the tension and mistrust between the owners and the community. But there is no school or professional training which could prepare us to handle these kinds of situations. It is 'learning by doing' process: where one faces the completely unknown and where the other has to face the consequences of it afterwards. These kinds of situations are not unique when we work in the environment owned by people. Similar situation I also experienced while constructing the community toilet in Kibera, Nairobi, where 'ownership' of the land was not clarified with community and the building was destroyed in one night. Considering my previous practice in the field and experience I had together with the students in Uganda, I assume that being professionals in complex urban environments we can contribute more as mediators between the actors and organisations, than the particular kind of craftsmen. I tend to think that our role is merely occupied by facilitating the process in the early stage of the project to ensure the possible success for scaling up.

Student's role

Even though there was a lot of tension on the ground during the fieldwork, after a while students discovered the strength they actually had. It is almost hard to believe that in two moths they established a partnership and trust within the community. At the same time they also communicated with local authorities as young professionals shared information and got inside of the city planning authorities. At the end it was amazing to see that they manage to bring all the people together for scaling up workshop which we had with Nabeel Hamdi for three days on 'scaling-up'. In this case the students' exercise unfolded the role of professionals as community architects acting as mediators between community and institutions which are important for common work to reach the larger impact in the process of scaling up.

Home beyond bricks

Although the task, which was given by the Slum Dwellers federation, was to look for housing space design solutions, students understood quickly that they need a different approach to deal with the task that applied in the design studio. Students conducted a 'dream house' workshop together with the community to find out what the house and the home is. At this workshop I observed that the community clearly knew, what their needs are, and students tried to contribute with their skills to visualise the ideas. The community and students enjoyed the dreaming house exercise, however lately they discovered a big challenge to developed ideas further on. 'Designing a house does not solve the housing problem' (Hamdi, 2012). We could learn a lot from similar housing intervention done in Uganda. In order to be successful, in addition to the physical form there is a need to address the social and economic aspects of the house as 'home' with people and their livelihoods as an integral part of it (Image 3,4,5). After the workshop students visited local planning authorities to find out if there were any alternative solutions which addressed the housing deficit of today. The exercise done by students exposed the lack of a housing policy which could ensure and address the needs of the urban poor. According to the statistics, Kampala alone has a housing deficit of 100.000 units. The city grid is not prepared or has never been planned to accommodate this size of population. Even though there are a lot of private developers coming into this 'urban jungle', they do not plug into any proper legislation which could control the development process. As architect Harry Kazahuura admitted, 'Uganda lacks both housing policy and an urbanisation policy to regulate and accelerate the construction of housing units' (New Vision, 2012). The challenges Kampala is facing today are too big for any country government to handle. It is clear that there is a demand of private sector to rediscover this field, join the forces with government and communities to create housing innovative product for low income earners.

Image.3. 4. 5. Kawama Housing project in Jinja. Jinja project helped the students to understand what is 'home beyond the bricks'. It is not only in low cost building techniques and materials, but also the choice for the site: distance from center, need of basic infrastructure and plan for sustaining the livelihoods of new comers. Ayda Ayoubi © 2011

How does it work?

As I briefly presented the city's actors which play critical role in a land sharing project are local community and its representatives USDF, students and practitioners who worked with them and also local and national authorities which were involved during the project. This student fieldwork project highlighted the importance of these actors' presence, as well as relationships and networks these actors had or were established during the project. I will try to illustrate (See figure 2) the role of these actors and discuss it through the three stages of the project: when the project was initiated by the students and the community during the 'fieldwork' (1), how it was developed into the Mock-up exhibition '3months later' (2), and what actually happened when we left and stayed for 'Today' (3).

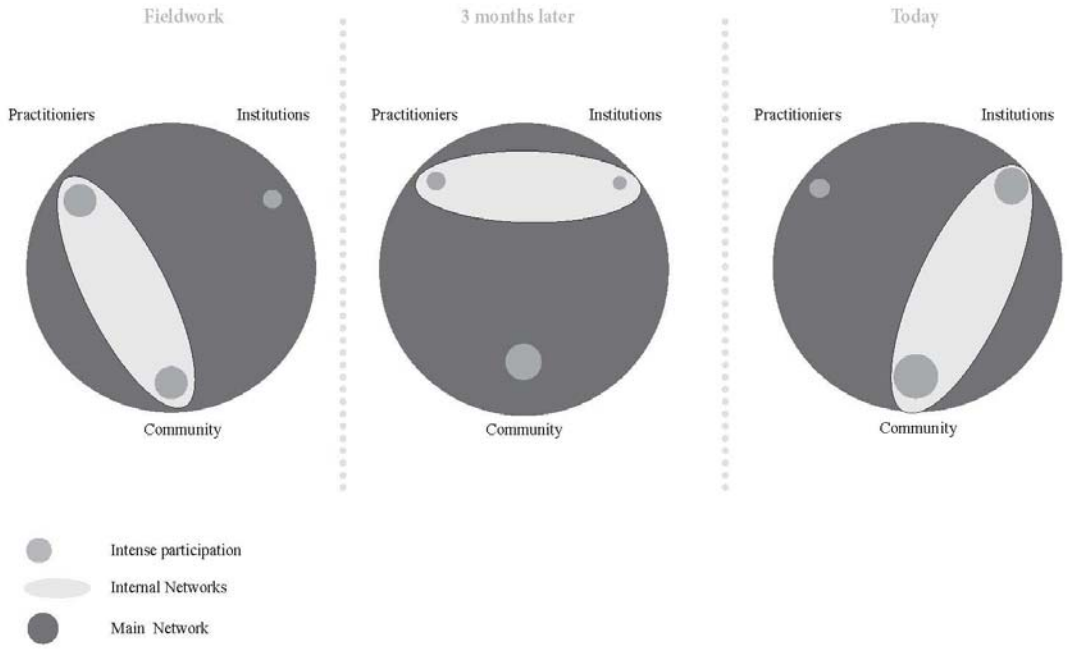

Figure 2. The role of actors during Mock up exercise. Elena Archipovaite © 2012

The process

From the early stage, this student exercise had a contention not only as a stage for learning, but also as a place to generate ideas and try to put them into action. From early beginning we were invited to work on land sharing project with USDF. The federation is the best example of the Slum and Shack Dwellers organisation which was formed to offer the partnership for the city and the national government to advocate the urban poor. In this case students and SDI architect from South Africa represented the role which in most cases the professional or so called 'community architect' would play. As the community looked for the product the students to deliver, the first project steps were hard. From the early beginning of their field work, students tried to figure out what they can achieve in a short two months period. Little by little they pictured out themselves as a part of the process, where in together with the community they tried to find out the opportunities on how the land sharing plot could accommodate slum dwellers' homes

and their livelihoods. They understood that the community architect's role is nothing more than to lead the process creating the place for creative thinking as these communities do not have opportunity to explore it under current circumstances.

The community in Kisenyi was united by the USDF and is a part of the SDI. They also established a partnership with the local planning authorities and Makerere University before. This is a good example of the all city actors trying to work together. For example, the university, which trains future planners and architects, could easily contribute to reality if they worked together with local organizations and institutions.

From the beginning the land sharing project tried to accommodate all these partners together: city planning authorities, the land owner, the federation and the developer. The ministry role was to try to find subsidies for the land and contribute with the housing policy changes, where this pilot project of land sharing could become a slum upgrading strategy. Of course, the students' role cannot go beyond their knowledge and capacities, and they cannot contribute to the negotiation part among the actors in the land sharing project. Although during the fieldwork students felt their limits and lack of information, they managed to mediate among the local NGO, federation and planning authority to make their contributions. While there was a clearing process and negotiation happening among the partnering organizations (between the land owner, federation and land and housing ministry, students together with SDI architect took a leader's role of the space design process. With the help of the federation, the community and the households were directly involved into the project process from the beginning. In two weeks they managed to map out all the land sharing area, to conduct the dream 'housing workshop' and to make a special proposal of incremental housing unit.

After the dream housing workshop we managed to invite the community, local planning authorities, federation members and other organisation to the Scaling up workshop that was conducted by Nabeel Hamdi - bringing the actors together to share and discuss the ways for scaling up. It was a mile stone exercise which actually eliminated boundaries between all actors. In the two days' workshop Hamdi helped them to explore and understand the possibilities and potential of small scale interventions being scaled up (Image 6, 7).

Mediator role

Two days' workshop helped to establish better communication among the actors (like inviting planning authorities to sit together with the community around the table), as well as to find how the small income charcoal activity could be scaled up and generate the income in most of the settlements of Kampala city. Actors managed to discuss together on 'what is', as well as on project strategies 'what it could become'. In these sections our students played a beautiful moderator's role; they managed to soften the relationship and attitudes between the officials and the community's member just by being there and leading the discussions.

This workshop on scaling up also made students to rethink about what they could leave behind eventually and to envisage what could be scaled up afterwards. The idea of building the incremental housing unit model in a 1:1 scale emerged. The part of this continuity was to leave behind the local Makerere University students to supervise the exercise of building this mock up.

Even though the NTNU students left and SDI architect was not around anymore, the 'actors' and the roles stayed the same. This Mock-up event was projected as an arena where the community, organisations and local authorities could come together to address and discuss the housing issues of Kisenyi. I think it was the best idea we could manage to accumulate at that time.

We did not know what would happen and how we would do it, but we decided to try. It was good to leave something continuing for the community, but on other hand it also raised their expectations from us.


Image.6, 7. Scaling up session with representatives from Kisenyi community and city planning authorities. Dream house workshop, UEP students and representatives from Kisenyi community. Hans Skotte © 2011

Coming back after three months

Meantime we were able to secure additional funding; I was back on the ground. However this time I faced more challenges apart from the supervision of students. The responsibilities were different, expectations from the community and other stakeholders were also higher than before. I came for only three weeks to build a physical structure out of the proposal by the students in cooperation with Kisenyi community. The challenges proved to be bigger than I expected and planned for. People on the ground were not ready for this event at that time. The organizational issues between the stakeholders, community dynamics and other logistics were pushing us back.

Dynamics on the ground

We had an idea took take photos of recently evicted people from the Kisenyi settlement and to put the portrait of these people on the top of the housing structure, that it would represent and address the housing issues for the one who is in a need. No one wanted to be presented as the one evicted, because they felt ashamed, they were scared of consequences that can come after it and they did not want to represent the community anymore as they felt alone facing the reality of evictions.

Till the last minute we were not sure if we could be able to build this structure at all. It was the first ever live project for the frontrunners. They faced not only the lack of personal or professional experience and skills, but also did not approach their responsibility towards the community in a favourable way. It would have been easy if the task would be just to build a structure.

This Mock-up exercise was not only to be a physical intervention showing a possible housing unit, but also a social event, a 'housing event', which would bring together all the stakeholders to discuss the housing situation of the urban poor by presenting the incremental housing approach as an alternative and more appropriate housing strategy.

The role of actors

As from previous small scale interventions done in Brazil, this Mock up exercise showed us a way more than just addressing housing issues in Uganda and need of innovative space design solutions for housing unit. It actually clarified and uncovered the role of actors and power structures during the processes we tried to build the mock up and organize the event. It was the similar case in small light installation exercise in favela when it took me 3 days to agree with local and even external government actors to get the power cable to the site to turn on the light for 24 hours in one of the public space.

The same happened in Kibera when we tried to get the water pipes. These struggles during the basic service project show that it is crucial that all the actors have to be involved and informed from the beginning of the project.

By 3th of March the Minister of State for Housing, Sam Engola, launched the Mock-up exhibition. The event caught the attention of the local community, planning authorities and the media and thus focused public attention on the housing challenges for the urban poor at least for a day or two (Image 10).

The gap between policy and reality

Students found out that the existing housing policy not even covers what the urban poor like Kisenyi's community could afford. Even the minister launching the Mock up exhibition in March asked me where a master bedroom in this unit was. He was surprised when I said it was behind the curtain in the kitchen. Furthermore, the urban commissioner was so overwhelmed with the idea that a space on the top of the bathroom could be used for children's beds or as a storage room, that he literally called it the most innovative thing he had ever seen before.

These are the examples of how the people who actually have impact to the policy changes are not expose to reality or innovation as they would call it. This is so simple example that students' and the community's small design intervention managed to get the attention form the authorities just by showing the unit that they could affords and contribute to make it real. Without the students it would be hard for the community to start discussion on housing challenges they face.

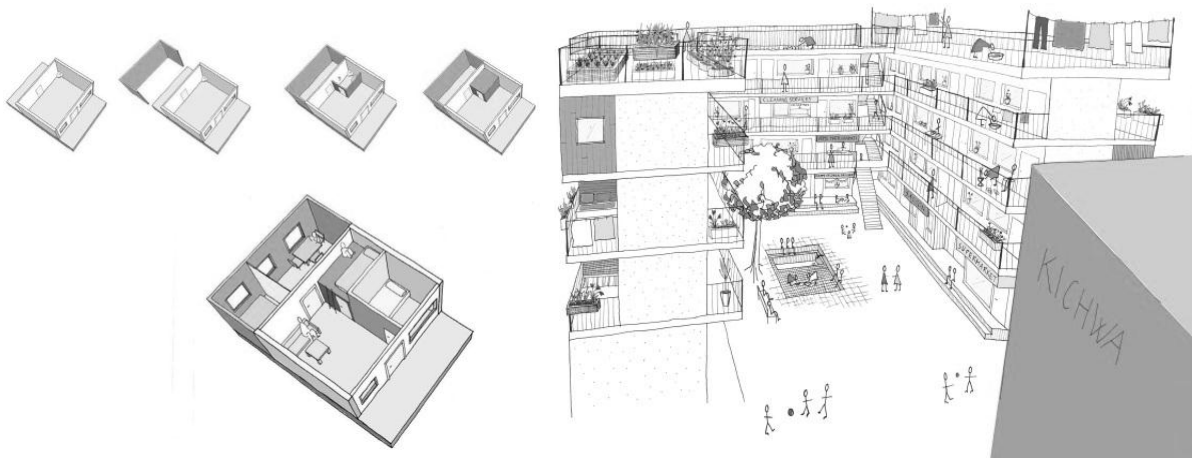

Image.8,9. Incremental housing unit model design by Kisenyi community and UEP students during the fieldwork. Perspective of the cluster made by the incremental units. UEP archives © 2011

What is taking place today

When I left students were not directly involved in the process of land sharing project anymore. The community was also not so actively involved due to the tension and power dynamics in organisations. It is hard to speed it up when all the actors are not 'on the same page at the same time'. In the last 4 months Federation and a local NGO managed to solve the partnership tension they had before. Ministry of housing, influenced by the event or this Mock up exercise, started to talk more in the media about the housing issues and problems Uganda is facing today. For the last months the leading newspaper in Uganda 'New Vision' devoted space to highlight the plight of slum dwellers looking at how a housing policy is set to give people better housing facilities in slums (New Vision, 2012).

Just 3 weeks ago NTNU managed to address and present the students' and the community's fieldwork results by building the Mock up as a university stand in World Urban Forum in Naples. The visitors of the stand received a very positive impression of the University. They also expressed their interest about a school of architecture in Norway which creates a space for its students to experience and discover the strategic and global role of the architect and the planner. This stand generated the platform where more Ugandan officials got the knowledge of the partnership between the University and the local community to address the housing issues (Image 11). The stand was also a hub for the Norwegian Junior Minister and other representatives from ministries to become more familiar with the exercise and to discuss the opportunities to proceed it further as a pilot project.

Image.10. Minister of State for Housing, Sam Engola, launched the Mock-up exhibition, where the grassroots organisations, community and other stakeholders where present to discuss the affordable housing challenges in Kampala city.

*Image .11.*World urban Forum 6 NTNU university stand. Commissioner Samuel Mabala from Uganda Ministry for Land, housing and urban development explains for the visitors how UEP incremental housing model works. Hans Skotte © 2012

Conclusions

Although the need of scaling up is discussed a lot nowadays in the field of urban development research, it is still hard to find everyday good practices of small scale design interventions which were successfully scaled up. Probably the gap between the practice and research is still too wide. This student exercise illustrated more challenges we might face, than the solutions of scaling up. However it indicated the need of all actors: practitioners, community and institutions to expand each own boundaries and rediscover their own field capacities to find the solutions for the problems we face today. The student fieldwork and Mock up event unfolded the power and strength of a local community organisation which has to be taken into account from an early stage of a project. The challenges students faced as practitioners represent the demand of non-conventional practitioners and call for the changes to be made in education system. Reconsidering our perception towards the city it would not only open up new opportunities for design professionals but also create a ground for urban poor to make a choice which normally is not provided by nature informality. The presence and partnership with institutions has a potential to narrow the gap between the policies and real issues, as it happened in Mock up exhibition where innovative ideas presented by students working together with the community was so 'innovative' to the officials. The energy moderated by small scale interventions need to be taken over by the other actors who could make an influence in the policy changes which could lead to a larger impact. Self-help initiatives need a system support to scale it up and local institutions, which could have political commitment, are the only ones in the end to turn in to reality. The small process of scaling up we achieved by now is lasting dialog between the community organisation and local authority.

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Socio-spatial patterns: the backbone of informal settlement regeneration

Carmen Mendoza Arroyo [1]

Since inception, squatter settlements in Latin America account for an on-going history of vital place-making through social actions. Unfortunately, professionals in charge of urban regeneration rarely acknowledge this potential, and its endurance is constantly being challenged by the settlements incremental and deregulated growth. In spite of these adverse conditions, the communities continuously bestow unlawfully appropriated voids, of civic content through spontaneous social actions. Our methodological approach strives to use these informal socio-spatial patterns as a framework for specific urban projects through three correlated tasks: (1) a mapping that construes the existing spontaneous socio-spatial patterns, (2) the design of a 'civic network' that integrates them and, (3) the proposal of strategic urban projects. The methodology sustains that these spontaneous civic sites, can lead the regeneration process, towards a physical and socially inclusive outcome.

Keywords: Informal settlements, Urban regeneration, Socio-spatial patterns

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Introduction

Latin America is the most urbanized continent in the developing world with a double growth phenomenon; on one hand the shrinking of the population growth rates in the largest metropolitan areas and on the other, the accelerated population growth in squatter settlements(UN Habitat 2006). These facts show that the majority of the cities in this continent are finding difficulties in order to provide formal housing for their poor residents through conventional plans and mechanisms that regulate land use and urban space.

At the same time, it is important to stand out that informal growth in this continent occurs at a low rate in undeveloped land and therefore, there exists a process of densification and overpopulation which limits the expansion of the physical borders of the informal settlements.

In response to this situation, various countries of the region have been developing slum upgrading, regularization, and legalization programs for informal settlements during the past fifty years.[2] These strategies have been implemented thanks to the fact that in some countries local governments have a constitutionally protected autonomy.

Due to this favourable political decentralization and regularization strategies, which differ from the traditional evictions and resettlement policies; we consider it an adequate time to tackle informal settlement regeneration through the strengthening of knowledge and methodologies in accordance to their physical and social singularities. Current urban regularization strategies tend to focus on reducing physical irregularities such as inadequate sanitation and poor housing conditions but surpass the singularities of their social substrate and lived space.

Our article sustains that the persistence of collective life in spontaneous sites may play a determinant role in the formulation of specific strategies for their urban betterment. From this assumption, we intend to offer a methodological approach which reinterprets informality in a creative way, by building on the regenerative potential of the existing social ties of these settlements through three simultaneous processes: (1) a mapping which construes the lived space through community urban actions, (2) the design of a 'civic network' understood as an interrelated system of urban references, and (3) the proposal of strategic urban projects in accordance to the civic grid.

The hierarchy of the physical materials and intervention strategies will vary regarding the context, but their identification and relation to a cohesive 'civic network' will allow the understanding and regeneration of the sector or settlement.

A vital history in the construction of place

The definition of informal settlements by UN-Habitats that of urbanization lacking access to water, electricity, sanitation, poor structural quality of housing, and insecure residential status. These morphological, functional and symbolic problems transcend frontiers and are common to most developing countries.

However, this definition, as many others, describe the physical and socioeconomic deficits these settlements have in order to reach urbanity, but surpass what we believe is a strong and particular characteristic of informality; its strong social infrastructure.

[2] Some examples of regularization and bettermentprograms in Latin America are: *Favela-Barrio* in Río de Janeiro, Brazil; The*Programa de Hábitat Rosario* in Rosario, Argentina; the*Organismo de la Formalización de la Propiedad Informal* COFOPRI in Perú; *Morar Legal* in Río de Janeiro, Brazil; and the*Plan de Mejora Integral de Barrios* in Medellín, Colombia.

In our opinion, the hidden potential of informal cities lies in their values and spontaneous social dynamics which through a strong system of mutual help and alliances are able to supply thousands of human settlements in developing countries.
Considering that almost one thousand million people in Latin America, Asia and Africa will only be able to acquire housing in informal urbanizations (UN Habitat, 2006), it is critical for governments, policy-makers, planners and architects to search for integrated approaches that include community involvement in order to address urban shelter poverty at scale.
The incorporation of the urban poor in the decision-making, of city development and regeneration needs to be accomplished by the strengthening of their financial, informational and organizational capacities in order to be heard, and for the community to believe they have the ability to solve their own problems. In this direction, there is an urgent need for methodologies, which recognize and address the existing social values and active organizations as partners in the urban regeneration process.
The report 'The challenge of Slums' (UN-Habitat 2003), points out that the non-intended benefits of informal settlements over their eviction is providing immigrants with affordable housing, which in time enables them to have savings and eventually upgrade into the urban society.
Although excessively optimistic, it is true that informal settlements are the only option to provide cheap, although inadequate, housing for the poor, and that evictions only lead to housing in inferior conditions than the so called informality.
Therefore, the initiative of '*Cities without Slums*" (Cities Alliance, 2000) should be '*Cities Recognizing Slums*" (Huchzermeyer, 2006), focusing on strategies that rise the standards instead of slum eradication. Our article aligns with this perspective, for we believe in the regeneration of urban informality over evictions and forced resettlements which cause the destruction of the existing social networks.
Collective social action is a key characteristic of poor communities, concerning a wide range of activities such as leisure, development of public spaces or for purpose of protest or advocacy. Reliance on social networks explains why these communities reveal homogeneity of place of migratory origin, and of ethnic or religious group. This uniformity allows for a sense of belonging and facilitates relations of support and reciprocity.
These grassroots organizations are usually based on self-help and cover a wide range of social actions. Community-based organizations have a strong role in providing services, especially in Latin America, where, since the 1980's, they have been addressing basic services such as communal kitchens, income-earning schemes and cooperatives.
With this understanding, our paper sustains that the social values and organizations of the urban poor are much stronger than their social deviations; therefore, we emphasize the need of intervention tools and proposals that build on this identity and value to guarantee a cohesive and sustainable regeneration.

Socio-spatial patterns as the backbone of urban regeneration: a methodological approach

Our methodology's starting point is the mapping and analysis of the existing socio-spatial patterns as part of a structural network that will guide regeneration strategies and urban projects for the derelict areas.[3]

[3] The proposed methodology is based on two research projects of the Urban design and planning department (*Laboratori de l'Aread' Urbanisme* (LAU) of the School of Architecture of the *Universitat Internacional de Catalunya* (ESARQ-UIC):(1)'Technical basis for the regeneration of low density suburban residential areas' (2009) Vall , P., and Mendoza, C. (2) ' The value of informality in the construction of cities: Cali, Colombia. (2010), Mendoza, C., Acosta, B., Colacios, R., and Serna, J.

We consider that in informal settlements, fragmentary opportunities outweigh structural functionalism (Mendoza, 2011). Likewise, we strongly believe that urban space is still the medium, which allows the integration of the social, cultural and ecological dimension of development. Therefore, our methodology strives to synthesize the physical and active community manifestations through the urban space.

'Sense of place' is the concept that describes the feeling of being part of a place, and is created by the life experiences and intangible emotions experienced in that particular place. This description of place is not only a geographical or spatial concept; it is an existential space full of significance, emotions and meaning for the people inhabiting it.

Furthermore, places are full of intangible material linked to the life experiences of their inhabitants (Nogué, 2010). Escobar states that, 'local knowledge is a mode of place-based consciousness' (Escobar, 2001), and we believe that this local knowledge grants significance to certain urban spaces due to cultural and social actions that have taken place in them. These place based social spots constitute a rallying point for the construction of a network of significant civic sites. In order to discover this network, it is essential to understand that the personal lived experiences of a place are indispensable in order to acquire a sense of belonging.

In the North American context Cooper (2007) and Oldenberg (1999) define 'third places' referring to places in which communities interact, which are not dwellings -first places-, nor work -second places- but, places for informal encounters which are essential in order to trigger and build social infrastructures. In this sense, informal settlements are full of 'third places' yet to be identified and strengthened.

The communities understand the importance of social ties, and advocate that the betterment of a settlement or urban cluster not only lies in developing public services, accessibility and transport systems, but in the consolidation of their social networks.

The dwellers believe the settlement is a portion of the urban space that has been obtained by the communities struggle for its betterment and formalization. This fact grants its dwellers a feeling of belonging that must be the starting point of its urban regeneration (Hayden, 1995).

Due to the fact that informal settlements lack formal places for social interaction, the spatial analysis of places of spontaneous communitarian interaction need a special methodology to reveal their significant potential to guide their regeneration.

Step one: construing and constructing social and ecological grids

The first step of the methodology consists on a process of mapping that not only interprets, but also construes the lived space of the settlement. We sustain that this 'social cartography' is a fantastic cultural project for it describes and constructs the hidden social world (Coroner, 1999).

This tool is used in this first step in order to discover and then map the significant connections and interrelations that remain hidden in the place.

To obtain this social density we must interpret the social infrastructure made up of social relations established in the place through the physical space (Putnam, 2000). Besides its strong place-based value, it is significant to stand out that when the social network is nurtured in a place, it can become one of the most valuable tools against social exclusion (Colacios, 2011).

The process of obtaining the social cartography of a settlement consists in a survey of the voids, which by spontaneous and illegal manner have been appropriated by the community for social and cultural events (*Figure1*).

Figure 1. Social spaces, spontaneous void as a socio-spatial site. Cali Colombia (Foto by B. Acosta,2009).

Figure 2. Social Cartography, interactive map of spaces the community "likes/doesn't like" in the SantCosmeNeighborhood in Barcelona. Study conducted by Arch. Raquel Colacios.ESARQ-UIC.(Foto byIvan Llach)

It is essential to establish a committal to the place in order to interpret these social relations, for it is not only necessary to experiment them personally, but to recollect the lived experience of the dwellers. Thus, community involvement is mandatory in order to capture with a comprehensive scope their use of space. The translation of the socio-spatial dynamics of the settlement to a physical mapping may be accomplished by various participative methods. In order to generate the most interaction with the dwellers, and facilitate the recollection of information, an urban action must be designed preferably in an open space to guarantee open participation. The activity serves to establish a relationship with the grass root organizations and allows us to conduct surveys, interviews, and finally develop interactive maps, which will help us construe the social use of significant spaces. The surveys provide us with quantitative data of how the dwellers view their settlement and raise questions on the need of public space, services etc. The interactive maps (*Figure 2.)* enable hands on activity with the dwellers with information on issues related to the physical space, its use, and perception. It also leads to the participants' awareness of producing a special kind of mapping leading to discussions on urban issues (Colacios, 2011).

The mapping of these socio-spatial needs, problems, and lived sites, helps us experience the place from the user's point of view and enables us to physically and mentally feel the particular context to understand and represent it (Tiwari, 2008). We strongly believe that the understanding of informal settlements from the social infrastructure layer helps guide the regeneration process from a positive user response.

It is important tostand out that in this first step of the methodology, a simultaneous mapping of the physical and ecological grid of the settlements must be done. Rivers, swamps, streams, etc. are usually in a contaminated and degraded state in informal contexts(Fig. 3.). However, due to their topographic and structural role in the settlement configuration, when revitalized in their ecological function they consequently play an important role as elements of social identity and cohesion by contributing to the open space structure (Vall, 2011).

Figure 3. Contaminated River, the river through the neighbourhood of Siloe, Cali, Colombia
(Foto by Fundación SIDOC)

The channel of the river must be naturalized and appropriate measures taken to ensure safety at the water's edge. The fringes must undergo a substitution of dwellings in risk areas and connect this linear element to the urban sectors.
The underlying objective is that the territorial division these natural elements generate can be transformed to a support structure by engaging them to a broader open space system and commonplace, including the surrounding built environment. The environmental betterment and flood mitigation of the river or stream may bestow on it a collective use, as a safe public space with a place-based attachment to territory and culture.

Figure 4. Ecological Grid, Example of an ecological and open space grid. Cochabamba, Bolivia. (Image by: Ben Dirickx. ESARQ-UIC).

At the end of this first step of the methodology, the mapping of the spontaneous civic sites and open space ecological grid, acquire a new meaning in the informal fabric generating an open space network (*Figure 4*).
The balance of morphological and social mapping at different scales ensures community participation and local engagement. Therefore, for this step, physical mapping as well as the knowledge of the dwellers practices and perceptions of space structurally guide the future spatial betterment.

Step two: constructing a 'civic network'

The second step of the methodology recuperates the concept of 'civic network' as a system of connected urban references (parks, civic roads and activity nodes), which allow the comprehension, articulation, and revitalization of the settlement or sector(Vall, 2007). Our assumption is that this strategy generally applied in the regeneration of formal cities, can be appropriate for informal settlements, due to the fact that it is based on a structure of public spaces responding to culture and context. The 'civic network' of the informal city will not be the same as that of the formal city due to the lack of public spaces, roads, activities and amenities. In derelict contexts, it will be made up of the spontaneous and singular spaces mapped in the first step, and by the identification of interstitial voids that due to their strategic position in the existing fabric have the possibility of becoming significant collective spaces. In the same line, the civic grid will incorporate roads, or pedestrian paths in and in-between settlements to strengthen their connective capacity. (*Figure 5*)

Figure 5. Civic Network, example of a 'civic network' incorporating open spaces, civic axes and roadways as structural elements. (Drawings by: Laura Gómez and Ester Laso. ESARQ-UIC)

To sum up, the second step must also include the betterment of the informal roadways as part of the 'civic network' and therefore help solve better access to the settlements and dwellings. Furthermore, it must incorporate the analysis and identification of linear growth and activities along the roads.

This step allows us to activate local places, as the product of social relations with a view of space, and by that emphasize both its social construction and spatial articulations as 'the juxtaposition of different narratives' (Massey, 1999:18).
Reinforcing existing mixed use and activities allows us to multiply the places of contact and help establish the necessary distinction between public and private spaces informal settlements lack. Nevertheless, although the civic network and roadways are strong interconnected systems, we still find that this new civic space is not enough to create activity and collective participation. Therefore, in order to accomplish this we need to add strategic projects in accordance to the new civic grid.

Step three: Strategic projects
The third step of the methodology strives to incorporate activity to the new structural elements of the civic grid through specific strategic 'urban projects' (De-Solà-Morlaes, 1999).These projects, when related to the 'civic network' act as urban references that grant a cohesive potential to the existing fabric. We believe that the strategy of incorporating urban projects can be an optimal tool for the regeneration of informal settlements due to their mixed use with a diffusing effect, urban architecture, public housing, and a delimited time for their development.
Unlike conventional Plans, the urban projects, due to their size and diverse programs can attract both private and public funding. They enable inter-agency collaboration through various actors and stakeholders during the project's development, which is critical for successful regeneration. While the financial costs of regularization programs vary widely, residents of regularized areas rarely contribute any payments to compensate for those costs, consequently the lack of revenue associated with regularization many times inhibits the scaling up of these programs (Fernandes, 2011).
With this in mind, we strongly believe in a participatory budgeting process as an innovative approach to urban governance and decision-making, which can also allow the community to determine through their needs the program and type of social facilities needed. In order for these urban projects to have a cohesive effect, it is mandatory to enhance an alliance between them and the 'civic network' in order to enable physical and social ties.
Through this step, we intend to balance physical and social interventions by incorporating the architectural scale in combination to the urban space. To make sure this methodological step ensures community participation and local engagement, it is essential that physical interventions incorporate the knowledge of the inhabitant's building practices and perceptions.
In order to obtain a territorial identity we must create a framework of history, common geographical references, and the persistence of types of collective life (Nogue, 2009). The three steps of the methodological approach we present in this article: social cartography, 'civic network', and urban projects, strive to obtain this territorial coherence through vindicating the persistence and the pre-existence of collective life as the real value of informal settlements. In this frame of mind, it seems reasonable to affirm that the effectiveness of the interventions and urban projects depends on our ability to involve the community in the process of identifying and preserving the existing social values.
We must remember that the important challenges we are faced with in the urban regeneration of informal settlements are not only the physical deficiencies but the limitations of existing institutional and regulatory frameworks which do not recognize the underlying value of the place-based social infrastructures. Therefore, our methodology wants to contribute to build practical knowledge within these limitations, by emphasizing that informal urban regeneration must use the strength of the community and their continued vitality of place and place making to accomplish a sustainable betterment.

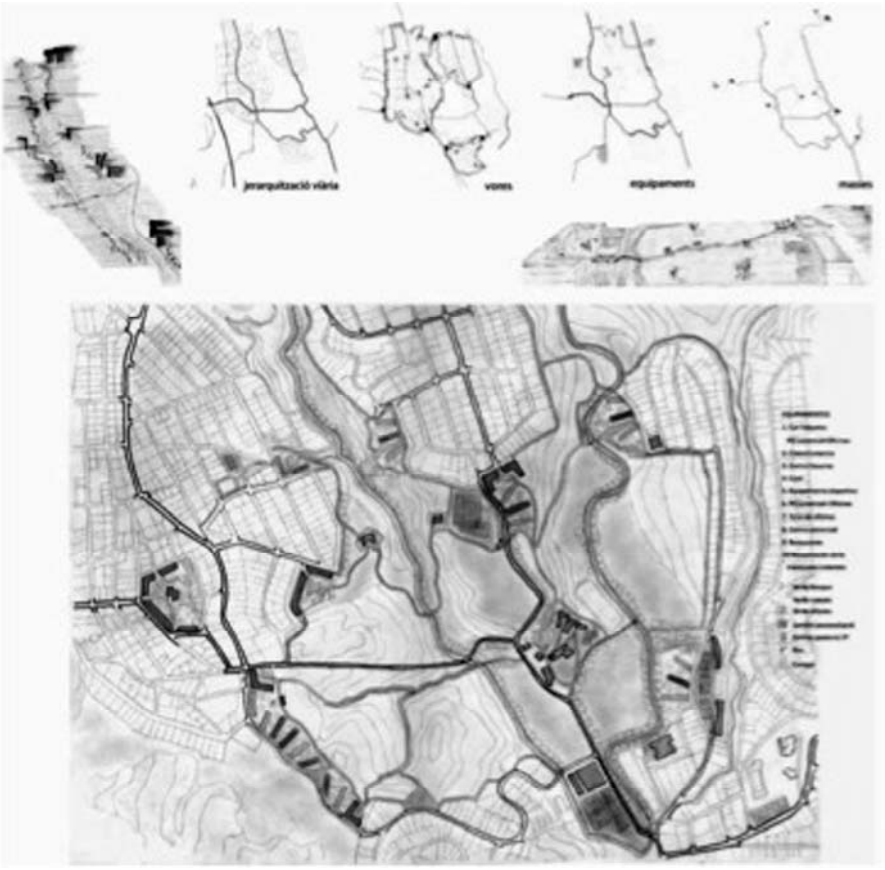

Figure 6. Example of urban projects as part of a 'civic network'.(Drawing by: M.Poble and R. Munar. ESARQ-UIC)

Conclusions and considerations

Fortunately today the regularization of consolidated informal settlements is included in the political agenda of seventeen countries in Latin America and the Caribbean (Shlomo, 2006). Diverse strategies in regularization, land tenure and housing policies, are broadening the legal access to neighbourhoods with services and extending grass root participation in the decision making process. Due to this situation, it seems like a favourable moment for the implementation of strategies that promote the democratization of living conditions in informal cities. However, we strongly believe the current tools and regeneration strategies need to be revisited in order to adapt them to the singularities of informal contexts and work towards prevailing and strengthening their physical and social networks. In this direction, and with the objective of contributing to the discussion of the betterment of the informal city, this article introduces a regenerative methodology, which aspires to take advantage of the enormous potential of the existing socio-spatial patterns and convert them into the backbone of their urban regeneration.

We are aware that our proposed methodology does not tackle underlying causes of the prevalence of informal settlements in Latin America such as: the dysfunctional legal systems and insecurity of tenure. Land tenure politics have shown that overall illegality of urban residency can jeopardize the settlement's regularization but, there is also no guarantee that the normalization of settlements on its own can reduce urban poverty (Smolka, 2003).

Therefore we understand the importance of the study and implementation of appropriate titling systems (freehold, leasehold, cooperatives, land trusts, or communal ownership), to ensure the socioeconomic sustainability of the community. However, our methodology does not delve into paradigmatic regularization programs in Latin America as, tenure through titling (de Soto, 1989) or legal titling with upgrading of public services, job creation and community support structures, as in Brazil(Fernandes,2011). It strives for a socio-spatial approach that advocates for regularization by upgrading the existing social-spatial infrastructure with projects and civic spaces that acknowledge the community's place-based values.

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The power of Informal Settlements. The Case of Dar Es Salaam, Tanzania

Maria Isabel Rasmussen[1]

This paper discusses the importance of maps in urban planning and the consequences for cities planned within a 'non existent maps context', when the power of decision belongs to the dwellers. The power of the maps resides in their facticity; the analytical measure of factual objectivity and the credibility that it brings to the collective discourse. Placing informality on maps will recognize the weaker dwellers and the 'formal world' could gain benefits from the informal.
Three design concepts on public space are presented, territoriality, liminality and seasonality, extracted from Dar es Salaam's informal settlements, that could contribute as design tools for 'global South' cities. The discussion is based on literature, theoretical concepts, observations and interviews from a field study in March 2012 where experts from the Tanzanian housing ministry, NGO experts and academicians, street leaders and community dwellers from settlements in Manseze, Bugurundi, and Mlalakua were consulted.

Keywords: Informal settlements, Dar es Salaam, Territoriality, Liminality, Seasonality.

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Background

Urbanization has been very strong since the middle of the 20th century, and since 2007 more than 50% of the population in the world is urban. Today, almost one third of this urban population, around one billion, is living in areas classified as slum areas with substandard housing and a lack of land rights. In some cases, more than 50% of the growth of cities in developing countries has been implemented by the informal sector.

The development process of those settlements seems to follow an irrational pattern making legalization and consolidation extremely expensive, and the long process can take several decades.

There is a knowledge available among urban professional planners, architects and technicians working in the production of sustainable and effective modern cities, in optimizing urban land use, and in making possible social cohesion and creating harmonious 'formal cities'. Beside there is limited knowledge and a lack of understanding of the 'informal cities', the cities built by the efforts of the citizens themselves outside the law, these cities that often are understood as chaos. When understanding the logic and virtues behind slum formation and everyday life, we will be better able to carry out more sustainable neighbourhood interventions. Professionals working in urban planning need to develop tools to bridge the gap between formal and informal cities.

Dar es Salaam, Tanzania suffers from a severe shortage of good quality in housing and good quality in infrastructure, simultaneously with strong population growth and rapid urbanization. The informal settlements host 75 % of the dwellers in the city (UN-HABITAT, 2008) and the city shows some of the fastest urban growths in the world today – rank 9 in 100 studied cities– and an expected average annual growth of 4.39% from 2006 to 2020 (City Mayor Statistics, 2012). Today planning visions for Dar es Salaam for 2030, do not consider informal settlements and their futures.

Dar es Salaam – the Formal and the Informal city

Dar es Salaam the largest city in Tanzania has doubled its population to 3.3 million inhabitants in 20 years (UN-HABITAT, 2008). There are about 100 unplanned settlements in the city and 75% of all residential houses in the city are found in these settlements.

a. Urban growth and structure 1891		b. Urban growth and structure 1978		c. Urban growth and structure 2001	
Population	4,000 inh	Population	843,000 inh	Population	2' 500,000 inh
Extension	2 km	Extension	14 km	Extension	30 km
Density	45 p/ha	Density	74 p/ha	Density	152 p/h
Coverage	122 ha	Coverage	11,300ha	Coverage	57,000 ha

Figure 1. Dar es Salaam urban growth from 1891 to 2001. Source: Lupala, 2004.

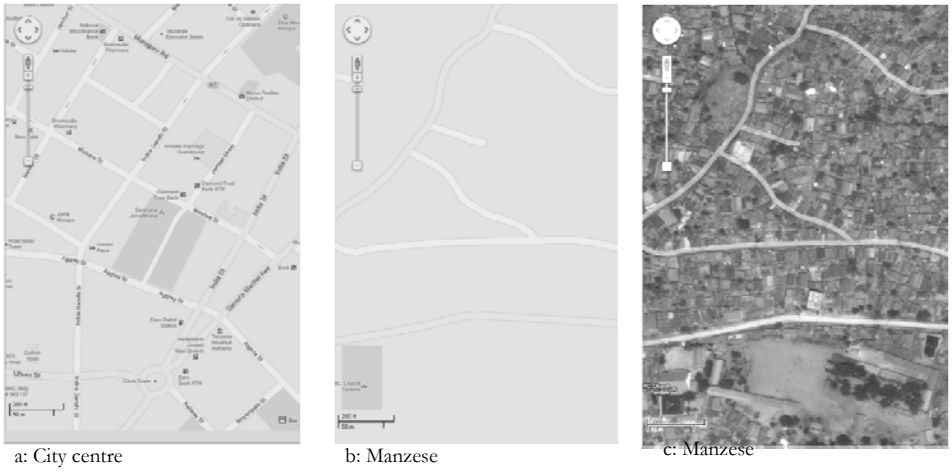
Dar es Salaam is a palm shaped city and it is characterized by a mono-centric urban and administrative structure. Informal settlements hosting middle and low income families are placed in a pattern of low-density and low-rise urbanization, mostly in one floor residential areas, 'contributing to urban sprawl and land underutilization' (Lupala, 2002).

The formal city has developed consciously along the four main radial roads; the Bagamoyo Road, parallel to the coast and running to the north; the Morogoro Road, that connects the city with the interior of the country passing cities such as Dodoma; the Julius Nyerere Road, the heart of the industrial area of the city running also to the interior of the country and the Kilwa Road, running to the south. Apart from these concentric roads, there is only one ring connecting the city transversally, the Nelson Mandela/Sam Nujoma Road.

The informal city in Dar es Salaam representing 75% of the residents has developed without maps. Strategically the development of the informal city has taken another vision than the rational figure of a concentric star able to supply connection of the city to the nation and region. The informal city has developed in between the main roads and at the periphery. The strategic reasons for the people to settle have had the character of need and availability.

On the other hand, the formal city still follows the colonial planning regulations and building standards, with high requirements. The minimum legal plot size is 400–600 sqm., an extensive dimension that excludes the poor. Therefore 'smaller plots of land with vague tenure, customary and quasi customary are common alternatives for the urban poor' (Kironde, 2005). Customary land has had a periodicity of thirty, sixty and even ninety years and for middle and low income families in Dar es Salaam this has been the most common way of land access.

Today, formal resident permission is managed by authorities for a period of three years, resulting in migration of the poorest people to the periphery. The slums near the city centre are starting a gentrification process as a consequence of embezzlement and land speculation. The new settlements will probably start a peripheral urban developing cycle, with worse living conditions, with housing of non-permanent character and an uncertain future of infrastructure and services delivery, due to the ephemeral relationship to the land. If strong planning measures are not taken by professionals and national authorities, this cycle will be preserved.



a: City centre b: Manzese c: Manzese

Figure 2. Google Earth, maps and views from 2012

When looking at maps, for instance in one of the most accessible map systems, Google Earths maps, it is easy to notice that formal areas in the formal city are well described (fig. 1a) in opposition to informal areas, where neighbourhoods appear as empty spaces (fig. 1b) even if large informal neighbourhoods have been settled for a long time and have developed a very active everyday life (fig. 1c, from satellite view).

Some characteristics of the informal settlements

Informal settlements in the world have different characteristics, inner city slums, authorized or unauthorized squatters, pirate urbanizations, non-planned settlements, etc. (Davids, 2006). Informal settlements in Dar es Salaam are usually described as unplanned neighbourhoods where a mix of middle and low income families live face to face. Some residents work in the formal sector, such as university teachers or municipality employees and some work in the informal sector, such as street vendors. Commercial or informal income activities are usually developed along the borders of the settlements, while life inside the settlement has a familiar everyday life feeling, with women pursuing traditional domestic activities, sounds from children playing in the streets.

Physically these settlements are characterized by single storey house types that follow the traditional Swahili house; the neighbourhood follows a compact layout within an organic urban fabric, result of plot subdivisions and probably with inspiration from Swahili patterns with narrow and labyrinthine streets that allow shadow in public spaces. The overall spatial feature is characterized by a highly dense settlement; usually densification increases in settlements close to the city centre. Except for the houses placed along the main streets, most of the dwellings are placed haphazardly; and you may see pit latrines or shower rooms facing footpaths. Narrow streets or paths are not suitable for motor vehicles, which causes terrible difficulties when pit latrines need to be emptied. From a western cultural perspective the division between public and private space is diffuse.

Services in these non-planned settlements are usually delivered by the formal municipality, but services are very poor, are not reliable and have hardly any maintenance at all. The tendency of families, who can afford it, is to develop self-sufficient houses with, for instance, water reservoir tanks and private generators for electricity. Waste collection is still understood as a community responsibility.

The neighbourhood is managed locally with a mix of formal and informal representation. A community leader called 'Mtaa-leader' is selected by the residents for a period of 3 years with a possibility of re-election, and a civil servant, a kind of secretary, is posted by the municipality main office. They work together. Several staff will be added according to the size of the neighbourhood. The Mtaa-leader is a lawyer and a notary, a spiritual guide in the community and an inspector who monitors compliance with the rules or norms of the neighbourhood.

The power of the maps vs. the power of the informal settlements

"Scientists master the world, but only if the world comes to them in a form of two dimensional, superposable, combinable inscriptions" (Latour, 1999).

Maps are a representation of a reality, and this representation is very much a product of the perspective of the eye that is looking. A map is therefore 'a constructed, limited and manipulated reality; a unique system of signs including political, and a spatial form of knowledge' (Harley 1988). However, the power of the maps resides in 'their facticity; the analytical measure of factual objectivity and the credibility that it brings to collective discourse', as Corner expresses it in The *Agency of Mapping* (Corner, 1999).

He also points out that these characteristics should be used and co-adapted to achieve critical and realizable projects. Maps have power!
Maps are not built only after Ptolemy's world, a Euclidean gridded world and 'the north is not always at the top' (Corner, 1999). New techniques have developed a digital world where more complex cartography is possible, and multi-disciplinary actions, social sciences for instance, make efforts to represent the world closer to the complex reality it demands.
However, informal settlements are usually built in the absence of maps. The informal city is more the consequence of the practice of everyday life, defined by de Certeau as a process 'to make explicit the systems of operational combination, which also compose a culture and to bring to light the models of action characteristic of users whose status as the dominated element in society' (Certeau, 1984).
Informal settlements are often the result of the efforts of the citizens themselves and outside the law. The power of these actions is reflected in cities where informality is dominant (75% in the case of Dar es Salaam). In weak governments, the production of homes and neighbourhoods has become a 'habitus'[2] and the image of that city becomes a 'taskscape'[3] , in an urban context. Strategies[4] and tactics [5] are part of the tools that the citizens use to achieve their city. The formal city planning office in Dar es Salaam established some development strategies road connections for instance, but informal citizens also develop strategies for land occupation related to the established city, for instance neighbourhoods in between roads. While walking in their neighbourhood it is possible to identify tactics used by the dwellers to build a community with physical and social understanding. Informal citizens are both consumers and producers of their own habitat.

"Many everyday practices as well as ways of operating are tactical in character and victories of the weak over the strong" (Certeau, 1984).

Concerns related to landscape are expressed by Olwig and Corner; landscape is 'actively shaped by humans in their imagination, in their representation, in their politics, in their surroundings. It's not monolithic' (Olwig, 2004) and 'the landscape project is no longer one of pastoral scenery, but now a more heterogeneous and active ground' (Corner, 1999). The city, being the built landscape or built environment for architects, is also a result of an active process in space and time of two independent monologues, one of formal and one of informal actors. While the formal actors like politicians, architects or town planners, talk about location, historical events and local stories, economical conditions, political interests, regulatory mechanisms and pragmatic structures; the informal actors talk about shelter and family, housing as asset, access and affordability and everyday life.

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[2] Habitus is defined by Pierre Bourdieu as: 'the set of socially learned dispositions, skills and ways of acting that are often taken for granted, and which are acquired through the activities and experiences of everyday life.' (Certeau, 1984)

[3] Taskscape is defined by Tim Ingold as 'a socially constructed space of human activity, understood as having spatial boundaries and delimitations for the purposes of analysis; taskscape is immanent in dwelling activities.'

[4] Strategy is the calculus of force-relationships when a subject of will and power can be isolated from an environment, and assuming a place that can be circumscribed as proper and serve as the basis for generating relations with an exterior distinct. In The Practice of Everyday Life, Certeau describes strategies with institutions and structures of power who are the 'producers', while individuals are 'consumers' acting in environments defined by strategies and by using 'tactics' (Certeau, 1984)

[5] Tactic is a calculus which cannot count on a proper, nor thus on a borderline distinguishing the other as a visible totality, rather insinuating itself into 'the other's place'. A tactic depends on time and must constantly manipulate events in order to turn them into opportunities. (Certeau, 1984)

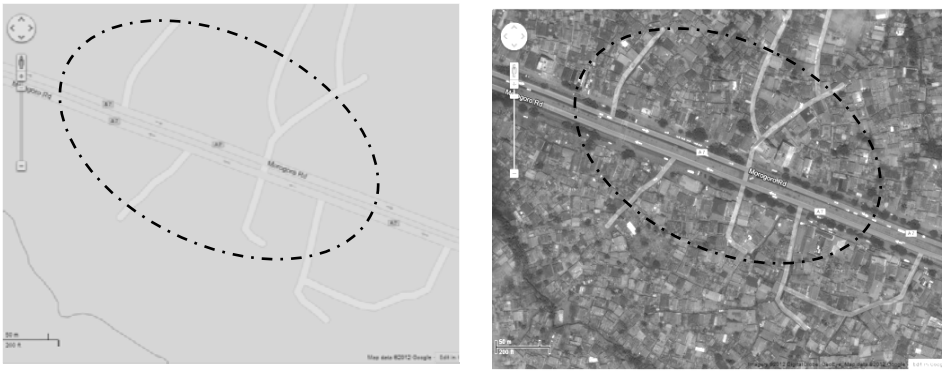
Cities in developing countries are very much the result of hidden forces and they reflect the superposition of these powerful monologues. Informal settlements have power!
Dar es Salaam's informal settlements are placed in different places for different reasons. In some cases they are in-between the four fingers roads, being an active 'bubble of service suppliers' for the city centre and a vivid informal market for the entire city as is the case of Manseze neighbourhood. In other cases they are in strategic areas are where 'nobody wants to live' as for instance marginal land close to the airport.
This land has become an interest area for low income families, land they can afford and can occupy; land that allows urban agriculture matters when a decision to settle is made, but also land with hardly any transport connections to the rest of the city. Land close to special activities such as education is also a strong parameter when informal settlement decisions are taken. In the surroundings of the campus of The University of Dar es Salam and ARDHI – School of Urban and Regional planning, the informal settlement Mlalakua has specialized in accessible accommodation for students and affordable houses for teachers working in the institutes. The master plan of the campus did not consider dwellings for the larger majority of users.
The vibrant life in these neighbourhoods and the hidden forces on the creation of the informal settlement relate to the concept of 'taskscape' (Ingold, 2000), these creation forces seem to be stronger in the everyday life of the informal city than in the formal city.
The school of the New Urbanism declares the power of the urban process and the dynamism of the communitarian component for the built environment, having been less utopian than Urban Modernism. David Harvey argues that the dynamic of multiplicity of urban processes cannot be contained within a singular, fixed spatial frame; he states that 'the problem is to enlist in the struggle to advance a more socially just and emancipated mix of socio-temporal production process' (Harley, 1988). In cities such as Dar es Salaam, where formal and informal neighbourhoods coexist, projecting new urban and regional futures must derive as Harvey expresses it 'less from a utopia of form and more from a utopia of process'.

Some possible design concepts – Territoriality, Liminality and Seasonality

Maps do not reflect reality and maps are not tools used in the construction of informal societies or settlements; therefore new concepts used to create space need to be studied and understood by professional urban planners when intervening in informal settlements for sustainable, inclusive and harmonious cities. 'Representation of the reality when it is connected with efficiency in planning should include spatial and social solution making easier to visualize and actualize given potentialities' (Corner, 1999).
When researching and reflecting on informal settlement space and performance, and when reflecting on possible tools for mapping, understanding and discussing the informal city, three concept related to public space became very clear; *territoriality, liminality* and *seasonality*. During a field study in March 2012, experts at the housing ministry, NGO experts and academicians, street leaders and community dwellers from settlements in Manseze, Bugurundi and Mlalakua were consulted.

Territoriality. The case of the street that divides the informal neigbourhood of Manseze
The Morogoro Road crosses one of the most vibrant informal markets in the city in the neighbourhood Manzese. The road, however, is physically dividing the neighbourhood. Informal dwellers understand that the road has powerful informal market possibilities.

Informal vendors and informal buyers occupy the road to spread their business, while the role of transportation is to communicate between two points, the peripheries and the city centre. These two activities create a '*territoriality*' [6] framed in two layers.



a: Google Earth map, Manzese b: Google Earth view, Manzese

Figure 3. Morogoro Road, passing through the neighbourhood of Manzese

Territory has been defined by several researchers. Territory can be considered as 'a meaningful aspect of social life, whereby individuals define their scope of their obligations and the identity of themselves and others' (Shils, 1975, cited in Kärrholm, 2005). Territoriality has also been defined as 'the attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by delimiting and asserting control over a geographic area'. This area will be called territory (Sack, 1986, cited in Kärrholm, 2005). Manzese streets are very much managed as an informal market, with the rules and conflicts that it implies. It is controlled by specific people, where a defined behaviour is expected between dwellers, sellers or buyers and where visitors feel that the rules and the expected behaviour must to be followed.

Territorial behaviour has been expressed as 'a self–other boundary regulation mechanism that involves personalization of or marking of a place or object and communication that it is "owned" by a person or a group, behaviour that after placement appropriation, can create social tensions' (Altman, 1975, cited in Kärrholm, 2005). Tension from the superposition of those two ways of understanding territoriality becomes obvious when traffic accidents occur, where it is usually the informal dwellers from Manzese who get badly hurt. Territory is then as Foucault defines it 'first of all a juridical-political one: The area controlled by a certain power' (Foucault, 1980). This conflict is naively handled by politicians and town planners with a simple solution of a fence in the middle of the road, to divide a territory.

Kärrholm sees territorial complexity within the essence of making public space enabling discussions beyond dichotomies such as homogenization or heterogenization and inclusion or exclusion. Kärrholm identifies three aspects of complexities within territoriality production: first the dominant territoriality with a large number of territorial productions categorized according to strategies, tactics, relationships power etc. A second aspect of complexity refers to a multilayered territory, characterized by a large number of layers at each place and a dynamic space shifting between absence and presence territoriality.

[6] Territoriality: space production as a collective effort of human and nonhuman acts. (Kärrholm, 2007)

The third territoriality complexity refers to heteronymic relationships among different territorial productions. 'A heteronymic territorial relationship represents a plenitude of different territorial productions, existing in the same place and without the preconception that one is dominant or in any profound way outranks the others'.
The first and the second complexities apply to Morogoro road in Manzese, where the formal road dominates over the informal market, co-existing within a conflict environment. Searching for better urban solutions, the third complexity, heteronymic territorial relationships could be seen as a management tool to create more harmonious cities, recognizing diverse uses and fighting against the abuse of dominance. Could we hypothetically imagine a space with characteristics of a 'commercial-square-bridge' in part of the Morogoro road of Manzese that allows the interaction of transport and market functions?

Liminality. The case of streets or paths in informal settlements in Dar es Salaam

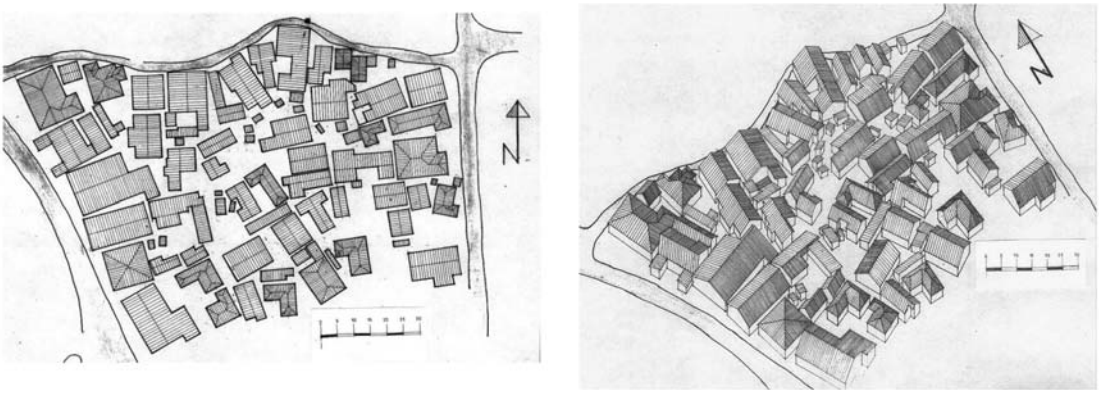


Figure 4. Illustration, Msasani, typical urban fabric for informal neighbourhood in Dar es Salaam. Lupala, 2002.

The concept of liminality is a notion taken from Arnold Van Gennep and alludes to the state of openness and ambiguity that characterizes the intermediate phase of a tripartite space-time, or prior pre-liminal stage, intermediate or liminal phase and another phase or later post-liminal. The anthropologist Victor Turner deepens the definition of liminality as a pilgrimage that involves a pattern of movement in which pilgrims cross an invisible 'limen'[7] in space that separates the city – a hierarchical structure of the daily life, from the holy place – with sense of community and place identity; creating the sense that Turner has defined as 'communitas'. (Turner, cited in Olwig, 2005)
Informal settlements in Dar es Salaam are almost unnoticed by the formal citizens or visitors. Entering the informal settlements, the visitor is forced to pass through different phases. The boundaries are overcrowded with people, the environment is 'polluted' by market noise, publicity and by a gastronomic mix of aromas, the public and private transport [8] becomes threatened, and race and religion becomes a conscious issue. Streets penetrating the neighbourhood change the hierarchic structure transforming itself by widening and overcrowding into a narrow and calm public space. Some streets wind up in open spaces where the sense of community[9] and place identity become clear and somehow harmonious.

[7] *Limen*: Latin, can be translated as threshold.
[8] Diversity in public transport includes today motorized tricycles or bajajis, open buses or dalar-dalar.
[9] Communitas is a term used by Victor Turner. (1969, 1974)

Behaviour and rules in the public space change gradually when passing through the street thresholds. Sense of place is codified by the dwellers, excluding the visitors, the foreigners. This sense of place, of belonging, of community, forces the stranger to somehow surrender to the rules of the environment.
Mlalakua, a typical example of informal or non-planned settlements in the city, includes low and middle class dwellers; however university dwellers are as common as low income families. Public spaces in Mlalakua, as in some other neighbourhoods in Dar es Salaam, include complex concepts of semi-public and semi-private space, framed sometimes as private space in a labyrinthine and narrow structure.
Including the concept of liminality, within secure neighbourhood's production, and with respect for citizens may help urban planners in designing integrated cities far from gated communities that divide the city.

Seasonality. The case of rituals and traditions expressed in the streets

Figure 5. Photo,Street in Zanzibar, 2012. Stone Town in Zanzibar is a UNESCO world heritage city, a touristic city, where photography is possible. Citizens in informal settlements in Dar es Salaam are more reserved when allowing tourists and researchers to look into their urban life.

Seasonal landscape is defined as a phenomenon occurring in space and time, as 'when the spring begins at the vernal equinox, but seasons can also provide a measure for defining time, as when the sprouting of trees indicates the coming of spring' (Olwig 2005). Time and seasonality have long been fundamental for the landscape discipline. In the discipline of urbanism, this concept should be explored further.
The residents of informal settlements in Dar es Salaam, as in the rest of the country, represent diverse tribes, traditions, cultures and religions. A kind of '*Urban Seasonality*'[10] appears obvious in the city when the streets on certain days are occupied by attitudes and outfits[11], either by Muslims in their pilgrimage to the mosques on Fridays, or by Christians occupying the streets in peregrination to the churches on Sundays.

[10] Urban seasonality is a term suggested by the author.
[11] For example hijab or headscarf, hiqab and veils for Muslim women. Taqiyah, or cap used by Muslim men.

Seasonal activities such as carnivals, festivals, and public concerts are considered by few town planners; however an Urban Seasonality should be explored further seeking for more diverse design solutions of the public space with the immanence of change, temporality, and adaptability - not only for the physical space but also for seasonal time.

Urban seasonality could help professionals to understand and to focus on urban and cultural harmony, where space, time and diversity are present.

Conclusions

Cities in the global south are shaped to a large extent by informality; new neighbourhoods are productive forms of socialization and spatial solutions born without guidelines, instructions or the involvement of professional planners or designers.

Representation of realities, such as maps, need to be improved to give an opportunity and a capacity to reformulate what already exists, and to allow more efficiency in planning, in spatial and in social solutions. Today's techniques have developed a digital world where more complex cartography is possible, where multi-disciplinary actions and social sciences, for instance, make efforts to 'represent the world' in ways closer to the complex reality it demands.

Representation of realities, such as maps, needs to be improved to give an opportunity and a capacity to reformulate what already exists, and to allow more efficiency in planning, in spatial and in social solutions. Placing informality in maps will be a way to recognize the weaker dwellers of developing cities, but this process needs to be fair and legitimate because there are several qualities in these settlements that are not possible to represent by traditional techniques; qualities of which the 'formal world' could gain benefits.

This paper has presented three concepts: territoriality, liminality and seasonality, extracted from the Dar es Salaam informal case, concepts that could contribute to discussions on the role of urban planning and design tools for the urbanization process of the global South.

Understanding and using '*territoriality*' or a sense of space produced collectively, could be seen as a tool to fight segregation, which considers social diversity and inclusion. '*Liminality*', can contribute to the design of more secure neighbourhoods when community and sense of community are understood and recognized. '*Seasonality*' focusing on temporal diversity could help professionals to understand and focus on cultural diversity and urban harmony.

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Context in Urbanism
Addressing the Intrinsic Aspirations for Strategic Urban Design in Small Cities in Bangladesh

A.K.M. Sirajuddin[1]

It is anticipated that 50% of world population will live in urban area by 2030. And it is also assumed that secondary cities will host most of this urban population. In Bangladesh there are 310 Municipalities some of which are upgrading rapidly to urbanized towns. Secondary and divisional cities are also facing the rapid emergence of urbanization. In such reality, question arises how the settlements which bear the legacy of being 'informal', 'spontaneous' and 'unconscious' in nature will keep up with the pace of urbanization. What shape these may take in future? A divisional city 'Rangpur' was studied as following a new approach to the study of Urbanism and Urban Design. The study investigates the intrinsic logic and dynamics of existing township of Rangpur to work on future urbanization in terms of social and spatial essence and reveals that the spatial form of small cities and secondary towns can be observed through the 'context' and 'aspirations'. This seems to be helpful to design strategies and projects for the shaping of the future city to reroute urban expansion towards a sustainable future instead of an uncontrolled sprawl. Thus the future 'hinterland' of the city can go beyond the geographic boundaries.

Keywords: Context, Urbanism, Aspirations, Small cities, Urbanization

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Introduction: small cities and future

Around half of the world population currently lives in cities. It is anticipated that around two billion people will increase in world population over next thirty years and most of these population increase will occur in the urban areas of developing countries. Not the limited 'larger cities', but the smaller cities and towns of developing countries will host most of this population (Cohen, 2006). Since small cities typically grow faster than larger cities as Cohen added, considering the role that will be played by small cities in accommodating future population, smaller cities deserve more attention in formulating the development agenda.

Bangladesh, holding the notion of a 'developing country', has ten City Corporations and more than three hundred Municipalities. Hierarchically there are metropolis, divisional/secondary towns, tertiary towns and urbanized municipalities. Many of these municipalities are upgrading rapidly towards urbanized towns. Dhaka, the capital of Bangladesh is a metropolis of sixteen million inhabitants. Concentration of urban-civic facilities and modern amenities in Dhaka establishes its primacy in the region. As Islam (2009) stated: "The primacy of Dhaka is stronger functionally than in terms of population. Administrative headquarters and civil employments, financial and banking services, international commerce and business except port functions, are all largely concentrated in Dhaka. Educational, cultural and consultancy and research activities are also concentrated in the capital area. A disproportionately large concentration of industrial and various public sector investments have been made in the area."

Due to the primacy of Dhaka, people from all over the country rush to the Capital, leaving their available resources and means unexplored. The unprecedented population growth beyond the capacity of unplanned Dhaka spreads enormous pressure on these amenities and puts the fate of the city into a gigantic question. Thus 'decentralization' of urbanization appears to be a demand of time, though politically it is being neglected till to date.

In spite of the negligence for decentralization of all prevailing political will, awareness has been rising among the common people towards the utilization and optimization of obtainable resources. A drift is noticeable now that, people are trying to reach out for the nearby cities/towns as a means of better modernized living and wellbeing instead of coming to the capital. It is a good sign that secondary and divisional cities have entered in the pace of emerging urbanization. It is apparent that decentralization of resources along with urbanization is indispensable to save Dhaka as well as to explore the immense possibilities offered by the other secondary cities and small towns in an ingenious way to face the challenges of contemporary time and the forthcoming future. The prospect, which has appeared in course of time, of spontaneous transformation of small cities, should not be missed. This transformation needs to be channelized and articulated meticulously so that this could appear as blessings rather as nuisance anymore.

If cities can be landscaped with its geo-logic, the exploration of its unexplored but available resources and nature i.e. the context, as well as the aspirations that is embedded within the pulse of the city's life, could be a new way to design the future of the city. Conventional practice of designing is a binary system of problem and solution. In this regard exploration of unexplored may way out new ideas independently beyond this binary system of designing and add new dimensions for the city.

To understand the urbanism and urban design in terms of context and aspirations, a series of study of secondary and small cities in Bangladesh has been initiated by the Department of Architecture at BRAC University. Rangpur, one of the seven divisional headquarters and a secondary level city in northwest of Bangladesh, was the first in the series.

The city is in a way to upgrade its status from 'Municipality' to 'City Corporation' and expanding its jurisdiction from fifty three square kilometres to two hundred three square kilometres. For the first time in Bangladesh, 'City Governance' is going to be introduced in Rangpur; the decision has been approved by the government which will add more significant lessons and experience towards urbanization of the cities in this land.

The study investigates to understand the intrinsic logic and dynamics of existing township of Rangpur to work on future urbanization in terms of social and spatial essence. It shows that, shaping the spatial form of the small cities and secondary towns due to rapid urbanization can be observed through the perception of 'context' and 'intrinsic aspirations'. This seems to be helpful to design strategic projects which lead the shaping of the city and reroute/direct urban expansion towards a sustainable future instead of an uncontrolled sprawl. This approach also found to consider that the future 'hinterland' of this city can go beyond the geographic/administrative boundaries.

Urbanization in process

Developing countries typically have distinct divisions between their rural and urban settlements, which are evident in Bangladesh as well. In a predominantly agrarian society and settlements which are mostly rural by character in Bangladesh, places start to be urbanized knowingly with the establishment of administrative civil authorities and associated physical and social infrastructure, where an informal urbanized centre was enduring. Along with the rise of local government (municipality), revenue collection, land settlement, judicial court, police station, secondary and higher schools, limited formal housing, and health facilities, people starts to reach these places and eventually it becomes more urbanized town. Through the course of time these invite other urban, civic events to take place and spread over the area. Markets, commercial venues, transportation hubs along with numerous other formal and informal economic activities initiate to play the role in that urbanized town. Rahman (2011) stated: "Today, Urban characteristics stretch right from the village all the way through rural market centres, rural towns, municipalities, district towns up to the metropolitan realities of upscale Dhaka. Urban aspirations are now defining even rural life-styles".

Centralized government puts very little attention on local government and urbanization does not get attention in a democratic way. As a result, the enormous process of urbanization all over the country falls in the face of uncontrolled/ unprecedented/ future. The spatial and visual logic of urban areas are being developed on the basis of the principle of 'momentary-benefit', instead of a sustainable manner. 'Nature' is an alienated element in development whereas the alienated engineered visions of solutions are becoming popular as a notion of progresses (Stokman, 2008). This shows total ignorance and disrespect of indigenous essence of living which are established as a source of knowledge of human effort to live with nature. The poorly constructed landscape and ecology appear as threat for the biodiversity of the urban settlements. Waterways and water bodies are often treated as part of the sewerage system, which turns water into a curse instead of blessings. In urban areas lack of drinkable water is a paradox in a land of plentiful water (Favaro, 2008).

In Bangladesh, larger cities are typically occupied with contestation, between formal homogenous and informal heterotopias settlements and another most visible phenomenon is appropriations of contested spaces. Very little formal measures have been taken for these cities in previous days. Yet again those measures are generic in character. Those formal measures in the form of 'master plans' but in ad-hoc basis did not address the native logic and dynamics rather were driven by the considerations of market and profit. Excuses are put forth of capitalism and globalization. Thus these cities are competing to be global.

Larger cities in Bangladesh are same as Korf (2004) mentioned about global cities that these cities are now connected with international network and characterized by confusion, because of their various realities which can no longer be integrated into a single system.

The new landscape reflects new land use pattern, which negotiates very little with the logic of the land, water, culture and livelihood, rather it imprints a top-down plan for further development. Within the pre-industrial phase of urbanization and land use intensification, 'engineered' and market driven 'political commerce' become major components of territorial planning and urbanization in those cities and towns.

Selfish political benefits and poorly realized globalization gained even more importance as structural and visual components of urban and regional form than the cultural landscapes dominated by agricultural land-use, states the similarities what Stokman (2008) observed in Changde, China. Investment is concentrated more in luxurious housing and dominating corporate commercial structures, resulting lack of public spaces and generation of slums. Attracted by job opportunities, people move from the under-serviced rural areas towards already congested under-equipped larger cities. As a result larger cities are the places of disparities between rich and poor. Resemblance can be established with other large cities of the developing world like, Rio-De-Janeiro in Brazil, Manila in Philippines or Mumbai in India.

On the contrary, smaller cities and towns are mostly urbanized rural areas having some traces yet of their identity and uniqueness and display the wisdom of their ancestors, the thoughtfulness and sensitivity towards land, water, climate and people. As stated by Korf (2004): "Of course not all of a city's people and communities are integrated in global networks. Social contexts with specific local histories, which differ from the realizations of global networks, are equally relevant", smaller cities still illustrate the promise to be an interrelating dot of local, national and global phenomena.

But this condition is under threat now. The corporate bodies are spreading their acquisitive tendency in those areas by building corporate infrastructures which seldom have connections with the legacy of indigenous knowledge and wisdom. Glazed and massive concrete structures of corporatist without any sensitivity to the climate, creates an alienated urban facade inviting unknown culture in city life. Large capital investment in roads is threatening the richness of water based urbanism of the region and migration from nearby rural areas is a phenomenon which is affecting the organization of the territory (Favaro, 2008).

Understanding context

How context has been understood? What is the antonym of context? Is it 'non contextual' or 'alien' or 'generic'? When Koolhass (2011) was talking about the generic plug-in waterfronts like the Baltimore Inner Harbor, New York's East River Waterfront and Hafen City. He found that these are the products of a simple equation between developers and city governments.

This statement can be applied for other cities of the developing countries as well. May be the 'generic' cities are liberated from rules and celebrating the zeitgeist to be global, but at the same time missing the very context of its own history and culture. Consideration of contexts in urbanism thus could be an answer to the globalization or generic, but not an idea of globalization itself (Zivkovic, n.d.).

The working definition for the purpose of the study has been assumed as the city's history, legacies of tradition and culture, prevailing socio-economic, environmental and geological-landscape, solid-void relationship as well as the understanding of these features' further exploring attributes are the aspirations. The exploration of embryonic possibilities of these features that is aspirations will not always lead to solve the problem only, but also trigger to add something new which was not thought of before.

Thus the city may contain and display its own context. Context helps to visualize the hidden or underlying possibilities on the basis of legacy.
These become founding on the basis of findings. Analysis and synthesis of the existing layers of urbanism, which have come through the legacy of different dimensional aspects, make the 'thick complex layer', helps to unfold the 'hidden layers' of possibilities/opportunities/contingency to be explored. Thus it becomes 'contextual' not in terms of very literal but also in higher dimension.
The absence of contextual consideration in urban design can be examined in the case of Dhaka. Embankment that has been constructed on the south and west side of Dhaka to protect the city from monsoon flood of river Buriganga, , results water clogging inside the city and motivated the land-grabbers to fill up the western wetlands for real-estate development. Consequently, river encroachments and pollution in the name of economic development of the city put urbanization in to question. Logic of climate and socio-cultural relationship has been neglected in the architecture of the present day real-estate and housing and other social infrastructure.
This results in an alienated street elevation of the city and invites energy crisis and crisis of other utilities in issues and increase disparities between rich and poor. Thus non contextual intervention in city's growth makes the experience quite alarming. Again reclaiming few water bodies and integrating those in city's life shape the city with the aspirations, show respect to the context which is acting for the resilience of the city. Here context does not stand for mere legacy of existing features, rather follows further exploration of new thoughts of transcendence of authenticity.

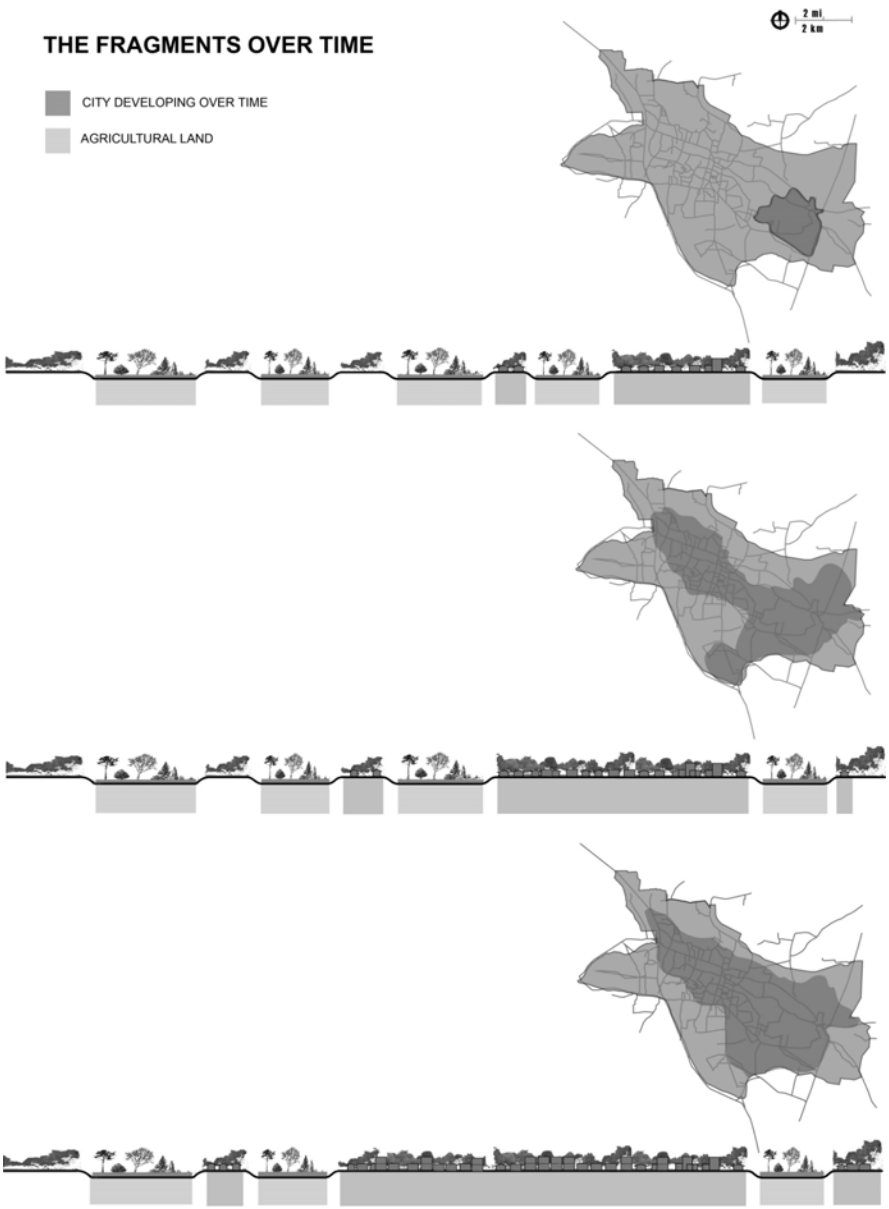
The Rangpur context

Rangpur is an intelligent landscape of the settlements. Ancestors, mostly coming from Assam and surrounding areas, had very clear understanding of the dynamics of the rivers and land of this delta. The shifting character of the braided stream Teesta pushed the territory of the settlement a bit further west, near to the Ghaghot, a tributary of 'Teesta'. Besides, seasonal variation of water levels and series of sharp bends of Ghaghot also did not allow growth of settlements along its bank. Thus a city was landscaped naturally on the highland in between Teesta and Ghaghot while keeping the adjacent lands as flood plains and also for agriculture. The *Shyama Shundori* canal by Raja Janakiballev Sen and later the KD canal played a significant role as sources of water along with some other *beels* and a number of ponds spread across the city. Absence of harbour generated road based growth and consequently the rail track connects it with the capital.
Lacking political importance for decades, Rangpur was striving to express its potentiality and prosperity. Fortunately over the period 1981-1991, some momentous of development took place and consequently Rangpur is bearing the legacy of that till today. Now city's territorial boundary has been revised from 50 square kilometres to 200 square kilometres as it earns the status of City Corporation from a municipality.
Bearing the colonial heritage, it was tested as an educational harbour and yet keeps the potentiality to become an 'educational city'.
The agro-based city is experiencing the emergence of modernistic mode of growth. Emergence/invasion of corporate economy, globalization, open market policy and new commercial enterprises already put this agro based naturally landscaped city under challenges. The patches of agricultural lands within the hard tissue of the city and peripheral cultivations yet uphold the 'nature' within and around the city. Settlements clustered as *'paras'* reveal the originality and culture of clusters in weaving the city's spatial distribution. Closely located *'paras'* contest in terms of 'unity-diversity', as these dot the city with many internal small neighbourhood spaces, while the city lacks in larger open public spaces.

Clear potentiality is there of these small neighbourhood spaces to grow in hierarchal public open spaces for further integration of the city to get more socially equitable and sustainable city spaces for coming future. The interplay of the city and the inhabitants can be strengthened further.

The study aims at understanding the dynamics and consequent design of the city in a holistic way by looking to it in 'macro' as well as 'micro' scale. The architecture of the city in terms of morphology and physical shape i.e. the landscaping of the territory is an issue, has been considered too.

Rangpur is one of the major cities in Bangladesh. It has recently become the divisional capital of the Rangpur division in 2010. It is considered the north-western centre of the country, originating as a district headquarter in 1769. Through time it has come a long way and will be having its own city corporation in the very near future.



The existing municipality of Rangpur consists of a population of 3,20,000 spread across an area of 50.66 square kilometres. With a rich history, culture and heritage, along with its strategic location, Rangpur preserves the potential of a metropolis in the region. The new city corporation will soon be extended to a total of 203.6 square kilometres with a population of 12, 00,000. The city accommodates important institutions such as Rangpur Medical College, Rangpur Cadet College, Begum Rokeya University, which make Rangpur a regional centre for education.

Originally, the city developed because of its location which served as a driving force behind the regional trade and administrative control of Bengal in British India. As the centre of development shifted elsewhere in Bangladesh, the importance of the city significantly declined through time. But with rapid population growth, rural to urban migration and increasing demand, Rangpur is expanding in every direction. Now the time has come when this urban expansion needs to be routed towards a sustainable future instead of an uncontrolled sprawl. Some of these initiatives have already come to scene through the introduction of city governance in Rangpur which will be happening for the first time in Bangladesh. This will bring different government bodies of civic utilities and services under one umbrella and take integrated decisions for the development of the city's infrastructure. The vision for the future of Rangpur needs ensuring health and wellbeing of its population, directing the development towards a focused goal and appropriate incorporation of the urban settlements.

Contexts-aspirations-strategies

A matrix of physical elements (land, water, green, built and open) in fusion with socio-cultural elements (culture, economy/livelihood, history) was used for the study. Each element was mapped to understand the blended thick layers of complexities of the city. On the basis of analysis and synthesis of layers of contexts, five specific strategic aspirations were figured out.

The *pulsating voids* of the city spread over the landscape holds the potential of the greenery, waterscape and road networks to be interwoven. In Rangpur region agriculture is more than an occupation; it is rather a lifestyle. The aspiration of farmers can be best reflected in an *agriculture-friendly* city that keeps the provision of spaces and infrastructure for farmers' network in local, regional and beyond. The history of education is as old as the history of human settlements in the region. The pioneer of female *education* in the Subcontinent, Begum Rokeya, hails from Rangpur. Since then, significant educational institutes have been playing roles in sustaining culture in society, acting as a *spine*. The constructed *water channel* (*Shyama Shundori* Canal) brings the river Teesta home that brings life in the city is considered as another spine. Aridness is now engulfing Rangpur, though it had a rich system of hydrology consisting rivers, canals and ponds in regional, city and domestic scale respectively. The desire of restoring the hydrology is reflected through the *urban blue*. Gentrification is a perceptible phenomenon in mono-centric Rangpur city. Whatever the magnitude of this gentrification is, it is pushing the original inhabitants of the city to the periphery of the urban settlements. This clearly indicates to have a *polycentric* exploration of the city instead of a mono-centric one to keep room for the natives.

City of Pulsating voids

To revive the city of Rangpur at its infancy, the chaos of urban city has to be refurbished and re-fabricated along with the restoration of existing open spaces. Ample open spaces deserve to be weaved with the greenery, waterscape and road networks for Rangpur to continue its unique organic growth.

The strategy involves reclaiming the open spaces, along with fabricating the road network with pedestrian and bicycle routes, transforming the public transport system by reducing carbon emitting vehicles, and introducing tram network and parking services. Agriculture and open fields are reinstated and reformed with eco parks and public recreational areas. The existing waterscape and canals are rejuvenated with water treatment facilities and proper drainage system, along with generation of number of links throughout the city; interlacing the water transport system with trade and commerce and urban landscape. The strategies ensure vessels to pulsate the void spaces of Rangpur, and introducing open space with the greenery entangled with the water canals. The gradual growth of Rangpur will flourish with the network of green, blue and grey.

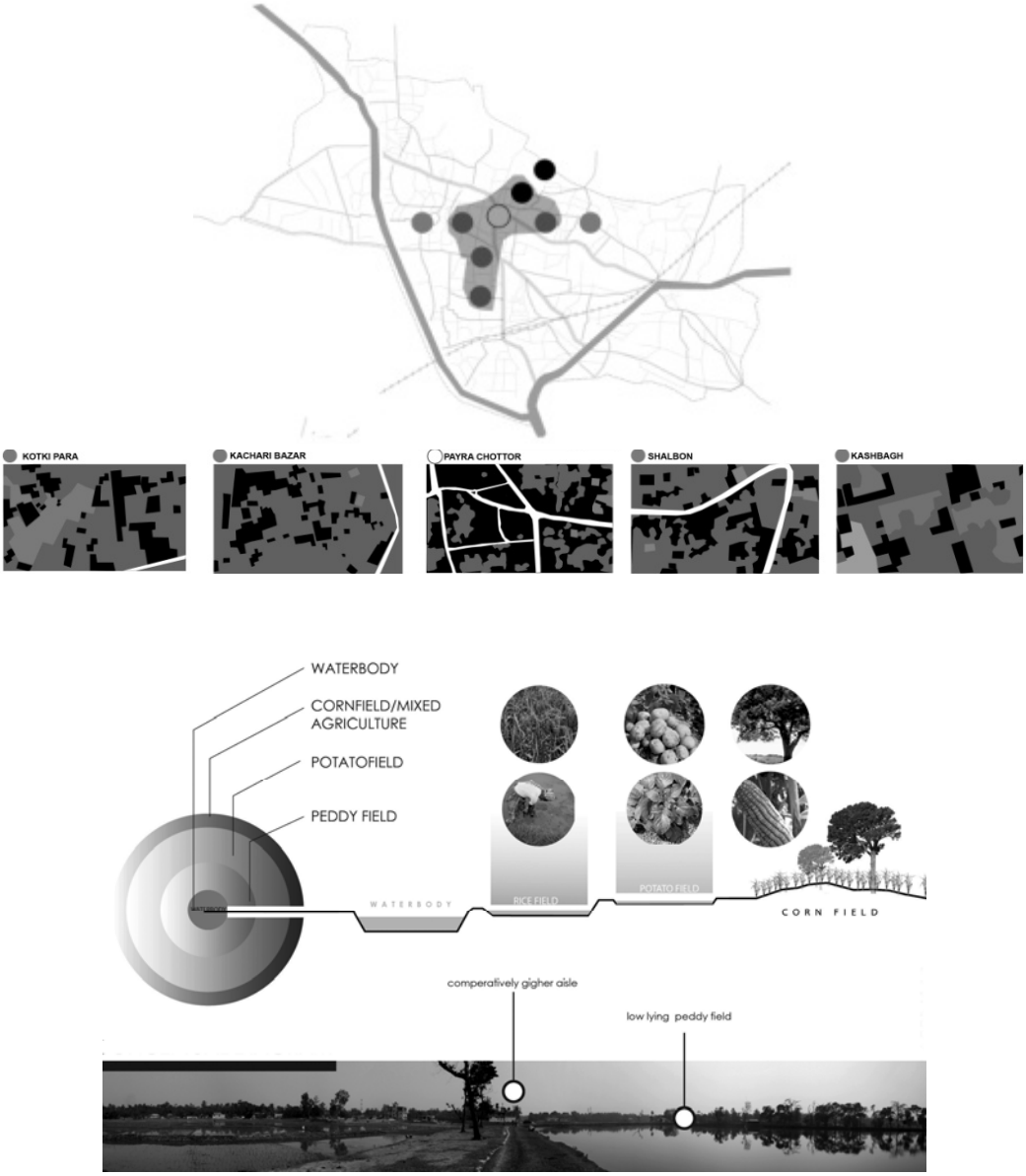
The strategic location of 'Chiklir Beel' (large artificial lake) offers the city to be an open public space. This huge void in the city consists of land, water and green could house eco-park, edutainment and recreational trail, games field, museums, stadium, water reservoir and aqua culture point. The real state value will be increased and density can be achieved by series of high-rise apartments along the edge of this urban park and aqualung.

City offering Agriculture as a life style

The soil composition is mainly alluvial (80%) of the Teesta River basin, and the remaining is Barind. In the British period 25% of the total rice of the then Bengal region was produced in Rangpur. Jute and jute products were other significant agricultural goods of the then time. Tobacco and tea, along with other food grain are being cultivated around and within the city. Flower plant has taken place to be a potential economical agro product of which lands are engaged around and within the city. Associated processing mills and factories added new item within the city fabric and grains in the tissue.

One of the sophisticated agro-research centre along with the newly established university create an enormous potentiality to consider the future of this city as a major agricultural hub for not only in the country but also in the region of south east Asia. Presence of Teesta barrage puts a significant impact on the irrigation and also contains the aquaculture possibility.

City's future expansion is curved not along the line of present linear shape, rather in a circular manner around the main axis of the city. Without any previous reference this shape and jurisdiction of the city has been decided. This idea indicates that, all the surrounding agricultural fields are supposed to be transformed into hard urban lands. Present city is linear in shape, allows the agriculture to weave in the tissue of the city transversely. The highway bypass on the north, allows the farmers around the city to congregate in few centres along the present periphery. New connectivity may be routed from these centres.



Palate of the green mosaic shows the patches of agriculture within the city

Strategies include the densification of the centre along the existing main spine that can complement the surrounding land for agriculture. Transverse extension of infrastructure connecting the centre should be concentrated according to the logic of agriculture and aquaculture.
Connectivity with nearby towns and growth points will accelerate to establish farmers centres (*Bondhonshala*). Strategic placements of *Bondhonshala* on peripheral highways and crossroads of bus, tram, train and waterways will ensure the growth of farmers' mega centres/hubs, containing the research centre, inter-districts farmers markets, banks, high-tech information centres, convention centres, expo, airports and tourist centres.
Proposed centres (Bondhonshala) are the 'farmers' centres' where people' will gather and exchange, not just their surplus productions of agriculture, but also share their own stories. These centres in the form of farmers' markets, super markets, agricultural trails, parks, plaza and squares, convection centres for national and international convention of farmers', tourist accommodation, floating markets' etc will be the pulse of the city.

Dual Spine
Rangpur city grew from *Mahiganj* and then developed along the *Shyama Shundori* and KD canals. The first master plan of this city was this canal. *Shyama Shundori* canal connects the river Teesta on the up and flows down through the city. The canals played a major role as a spine for Rangpur. The culture and history of the city evolved around the educational institutions and canals. These two infrastructures, the canal (Physical infrastructure) and education (social infrastructure) are considered as the *Dual Spine*.
By reclaiming the aspirations of the canals and their strategic integration with the educational infrastructure will play a vital role symbiotically for the growth of the city. Educational institutes will grow in strategic locations along the canals bringing along social infrastructures like public realm. These spaces have high potential to transform into major urban activities in future.

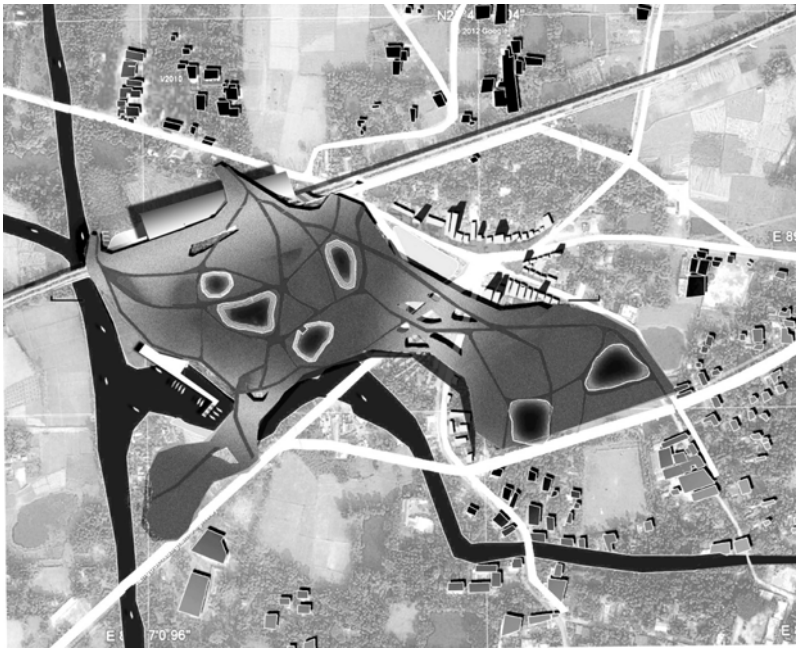
Road network as a catalyst

Junction of physical and social infrastructure (water and education)

Strategic node for future development, e.g. Mahiganj and Medical *more*, RK road. Shahebganj

New housing typology for the student population, book markets, students' leisure centres are the essentials to be accommodated in near future. Several public activities will also be generated as the canal will be used for water transportation connecting the whole city. Bicycle routes, pedestrian routes along the canal can be a strategy to increase public interactions along the canal.

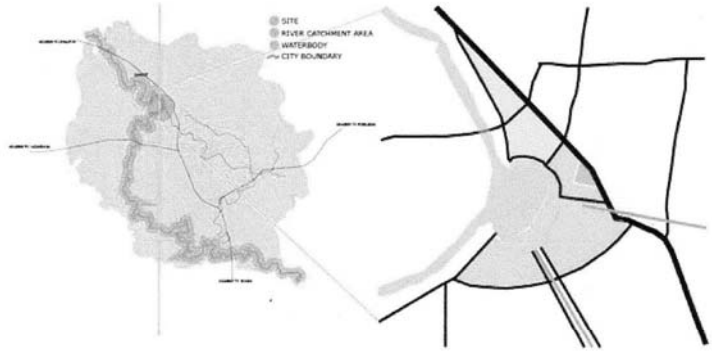
In the macro level, mass transportation system like tram, metro rail will connect the surrounding districts, making Rangpur a signification transportation hub. Accordingly a multi-modal transportation hub at the point of origin (Mahiganj) will act a major catalyst by providing organic permeability and humble invitation to urban economic growth.

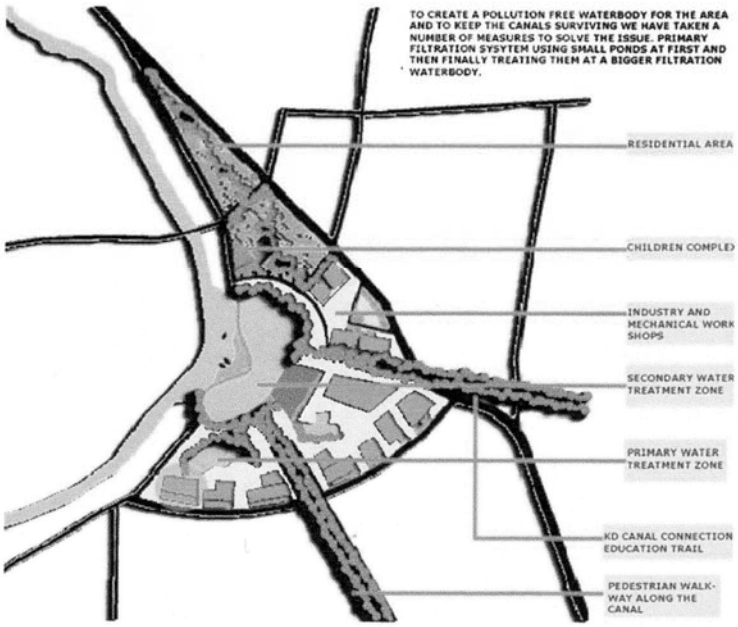


The revival of the canals will be achieved by establishing water treatment mythologies through strategic timeline. A better transport will bring people from other cities, other divisions and also from other countries to Rangpur as a city like Cambridge and Oxford.
Mahiganj is a strategically an ideal location where road, rail and water transports come together. Reclaiming Mahiganj as a multimodal transport hub will ensure city's connectivity with the region and can arrange an array of public amenities around it. This reclaimed public centre will complement the easy accessibility to education for the learners of this region and other civic services as well.

The Urban Blue

The blessings of nature are evident in Rangpur. The city possesses a rich water network with Teesta on the far East and the river Ghaghot flowing through the heart of the city. These rivers are the sources of water for agriculture, a native occupation for maximum population. The main drainage system consists of the two canals: *Shyama Shundori* and KD. Dense housing along the canals has been worsening the conditions of the canal making it extremely polluted, stagnant and narrowing it down over time. Ponds keep a lower value in recent times and without proper maintenance they too are becoming polluted and unsuitable for any purposes. The proposed extended city will now require uninterrupted water supply for survival of its agriculture and also for the increasing development.





Strategies include revitalization of the water bodies (canals, *beels* and ponds) and enhance water supply through new connections and building reservoirs of water for the city. A new connection from the river Teesta to the river Ghagot could increase the flow of the latter. At domestic level the ponds can act as reservoirs for the rainwater. They will serve the households and may also be used for aquaculture. As the city develops, new canals would be introduced along the periphery of the city starting and connecting Ghagot. New *beels* can be added to make the city a network of blue.

The objective is to revitalize the urban blue in every possible ways, make the water bodies the vital veins for transportation, reviving the age old tradition of boat travelling and use the pockets of blue as throbbing hearts to get water for the city. Revitalizing urban blue would enliven the city and once again the city would be at its harmony with the rushing blue blood, the water, amidst the grey concrete structures and green agricultural land.

Polycentrism (Dispersal from the centralized)

Rangpur is a mono-centric city of informal and formal commerce, small trade and industries and agriculture. Commercialization is taking place along the main spinal nodes of the roads. As the city urbanizes the agricultural use of lands faces threat by wealthier migrants and land developers. As a result, the native people seem to become marginalized economically making Rangpur vulnerable to phenomena like rapid unplanned urbanization, gentrification and development of urban sprawl on agricultural land.

Polycentricism in the city may help to strengthen the economy by eliminating middlemen in the production and trading. Development of poly-centres with the help of transportation network will strengthen the native producers and traders to raise their stake in the market. They may not be pushed further from their native land; rather the sense of belongingness to their land and assets will be enhanced.

TYPOLOGY OF FORMS' ARRANGEMENTS

Strategic locations of centres to create a web of small centres equipped with social infrastructure, new type of land use fusing agriculture and trade, new typology of housing, transport and communication hub will make inter-depended multiple centres in and around the city which will complement the main city centre.

Conclusion

Prevailing urbanization in Bangladesh appears as an alienated transformation of urban areas, which denies the indigenous understanding and intrinsic context and often contradictory to the core idea of progress. Whatever formal and informal measures have been taken in last few decades in the process of urbanization resulted up with severe environmental degradation, increased poverty and proneness to natural and human induced hazards and risks.

Social disparities and injustice are tagged with the notion of urbanization. It seems that the practice of urbanism in larger cities might not fit the smaller ones. In Bangladesh where urban areas are mostly informal and spontaneous in disposition, conventional approaches (economic zoning based master plan) for urbanization have very little considerations of the natural, geographical and social attributes. Hence, the formal ways of designing the cities do not conform the very nature of such settlements. Deep understanding of the logic and dynamics of the regions physical, social and spiritual basics that is the intrinsic context and aspirations, fused with the spirit of time may appear to be a way out of this dilemma.

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Using Parametrics to Facilitate Collaborative Urban Design. An attempt to overcome some inherent dilemmas

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Collaborative urban design faces three inherent dilemmas of limitations to time and resources, of barriers to language and communication between professionals and stakeholders, and of the reciprocal nature of the relation between influence and understanding. Parametric design tools may address all of these dilemmas, as they provide a fast way to test different design scenarios and make it possible keep designs open while at the same time allowing for a level of detailing which is high enough to facilitate an understanding of the generic qualities of proposed designs. This is particularly relevant in the context of the urban South, which is characterized by high urban growth rates, weak planning systems and modest means. The current state of planning and urban development in Morocco is introduced as a context for discussing collaborative urban design and parametric urban design, and some tentative conclusions are attempted.

Keywords: Parametric design, Urban design, Collaborative design, Urban development, Morocco

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Introduction

In the Western world, urban design and planning has long been acknowledged as politically imbued activities rather than clean areas of professional expertise. This raises the issues of power and interests and how to negotiate between different stakeholders. Collaborative urban design has proven a powerful tool to this end, yet it contains some inherent dilemmas. It is both resource and time consuming. Professionals and stakeholders have different modes of thinking and different languages and this represents a communication dilemma. And while design ideas are traditionally difficult to communicate at the early stages of design, they are equally difficult to change at the late stages of design.

With the advent of parametric design, new ways of designing which are fast, detailed and flexible, respond to all these dilemmas of collaborative planning. As it allows for different perspectives on design and for testing different design scenarios, it can significantly improve the understanding and thus communication between professionals and stakeholder, thus allowing for better and more informed design decisions. This is particularly interesting in the context of the urban South, which is characterized by high urban growth rates, weak planning systems and modest means. Yet uneven distribution of power typically presents an obstacle to collaborative planning and urban design.

The first section of this paper discusses the dilemmas of collaborative urban design and how they may be overcome by a parametric approach to urban design. The concept of parametric urban design is briefly discussed, and in the second section, a case example of parametric design is given to hint the scope and possibilities of the approach. In the third section, the current state of planning and urban development in Morocco is introduced. In the fourth section, collaborative urban design and parametric urban design are discussed in the context of Moroccan urban planning and development. And finally some tentative conclusions are attempted.

Dilemmas of Urban Design Processes and Potentials of Parametric Design

Collaborative urban design and planning has a long history in Western Europe and the USA (Steinø, 2003). As a means to democratically involve different stakeholders in the urban development process, a large variety of collaborative design and planning formats, such as design charrettes, future workshops, and planning weekends, have seen the light of day (Batchelor & Lewis, 1985; Wates & Knevitt, 1987; Zadow, 1997; Kelbaugh, 1997).

While collaborative urban design requires some level of democracy to be meaningful, it is a powerful, if not essential means to successful urban development. It can also be resource and time consuming, however. In contexts of rapid growth and fragile democratic institutions, collaborative urban design may therefore seem inapplicable, even if desirable. This represents an inherent dilemma in the context of the urban South.

There is another inherent dilemma in collaborative design processes however, as it involves both professional designers/architects and planners, as well as lay people. Such lay people can be stakeholders like property developers, residents, local retailers, NGOs, and others with an interest in urban development. As several planning theorists have pointed out, differences in thinking and language between professionals and lay people represent a communication barrier (Forester, 1980; Friedman, 1973).

A final dilemma lies in the opposites of influence of understanding. While design is still open in the early phases of the design process, the level of detailing is typically low. Hence, the implications of the design may be difficult to comprehend for non-professionals. But as the level of detailing increases, thus allowing for a better understanding of the design, the design tends to close and can no longer be changed without substantial implications for time, money and resources (Steinø & Veirum, 2005; Steinø 2010).

Hence, an approach which is capable of responding to these three dilemmas is desirable. When time and resources are scarce, it must be expedient and effective. In order to overcome the communicative gap between professionals and lay people, it must be able to convey ideas about urban space between these two groups. And in order to overcome the influence/understanding dilemma, it must provide a level of detailing high enough for lay people to engage, even at early stages when real and substantial changes to the design may still be possible.

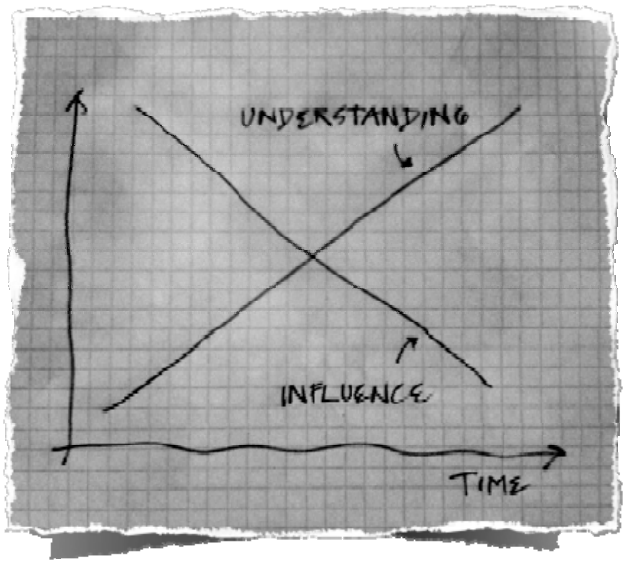

Figure 1: The relation between understanding and influence over time

Potentials of Parametric Urban Design

With the advent of parametric design tools, such an approach may now become a reality. Rather than making one-off designs which need to be redesigned from the ground up in case of changes, parametric design tools make it possible keep the design open while at the same time allowing for a level of detailing which is high enough to facilitate an understanding of the generic qualities of proposed designs.

Although the concept of parametric design covers a variety of different applications, Anderl & Mendgen's (1995) definition of parametric design gives a general idea of the concept:

"In a parametric CAD system the designer has to model the shape of a part or assembly only once and may derive variants by changing dimension values, engineering parameters (to create geometric variants), or the feature history of the part (to create topological variants). The shape of a part is modelled as a combination of features, each described by geometric parameters (dimensions) for its shape, position and orientation with respect to other features of the part" (ibid., p. 7).

Different parametric design tools exist, some of which are very feature rich and expensive, while others are simpler and cheaper. And while some are targeted at specific fields of application, others are more general (Steinø, 2010). Common to the different parametric design tools however, is 1) the capacity to quickly generate large generic designs, 2) the capacity to add detailing in the early stages of design with little effort, 3) to maintain the model's 'intelligence' throughout the different stages of design, and 4) to facilitate easy testing by changing parameter settings.

This has obvious advantages for collaborative urban design. While conventional design techniques require much design work to be redone whenever a design is altered as models or drawings must be redone to various degrees, a parametric design approach allows to keep the design 'open' for a larger part of the design process without loss. As Anderl & Mendgen note, this makes it more feasible to start modelling in the in the conceptual design phase, rather than in the design presentation phase (1995, p. 1), which in turn, allows for a higher level of understanding among lay people at stages where the design is still amenable to change.

Although a parametric design approach, is generic by nature, as only predefined variables can be made subject to parametric variation, it may still be detailed enough to discuss the essence of different design criteria, which is the level at which urban design typically operates. Although final designs may not be achievable by means of parametric urban design, it can still be detailed enough to enable professionals and lay people to make informed decisions about urban design.

A considerable advantage of a parametric approach to urban design is the potential to make real-time alterations to different design scenarios. Being able to analyse urban design scenarios through variations of different parameters, e.g. building heights and types, density, street widths, etc., and see the immediate effects has great pedagogical and informative value in collaborative design processes. Not only will it be possible to test more scenarios than by conventional techniques, it is also likely to create a better basis for making right decisions.

Overview of Different Approaches to Parametric Urban Design

At present, at least four different approaches to parametric urban design can be identified. At the one extreme, parametrics is used in urban design to relate analytical data parametrically to 3D models in order to provide information for design as in Ghani & Datta (2009). By this approach, tools are purely analytical. They may serve as a basis for design but they are not design tools in themselves. This strand takes its point of departure in real-life urban planning as it is practiced throughout the world.

At the other extreme, the power of parametrics is used in urban design as source of artistic inspiration for novel design as in Schnabel (2007) and Coorey (2010). While data may derive from the context, it is typically subjectively interpreted by the designer with the aim of triggering designs which might not materialize otherwise. By this approach, parametrics is used as a sort of power tool for the artistic generation of designs. While such designs may respond interactively to environmental data, the aim is artistic effect rather than to fulfil utilitarian needs (e.g. comfort or energy preservation). Not surprisingly, this strand takes its point of departure in urban design studios taught in architecture programs in universities.

Between these two approaches, one approach (also based in urban design studio teaching) attempts to use parametrics in order to analytically address particular needs or constraints in the course of design as in Karakiewicz & Kvan (2010), and another is focused on parametrics as rule-based design. While the former of these two is relevant as a basis for real-life design, it seems to mainly facilitate analysis which could have been made by conventional techniques. The latter however, holds promise for a completely new approach to urban space design, as parametrics is applied to the design process itself.

While still in its relative infancy, parametric urban design as rule-based design has been subject to both experimental and theoretical work. While Pellitteri et al. (2008, 2010) are concerned with how parametrics can be applied to building design in concrete settings with specific sets of variables, Jacobi et al. (2009) explore the potential of parametric urban design for facilitating collaborative design processes involving different stakeholders. Beirão et al. (2008, 2011) and Gil & Duarte (2008) on the other hand, are more

concerned with the theoretical analysis and design (ontology) of a parametric approach to urban space design, noting in particular, the necessity to bridge the analytical capacity of GIS systems to the design capacity of CAD systems.

Parametric Urban Design and CityEngine

In our work, we find ourselves within the approach of parametric urban design as rule-based design, as described above. In the case described in this section, we have used the CityEngine software by Esri. While different parametric design tools have different strengths and weaknesses, CityEngine is dedicated to parametric simulation of cities. While having previously been put to use mainly in the movie and computer game industries, it offers a logic which is very promising – yet poorly explored – for urban design and planning. In particular, it seems to provide exactly that link between GIS and CAD that Beirão et al. (2008) are asking for.

In order to make a pilot study of the usability of CityEngine as a tool for parametric urban design in a real-life context, we have done a series of tests of different building typologies applied to an actual redevelopment site in the city of Aalborg, Denmark. While the tests could have been done without an actual site, this pilot study also aims at integrating real-life planner needs. And this aim is better fulfilled in a real-life example with specific constraints which actual planners can relate to. This part of the pilot study is not discussed in the context of this paper, however.

While the scope of CityEngine is vast, we have narrowed it down to testing three different building typologies; urban blocks, linear blocks and terraced houses. Also, these typologies have been tested within only one street layout configuration. The street layout is kept linear and widely orthogonal. While CityEngine is very good at handling complex and irregular street patterns, this choice has been made in order to reduce complexity and hence provide clarity when examining other parameters.

Each of the three building typologies have been developed to cater for parametric adjustment of density (width, height and spacing of buildings) and variation (random displacement). These parameters are relatively easy to script and are a simple way of testing the scope of CityEngine with easily recognizable results. At this stage, the buildings are "ugly slabs" without detailing. In the following, four different scenarios are presented and discussed:

1. Variation of facade alignment in a terraced housing development
2. Variation of density in an urban block (perimeter block) development
3. Variation of facade alignment and density in a linear block development
4. Variation of the distribution of building typologies in a neighbourhood

In the first example, the script defines terraced houses of random width and height (within set boundaries). In the first scenario (figure 2), the buildings are displaced randomly, perpendicularly to the access street, whereas in the second scenario (figure 3), the building facades are flush with the street. While the effect is dramatic, it is very simple to test these (and any other) variations against each other by changing the value of the corresponding attribute (parameter).

In the second example, the script defines urban blocks of random height (within set boundaries). In the first scenario (figure 4), the minimum and maximum heights (boundaries) are set lower than in the second scenario (figure 5). As CityEngine renders the changes in real time and as you can view the model in street view or (as in this example) in bird's eye view (or any other view), it is very easy to evaluate the differences in the quality of space, relative to different height settings, even for non-professionals.

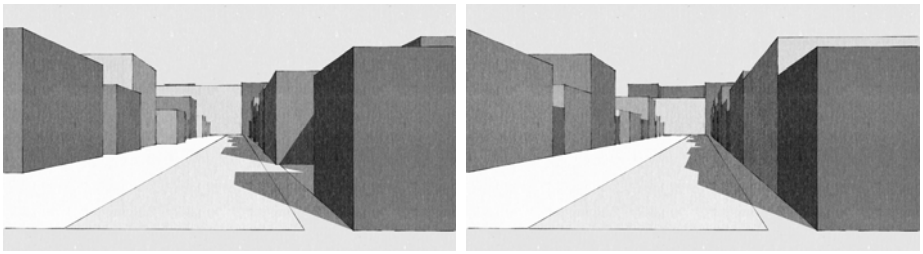

Figure 2-3: Parametric variation of façade alignment in terraced housing development

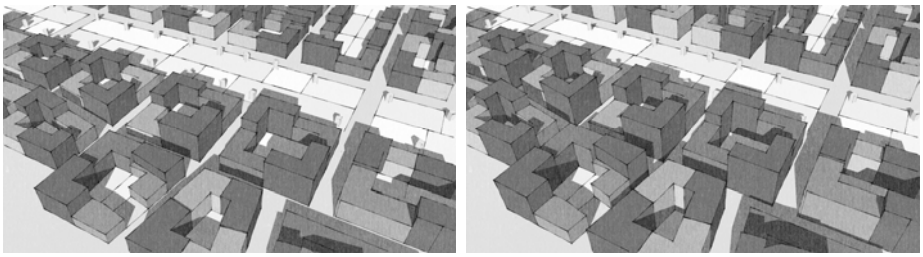

Figure 4-5: Parametric variation of building heights (density) in urban block development

In the third example, the script defines linear blocks of random width and height (with set boundaries). In the first scenario (figure 6), the buildings are displaced randomly, perpendicularly to the length of the blocks, whereas in the second scenario (figure 7), the building facades are flush with one another. The example shows how small differences in parametric settings may produce a varied morphology with radically different spatial qualities than the monotony of traditional rows of linear blocks with little, if any, variation.

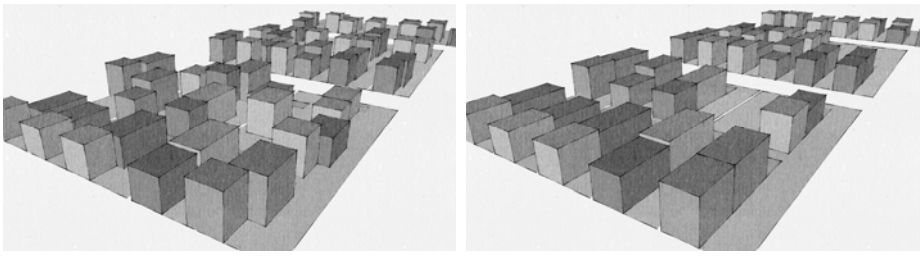

Figure 6-7: Parametric variation of spacing between buildings (density) and façade alignment in linear block development

As building scripts in CityEngine are executed by building lot, different building typologies can be assigned to each lot, either randomly, according different criteria, as well as manually. In the last example, the three typologies described above are distributed across the entire site of the test case. In the first scenario (figure 8), building typologies are distributed hierarchically with dense urban blocks lining a linear park in the central part of the area, with areas of terraced housing on either side, and areas of linear blocks at the far ends (lower left and upper right). In the second scenario (figure 9), the three building typologies are distributed randomly across the entire site.

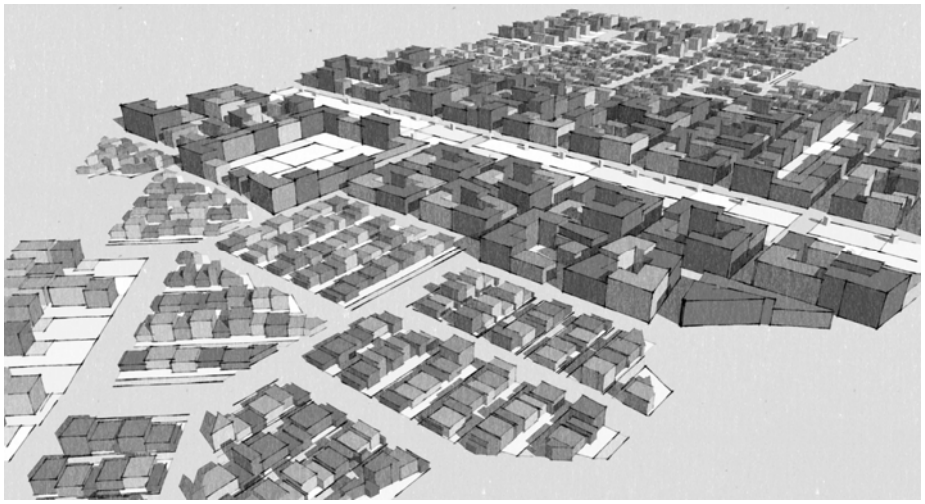

Figure 8: Hierarchical distribution of building typologies in neighbourhood

Figure 9: Random distribution of building typologies in neighbourhood

In a real-life situation, such scenarios can be used to test and discuss the effects of different building codes, densities, etc., in real time. As the parametric model is both visual (and potentially more detailed than in our test examples) and dynamic, as different variations can be examined from different viewpoints, it is likely to facilitate more informed an potentially better urban design decisions, as it allows for a better understanding of the design and the effects of different variations, even among non-architects and planners.

In order to give an idea of the relative simplicity of parametric design, the entire script controlling the terraced housing example given above has been inserted below. As it can be seen, it is defined by only 14 lines of code (excluding the file info at the top). These lines define access streets, green spaces, buildings and all the building variations.

Obviously, scripts can be much more complex, defining additional detailing, such as architectural design or use, or environmental/energy related parameters. Nonetheless, the amount of work needed to script even complex scenarios is modest compare to the power of the approach.

```
/**
 * File:    rule2.cga
 * Author:  Esben
 */

version "2011.2"

attr buildingwidth = 10
attr greenspacing = 6
attr internalroad = 4
attr slabw1 = rand(4,12)
attr slabw2 = rand(4,10)

Lot --> offset(-2)  A
LotInner --> offset(-2)  A
A   --> comp(f) { inside: Buildinglot | border: NIL }
Buildinglot --> split(x) {buildingwidth : X | greenspacing : Y | internalroad : Z | ~1 : NIL}*

X --> split(y) { ~1 : b3 | (rand(4,12)) : b1 | (rand(4,10)) : b2 }*
b1 --> extrude(rand(3,6)) t((rand(0,0)) , 0 , 0) color(listRandom("#ff4c4c;#ff6c6c;#ff8c8c"))
b2 --> extrude(rand(3,9)) t((rand(0,0)) , 0 , 0) color(listRandom("#ff4c4c;#ff6c6c;#ff8c8c"))
b3 --> extrude(3) color("#ff2c2c")

Y --> color(listRandom("#66ff66;#44ff44;#88ff88"))

Z --> color("#cccccc")

SPACE --> color("#cccccc")
```

Figure 10: Script for the terraced housing example given above

Urban Design and Public Participation in Morocco

In Morocco the urban population has been growing at a high rate for the past 6 decades (Catin, 2008). This growth is mainly caused by the migration of rural poors into the country's urban centres. This massive influx of poor rural migrants to ill equipped cities has led the Moroccan Government to launch a number of extensive housing campaigns and projects, such as the '200.000 housing units' to prevent slum expansion, the 'Villes sans Bidonvilles' (cities without slums) program to eliminate slums, and the 'Nouvelles Villes' (new cities) – a program to develop 15 new cities of 100.000 inhabitants before the year 2020.

Unfortunately, these responses to the challenges of urban growth has so far not been entirely successful, be it from an architectural, urban, or economic perspective.

The newly created neighbourhoods and the new cities are lacking of urban and architectural identity; identical architectural and urban patterns, from housing units to entire neighbourhoods, are rubber-stamped across the country, and can be found both in Tangiers (photo) in the North and in Marrakesh (photo) in the South of the country.
Even though the basic infrastructure such as schools, local markets, and green spaces has more or less been provided, the new urban areas suffer from many social side effects. The uniform, low-quality social housing neighbourhoods are not very socially mixed. They are mono-functional dormitory cities without workplaces, and therefore lack the attraction of the traditional city centres and downtown areas. Many of the new cities have been planned as satellites of the major metropolises, and are connected through large roads. But they are poorly linked by public transportation which the low-income inhabitants heavily rely on. An while these large-scale projects may seem to provide better living conditions for the lower classes than the organically grown local communities constituted by the spontaneous developments they replace, they have been designed to meet the requirements of the World Bank rather than the needs of the people who inhabit them (Banque Mondial & Royaume du Maroc, 2006).

Figure 11: Housing units of new neighbourhood outside Tangiers

Figure 12: Housing units of new neighbourhood outside Marrakesh. While facade design, height and colour schemes may differ from one city to another, the new neighbourhoods feature many identical elements from floor plans to street layouts.

Deficiencies of the Moroccan Planning System

Despite the expediency with which the large-scale urban projects have been developed, the planning system in Morocco is weak compared to those of Central and Northern European Countries. Although there have been several attempts to improve the regulatory system and to strengthen its capacity to respond to the massive socio-economic changes which urban Morocco is undergoing, the legal infrastructure is still insufficient. Planning procedures are long and completely unable to keep up with the speed of urban development.

The urban planning documents in Morocco have a limited lifespan. The transition between old documents and news ones takes years, and the planning documents that regulate urban development and design are often obsolete at the time of validation and approval. As an example, the general urban plan (SDAU) regulating Casablanca (one of the largest cities in Africa with a population of 3 million people) expired in 2005 but is still the reference for decisions about urban development in the greater Casablanca area (Ministère de l'Habitat, de l'Urbanisme et de la Politique de la Ville, 2012). This creates an situation where stakeholders act in a grey zone and navigate by proposing deviations.

Power Relations and the Nature of Public Participation

There is only little, if any, tradition of public participation in Morocco. The concept of a collaborative approach to urban planning appears alien in the current socio-economic setting, mainly because of the country's large social inequalities. Due to money and power relations, a small minority of investors and developers are the only ones who engage in the process of preparing urban design and planning documents. As the construction industry is highly monopolized and subject to mass production, the result is a very poorly built environment, and apartments which are sold very expensively to the poor target population.

At the other extreme, 50% of the population is illiterate, disenfranchised, and culturally and socially programmed for obedience. This discrepancy produces a highly uneven ground for public participation. Hence, stakeholder involvement in Moroccan urban design and planning is reserved for the few ad the powerful and urban design is guided by concerns for market value rather than use value.

Democracy, Power Relations and Technology

Collaborative urban design faces three inherent dilemmas of limitations to time and resources, of barriers to language and communication between professionals and stakeholders, and of the reciprocal nature of the relation between influence and understanding. While a parametric approach to urban design may help to alleviate all of these dilemmas, it is not a magic formula which will work in any context. The problems that exist for collaborative urban design in general still exist, even when assisted by parametric urban design.

One of the central problems of collaborative urban design is uneven distribution of power. If power is concentrated among select stakeholders, their incentive to engage in a collaborative process is small. And while stakeholders with less power may still have valid claims to take part in collaborative processes, they are unlikely to be invited in situations of uneven distribution of power. No technological fix – such as parametric urban design – can change that.

Nonetheless, the introduction of new technologies may foster a shift of power relations. The importance of internet and telecommunications technologies during the Arab Spring is a powerful example of this. This indicates that in the relation between democratization and new technology, both may be the hen, as well as the egg.

Technology may invoke democratization, and democratization may facilitate technological approaches. And while the introduction of the new technology of parametric urban design may not be feasible with the current power relations in Moroccan urban development, parametric urban design could potentially change existing power relations if applied as critical activity.

One remedy to the inadequate planning system in Morocco could be to install a conventional Western style planning system. This system, however, is itself subject to increasing criticism for being too static and unresponsive to the speed of current-day urban development. Another remedy, hence, could be to skip this evolutionary step and go straight to a dynamic form of urban planning, possibly based on parametric urban design.

In the light of the speed and poor quality of current urban development in Morocco, the establishment of a new urban planning system in Morocco is pressing. An important prerequisite for improving the use value of urban space would be to build a system that motivates and encourages people to engage in a better planning and management and a higher quality of the built environment. And since Morocco's new neighbourhoods are green field developments targeted for residential areas for the poorer parts of the population, they could be an ideal environment for exploring collaborative design between the residents, the planning authorities and the investors.

Attempts at some Preliminary Conclusions

In a context of high urban growth rates, weak planning systems and modest means, new approaches to urban design and planning should be fast, easy to use and economically accessible. Although still in its relative infancy, a parametric approach to urban design is ideal to this end, as it offers a fast way to visualize and analyse different urban design scenarios. As such, it also represents a power tool for collaborative urban design processes bridging differences in understanding as well as communicative barriers between professionals and stakeholders.

As indicated by the case of current Moroccan urban development, technology does not do the trick altogether, as a relatively even distribution of power is a prerequisite for collaborative urban design. While the introduction of parametric urban design may not facilitate collaborative urban design in this context, it might possibly support a change in power relations, if implemented as a critical activity. Additionally, while the Moroccan context might seem very challenging for the implementation of parametrics for collaborative urban design, it could potentially represent a more dynamic form of urban planning, thus allowing Morocco to become a first mover towards new responsive ways of planning.

While the speed of urban development in Morocco triggers 'rubber-stamping' of the same architectural and urban design prototypes in different cities, a parametric urban design approach could have facilitated a higher degree of variation and quality of urban space, without considerable extra effort. This could be good for the inhabitants as it would allow for a focus on the use value of urban space, and need not be at the expense of the investors and real estate developers, as it is not mutually exclusive of a focus on market value. But it would require a paradigm shift in thinking among those in power.

Nonetheless, much still remains to be seen. On the one hand, parametric urban design, even though it has the potential to facilitate collaborative urban design, needs to be developed into a fully-fledged design and communication tool and tested in real-life contexts. Such contexts could be within the established planning system or it could be in the format of a critical activity. In both cases, several iterations of development and improvement of such a tool is likely to be needed before the tool is fully operational.

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Development Aspects of Formal and Informal Urban Types

Dick Urban Vestbro[1]

Nowadays there is official support for the *enabling strategy*, advocating self-help housing and small-scale business, while authorities are to support community efforts and relax development codes in low-income countries. In practice there is, however, often a resistance to this strategy. Professionals seem to be uncertain about what to do. The fact that informal settlements usually consist of one-storey one-household units facilitates self-help, but it also contributes to urban sprawl. There is also uncertainty how to promote densification while securing qualities such as daylight in rooms, cross-ventilation, fire protection, vehicle accessibility and urban agriculture. Which are the ways towards modernisation that incorporates informality, self-administration and affordability? These questions are discussed in the paper. It is concluded that the enabling strategy can be fruitfully combined with modernisation for better health and other functional qualities.

Keywords: Enabling strategies, Informal settlements, Urban planning, House types

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Introduction

Although much progress has been made to abandon the most inappropriate policies to solve the problem of housing demands in low-income countries, contradictory ideas prevail about the alternatives. The alternative most discussed is the 'enabling strategy', which advocates community based initiatives, self-help housing, promotion of small-scale business, while authorities are to support community efforts and relax development codes and housing standards. This strategy is supported by ample research, but in practices there is often a resistance to apply it on the ground.

Among architects, planners and politicians the modernist provider model still dominates thinking, which means that enabling and incremental housing processes do not gain momentum. The house types produced within the modernist provider model include walk-up lamella blocks and standardised detached one-family units in 'durable' building materials. These house types are usually expensive and inappropriate to climate. Most of the urban poor live in informal settlements developed against the will of the authorities. Here one may find urban types adapted to the needs of the household. These areas often display spatial qualities which are not recognised by decision-makers.

This paper explores what we can learn from informal settlements in low-income countries, and discusses which the obstacles are to implement the enabling strategy. An emphasis is given to design aspects such as house and urban types and how these relate to streets, and to semi-private and communal space at the level of the housing block. The paper is based on reflections upon the author's own research, on a review of literature, and upon research carried out by master and PhD students in low-income countries over a period of 40 years with the author as the supervisor.

Failure of the modernist provider model in low-income countries

It has always been difficult to meet demands for housing in periods of rapid urbanisation. Industrialising countries had at least a chance to address the urban housing problem because of high productive forces, but in low-income countries resources are not available to meet the demands (Hamdi, 1991; Vestbro, 1998; Vestbro, 2011). In most of these countries there is also a lack of political will to give priority to housing. For these reasons most of the poor urbanites end up in informal settlements (Kombe & Kreibish, 2000; Satterthwaite, 2005; Vestbro, 2008). The number of people in such areas is estimated to be 828 million (2010) and the number is increasing. The internationally agreed target for slum eradication is the only one of the Millennium Development Goals that is so low that the amount of slum dwellers is expected to *increase* even if the target would be reached (UN, 2010).

Previously the most important method to solve urban housing demands was *public housing*. Models for public housing were developed by colonial powers to provide civil servants with what was considered to be 'decent dwellings'. Housing was explicitly used as an instrument to gain control over populations active in the anti-colonial movement (King, 1984; Vestbro, 1975). The policy of public housing was often continued after independence when indigenous governments had overoptimistic hopes for rapid economic growth.

Public housing requires financial resources, a modern building industry, and a well functioning planning system. Usually these preconditions have not been in place. Therefore very little public housing has been implemented. The few units that were constructed were usually allocated to civil servants at subsidised rents, as in the colonial period (Kanyama, 1998; Vestbro, 2008). For the majority of the urban population there was no housing provision at all. Informal settlements continued to grow, and they grew at an accelerated rate. Urbanisation was speeded up by the fact that colonial restrictions to migration were lifted (Satterthwaite, 2005).

Figure 1. Six storey walk-up apartment block in Zanzibar, built in the 1970s (photo: Dick Urban Vestbro).

In order to increase house production and reduce housing costs the idea of 'low-cost housing' was introduced (Abrams, 1964). What should be regarded as low cost was a question of expert assessment. Minimum standards were often set at central government level, for application countrywide. Such minimum standards usually included a WC, separate sleeping rooms for parents and children, a separate kitchen, and minimum plot sizes. It turned out that production costs for such housing units were too high to make housing accessible to low income earners, unless heavy subsidies were provided.

When trying to understand the relevance of modernism for developing countries Brasilia is a most interesting case. The new capitol of Brazil, built in the 50s and the 60s, is probably the most consistent application of modernist principles in architecture and town planning anywhere. In his critical analysis of Brasilia the US anthropologist James Holston shows that all planned features of the new capitol strictly followed the principles of the early modernists. Urban activities were strictly separated and the wide transport routes contributed to the division of the city into separate enclaves. Residential areas were dominated by high-rise apartment blocks, formed as flat glass and concrete volumes. Abstract forms and industrial materials were chosen to stimulate identification with a desired machine culture (Holston, 1989).

Holston shows that residents refused to use space as intended and that many physical changes have taken place with the purpose to re-establish vernacular qualities. These changes – and developments outside the planned city – are seen as a rejection of modernism. He calls this process a "brazilianisation" of Brasilia (Holston, 1989).

Other research has also shown that modernist apartment blocks are often transformed incrementally by illegal or semi-legal extensions. Transformations include division of rooms for more privacy, additions of balconies, constructions of loggias to acquire more space, and building new rooms at ground level for residential or income-generation activities. These transformations increase densities, provide for variations of facades and augment residents' attachment to their housing environment. For many people extensions constitute an alternative to moving when household demands change. Extensions also contribute to personalising one's own environment (Kellett, 1995; Tipple, 2000).

The paradox is that the more politicians and planners advocate the modernist model for mass housing, the less is produced.

The Indian architect Charles Correa explains how this works. In his book 'The New Landscape' (1985) he shows that tall apartment blocks are expensive, energy-demanding, climatically unsound, and that more indoor space is required if residents are cut off from access to outdoor spaces, when living in private indoor cells at long distances from the ground. He also shows that apartment blocks are incompatible with the lifestyles of the poor, since such structures do not permit residents' self-construction efforts or incremental house extensions when people's income and changing needs require such adaptations (Correa, 1985).

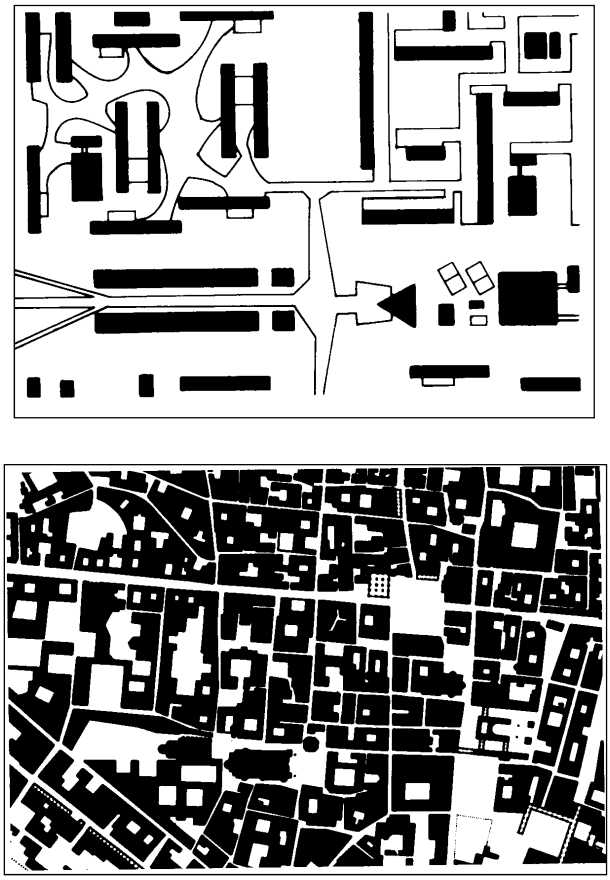

Figure. 2. A 'superquadra' of Brasilia (left) as compared to the Brazilian town of Parma in 1830 (right). The two plans comprise roughly the same surface (350 by 530m). Holston points to the human scale of buildings and the strong sense of spatiality in Parma, qualities that are lost in Brasilia (source: Holston, 1989).

Benefits and problems of the enabling strategy

One of the pioneers of the enabling strategy was John Turner, who had a strong influence on the international housing debate (Turner, 1976). He found that for the urban dweller without an income the most important thing is to get a job. Since the poor cannot afford transport costs they must live within walking distance from job opportunities. Thus they pay less attention to acquiring a plot or a house. When the poor household gets a regular income priorities change. Then it becomes meaningful to find a better place to stay and incomes may allow certain travel costs.

This means that the low-income earner can look for a plot at a certain distance from the city. Security of tenure is still more important than the house, however. Only when incomes increase further the house itself starts to become a priority. The low-income earner can usually not afford standards such as several rooms, durable building materials, drainage, paved roads or clean water (Turner & Fitcher, 1972). Often architects and planners still do not want to recognize the truth of these observations.

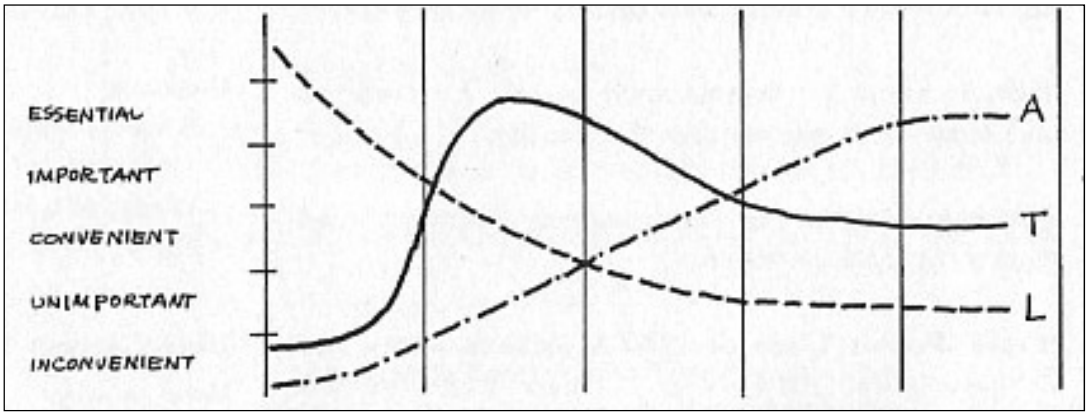

Figure 3. Diagram illustrating Turner's theory about priorities among urban dwellers, going from extreme poverty on the left to higher incomes on the right. A = amenities; T =tenure; L =location (Caminos, Turner & Steffian, 1969).

Although Turner's ideas spread to key persons in academic institutions and international organizations, it took a long time for them to influence housing policies. It was not until Habitat II in Istanbul 1996 that Turner's ideas became parts of the vocabulary of official documents (Vestbro, 2008).

The most prominent follower of Turner's thinking is Professor Nabeel Hamdi of Oxford Brookes University. In a number of books he has elaborated the ideas of the enabling strategy (Hamdi, 1991; Hamdi & Goethert, 1997; Hamdi, 2010). He calls the enabling model 'Supporters' since authorities are expected to support the efforts of the inhabitants. The most important task for them is to remove obstacles when the poor enable themselves to solve their housing problem. While Hamdi argues that the Provider strategy has been disastrous he maintains that the Support model has not been successful either. Therefore he asks whether we should see how to combine the best elements of the two models (Hamdi, 1991).

For the Indian context Correa has elaborated ideas of the enabling strategy in his well illustrated book *The New Landscape* (1985). He argues that what he calls 'the self-help city' facilitates the use of affordable building materials, has higher usability through better adaptability and is more suitable to the lifestyles of low-income people, since these may carry out household chores in streets and other outdoor spaces, which are shared with other households. The resulting new urban landscape will also facilitate self-help maintenance, provide for more variety, and "constitute a crucial step towards defining a truly egalitarian urban society, totally different from that prevailing in the vast majority of Third World cities" (Correa, 1985:54). In the Tanzanian context similar conclusions are drawn in a PhD thesis based on a thorough investigation of an informal settlement in Dar es Salaam. The author Liberatus Mrema finds that public open spaces in the area display qualities such as active and passive territorial boundaries which enhance the use of a place and promotes identity. The creation processes explain why residents value public open spaces. The study recommends that planning and design professionals ought to learn from the qualities of existing open spaces (Mrema, 2008).

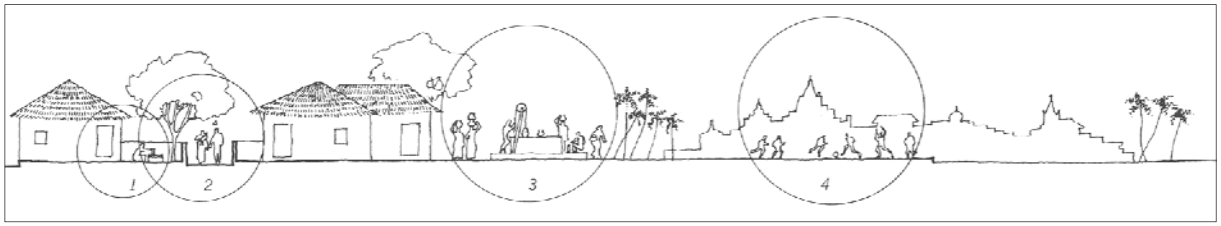

Figure 4. Illustration of the important role of semi-private and communal spaces in informal settlements. Legend: 1= semi-private, 2= local communal, 3= neighbourhood communal, and 4= public space (Correa, 1985).

A country which consciously decided to adopt an enabling strategy was Botswana. In this country informal settlements are rare and planning is implemented to a much higher degree than in most other Sub-Saharan African countries. A new enabling Development Code was put in place in 1996. One of the aims was to reach vulnerable groups such as female-headed households, who should be allowed to use their plots for income-generating activities such as subletting rooms and perform small-scale business. For this purpose the Code included a provision of 'relaxed capacity', which would allow plot holders to build additional buildings, thereby exceeding the percentage of built space. The intention was also to allow construction of buildings at shorter distance to adjacent plots. In order to benefit from the relaxed capacity one would, however, have to apply to the national planning office. This indicates that the enabling strategy was accepted with strong reservations from the start (Bourennane, 2007).

Bourennane's study shows that the relaxed capacity of the new Development Code has virtually not been used at all. None of the residents interviewed said that they were informed about the possibility to relax regulations in order to provide built space for Home-Based Enterprises. The same answer was given by the technical officers in charge of advising plot-holders. Planners at municipal and national levels – the ones who had the duty to inform about the new code – said either that they did not know about the relaxed capacity, or that they knew about it, but were uncertain how to implement it. The researcher concluded that it is possible that planners knew more than they wanted to admit. It is apparent that the planners did not like the relaxed capacity of the code from the beginning (Bourennane, 2007).

The study also shows that many plot holders built additional houses with short setbacks and short distance to neighbouring plots without asking for permission. Applying for such building permits would require expensive architect drawings and long waiting for central government decisions. In a couple of cases women appealed successfully to local politicians when technical officers threatened to intervene against constructions without building permits (Bourennane, 2007). The conclusion of this should not be that legal reforms are not required, but that stronger efforts are required to implement enabling strategies in practice.

Urban types to address urban sprawl

Hana Nasif in Dar es Salaam, Tanzania, may be taken as an example of a consolidated informal settlement where attempts have been made towards incremental upgrading. The area is situated within walking distance from the city centre, which makes it is attractive for poor people who cannot afford transport from areas further out. Like in other urban areas along the coast Hana Nasif is dominated by the urban Swahili type house. This house type – which developed from rural prototypes of the Swahili culture – is one of the few that are affordable also when built by government authorities. The house is typically owned by a landlord, who makes a living by subletting rooms to five to ten households.

Spaces such as veranda, corridor, latrine, wash place and strips between buildings are shared. The house type allows for gradual extension of rooms. A household, whose income increases, may acquire an adjacent room (Vestbro, 1975; Nguluma, 2003).

Nguluma shows that a process of densification and modernisation is going on in Hana Nasif. Densification sometimes means that spatial qualities such as air circulation and daylight in rooms are suffering, but densities are still moderate since most buildings are only one storey and houses are not grouped for increased densities that maintain spatial qualities. Modernisation is shown by mud-and-wattle being replaced by sand-cement blocks and thatch being replaced by corrugated metal sheets. Horizontal extensions are sometimes followed by vertical extensions. Nguluma argues that if local, self-educated craftsmen are trained for two-storey constructions such houses may be created and thus provide for densification without jeopardising cross-ventilation and daylight in rooms (Nguluma, 2003).

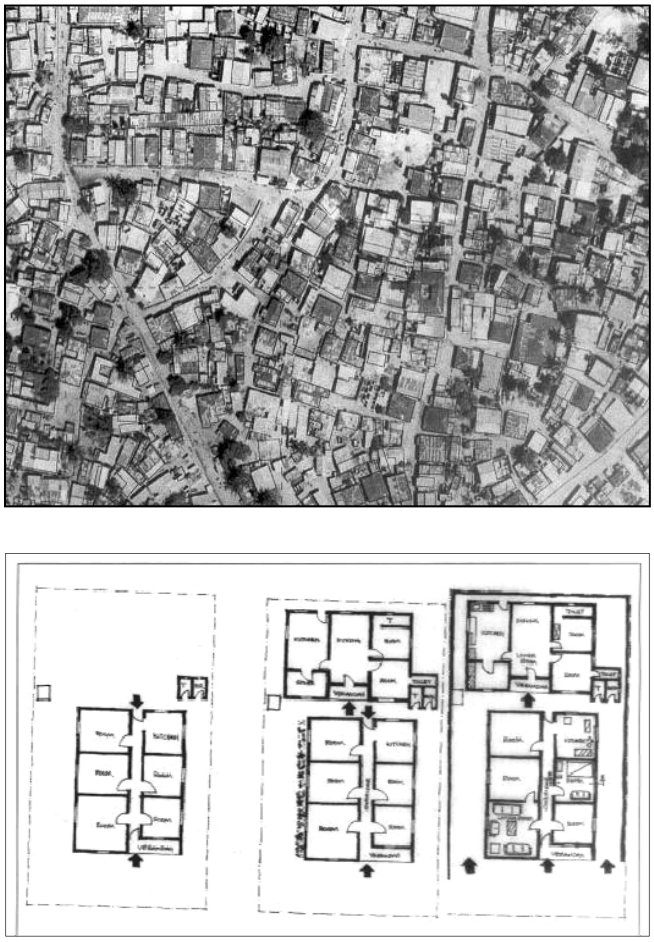

Figure 5. Top: aerial photo of Hana Nasif with a Floor Area Ratio[2] of 0.2-0.7. Down: an urban Swahili type house gradually modified from 1975 to 1992 by additions of rooms and fences to the detriment of air circulation and usability of outdoor space (Nguluma, 2003).

[2] Floor Area Ratio (FAR) is a measure of physical density. It is calculated as the total building area (floor space multiplied by no of floors) divided by land area. Two-storey buildings covering 25 per cent of the land means that FAR is 0.5.

Informal settlements contribute to urban sprawl because of the tendency to favour one-storey one-household constructions. Like in industrial countries urban sprawl means appropriation of valuable agricultural land and high infrastructural costs per unit (when such investments are made). In other respects there are considerable differences.

While sprawl generally leads to longer distances to work, this factor is more severe in low-income cities, because the poor cannot afford costs for transport to job opportunities. They need to be present where small-scale business may meet customers, or where temporary jobs are offered. People living in informal settlements in fringe areas often cannot afford to travel to the city centre, at least if cities are large enough to require motorized transport (Vestbro, 2012).

Taking Nguluma's study as a starting point two Swedish master students carried out a study of the possibility to introduce two-storey constructions in low-income informal settlements in Dar es Salaam while keeping costs down through the use of self-educated craftsmen and local building materials. On the basis of a comprehensive survey of the construction sector in Tanzania and a fieldwork in Hana Nasif, the students worked out a proposal for a two-storey version of the urban Swahili type house. Walls are to be made of interlocking bricks of soil-cement, a building material available at low cost. This construction is easy to execute and demands less technical knowledge of workers. For the intermediate floor, composite slabs with reinforcement sheets were proposed. Since such sheets are imported the researchers found that a shift to local production would be required, in order to promote local development. According to the authors the FAR would increase substantially even if only one third of the houses in Hana Nasif would be two-storey (Kruse & Torstensson, 2010).

One of the few books dealing with sprawl in low and middle income cities is the anthology *Compact Cities: Sustainable Urban Forms for Developing Countries* edited by Mike Jenks and Rod Burgess (2000). The book provides a useful account of the situation in low and middle income countries. In his chapter about the compact city debate Rod Burgess points out that compaction by reclaiming oversized spaces for cars or abandoned industrial sites is not feasible in low-income cities. He notes that low-income settlements have low residential densities, while these areas (whether formal or informal) are usually subject to continuous densification through squatting and self-help extensions "finely tuned to changes in household income and space requirements.

Densification efforts should therefore be aimed at assisting this process and should focus on the upgrading and guided rationalisation of urban space within these settlements" (Burgess, 2000:18).

Strangely enough very little attention is given to the role of house and neighbourhood types for urban sprawl in the mentioned anthology. It is only in Acioly's chapter that figures for densities are given and the role of urban types is discussed. In Cairo the author finds that informal densification has lead to streets only three meters wide lined with urban blocks consisting of six-storey buildings covering plots up to 100 per cent.

It is concluded that this high density makes the environment unhealthy, since rooms lack daylight and ventilation, and since the air is polluted by adjacent heavy car traffic (Acioly, 2000:129).

The situation in Cairo stands in stark contrast to Sub-Saharan Africa. Here big cities have densities far lower than that in Cairo. A study of Dar es Salaam by Lupala shows, for instance, that FAR is as low as 0.4-0.6 in consolidated informal settlements areas, where the densification process has been going on for many decades. In younger informal settlements FAR often range from 0.2 to 0.3. It is only in the central business and residential district of Kariakoo that one finds FAR as high as 1.5 to 2.2 (Lupala, 2002).

Another researcher who has addressed the issue of urban types and densities in informal settlements is the Ugandan architect researcher Assumpta Nnaggenda-Musana.

Although Uganda's capitol Kampala has a population of only 1.5 million the city suffers from urban sprawl, the most important reason being the low density of the built environment. Also formally planned areas have low densities. Buildings usually cover as little as 10 to 20 per cent of the plot (Nnaggenda-Musana, 2004).
The analysis of Nnaggenda-Musana shows that some of the existing house types are more appropriate for densification than others.
She shows how densification can be combined with incremental and participative upgrading, following the enabling planning model. Houses of the lowest quality are to be replaced by new ones. She suggests that some of the new houses be designed to allow vertical extensions when residents can afford to build a second floor.
The author shows how urban agriculture and Home-Based Enterprise can be maintained – or added – during the densification process, even when the FAR is trebled (Nnaggenda-Musana, 2008).

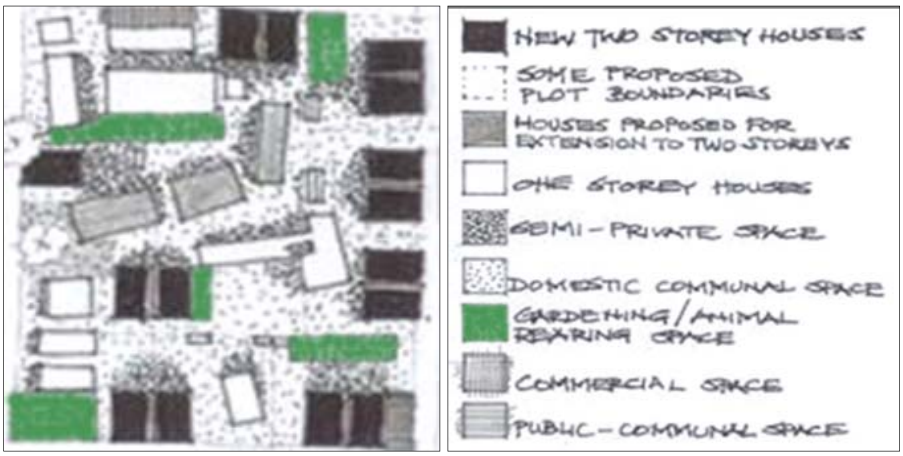

Figure 6. Proposed incremental upgrading in Mbuya, Kampala. Note the ample amount of space between buildings, allowing for intensive household activities, socializing and future extensions of houses (Nnaggenda-Musana, 2008).

Another interesting study on how to upgrade an existing slum is the master thesis of the two landscape architect students Bratel and Hellqvist, who carried out their field study in an informal settlement in Bangalore, India. They found that slum residents have had time to develop their housing situation to suit their needs in line with what their economy allows and concluded that an incremental process would suit them better than rehabilitation based on demolition.
It was found that in situ upgrading is flexible and depending on social, economic and natural conditions. Among others they wrote:

"When talking with residents, it becomes clear that many prefer to keep their houses rather than having it torn down. The permanent houses will be identified along with the houses that are in need of reconstruction. The houses in need of reconstruction will be demolished and solid foundations for future houses to which basic necessities (water, sewage, electricity) are connected, are built in its place. This foundation will quite easily be extended to a habitable one-storey structure by the slum dwellers….The simple single-floor structure will eventually also be able to grow to a two or three storey house based on its owners' needs and economic opportunities". (Bratel & Hellqvist, 2011: 149).

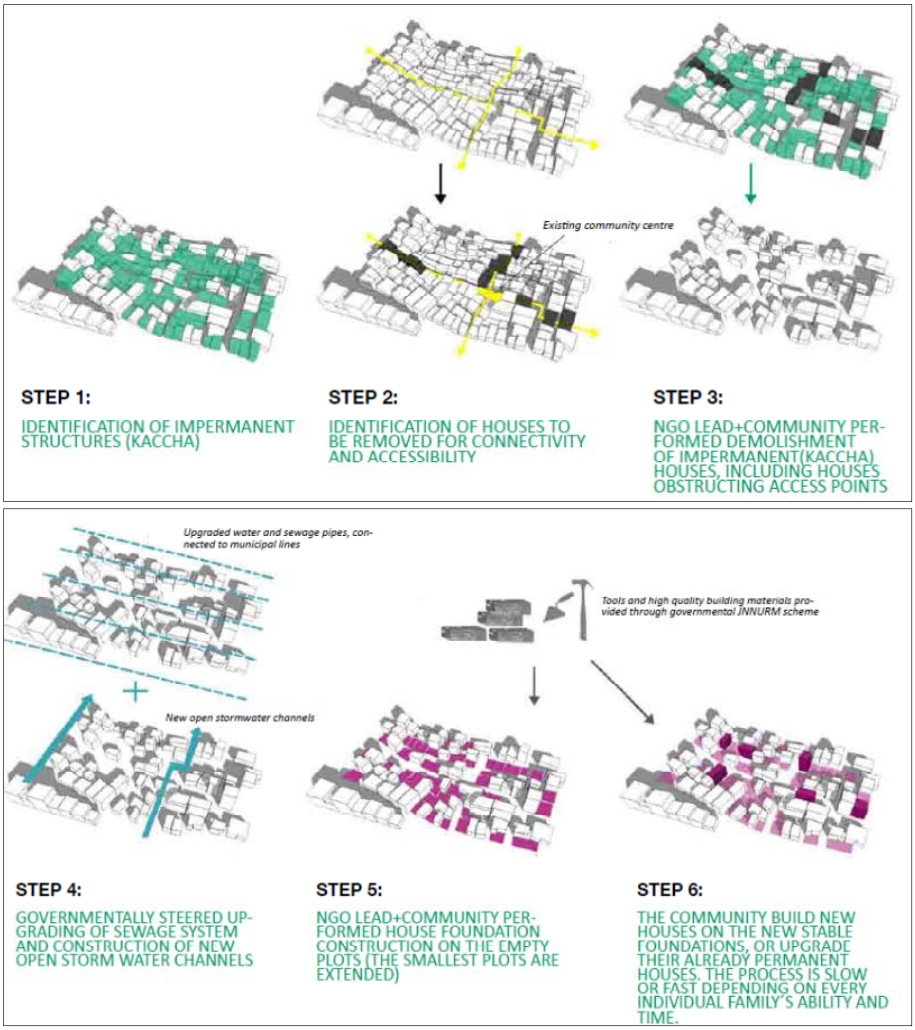

Figure 7. Proposed incremental upgrading of the informal settlement Leprosy Colony in Bangalore, India (Bratel & Hellqvist, 2011).

Conclusions

The discussion above shows that the modernist provider model is inappropriate for solving the problem of informal settlements in low-income countries. This does not mean that modernisation should not be a priority. Classical modernism in architecture and planning included strong development components such as care for functional standards, daylight in rooms, cross-ventilation and other health-related aspects. These factors are highly relevant, but the modernist model must be revised to meet local needs (Nawangwe and Vestbro, 2003). For informal settlements to be regularized and provided with basic infrastructure such as clean water and paved roads, professional guidance is required.

The challenge is to get order without falling into the pitfall of over-centralizing. Authorities need to know at what level to stop applying centralizing techniques. In the informal settlements public intervention is needed for infrastructure services and for providing an enabling environment so that the residents may build their own neighbourhoods. In Sub-Saharan cities 60-85 per cent of the population live in informal settlements. Virtually all buildings in these areas are detached one-storey houses. Land coverage usually

range from 10 to 30 per cent. The informal settlements are continuously densified, a process without professional guidance. If professionals would better understand the need for incremental upgrading and the possibility to promote compact house and neighbourhood types, then densification can take place while maintaining basic spatial qualities. It is desirable to promote groupings of houses that are more land efficient, plot dimensions that allow deeper blocks with few but more accessible roads, house types with wall-to-wall design and constructions that permit vertical extensions while still using local skills and simple building techniques. The examples given in the paper show that it is possible to increase densities and still maintain ample space between buildings for household chores, agriculture and animal-rearing.

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