Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences
Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners ([Examencommissie-BK@tudelft.nl](mailto:Examencommissie-BK@tudelft.nl)), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

### Personal information

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### Studio

<table>
<thead>
<tr>
<th>Name / Theme</th>
<th>Complex Cities – Inclusive city</th>
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<tbody>
<tr>
<td>Teachers / tutors</td>
<td>Roberto Rocco (first mentor)</td>
</tr>
<tr>
<td></td>
<td>Arie Romein (second mentor)</td>
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</tbody>
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**Argumentation of choice of the studio**

My initial interest has led me to dig deeper into the body of theory that concerns postcolonial processes and global development processes. These processes affect cities and regions in complex, hybrid ways. The connection with Africa and related urban issues of poverty, socio-economic inequality and the right to the city, forms the background of the issues at play in my project. The approach provided by the Complex Cities research group supports a holistic view as an attempt to unravel the complexity of informal urban systems that I would need in order to understand those different, manifold interactions between dimensions and scales. Subsequently, my research aims to contribute to the knowledge on how these interactions form the physical environment and aims to combine both planning and design to intervene in these interactions. Using a trans-disciplinary approach, while addressing the societal-political debate within this particular context, this project seeks to define the concept of inclusivity at the convergence of formal planning systems and informal methods.

### Graduation project

**Title of the graduation project**

An alternative urban paradigm – local knowledge and the power of community as a base for change

Towards inclusive and sustainable redevelopment of Mathare Valley, Nairobi
| **Goal** |
|----------|---|
| Location: | Mathare Valley - Nairobi - Kenya |
| The posed problem, | Through theoretical analysis of Nairobi’s historical development and how it evolved into the current general planning frameworks as well as the endeavours addressing the issue of informal settlements, the following statement is formulated. |
| | Despite the more recent progressive directions, like the new Constitution of 2010 and governmental programs, as efforts towards meeting the needs of the urban poor, as well as the more politically engaged civil society, true inclusion of citizens in decision-making processes remains a great challenge. |
| | Both Nairobi’s physical urban structure as planning frameworks to date, have been defined by the legal and regulatory frameworks that stem from colonial period. Under influence by complex global processes of neocolonisation and neoliberalism, a prevailing urban imaginary based on economic rationality was able to ingrain the political, social and economic conditions, as a mechanism that manages to continue the existence of socio-spatial segregation and structural exclusion. Under the current rapid urbanisation, socio-economic inequality and poverty worsens, since the expanding and densifying informal settlements are left without integral planning and without access to services. |
| | Practices, processes, and their outcomes, that are based on the current prevailing discourses on the improvement of living conditions of slum dwellers, are characterised by inefficiency and implications, because they are descendants from a different urban imaginary than those held by the actual subject of the exercises. Therefore, it fails to recognise the potential of informal views and |
processes and the understanding of local needs, while it impedes effective participatory processes thus the inclusion of the inhabitants. This results in culturally and socially distanced solutions that do not achieve sustainable change.

**research questions**

**MAIN RESEARCH QUESTION**
How can a strategic framework based on local knowledge and with a community-based approach, guide sustainable and inclusive redevelopment projects in Mathare Valley, Nairobi?

**SUB RESEARCH QUESTION 1**
1. How does local knowledge organise space and governance in Mathare Valley and how can this be anchored in a strategic framework for redevelopment?
   (a) What are the socio-economic and sociocultural spatial structures of the settlement and how do these translate to demands on space?
   (b) How is arranged the social and economic organisation and governance within the community and how is this related to space?

**SUB RESEARCH QUESTION 2**
How can a strategic framework include the community of the settlement as a carrier of sustainable redevelopment processes?
   (a) How can the community be empowered to be a carrier of local sustainable development?
   (b) What are local key-actors’, and peoples’ views on sustainable slum upgrading/development?
   (c) What instruments and which actors can facilitate bottom-up processes of development?
   (d) How is the current (external) governance and planning system organised and how could grassroots pressure be used towards structural change towards pro-poor policies, inclusive planning, or decision-making?

**SUB RESEARCH QUESTION 3**
What could other sources of local knowledge contribute on a design (spatial) or planning (governance) aspect to a strategic framework for inclusive and sustainable redevelopment of informal settlements?

**design assignment in which these result.**
- Firstly: To explore how local knowledge can be approached, researched, exposed, and subsequently translated into a ‘knowledge framework’, consisting of patterns and principles. To formulate how
these findings act as a more generic knowledge library of urban informality.

* (Local knowledge is defined as: ‘An internal zoning system of implicit arrangements of responsibilities over and demands on space, in order to deal with the occurring dynamic of ‘pressured spaces’. (Pressured spaces are defined by the occurrence of increasing demands, and the variety of the demands, on (qualitatively and quantitatively) limited spaces)).

- Secondly: To define how the local community can provide a base for a development projects, and be empowered to catalyze sustainable bottom-up processes. This applies more to the planning component of the strategic framework (see below). As well as to explore how this can be translated to a larger-scale pro-poor pressure and act as relevant example case.

- Subsequently, the assignment is to synthesize the ingredients above, in order to develop a strategic framework that act as a guide towards inclusive and sustainable redevelopment of Mathare Valley.

The strategic framework consists of
> a design component, that incorporates the local arrangements and spatial logics. The design component consists of spatial guidelines and an envisioned integrative spatial concept.
> a planning component, that ensures community’s empowerment and inclusivity in the development process. It consists of implementation guidelines, policy recommendations, and a community empowerment plan.
The methodological framework consists of two main elements: the analytical framework, consisting of spatial, historical, and governance analysis, and the theoretical framework consisting of literature reviews on three relevant theoretical perspectives. The fieldwork is an additional element in the gathering of empirical data.
**Literature and general practical preference**

The literature that forms the body of knowledge for this graduation project, addresses several relevant theoretical perspectives:

1. community-based upgrading, which contributes to the theoretical base of the proposal.
2. sustainable slum-upgrading, also forms theoretical base of the proposal.
3. post-colonialism and subaltern studies, which theoretically supports the formulation of the problem statement and largely contributes to the definition of the project approach.
4. local knowledge in development, which provides methodological notions and also contributes to the formulation of the project approach.

**Reflection**

**Relevance**

**SCIENTIFIC RELEVANCE**

The project contributes to the work field of informal urbanism within the context of (Eastern) Africa. In essence, the elaboration of this work explores the potential of local knowledge of informal settlements, manifested in the complex informal system and its people, for improvement of informal settlements within the urban network and governance system in the context of Nairobi. This work explores different research methods to reveal the informal system as complex socio-morphological urban structure, and its community as central part in that. The project's intended result of proposing a strategical framework (design and planning), could be used as a guidance for upgrading projects of the Mathare settlement. Because the analysis is based on patterns of inhabitation of human (informal) settlements and a translation into a framework of principles, it could provide a useful source of knowledge for other areas with similar characteristics in the city. The methodology and approach itself on assessing socio-spatial and socio-economic structures, could be applied in other similar areas for which the potential of alternative development is researched. Further, the analytical framework of the project can be a valuable contribution to the provision of qualitative data from field work, linked with existing practice and theory, which expands the understanding regarding the shortcomings of current practices and the needs of the communities involved. It offers a perspective on how to deal with the issue of slum upgrading, by combining an exploration of different sources of knowledge, a method on defining existing assets of the slum, and theories on sustainable and community-led development. The project's local focus is an attempt to contribute to a more anchored practice of urbanism in Africa, relevant to the non-colonial discourse, and possibly contributing to the networks of Indigenous Knowledge Systems of Kenya.

**SOCIAL RELEVANCE**

The trends of massive urbanisation and its prospects for coming decades, shows that the increased growth will be concentrated in Asia and Africa, while many of its cities are
not prepared to face this challenge. The population living in informal areas will increase, being the convergence of poverty, health issues, crime, chronic inequality. Inclusivity and sustainability are widely adopted goals, but practice needs a more specific interpretation of these concepts. By using the slum of Mathare Valley as case study, this project seeks to result in an urban planning and design framework for redevelopment. This is meant as a guide for change, that aims to be an alternative within the current system, since it seeks to explore alternative sources of knowledge, both for urban design as for planning. The framework aims to guard the local cultural and social values in the urban network, as a necessary consideration for any plan of change that aims to be a long term solution that works for the people. It could provide the community a practical bottom up action framework towards development. The translational nature of this project is an effort to bridge different understandings and views on urban development (through the pattern library), as it seeks to provide a base for a more common language, and therefore possibly as a strengthening communicative tool in future planning and upgrading processes. This also means that the project is a call for openness and flexible thinking in the search for sustainable solutions.

**Time planning**

[Diagram showing time planning with project timeline and phases]