

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), 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	
Name	Daniel Watchorn
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Studio		
Name / Theme	Planning Complex Cities	
Main mentor	Roberto Rocco	Spatial Planning and Strategy
Second mentor	Maurice Harteveld	Urban Fabric Research Group
Argumentation of choice of the studio	I am interested in learning about the different forces that are affecting the urbanization pattern of Gaborone, while also getting a view into the human impacts of these forces. As a result, I believe that the planning complex cities studio is appropriate for me. There are many different influences on current planning (post-colonialism, land tenure dynamics, rapid urbanization) that all have their own different dynamics that must be interrogated to understand what is happening. I also want to translate this understanding into the proposal of new options for spatial planning and design, which must be informed in a holistic manner to be appropriate. The combination of a broad understanding of the city region with localized implementation is why I believe this is this studio is right for me.	

Graduation project	
Title of the graduation project	Inequality of Life Fulfilment: A social, cultural and spatial exploration of the Greater Gaborone Region.
Goal	
Location:	Gaborone, Botswana
The posed problem,	Botswana is an economic success story within Sub-Saharan Africa. At the time of its independence from British colonial rule in 1966, it was the second poorest country in the world. However, a combination of good governance, fortunate natural resource discoveries and careful fiscal management

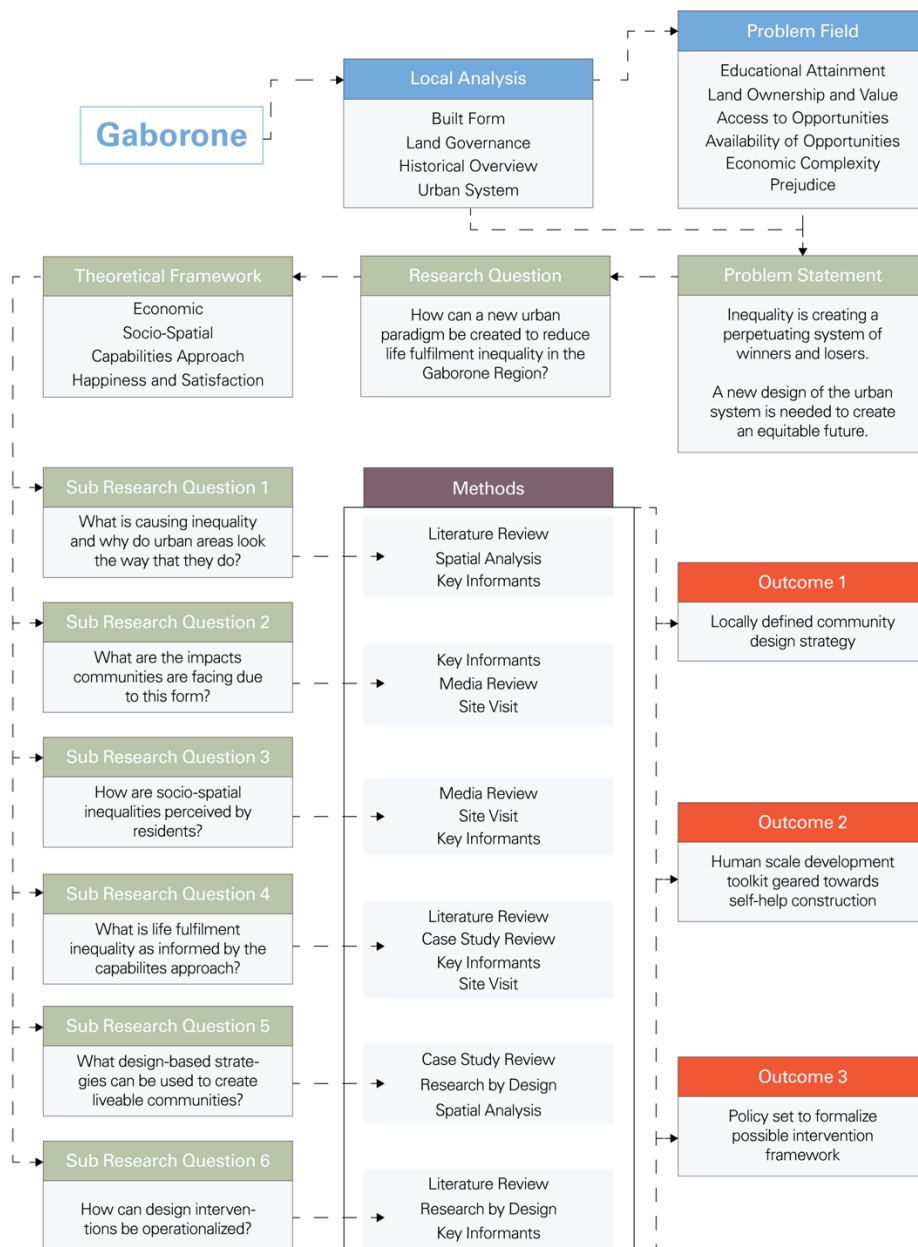
	<p>have led the country's ascent to mid-income, with an accompanied ascent in Human Development Index; it is now ranked at 117th in the world, with an HDI of 0.693. This ranking may yet be modest on a global scale, but it does place Botswana as the second most developed country in the region.</p> <p>Unfortunately, this miraculous economic growth has not been distributed equally; Botswana today is the ninth most unequal country in the world. There are many contributing factors, with significant spatial consequences that both result from, and contribute to, inequality. Coupled with this, there is a general sense that the country is headed in the wrong direction. International measurements of happiness may be flawed, but Botswana's poor performance on them cannot be ignored. Systemic forces are impacting lives and livelihoods and the impacts of these forces are visible at the urban scale.</p> <p>The Greater Gaborone region is a prime example of the spatial realities existing within this unequal paradigm. The city centre boasts modern, orderly development geared towards attracting global attention. The urban periphery, on the other hand, is comprised of a disconnected set of villages that absorb most of the region's population growth while offering minimal urban amenities. This dichotomy creates an urban form that exacerbates ingrained inequalities, with systemic winners being entrenched and systemic losers being cast aside. Little focus is being paid to the quality of life of citizens, of how their environment can be created to suit their wants, needs and desires.</p> <p>A new design of the urban system that both addresses the challenges that the urban region is facing and that combats systemic inequalities while maximizing life fulfilment is needed to ensure an equitable and prosperous future in Gaborone and all of Botswana.</p>
research questions and	<p>How can urban design and planning be leveraged as tools to create a new spatial development paradigm that reduces life fulfilment inequality in the Gaborone region?</p> <p>Sub-research questions:</p> <ol style="list-style-type: none"> 1. What are the main drivers of inequality in Gaborone and why has the urban form manifested into its current pattern?

	<ol style="list-style-type: none"> 2. What are the social and physical impacts that communities are facing due to this form? 3. How are socio-spatial inequalities perceived by residents and what efforts have been made to address them? 4. What is life fulfilment inequality and how can the capabilities approach inform this strategy? 5. What design-based strategies can be realized to create liveable communities for all? What are examples of such strategies that already exist in Africa and elsewhere? 6. How can design interventions be operationalized to improve communities across the urban region?
design assignment in which these result.	<p>There are three main expected outcomes of this project – a community design strategy, a human scaled development toolkit, and an accompanying policy set.</p> <p>The locally defined community design strategy is a flexible output that will depend significantly on the analysis and insights provided by local residents and experts. The most significantly outstanding variable at this time is defining precisely what the scale of ‘community’ is in this context. The interpretation of community is an inherently personal matter - for some it is an online group that they are part of, for others it is their blood related family and for others it could be their immediate neighbourhood. The scale and approach for the community design plan will respond to these interpretations of what community means.</p> <p>The human scaled development toolkit is intended to be a practical and actionable guide for local residents to implement the community design plan. The final product is also therefore heavily dependent on local interpretations and desires. Ultimately, however, the goal is to provide a tool that will help to empower residents to develop their communities according to their own capabilities while also considering the needs of potential future residents.</p> <p>The policy set will be recommendations for ways to operationalize and implement the above two programs. What will be important is providing policies that are flexible and that can respond to unforeseeable future challenges but that are also effective in their implementation in the present.</p>

Given that much more analysis and exploration is necessary for the project, the eventual outcomes may take form differently than what is being proposed at this time.

Process

Method description



The methodological approach for this project begins with the gaining of an understanding of the place. Being the capital city of Botswana, Gaborone faces unique challenges which must be interrogated. Through this interrogation, a number of themes emerged that appeared consistently across different sources and that transected scales. The distillation of these themes is how the

problem field is developed. Six problems are identified in the problem field which all revolve around the unifying concept of inequality. With the local analysis and problem field completed, a problem statement can be created which encapsulates what challenges this project will aim to mitigate.

The exploratory nature of the beginning stages of this project occurred for a number of reasons, but primarily because I had only a limited knowledge of the place to begin with. I had pre-conceived notions of some issues that could be occurring, but I wanted to ensure that the process of carrying out this thesis project would respond to real and important issues that the city region is facing.

Armed with a better understanding of the place and a problem statement, the next step was the development of a research question. The research question was written in an intentionally broad manner, so as to allow for a flexibility of approach in the development of sub-questions, and ultimately the answering of the questions and eventual production of recommendations. Important in the development of the sub-questions was the establishment of the theoretical framework.

Four separate components for the theoretical framework were created to assist in breaking down the research question into more easily managed components, and to provide a lens with which to answer the question. Concepts as broad as life fulfilment and inequality will mean different things to different people, and as such a defined understanding within this project is necessary.

The six sub-research questions provide a view into how the main research question will be answered. As outlined in the theoretical framework, of highest priority across the research questions is gaining an understanding of how the local residents see their place in the urban environment, and if they feel that it is enabling them to live their own definition of a good life.

Methods for the answering of the sub-research questions will be applied as follows:

Sub-Research Question 1

Literature Review- review academic and civil society sources to understand empirical evidence.

Spatial Analysis- record the physical manifestations of the issue and outline the scale of the problem.

Key Informants- engage with local experts to discuss less well documented issues.

Sub-Research Question 2

Key Informants- engage with local experts to understand the most important categories of issue.

Media Review- analyze local media discourse to reveal the major topics affecting the national psyche.

Site Visit- observe, and speak to local residents, about their personal views on the identified issues.

Sub-Research Question 3

Media Review- analyze local reporting to understand how this issue is framed societally.

Site Visit- discuss with residents how spatial conditions affect them personally.

Key Informants- dialogue with local experts to contextualize other findings.

Sub-Research Question 4

Literature Review- complete overview of the two topics.

Case Study Review- compare different implementations of these concepts and analyze similarities in approach.

Key Informants- engage with subject matter experts to scope limitations and opportunities.

Site Visit- inquire with residents as to their perceived capabilities and conception of a fulfilled life.

Sub-Research Question 5

Case Study Review- compare similar cases to inventory best practices.

Research by Design- ideate and test design intervention scenarios to explore possibilities and predict their impacts.

Spatial Analysis- document spatial constraints and opportunities to ensure designs are grounded in the real-world situation.

Sub-Research Question 6

Literature Review- investigate challenges faced in the operationalization of other comparable interventions.

Research by Design- propose different options then analyze potential success and failure points

Key Informants- discuss proposals with local experts to gauge viability

Literature and general practical preference

The core theoretical base of the project is the exploration of inequality of life fulfilment. There are four theoretical components that form this: economic inequality, socio-spatial inequality, the capabilities approach, and happiness and satisfaction. Literature reviews will be conducted to frame knowledge as follows:

- 1) Economic Inequality
 - a. What are the actual impacts that economic inequality has on people?
 - b. What has been done to mitigate these impacts?
 - c. What are the causes of inequality in the local context?
- 2) Socio-Spatial Inequality
 - a. How can socio-spatial inequality be defined?
 - b. What are the core elements of socio-spatial inequality and how do those elements translate to the context?
 - c. How are the residents feeling the impacts of this inequality?
- 3) The Capabilities Approach

- a. What is the capabilities approach and how can it inform an understanding of life fulfilment?
 - b. What are desired capabilities that are not being accommodated currently?
 - c. What are examples of the capabilities approach being used to inform urban projects?
- 4) Happiness and Satisfaction
- a. What are appropriate cultural or philosophical baselines for evaluating happiness and satisfaction with life and what are the implications of these baselines?
 - b. How can individual happiness be translated into urban design?

Reflection

Within the Planning Complex Cities studio, a general approach is offered that guides us to understand broad complexities of urban regions across the world, while also taking nuanced and contextualized positions. This project is well positioned within that approach, as I am looking at the intersections between societal forces, philosophical underpinnings and local opinions. The goal of my taking this approach is to get a holistic picture of this place, which will hopefully lead to the recommendation of relevant and appropriate interventions. I hope to expand the knowledge base of the studio by introducing a research approach that has a greater focus on its philosophical basis as a guide for the project direction, but that also integrates empirical analysis and local voices.

Within the overall Urbanism program, and the AUBS masters, this project contributes to the growing discussion of how to best integrate societal and philosophical analysis with urban design, especially in the global south. By trying to answer the question of what urban design is for from a different perspective, new ways of imagining the city will emerge, adding to the broad web of knowledge in the faculty.

Societally, this project aims to tackle one of the most pressing issues facing Botswana and the Gaborone Region: inequality. Both the economic and urban systems are configured in manners that create and entrench inequality. The installation of a British urban planning system through the colonial era of Botswana's history has created a legal framework that is significantly different than the one which was ingrained in indigenous cultural practices. In charting a path forward in this paradigm, it is important to understand what it is that the people want prior to proposing changes - that is the largest impact that this project aims to have. By taking a human (capabilities) approach and attempting to uncover what people actually want out of their city, we can take a step in the right direction for proposing a new urban future for the Gaborone Region.

Scientifically, the relevance of the project is in its combination of the Buen Vivir and Ubuntu philosophies with the capabilities approach as a method for understanding a space. Individually, all three concepts are relatively well explored in scientific literature, however there have not been many instances where they are brought together in an urban project. By adopting this theoretical and methodological framework, a new method for understanding cities will be explored.

The project also contributes to the growing literature surrounding development and urbanism in Southern Africa, and specifically Botswana. Botswana does not have a significant presence in academic discourse surrounding urbanism, especially from international sources. This project can

highlight some of the unique features of urbanism in Botswana and provide a new set of lessons for how those unique lessons can be understood through the lens of broader frameworks.