Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences
**Personal information**

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Student number: 4017196

**Studio**

Name: Explore LAB  
Tutors: Robert Nottrot (Architecture)  
Michiel Smits (Research)  
Hubert van der Meel (Building technology)

**Argumentation of choice of the studio:** The choice of pursuing my graduation project in Explore lab was based on my interest in both African architecture and the inhuman living conditions in slum areas of this continent. I grew up in Cameroon and during that time I was not much fascinated by the great diversity of architecture styles. Nevertheless, during my education at the faculty of architecture my view on the built environment changed and even emphasized my passion for the country where I grew up. As a designer I could now contribute to improve the living conditions in urban villages and try to find different solutions that could help improving the wellbeing of slum dwellers. Graduating in Explore Lab was for me the unique opportunity to graduate on a subject that now forms my fascination.

**Theme:** Tools to upgrade informal urban villages in Cameroon based on residents needs and habits.

**Graduation project**

**Title of the project:** Small architectural interventions to provide a better quality of life in the urban villages of Cameroon  
**Location:** Neighborhood of “Bessengué” in Douala, Cameroon  
**Problem description:** The fascination towards my graduation project comes from the current living conditions in the slum areas of Douala in Cameroon. Those living conditions are described by the “Agence Française de Développement” (AFD) as shocking and unhealthy. According to their recently published (2014) annual report, large cities in developing countries struggle to host 5 million of new habitants every month. In Cameroon, 60% of the population is expected to live in cities by 2020. Early publications by the United Nations are in line with above ADF predictions. It has been reported that 67% of the urban population of Cameroon live in slums, growing yearly at a rate of 5.5% [UN-Habitat report]. Those alarming facts drive the fascination and enthusiasm behind my graduation project. We should never forget that all human beings are born equal in dignity and rights [art.1 human rights]. To me this means that we all deserve a healthy and human environment. Our environment
is very much defined by the “built” and all that is designed by men. This makes the task of architects, urban planners and designers crucial. As designers we have the ability to find solutions that can contribute to improve the wellbeing of those slum residents. Wellbeing is defined by the UNEP as the capacity and ability of individuals to live the kind of life they value most (GEO, 2007). Based on this definition we can only value the thoughts and considerations of local residents on their environment and what they judge important for a better quality of life.

**Research question:** What do slum dwellers in Douala, Cameroon prioritize in terms of improving their (residential) environment in order to have a better quality of life?

**Sub-questions:**

1. What is quality of life?
2. How can we measure quality of life?
3. How will quality of life be evaluated in this research?
4. How is quality of life related to the (residential) environment of slum dwellers in this research?
5. Which elements influencing the quality of life are judged more urgent to improve by the slum dwellers of Douala?
6. How do the slum dwellers evaluate the contribution of public space to more wellbeing and happiness in their neighborhood?
7. What type of activities can contribute to more wellbeing and happiness in their neighborhoods?
8. How do dwellers of Douala evaluate their happiness in the city in comparison to the rural areas?
   a. What was missing in the rural area?
   b. What is missing now in the urban area?
9. Besides what they need and what improves the dwellers quality of life, how could pride, dreams and wishes further improve the quality of life?

**Design assignment:** Proposing architectural solutions for slum upgrading by focusing on the needs and habits of local residents.

The design assignment will be further defined based on the results of my research. The research target is to find out what types of interventions are priorities in the neighborhood of Bessengue. Besides, I am convinced that by understanding how people perceive their neighborhood and what they would like most, is a strong base for a sustainable and durable attempt for intervening in those urban villages.

The research aims to find out what people miss the most in terms of public spaces, activities (recreational, commercial, scholar, cultural) or basic needs (drinking water, roads etc.) in their neighborhood. This should result in defining a design project (most probably of public use) that will truly contribute to a better quality of life for the slum dwellers of Bessengue.
**Process**

**Method description:**

In order to understand and find out what aspect slum dwellers of Douala prioritize to improve in their neighborhood, it is crucial to gain this information from the dwellers themselves. This will give me data based on actual facts and problems. An appropriate research method is needed in order to collect the data in the right way.

A research method that involves the collection of information from a sample of individuals through their responses to questions is the survey research. (Check, J. & Schutt, K. 2012) Survey research is known as an efficient method for systematically collecting data from a broad spectrum of individuals. An example of use of this method was made by the 2000 National Survey to gather a representative national picture of math and science instruction who sampled 5,765 mathematic teachers across the United States. For this research a mixture of methods where applied: interviews and questionnaires of teachers, principals and program directors but also on-site observations in classrooms. (Check, J. & Schutt, K. 2012)

To get a clear picture of what slum dwellers in Douala prioritize, it is necessary to get a representative amount of feedback. Given my limited time for graduation and the fact that I am doing research in my own, I cannot strive for such a high number of sampling such as the previously discussed example. One of the advantages of the questionnaire is the fact that I can rapidly contact a large number of people. By using the questionnaire as research tool I aim to get information from a larger group of slum dwellers in Douala. This will give me quantifiable data as proof.

Interviews are among the most familiar strategies for collecting qualitative data. With the information gained from the interviews I hope to understand the “why” behind preferences resulting from the questionnaires.

So far the gained information for my research will mainly be based on the meaning and perception of the local residents. Another form of qualitative research consists of participatory observation. In this research method, the researcher observes in the field and tries to get better and/or more valid information (Lindeman, L & Reulink, N 2005). By using this research method as well, I can compare personal observations with the gained information from questionnaires and interviews.

A trip to Cameroon will give me the opportunity to meet the dwellers of Douala and to be physically present in the field to observe and collect data under everyday conditions. The questionnaires will be distributed and I can interview a selection of the dwellers in Bessengue.

Through observations on site, I hope to find out how the public (or open/possibly even abandoned) space is used and if it can contribute to a better quality of life. In addition, I wish to understand how the economic and recreational activities take place in or around those public spaces and which existing potentials can improve the quality of living in the slums.

The last step of my research will be a design exercise with a few local residents. This exercise aims to find out what people dream of or what people would like to see the most on a certain location. The possible outcomes will be a design of public use.
Possible literature for research and design

Books/magazines:
L, Babina. & Bell, D.M. (2007). Douala in translation, a view of the city and its creative transforming potentials
Quinn, M. (2002). Qualitative research and evaluation methods
Cameroon tribune, sept 2015 : Urbanisation, Les ambitions de nos villes

Articles/ Reports:
UN HABITAT (2012). Streets as tools for urban transformation in slums: A Street-Led approach to citywide slum upgrading
EURIB. (2010). Interviewtechnieken
Simonelli et al. (2013). Sleep and Quality of Life in Urban Poverty: The Effect of a Slum Housing Upgrading Program

Websites:
www.statistics-cameroon.org
www.logements.cm
www.cameroon.african-data.org
www.mdgs.un.org
www.unhabitat.org
www.un.org
**Reflection**

**Relevance:**
UN Habitat states that the number of people living in slum conditions is now estimated at 863 million and this number will continue to grow. Slum upgrading is an important subject worldwide.
I hope that my project can inspire the government of Cameroon who is currently working on future project for Cameroon2035. Even though I am focusing on the situation of Douala, Cameroon, I believe that my project could help understand the living conditions in slums and propose another view and approach for slum upgrading.

**Time planning**

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Activity Description</th>
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<tbody>
<tr>
<td>01.09.15 - 13.09.15</td>
<td>Framing of the topic</td>
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<tr>
<td>14.09.15 - 27.09.15</td>
<td>Definition of research question and goal, elevator pitch</td>
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<tr>
<td>28.09.15 - 11.10.15</td>
<td>Research on slum upgrading projects</td>
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<tr>
<td>12.10.15 - 08.11.15</td>
<td>Graduation plan, research of data (statistics)</td>
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<tr>
<td>09.11.15 - 22.11.15</td>
<td>P1 Presentation: 21st October 2015 - 13H45</td>
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<tr>
<td>23.11.15 - 30.11.15</td>
<td>Case studies and workshop</td>
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<tr>
<td>01.12.15 - 13.12.15</td>
<td>Field trip</td>
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<tr>
<td>14.12.15 - 27.12.15</td>
<td>Field trip &amp; conclusions making from gained data</td>
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<tr>
<td>28.12.15 - 10.01.16</td>
<td>Preparations P2 presentation</td>
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<tr>
<td>11.01.16 - 17.01.16</td>
<td>P2 Presentation: 13 January - 11H45 Room Q</td>
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<tr>
<td>18.01.16 - 24.01.16</td>
<td>P2 Individual presentation: conclusions of research and first design proposals based on site survey</td>
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<td>25.01.16 - 07.02.16</td>
<td>Retake exam: AR1AR080 19 January 2016</td>
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<tr>
<td>08.02.16 - 21.02.16</td>
<td>Design exploration, design strategies on neighborhood level</td>
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<td>22.02.16 - 06.03.16</td>
<td>Design exploration, orientation, program organization, materials, study on space and requirements for use</td>
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<td>07.03.16 - 20.03.16</td>
<td>Design exploration, development of program, shape, materialization and functionality</td>
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<td>21.03.16 - 03.04.16</td>
<td>Design exploration, development of program, shape, materialization and functionality</td>
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<tr>
<td>04.04.16 - 17.04.16</td>
<td>Design exploration, development of program, shape, materialization and functionality</td>
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<td>18.04.16 - 01.05.16</td>
<td>P3 Presentation: (3D) sketches, plans and sections and overall design strategies, details</td>
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<td>02.05.16 - 15.05.16</td>
<td>Design, improvement of plans, sections and overall drawings</td>
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<td>16.05.16 - 29.05.16</td>
<td>Design, detailing</td>
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<td>30.05.16 - 12.06.16</td>
<td>P4 Presentation: Detailed Plans, sections, elevations, details drawing (material and construction) and 3d sketches</td>
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<td>13.06.16 - 26.06.16</td>
<td>Final adjustments for P5 Presentation</td>
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