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Graduation Studio: Global Housing

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*"The inheritance of the sefer"*

P4 reflection

- **the relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)**

The Global Housing Graduation Studio started with a simple consideration: according to the UN-Habitat reports, in the coming years Ethiopians cities, and especially Addis Ababa as the capital of the country, will have to cope with the pressing problem of how to provide accommodation to the predicted wave of new urban inhabitants.

Since the informal settlements in Addis Ababa currently represent the housing solution of the 80 percent of the urban population and this percentage is expected to increase in the following years, the apparently simple data of urban growth generate a series of important economic, social, and cultural issues that should be considered in the debate to formulate an architectural solution to accommodate the urban growth.

In the last decades, diverse solutions were used to cope with the necessary improvement of the housing stock in Addis Ababa: the current approaches swings between two extremes, characterized on one side by the maintenance of the spatial conditions of the slums with slum upgrading processes and, on the other hand, the tabula rasa approach promulgated by the "Integrated Housing Development Programme".

Within this main framework, my research aimed to find an alternative design strategy to the dualistic approaches currently employed in urban renewal of Addis Ababa, combining the positive aspects of the slum renovation process (heterogeneity, relationship within public space and dwelling) with positive ones reached with the interventions of the "condominium act" (density, quality of accommodation, infrastructure). The main focus of my research was to defining *until which extent heterogeneity and density can coexist* in order to deal with the increase of population and while providing growth a variety of different typologies, users, activities and atmospheres to create a lively social and spatial environment.

Since the beginning my attention was concentrated on the oldest areas of the city that are still preserving the change of time in their tissue: due to the cohabitation of different times, these places show that the ability to accommodate changes is embedded in their DNA. These places, as the Dejach Wube Sefer, are the ones where is possible to analyze the physical translation of resilient elements that characterize the heterogeneity of needs of sociability of the inhabitants and, thanks to the capability of accommodate interventions which renovate their urban fabric, they are at the same time the place where the testing of a tactical architectural intervention to provide density while maintaining heterogeneity could take place and provide meaningful results.

In particular, my research has explored an alternative way compared to the solution of my colleagues, considering the predominant elements of today's urban fabric as a starting point not only from the point of view of planning but also as a reference for material and technological research.

The starting point of my project are the “old villas” present in the Dejach Wube sefer and in other historical areas of Addis Ababa: these buildings are dated back from the first decades of the city history and, therefore, are an important manifestation of old building types as well as techniques, being part of an inheritance that lies in the middle of the informal settlements that should be protected and re-evaluated.

Therefore, the area of intervention within the sefer was chose according the presence of one these old pieces of the urban fabric, using it as the starting point for a renovation process both from the design point of view (becoming the iconic elements and entrance points of the different areas) as well as references for construction principles and materialisation. This research goes beyond the simple application of a constructive economic technique but looks towards a reinterpretation of the constructive concepts of Ethiopian architecture, blending archetypal figures of Ethiopian archaic tradition with new materials to exploit the resources available in Ethiopian territory.

#### - **the relationship between research and design**

Since the beginning of the course, the studio aimed to create a common knowledge among us, using both previous researches carried out in the previous years as well as providing us with insights to stimulate our personal research.

The first phase of the research consisted of the analysis of four different sefers (the oldest “neighbourhoods” of the central part of Addis Ababa), carried out in groups of three students. This phase aimed to create a general historical, morphological and typological knowledge about one of the sefers, providing us with a solid base on which start our personal research. Using the previous researches as a starting point, provided us with a basic level of knowledge in a short amount of time, allowing us to further develop our research instead of striving to find basic data.

Already from this first phase was that the Dejach Wube sefer is characterised by a strong heterogeneity of functions, typologies and historical traces that, in order to fully understand, necessitate a successive phase of analysis that could only be carried out during an on field research.

The second phase (the field trip) was instrumental in checking if the information gathered 5500km away from the site where actually correct and updated. Thanks to mapping techniques and interviews with local inhabitants and users was finally possible to collect data about the users, the state of the urban fabric as well as the pattern of inhabitation of its inhabitants. Apart from developing our personal research, we were asked to produce a “book of patterns” related to our sefer, looking at different ways how people use and build the space in the informal settlement. In my opinion, this exercise helped us to don't be overwhelmed by information but to concentrate on certain aspects and look with critical eyes to the new environment that we were experiencing. Moreover, a second personal layer of smells, spaces, lights and sounds was added to the experience of the site, providing fruitful insights for design spaces that can be coherent with the local way of life and atmospheres of the city.

After coming back from the field trip, the third phase of the research was characterised by a continuous interconnection between research and design: while the design process was progressing, the research was

continuously providing different insights to be taken into consideration to formulate an appropriate design solution.

I decided to start this phase of the research focusing my attention on the “right dimension” on the different scales, from the dimension of the site to analyse in the whole masterplan to the dimension of the public spaces and the dwelling typologies. After combining these elements in a first design hypothesis for the whole project, the result was soon discussed and changed assimilating the new aspects of the research as well as comments from the continuous tutoring sessions and presentations.

If from one side this “circular process” of change-discovery-update was frustrating since the project seems to be always on the same level of investigation, on the other hand, it generated the possibility for a more deeper understanding of its main elements and the hierarchy relations among them. This phase was instrumental in defining a “site-specific system” based on a sequence of different public spaces and combination of different typologies: the elucidation of the principles that rule the composition opened the possibility to the application of the project in different areas of Addis Ababa.

The final part of the design process aimed to polish and fine-tuning the different elements of the project, focusing my attention especially on the atmosphere and the material expression of the new intervention. The choice to use two different building techniques (echoing the construction principles of the old villas) stimulate the research of different ways to solve the technical and structural problems while expressing the clear difference between the “solid backbone” and the “light additions”.

I think that the main result of my thesis will reflect this strong interconnection of research and design, where all the elements that compose the project are designed keeping in mind the technical and constructive issues as well as cultural and social repercussions of the design choices.

- **the relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework**

Especially in the first months, the graduation lab’s approach aimed to develop our academic skills in order to analyse and formulate a position about the current situation. It was a new line of approach for me but being pushed to write down my position in a proper academically way generated a stronger critical view that provided me with a strong base to start the design process. However, this first part of the studio was really congested by tasks related to both the research as well as the other additional courses (Lectures on Research Methods, Research seminar), leaving almost no time for the development of our personal design hypothesis and, moreover, to search for secondary sources of inspirations outside the ones provided by the aforementioned courses.

The second semester was more freely organized, leaving more space for the individual research but, especially in its first phase, lacked in providing us with a shared basic knowledge of the alternative building techniques which, working in an environment as the Global South where the resources are scarce and it’s important to find low-cost alternative solutions, is a fundamental tool to further develop our design solutions. An introduction lecture about alternative building techniques (maybe based on the solutions developed in the previous years of this graduation lab) or a meeting with an “expert” in the field could have been an interesting starting point for this phase of the research and would have saved us a lot of precious time, energy and resources spent to find redundant basic knowledge, instead of investing it in a further development of the project.

Another important aspect of the graduation lab’s approach were the presentations and mid-presentations set by the studio to check our development during the semester: these moments were really important

because provided us with both strong feedbacks to progress in the design process as well as a schedule to follow to maintain the “working rhythm”. However, on the other hand side, I would have preferred to have less intermediate presentations, since a lot of time was spent in preparing presentation material for a relatively short feedback, and use that time to further developing my research.

I consider the weekly meeting with our tutor the most important moments of the design process: talking with three tutors for very different backgrounds provided us with a huge variety of insights that were fundamental in my aforementioned “circular process” of design, helping to tackle the design issues from different points of view.

- **the relationship between the project and the wider social context**

In today's global and interconnected world, more than half of the population lives in urban areas. According to the 2014 Revision of World Urbanization Prospects of the UN, in the next three decades, the rate of urbanisation will increase sharply, adding 2,5 billion new dwellers to the current urban population. Almost the 90 percent of the increase will be concentrated in Asia and Africa, where the current conditions of the housing stock are not suitable to face the incoming challenge.

My graduation project aims to find an alternative way to cope with the issue of affordable housing, combining the positive aspects of the slum renovation process (heterogeneity, relationship within public space and dwelling) with positive ones reached with the high-rise interventions (density, quality of accommodation, infrastructure).

Since the project is based on the analysis of human activities and pattern of inhabitation rather than on the inherent architectural qualities of the slum buildings, the solution proposed, in addition to solving the particular case of one of the central sefer of Addis Ababa, could also be applied in other areas of the city.

Moreover, considering that the increase in the urban population will affect many cities in the Global South with similar characteristics to Addis Ababa, the methodology used in the project could also be applied in these areas to find alternatives to the current high-rise intervention (which, as well as erasing the architectural vernacular heritage, is likely to lead to gentrification issues in the coming years) combining the characteristic vernacular features and the new needs generated by the increment of urban population.

This graduation project helped me to reconsider the role that us, as a new generation of Western architects, could play in our globalized world: in the particular context of the Global South, where the traditional elements of the built environment are erased in order to create space for new solutions to accommodate a bigger number of inhabitants, the involvement of Western architects in the design process is a necessary contribute to creating innovative solutions that could preserve the characteristic features of vernacular architecture.

Due to the different historical background and the distance from the traditional architectural solutions, that we as Georg Simmel's *strangers* possess, our “architecture of the stranger” could be able to avoid solutions previously applied which had negative results and to preserve the characteristic features of the vernacular elements, translating them into new architectural solutions related to the basic customs of their inhabitants, and not facile copies of Western models which cannot meet the emotional or the material needs of the particular region.