

Graduation reflection paper

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This Reflection Paper reflects on the process that led to the question, “*How can we combine existing- and new residents into a mixed-use housing scheme that fosters local entrepreneurship in Addis Ababa*”. The paper first talks about the relevance of my chosen topic, *Designing for newly arriving young adults in Addis Ababa*. It goes on to reflect on the research methods and their relationship to my design process. Finally, the paper reflects on a number of ethical issues identified whilst implementing this *mix-use residential* scheme to other rapidly growing cities around Ethiopia, Africa or other parts of the world.

01 – Relevance of Topic

- *Definition of my topic and its relationship to architecture*
- *The choice of focus groups and their importance*

02 – Research Methods and Design

- *Preliminary research (how, why)*
 - o *migration, climate, housing & mapping*
- *Field research (how, why)*
 - o *Ethnography – patterns of life in Addis Ababa*
 - o *Problem statement study: campus life, room types & student needs*
 - *comparative review (how, why)*
 - *student questionnaire (how, why)*

03 – Global relevance, possible implementations & ethics

01 – Relevance of Topic

The rural-to-urban migration trend in Ethiopia has put a lot of pressure on cities, with Addis Ababa being by far the primary city. Once you walk off the main streets in Addis Ababa you will immediately notice cramped and restricted conditions indicating a severe housing shortage. With the current housing backlog in Addis Ababa, the newly arrived migrants – with exception of a few – face the dilemma of relying on moving in with relatives or acquaintances. This leads to unforeseen housing challenges such as unmonitored and overcrowded households.

I identified that half of migrants into Addis Ababa are between ages 15 and 35 and have entitled this group ‘Young Adults’. This group becomes assimilated into the workforce, either immediately or after their studies and become very much the drivers of future development in the city. According to the World Bank, a large portion (36.5%) arrive in Addis Ababa with education as their primary purpose. With the standards of education and literacy rates steadily increasing¹ we can expect a large increase in university enrollments in the coming years. I felt it was important that redevelopment of a specific site in Addis Ababa should concentrate on addressing these young adult migrants, especially those arriving with education as their primary purpose, while at the same time addressing the common challenge of avoiding the need to evict current residents to other parts of the city.

Based on a calculation I made using World Bank data², I established that there is currently an annual flow of around 25,000 people migrating to Addis Ababa with education as their primary purpose. I then identified major obstacles for these arriving students. Given the difficult living circumstances such as the overcrowded households, expensive housing and long commuting hours I considered that architecture and design could address this challenge by creating an appropriate housing scheme that fosters the progress of Ethiopian students while improving the living standards of current residents.

¹ People ages 15-24: 33% in 1994 to 72% in 2017. (World Bank, 2020.)

² Calculation made based on study published by WorldBank on Internal Migration estimations in Ethiopia between 2005-2013. Tom Bundervoet, *Internal Migration in Ethiopia Evidence from a Quantitative and Qualitative Research Study*, (The World Bank, 2018) 9.

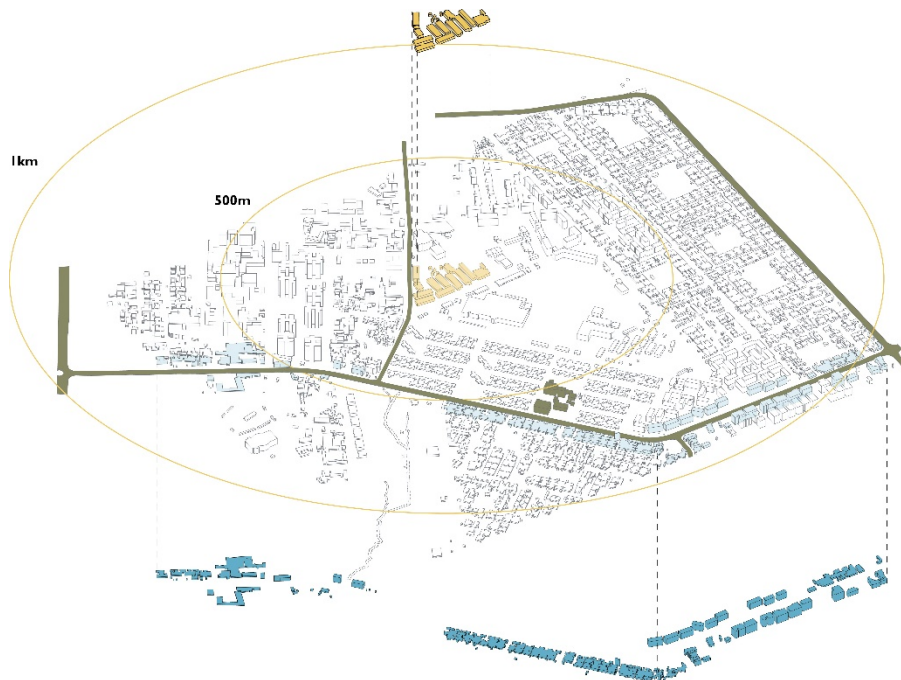
02 – Research and Design

Preliminary research

During the first phase of the project, together with the Addis Ababa Living Lab team, we conducted a set of research topics including, Hard Data, Soft Data, Housing Typologies, and Spatial Mapping. The combination of these topics gave us a foundational understanding of Addis Ababa and Ethiopia as a whole. We found that much like the rest of Africa, Ethiopia has been undergoing a rapid development that comes hand in hand with a rapid urbanization of the country. And though the country is still one of the least urbanized in Africa, the growing population, improved education and a construction boom in 2008 have led to mass urban migration.

We found that Addis Ababa is witnessing an urban sprawl as it horizontally expands into the boundary defined by the Oromia region. Over the past two decades the city's growth has also been evolving from horizontal expansion towards vertically densifying the city. Ethiopia has been implementing a government-led low- and middle-income housing program since 2005. This housing initiative – initially led by German Technical Corporation (GTZ) – primarily focused on economic efficiency, with less regard for cultural and traditional living habits. The dwelling units have brought great improvement towards Addis Ababa but ultimately, I felt that the city begs for more research to be done in bridging the gap between living habits and the physical structure.

Following my site visit to Gerji, (the urban area that I chose), I identified some key features that were unique to this site: its close proximity to Unity University, to the Addis Ababa Ring Road and the Gerji Commercial Spine that borders the site. They presented some unique qualities and potential which I felt were currently not being considered. With the arriving young adult migrants in mind, it became important to clarify what their needs and wishes were for the coming years, either as students or as budding entrepreneurs in Addis Ababa.

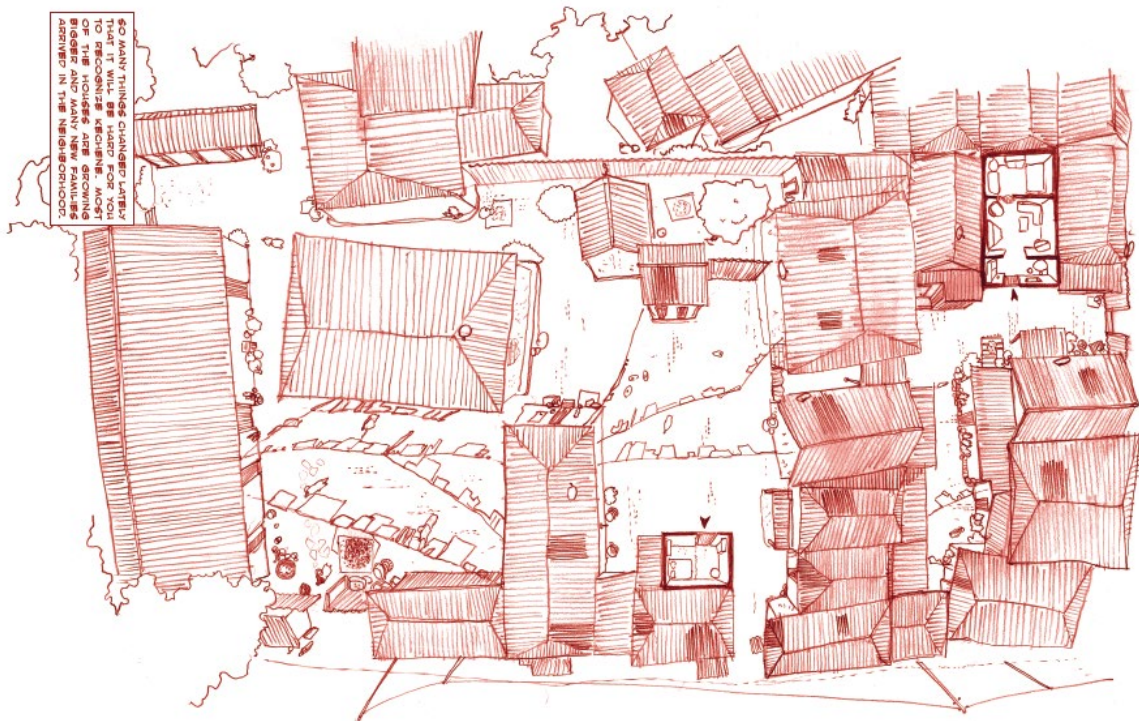


Field research

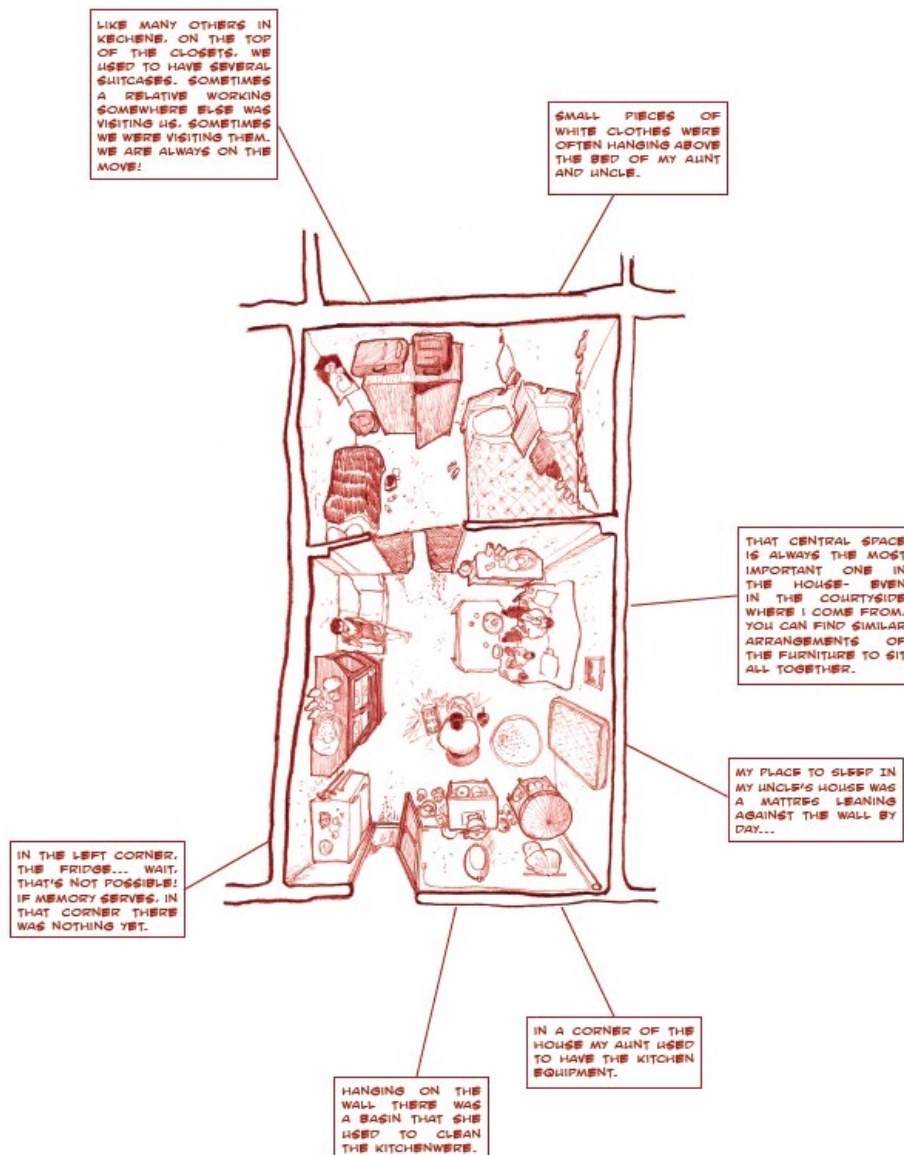
My field research focused primarily on urban living patterns and student housing for Addis Ababa. As for living patterns in Addis Ababa, my intention was to understand typical social spaces, domestic activities, income generating activities and borders/boundaries. This was done by conducting an ethnographic study.

Ethnographic study

To better understand the social and cultural characteristics as well as the living patterns within a typical Addis Ababa “Sefer” (community), the area of Kechene was chosen. Here, together with Antonio Paoletti and Casper Pasveer, we conducted an Ethnographic Study in the form of a graphic novel to visualize our findings. We investigated the neighborhood using a participant observation methodology, interviews and data collected from archives. These findings were then translated into architectural drawings to give the reader a comprehensive insight into life in a Sefer. We observed that the urban fabric of Kechene largely consists of organically evolved kebele houses that are orientated around communal courtyards shared by 3-9 families. The courtyards in Kechene act as an extended living room as most domestic activities, such as washing clothes, cooking and social/family events take place there. Though the courtyards don’t usually have a physical border, the narrow alley ways leading to these residential courtyards encourage its privacy. Overall, we found that communal courtyards have similar configuration and purpose to those of 50 years ago. The families described that the domestic activities still reflect the same activities as those in the past. I do feel the Ethnographic Research approach worked well. Ray Lucas, in his book ‘Research Methods for Architecture’, points out that “*Ethnography is a*



longitudinal and subjective study, where the researcher spends extended periods in the field”³. Academics who conduct ethnographic research often spend months if not years shadowing subjects to understand their ways of being. Here we spent a short time in the field and, while a more extended time may have provided more in-depth information about the culture, habits and norms, I do feel the study manages to capture the essence of life in Kechene. It also provides an understanding of how life in Addis Ababa has evolved since the 1950s from its low-density city with a village-like feel to what I now a bustling urbanized area with multiple cores of development.



³ Lucas, R. Research Methods for Architecture. (Laurence King Publishing Ltd., 2016) 164

Fostering education

Traditionally, education in Ethiopia was religion-based and provided by church schools and monasteries to the elite few, mostly males. Modern “Western” education did not arrive in Ethiopia until the 20th century and developed only slowly⁴. The late Emperor Haile Selassie is universally recognized as being the pioneer as well as an active and dedicated promoter of modern education in Ethiopia⁵. UNESCO published an article “*The Roots and Fallouts of Haile Selassie’s Educational Policy*” in which I found that his dedication to implementing modern education did not happen under favorable conditions. He stood up to the stubborn opposition of the powerful Ethiopian Church and members of the nobility. Ethiopia’s education system finally expanded rapidly in the decades after the overthrow of the Derg in 1991⁶. Now today Addis Ababa compromises both public and private institutions for tertiary education, a number of which attain global standards.

Following my visit to Addis Ababa, it became clear to me that the city – while increasingly providing post-secondary education – had not yet developed the infrastructure or infrastructure plans around it. Specifically, it still lacked the services such as student dormitories to house those students new to the city. In my pursuit of an appropriate student housing typology I decided to divide my research into three scales; the campus, the room and the Addis Ababa student.

The Campus

Firstly, I explored typical campus life and facilities with a literature review. I found that over the last forty years governments around the world have stimulated linkages between industry and academia⁷. University campuses have services and facilities that bridge student life and city life. I extrapolated that, if designed properly, my proposal should create services beneficial to both the newly arrived students and the current residents. I compared campuses around the world including TUDelft, EiABC, MIT, National University of Singapore, for on-campus services available that can be used by students as well as other citizens. Examples of these services include:

- Printing and stationary
- Bookstores
- Café
- Supermarkets
- IT services
- Laundry/Washarette
- Electronic stores

I saw it as important to consider these services, useful to all intended residents, as assigned enterprises in the ground level of the proposed student complexes. Having young adults, and enterprise space present at a single site would also contribute to innovation in several ways including: providing *technical*

⁴ Trines, Stefan. *World Education News + Reviews*. 2018.

⁵ Ibid.

⁶ Ibid.

⁷ M Creso Sa, *Perspective of Industry's Engagement with African Universities*, (African Association of Universities, 2015) 7.

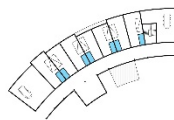
assistance, engaging in consulting and commercialization activities⁸. The co-habitable environment should indeed also bring together students and shop spaces to host university spin-offs. Countries in the Global North have a large history of fostering university-industry relationships. However, these mainly focus on developed industrial economies, and are still quite limited when it comes to growing African economies⁹. When examining traits of the local enterprises in Africa, the majority are micro, small and medium scaled. This is a distinct difference when comparing to more economically developed countries in which there are predominantly medium- and large scale corporations. Hence, I feel that architecture for commerce in Africa should naturally fit small and medium scale enterprises. My conclusion was that the commercial spaces should reflect the open campus style facilities with the flexibility of work/live spaces much like those found along the streets in the traditional Sefers, as I observed in my field research.

Student room typology

My research aim was to establish what is required to design appropriate student dwelling in Addis Ababa. I did this by conducting a comparative study based on shared accommodation around the world. I examined student housing trends as a whole and saw that in the Global North for a long period after the Second World War, student housing was primarily shared dormitories. In The Netherlands this was due to a general lack of housing and to the high expense. As Ethiopia is recognized as a developing country, it is also common that student housing is based on shared dormitories to lower expenses. However, in the Global North I identified the trend of shared facilities gradually becoming independent/individual housing units. I conducted a comparative study that examined different student



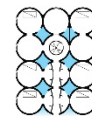
Newington Green, London.
 Area room: 11.3m²
 People per room: 1
 People per washroom: 1
 common space: yes
 space per person: 11.3m²



Tietgenkollegiet, Copenhagen.
 Area room: 11-13m²
 People per room: 1
 People per washroom: 1
 common space: yes
 space per person: 11-13m²



Capsule, Tokyo.
 Area room: 10m²
 People per room: 1
 People per washroom: 1
 common space: no
 space per person: 10m²



Grunerlokka Studenthus, Oslo.
 Area room: 11.3m²
 People per room: 1-2
 People per washroom: 1-2
 common space: no
 space per person: 12.5 - 6m²



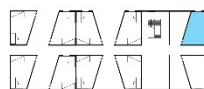
Florey Building, Oxford.
 Area room: 13m²
 People per room: 1
 People per washroom: 2
 common space: yes
 space per person: 13m²



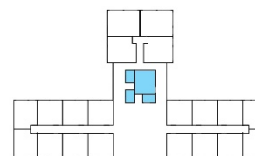
TH Twente, Enschede.
 Area room: 10-15m²
 People per room: 1
 People per washroom: 3
 common space: yes
 space per person: 10-15m²



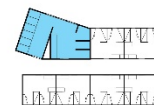
Lissabonstraat, Groningen.
 Area room: 13.7m²
 People per room: 1
 People per washroom: 3
 common space: yes
 space per person: 13.7m²



Nelf, Groningen.
 Area room: 15.9m²
 People per room: 1
 People per washroom: 8
 common space: yes
 space per person: 15.9m²



Kraakeelhof Delft.
 Area room: 16-18m²
 People per room: 1
 People per washroom: 20
 common space: yes
 space per person: 16-18m²



Baker House, Massachusetts.
 Area room: 22.5m²
 People per room: 2
 People per washroom: 28
 common space: yes
 space per person: 11.25m²

⁸ Ibid, 7.

⁹ M Creso Sa, *Perspective of Industry's Engagement with African Universities*, (African Association of Universities, 2015) 7.

housing typologies and examined composition of rooms and shared services. Finally I compared global examples to recognize an appropriate scheme that would suit student housing specifically in Addis Ababa.

This research helped me understand how projects around the world have dealt with the issue of privacy and shared spaces. It struck me how many buildings had a rigid structure that limits flexibility for other users in the future, e.g. Krakeelhof, Delft, in which a central service block will always need to be shared by the 20 rooms surrounding it. I wanted to take account of possible future trends in that the common shared facilities in Ethiopia may one day too, change and prefer more individual living trends. Therefore it was an important aspect for me to design a typology which can be flexible enough to transform from a shared dormitory to a single household when society desires to do so.

The Addis Ababa student

The Addis Ababa student also a focal point in the development of my student complex typology. My intention in studying the Addis Ababa student was to establish a set of guidelines that the student rooms should take into consideration. To do this I conducted a questionnaire which aimed at identifying patterns in a typical student's life in Addis Ababa. The patterns were based on living circumstances, study/work relationships and commuting distances (see *appendix*).

The questionnaire proved helpful in understanding that commuting distances were a main issue for students in Addis Ababa. The results showed that the average commuting time for students to travel to, or from, university was 54minutes. Their travelling time in conjunction with income generating activities meant that all students who worked had little to no free time throughout the week. The results of my questionnaire confirmed my hypothesis stating that commuting distance and a lack of study space were concerns in the daily life of most Addis Ababa students. I managed to reach out to 6 different universities; students from EiABC, Hope University College, Addis Ababa Science & Technology University, Addis Ababa Institute of Technology and St. Mary's University with 8 respondents on basis of conducting questionnaires online. Of course it would have been good to have a greater number of respondents but all in all, the research method was useful in getting some understanding of the daily routines of students in Addis Ababa. The results confirmed my design hypothesis in that there is a need to reduce commuting distances and improve access to study areas.

03 Global Relevance

The importance of expressing local practices cannot be understated. Many influences from the Global North are often strived towards, or introduced by foreign entities. Much like other cities in Africa, I witnessed that Addis Ababa progressively strives towards the 'glass-box' architecture; in a way, inspired by Manhattan architecture as an idealized symbol of modernization. These tall structures closed off with glass curtain walls can be seen to reflect the status of a developed city. We see this in many of the rapidly developing cities in Africa as well as Asia and South America. The glass-box buildings seem to detach themselves from the immediate context in both climate and tradition. It relegates the local/vernacular building styles (and methods) into disregard. The GTZ collaboration for the

condominium housing scheme is an example of effective construction but can be seen as oblivious to the living patterns identified in the Ethnographic study, the graphic novel. It was important to use locally sourced materials such as brick and limit the use of import materials such as steel. It was also important to propose a construction scheme that can be achieved by local, and in some cases unskilled labor.

Ethics

One of the ethical issues identified are those of possible corruption in the real estate management. Depending on the socio-political situation corruption may be an issue in terms of allocation of units/property. We see similar unforeseen challenges in the current housing scheme. The condominium housing program does not directly disregard low-income residents, but – through the imposed model of privatized ownership – “indirectly favors middle and upper middle class citizens who can afford the respective payments”¹⁰. As a result this has induced segregating effects driving up rent prices to the level of middle and upper middle class, and thus, limiting options for the lowest-income bracket. In the case of student housing, there should be a proper system in place can exercise vigilance to continue housing appropriate tenants. Given both points above, a strong term of reference is required for both the developer and the operator, in this case Federal Housing Corporation.

¹⁰ Delz S., *How Concepts of Individual Home-Ownership and Housing Blocks Still Walk Abroad*, (ETHzurich, 2016) 4.

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