TUDelft

Architecture & Dwelling

TU DELFT | FACULTY OF ARCHITECTURE AND THE BUILT ENVIRONMENT
DEPARTMENT OF ARCHITECTURE | CHAIR OF ARCHITECTURE & DWELLING

GRADUATION PLAN
Master of Architecture, Urbanism & Building Sciences

A - Personal information
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B - Studio

Global Housing Graduation Studio:
Addis Ababa Living Lab

b) Tutors:

Design and Research Tutors:
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c) Argumentation of choice of the studio:

As Ray Lucas points out, *architecture is considered to be a humanities discipline* [1].
For that reason, I strongly believe in the social role of architecture as an element to enhance and dignify the quality of life of people especially of those who live in vulnerable conditions. Some developing countries have started to include the social perspective in architectural projects improving and creating spaces of inclusion. However, a little has been done to foster affordable housing for poor. So, if housing is the most basic element of architecture, why architects and constructors do not put too much effort to design or at least give some guidelines to provide decent homes for low-income groups? Moreover, why ''dwelling'', considered as a fundamental right of the human being, becomes a privilege only accessible for just a few elite groups?. In that sense, I found in the Global Housing Studio the opportunity to work with people that have real needs. Housing should be seen as an opportunity to weave sense of community, making the hopes of hundreds of people who claim for dignity, real.

C - Graduation Project

Recomposing the city's fragments of Addis Ababa
Physical re-weaving of Addis from a social perspective

C.1 _ Goal

Problem Statement

Addis Ababa is a city of contrasts.

On one side, the city is in the process of transformation into an international city, experiencing a construction boom with numerous of halfway-done constructions all over the city. In part because is the African's political capital, the government has prioritized urban development by attracting global capital[2] and foreign investments in order to boost the economy and the development of the country. On the other hand, the city, where around 80% of its population live in slum conditions and 70% of them live in rental housing[3], the rapid and uncontrolled growth of the city especially over the last decade has redefined a unique and unforeseen urban fabric where people from different social backgrounds have learned to live next to each other[4]. Perhaps, the coexistence among income groups is the most valuable feature of Addis. The constant interaction with each other and the share of public facilities highlight the character of community, that in contrast to other developing cities, those divisions are strongly marked arising social segregation.

Nonetheless, as Addis is considered a young city and income inequality is not that uneven among social groups the sense of collectivity is present in daily life activities which are still strongly attached to the rural areas, better known as ''*ruralization*''[5]. This concept is ambiguous, because on one side, the perception of the rural remains in housing, social life and in the economic activities that somehow inhibit the modernization of the city arising informal economic activities whenever new residents see an opportunity[6]. But, on the other side, the every day's activities mainly based on economic activities such as the informal retail trade, and on the religious practices, both serve as catalysts of the public life reinforcing the social behavior of the citizens. Therefore, Addis is in the process to reach a balance between conserving the traditions and sense of community[7], and becoming a competitive city through modernity. As a consequence social layers overlap and boost the emergence of new income groups separating and marginalizing the poor, creating enclaves that deteriorates not only the social, but also the physical environment.

Hence, the **main problem** is the fragmentation of the layers caused by ''ruralization or urbanization'', (depending on the point of view), affecting the way on how people experience the city triggering social, economic and environmental issues, as well as the loss of cultural identity. Saying this, the loss of identity starts to fragment the social life, and with it, the urban fabric, and the cultural, economic and environmental layers. As E. Yitbarek describes, Addis is a *collage of cities*, where layers overlap each other, but operate individually[8] due to the lack of an institutional framework that regulates the coexistence among them.

Indeed, the neighborhood of Kolfe, the chosen project site, is an example of how those layers operate individually within the neighborhood, but also shows how the community is disarticulated from the surroundings and from the city as well. Kolfe is located in the

west area of Addis Ababa in a suburban area due to its proximity to the countryside. It was founded in the late 70's as part of the Federal Housing Program as a resettled neighborhood from the Sheraton area, where the majority of its population is already retired and the young ones base their economic activities on informal jobs.

By simply looking at kolfe's urban fabric, there is a fragmentation among the environmental, social and connectivity layers, and there is no relation with the inner center, the most important commercial area of the city, where a great percentage of the population living in Kolfe base their economic livelihood there. As other parts of the city, Kolfe is characterized by the sorority ties that residents have developed throughout the years, fostering sense of community and empathy. However, the physical environment of the neighborhood shows the contrary. Kolfe may be seen as an island within the city due to its urban disconnections. This kind of feature is described in the *Octopus City*[9]'s urban model, characterized by linking the new nodes of development and main institutional infrastructures passing through the neglected areas of the city, but without actually connecting them with the rest of the city. Therefore, the skyline of Kolfe is marked by isolation and the boundaries created by the same community in response to security and privacy issues.

Therefore, the **specific problem** is that Kolfe is defined by boundaries, forbidding the interactions among residents while accelerating the loss of sense of community. In that sense, the Kolfe's physical conditions are similar to those from Condominiums where they perform as islands within the city and boost even more the generic and impersonalized spaces, segregation and a total disruption from the outside[10].

As if it were a condominium, Kolfe presents tangible and intangibles boundaries. For instance, tangible boundaries are found in the tall and sealed fences enclosing the compounds limiting the relation inside-outside, and also in the environmental structure that is used as a garbage disposal lot. While, intangible boundaries are those present in situations where is possible to identify contrasts. The clearest example is between the formal and informal economic activities, that even though it is a helping hand relationship, it tends to exacerbate social issues when informality takes possession of the few public spaces restricting the right to join the public space and the interactions among neighbors.

In sum, as Kolfe has been included in the redevelopment program of the government as a possible potential site to develop multi-storey blocks, the design project is an opportunity to re-dignify from two different scales the living conditions of the current and the new arrival residents. On one side, it is expected to recompose the character of community based on the re-articulation of the social, economic, urban and environmental layers through the public space as the element of social transformation. On the other side, providing an alternative solution to the condominiums that achieves the interior relations of functionalism but also highlighting the relation with the outside creating flexible borders and fostering future developments through a self-progressive construction.

Research question

How to re-densify Kolfe in a multi scalar way that provides an alternative solution to the condominium units by integrating the fragmented urban layers; and by adapting the traditional needs of the families into a modern approach enabling future developments whilr upgrading the character of community and social inclusion?

Design Hypothesis

In response to the idea to redevelop Kolfe's area as part of the governance plan to remodel the whole city, the design project pretends to reconnect, firstly, the overlapped and fragmented layers of the city with those in the neighborhood as an attempt to read the urban fabric as a continuous element enhancing the social and economic interactions among citizens. In that order of ideas it is expected to achieve the following:

By consolidating the environmental element as an element of social cohesion; building it up as a visual image adding quality to the vulnerable communities; and defending the space as joinable public space able to host and serve as a source of income generation fostering economic activities such as urban agriculture.

By using the public space as a joint of the physical and social transformation of the area, fostering a sense of belonging among the residents.

By incorporating the informal economies into the city fabric, providing decent working spaces where residents and foreigners may able to coexist in a harmonious way.

By providing an alternative solution to re densify kolfe, in which dwelling units are conceived to understand the functionalism of the family and its economic dynamics through a low-cost construction but highly durable that can be easily adapted in the future.

By reconnecting the fragmented layers in the architectural scale, not only on ground floor but also on upper floors, allowing a direct and permeable relations with the living spaces,and by recomposing the character of the space through the creation of urban facades.

C.2 _ Process

a) Method description

As part of the research methods that the Global Housing Studio encourages their pupils to explore are the participatory research and visual ethnography. Nonetheless, both methods are complemented by literature research, typological analysis, and a fieldwork research.

- **The Literature research,** is used in both phases: the group phase research, and in the individual phase in order to explore the topics I find most interesting so, they can be included in the design proposal.

For instance, during the first phase of research, the literature review serves as a general intellectual framework to get familiar with theories, concepts and the way of people from different cultural contexts experience the everyday life. Moreover, specific literature about Ethiopia is also used as a tool to understand the roots of the social, political and economic background and how these historical facts have defined the behaviors and features of the population and their relations with the spaces. This part of the research was combined in a four chapter's booklet, divided in: facts, the socio-historical context, the analysis from a spatial perspective and the living environments of the Ethiopian life.

- **The Typological research**, carried out firstly in a familiar context such as Rotterdam, gave us the opportunity to analyze from a morphological perspective and from a multi-scalar way the relation between the urban and the dwelling, but also how the physical aspects and the socio-economic environment define the social interactions among neighbors.

  Moreover, during the design phase, this research method will be fundamental in order to provide an alternative solution to the generic condominiums in Addis. Taking as referent the traditional houses, the typology of the dwellings of Kolfe and their relations of function, they can be adapted to the emerging needs of the families.

- **The visual ethnography**, without doubts is the most enriching type of research. It is the complement of the theoretical framework that literature and mapping are not able to transmit. Being in the place, experience it with the own senses and the interaction with the locals, helps to create an own perception of the context and an idea of how is the relation between citizens. As this method is mainly perceptive and subjective, we, as researchers draw our own conclusions based on what we observed. In that sense, the fieldwork and the different strategies used to collect data such as observation, photography, drawings and interviews to local people, have served to take a rational position of the Ethiopian context. However, as this is a qualitative research and is limited by the lack of time to actually get in a deep understanding of the context, the use of heuristic practices such as intuition and common sense are fundamental to discard speculations and information that may be not as reliable, especially during the interviews to locals where they tend to provide self-evidences and partialize the reality according to their own experience.

b) Literature and general practical preference

1. Alemayehu Soressa, Yonas, and Imam Mahmoud Hassen. "Chapter Three: Inner-City Dwellers and Their Places In The Context Of Addis Ababa'S Urban Renewal". In *The Transformation Of Addis Ababa: A Multiform African City*, 77, 81. Elias Yitbarek Alemayehu and Laura Stark. Cambridge Scholars Publishing, 2018.

2. Cherenet, Zegeye, Helawi Sewnet, and Ethiopian Institute of Architecture Building Construction and City Development. *Building Ethiopia : Sustainability and Innovation in Architecture and Design*. Addis Ababa: EiABC, 2012, p 117-124, 263

3. Ejigu, Alazar G. "Socio-spatial tensions and interactions: An ethnography of the condominium housing of Addis Ababa, Ethiopia, In: Mélanie Robertson

(ed.), *Sustainable Cities: Local Solutions in the Global South. Practical Action Publishing, 2012, 98,100-01.*

4. Fransen, Jan, and Meine Pieter van Dijk. *Informality In Addis Ababa, Ethiopia*. Ebook. IHS, Erasmus, 2008. http://www2.econ.uu.nl/users/marrewijk/pdf/ihs%20workshop/fransen%20paper.pdf

5. French, Matthew. *Condominium housing in Ethiopia: The integrated housing development programme*. United Nations Human Settlements Programme, 2011,3-5,39

6. Heisel, Felix, and Bisrat Kifle, eds. *Lessons of Informality : Architecture and Urban Planning for Emerging Territories - Concepts from Ethiopia*. Boston: Birkhäuser, 2016. Accessed January, 2020, p 63-64, 71-73 doi:10.1515/9783035606706.

7. Mahiteme, Yirgarlem. *"Visible And Invisible Actors In Urban Management And Emerging Trends Of Informalization; A Case Study From Kolfe-Keranio Sub-City Addis Ababa"*. PHD, Department of Geography and Environmental Studies, Addis Ababa University, 2008.

8. Mota, Nelson. "From The Kebele To The Condominium. *Accommodating Social And Spatial Practices In Ethiopia'S Politics Of Affordable Housing*". Delft University of Technology, The Netherlands, 2015.

9. Sennett, Richard. *Building and Dwelling: Ethics for the City.* Farrar, Straus and Giroux, 2018. , 65, 104-05

10. Spaliviero, M., and F. Cheru. "The State of Addis Ababa 2017: the Addis Ababa we want." (2017), 60

11. UN-Habitat, and Housing Unit. "Housing at the Centre of the New Urban Agenda Broschure," 2016, p 3,5 https://unhabitat.org/node/142394

12. Yitbarek Alemayehu, Elias. "Chapter Two: Addis Ababa: A Collage Of Cities". In *The Transformation Of Addis Ababa: A Multiform African City*, 47. Elias Yitbarek Alemayehu and Laura Stark. Cambridge Scholars Publishing, 2018.

13. Yitbarek Alemayehu, E., Mahmoud Hassen, I., Alemayehu Soressa, Y. and Stark, L. (2018). Chapter one: New perspectives on urban transformation in Addis Ababa. In: E. Yitbarek Alemayehu and L. Stark, ed., *The Transformation of Addis Ababa: A Multiform African City*, 1st ed. Cambridge Scholars Publishing, p.16.

Case study

Unidad Residencial Santiago de Cali | Instituto de Crédito Territorial, Cali- Colombia
Ciudad Bolívar Master Plan | Germán Samper, Bogotá- Colombia
Sopó housing | Germán Samper, Sopó- Colombia
Villa Verde housing | ELEMENTAL, Chile
Jardim Edite Social Housing | MMBB + H+F Arquitetos, Sao Paulo- Brasil

C.3 _ Relevance

By considering that Ethiopia is the second most populous country of Africa, but only 20% of its population live in urban areas means that traditions, believes, economic activities and the social structure are still highly attached to the rural areas. Consequently, the skyline of cities, especially Addis have been transformed by migrants who bring their traditions and particular ways of living into the city, knowing this process as ''ruralization''. However, the ruralization of the urban environment retards the progress of the city and the goals set by the government to achieve modernization. In that sense, is precisely to understand the importance that rural has on people's behaviors in order to create harmonic environments where both may able to coexist.

Moreover, by understanding that Addis is an emergent city, and so, its economy is also emergent, informality becomes the main source of income for the majority of the population. By being aware of this situation, informality may be seen as the engine to develop micro-economies within the neighborhood by grouping the residents into cooperatives creating entrepreneurships and generating decent working opportunities. Besides, strengthens the relationship between neighbors by creating sense of community and sense of belonging, which in turn will be reflected in the enhancement of the neighborhood.

Lastly, by understanding that adequate housing is a human right firstly recognized in the Universal Declaration of Human Rights in 1948, and then, in the International Covenant on Economic, Social and Cultural Rights of 1966 as part of the right to an adequate standard of living[11]. By implementing the right: ''*adequate housing must provide more than four walls and a roof*''[12] it is expected that housing, especially for the poor, provide more benefits of satisfaction than what shelters provide, as they only perform as elements that satisfy the basic needs of people. [13]However, this is a worldwide concern for the human rights defenders in the sense that providing affordable housing for low-income groups is not a priority, and instead, governments and developers conceive them as programs to supply the shortage of housing rather than upgrading the residents standards of life. For that reason, UN-Habitat has proposed a new approach, called it ''Housing at the center'' positioning housing as a priority in the government agendas[14]

'' 'Housing at the Centre' approach comes to position housing at the centre of national and local urban agendas. 'Housing at the Centre' aims to shift the focus from simply building houses to a holistic framework for housing development, orchestrated with urban planning practice and placing people and human rights at the forefront of urban sustainable development''.

C.4 _ Time planning

Month	Week	Activity			
September	W 1.1 W 1.2 W 1.3 W 1.4	Phase I Design Research and Projective Mapping			
October	W 1.5 W 1.6 W 1.7 W 1.8				
November	W 1.9 W 1.10 W 2.1 W 2.2	Phase II Field trip | Workshop at EiABC			
	W 2.3	Phase III Design Hypothesis	Problem Statement, Research question, Design hypothesis		
December	W 2.4 W 2.5 W 2.6 C.H C.H	P1 Presentation: Problem Statement	Design proposal: Master plan, strategies of design, development of typologies	Literature review, cases of studio	Problem Statement
January	W 2.7	Preparation for P2 presentation			
	W 2.8	P2 Presentation: Graduation Plan, cases of study, Master Plan and urban strategy, Program requirement, Design hypothesis, Draft design(floor plans, sections, urban profiles)			
	W 2.9 W 2.10	Reflection on P2 presentation	Development of the architectural and urban design		
February	W 2.10.1 W 3.1 W 3.2 W 3.3	P2 retake (if necessary)			Writing Draft reflection and Thesis report
March	W 3.4 W 3.5 W 3.6 W 3.7	Organize material for P3 presentation		Technical drawings: floor plans, sections, facades, details, Building technology	
April	W 3.8	P3 Presentation: Draft reflection, design by research, conceptual Thesis report, plan for the remaining graduation timespam			
	W 3.9 W 3.10 W 4.1	Corrections and considerations of the feedback Application for P4			Writing Final Reflection and Draft of Final Thesis Report
May	W 4.2 W 4.3 W 4.4 W 4.5	Organize material for P4 presentation			
	W 4.6	P4 Presentation Final design, final reflection, draft Final Thesis Report			
June	W 4.7 W.4.8 W 4.9 W 4.10		Preparing physical model Preparing final presentation	Preparing posters/ drawings for final presentation	
July	W 4.11	P5 Final Presentation			

C.5 – List of References

1 Ray Lucas, "Introduction: What Is Architectural Research?", in *Research Methods For Architecture* (repr., London: Laurence King Publishing, 2016), 7.

2 Elias Yitbarek Alemayehu et al., "Chapter One: *New Perspectives On Urban Transformation In Addis Ababa", in The Transformation Of Addis Ababa: A Multiform Africa*n City, 1st ed. (Cambridge Scholars Publishing, 2018), 16.

3 Matthew French. *Condominium housing in Ethiopia: The integrated housing development programme*. United Nations Human Settlements Programme, 2011, 5

4 Elias Yitbarek Alemayehu, "Chapter Two: Addis Ababa: A Collage Of Cities", in *The Transformation Of Addis Ababa: A Multiform African City* (Cambridge Scholars Publishing, 2019), 67.

5 Felix Heisel and Bisrat Kifle Woldeyessus, "Space Creation And A Sense Of Responsibility", in *Lessons Of Informality. Architecture And Urban Planning For Emerging Territories Concepts From Ethiopia* (repr., Walter de Gruyter GmbH, 2016), 71.

6 Felix Heisel and Bisrat Kifle Woldeyessus, "Space Creation And A Sense Of Responsibility", in *Lessons Of Informality, 72*

7 Richard Sennett, *Building and Dwelling: Ethics for the City* (Farrar, Straus and Giroux, 2018).,65

8 Elias Yitbarek Alemayehu, "Chapter Two: Addis Ababa: A Collage Of Cities", in *The Transformation Of Addis Ababa: A Multiform African City* (Cambridge Scholars Publishing, 2019), 22

9 Richard Sennett, Chapter Four: The Craftsman, in *Building and Dwelling: Ethics for the City*, 2008, 104

10 Nelson Mota, "From The Kebele To The Condominium. Accommodating Social And Spatial Practices In Ethiopia'S Politics Of Affordable Housing" (Delft University of Technology, The Netherlands, 2015),3, 8

11 UN-Habitat. *"The Right to Adequate Housing." Introduction, 2014, p 6*

12 UN-Habitat*. "The Right to Adequate Housing." Introduction, 2014, p 6*

13 Felix Heisel and Bisrat Kifle Woldeyessus, "Space Creation And A Sense Of Responsibility", in *Lessons Of Informality, 72*

14 UN-Habitat, and Housing Unit. "*Housing at the Centre of the New Urban Agenda Broschure*," 2016, p 5