

## **REFLECTION**

This reflection's purpose is to investigate about the close relationship between the research carried out and the design developed for my thesis project. Therefore, it will be stressed how the solutions adopted were determined upon a solid analysis process and not a priori. Moreover I want to introduce several issues regarding a wider social, professional and scientific framework, inquiring on the role of the architect in residential architecture.

The Global Housing thesis course investigates the issue of affordable housing in growing countries, particularly in Ethiopia and its capital, Addis Ababa. As a developing country, it faced a substantial increase in the urban population, concentrated mainly in few cities. This phenomenon in Addis Ababa is also amplified by the geo-political condition of the city, which, being a city-state, has limited borders that cannot be overcome. The most critical problem is undoubtedly the scarcity of housing for the poorer segment of the population, which, nowadays, live mainly in slums, in dilapidated housing with ill sanitary conditions.

### **Relation between research and design**

In recent years, several studies showed the strong relationship existing between research and design. In fact, it is clear that the figure of the architect is increasingly supported by other professional figures, coming from different fields, such as engineering, sociology, politics, economics and many more. Consequently, it is possible to say that architecture is a multi-sectoral discipline, which needs research in various fields to evolve and give better responses to the design challenges.

During the Global Housing course, the research phase was divided into three specific moments: analytical research; on-site survey and, research-by-design. The first phase was addressed through lessons and targeted readings on political, social and, economic conditions in the global south, with particular attention to the situation in Ethiopia and Addis Ababa. This first analysis was essential to understand the history, the uses, the culture and the various complexities of the Ethiopian context. In particular, the researcher addressed the issue of dwelling in Ethiopia, analysing the numerous solutions adopted both in rural areas (with particular attention to the different types of settlements and construction techniques of the huts) and, in the capital during its short but intense history. Although this first analysis was not completely exhaustive and in-depth, it was crucial to deal well aware of the local situation during the on-site research.

The second phase of analysis took place during the study-trip in Ethiopia. This phase can be defined as ethnographic research. On-site analysis was fundamental to fully understand the situation of my project site, Taliyan Sefer. In the same way, visiting other sites, including the condominium blocks in Mickeyleland, as well as various rural settlements outside the capital, was very helpful to gain a wider and more complete view of the context. Subsequently, the documentation collected was rearranged and reorganised which was fundamental to create the work base on which to develop the affordable housing project in Taliyan sefer.

The third and final phase of analysis can be considered as a "research by design". This analysis process took place in parallel with the design phase and was based on the investigation of specific themes, seeking for typological, morphological and technical solutions. This process included the analysis of previous experiences and, therefore, of projects that present similar solutions to design, either from functional,

compositional and technical point of view. In particular, the theme of buildings with galleries was addressed through the analysis of different solutions adopted in different periods and, in different locations. The study of raw earth buildings was another fundamental aspect for the numerous construction solutions possible and applicable in a country such as Ethiopia.

These three different approaches used at different times, have contributed on choosing certain design solutions. As James Snyder states, in one of his earliest essay: "research is systematic inquiry directed toward the creation of knowledge" .

In fact, as Stephen Kieran highlights, the relationship between design and research is divergent, but, at the same time, interdependent: "Research brings science to our art. [...] To move the art of architecture forward. However, we need to supplement intuition with science"<sup>1</sup>. On one hand the research can be very helpful and resourceful many times during the design process in a lot of different ways. On the other hand, the design process and its final product help in creating new questions worthy to investigate more in-depth, creating new opportunities for improving the researches already existing.

### **Elaboration on research methods**

The literature concerning the different methodologies available to carry out a research, was fundamental to better understand the best approach for the analysis during the study. The literature consulted consists in books about the theory in research methodology in architectural design and books more focused on ethnography which is the techniques for studying the relationship between people and the built environment.

Then, the research method fostered for the analysis on site, combined four different ethnographical approaches to collect a wider range of information about the environment, but also, about people habits and behaviour.

Participant's observation, interviews, drawings, photos and local engagement are different ethnographic tools that combined, provide a holistic view of the site. Therefore, the research method chosen for this research exploits the most functional aspects related to the site of the tools mentioned above in a combination that makes them work all together. The choice of combining all the tools together is due to the fact that addressing the problem through a single approach would mean to obtain a single type of information. On the contrary, the use of multiple tools provides the possibility of comparing the different outputs verifying their quality.

The different approaches mentioned above made more clear and deepen many topics addressed during the theoretical lectures, related to everyday life in the slums of Addis Ababa. It was, therefore, possible to define more clearly the activities and habits of the community, defined as intangible heritage, the characteristics of the built space and the physical traces of the past, defined as tangible heritage, but also the people's ambitions, dreams and, expectations.

Therefore I think that the dichotomy between theory and practice, or, from an architectural perspective, the relation between research and design, is essential for this profession. The results obtained from the research, after an initial phase of elaboration and simplification, will form what Lakatos calls "hard-core of inviolables statement", a set of rules and principles which represent the foundation for a conscious architectural design. However this should not work as an impediment, but it should allow the architect to experiment, following random intuitions and avant-garde approaches. The balance between rationalism and experimentalism is the key for a successful project.

1. Linda Groat & David Wang, *Architectural Research Methods*, p.8

2. Stephen Kieran, *Research in Design: Planning Doing Monitoring Learning* (Journal of Architectural Education: 2007),n°31

## **The relationship between the graduation topic, the studio topic, and the master program in Architecture**

Starting from the following question I would like to underline the close connection between my thesis topic, the study topic and more in general the master of science in architecture program.

"How can we reconcile the spirit of the place, the genius loci, with the spirit of the time, the genius saeculi, preserving the values of history and integrating them in the current time, according to a sustainable approach that takes into account the challenges of a continuously expanding city? "

Through the thesis topic, I try to reflect on different themes such as the provision of affordable housing for the poorest sections of the population in Addis Ababa; a topic certainly inherent to the global housing course, as it is applicable not only specifically to the Ethiopian context, but also to all those developing countries in the global south with similar problems.

Another key point of the thesis is the desire to preserve the culture of people living in these areas, and, therefore, the development of a sustainable model from a sociological point of view, and not the imposition of new systems coming from a completely different context. This is, for instance, the case of the condominium blocks developed by the government, which, although they are in part solving the problem of low-cost housing; on the other hand they are disrupting the ecosystem of interpersonal relationships and, the socio-economic networks, which is the basis of daily life in the Addis Ababa's slums.

In addition to the topics mentioned above, my graduation project aims to answer to other questions referring to a wider context. In fact, the particular position of the project site, in a central area of the city, and the peculiar condition of its fabric, which presents a multitude of historical buildings dating back to the birth of Addis Ababa, gave a particular interest to the theme of historical centre and the role that it has within the city and within a project that aims to renew its image.

How can we revitalise a historic centre making it an attractive and a safe place? How can we preserve the identity and historical memory of a city? These are recurring questions of the contemporary city, and many examples can also be found in Europe. It is enough to think about the reconstructions of German cities after the bombings of the Second World War, for example Hamburg and Dresden, or the renewal of the historical centers of some Italian cities, once degraded and dilapidated areas and now landmarks of worldly life and tourism.

In my opinion in a city like Addis Ababa, it becomes essential to find the right balance between "conservation and innovation". Nowadays Taliyan's historical fabric is completely surrounded and submerged by the informal city. Moreover such buildings, do not present a particular quality in terms of composition or materiality. But despite this fact, the inhabitants, even if unconsciously, recognize the relevance of such buildings within the neighborhood cause they preserve the memory and the identity of the place.

For this reason I believe that a residential development that aims to give a new image to the city center of Addis Ababa should take into considerations such buildings, integrating them into the new fabric and making them the solid backbone on which based the revitalization of the area from a socio-economical point of view. For example Elias Yitbarek suggests that such a development could create a sort of vibrant neighborhood that aims to become a cultural catalyst for people, like tourists but also students, interested in history and traditions.

## **The relationship between the graduation project and the wider social, professional and scientific framework**

As previously mentioned, my thesis project has as main goal the construction of affordable housing for the less well-off segments of the population of Addis Ababa, as well as the development and renewal of the historic centre of the city. To achieve this result it is necessary to create a new model that takes into close consideration the existing relationship between the built environment and the inhabitants. A model that can be applied not only in the project site but also in different areas of the city with similar conditions and, looking at a wider scenario, also in similar contexts in other countries.

Repeatability is in fact, one of the fundamental points of architectural design, and in particular of mass residential design. Repeatability does not mean applying an equal solution for all contexts but, on the contrary, creating an extremely flexible model, able to adapt better to any type of context.

I believe that flexibility needs to be addressed at all the different scales of the project, to the urban layout, adapting and integrating for instance the new fabric with the existing one, to the cluster creating different solutions depending on the specific condition of the surrounding and last but not least to the dwelling units which need to be able to respond to the needs of the greater number of people, both in terms of size and spatial configuration.

## **Ethical issues and dilemmas**

During research process I wondered several times about the social role and the positive and, negative influence an architect may have on people, particularly in this case, on the future residents of Taliyan Sefer.

Often the success of an architectural project is not measured by the quality of the space or by the sensations and emotions it arouses, but rather, in more practical terms, by the appreciation of people and the use that residents make of it. There are various projects, also made by famous architects, which despite the brilliant compositional solutions adopted, are completely rejected by the population and, this also causes their inactivity and consequently failure of the entire project, both from social and economical point of view. A clear example of this is the neighborhood "le Albere" by Renzo Piano in Trento, which despite a futuristic design and a strong propensity for sustainability, today is still almost completely abandoned due to a bad connection with the city and the lack of essential services necessary for the everyday life.

In the case of my graduation project, there are several questions that I asked myself: first of all, the value of informality and therefore the set of social behaviours that characterise life within the slums. This phenomenon is foreseeable, but not controllable or quantifiable. It is, therefore, the architect's task to understand within what limits informality can be developed and to what degree of freedom can be given to residents in order to make the project fit to their lifestyle but at the same time functional and orderly.

Another recurring theme is related to building materials. Ethiopia, in this historical phase, is experiencing a moment of great economic and industrial development and this also affects the construction sector. Going around the streets of Addis it is possible to see how tall concrete buildings are springing up everywhere, a material not particularly used until few years ago in Ethiopia, where earth buildings were still the majority. This phenomenon is also certainly due to the ambitions of a country, which through the help of foreign funds, in particular Chinese, aspires to reach an international image. Besides it is interesting to observe how, whereas in Europe, more and more often it is boosted the use of sustainable and eco-friendly material rather

than concrete such as wood or others, in Ethiopia, concrete is considered as a status symbol, hence the proof of the achievement of a higher social status level.

The use of raw earth as the main construction material for the thesis project, despite a high environmental sustainability and a much lower production cost than that concrete, could lead to various problems. As it is closely connected with the Ethiopian rural tradition it could be perceived as a poor material and, as a consequence considerate not appropriate to the ambitions of the population, inevitably leading to a refusal of the project. For this reason I adopted An in between construction system with elements both in raw earth and concrete, which could be an interesting way to introduce this “vernacular and Innovative” material to the population.

I want to conclude saying that I strongly believe in the educational role of the architect, who must take responsibility for the choices taken by making concepts, such as in this case sustainability, accessible and appreciable by the population, even when the refund is not perceptible in the short term. The borderline between education and imposition of course is one of the main ethical issues in architects profession, and referring to the concept of flexibility explain above, a certain degree of freedom is always necessary to do not influence or force people behavior in a negative way. An optimal and balanced solution depends on the architect's sensitivity to understand the context in every nuance, enhancing its qualities and intervening on its shortcomings, without imposing personal solutions in contrast with the nature of the place.

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