

The aim of this section is to trace the diverse ways of dwelling in Ethiopia and show how do they change throughout time. The narration starts from the rural settlements to then focus on the typologies developed in Addis Ababa from its foundation at the end of 19th century. The team identified seven diverse periods in order to explain the main changes which took place.

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Introduction

WHY IT IS IMPORTANT TO STUDY CONTINUITY OF THE HOUSING TYPES IN THE CITY ADDIS ABABA FROM THE ROOTS OF THE CITY



It is common practice in architecture to represent the evolution of typologies by simple arrangements of architectural plans as finished products. Such practice implies a linear evolution of architecture in time. Such an approach assumes that there is a single driving factor behind this change. However, this is the result of extreme reductionism rather than reality itself. Naturally when one refers to multiple drivers of change, the mind wanders towards the megacities of the present, where both the diversity and complexity of the organization of space is selfevident. On the contrary, thinking that a nomadic settlement would incorporate the same complexities is not trivial. The history of Ethiopia proves us wrong. While the civilization was still in a nomadic state, long before the heavy influence of the imperialist powers or trade, the organization of the settlements was far from regular. If we were to perceive the space as a system with multiple scales, we would find different methods across different scales. On a large scale, in fact, there is an apparent structure that reflects the social one:



in the center there would be the King, then around him the clergymen and officers. Then the rest of the people would be situated in concentric circles of ever decreasing importance.

Such an organization also reflects the distribution of power within the large scale. However, in the small scale of the same class the space is organized from a bottom up perspective. The inhabitants choose to situate their tents according to their needs, often close to their family, for instance. Such a structure would cause the lines between circles of different social importance blur as people's interests overlap or conflict. This simplistic example within a given time frame already reveals many driving forces of change in the organization of space. When we add the variable of time the non-linearity of the evolution can only increase.

Therefore, if we want to avoid such a reductive representation what should we use? There is no straightforward answer to that question. One could imagine this chaotic evolution in graphical representation as follows: firstly, a four-dimensional surface, where there are points of convergence and divergence that imply a historical evolution that spreads across space and time. These points of convergence could denote a synthesis, or an agreement, of different historical examples of architecture; on the contrary, a point of divergence could denote a closed system where a driving factor is more prominent than another or an example of an architecture that is separated and is becoming obsolete. Of course, the fourth dimension in this case would be time as this surface is ever evolving

along with socioeconomic and political change.

Such a sketch would be difficult to put in paper. However, it is essential for the architect to be able to imagine this complex intertwined system. Without the latter, it would be impossible to even define what change and progress in architecture is, as there is a dialectic relationship between definition and understanding. We will never be able to understand what we cannot express.



GALLA HOUSE (nomedic tribes)

img 1.01

Slow becoming

" WHAT IS IDENTITY? FIRST OF ALL IDENTITY IS A PROCESS RATHER THAN SOMETHING OBSERVABLE. IT COULD BE REGARDED AS A FOOTSETEP LEFT BY CIVILIZATION DURING HISTORY " (MERPOYA ET AL. 2015).



Round tukuls in Ethiopia are spread all over the country and they differ mainly for the material of which the walls are built. This of course depends on the topography and on the climate of each region. Rectilinear houses are less common, but they are gradually replacing round houses in order to make easier the use of CGI sheets for roofing (Gutiérrez, Murtagh, Crété, 2018, p.26). Round houses with straw roofs are known in the north of the country as sarbet (grass hut), while rectilinear houses with CGI sheets roofs are known as corcorobet (Gutiérrez, Murtagh, Crété 2018, p.26). Vernacular housing in Ethiopia can be classified into four categories depending on wall types: timber structure with earth and fibres filling, mainly adopted in the central area of the country, load bearing stone masonry walls with earthen mortar, used in particular in the northern area of Ethiopia, bamboo and thatch walls, in the southern area and wood and mats huts adopted by nomads settlements in the eastern area of the country (Gutiérrez, Murtagh, Crété, 2018, p.41).

Tigray region



This region is mainly mountainous characterized by drought and earthquakes and with massive stone resources that have been historically used by its inhabitants to build their houses (Gutiérrez, Murtagh, Crété, 2018, p.41). Terrace farming is common and deforestation is an important issue. Villages usually are made up of scattered houses forming parishes. Livestock is kept safe in a courtyard with a high stone wall. When the family has several buildings, they usually build stone boundary walls to confine their compound. Roofs are often flat with wide overhanging eaves that help protect the earth and straw mortar rendered walls from the heavy rains. Exterior stone staircases are common and lead either to the roof, that is used for many purposes, or to the upper floor, which may be used as bedroom, living room or guest room (Gutiérrez, Murtagh, Crété, 2018, p.41). The interior space is usually a single room with a fireplace dug in the earth floor. There are some windows and a main door. (Gutiérrez, Murtagh, Crété, 2018, p.41).

















Benishangul-Gumuz



The region of Benishangul-Gumuz is predominantly mountainous and characterized by a dry climate which is often cause of drought. Berta and Gumuz are the prevailing ethnic group in this region. Their life is mainly based on agricolture and they usually live in villages of a few hundred people (Gutiérrez, Murtagh, Crété, 2018, p.33). Settlements are subdivided in family compounds containing several construction surrounded by bamboo fences. Houses are not plastered, what allows cross ventilation, what is important in this hot humid climate region. Different uses of interior spaces coexist in the Berta society, but externally all houses present similar external attributes: round interwoven bamboo walls with conic thatched roofs crowned by four wooden poles. The history of slavery of part of this region people has an effect on settlements through fences and labyrinth-like pathways. This helped dwellers to escape and better defend the villages (Gutiérrez, Murtagh, Crété, 2018, p.33).













Afar



Due to the extreme climatic conditions in the region of Afar, mainly chacarcterized by hot, sunny and dry climate, tribes are mostly nomads, living in small isolated groups, scattered on desert or semidesert areas. Usually moving camp is made of about 20 huts with livestock and a meeting place. Camps are surrounded byvegetal barricades, which protect them from the attacks of wild animals and from domestic animals theft (Gutiérrez, Murtagh, Crété, 2018, p.31).

The Afar nomad huts are oval-shaped and are erected by women. The structure of the hut is demountable, erected making a domed armature of branches which is bound with palm fibre. Then the covering is made with palm mats (Gutiérrez, Murtagh, Crété, 2018, p.31).

Usually huts are grouped in "family compound", and differently from other regions, these compound are scattered oh a huge surface, since the environment is mainly flat and desertic.

Other kind of dwellings exist, often used by sedentary people or by seminomadic groups having a fix sedentary place to go back. One of them is a stone house called dabou which is found at the foot of the highlands where the soil is constituted of sandstone or pumice. These houses have thick stone masonry bearing walls and a thorn and rubble roof (Gutiérrez, Murtagh, Crété, 2018, p.31).

Another kind of sedentary vernacular dwelling are rectangular constructions with wooden structure and wooden walls, sometimes with a chikka filling and with a flat earthen roof.

There also exist in some places rectangular houses made with wooden structure whose walls are covered with fibre mats and that have CGI roofing. More and more buildings are been made with rectangular form and with chikka structure (or also with cement blocks) and CGI roofs, mainly in cities (Gutiérrez, Murtagh, Crété, 2018, p.31).















Harar



The historic city of Harar is located on a plateau surrounded by valleys and its climate is mainly dry and arid. As a historical trading centre, many buildings are quite unique to Ethiopia, with Indian and Islamic architectural details being quite noticeable within the fortified walls at the centre of the city of Jugol.

Its building typology and its urban structure are unique in the country and are a reminiscence of islamic and indian traditions (Marc Angélil, Dirk Hebel, 2016, p.50). Two kinds of houses are found in vernacular architecture in Harar: chikka houses and stone flat-roofed houses. Men build both kinds of houses and repair wall and roofs when necessary, women are used to paint it and to do the daily maintenance. Stone and flat-roofed are rectangular and often two-stories high, surrounded by an about 2 m high wall. They have a white-washed or pastel colour exterior which is painted twice a year (Gutiérrez, Murtagh, Crété, 2018, p.36). The interior of the houses has different rooms, one of which is used to receive guests. Several niches in the walls contain ceramics. Many houses have balconies (Marc Angélil, Dirk Hebel, 2016, p. 50). The most common traditional dwelling unit in Harar consists in 3 rooms on the ground floor and service areas located in a courtyard. A second type, called indian house (because was built by indian traders), is a simple rectangular two-storied building with a wooden veranda.

Chikka round tukuls with a straw roof are very common in the outskirts of the city and in the countryside. They have a central pillar to support the conical roof. There are also more and more rectangular houses with chikka walls and CGI sheet roofs. Within the city, these houses lay in neighborhoods where streets and houses are made of earth and houses are grouped together in compounds protected by vegetal fences (Gutiérrez, Murtagh, Crété, 2018, p.36).















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Religious settlements

" SUCH WAS THE POPULARITY OF THE EREMITIC MOVEMENT THAT LARGE NUMBERS OF HERMITAGES EFFECTIVELY COALESCED INTO INFORMAL SETTLEMENTS " (FINNERAN, 2012, P.271)

Even if the main driving factor for the birth of monasteries is a need of withdrawal, it is undeniable that a certain practice of ascetic life brought together religious communities establishing strong social and physical structures. As a result, monks gave birth to the monastery: "one of the most enduring Christian institutions." (Wilken, 2013. p. 100)

In the African context, a well-established form of Christian community could be observed already during the third century in Egypt, where Coptic monasteries were developing at a fast pace. Eremitic communities grew to such an extent that "large numbers of hermitages effectively coalesced into informal settlements. [...] To some extent negating one of the primary ideas of eremitic monasticism." (Finneran, 2012, p. 257).

Even though the Ethiopian case presents some similarities with the Egyptian one, there are many fundamental differences in the clustering system and in the way the members of the two religious communities dwell.





Monasteries

" THE SCENE OF MONASTERY AT LAKE TANA WAS SUDDENLY CONSISTENT WITH THE SCENE OF VILLAGES SCATTERED ACROSS THE ETHIOPIAN HIGHLANDS " (YAMAGATA, 1996, P.243)

The introduction of monastic practices in the Aksum Empire has mythical origins and has to be traced back to the persecutions of monophysite religions in the sixth century AC. (Finneran, 2012, p. 258) The so-called Nine Saints found refuge in the north Ethiopian highlands, where the landscape offered natural impregnable fortresses perfectly suitable for anchoritic life.

According to traditional accounts, each missionary settled east of Aksum and founded several monastic centres in the region. Debre Damo, the most relevant case study in Ethiopia, was founded by one of the Nine Saints, Abuna Aregawi, as a hermitage. However, it grew in importance and wealth at such an exceptional pace that it turned into one of the major cenobitic centres in Ethiopia. (*ibdem*, p. 262).

Even though Debre Damo is considered a unique example rather than a rule in the Ethiopian monastic architecture (*ivi*), there are evident characteristics that could be traced in many other religious and rural settlements in the region of Tigray and the ancient Axumite Empire. The anthropologist Takao Yamagata identifies three architectural patterns occurring from the scale of the circular residence to the clustering structure of Ethiopian religious settlements around Lake Tana that cannot be found in Egyptian monasteries:

- · Centripetalism, or centrism
- · Self-completeness, or individualism
- Dispersion, or isolationism

Yamagata, aims to define a certain tendency to generate circular structures in both the shape of the hut and the one of the settlements surrounding the main building. The origin of this centripetal composition, according to the author, is related not only to technological aspects but also to ritual practices. These categories trace a certain trajectory that appears in the emergence of many other socio-spatial structures, even if often in forms of polynuclear arrangements.



img 1.23. St. Antonius Monastery, by R. Miyake



img 1.24. Ura-Kindanemeret Monastery, by R. Miyake















Fast becoming

" EVEN THOUGH FROM A STRICTLY PHYSICAL VIEWPOINT ACCELERATIONS IN CITY BUILDING ARE THE RESULT OF INTENSIFICATIONS IN THE FLOW OF ENERGY, THE ACTUAL FORM THAT A GIVEN TOWN TAKES IS DETERMINED BY HUMAN DECISION MAKIN " (DE LANDA, 2000)

"A similar distinction between centralized and decentralized decision making must be made with respect to the social institutions that determine how energy flows through a city-that is, with respect to the city's 'distribution systems'. On the one hand, there are bureaucracies, hierarchical structures with conscious goals and overt control mechanisms. On the other, there are [...] self-organized structures that arise spontaneously out of the activities of many individuals, whose interests only partially overlap."(*ivi*)

On the one hand, behind the foundation of Addis Ababa, there is a conscious political move aimed at "isolate nobles from their provincial bases of power" (Angélil & Hebel, 2016, p.51) and a system of land tenure based on a sort of feudal allegiance (Pankhurst, 1961, p.105). On the other hand, there is a process of mass migration due to a great famine that devasted many rural areas that brought traditional ways of living to the city.

In other words, the structure of the city was

characterized by a central settlement where the king had his permanent residence, the *Gebbi*, surrounded by his retinue in circle of ever-decreasing importance; clusters of delimited settlements scattered in the landscape, the *sefers*, housing warlords and their soldiers; servants and lower classes dwellings in dispersed formations on the highlands.

Indeed, between each *sefer*, characterized by the same clustering structure that occurred in the army camp, "pockets of open space [...] allowed people to continue their traditional rural way of life, raising cattle and farming" (Giorghis, 2007, p.122).

This situation allowed the coexistence of different speeds of becoming within the city itself, triggering "a situation that has not substantially changed to this day, namely that the imperial *Gebbi* came to be surrounded by veritable slums, as the palace servants could not afford to erect imposing structures and their descendants have continued live in those hovels." (Simone&Abhouani, 2005, p.125).

The Itinerant Capitals of Ethiopia

" TRADITIONALLY THE CAPITALS OF ETHIOPIA HAD BEEN

FAR FROM PERMANENT "

(P A N K H U R S T , 1 9 6 1)

Permanency is often perceived as a prerequisite for a capital city. (Horvarth, 1969, p. 205) However, many kingdoms throughout history would challenge this view. In Europe, it was only during the 13th century that the main urban centres began to acquire stability and became walled cities. Charlemagne, for instance would only settled permanently in Aachen during his last years of life, ruling his kingdom with a "combination of itinerancy and stability" (McKitterick, 2011, p.168). It has been estimated that during 1193 the emperor Henry VI traveled with his entourage for more then 4.'000 kilometeres. Ulaanbaatar, the capital of Mongolia, was founded in 1639 as a mobile monastery more than 230 kilometers away from its current location.

Ethiopian dynasties also adopted the form of itinerant courts to rule their kingdom. Such royal camps have been described by many travelers as the Portuguese Francisco Alvarez who lived with the Emperor's entourage from 1520 to 1526. He defined such settlements as "royal capitals and capital of this empire" in which "the camp followers and the baggage train amount to many more than the soldier." (Alvarez,

1961, p.267)

"Travellers commonly placed their population between 20'000 and 40'000." (Horvarth,1969, p. 209) Such figures varied significantly throughout the year, housing in the rainy season only a few thousand people and reaching more then 120'000 inhabitants when the whole army was assembled. In the same years, at the time of the Sack, Rome had 55'035 inhabitants (Di Pierro, 2003, pp. 11, 12).

"On first glance the capitals appeared to be an amorphous mass of tents and grass huts sprawled over many miles of meadow and plateau. [...] However, this seemingly amorphous mass of mobile was structured. Despite the fact that the capitals moved frequently, they were laid out in the same fashion over the centuries." (Horvarth, *ivt*)

A quick look at the pictures of the settlement on the Entoto hills is sufficient to understand that Addis Ababa, too, was born from the mineralization of an itinerant court.


Ancient Ruins and Rural Shelters

" IN ADDIS ABABA'S EARLY YEARS, MOST CONSTRUCTIONS WERE FIRMLY BASED ON THE VERNACULAR TRADITION OF THE MUD-AND-STRAW CIRCULAR HUTS CALLED *TUKUL* " (VAN GAMEREN & TOLA)

After the death of Emperor Yohannes IV, Menelik became Neguse Negest. The ruins of the ancient dynasties on the Entoto hills provided the ideal setting for the coronation ceremony, underling his status of descendant and securing his legitimacy (Giorghis, 2007, p.30). Entoto became the capital in the period between the coronation and the slow descent of the centre of the city to the thermal springs of Filwoha. It was a period in which the life of the king was still characterized by semi-nomadic features due to the war. However, his residence in Entoto represented a stable centre were he could "return to rest after his various campaigns." (Pankhurst, 1961, p.105) The settlement was essentially a military town, laid with the same pattern of the army camp: clusters of tukuls for warlords and men of state surrounding the king's residence (*ivi*).

Churches and ancient structures were the immovable scenery of Menelik's peripatetic imperial seat.







The Mineralization of the Royal Camp

" THE CITY BEGAN TO TAKE ON A GREATER SENSE OF PERMANENCE FOLLOWING THE VICTORY AGAINST ITALY AT THE BATTLE OF ADWA IN 1896, SLOWLY TRANSFORMING FROM A PREDOMINANTLY MILITARY ENCAMPMENT INTO A CIVILIAN CAPITA " (ANGÉLIL & HEBEL, 2016)

There are many reasons why a king would choose to rule by constantly moving his capital: for Charlemagne, the choice was dictated by the size of his kingdom and the poverty of written communication (McKitterick, 2011); for Ethiopian dynasties it was a military and political decision (Horvarth,1969). It is relevant to take both hypotheses into account while considering the process of mineralization of Addis Ababa. Indeed, after the victory against Italy, political stability and international recognition together with the construction of telegraphic and telephonic networks played a crucial role in the process of phase transition of Addis Ababa.

"The nineteeth century capitals in form, structure and organization reflected the royal camp tradition of the fifteenth and sixteenth centuries. Differences lie that in the nineteenth century the fabrics of the court tradition were worked out in terms of more enduring structures. Thus palaces replaced tents, access entrances were transformed into gates, and curtains which according to Alvarez 'surrounded the King's tents' were replaced by walls." (Wolde-Michael, 1966 p.155,156)



















The New Flower of Ethiopia

" AFTER THE BATTLE OF ADWA, FOREIGN INFLUENCE ARRIVED IN THE CITY WITH THE PALACES OF THE DIFFERENT DELEGATION " (VAN GAMEREN & TOLA)

During these first stages of transition from a liquid-like state to a mineralized one, the architecture of Addis Ababa was highly permeable to influences from outside.

The ancient trading relationship with India brought several times Indian master builders into Ethiopia, resulting in a strong influence that is visible in both decorative motifs and architectural elements (Giorghis, 2007 p.254). With the arrival of European legations, neoclassical features were introduced in Addis Ababa's architectural language. Many palaces began to incorporate masonry bossages, rustic quoins and many other classical elements.





















The Italian Occupation

" ALL THIS DIFFERS FROM THE TYPICAL ROMANS COLONIZATION,[...] CLIMATIC AND ECONOMIC FACTORS MUST BE TAKEN INTO ACCOUNT, ESPECIALLY FOR THE RESIDENTIAL AREAS, FOR WHICH WE WILL HAVE TO THINK TO A TROPICAL ARCHITECTURE "(PIACENTINI,1936)

With these words, Marcello Piacentini, one of the most important architects and urban planners of the fascist regime, expressed his perplexity regarding the plan drawn up by Valle and Guidi for the city of Addis Ababa.

The Italian troops, after winning the war and occupying the capital, immediately began planning a new city, symbol of the strength of the Italian Empire and in particular of Italian Eastern Africa (A.O.I.).

The plan for the new Addis Ababa was based on a rigid, orthogonal system: a clear reference to the Roman tradition and at the same time a total negation of the local urban layout, more fluid, organic and related to the environment (Gresleri and Massaretti, 2009, p.319). Furthermore, the plan envisaged the total separation between the new Italian city, to the north-east and the old city of the natives, segregated in the north-west: an indispensable condition in the colonial Urbanism (Gresleri and Massaretti, 2009, p.320).

The Italian empire based its urban layout mainly on 3 different building types: "Casa Popolare", a building composed of apartments for military employees and officials, the "INCIS house", single or two-family houses, intended for workers and finally the homes for the natives created by imitating the traditional tukuls, located in the area of the Merkato.

Although the Italians tried to import their style and their typologies, as Piacentini predicts, there were numerous influences of Ethiopian architecture. The difficulties in the construction of the buildings due to lack of materials and adequate labor led initially to an approach to the traditional local architecture, with its typical style and materials and afterwards to the failure of the Italian colonial urban plan.

Casa Popolare Housing

" THE PROBLEM OF "CASA POPOLARE" IS THE MAIN PROBLEM OF THE CITIES OF THE EMPIRE. SOLVE IT WOULD MAKE THE DEMOGRAPHIC COLONIZATION POSSIBLE; LEAVING IT UNSOLVED, WILL AFFECT ANY FUTURE DEVELOPMENT OF OUR EMPIRE " (TORRE, 1939)

The purpose of the institute for the construction of "Casa Popolare" was to create healthy, decent and economic houses for the Italian population (Nasi, 1939). The characteristics of the Economic Houses, corresponds as far as possible to those defined by the current laws for the economic and Houses of the Kingdom "(Bini, 1937). As a matter of fact, it is possible to find many examples of these types in Italy, but also in the countries that were previously colonized.

The main need was therefore to choose areas that could be built in a climatically favorable position and easy access to work centers (Nasi, 1939). In the design of the buildings, there were no rigid patterns, but buildings of various types, suited to the individual categories of tenants in particular inferior employees, and lower officers, often used to being transferred frequently. In the choice of building materials the autarkic programs were kept in mind and materials of local production were adopted. The use of reinforced concrete was reduced to the minimum because too expensive and difficult to transport. The slope of the roof, designed to better respond to the abundant rainfall and the stone surface in the elevations, showed an image of a building more suitable for a mountain resort than a tropical zone. The units were of two types, consisting of two or three bedrooms plus the entrance, thekitchen the living room and the toilet (Briani, 1940). The finishes were cheap and essential, made mainly with local materials.

Despite great planning and an initial project that involved the construction of 2,000 housing units, the lots actually built in Addis Ababa were the first six, each of four buildings with a total of one hundred apartments. The reasons for the failure of this plan are to be found in the difficulty in finding suitable building materials and labor. The excessive costs in the management and the problems in starting a local industry for the production of raw materials, lengthened the construction times, erasing the ambitions of the Italian Empire.











*plan realized comparing pictures, perspective views and examples of similar projects in Tripoli.









INCIS Housing

" THIS MINISTRY KNOWS HOW THE PROBLEM OF HOUSING IS URGENT AND IMPORTANT FOR THE DEVELOPMENT OF THE EMPIRE, BOTH IN TERMS OF THE PREDOMINANCE OF THE RACE, AS WELL AS FROM THE POLITICAL, ECONOMIC AND SOCIAL POINT OF VIEW " (TERRUZZI, 1938).

INCIS was the Italian National Institute for Housing of State Employees. In a first moment the institute provided dwellings only within the italian territory, but as a result of the colonization, it start to move also in Africa, in Lybia, Eritrea as well as in Ethiopia. After a period of studies and investigations on site, the project started the construction of the houses for the Italian settlers in 1936 (Ghiorghis and Gerard, 2007).

The houses designed must meet the following types: one-storey house with two apartments of two or three rooms plus services, two-storey house of four apartments with the same characteristics, two-storey house of six dwellings with the same characteristics.

The economic state employees housing usually included a construction with one or two floors with three rooms (for parents, for sons and daughters) a kitchen and a service yard. The perimeter walls were made of local stones and lime mortar and subsequently plastered, while the floors were finished with cement tiles.

The extensive, semi-rural typology with single houses was preferred wherever possible. This constructive type was in fact the one that best meets the needs and modest means of the working-class population and that is what contributes in the best way to the disurbanamento of the centers, in favor of outdoor life (Nasi, 1939). As a matter of fact, an outdoor area equal to five times the covered area was provided for each deatched house. This type typology was designed for long-term settlements and therefore a situation a situation that favored the development and cultivation of the garden.

The incis institute built a considerable number of homes in Addis Ababa divided mainly into 5 blocks. Even in this case, however, the difficulties in finding good quality materials and the lack of appropriate technologies caused delays in the realization of the general plan (Ghiorghis and Gerard, 2007).



















Natives housing

" IF WE HAVE TO CONSIDER REGULAR FAMILIES, WHICH WILL TAKE OVER DOMINANT FUNCTIONS BY VIRTUE OF RACE. THE PROBLEM OF HOUSES FOR INDIGENOUS WILL BE ADDRESSED SEPARATELY WITH SPECIAL CRITERIA " (ISTITUTO CASE AUTONOME POPOLAR, 1936)

Following the colonial policy of segregation, the Italians decided to evict the people from the area called Arada, to a new area on the western side of the city. This new plot of land, was previously know as Giorghis sefer but the italiana renamed it "mercato", literally market, since their plan was to move the market settled in Arada to this new area (Ghiorghis and Gerard, 2007, p.156).

Construction of mercato area started in 1937 and its plan was based on a strict orthogonal grid like in the case of "casa Popolare" and "Casa INCIS". Italians started to cleaning up the area from trees and bushes and to built the commercial areas with the arcades, one-storey shops and close to those a new residential area, intended to be for the natives who was evicted from Arada area (Ghiorghis and Gerard, 2007, p.156).

The new housing development, differently from the ones previously planned by the italians, was characterized by the use of Tukuls as a main typology of dwelling unit. As a matter of fact Italians thought that this traditional houses were more suitable for the natives but at the same time, to make the new area more attractive, they installed water pipes and electricity (Ghiorghis and Gerard, 2007, p.156).

The tukuls designed by the italians, differently from the traditional ones, were realized with stones and mortar or chikka finishing, and were mainly divided in two rooms. The roof, following the tradition, was made up of straw in way to improve air ventilation and to make escape the smoke.

Anyway this was not the only typology developped by the italians in Merkato area, as a matter of fact frequent were also simple huts and recatangular houses made of corrugated metal sheets.





















The Imperial Regime

ACCOMMODATE NEW CITY SETTLEMENTS UNDER POPULATION BOOM—— INFORMAL HOUSING IN THE INNER CITY



After the brief colonial period, Haile Selassie returned to Addis Ababa with higher international acceptance on May 5, 1941. With the help of Americans, the emperor undertook a series of measures to modernize the country by the prime use of diplomacy and politics. However, these initiatives are more reflected in the upgrading of the country's institutions, rather than the overall structural modernization. In the 1950s, Ethiopia gained a high international status by virtue of its diplomatic means and its representative status as a symbol of African independence. Many embassies and public buildings have been established by local and foreign architects. In this context, Addis has become a prestigious city and experienced a population boom. However, the problems of the national housing sector have always been ignored by the regime.

The housing shortages and the huge inequalities in urban land continued to intensify during the entire Imperial period. "In 1962, 58% of the land in Addis Ababa was owned by only 1,768 people, equivalent to more than 10,000 square meters per person, resulting in 55% of the houses being rented." (UN-Habitat)

Housing Issues under Construction Boom

UNDER THE URBAN MORDENIZATION CONSTRUCTION BOOM FOR PUBLIC BUILDING AND HOUSING SHORTAGES

During the population boom of the 1960s, the regime focused on Addis's international prestige, but ignored the problems of the national housing sector and lacked a structural strategy to adapt to population growth. Landowners are trying to meet the housing needs of a large influx of people in the city. They can only use the remnants of the infrastructure built during the Italian occupation to try to fill the urban road network with countless crowded small houses.

The picture below shows the urban texture at this stage, highlighting the current state of crowded housing next to the Mercato market. It used to be the structure left by the Italians, and now it is filled, even cannot breathe.






















The Dergue Era

TOWARDS TO THE STATION OWNERSHIP HOUSING IN KEBELE INITIAL LOW-COST HOUSING TYPE



From 1974 on, the socialist regime Derg ruled Ethiopia. In July 1975, the station started to nationalize all urban land and houses. The government created an agency for the management of the station-owned rental houses. The most important administration, was known as Kebele, is the smallest unit for management of mostly small houses and sheds under 100 birr rent per month. Also, the national Housing and Saving Bank supported the cooperative housing from 1976. However, these housing polices were not enough to address the housing shortage problem.

During the Derg regime, two master plans were developed: C. K. Polonyi's plan of 1978 and the Ethio-Italian plan of 1986. The Master Plan ambitiously envisioned the renewal of all of inner-city settlements and consequently discouraged their upgrading.

In the late 1980s Redd Barna Ethiopia (RBE) developed a new strategy to accommodate the urban poor, designing new types of cooperative housing mainly in suburban area.

Kebele Housing

NATIONALIZE THE LAND MIXED FORMAL AND INFORMAL INHABITS HOUSING IN COMPOUND WITH A SHARED LIFE

After the nationalization of the land and housing in July 1975, all dwellings that used to collect lessthan 100birr per month were given to the Kebele- the smallest administrative in Addis Ababa. The kebele rent out 148,645 housing units, which accounts ti about 70% of all small houses and sheds in Addis Ababa. Old and new squatter settlements became pervasive in Addis Ababa's built landscape. The average small house or shed is 24m2 and houses an average 5.7 persons. Only 7% of small houses and sheds have a private toilet and accedd to water. The rest shares one within a compound or use the common ones for the district. The government tried to invest more in suburban area. There they built some new kebele compounds as well as several resettlement housing. However, this did not













Early "Low-cost" Housing Program

NEW TYPES OF COOPERATIVE HOUSING

From 1976 until 1984, the R.H.A (Rental Housing Authority) has constructed a total of 2800 housing units, of which 32.4% are considered low-cost housing units. In the late 1980s Redd Barna Ethiopia (RBE) developed a new strategy to accommodate the urban poor, designing new types of cooperative housing mainly in suburban area. Each member entitled to have a plot of land ranging between 70m2 and 94m2 in size. The type of housing is backto-back row housing with a building height ranging between two and three storeys. Residents targeted by the policy are middle income households but not the poor. The process usually starts with the construction of dwelling units followed by infrastructure, utilities, commercial areas, social and service facilities.























Rapid Urbanization

" TO MEET THE MDG IN 2015 REQUIRES A TOTAL OF 2,250,831 UNITS, WHICH EQUATES TO A CONSIDERABLE 225,000 HOUSES PER ANNUM " (FRENCH & HEGAB, 2011)



At the beginning of the 21st century, Ethiopia was facing an extensive housing shortage, which was affecting all income groups, in Addis Ababa especially (French & Hegab, 2011a). Indeed, in 2005, about 80% of Addis Ababa's residential areas were considered "slums", according to UN-Habitat's definition (UN-HABITAT, 2007a). In 2004, the Urban Sector Millennium Development Goals Needs Assessment (2004) predicted that to meet the Millennium Development Goals (MDGs) in 2015, it required a total of 2,250,831 units, which equates to a considerable 225,000 houses per annum (French & Hegab, 2011b).

To cope with the housing backlog, Ethiopia signed a bilateral agreement for technical assistance with the German government, in 1999. As a result, together with Germany's official development agency GTZ (German Technical Cooperation), they developed a program divided into three stages: LCH technology (1999-2002); Addis Ababa Grand Housing Program (2002-2006); Integrated Housing Development Program (2005-2010) (Delz, 2016).

Condominium

" A PILOT FOR DENSIFICATION, VERTICAL GROWTH, COST-EFFICIENT AND COST-EFFECTIVE BUILDING TECHNOLOGIES " (MINISTRY OF FEDERAL AFFAIRS, 2005)

The Integrated Housing Program (IHDP) set several goals, among which: reduce slum dwellings by 50%, build 150'000-200'000 housing units, create 60'000 jobs, and improve training procedures for the domestic construction sector (Delz, 2016b).

The resulting strategy was to use a standard mid-rise housing block type (Mota, n.d.), a typology that could be cost-effective and drive densification, thus the condominium, a new structure made of reinforced concrete. As a matter of fact, until the mid-2000s, in Addis Ababa 97% of residential units were still single stories, while 75 % of units' walls were made of mud and wood (UN-HABITAT, 2007b).

The pilot project started in 2005, took place on brown-field in the area of Bole Gerji. The first master plan for the design of the project was drawn by Fasil Giorgis (750 housing units: studios, 1 and 2-bedroom typologies, an office building, several commercial units). Government agencies were in charge of the water supply and electricity but were not effective (French & Hegab, 2011c). Regarding the cost of the construction, considering that the target was USD 61/m², they managed to achieve a cost of USD 68/m² (French & Hegab, 2011d).

After the successful pilot project, GTZ ceased the actual collaboration with the Ethiopian Government, taking an advisory role. Thus, under their recommendation, the Housing Development Project Office (HDPO) was created to have a specific office for housing development (French & Hegab, 2011e).

The success of the pilot project differs from the actual situation of condominium housing. Among the factors, the location, services, and affordability, which are all bound to economic issues. As a matter of fact, the first projects had a lower cost since were in brown or open fields in the periphery of the city, in order to avoid the cost and time of evictions. The social and economic effects of relocating people in areas far from the city center have been overseen by the government in the view of Addis' dwellers (French & Hegab, 2011f) though. On the contrary, as time went by, the necessity to build in the inner city grew (French & Hegab, 2011g) and thus costs.



















Policies & the Lottery System

" TRANSFORM A HOUSING SECTOR HISTORICALLY CHARACTERIZED BY RENTAL OCCUPATION INTO ONE BASED ON PRIVATE HOME OWNERSHIP " (GARDNER, 2016)

The core of the housing policy was to transform a housing sector historically characterized by rental occupation, into one based on private homeownership (Gardner, 2016).

In order to that, the IHDP was financed by public resources and a system of mortgages with the Central Bank of Ethiopia (CBE) (Tipple & Alemayehu, 2014a).

Although the plan was ambitious and in the long run managed to realize an impressive number of units, the housing demand has been so elevated that a computer-based lottery system was set to allocate the available apartments. When registering, applicants choose which condominium site, Subcity and unit type they prefer. In case of relocation, though, people are not entering the Lottery system and are supposed to be compensated or moved to another place in the inner city. Also, the first 30% of the vacant places are available only for women and their children (French & Hegab, 2011h).

Although the planned policies, these were proved sometimes to be ineffective. First, the system forces

people to become homeowners or leave the place where they were living. Indeed, in order to enter the condo and receive the loans from the bank, each dweller has to pay a down payment which is not affordable for all. Hence, the low-low income people are forced to move directly or to rent the condo to wealthier groups (Delz, 2016c). Also, many dwellers who agreed to move were given a 45-day time to leave their apartment while according to the law they should have 90 days (French & Hegab, 2011i). Furthermore, Addis Ababa's residents have been complaining about the amount of the compensation since it only takes into account the cost of the house at the time of the construction, thus not considering further investments (French & Hegab, 2011i). Finally, regarding affordability, the fact that low-income families can be numerous was overseen by a policy which has been making more affordable the smaller apartments (French & Hegab, 2011i).



Img 7.08: Two construction workers in Koye





Globalization

" ETHIOPIAN GOVERNMENT OUTLINED AN AMBITIOUS VISION [...] FOR ETHIOPIA TO BE A MIDDLE-INCOME COUNTRY BY 2025 " (FRENCH & HEGAB, 2011)



In 2014, although the considerable number of units built during the first decade of the century, the IHDP estimated a housing shortfall of 1,200,000 units, including the actual deficit, but also the units which are overcrowded or in need of renovation (Tipple & Alemayehu, 2014b). Furthermore, rural migration is increasing at a fast pace (Gardner, 2016).

Along the year the housing program has developed different typologies of condominiums, also bound to different economical strategies. Nowadays, condominiums can be divided into three groups considering the ratio between down payment and loan: 10/90, 20/80, 40/60 condominiums (Tipple & Alemayehu, 2014c).

The housing program, which the Ethiopian government have envisioned to help the country turning from a low-income to a middle-income country (French & Hegab, 2011e), is now putting effort on the construction of the 40/60 condominiums, which typology is higher than the latter ones, about fifteen story, and it is recognizable by the characteristic "H" shape plan.

40/60 housing development

" THE 40/60 HOUSING DEVELOPMENT IS AN INNOVATIVE PROGRAM [...] TO CONTRIBUTE TO IMPROVING THE IMAGES AND COMPETITIVENESS OF CITIES "(MUDH, 2016)

The 40/60 condominiums are the typology with the larger apartments (Tipple & Alemayehu, 2014d)(pg71). Differently from the other two, these apartments can have up to four bedrooms officially (MUDC, 2013). They are built for the middle highincome groups (income of more than ETB 1,200 a month), and are financed via a 40% down payment and 60% CBE mortgage (Tipple & Alemayehu, 2014e) (pg 16). The future dwellers will also have to pay the full cost of the infrastructure (Tipple & Alemayehu, 2014d). This housing development program is strongly bound to the urban redevelopment program designed to build the image and increase the competitiveness of cities (Ministry of Urban Development & Housing, 2016a).

In order to implement this housing scheme, a Saving Housing Program has been set: participants have to save at least 40% of the value of the unit during a period of 5-year time by signing an agreement with the Commercial Bank of Ethiopia. Once the beneficiaries manage to save that amount, the remaining 60% of costs would be paid through a bank loan (Ministry of Urban Development & Housing, 2016a). Thus, the priority will be given to the aspiring residents that succeed in saving the required amount first (Ministry of Urban Development & Housing, 2016b).

The outcome is a condominium which includes apartments of two or three bedrooms an additional one for domestic workers. Usually, while the residential units are developed on twelve levels, the first two floors are allocated for commercial purposes, hence cross-subsidizing the cost of the infrastructure (Ministry of Urban Development & Housing, 2016b).

These high-rise structures have been widely spread throughout Ethiopia and especially Addis Ababa. The condominiums are thus giving the city a new face (Van Gameren & Tesfaye Tola, 2017).






















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