

SPATIAL MAPPING

ADDIS ABABA LIVING LAB

In the foundation of Addis Ababa, the traditional layout of Ethiopia's built environment was chosen to set a base for the new capital. During the different ruling regimes, the city changed leaving traces of history and (un)successful developments. Therefore, the analysis of city mapping is trying to answer the question: How the different eras developed the patterns of current built environment of Addis Ababa?

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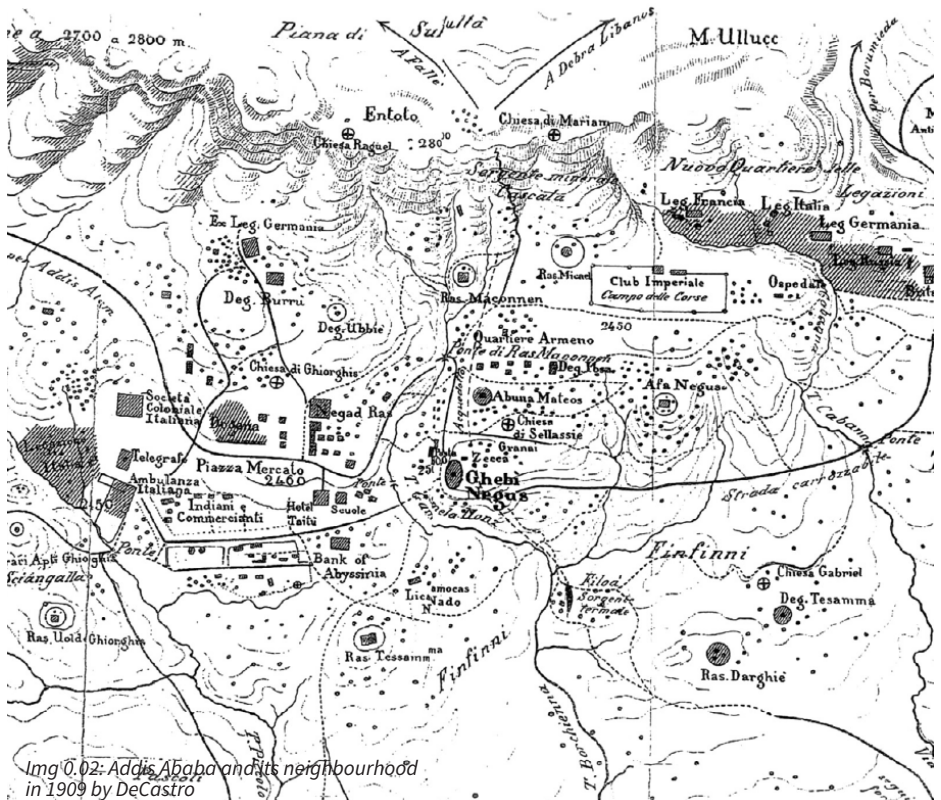
Img 0,01: Map of Ethiopia 1909



Ethiopia and Addis Ababa

"THERE IS A LAND FAR FAR AWAY IT'S CALLED ADDIS ABABA... WONDERS OF THE WORLD / THE GREAT RIVER NILE / IS FOUND THERE IN AFRICA / THE GREAT TREASURE OF AXUM / AXUM OF ZION/ IS FOUND THERE IN AFRICA"

-ADDIS ABABA (BY CULTURE)



Wandering Capitals

In the history of Ethiopia, the capitals were highly mobile. According to “The wandering capitals of Ethiopia” from Ronald J. Horvath, by leaving out less important details, the major capitals could be defined as follows:

Axum and neighborhood _ Before Christ – 12th cent. A.D._ Axumite Empire

Lasts capitals (Lalibela) _ 12th cent. -1268 _ Zagwe dynasty

Teguelat _ 1268 – ca. 1412

Roving capitals _ 1412 – 1636

Gondar _ 1636 – ca. 1755

Regional capitals 1755 – 1855

Magdella _ 1855 – 1868

Mekele _ 1886-1889

Addis Ababa _ 1890 – present

The moving of capitals is closely related to two factors: military considerations and exhaustion of resources (represented by food and wood). Their relations with the hinterlands are believed to be exploitative. After the current hinterlands had been impoverished, the capital would move to the next location with supplies. This exploitative nature could also be perceived in the way of consuming wood. One suspects that many individual moves were motivated by the exhaustion of wood resources. For the example of Addis Ababa, no measures of conserving woods were taken before the decision was made to remain Addis as the capital for the future. (Horvath, 1969)



Img 0.03: The wandering capitals



Addis Ababa

End of the Journey

Addis Ababa became the capital of Ethiopia since 1891, which makes it the last stop for the journey of wandering capitals. Before its foundation, the plain under the Entoto Mountain was known by the name of “Finfinni”, home to the local Oromo people. It is famous for its fertile lands, dense forest, streams and sloping terrain, as well as hot springs.

The intention to build the capital in Finfinni started from the grandfather of Menelik II, who was attracted by the climate and beauty of the area after a visit to the famous hot spring. The buildings of the Holy Raguel church and the Entoto Maryam church are still existing today.

After Menelik II managed to gain full dominion over the whole country, he set the capital down to the plain, as the threat from the southern rebel kings had been eased. There was a major population growth by the mid-1890s, which results in a shortage of wood as major construction materials.

Therefore, an attempt to move the capital to Addis Alem, 40km to the west of Addis Ababa with more wood resources was considered (Tufa, 2008). However, the wood shortage was ultimately eased by the import of eucalyptus tree from Australia and the measure of afforestation, so that Addis Ababa could consolidate its position as the capital (Horvath, 1969)



Img 0.04: Addis Ababa height map



Major rivers of Ethiopia

Ethiopia has immense water resources of nine major rivers and twelve big lakes. It is often referred to as the “water tower” of eastern Africa as many rivers pour off its high tableland. The Blue Nile, Awash, and Shebelle are the three biggest rivers in the country.

The Awash River is a major river in Ethiopia. Its course is entirely contained within the boundaries of Ethiopia and empties into a chain of interconnected lakes that begin with Lake Gargori and end with Lake Abbe on the border with Djibouti, some 100 kilometers (60 or 70 miles) from the head of the Gulf of Tadjoura. It is the principal stream of an endorheic drainage basin covering parts of the Amhara, Oromia, and Somali Regions, as well as the southern half of the Afar Region.

The Shebelle River, also known as Webi Shabeelle river, begins in the highlands of Ethiopia, and then flows southeast into Somalia towards Mogadishu. Near Mogadishu, it turns sharply southwest, where it follows the coast. Below Mogadishu, the river becomes seasonal. During most years, the river dries up near the mouth of the Jubba River, while in seasons of heavy rainfall, the river actually reaches the Jubba and thus the Indian Ocean. (“MAJOR RIVERS OF ETHIOPIA”, n.d.)



Img 0.05: The major rivers of Ethiopia



Blue Nile river

The Blue Nile, along with the White Nile are the two main tributaries of the Nile. It supplies about 80% of the water in the Nile during the rainy season, with a total length of 1450 kilometers, (800 kilometers of which are inside Ethiopia), which makes it the biggest river of the country.

The river is originated from the Lake Tana in the northwest part of Ethiopia, and soon reach the Blue Nile Falls, which is between 37 to 45 meters high and over 400 meters wide in the rainy season. For the enormous splash of water, it is called Tis Abay in Amharic, which means “great smoke”.

The river runs west across Ethiopia and northwest into Sudan, then joins into the Nile, flowing through Egypt to the Mediterranean Sea. In November 2012, Ethiopia began a six-year project for the construction of the Grand Ethiopian Renaissance Dam, a 6000-megawatt hydroelectric dam on the river. The dam is expected to be a boost for the Ethiopian economy. Sudan and Egypt, meanwhile, voiced their concern over a potential reduction in water availability. (Gebreselassie, 2012)

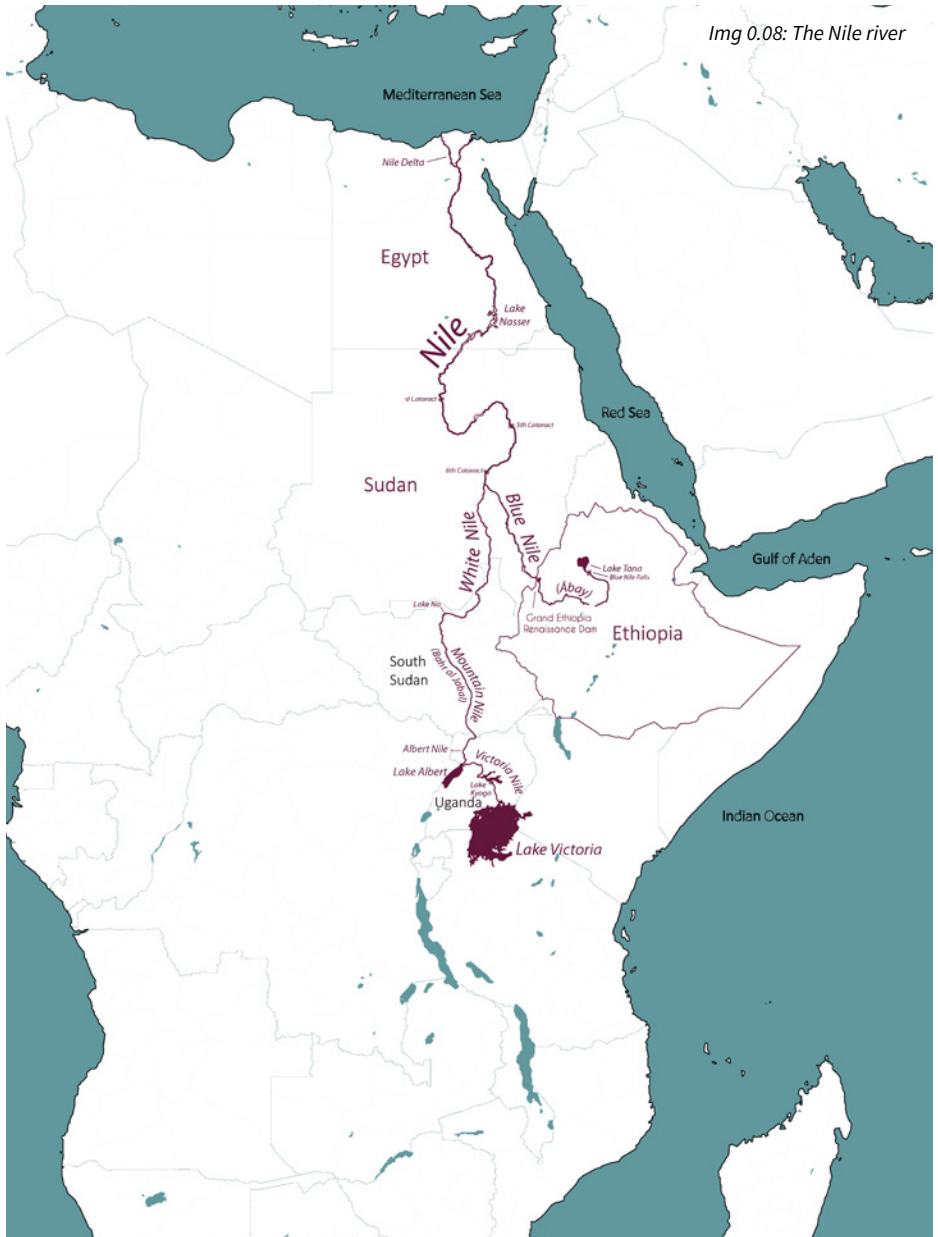
Img 0.06: The Blue Nile waterfalls



Img 0.07: Grand Ethiopian Renaissance Dam



Img 0.08: The Nile river

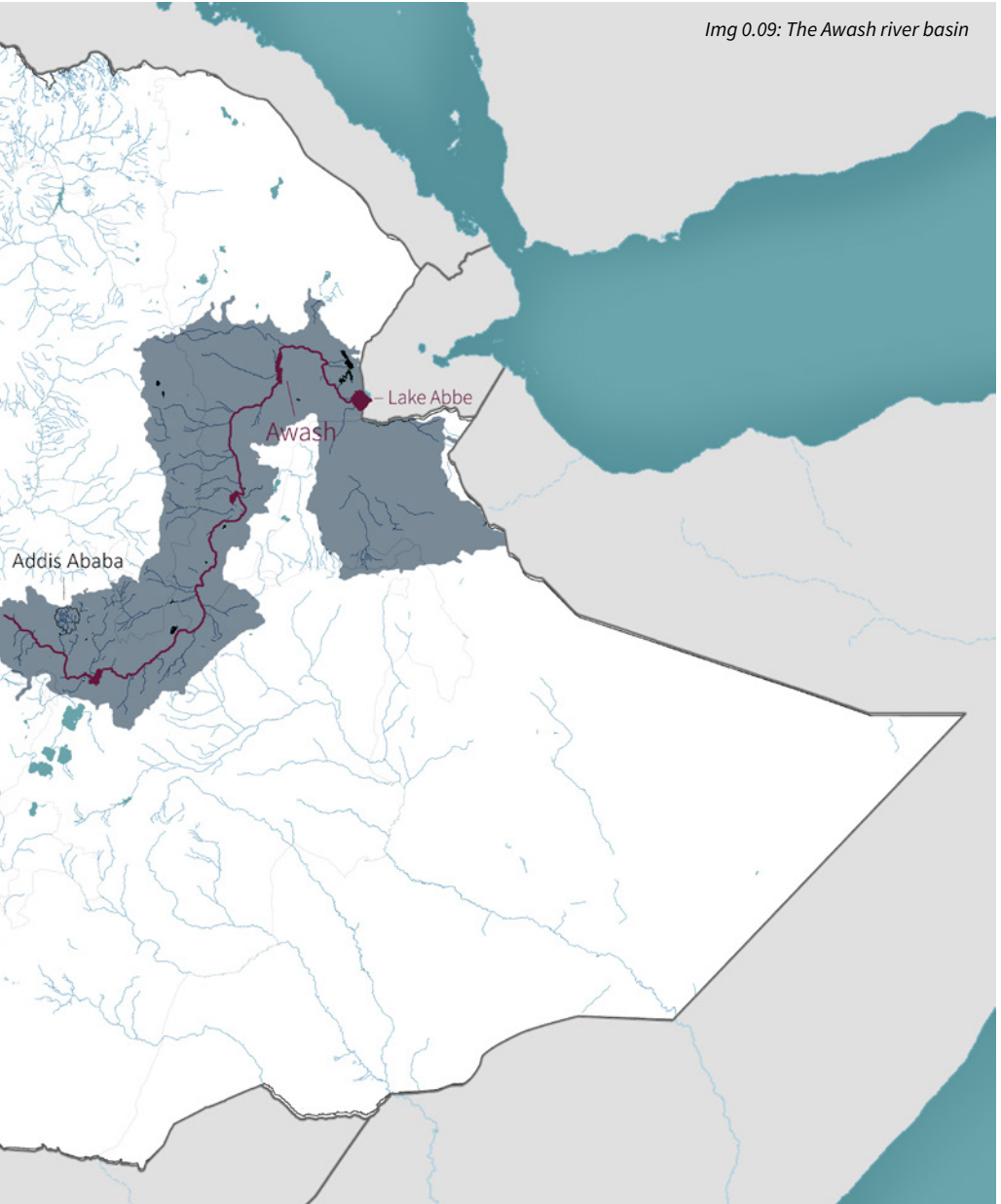


Awash river basin

Floods are common in most areas of Ethiopia. However, the large scale of flooding is limited to the lowland areas and settlements close to water. Among the rivers of the country, Awash valley, which has a total drainage area of 110,000 square kilometers, causes the most severe flood problems. Addis Ababa, unfortunately, is located in the upper part of the Awash River Basin. The city suffers from annually flooding. (Pena, n.d.)



Img 0.09: The Awash river basin

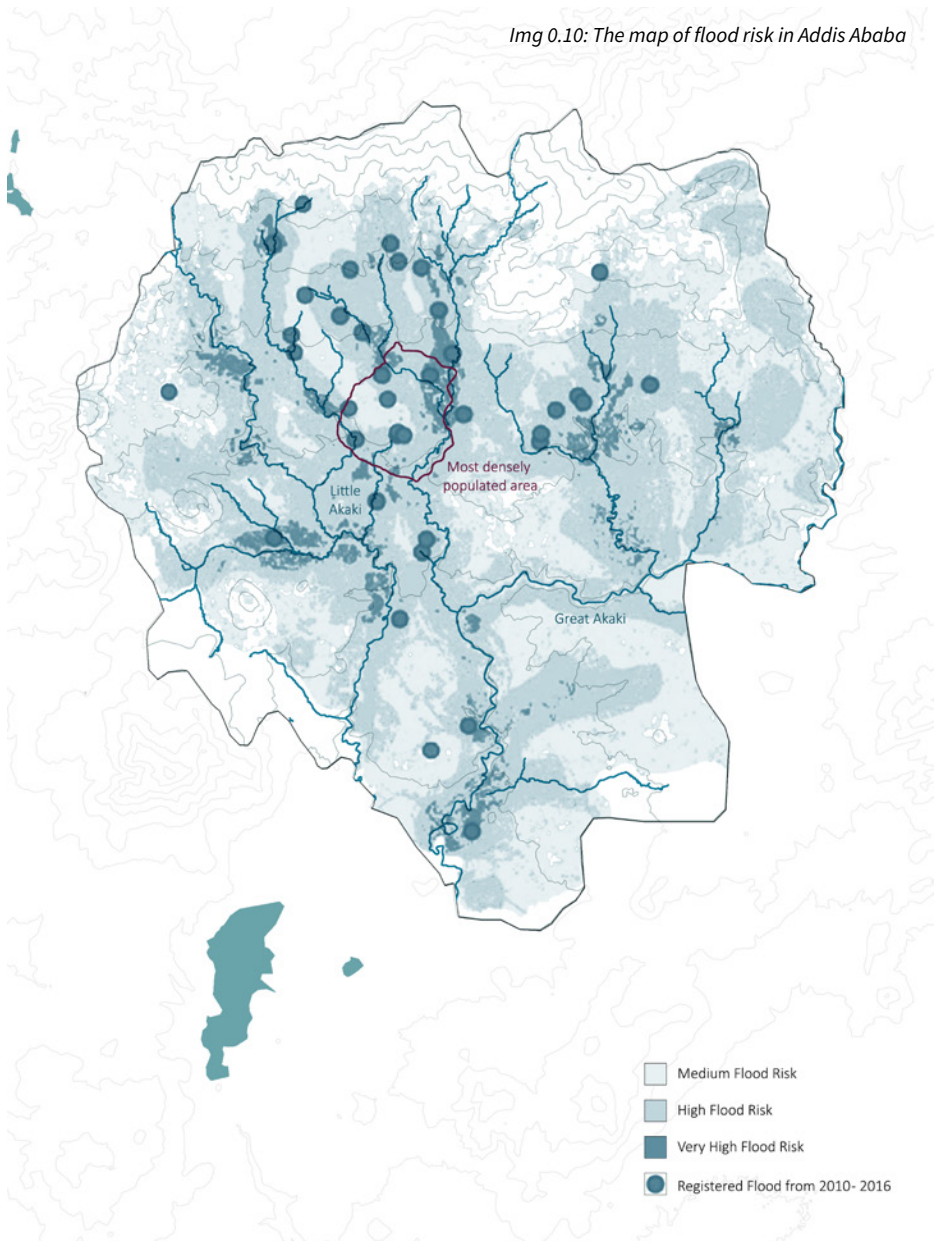


Flood risk in Addis Ababa

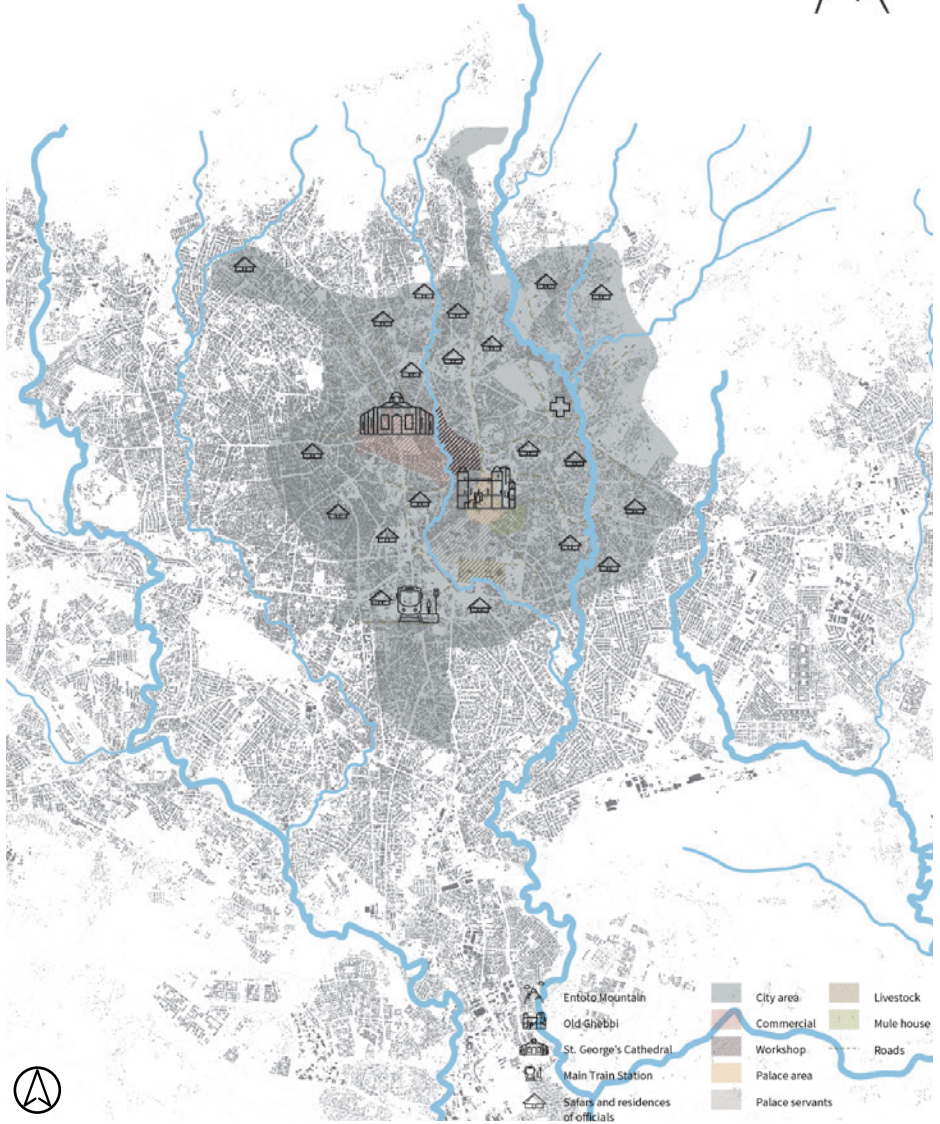
Flooding has become an increasingly severe issue in Addis Ababa, due to its rapid urbanization, the relative deforestation, inadequate urban planning, and poor road and urban drainage infrastructure.

The topography of Addis Ababa makes it easy to flood, as the Entoto mountain is high on the north and the city locates on the low-lying plain, which is most of the time within the basin of Big and Small Akaki rivers. The heavy rainfall from the Kiremt rainy season, from June to September lasting for three months, makes the situation worse. The flooding annually causes property damage to the settlements along the streams. The sanitary condition of the rivers within Addis Ababa is not good either, as they have been used as a place to throw away rubbish, therefore leave health impacts on the residents. (Pena, n.d.)

Img 0.10: The map of flood risk in Addis Ababa



Img 1.01: Early settlement - Taitu plan



Pre-Italian occupation

“FROM ENTOTO MOUNTAIN, THE EYE WANDERS OVER THE PLAIN OF FINFINNI, THE REGION IN WHICH THE ETHIOPIAN EMPEROR WOULD LATER FIND HIS DEFINITIVE CAPITAL, ADDIS ABABA – “NEW FLOWER” IN AMHARIC.”

GIAN PAOLO, OLD TRACKS IN THE NEW FLOWER



Img 1.02: Traditional territories in vertical space (safar) and the church with village development

Taitu plan was the first master plan of Addis Ababa, which defined the relation of the Ghebbi (palace area) with its surrounding safars (regional leader settlements). The safars were placed in the locations of strategic importance for the defense of the palace. Links were formed between Ghebbi and safars, as well as one safar to another, from which footpaths or animal tracks were developed over time. Instead of being a strict formal urban plan, Taitu plan tended to be an

formal urban plan, Taitu plan tended to be an origin of the spontaneous urban growth of the then Addis Ababa. (Tufa, 2008)

The Literal meaning of safar is “camp”, which also indicates its essence of being a cluster of residences. There were mainly two types of this kind of settlements, as one was around the residence of regional leaders, and the other was around the church. The hierarchy was reflected by the elevation (The higher, the more important).

Urbanization

Emperor Menelik II and his Queen Taitu's first building in Finfinni plain was a temporary house built by the hot spring of Filoha in 1886 when their court headquarters were still up on the cold Entoto Mountain. In 1889, after Menelik had united the country, he established the Ghebbi on a hill northeast to Filoha, where his new palace Elfin began to build. (Milena & Paolo, 2004) In 1891, the capital was officially moved down to Addis Ababa, which turned Entoto into a capital town. The links between the old and new capitals were very important for the forming of earlier urban fabrics, including the development of social services, settlements, road systems, etc. (Tufa, 2008)

Places around the Ghebbi also started to develop. Commercial area was formed to its northwest, where the nowadays Piazza area is, while the servants for the Ghebbi live in a large area to its southwest. The livestock house was placed next to Ghebbi in the southeast and the mule house to the south of servants' residences.

The development of Addis Ababa and its population growth complement each other. In the 1890s, Addis Ababa went through fast growth. There was a large population influx from the famine of 1889-1892 and the Battle of Adawa, which also lead to a scarcity of the resource. (Tufa, 2008)

Img 1.03: Urbanization Addis Ababa 1936



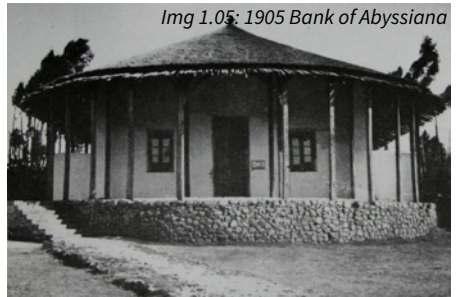
■ Foundation

(c. 1887-1936)

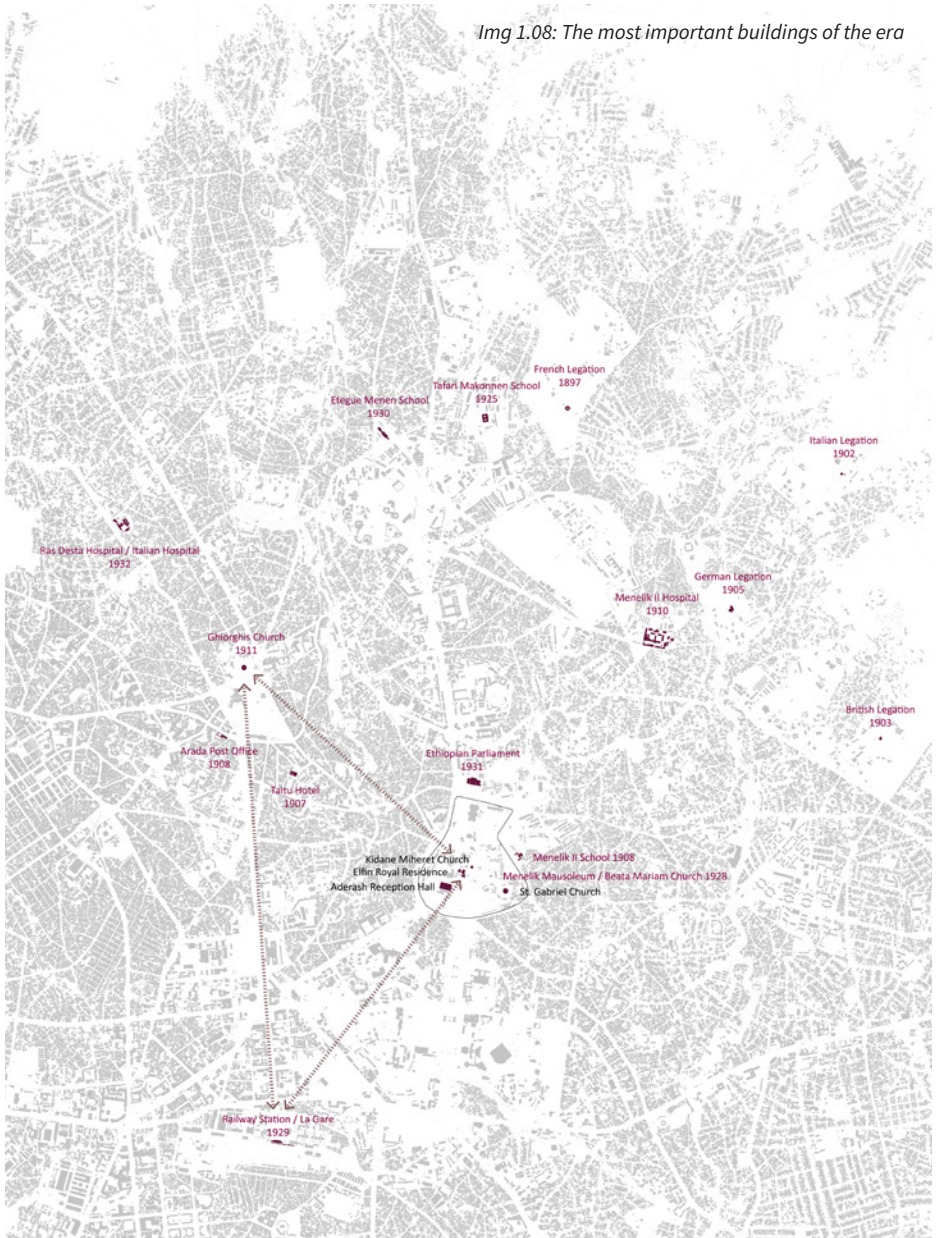
The important buildings of the era

A large amount of constructions was carried out after the decision of keeping Addis Ababa as the capital for long was made in 1902 by Menelik II. It started with a series of Legation Establishments, first Italian, and followed up by British, German and America. In 1907, the Taitu Hotel was built to the south of the market area, designed by the American architect Minas Kherbekian. From 1908 to 1932, there was a series of construction of schools and hospitals, including the Menelik II school right next to the Ghebbi, and Etegue Menen School for girls.

In 1911, The building of Ghiorghis Church, built by a group of Italian prisoners from the Adawa Battle, was completed. It became the coronation site of emperor Selassie in 1930. (Milena & Paolo, 2004) Another important building is the railway station La Gare, built in 1929. Together with the Ghiorghis Church and Ghebbi, these three notes developed a link among each other and became the center of Addis Ababa. (Tufa, 2008)



Img 1.08: The most important buildings of the era



Hot Spots

Ghebbi

Ghebbi has the meaning of enclosure or compound. In the context of Addis Ababa, it is representing the area around the palace, where other major buildings are also placed.

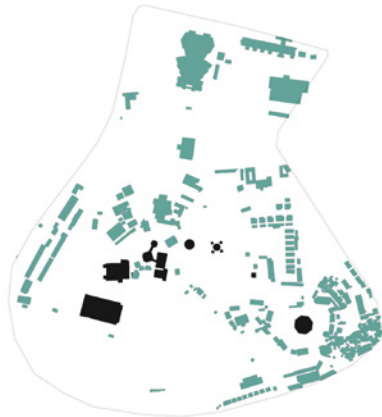
The original circular plan of Ghebbi shows the Elfin (royal residence) in the center as the core of a nucleus structure, with Aderash (the reception hall), Sagannet (function as a tribunal) Mausoleum, and three churches (Kidane Mehret, Gabriel and a nameless square one to the west of the palace) around it. Two layers of defense fences were also built with four openings, approximately at the cardinal points. The outer layer of the defense system was made of stone and cikka walls reinforced by stockades.

Over the years, many original buildings within the Ghebbi were demolished while many others were added. The ones should be mentioned are the gone Sagannet and Mint, and the new government building built in the Imperial Regime. (Milena & Paolo, 2004) In the book of housing research, further information about the buildings in Ghebbi could be found.

Img 1.09: Upper: Ghebbi as it was planned
Down: current situation



■ Demolished
■ Still existing
■ Addition
■ Original



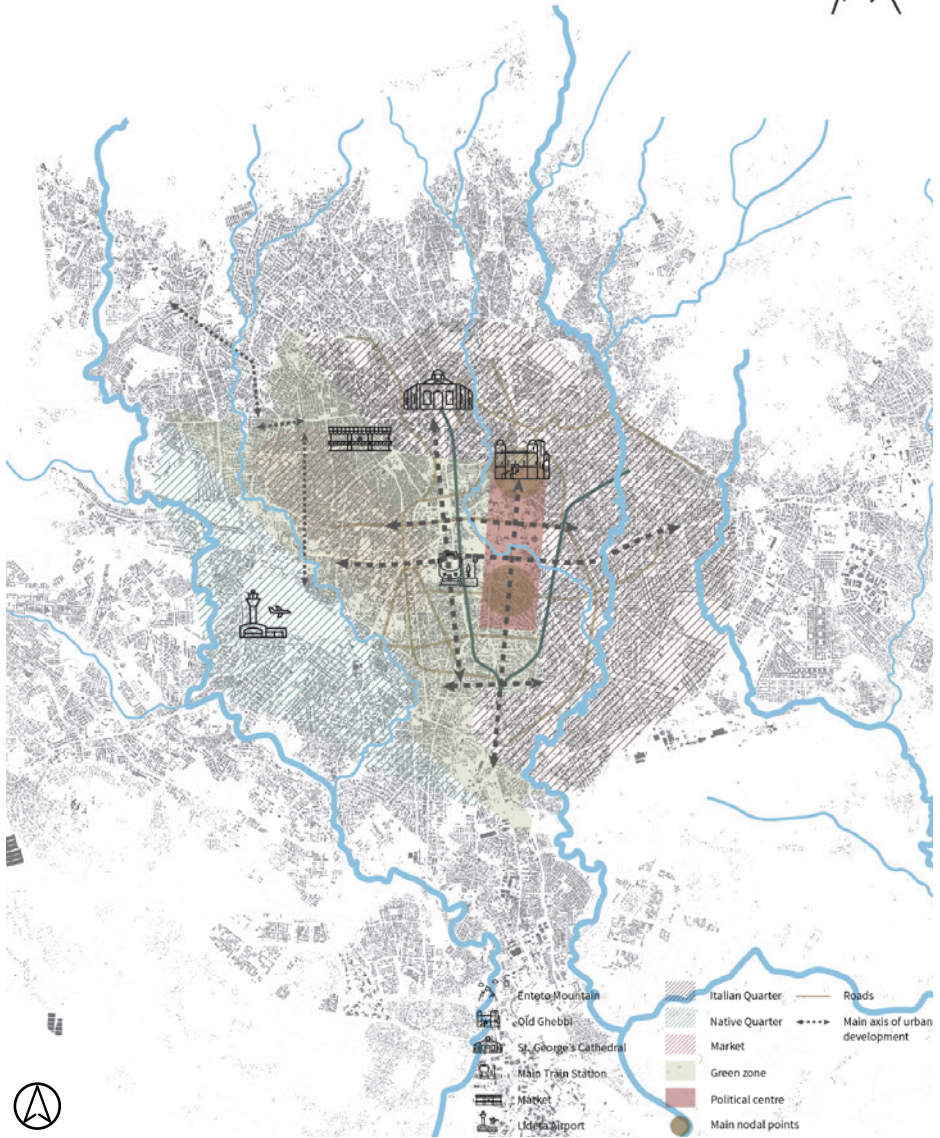
Img 1.10: The Ghebbi in late 1880s



Img 1.11: Overview hotspots



Img 2.01: Italian master plan by Guidi and Valle



The Italian Occupation

THE CAPITAL OF AFRICA ORIENTALE ITALIANA - ADDIS
ABABA ON THE RULE BY MUSSOLINI

During the relatively short occupation of Italians led by Mussolini, crucial changes have been conducted to the physical structure of Addis Ababa. In this period the city became the capital of the Africa Orientale Italiana, consisting of Somalia, Eritrea, and Ethiopia. This resulted in ambitious master plan proposals from architects such as Le Corbusier, I. Guidi and C. Valle (Tufa, 2008).

The plan of Le Corbusier would make Addis Ababa a monumental city with a grand boulevard going all the way from north to south. The plan would segregate the city into the native and European sectors. However, Le Corbusier's plan was not approved by the Italian authorities since it wasn't taking into account the topography of Addis Ababa (Tufa, 2008).

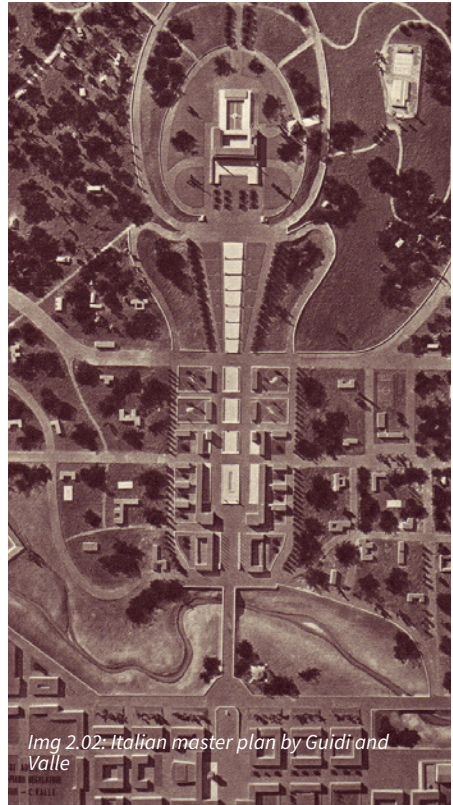
In 1938 the colonial officials accepted Guidi and Valle's master plan, one that was also based on racial segregation but considered the topographical landscape of the city. On a flat area outside the foundation of Addis Ababa, a new Italian town would be constructed (Mahiteme, 2007).

In between the native and Italian quarter two parallel axes have been introduced: The commercial axes connecting Arada with the railway station and the political axes going from Sidist Kilo Palace (currently the main campus) to Meskel Square (Tufa, 2008).

Due to the short period of occupation, the plan did not have the impact is supposed to have. Moreover, during the occupation of existing laws, forbidding repairing of existing buildings and construction of new buildings, made it more difficult (Tufa, 2008). However, due to the Italians, significant changes have been conducted as will be discussed in more detail in this chapter.

Urbanization

The city of Addis Ababa mostly expanded in south and east directions during the Italian occupation. This has to do firstly because, the northern part of the city was not included in the master planning due to its cold climate and mountainous terrain which could, as the Italians believed, be the ideal landscape for Ethiopian patriot bands (Mahitme, 2007). Secondly, the Italians wanted to connect the city with the southern located train station (Tufa, 2008). The introduction of the Lideta airport in the southeast of the city emphasized the urbanization in this direction.



Img 2.03: Urbanization Addis Ababa 1941



Transportation

During the Italian occupation, a political axis from the palace to Meskel square was introduced (Tufa, 2008). Moreover, the train station was better connected with the rest of the city and Lideta airport has been constructed.

Img 2.04: Transportation Addis Ababa 1936



Greenery

During the occupation by the Italians, Mussolini planned colonialization based on agriculture. For Italian settlers in Ethiopia, fertile land was promised located in the richest regions and well connected to the markets in urban centres. In the case of Addis Ababa, big plots of agriculture were introduced south of the city. Because of this emphasis on agriculture, the Italians introduced, although their brief occupation, mechanized agricultural methods in Ethiopia. (Sbacchi, 1977)

Img 2.05: Greenery Addis Ababa 1941



- Agriculture
- Wild green spaces / Forests
- Parks
- Urbanization

Hot Spots

Merkato

In the plan of Guidi and Valle, Merkato was the commercial and residential area designated for the indigenous locals (Van Gameren & Tola, 2017). It is characterized by its rigid grid structure which is even today on a big scale visible on the map of Addis Ababa. However, Guide and Valle's plan has never been fully developed. One can see how the original intentions are still partly visible in the current urban fabric. Besides, an informal densification pattern within the rigid grid structure has been evolving. And even informal settlements, not taking into consideration the rigid grid structure, originated in the Merkato area.

Img 2.06: Upper: Guidi and Valle's master plan, Down: current situation



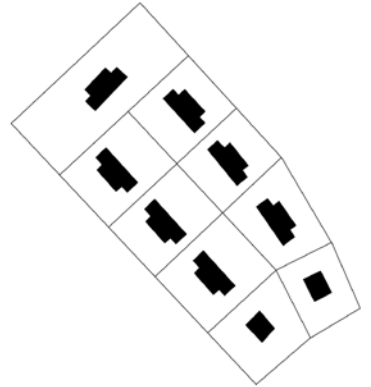
Img 2.07: Overview hot spots



Kazanchis

Kazanchis, also known as Casa-Incis, functioned during the Italian occupation as the residential area for higher-ranked Italian officials. This neighbourhood was divided into plots with different residential typologies (Van Gameren & Tola, 2017). When the higher-ranked Italian officials fled the country, these plots densified over time.

Img 2.08: Upper: INCIS Technical office's lot division plan of 1936, Down: current situation

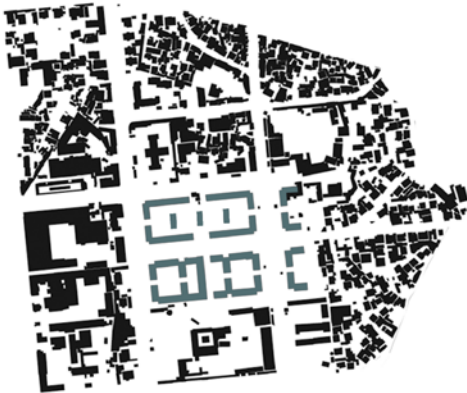
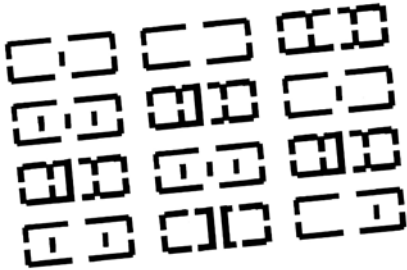


■ Reminders of planned urban fabric

*Img 2.09: Upper: Planned morphology Popolare,
Down: current situation*

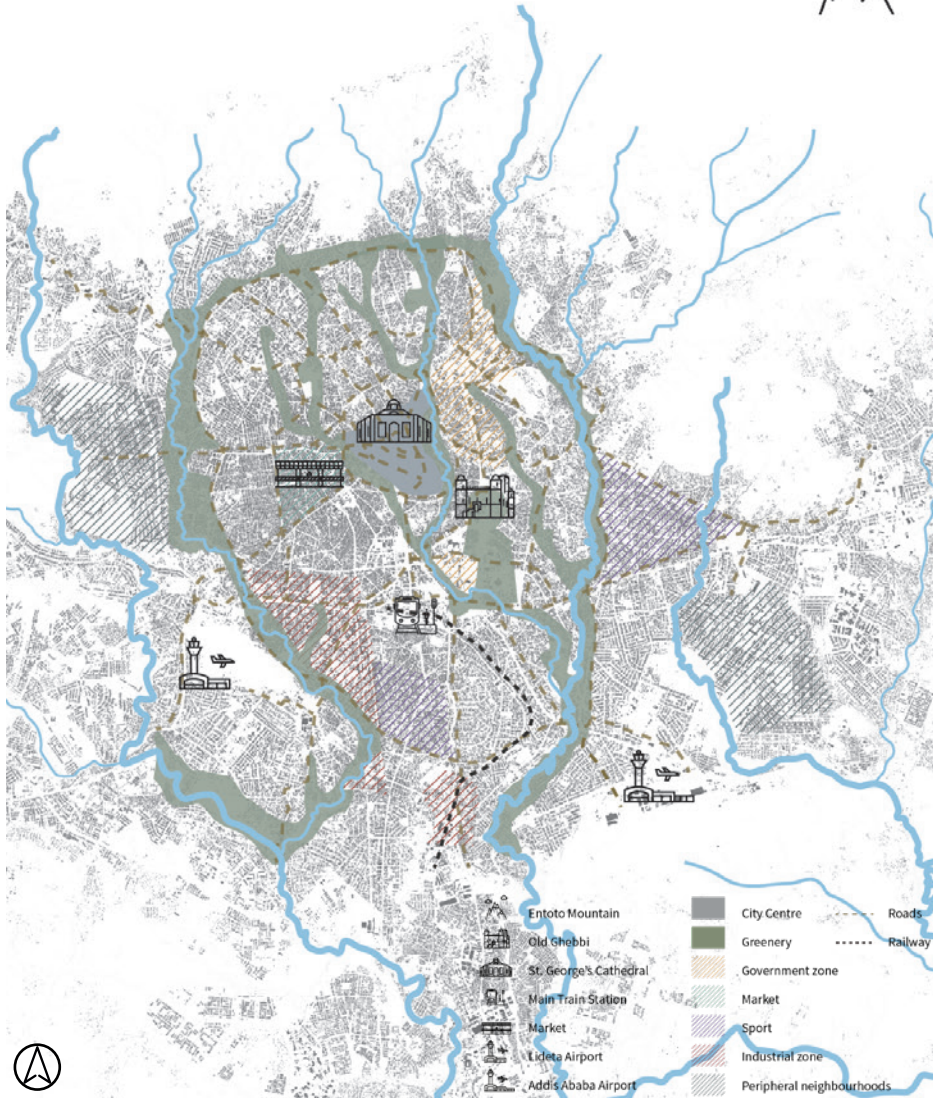
Popolare

The Italian workers were housed in the Popolare area (Van Gameren & Tola, 2017). The urban fabric of this area was characterized by its slab-like morphology. In the current situation, the original plan from Guidi and Valle is partly still intact.



■ Reminders of planned urban fabric

Img 3.01: Addis Ababa master plan by P. Abercrombie, 1954-56



The imperial regime

THE CLASHING TEMPORALITIES OF MODERNITY AND TRADITION OPENED A SPACE FOR AHISTORICAL CROSS-CULTURAL BORROWINGS AND EXPERIMENTATION WITH FORMS.

- AYALA LEVI



Fig 3.02: Original Addis Ababa master plan by P. Abercrombie, 1954-56

The Imperial Regime was defined by the reign of the emperor Haile Selassie. Due to his influence, many prominent buildings and plans were implemented, however, some considered these as fragmented interventions rather than crucial development. (Tufa, 2008) In his time he commissioned three masterplans after World War II that disrupted his reign due to the Italian occupation. The first plan was drafted by Sir Patrick Abercrombie in 1955 who envisioned the city surrounded by a greenbelt and focusing on neighbourhood units connected by developed traffic infrastructure although characteristically unmonumental.

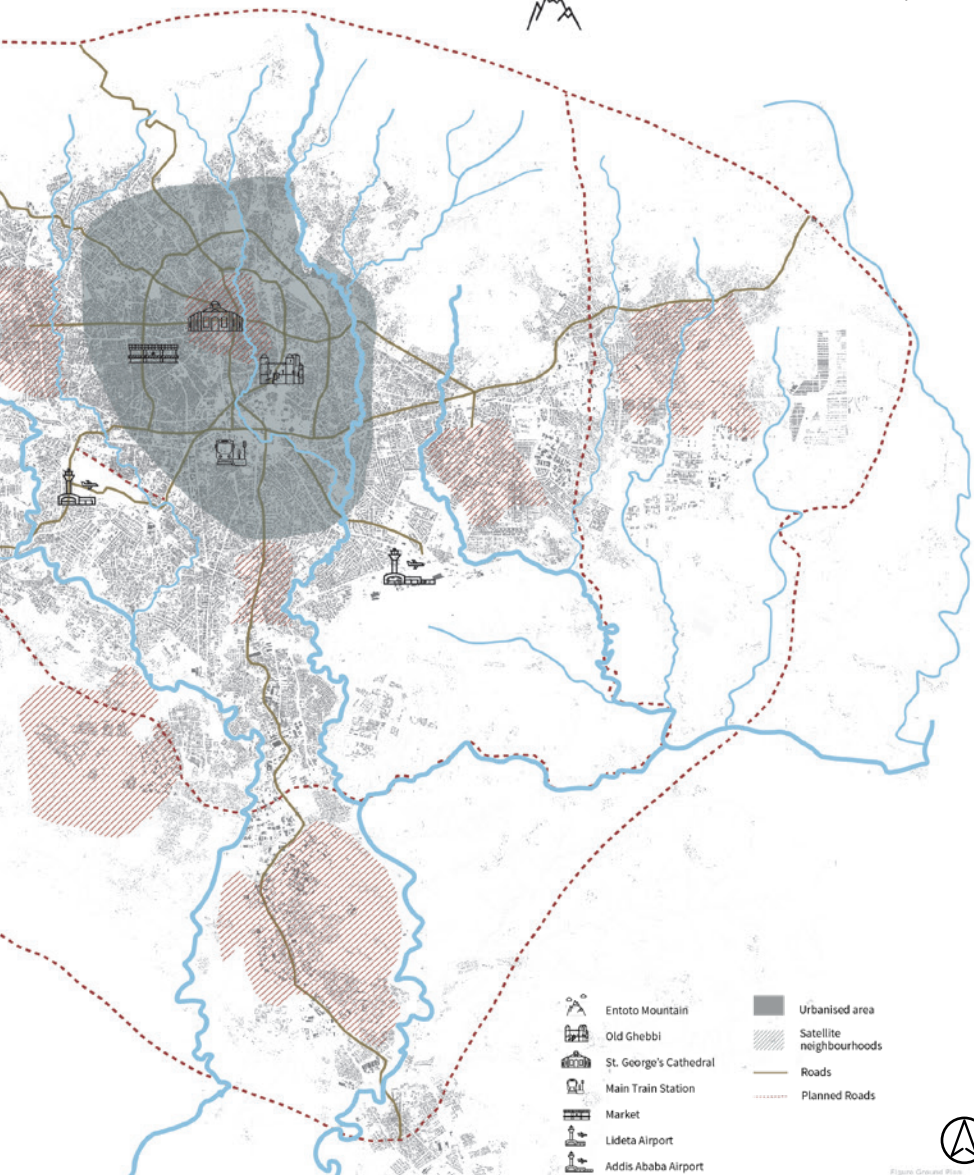
The plan was rejected by the emperor who pursued accelerated modernisation to assert Ethiopia's imperial prowess and its modern image, therefore this plan did not entirely conform to his taste and also due to a massive investment necessary for the plan's implementation. (Levin, 2016)

The Master plan by Bolton and Hennesy

The British firm Bolton Hennesy and Partners laid out a plan that was a revised version of Abercrombie's plan in 1959. This plan was also based on decentralising Addis Ababa while introducing even more satellite towns in the city's proximity to accommodate a larger population. (Tufa, 2008) Only some of the plans for street network and satellite towns were implemented in the end as a new masterplan 1965.



Img 3.03: Bolton and Hennessy Partners' Master plan, 1959



- Entoto Mountain
- Old Ghebbi
- St. George's Cathedral
- Main Train Station
- Market
- Lideta Airport
- Addis Ababa Airport
- Urbanised area
- Satellite neighbourhoods
- Roads
- Planned Roads



Figure Ground from

The Master plan by De Marien

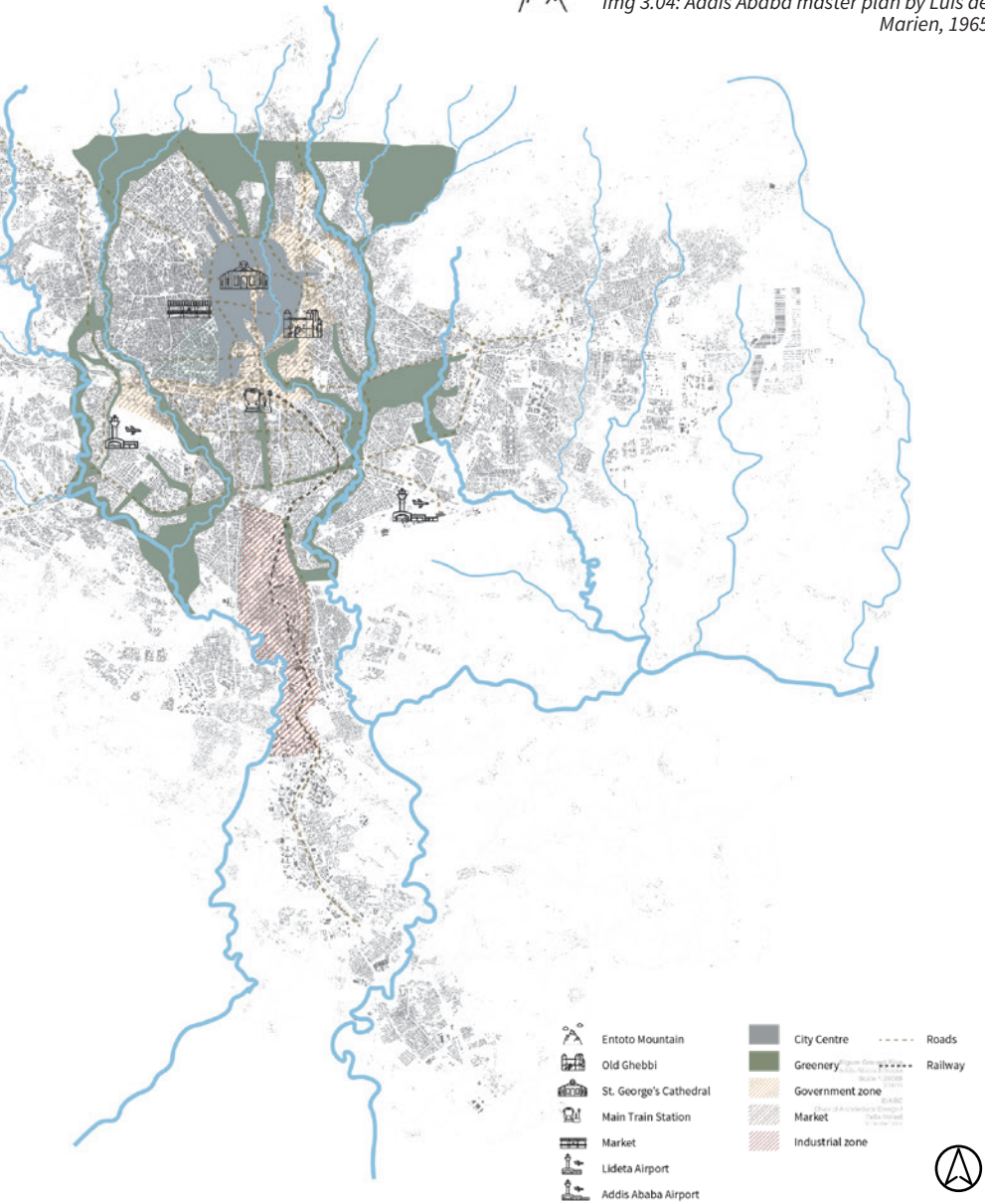
The most widely implemented masterplan from the Imperial era is the one drafted by French architect Luis De Marien in 1965. His vision for the city aligned the most with the emperor's pursuit of modernity and also with the urban development strategy outlined during the Italian occupation. The plan connected essential nodal points and respected the north-south axis of today's Churchill Road connecting the modernist City Hall with the train station. However, De Marien concentrated mainly on this axis rather than on the two planned by the Italians. (Tufa, 2008)

The linear development of the city led to an industrial zone in the south conveniently located by the railway. The plan had a strong impact on the image of the city due to a construction boom at that time and created a striking contrast between the single-story low-cost residential housing and the towers erected as symbols of modern times. (Levin, 2016)





Img 3.04: Addis Ababa master plan by Luis de Marien, 1965



Urbanization

The Imperial Regime if defined by modernity imposed on the capital and newly introduced monumentality representing Haile Selassie's empire. During this period criticised sometimes for its solely cosmetic and fragmented, there was intense densification of the centre largely by informal housing happening in the background.

Tarmac roads were built including the first one connecting the Old Ghebbi and St George's Church as well as the first electric street lights. (Levin, 2016) Symbolic for the period was the constructed Addis Ababa Airport (named Haile Selassie's at that time) that became the main stage for greeting many prominent political figures in Ethiopia by the emperor.

The continuation of the Italian colonial approach to urban planning led to the development of the city to the south through connecting existing nodal points, such as the train station, the Ghebbi, St. Georges Church, etc. The abrupt modernisation of the city was driven by several major events of the postcolonial period including 'the Silver Jubilee commemorating Haile Sellasie's coronation in 1955, the choice of Addis Ababa as the seat for the UNECA in 1958, and the choice of the city as the seat of the OAU in 1963.' (Levin, 2016)

Img 3.05: Urbanization Addis Ababa 1974



The Diplomatic Quarter

The axis leading from the Meskel Square to Menelik's Palace has taken shape in the 1960s and appeared for the first time in the Luis De Marien's masterplan commissioned by Emperor Haile Selassie in 1965. The Churchill Road was established as a second north-south oriented axis and had been proposed by Italian urbanists from the time of the occupation. This Commercial Boulevard is lined by many representative buildings such as the National Bank and Theatre leading from the monumental City Hall to the main train station, Lagare.

Symbolic for this period is the Africa Hall representing the diplomatic capital came to be during the Imperial era as well as the Ministry of Foreign Affairs or the Jubilee Palace built on the occasion of the 25th anniversary of the emperor's coronation. The Imperial Regime is also typical for the construction of high-rise buildings, apartment structures, and low-cost single-story houses. (Knebel, 2013)



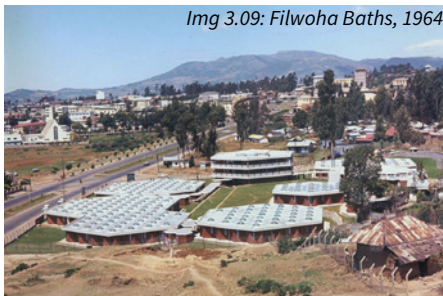
Img 3.06: Africa Hall, 1959-61



Img 3.07: Jubilee Palace, 1955



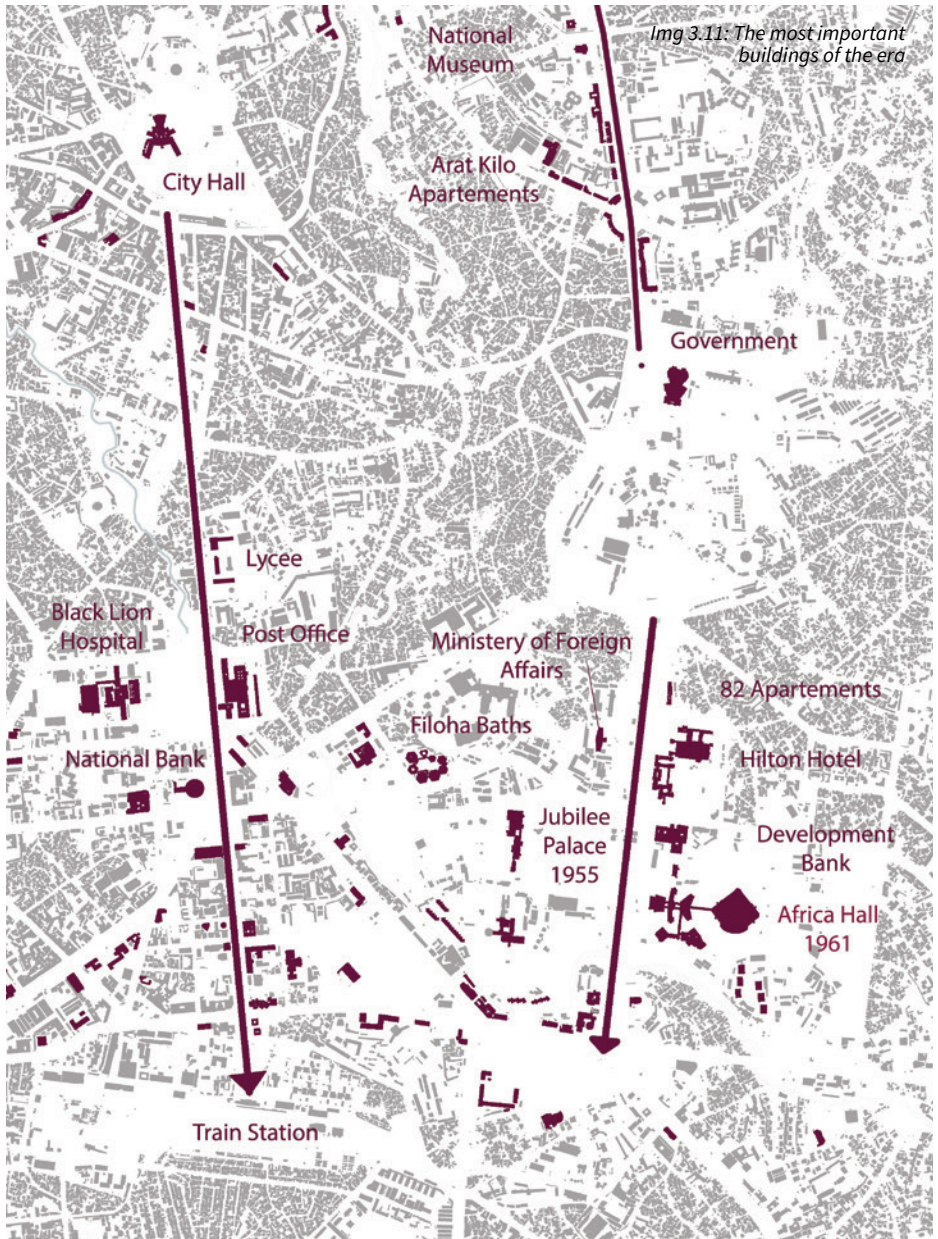
Img 3.08: Ministry of Foreign Affairs, 1964



Img 3.09: Filwoha Baths, 1964



Img 3.10: National bank, 1965



Img 3.11: The most important buildings of the era

The Educational Quarter

The axis from the Old to the New Palace exists since the times of Taitu's plan, however, it was formally drafted during the Italian occupation. After the attempt to overthrow the emperor Haile Sellassie residing in the new palace, the compound was dedicated to the newly established Addis Ababa University. Therefore, many faculties and other institutions are located along this road. (Knebel, 2013)



Img 3.12: J. F. Kennedy Library, 1969



Img 3.13: National Museum of Ethiopia, 1958



Img 3.14: Haile Selassie I University, 1965

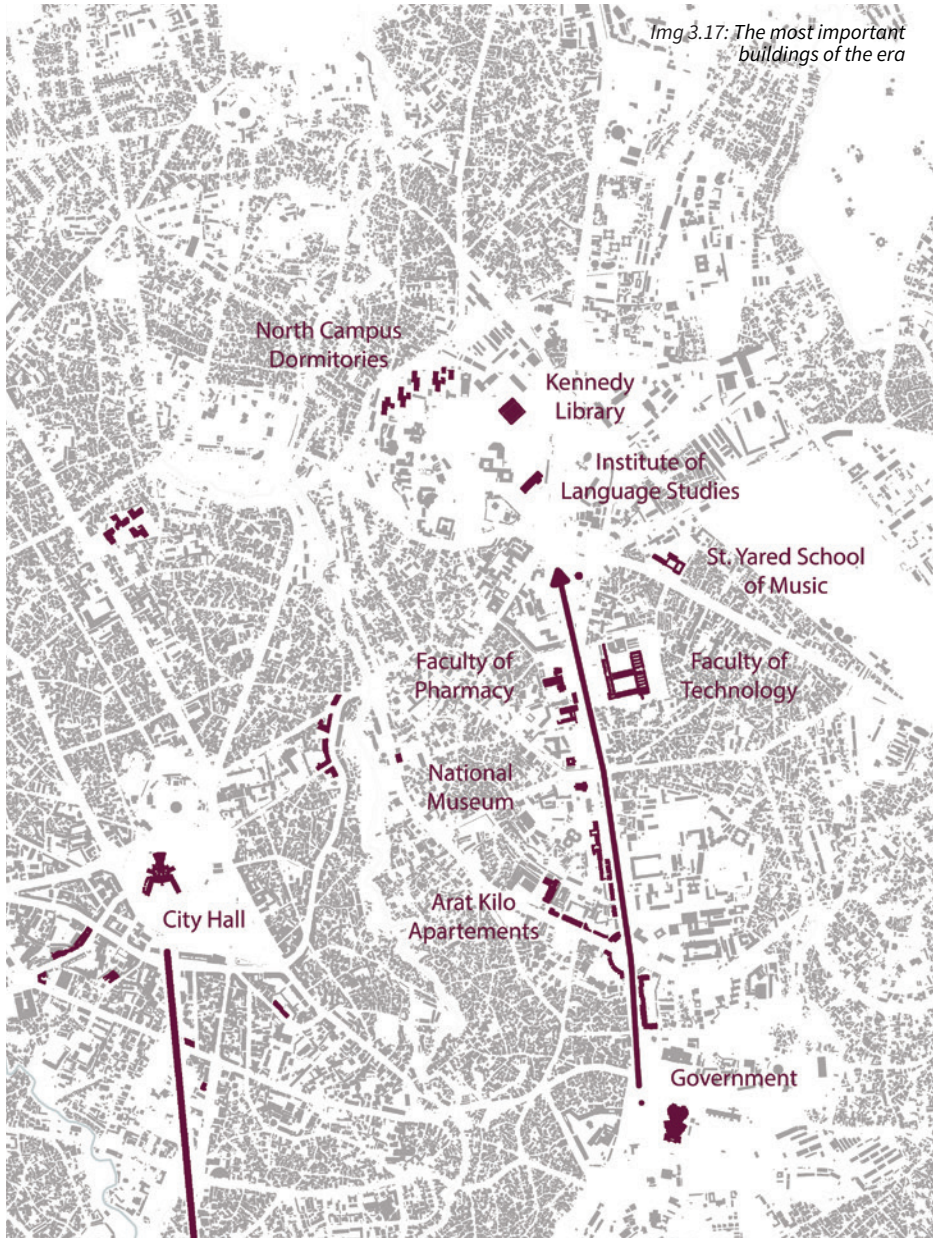


Img 3.15: City Hall, 1964



Img 3.16: City Hall, 1964

Img 3.17: The most important buildings of the era



Hot Spots

Kolfe Keranio sub-city

The Kolfe low-cost housing was established by the government to provide housing for people evicted from their homes. The original regular structure was widely adjusted through time by the inhabitants.

Img 3.18: Current situation of Kolfe Keranio sub-city

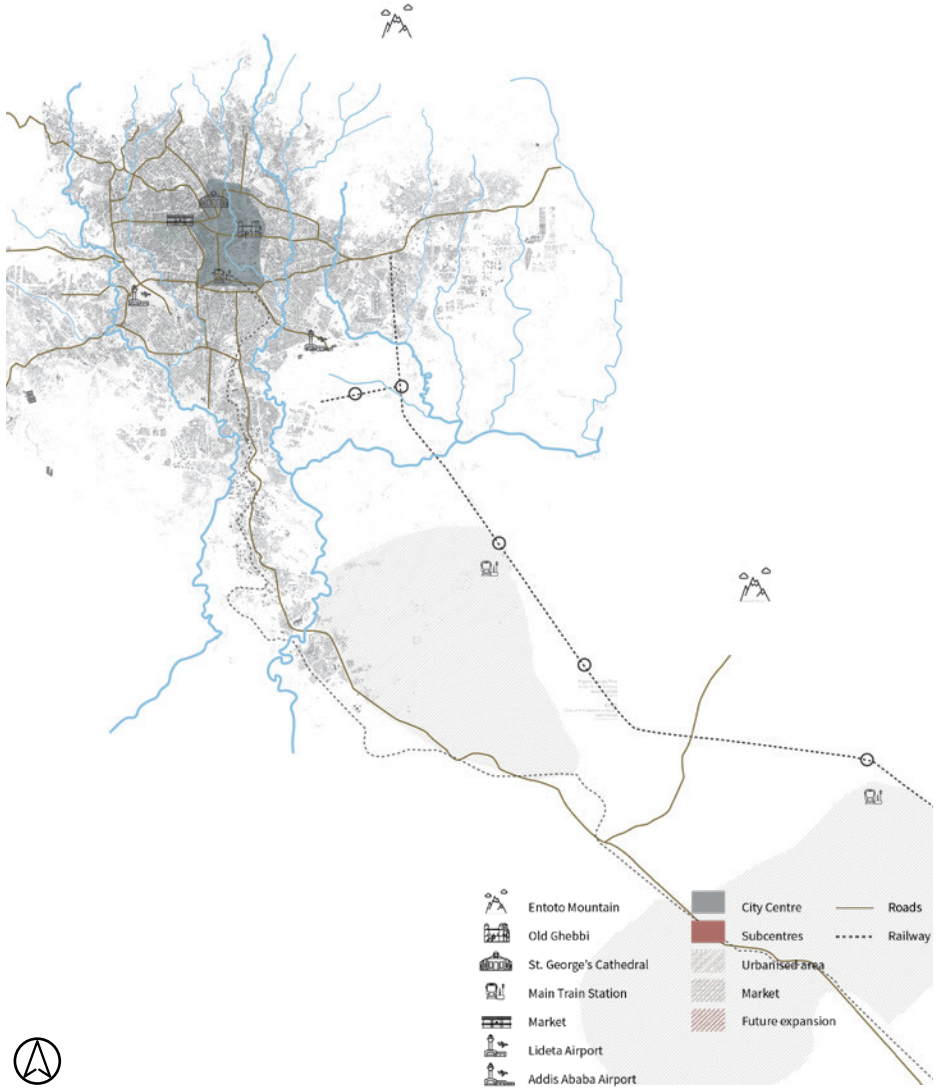


- Remainders of planned urban fabric
- Main arteries
- Secondary arteries

Img 3.19: Overview hot spots



Img 4.01: The megalopolis proposal of Addis Ababa - linear development of 100 km towards the South-East axis proposed by C.K. Poloniyy, 1978



The Derg Era

LAND FOR THE TILLER



The nationalization of the private land and suspension of the investments from the private sector, lead to the huge stagnation in the built environment during the Derg regime. As a result, Addis Ababa's growth rate dropped. The new master planning took place.

The first urban plan developed was by the C. K. Polonyi. The major plan of the urban planner was to connect Addis Ababa with Adama, a town 100 km on the South-east axis of Addis Ababa. The objective was to connect the capital city with rich agriculture lands. The towns in between should have served as satellite cities, locating different facilities. However, the plan was not implemented due to the requirement of huge funds and the low growth of the city at the time

Even if, the first masterplan was not successful, the proposed redevelopment of the Meskel Square was implemented. The new Abiot Square could serve for the parades of military and as a stage, where communist leaders could address big crowds of the public.

The Master plan of 1986

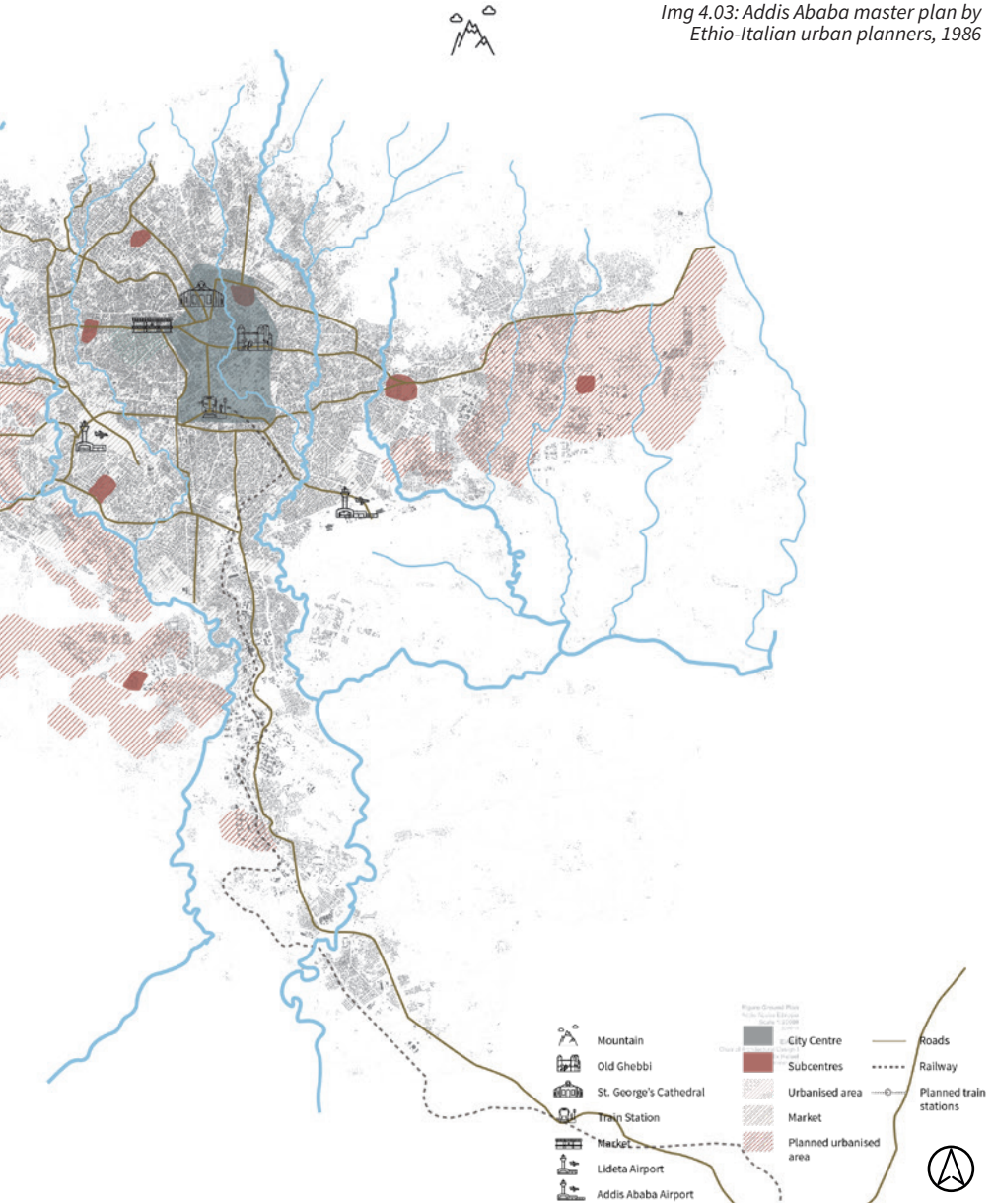
The Master Plan of 1986 was drawn by the collaboration between Ethiopian and Italian experts. The basic concept of the plan was to create a balanced urban system and to integrate the city with its surrounding regions and have metropolitan level areas. (Tufa, 2008) At the level of the city, the developments focused on the decentralization of the monotype developments. New sub-centers of the city should serve as a functional area and decrease the load of residents and activities in the city centre of Addis Ababa.

The master plan revised the previously created master plan by the Hungarian architect C. K. Poloniy and envisioned the growth of Addis Ababa towards the East-south axis of the city. The new plan incorporated the town of Akaki, which was located 25 km from Addis Ababa, where the industrial areas were planned.

Even if, the masterplan was taking into consideration a lot of different and difficult issues, it took eight years to approve it, due to the poor bureaucratic system of the Derg regime. The delaying of the masterplan caused the urban fragmentation, lack of public zones, unplanned residential developments that influenced the structure and forms of the city of Addis Ababa.



Img 4.03: Addis Ababa master plan by Ethio-Italian urban planners, 1986



Urbanization

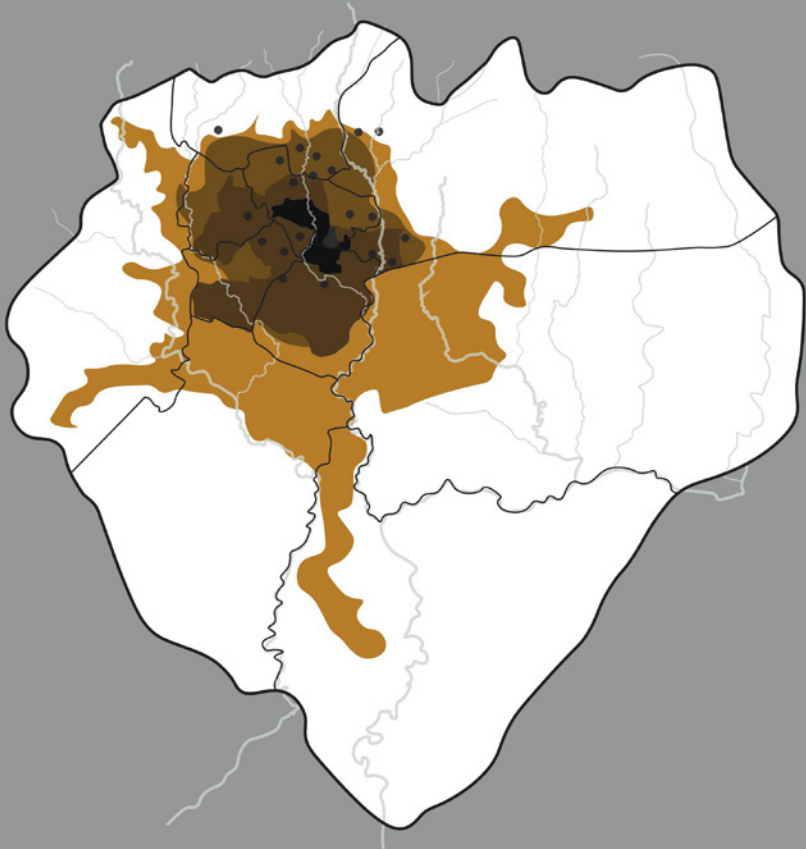
The 1974 Revolution fundamentally changed the social and economic order of Ethiopia, leading the new government to commit to the improvement of the living conditions of the poor (rural and urban). This commitment particularly affected the urban areas: nationalisation of the urban land and the rental houses, restructuring of credit institutions, and changes in the structure and functions of local government. (World Bank, 1992) In 1975, all privately owned land and rented houses were nationalised, leading the housing to become more affordable, but generalising the new problems for the next decades in the shift of maintenance of the private sector.

The ownership of the land by the government improved the access of vacant land for the new constructions of the houses. The introduced idea of self-help housing was not the usual way of building and prevented most people from doing it, leading the pace of the constructions too slow and impossible to keep up with the growth of the informally built environment of the city. As the government failed to meet the need, a lot of residents of the city lived in poor household conditions, often lacking sanitation or access to water.

The Ministry of Urban Development and Housing has proved to be determined to reach lower-income groups and has been implementing an EEC-assisted site and services project. Experienced gained, showed a huge improvement in designing the proposed IDA-assisted projects. (World Bank, 1992)

The Masterplan of 1986 influenced the large cooperative residential development system sites such as Gerji, Kotebe, Lafto, Mekanissa, and Karanyo.

Img 4.04: Urbanization Addis Ababa 1991



- Foundation (c. 1887-1936)
- The Italian Occupation (1936-1941)
- The Imperial Regime (1941-1974)
- The Dergue Era (1974-1991)

Dark times for diplomacy

The Western media interest of the famine and the sudden interest of the other worldwide nations lead the government to look for more strict ways of controlling the foreigners, that at the particular moment, were located in the country. To achieve this goal, the Derg regime officers created a plan for a diplomatic quarter, that could be closely watched and controlled.

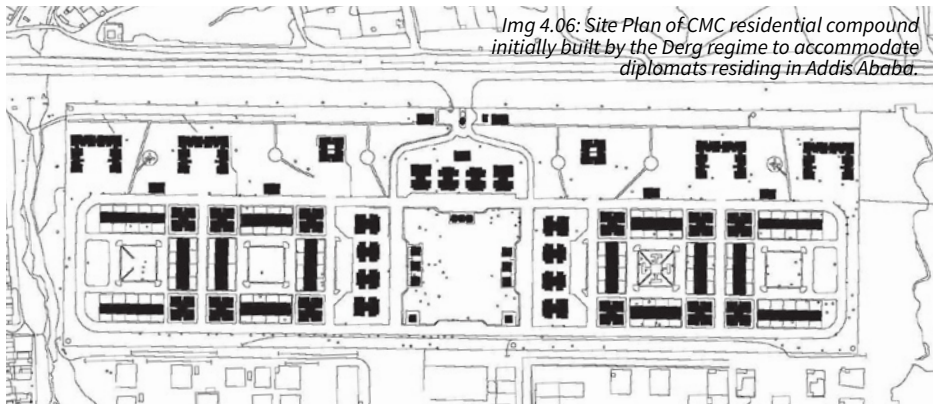
The government realised, that this ambition, has to offer luxury accommodation and hired an Italian office, CMC, to produce the project. Together with the Italian communist party, the government built a low-density residential neighbourhood, that was composed of 500 apartments and two-story townhouses of varying sizes, in a gated compound.

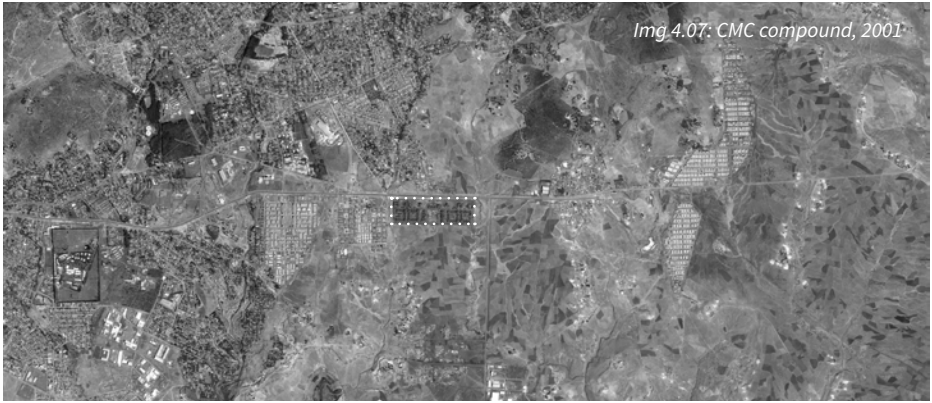
The buildings were made out of prefabricated constructions and showed the qualities not only of architecture but also of urban planning, offering enough space for greenery, parking, which was an exceptional case in the period of the Derg regime.

Img 4.05: The architectural expression of CMC residential compound



Img 4.06: Site Plan of CMC residential compound initially built by the Derg regime to accommodate diplomats residing in Addis Ababa.





Hot Spots

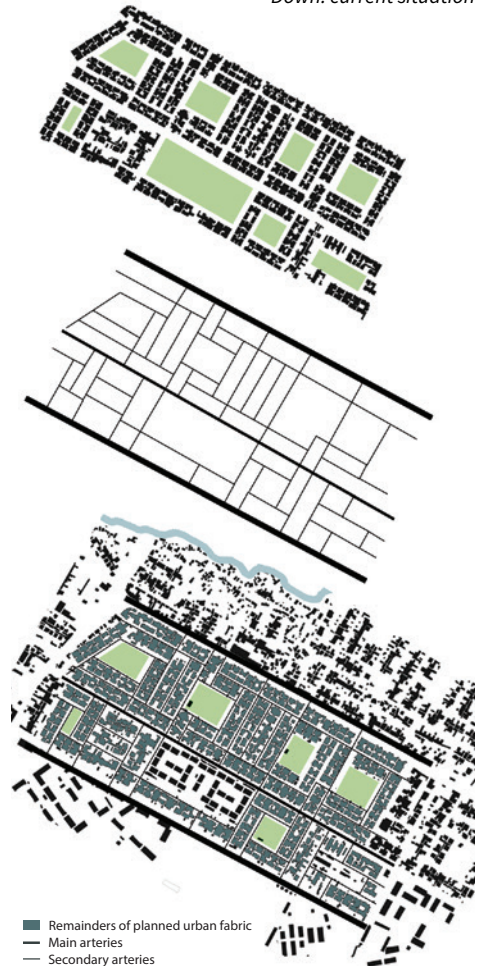
Bole Gerji

The area of Bole Gerji introduced the cooperative housing system, provided by the government and partners. The plan tried to create a rigid grid, possibly inspired by the Italian era and the Merkato area in the city. The plot is quite flat, offering the possibilities of successful 2D planning. The area offered a clear road system and the green spaces for everyday use were taken into consideration.

Nowadays, the area is surrounded by other formal and informal developments. People adjusted the cooperative housing schemes and built additional rooms in the backyards of the area, possibly to gain extra income and rent them out.

However, the planned in green spaces are neglected, as they are too big to be properly used. In the present situation, it is visible that a new condominium block (from 2005) is built in one of the green areas of the neighbourhood, threatening the quality of life for the already built households: lack of green spaces, lack of parking lots.

Img 4.10: Upper: planned cooperative housing system
Middle: street structure
Down: current situation



Img 4.11: Overview hotspots



Goro

The former Marxist government’s nationalization of housing in 1975 has led to the condition in Ethiopia that the poorest constructed neighbourhoods in cities are largely under local authority control.

The current “developmental state” has inherited what is probably the only stock of public rental housing in the region that was informally built by individual owners – named kebele housing – and now in generally very poor condition. This public informal housing stock has been the major feature of all urban housing in Ethiopia for the last fifty years.

The kabele of Goro introduced a clear street grid, providing green spaces in between. As of today, the surrounding plots are developed formally and informally.

Nowadays, the area is surrounded by other formal and informal developments. People adjusted the cooperative housing schemes and built additional rooms in the backyards of the area, possibly to gain extra income and rent them out. However, the planned in green spaces are neglected, as they are too big to be properly used.

In the present situation, it is visible that a new condominium block (from 2005) is built in one of the green areas of the neighbourhood, threatening the quality of life for the already built households.

Img 4.12: Upper: planned kabele housing
Middle: street structure
Down: current situation



Img 4.13: Upper: planned sites and services program housing
Down: current situation



- Reminders of planned urban fabric
- Urbanized area
- Main arteries
- Secondary arteries

Nefas Silk

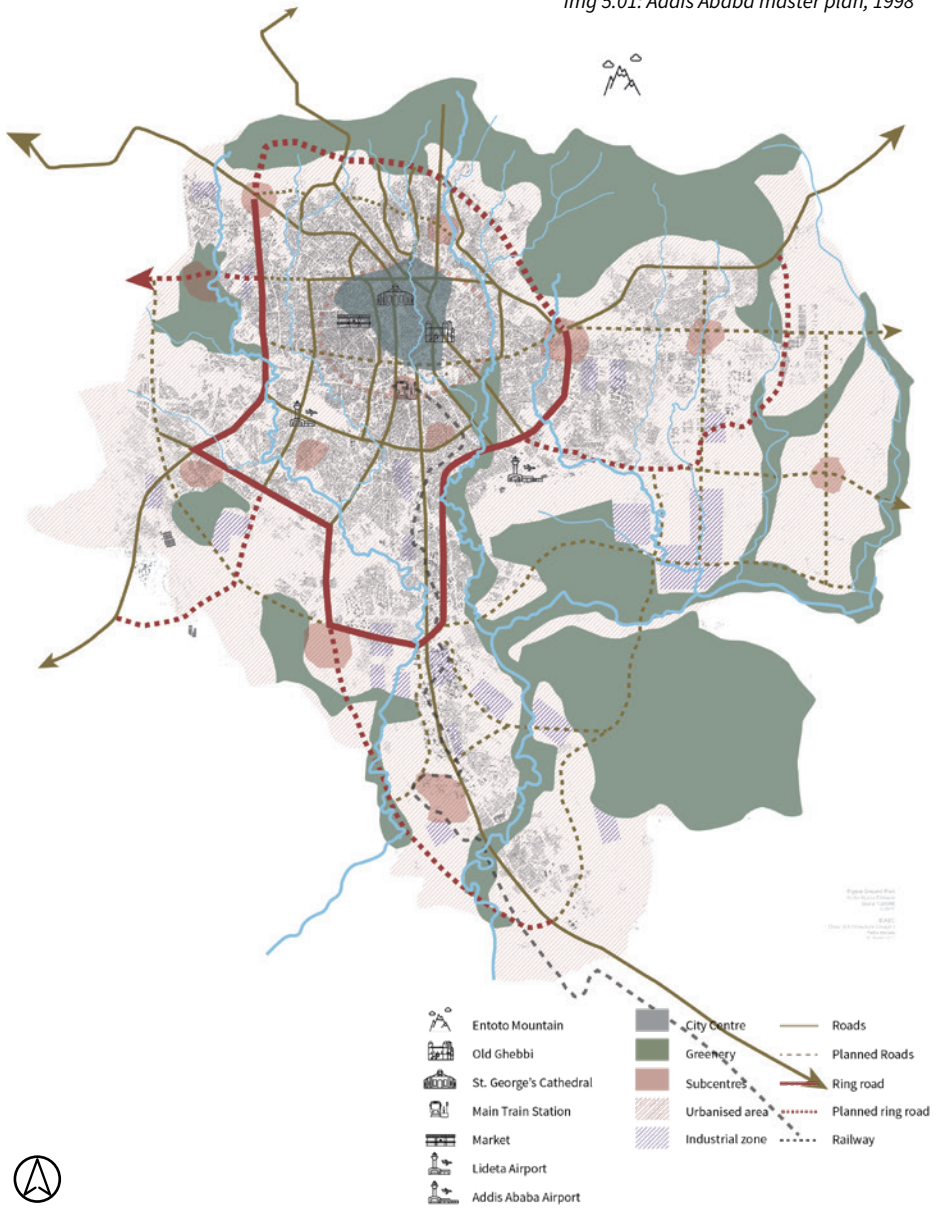
By the end of 1984, Ethiopia was struggling with the Derg regime at the highest point. Drought at that year brought the famine to the whole nation. Therefore, the World Bank took the initiative of developing the site of Nefas Silk, next to the South axis connecting the Addis Ababa and the town of Akaki. The project was the initiative of the development of the site and services concept, helping to develop rapidly growing African countries.

As the ambitions of the new government were to improve the living conditions of the urban and rural poor, the Bank's strategy was to focus on assisting the government.

The project successfully implemented all needful resources, for the development of the area: The existing structures of housing were taken into consideration while planning; amenities as standpipes and electricity were provided; the facilities, as a public school, were planned in too. Moreover, the project took terrain and possible flooding around the river into consideration.

Nowadays, the area is a bit changed. The plots are transformed by the residents, more leading to look like a closed community. Nevertheless, the system implemented by the sites and services program still is successful.

Img 5.01: Addis Ababa master plan, 1998



The Post Derg Era

RAISE OF ADDIS ABABA AND ETHIOPIA



Img 5.02: 2000 - Poor rains and war with neighbouring Eritrea brought the threat of famine to the South-eastern Ethiopia

The new government had strong ambitions to change the conditions the communist government implied on the Addis Ababa. In the first three years of the transitional government, urban growth was very slow as a result of the decentralization policy of the new government. (Van Gameren & Tola, 2017)

At the end of 1998, the Addis Ababa City Administration initiated the new master plan project. Even if, the masterplan was revised in 2002 only, the planning was responsive to the market economy and the new government's political system.

The functional areas of Addis Ababa were reorganised, revising the previously made master plan of 1986. The new plan of 1998 wished to integrate the unplanned developments of the residential areas during the Derg era as well as plan the new and available urban space in a more efficient manner.

The new masterplan revised the different plans from previous eras and strategically merged them.

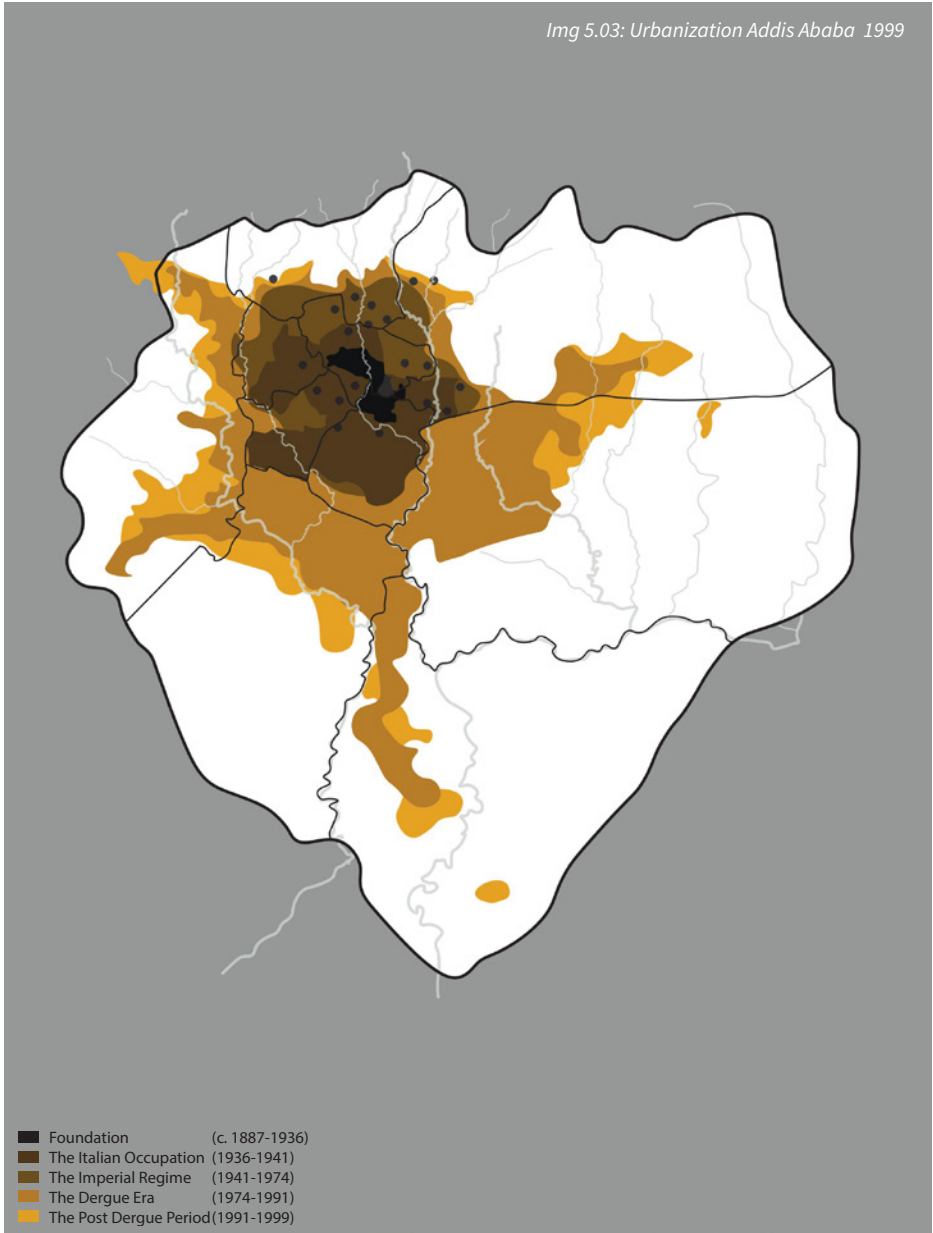
Urbanization

As the private sector was completely neglected in the communist regime, the development of housing was in very bad condition. The city expanded, as people started building informal settlements around the water bodies and the outskirts of the city, as same as densifying the old city centre near the Piazza.

The urbanization development was following the C. K. Poloniy plan, where the vision connecting Addis Ababa toward the East and Southern parts of the city and the satellite town of Akaki was incorporated. The strip stretching Addis Ababa was mainly reserved for industrial and freight terminal services. Qaliti, 20 km from Addis Ababa and Akaki was also included as the satellite city, that should serve as the commercial area for Addis Ababa's development.

The new urban scheme was based on the statutory structure-strategic planning system, which is to plan the major and framing activities as statutory or legal documents and the rest as strategic action-orientated developments in dealing with problems. (Tufa, 2008)

Img 5.03: Urbanization Addis Ababa 1999

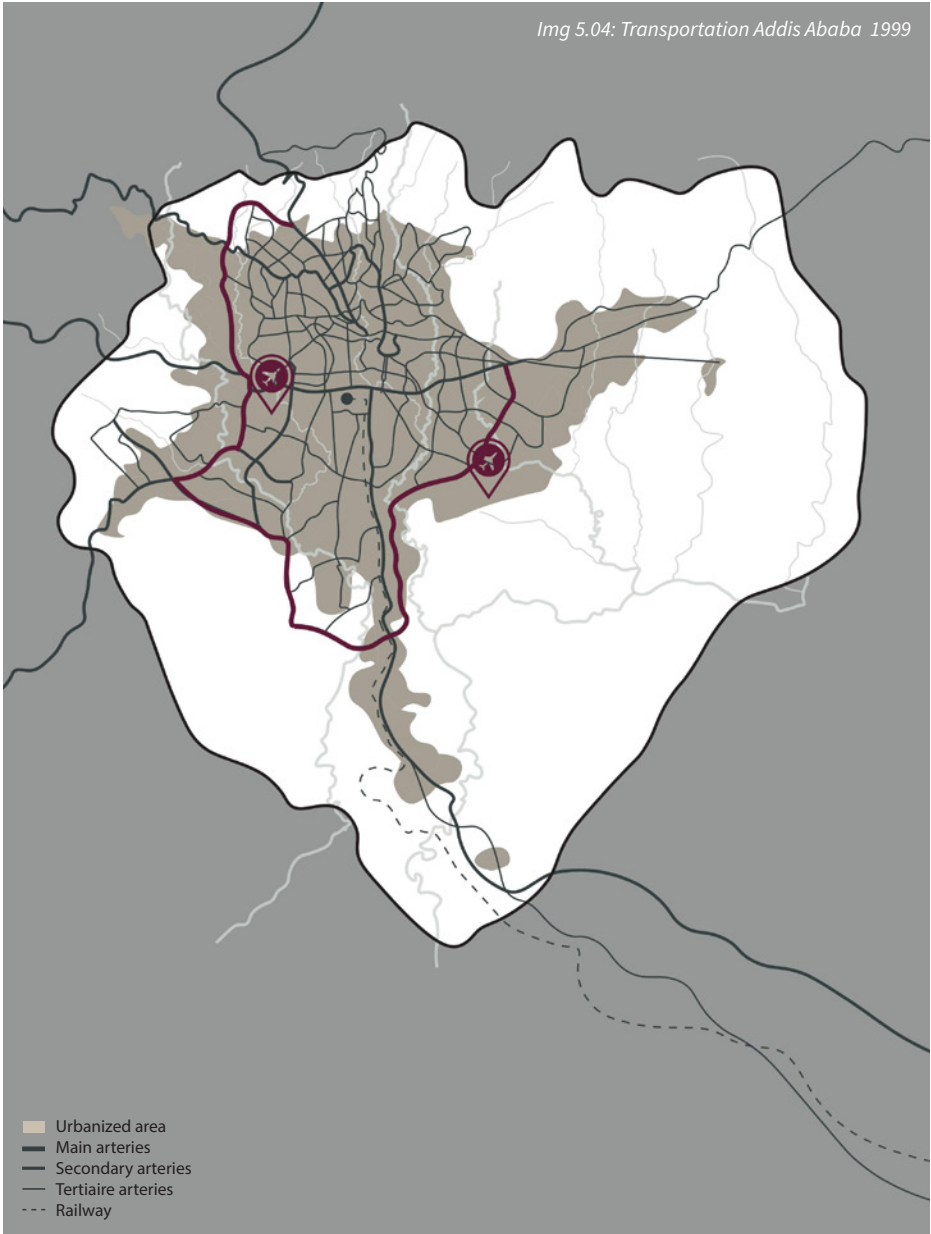


Transportation

As the previously introduced master plan of 1986, the structure of the city is framed according to two notable ring roads: the intermediate complete ring and the outer partial ring, and the East-west and the North-south axis of the existing roads. (Tufa, 2008)

The development of the South-east axis leads the transportation roads to divide the new urbanization areas, but also provided a good connection with the city centre.

Img 5.04: Transportation Addis Ababa 1999

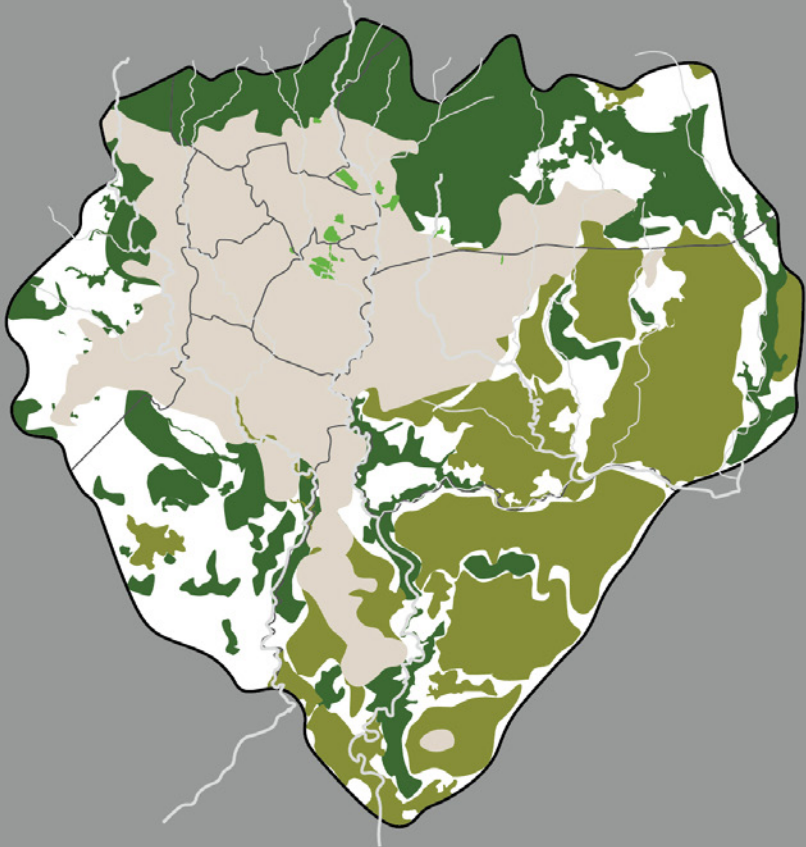


Greenery

As the drought of 1984 caused famine in the whole of Ethiopia, the new government in the first decade was almost exclusively invested in agriculture and rural infrastructure development. The plots of the rural land scattered around Addis Ababa, providing big plots for the growth of the food. (Van Gameren & Tola, 2017)

The areas of the river shores were used for cultivating, usually unexpectedly interrupting residential areas and providing different functional order.

Img 5.05: Greenery Addis Ababa 1999



- Agriculture
- Wild green spaces / Forests
- Parks
- Urbanization

Hot Spots

Kolfe Keranio

Addis Ababa was left in the limbo with a hangover of the previous dictatorial political climate. Small local administrative units known as kebele set up under the Derg regime, were also responsible for the rent and administration of the public housing program cooperatives remained as the cell of the newly created system. (Van Gameren & Tola, 2017)

As the new government was investing in agriculture, only a few housing schemes appeared during the years, leading the development of the kebele to become denser on the plot.

The areas on the outskirts of the city were developed informally and ended up as the example of Kolfe Keranio: informal structure of houses within the formal street grid.

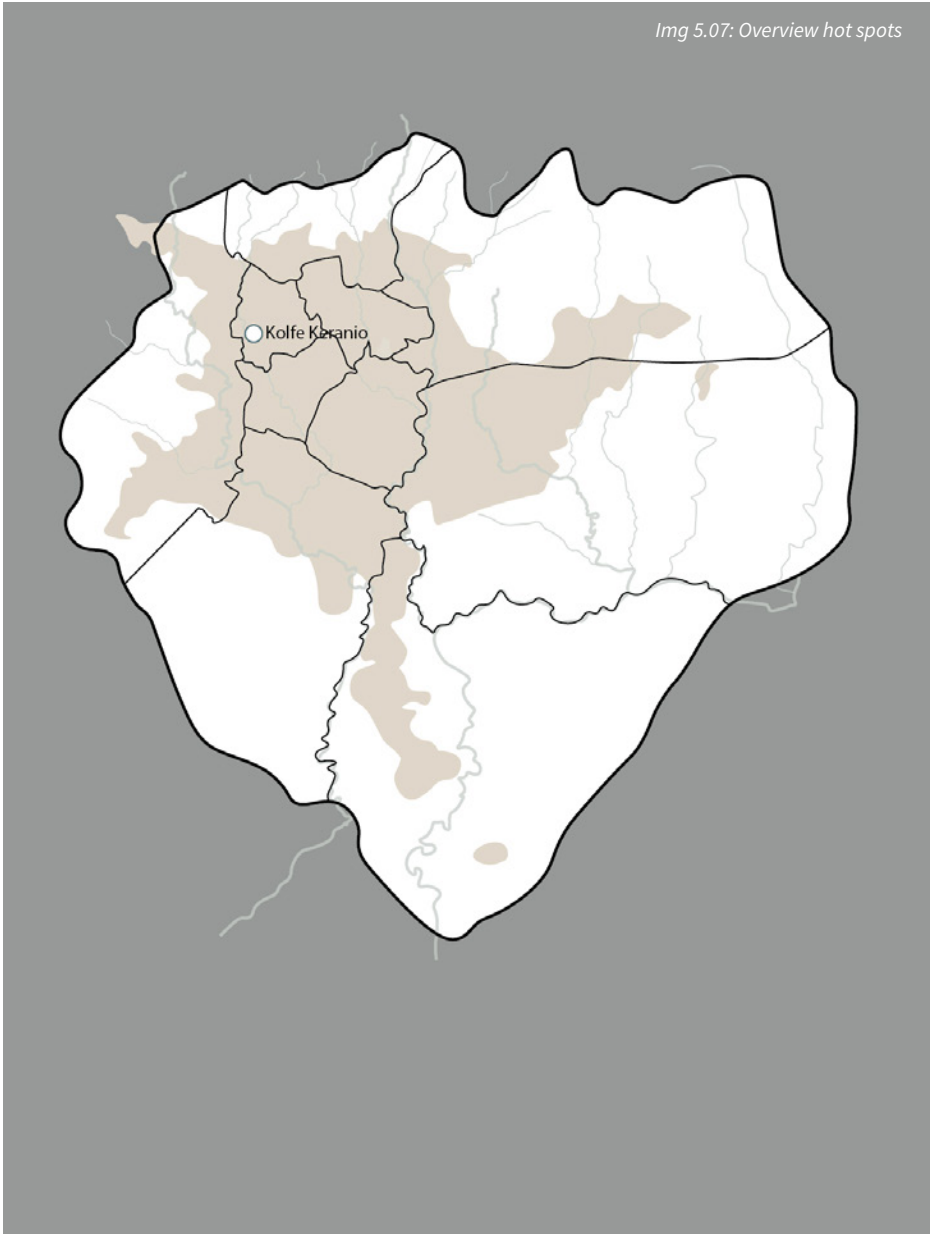
The newcomers squatted the areas of the outskirts of the city. However, without a street grid and formal development, these areas became neglected and would continue to become denser and denser. Therefore, to fix the problem at least partly, the government introduced the street grid in the developing quarters, leading to the phenomena of informal housing development within the formal street grid.

Img 5.06: Upper: informal housing settlement
Middle: introduced street structure
Down: current situation

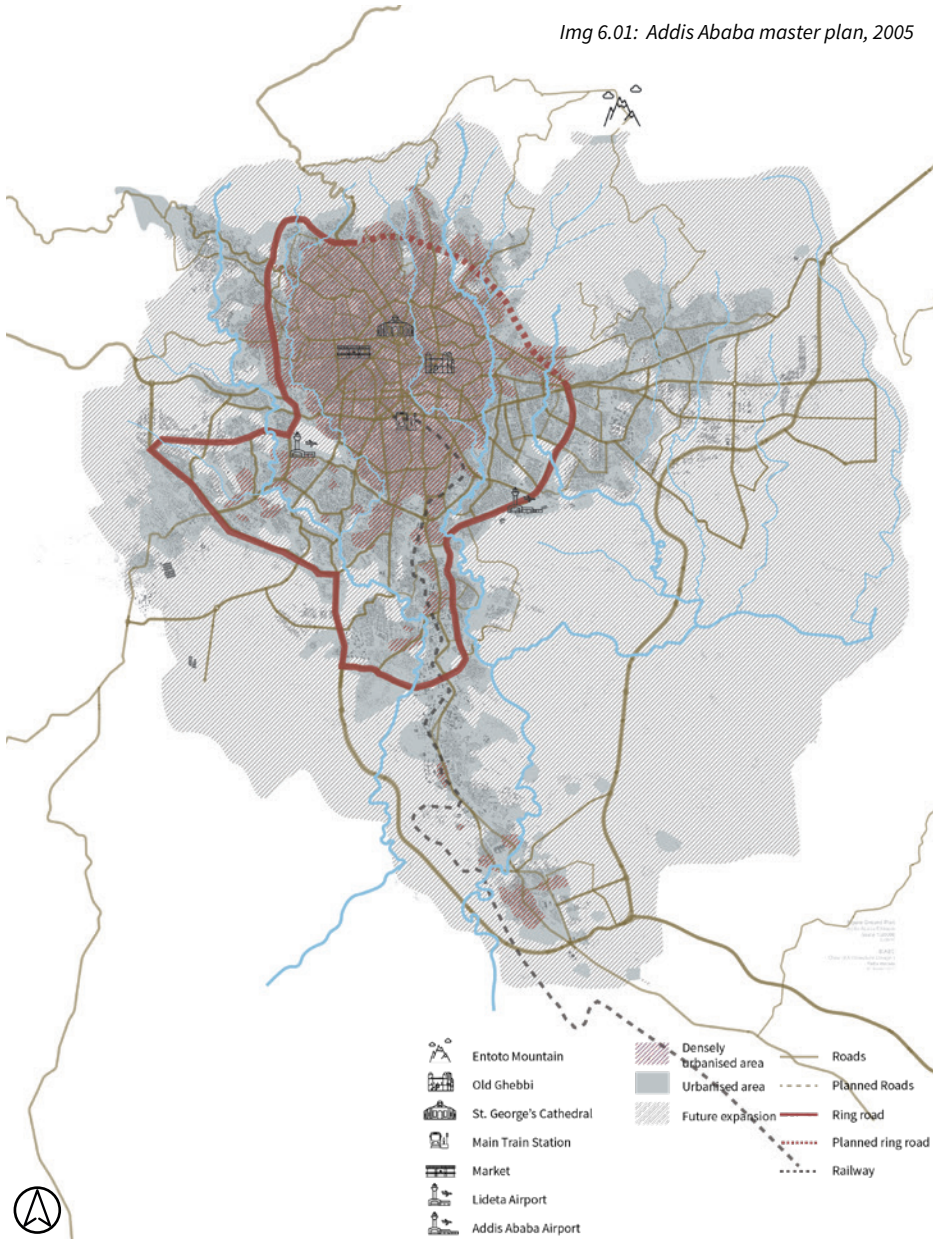


- Remainders of planned urban fabric
- Main arteries
- Secondary arteries

Img 5.07: Overview hot spots



Img 6.01: Addis Ababa master plan, 2005



Urbanization

THE ERA OF SUB-SAHARAN AFRICA'S LARGEST HOUSING PROJECT



Img 6.02: A slum in the old Piazza neighbourhood of Addis Ababa, slated for demolition

In the period around 2000, the population of Ethiopia grew rapidly. This is coupled with a high prevalence of urban poverty. The city suffers from a high amount of homelessness, urban decay, a high degree of unemployment and a shortage of infrastructure and basic services. (UN-HABITAT, 2010)

At the end of the 90s, it became evident that the Ethio-Italian master plan was not capable of the threats and problems arising in the city. The plan lacked proper policy environment, legal framework, and flexibility. This resulted in the establishment of the Office for the Revision of Addis Ababa Master Plan (ORAAMP) in 1999 to transform the Ethio-Italian master plan into sustainable urban development, considering the social and physical environments. The ORAAMPs master plan uses structural plans; a general development framework, together with action-oriented plans; instruments to promote participation and partnership between the relevant actors (Mahiteme, 2007).

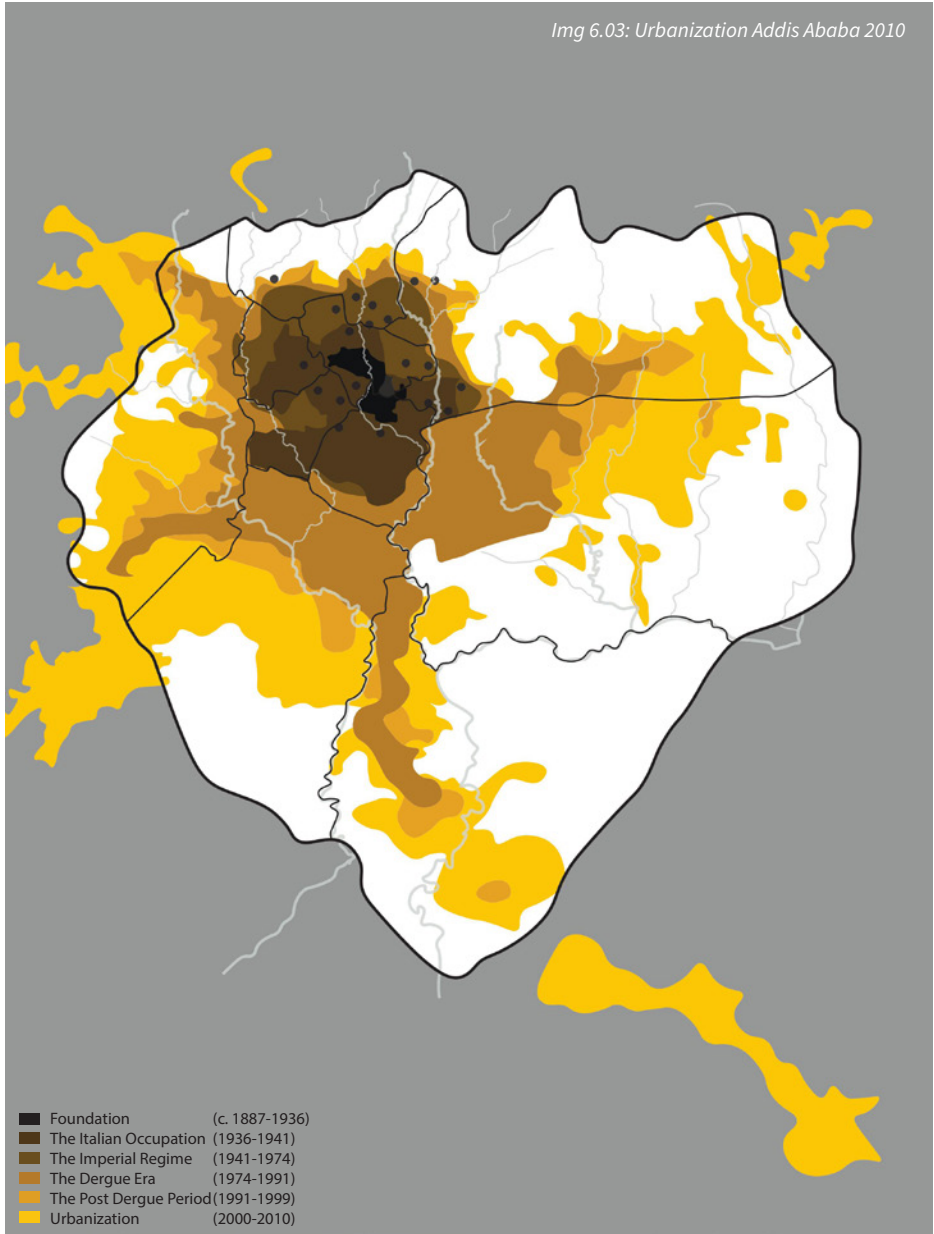
Urbanization

The revised master plan aimed to expand between already settled areas along trade routes with housing and mixed development. Mostly, these expansions are primarily occupied with state-led condominium apartment housing neighbourhoods. Besides, Addis expanded informally by migrants who are coming from the inner city and looking for affordable land for housing. However, there are others whose main goal is land speculation. (Alemayehu et al., 2018)

Moreover, one can see how the North-south axis with its industrial expansion towards the south has expanded even further in the southern direction, beyond the Akaki-Kality industrial area. However, this is not only a place for industry anymore, but it is also a place that accommodates condominium housing projects and a university campus (Alemayehu et al., 2018).

Furthermore, the city expanded along the other access roads of the city in the East and the Southwest directions. These were the areas where the main housing development areas were proposed in ORAAMPS master plan (Tufa, 2008).

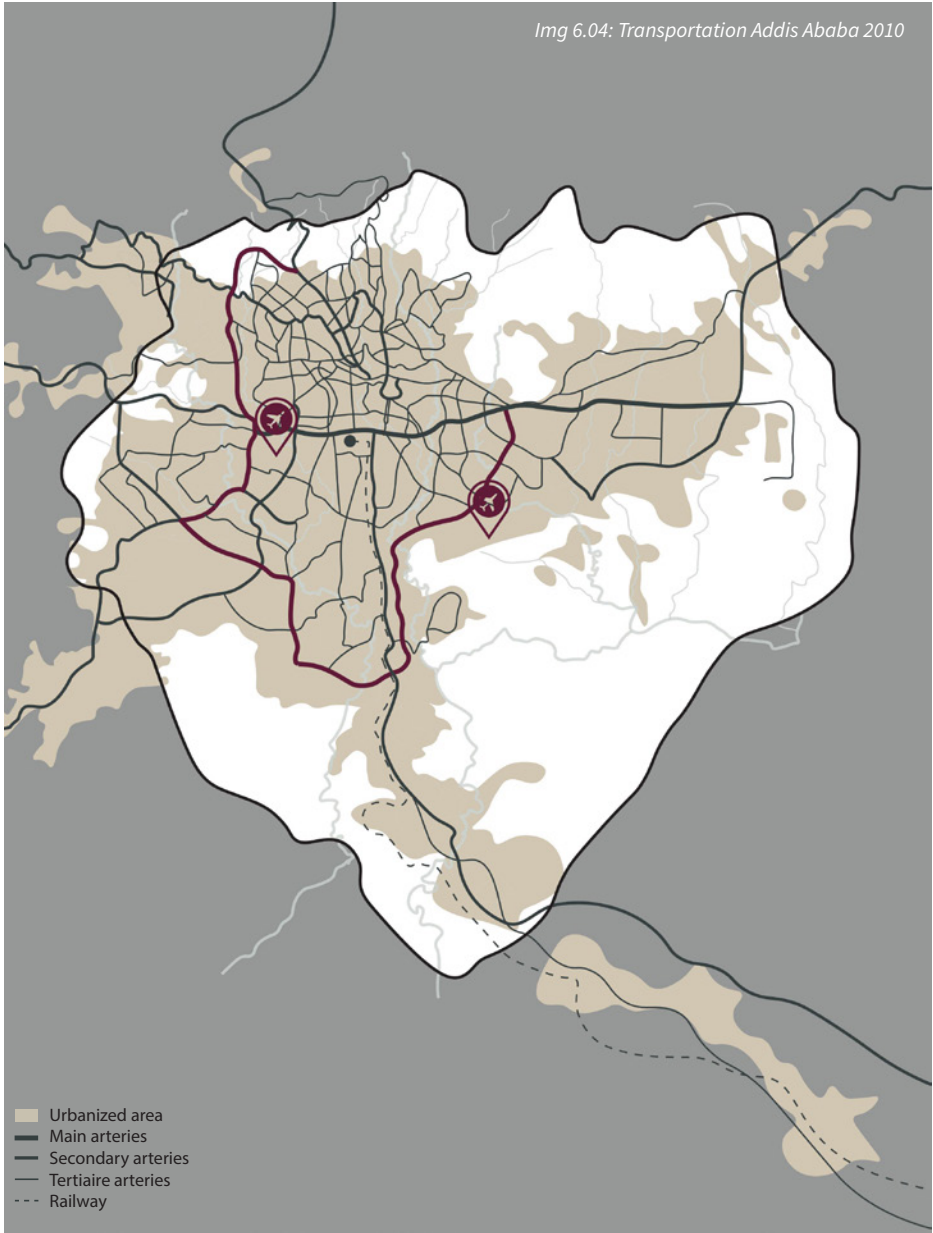
Img 6.03: Urbanization Addis Ababa 2010



Transportation

Just as in the former Ethio-Italian masterplans, the infrastructure plan of the revised master plan contains the ring road. Together with the North-south and the East-west axes, they form the main access routes of the city. Most of the roads have been constructed, however, the Northern part of the ring road has not been finished during the urbanization era. (Tufa, 2008)

Img 6.04: Transportation Addis Ababa 2010



Condominium 2006

As a reaction to the poor inner-city slum-dwelling conditions, The Integrated Housing Development Programme (IHDP) has been initiated in 2005. This is an ambitious state-led low and middle-income housing program aiming to construct 400,000 condominium units.

The map on the right shows the condominiums constructed until 2006. From these condominiums, only 1 percent is 4 floors or higher (Larsen et al, 2019). One can see how the condominiums are in this phase of the program still relatively equally spread throughout the city. However, there is a tendency of locating the condominiums on the periphery and/or at places where no employment opportunities are available (UN-HABITAT, 2010).

In the remainder of this chapter will be zoomed in on the urban fabric of the condominiums. The Condominiums which will be discussed are Bole Gerji, Mickey Leland and Summit.

Img 6.05: Condominiums Addis Ababa, 2006



Hot Spots

Bole Gerji

Bole Gerji condominium was the first condominium project constructed in Ethiopia and is located just outside the ring road in Gerji neighborhood on a brown-field site (UN-HABITAT, 2010). One can see how this pilot project densified the urban fabric with a slab morphological typology, which contrasts with the existing urban fabric.

Img 6.06: Upper: situation 2004
Lower: situation 2006



■ Original
■ Addition

Img 6.07: Overview hot spots



Mickey Leland

Img 6.08: Upper: situation 2004
Lower: situation 2009

Mickey Leland is in the north-western part of Addis Ababa in Kolfe Keranio sub-city. It used to be a green area with agriculture lands on the periphery of the city. The construction finished in 2009 and houses 4637 households. The building blocks are G+4 and have a slab morphological typology (Duguma, 2019). The condominium is isolated from the city and does not unify with the existing urban fabric.



Img 6.09: Upper: situation 2004
Lower: situation 2010

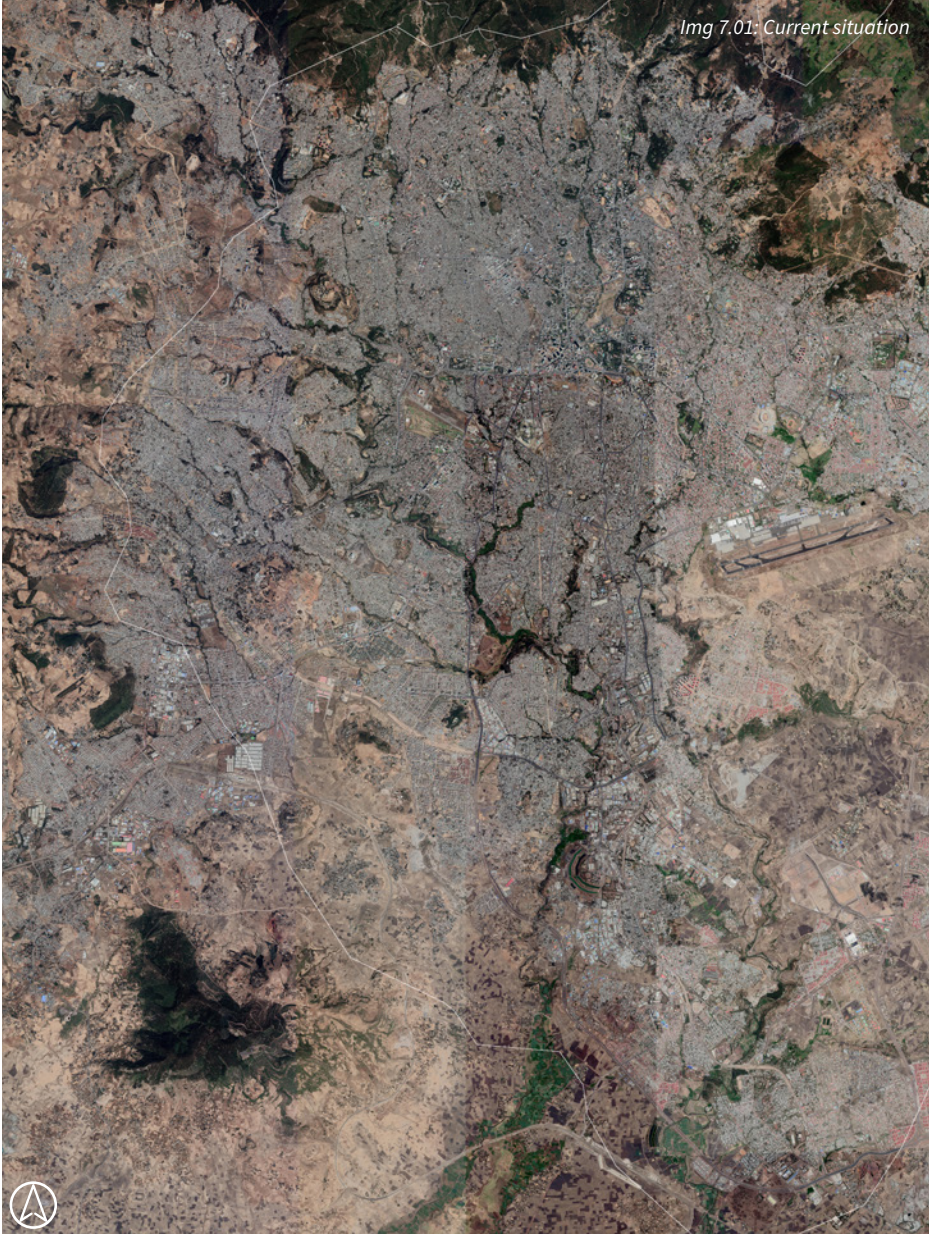
Summit

The summit condominium is located in the Eastern part of the city far in the periphery. It was previously an area for agriculture. One can see how in this condominium the slab typology is used but with different morphological patterns: there is no rigid constant grid-like structure. Just as many other condominiums Summit is not merging with the existing urban fabric; the newly created neighborhood is isolated from the city.



■ Original
■ Addition

Img 7.01: Current situation



Globalization

“CARS CHUG THROUGH THE CITY ON SMOOTH CHINESE ROADS, CHINESE CRANES LIFT THE SKYLINE, SEWING MACHINES HUM IN CHINESE FACTORIES IN CHINESE-OWNED INDUSTRIAL PARKS, TOURISTS ARRIVE AT THE CHINESE-UPGRADED AIRPORT AND COMMUTERS RIDE MODERN CHINESE TRAINS TO WORK.” -JENNI MARSH



Img 7.02: Another high-rise building goes up in Ethiopia

From the last decade, the population in Addis Ababa increased over 25 percent, while the “built” area of the city increased by around 40 percent (Larsen et al., 2019). These two factors intensify the challenges of housing and urban facilities to Addis Ababa, meanwhile the city is on its way to present itself as the capital of Africa, with a brand-new image of modernity.

In two decades, the Chinese provided Addis with an \$86 million ring road, the Gotera Intersection (\$12.7 million), Ethiopia’s first six-lane highway (\$800 million), the Ethio-Djibouti Railway line (\$4 billion), and the first Metro system in Sub-Saharan Africa in Addis. According to Alexandra Thorer, the speed at which Addis grew mirrored the pace of 21st-century urban explosion in China. (Marsh, 2018)

“Addis has been radically transformed,” says Ian Taylor, “Huge skyscrapers are changing the whole profile of the city”. A 46-story glass tower will be the tallest in Ethiopia when finished in 2020 by the China State Construction Engineering Corporation.

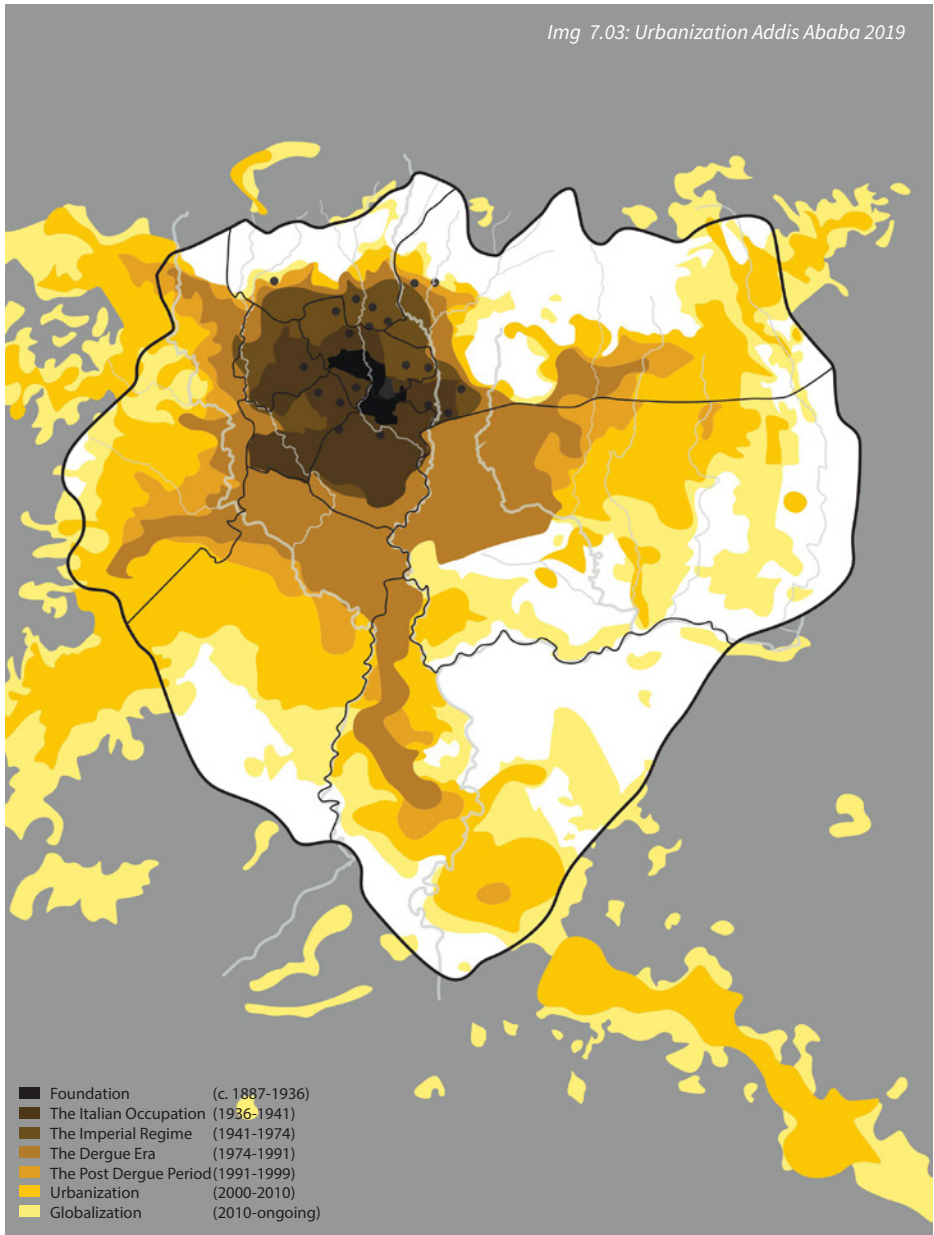
Urbanization

There has been a huge expansion of the periphery around Addis Ababa, apart from the old urban core to the directions of east, south, and southwest, along the main arteries of A2, A1, and A5, connecting nearby towns of Sendafa, Dukem and Alem Gena. The west and north directions are blocked by Mountain Entoto and Mountain Wachacha. Thereby the isolated spots which appeared in the outskirts of the city during the last era are connected to the city centre by the newly urbanized area.

The greatest activity is in the Bole District, which includes Bole International Airport. There is a substantial amount of new commercial high-rise construction within a few kilometres to the north of the airport, along with two major arterials and in between. There are also many large, private condominium buildings. (Cox, 2012)

An eastern corridor stretches for 6 miles/10 kilometres from what is locally called the “Chinese Road,” a ring road built largely with the support of the Chinese government. There are many new commercial buildings, government buildings, public and private condominiums, and at the edges, large new detached houses, like CDD Home Sites. To the southwest, is a new residential neighbourhood composed principally of condominiums, generally up to five floors. (Cox, 2012)

Img 7.03: Urbanization Addis Ababa 2019

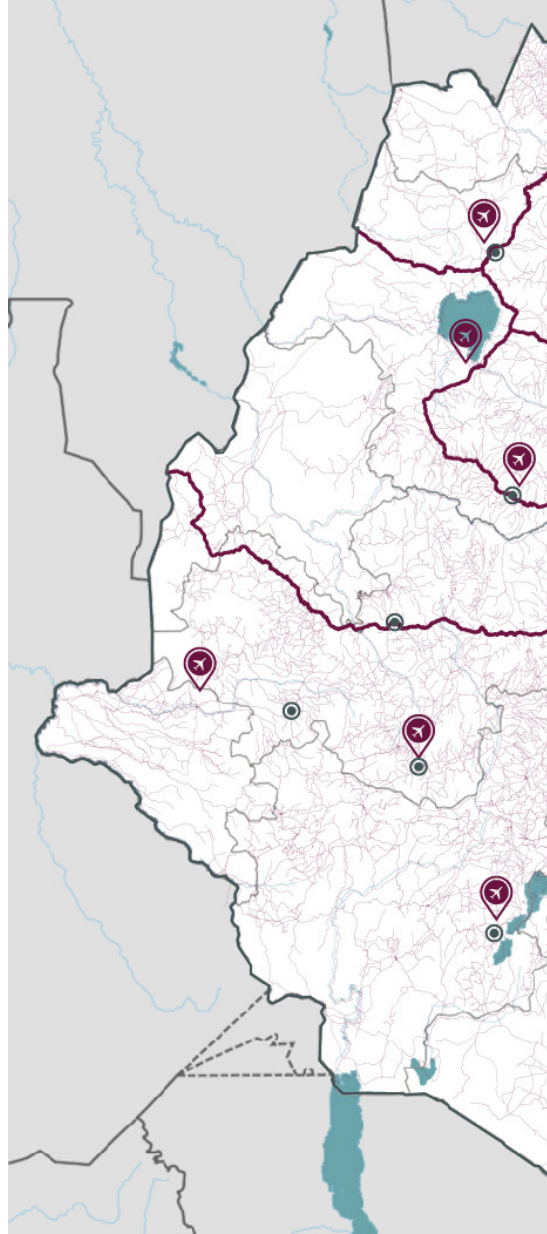


Infrastructure of Ethiopia

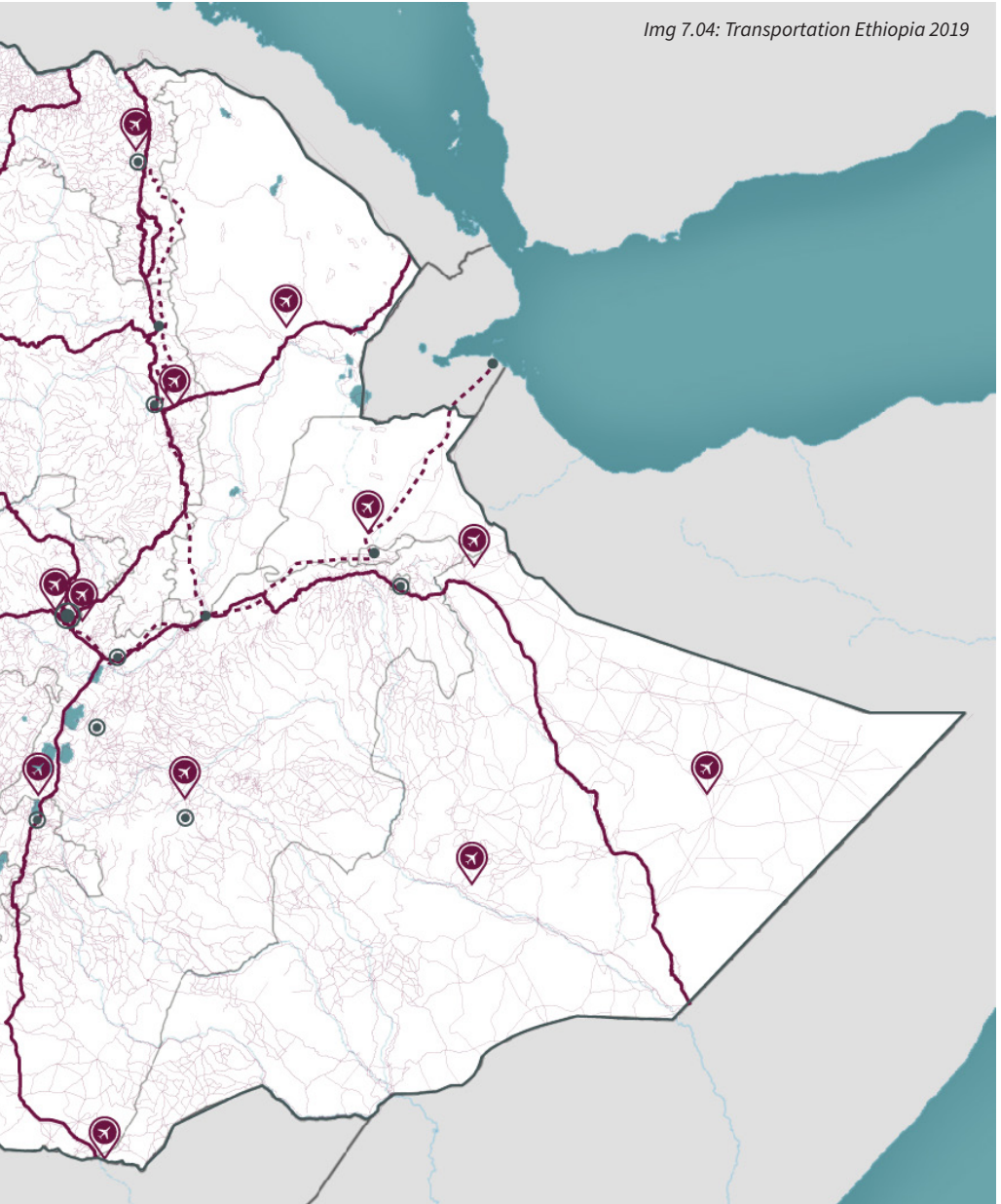
Ethiopia, as a landlocked country with largely non-navigable rivers, its transportation is mainly developed on roads (Shiferaw et al., 2012). As shown in the right map, the main arteries radiating out from Addis Ababa, connecting the major cities.

There are currently only two railways in Ethiopia are the Addis Ababa-Djibouti railway, which provide the country with access to the Aden Gulf, and the Hara-Gebeya Awash – Mke'ele railway serving as a northward extension of the new Ethiopia National Railway Network, which is still under construction.

There are over 50 airports in the country. Most of them flying within the continent, except for Bole International Airport in its capital Addis Ababa.



Img 7.04: Transportation Ethiopia 2019

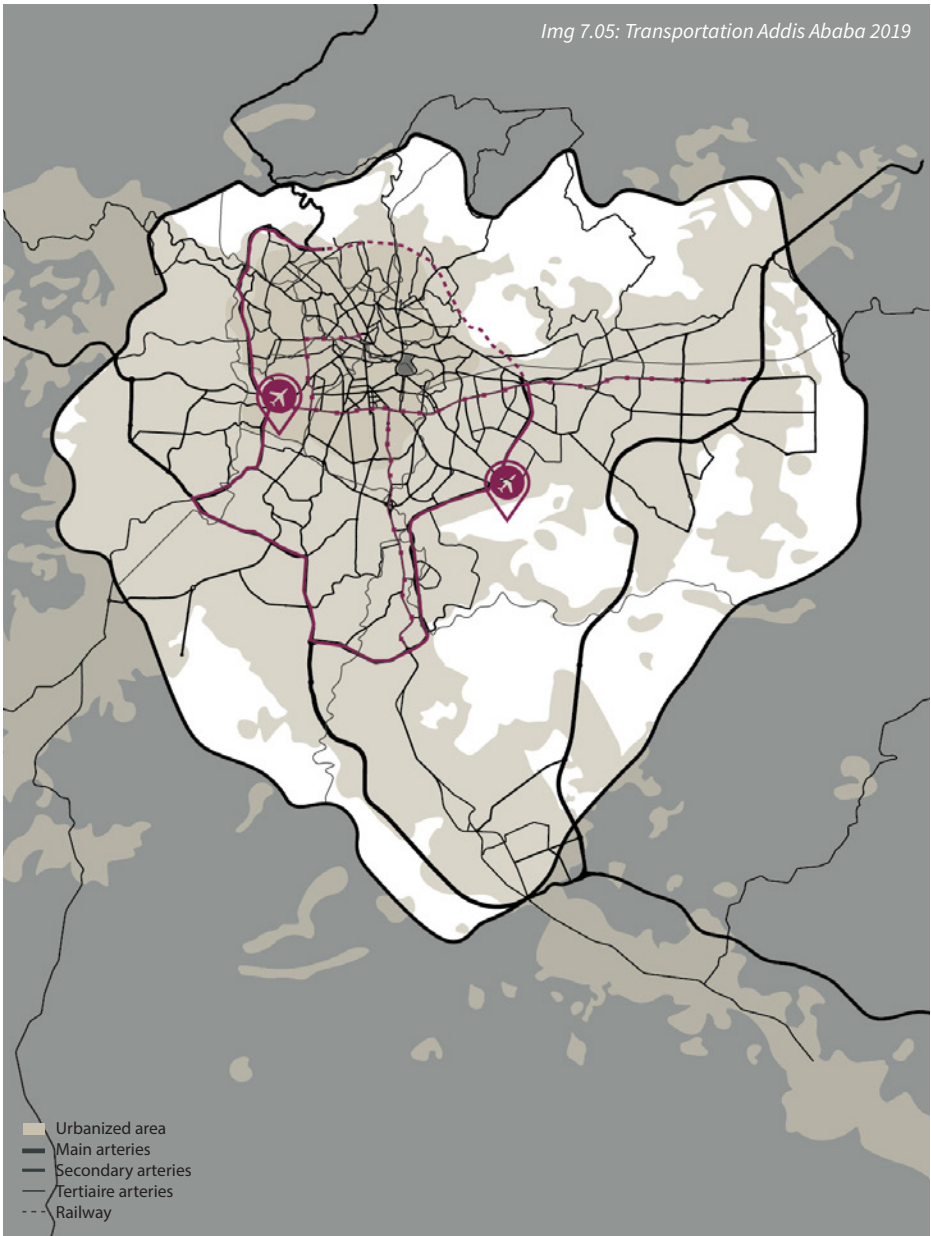


Transportation

The transportation in the globalization era is much about the light rail constructed in 2015, which is also the first light rail and rapid transit in eastern and sub-Saharan Africa. It is a 34-kilometer two-line network serving 39 stations, built by China Railway Engineering Corp. The project has been 85% funded by loans from Export-Import Bank of China. In the eye of Transport Minister Workneh Gebeyehu, the light rail is a “sign of modernity, which will serve the capital city of Africa”. (“Addis Ababa light rail opens”, 2015)

It is also about the newly upgraded Addis Ababa Bole International Airport, formerly known as Haile Selassie I International airport. It is again a china-funded project, which began its construction in 2015. The airport now can accommodate up to 22 million passengers a year. (Tubei, 2019)

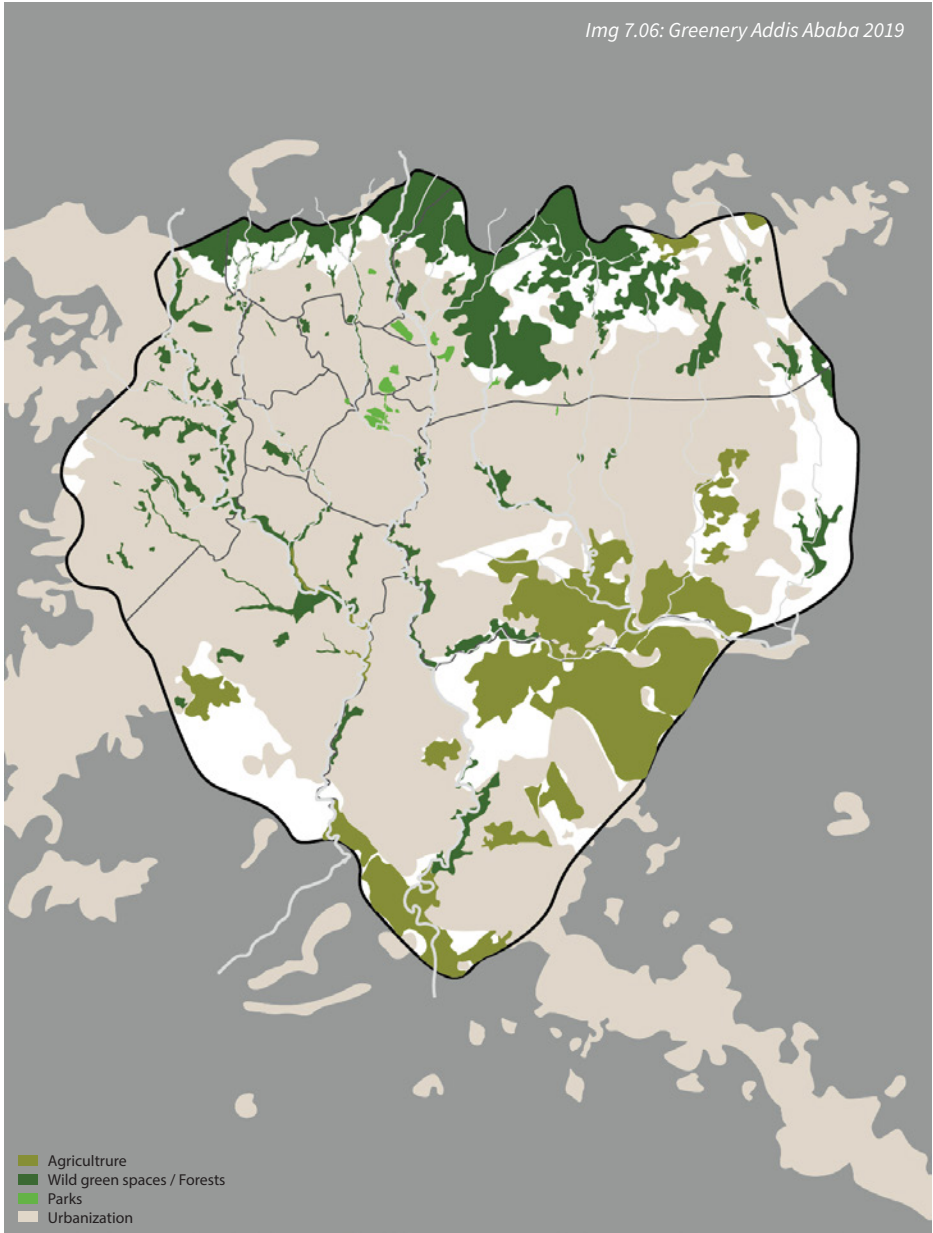
Img 7.05: Transportation Addis Ababa 2019



Greenery

During the globalization era, the urbanization of Addis Ababa has been speeded up. Corresponding to the expansion of the urban area is a continuous decline in greenery. On the outskirts of the city, agriculture lands are used for housing projects, as for condominium or high-end residential. This severe deforestation aggravates the environmental degradation, as well as the flood threat.

Img 7.06: Greenery Addis Ababa 2019

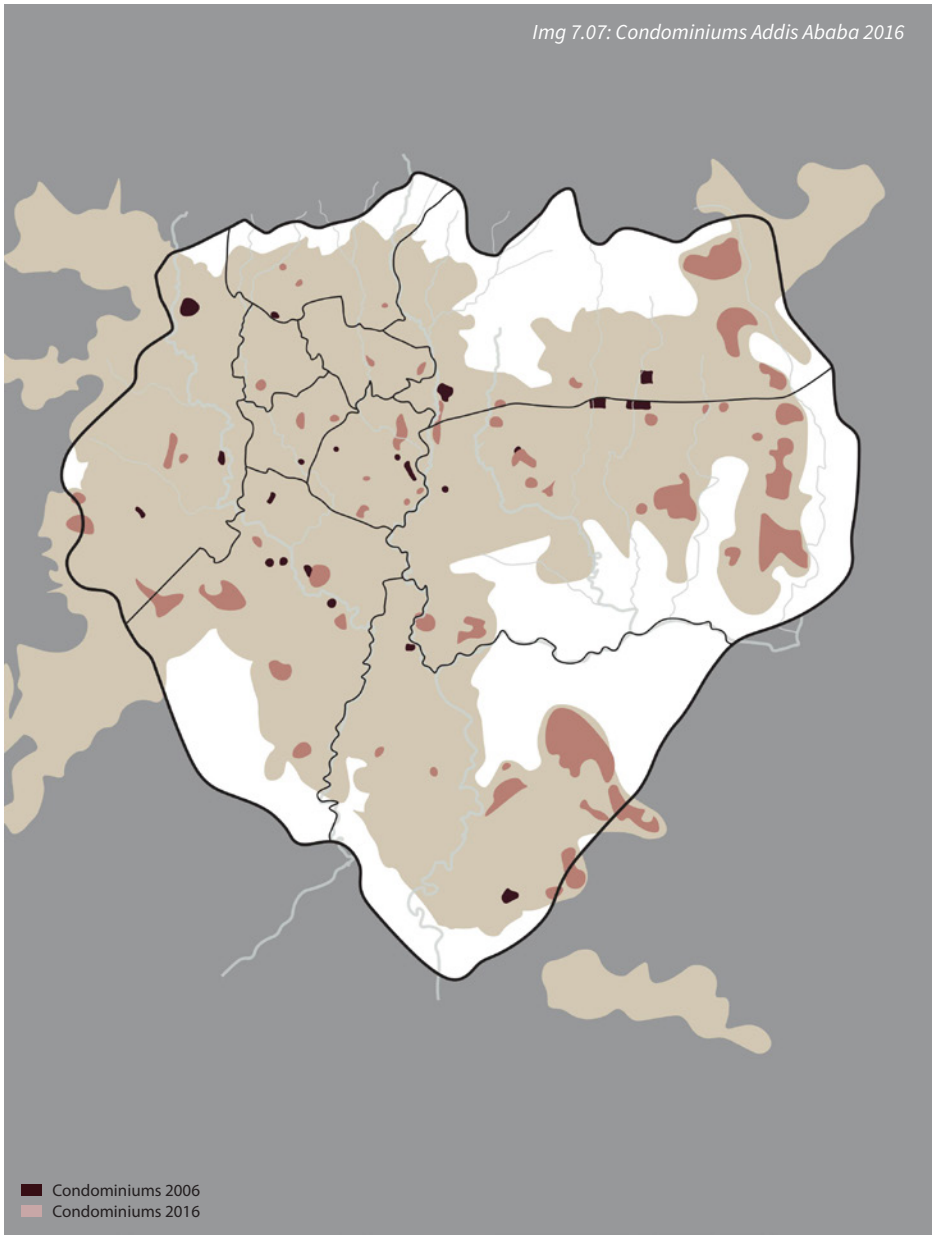


Condominium 2015

During the Urbanization period the Integrated Housing Development Programme (IHDP) has been initiated to tackle the poor housing condition for the lower income households (UN-HABITAT,2010). In the previous chapter we have seen the early appearances of the condominiums which are max G+4 (Ground floor plus four stories). However, densification is the driving concept behind the condominium housing, since it is cheaper to develop high-rise housing units (especially in the inner city) (UN-HABITAT,2010).

As a result, the percentage of high-rise condominiums (4 floors or higher) is increasing substantially from 1% in 2006 to 11% by 2016 (Larsen et al, 2019). On the map on right one can see also that most of the new higher density condominiums are located on the far eastern edge of the city (Larsen et al., 2019).

Img 7.07: Condominiums Addis Ababa 2016



Hot Spots Sengatera

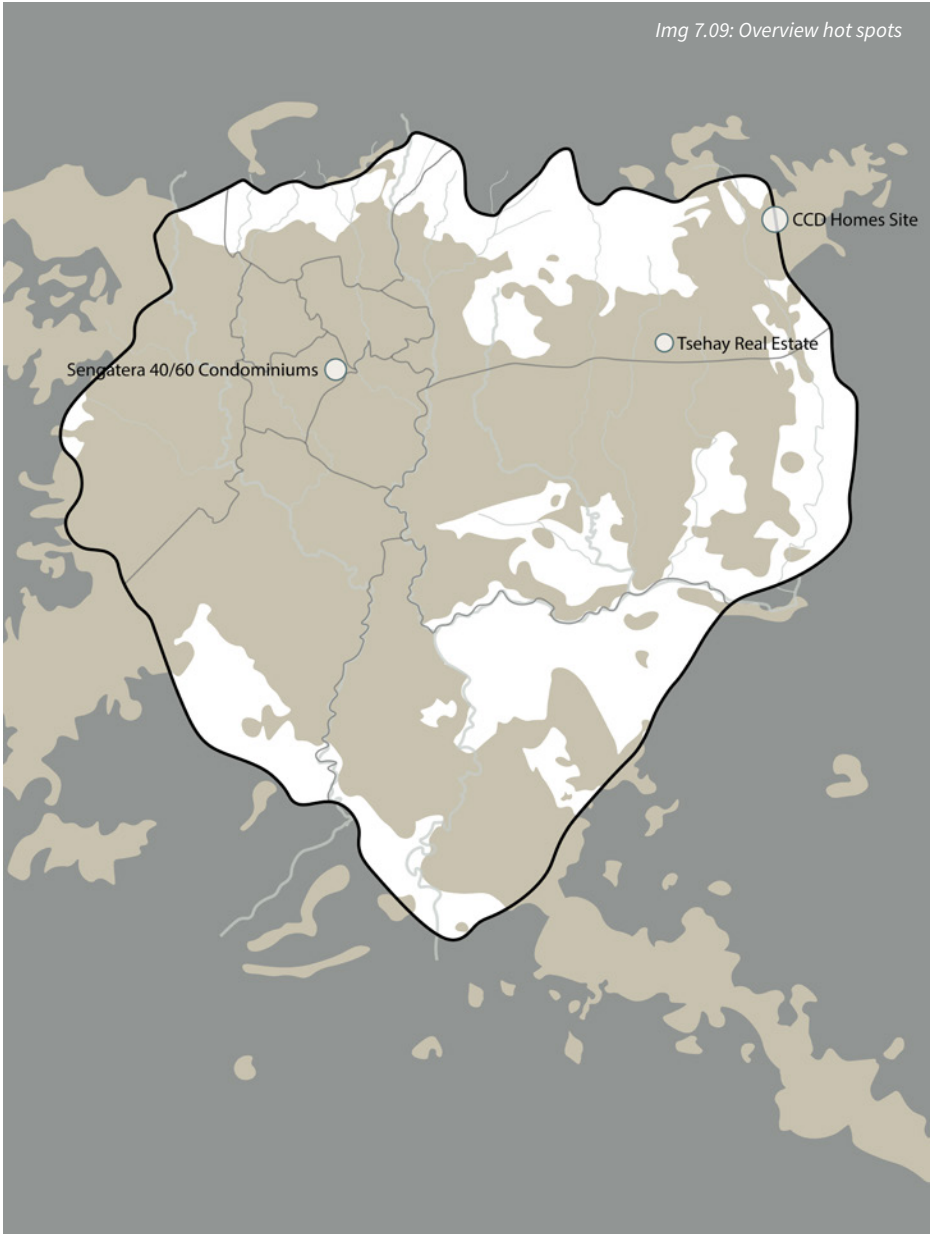
Sengatera was completed in 2013 and is an example of a high rise 40/60 condominium. It is located in the city center close to Meskel square, has a H-shape and is a G+11 type of housing unit. Previously this plot of land was occupied by informal dwellers. On the images on the right, one can see how these informal housing blocks made place for the 40/60 condominium which is not merging with the existing urban fabric.

*Img 7.08: Upper: existed situation
Lower: current situation*



- Original
- Condominium
- Private developments

Img 7.09: Overview hot spots



CCD Home sites

Img 7.10: Upper: previously existed agriculture lands
Lower: current situation

CCD Home Sites is a real estate program located on the Legatafo Town, next to the boundary between Addis Ababa and Oromia. It is connected to the city centre 20 kilometres away by the highway A2, ideally half an hour driving distance.

As the name Country Club Developers indicates, this project is close to a typical American suburb dream of a house with a double pitched roof, having a garden and parking lots on the front. It is a gated community consists of 4100 villas and 1000 apartments (“Country Club Developers, Addis Ababa - Ethiopia - Home”, n.d.).

Many of these properties are bought by Ethiopian American living abroad, as holiday houses and a way of investment. Although only a few of the houses are regularly dwelled by people, the project keeps on expanding. Back to 2005, the plot and its surroundings was nothing more than agricultural lands. In 2015, the first phase construction was completed. The second phase took more the land from the east and it is still on-going. In the meantime, the facilities next to the A2 highway were also developed.



Img 7.11: Upper: previously existed situation
Lower: current situation

Tsehay real estate

Tsehay Real Estate is another gated community located in Yeka Sub-city, on the eastern urban part of Addis Ababa. The project as the most expensive real estate on the market, consists of high-end hotel, offices, residential buildings, and commercial street, with independent water and power supply system (Marsh, 2018). It is ambitious to be a new landmark which helps with setting up a new living standard and turning itself into a figure of the modernity of Addis Ababa. It is also an example of prevailing foreign investment (especially Chinese investment) in Addis. The shareholders behind it are GC Overseas construction (Ethiopia) LTD and Mr. Qian Xiao. (“Tsehayrealities”, n.d.)



- Original
- Tsehay Real Estate
- Other new construction

The highrise of Addis Ababa

Addis Ababa currently has over 50 high-rise buildings, including 2 skyscrapers. Many more are still under construction. Planned to be completed in 2019, the Commercial Bank of Ethiopia Headquarters will be the highest building of the country, with the height of 198m. (GmbH, 2019)

The futuristic African Union Headquarters, as a gift by Beijing in 2012, constructed from 2008 to 2011, the is cities most symbolic skyscraper. It's a \$200 million structure which is 117 meters high. (Marsh, 2018) It is designed by Tongji Architectural Design Group from China. Nani tower, design by Architect Hailegebriel Gebre Sellasie, is 103m high. The construction started in 1998 and ended in 2004. It is mainly used as a commercial office with restaurants and conferencing space. Wegagen Bank Headquarters, approximately 86m high, is the third place. It's a commercial office built from 2013 to 2017, with 23 floors above ground. (GmbH, 2019)



Img 7.12: African Union headquarters



Img 7.13: Nani tower



Img 7.14: Wegagen bank headquarters

Img 7.15: High-rise buildings currently



The formation of Addis Ababa nowadays is the consequence of diverse political regimes and planning initiatives, including the infrastructure development, topographical terrain, man-made informal and governmental planned built environment.

The original settlement planning proved that since the creation of Addis Ababa gaining political power over Ethiopia was one of the

most important aims to settle the city in the valley of Entoto mountain.

The existing structure and typo-morphology of the capital is the reflection of both the planning initiatives and the informal developments.

Even if many planning initiatives were organized, the city was mainly shaped by the spontaneous informal developments and expansions.

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SPATIAL MAPPING

2019

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