

Flow

_opportunities for future upgrading of Asmara

what

We are five architecture students who have done two master projects in the capital city of Eritrea, Asmara. One project proposes a possible strategy for the future development of the informal settlement Aba Shawl, while the other is proposing key projects that will inspire a sustainable upgrading of the city's public transport area.



Eritrea is located on the Horn of Africa, along the Red Sea. The country is bounded to the southeast by Djibouti, to the south by Ethiopia, and to the west by The Sudan. It was an Italian colony from 1889 to 1941.



Asmara is the capital city of Eritrea, and has about 580 000 inhabitants. The city lies 2325 metres above sea level and is called "Little Rome" because of the architecture and the lifestyle the inhabitants lead, clearly influenced by the colonial time.

background

We were first introduced to the possibility to do our master thesis in Asmara in September 2010, but the collaboration between the Department of Infrastructure(Dol) in Eritrea and the Norwegian University of Science and Technology (NTNU) started already in February 2010 when Dean Tore Haugen from the Faculty of Architecture and Professor Svein Bjørberg travelled to Asmara. The Norwegian Embassy of Eritrea facilitated contact with Eritrean counterparts and provided some practical support. The possibility that master students from NTNU could do their master thesis in collaboration with Dol were among the things being discussed.

November 2010 we left for Asmara, and together with Dol we found engaging projects that both parts had interest in. When we went back in February 2011 we discussed the path our projects had taken together with the Dol. The finished projects will be sent to Asmara, where they will be displayed.

motivation

Because of the lack of architects in Asmara, they express a need for architectural assistance from other countries. We hope we can contribute in this matter, and we want our project to be useful.

The Department of Infrastructure (Dol) in Asmara has great plans for the city. Many of them are presented in their Strategic Urban Development Plan (SUDP). An extensive amount of research and investigation lies as a basis for this plan. They have mapped several topics such as population density, water supply, paved roads and sewerage, which have resulted in a plan with clear goals and priorities for future projects. However, the SUDP seems mainly to be a larger scale plan for the future growth of the city. Hopefully, we can contribute with ideas and visualizations based on architectural analysis in a smaller scale. In addition, we wish to do a project that can provide them with information about our working methods and process.

We attempt to study the complex situation in this special culture and city. The challenges of limited resources, different climate and unfamiliar building techniques must be included and solved in our design for the projects to be valuable.

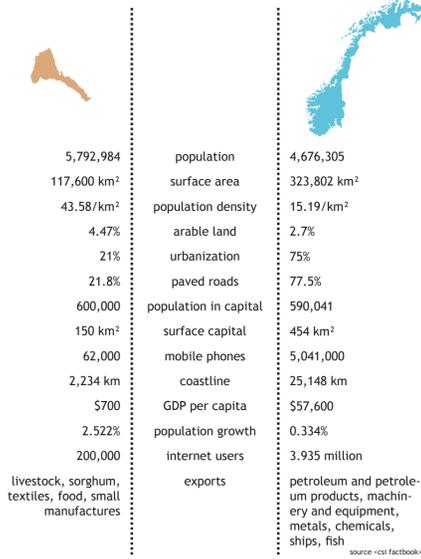
collaboration

At this moment, Eritrea has no architecture study program, which in many situations causes a shortage of architectural expertise. There is therefore a desire to start educating architects at the Eritrean Institute of Technology (EIT). By involving architecture- and civil engineering students from NTNU they wish to gain new ideas and inspiring projects, as well as a look into how we work as students.

We have been five architecture students and three civil engineering students doing our master thesis in Asmara. Through this project we will get the chance to work with realistic and exciting projects that we would not normally be able to do. Because of the large group of students and all the support and involvement around us, we are able to look at complex projects in diverse situations. We see this as a once-in-a-lifetime-opportunity to learn about working in an entirely different culture and setting.



eritrea



With more than 2,000 km of coastline, Eritrea's coastal location has been important in its history and culture. The Red Sea was an important trade route that powers such as Turkey, Egypt and Italy hoped to dominate by seizing control of ports along the Eritrean coast. Access to the Red Sea has also been an important issue in the struggles between Ethiopia and Eritrea since Eritrea's independence in 1993.

Eritrea's land is highly varied. Running on a north-south axis through the middle of the country are the central highlands, a narrow strip of country some 2,000 metres above sea level that represents the northern reaches of the Ethiopian Plateau. Asmara lies on this plateau, and has therefore a comfortable climate, with an annual average of 17 °C.

The environment is a determining factor in the distribution of Eritrea's population. Although the plateau represents only one-fourth of the total land area, it is home to approximately one-half of the population.

history

25th century B.C ancient Egyptians trade with a land known as Punt (or "Ta Netjeru," meaning god's land)

8th century B.C a kingdom known as D'mt is established in Eritrea and northern Ethiopia, with its capital at Yeha in northern Ethiopia

4th century B.C the Kingdom of Aksum is founded, including parts of today's Eritrea. The kingdom is established by arabs crossing the Red Sea, establishing trading stations.

7th century A.D with the rise of Islam, the power of Aksum declines and the Kingdom becomes isolated, the Dahlak archipelago, northern and western Eritrea, comes under increasing control of Islamic powers based in Yemen and Beja lands in Sudan

1557 Ottoman invasion, they take the port city of Massawa and the adjacent city of Arqiqo

1865 Egyptians take control of the northern coastal areas

1869 the opening of the Suez canal gives Eritrea a strategic position for European trade with Asia.

1870 an Italian shipping company buys a small area around the port city of Assab. The Italian state takes control of the area in 1882.

1885 the italians disembark in Massawa, demanding colonial dominion.

1890 Eritrea is declared Italian colony.

1941 Great Britain takes control of the area

1952 the United Nations resolution to federate Eritrea with Ethiopia went into effect

1962 Eritrea is annexed to Ethiopia as an Ethiopian province.

May 1991 the EPLF established the Provisional Government of Eritrea (PGE) to administer Eritrean affairs until a referendum was held on independence and a permanent government established.

April 1993 Eritreans vote in favor of independence in a UN-monitored referendum. The result of the referendum is 99.83% for Eritrea's independence.

24 May 1993 Eritrea becomes an independent state. The assembly chooses Isaias Afewerki as President. The EPLF reorganizes itself as a political party, the People's Front for Democracy and Justice (PFDJ).

1998 a border dispute with Ethiopia leads to the Eritrean-Ethiopian War in which thousands of soldiers from both countries died.

2000 the border war ends with the signing of the Algiers Agreement.

2008 UN peace keeping forces withdraw from the country.

aerial photo



asmara



Although the city was not established as the country's capital until 1897, the area has been populated for more than 700 years. Originally there were four villages in the area, which were later united, encouraged by the women of the villages. They formed Arbaete Asmera, which in Tigrinya means, "the four are united".

The Italians occupied Eritrea in 1889, and made their first urban plan for Asmara in 1895. They made significant architectural works, such as Teatro Asmara, Palazzo della Posta and the Cathedral, in addition to making improvements in the medical, agricultural and infrastructural area.

By the late 1930s the face of the town was changing, with a new structure and new buildings. The rapid transformation of Asmara from a relatively minor town into Africa's most modern and sophisticated city at that time overlapped with equally momentous events in the world of design and architecture. The spirit of this new age of travel and adventure was embodied in these new architectural forms. Asmara was an ideal blank canvas on which Italian architects could practice and realise these modern ideals. From 1935-1941, thousands of buildings were constructed in the city, most of which reflect various Modernist styles.

The Italian influence in the city is visible also in the urban planning, and the regulation plan from 1938 is still used as a foundation for urban city plans. Being developed, however, during the fascist regime of Mussolini, the competition for the a new master plan in 1937 stipulated the separation of the races. Aba Shawl, the traditional Eritrean quarter, was proposed relocated even further away in the north-eastern sector of Asmara. An extensive commercial and industrial area would provide a "buffer zone" between the Italian and native quarters.

Today's Asmara is a result of this plan, even though the Italians were driven out before it was finished. The ring road stipulated in the master plan from 1938 that avoids heavy traffic through the middle of the city is there even today, but the new indigenous quarter was not realized, and the plan to demolish the historical village of Aba Shawl was not carried out.

Since independence, the city has been overwhelmed by fast population growth as a result of the influx of freedom fighters, rural-urban migration and returnees from abroad and expellees from Ethiopia. Consequently, it is accommodating around 590,000 people, more than 50% of the urban population in the country (Unhabitat). The city is expected to double its population within the next 20 years (SUDP, Dol), and many parts of the city present an urgent need for planning. The historical perimeter of the city is on the tentative list for UNESCO's World Heritage Site. Unfortunately, many of these building are in serious need of rehabilitation in order for future generations to enjoy this unique architectural heritage.

terms

The aim is to make a proposal for a sustainable development of Aba Shawl and Edaga Hamus.

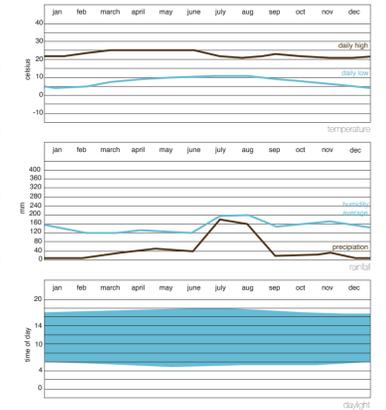
Working with such a project in a country so different from Norway brings up discussions and reflections on several topics, both universal and of the kind we have not touched upon before.

history / identity

We see a lot of historical value that has been neglected in both of the areas we have been working with. This is a country where western culture still is a reference to historic and cultural value. We want to show them what we see as different and valuable, and create enthusiasm for their culture, not only the colonial heritage.

climate

Working in Asmara, a city located some 2,000 metres above sealevel in the north western part of Africa, means working with totally different climate conditions then what we normally do. The weather conditions are differing a lot from what we have learned and normally work with, and therefore it has been important to study the sun, temperature and precipitation of the site. And the fact that we are working in unfamiliar conditions may have made us even more conscious about how we design according to climate conditions.



sustainability

The existing urban situation, life and culture in Asmara is based on a natural sustainability. Making the most out of what they have is an inherent consequence of limited resources. Asmara is a city with almost no waste, as the ability and need to reuse is vast. Upgrading and progress is here often seen in relationship to increased consumption and disposal, more fuel based transportation and less dependence on local resources. A challenge is to propose a development that is experienced as a positive upgrade for everyone, but at the same time keep a low carbon footprint.

materials

The access to materials in Eritrea is very limited. Both due to the question of ecological footprint and the economical situation, reducing the amount of imported materials is essential. The availability of different materials has been an important condition for the development of the projects. As foreigners we also have the opportunity to look at local materials with new eyes, and propose new use of well known materials. By inspire and showing the potential we can give these an added value.

economy

With Eritrea being one of the poorest countries of the world, aiming for low cost solutions is an important term for the proposed solutions. At the same time Eritrea has put a lot of pride in their beautiful and historical surroundings, and has shown a will to invest in upgrading of the built environment.

unfamiliar building techniques

As we are working in a culture with unfamiliar building techniques it is a challenge to get to know local traditions. The local methods is often based on rational ways of handling local materials, and is likely to be the cheapest way to build. At the same time, introducing new techniques may also be valuable, both for a specific building and for the development of the construction culture.

realism

Are we making a realistic proposal, or are we making dreams to aim for. Hopefully both. We think an important task for us in this project is to inspire and show potential. But we also want to propose solutions that are realistic, and that are robust enough to handle changing conditions and where it is possible to realize some parts without finishing the entire project.

social situation

Getting to know a totally different culture, and grasp the aspects of social habits, ethics and the hidden systems is important in order to make realistic and relevant proposals. Meeting people from a culture that differ so much from ours was a challenge and one becomes very humble. We had to realize that we do not know everything, but also that we never will. Maybe we misunderstand some things, but this might also turn into something good. Not knowing can make you see new solutions.

communication

How to communicate the project and the importance of good communication in order to learn about the situation. This will help us be in a position to discuss and enhance the probability of realizing the project in the future.

the role of the architect

Going to Eritrea has made us discuss and reconsider what we think is the role of the architect. How wide does our field stretch, and when are we entering into other special fields. Maybe architecture is just something built, but the architect can deal with more than just architecture.



Studytrip to Asmara!

The days were filled by a combination of meetings, presentations and getting to know the country and the culture. We found many interesting areas with master thesis potential, and the Department of Infrastructure also had strong opinions. This resulted in many good discussions concerning what our projects should be, and we feel we have a good base for the further work when we get home. As this project is a collaboration between us and DoI, we want to do projects that they also see as useful.

After many discussions we decided to split in two groups and focus on the unplanned city and the bus area.

The guided tours with DoI gave us very valuable information. We were able to talk with the locals, and got inside buildings we otherwise would not have visited. DoI even closed the bus area in order to provide us with the correct information. We feel very welcomed.

After processing the experiences we have had in Asmara, we understand how privileged we have been to take part of such a cooperation. We have been given the possibility to work in a unique country, where few others have done the same. The complex political situation makes it difficult for others to intervene, and yet we are given full support. This leaves us humble, and makes us want to do even better projects.

Introduced to the possibility to do a project in Asmara.

september

october

november

december

january

february

march

april

may

It is difficult to imagine what the project might end up like, but based on the background information we think it could be...

- _a new university campus?
- _rehabilitation or transformation of one of the heritage buildings?
- _new markets?
- _housing?
- _new functions within the communal sector, such as schools and hospitals?

First impressions were that the city is tidy and clean, with broad avenues and spacious piazzas. Can this be where the 500,000 inhabitants of the city live when the streets feel rather empty?



...as we really got to know the city we discovered where all the activity was. There are markets all over the city, bustling with activity.



Sketch project

Interdisciplinary seminar

Preliminary project finished

Start up project

Finally we were able to see the sites again! It is easy to forget the atmosphere of a place when working so far away. The last time we were here, we did not know what exactly we would be working with, which made it difficult to look for the special details on site.



We really got a discussion going when presenting our sketch projects. Issues we had not been working with were introduced, and the following days we changed our projects' focus every day. Our projects are much more robust now, than before we came here.

Feed-back sketch project

Mid term presentation

Material workshop



Design stop

Project delivered

Handing in the project means the end of this project for us, but we hope the project will develop further when it reaches Asmara. We are very excited to hear their feed-back.

