What is our mission in the African continent? Is it appropriate to start a transformative project with our Western preconceptions, or is the schism between the Western world and Africa too big to substantiate a credible criticality? We perceive a small and particular part of Africa through our Western media outlets often dominated by military coups, corruption, and poverty. When we think about Africa this curtailed knowledge quickly results in many questions, but are we asking the right questions? Adriaan van Dis statement in his program van Dis in Africa, “We (Westerners) associate Africa merely as a charity”, expresses this lack of understanding and its patronizing overtones lucidly. Thus, instead of positioning this thesis as a naive attempt to change the African continent from poverty and despair, it will be put forth as a two-directional learning process and cultural exchange.

Dealing with African conditions which at times will be ‘unintelligible’ for us, will inevitably influence our future knowledge and subsequent action, and supposedly our interactions and projects in Ghana will have similar impact there.

Learning from each others culture, priorities, rhythms of daily life and all subsequent cultural transgressions become the underlying motivation of engaging outside of the Western paradigm and foundations of a new architecture.

“The central market of Kumasi is the epitome of the traditional African market. It is one of the largest on the continent and serves an area well beyond the city’s boundaries, extending from Accra in the south to Ouagadougou in the north. The market is awesome, in its extreme concentration and intense heat, trapped in the labyrinth of extremely narrow alleys. One day, not too far off, the market will be seriously modified. Whether this will suddenly happen after a disastrous fire, or gradually through planned or spontaneous development cannot be foreseen at this stage. Notwithstanding this anticipated change, it now thrives and is a powerful entity in the city in many aspects and the proposal by Nina Sickenga is a brave and relevant approach to improve security and enrich the market.”

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ABBREVIATIONS

BRT-System: Bus Rapid Transport System
CPP: Conventions People Party
GDP: Gross Domestic Products (a basic measure of a country's overall economic output, GDP = private consumption + gross investment + government spending + (exports - imports) of one year)
IHS: International Housing School (Rotterdam)
TU-Delft: Technical University of Delft
KMA: Kumasi Metropolitan Assembly
KNUST: Kwame Nkrumah University of Technology
RMIT: Restoration, Modification, Intervention and Transformation

TERMINOLOGY

COLONY:
A territory under immediate power of a state. In the case of Ghana colonists are the European presence that goes beyond trading or export reasons.

DEVELOPMENT:
Measured by the human development index (HDI), combining normalized measures of life expectancy, literacy, educational attainment, and GDP per capita.¹

FORMAL:
1. Following or according with established form, custom or rules.
2. Done in due or lawful form (near synonyms: authorized, certified or official).²

INFORMAL:
Not rigidly following established form, custom, or rules (near synonyms: unauthorized, unofficial).³

INFRASTRUCTURE:
Technical structures or physical networks that support a society (for example roads, water supply, sewers, telecommunications and so forth).

PUBLIC:
Of, or relating to business or community interests as opposed to private affairs: social, belonging to or concerning an individual person, company or interest (near synonyms: open, communal or shared).⁴

PUBLIC SPHERE:
The public sphere is an area in social life where people can get together and freely discuss and identify societal problems, and through that discussion influence political action. It is “a discursive space in which individuals and groups congregate to discuss matters of mutual interest and, where possible, to reach a common judgment.” The public sphere can be seen as “a theater in modern societies in which political participation is enacted through the medium of talk” and “a realm of social life in which public opinion can be formed”.⁵

FLOWS:
1.
a. To move or run smoothly with unbroken continuity, as in the manner characteristic of a fluid.
b. To issue in a stream; pour forth: Sap flowed from the gash in the tree.
2. To circulate, as the blood in the body.
3. To move with a continual shifting of the component particles⁷

¹. http://www.who.int/
PRIVATE:
Intended for, or restricted to the use of a particular person, group, or class. (Near synonym: personal).7

POPULATION GROWTH:
Migration + (Birth - Deaths)8

SUB-SAHARAN AFRICA
Of, relating to, or situated in the region of Africa south of the Sahara.9

TRIBE:
A social group having temporary or permanent political integration, and defined by traditions of common descent, language, culture and ideology.10

TERMS ON GHANA

ACCRA:
Capital of Ghana

ADINKRA:
Visual symbols created by Akan people that represents concepts and aphorisms11

AKAN:
Ethnic linguistic group in West-Africa that include sub-ethnic groups as Ashanti, Fante and Nzema

ASHANTI:
Major ethnic group in Ghana that belongs to the Akan people and inhabit the environment in an around Kumasi.

FANTI:
Ethnic group in Ghana that belongs to the Akan people and inhabit the environment of the South-Western coastal

regions of Ghana.

GOLD-COAST:
1. The coastal region of Ghana
2. The British colony

KEJETIA:
Intersection of main routes

LORRY STATION:
West Africa bus station: a space or area of ground where passenger vehicles park or wait for passengers

OBRUNI:
Foreigner, said to white people as well as African who loved abroad.

TRO-TRO:
A shared taxi, that falls between private transport and conventional bus transport, often with a fixed or semi-fixed route, but with the added convenience of stopping anywhere to pick up or drop off passengers and the extra of not having a fixed schedule.

11. http://www.websters-online-dictionary.org/definitions/Adinkra
INTRODUCTION
STUDIO EXPLANATION.

This Msc graduation project is a project about the transformation of the urban structure of Kumasi. It is a collaborative studio with students from the Delft University of Technology (Architecture and Urbanism), the Erasmus University in Rotterdam (IHS) and the KNUST (Technical University in Kumasi, Ghana).

“The ancient capital of the Ashanti kingdom, is still the heart of the Ashanti region and the site of West Africa’s largest cultural center. Parts of the city, including the Royal Palace, were destroyed by British troops in 1874. It still remains a royal city, although Ghana was declared independent in 1957. Since the independence the two major cities have developed tremendously, some parts in the thought of the modern tradition as an expression of independence. Kumasi is zoned into commercial, industrial, and residential areas and is known as the ‘Heart beat’ or ‘the Garden city’ because of its various species of flowers, plants and its surroundings by the tropical rain forest. This second largest city of Ghana, Kumasi, with an estimated 1,5 million population in the Kumasi metropolis is the most populous and rapidly growing regions in the country.

This integral studio of RMIT, Urbanism TU Delft, IHS Rotterdam and KNUST will do research on urban and architectural development, the current situation of the transformation of the city and its interventions in the centre and periphery, social economic aspects, materialisation, local and regional planning and cultural history. The research by design will be an extension of ideas of various previous studies. Several workshops are planned during the semesters and experts, like ArchiAfrika, will join this studio as guest tutor or visiting critic.”

Within the University in Delft this project part falls under the supervision of the RMIT department (Restauraton, Modification, Intervention and Transformation).

The description of the department RMIT is as follows:

1. www.tudelft.nl/rmit
**PROJECT STRUCTURE.**

**My fascination:**
After analyzing the city Kumasi, based on various sources (video’s, articles, books, lectures, etc.) and workshops in collaboration with the IHS, we were able to make some broad assumptions. This first analysis gave us a broader view on the current issues of the city. For me, the emerging topics were; the fast population growth and congestion of the city-center, the identity of the ‘garden city’, and how the boundaries between the public and private become ambiguous because of the pervasive use of the outdoor space.

Subsequently the analysis of Kumasi was focussed on findings spaces and places where these aspects of Ghanaian culture came together. The space around the central market in Kumasi eventually emerged as an extremely exciting space where many of my questions converged in a vibrant and dynamic centre that is of seminal importance in the daily experience of Kumasi.

**Group analysis (P1):**
The group analysis was an intense and interesting period of which the efforts were documented in a booklet and presented to professors and academic peers. We worked together and covered disparate subjects. This analysis included research at several scales from the African continent to the urban scale of Kumasi. The main subjects were;

our imagination of Africa and Ghana - demographic and economic analysis of Ghana - analysis of the spatial structure, The culture of the Ghanaian and Kumasi - analysis of the city. At the end we came up with a conclusion which could lead to each personal chosen location for the final research and project. This conclusion contained subjects like the rapid population growth, concentration of functions in the city centre, congestion/pollution, waste, the adaption of space, flooding / drought, inaccessibility, investment in certain areas, land ownership, housing shortage, informality / formality, geography (natural resources), culture, tourism, gateway between the North and South and the economic network.

**Preliminary research Market (P2):**
After choosing for the Central Market as my design location I started my research, and bibliographic analysis on the Central Market and it’s interfaces. What kind of interesting precedents are related to my project and what kind of a proposal will I come up with, with the information I have so far.

**Fieldwork:**
We went to Ghana after a half year of researching. Before we went there we had to came up with a research methodology. My methodology existed of a verification of a structure and the problems I stated before I went to Ghana, a critical analysis consisted of obtaining insight into the plans of the KMA, understanding of the flows in the Central Market, design interaction, understanding of the daily dynamics and action research. To reach the answers on all the questions I had, I had different types and ways of doing research; run along with traders, observing, take static motion pictures, dynamic documentations, cognitive mapping and cartographic and diagrammatic visualisations.

**Design Research (P3):**
The conclusion of the fieldwork are pointing out what the requirements of the design are going to be. What lessons did I learned from the people I spoke with, what is a regular market day? What are the needs and demands and wants and desires of the people, what should the proposal consist of and what are the possibilities within this area. To come up with the right solution I had to the study different design approaches and different mass studies. What is the effect of a certain solution on the Central Market, the City Centre or even Kumasi or Ghana?

**Proposal (P4):**
This is the final fase of the graduation project. It is important to create a design which gives answer on the findings from the research. It will take in account all the different aspects, from the social to the economical, historical, political and cultural ones. The design (on both architectural perspective as my personal perspective) will give a critical review on everything I have learned from a different continent, country and city then I was used to.
The Objective.

Topic:
The spatial transformation of the central Market in Kumasi through addition of public amenities and infrastructures in relation to the existing private trading systems and social structures.

Main Hypothesis:
So far, proposals to transform the Central market in Kumasi have been defined through the emphasis of pragmatic deficiencies of the market’s structure such as insufficient drainage, fire hazard and overcrowding. Subsequent proposals have used these deficiencies as a pretext to propose the wholesale transformation and eradication of the market’s current form. This thesis argues that these insensitive proposals undermine the importance of the complex social organization on the market that has emerged through many years of social struggle and action, as described in Gracia Clark’s anthropological studies. Therefore, the architectural transformation of the Kejetia market should be based on an open-ended armature that can mediate complex pluralistic social processes that are fundamental to the iterative growth of the Kejetia market, while retaining a clear architectural form that can give form and structure to the market.

Second Hypothesis:
The generic fabric of the Kejetia Market has proven to be extremely flexible in housing a variety of trades and their internal trading systems. Whilst every corner of the market is utilized and appropriated by private enterprises, collective structures are inadequate in quantity and quality. This thesis argues that the proposed collective programs require a contrasting form and aesthetic and a certain architectural autonomy to succeed as a public beacon in the constantly changing market.

Aim:
The aim is to produce a design/research thesis, which uses design to give a critical perspective and expose certain deficient strategies that currently dominate debates about the future redevelopment of the Kumasi Central Market. Ideally, the final proposal could be used to as a provocative example in the current political impasse on the future of the Kejetia Market.

Another aim is articulate the use of architecture and urban design in relation to the private and public spheres in different cultures and geographies through comparative studies with other African and Dutch markets.

To achieve a design proposal that I find personally satisfying and which is able to instigate critical debate about the future transformation of the Kejetia Market.

Assessment criteria:
The design should be able to sensibly negotiate the local traditions with the realities of modern African society in an innovative way.

The final design shows the incorporation of an anthrogeographic understanding of the Kejetia market. Gained through my personal experiences and cultural exchanges in Ghana.

Relevance:
The transformation of the Kumasi Market is already a political reality. Local authorities have commissioned planners and designers to re-think the Kumasi market, based on practical considerations like fire, overcrowding, and sanitation problems that are the result of the market’s rampant growth. Anticipating gentrification of the marketplace, like many precedents around the world, my design/research thesis brings to light that it is not necessary, and even undesirable, to uproot the complex socio-spatial systems that make the Kumasi market the vivid place it is today. Rather, more subtle architectural interventions can create more eloquent solutions to the markets problems, whilst retaining a strong architectural presence.
VISITING GHANA.

Ghana located in Africa

Ghana located in West-Africa

Ashanti region located in Ghana

Kumasi Metropolitan located in the Ashanti region
Kumasi metropolitan Kumasi city centre and its Central Market

Kumasi’s Central Market and the main roads

Kumasi’s Central Market and the old train track
Ghana In The News!

Fight against malaria intensifies

No mining in forest reserves

By Francis Asamoah Tuffour

The Minister of Lands and Natural Resources, Alhaji Collins Duada, says his outfit will not allow mining activities to be carried out in restricted forest reserves.

Interacting with members of staff of the Minerals Commission as part of his familiarization tour to the commission in Accra yesterday, the minister said that forest reserves had been set aside for a purpose and it was not divisible to allow mining activities there.

He was responding to a question on protests by some residents in the reserves against mining activities in their area.

He asked “if the objective for not
PERSISTS ON COCOA FARMS

Poor basic education infrastructure to blame

By Frederick Asiamah

The situation on the cocoa farms is nothing to write home about. The workers are underpaid and work long hours under harsh conditions. The government should take steps to improve the situation.

Akuapem South PWD

back tackle DCE over
2% Common Fund

By Frederick Asiamah

The Akuapem South PWD is unfair in its treatment of the district. The district has been left without basic services for many years. The government should intervene to stop this injustice.

Stakeholders strategise to improve public safety

By William Yaw Owusu

Stakeholders have come together to strategise on how to improve public safety in the country. The government has allocated funds to support this initiative.

Chiefs can speak on national issues

By Boafo

The Chiefs have the ability to speak on national issues. They have the experience and wisdom to provide guidance on important matters.

Child labour persists

By Kojo Kofi

Child labour is a persistent problem in the country. The government should take steps to address this issue.

Northern Assemblymen go to school

By William Yaw Owusu

The Northern Assemblymen have been sent to school to learn how to govern effectively.

Opinion and relief to the people we should do away with partisan politics

By William Yaw Owusu

We should do away with partisan politics in order to provide better services to the people.

Foreign direct investment

By William Yaw Owusu

Foreign direct investment is crucial for the country's economic growth. The government should attract more foreign direct investment.

Min. Lands, Forestry and the Environment

By William Yaw Owusu

The Ministry of Lands, Forestry and the Environment should do more to protect the environment.
The Portuguese started building forts and simultaneously other European countries discovered the fortunes that could be made. The Europeans built more than thirty forts on the Gold Coast. Whilst it was known amongst Europeans as ‘White man’s grave’ because many European died because of malaria and other diseases, these numbers were eclipsed by a still unknown number of slaves that were killed, often even before they were shipped off to the New World.

Between the arrival of the Europeans and the independence of Ghana continuous struggle between the tribes and the colonial powers (especially the British) overshadowed Ghana. It was Kwame Nkrumah and his CPP party who finally, after many negotiations with the Britain, declared Ghana “Free forever” on March 6, 1957 at 12 a.m. Kwame Nkrumah became the first president of the republic of Ghana.

Ghana was one of the first countries in Africa which became independent. This has played a major role in the position they have reached so far. Nowadays, Ghana attracts many tourists, volunteers and immigrants who wants to start businesses because the country is safe and politically stable, especially in comparison with neighboring countries such as Nigeria and Cote d’Ivoire.

Ghanaians are also widely known to friendly, which they see as an important part of their cultural background. Ghana is thus often called West Africa’s golden baby. Nonetheless, Ghanaians are very aware that their political stability cannot be taken for granted. Turmoil in neighboring countries and internal tribal conflict have repeatedly shown to be able to devastate a stable democracy in a wink of an eye.

However, disparities are still enormous. Especially between the North and the South vast inequalities in income and basic infrastructure are very clear, and Ghanaians from both sides often regard the North and the South as two different countries. The population is also growing with a tremendous speed, and people are rapidly moving to urban centres. Accra, Kumasi and Tamale are subsequently growing beyond the capacity of local governments, while rural areas are becoming increasingly isolated. Due to vastly underdeveloped agro-industry local crops can barely feed farmers and are not at all competitive. Therefore shops still predominantly sell rice from South-East Asia. Besides the arid climate in the North, it is poorly connected by infrastructure, because of the difficulty of moving goods up north the sad reality is that the poorest of Ghana pay the highest price for food. In the cities informal slums are absorbing the majority of rural immigrants, which is causing increased tension in the big cities.

Recently, oil has been discovered in front of the Gold Coast. The president of today, John Atta Mills, has a interesting challenge to cope with. Can the black gold be turned into an asset for the country, to bolster infrastructure and education, or will Ghana follow the same fate as Nigeria, where the richest nation of West Africa has the most people living below the poverty line?

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BACKGROUND.
To understand Kumasi it is crucial to understand the history of the Ashanti. Allegories and aphorisms are important means of preserving culture in Ashanti culture, and many are as mystifying as they are informative.

"Once a chief told one of his servants to bring him the best meat from the market. The servant brought him a tongue. The next day the chief told the servant to bring him the worst piece of meat from the market. The servant brought a tongue again. What?” the chief said. “When I ask for the best piece of meat, you bring tongue and when you bring the same thing for the worst piece of meat.” The servant said, “Sometimes a man is very unhappy because of his tongue; and sometimes his tongue makes him very happy.” “You are right,” the chief said. “Let us be masters of our tongue!”

Another one is the story about the emergence of the city Kumasi.

"One day Osei Tutu cut two branches of the Kuma tree. He planted them in the earth, at some distances from each other. One cutting adjusted well to it’s surroundings, sending down roots in the soil - asi in the Twi language. It sprouted buds and buds and bore fruit. The other cutting shrivelled and died. Osei Tutu founded his capital of Kumasi, seat of the mighty Asantehene of Ashanti, at the foot of the thriving Kuma tree. Kuma-asi, the soil under the Kuma, is my native soil.”

The Ashanti tribe of the Akan is the largest tribe in Ghana. Once renown for the splendor and wealth of their rulers, they are most famous today for their craft work, particularly their hand-carved stools, fertility dolls, and colorful Kente cloth. Kente cloth is characterized by complex patterns of bright colored strips, it is usually made from cotton and is always woven outdoors - exclusively by men.

Before the European colonization, the Ashanti Confederation was one of the most important states of West Africa. The wealth was mainly based on their gold resources and trade. The Ashanti were the only tribe who for a long period could resist the European imperialists. Until 1900 they sustained a bitter struggle against the British, after which the British finally won and renamed the Ashanti region the Gold coast.

The Ashanti people represent 19% of the entire population of Ghana. They speak Asante, better known as Twi and practice a variety of religions like Christianity, Ashanti or Islam. These religious differences are currently not a source of tension in the Ashanti Kingdom.

The Ashanti are one of Africa’s matrilineal societies where line of descent is traced through the female. The female is still a strong symbol in the Ashanti tribe, especially in the market where the woman are highly presented and generally have the most to say. “Historically, this mother progeny relationship determined land rights, inheritance of property, offices and titles.”

An interesting anecdote is that in 1837 the Asantehene Kwaku Dua sent two princes, his son Aquasie Boachi and his nephew Kwame Poku, too King Willem I as a part of an agreement between him and a Dutch government for the recruitment of slaves. So they left with negociator General Major J. Verveer via the fort Elmina to Holland. Recently Arthur Japin wrote a novel that describes this surreal cultural exchange called 'The two hearts of Kwasi Boachi', or in Dutch 'De zwarte met het witte hart'.

1. www.africanwithin.com
3. en.wikipedia.org
Our perception of the African public sphere is heavily conditioned by our preconceptions about Africa. We could state that we should give up our Western definition where inside and outside correspond to the private and public spheres. The border between the public and private is in the most of the areas negligible, or better to say; hard to define in the way we learned dealing with this matter. By reading articles, observing images and studying movies, it is possible to get a first indication of the African definition of public and private spaces. The African people spend most of their time outside, which isn’t unexpected given the warm climate. It also seems that their is much more diversity in classes that serving each other and sharing the same spaces.

“The happenings in the private sphere project into the outer workings of the public sphere as the events in the public sphere determine and direct the inner activities of the private sphere, the African public sphere can be seen as very fluid.”

Borner and Muller are talking about the ‘open’ urban space, which one would associate with ‘public’ space in a Western context. Also they notice that the notion ‘public’ and ‘private’ needs to be viewed more attentively”.

“These ‘urban spaces’ can be incur into very complex situations. The city consists of very contradictory aspects, such as “static and dynamic, permanent and temporary, formal and informal or even chaos and order.” All the cultural, social, economic, political and historical contexts are gathering especially in the city centers.

The Kumasi Central Market is seen as one of the most complex and vibrant places in Kumasi. Although “the vast city markets can appear to be chaotic and labyrinthine places. When one looks more closely, however, one discovers that order reigns over this chaos”1. The market is the largest in Western Africa and lies in the centre of Ghana at the intersection of two important roads. The market is economically attractive and creates many chances for the people of Kumasi and Ghana. Besides the economical factor it is also the cultural heart of the city where many social networks arose, arise and will arise. This all together makes it worth for tourist to travel in direction to the North and visit Kumasi for this exciting experience. “The market is not a place, a thing, or a collective entity. The market is a process, actuated by the interplay of the actions of the various individuals cooperating under the division of labor.”

“The mere presence or the market has a transformative impact in myriad ways: increased economic activity, creating spaces of social exchange, bringing together diverse populations, and contribute to the organization of the city.”

The Market is a place where you can buy almost everything you can imagine from food to clothes to candy, jewelry, building materials and much more. In some cases these markets are divided into different markets spreaded over the city. The steel market, the wood market, de food market, the traditional cloth market etc. The larger the amounts they sell are, the cheaper the materials will be. Actually you can compare it a bit with the huge supermarkets which have everything and the smaller convenience stores. The Kumasi Central Market it the huge supermarket which is the feeder of all the smaller satellite markets of the city.

1. Okolo, M.S.C. (2009);
2. Borner, A., Muller, B. (2005)
3. Waelgaard Steen, E., Komisar, M., Birkeland, A.
The exact origins of Kumasi Central Market are hard to trace. Legend says that Osei Tutu, the chief of the Ashanti people, built Kumasi during the early part of the eighteenth century. The city founded at the junction of trade routes linking the northern, southern, and western regions. Before the Asantehene region got colonized, the versatility of the urban space was an important aspect of its stability. "The precolonial cities were largely based on the market together with the palace of the king. These two together formed the centre of the city." The renowned central market was not only used as a market place, but also as a royal courthouse, a parade ground for military reviews, and for the reception of distinguished visitors. Because of this accommodation requirement, the market had no permanent stalls or fixtures, because the space itself was often commandeered for other purposes by the state.¹

¹. Folkers, A. (2010)

This empty market square confused the British who arrived because of the emptiness of it. The British gave this square many different functions from parks to ‘unplanned’ space during the colonial period.²³

The number of traders on the market square soon doubled and the space couldn’t provide enough space. In 1914, the British came with a plan to expand the terrain on the existing location, but the idea to move the market to a new unoccupied area near the railway where the line was in better hands. The first permanent stalls were quickly completed and the New Kumasi Central Market opened in 1925. A location was selected in the area between the old downtown Adum district and Ashanti New town where the palace and the residential areas were going to be built, and would link the two parts of town across a former swamp drained for the railway. Despite continuing subsidence and drainage problems, traders welcomed the improved facilities and larger spaces and built many extra stalls themselves with governmental assistance or permission. Nowadays not much has changed, the market has again reached its new limits and spills into the city on all sides. The market is still always changing, especially after recurring fires large changes are made, often improving previous conditions. Although this process is slow, and seen as primitive to many government officials who would like to see a massive overhaul, it develops in sync with the daily rhythm on the Kejetia market, as described in Gracia Clark’s book Onions are my Husband.

MARKET SCALE.

The size of the Keje Ta Central Market reflected on the Google Earth view of the Grote Markt in Del.
MARKET SCALE.

In the Netherlands, the largest on weekly based market is the Market on the Herman Costerstraat in The Hague, better known as the “Haagse Markt”. This market is permanently occupied with 540 market stalls, which is not so common in the Netherlands. ¹ On a average day around the 40.000 people visit the market. ²

The Kejetia Central Market in Kumasi has about 10.000 stalls and 15.000 traders (permanent as well as temporarily) . The daily number of visitors is about 200.000, and consists out of local, national and international people.

This means that every stall in the Hague has approximately 74 visitors, in comparison to 20 visitors per stall in Kumasi. Needless to say the purchasing power of the Dutch visitors is also significantly higher that those in Ghana. The Kumasi Market’s monthly turns over 440.000 euro’s according to a study done by the Kumasi National University of Science and Technology. The means that each trader makes about 44 euro’s a month, which is about $.1.25 a day - exactly the international poverty line. Satellite markets in Kumasi are notoriously undesired by local traders because the majority of people go the central market. However, given the saturation of the central market, one could make a stronger case for satellite markets as a means to decongest the central market. Promoting this shift is easier said than done, because of the popularity and traditional roots of the Kejetia market.

PRACTICAL CONSIDERATIONS.

KUMASI CENTRAL MARKET ON FIRE!
KMA TO REHABILITATE KUMASI CENTRAL MARKET

KUMASI CENTRAL MARKET TRADERS VOW TO RESIST RECONSTRUCTION

CALLS FOR REDEVELOPMENT OF KUMASI CENTRAL MARKET

FOUNDATION PUSHES FOR FIRE STATION IN MARKET

ANY COLOUR YOU LIKE!
KUMASI VICTIMS STILL COUNT THEIR LOSS

INACCESSIBILITY

POORLY DRAINED GUTTERS - LACK OF SANITATION

ILLEGAL ELECTRICITY CONNECTIONS

FIRE OUTBREAKS

OVERCROWDED

TRAIN TRACK PASSING THROUGH

UNSTABLE MARKET STALLS

GEOGRAPHY: VALLEY / DIRECTION: WEST-EAST / DISCONNECTED
The Central Market, despite its important role for Kumasi, has some structural deficiencies. Although the recurring fires and floods are initially dramatic, they are an important part of the evolution that continuously transforms the Kejetia market. Every time a part of the market burns down, traders quickly build back their stores, often with help of the Kumasi Metropolitan Assembly (KMA). These reconstructions often allow improvements such as the use of brick instead of wood, and the use of more durable infrastructure, which otherwise wouldn't have been executed.

The cooperation between the KMA and the traders is unfortunately not optimal. The KMA collects rent daily from all the traders for a trading parcel. This money is supposed to be reinvested in the market's infrastructure. After several unkept promises by the KMA to improve conditions on the market, trust in the KMA’s integrity has diminished, and complaints about corruption are pervasive.

The need of public amenities and better market infrastructure is growing as the market expands. Ten years ago the KMA made a redevelopment plan of which nothing has realized so far. Yet, that the plan hasn’t been executed is not that bad at all. The ambitious plan they made entailed the demolition of most of the market and replaces it with westernized shopping malls and parking lots. Besides the plan being financially unviable, there was wide discontent among traders who criticized the plan for being incomensurable with local trading traditions.

PRACTICAL CONSIDERATIONS.

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The cooperation between the KMA and the traders is unfortunately not optimal. The KMA collects rent daily from all the traders for a trading parcel. This money is supposed to be reinvested in the market’s infrastructure. After several unkept promises by the KMA to improve conditions on the market, trust in the KMA’s integrity has diminished, and complaints about corruption are pervasive.

The need of public amenities and better market infrastructure is growing as the market expands. Ten years ago the KMA made a redevelopment plan of which nothing has realized so far. Yet, that the plan hasn’t been executed is not that bad at all. The ambitious plan they made entailed the demolition of most of the market and replaces it with westernized shopping malls and parking lots. Besides the plan being financially unviable, there was wide discontent among traders who criticized the plan for being incomensurable with local trading traditions.
The field research and urban design proposal for Kumasi done by Andrea Borner and Barbel Muller was a great source of inspiration for my own fieldwork.

Their projects titled ‘Kumasi; Urban space and life in West Africa’ (2005), ‘Tyre Territories’ (2003) and ‘Listening Kumasi’ (2002) are based on perception, conception and representation of space from within the city. The first is focused on the Kumasi Central Market and had exceptional influence on my work.

Borner and Muller write:

“The market works as an exceptionally complex location and seems to be an intensified city, a concentration of Kumasi’s density. It is the epitome of urban experience, mirroring economic forces, social networks and programmatic and physical transformations of the city itself. Its spatial structure and its time structure are closely related to each other based on the dynamics of people and goods, the activity of trade and the responsiveness of spatial articulations.”

“As the system of the market is strongly related to its context, and is part of the city’s fabric, the smallest intervention not only evokes dynamic and physical changes within it, but also within a wider frame.”

“The actors and objects create multifaceted networks in constant interaction with the city’s architectural structure. In this way, traditional and contemporary structures overlap in various ways.”

“Urban activity seems to dominate the physical body of the city in a way that hardly seen at all in Western cities. This experience can be best exemplified at Kumasi’s Central Market and the surrounding city”

“If we as architects or urban planners, with the intention to intervene, are aware of the complex interrelations of urban dynamics and built structures, how can we operate? How can we transfer the analyses from inside a system and the following conceptualization of its elements and dynamics into planning tools? How can interactivity, elasticity, scale-shifts and in-betweens become part of a planning?”

“The spaces reflect a chaotically dense appearance. However, at a closer glance, you will notice an organizational process that works very smoothly. There is a comfort to the chaos and an order that literally can be found in the basic details” Coleman, G., (Architect)
The wholesale yard are set up to move large amounts of goods quickly. This area attracts different types of customers than the rest of the market. The market "Represents quite another type of visually distinct location specialized by commodity. Each of the local foodstuffs sold in the highest volume has a wholesale yard along the outer edge of the market, where trucks can squeeze in to unload. Wholesale traders use stacks of boxes, bags, or baskets to keep squatting retailers and passing traffic from encroaching on their territory".

Mixed retail area: "In the large open areas around the edges of the market, beside and between the wholesale yards, traders dealing in different goods intermingle. Buyers in a hurry can make their daily purchases within a few yards’ radius and avoid plunging into the crowded market”. These mixed retail areas match with the neighborhood and village markets, this mean the prices and qualities of the products will differ from the specialized areas.

Street hawkers / Mobile traders: “Street hawkers of mobile traders are a conspicuous part of the Central Market scene, attracted by the large numbers of traders and shoppers accessible there. They load goods into a basin, box, or head tray to circulate through the market aisles and the surrounding streets”. These traders do not move through the commercial space randomly; they have a regular daily route day walk based on relations or social networks they have with people.

The market gates: The market gates open at six, just before dawn. The commodity group leader starts each day trading with a formal announcement between eight and eight-thirty. The market is supposed to close at six and the security man are closing the gates permanent at eight. These gates are located at the borders of the original market site. Meanwhile, this limit has been exceeded and the market floods into the surrounding streets. Security men are not able to overlook the whole market, so traders often hire their own security personnel.
**The market Queen:** Each commodity has its own representative (ohemma), who is responsible for the traders and directly talk with the Market Manager. In the early years when the market was smaller one Market Queen represented all traders. "The title in the market still exist, but their functions have been taken over by government employees, such as the Market Manager".

**Customers and Traders:**
The number of people that visit the Central Market is not entirely clear. Different sources show different numbers. But it seems there are at least 200,000 visitors every day. According to Ruth King, a professor at KNUST university, there are about 20,000 registered traders who together collect an income of about 800,000 cedis a month. This means that a Kejetia trader makes about 20 euro's a month, which needs to say is not enough to secure sustenance for an individual let alone a family.

**Social network:** Each market location attracts a certain type of buyers and sellers depending on the parcels location and adjacencies to other businesses. More important is the social ties, that create trading relationships and mutual reciprocities between families and trading groups.

**Commodity lines** are an interesting phenomenon where certain commodities are grouped along a path, like the tomato line. This counter intuitive organization is based on a union like formation of traders that ensure competition doesn’t become too extreme and a decent income is more tenable. "Many market locations are identified by a commodity name, testifying to the central importance of shared commodity ties in organizing the traders within them as well as the visual impact of these solid ranks of repetitive displays on customers and traders from other locations".

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**The market Queen**

- Every commodity has its own representative. The whole market is represented by one single person: the market queen.

**Customers and Traders**

- 200,000 customers
- 15,000 - 20,000 traders

**Social network**

- Householders
- Retail traders from Kumasi market and Neighbourhood
- Streetside market traders
- Traders from small town with good road access
- Contractors who buy for institutions
- Tourists

**Commodity lines**

- Each market location attracts a characteristic set of buyers and sellers by the land of transaction it offers
- Divisions made in:
  - Commodity
  - Geographical location
  - Commercial technique

- By placing all the same products in the same line, the places are turning in to be more attractive for both the consumer and the buyers for resale
- When people want to buy a scarf, they go to the scarf line and not somewhere else
Display typology:
Competitive advantage is often achieved through creative ways of displaying products. The displays vary in the informal areas from trucks to wheelbarrows to boxes, mats, and even trees and fences are used. Products are stacked, hang over ridges or lie on the ground. In the more formal area they vary from locking stalls to locking boxes, and tables. Ultimately, every cranny and nook has been appropriated by sellers and the market spills over far into the centre of Kumasi.

Seasons: “Seasonal variations in supply trigger openly recognized reorganization of market space. Retail space allotments also expand and contract sharply with the seasonal ebb and flow supplies. The specialized retail areas for plantains, cassava, and oranges lie outside the market core, in areas without permanently built stalls. Their boundaries and appearance both change as their traders disperse or switch to shelling core, in the off season”.

Fields: The market is divided in many different fields with all different requirements and different sexes who are working in these fields. Different types are Perishable food (mainly woman), Nonperishable food (mainly woman), Canned food (both), Craft products (Mainly man), Industrial products (both sexes), Clothing (both sexes).

Storage: “The physical facilities of Kumasi Central Market put direct limits on traders’ ability to store goods in the market. The most favorable storage conditions exist in permanent locking stalls, another part store their products in locking boxes like rough wooden trunks in their stalls, a few have rooms in the market building which are comparable to the ones in the Central Business District, with pull-down metal shutters or doors. These supplement their incomes by storing goods overnight for traders from other parts of the market”.

Display typology  
Seasons  
Fields:  
Storage
A REGULAR MARKET DAY.
THE WHOLESALE, MADAME THE YAM.

THE METALWORKERS.

TRADITIONAL CLOTH AND KENTE.

THE ROMAN HILL.

THE FISH MARKET.

TAILORS.
Many people are passing by, especially women. The moment I was there, there passed 80 people in 2 minutes which means on daily basis 21,600 people are passing by.

During waiting many people came in to rest for a minute, in the whole market there is almost no place to sit.
What a rich, crowded, and vivid space of flows and products is the centre of Kumasi. The Kejetia Central Market is really the heart of Kumasi. The market flows into all parts of the city and the functions around are directly or indirectly linked with the markets activities. 365 days a year people visit the market and for two weeks I was one of them, trying to understand what system made sure this seemingly anarchistic market has functioned without a halt for so many years. As a white person, or better a ‘Obroni’, you absolutely do not go unnoticed. In the centre of Kumasi there are hardly any white people and they are also not always accepting of your presence. Fortunately, most of the people are friendly and really interested in what you are doing in their country. However, occasionally the colonial past still haunts interactions between blacks and whites.

The life in Kumasi starts at five o’clock in the morning. It is still dark and the streets are empty. If you arrive in Kumasi at nighttime the contrast with the enormous density during the day is striking. From five on, activities start, the first tro-tro’s and trucks arrive and people slowly gather in front of the Central Market gates. At six the gates open and the people move to their stalls, tables or, ‘places’. It is amazing to see the amount of stuff the traders haul in and out of the market each day. Every corner is turned into a kind of a stage, living rooms, or candy shops, creating a spectacle of activity. During their unpacking they seem to be absolutely unaware of their environment: this was the first moment I could walk around without Obroni reverberating in my wake. Slowly the crowds appear, neighbors chat while final adjustments are made to the stalls in anticipation of another day at Kejetia market.

Through the whole market you see people having arguments, laughing, and sleeping. There are so many people selling products, and many of them sell exactly the same things, raising questions about how businesses compete. At the same time the conditions in which many of the same products are sold vary enormously, from elaborately stacked tomatoes, to westernized interiors. Most paths are paved, the stalls seem stable, and most of them have the possibility to be closed or locked. This way some people can store their products during night, whilst others have to haul their products home and back every day. When it rains disparities become the most clear, whilst others continue to trade, the poorer stalls seem to leak and there entry ways flood. Outside the official market walls conditions are even more limited: paths are not paved which makes the area really difficult to clean, and after rain the area looks like a marsh. There is a part where an abandoned train track runs through the market and works as a makeshift path. It is kept in place, because of future ambitions to have the train run again. Along the track improvised sheds house a range of dismal products. Despite the evident signs of poverty, the atmosphere is upbeat and lively.

Around six o’ clock, the markets starts closing, people gather their belongings, clean their stalls and slowly head towards the exit of the market. The people of the environmental office and security make there last rounds and check if everyone has left, whilst the cleaning crew washes away evidence of a day of trading at Kejetia market.
On the east side, where the market neighbors the central business district and de Kejetia Lorry station, there is significantly more activity and density.
On the west-side of the market it is less crowded. The main entrance for cars and trucks to the wholesale is here, although is not immediately apparent.
FIELDWORK.

Me with Charles Gambrah, the Market Manager
The KMA plan for the new Central Market in Kumasi
Rudith King is one of the teachers on the Kwame Nkrumah University of Science and Technology (KNUST) in the department of architecture and planning. Her specialization is development, planning, and gender policy analysis. In 2009 she did a research, in collaboration with Aba Oppong from the Centre of Development for the People (CEDEP), into the Urban market woman at Kejetia. Some interesting issues she detected were:

* It is important not to imitate the Western World. The Asanta Kingdom has its own strong cultural presence, and programmatic necessities. Don't propose shopping mall typologies, there are almost no elevators in Ghana and people are "too 'lazy' to climb up stairs", and elevators will break and not be fixed.

Rudith King

* The Kumasi Central Market has a high urgency to get redeveloped. There are almost 200,000 people who are using the market on a daily basis. The income of the market is around the 800,000 cedis (almost 440,000 euro) a month. Why don't improve this space?

Other critiques and comments from the teachers Victor Sanwu Kotin (Architectural Science) and Sam Afram (Construction Technology) of the KNUST were:

* What we see as problems are often not the problems for the local traders, be careful how you define and prioritize your 'solutions'.

* Fire is a huge problem, after the fire they build back the same vulnerabilities (KMA), this is not a solution. There is a presence of a kind of a redevelopment fear in Kumasi.

* The market is a place for transport, interchange, bug breaking and a cultural pool (really dynamic).

* The market is an organized chaos, to know the structure you need to find people who understand this chaos.

* Kumasi is a traditional society, the market society is especially built around the women.

Recommended literature: Peter Sarpong | Ghana in retrospect, some aspects of Ghanaian Culture

Contact: P.O. Box 2593, Ash-Town | Kumasi
“It is human nature, nobody wants to change immediately.”

Edward Osei Kwaku
Kumasi is a cosmopolitan area, a place for the Ashanti, born as proud people. We need to invest in their talent to come out with something, a future for Kumasi. You can’t avoid competition but the people are strongly related to each other. The Kumasi Central Market needs development. The plans are made, but there is a lack of finance. They tried to decongest the city centre and market by moving people to the satellite markets, but because the places were not economically attractive enough people went back.

Mr. Simons, KMA plan officer
The market attracts a lot of people. But the activity on the market isn’t confined to its physical boundaries. Indirectly, many people and business work in close connection to the market. Kumasi drives on Kejetia’s commercial activity. The prices in the Kumasi Central Market are a lot cheaper then other markets in and around Kumasi because it is a centre for distribution. Plans to accommodate even more traders are not a desirable: The city centre needs decongestion. All the plans are ready but a financial scheme needs to be worked out. It is important to consider some of the activities outside that currently take place outside of the market, but space is a big issue.

Mr. Alexis, KMA Engineer
Public space is an issue, but not seen as a priority of the people. The people main priority is to make an income. The KMA reserved some areas for public space, for example along the rivers. But many people, especially from the north, squat these reserved spaces because they have no money or place to go to. People are appropriating the space in every possible manner.

“If we all raise our hands we can help to come to a better solution.”

“What alternatives are there for the traders if we come up with a big shopping mall?”

George Baffuor Owusu-Afriye is a man who is working for a NGO named Street Children Development Foundation (SCDF). He has lived in Kumasi his whole life and knows a lot about the city centre’s history.

The Kumasi Central Market changed. Before it was like the “race-course” (an informal market area on the other side of town). It was a clogged place where no breeze came trough. Ten or fifteen years ago Kumasi was a relative empty city, and most people in Ghana were farmers in the rural areas. After the 1983 fires many people lost their rural livelihoods and came to the city in search of opportunities to ensure a livelihood.

The market was made for 9,600 traders. Because of a lack of parcels people were forced to set up tables and appropriate space that was still available. The new plan of the KMA is to built 56,000 stores, but they cannot realize their plan. It is now the responsibility of the police, fireman and the KMA who move the traders out of the market and find a temporary place for the traders during building the new market building.

The Kumasi Central Market tried many things. They tried to decongest the Kumasi Central Market by redeveloping the Asafo Market and rebuilt it into a more modern market area. The intention was well meant, but people didn’t see the benefit of moving to a different place.

Because of continued growth the city centre is becoming more congested. Everyday there are more traders looking for a place to sell. The whole centre has changed into a market. The racecourse was like Africa before the Brits came, but now it looks like a gutter. They even considered changing the zoo into a market.

We should have community markets. Now most of the satellite markets are empty, all the people want to be at the places where the trucks arrive and at this moment that is only at Kejetia. The Kumasi Central Market can be a wholesale market which supplies all the satellite markets.
During the fieldwork I noticed that many issues addressed a conflict between traditional and modern architecture in Ghana. Many people moved last years from rural Ghana to urban Ghana. This was because they all saw more opportunities in the urban life. Urban life offered jobs, houses and other opportunities. In the city of Kumasi almost nothing of the traditional building styles is left. In Tamale on the other hand (a city in the north) a combination of traditional and modern buildings characterizes the urban fabric. It seems the people in Kumasi don’t trust their own building methods and materials and prefer building with concrete and steel panels which are seen as superior but are often problematic in the tropic climate. There is an interesting challenge in combining the traditional materials in combination with new improved construction methods and creating support from local builders. I think it is a task for the architect to provide innovative and inspirational alternatives that local people can appropriate and customize, so that the building stock ultimately improves.

In Ghana I participated in the construction of a building in the village of Taha in Tamale. During these two weeks I noticed some important issues regarding construction in Africa. While it is often seductive to make a modern high-tech design, it is necessary to have a realistic understanding of the local building industries capacities. Many derelict buildings that were built by foreign construction firms around Ghana show the importance of involving the local building industry during construction but also design. Not only, will this improve the chances of the buildings success and incorporation into daily routine, it will also provide local jobs, and create a local technical knowledge that is crucial for maintaining the construction in the future.

Because of the limited financial means of the KMA and the fact that traders will severely suffer from temporary dislocation, it is crucial to emphasize the importance of the timing and the amount of destruction. Thus, Patrick Geddes notion of conservative surgery, where an existing fabric is analyzed and changed at places where it will have most impact whilst leaving most of the existing structure intact, gives us a useful framework to build on. The best is to involve local representatives in the planning process, and first build support by designing in a collaborative fashion. The past teaches us that dislocating people is not a desirable solution and should be avoided where possible. The plan should be designed in phases, so that people can get accustomed to the change, and financing can take place during construction. For the few people that do have to leave temporarily, alternative facilities should be provided on the market grounds, or with financial subsidy.

Ghana has a strong traditional culture, which cannot be neglected when designing in Kumasi. In the market the traditional Kente cloth is one of the most visible parts of Ashanti culture. The cloths cover a large area of the market, and the woman, especially on Sundays, are all dressed in the most beautiful colorful dresses. Besides cloth also Adinkra symbols and geometrical figures are aspects which regularly return in buildings and traditional villages. The circle, for instance, stands for the life stream and continuous flow, and the square symbol stands for warmth, welcome, and security.
The Kumasi Central Market is the largest market of West Africa. More than 20,000 traders come to the market to sell their products. The Kumasi Central Market serves around 200,000 people daily but structurally lacks public amenities. For instance, public toilets aren’t within the market and the nearest place is about a ten minute walk causing discomfort for both customers and traders. Also, the lack of health post or medical clinic, makes life on the hazard prone market very dangerous. Traders also have to provide their own water supply, due to lack of any basic infrastructure. Despite these problems and the fact that the KMA is not living up to its responsibilities, the traders continue to pay their tolls and rents for fear of losing their parcel on the market. Given that number of traders and customers is still increasing, the need for more public facilities is too. Conditions are becoming increasingly urgent, yet action form the KMA is taking years and traders are becoming impatient.

“IT IS THE EPITOME OF URBAN EXPERIENCE, MIRRORING ECONOMIC FORCES, SOCIAL NETWORKS, PROGRAMMATIC, AND PHYSICAL TRANSFORMATIONS OF THE CITY ITSELF.”

“The actors and objects create multifaceted networks in constant interaction with the city’s architectural structure. In this way, traditional and contemporary structures overlap in various ways.”

Every scene that plays on the ground floor is related to a broader context, a context which is hard to fathom. When you change something on this base plate it doesn’t only affect the Central Market. “As the system of the market is strongly related to its context, and is part of the city’s fabric, the smallest intervention not only evokes dynamic and physical changes within it, but also within a wider frame.”

At the end is the intention to meet with as much as possible of all these requirements which I imposed myself with. List up once again: It will destroy at least as possible of the existing structure, it will enrich the existing life of the traders and customers, improve some of the less developed areas, create some public functions which should serve the whole market, faster movement and accessibility in the market and decongest certain areas by making other digestions better. To reach all of this, it is important to work together with the cultural aspects of the market, get the local people involved and to take in account the financial issues the KMA is dealing with.
KEJETIA CENTRAL MARKET.

KUMASI CIRCLE
ASHANTI MONUMENT.

KEJETIA LORRY PARK.

CENTRAL BUSINESS DISTRICT.

THE TRAINTRACK.

DESIGN RESEARCH.

View from the Central Market building in direction of the monument and Kejetia Lorry Station.
The Kumasi Future Masterplan.

As mentioned in the preface, Kumasi is growing at tremendous speed. This is causing congestion in the city centre. The central market and the bus station are interconnected, because the traders want to be as close as possible to the unloading area for products and area where customers from all over the region arrive.

Many planners say the the city has grown out of its limits and that its infrastructure cannot handle more people. Our task is to come up with strategies that can relieve the city centre from congestion and create new chances for balanced development of adapted and planned spaces. Before this is possible some decisive statements have to be made about specific areas in the city centre. It is important that there is a general conclusion about the fate and the future of Kumasi as a entirety.

We must be careful with the statements we make and we have to ensure they are well founded. The interesting of a studio which consists out of architectural and urbanism students is that there is a possibility to make a urbanistic plan based on a broader scope in which architectural ideas are embedded. Other students from the studio will look at the Kumasi Train Station, the Kumasi Kejetia Lorry Station and The implementation of a better BRT bus system.

On the next pages there are further details given about the projects of the others.
COMMON THEMES.

WATER & GREEN:
The city Kumasi is located in a hilly forest zone. The most of the public facilities are located in the valley, which directly links to the location of the riverbed. All our projects have to deal with the theme ‘water’, we have to take the different seasons (especially the rainy season) into account.

There is not much left of the identity of Kumasi as ‘the garden city’. The green environment disappears in the permanent smog hanging in the city centre. The green environment of the zoo is not visible because of the surrounding wall.

The green and the water should prevail in the environment and should be included as ‘themes’ & ‘links’ in and between our projects.

FLOWS:
The city centre of Kumasi exists out of flows and movement. Flows of products, people, traffic etc. The different main flows are running eachother constantly in the way. This is the reason why the flows in the city centre are seriously deteriorated. The proposal we come up with is to devide (as far as possible) all the flows, so that, they all have there own area of movement.
Kumasi is a city with many different areas. Most residential districts are clearly divided into disparate social classes, from elite gated quarters to large slums. Because Kumasi is divided into certain tax-regions the tax money that is available for public spaces, markets and maintenance is not distributed equally. The city activity centre contains the largest traditional market of central Africa. It can boast of over 10,000 stores and stalls that are fully occupied by traders selling every conceivable product. Beside this enormous market there are 28 satellite markets located in Kumasi. Some of the satellite markets are the Asafo market, Ayigya market and the Old and New Tafo market.

These satellite markets are spread out over the city. Some of them are sharing a wider range and are serving larger amounts of people than others. Also are some of these markets accommodated by tro-tro stations which makes them accessible to a large region for people with little income. Because of the congestion, the satellite markets can become important sub-centers for the city. The flows can be widely distributed over the city and provide all the ‘squat-traders’ of a more recognized selling-spot.

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“Bus rapid transit (BRT) is a term applied to a variety of public transportation systems using buses to provide faster, more efficient service than an ordinary bus line. Often this is achieved by making improvements to existing infrastructure, vehicles and scheduling. The goal of these systems is to approach the service quality of rail transit while still enjoying the cost savings and flexibility of bus transit. The expression BRT is mainly used in North America; in Europe and Australia, it is often called a busway, while elsewhere, it may be called a quality bus.”

Kumasi has a central location in the Ashanti region. The city is a transport and commercial hub for domestic and international traffic. The trading takes place at West Africa’s largest open area market in the city center, the Kete market. Kumasi is the key transport link between the north and the south part of Ghana, as well as the surrounding countries. Due to the strategic geographical location Kumasi is a brisk commercial and administrative center. However Kumasi is a hyperconcentrated city which causes major traffic problems in the city center. Too much people want to get in and out the city center every day. The aim is to organize the city by proposing a network of busses, as in a bus rapid transit system. In the crossings with other roads there are opportunities to develop more at these nodes. People get there very fast, and these places are becoming small nodes of transportation.

The Ghanaian government is working on a railway revitalization program, which will lead to privatization of the railroad. The impact of a train station will be enormous at many different scales. The revitalization of the railway will connect Ghana with other countries of Western Africa, it will connect the north (Tamale) with the South (Accra) via Kumasi and on the local scale the different suburbs and satellite markets. Industries as well as people and tourists will have profit of this system. Although the idea of a railway system in Ghana is hard to imagine, its development would lead to many new social and economic opportunities.

The city centre of Kumasi will make a shift. The crowd will partially be moved from the Kejetia Lorry Station to the Train station - the new entrance-image of the city. There will be a new important axis in the city centre which will include greenery and water in the plan.
IMPORTANT ELEMENTS.
Market entrances
Train track becomes new road
The original market plot

Unstable market stalls
Wholesale yard
The drain - provides buildingspace

View over the market
Central market building
The main infrastructure
Market entrances:
At this moment there are three main entrances where most of the people enter the market. Two of the entrances are connected to the main trade axis of the market. The roads are paved and there are almost no elevations in the roads, and make the market accessible by truck and car.

Train track:
The train track that crosses the market hasn’t been in service since 2006. Since then the track has been taken over by more informal market stands. The circumstances in this area are the worst on the entire market. There are a lot of difference in height, the train track is hard to walk on, and when it rains the area changes into an muddy surfaces. Despite the under development of this area, the train track remains one of the most important routes of the market.

The original market plot:
The market grew beyond its borders. Originally it had a wall around it with entrances. This wall is still there, but the most of the fences are broken and almost invisible in between all the stalls and stands. These fences are important to keep the market area secure, which makes it really hard for the security and the traders to keep things safe. Traders are forced to pack all there products at the end of the day and in the worst scenario have to pay for their own security person.

Unstable market stalls:
Most of the market stalls outside the original market are in bad state. The quality, stability and inflammability are main issues of concern. Some of the structures are made by the traders themselves, others by the Kumasi Metropolitan Assembly. During the last years there were several fires in the market. Traces of these fires are easy to recognize because the corrugated zinc roofing hasn’t corroded yet. The KMA also often builds back more sturdy structures.

Wholesale yard:
This area is located in the middle of the market, the accessibility isn’t optimal but cars and trucks can reach this area. This is the place where the cultural aspect is the most visible. The market queens are clearly present, the area is taken over by woman and the men are purely there to get the right stuff to the right place at the right time.

The drain:
The drain is passes straight through the middle of the Central Market. It comes from the Bantama racecourse, the Zoo and the Kejetia Lorry Station, and is quite filthy. This open drain causes unsanitary conditions in the market, but is also the only empty area in the entire Central Market. If we want to use this space it is important to take the smell, health and atmosphere into consideration.

View over the market:
The Central Market lies in a small valley, or better to say in a riverbed. The Central Market is one of the lowest points of the Kumasi centre. This means that from certain locations there are amazing views over the market area. The market is so vast that from most viewpoints it is not even possible to see the end of the market.

Central Market Building:
This Central Market building was built by the British around 1905, at the same time that they built the old train station. It was ‘the image’ or ‘the entrance’ of the Kumasi Central Market. The building is now characterized by its red color painted by the company Royco. Getting your facade painted by a private company is one of the main ways to get buildings maintained and financed in Ghana. Today the building houses the cashier, tailors and mixed retail on the ground floor.

The main infrastructure:
The main infrastructure accommodates the import and export of the products to the wholesale yard. The roads is accessible for trucks, people with cars and bigger flows of people. It is the widest and busiest road in the entire market.
THE TRAIN TRACK.

SELLING.

KAYAYO.

BUYING.

PASSING BY.

View from the Central Market Building during the end of the market day in and around the Keje Central Market and Railway.
Proposal for the Kejetia Central Market by the KMA, made ten years ago.
NEEDS AND DEMANDS.

Market manager office:
The manager of the whole Kejetia Central Market, the contact person with the KMA. His office needs to be located on a place with an overview of the whole area. His office is now located in the old central market building and is provided with an office space, 'waiting' room and cashiers.

The cashier (2x):
They are inning all the rent and taxes (fee, rent for the stall, security, cleaning and taxes over income) of the market traders. There are at this moment two rooms which are well cut off because of safety.

Market supervisor's office (6x):
A market supervisor works closer on the field and is in a better connection with the traders. The supervisor works for the manager and has 1/6th of the responsibility of the incomes of the market. The supervisor is located in an office in the market provides space for around 10 to 20 people. The people working for the supervisor are inning the money from the traders, brings it to the supervisor and the supervisor takes care of all the administration.

Environmental office:
The environmental office consists out of 70 people who are taking care of the environment of the market. Are the traders keeping it clean, do they clear away their garbage at the end of the day etc. This is necessarily so that the market can be cleaned every day.

Security:
The security is involved within three tasks,
1: Protect the market traders against robbery during day and night-time
2: Close the gates at the end of the day as far as possible (some of them are broken) and open them again in the morning
3: Transfer the money from the supervisor offices to the cashiers

Market stalls:
There are many different typologies of market stalls; the main importance is that all the different traders are having a place which meets their requirements. So their must be an availability of different size. Now there is a main distinction in three types of stalls, small containers, big containers and the tables (wooden boxes, baskets, parasols, etc.).

Sanitation / Bathroom:
There are almost 20.000 traders operating in and around the market, this means they also have their needs. They need toilets, washrooms and water taps on a small walking distance so they are not forced to leave their products for a while or do their needs on places which are not made for it. Many of them are taking at the end of the day a shower at the market in exchange for a small fee.

Fire Station:
Because of the high density of the stalls the chance to a quick fire spread is almost not to prevent. If the digestion and infrastructure are accessible the fireman can be faster in the prevention of fire out-breaks.

Child take-care off:
The market is an area where the women are important. Because of the importance of their income they take their children always with them. It is important that especially young woman can bring their children to a day-care for a small fee. This is already a fact in the Bantama racecourse area, where volunteers and NGO’s are taking care of it.

Rest place:
The kayayoo's are in general young untrained girls from the north who are working as 'carts' (the designation in the Western world). People can take them with them into the market and they are carrying their stuff. Because these girls are young and don't have places to sleep they are sleeping on the streets. It is important that they get a safe place to rest.

Health-post / clinic:
Everyday there are 200.000 people who are visiting the market and 20.000 market traders. Some of them are working in bizarre circumstances, such as the metalworkers. But besides the circumstances there are also some conflicts or unexpected situations in which people will be injured. They need help, but in this entire market there is no health-post or first aid.
WANTS AND DESIRES.
Adaption of the space:
How to prevent certain areas of adaption is one of the main questions which I’m taking in account as a serious task. What I have seen in Kumasi and also the rest of Kumasi is that people, because the lack of space, are forced to adapt certain parts of the city. The footpaths are taken over by relatives of the shop owners who also try to sell their things, the road is taken over by the pedestrian and so there is almost no space left for the vehicles or people who are trying to provide their shop, with a car, of products. Even in the market, the only supply option, is blocked by people selling their products on the road. This causes many problems and disagreements in the market between the traders, customers and even the more disaster related participants like fireman and security man.

Street life on a higher level:
Because of the lack of space for traders and the still persistent growth, there is a huge demand of more market stalls. Now is the discussion raised if it must be realized in the current market or that their must be more investment in promoting the satellite markets. For me the focus is not lying in the satellite markets but I know that in the future it is highly important that they devote more attention to this idea, unfortunately this is a lot more complex task with many different specializations involved then just an architect. For me the challenge is to provide the now surplus traders in front of the market of a space. The issue around this is the culture of ‘not climbing up’. The traders don’t feel anything to go up for their grocery, so the question raised; How to create a street life on a higher level?

Take a step away:
The area of the market is growing in a tremendous speed. The area it covers nowadays is more then three times bigger than the intention ever was. It covers the area from the Bantama race-course, a part of the Kejetia Lorry Park, the area around the monument, the intentional market, the train-track, the area around the train-track and the streets surrounding the city-centre. People who are participating in this market-life are people from children to man to woman with their baby’s. When I was participating a person in a stall inside the market I noticed the lack of places to step out of the flow of movement. Some of passers had a need for rest; just drink some water, lactation or a small conversation.

Catch the wind:
In dry tropical climates, the wind is stronger higher above the ground. Because the Kumasi central market lies in a valley and is highly dense it is important to get it ventilated. Smells from the fish and meat market will make the experience, especially in the hottest month, unpleasant. This is the reason why it is important to catch the cool higher and cleaner air by means of a wind catcher or wind tower. Though it is not really a lot used in the Sub-Saharan countries and it is more known from the Persian architecture I think it is worth to use it in a densified place as the central market.

Noise against Odor:
What struck me in the market was the location of the different commodity groups. It seems they were on a certain place for a certain reason. The people who sold the yams the tomato’s were on the terrain of the wholesale because they needed a daily supply of fresh and new goods. The metalworkers are located on a much higher level then the rest of the market because of the enormous noise they made. If they were located in the market it had caused many irritations. The meat is located in their own building, quite close and covered because of the horrible smell and the rapid spoiling of the meat. The traditional cloth are on a clean and real good paved part of the market, traditional cloth is quite an important issue in their culture and is also quite expensive. The tailors are located in a less prominent place; this is because they don’t have to deliver products and a less visited. So every commodity has their own place for a reason, this is impossible to ignore and should be taken in account for the design.

Create shadow and green atmosphere:
The average temperature in Ghana lies around the 30 degrees, because the people spent the most of their time on a day outside they are exposed to the sun for around 12 hours a day if they don’t look for shade. What you see in the Kumasi Central Market is that the traders themselves are hanging plastic sheets above the market paths. This can cause a problem with fire, but it makes clear that the people need shadow. Shadow in combination with green and wind will stimulate extra to create a cool and comfortable place.
PRINCIPLES.

The KMA has been planning the transformation of the market for years. Yet, until today, none of their plans have been implemented. This is not a bad thing per se, because their plans entail the total destruction of the existing market, and replacement by a US modelled shopping mall. Needless to say, this form of trade does not in any way fit the way local traders sell their merchandise.

In this thesis a strategy is set out the uses smaller interventions at strategic places that will change the market where it is most needed. This approach has a long lineage from Patrick Geddes’ ‘conservative surgery’ to De-Sola Moralle’s ‘Urban Acupuncture’ to Vittorio Gregotti ‘area of minimal intervention’. Through this strategy most traders will not be affected by long delayed construction-projects, and will retain a steady their income. The ‘image’ of the central market is of a high cultural value and a great place to exhibit Ashanti Culture. It is thus important to retain certain aspects and change others, but paying careful attention to what physical and social structures are fundamental to the current success of the Kejetia market. I think it is important to focus on what the people miss and how we can improve their life in the market by adding functions, to address the lower areas flood prone and look for a solution for a better circulation.

In this case it is necessary to find out what the places are with the highest priority to tackle and which functions the people need in the market. I defined three main areas to focus on:

1. The main access road, where the Wholesale is.
2. The drain.
3. The area around the old train track.
stalls quite stable
Mixed area
- Lower level, wooden stalls, unpaved paths
- Higher level, hard to walk on
- Wooden market stalls, unpaved paths

Second hand clothes
- Wooden market stalls, unpaved paths

Infrastructure, train track
- Wholesale
- Market Queens
- Metal Workers
- Leather Workers

Area which needs access to larger vehicles
- Hierarchical important for the market
- Making many noises but located on

Drain
- Unstable market stalls
- Stable market stalls of concrete and stones

The area next to the train track
- The start of the unstable wooden market stalls and unpaved paths
- Stalls quite stable
- Wall of stone with metal frames which are clanging during nighttime
- Awful smell but many opportunities

The area between the train track and the drain
- Stalls quite stable
- Wall of stone with metal frames which are clanging during nighttime
- Awful smell but many opportunities

Inside the market area
- Stable market stalls of concrete and stones
- In direction of the CM Building hard to enter
- Area which needs access to larger vehicles
- Hierarchical important for the market
- Unstable market stallsRIGHT
MASS STUDY.

- Development of the area next to the market
- Zanzibar / Hausmann principle
- Adressing the drainage
- Working on the border conditions
- Built a monumental in or in front of the market
- Improvement of the traintrack
- Make the market more accessible
- Redevelop foggy areas
- Adaption of the existing market (Guerrilla Architecture)
- Adding of a new different layer (Grid structure)
- Destroy the whole market and replace it
- Destroy part of the market and rebuilt it with shopping malls
- Redevelop fogy areas
- Adressing the drainage

Development of the area next to the market
STREETLIFE ON A HIGHER LEVEL

The axis approach comes closest to the starting points I made. It will be included in the existing structure of the market without destroying existing patterns, structures and networks. Manuel Sola de Morales, Patrick Geddes and Gregotti are some of the people who used this principle as an architectural approach but obvious they all had their own more specific theory with a specific name for it, urban acupuncture, conservative surgery and minimal interventions.

* "Conservative surgery takes into account the existing physical, social and symbolic landscape of a place in order to allow its most favorable future development."

* "Conservation’s complex theoretical and methodological approach—based on art historical, anthropological, and scientific inquiry—renders it a powerful vehicle for addressing the questions of form, meaning, and effect of human works. If we accept the most basic definition of conservation as the protection of cultural works from deterioration and loss, then heritage conservation contributes to memory, itself basic to human existence. Conservation as an intellectual pursuit is predicated on the belief that knowledge, memory, and experience are tied to cultural constructs, especially to material culture. Conservation—whether of a painting, building, or landscape—helps extend these places and things into the present and establishes a form of mediation critical to the interpretive process that reinforces these aspects of human existence. The objectives of conservation also involve evaluating and interpreting cultural heritage for its preservation, safeguarding it now and for the future. In this respect, conservation itself is a way of extending and solidifying cultural identities and historical narratives over time, through the valorization and interpretation of cultural heritage."

* "Urban acupuncture is neither a discipline, nor a project technique, but a philosophy of approach to a few territorial and societal problems. It is seen from various viewpoints as a possible answer to the requirements of the bettering of the urban environment. By nature it does not contrast with urban planning in the traditional sense, as it is the latter that governs the territory, as well as having the shared necessity of adjusting planning instruments to the times. But urban planning is a process that, even at its best, cannot produce immediate change; by its very own nature it requires extremely complex decisional processes and long time frames. Urban acupuncture, is spawned by the necessity to achieve sensitive effects in shorter time periods with respect to planning, and operates principally within structured contexts."

The area where the realistic axis will be implemented - the top-down approach.
RESILIENT GRID STRUCTURE

The main organizational structure of the design uses the existing drainage system in combination with a superimposed grid of pavilions to make the generic form of the market more legible. Building on the existing drainage system makes use of the available space whilst the grid provides an armature for growth and expansion.

The grid is a well-known organizational device in architecture and urban design, but can be used in many different ways. Bernarn Tschumi's plan for Parc de la Villette in Paris, for instance, represents a plan in which program, form and ideology come together. The work breaks with an historic lineage of picturesque park design, where an surrogate nature juxtaposes the urban fabric as a nostalgic escape into the hinterland, and instead searches for a cultural ‘human’ aesthetic. A grid of pavilions ultimately defines a territory, much like the telephone booths of London, without ever being able to perceive the whole park. The overlapping layers of lines and surfaces each full fill a rather autonomous function, whilst being simultaneously present, providing multiple layers of meaning that are different but not mutually exclusive.

In a similar way the design for the Kejetta market uses the grid, a recurring materiality, and a long linear element that are lifted above the market to make legible the public infrastructure that is added to the current market. Leslie Martin in The grid as generator writes a that “the grid or framework can be regarded as an ordering principle. It sets out the rules of the environmental game. It allows the player the freedom with individual skill.” It is exactly this open-endedness of the grid that makes it an appropriate scheme to give structure without imposing rigid reorganization.

“The choice of the grid allows different patterns of living to develop and different choices to be elaborated.” The architectural study investigates how added program can be introduced into the market with a recognizable architectural that does not compromise the functionality and complex system of the current market. The grid and linear element produce a resilient framework that is strong enough to retain a formal integrity, and thus remains recognizable, in the face of perpetual change and expansion.
UNREALISTIC GRID.

Divestment.
The area where the grid volumes will be implemented – the bottom-up approach
DEFINITIVE DESIGN.
The intervention strategy shows that it is possible to have a large impact on the market with a relatively small intervention—and that total destruction is not necessary. The building is integrated into the market’s environment respecting the unique social, cultural, economical and historical attributes as much as possible. However, the elevated building is designed to work as landmark in the precinct and Central Market, consequently giving structure to the generic and anonymous trading fabric on the ground floor. The building itself also provides a platform to overlook the whole market in conjunction with a grid of pavilions that help to find public facilities. The clear entrances, positioned at important intersections will become interesting destinations for tourists as well, who are no longer intimidated by the ambiguous entries to the market. This all while respecting the existing patterns, structures and networks which will be harmonized as little as possible.

The development provides a strategy of urban acupuncture in an area in need of urgent urban intervention. This thesis provides a proposal that will improve the quality of life for the traders, visitors and local residents in and around the market. Although previous plans suggest the necessity of a larger approach, this smaller strategic intervention emphasizes the need for the environment to adapt, the people to respond, and that slow change can be more beneficial for the market and its users than total overhaul. In the future the design anticipates growth, change and expansion as the always evolving market requires, and even beyond the market into the city. An envelope is designed that is modular and flexible, yet has enough formal rigour to retain a sense of autonomy and contrast with the market’s fabric.

The programme of the intervention deals with structurally lacking public meeting places and amenities on the market and its immediate surrounding. The functional diversity of the facilities will create an overlay of systems and functions that sometimes create vibrant intersections and meeting places, while at other times create slow spaces to escape the market’s hustle and bustle.

The axis will be elevated above the market and is thus separated from the economic ground level. The interspaces created by the grid of pavilions functions as a roadmap which gives direction to future expansions of the main building.
FOLLOWS THE EXISTING GRID

IN CONTRAST WITH THE EXISTING GRID
THE SITUATION.

FULL EXCEPT OF OPEN DRAIN!
THE DRAINAGE SYSTEM.

SMELL

CLOSING DRAIN

PLACING CONSTRUCTION
FACILITIES.

- Restaurant
- Health Clinic
- Internet Cafe
- Supervisor 1
- Environmental Office
- Kayayo's
- Day-Care
- Supervisor 2
- Street Level New Zongo
- Fire-Office
- Security
- By-Pass
- Non-Flow-Space
- Take a Step Away
- Private Non-Space

Roman Hill
GRID.

SANITATION / WATER STORAGE  TRO-TRO  RESTPLACE  SHADOW  OFFICE

INPREGNATED PALLET  PLASTERED ADOBE BRICKS
BUILDING PROCESS.
AFRICAN HARDWOOD.

- Celba
- Azobe
- Wawa
- Ogea
- Denya
- Danta
- Essa
- Edinam
- Emeri
- African Mahagony
DETAIL DRAINAGE.

- Buttress steel
- (Existing) Cement block 450mm x 150mm x 250mm
- Concrete cover 100mm
- Concrete base 500mm x 400mm
- (Existing) Open drain (concrete)
- Concrete foundation pile 300mm x 200mm
DETAIL MAIN CONSTRUCTION.

- Plywood flooring (height 5mm)
- Fixed joint / node
- Installation space (electricity and water)
- Galvanized steel U-profile 200mm x 100mm
- Buttress steel
DETAIL FLOORING.

- Pallet 1000mm x 800mm
- Plywood flooring (height 5mm)
- 2x Galvanized steel U-profile 150mm x 50mm
- Galvanized steel U-profile 200mm x 100mm
DETAIL PALLETS.

- Azobe wood structural beam: 300mm x 100mm
- Azobe wood (structural column): 300mm x 100mm
- Joist Hangar: 5mm x 100mm
- Pallet: 1000mm x 800mm
- Azobe wood 150mm x 50mm
DETAIL BRIDGE.

- Azobe wood handrail 100mm x 100mm
- Galvanized steel railing frame 200mm x 100mm
- Azobe Plywood flooring (height 5mm)
- 2x Galvanized steel U-profile 200mm x 100mm
- [New] Cement block 460mm x 130mm x 230mm
DETAIL STAIRS.

- Galvanized steel U-profile 200mm x 100mm
- Azobe wood handrail 100mm x 100mm
- Galvanized steel stair frame
- Azobe Plywood stair step (height 5mm)
- Galvanized Steel supporting beam
- 2x Galvanized steel U-profile 200mm x 100mm
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www.who.int (Accessed 26 november 2011)