

Seeing Dar

‘Public space in Tanzania is
as rare as the rhinoceros’

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Foodscapes Research Group

Seeing Dar

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Introduction

Foodscapes Research Group

Han Wiskerke, Professor of Rural Sociology at Wageningen University, has been appointed as professor at the Academy of Architecture on January 1st 2013 for a period of 3.5 years. Entitled Foodscapes, his professorship is part of the research programme of the Amsterdam School of Arts and is incorporated into the teaching and research activity within the masters programme in Landscape Architecture.

In the Foodscapes research programme Wiskerke is emphasising three themes: the dynamics of urban and rural places and spaces and the way in which those urban and rural dynamics influence one another; the social and economic relations between the urban and rural within city regions; and the possibility to develop more sustainable foodscapes at the city region level through (re)design. Wiskerke connects those themes to spatial design research by masters students of Landscape Architecture. They are eminently positioned to present spatial proposals for future cultural landscapes and to make important aesthetic contributions to the transformation of areas.

The design research project in Dar es Salaam is the first project in a series of three. In 2016 it is planned to gather the designs and scenarios resulting from the Foodscapes research programme at the Academy into a final publication.

Han Wiskerke

Professor Foodscapes

Dar es Salaam's foodscapes

The challenges of urbanisation

As of 2007, more than 50% of the world's population live in cities. In the coming decades, the world's population growth will occur entirely in cities. By 2050, when the world population is expected to reach 9.3 billion, approximately 70% of the world's population will be living in urban areas. Africa is one of the few global regions that is still, as of 2015, predominantly rural (60% of the population lives in rural areas). It is expected to have an urban population totalling 57% by 2050.

As Africa is also among the regions with the highest rate of population growth, it implies that the speed and magnitude of urbanisation is immense. Although the vast majority of urban population growth takes place in small to medium-sized cities and towns (< 1 million inhabitants), about 15-20% occurs in megacities (> 5 million). Rapidly growing cities, in particular the megacities, face a series of developmental, governance, sustainability and equity challenges:

- The development of infrastructure (e.g. roads, buildings, water, electricity and sanitation) is not keeping up with the speed of population growth, due to a lack of time and money, as well as urban governance failures.
- As governance institutions take time to evolve and generate effective frameworks to manage complex systems that make cities more liveable, rapid urban population growth implies that urban governance systems and mechanisms do not evolve at the same pace as cities do. This increasing governance complexity is reinforced by the decentralisation of regulatory responsibilities and policy implementation, characterised by the fact that

many national governments have begun to make hitherto untested local governments responsible for the development and implementation of policies and programmes in the fields of health, education and poverty alleviation.

- Growing inequalities in wealth, health, access to resources and availability of services. One thing that is typical for many cities in developing countries, regardless of their size, is the significant difference between the upper and middle class on the one hand, and the low to very low income class on the other hand, with regard to access to clean drinking water and electricity and the presence of adequate sewerage and solid waste disposal facilities.

- Cities consume 75% of the world's resources, while covering only 2% of the world's surface, which means that the vast majority of resources used by a city are taken from and produced in places outside cities' borders. This is often referred to as the urban ecological footprint, expressed in the annual demand for land and water per capita.

On average, the urban ecological footprint has increased in the past decades, particularly due to the growing energy demand for transport and mobility, air conditioning and heating systems for houses and offices, all sorts of electrical equipment for domestic use, and for long-distance transport, processing, packaging, cooling and storage of food.

- Air pollution is one of the greatest urban environmental health concerns. Over 90% of urban air pollution is caused by vehicle emissions brought about by the high numbers of older vehicles coupled with poor vehicle maintenance, inadequate infrastructure (traffic congestion) and poor fuel quality.

Exposure to fine particles and lead contributes to learning disability in young children, an increase in premature deaths and an overall decrease in the quality of life. The prevalence of air pollution in cities worsens due to the disappearance of urban greenery.

Urban food provisioning

One urban challenge that is gaining attention, but which was ignored for a long in urban design, planning and policies, is food provisioning. Neglecting food provisioning in urban design, planning and policies is a serious omission, because, to quote Carolyn Steel, 'feeding cities arguably has a greater social and physical impact on us and our planet than anything else we do'. In the urban realm, food issues are hardly given a second thought, because urban planning and policies are usually associated with issues such as crime rates, neighbourhood revitalisation, employment, public transport, education, public health, waste management, parks and recreation, and community development. This is also reflected in the names of municipal departments and the domains for which municipalities usually bear political responsibility.

One reason why food has never been a prominent issue on the urban agenda is rooted in the persistent dichotomy between urban and rural policy. Food is often seen as part of the realm of agriculture and, therefore, as belonging to rural policy. This has promoted the view of food policy and planning as a non-urban strategy, neglecting the role of cities as (potential) food system innovators. Another reason why food is not seen as an urban issue is that policy officials do not understand the significance of food for sustainable urban development and quality of urban life. However, if one looks at the urban ecological footprint, 25 – 50% of a city's ecological footprint is related to its food provisioning system. Hence, food should be understood as an important urban issue, as it affects the local economy, the environment, public health and the quality of neighbourhoods.

Dar es Salaam

Dar es Salaam, Tanzania's largest city, is one of the typical fast-growing megacities in sub-Saharan Africa, where, unlike in other regions of the world, urbanisation occurs despite economic growth. The population growth is 5.6% per year, which translates to 250,000 additional people per year. Urban growth and expansion is largely uncontrolled and unplanned, resulting in 70%

of the urban population living in unplanned settlements. The risk of flooding should be added to the aforementioned general urbanisation challenges, which all apply to the city. Dar es Salaam is a coastal city and climate change is expected to exacerbate the vulnerability of poor communities through sea level rise, more intense coastal storms and increased rainfall variability. Rapid unplanned urbanisation in Dar es Salaam has led to flood risk in many informal settlements, with a wide range of associated health issues, as well as other problems, affecting the residents in these settlements.

The socio-economic inequalities, which are, as mentioned before, typical for rapidly growing cities in developing countries, are also omnipresent in Dar es Salaam. This is, for instance, illustrated by the following data: only 10% of the households have motorised transport, 16% of the households live under the basic needs poverty line, 41% of the households have only one room in a house they share with other households, 74% of the households have three or more members, 20.9% of the urban population has water piped to their yard or house, 45.4% of the urban population has electricity, 64.6% of the mainland urban population cooks on charcoal and 23.6% on wood, and only 23% of the city's population has a refrigerator.

Feeding Dar es Salaam

According to a recent census in Tanzania, 27.3% of Dar es Salaam's households sometimes or often had a problem satisfying food needs. In Tanzania, 40% of the children are stunted, a figure that is somewhat lower for Dar es Salaam where 26% of the children are stunted. Rapid urban growth, increasing poverty and the disappearance of space for urban agriculture may increase food insecurity in Dar es Salaam in the years to come. An oft-proclaimed solution to address urban food insecurity is to increase food production. However, by focusing on food production as the means to address global food and nutrition insecurity, the real cause of food and nutrition insecurity is neglected. Food insecurity is first and foremost a problem of availability, accessibility and affordability. Hence, it is important



that sufficient amounts of food are produced in and/or are transported to cities and within cities to different neighbourhoods. Second, within a city food should be easily accessible for urban dwellers. The fact that only 10% of the households in Dar es Salaam have motorised transport and many people have little or no money for public transport, food outlets at walking distance are crucial. The street shops (dukas) and street food vendors can be found on almost every street in Dar es Salaam, which means that a duka is always within walking distance. However, the people's markets (or wet markets) found across the city are also very important from the point of view of accessibility.

Another aspect of accessibility is the possibility to buy quantities equal to the amount that is being eaten, as the statistics indicate that a large percentage of the population has little to no space to store food, let alone for cool storage of food. When it comes to a food item like an egg, dukas offer the flexibility of buying fewer eggs, from one upwards, compared to the 6, 10 or 30 egg trays available in the supermarket.

A third aspect of food security is affordability, referring to the price of food and the amount of money a person or a household has to purchase food. Poverty is an important, if not the major, cause of food and nutrition insecurity. A comparison between dukas, fresh food markets and supermarkets of prices of the main food items over a period of a year show that prices are (considerably) lower in dukas and people's markets than in supermarkets. In addition, duka owners offer access to short-term interest-free credit, something that the supermarkets are unable to do. Lower prices, proximity, flexibility and the possibility of interest-free credit are crucial for people surviving on limited and sporadic incomes. In addition, these factors do away with the need for storage space, something that should not be taken for granted by people who live in cramped, often shared, spaces with uncertain tenure and with limited or no assets such as fridges or other furniture.

Designing Dar es Salaam's foodscape

Street shops, street vendors and people's markets, but also urban food production, turn out to be important, if not key, elements in Dar es Salaam's foodscape, i.e. its socio-spatial distribution of food provisioning activities (growing, processing, preparing, selling, cooking, eating), in particular for the urban poor, who represent the majority of Dar es Salaam's population. Street shops, street vendors and people's markets as well as urban farming are often seen as foodscape elements to be removed from the urban scenery in processes of urban renewal and modernisation and to be replaced by supermarkets, indoor food markets and modern restaurants. However, acknowledging that food availability, accessibility and affordability are key to food security, understanding that a large part of the urban population is earning money (albeit very little) in the urban food economy, and recognising that poverty and unplanned settlements will characterise Dar es Salaam for many years to come, implies that street shops, street vendors and wet markets, as well as urban agriculture, will shape Dar es Salaam's foodscape in the coming decades. This does not, however, mean that no changes can be proposed or implemented to improve the sustainability and resilience of Dar es Salaam's foodscape. However, potential improvements have to build on and align with the socio-cultural practices, habits and routines of the people working in and shaping Dar es Salaam's foodscape. This constituted the starting point for the research and design assignment of the students of the Amsterdam Academy of Architecture: proposing spatial interventions that could work in everyday life in Dar es Salaam and that were aimed at improving the present situation. The essays and designs presented in this book are not the solution for a more sustainable and resilient urban foodscape, but do provide interesting building blocks and food for thought for rethinking and reshaping Dar es Salaam's foodscape, with a focus on food security and quality of life, especially for the urban poor.





**Saline Verhoeven and
Gianni Cito**

**Landscape architect,
Architect & tutors
design studio**

Design for the Shekilango Market

These are the results of a 12-week thematic research and design project. A small interdisciplinary team of students from the Master's programmes in Landscape Architecture, Urbanism and Architecture explored spatial issues related to markets as Foodscapes. The studio aims to integrate field and literature research into the design process, and to amplify it with research through design. The Foodscapes project explored the spatial issues related to the availability and the supply of food, and focused on people's markets as an important link between producer, seller and consumer.

In the design studio we linked the Western approach to people's markets to the approach of Tanzania. Supported by the Ardhi University, School of Architecture and Design (SADE) we investigated cultural differences, programmatic variations and spatial issues. We explored if and how one can redesign the people's markets with a new notion of modernity transforming them into valuable places for the fast-growing city of Dar es Salaam. The following points were considered:

- What makes the market an attractive and functional space, which can be used flexibly, as well as being a place that is inviting for people to visit, shop and work?
- Are we able to make a timetable for the functioning market and can we use it to redesign or reorganise the market?
- How can we engage the city's inhabitants and the endogenous qualities and characteristics of the urban fabric and the landscape?

- In what way can the markets and related urban agriculture contribute to the resilience of unplanned urban settlements?
- Can we design people's markets for the 21st Century as community-based food systems?

Our research focused on the Shekilango Market in Sinza/Ubungo, a lively neighbourhood with bars and restaurants, shops, businesses, lots of family houses and some apartment blocks. The market is located on a busy intersection of the Shekilango Road and the Morogoro Road, one of the main arteries of Dar es Salaam. In the valley next to the market, there are agricultural fields. At the market you can buy fresh fruits and vegetables, meat, fish and eggs, and you can have your clothes repaired. Chickens are slaughtered and prepared on the spot. You can enjoy a well-prepared breakfast, lunch, chai tea or coffee at the market and everyday buyers and sellers meet, play some pool and exchange news. The market is a place of trade where people buy, sell, meet and discuss. It is a social anchor in society.

Learning from Dar es Salaam

An important element at the start of the project was a field trip to Dar es Salaam. It was an overwhelming and revealing experience. With burning charcoal fires everywhere, the smell of food is always present. People sell their goods on packed streets, and sidewalks and out of service bus stops function as open-air shops. Guided by Daniel Mbisso, Marc Wegerif and fellow students from the Ardhi University, School of Architecture, we – a group of nine students and two tutors – visited the city. We started touring Dar es Salaam by public transport, taxi and on foot, crossing the city from the beach to the University at the former edge of the city, just to get into the mood of Dar es Salaam. Moving around easily in small groups we visited places our hosts knew well. Lectures by the municipality, touring the Kariakoo market and wholesale markets, frequent visits to the Shekilango market at different times of the day, interviews and lots of riding the daladala around Dar es

Salaam deepened our perceptions. The field trip provided a good insight into the community structures and networks around the market, and what they look like. At the end of our 10 days in Dar es Salaam, each student was able to define his or her own design statement, later translated into a design assignment with a strategic intervention and a specific programme.

The plans and essays are presented in this book. The different projects show the importance of small strategic interventions. Designing marketplaces is designing for people to interact in many different ways. It means organising space for different social interactions, for people to meet and cooperate, but also sometimes to avoid one another or to get away from each other. The challenge is to design markets as nice working places that can be used flexibly, and create inviting spaces by improving water and waste management.

The projects also show that providing the city with food can play a role at different scale levels in the spatial planning and the urban design of the city. Goods and people reach the markets by different means. Intervention in the transport and distribution networks effects the operation of the market, but can also have a huge impact on the liveability and the quality of the city. As Daniel Mbisso said ‘Public space in Tanzania is as rare as the rhinoceros.’

In relation to this, the role of urban agriculture in the city was also considered. Agricultural production in the valleys provides the markets with fresh greens and beans on a daily basis. These fields, mostly located in valleys, add to the resilience of the city. The green ribbons through the city provide space to grow and to shrink, to store excess water and to enhance the spatial quality.

The designs and papers are mixed in this book and are complemented by photos of our trip. It was a great experience to immerse ourselves in the fast-growing harbour city of Dar es Salaam and learn from the self-organising community systems within the city.





Marc Wegerif

**PhD Candidate
Wageningen University
& Oxfam Economic
Justice Campaign
Manager**

Symbiotic chicken supplies

It is 5am, still dark, I am at the Shikilango people's market in Dar es Salaam, a variety of vehicles are arriving and stopping in the street next to the market, the clucking of chickens fills the air. Motorbikes with two large woven baskets on the back, tied on top of each other, park. The baskets carrying up to 50 chickens each are arranged on the ground.

Small Suzuki pick-up trucks and other vehicles with wood and wire frames on the back arrive with hundreds of chickens, the various buyers crowding around them as the morning business picks up and the sun begins to light the sky.

Some customers are buying directly from the vans and motorbikes. Some of the butchers, identifiable in their white overalls and boots, are also buying direct from the vehicles to fill orders they already have. I watch the scene while sitting on a large rock on the edge of the road.

The man sitting next to me on the rock is selling plastic bags of different sizes and cigarettes to customers and traders. Most of the people with the vans and motorbikes also have a stall in the market or cooperate with someone who does. The chickens not sold directly in the morning are transferred to the market and sold there through the rest of the day.

Under a high roof that covers a raised concrete platform there are thousands of chickens in lines of cages four levels high. The alley ways left between the cages are busy with people selling and buying chickens, negotiating or just talking. There is an alley at a lower level between the platform and six white tiled chicken slaughtering and cleaning areas that run along two sides of the platform. Men in now blood splattered white coats fill the slaughter areas

ending the lives of chicken after chicken and helping them off with their heads and feet before a few more quick flashes of sharp knives relieve the victims of their innards. Women sit on the ground or on some bricks cleaning the chicken intestines, heads and legs.

Each of the six cleaning areas has a 200 litre steel drum on top of a wood fire boiling the water used to clean the chickens and loosen the feathers for plucking. Steam mixes with the wood smoke to shroud the dead birds, dumped into the drums with their legs tied together in bundles. The butchers take turns to stir them with a long wooden pole and lift them out again for the plucking to begin.

The morning rush of deliveries was over, the slaughter was well underway, the chicken trading continued. I talked to the chicken sellers under the high roof, then to some of the men in the once white coats and later to women sitting with their buckets of heads and feet. I wanted to understand how this whole system works that takes in live chickens and churns out upwards of 6,000 slaughtered ones a day.

Many customers choose their live chickens from among the more than 50 cages and buy them from the chicken sellers. The customer can take the chicken with them and do what they want with it, but most have it killed and cleaned at the market and leave with something in a plastic bag a little bit closer in appearance to the chicken that most European chicken eaters carry out of supermarkets.

If you want the head and feet and intestines as well then you will need to pay the man who does the killing and cleaning an extra 500 Tanzanian Shillings (just under 25 euro cents) for these bits. If you see those bits of the chicken as surplus to your requirements then don't get tricked into paying for the slaughter, the killing and cleaning is free and you will still have the liver and gizzards.



Slaughter houses on the Shekilango market, sketch by Jerryt Krombeen

The chicken killer, of which there are more than 60 present on most days working from 5am to 6pm, will then make his money (yes they are all men) by selling the head, feet and intestines for between Tsh 300 and Tsh 500 a set to the dozens of women who buy these parts. Prices vary according to the size of the chickens and the ability of the women to negotiate.

These women cook and sell these parts of the chicken in their normally poorer neighbourhoods of Dar es Salaam. One woman I spoke to buys 100 sets of head, feet and intestines at Tsh 300 a set every day. She seems to get a good deal from butchers she knows and perhaps due to the quantity she buys. She sells these cooked for 750 in total per set (300 per intestine, 150 per head and per foot) so a gross profit of about 45,000 (22.5 euro) per day plus what she gets for four whole chickens she also buys at the market and sells.

There are other costs that she has to cover from this, like Tsh 800 for transport on the daladala (small bus with regulated prices), but in a country where the minimum wage is Tsh 80,000 per month she would seem to be taking home a reasonable amount each day.

The market provides the space and the basic facilities around which the different actors, all individual or very small business operators perform their interconnected roles. The chicken seller pays Tsh 15,000 (7.5 euro) per month for the space to put their chicken cages. The chicken killer pays Tsh 1,500 (75 euro cents) per day for the use of the slaughtering space.

The woman buying and cleaning the intestines, heads and feet, pays Tsh 300 (15 euro cents) for her space for cleaning and with it the buying opportunity. These funds support the market cleaning, the security, and a part of it goes to the Municipality that has allocated this space to the market and arranges the bulk rubbish collection.

The young man in the dirty white coat I was chatting to says it is good work, most days he kills 50 to a 100 chickens, that is an income of up to Tsh 50,000



(25 euro), less the market rent of just Tsh 1,500 (75 euro cents). By noon on the day I was there he had killed 15 chickens, so had already covered the day rent and had cleared Tsh 6,000, more than he would get for a day's work on a commercial farm or as a security guard.

The chicken seller I was speaking to had sold 94 chickens by that time and was running out of stock. With his mark up of between Tsh 300 and Tsh 500 per chicken, he was reluctant to give a definite figure; he has made some money and will have most of the rest of the day off. A woman I sat and talked with has still got to cook and make her sales, but is confident she will have enough money to feed her two children.

Later I ate lunch cooked by a woman with large pots on charcoal stoves next to the rough wooden tables where I sat. In the street two men lifted a large plastic bin onto the back of a motorbike. As the motorcyclist strapped it to the bike I went to find out what he was carrying. It was 70 freshly killed and cleaned chickens that he is being paid to transport to a restaurant. At the restaurant the chickens will be grilled, boiled in soup or fried to feed those customers. In the meantime women are cleaning the intestines of the same chickens and getting ready to take them to their own clients.

After lunch I went to some plots of land filled with green vegetables a few minutes' walk from the market. I found a woman growing green vegetables on a plot about 300metre squared. At the edge of the plot she has piles of chicken manure that she buys from the chicken sellers in the market. When it has sat for enough time she spreads in on her small field. When she harvests once a month she sells some of her crop to stall-holders in the same market.

Back at the butchers a young man is bringing water for the steaming 200 litre barrels. He buys the water from the flats nearby, transporting it in plastic containers on a push cart and selling it to the butchers. Many of the residents in those flats are also customers in the market. Another person is bringing and

selling firewood to heat the water. All of the people in the chicken and related business are buying other food, cooked and uncooked, in the market, it is the place where they are spending a large part of their lives, working seven days most weeks. My chicken seller, even after selling all his chickens stayed around the market, when I came back in the afternoon he was still sitting chatting with friends.

Along with being part of the overall market operation and individual entrepreneurs competing for customers and suppliers the actors are also involved in other layers of collaboration formal and informal.

Each of the six slaughter areas is run through the cooperation of 10 to 15 butchers. They share the 200 litre barrel of boiling water pooling money to buy the water and firewood and taking turns to look after the fire and stir the chickens.

The stall holders under the large roof pooled their resources to build the structure and all contribute to its upkeep, in addition to the contributions they make to the overall market operation, such as paying for the security guards and cleaners.

There is no vertically integrated food company here or at any of the dozens of other such people's markets in Dar es Salaam. Instead there are a multitude of different actors linked in complex patterns of different interdependent relationships.

Marc Wegerif works as Economic Justice Campaign Manager for Oxfam in the regions Horn, East and Central Africa. He is PhD Candidate at the Rural Sociology Group of Wageningen University with Han Wiskerke as promotor. This blog as part of his ongoing research was first published on the weblog of the Rural Sociology Group (www.ruralsociologywageningen.nl) on, January 8, 2014.

Seeing Resilient Dar





David Habets

project A roof and a floor

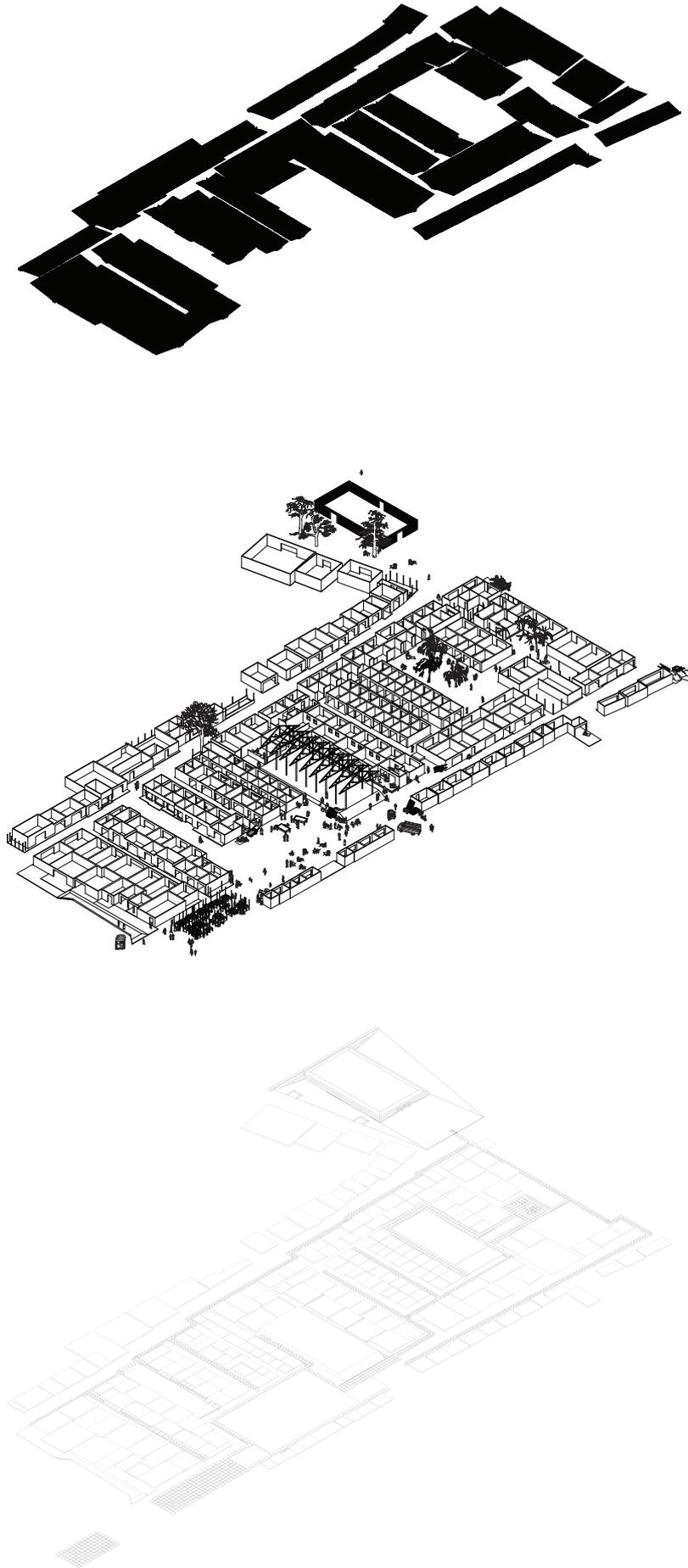
Looking down from the Rombo Hotel I see the roof of the Shekilango Market, a Green View of Michichi along the floodplains and the long line of the Morogorro road stretching inland from the centre at the Indian Ocean. The market is made by the rusty metal sheets piled across and on top of each other. Shading it from the hard sun and keeping it dry during the long rains of the monsoon. These roofs were built by individuals, collectively making the market.

Trading flows through the Tanzanian veins. 'Selling and buying food at the markets are the small everyday interactions that work as the social glue for the communities of Dar', Daniël Mbisso. The market place is a fluid space offering opportunities for everyone. A street becoming an unloading area for thousands of chicken. Only hours later becoming the terrace for a mammoth serving food. It's used collectively in multiple ways from zero hour morning to 12 hour night, Swahili time.

Dar es Salaam's challenges of a rapid urbanization can be seen on its streets. The Shekilango market lies within a dynamic urban context. The Shekilango road, in the district Sinza, will become an important transfer hub for the new fast public bus line along the Morogorro road. Hotels rise in between the low Swahili houses, bars open blasting African hip hop beats through the streets, dukas transform to house the uprising African middle class.

The city of Dar es Salaam stands for the enormous task of housing double as many people within ten years while improving the quality of life within the city. A big leap lays ahead in providing the most basal needs for the many. The infrastructure for food and water has to be secured and further developed. Affordable fresh food, clean drinking water and protection from the seasonal extremes are baselines on which the city can flourish.

The Shekilango market is a beautiful example of how the citywide food network provides Dar nowadays. How food trading and providing will stay a sole element in the everyday life of the Tanzanians depends on the metamorphosis of the people's markets within the rapidly changing city. The project A roof and a Floor, tends to design within this rich context.



Exploded view of the new roof, the life on and the new floor for the shekilango market

essay Voyaging Public Dar

1.

Flying over Dar es Salaam at night, you'll see an endless carpet of tiny light dots against total darkness. Tanzania's largest city is sprawling accumulation of informal and formal low-rise settlements. The plane then makes a large turn over the calm waters of the Indian Ocean. More dots of light shine up from the many fishing boats and large container ships lying at anchor in the bay.

Dar es Salaam, Arabic for harbour of peace, is East-Africa's main port and the country's economic heart. With the extension of the port of Bagamoyo 70 km north of Dar in the near future, the city's growth will become even more rapid. Now already the fourth fastest growing city in the world, the urban population is expected to double in the coming decade. Dar is an exemplar of the recent urbanisation taking place on the African continent.

Stepping out of the plane, the rich air fills your nostrils. The soggy smell of millions of charcoal fires lit throughout the city. It's an early reminder of your encounter with a rich African culture. Large concrete trees roof the entrance hall of the Julius Nyerere Airport. Even in the middle of the night, you're offered a portion of roasted peanuts wrapped in a tiny plastic bag. Apart from that, the night is quiet. Driving to the city centre as the sun comes up, you're slowed down in the huge congestion of Dar's streets. As you come to a standstill, you're offered cigarettes, peeled sugar reed, bite-sized pieces of fruit and small servings of ice-cold water in plastic bags. You drive into a city as one enormous marketplace.

Further on, you enter Kariakoo. At the heart of the neighbourhood lays Kariakoo market, another concrete giant from the period of the country's independence. The market started under the wide span of constructed trees. Nowadays, it has spread into the streets and up narrow metal stairs into five to eight-storey high buildings. The neighbourhood has transformed from a single story, high-density neighbourhood into a multi-layered marketplace, which attracts people from throughout the region. Kariakoo is one of the 45 fixed and registered food markets in Dar [1]. These markets are the main public spaces in Dar. They are at the heart of this seemingly trade-fairing nation. They are formalised by the municipality, designated and constructed locations, or self-organised at vacant places in the city.

These markets full of traders and vendors provide the city with its daily bread. They form the everyday places where food is purchased, sold, cooked and eaten. They are run by individuals working within a couple of square metres, who collectively form the market. These petty trading spaces are probably the most widely accessible points of distribution for food in the urbanising areas and, therefore, can be seen as an important node in the urban food security chain. In this way, petty trading spaces seem to redefine these public spaces as service providers and life definers. [2] Moreover, these markets, vendor-filled streets and roadside restaurants make up the city's public realm. We can simply define the public realm as a place where strangers meet. In these places, unfamiliar knowledge can be exchanged, expanding the horizons of information for anybody entering. [3]. For the 'petty traders', the possibility to be out there, making a living, enables them to gain from their encounters. It can lead to unexpected opportunities, new trade, fresh cooperation and individual development.

Being in Dar in September, I was astonished by the complexity of food trade, space-sharing and the fluidity of food places in the city. In this essay, I will try to illustrate how these places make up part of Dar's public realm; how everyday rituals with regard to food trading, drinking coffee and the home, have led to an environment full of opportunity for rich encounters.

1. Liberatus Kileki Mrema. Creation and Control of Public Open Spaces: Case of Msasani Makangira Informal Settlement, Tanzania. *Online Journal of Social Sciences Research* 2 (2013): 7, pp. 200-213. (Online resource)

2. W. Kombe, D. Mbisso, and M. Nyström. Petty Trading Spatial Processes in Marketplaces in Dar Es Salaam, Tanzania. (Göteborg: Chalmers University of Technology, 2012) University dissertation 7.

3. Richard Sennett, "The Public realm", in *The Blackwell City Reader*, ed. Gary Bridge (Chichester: Blackwell Publishing, 2007), pp. 261-272.

2.

Walking along the Shekilango road, you move under the congregated steel roofs of the restaurants at the side of the street. The terraces are scattered over the sidewalk. Sitting down on an archetypical plastic chair, two waiters come up to you, one taking your order for drinks and the other offering you the day's menu from the kitchen. Looking around, while feasting on a Safari beer with Kuku and Chipsi (fried chicken with soft fried potatoes), you listen to the music spilling into the streets from a jukebox and look at a group of men playing pool in the corner.

This single restaurant is a collection of entrepreneurial activities. The bar and the kitchen are two separate undertakings. The jukebox is the property of a third party. And the pool table is the business of a fourth. In a place as simple as a restaurant at the side of the road, we see a great variety of small-interdependent economic activities come together in a single space. It creates an income for several people in a multitude of ways. Every single one of them is self-employed, responsible for their place in the space and in the group. Cooperating within the group generates the need to act in public. The simple restaurant, with really good chicken, becomes an embodiment of Arendt's 'man in the plural' [4]. This 'world of things' made up of plastic tables, pool cues and the printed list of songs on the wall, comes together in an arrangement where one benefits from the other. This coherence of things can only be reached by talking with the others and making sense to each other.

3.

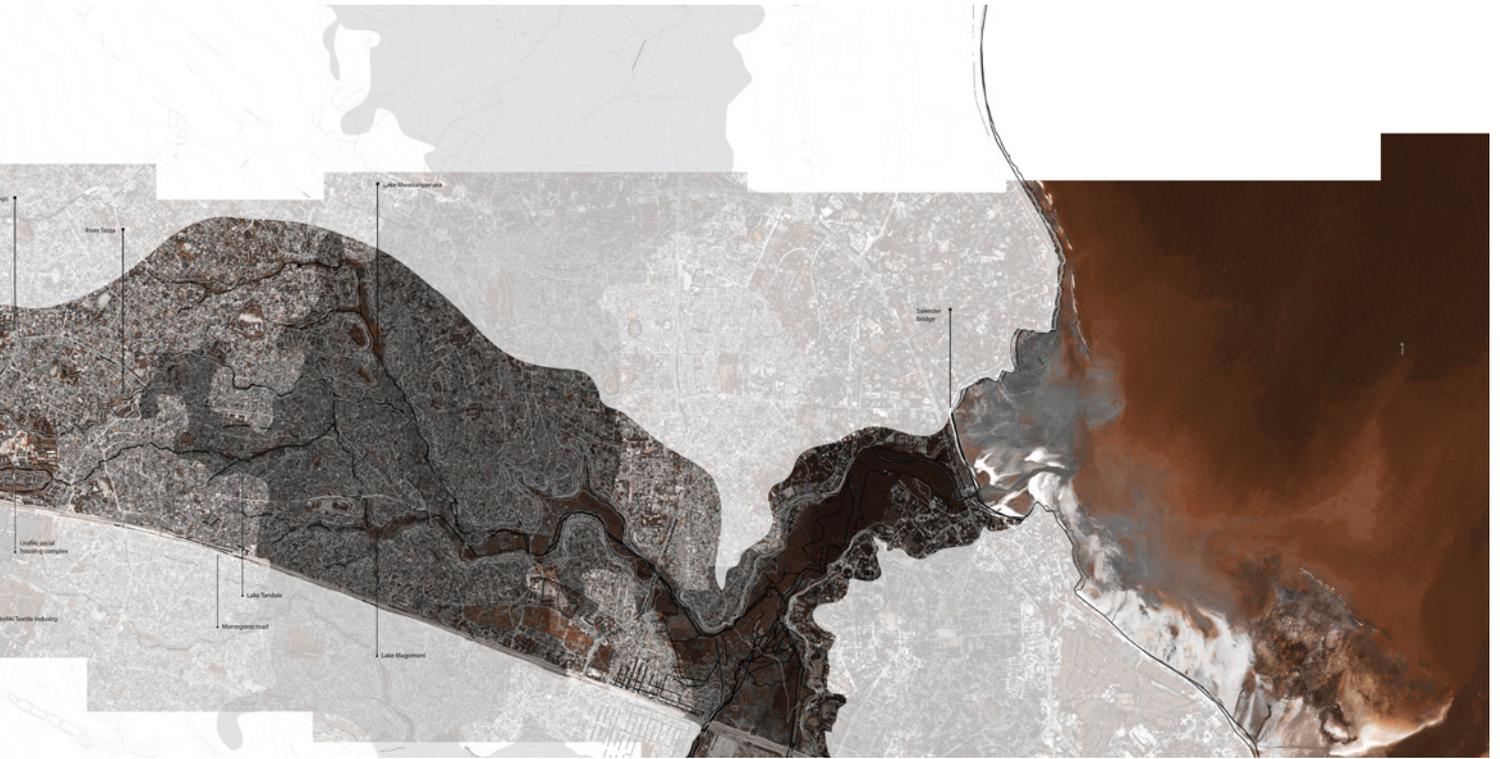
At zero Swahili time, in the early morning when the sun paints the Indian ocean deep red, you'll see a coffee vendor arriving on the corner of the Shekilango and the Morrogorro. The coffee vendors walk around with a small metal cases filled with red glowing charcoal. On both sides of the case, there is a long thin metal handle. The hot coals warm a tall metal coffeepot. The coffee is poured into small porcelain cups. The cups are quickly washed in a bucket full of water. A dash of ground ginger is squeezed into the coffee from a bottle with a long fine nozzle.

As the coffee vendor puts down his pot, the chicken traders from the nearby market, come over. You can hear them from a distance, laughing and raising their voices, making their point or reaching a punch line. Every morning on the corners where the coffee is poured, groups of man huddle together. The coffee vendor creates a social space around himself every time he sets up his vending place. It's as if there is an invisible bubble around him [5]; as if it is contained within his person and metal pot. As you sit down on the roadblocks of the corner petrol station, his hospitality encourages you to enter this space. The concrete block and the fine porcelain cup start feeling intimate. However, you're down in the dark brown dust and slowly the madness of Dar's traffic rises around you.

The coffee vendor offers a stage. He offers a daily ritual, where people have a reason to come together, drink coffee and talk. Every day, the coffee trader walks his own route, serving his band of customers. He becomes familiar with them, and they become familiar amongst each other. It creates a place of familiarity, where thoughts can be shared in confidence, yet also in public. Being at a street corner, everyday unexpected guests can be among the group, offering new stories. This makes the portable coffeepot and the coffee trader an important part of the public sphere, even if only for a few moments per day.

4. Hannah Arendt. *The Human Condition*. (Chicago: University of Chicago Press, 1958), pp. 4.

5. Peter Sloterdijk. "Bellen, Globes", in *Sferen* (Amsterdam: Boom, 2009)



Drainage direction scheme for the Sinza river valley

4.

Walking away from the main streets, you might lose your sense of orientation. The streets lose their straightness. What is unclear for the stranger is commonplace to people living there. Open spaces in between the densely built Swahili houses* have become public. There is a common understanding of where this public realm starts and ends, even though there are no visual barriers.

At least 70 per cent of the urban population in Dar es Salaam lives in unplanned settlements [6]. Many of the alterations to and transformations of houses are hidden from formal institutions. Under many of the congregated steel roofs, homes as well as work places are housed. The additional activities that are initiated from within the home include the sale of charcoal, fish, fruits, vegetables and other groceries, mama lish and local breweries. Others are services such as shops, telecommunication, carpentry, tailoring, laundry, shoe repairs, clocks and electrical equipment. [7]

Walking in between the houses you're called in for a mug of chai (ginger flavoured tea) or a local brew. Benches are set out on the verandas, inviting you to sit down, or the lady of the house will ask you to come over in a friendly but loud way. The home is not only built into the public. The people living and working here, who sit on this invisible border, also invite you into this world. They generate an immediate relationship between the inside and the outside of the home.

For these home based enterprises to flourish, the home must be accessible and inviting. By starting the business, the home needs to perform the function of bringing in customers. Parts of the houses are opened up, or half-attached, often improvised, structures are built against the outer walls to house small shops, tearooms and restaurants. A good understanding and relationship with surrounding adds up to the numbers of customers.

This is no new arrangement for the city. Walking through the city you find leftover spaces that have become streets and unrecognised squares. There are many accounts of sharing land as public space. It has become part of the identity of the informal settlements throughout Dar. It is the engagement with the outside, which creates a community of interwoven interests and common understanding.

Walking away from the streets, though the little restaurants and tearooms you'll find you're way in, through a conversation with the mamathilly*, ending up in their homes, meeting neighbours and passers-by. The home where you are drinking a cup full of chai links the private and public through the business that stretches out from one of the rooms of the house. The private life of the people living here becomes interwoven with the lives of the neighbours and passing customers. The home-based businesses generate a dialogue with their surrounding. In this settlement, with seemingly no formal structure, a social structure is constructed where the different interests and needs of the space at the edge of the homes can be discussed and organised. The brown ground, the beige plaster and the rusty metal you'll see while walking around won't immediately show you just that. It's when you talk and meet groups of people, coming together in the spare spaces, that you'll see there is a greater unifier than that of the brown colours, which smudge everything to a whole.

5.

In these house shops, or at the food markets and the coffee vendors, people seem to build up a relationship; an affection, however small, for the person offering the goods or plate of food. Quite different from the everyday, emotional, encounters you will see in Dar is the notion of anonymity in European cities, with Simmel stating that the city provokes overstimulation, leading to a mask of rationality, impersonalising communication. He simply says that when people are faced with the condition of density and diversity, they have to take refuge from it, they cannot live in it [8].

In the metropolis Dar it seems to be quite different. There is no withdrawal into impersonal relations. As soon as you show interest in someone's wellbeing and say hello, you are welcomed kind-heartedly. The entrepreneurial spirit of petty trading drives people to engage in communication that transcends self-interest. Daniel Mbisso called it 'the social glue' of society. The everyday interaction while buying food is an important moment to share information, thoughts and opinions. The density and diversity, which sometimes appears to be total chaos, creates a level playing field for developing oneself. A great deal of the people living in Dar buy their food on a daily basis. Especially for the poorest, the possibility to buy small quantities day-by-day at an accessible market is of utmost importance. On the dala dala (small public buses, run again by individual entrepreneurs) from Manzese, you will see lots of people with bags filled with Ndizi Msechale (pointy bananas), sweet potatoes, tomatoes and Michi chi (spinach like greens). They come from the Urafiki Ndizi market, one

6. Liberatus Kileki Mrema. Creation and Control of Public Open Spaces: Case of Msasani Makangira Informal Settlement, Tanzania. *Online Journal of Social Sciences Research* 2 (2013): 7, pp. 200-213. (Online resource)

7. Johannes E. Kachenje, Home-based enterprises in informal settlements of Dar es Salaam

8. Richard Sennett, "The Public realm", in *The Blackwell City Reader*, ed. Gary Bridge (Chichester: Blackwell Publishing, 2007), pp. 261-272.

of the largest in the city. They come from all over the city to this big wholesale market to find a bargain. Every shilling extra is an investment, which is driven back home by dala to be cooked for the family, sold as a meal to tenants, or discussed in the neighbourhood. While buying the ingredients for the day's dinner, the market offers opportunities for providing some extra income. Simply by buying bulk and thus distributing the goods into the settlements, and through every interaction, a bargain hunt commences.

It's essential for vendors and marketers to read the market and to tacitly understand the social structure that underlies the dynamic nature of this place. As you enter the Urafiki market, you'll see quadrants where potatoes, bananas, coconuts, vegetables and fruits are traded. Returning next time, you'll find the same division, yet every part can be internally entirely rearranged. Especially, wholesale products like bananas, coconuts and cassavas, bulk products, are traded in fluid spaces. The plot of a trader varies with the day, dependent on produce coming by truck from inland over the Morrogorro road. Arriving here first time, it is hard to read the market's organisation. Walking in between stalls full of stacks.

The narrow paths and the distribution of goods slowly start making sense. Then you start seeing the people who direct this organisation, the people in the middle of the group of men, hanging against the stalls and playing pool in the heat of the day. The traders themselves have built up this market on this empty plot, formally land from the Urafiki Textile Industries. Amongst themselves, they organise parties and market boards guiding the ever-changing structure of the market. The interests of the traders from inland areas, middlemen, market traders, customers and restaurateurs come together to informally form a hot-bed for political talent and social skills.

6.

Home-based enterprises and petty trading will not disappear anywhere in the near future from Dar es Salaam. Understanding the use and meaning of space in formal and informal trade in Dar is crucial for understanding the city's transformation. By journeying through Dar in text, I've tried to characterise four special ways in which food builds up a realm that enables all people to act in public; the social structures of the people's markets that transcend self-interest, the home enterprises that invite public life, the coffee trader and his portable coffeepot transporting social space and the fluidity of the roadside restaurants leading to cooperative spaces. Trading fills Dar's everyday life. During your stay in the city, it will seem more and more that everyone is somehow involved in trade. The social structures, political ambitions and careers are building up in this anthill of individual entrepreneurs. This is where the long-term social sustainability of the city can be found. The large infrastructural reconstructions on the Morrogorro road and in the port should allow the unfixed informal trade, the everyday life of people, to adapt and benefit from these developments. The best places to sell a couple of potatoes, a handful of beans and a bundle of michichi shift. The possibilities for the individual traders should be maintained and strengthened. The city's stability and security floats on top of the kindness and presence of mamathilies*, coffee vendors, cooks and bar ladies you meet out there, on the street.

Though many food places are firm and real objects, like the tables and roofs of the food markets, the ground on which the bananas are laid out and the pushcarts of the sugar reed vendors, many of the words I used to describe these spaces are loose: like fluid, intimate and welcoming. These are aspects of human activities that inhibit the simple spaces and structures of food trading. They are not laid in stone, nor fixed. They wash away when the people aren't able to develop their activities anymore. It sets fear in my heart thinking of returning to a place of regulations and borders. Where modernisation has fixed Dar's society. Where the fluidity of its public realm has been lost. Landing next time in Dar I hope to end up again in this immense chaos of people; a city which developed a roof and a floor which creates immaculate and even more beautiful conditions for the people of Dar to build up their own city. A hope to shoot over the Morrogorro to the edge of the city, avoiding the dusty traffic congestions, stepping out into lively market places filled with the basic public services which provide the fluid rhythm of everyday life of Dar. Walking through neighbourhoods built up, layering the ambitions and dreams of the people that build their house first. Looking down from a guestroom over the finely enamelled streets. Seeing the rising smoke from the streets where people meet over a cup of coffee, a bowl of soup and a couple of michitake*. Food makes up part of Dar's public space, but it depends on the fluidness of the city's space, where the people themselves can act and trade. I have a desire to return, to drink a cup of coffee on the corner of the street, while the sun rises, and to feel Dar's chaos arise around me.

* swahili houses

Low rise houses with six rooms on a central corridor (typical Tanzanian house)

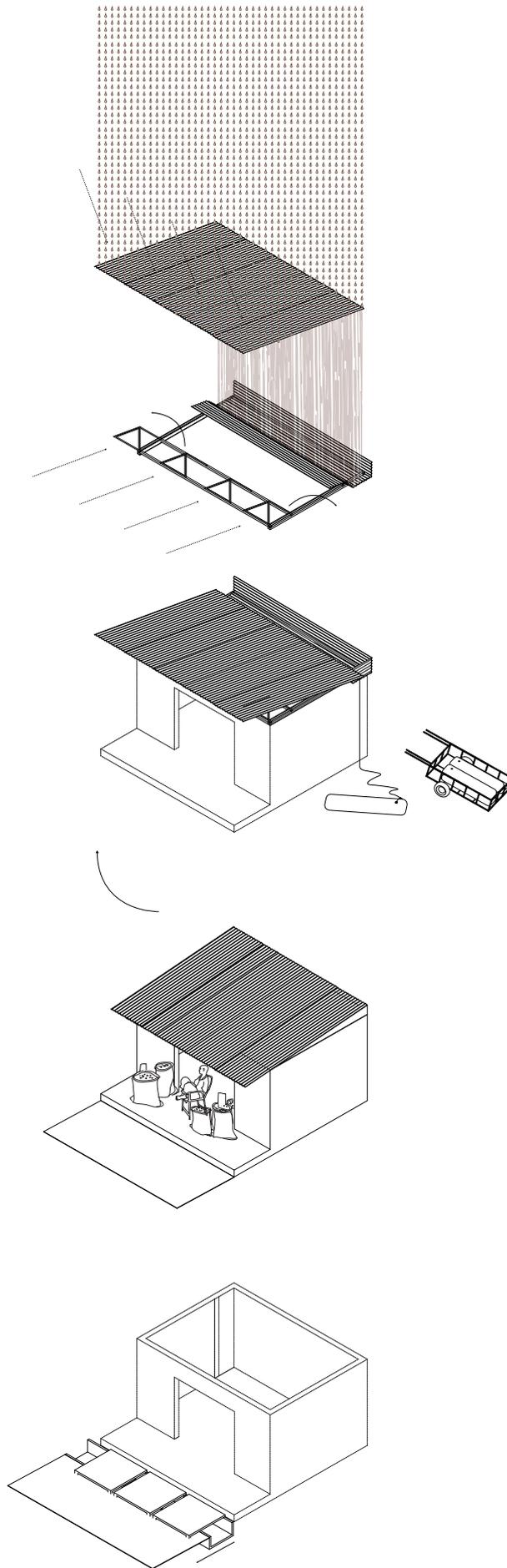
* mamathilies

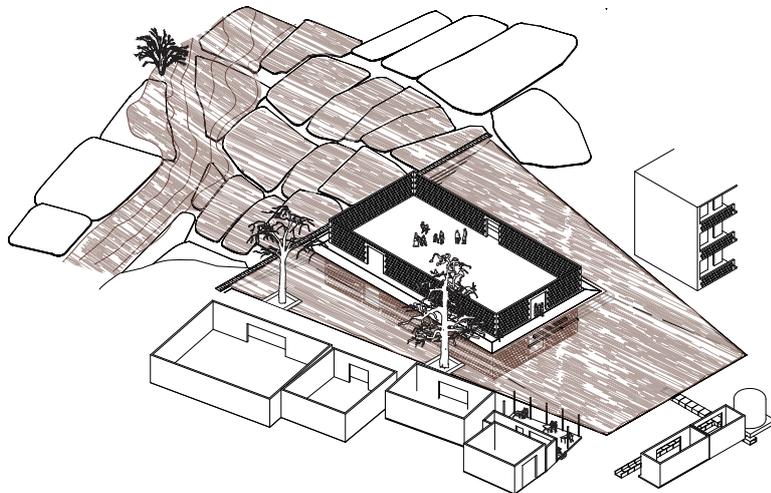
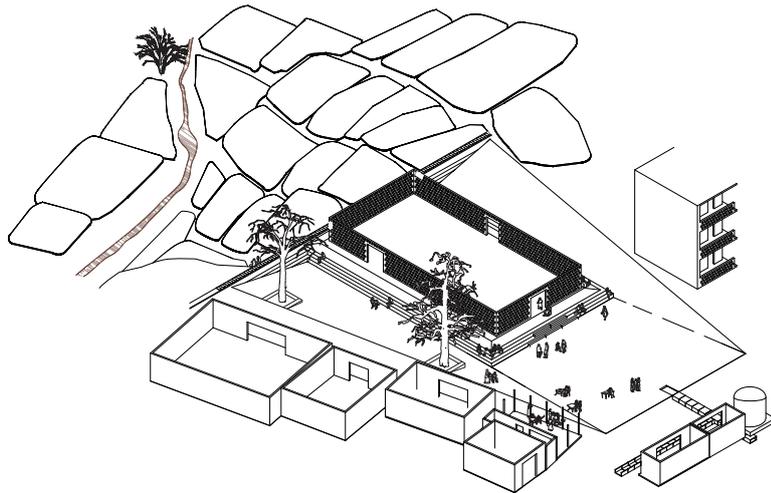
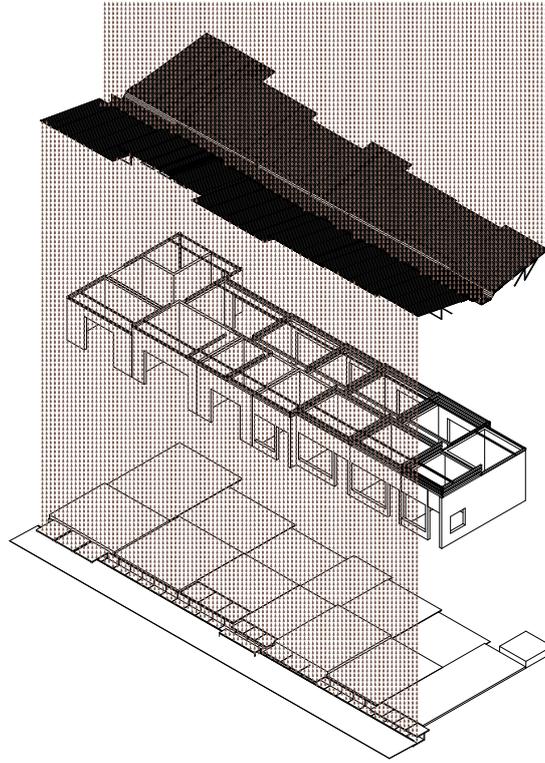
Women (informal) restaurateurs

* michitake

Grilled rinds meat stick

project





Water collection and drainage scheme for the reservoir square at the back of the Shekilango market





Tim Kort

project Mounds for F(l)oodvalleys of Dar es Salaam

Working together to create a safe, healthy and green living area in f(l)ood valley Dar es Salaam

Approximately 40% of Dar es Salaam is located in a flood zone. During the floods of 2011, 50,000 people were severely affected and 40 people died. People had to live on rooftops to survive. The river valley is currently used as a landfill. People throw their garbage away without thinking about the effects on the health of people who live in close proximity to the area, resulting in poor water quality, diseases and contaminated soil. This isn't a safe place to live.

With this design, I want to find a way to improve the quality of life of people living around these valleys by means of a bottom-up plan. The local inhabitants have to do this themselves, as the municipality isn't able to do this. I want to stop the valleys being treated as a waste area. By re-profiling the badly-used valleys, people can start practising urban agriculture and create more space for the rivers. The people living on the edge of the valley, who are mostly poor, will have the opportunity to grow their own food. They can subsequently sell it at the market.

The sand from the re-profiling process can be used to create mounds, which will serve as safe spots protecting locals from the elements. These mounds will also be made from organic garbage, creating hills on top of which public facilities will be built. These facilities can, for example, be used to educate people on how to grow their own food.



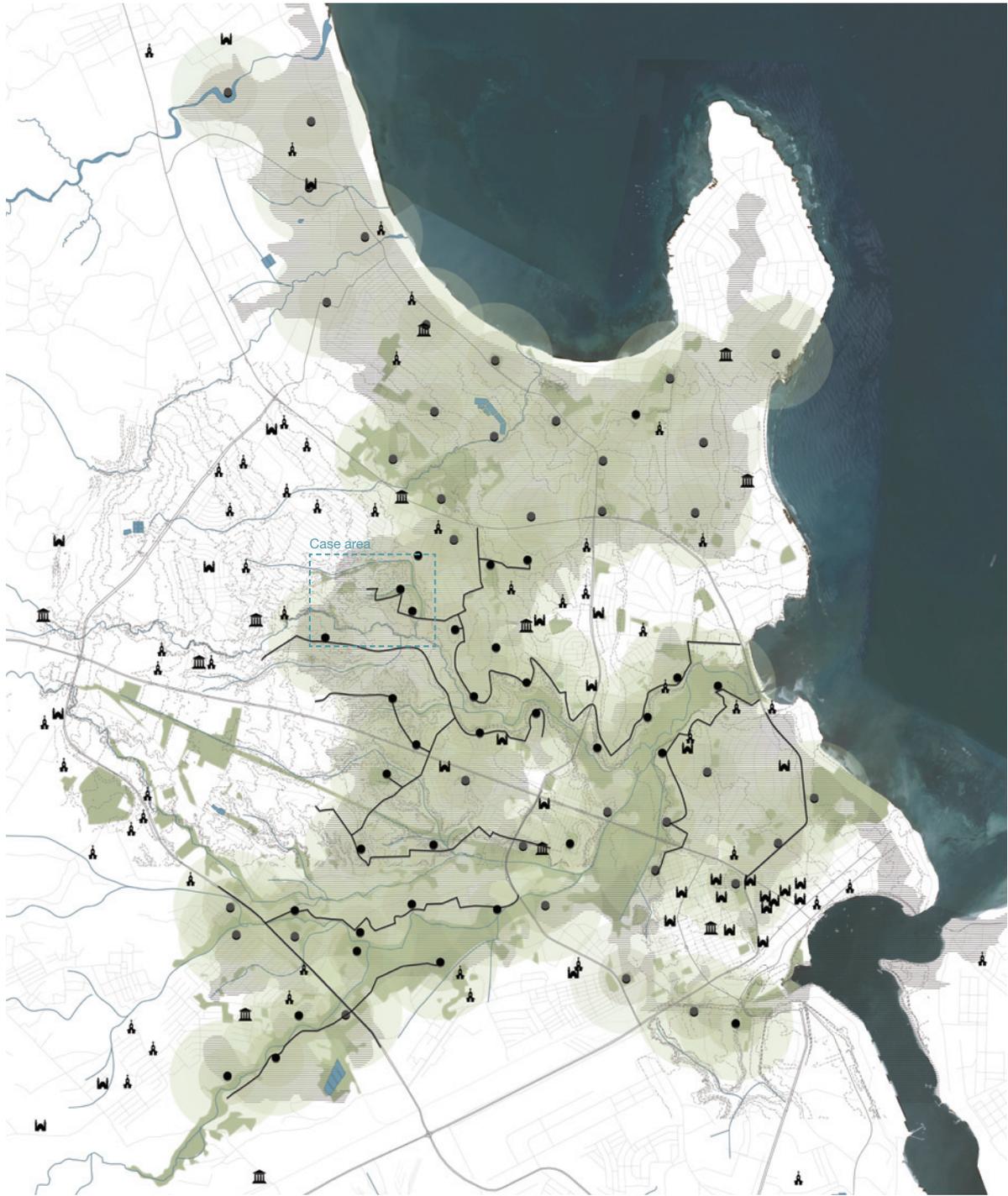
Slums in Dar es Salaam



River valleys and garbage dumps Dar es Salaam



Flood zones Dar es Salaam

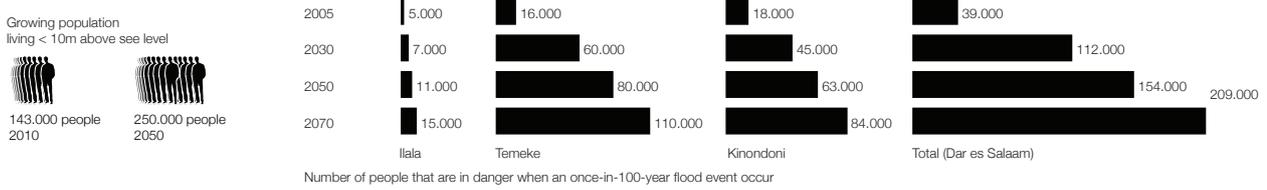


- new mound, in slump
- new mound, in 'rich' area
- new bottom up dyke
- flood area
- existing (water)vally
- existing open, green area
- existing school
- existing mosque
- existing church
- 5 & 10 min. walk circle

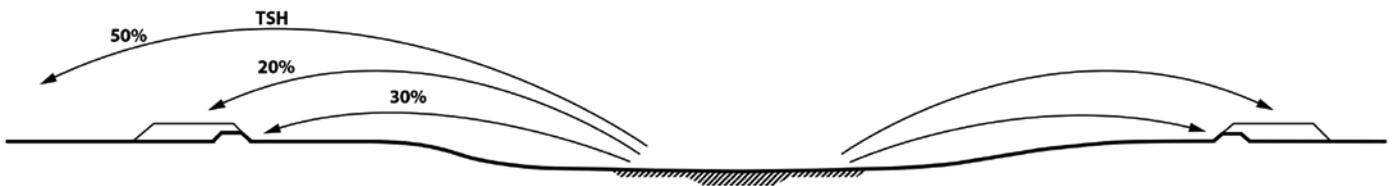
Design Mount map Dar es Salaam, combining public facilities with walk circles and flood valleys



Map of the floodzones in the casestudy area



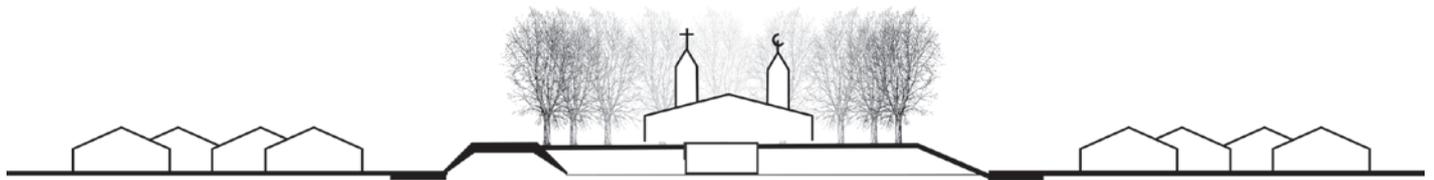
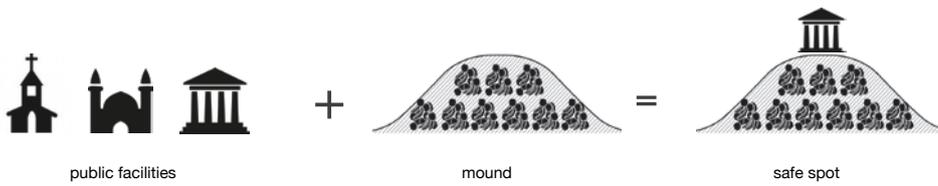
Schemes of people and the floodzones in Dar es Salaam



Schemes of reprofiling of the floodvalleys



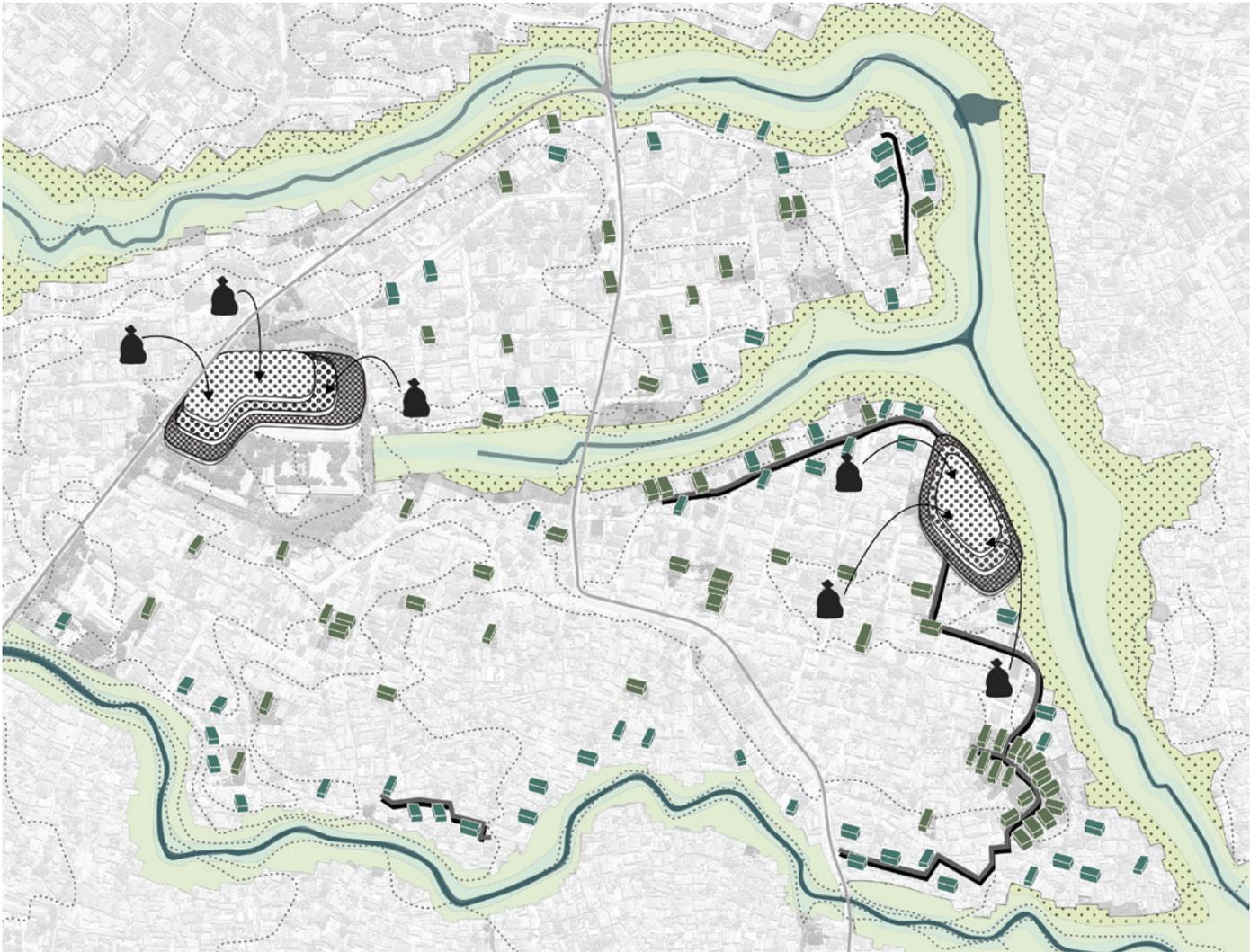
Map of the first safety mounts by gathering and piling the garbage out of the floodvalleys around the public facilities in the floodzones, and the start of the bottom up dikes



Schemes of the public safety mounts



Schemes of the bottom-up dike



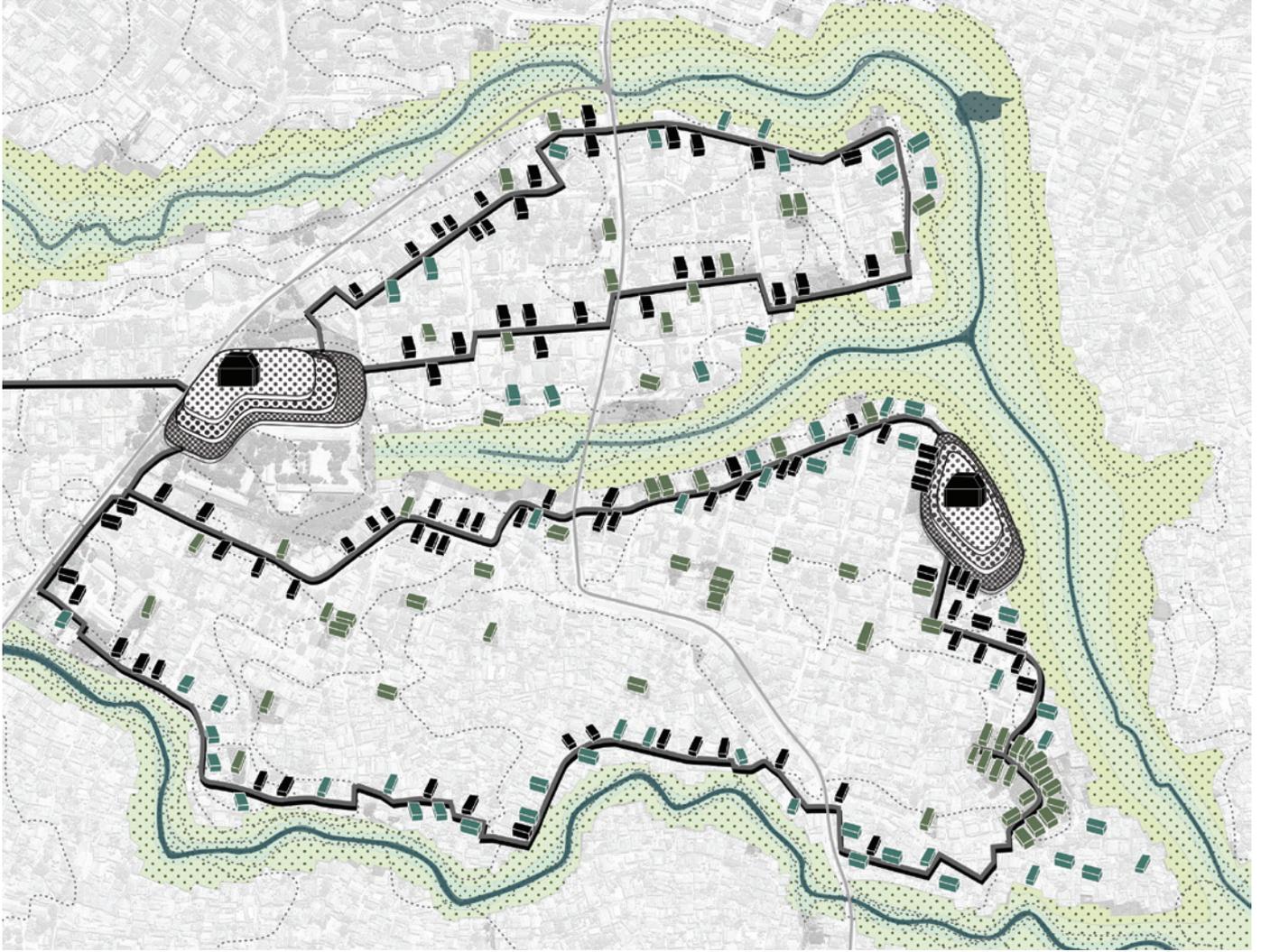
Map of the reprofiling of the floodvalleys, further developments of the dikes and mounds

-  highly dangerous flood area
-  damaged area because of a flood
-  existing open, green area
-  new urban agriculture area
-  new mound
-  new mound house, improvement of existing house
-  new mound house, on a green/open spot
-  new mound house, on a spot where houses were
-  organic garbage
-  new public facility
-  new bottom up dyke



Visualization of the reprofiled Floodvalleys





Map of the completed bottom-up dikes linking in with the new public facilities on the mounts







LUBUNGO

VIA
MONGGORA RD

KIVUKONI

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BRV

Jerryt Krombeen

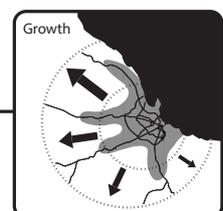
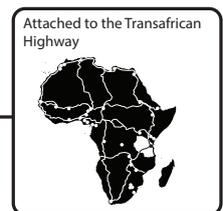
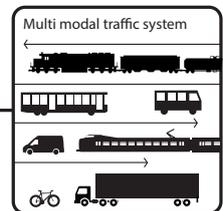
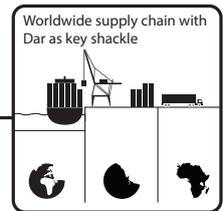
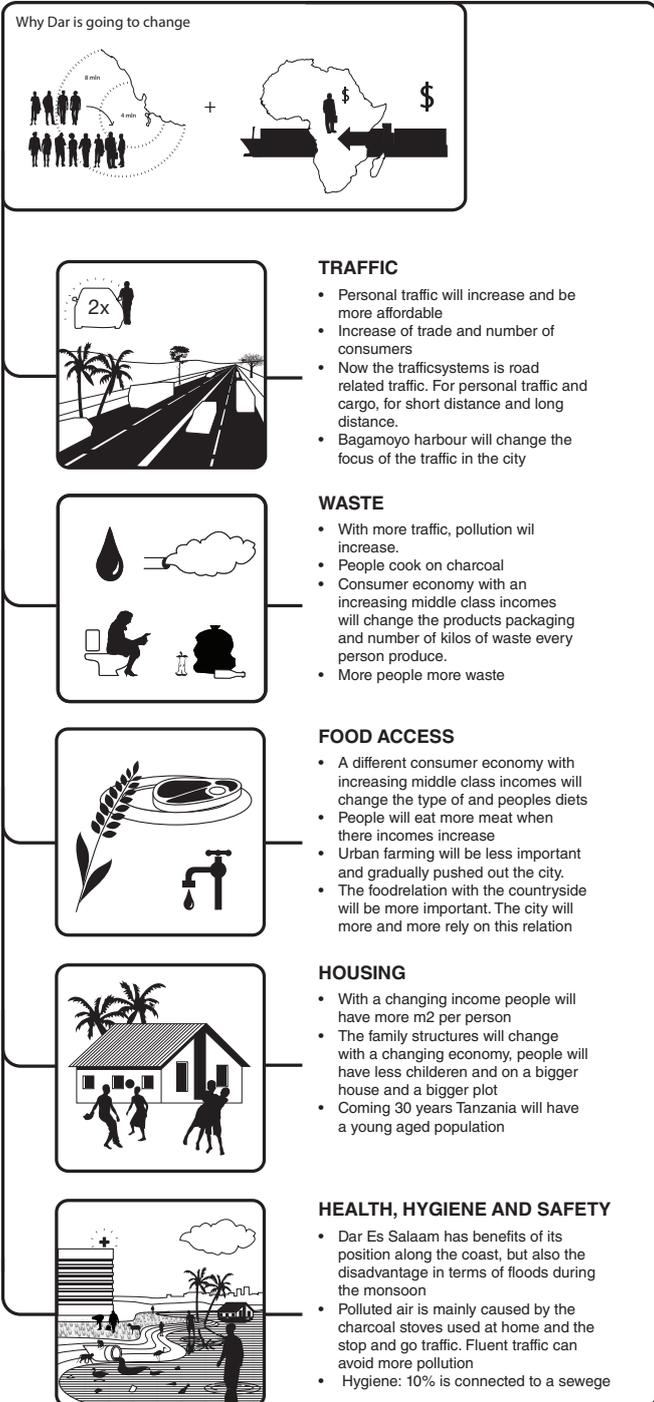
project Structure infra infra structure

Dar Es Salaam is a booming city, it will double in inhabitants and when you look to its geographic-economical position, you can expect its economical position will change the city as much as the foreseen growth. When you take these two developments seriously, you will notice Dar is not future proof and not ready for the expected changes.

The city misses important long term visions and lines in the city, lines that could support the growth. People, traffic and transport are suffering under the severe traffic jams and the only four long lines in the city are blocked all the time. The four main roads are the essential veins that keeps Dar Es Salaam alive and connected with the rest of Tanzania. The city lives with a hate-love-relation with these roads. On one hand the city depends on these roads and makes all economical activities possible. On the other hand everybody is avoiding these hated roads for its traffic intensity.

The city is not only missing a stable basis for growth when it comes to traffic fluency or infrastructure. It is also missing a stable basis on several other key city elements: waste and pollution management, health care, hygiene and safety, housing and water (safety) management. All these problems are closely related to the food-connection of the city and the connection city-land. The access to food, the distribution and freshness of food could be much more improved with a good and stable connection and infrastructure.

Eighty percent of the food in the city still comes from the surrounding countryside and in the nearby future the city will more and more rely on the food that is produced on the countryside. To feed the city in the future the city needs a good infrastructure system that provides a large city form fresh food and creates a clear logistic link with the harbor. A good infrastructure system will at the same time solve more problems than only the future food distribution issue, it is a way to stimulate more development by improving comfort, traveling time and covering larger distances. The reach of the city and the single person will be larger, what will make Dar Es Salaam an attractive city to invest in. Not only on the level of a 'duka', but also on a global level.



essay Logistics & City

Dar es Salaam has an important transit function to the Central African hinterland and it simultaneously houses approximately thirty per cent of all inhabitants of Tanzania. The space to produce food in the city is becoming more and more scarce, especially considering the fact that the city is changing more and more under the influence of the economic advancement. Prosperity is the enhancing factor to the natural population growth and the positive settlement surplus, which will cause the city to change dramatically. The land prices will rise due to an increasing pressure on the city. This pressure is partly caused by the new service provision sector, which can be introduced because of the economic-geographical position of the city, and partly due to the urbanisation in Tanzania. Both factors will cause the city's inhabitants to double in numbers within ten to fifteen years and cause the city to undergo a metamorphosis. The physical appearance of the city, but also the cultural appearance of the city, will rapidly change because of it.

Growing pains

Many Tanzanians seek a better existence in Dar es Salaam, where they can profit from a cheap settlement climate and a favourable economic climate. A lot of people work for themselves and the majority of people can be regarded as self-employed workers without employees. Dar es Salaam is also attractive due to the presence of a favourable market, where a higher price is paid for the products than in rural areas. Many traders thus have direct lines outside of the city. Chickens are a third to half more valuable in the city. Transport is the only thing that obstructs the increase in value.

The expectation is that Dar es Salaam will play a service provision role in Central Africa, which will also have an effect on the type of economy in the city, the occupations of people and the source of income of people. If the city's role of crucial link in servicing a large hinterland keeps increasing, it would create a good breeding ground for the middle class and its employers, for example the banking sector and multinationals. New buildings are already emerging which have been set up by multinationals or foreign investors. They are built on economic hubs, as if every multinational is taking its position in a city that will be densely developed in a number of years. They are, therefore, getting in line for a possible increase in value of the land and, in the meantime, profiting from the growing market at a strategic place in the city. The arrival of a new harbour seems to be the acknowledgement of the positive trends everyone in the city has sensed for a while. People are looking ahead, are hopeful and focused on the future. Due to a rising knowledge economy, there is currently an emerging middle class. With this emerging middle class, a completely new food and movement pattern is appearing in the city. People can afford more products and more luxurious products, adapt their feeding pattern by eating more meat and are able to afford personal (automated) transportation. This development will also have repercussions on the amount of waste that is produced and a growing need for living area, due to the fact that the square metres of living area per person also increases. Growing accustomed to luxury and a higher income generally happens very quickly. My expectation is that a cultural shift will take place within a generation; a cultural shift influenced by growth and personal opportunities in a city that will appear on the international scene with an enormous harbour. The fact that Dar es Salaam will double in size and have a new economic climate, will also influence food consumption and the transportation of food. The role of urban agriculture will decline due to the cultural and physical changes. Urban agriculture can only survive on land that is offered cheaply. In Dar es Salaam, this is the land at the edge of the city and in the river valleys.

An unfavourable geographical location and the great risk of floods are the reason why the poorest people often inhabit the pieces of land along the river. The city's periphery, which is not very accessible nor open, is a living expanding being; a part of the city that becomes more and more dense and absorbs pioneering newly developed land or agriculture. Currently, the urban agriculture is predominantly present in the growing and pioneering parts of the city. In the sprawl, consisting of low development densities, people farm vegetables, partly due to economical necessity, and partly because they have the space to do it. The densification wave, which comes from behind the pioneering city periphery, will cause the agriculture to continue to move to the outer edge of the city. Due to a higher density, there are fewer opportunities for agriculture, with the exception of the lands in the river valleys. Urban agriculture thus only happens in economically attractive places and on the edge of the city. The farmers on the edge of the city profit from the short lines to the market, but also often produce for their own consumption. It seems that the city is becoming more and more dependant on the connection to the surrounding rural regions, partly because, due to a changing economy, people no

longer have a need for urban agriculture, and partly because, the city no longer offers enough space for urban agriculture for a lot of people. Thirteen per cent of the city is currently fed by urban agriculture. The rest of the food is sourced elsewhere and imported to the city. The percentage of urban agriculture is expected to decline further.

Kilometre winners

Almost ninety per cent of Dar es Salaam is dependant on the food that is transported to the city. If you look at the city now, you can only conclude that it is not yet ready for this growth and providing for eight million people; eight million people instead of four million people, who will have to be fed in a city that will also have doubled in other respects. Tanzania currently does not have a modernised transport system and the country runs on second-hand vehicles that drive on the roads. The limiting factor of the entire traffic system is the fact that all traffic moves on the roads. The roads cannot handle the stream of road transport and traffic, so both the infrastructure and the motorised traffic form, as modality, the large bottle neck in the transport system. The poor condition of the roads and the congestion create a poor flow, which is why food is no longer fresh when it arrives in the city. Other modalities are underrepresented in the traffic system. Overburdening is also one of the logical consequences in the current traffic system, in particular in Dar es Salaam, a city that is famous for its traffic issues and traffic jams.

Three hierarchies in the city

Dar es Salaam is a unique gathering of different kinds of interests. Because the city has a favourable economic-geographical position, it forms an important link in different systems. The scale level, which rises beyond the locally oriented city, is the global role that the city plays by means of the harbour which the city houses. The harbour of Dar es Salaam plays an important role in the import and transit of goods and, therefore, also food. The harbour is the only deep-sea harbour on the east coast of Africa and opens up the Central African countries, which are further inland. On the other hand, the harbour is very important in opening up the wealth of raw materials and minerals that are mined in central Tanzania. The national interest of the harbour is reflected in the infrastructural arteries, almost all of which all end up in Dar es Salaam.

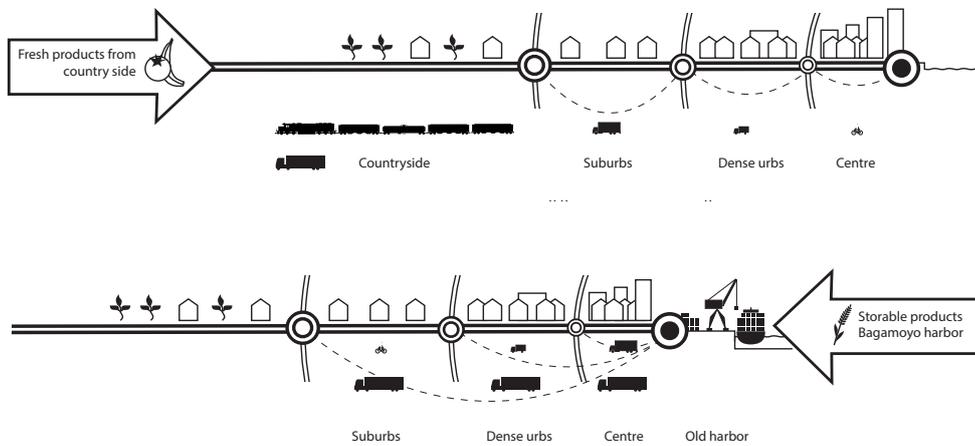
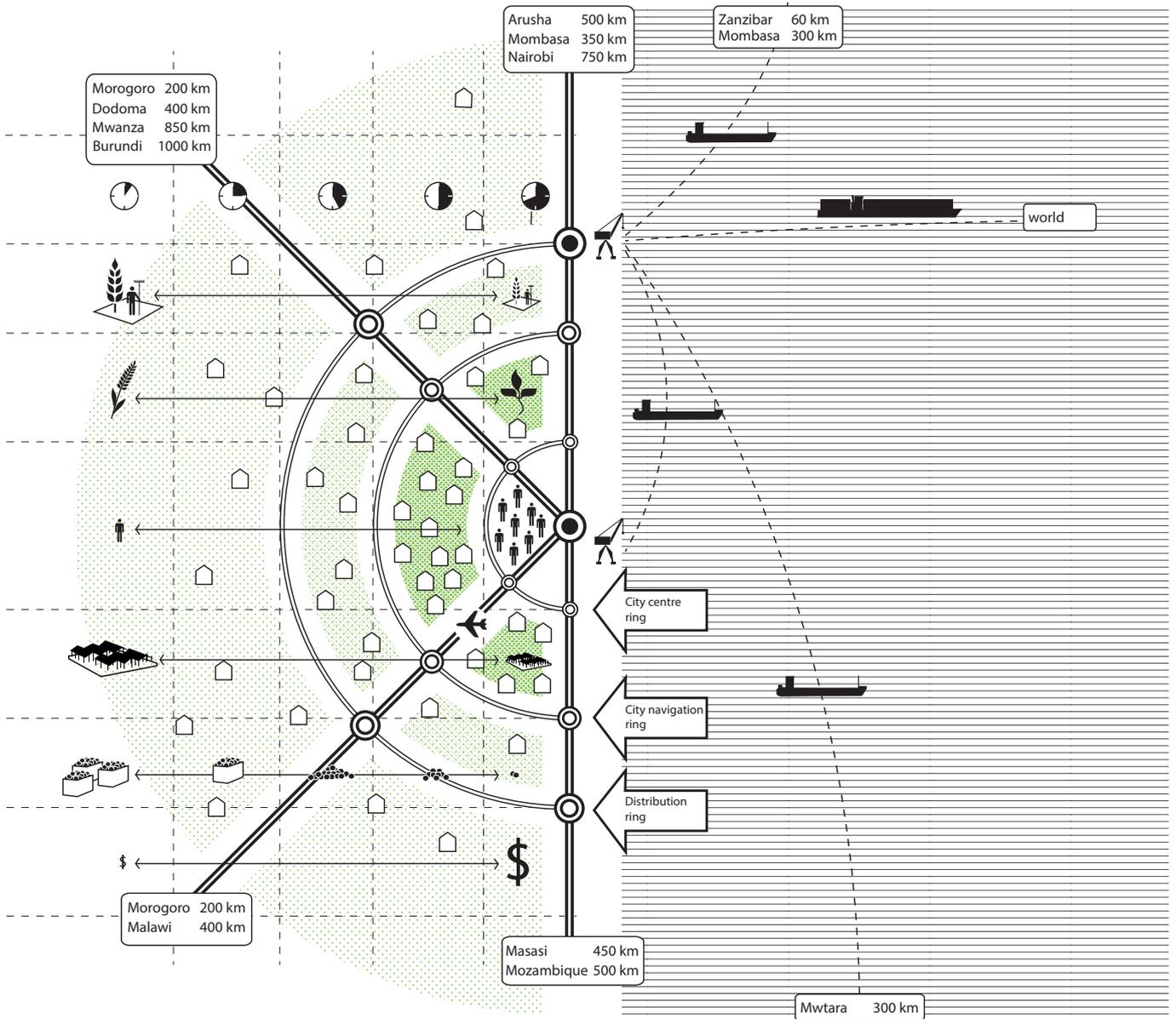
The volcanic subsoil of Tanzania not only ensures the presence of lush agriculture and scenic beauty, but also holds rare raw materials for batteries, for example. The Chinese have also discovered these raw materials and to be able to better extract them from Tanzania, they too are investing in the largest harbour of Africa, approximately seventy kilometres north of Dar es Salaam. The new harbour in Bagamoyo will cover approximately 70 hectares and has to be suitable for receiving the largest ships. The current harbour, near the centre of Dar es Salaam, will be inferior to this harbour and might disappear in time as a transport and logistics centre of trade. You could say that Dar es Salaam will be the Rotterdam of Central East Africa and form the link between Africa, China and the rest of the world.

The long-distance economy is essential to both the farmers and the city dwellers, but the way in which products are currently transported is still provisional. Most of the farmers make the long journeys themselves and there is always a chance that the large quantities of unrefrigerated vegetables perish during the trip. In addition, the transport wastes a lot of time in the city itself. Urban systems are overburdened and when the large trucks also enter this traffic, the chaos only increases. If a distinction was made in terms of long-distance systems and urban systems, the city would be able to work more efficiently; modalities appropriate to the distance, the type of street profile and able to move more efficiently because of it.

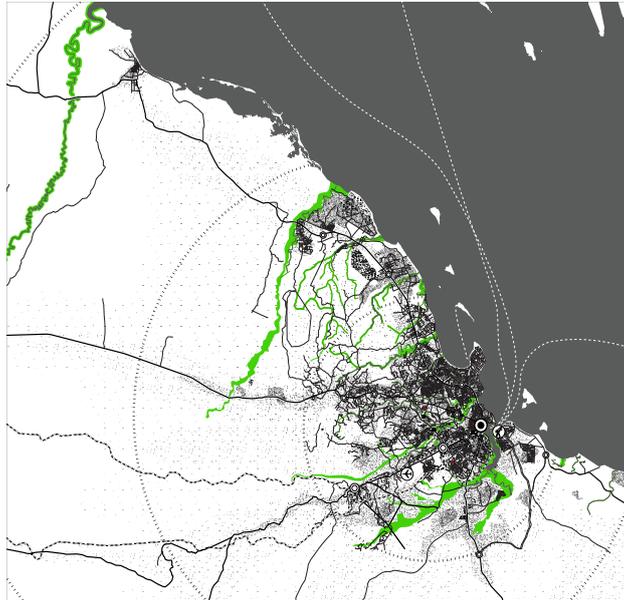
Food hubs and missing links

A logical solution could be the food hubs, which are currently emerging at the edge of the city or alongside the most important roads of the city. These are transshipment points where the urban traffic systems and the long distance logistics meet each other. The city, which is divided into three sections by three circular roads and by four important branches into smaller wedges, form the basis for this system. The three hierarchies are discernible in this system: hierarchy in markets, hierarchy in types of economies and hierarchy in the

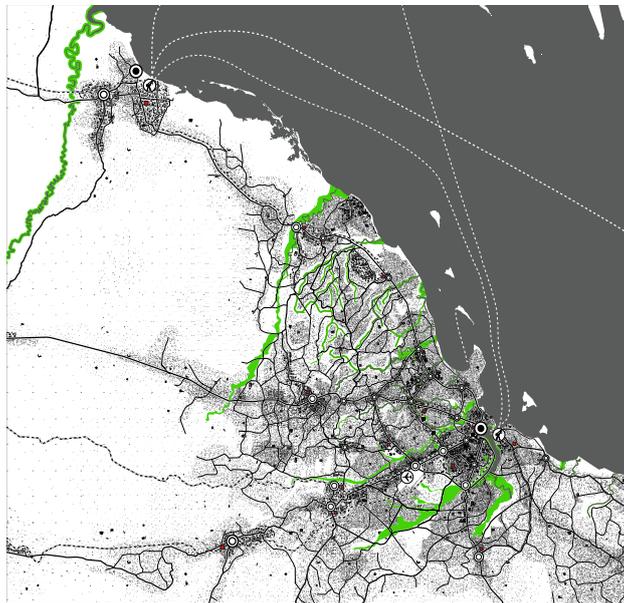
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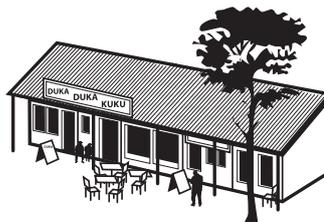
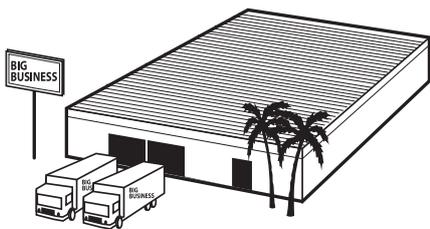
How to access Dar es Salaam with Food scheme, a adaption of the Von Thunen Model for 21st century Dar es Salaam



2013 (urban fabric)



2030 (simulation urban fabric)



Three types of economic scale within the urban fabric of Dar es Salaam

infrastructure. The outer ring serves as a meeting point between city and transport via land. Here, the large food hubs accommodate the transport from the land. The four most important roads meet at this ring and connect the four new branches by means of a circular road with the new main port in Bagamoyo. There is also an opportunity for a large food hub here, because collecting non-perishables and their further distribution, can take place here. Additionally, the old harbour, which has partly fallen into disuse, can be used for the provisioning of the city via this new harbour. A system can be set up with coasters to transport large quantities of bulk into the city. Inside the 70-kilometre ring of the city, there is therefore a system, in addition to the train, which can transport large quantities; a system that can feed the city from another direction, which is less sensitive to traffic jams, and the trucks will therefore drive on relatively empty roads during rush hour.

A system is already in place for passenger transport that makes a distinction between distance, and urban and non-urban systems. On the branch from the city a fast, modern bus will be introduced, called the BRT. Its goal is to transport people within the city limits over long distances. On the ring roads, the BRT roads cross paths in the spider web and take on transport within the city. On these junctions the privatised buses, *dala dalas*, take over passenger transport from the BRT. The BRT stops on exit roads at intervals of one kilometre, the *dala dalas* approximately every two hundred metres. At city level, a distinction is made for passenger transport in terms of the type of movement and the type of destination with different intensities. The BRT is for the long distances on the branches of the city and the privatised public transport is deployed for further distribution and navigation within the finer tissue in the city.

If you also want to implement this system for food logistics, you need to find a reliable system on a national level; a system that can transport large quantities quickly and over long distances. Through a similar speed, the freshness of the products can be guaranteed and you also increase the scope of the city. Food can be picked up from further destinations, because it can be kept fresh over longer distances. Implementing a system purely for food transport is perhaps a little exaggerated and expensive. This is why it has to be combined with passenger transport, for example, and transportation of other products and raw materials.

Because transport in Africa is still linked to motorised transport, which uses fossil fuels, the cost of transport and transport will significantly increase in coming decades. Currently, ten to twenty per cent of the product costs can be attributed to transport costs. With transport cost continually rising, you will also, therefore, have to make considerations from a cost standpoint in terms of how to maintain manageable transport costs, because rising food prices can have far-reaching consequences for the poorest layers of the population.

Implementing a long-distance system can decrease the kilometre price of a product, because it uses an appropriate mode of transport that is cost-effective at that distance, for example, because a train is able to transport large quantities in bulk. Additionally, you may be able to link transport of goods to passenger transport. Generally, a higher price is paid for the transportation of people than for goods. The last kilometres a product travels is currently very efficiently organised. Within the urban traffic system, there are more stop and go moments, which causes a higher fuel consumption and ensures products travel shorter distances in the same time unit. Products are often transported relatively unprotected or unrefrigerated, which makes the time factor crucial to the value of the product. You might conclude that certain modalities do not suit an urban system and are more cost-effective for longer distances. The rising fuel prices make it more attractive to consider the high investment costs of railway construction, especially now that a large harbour is emerging with money from big international investors, which will need a vital connection to the hinterland. The railway network that Tanzania possesses is predominantly built on the mining industry and ties all the important cities in different regions together. They are also supranationally oriented and connect Dar Es Salaam in an exemplary way with neighbouring countries Zambia (with the Tazara line) and Kenya.

A food hub on the edge of the city would be a logical meeting between two kinds of efficiencies. Various types of transport come together on these multi-modal hubs and goods are transferred to distribution markets. People transfer to the BRT network, for example, which starts here. In addition, you can link the different speeds of traffic of the food logistics to the storage life of the product. The protein-rich, dried fish from Lake Nanyasa and rice from Mwanza, for example, are products that you can store longer. Tomatoes and bananas from Arusha, near the Kilimanjaro, have a medium-length storage life and the leafy vegetables have a very short storage life. Von Thunen has also recognised a similar model in the city. In his model, various food rings around the city are distinguished in terms of storage life of the farmed products. Leafy vegetables and red fruit, for example, are farmed close to the city in order to get these transport-sensitive products with limited storage life into the city while fresh. Rice and grains can be farmed far outside of a city, because they can travel long distances without perishing.

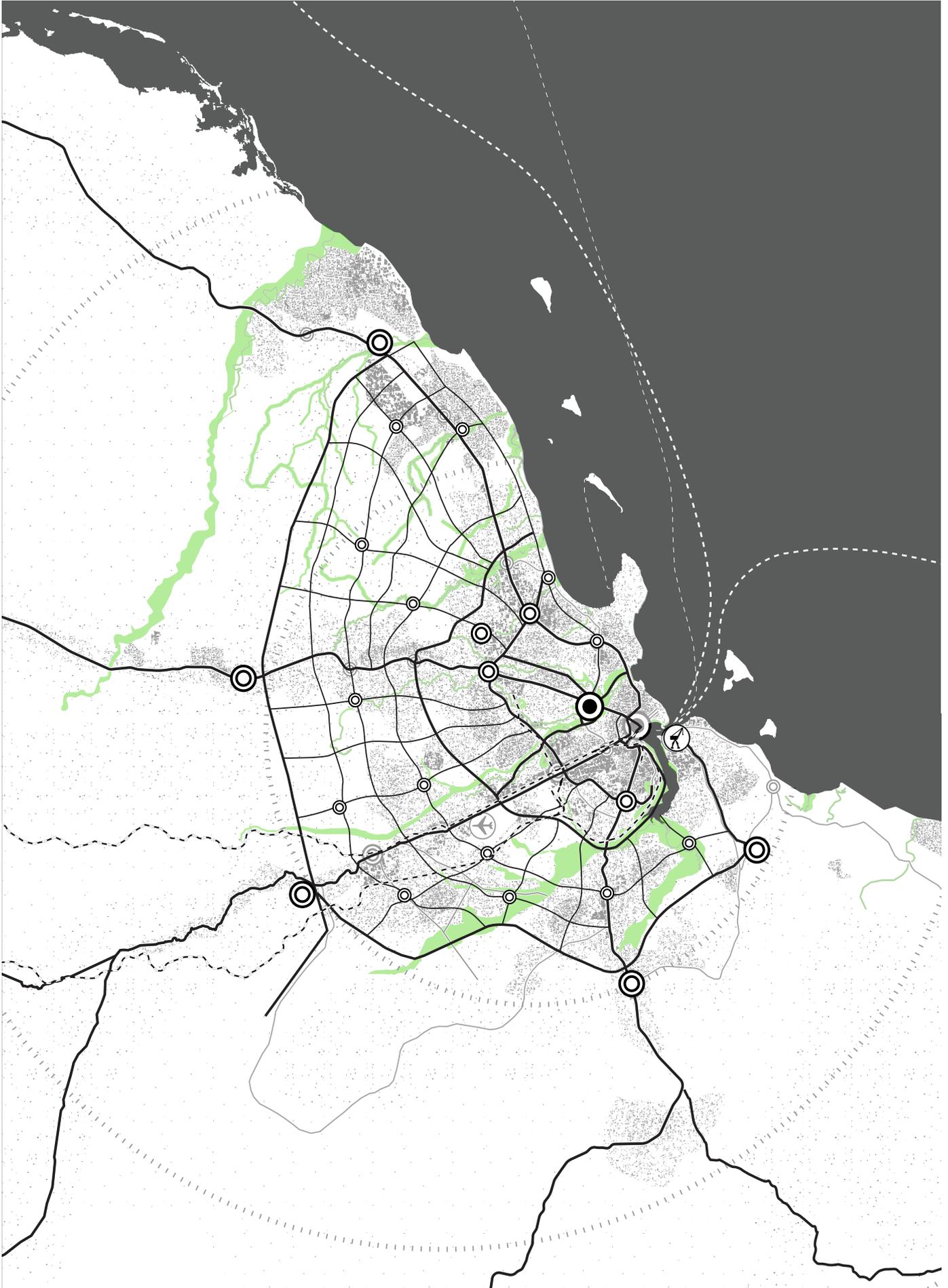
In this case, you could implement this model in Dar Es Salaam. The urban agriculture in the green river valleys are very suitable for farming *chichi*, a spinach-like leafy vegetable that would never survive a long journey. This type of leafy vegetable can be harvested 6 to 8 times a year and provides the farmers with a bi-monthly income. In the river valleys and the continually expanding city edge of Dar Es Salaam, there is enough space and air to use parts of the city as urban agriculture for the sensitive vegetables and fruits.

Super local

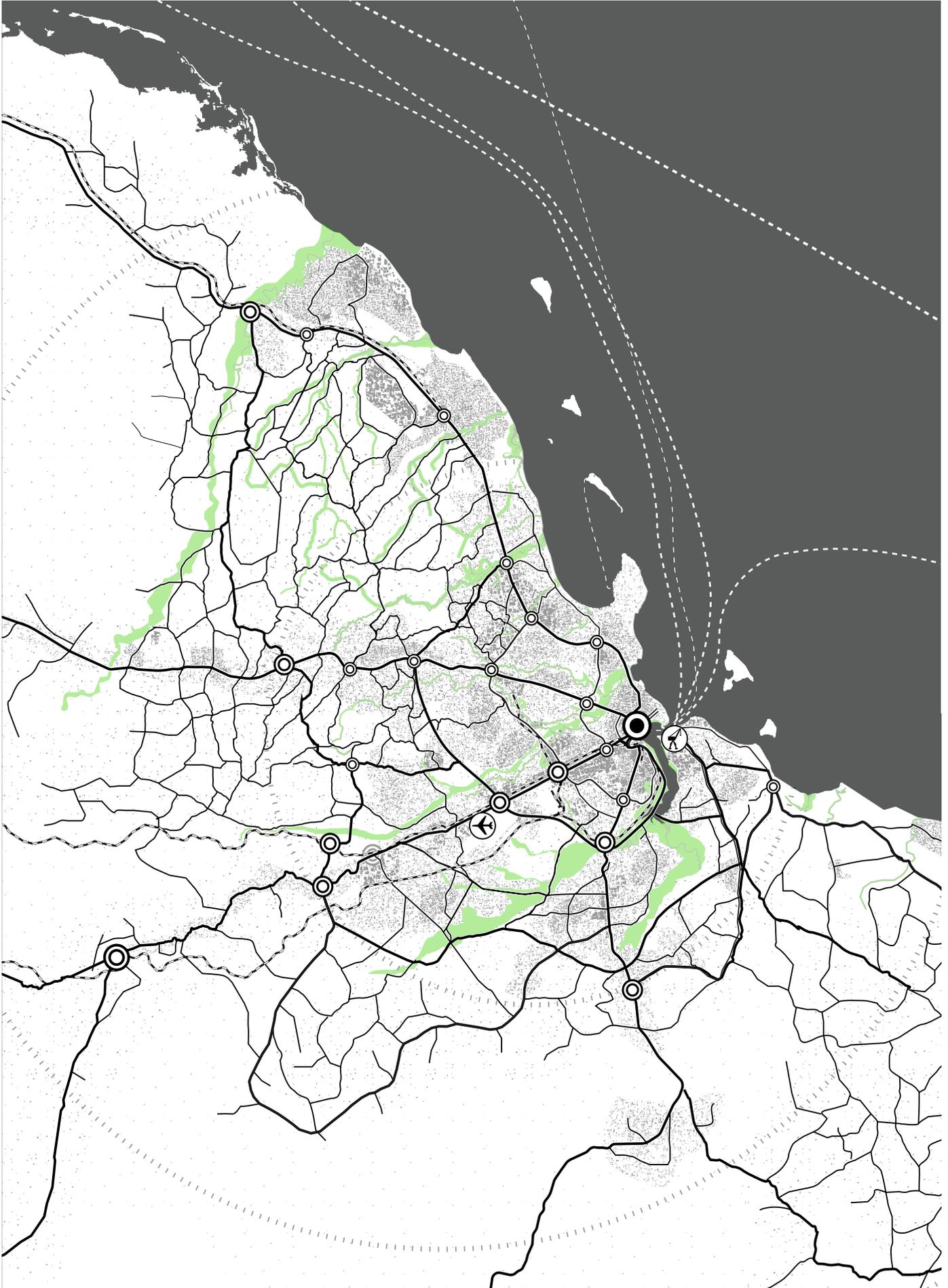
Different types of transport also belong to different types of economies in the city. The nationally important roads clearly show the supra-local interest due to the presence of multinationals and, for example, the head offices of AZAM and the energy company of Tanzania: Tanesco. The street profiles for the roads at city level match its use and its importance completely. The type of transport, for which the road has to be suitable, matches the function and the role it has in the city. The type of trade that takes place on the road and the development says something about the road and on which scale it services the city. On the urban dala dala ring roads, you find a lot more businesses whose markets are in Dar Es Salaam, Dukas, small roadside shops, which capitalise on the needs of the passer-by and the dala dala user. In the residential streets behind these urban roads, you will find the local merchants; the people who offer goods and services from an annex of their house. The links between these systems are of great importance for food distribution, the trade in food, the processing of food, the processing of waste and to get the food to the end user. As a result of the market culture and the daily routine of going to the markets, these systems are already reasonably interwoven in the daily life of the Tanzanian. As a result of the food hubs, however, a super local system can emerge, which forms a fast and efficient connection with the countryside; a system that is able to import its food and feed a growing city quicker.

If you want to enable the three hierarchies in the city, the international interests, the urban scale level and the local entrepreneurs to work together, you will need to realise hubs at the interfaces of the hierarchies. If you look at the completeness of the network diagram in the city, you will see that the national lines are already quite well linked. At the urban level, you can conclude that there are still a number of important links missing in the radial systems. More complete also means that the lower scale levels must be able to accommodate the margin of error of the larger roads. By making the radial systems complete, which is already largely the case, you can also increase the flexibility of the system. In the event of possible monsoon floods or blockages in the traffic, you can divert the traffic via inferior roads. That is also how the traffic already functions in Dar Es Salaam for the most part. An additional advantage of the system is that the diverted traffic in the neighbourhoods also ensures an extra source of income. By making the national embranchments and urban radials complete, a strong framework for growth at the lowest scale level also emerges; a spatial framework which growth can latch on to and on which the organic streets can build further. These are the parts of a city that you possibly should not want to plan, because the identity of Dar Es Salaam is contained within them; the identity of the winding streets and the street that is created by the inhabitants and merchants.

The city is increasingly dependent on a good connection with the countryside and with the intensification and linking with existing roads, you can create a perfect radial system; a system that allows one to interlock different hierarchies and growing parts of the city; a system that partly fits in with the modern will of the city and, on the other hand, fits in very well with how the city functions and works; a new system that is based on the morphological and cultural values of the city and the economic diversity of the city; a system that helps everyone move a step forward and a system that keeps food accessible for the entire city, not only by bridging large distances, but also by keeping food accessible with respect to price.



Existing masterplan of the City of Dar es Salaam



Proposed masterplan of the City of Dar es Salaam





Roy van Maarseveen

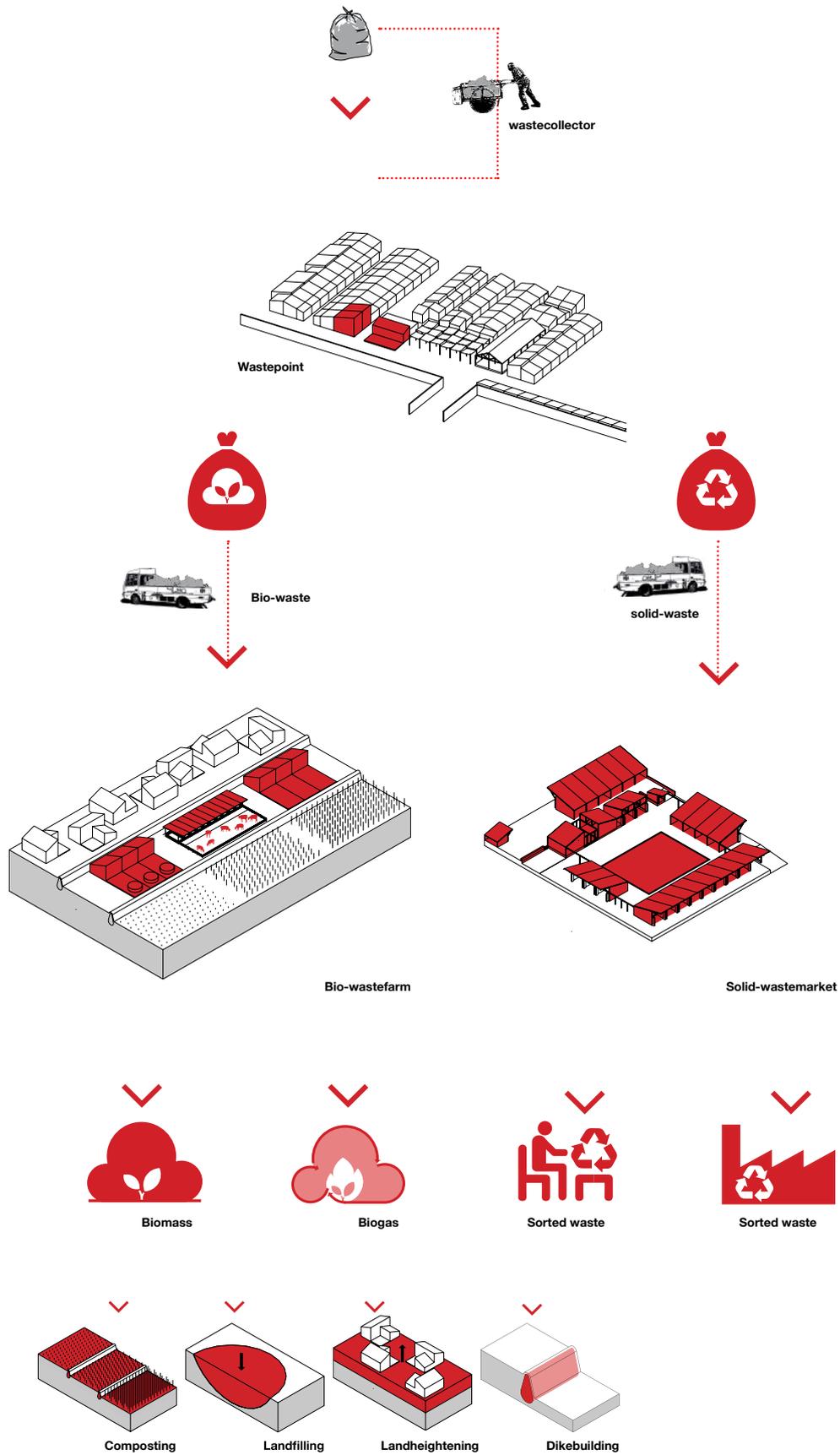
project Waste as food for the city

By learning from Dar es Salaam's market structure, an attempt will be made to gain control over the city's organic and solid-waste management. This requires a new bottom-up design strategy for empty spaces in the urban fabric, between the city, industrial areas and the edges of the flood valleys, creating open space between the urban and agricultural areas. To solve this problem, I have designed a waste system with three interventions: a point for collecting, a point for bio-waste processing and a solid-waste market for industrial recycling.

The waste points form the smallest interventions and will be placed at 'hotspots' in the urban fabric. These will be places that are easily accessible by transport and which inhabitants can easily reach. For example, near public facilities, such as sanitation facilities. They can be located in empty dukas (small shops) or small open spaces in the urban fabric. The collection points will take care of the initial (small-scale) recycling of products. The biowaste and solid waste will be stored separately here and collected by small waste trucks to be transferred for further processing.

The edges of the flood valleys, between urban and agricultural areas, are the best locations for organic waste farms, close to households, markets and agriculture. They are often places where public toilets and existing waste dumps are located. Reusing organic wastes as food for animals will increase the value of the biowaste. Biomass can be traded as compost to local farmers, or can be used for land heightening and the building of dikes. It can also be used to make valleys resistant to floods. Waste farms can start small and grow bigger. A waste farm needs a place for storage, some animal sheds and a place for the digesting tanks.

A new market structure will be introduced for the processing of solid waste. Formalised markets can be expanded with a solid-waste district. Solid waste will be collected, sorted and processed. Some waste can be recycled on a small scale or traded at the market itself. Bigger bulks and other waste will be sold to industry. Most of the industry in Dar Es Salam is already capable of recycling (or even upcycling), but waste is still hard to collect currently. Because of the link to industry, solid-waste markets are dependant on a good connection with an adequate infrastructure, like the Morogoro road. These three interventions will help create a waste-proof Dar es Salaam.



Ubungo-neighbourhood (ca. 1 km²)

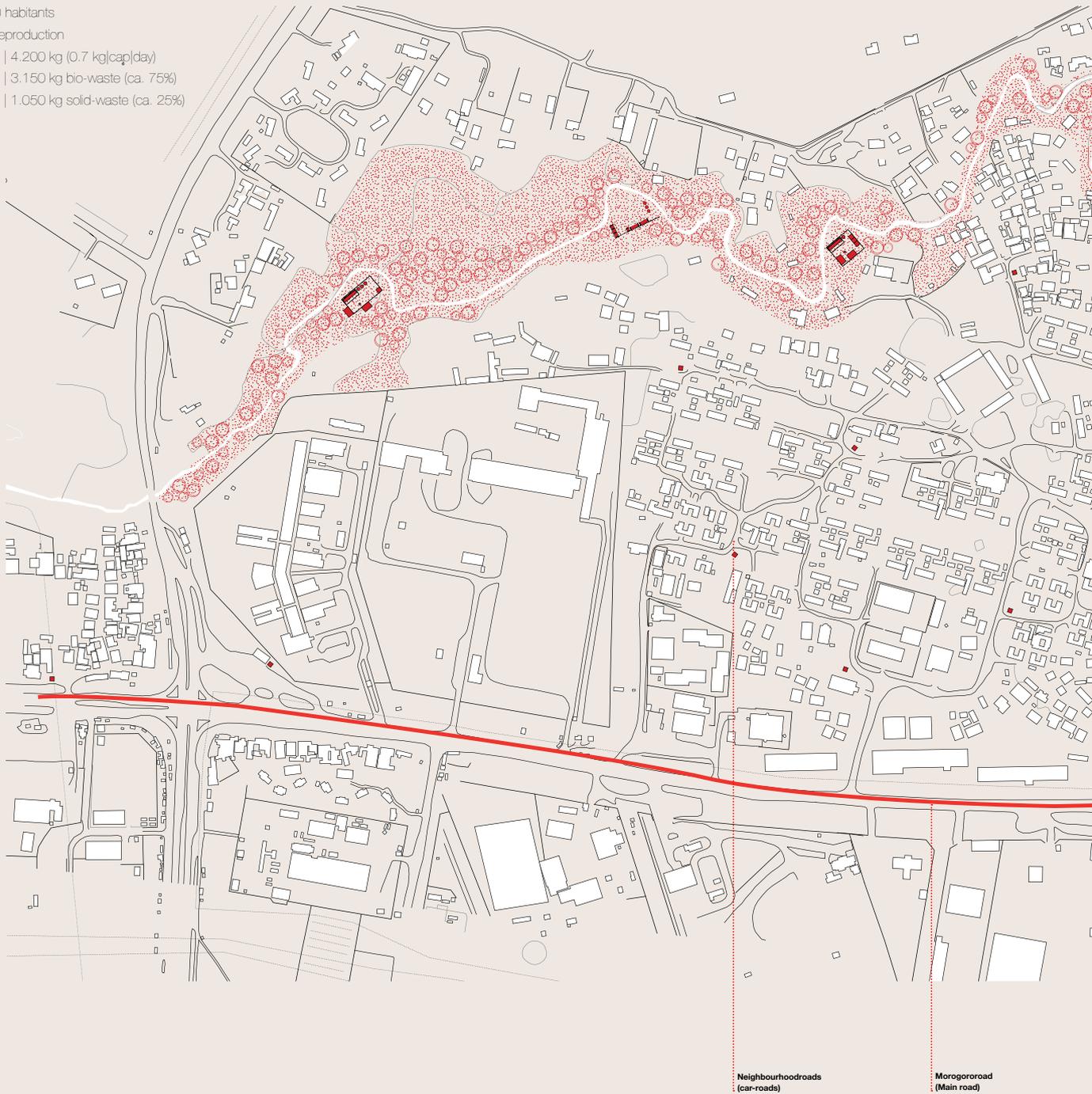
ca. 6.000 habitants

daily waste production

840 bags | 4.200 kg (0.7 kg/cap/day)

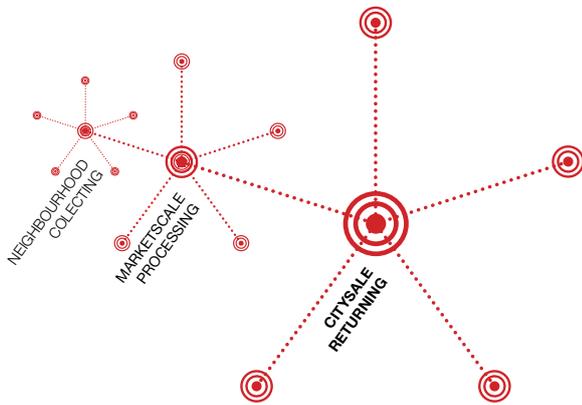
630 bags | 3.150 kg bio-waste (ca. 75%)

210 bags | 1.050 kg solid-waste (ca. 25%)

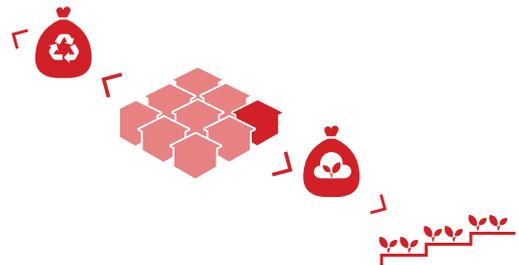


Neighbourhood roads
(car-roads)

Morogoro road
(Main road)



WASTE PROCESSING



Roy van Maarseveen



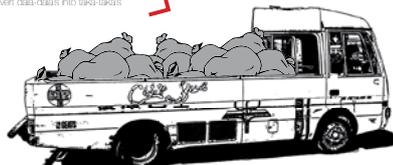
garbagebag
1 bag | 5 kg
0.4 x 0.4 x 0.4 m
alleys | < 2m



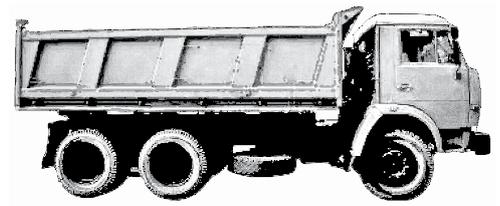
wast-carts
20 bags | 100 kg
1.2 x 2.0 x 0.8 m
clay streets neighbourhoods 3-6m



convert dala-dala's into taka-taka's

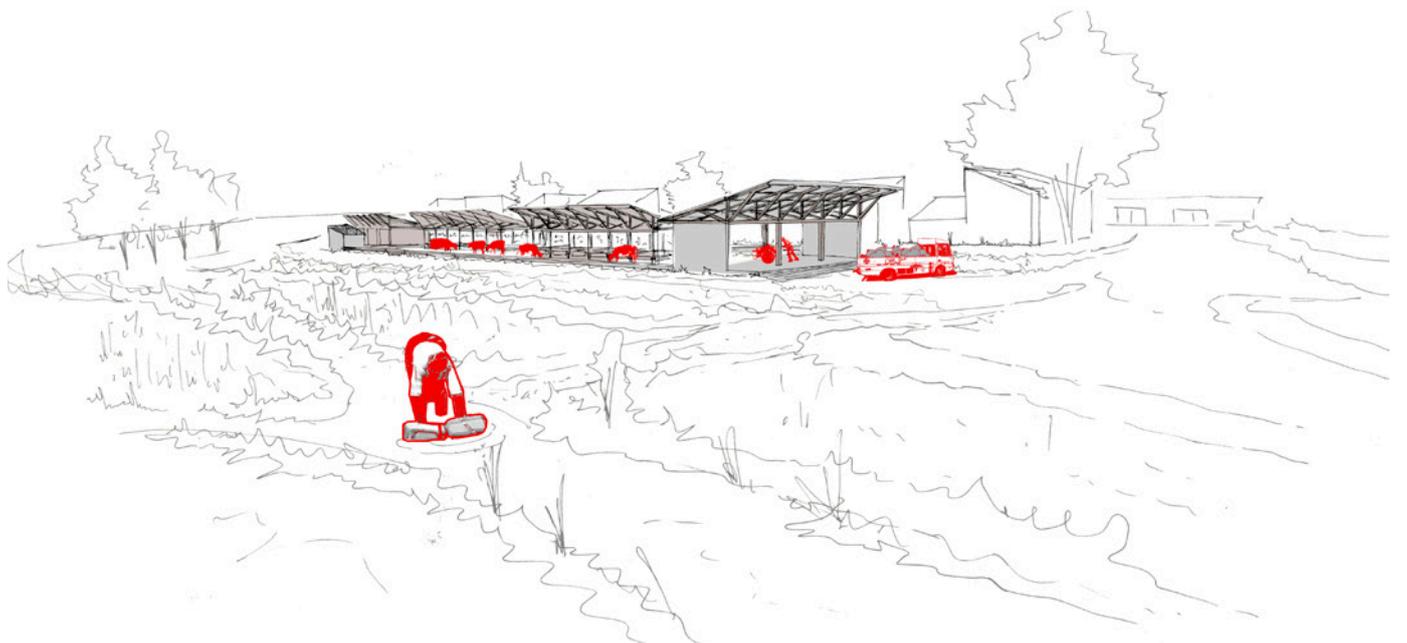
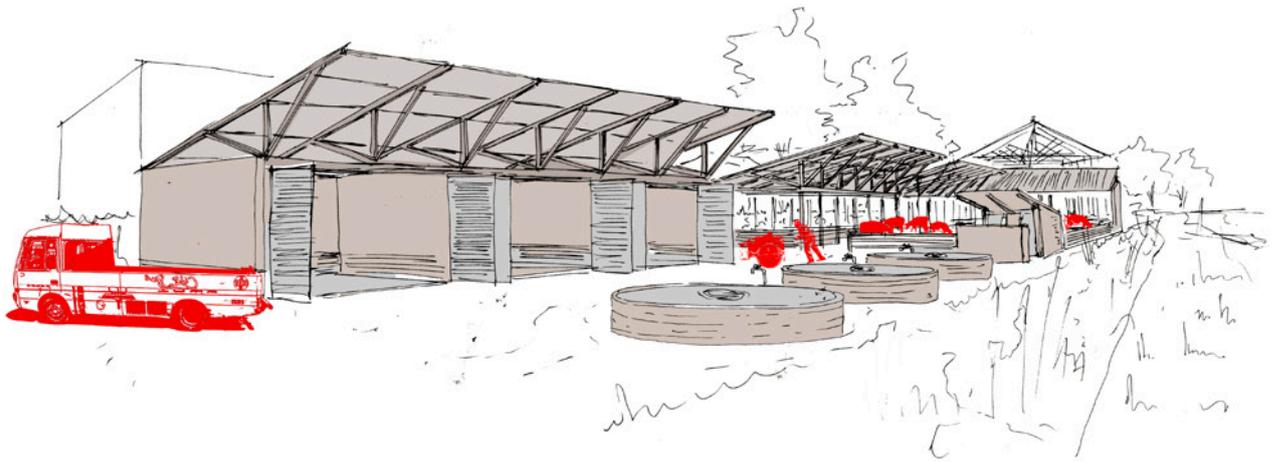
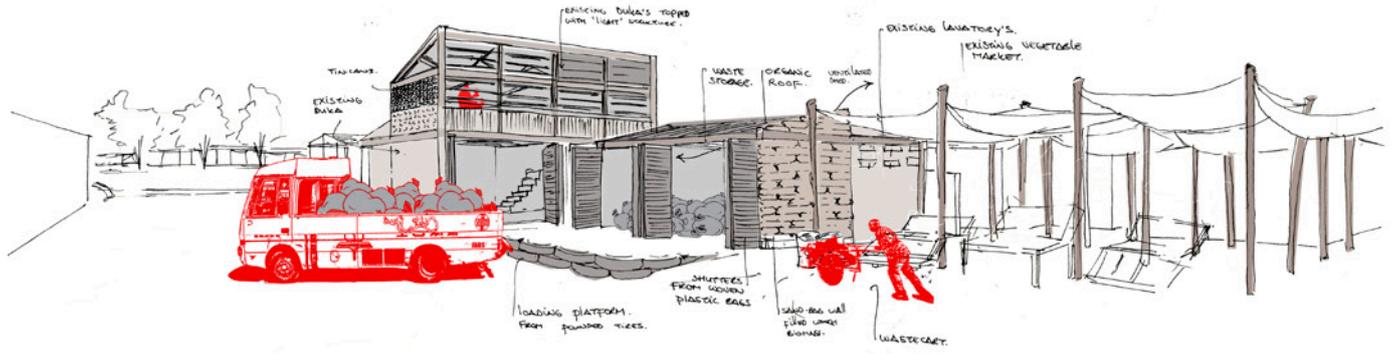


taka-taka trucks
100 bags | 5.000 kg
2.4 x 5.0 x 2.5 m
roads > 6m



garbage trucks
2.000 bags (10.000kg)
4.5 x 7.0 x 3
roads

Waste collection units scheme



Seeing Heterotope Dar





Anna Maria Fink

project The Black Elephant

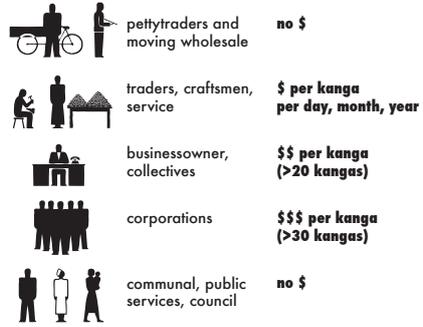
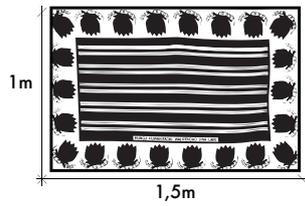
Public space in Dar es Salaam is a highly dynamic, heterogenous and lively phenomena where the public and the private sphere overlap with economic activities. The city seems to be one big market, markets seem to be little cities in themselves.

The Machninga Complex, better known as “the white elephant” is a complex of 3 buildings constructed by the municipality of Dar to house over 5000 petty traders that can be found all over the public space of the Ilala district close to Karume and Kariakoo market. Since the buildings are finished only a few traders moved into the big halls full of small metal cages. The building is nearly empty.

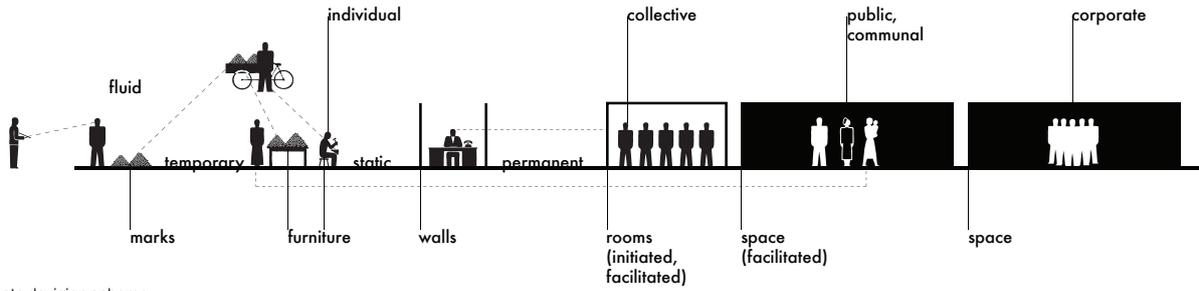
This project is an approach to transform this white elephant into a black elephant – a full building – like the colour black, the richness of all existing colours mixed together. The aim is to shift it towards an open and fluid public space, a market with the diversity of it's brothers and sisters all over the city. Therefore the Machinga complex needs to be reconnected with it's urban context and developed into a place in the city. The groundfloor of the black elephant extends into the trees of Karume Park, the wall of Karume stadion and onto the edge of the streets passing it. It's big busstation interweaves the DallaDalla network and is a keyelement to literally create traffic into the Machinga complex.

Step by step the white elephant is going to be intruded by a new route of slopes and stairs that introduce a new trading mentality into it's empty spaces. While the frontside is deconstructed by ramps offering fluid trading space, the backside is opened for market and city functions by stairs. These two design elements offer the base for a shift in perception from empty building to lively space. To offer a simple and fair system of measurement every trader pays per unit of space he uses. This unit is the size of one kanga (1,5 x 1 meter), the traditional piece of fabric used as clothes for women. Therefore all forms of trade – all forms of collectivity and temporality can be hosted within one system.

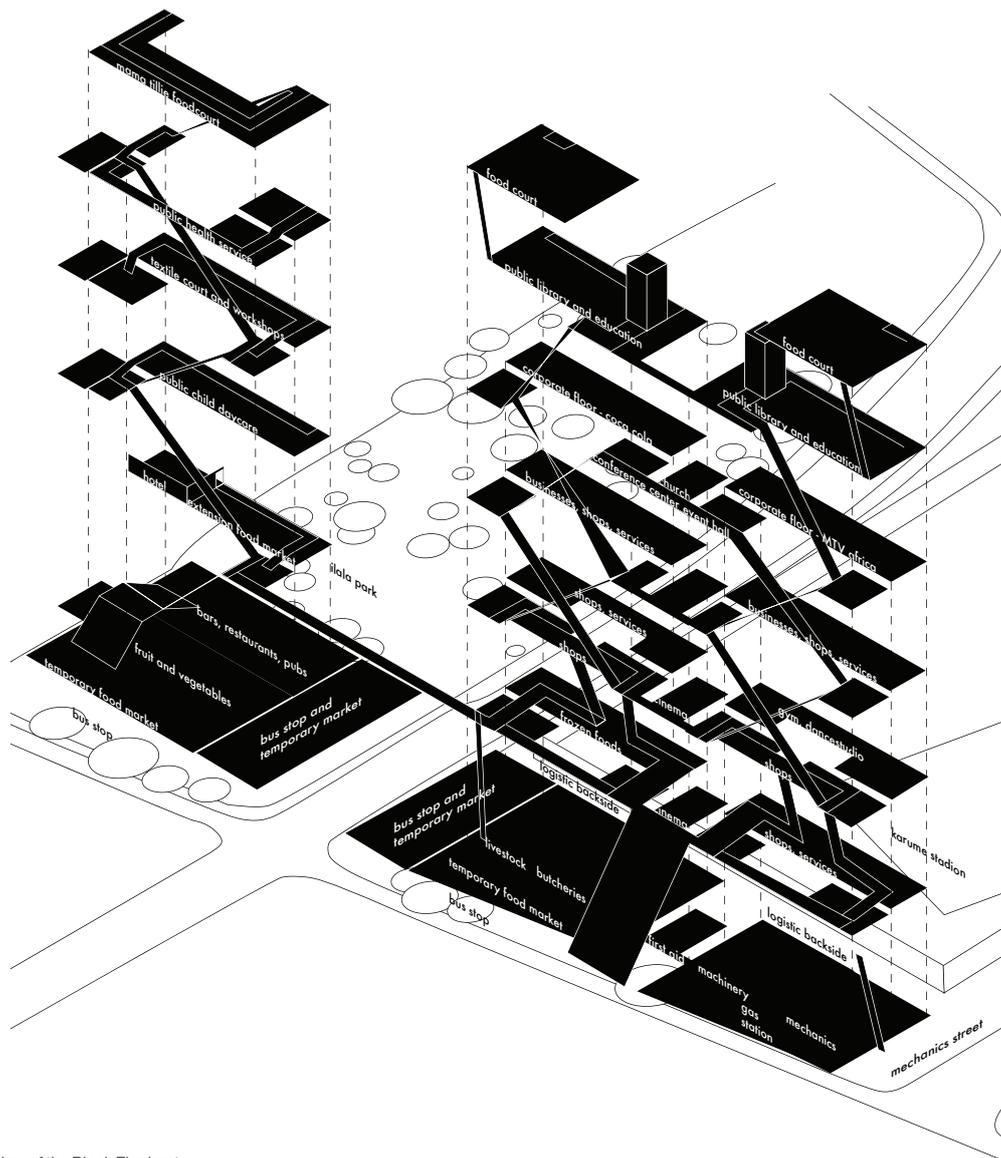
The black elephant is a proposal to shift an empty, generic building into a lively, diverse and functioning public space that becomes a new market in the city of Dar es Salaam.



A new unit - the Kanga - scheme, devision of trade within the Black Elephant



Public to private devision scheme



Organization exploded view of the Black Elephant

essay Looking for a metamorphosis of the White Elephant

“Es gibt zwei Arten zu sterben, zwei Arten zu schlafen, zwei Arten Tier zu sein: man kann sich kopfüber ins Tohuwabohtu stürzen oder sich fest in der Ordnung und im Chitinpanzer einrichten. Wir sind hinreichend mit Sinn und Instinkt ausgestattet, um uns der Gefahr der Explosion zu erwehren, aber wir sind wehrlos gegen den Tod durch Ordnung oder gegen die Einschläferung durch Regel und Harmonie.”

*Michel Serres, Der Parasit **

In the busy jungle of Dar es Salaam, there is one beast in particular struggling to set foot in the vast evolution of the Tanzanian metropolis: it is the white elephant – a three-part concrete monster, rising five floors into the air, in order to host thousands of the hundred of thousands of petty traders doing their business in Dar es Salaam. Equipped with uncountable empty metal cages, it is still waiting to fulfil its purpose as a new type of people’s market. Without ever being vital, the so-called ‘Machinga Complex’ is already a ghost haunting the municipality and the bank account of their social fund.

The white elephant is, therefore, a perfect example displaying the attempts of the government to formalise and structure important city functions in order to cope with the rushing growth of their city and gain control over informal developments. To cure the elephant’s emptiness, the municipality is transforming the building complex into office space by filling the floors with air-conditioned boxes for bigger businesses. Opposing this shift away from the idea of a market, I believe that a careful transformation of the Machinga complex can make it into a functioning, innovative people’s market and, more importantly, a new public space within the evolving city. I believe that the white elephant has the potential to become an authentic African monument that combines architectural qualities and practical use in a way that we European architects can only dream of. This paper describes the main formal reasons why the building is not succeeding in fulfilling its original purpose. Through describing observations made in and around successful market places in Dar es Salaam, I try to identify the main qualities of these work environments. The main focus of this paper is on how organisational and structural informality stimulates authenticity. In conclusion, I will outline how the qualities of these markets could serve as a guideline for the transformation of the Machinga Complex into a lively market space. After spending two weeks in Dar es Salaam, the city appears to be shaped by a collective of individuals – a society of traders, where everyone seems to be a salesman or saleswoman. In this city, trade is an opportunity that provides a source of livelihood for many and is the rushing blood in this complex organism. Here self-determination rules over dependence, the collective over the corporate, and the person over the employee. In my opinion, the Machinga Complex of today disrespects the identity of the traders of Dar es Salaam by limiting their opportunities and their possibilities for this inherent independence. Instead of being a new organ that nourishes and expands the city, it is a concrete clog in its arteries.

The reason for this malfunctioning can be found by having a look at the buildings’ architectural constitution, its place in the city and how it is internally governed.

The Machinga Complex is a building complex based on a Chinese design offering market spaces to over 5,000 so called petty traders – small traders selling various goods. For 200 Tanzanian Shilling everyone can rent a metal cage roughly two square meters in size to store and display their goods. [1] These cages are assembled to form corridors along the open half-floors, which one reaches through a central staircase or a rampway connected to the main street and the bus stations. This organisation leads to uniform routing directed to floors rather than penetrating the whole building. Strolling through the building it appears empty because of its seemingly endless rows of vacant cages. Seeing this, one can easily understand that it must be difficult for the Machinga council to find interested tenants.

* “There are two ways to die, two ways to sleep, two ways of being animal: one can plunge head first into chaos or make oneself at home fixed in order and in a chitinous carapace. We are sufficiently equipped with sense and instinct, to withstand the danger of explosion, but we are defenceless against the death through order, or against the anaesthesia of rule and harmony.” (own translation)

Many traders say that the fee to rent a space is too high compared to what they get and the terms of rental are very inflexible. This fee goes to the Machinga Council, which is the landlord of the building. They have strict rules and always collect their money on time while, like many other formal markets, the payment of a fee does not provide the tenant with any rights.[2] Furthermore, the traders complain about the lack of customers and find various reasons for this, such as the malfunctioning bus station, and blame the council for it. [3] Yet here and there you will find knots of interactions where groups of traders have settled and withstand the vastness that surrounds them. In these places, the white elephant comes to life and small batches of market are created. Here one can understand the size of this complex and the lack of a coherent development in spite of, for example, a phasing plan that is meant to help create consistency.

Nevertheless, looking closer one will find various strategies that the traders have developed themselves to feel more at home. In nearly all situations where space is used for trade, the metal cages have undergone a transformation adapting to the trader's idea of a good display for his or her products, or a group's idea to form a space together. For example, in every transition space between the staircase and the floors, the cages have been reconstructed and combined with chipboard to give them the appearance of a real kiosk to serve the customers standing outside. These entrepreneurs understand the importance of the routing space as a spine and extend themselves into it. In some places, traders push their cage to the side and start displaying their products on the outside, stacking suitcases, for example, into tower-like sculptures supported by the cage. They seem to be an improvised imitation of the beautiful pavilions in Kariakoo, where the principle of the duka is inverted and products are displayed against (outside of) the room, instead of inside of it. Somewhere on the second floor, there is a whole partition of women selling colourful handcrafted pieces of textile. As a traders collective they settled on one of the half floors – every person renting a cage, together forming a row of individually rented spaces. The collective of individuals is given shape in this miniature market by connecting the cages into one big store. This shows how with personal effort and collective invention even a rigid structure like a metal cage can be transformed into a functional workspace.

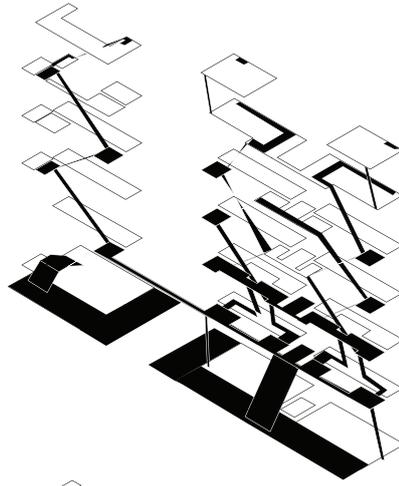
For me these adaptations of the cages in the Machinga complex reveal the search for flexibility and freedom of personal expression within the building's formality. People try to make them more suitable for the display and storage of their products and, therefore, make them more functional. At the same time, one can see a need for self-determination in these acts, whether as an individual, a collective or a community. Therefore, the Machinga complex is in dire need of a new unit, a new form that provides adaptive functionality and sustains flexibility, and that does justice to the independent trader setting his or her own rules within the order of the whole. Unfortunately, but understandably, there are still too many traders that do not find the Machinga Complex a reliable and promising place for their business. The white elephant is, therefore, on a difficult quest for transformation from an empty structure into a grounded place not only to them but also to the Municipality. Extending the perspective of the Machinga Complex into the city, there are numerous market places that can deliver an example of a successful people's market. What they all have in common are the opportunities they offer traders – functionality in space, flexibility in use and diversity in social interactions. These opportunities are often the result of informality that creates improvisation and provides the freedom for a person to develop his or her own strategy regarding how to set foot and do business at a market. As a result of the partly informal organisation of most market places in Dar es Salaam and the personal spirit of the entrepreneurs, they are highly diverse and heterogeneous spaces. They often appear to have a strong, meaningful identity and I consider them to be authentic spaces full of plurality. To identify this plurality I am starting with a description of the functionality of spaces and their flexibility in use followed by the observation of the self-determination of the Tanzanian individual and the plurality of identity found on markets. Looking at various markets, one can see that every product has its own typology, every type of organisation gets its identity from its manifestation in space and that temporality is demonstrated in the materialisation of these spaces. At Shekilango market,

1.
<http://www.streetnet.org.za/show.php?id=384>; 13.12.2013

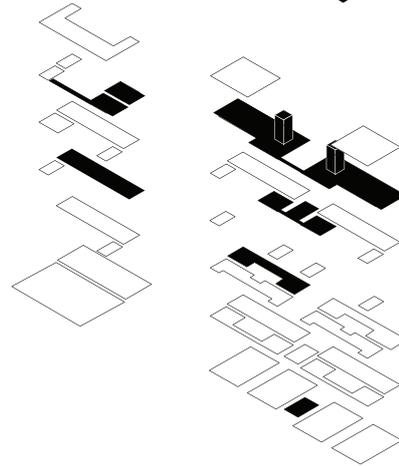
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<http://www.ippmedia.com/frontend/index.php/&tfww.ripAti./KIKX0Dnx/www/index.php?l=62404>; 13.12. 2013

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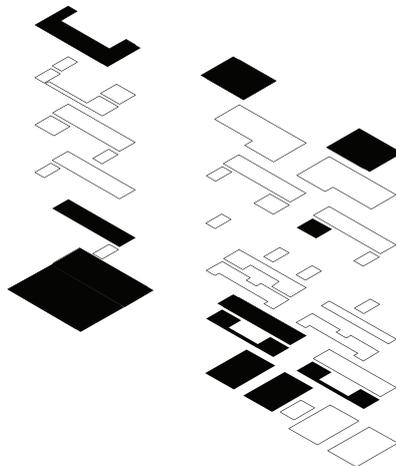
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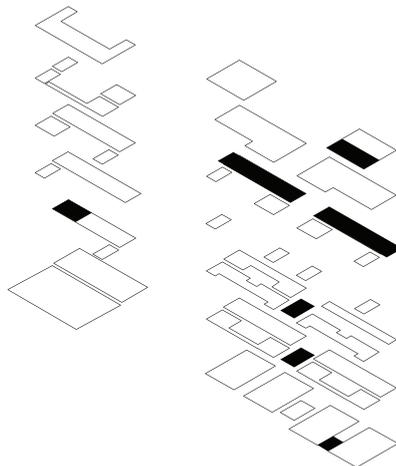
Public space



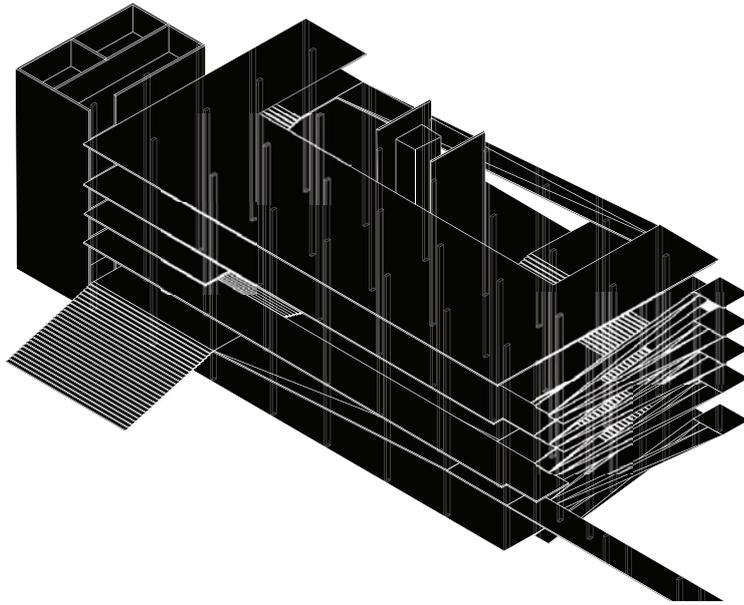
Communal space



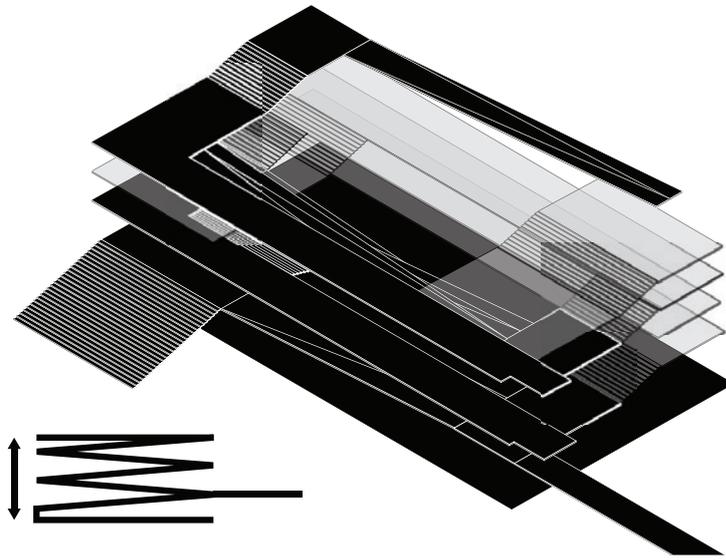
Trade in public space



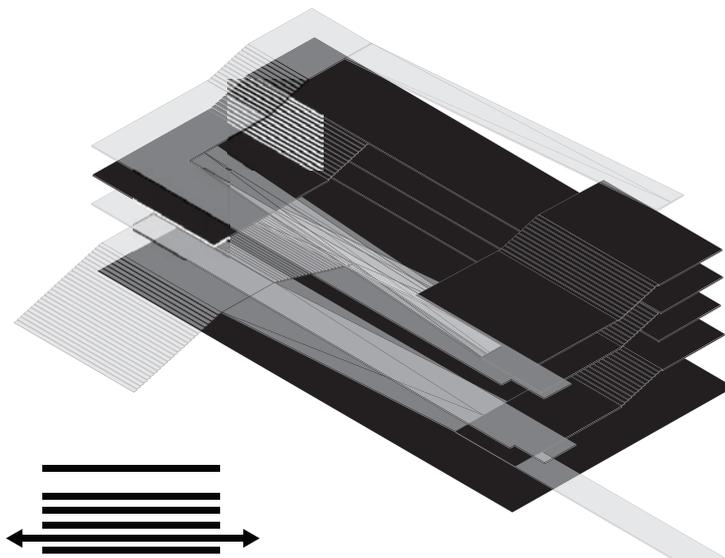
Corporate space



Total space Black Elephant



Cross floor connected spaces



Ramp connected spaces

there are four basic types of spaces: the iconic concrete duka designed to house various types of shops and workshops; the functional concrete butchers that enable a group of people to work next to each other in close connection with the livestock; the collectively built roofed livestock pavilion housing a community of chicken traders, and the wooden vegetable stalls for single traders offering everyday flexibility.

Observing the trading space, one can see the various spatial and material consequences that follow the basic trading modes. Fresh wholesale goods are displayed on big carpets and under simple roofs while fresh retail goods are presented on tables and hangers under simple self-constructed roofs. These are made from metal sheets, wooden beams and blue plastic foil, and are easy to set up, fix and renew. Wholesale space looks slightly different every day, while in a classical retail space you always find your vegetable woman at the same table, one day appearing bigger with less products, the other day disappearing under the amount of goods. Livestock cages are set up so a man can just pass in between and is still at eye level with the chicken in the top cage. The chicken traders are often a strong community of men who have been doing their business at the same spot for years. Therefore, they can afford to have a waterproof metal roof above their head that they have collectively financed. They can rent out the leftover space on the edge to vegetable traders. On the other side, the path between the butcher and the livestock is just as wide so a boy can hurry through with a bunch of flapping chickens in every hand while passing another boy with a wheeled cart selling containers of water. The butcher is a set of tiled sideboards with a black corner for the wood fire and a couple of tiled square meters of floor to place the bundles of chicken ready to slit their throats. The butcher will use the low wooden construction keeping up the roof, to hang their plastic bags used to store their personal belongings, such as clothes and clean white shirts, during work. The fixed archetype of the duka that you will find along nearly all African streets, in the countryside as well as in the city, hosts all kinds of small businesses and workshops. The duka provides space for one to five people and numerous goods. Its generic shape and size offers flexible, secure space for endless possibilities.

At the beginning of my journey, the markets seemed like an organised chaos of work, rest and trade. After a week observations and reflection, these actions slowly became habits and finally rituals of people, who together form a place. What started as an experience of oversaturation and a blurry image became a network of relationships formed by traders. And finally these relationships appeared in space and revealed an internal logic that organically formed itself. For example, one begins to understand why the livestock is close to the butchers and the vegetable sellers seek proximity to the butchers. Spending a day at the market, you see butchers and chicken traders buying their merchandise from the chicken salesmen filling the streets with their cages full of living poultry in the early morning hours. Later in the day, you buy one of these living chickens at the chicken trader and walk five metres further on to hand your animal to the butcher. While you are waiting to pick up your filet, you walk on to the vegetable stalls to get some salad and freshly made pilipili to go with your dinner. And if after that the butcher is still busy, you go around the corner to have a look at the frozen fish and ask a tailor for some advice on a new dress.

Because you do this nearly every day, you get to know your suppliers. You have your own trusted chicken trader, butcher, salad seller, potato trader and banana man. You develop your personal routine taking an invisible route through the market accompanied by familiar faces, sounds and smells. You bargain about that day's price and he gives you the reasons for current price fluctuations or tells you his personal preference in terms of the agricultural origin of his products. In this way, every sales moment becomes a short moment of encounter, buying a trusted product from a familiar person rather than an anonymous company. You experience the plurality of identity by experiencing your vegetable woman one day as a strict businesswoman trying to make some profit after a bad day, while the next time you come by she is an affected mum admonishing her daughter to finally finish her homework. On a Sunday afternoon, she is a hairdresser for an hour to do the hair of the woman selling tomatoes a couple of stands further on. At the market, the boundaries between the private person and the public person seem to dissolve. The function of the spaces shifts and adapts to the specific needs of that person at that moment. Take for example the identity of the vegetable woman, which shifts according to her chosen role. Her market stand is more than a display and storage for goods. Sometimes, it is a comfortable piece of furniture, a table to write important schoolwork or do the monthly bookkeeping, while other times it is a salon table for hairdressing or a bench to sit and exchange gossip.

A marketplace is more than a platform for trade. It is a social space flexible enough to host the diversity of uses and the plurality of relationships, as well as a workplace and a place to live in. As the day progresses a butcher boy starts his day by putting on his white boots and white clothes and transforming himself into a professional. In a calm minute, while waiting for the fire to get going, he drinks a quick coffee at the corner watching the first chicken middlemen arriving with their white trucks and having a chat with the other guy buying coffee. In his next break, he will change his bloody shirt and have some chapatti and soup at his favourite place. With ten minutes still until his next shift, he plays a short game of pool over at the vegetable section. At the end of his day he walks to the washhouse to clean his splattered boots and before he finally leaves the market he attends a theoretical driving lesson at the driving school close to the washhouse.





Life in the Black Elephant



A market, therefore, has to provide more than just trading functions and offer facilities for the people working there to fulfil other parts of their lives. It has to be interwoven by facilities extending the traders' opportunities for self-determination. In these routines of working people, the edges of the market and the in-between spaces are of extreme importance for contemplation during the day. Tameka market, a formalised market, is a great example of a circular organisation where these facilities can be found around the main market programme. In addition, at an informal market like Uralic market there is a logical transition from the wholesale space at the centre to the facilities pushed to the edges. Like Tameka market the Machinga complex needs to designate and facilitate the main functions (market and facility-wise) while still offering enough range for shifts and blurs between these spaces to occur. For the white elephant, a grid of anchor points with fixed facilities like food places, washrooms or public services can form a basic structure filled with zones designated for a specific type of trade or product. This chain of places along a route should be the principle to create a layered public space of plurality – the basis for a new market.

Looking in and around the markets, improvisation is the flexible glue of the city while informality is its infinite source of adaptation. They feed each other and are possibly the main reason for the rich, diverse and lively public space found in Dar es Salaam. One example where this relationship between improvisation and informality has shaped the functionality and the social impact of a daily routine is the simple habit of washing your hands before enjoying a meal. It seems like there are nearly as many expressions of this ritual as there are people carrying it out. According to the type of food place you are in, there will be some main ways to wash your hands – like sitting on your chair reaching out to a waiter pouring carefully tempered water over your hands into a bowl, or helping a friend by doing the same for him, passing him the plastic bottle with the pinched screw top filled with soap. In the restaurant 10 metres further on, there is an old-fashioned metal tank on a self-made stand that holds the big water tank, the bucket to catch the residual water and the little sideboard to hold the soap dispenser. Next morning eating at the hotel, you are expected to walk to a little bathroom sink mounted to the garden wall and help yourself. Having breakfast at the market instead, you wash your hands at one of the 'mama till' places with a warm mixture of water and washing powder. Looking closer, an entrepreneur's idea of the provision of warm water and soap becomes an immediate, highly personal translation of needs into a setting that creates a wide range of social interactions (between you and a waiter or a friend), routes and positions in space (the creation of a route by a sink at the other end of the room) and material design (like water kept warm by the heat of the sun on the metal tank).

When all these aspects come together in oscillating balance – the functional, the architectural and spatial; the informal, formal and temporal; the personal, communal and governed; the flexible, diverse and plural - a space of authenticity takes shape. An honest space where people can earn a living, provide for others and find self-determination in their work. To me, the marketplaces seen in Dar es Salaam are some of the most authentic spaces I have ever encountered. In their simplicity, precision and flexibility, they reveal a precious idea of architecture and public space where the person or the individual is at the centre. For me, the African market seen in Dar es Salaam is a fluid, plural and personal public space sheltered by architecture. With this idea in mind, I would like to conclude by describing the main guidelines for a transformation of the Machinga Complex. These guidelines are condensed thoughts developed while being in Africa and turned into ideas worked out within a school project. In order to transform the white elephant, there are two main elements that need to meet each other in balance: the formal and the informal. The formal should be there to stimulate, control and inspire the informal. It should be used as an instrument to create opportunities rather than restricting possibilities. The formal should be seen as a robust, but elastic framework creating new conditions. Within the search for this balance, we need to find functionality in space, flexibility in use and diversity of social interactions. Only when both elements are respected and find their place, will the white elephant be ready for its metamorphosis.

With its concrete skeleton, the formal is hyper-present in the white elephant, following every step one takes inside the building. First of all, this structure has to be adapted and reshaped to offer a more functional space that creates more possibilities of movement and allows a growth of the development with time. The emptiness has to be conquered by weakening its power: a new route through the building can create density within it while keeping space for growth and development around it. Changing the main spatial structure from a stack of floors to ranks of routes is the first formal intervention to take in order to reach the goal of functionality in space. This routing space can fill itself informally, without fixed demarcation or a static plan. Second is a vision for a new, more diverse programme that is invited to move in. The functions of the spaces created should be outlined, while some of the market functions will reveal themselves through the architectural restructuring. This new programme should help the white elephant to interweave itself into its context and ground itself in people's routines. It should consist of a lively diversity of market and petty trading space as the leading and public functions as the supporting structure. In addition to this, small businesses, workshops, collectives and service have to find a safe place. To add a financially strong partner and a business of an international scale, one big capitalist corporation could get a neatly outlined space in it. The Machinga complex needs to shift from a monofunctional static building into a multifunctional public space.

To find flexibility in use and to make the marketplace interesting to a wide range of entrepreneurs, a new system of rent has to replace the metal cages. Just like at a normal market, traders should be able to pay per day, week, month or year for a clear amount of money and space. They should not be limited by an object outlining their space (like the cages), but by a whole self-determined set of assembled materials. The formality of the renting organisation should not be literally translated into space. And if so, these spatial forms should follow the 4 main typologies: the defined, closed space or duka, the collective roof (chicken traders), the half open walled space (butchers) and the flexible individual space (vegetable salesmen and women). These four typologies form the basis of the spaces needed to accommodate traders. Public functions or corporate organisations need their own typologies, but should follow the rule of simplicity and openness. Every architectural intervention needs to encourage the purpose that it was made for and widen the opportunities according to individual ideas.

By adding to the functionality of this new Machinga Complex and by testing the flexibility of its structure - by acting in it - the trader is positioning him or herself in the whole. The regulated formal ingredients of the space, how it is used and what it is, should act as a reliable structure where social interactions take place in. This governed structure makes sure that the possibilities for self-determination are secured while it will prohibit emptiness (in all its manifestations) and collapse (due to a lack of over-determination). As long as diversity in use is encouraged by the mindset of the transformation the diversity of social interactions will be able to take place and form a durable network. These relationships are the culture medium for a metamorphosis of the white elephant towards a lively public space with economic benefit for thousands of people.

Together the informal and improvised conditions will help to create and maintain relationships, sustain rituals and caress habits. I believe that frictions between the informal and the formal will lead to improvements in the working-environment that go beyond the possibilities of planning. The formal structure of the new Machinga Complex should be a framework for the informal that takes shape by people inscribing themselves into space. It should be a dynamic shelter that is able to deal with complexity and plurality on all levels found on marketplaces and in city life.





Leonardo Kappel

project Mending the fabric

The city of Dar Es Salaam is a fast growing city with a strong tendency to trade. Even to a non-resident it is obvious that trade, in whatever form visible, is in the nature of the inhabitants.

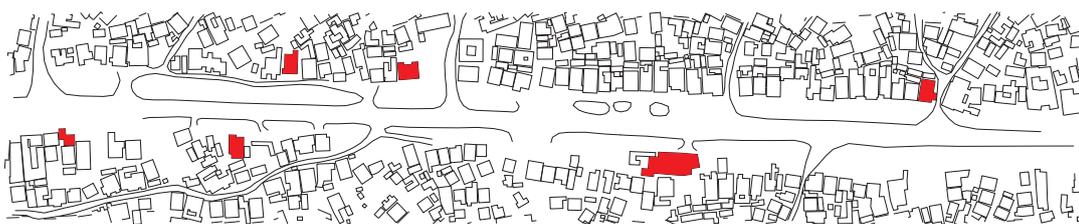
I state that the 'market-structure' of the city is not comprised of several municipal determined marketplaces but rather an interwoven social structure of all trade done by the inhabitants of the city. Be it the traders at the marketplaces, the independent shop owners or the 'petty traders' on the street, they all contribute to the informal urban fabric of Dar Es Salaam. The density of this urban fabric varies with the intensity of trade taking place, with a marketplace as most intense and a 'petty traders' least intense. All are nevertheless linked to each other.

The congestion along the main roads in the city has led to the Bus Rapid Transit line that will start functioning in 2016. A result of this solution is the banishment of the Dala dala along the main route through the city, the Morogoro road. Once the main mode of transport, the small busses will no longer be allowed access.

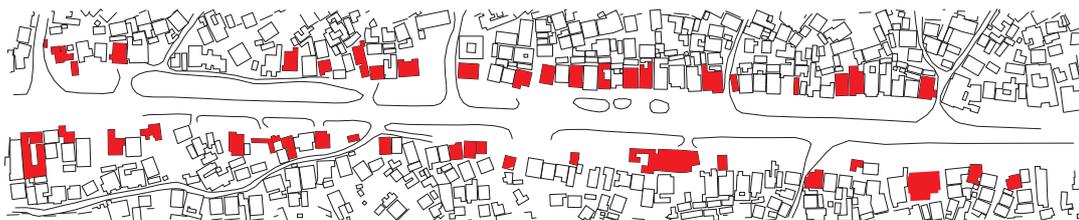
This in turn will result in passengers and commuters only stopping and reaching the area's around the appointed bus terminals in contrast to the ability to get off everywhere with the Dala dala's. The trade along this route is set to the use of the Dala dala's, more or less evenly divided, and condensed at the marketplaces. There will be a change and the density of trade will be needed elsewhere, while in some regions it may become obsolete.

I propose re-dividing/re-locating the trade along the length of the Morogoro road to accommodate the changing use due to the arriving of the Bus Rapid Transit line while retaining the informal urban fabric of the city.

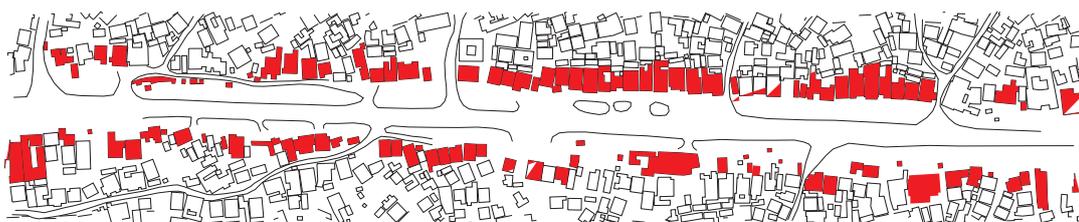
Densifying where trade and use will increase while also giving opportunity to open up the closed facade of shops where trade is less intensive to allow the underlying neighborhood behind to breathe. Eventually giving way to new functions which can provide the neighborhood with energy, waste management and employment.



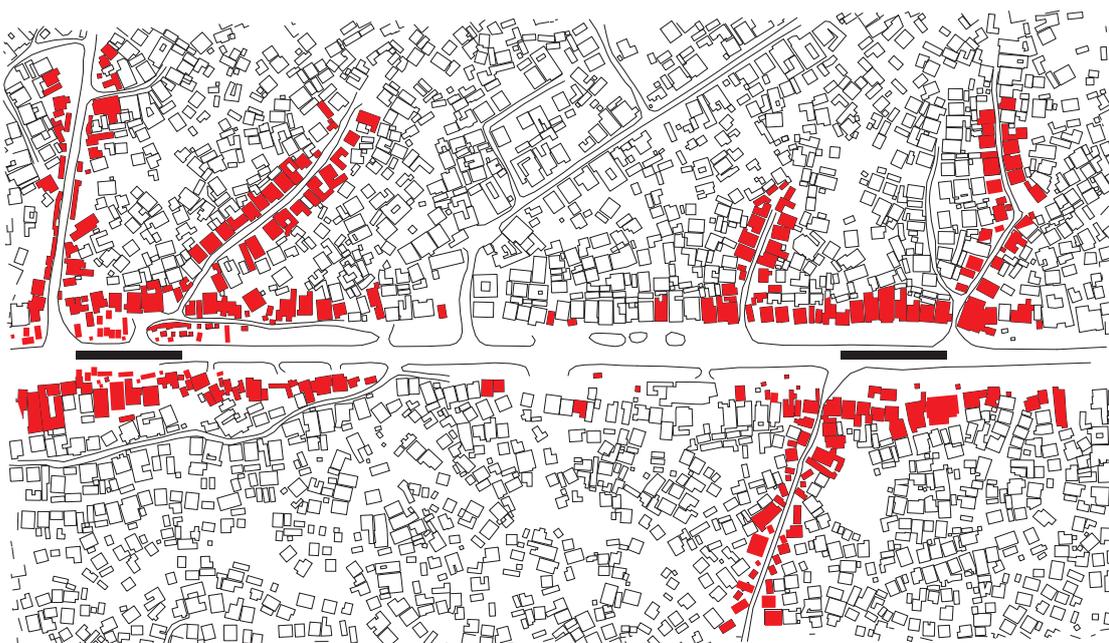
1980



1995



2013



2016

essay Re-identifying the existing open spaces for the benefit of the community

'A new space cannot be born (produced) unless it accentuates differences.'
Lefebvre, 1991

Introduction

Dar es Salaam is the largest city in Tanzania. It has more than doubled its population to over four million inhabitants in the last twenty years [1]. The aforementioned growth has led to a geographical spread of the city extending its reach to over 30 kilometres from the city centre (a personal rough estimate as the city boundaries remain undefined). The increase in population is a result of the economic boom that East-Africa is currently experiencing, with Dar es Salaam as the fastest growing economy in Africa. Having stayed in the city for two weeks, the economic growth could be seen and felt from up close. The main visible factors are the growing socio-economic differences between the inhabitants of the city and the growing congestion due to the increase of goods in need of transport in and out of the city. The government has decided to set about changing the latter.

The answer the government found in response to the congestion problem is the Bus Rapid Transit line. This double bus lane will run across the Morogoro road from the city's outskirts to the city centre. The BRT line will start operating in 2016. While walking the Morogoro road and looking at the ongoing construction of the line, the change in use was starting to become visible. At the places where the foundations of the future bus stops had already been built, the intensity of informal trade structures had sky-rocketed. New nodes of large trade intensity were being formed. Another remarkable phenomenon, which was clearly visible, were the former streets coming on to the Morogoro road. These well-functioning streets had been purposely severed from the main road. No longer functioning as traffic space, most of these dead-end streets were turning into parking lots for the inhabitants. This struck me as alarming. In a growing city as dense as Dar es Salaam, open space is scarce. Especially in the informal settlements, new communal space could be used to stop the growth of slums. Although slums and informal settlement zones are two different phenomena, one may lead to the other. Informal settlements could be the ideal breeding platforms for slums [2]. The discovery of the newly arisen open spaces led to the research goal of this paper: How can re-identifying existing open space as communal space influence the liveability within Dar es Salaam's informal settlements?

In the first chapter, I will examine the concept of liveability in the context of Dar es Salaam in order to be able to define the problem as well as evaluate the possible improvements. In chapter 2, I will address communal spaces: their current form, use, pros and cons. I will also make a statement on how I think the new open spaces should be treated and used. In chapter 3, I will go further into the consequences that this transformation will have on the neighbourhood, both physically and socially. In the conclusion, I will give an answer to the research question I posed earlier.

Current community surrounding the cut off streets

Despite economic growth, 75% of the inhabitants cope with the problems and shortcomings that are inherent to informal settlements in Dar es Salaam. These problems consist of insufficient health and educational services, a lack of a solid waste collection and disposal system, large rates of unemployment and poor sanitation [3]. There are about 100 unplanned settlements within the city, over 75% of all residential houses are found within these settlements, so many face these challenges.

Informal settlements in Dar es Salaam are usually described as unplanned neighbourhoods where a mix of middle and low income families live side by side. Some residents work in the formal sector such as

1. S. A. Sheuya. Informal settlements and finance in Dar es Salaam, Tanzania. (Nairobi: UN-HABITAT, 2010)

2. J. Abbott, I. Martinez and M. Huchzermeyer. analysis of informal settlements and applicability of visual settlement planning VISP in South Africa. (Rondebosch: University of Cape Town, Department of Civil Engineering, 2001)

3. A.G. Kyessi. Formalisation of Unplanned Settlements and Its Implications on Poverty Reduction: The Case of Dar es Salaam City. Tanzania Journal of Development Studies 8 (2008), 2 (Online resource)

university teachers or municipality employees and some work in the informal sector, such as street vendors. Commercial and informal income activities are usually developed along the borders of the settlements, while life inside the settlements has a familiar everyday life feeling, with women pursuing traditional domestic activities, and children are playing on the streets.

Informal settlements in Dar es Salaam are almost unnoticed by the formal citizens or visitors. Entering the settlements, the visitor is forced to pass through the different phases. The boundaries are overcrowded with people, the environment is 'polluted' by market noise, publicity and by a gastronomic mix of aromas, public and private transport becomes threatened, and race and religion become a conscious issue. Streets penetrating the neighbourhood penetrate the hierarchical structure, transforming itself by widening and overcrowding into narrow and calm public spaces. Some streets wind up in open spaces where the sense of community and place identity becomes clear and somehow harmonious (own experience). Behaviour and rules in the public space change gradually when passing through the street thresholds. A sense of place is codified by the dwellers, excluding the visitors, the foreigners. This sense of place, of belonging to community, forces the stranger to somehow surrender to the rules of the environment [4].

The main focus of these settlements is towards the main road, in this case, the Morogoro road. With the houses bordering the street being transformed into informal shops, duka's, the inhabitants provide themselves with an income. These plots could be seen as economically valuable despite the bad health conditions of living next to a congested road. The neighbourhood behind is geographically less fortunate. The overall spatial feature is characterised by highly dense settlements; usually the density increases as the vicinity to the city centre decreases. Except for the houses situated along the main streets, most of the dwellings are spread haphazardly. It is not uncommon for shower rooms or pit latrines to face the footpath. From a western cultural perspective, the division between public and private space is diffuse.

Defining liveability

In order to address the liveability within informal settlements, we must first define the current situation and, therefore, give a possible Tanzanian definition for liveability instead of a European view on African life. Dar es Salaam ranks 8th in the 'the top 10 most liveable cities in Africa' according to sources [5]. Yet for an inhabitant of an informal settlement, liveability is probably measured by different standards than the ones used in this particular survey. To an inhabitant of the settlements liveability means a place where people are able to live close to their jobs, where it is not necessary to leave their children in the early hours of the morning in order to bring home enough to feed their families; a place where transport costs do not take up 10-20% of people's salaries and where they can invest that time and money more productively, apportioning it somewhere else in their lives; a place where children can safely play in the streets and public spaces are welcoming, comfortable and accessible enough for us to treat them like our own living rooms. The liveability is hardly measured by terms such as 'equity, environmentally friendly and infrastructure'. While these terms might still seem out of reach, if measured to the standards mentioned earlier, liveability can be increased without having to use interventions on a large scale. Zooming in on the individual neighbourhoods and applying the improvements on a more social level could make a difference for struggling inhabitants of informal settlements.

Possibilities for transforming the open space to communal space

I propose another solution. Instead of creating space by removing dwellings, I propose formally recognising the open space that has recently arisen as a result of the BRT line cutting off former streets. These spaces have since long been part of the urban fabric, except these spaces have recently turned from movement-oriented to stagnant. By redefining these former streets as public space, it creates a new domain for the

4. Maria Isabel Rasmussen. The power of informal settlements, The case of Dar Es Salaam. Planum, Journal of Urbanisms 1 (2013), 26, pp. 1-11. (Online resource)

5. www.africa.nl

6. D. Moss, H. Group. Dar Es Salaam masterplan 2012- 2032. (Ministry of land, housing and human settlement development, 2013)

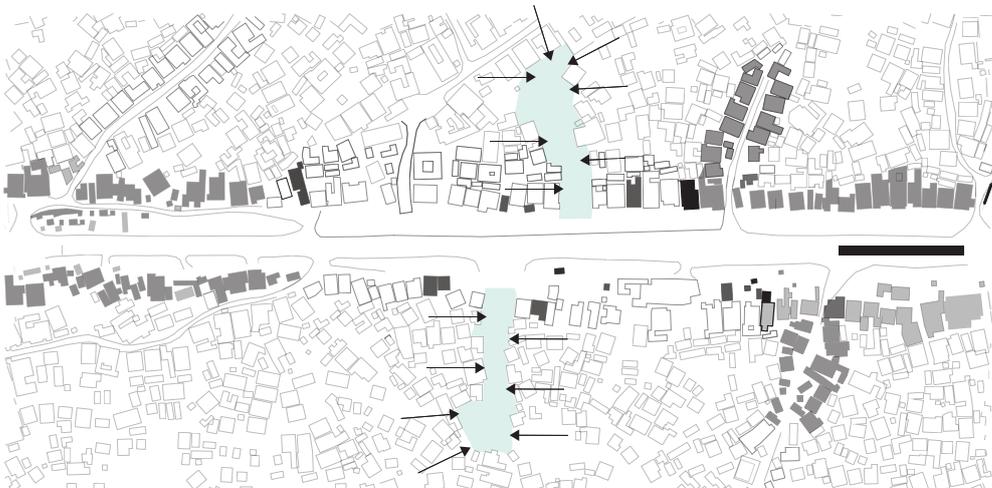
7. Henri Lefebvre. The production of space. (Oxford: Blackwell, 1991)



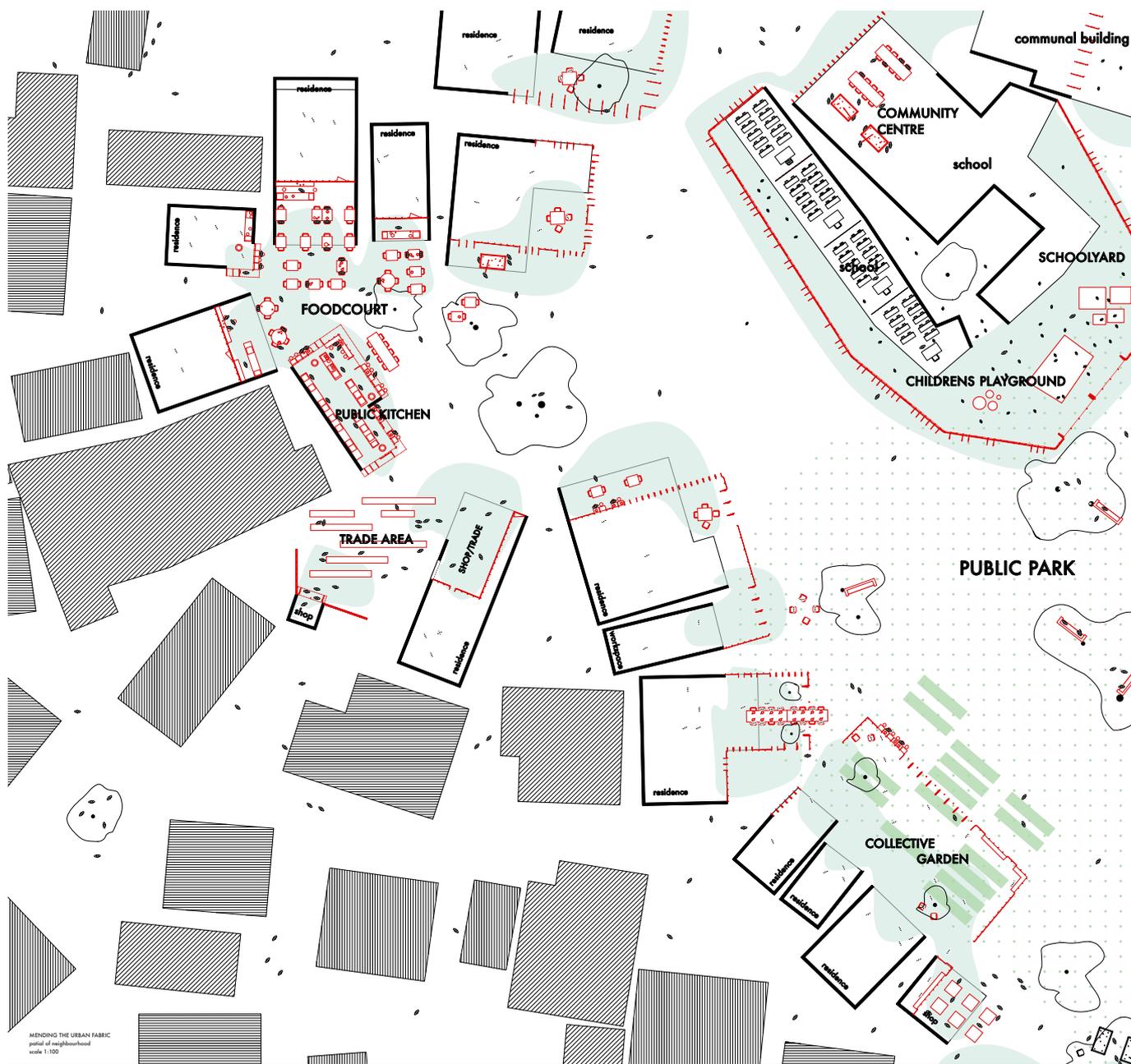
New barriers of the Rapid Busline along the Morrogorro road



Cut-off space



New communal green space



MENDING THE URBAN FABRIC
partial of neighbourhood
scale 1:100

community. This public space would be already fused into the urban fabric, thereby making the solution tenable. Also, this way, space is acquired without the need to remove any dwellings [6].

New space and diffuse borders

Physical changes to a space lead to changes in the social behaviour within that specific space. According to Lefebvre all space is a product of social behaviour. He also argues that every society - and therefore every mode of production - produces a certain space, its own space [7]. So it also works the other way around. Changes within the social behaviour can lead to new physical changes being made to a space. For example, when people start gathering at a logistically logical point in a neighbourhood, before long you can notice changes happening to this point such as benches being placed, trees being planted, small shops selling food and other commodities being opened. Such changes enable better social use. The increase in social behaviour will, in turn, transform the space even further. I state that by changing the social behaviour within the ex-traffic space, from street to meeting ground, this space is given the opportunity to become something more. It has the possibility to become a unique feature within that specific neighbourhood.

The social behaviour that needs to be stimulated to attain this transformation is the communal behaviour. To name a few things: turning 'the' area into 'our' area, encouraging more responsibility for the shared space in front of the residence, space that may be used by the inhabitant or the neighbour depending on the time frame, space that functions as private space or as communal space. To be used as fluidly [8] as the social connections between the inhabitants of the informal settlements themselves. On a bigger scale, this will increase the social bonds within the community.

Changers as a result of new communal space and the activities it brings forth

The community

Durkheim states that for a society to survive there must be social order and that most notably, a society has an inherent desire for order and stability [9]. Durkheim also argues that the boundaries for behaviour in a society are recognised collectively in communities and reinforced by negative societal reactions. Social order is thereby maintained by the process of being socialised, to avoid disapproval associated with deviant acts. In his social control theory he argues that the absence of close relationships with conventional others can free individuals from social constraints, thereby allowing them to engage in delinquency. [8] In the case of the informal settlements in Dar es Salaam, it means that by strengthening the community, and thereby the social bonds, the liveability within a neighbourhood will increase as a result of a stronger social order. Unlike Simmel, who describes a society of friendliness, a democracy of equals and without friction [10].

I do not mean to imply that more social space is the solution for all the problems in Tanzanian informal settlements. It merely implies social space is a viable means to increase the social order that is already present. For this order is not absent, it can be seen in the informal markets and neighbourhoods. Space is shared and regulated often without oversight of the state.

It is important to know that there is no private ownership of land in Dar es Salaam, it is owned by the state and safeguarded by the President for the interest of all the citizens [11]. Therefore, informal settlements have their own way of establishment and eventual development in comparison to formal development. In these self-planned settlements, societal regulation plays an important role in the land delivery system [12]. The community dictates the regulations within informal settlements of Dar es Salaam. Formally this legislation falls under the responsibility of the state. However these settlements are not formally recognized, and they are difficult to reach due to poor infrastructure which makes enforcement challenging. Therefore social control is vital for the liveability within these areas.

A result of the re-identification of the existing open spaces is the need to communally organise and manage them. If no measures are taken, these open spaces will turn in to parking lots or waste burning sites. Examples can already be seen when looking at the cut-off streets. This necessary communal organisation will be a start of strengthening the social bonds. With new communal space at their disposal new opportunities will arise. The focus of the community will turn inward instead of outward because of the previous pull of the hectic Morogoro road. The new area offers space to develop businesses, safe areas for children, communal functions such as education and day care, which are all organised and managed by the community, for

8. Fikreselassie Kassahun Abebe. Modelling informal settlement growth in Dar es Salaam, Tanzania. (Enschede: University of Twente, 2011)

9. Emile Durkheim. The Division of Labor in Society. (1893)

10. George Ritzer. Modern Sociological Theory. 7th ed. (New York: McGraw-Hill, 2007)

the community. It also offers the opportunity to enlarge the private space in the sense that space is shared and can belong to a residence or to the community at different times. Other opportunities lie in collectively organised facilities, such as proper waste collection and disposal, communal kitchens, workshops, women's centres and services that come forth out of the needs of the inhabitants of the neighbourhood.

Small economies and the city

People attract more people. Increased activities in the communal areas of which some will be trade-oriented will lead to an increase in the micro economy that is the new communal space. The combined increase of activities and economy will in turn draw more people into the open space from the street. This new flow of people is necessary for the safeguarding of the informal economies along the length of the road. The restructuring of the transport system along the Morogoro road result in a different manner of how the commuters and eventual users of the shops reach their commodities. Instead of the hop-on-hop-off method used by the dala dala [13] where the user could get off at any point on the entire length of the road, predetermined bus stops now dictate where the possible 'customers' will concentrate. In between these, bus stops trade-lees [14] will emerge. It is exactly these areas where the new communal spaces can aid the bigger economic system. By connecting the trade to the neighbourhood and the community instead of the parasitic connection to the road it will remain viable for an individual to own a small shop in these areas.

Conclusion

The possibilities of an almost immediate introduction of new communal space into a neighbourhood are diverse. When looking back at the factors used to describe the liveability in the informal settlements, a clear statement is made on how new communal space be positive for these areas. The increase in social bonds in a community can lead to a stronger social order, which in turn aids in terms of the safety within a neighbourhood. New possibilities for making a living closer to home mean less commuting time and more time spent securing an income. Collective facilities may even be established, resulting in a better well being for the individual as well for the neighbourhood.

I think perhaps the city of the future isn't altogether out there. Maybe it's in us, already here, slowly awakening each day; in the resourcefulness and resilience of people who find their way in the city, even when the path isn't paved; in the connections and everyday conversations between people whose paths might never have crossed before, who find each other despite the divides of history and geography. I may be devoid of the idealised view of human behaviour that Simmel has [15], but I do share his ideology of the possibilities of positive interaction. In the end, it is so very important to not only recognise the value of the space under our feet but also the possibilities that lie in the connections with those next to us. By sharing the responsibilities we can achieve much more, especially looking at the informal settlements of Dar es Salaam.

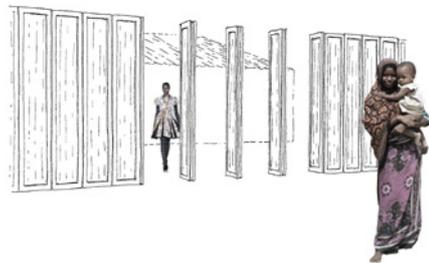
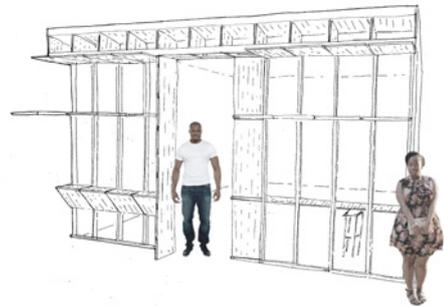
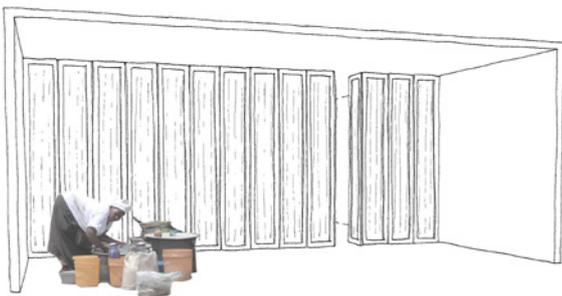
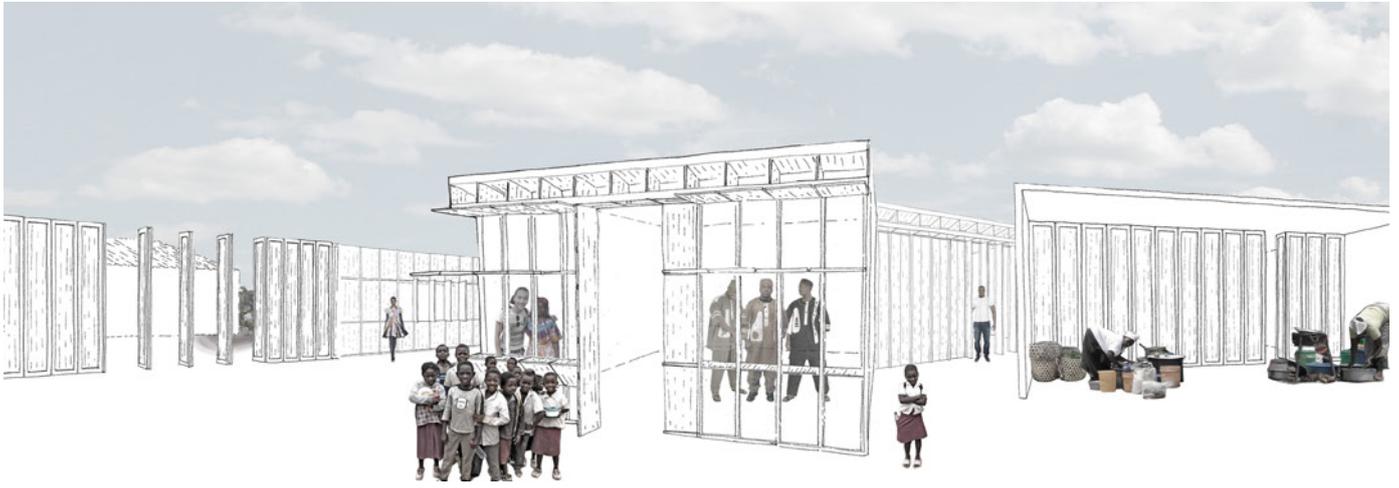
11. S. A. Sheuya. Informal settlements and finance in Dar es Salaam, Tanzania. (Nairobi: UN-HABITAT, 2010)

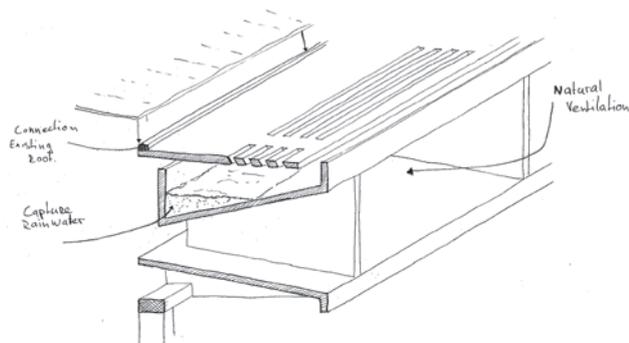
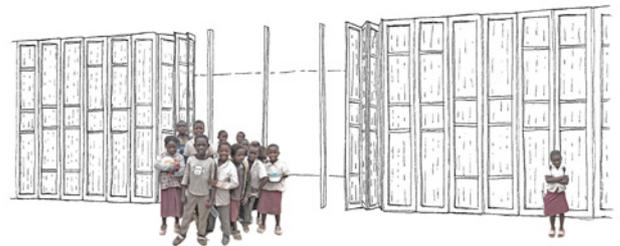
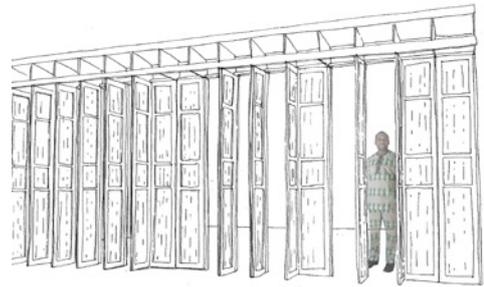
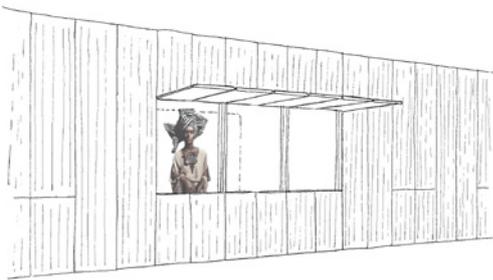
12. Fikreselassie Kassahun Abebe. Modelling informal settlement growth in Dar es Salaam, Tanzania. (Enschede: University of Twente, 2011)

13. Small, colourful, public transport bus, which stops wherever you want on its line

14. Area's with a low trade intensity

15. George Ritzer. Modern Sociological Theory. 7th ed. (New York: McGraw-Hill, 2007)









Meintje Delisse

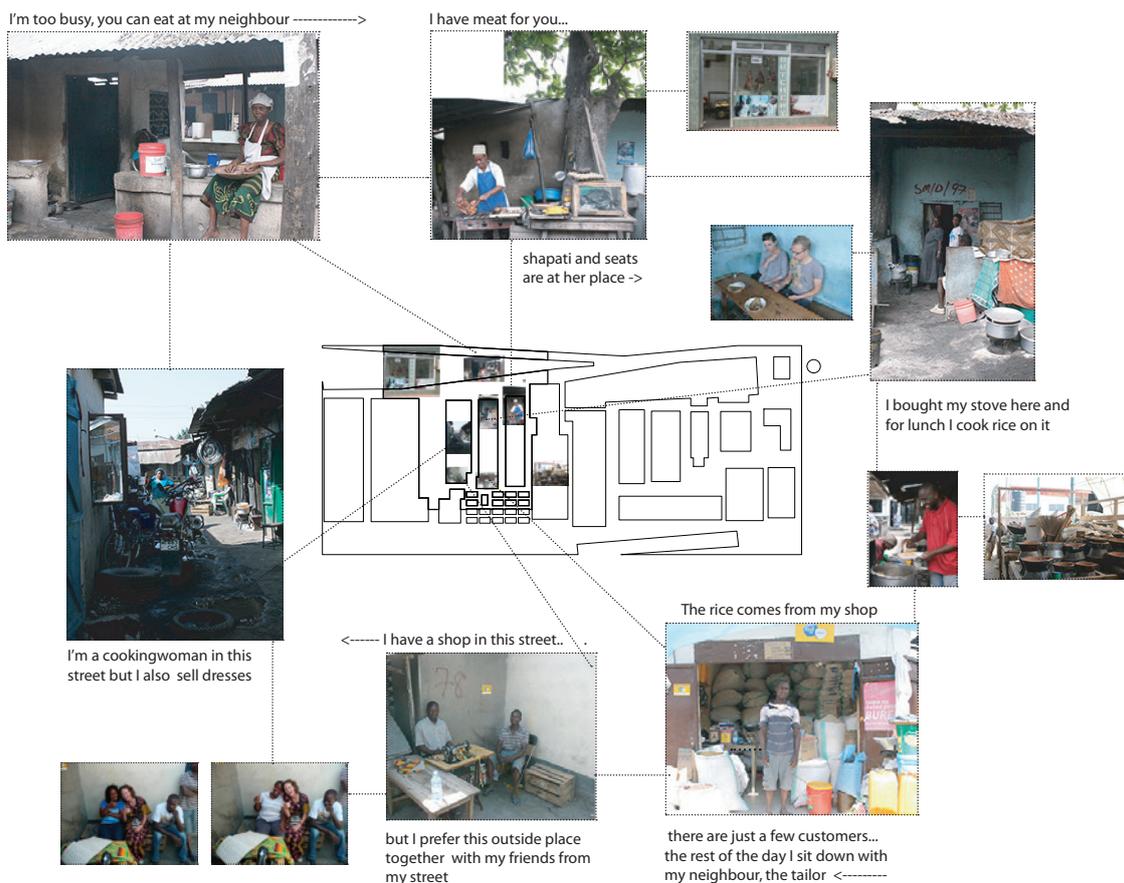
project The woman at a market in Dar es Salaam

Upon studying Dar es Salaam's markets, especially the Shekilango market, Dar es Salaam can be seen as a city of trade. There is continuous movement of people and goods, which is mostly organised informally. At first glance, it appears to be a chaotic process, in need of better organisation. However, it is actually organised, as I discovered later. It is organised in a functional way, purely in relation to the basic use of space. In practice, this entails: having a spot to trade and having a kind of logistic access to this spot. The remaining working conditions are of secondary importance.

Looking at the Shekilango market, compared to the custom-designed Kariakoo and Tembeke markets, you see that Shekilango market has gradually grown in size, divided between two parallel roads. It is missing a higher-level organised structure, such as a typology, which the other markets do have. The primary conditions of the Shekilango market – the structural road design – are based on the width of the modes of transport. The secondary notable quality of the market, compared to some others, is that there is shade, as well as storage possibilities, for every trader.

When you look at Shekilango's identity, it can be seen as a neighbourhood market. Many traders are also customers of their own market. The social habits are rooted in the spatial use. One of the nicest spots on the market, for example, is a little square that came into being as a result of leftover space behind and in front of the shops. A tailor moved his sewing machine from his overheated shop to this square. A young man, who was selling rice in a shop facing the square, moved his goods outside and sat down next to the tailor on a little bench. He subsequently became an apprentice to the tailor.

This social interaction is an important characteristic. However, it doesn't solve the major shortfalls of the market. Due to the lack of asphalted roads, sewage systems, basic hygiene, ventilation and proper fire safety measures, people need to improvise to keep their businesses running, which is especially difficult in the rainy season. My approach to improving the Shekilango market involves creating comfortable public shared spaces, which connect the functional aspects of the market with Shekilango's social identity. This new spaces will serve as anchors for the individual spatial needs.



Customer-trader-trader-customer scheme



Trade as personal movement scheme

essay The woman at a market in Dar es Salaam

Aside from financial reasons, how is it possible that the lowest class of market woman at the People's Market in Dar es Salaam, Tanzania, is not able to improve her working position and working environment, so that this is equal to the position and environment of the market man? [1]

The woman at a market in Dar es Salaam, dressed in a beautifully coloured khanga, busy with her daily activities. She sells, she cooks, she cleans, she cultivates, she does all possible activities with which she can earn money. She does this seven days a week, from sunrise to sunset. She has to feed, care for and pay the school fees of five children. Her husband is both somewhere and nowhere. Despite the fact that she, therefore, has to be a self-reliant woman, she is never alone. She is surrounded by women in similar situations with whom she shares culture and religion, even if they are sitting on a bucket on the muddy soil.

People's Market

The market is a phenomenon in Dar es Salaam, and the rest of Tanzania. In the past, goods, predominantly food, were sold underneath the large baobab tree in the village a few times per week. In addition to exchanging products, the market was also socially and politically important for news, gossip, meetings and administrative activities [1]. The market still has this position. Nowadays, it takes place daily, has grown in scale to an urban level, and has seen itself multiply as part of the fast growing urbanisation. These market places are called 'People's Markets'. The term emphasises the relationship and the significance of this public market space, which is organised around the mobilisation of people, contrary to supermarkets that are structured around the mobilisation of capital [2].

The Shekilango Market, situated on the Shekilango Road in the district Sinza, is one of the aforementioned formal people's markets in Dar es Salaam. The market has approximately 550 sellers who sell their products from 6 in the morning to 6 at night every night. There is friendly competition amongst them. Social values, such as the faithful return of regular customers, the spontaneous encounters between seller and customer and the game of negotiating prices create a sense of unity between suppliers. In organisational terms, this is translated into sales clusters with the same merchandise, and is often linked to a specific gender.

Selling and slaughtering chickens is a core activity at the Shekilango Market. This is done by men. In addition, there are a large number of sewing workshops and a number of dukas (grocers' shops), which are run by both men and women. These are established in individual permanent cubicles, comparable to a 'garage', where men and women usually work separately from each other. The small restaurants at the market, named Mama Lishes, are run solely by women. The vegetable stands are owned by women and are built as a temporary structure from materials in terrible condition. In addition, there are the portable sales, such as petty traders (usually men who present their goods on an extension of their bodies, for example a basket in their hands), male water sellers and women who buy and clean the remains of chickens. These sellers have no specific place at their disposal and are located in the scarcely available traffic space at the market.

There are several different trends visible with respect to gender and social class differences at the people's markets. For example, one discernible difference is that men are predominantly linked to wholesale trade and women to retail trade. The wholesale trade is often positioned under the permanent roof construction and the retail trade has a more individual character in the shape of a stall or table [3]. Another trend is that the sellers from the lower social class usually sell food-related products. Due to their limited education, this relates most to their former existence as farmers or agricultural life in rural areas. Thirdly, the overly prevalent patriarchal values are visible, which causes women to still be seen as 'housewives'. Men generally have a better position

1. Sara Boustedt, Natalie Mair. Vendors Galore and More: in search of cultural identity and social values in the Tanzanian marketplace. (Göteborg: Chalmers University of Technology, 2013)

2. Marc Wegerif. Laying eggs for the City: An initial exploration of divergent modes of egg supply to Dar es Salaam. (Wageningen: Wageningen University, 2012)

3. Daniel Mbisso. Lecture at the Amsterdam Academy of Architecture, November 28, 2013

at the market than women, who have to fight harder for a place and income. For example: the Mama Lishes from the Buguruni People's Market in Dar es Salaam spend a number of hours a day collecting the money they earned, because the men do not pay them directly for the meals they ate [4]. One final trend is that men are often out in front of their sales spot, while women prefer to sit sheltered between their merchandise.

If you consider these four trends, you can conclude that the lower social class market woman, who sells foodstuff at retail trade level, is in a worse position spatially and socially than a man from the same class.

Culture and Religion

In order to identify the significance of this gender difference, one must first understand the culture pattern. The culture determines the structure of the gender differences [5].

There are over 260 different ethnic groups in Tanzania. The lifestyle of these groups is changing significantly due to the urbanisation, which has been increasing dramatically since 1976. Tribes started to separate and mix the moment they tried their luck in the city [6].

The 'age-village' is a traditional morphology of many Tanzanian tribes. The community in such a village is divided into age groups and every group has its own specific tasks. The chief of the tribe, an older man, manages the land rights. In addition to this man, the individual is of no significance and you are part of a whole [7]. Women are mainly background figures, yet they do have a significant role within the community, of which having children is the most important, followed by daily activities such as caring for the children, fetching water, cooking, milking and/or cultivating. Building and repairing huts is also a woman's task [8]. In many tribes, men can marry multiple women simultaneously. Family revolves around the man: patriarchal. The different women have their own hut on the man's property. In some African tribes, the door to the women's accommodation is extremely low. Behind this door is a slightly lower wall. In this way, the woman can look outside through the remaining crack from her seated working position, without being seen, because the man, in a standing working position, cannot see inside through the low door. It is also a physical challenge for the woman to climb over the wall through the door to go outside. [9]. This emphasises her position as 'woman connected to the house' within the community. The lifestyles described are no longer embedded in the daily life patterns of the market sellers in the city. But they are evidently still rooted in their current customary codes of behaviour. These codes of conduct could change in the second or third generation, the (grand)daughters of the current market women. They distance themselves more and more from the traditional lifestyle of the 'age-village'.

Aside from culture, religion is another crucial ethical aspect in relation to gender differences. Sociological gender roles have been partly formed by theological gender models and are based on male religious experience. The religious convictions of the inhabitants of Dar es Salaam are divided as follows: 38,1% are Christian, 37% are Muslim, 19,5% are animist (ethnic religion), 5,4% have another religion or are not religious [10]. Additionally, there are those who are Christian or Muslim, but also believe in their tribal religion. The fact that religion is an important part of the market sellers' lives is discernible. To give two examples: there are significantly less sellers at Shekilango Market on a Sunday. Sunday is a day of rest in Christianity. At the Temeke Stero Market, in the Temeke district, a mosque was built next to the market to provide the Muslims with the opportunity to pray five times a day [3].

4. Interview with Jane N. Magigita, Executive Director, Equality for growth. Dar es Salaam, 05/03/2013

5. Heidi Mare, Anna Vos, Lisl Edhoffer. Vrouwen en de stad. (Delft: Delft University of Technology, 1987)

6. Fikreselassie Kassahun Abebe. Modelling informal settlement growth in Dar es Salaam, Tanzania. (Twente: University of Twente, 2011)

EXPERIENCE THE IMPROVED MARKET



Section showing the four architectural social typologies of the design for the Shekilango Market

Considering the gender differences within Christianity and Islam in Tanzania, it seems as though women of both religions experience the negative dynamics in the socio-economic domain within the religion they are associated with. Muslim women appear to have more trouble getting these rights granted to women within their religion. There is a larger gap between the personal convictions of Muslim women in relation to the broader culture of their religion than is the case for Christian women.

It is difficult to determine whether the influence of religion directly correlates with the gender differences at the People's Markets, partly due to the fact that religion is also a personal interpretation of the corresponding theology. You could say that Muslim women have a greater chance of being discriminated against than Christian women in the same position. This only says something about the women of the same religion and nothing in relation to the situation between men and women with different religious beliefs.

Gender sensitive

Promoting gender equality and women's empowerment is one of the Millennium Development Goals 1 drawn up by the United Nations in 2000. This goal was partially aimed at improving the proportion of women in paid employment in the non-agricultural sector. The idea of women's rights in Tanzania was unclear to many before that time. Since these UN treaties, the problem has been made more visible and confirmed by the government.

The interim results of the Millennium Development Goals show that, between 1990 and 2011, the employment status of women with non-agricultural related work from Sub-Saharan Africa increased from 24% to 33%. In 2012, 85% of these women were self-employed, which means they had no financial security or social benefits [11]. You could posit that these women work in the informal sector. The largest informal sector in Tanzania is the market.

In 2013, the UN Women² initiated the first gender-sensitive market in cooperation with Cameroon's Minister of Trade. This market should offer a structure that allows women to engage completely and increases income generation. Firstly, the new structure consists of a roof, which protects against sun and rain. In addition, the hygienic and sanitary facilities have been improved and expanded, such as toilets, water pumps, rubbish bins and storage spaces (including cold rooms). Specifically for women with young children, there is sleeping and breastfeeding accommodation available [13]. This enables these women to spend more hours a day at the market, which improves their financial situation. Aside from financial improvement, these interventions also create a specifically assigned place at the market, so that women don't have to be so scared of their male colleagues. A safe place with facilities where women can organise and meet each other has a positive influence on their thoughts on their political role. The informal sector is out of reach of the government. To make issues more visible, a collective voice is needed in order to be heard. This is only possible if they can organise themselves. [4].

Conclusion

The working position of the lower class woman at the people's market is currently not equal to that of the man, due to the overly prevalent patriarchal values within this population class. The woman is still regarded as a 'housewife', due to the origins of the market sellers and the corresponding lifestyle. This is enhanced by the strong religious convictions, in which theology portrays man and woman as different gender models. These cultural values have an effect on the fact that the woman accepts her 'inferior' position.

The double role of the woman, as a market seller and housewife, creates high work pressure and long (work) days, as a result of which sidelines, such as organising and activating women's communities at the market, are not priorities. Positional shifts can take place, separate from each other, in two ways in the future. On the one hand, from the culture itself. When groups or individuals from different cultural backgrounds (tribes) live together on a large scale, which the urbanisation of Dar es Salaam is inevitably causing, this leads to acculturation. Changes within a cultural pattern happen through contact with other patterns. In the long term, this can result in a homogeneous society, a new culture [13]. Because generations grow up in this 'new society' instead of the 'tribal community', the knowledge of the traditional lifestyle of their original tribal culture fades, which is why it is possible that the role of the woman as 'housewife' is up for discussion.

8. Juliet Serem. Architecture, Craftwork & Empowerment: A Craft Center for Massai Women in Kajiado, Kenya. (Maryland: University of Maryland, 2011)

9. Jean-Paul Bourdier en Trinh Minh-ha. Vernacular architecture of West Africa: a world in dwelling. (Oxon: Routledge, 2011)

10. <http://nl.wikipedia.org/wiki/Tanzania>

On the other hand, the problem is politically driven. The government of Tanzania drew up The Development vision 2025³ in 2011, part of which is 'The National Strategy for Gender Development⁴ and corresponds with the set Millennium Development Goals. The strategy should, among other things, lead to the empowerment of women and men who are equal to each other on the basis of equal pay. In addition, there should be sufficient opportunity to deal with gender inequality.

By providing training in entrepreneurship and facilitating access to profitable labour markets to women in urban areas, the government tries to change the mentality of the labour market and hopes to create an environment in which gender equality is facilitated and promoted [14].

If you project these goals onto the people's market you could posit that, in the future, lower class women will function better as self-employed sellers and will no longer accept their current positions due to a changing mentality of the prevalent patriarchal standards and values.

The need for a better work environment will be a consequence of this. To achieve this, similar women, who are sitting on a bucket in the mud, have to organise themselves and act as a community. The work environment of a community as a whole has more potential when it comes to improvement than on an individual scale. It is important that community--specific solutions are created which correspond with the specific issues of the current workplaces. Only then progress can be made with respect to equality of social classes and gender at the People's Markets.

11. United Nations. The Millennium Development Goals Report 2013. (New York: UN, 2013)

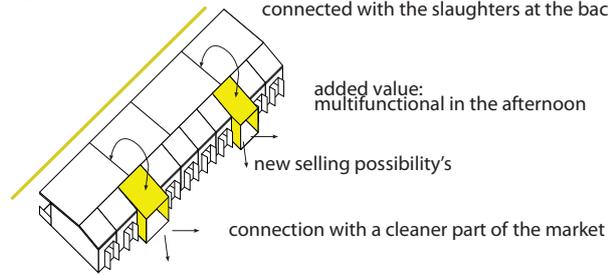
12. United Nations Information Centres. 10.11.2013

13. J.W. Berry. Globalisation and acculturation (Kingston: Queen's University, 2008)

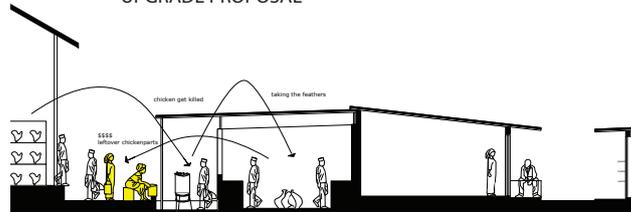
14. Government of Tanzania. 14.12.2013

project

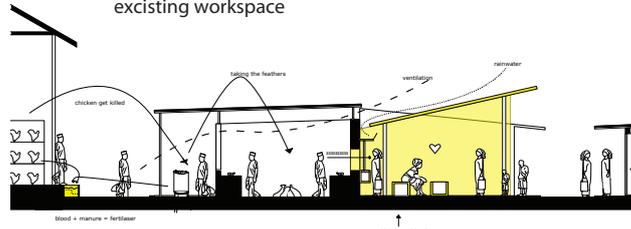
no space for these women
in the front



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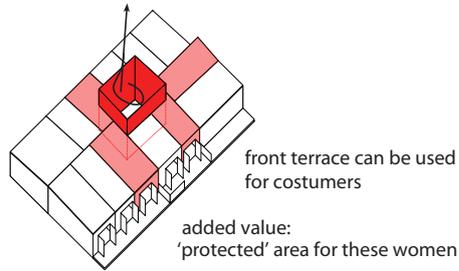


existing workspace



new workspace

central cooking chimney
connect the cooking women



UPGRADE PROPOSAL

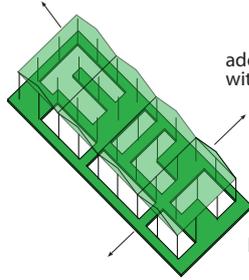


existing workspace



new workspace

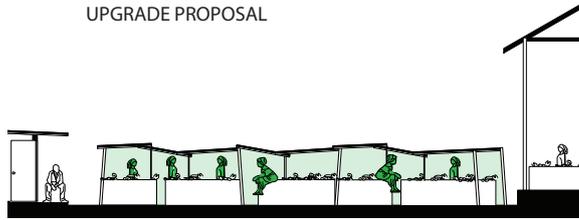
stable base and roof structure



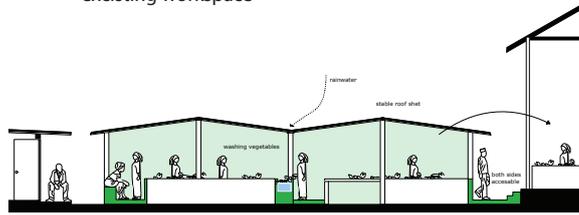
added value: streets get connect with each other

base gives structure for the sta

UPGRADE PROPOSAL

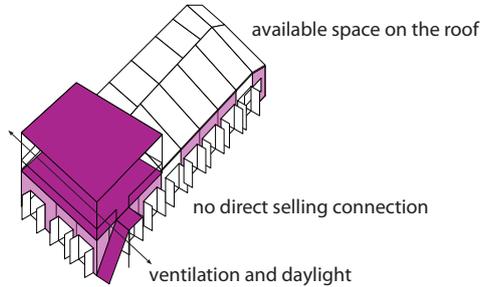


existing workspace

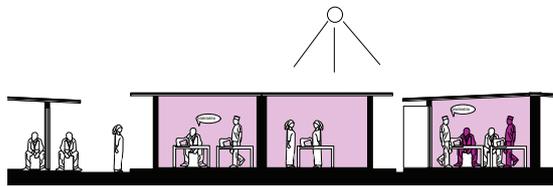


new workspace

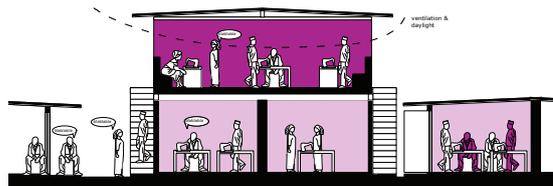
added function: dry place in the rain season (floods)



UPGRADE PROPOSAL



existing workspace



new workspace





Colophon

Han Wiskerke has been appointed Professor and head of the Foodscapes research programme at the Amsterdam Academy of Architecture from 1 January 2013 till 30 June 2016.

The Foodscapes research is developed by the Amsterdam School of the Arts

Saline Verhoeven is researcher and lecturer in the Foodscapes research group

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Master of Architecture / Urbanism / Landscape Architecture Amsterdam Academy of Architecture

Architects, urban designers and landscape architects learn the profession at the Amsterdam Academy of Architecture through an intensive combination of work and study. They work in small, partly interdisciplinary groups and are supervised by a select group of practising fellow professionals. There is a wide range of options within the programme so that students can put together their own trajectory and specialisation. With the inclusion of the course in Urbanism in 1957 and Landscape Architecture in 1972, the academy is the only architecture school in the Netherlands to bring together the three spatial design disciplines. Some 350 guest tutors are involved in teaching every year. Each of them is a practising designer or a specific expert in his or her particular subject. The three heads of department also have design practices of their own in addition to their work for the Academy. This structure yields an enormous dynamism and energy and ensures that the courses remain closely linked to the current state of the discipline. The courses consist of projects, exercises and lectures. First-year and second-year students also engage in morphological studies. Students work on their own or in small groups. The design projects form the backbone of the curriculum.

On the basis of a specific design assignment, students develop knowledge, insight and skills. The exercises are focused on training in those skills that are essential for recognising and solving design problems, such as analytical techniques, knowledge of the repertoire, the use of materials, text analysis, and writing. Many of the exercises are linked to the design projects. The morphological studies concentrate on the making of spatial objects, with the emphasis on creative process and implementation. Students experiment with materials and media forms and gain experience in converting an idea into a creation.

During the periods between the terms there are workshops, study trips in the Netherlands and abroad, and other activities. This is also the preferred moment for international exchange projects. The academy regularly invites foreign students for the workshops and recruits well-known designers from the Netherlands and further afield as tutors.

Graduates from the Academy of Architecture are entitled to the following titles: Master of Architecture (MArch), Master of Urbanism (MUrb), or Master of Landscape Architecture (MLA).

