# IDENTIFYING THE INFORMAL

A STUDY OF SPACE IN THE INFORMAL SETTLEMENT
OF BANDANI, KISUMU, KENYA
ATT IDENTIFIERA DET INFORMELLA
EN STUDIE AV BANDANI, KISUMU, KENYA

# Identifying the Informal

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## The Project

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## | Abstract

The world is getting closer, we are experiencing a time where we, if we want, can acquire information about everything. But regardless of this flow of information there are still blank spots on the map. But these spots are no longer made up of vast plains or dense tropical forests. The new unknown is situated in the outskirts of our cities, here in what we refer to as the slums the life for millions is going on without any available information. At the same time this lack of information, lack of planning is what makes the slums the informal city. In the informal city life goes on outside the formal systems, for some the slum is a place to sleep when not going to a formal work, for others the entire life is lived in the slum.

To investigate a slum are and trying to understand its conditions from a landscape perspective can help us understand and in the long run improve the life in the slums. To go beyond the clearly visible structures and look at how the slum is functioning can be a way to investigate the informal city.

Världen kommer allt närmare, vi upplever en tid där vi, om vi bara så vill, kan få information om allt. Men trots denna nya ordning så finns det fortfarande fläckar på kartan. Men dessa fläckar utgörs inte längre av ödemarker eller tropiska skogar. Det nya okända ligger i städernas utkanter här i det som vi känner som slumområden pågår livet för miljoner människor utan att det finns någon riktig information om varje plats. Samtidigt är det just denna brist på information, brist på planering som gör slumområden till just det, den informella staden. I den informella staden pågår livet utanför de formella systemen, för vissa är slummen en plats att sova för att komma till jobbet i den formella staden för andra pågår hela livet i slummen.  Att undersöka ett slumområdes förutsättningar från ett landskapligt perspektiv kan hjälpa oss att förstå och i förlängningen förbättra livet i slummen. Att se bortom de tydliga strukturerna och titta på hur den informella staden fungerar och ser ut kan vara ett sätt att undersöka den informella staden.

## 2 ACKNOWLEDGEMENTS

## 3 Introduction

The idea to investigate slum settlements from a landscape architects point of view took form during the end of my education program. (The possibility to look at an area from how it is used and not from the traditional point, as how it was intended and planned for.) The intriguing possibility was to investigate an area out from use and function, and not from presupposed architect's or planners conventions and habits of thought. After quite some preparations and applications for grants the study took off with Kisumu as field study location. The intention has been to look at how the space in between is used and how issues connected to land and space use can be solved through small measures.

But how is planning performed in a retrofit manner, where an area has developed over the years, housing thousands of people in a nearly organic structure? The problems and issues concerning slum areas, or informal settlements, have risen and affect Kisumu as the town recently was deemed a city, and is now meant to take care of its lands.

A typical approach when dealing with slums, especially by the UN or local NGOs, is that no one should have to move, there shall be no evictions. Yet there is a need for changes and people need to get a decent place to live, commonly referred to as slum upgrading. But how can this be done?
We all have our thoughts and prejudices and connotations when it comes to slums of the developing world, but is it all just a maze of corrugated steel sheds lined along the garbage dumps of Manila or on top of the freshwater pipes of north Mumbai, big, almost famous, slum settlements of the world metropolises; Kibera in Nairobi, Soweto in Johannesburg, the city of the dead in Cairo, Dharavi in Mumbai and the numerous favelas on Rio de Janeiro's hillsides.

But are the slums just about poverty, disease and lack of better options, a place to live when all other possibilities are gone, when you are at the very bottom of the society of the economy and of the hierarchy of the globe? Slum dwellers are not rich in the monetary definition, but still ordinary people live here as well performing the chores of every day life, waking up, eating, going to work, cleaning, living and dying.

As the world is getting more and more urbanized we tend to focus on the large cities and metropolises but there are so many smaller cities that also attract people from the surrounding rural areas

In the Millennium Goals, set up by the UN to change and improve the lives of the slum dwellers in the world, the focus on public space is mentioned under goal number seven Although there are no direct plans how to develop those parts of the informal settlements, still they are appreciated and should be given focus.

There has been an increasing awareness and interest in the architectural community around the world during the latest years. I can be said that this new approach of architectures is somewhat run by the Architecture for humanity movement which run projects and competitions on everything from Shelters for Afghan refugees to new housing for New Orleans displaced inhabitants. But when going through the projects in for example Design Like You Give a Damn you realize that the main focus is the building, materials and interior. The appreciation and understanding of outdoor space and the need for exterior space is rather limited. My idea is to develop the thinking around those spaces and to promote the values for being as important as any proper, traditional and formal architectural qualities. My goal has been to explore the possibilities of informal, public space by investigating the situation in the Bandani informal settlement in Kisumu, Kenya. The outcome of the work is to be seen as a point on the way to develop the appreciation for the informal space in the debate and discussion around the upgrading and improvement of slum areas, in Kisumu as well as around the world.

**❝Two parallel urban histories, closely interconnected, but visually very different, are emerging. One is the official history, represented by the explicit concerns of government and major building firms about the construction and management of the city. The other history, which is about the low income urban groups, has rarely been written about. It is fragmented and ill-recorded ❞**

*(Hardoy & Sattherwaite 1989).*

## 4 LOCATION

The main location for this project is the informal settlement Bandani in the city of Kisumu in western Kenya. Here all field research was carried out during April-June 2006.

## 5 GOALS/OBJECTIVES

The goal for this work was to relate the issues of slum settlements to landscape, space and place. Where are the places? What are the places? Who is using the place? For what are the places used?

The processing of detailed information about slum settlements and the landscapes can be a step towards a more people friendly approach to informal settlements, where the practiced use is superior to intended or lack of intended use. Another interesting challenge was to access an area that was to a great extent not surveyed or mapped. To create a map for a slum settlement became a second challenge.

In a planned city district there are usually specific intentions built in public space, together with public buildings for public activities, like squares, parks and streets. In an un-planned district it becomes interesting to discover:

-Do the public places occur in certain situations, along roads, under trees?

-Is the place a market, an open field, a bench or an intersection in the walking paths?

-Is there a predominant user? Can the place be said to mainly being used by women, men, children, workers, elderly or any other clearly defined group?

-Do the places have a certain use? Is it place

for recreation, games or football? Is the place a ground for
ongoing political debate or an informal market? Or is the site
just a place to hang out?

## 6 ASSUMPTIONS

Preunderstandings and the general opinion about slums and
the informal world.

When deciding to work with the issues concerning
landscapes, space and informal settlements I didn't know what
to expect. I sure was concerned about increasing slumification
and knew that many of the people of the world were living in
sub-standard conditions in slums in the worlds urban centres.
After having travelled in different countries I had seen some
squatter settlements and people sleeping in the streets, as well
in Delhi as in my home town of Malmö. But what the slum
really meant I only had a vague idea of. I was imagining the
dense slums with corrugated steel sheds and muddy roads,
high population density and informal markets and businesses.
But what does it mean to be a slum dweller? Is it really the
worst? What people live there? Unemployed people, thugs
or what? As the project started to take form I tired my best
to shed the earlier ideas I had about how the slums could
be, even if I can't get rid of all my prejudice, pictures and
expectations I did my best to be aware of them and not to let
the preunderstandings affect the work I am doing.

On arrival in Kisumu I soon realized that in some sense
I had gotten it so wrong, and on the other hand I wasn't
that far away from the truth. This contradictory take on the
situation seems to be in a way analogous to the situation of
the informal settlements. A situation where nothing can be
taken for granted and some of the things you know since
before can be just as relevant as at home. The mishmash, the
blend, the unpredictability is what makes the slum a slum.
The slums are an every day part of the Kisumu life, they house
a lot of the inhabitants, anyone can live in a slum, and it is not
really that strange. Sometimes the slum is a last resort and for

the poorest, but it might as well be something of a low cost
alternative, housing at reasonable rates.
Throughout the entire process of my writing and thinking I
keep confronting myself with the issues concerning my role
as a planner and landscape architect. A thought that keep
affecting me is what kind of right and mandate I have to
think and have opinions about a settlement far away from
my home and my culture. After some reading I realize this is
nothing new, those thoughts have concerned people before
me. As Indian architect Charles Correa puts it;

"the architect must have the courage to face disturbing issues.
For what is your moral right to decide for ten thousand, for
a hundred thousand, for two million people? But then what
is the moral advantage in not acting, in merely watching
passively the slow degradation of life around you?"
**(Serageldin, 1997)**

This thinking has inspired me through hard times of the
project process and is a strong argument for keeping up the
work. I think architects, landscape architects and planners
must be active in questions of housing and every day life as
well as creating the latest when it comes to construction. We
as professionals must take place in the debate of the third
world and not leave the future of the periphery in the hands
of economy, negligence and luck (or the lack there of ).

## 7 METHODS

The methods of this work involve as well literature studies as
field work and computer based analysis of map data.
For the field part of this work Bandani was thoroughly
investigated from the point of buildings, fields and
vegetation elements through field observations. The material
collected through the field observations were then put into
a Geographic Information System allowing for performing
analysis and calculations. Apart from the geographical
information interviews were performed among eight people.
The interviews are not to be seen as a representation of
the views of all the Bandani inhabitants but can work as
interesting reference material, showing important aspects
and angles of life in the slum. Even if not planned in this

situation, such a sample of interviews could act as a basis for a more thorough study. showing important aspects and angles of life in the slum. Even if not planned in this situation, such a sample of interviews could act as a basis for a more thorough study

Plenty of time spent in Bandani was used for getting the overall view of the area. A big challenge was to being able to take notes and observe without annoying and changing the behavior of the inhabitants. Soon our presence turned into the center of all attention and it was a close to impossible to be unobtrusive when observing and taking notes.

The ambition with the maps was not to reach an exact scale representation of the whole area. It is more to be seen as a methodological experiment, where we tried different ways of mapping an environment, which not consisted of any for us earlier known structures, natural or built-up. The aim was to use the mapping as a tool to understand – not to reach a scientific reliable result.
Methods

## 8 Field inventory;
### Boundaries
When finally deciding to focus the studies to the area of Bandani in North Western Kisumu the time consuming work to limit the area and to get as much information as possible took form.
The first couple of visits to the area were focused on getting to know the area and to, in some sense, understand the boundaries of Bandani. The later turned out to be a tougher task than expected, the area is divided among many lines and depending on who is supplying the information the area varies a lot. The planning department at Kisumu Municipality defines Bandani much broader than Mugaano and later on it turned out that the inhabitants of the area defined Bandani much slimmer than all others.
In order not to go to deep into the definition of which are is Bandani it was decided to use the areas defined by Mugaano in their enumeration process, with the adjustment for the very eastern parts where the border for study was made along the road running east of the sewage treatment plant, across the drain and north. The availability of map material also contributed to the decision of where to draw the boundaries.

### Data collection
In order to refine the way Bandani is configured a site analysis was carried out. Feeling from the beginning that there was rather limited time to perform site studies as after a while our presence would create a bit of disturbance to the community, this later turned out to be pretty much the truth.
The inventory was carried out first by going through the area to familiarize with the place, to find connecting roads, a knowledge that was essential to further divide and map the area. After a few days of "loose" work the inventory was structured in different map pages over the area. The base maps that were used had only buildings that were enumerated by the Mugaano, their maps in turn based on traced Quickbird satellite images from the Municipal planning department of Kisumu. The intention first was to use GPS waypoints to draw boundaries and sites, but accounting for the 10m error on GPS systems in general and another 15m consistent error of the base material used a decision was made to do the mapping by hand. Maps were printed out and carried

along for the inventory task. These maps included houses and atop of that we had traced the vegetation clearly visible in the Bandani Quickbird satellite image. By doing this you got a reasonable high level of accuracy, finer than the 10m error in the GPS system. This also made the mapping and information gathering quicker and more flowing, which turned out to be of great advantage when being on the move in Bandani.

## MAPPING

First the different map pages were walked thoroughly and documented through digital photography, where every photo point was given a corresponding point on the map, together with an arrow, indicating picture angel at the specific location. Through this thorough process vegetation and paths was mapped in order to more clearly and accurately represent the area and create a database of the space and space dividers of the area. Vegetation elements were divided into crop fields and tree volumes and field data together with image data helped in creating a more complete picture of the site.

## PROCESSING AND STORAGE

After returning back to from a day's field work the data was fed into a GIS file database. All elements found during the field observations were added into separate layers in the GIS database. Locations of pictures were also recorded in a database, this gave each photo point a corresponding picture and an angle in which direction the picture was taken. This data proved to be valuable for using when returning home for report writing as the clear documentation simplified analysis and design decisions. The picture and map database was also a valuable resource for the NGOs supporting us through the work. Discs containing all the gathered information were handed over to the Municipal planning office and Muugano before departing for Sweden.

## SPECIFIC SITES

To further deepen the understanding of the area a sheet with a certain number of criteria was constructed. The sheet was formed to give some material that allowed for comparisons between the different sites. The different characteristics of the sites can be seen on several places in Bandani, this makes

**"Slum is a loaded term, and its horizon of emotion and judgement comes from outside. To call a neighborhood a slum immediately creates distance. A slum is the apotheosis of everything that people who do not live in a slum fear. To call a neighborhood a slum establishes a set of values –a morality that people outside the slum share –and implies that inside those areas, people don't share the same principles.**"

*Roberth Neuwirth 2005, p. 16*

the site inventory a base for the different housing and space typologies of Bandani. A total of sixteen specific sites were investigated in order to compare their visual, social and environmental characters.

## INTERVIEWS

A part of the project was to interview a number of people in Bandani in order to give a deeper understanding and to confirm or put off different ideas and thoughts that had come up during the field inventory. The whish for interviews were presented to one of Bandani's chairmen, Aaman and he promised to set us up with a number of subjects that could help. We clearly presented our whish for questioning both men and women as well as from different groups of the area. When the day for the interviews arrived we got assistance in translating by Isa, Suleyma and Bilali-Hassan who guided us during the day and helped in sorting things out. The varying background among the guides/interpreter allowed for access to various people and areas that would have been impossible without their help. As well Christian and Muslim areas were visited and females and males were interviewed. One negative issue among the interviewed was that none of them were tenants, which gives the material quite a slant in favor of the land owning people of Bandani. Still the Interview set up allowed for documenting and observing tenant quarters as we had the possibility to get closer to the houses and got into the private space of the housing areas. The interviews also showed interesting facts concerning the keeping of animals and how people observed the situation in Bandani.

## PRESENTATION ON SITE

After six weeks of field work and preparations the collected material was assembled and put together in a legible way. This material was then printed for presentation and display in Bandani. All people spoken to during the field work was invited to the presentation, the presentation was organized outdoors close by the market area, sodas and biscuits were provided as well as seating, in total the occasion attracted roughly a hundred people. The presentation consisted of a map of Bandani and the analysis of the different sites. During the presentation time a possibility was also given

to ask questions and to clarify intentions and ideas, after presentation the material was handed over to the community as a reference for future use. Some issues were raised around our intentions and if there would be any constructions or upgrading done. Eventually all issues were solved and explained thanks to a great backup and translation from the crew at Mugaano.

## LITTERATURE

The literature studies covers sources related to the topic of the thesis. This involves raw facts and data as well as theories and concepts. The readings also include non-academic references that have provided inspiring material and viewpoints. The combined literature gives a substantial background information that allow for a collage like approach to combining text and theories from people exploring the informal world before me. Among the literature I base a lot on are; the study by Godfrey Anyumba, Kisumu town: History of the built form, planning and environment: 1890-1990, Mike Davis', Planet of slums, relating to the slums of our planet.

# 9 Informality
## Theory on informal space

The slums of the world fascinates at the same time as it frightens, the phenomenon of a "free" and haphazard society dependant on the society we know have inspired to many aphorisms of slums reflecting the unknown and exciting, from "The Informal City" "Illegal City", "Squatter City", "Shadow City" all being titles of literature referenced for this work. Whether the informal settlement of Bandani could be considered any of the above is a matter of definitions, as far as I can tell it is there right in the sun, not too shady and the legality could also be verified to a big extent, the houses are on subdivided land, apart from some encroachments on railway reserves, so no real squatters either that is. But still the informality persist, the city that is in limbo, for sure present at the place but disputed and not clearly defined, known or accounted for.

When settling to focus on the informal space in the informal settlement I had an idea to value and speak for the informal spaces in the informal settlements, thus the title; Identifying the Informal. Soon I ran into issues around informality and the space that surrounds us. This applies to the use of the conception "informal" and "informality". the use of the concept is also evident when it comes to discussions around economy. The term informal economy refers to the part of the economy that is not accounted for in tax budgets, that doesn't pay tax or doesn't allow for any sick-leave or secure employment.

In "the informal Ctiy" (1994) Michel Laguerre presents the concept of raw versus cooked informality, the use of these terms simplify the approach a bit. As the term raw informality Laguerre defines the informality as; "a form of informality that is not purposefully created by the formal institutional system" although he applies this to a firm or a business this still awakes some interesting thoughts. The term "cooked" informality is applied to planned informality, like dressing down or to behave informally. So then how can these terms be used on issues of urban configurations? In order to structure the different aspects of informality those

terms come in handy. In order to distinguish the informality experienced in the slums from the kind of informality known in parks or planned "secret places" I let the "raw" informality stand for the informality I discuss throughout this project, an informality not created by the formal system for its purposes, still it may be a product of a failing formal system albeit a passive product created more through negligence and lack than constructive forces.

It seems like the term informal is used as soon as something is happening outside of the frameworks set by our dominating culture. The term informal economy emerged from the concept of traditional economy, a concept that may have made sense in a time when this economy was traditional, trading traditional goods and services. But today's informal economy ranges from shady, vice-like trade in goods and services with unknown origin to the surely necessary and innocent recharging of cell phone batteries in a roadside stall. The formal city can be said to consist of the cities we think of when plainly talking about the city, streets, parks, houses, offices and signposts, the language and terminology that make up city. So let us assume the term informal can be used to describe the networks, patterns and ideas that fall outside of what can be seen as modern or for that sake what is conceived as traditional or vernacular.
Might be that the informal can be wedged in between how we want things to work and how they once worked, in a limbo between now and then. Some kind of anachronistic phenomenon, leaving road side traders selling cell phone calling cards or imported cigarettes, a close to weird situation where the globalized economy meets the most small scale, vernacular form of entrepreneurship.

Applying this discussion of informality when it comes to settlements also places us somewhere there, in between the two different dogmas, the modern glittering utopian, maybe westernized in some aspects and the vernacular, traditional, mud huts and farming. Here it becomes clear that for some reasons the informal settlements lies outside of the planning frame work, set up by the legislation, law and tradition of the city and the state. The reasons for these settlements can be numerous, and whether they are considered illegal or not

is more a matter of legal approach than a matter of their status. By letting theses settlements being informal they are somewhat accepted as a component of a place albeit outside of what is considered the frames of tolerance. The tolerance discussion can also be taken from two directions, the lack of tolerance can come from land owners or investors that find they need the occupied land for some other use than an informal settlement. But the lack of tolerance can as well come from a more humanistic side, as when NGOs decide to work with slum upgrading issues or when the UN-launches the "cities without slums" project. This being some kind of positive intolerance and in fact the contrary to evictions and slum clearing, an initiative to improving the lives of the slum dwellers.

Say somehow that the informal settlements are a part of an informal economy, as the formal city is a part of the formal economy, with banking buildings and real estate markets. There is still a bit of a contradiction here, as the formal city, how it looks toady still owes something to the informality, the street vendors or taxi rides and the vice versa when realizing that tenure and housing in the informal settlements can be provided by formal investors, investing on the other side of the formality border. Tranberg Hansen/Vaa (2004) sees

**" In contrast to the informal city, the formal city consists of the urban government and its agents, institutions and rules and regulations that over the time have been introduced in order to control urban space and economic life "**

*Tranberg Hansen & Vaa 2004, p.8*

the informal city not only as a city for the poor, but also a place for formal investors to make a quick profit through constructing inferior housing and subletting at high profit.

So despite the differences between informal and formal society they depend on each other, having an intimate relationship bordering to some kind of symbiosis. It might be that the two can exist isolated lets say in an extremely ordered environment as Disney Land ® but looking further there is probably an informal slant to it even there, maybe the auctioning of entrance tickets through an internet auction or you have traded them for something else, the informal economy of internet?
In this work I focus on the informal economy as what is practice in Kenya in this case, where it is interwoven in the society as taking place and providing with some kind of

casual day jobs and consumer services, but not providing sustainable services, secure employment or tax revenues.

In "The Architecture of Empowerment" this years (2006) Nobel Peace Laureate, Muhammad Yunnus, a well known advocate of the poor, emphasizes on the empowering factors of a proper and well figured out architecture, planning and design. He points to the fact that a there is a need for further cooperation and cross breed among social activists and architects, as for my concern, building as well as landscape ditto.

## Slums of the world

The slums of the world are growing, all statistics are pointing towards that the increased urbanization is creating large slums all over the developing world (UN-Habitat 2005)). Mike Davies (2006) points out the slums of Asia, Africa or the Middle East as the cities of tomorrow, where million of people will live in the years to come.

Indian architect Correa shows a provocative picture, catching the icons of the century just passed and the present. Here a characteristic mushroom cloud of the nuclear explosion is set to represent the 20th century while a picture of a seemingly endless sprawl of shacks are set to be that of the 21st century. The picture is disturbing and provoking but might lead us somewhere. Going from a century focused on technological development and the way man conquers nature and can use the power of the goods, to that of the third world city, where the development seem to have created a backwater. But it might also, looking at it from today's perspective, remind us about the new globalized world where we can (if we want to) learn to know everything about everything, we are closer each other now than ever before.

In 2001 6% of the urban population in high income countries were slum dwellers, the number in low income countries was as high as 78% (A home in the city, Pietro Garau, Elliott D. Sclar, Gabriella Y. Carolini, 2005)
But when looking at the statistics and information of the world and the current ongoing urbanization and slumification, you realize that everyone cannot live in the

metropolises, sure there are huge numbers of people in Cairo, Nairobi, Mumbai or Karachi. But what is in between the farmlands of yesterday and the mega cities of today. Davis argues that the city of tomorrow is the squatter city, where endless slums sprawl the instable mountainsides of Rio or along the garbage dumps of Manila, but still this problem isn't confined to the well known cities of the world, there is massive slums in all the middle sized cities as well where Kisumu in this work is set to represent this medium sized cities and their problems.
Maybe should all urban centers with more than 250 000 inhabitants should be considered large. The size is to be put in context, what is big in one country can be a minor centre in another (Hardoy & Sattherwaite 1989). In the case of Kenya Kisumu is the third largest city and a major urban center.

Tranberg Hansen/Vaa (2004) divides the informal settlements into three main categories from illegal occupation over illegal subidivision to house construction in conflict with building codes and planning regulations. Hansen and Vaa recognizes that the first and second type often coincide with the third kind, and admits it is hard to draw a clear line between the three. I the Case of Bandani the character of number three and two are the most evident, still there is an issue where the subdivision of land is not done in an illegal way, it is just a bit out of hand and the municipal planning department poses no tools in dealing with the issues. The aspect of downright occupation is also evident in Bandani on the Kenyan Railways rail reserve, this kind of potential threat and problems associated with it is mostly an issue for the market area along the Busia road but also on the dozen or so family houses on the northern side of the tracks. As recognized the true presence of informal settlements in Africa varies a lot from case to case, leaving the informal settlements in a typically vague state of informality, where it is hard to squeeze the informality into a frame set by formal, academic or infrastructural concepts, just as described by Laguerre (1994).

# 10 Transforming the slums

The UN has initiated numerous initiatives on taking on the slums and trying to make the lives of the slum citizens better. This process is called slum upgrading and is set to meet the millennium goal number 7, target 11, which is to improve the lives of slum dwellers. But is this process focusing in formalizing the slums, and upgrading them on the sliding scale of formality or is it a matter of introducing amenities that can help. The millennium goals focuses on the upgrading when it comes to bring in hardware and improve the standards. An inevitable result of improving, for example, water and sanitation that will result in better services for the community and at the same time formalizing the handling, the water will probably not be for free and the money made through selling the water will be reinvested (at its best) in new water projects. The process of formalization will also go on as result of monitoring of interventions, follow ups and documentation. This process is then a form of reformalizing of the slums, where the informal settlement gains a formal acceptance and a level of legitimacy.

When combining the aspects of public space and the need for improved lives for the slum dwellers you realize there is a great need for a long term view in the development for the settlements. Correa (1985) have through various projects investigated the need for the outdoor space. He elaborates around the fact that in India the outdoor space is a relatively underutilized resource in a location where the outdoors is a perfectly functional space when it comes to extended household work. Ismaïl Serageldin (1997) relates to the favorisation of repeated structures that are evident among previous upgrading and low cost projects and poses the technocratic approach to solving housing and shelter needs. But what if the buildings were left out and a set of rules or notes were put up to let the outdoor-, private space form the settlements instead the organic growth of the absolutely informal settlement or the clone-like patterns of the dwelling initiatives from NGOs or government plans.

**"Squatters trade physical safety and public health for a few square meters of land and some security against eviction."**

*Mike Davis 2006 p121*
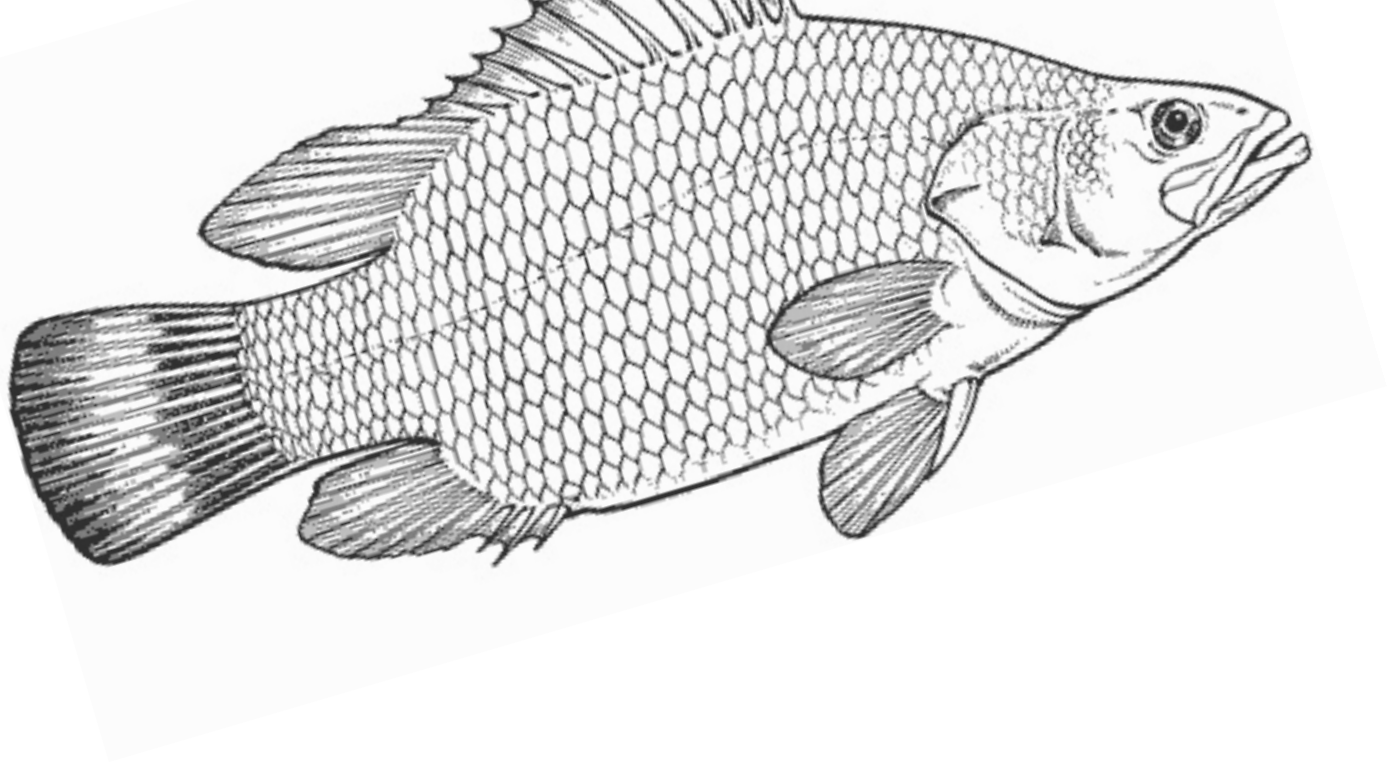
# KISUMU, THE CITY BY THE LAKE

## II Kisumu

As the third biggest city of Kenya, Kisumu is a population centre in the densely populated central area of Kenya. Kisumu is the capital of the region of Nyanza and has an estimated population of around 500000 (UN-Habitat, 2005). The former town, today the city, of Kisumu is situated on the shores of Lake Victoria in the Winam Gulf, a bay in the lake's north eastern corner. The city is located at the lake front and on the hilly lands just by the lake.

As most cities have their own character and particular history of great complexity and interest, Kisumu shows some interesting features that makes it stand out among others, or just line up together with other mid-sized cities? Interesting is how Lefebvre argues in "the right to the city" (Lefebvre, 1968) that there is such a thing as a pre-capitalist city, Kisumu poses none of these qualities. The emerge of Kisumu is clearly related to the early industrialist society and the colonial powers search for raw material and strategic outposts, the existence of Kisumu as it is today is a matter of earlier days of colonialism and capitalism (anyumba, 1995).

Kisumu was established in 1898 as a terminus on the newly built Mombasa-Kampala railway, where the railway hit Lake Victoria it was decided that a station should be built. It was for a short period named Port Florence, but the official name changed to the local place name Kisumu. At that time the area of today's Kisumu consisted of six villages and a market place. Over the years Kisumu developed into a colonial town with a European and Asian settlers. (Anyumba, 1995). The city borders were shrunken in the 1930s for the colonial government to allow easy control of the city. In the late 1960s, after independence the city boundary was expanded to include all of the areas today included in Kisumu.

### Population

Although the population statistics of Kisumu are somewhat unclear and varies greatly over the years, as mentioned today's estimates are around half a million (UN-habitat 2005), but data from 1990 states around 190000 inhabitants (Anyumba, 1995). Godfrey Anyumba notes in his study, Kisumu Town (1995) that the statistics available are unreliable. This much

because of the colonial rulers' low interest in making accurate data on the numbers of African inhabitants. Their focus was mostly to control the number of Europeans, and to some extent Asians, that lived in Kisumu.

A striking example of this is the lack of data on the population history of Kisumu, divided by ethnicity and with only estimates for Kisumus's African population.

There are some censuses done over the years, but because of the independence and expansion of the Town borders the data becomes very inaccurate and not suitable for any further conclusions. Still it can be said that Kisumu have over the time developed from a few villages, into a colonial port and to a major urban centre in Kenya, looking at the figures for population growth, despite the biased sources and the border expansion, a steady growth is visible over the years. The evidence for this is the presence of Kisumu City on the banks of Lake Victoria.

## Geography

Kisumu is wedged between Hills, just north of the city and Lake Victoria to the south-west. This part of the Lake is known as the Winam Gulf connected to the Lake by a 5km straight to the west of Kisumu.

To the east stretches the Kano Plains, a part of the flat highland area. Kisumu is situated on an altitude of 4000ft just south of the equator, the city's northern border is more or less the equator (Anyumba 1995)

## Built form

The built form of Kisumu varies substantially from the different parts of the city. The downtown area poses some typical colonial style architecture with two or three storey houses lined with arcades, protecting people from the sun and heavy rainstorms. The downtown area have also had some buildings constructed after the end of colonial rule, this includes shopping centres, banks and office buildings. The characteristic urban architecture lasts only for a few blocks and then the character is diluted into a more of a sub urban character with single houses. The single housing units range

INDUSTRIAL AREA

KIBUJE, MARKET

UCHUMI, SUPERMARKET

JUBILEE MARKET

MEGA CITY, SUPERMARKET

BUSSINESS

AIRPORT

DOWN TOWN

TOM MBOYA

KONDELE

MILIMANI

LOCATIONS
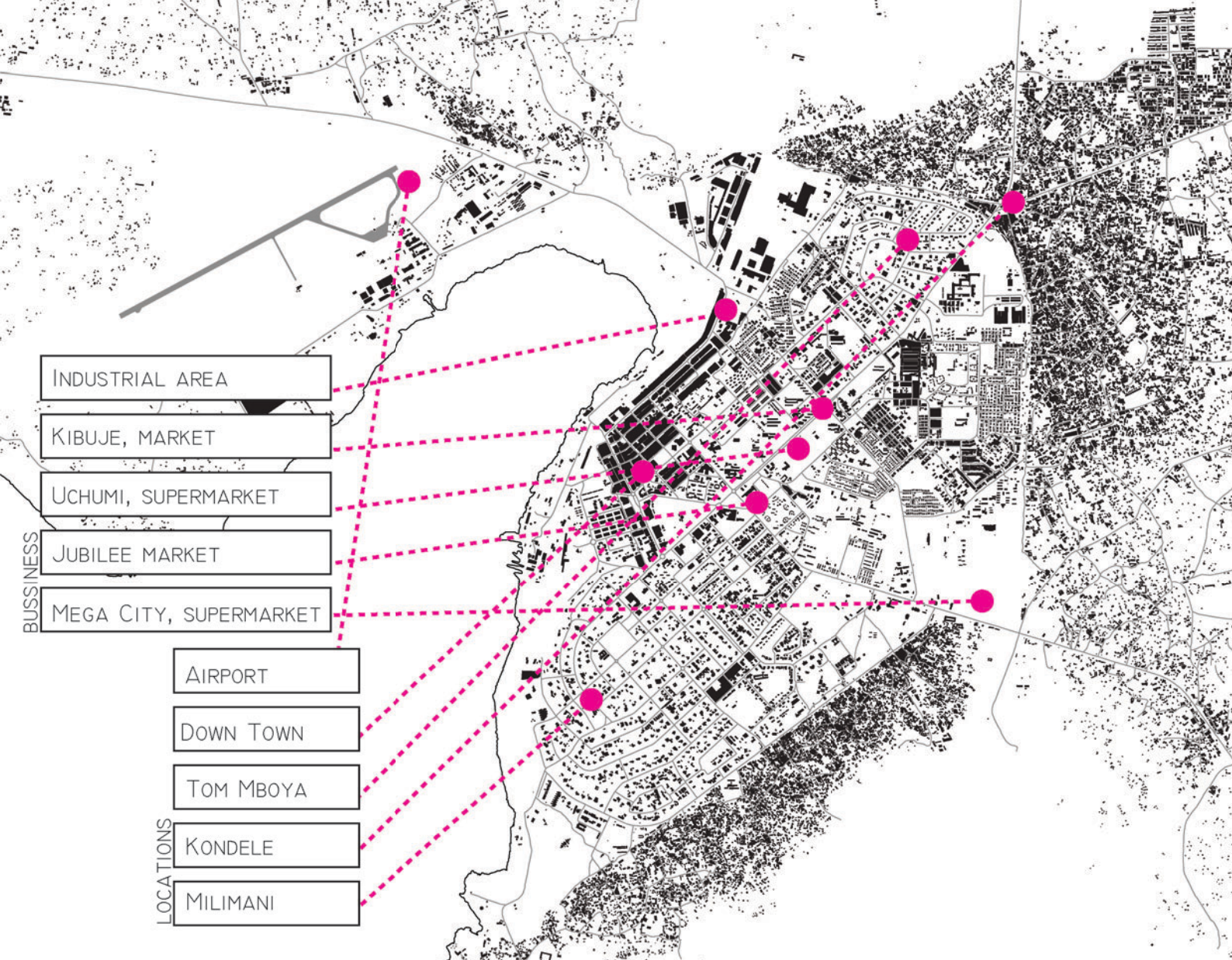
from the huge bungalows of Milimani to small one room houses of the different "estate" areas. Within the semi sub-urban area are also the more traditional market area of Kibye and the two recent supermarkets of Uchumi and Nakkumat. Outside of those developments is the slum belt, which is surrounding more or less the entire city with informal housing development, the different settlements take over where one ends creating a barrier between Kisumu and the surrounding land. Few developments have taken place beyond the slum belt with exceptions of the Kenya Re housing area west of Kondele. Kisumu had in its early days a garden city approach to how the city was to be built (Anyumba 1995,

UN-Habitat 2005). But as in many other cases of colonial town development the thoughts of the garden city rendered not much more than some green areas for the city's wealthy classes (Hardoy & Satterthwaite 1989).

A striking feature of the city is that its location doesn't have much to do with the relation to the lake. The only access to the lake is by the end of Oginga Odinga Road, where vehicles are washed and fish catches are landed and by the harbour piers, where occasional ships arrive and depart across the lake.

# COMMUNICATIONS
## GETTING AROUND

## COMMUNICATIONS
## ROAD

Major roads are connecting Kisumu with Nakuru, Nairobi, Eldoret and Busia. The main entry roads to Kisum are the Jomo Kenyatta Highway which is running north-south connecting Kondele to the central areas of Kisumu. The Highway is splitting into the Kakamega road and the road to Kibos at Kondele. When coming form Nairobi you enter Kisumu on the Nairobi road from the east and the third point of entry is the Mumias road, entering Kisumu from the west, passing the airport along the railroad to Busia.

The central parts of Kisumu have a grid like street system, of paved roads. The main road down town is the Oginga Odinga road, running north-south in the downtown area. The blocks in central Kisumu are defined by the grid of roads. The further away from the citys central areas you get the further away from the grid system you get. Along the western part of the city the Nyalenda ring road is running between the Milimani residential areas and the informal settlement of Nyalenda, this ring road connects in the north with Ondiek highway and the Nairobi road and the road connecting to Kondele. There is no real road connection between the city and the lake, apart from

the above mentioned fish landing spot and the restricted port area. Road networks within the different housing areas are varying greatly from tree lined streets in the Milimani area to the network of footpaths in the city's informal settlements.

## RAIL

Kisumu was founded as a railroad hub on the Nairobi-Kampala railway line. The railroad is entering Kisumu from the north, reaching the station area just next to the harbour, at this place a small shunting ground is also placed allowing for transfer of goods from sea to rail.

The use of Rail today is rather low and is more or less limited to the twice weekly train to and from Nairobi, carrying passengers. There used to be a service running further westward, towards Busia and Uganda. This service is now suspended a lot due to more effective railway lines connecting Nairobi to Kampala through the Nakuru-Eldoret route. Although the railway lines are still present and there are no plans to end the service definitely and tearing up the tracks, so the traces from past transport is still very present (se about Bandani) leaving town to the west.

## WATER

Despite Kisumus's strategic location right on the lake regular traffic is somewhat nonexistent. Occasional boats transport goods to and from the Kisumu Harbor, but there is no regular traffic as there used to be up until the 1970s. The decline in traffic on the lake was partly due to the economic problems in the 70s but also to a large extent a result of the large amounts of invasive water hyacinth, clogging the harbors making it impossible to use the lake for transport (Anyumba, 1995). Today many of the freighters are stuck in the Harbor partially overgrown and half submerged.

## AIR

Despite the feeling of Air travel as a wonder of the modern world, the arrival of air bound transport was a part of Kisumu´s early development. The first planes arrived landing on what land was available or on the great lake. Later the traffic increased and an infrastructure for the planes was arranged. The aerodrome was built in the 30s and together

with that runways and hangars. During the first half of the 20th century Kisumu´s location made it a convenient stop on the British air route connecting London and Cape Town. Later scheduled air service was established in Kisumu as well as a squadron of the British flying boats, belonging to the Royal Air force. Today the airport is serviced by a few scheduled flights a day connecting Kisumu to Nairobi.

## Economy

### Major factors

Kisumus's location as a centre in the Nyanza province makes it a regional centre where trade and business is concentrated. After economical stagnation from the late 70s Kisumu is catching up economically. During the hard years a lot of the big factories in Kisumu, such as the Kenya Breweries and the Cotton Mill closed down, today some of the industrial production is starting up again. Among other large economical factors are the fishing industry that provides Kenya as well as the rest of the world with fish from the lake, the primary species being Nile Perch and Tilapia. Another part of the local economy that makes big impact on the city is the petroleum products transporting. Oil is brought in from Mombasa through pipelines and in Kisumu, just by the airport, the oil is loaded onto trucks for further transport to Uganda and Rwanda. Major trade in Kisumu is done at the Kibuye Market along the Jomo Kenyatta Highway, there is also a vegetable market, the Jubile Market just north of down town. Modern style shopping gallerias are seen in the downtown area and Kenyan supermarket chains have outlets on the city outskirts.

### The informal economy

Apart from the formal economy the informal sector in Kisumu is always present, from the fancy areas of Milimani to the slum areas. Small stalls are set up, selling necessities. Many young men are making there living as boda-boda drivers, ferrying people around town on the back of a converted bicycle. But the informal economy also has a larger impact on the city. Just next to the stores selling brand new cars there are workshops with self learned mechanics, known as "Juha Kali". The Juha Kali tradition affects all different preffesions, meaning there are a large number of not formally trained professionals in everything from painters to computer specialists.

kisumu town
references

# 12 Reference areas

## Down town around Oginga Odinga Road

Location; the downtown area can be defined as the area stretching from Achieng Oneko Road in the south down to the lake and from the Railway station to Otien Ooyo street in the east, but the clearest down town character is fiound along the Oginga Odinga road. Running from the southern roundabout down to the lake in the northern end.

History; -

Configuration; The original down town area is built up of housing blocks lined with arcades shading pedestrians from rain and sun. Through the blocks of the arcade houses run smaller back alleys for deliveries and such, which today more seem to be used as garbage dumps.

Land use; The true downtown area is built up. Around the central square some plantations, as well as along some of the newer buildings. The Kenyatta Sports Grounds in the central parts of town allows for sporting activities as well as a relaxing stroll.

Informal space; Behind the Oginga Odinga road there is some areas that have a clear informal character.

Transport; network of roads, suitable for vehicular traffic. Trucks tend to take the route through the city as a result of the good roads.

Formal Economy; The down town is dominated by formal employers, ranging from banks and money transfer offices to the hardware stores of the towns northern end. Two shopping centres of Mega Plaza in the southern end and Swan Centre in the northern end of Oginga Odinga road.

Informal Economy; the most striking signs of the informal economy are the numerous Bodabodas running up and down the streets, but there are also many street stalls selling hand made rubber stamps, fruit and bootleg CDs. On the back side of the Oginga Odinga road many stalls and small restaurants are offering frid fish or nyama choma.



ALLEY   ARCADE   ROAD   ARCADE   ALLEY
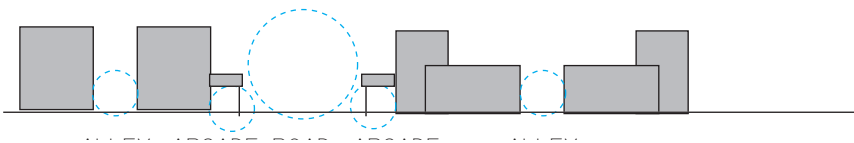
## Industrial area along Obote and Makasembo Road

Location; Along the shores of Lake Victoria going from Down Town towards Busia and Bandani, access to the water is though interrupted by the railroad tracks.

History; -

Configuration; Industrial estates along the Obote Road next to each other, densely built along the wide road. The individual industries are creating a wall-like mega structure along the entire road creating an extremely defined road space. Parallel with the Obote Road runs the Makasembo Road, which is the main car mechanic centre in the area. The two roads have their own very typical character.

Land use; The wide Obote road seconds as a loading and unloading place for trucks, as well as a showroom for some of the new car dealers along the road. Hordes of workers assist in reliving heavily loaded trucks from their load of iron bars

or concrete bags. Along the Makasembo road the land use goes from small restaurants, catering for the day-labourers in the area, to workshops and junk yards.

Informal space; Along the entire Makasembo road the left over pieces of land creates a continuous informal space that act as everything from sleeping places, food stalls and car dismantling.

Transport; The area is not connected to the local Matatu network, but long haul matatus heading towards Busia take off from the gas staion on Makasembo road, on their way to the central bus stand in town.

Formal Economy; Well established stores and industries along Obote road. Services are concentrated around framing supplies, engines, mills and chemical products.

Informal Economy; The informal economy is most present a t the Makasembo road, where particulary all of the ongoing work has a Juha-Kali feel to it, there is probably a strong symbiosis between the two economies in the area.



VAREHOUSES          ROAD                    ROAD      WORKSHOPS
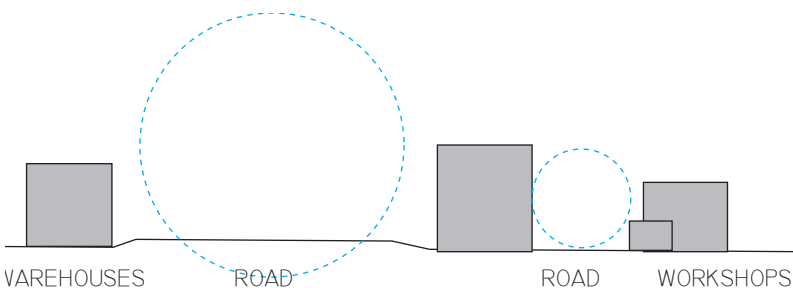
# KONDELE

Location; Northern part of town at the Jomo Kenyatta
Highway.

History; -

Configuration; Dense building offset along the Road, one to
five stories high. Buildings stretching into the block creating
spaces in between. The facades do not reveal what is lying in
behind. This is Kisumu´s number one entertainment district.

Land use; space in front of buildings used for parking,
waiting and some business.

Informal space; front space where matatus stop and take off.

Transport; main road towards Kibos, lots of vehicular traffic
blended with bicycles, handcarts and roaming people.

Iormal Economy; Lots of shops, real estate agents, bars,
restaurants, taxis

Informal Economy; Bodabodas, small stalls selling snacks.



HIGHER BUILDINGS    ROAD    LOW BUILDINGS
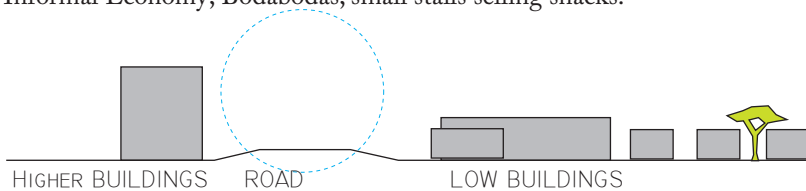
## Milimani

Location; Southern Kisumu on a ridge, making the area dry and less prone to flooding and factors associated with this, such as mosquitoes and malaria.

History; the home of the town's European population from the early 1900s. today the citys upmarket residential area with large single family houses. Today A lot of NGOs using the houses as offices

Configuration; housing area with mostly detached housing, large gardens and large houses.

Land use; residential, gardens, roads. Roads lined with ornamental plants and lawns in different condition.

Informal space; roadside places, allowing for small businesses, rest for Bodaboda riders etc.

Transport; good road network allows for car use by residents, Matatu #4 passing through the area linking Nyalenda with down town.

Formal Economy; No formal retail, some houses used as offices.

Informal Economy; Roadside stalls, soda shops, bodaboda riders, some animal grazing along the roads, guard training



GARDEN      ROAD      GARDEN           GARDEN      ROAD           GARDEN
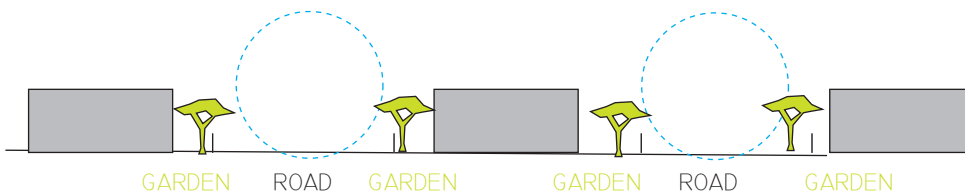
THE SLUMS OF KISUMU
INFORMAL SETTLEMENTS IN THE CITY

# 13 The slums of Kisumu

## Background

The slums of Kisumu, often referred to as the informal settlements are mostly concentrated in the mentioned "slum belt" forming a open ring around the city. Apart from the settlements in the belt, a number of smaller settlements are found within the urban fabric, those settlements are Manyatta Arab and Kaloleni. In the Slum belt the different areas are Nyalenda, Manyatta A and B, Obunga and Bandani.

The understanding and interest for the city, in the context of urbanization and slum expansion, have boomed over the world during the last couple of years with architects and planner doing projects and workshops focused on crisis sites and war torn cities.

The decentralized network of Kisumu´s slums
The history of the slums dates back to the early days of colonial rule. One of the reasons for the slum belt development can be found in the early division of the town in 1908 as a result of an outbreak of bubonic plague. It was then decided to divide the town into three zones, A, B and C. Zone A was the residential zone for the European elite and zone C was the living areas for the African population. Zone B was to act as a buffer zone between the two. After independence block B was included in block A and became what today is the central city (UN-Habitat, 2005) with a certain level of infrastructure and amenities.

When looking at the central parts of town, you are stunned by the grid like layout that is present in the entire downtown area, how can this coexist with the haphazard structure of the nearby informal settlements. Sure there is a structure within the slums, but it is so disconnected to the visual structure of the city. The building and road layout of the informal settlements seem like a dense representation of the rural structures in the Luo lands around town, where single dalas are scattered over the plains.

The emergence of the informal settlements in Kisumu has its roots in the days of British colonial rule. When the Brits were ruling Kenya, from the early 1800s to the 1960s they focused on retaining people within their towns, and keeping the outposts that the urban centers of Kenya constituted. The colonial government banned any Africans from living within the city and thereby created an incitement for the slums to form.

The vagrancy act was used to exclude Kenyans from the city altogether onto areas on the urban periphery.
The initial development of urban areas was thus highly controlled (Fernandes  & Varley, 1998 ).  Even if blatantly repressive aspects such as pass laws were abolished at independence, zoning laws, building standards, and many other planning regulations have remained on the books in several countries. (reconsidering informality, Hansen Vaa 2004)

By the time of independence the boundary of Kisumu was more or less running right between the formal, colonial city and the informal settlements. The border was then expanded in 1972 this included the informal settlements in the city, giving the population censuses more accurate data on the city's true population. But even if the surrounding areas were included they were not planned for in any sense. In the end of the colonial days and after independence people moved to the city from the surrounding areas, resulting in a growing population in the informal settlements, this confirms what Hansen/Vaa say about the picture in Africa generally.

"Most African countries inherited and kept a planning system deisgned for containing a settlement, not dealing with a rapid growth" (Hansen & Vaa 2004)

## Characteristics
The striking features of informal settlements are the variety that is displayed. At a first look the settlement seems to be a haphazard combination of all features that make up a place for living. When reflecting upon that the area is built more or less without formal planning or interference from authorities or superiors. Generally the slums of Kisumu consist of low buildings, seldom with more than a bottom floor; the materials are usually mud walls with corrugated steel sheets

BANDANI

OBUNGA

MANYATTA

NYALENDA

1000M

or flattened cans as roofing. In Bandani the buildings often house several families or households in small one or two room "apartments". The informal creation of settlements in Kisumu has emerged around the edge of the city, creating what is known as the slum belt. The striking characteristic of the slum belt has its roots in colonial Kenya when the British created laws which more or less banning African people from living within the city.

When looking at older aerial photos of the informal settlements, in the 1950s the informal settlements were made up of a denser version of traditional Luo homesteads, which can easily be distinguished through their massive hedges. With the independence from Great Britain during the 1960s and 70s more people moved in to the informal settlements on the urban fringe. This transformed the village type settlements into the slum maze that we see today (anyumba 1995). Even if there is a lack of planning the settlements take on some kind of structure and the buildings and homes relate to the physical character of the settlements. In the Nyalenda slum the most dense structures and market areas are located close to the Ring Road, where communications and customers are plentiful. A similar relation can be seen in Nyalenda A where structures follow the internal road. In Bandani there are not much of features such as roads to relate to. This giving the settlement more of a rural character and making the settlement relate to rural features such as fields and wetlands. The primitive (primitive in the sense that the work is carried out by any person, not necessarily by professionals or skilled workers) characteristics of the traditional architecture is carried forward, letting the public shape the best fit planning and building under given circumstances and economic preconditions (although vernacular Luo architecture displayed a degree of craftsmanship, where specialized craftsmen took care of plastering, thatching and timber works (Anyumba 1995)). When no framework is present to regulate the layout of buildings, extensions and add-ons, the settlement take on a complex characteristic, where one stake holder's interests are in direct conflict with neighboring dwellers. The more visible examples of this practice are the placement of pit latrines, graves and garbage pits the furthest away from your house, without leaving your plot. So even if the single property of

one owner is not affected by runoff, the neighbor gets to deal with the problem.

Today's planning of Informal settlements of Kisumu hits some serious obstacles on the way there, as the ground is to hundred percent on freehold title deeds, the city of Kisumu have a limited possibility to enforce planning issues. As the structures that make up the bulk of the informal settlement are semi permanent houses, made of mud, wood or iron sheets the municipality have limited or close to non power over the area. When Kisumu was transformed from town to city status there is an implicit goal that the land within the city should be transformed into leasehold land, this involving a massive economic burden in buying back all the land. Still this might not solve the problem, as for example in Nairobi, where land is more likely to be on lease hold, informal settlements still are sprawling in the city.

Anyumba (1995) discusses the fact that the slum building techniques as temporary is a colonial notion, where the European settlers compared traditional houses with their references to European houses. Great concerns about the improper building traditions were expressed by the

**“ The urban edge is the societal impact zone where the centrifugal forces of the city collide with the implosion of the countryside ”**

*Mike Davis 2006 p46.*

early colonial settlers. That these thoughts have a strong background in the colonial attitude are confirmed by Fernandes and Varley (1998)

"The forms of housing in illegal settlements differ from those in the legal city. Most housing is built of materials referred to in official circles as "temporary". The concept "temporary" is a colonial legacy: it views local traditional materials as non-durable, because they do not conform to the western standards building code." (Fernandes and Varley, 1998)

In "Shadow Cities" (2005) Robert Neuwurth identifies the

mud blockhouses of Nairobi's Kibera as an old fashioned shanty town, where the newer ones are made more out of iron sheets. With this definition most of Kisumus's informal settlements can be said to be old fashioned. He (Neuwirth) argues that the reason for iron sheets being preferred in Nairobi is a matter of cost, where a mud house is more costly. This might be the situation in Nairobi, but in Kisumu the mud, known as murrum, is plenty, found on the ground you are standing, sure it takes a lot of work but it seems to be the predominant material in the settlements and in Bandani in particular. According to Anyumba (1995) the use of metal roofs dates back to early colonial days when the rulers thought thatched roofs were a source of diseases, but roofs from natural materials were still continuously used and can still be used today in some cases. The early uses of steel sheets in the African areas of Kisumu were a way to show off a relative wealth.

But knowing that the Luo regard their houses as something finite, like life itself, that will disappear over time (Anyumba 1995). This giving an interesting connection to the fact that the structure of the dala, as opposed to its materials, is strong and has continuity over time.

## 'POPULATION

The slums of Kisumu contributes substantially to the city's population, looking at the statistics from 1999 the number of inhabitants sums up to around 220000 (UN-Habitat, 2005), these numbers are including informal settlements in the rural areas of Kisumu town. It gives us the figure that over 40 percent of Kisumus's population live in the informal settlements. The slum population is mixed but two areas stand out with a dominantly Muslim majority that is Manyatta Arab and Bandani (UN-Habitat, 2005)

LUO ARCHITECTURE

TRADITIONAL
ARCHITECTURE AND
LAND USE IN THE WINAM
GULF

# 14 Traditional Luo homesteads, Dalas

Traditional Luo homesteads; Dalas
The Luo are the most predominant group in the Kisumu area. They live traditionally in the lowlands around Lake Victoria (Andersen , 1977).
The traditional Luo homesteads are called a "dala" and have a characteristic layout. Dalas can be seen today in the rural lands around Kisumu and in the informal settlements in the "slum belt".  The term dala can also be used to refer to an ancestral home, where you originate from and where you are to be buried when you die. Here I refer to the dala as the characteristic hosing configuration of the Luo.

Despite Kisumu´s status as a city the presence of traditional architecture is strong. Although not in the city centre but on the outskirts the traditional dwellings are numerous. In the Bandani area the Luo dalas are blended into the informal settlement´s corrugated steel architecture. The dala, or home stead is the traditional unit of the Luo and is considered the home of the family, where you are born and where you will be buried.

The dalas stand out from the surrounding landscape through their clearly defined area and the characteristic euphorbia hedges.
Traditionally the dala was surrounded by a mud wall, for defence purposes. Although this practice have disappeared as the houses not are as prone to spontaneous attacks today (Blegvad Andersen, 1977) as they were during the days of tribal fighting. Dikes and Ditches were also made by the Luo to make the land more suitable for agriculture. From Pastoral to agricultural (anyumba 1995)
The dala consist of a number of houses set up in a "garden" surrounded by high hedges. Within the yard area there is usually an enclosure for keeping animals, known as the Kraal, the presence of the Kraal varies and sometimes the animals are simply kept freely within the compound. The high hedges prevent the animals from escaping from the compound, although in Bandani the compounds usually have one or several openings. In the compound the different buildings have their different function, although there is no reason to not believe that the very traditional division of functions

is disappearing. Blegvad (1977) mentions the Luo houses as double walled but this practice doesn't apply to the dala structures in the bandani area. What is interesting here is that the pattern of the dwelling and the sense of space and private land are conserved rather than the typical techniques for building. The compound areas also contain a few solitary trees providing shade for animals and dwellers.

As mentioned the luo style dala is not a non-changing institution and many interesting contemporary features can be found in and around the compounds. The buildings within are sometimes of a traditional character but more common is the mud walled houses with corrugated steel roofs as seen throughout the community. Although their dimensions seem to more resemble the traditional luo homes, then the tenant barracks do. They consist of one or more rooms and have an almost quadratic layout. Another eye catching feature is the hedges that now can be seen reinforced with sharp steel sheets. Judging from their shape and sharp, thorn like spikes they seem to be spill from an oil drum plant, also old car parts can be seen interwoven in the vegetation. This use of new material and concepts is seen throughout the area, the term dala is used for traditional housing units as well as for the individual homestead whatever the aesthetic appearance it has.  Andersen describes the use of recycled material already in 1977, there the main use was for building strong doors made out of recycled metal cans.

# 15 Bandani

## The situation

The informal Settlement of Bandani belongs to the westernmost areas of Kisumu City, the distance from the city center is about the same as for the airport. In this area the cityscape is gradually turning into countryside. Here is where heavily loaded trucks depart for Uganda and Matatus filled beyond the legal fourteen ply the route towards Kisii or Busia. Taking the Busia road out from Kisumu you cross the railway and continue along the tracks, passing by the corn and millet fields on a road lined by trees, by the golf course. The traffic on the road is heavy and the means of transport range from the latest of German truck engineering art to hand pulled carts loaded with the leftovers from the fishing industry. On the left is the Kisumu Golf Club, with groomed lawns and noticeably more gardeners than devoted golfers. On the right behind the crop fields lies the informal settlement of Bandani. The real entrance to Bandani is fairly ill-defined, but just opposite the Caltex® station is there a market area. The road is lined with trucks and the bodaboda drivers hang around waiting to find someone to haul into town. If you squeeze in between the makeshift steel shacks, that hold bars, restaurants, barbers and battery chargers, you have now entered Bandani. Or…well you sort of have entered, there is just that the first impression is the railway, dividing the housing area from the market area, when climbing the railway embankment you get a view of the settlement, mud houses with steel roofs, pit latrines, goats, children and a big drain defines the entry to Bandani.

## History

The origin of the Bandani settlement is somewhat unclear, there is no written history that describes the origin of Bandani. But when looking deeper into the history of Kisumu one realize that some important points of the development of the city have taken place in the close vicinity of Bandani. The first colonial settlements in Kisumu were close by where Bandani is situated today. Bandani was also one of the original villages that made up the pre colonial settlements in the Kisumu area, many of those villages were destroyed by the colonial governemt but the Bandani village was let to exist

(Anyumba, 1995). Later on people were evicted from the area of the airport to the Bandani area.

## Location

A quick glance at the contour map of Kisumu reveals the inevitable truth of Bandani's location. Situated in a low point by the lakeshore the location is really prone to flooding and the drainage problem is always there, washing away houses and creating breeding grounds for mosquitoes, the vector of the malaria parasite, a source of much suffering in Bandani as well as in Kisumu in general

## Sub-areas

Bandani is divided into five sub-areas, which have been used by the Mugaano crew to facilitate the enumeration of buildings in the area. The origin of the division is from the local tradition in Bandani and relates to the place in a traditional way.

## Brightlight

This is the westernmost part of Bandani, named after the former Brightlight factory where soap was produced; the factory is today closed but the name on the area remains. The eastern parts of Brightlight are dense, connecting to central Bandani. But in the western parts the area is sparsely populated. Here a large open field dominates the area, this field becomes flooded after heavy rains. There is also some farming in the northern parts of B and this is the area that has the most of traditional dalas, showing the typical high hedges.

## Craike

Is situated north of the Bandani main road, the area is dominated by small clusters of houses interspersed with corn and millet field, the few homesteads northernmost are almost completely hidden in the maize fields. Here are also some examples of banana farming. The building density decreases the further away from the main road you get.

## Central

Bandani Central is the very dense area that you see when you first reach Bandani from the market area. The area has, despite its high density, still a bit of rural character, in between the buildings the goats are grazing, but there are not much of trees in the area. The area closest to the railway is prone to flooding when heavy rains come and many of the houses show damage from water.

## Muslim

Named after the predominant Muslim population, Muslim is the location of Bandani's only mosque. The area next to Bandani Central is very dense, with winding paths and yards, this is a maze of houses and there is no farming or trees in the area. After rains the paths within the area are flooded making walking in the area a difficult task. Closer to the main road the character changes a bit where there is a more private character with hedges, trees and green yards used for cattle grazing. On the opposite side of the Main Road Muslim is more rural with the presence of more dalas and fields.

## Pundo

Named after the pale soil in the area, Pundo is the largest of the Bandani sub-areas. Pundo involves large empty areas prone to flooding. Here are also large fields, especially in the outer parts of Pundo. The area has many traditional homesteads some of them turned into two storey permanent houses. But here are also large tenement areas, where many families live in dense yard or row houses. Pundo also have a bit of a centre with a bar (hotel), fish frying, market stalls and booza shops.

## An area in transition

When comparing Bandani with the other settlements of the Kisumu slum belt it sees clear that Bandani is that with the least mature slum characters. Bandani have a strong character of rural village combined with some dense areas where housing is cramped. Like Davis mentions (2006) the city is here slowly taking over the country side and at the same time more people arrive who need affordable housing



CRAKIE ■

BRIGHTLIGHT ■

CENTRAL ■

MUSLIM ■

PUNDO ■
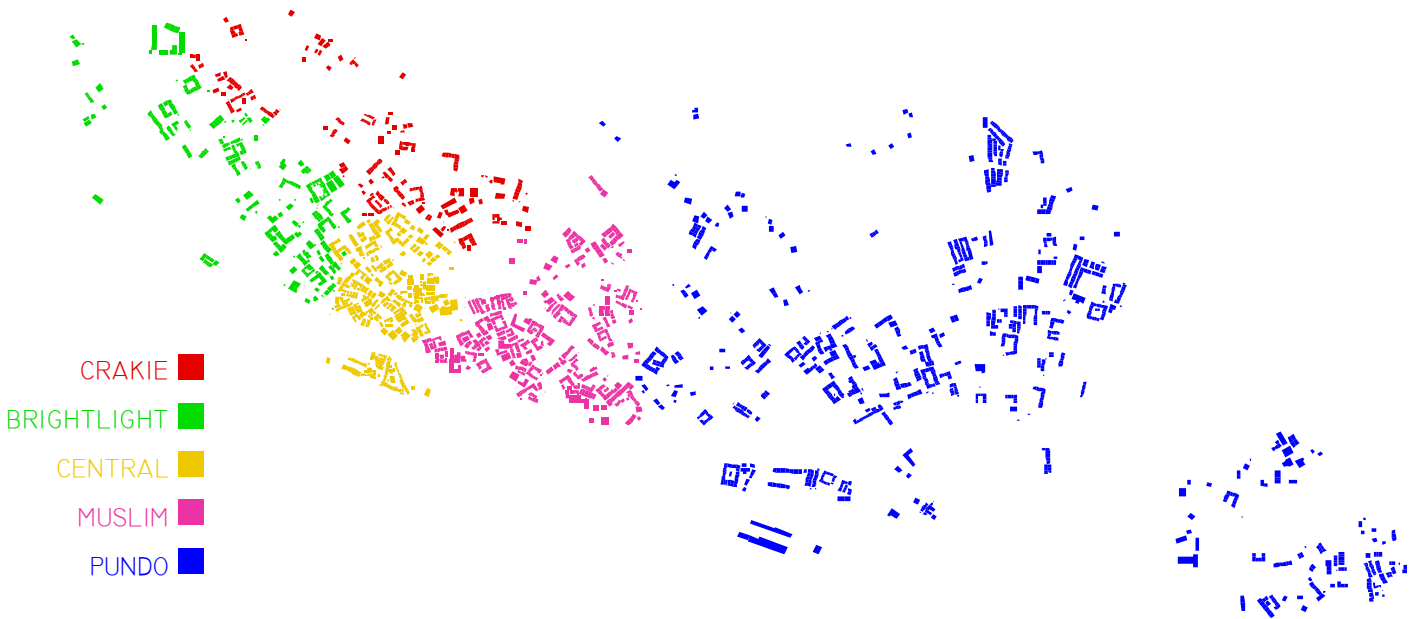
when migrating from villages in other rural areas. Bandani is placed on the physical edge of the urban centre of Kisumu. Davis describes the peri-urban area as a zone often outside of governmental control, where no accurate data is found. Bandani's presence on the edge gives Bandani much of its transitional character where urban and rural characteristics are seen next to each other, cattle browse while aircraft are taking of from the airport close by.

As opposed to Nyalenda and Manyatta, Bandani is not limited in growth outward from the city. Where Nayalenda and Manyatta are defined by the swamps to the east the only natural border of Bandani are the hills in the north of the settlement, some three kilometers away from the Busia road.

## The elements
As mentioned above the presence of water is always a threat in Bandani. From the big yearly floods that wash away structures and turning the area into a mud pool to the occasional rains that fall in the afternoon more or less throughout the year. The continuous rains are soaking the ground with water leaving the roads a complete misery. The saturated grounds also affect the houses, where the mud walls extract moisture from the grounds causing the walls to deform and in the end collapse. Being right on the equator the sun is always an element to count on in Bandani, the days are hot and shade is only provided right under trees or extended eaves.

## Transport & infrastructure
A striking feature in Bandani is the lack of transport options. Despite the fact that Bandani lies just next to the road, railway and airport, the settlement is desperately lacking communications. The airport doesn't really affect Bandani, except for the historical significance the airport expansion had on the inhabitants (see history part) and the morning and evening flights for Nairobi which sometimes take off or land just over the heads of the Bandani inhabitants. The railroad which is a part of the Mombassa-Kampala railway is not used anymore, the main function of the tracks is the role as a fast walking path from the town to Bandani. But the tracks also effectively block the access to Bandani from the

road. The rail is situated on a bank, which both act as a barrier for communications and creating something reminding of a dam wall, which due to insufficient drainage retains water and increases the flooding the lower parts of Bandani when the heavy rains come. When it comes to reaching bandani by road a lot of problems come up. There is no real connection between the Busia Road and Bandani, so more or less all transports have to be carried by hand or on carts and bicycles. There is although one option and that is to either cross the railway by the sewage works and circulate from the east, the other, most preferred option is to cross the railway west of the Brightlight factory, connecting to the mud road north of Bandani and then connecting to the main road. This make a 2km detour compared with what could have been possible of there was a real road connecting Bandani with the road network rather than just providing for some internal traffic. The infrastructural features of Bandani are in a very poor state. None of the internal roads in Bandani are of tarmac and the road connections into Bandani do not have any connections directly to the Busia road in the south of the settlement. The railway tracks are working as a secondary communication artery, letting people walk a shorter distance from Bandani to Kisumu. Electricity is more or less none existent in the settlement, the only building connected to the power lines is the mosque in central Bandani, although some houses nearby the mosque have had the opportunity to connect to the lines drawn in to supply the mosque. The lack of electricity have created a in informal market in recharging wet cell batteries, many households have a 12 volt battery in their household to run various electrical equipment, such as TVs, radio, music and light. The   As for electricity the phone network doesn't reach Bandani. Although this problem is today of minor role as cell phones provide a reasonably cheap opportunity to communicate.

## Water
The supply of piped water is scarce, some buildings around the market area have piped water from KIWASCO, the rest of households will have to rely on the spring situated a kilometer north of central Bandani, or the shallow wells drilled around the area. Although the shallow wells do not provide potable water as they are easily polluted by waste and runoff from pit latrines, garbage and other sources.

**BANDANI ENTRY POINTS**

MARKET
MAIN ROAD
RAIL BRIDGE
SEWAGE WORKS
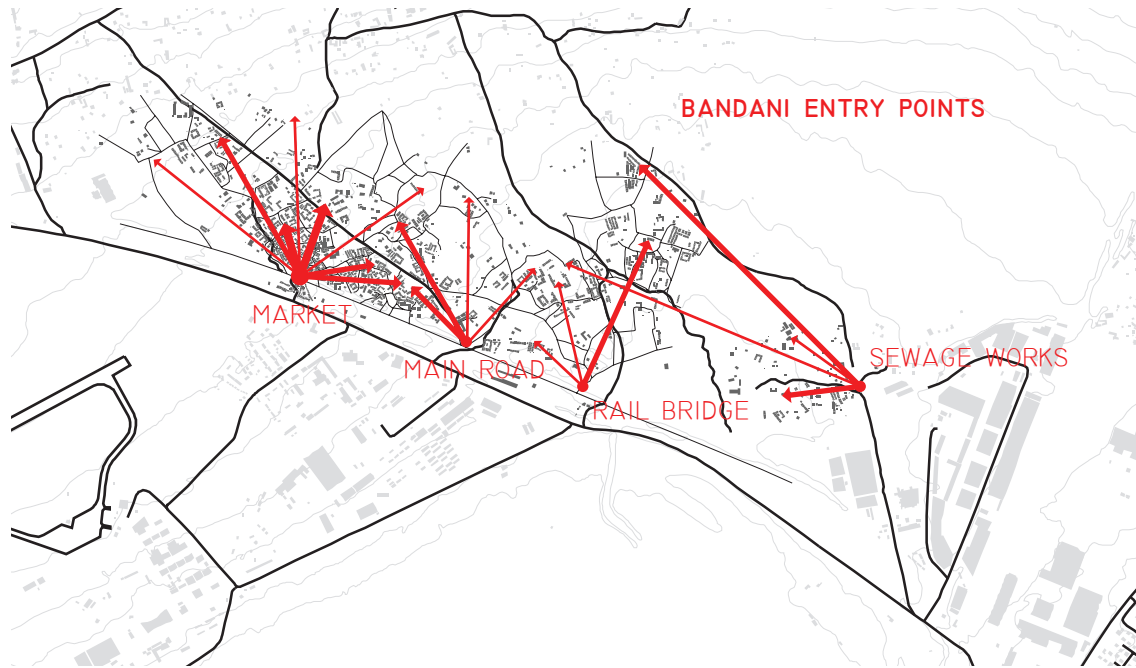
## Building

The housing layout of Bandani varies a lot from different areas of the settlement. The building arrangements varies from those of the traditional Luo tribe, the dala, to makeshift sheds made out of straightened out tin cans, mud walls and wooden stick reinforcement. Most constructions in Bandani are of a more or less temporary kind. Houses are mostly made out of mud walls and with roofs of iron sheets, or in some cases thatched roofs of amore traditional kind. The building formations in Bandani appear in concentrations where a particular pattern or typology is evident. There are also occasions where two or more kinds of dwellings coincide, this particularly where an original building or one family house have been extended with tenant quarters, creating high density and varied character. When it comes to commercial buildings this is where the extremes of construction techniques are shown. The present market is constructed of temporary materials, almost uniquely iron sheets and wood, the market are houses some small restaurants, shops,

hairdressers and workshops. On the Bandani Main Road and connecting roads there are small concentrations of commercial buildings of a more permanent kind. This includes the Youth Centre, the Medical Centre (still not operating), the mill and the butcher next door. Dotted around the entire area you find some permanent houses, of one or two stories

## Fields

As discussed earlier we all have an idea around what a slum is, and it might be that Bandani doesn't fulfill the first thoughts about congestion, dirt and iron sheets. Bandani sure have its fair share of mud and corrugated iron but the area is somewhat green, a fair number of trees shade the area and the surrounding is of more rural than urban character. Large portions of the settlement are covered with crop fields, where maize, millet, sorghum and beans are grown. The area is covered with buildings to about 8 percent  while the fields cover around 40% of Bandani, the rest of Bandani is open land, a maze of footpaths, grass and water. During half of the

year the fields defines the space in Bandani, creating borders and spaces as all crops are high, interrupting the view. But after harvest the fields join the open land and give the area an even more open character. During these times the most striking features are the trees and hedges that surround some of the houses, relating back to the tradition of the Luo Dala.

## INHABITANTS

Bandani is one of Kisumus's smaller informal settlements on the urban fringe. The number of inhabitants is somewhat unclear but as the number of housing units are around 2500 the number of inhabitants could without exaggerating be around 10000, more likely 15000. Parts of the inhabitants are living on their own land in their family dala, either in a traditional Luo layout or in an altered version of the traditional homestead. But notably most people live in tenement situations, renting their houses from landlords, who either live in the vicinity or have their home somewhere completely else. It is hard to draw any conclusions concerning employment among the people of Bandani. In earlier years the close by industries of Brightlight, Kenya Breweries and the cotton mills made Bandani a convenient location for their worksers. But today the inhabitants have varying outcomes, ranging from casual workers in the city's Juha Khali tradition to more skilled labor such as office workers and university teachers. The most visual source of income in the area is the agricultural practices, herding cattle and growing crops. Apart from in-city employment and agricultural practices, there is a small informal sector in Bandani. Small market stalls are found in different location, providing the inhabitants with vegetables, charcoal and fried mandaazis. The densest trading area is the market area by the Caltex station. Here are several kiosks, restaurants and barbers as well as a Coca-Cola depot and truck mechanics.

BRIGHTLIGHT
FACOTRY

WATER SPRING

BUSIA ROAD

CALTEX® STATION

AIRPORT

BRIDGES

GOLF COURSE

RAIL ROAD

SE

BURIAL GROUNDS

WINAM GULF
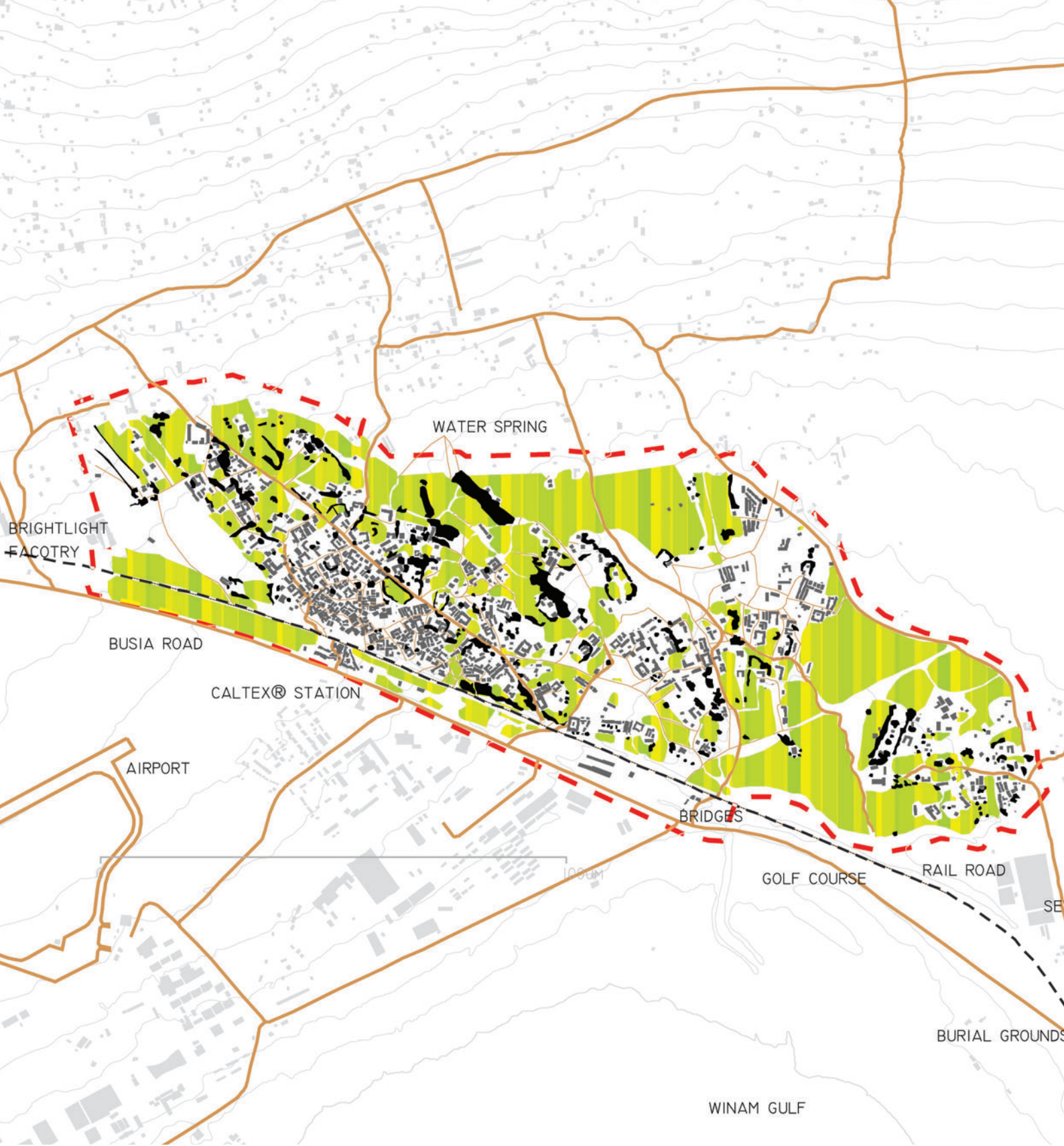
## Formal plans in an informal reality

Despite the fact that Bandani is conceived to be one of the Kisumu slums, there are still legal frameworks for the are that defines the settlement and land owning issues are regulated through plans and track kept plots and land situations. In fact Bandani consist of some 550 plots divided by roads reserves. But comparing the true situation with the laid out plans it is clear that the existent roads have little to do with the rights of way left between the plots. All land in the Bandani settlement is on freehold land, thus privately owned by individuals. This configuration allow for semi permanent structures to be built without the interference or control by the authorities, as the land is on freehold there is no limitation in the configuration or number of semi permanent structures that can be built (interview, C. Angira, KPD).

## Reserves and rights of way

A few reserves are affecting the landscape in Bandani, these reserves include the railway reserve set by the Kenya Railways along the railway tracks. It involves a buffer zone 30 metres on either side of the tracks. This includes the market area and all housing within the reserve. Houses built in this zone is marked XKR with white paint. Another reserve is the Pipeline reserve, which is the land on top of the Mombasa-Kisumu petroleum pipeline. This reserve runs through the southern parts of Bandani Pundo, cutting through fields.



ROAD RESERVES

GAS PIPELINE

RAILWAY RESERVE 30M
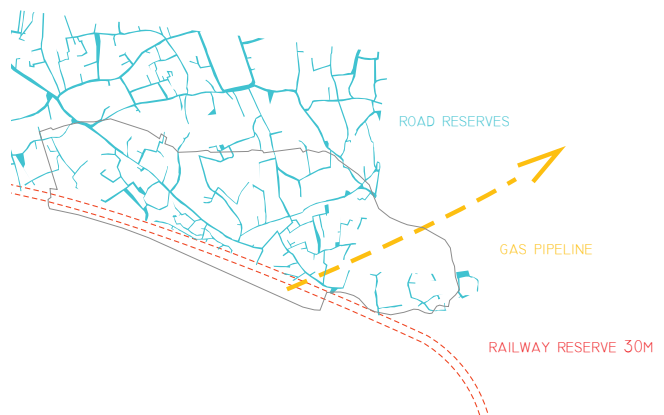
# ANALYSIS

## LAND USE

CROPS **FIELDS** ROADS HOUSES
**TREES** ALL USE LAND

## The non built space

According to Laguerre (1994) the essence of the informal settlement, where the squatters´ house represent the informal architecture and the social land use represent the informal entity, the entire informal settlement, the informal city.

**"-You walk along the pathways when doing the work in Bandani, don´t you?**
**-Yes, sure**
**-Good, because you cant just cross everywhere, stick to the paths**
**-Is that some kind of law concerning the use of pathways?**
**-No, it is common sense!"**

**Charles Angira 2006**

## Building without planning

The striking features of informal settlements are the variety that is displayed. At a first look the settlement seems to be a haphazard combination of all features that make up a place for living. When reflecting upon that the area is built more or less without formal planning or interference from authorities or superiors. Generally the slums of Kisumu consist of low buildings, seldom with more than a bottom floor; the materials are usually mud walls with corrugated steel sheets or flattened cans as roofing. In Bandani the buildings often house several families or households in small one or two room "apartments". The informal creation of settlements in Kisumu has emerged around the edge of the city, creating what is known as the slum belt. The striking characteristic of the slum belt has its roots in colonial Kenya when the British created laws which more or less banning African people from living within the city. When looking at older aerial photos of the informal settlements, in the 1950s the informal settlements were made up of a denser version of traditional Luo homesteads, which can easily be distinguished through their massive hedges. With the independence from Great Britain during the 1960s and 70s more people moved in to the informal settlements on the urban fringe. This transformed the village type settlements into the slum maze that we see today (anyumba 1995). Even if there is a lack of planning

the settlements take on some kind of structure and the buildings and homes relate to the physical character of the settlements. In the Nyalenda slum the most dense structures and market areas are located close to the Ring Road, where communications and customers are plentiful. A similar relation can be seen in Nyalenda A where structures follow the internal road. In Bandani there are not much of features such as roads to relate to. This giving the settlement more of a rural character and making the settlement relate to rural features such as fields and wetlands. The primitive (primitive in the sense that the work is carried out by any person, not necessarily by professionals or skilled workers) characteristics of the traditional architecture is carried forward, letting the public shape the best fit planning and building under given circumstances and economic preconditions (although vernacular Luo architecture displayed a degree of craftsmanship, where specialized craftsmen took care of plastering, thatching and timber works Anyumba 1995)). When no framework is present to regulate the layout of buildings, extensions and add-ons, the settlement take on a complex characteristic, where one stakeholder's interests are in direct conflict with neighboring dwellers. The more visible examples of this practice are the placement of pit latrines and garbage pits the furthest away from your house, without leaving your plot. So even if the single property of one owner is not affected by runoff, the neighbour gets to deal with the problem.

The practice of self building and use of available materials sometimes take fantastic turns. As mentioned before, the use of flattened tins, debe, is practiced since long time. Andersen (1977) notes this practice and Anyumba (1995) describes this to be used already in the early colonial days of Kisumu.

De Certeau expresses it in the Practice of Everyday Life "everyday life invents itself by poaching in countless ways on the property of others" (1984).

The action of herding cattle where you find something to graze is common throughout the entire city, with exception of the down town area. The unused land is left open for diverse use, when the area is not flooded it becomes a football field or when it is flooded enough I can be the place to do laundry.

The undefined use of the land can somewhat be said to define the informal space in the slums, here it is allowed to do the actions that the situation calls for. Still there are unwritten rules and ways to relate to spaces that appear empty.

Looking at Bandani you see that the intentions and plans do not coincide with the reality. The planned market place was abandoned and the market moved to available land, safe from the flooding and also close by the road, maximizing the potential and letting the storeowners benefit from more than only the inhabitants of Bandani. A similar way of dealing with space can be found in the close vicinity of the houses, more or less the gardens of the houses. This space is used for activities related to household work, ranging from doing the dishes and cooking to more long term uses, such as burying relatives or letting chickens roam the area. In the central parts of Bandani the houses form an almost urban network with numerous private yards and semi-private openings where gatherings take place or where vendors can sell their goods. In the outer areas of Bandani, where densities also are high these kinds of space are not available to the same extent, as the houses here are built in a more row-like fashion, lined up parallel to each other. This row-like layout reminds of the layout of the notorious slum of Kibera, in Nairobi.

Salingaros (Nikos A. 2005, Techne Press, The Netherlands) discusses the origin of the patterns of the favelas, in South America. He suggests lower scales of the settlement, such as individual houses set the frames for the larger scales such as road and path network, this in contradiction to formal planning where formal frameworks on higher scale (such as infrastructural elements) are set to make room for buildings. Taking this approach to Bandani can clarify the origin of the complex path system of Bandani and how it is not correlating to the planned rights of way between individual plots.

## Land use

Through the inventory and mapping the structure of Bandani is becoming visible. Reflecting over the fact that the area doesn't have any maps focusing on the landscape and relations between different uses of the area.
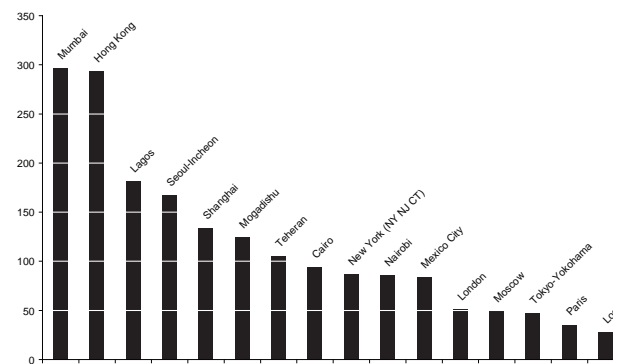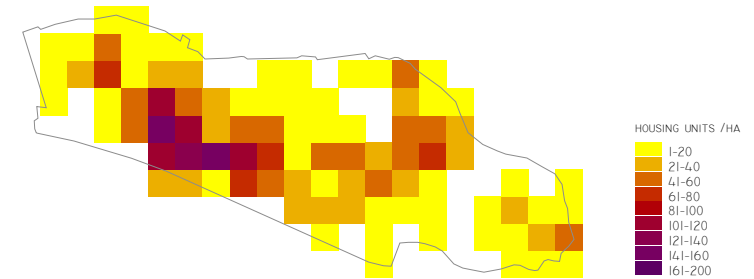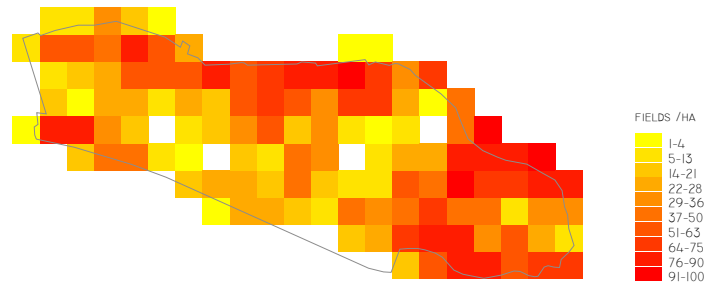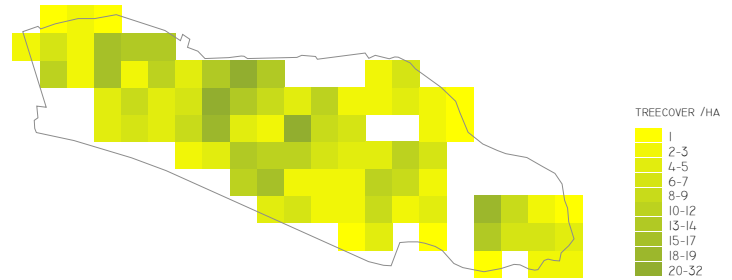
## Housing

The different housing types covers around 7 percent of the Bandani area, the highest housing densities are shown in Bandani Central, Muslim and northern parts of Pundo. When overlaying the housing with a 100 by 100 meter grid you get a density grid showing the densities of housing in the grid. Housing densities can be as high as 200 units per hectare in the above mentioned centers. The lack of reliable information concerning the number of inhabitants per unite makes it hard to draw any conclusions from this. But with a low estimate of two inhabitants per unit you get a number around 400 persons per hectare, which is a truly high number well comparable to urban centers.

The most complex and tough environments in the informal settlement of Bandani is the really dense areas that leave hardly any space in between the houses. The Density ranges from that of the family, or household to the single building unit, the housing row to that of the block or as in the case of Nairobi's Kibera, where the density and overcrowding is repeated throughout the structures. But despite the fact that this kind of high level density, the lower levels still prevail in Bandani, where the crowdedness of the worst slums exist on the finer levels. So even if the density and severe lack of space isn't visible on the landscape level, it is still cramped on the housing level.

## Fields

The fields in Bandani produce food staple for the inhabitants or field owners, crops grown include maize, sorghum and millet. All these crops stand high when growing creating a visual barrier in the area when present. Below the tall crops beans are often grown as an infill crop that can be harvested during the season for household needs. As the fields compete with the same area as the housing the two have a relationship where the one is dependant on the other, ground occupied

TREECOVER /HA
1
2-3
4-5
6-7
8-9
10-12
13-14
15-17
18-19
20-32

FIELDS /HA
1-4
5-13
14-21
22-28
29-36
37-50
51-63
64-75
76-90
91-100

HOUSING UNITS /HA
1-20
21-40
41-60
61-80
81-100
101-120
121-140
141-160
161-200

WORLD CITY POPULATION DENSITIES

by housing cannot be used for crops and vice versa, although fields can be turned into housing areas. In Bandani the amount of land covered by fields is around 40 percent of the ground. This gives Bandani the character of transitional space in between country side and mature slum.

## TREES

The trees in Bandani cover around 6 percent of the area, as the tree cover is calculated as the tree branches projection on the earth surface, the trees can exist on the same area as the field and houses, therefore not competing about the same spaces, the houses and fields take the ground level space while the trees mostly occupy the air above fields and roofs, simple but interesting. The trees seen in Bandani are of various species, varying from indigenous trees to varieties introduced for various reasons. Among common species that form groves are different Ficus species (Ficus ssp.), Gum trees (Eucalyptus ssp.), Albizia (Albizia ssp.) and Acacias (Acacia ssp.). Apart from the trees in this study there are numerous small shrubs and fruit bearing trees such as papaya, paw-paw and banana, these are common especially in the gardens and yards, close by the houses.

## ROADS

The road network of Bandani consist mostly of footpaths connected in an intricate system, none of the roads in Bandani are paved the only road in the central parts of the area suitable for vehicular traffic is the main road. Apart from the main road, the road circulating Bandani, coming from the east is suitable for cars, bikes and busses, this road connects to Main road in the north and then continues to the west, connecting with the Busia road west of the Brightlight fatory. The southern part of the Main Road, close to the railway track is very sensitive when it rains, the water is drained along the road and collects in the southern parts creating a muddy mix of garbage, mud, plastic bags and manure.

FIELDS



TREES



HOUSES



HOUSES 7%



FIELDS 40%



OTHER USES 52%

PRE COLONIAL RURAL SETTLEMENT

THE DEVELOPMEN OF THE LUO DALA OVER TIME

PRESENT PERI-URBAN SLUM
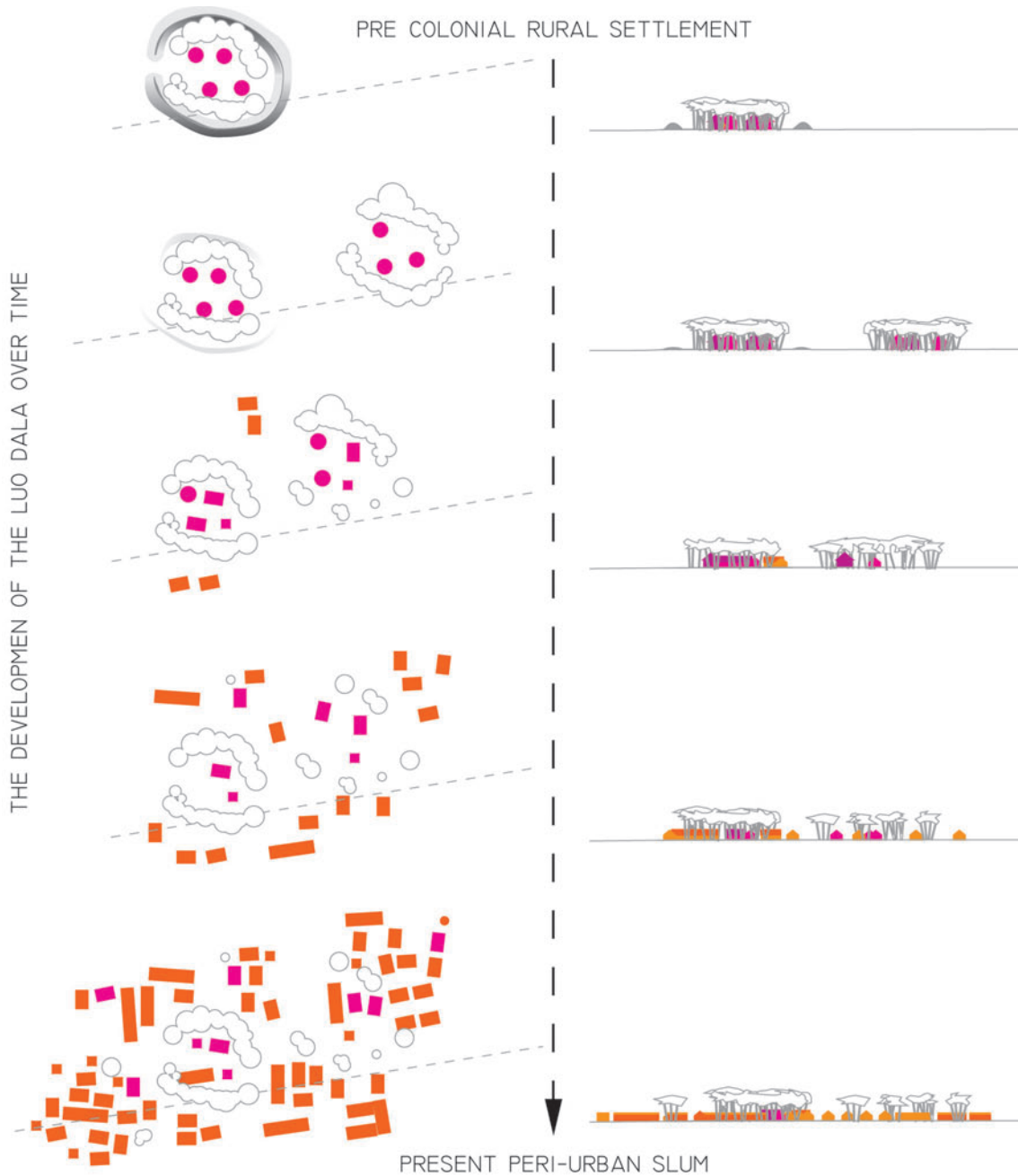
## CONTINUITY OVER TIME

An interesting character of Bandani, as well as in the other informal settlements is the pattern of land usen and its connections to the traditional land uses. Among the slums are clearly visible structures of the Luo dalas. In some cases the high hedges are visible in a complete shape and in some cases the traces are just a few trees in a ring with no visible building structures attached to them.

# 17 Typologies

To get away from the notion of the slums being one single type of settlement, with a homogenous character the use of a set of types can help in explaining and understanding the slums, in this case Bandani. The types are divided into communications, spaces and housing, where the different contain a number of types clarifying the situation in Bandani.

## Communications
### Main road

Main road is the large road running north-south in Bandani. The road have a clear road character, wide enough for vehicular transport. The main road connects with roads running east-west north of the study site.
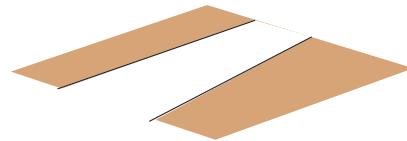
### Crossroads

Where the pathways cross, creating a logical meeting point and also a suitable place for informal services and trade. Usually small, well defined, places, sometimes coinciding with other types, such as the open.

## Spaces
### The large open

Large pieces of permanent open space, left due to various reasons, ranging from low-lying land and wet conditions to neglect or arbitrary reasons. This group also includes the land left open due to the pipe-line reserve running across parts of southern Bandani.
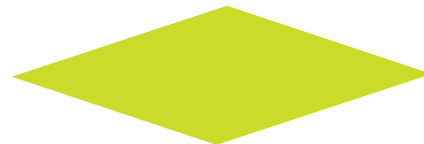
### The small open

In this group are the smaller spaces that are left in between buildings in the denser areas, it can be a few trees that define the place or together with the crossroads where people meet naturally.
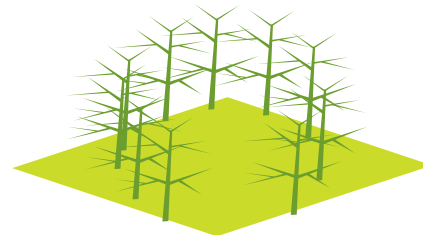
## Housing spaces
## The dense
The most complex and tough environments in the informal settlement of Bandani is the really dense areas that leave hardly any space in between the houses. The Density ranges from that of the family, or household to the single building unit, the housing row to that of the block or as in the case of Nairobi's Kibera, where the density and overcrowding is repeated throughout the structures. But despite the fact that this kind of high level density, the lower levels still prevail in Bandani, where the crowdedness of the worst slums exist on the finer levels. So even if the density and severe lack of space isn't visible on the landscape level, it is still cramped on the housing level.
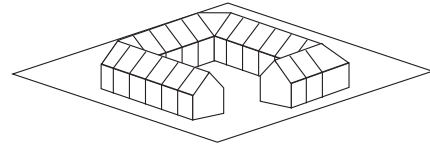
## Yard complex
Individual yard houses dotted in the landscape that have grown into a complex of housing where rows of houses forma a yard or horse shoe like structure around and opening. These structures show both character of the dense and the traditional dala.

## The maze
Maze like quarters in central areas of Bandani. Low houses with narrow pathways meandering among the housing units. Some of the units have inner courts, giving the inhabitants a well defined semi private space aside from the path network.
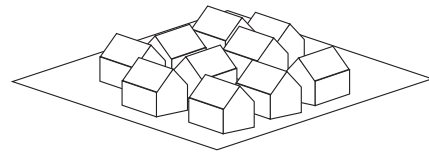
## Dense Islands
Very dense formations of semi permanent housing on otherwise open land, this can be due to wet conditions in the surroundings or legal issues. These areas don't show the characteristics of a homestead, with ornaments, graves or hedges. The islands are typical tenement housing with high densities.
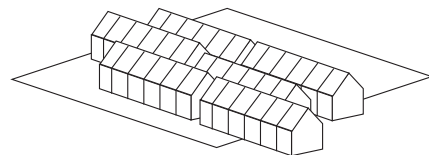
## In the fields

Small housing units of one or a hand full of house holds caught in a corn or millet field. Thus invisible during the parts of the year when the crops are standing man-high. The owner situation in this situation can be either owned or a tenant situation, sometimes both in the same location.
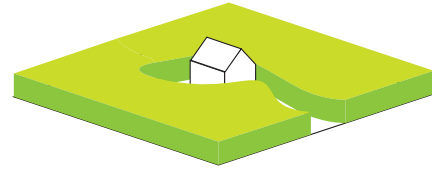


## Traditional Dala

The representation of the traditional Luo housing unit. Here the Dala doesn't necessarily include all of the homesteads in the area, but only the ones with a traditional function and appearance. The dala here represent the characteristic layout with high hedges or remnants of a former hedge.
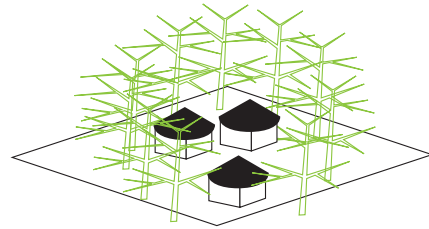
# 18 Human Space use in Bandani

As Said before there is little or none planned public space in Bandani. But during the time of analysis and site visits you realize that there are numerous places where people gather for various reasons. The places used ranges from the roads, where transport is performed to the house corners where small stalls create a provisory resting place when someone you know is selling fruit or bread from the small shack.
It is hard to draw any conclusions on which places are used for what. But there is a strong sense in Bandani that there is a great need for space which can be used outside of the directly private spaces. People need place to gather or to hang laundry or to let their animals graze. To simplify the understanding of the different places in Bandani the different types are divided into four categories, the different place types can of course exist together or on their own depending on the place.

In Bandani the use of public space in a traditional sense is less than small. There are no public parks, shopping malls or side walks. All land is owned privately, apart from some, since long encroached, road reserves and divided into a few thousand plots. So when taking on Bandani one needs to take a different approach than when you analyze the traditional city, being a French village or a Japanese metro. In Bandani the public place is what is there, the land that is not used for anything else at the moment, not a field, not a garden, could be a road or a pathway or a drain or a swamp. Going further into the hierarchy of public space in the informal settlement you soon realize the need and use of the space closest to the homes, where daily chores are carried out, where the chickens roam and where garbage is dumped and burned. This use of the outdoors is likely to be connected with the lack of indoor area but also to traditional uses of the front yard and to the fact that the outdoors is far more comfortable than the dark indoor environment. When a family of, lets say six persons share one room of less than twenty square meters, it is hard to fit all functions in that volume, especially when it comes to cooking or doing the dishes.

So can this space in between be said to be informal and does it have any qualities as such in this area? When looking at different slum areas in Kisumu as well as in Nairobi you see some clear differences as well as with the cities them selves. Nairobi city poses sky scrapers, an international crowd and a truly urban lifestyle, Nairobi slums poses vast slum areas, extreme congestion, multi storey buildings and a informal society within Nairobi, here the slums are like towns of themselves. Kibera, the biggest slum in southern Nairobi is like an organism made out of corrugated steel sheets making you agree with Gandy's (2005) notion about how Lagos resembles a fractal pattern in its unexplainable complexity , where the individual houses line up roof to roof.
Kisumu on the other hand has a rather small down town of typical colonial character, arcades and low buildings a couple of restaurants and hardware stores. The slums here have something of a rural character with Bandani showing being the least urban of the four main slum areas in the belt around town. Still the Bandani informal settlement has nothing pastoral or idyllic to it, parts of the settlement shows tendencies resembling those of Kibera, just interwoven between maize and millet fields and with the Lake Victoria at the horizon.

## Semi-private

To do the household chores, such as doing the laundry, drying clothes, doing dishes and cooking you often need a larger space than the tiny 10 square metre unit where most Bandani settlers live. These household chores are mostly happening in the close proximity to the houses where you live, an exception to this is doing the laundry, which sometimes occur in streams and drains away from home. To simplify the area and conceptualize, the areas where the chores occur one can be estimated as a buffer zone from the houses. By offsetting five meters from the houses on the map you realize that this confirms much of the observations from the field studies. These five meters include the space needed for access to the house, maybe some small bench and such things that usually are found in the area nearest the house. With this definition the mazelike quarters of Bandani Central and Muslim become more or less completely defined as semi-private, which was much of the appearance. As in Central and Muslim these areas have a sense of semi-privateness, where clothes are hanging and kids play. This area is the space Charles Correa (1985) refers to as the outdoor living room, the zone that act as an extension of the, in his case it applies

to Indian slums, but the concept is interesting and brings clarity to the spaces next to the houses and it has its place even here in Kenya, as well as anywhere else. Looking at the map with the five meter zone drawn you see the areas blend and the dense areas become one large "living room" where the different semi private places attaches to each other and become a large conglomerate, where the private feeling might get lost.

Correa (1985) divides the space into four different sections, to simplify the analysis I have decided to merge the two most private categories into one, which is the zone closest to the houses, and in my work simplified to a five meter zone around all houses. The real appearance of this space is differing a lot over Bandani, from narrow pathways to real gardens belonging to permanent houses.

HOUSES

SEMI-PRIVATE AREA

COMPLEX OVERLAP

BANDANI HOUSES WITH
SEMI-PRIVATE SPACE
5METER FROM THE
HOUSES
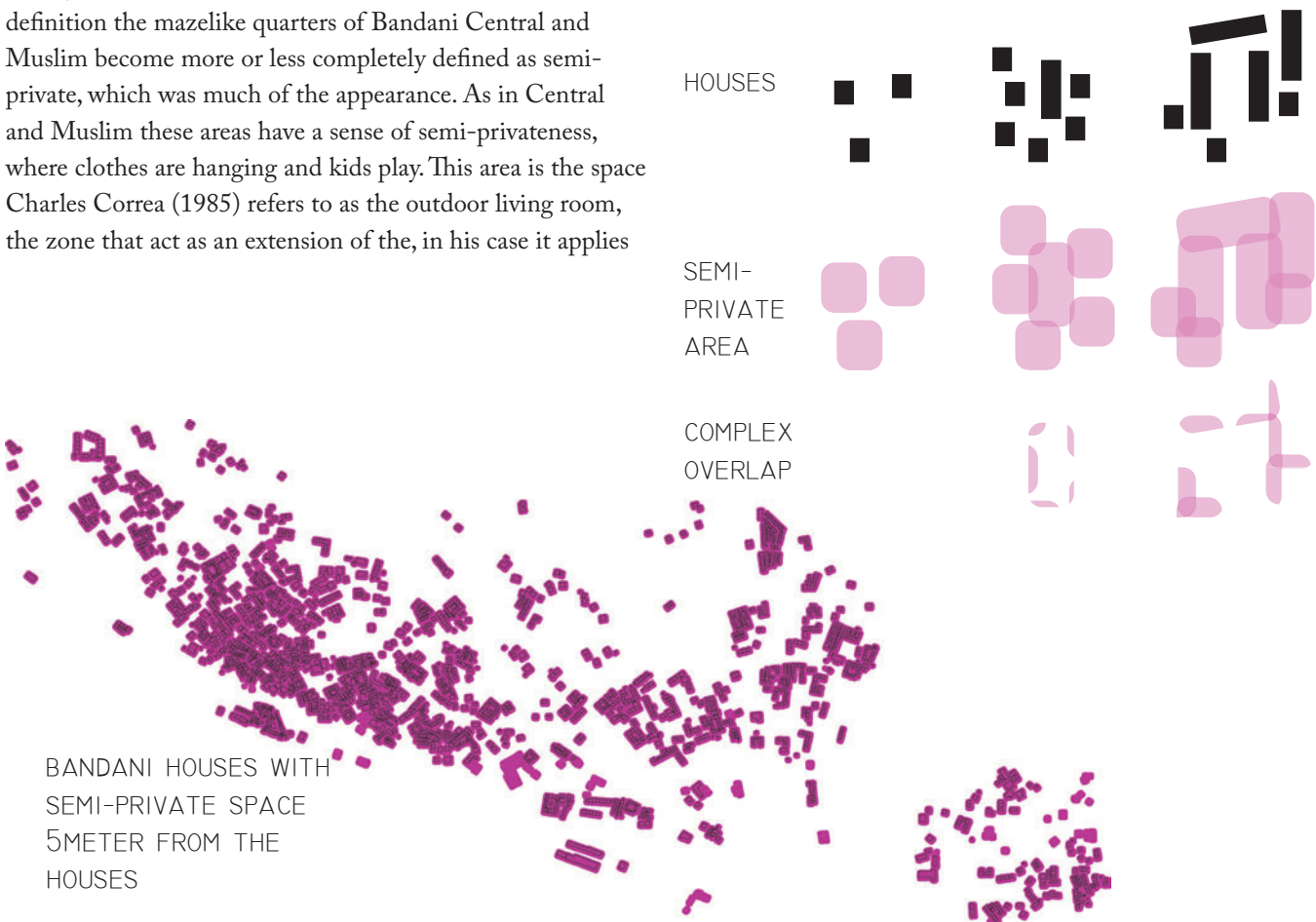
## Passage

The areas used for passage are mostly the roads and the web of small pathways that crosses through entire Bandani. The Main road is the biggest passage in the area, with the possibility to handle vehicular traffic. Much of the passage is occurring in the open field, where people can chose direction on the open field. In some places the passages cross each other and create communication nodes, this mostly referring to walking communication, as the number of vehicles in Bandani is very limited. At these nodes there is a potential for people to meet and for gatherings to occur. Passage through the area is and important factor, for people to get to work, school or for the families to get to the right church or mosque for the prayers on Fridays and Sundays. To enter into Bandani there are four main entry points, from the sewage disposal facility, by the railroad bridge, by the southern end of main road and from the market area. Apart from these places there are many opportunities to enter Bandani from the railroad, just by shortcutting directly from the railroad bank. One of the most continuous passages is the never ending flow of people to and from the spring, north of Bandani.

## Trade and work

Trade comes in different forms in Bandani. The major trading is going on in the market area by the Busia Road. This is the only site uniquely focused on trade and service. On other places in the settlement there are small shacks or a collection of small kiosks. The kiosks provide with small goods, such as tobacco, washing powder or fruits. Further down in the trade hierarchy are the private trade stalls, which can be as little as a piece of tarp on the ground where a woman sells charcoal for fuel. Some of the trading take place very temporarily, where one day there are a lots of goods and the other day the stalls are left empty.

Businesses take place partly as the trade, but some business can also be done in a larger scale, where the focus is to produce for further sale. The main business of this sort is the fish frying. This is where local entrepreneurs take care of left over pieces from the fishing industries and make fried fish patties for sale, either locally in Bandani or at the town markets.

## Social gatherings and play

Among gathering activities I include such activities as resting and social meetings. This can be hanging out below a tree, to play football with some friends or learning to ride a bike. The gathering often takes place together with other activities, in relation to trading or transport. The play occurs where there is room for activities, the open places sometimes attract kids for football games.

# VISIONS
# FUTURE

## 19 Visions

This part of the work involves two brief visions and development ideas for Bandani, a way to deal with the informal settlement and to allow for a frame work without forcing a formal regulation system on the landowners and dwellers. To fully implement any of those schemes it would require a massive program, but I see the ideas more like a teaser on how to deal with the development and upgrading of slums in a landscape way. Maybe could the ideas sprout from below, gaining popularity from the inhabitants rather than from officials? By suggesting a slightly more covering idea the slums can take a step forward. Remember the fact that before this project was started there wasn't even any map showing the landscape of the Bandani land use or landscape.

## Trees as a frame, maximizing green structure in Bandani

The dominance of open land and field among the land use types in Bandani makes one wondering how the area will develop with further migration to Kisumu from the surrounding rural lands . When looking at the other informal settlements of Kisumu the housing densities are generally higher with less fields interwoven. This seems like a reasonable observation, where housing and fields compete over the same land. And in this sense the increased housing densities and slumification has a double effect, not only makes more houses the area denser, it also deprives the area a space suitable for farming. When talking to the inhabitants of Bandani many notice the "green" to be one of the positive factors and qualities of the area. The challenge would then be to allow for the increased migration and at the same time allow for maintained qualities and preferably introduce new factors that

An increased demand for housing is very likely to happen according to the trends in migration to the cities (UN-Habitat, 2005). Parts of this will for sure occur in Bandani, being one of the informal settlements, with space and low cost housing. A likely scenario is then that some of the fields will give way for more housing units. Housing will also surely be built on the open "voids" but many of these areas are very wet and not suitable to housing.

An idea to keep some of the qualities that Bandani poses and yet allow for more houses would be to introduce trees and let them be introduced along with new housing. This idea is to be seen as a small way to deal with extreme slum environments rather than a legislative planning tool. But as there are no de facto tools to minimize or avoid further building in Bandani, why not make the best out of it?

The trees doesn't interfere with houses on the ground level as the trunk of the tree is basically very narrow compared to the projection of the canopy. By allowing a small amount of ground for the trees you create a great value in shaded environment and wood as a valuable source for building and fuel. Knowing that wood for building is scarce in Kenya can give the inhabitants in Bandani a valuable asset over the years. Even if the trees don't take up a substantial amount of land they can help in creating spaces in between the houses and as a secondary effect they might help in creating slightly bigger distances between the houses and thereby creating a settlement moving away from the densest kinds of building types. Apart from a direct benefit to Bandani this scheme could also benefit the entire community of Kisumu be providing the much deforested area with a green base, this concept also can cooperate with the following.
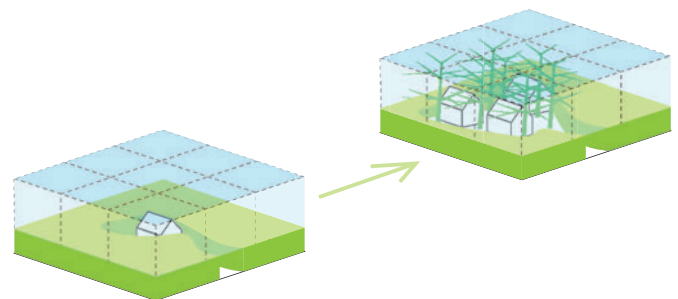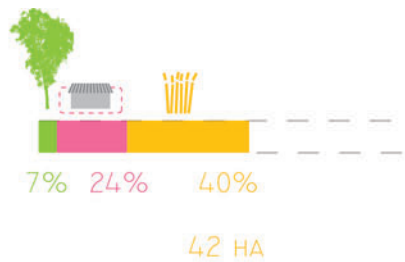
TREES ONE
HECTARE
(CANNOPY)

HOUSES WITH
SEMI PRIVATE
ZONES ONE
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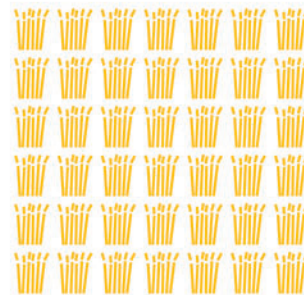FIELDS
ONE
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7%  24%    40%

42 HA
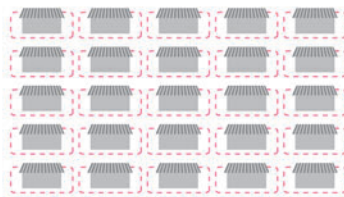
PRESENT                                    25 HA
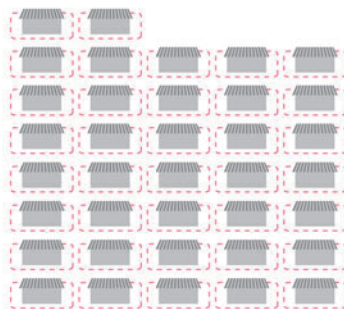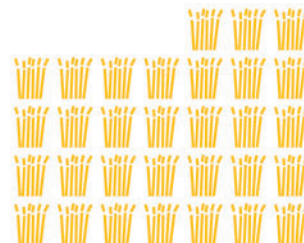
7 HA

INTENSIFIED HOUSING WITH LESS FIELDS AS A RESULT,
TREES FIND ROOM CLOSE BY HOUSES

+ 12 HA

+8 HA                                              -12 HA

## Simple offsets for better life

A problem with creating plans for informal settlements is the inability for the planners to affect what really is happening in the slums. But by changing simple regulations one could achieve a major improvement in the lives of the dwellers by regulating offsets between buildings. By creating a minimum distance between buildings you would achieve a less dense slum and at the same time achieving a safer settlement in terms of fire risk. By making an offset between buildings that reflect the need for outdoor private space the settlement could reach a more efficient land use and at the same time creating a less crowded situation. There is land in Bandani, it is just that some of the places are very congested.

## Relating to new roads, creating a small centre for Bandani.

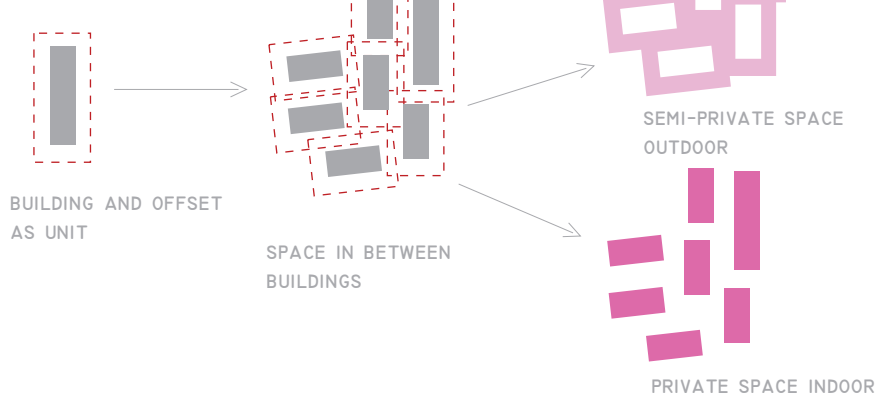(Recent updates from Kisumu states that there are evictions going on along the reserves for the planned ring road and the rail road.)

A reasonable scenario is that the ring road finally will be built around the city core of Kisumu, making it more of an internal ring road as the slum belt will lay outside of the completed ring. The road would then go from southern Nyalenda, hitting the Nairobi road and continuing along Manyatta and then passing south of Obunga to turn south towards the Busia road somewhere close by the sewage treatment plant. The last part will probably affect Bandani as the connection of the ring road and the Busia road will make a big crossing, likely to become come kind of centre. Instead of simply letting things happen, as usually is the case when talking informal settlements, here is a chance to create some kind of frame work for a market that then could be emerging on its own on the site. This approach would somewhat turn the traditional planning upside down as the centres then are planned in the informal settlements and making the slum a destination on the road instead of a completely informal market area that have occurred at a certain place.

TRADITIONAL SLUM
EXPANSION



BUILDING AS THE ONLY
UNIT

DENSE BLOCKS

OFFSET SLUM EXPAN-
SION



BUILDING AND OFFSET
AS UNIT

SPACE IN BETWEEN
BUILDINGS

SEMI-PRIVATE SPACE
OUTDOOR

PRIVATE SPACE INDOOR

FUTURE RING ROAD

NEW SLUM CENTRES

EXISTING SLUM CENTRES

61

# 20 Reflections

## Thoughts

When discussing informal settlements you come down to that the different features of the settlements poses different levels of informality and on this level I find the importance of a landscape perspective is most appropriate. When the informal city gets attention from the formal city the first focus seems to be the structures and amenities. Slum upgrading tends to focus on structures, houses, latrines and wells. When looking at it like this, the most informal then tend to be the environment apart from housing, that holds on to the informality and it is in the context of outdoor and not built form I have seen the most of informality, where farming take place in a haphazard way and an arbitrary tree has been left to provide shade for the community. To understand the informal settlement it is important to take a serious look at the non-built forms and processes of informalization and how the void spaces act in an informal context. When the structures are set, they provide some of the base for the settlement, something to hang on to in a settlement with an unwritten story. To some extent the non built space has a level of formal planning. In Bandani there are made reserves for roads and market by the legal planning department. Although this is by no means visible in the realized structure of the settlement, legal borders are blurred and are not represented in a physical context. When confronting the people of Bandani in the interview situation it turned out that non housing dependant activities took place where there was room. Farming is done where there is a strip of land left, sometimes by the land owner sometimes by "squatting" farm lands, animals are hold where it grows grass, independent on who owns that particular piece of land.

## Time, a factor

The need for information when it comes to slums is crucial, the reality is quick and the analysis and report is somewhat slow. What applies at one time might be outdated and downright wrong the next time you look, even if you keep your channels of information open the factors that affect the slums are complex, and haphazard. As the informal settlements are just informal this means there is no plans or regulations to lean on, no real information and the stakeholders can be numerous, creating a complex network of people and processes that affect the slum.

## Updates

Over the time of writing things have happened to the slums in Bandani and the rest of Kisumu, it is hard to get any concrete information in what have happened but it is confirmed that the market are in Bandani has been demolished, likely by the railway company. The reason behind this is somewhat unclear. Also in the slum of Obunga dwellings on the road reserve in the south of the settlement have been evicted and torn down.

The events of demolition confirm the notion of the importance to work swiftly. The events are in relation to the development proposal for Bandani stated in the previous chapter, where one of the visions involved an extended road and the need for a market area and centre in the east of Bandani.

## Wrapping it up

Lookin back on the entire project you realize how complex the situation in the informal settlements is. Despite that this work has been focusing on the situation of Bandani in Kisumu, Kenya just by looking at the informal settlements in Kisumu for example you realize there is a huge variety among different slums. One can be far too dry and lacking water, the other one is soaked creating a breeding ground for mosquitoes and malaria. In one slum the costs of housing can be in level with formal housing alternatives while in others, as in Bandani, housing is the cheapest available.

When reflecting over the title, "identifying the informal" one ask the question, did you identify the informal then?
The informal as a whole is an enormous mass to grasp and is impossible to identify, but in Bandani the informal have taken a step closer to identification and a small piece has been added to the pool of knowledge of the informal settlements in general and Bandani in particular. A few conclusions can be drawn from the field work in Kisumu and the literature studies, as mentioned in "Planet of Slums" (Davis, 2006) the slums occupy the least favourable land, in Kisumu this

means marshy lands and congested places within the city. It is almost unbelievable how the slums of Kisumu, which are not mentioned by Davis, follow some kind of "text book slum" pattern laying on the worst land. On the other hand the slums of Kisumu display a great variety and surprises. Bandani wasn't that typical slum settlement all over, it displays some rural character combined with the peri-urban slum character. When coming down to the places and use the informal settlements doesn't differ that much in function from the formal city, there is need for transport, business, trade, gatherings, play and privateness. But the way it takes form is somewhat different. Instead of playing football in the sports ground, here it takes place in the open field. Gatherings doesn't have to occur in a café or designated park, they can take place under the tree or at an illegal liquor parlour. The household chores doesn't take place only within the home walls, it temporarily occupy outdoor land as well.

To wrap it all up I find that the material produced through this work is a step towards understanding and improving the life in the slums. As the informal settlements are informal, all planning will have to be done in a retrofit manner a time consuming procedure which demands great patience both from the people doing the planning and research and the slum dwellers. This can help to fight the somewhat dystopic fate of the 21st century cities presented by Davis (2006) and Correa (1985).

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