Social changes and spatial transition of informal settlements in Sub-Saharan communities

1 AUTHOR:

Michiel Smits
Delft University of Technology
3 PUBLICATIONS **0** CITATIONS

SEE PROFILE

Social changes and spatial transition of informal settlements in Sub-Saharan communities

Ir. Arch. Michiel Smits, PhD candidate

Technical University Delft, Julianalaan 134, 2628 BL Delft,

The Netherlands

michiel.smits@gmail.com

Abstract

This study investigates the social relations within the traditional African family compound, its relation to life in public space/the public domain and compares the impact on these relationships as a result of changes in current developments. First, a detailed description is given of the main location, everyday family life, the way members interact with each other and daily use of the family compound. The flexibility of the family home interior, the separation of men and women and the importance of the inner court, programme and communication is explained.

In addition, how the structure of the family compound (traditionally having a semi-closed space in the middle) influences the family's communication with the public space is investigated. The study describes the importance of this form of communication in everyday life (water fetching, going to school, going to work, etc.), in comparison to the traditional situation (Butula) and how this is negatively affected in recent local developments (new village Mt. Elgon). A comparison to the situation in current city life (Kitale) is made in order to understand how these changes can also be observed in contemporary African urban life.

This study elaborates on the obstruction of the social structures, communication and the importance of self-reliant communities. Moreover to describe a possible future role for architects in informal settlement development.

I. The situation & location

During the first months of my initial visit to the rural of Kenya I became a different man. The people I met there were living from day to day, not worried about the next week. Compared to my own life, people from the rural village that I worked and lived with led lives relatively without worry. During the last week of my stay, I visited the slums of Nairobi and was shocked by what I saw, and wondered if these people believed that they had improved their situation by moving to the city. What made them decide to leave their friends, family and general security behind? The strongest motive would most likely be prosperity (Davis, 2006) but in many cases the result of family disputes often leading to violence (Butula & Kitale analysis). That's why I decided to aim my investigation at rural areas - trying to improve on rural housing, small economy and education.

While in Kenya on one of my studies (Mt. Elgon 2009) I worked as an advisor for the owners of a farm in the western region of Kenya on Mount Elgon. The farm is located in an isolated area on the border with Uganda. Most of the workers (1300) have been living on the perimeter of the farm for generations, because the farm lies in a remote area. My first project was the design of an orphanage, but soon I was asked to make the master plan for the farm and designs for all the development aid projects. Although the owners had the best intensions, it seemed they were disregarding the social and cultural background of the inhabitants, not due to ignorance, but because of the priority that lies in the general improvement of health and habitation quality. Below a picture of the farm and NGO staff is shown.

Images 1, 2 (source: M. Smits)

II. Urban layout of 'camps'

One of the first major projects was to advise on the construction on one hundred labourer's dwellings (built by an external Kenyan Foundation) near the farm. As the

design of the dwellings was already finalized and there was only a sketch design for the urban layout, my primary objective was to improve and finalize the planning of the new village. The image below shows the first urban plan for the area. When I first glanced at it I was shocked by the rigorous rationality of it and the contrast it seemed to make with the existing organic infrastructure, which is found in the camps and villages.
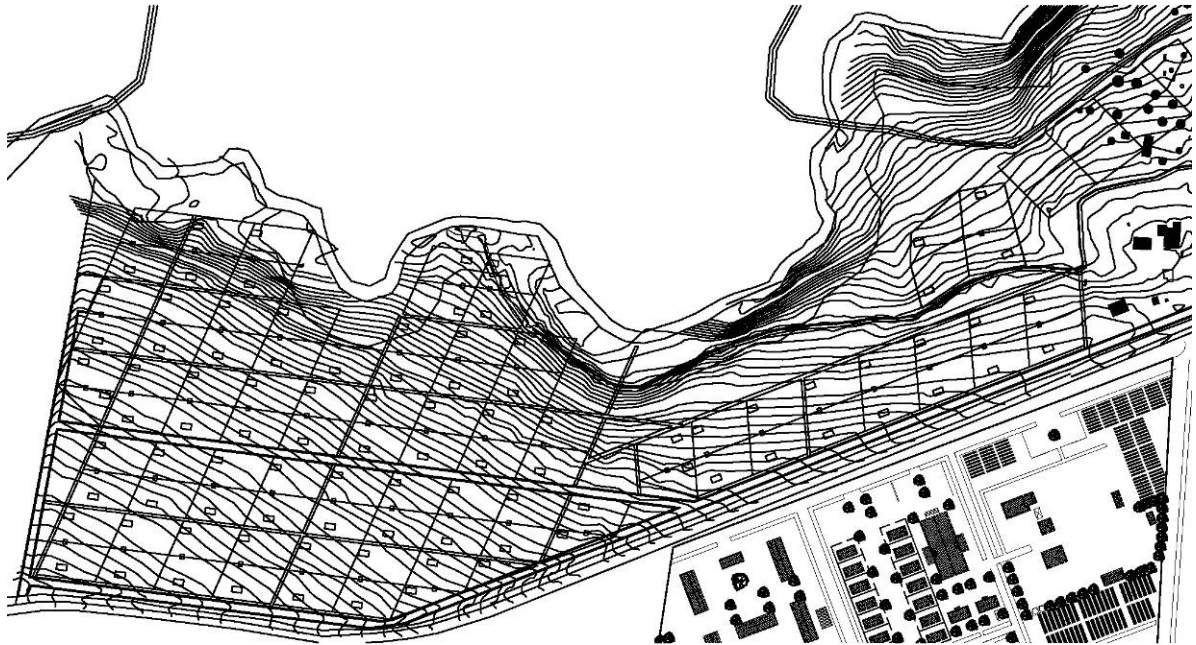

Image 3 (source: M. Smits)

As the community was not involved in the development process and I was not an African expert, I needed to find a way to understand the community's life and customs. Certainly, there was little chance I would get anywhere close to full understanding, nonetheless I started mapping out the living 'camps' of the workers. In the image below you can see the map I made of all the 'camps' indicating the morphology of the houses, their shape and the network of the different typologies of infrastructure.
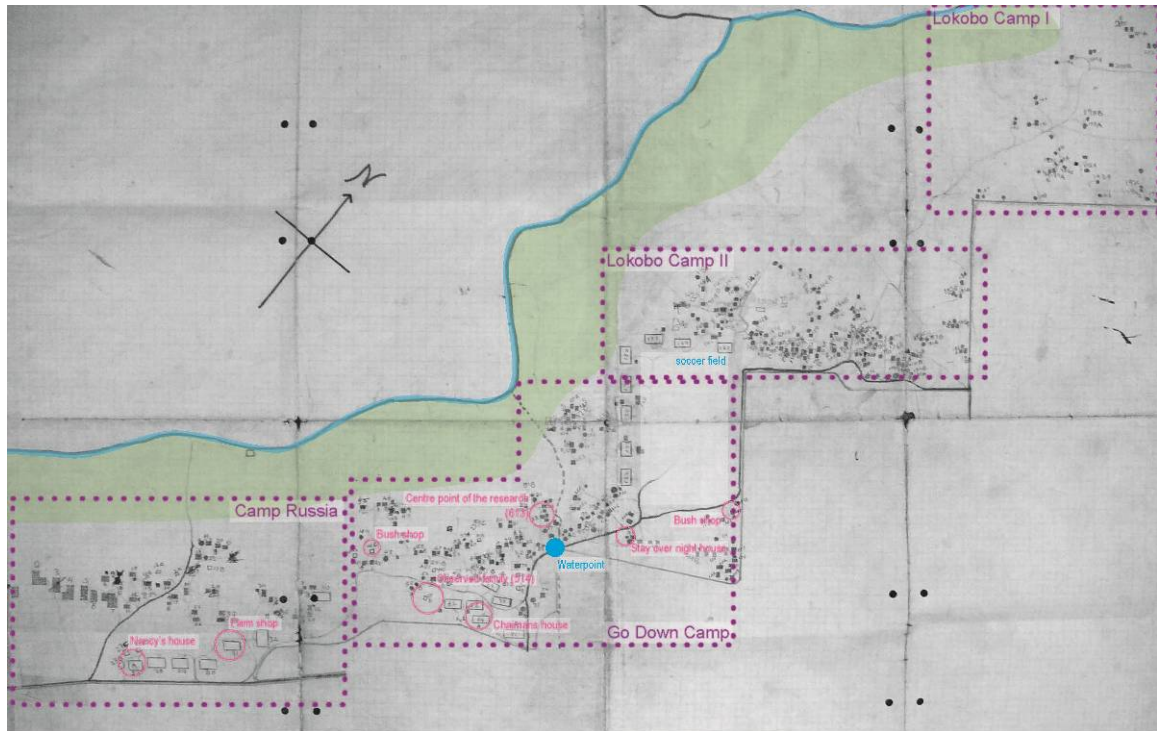
Image 4 (source: M. Smits)

The terrain and climate proved to be very challenging, but as I started to have conversations with the inhabitants they started to invite me in offering me tea or *mandazi* (a type of fried bread) and most of the time couldn't hide their curiosity. When they began to understand who I was and what I was doing they soon started asking questions about their new village. When shown images of the urban layout of the village, people had many questions. People seemed worried by the proposed size and amount of dwellings per family. When asked why was it so important, they started to explain and show the relations between the different structures. Particularly the division between parents and children was stressed: girls living in the kitchen (after 2-3 years old) and boys constructing their own dwelling opposite to their sisters. Where at first I only mapped on physical indicators, I soon acknowledged the underlying relations between dwellings that formed the family compound and the way they interact with their community.

III. **Programme of the compound, flexibility and separation**

Having great difficulty in understanding the magnitude of the internal relations of the family compound, I asked one family if I could stay at their home for 24 hours. When I first met Joseph, he was pleased to be my host and soon I visited his home from 4:30 in the morning till 23:00 in the evening. In the image below you can see Joseph's entire family in the background showing the main family structure.

Image 5 (source: **M. Smits**)

From 4:30 in the morning I left to visit the family and just walked around their family compound to observe what they were doing, where and why. Sitting in a corner, I made drawings, took pictures and walked around. Understandably, they did not feel very comfortable with me observing everything they did. What follows here is a fraction of my observations:
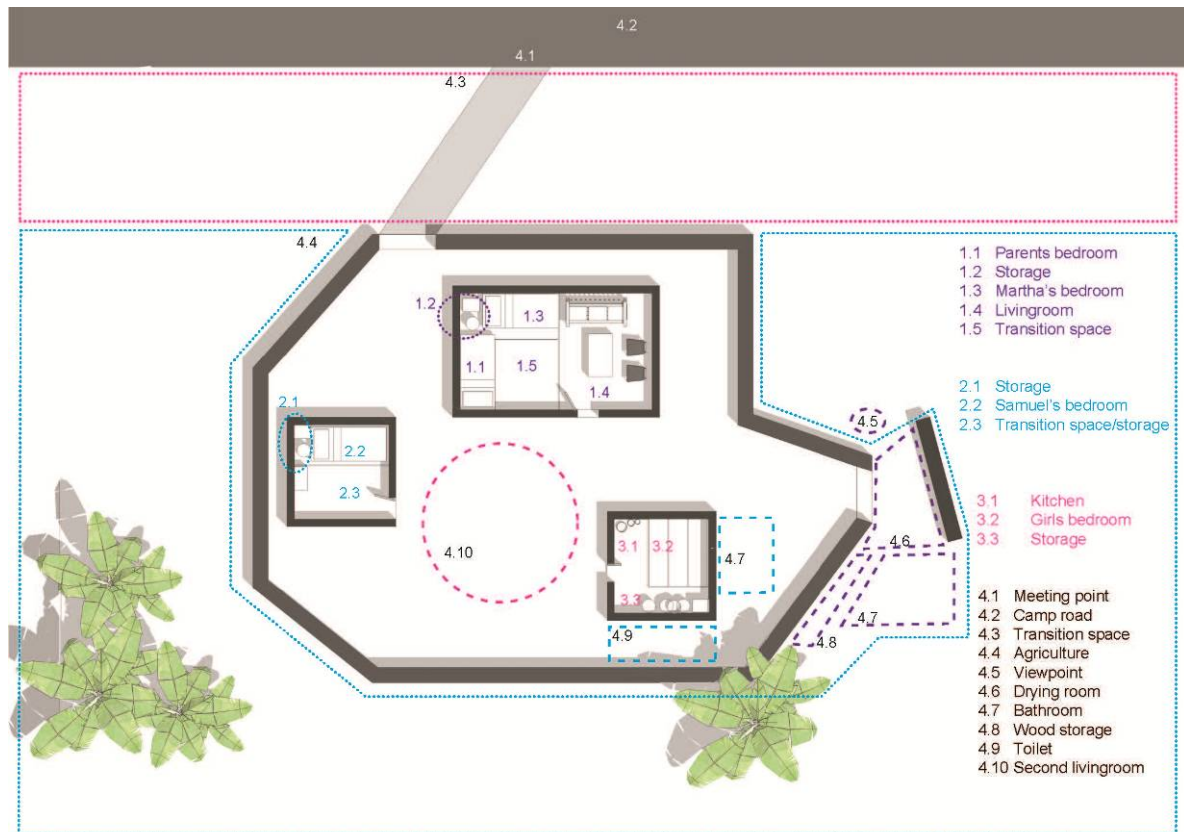
Image 6 (source: **M. Smits**)

The family house stands next to the entrance of the compound and is situated on the top middle (see image above) this is the dwelling where the parents live and Martha (daughter of 8). The left side of the house is reserved for sleeping. Two beds are placed here and cloths are used to make a separation between the two bedrooms (parents and Martha). Round the beds large bins are placed for storage purposes. In total, this covers almost half of the family dwelling; the other half is used as living space. Alice (mother, 40) explained that children up to one year old sleep with the parents in the same bed (we can only wonder how this is spatially possible in a 1 person bed). Older children sleep separately in the family home, where traditionally they place a mat on the floor and make an additional separation with a cloth. When boys or girls are mature (between 11–17) they need to start living by themselves. For boys this is after circumcision and for girls there is not a set time but often at the same age as the boys (traditionally this was also after circumcision). In both cases the children will need to construct a new dwelling and need to start taking care of themselves and in addition for the girls taking care of the whole family.

The dwelling on the left hand side of the family house is the dwelling of Samuel (17, lives by himself.). When we compare his dwelling with the kitchen/bedroom of his sisters (3) it is almost the same in size. Not only does he have a bed and small cabinet to store his clothes, but the dwelling is clean and doesn't smell. Again, his dwelling is also divided into two parts

by a thin cloth. The rest of his dwelling is used as storage space. The dwelling on the right hand side is the kitchen space, which also functions as the dwelling for the girls. During the day sleeping materials are stored at the back of the kitchen by doing so maximizing the kitchen's working space. At night mats are rolled out and a mosquito net is hung above the beds of the girls. The net is the only one the family has; in this dwelling there is no separation between the different functions and most space is used for storage. Details of the dwellings and inhabitants can be seen in the images below. Most crucial observation is that the dwellings have no structural separations. Any type of separation is made by cloths allowing great flexibility in program and sustaining internal communication (visual and verbal).
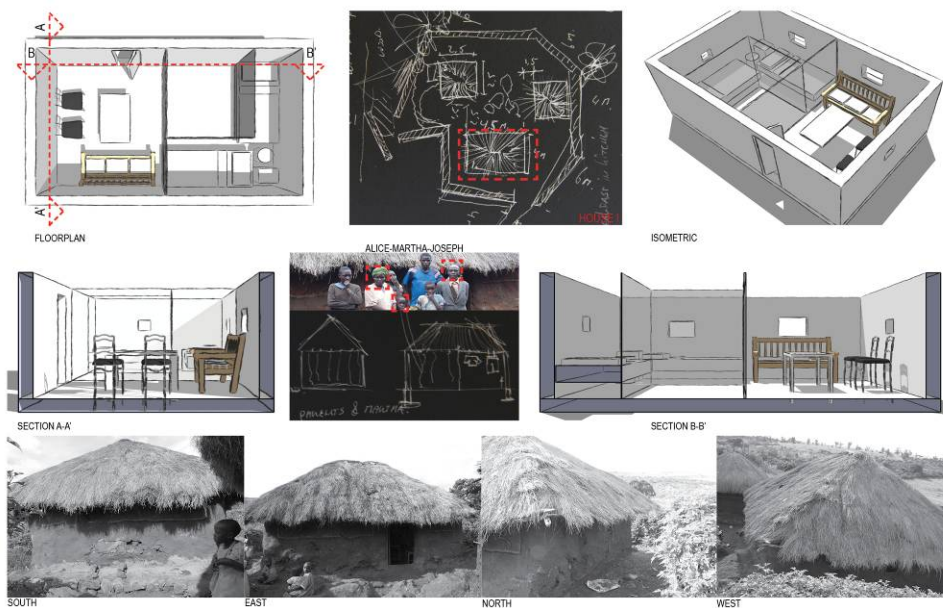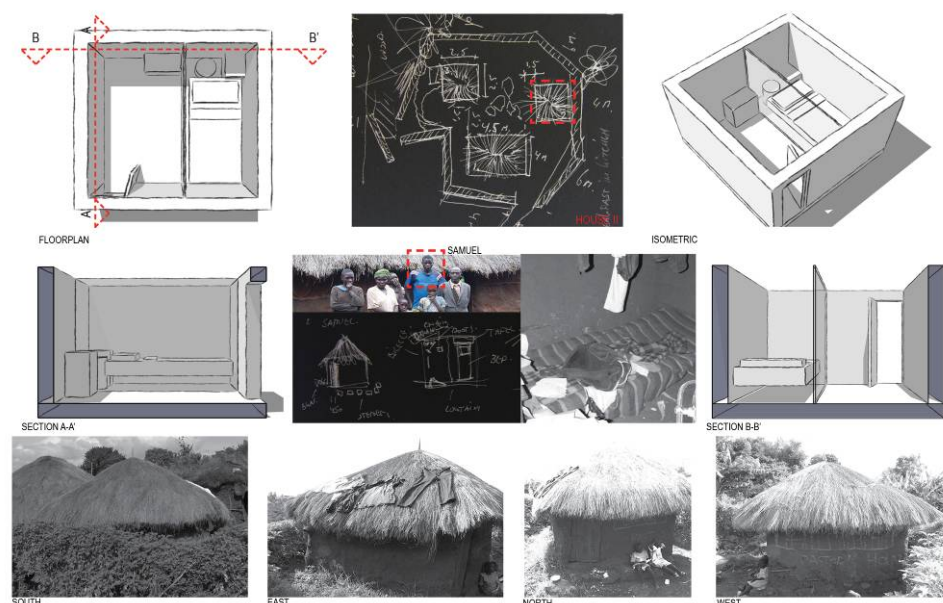

Image 7 (source: M. Smits)
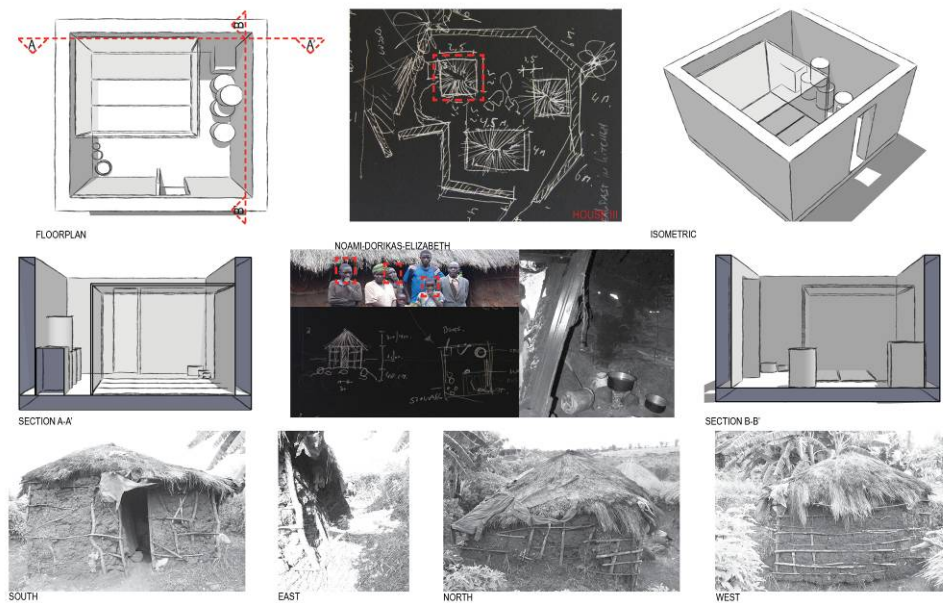

Image 8 (source: M. Smits)

Image 9 (source: **M. Smits**)

The family compound is fenced with a low hedge and has a couple of banana trees. From the main entrance a small path leads to the main road, which is visualized in dark grey. Round the family compound there are also different outdoor functions. These are not defined by anything and are for that reason marked with a dotted line. Behind the kitchen space there is an area to wash oneself out of public sight and on the other corner a place to wash clothes. The right edge of the family compound is used for drying clothes, growing vegetables and for midnight sanitation emergencies. The most vital part of the compound is the central circular space, which is used for everyday activities. Here the family gathers, makes preparations for cooking, children do their homework but also just to sit and talk (with family but also with visitors). We could say that this central space functions as an outdoor living room for the family.

One of the most important observations I made while sitting in this area was the way that the family stays in contact with the street life of the camp. Children are gathering one by one on the way to school, just by shouting one another's name. This sensitive semi-enclosed public space seems to have a vital role in the social interaction of the community. They can be observed within all homesteads and form a vital clue in the sensitive relation between family and community.

IV. **Inner court communication (private to public)**

The images below show the social conditions and relations within the family compound and how they extend into the street life of the community. In the left hand image you see the

social activities per inhabitant to increase understanding of relations, where they apply in the spatial organization of the compound and dwellings, and how they interact with street life of the camp. The second diagram indicates where and for what purpose the family communicates with the street life. Here the outdoor living room has indirect connection to the infrastructure, for instance when her colleagues call Alice to go to work.

Fetching water and firewood isn't only vital for the family's everyday survival but also seems to play a vital role in the community's social success. The third image indicates the importance and position of these common social hotspots.
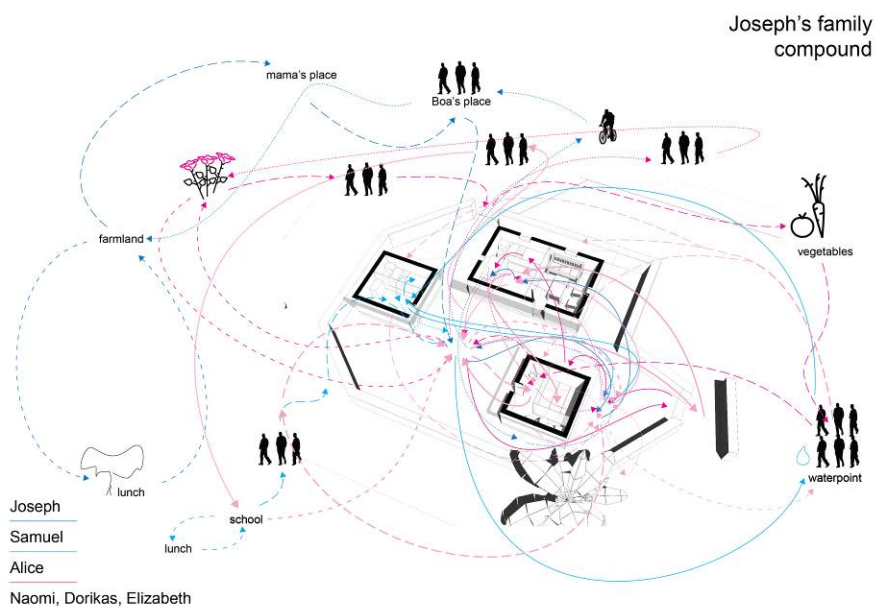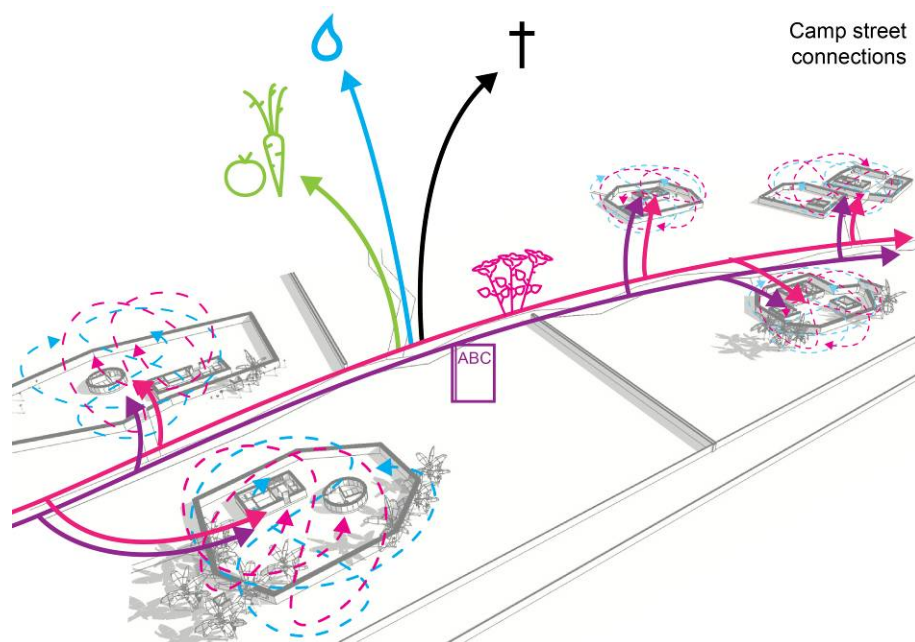

Image (source: M. Smits)
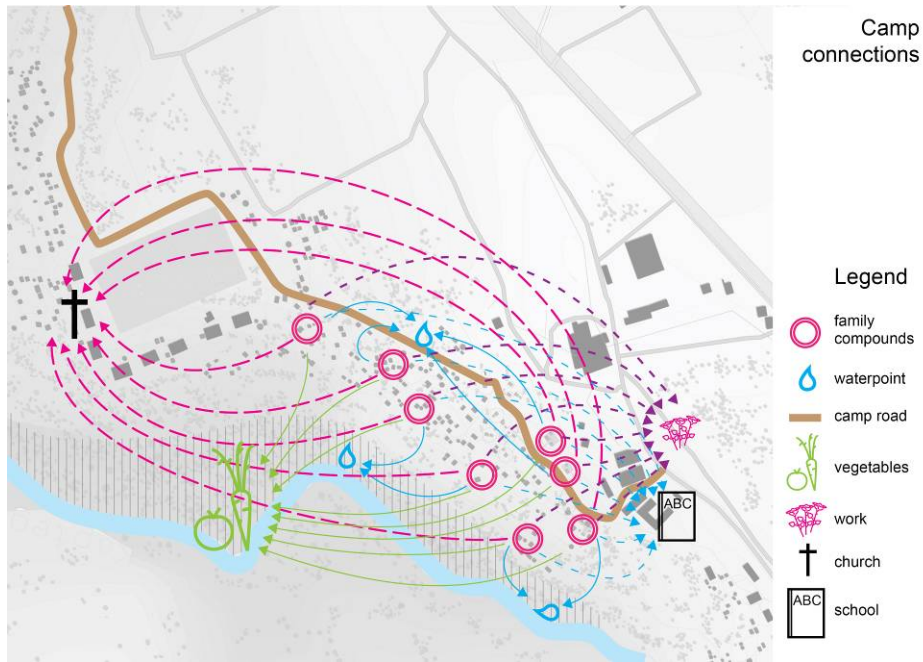

Image 11 (source: M. Smits)

Image 12 (source: **M. Smits**)

Most of the individual arrows connect the individual structures to the central living space. The second most important hotspot is where the family showers and washes their clothing. Compared to western morphologies, we could conclude that there is a high percentage of the family's programme that involves outdoor activity. In combination with the street life passing by just five metres beyond the compound fence, there is a transparency towards the community. Whatever the reasons, this transparency can be observed in most of the family compounds in the camps. This could be a possible vital component to the community's social success and formulates the main comparative for analysing the new situation.

V. **The new village**

Image 13 (source: **M. Smits**)

The image above shows the introduced urban layout of the new village. There is a large contrast between the organic morphology of the camp maps and the new village. This rational layout provides every family with an equal 1,000 m² of farmland and a single-family home, sanitation block and central services (water and garbage per section). In the old setting the characteristics of the terrain where used to position the compound (entrance, dwellings and outdoor shower); now this is forced into a uniform model disregarding the terrain, social network and the sophisticated transparency between private and public. In the new village (image below right) the vague division between public and private (low green fences, orientation dwellings, outdoor living room, etc.), has been replaced by definite, strong borders (high barb wired fences, main entrance facing street, indoor living room, etc.).

Image 14+15 (source: M. Smits)

However, there are also similarities between the old and new situation. The family's main activities such as fetching water and firewood, but also walking together to work, school and church, remain the same. Although, when it comes to connectivity, there is a large obstruction in the new situation . Normally people were able and allowed to take the shortest route over the family compound, in a way that they would walk by the house and continue together. In this situation, the rational infrastructure and compound obstruct any movement over the family compound. Not only disregarding the shortest route but also distancing private from public life.

Significant observation in the camps was the position and importance of social functions, for example the position of the chairman's house, but also placement of school, church, sports, farming, etc. To fully comprehend this information and to apply this to a new community plan by somebody who is not a part of the cultural background or community is simply

impossible. For this reason, I decided to test in a rather playful manner whether there is a communal awareness of these social functions.

A board game seemed the best way to take away the stress of questions and answers (observed in interviews with the inhabitants) and just give people the opportunity to show in an informal matter what their ideal village would look like. Over a couple of days we played the board game with fifteen different people living inside the current camps. On the picture below you can see the board game called Dream Village. The board was covered with a map of the new location, and because map reading is difficult for most inhabitants we described the area by the social focal points they know. The pieces I made for the board game were: houses, church, market place, water collection point, school, chairman, bush shops, etc. All the contestants showed their ideal village without knowing or seeing what the others produced as a possible scenario. The board games were played at the inhabitant's homes and explained by local people.

Images 16+17+18 (source: M. Smits)

Of every contestant's solution photographs were made. The map was divided into 5 zones (shown in the image below). From the first analysis, it became clear that the position of certain public functions was in most cases positioned in the same zones. Indicating that there is a communal spatial notion of the position of the cultural programme and public functions. This shows that every community has a common understanding of organizing their public space and that ignoring this organization could possibly frustrate communal organization. This therefore questions the viability of the current development of the new village, and poses a possible threat to the inhabitant's everyday spatial organization and its social actors.

VI. **The new village (architecture)**

The contrast between the typology of the camps (left) and that of the introduced dwelling (right) in the new village is shown in pictures below. In contradiction to the former situation, many spatial, physical and social obstructions were found in the comparison between the

two. In the new village, people are allowed to construct only one structure on their compound. This means a drastic change in culture as men and women are forced to live together in one house.

Image 19 (source: M. Smits)

the programme of the dwelling reveals more severe changes. Because separation in the programme is now made by walls instead of cloths, the dwelling loses its flexibility and inner social atmosphere. Now family members have their own room, which can be closed from family life. Where traditionally an average family would have between 60 and100 square metres of programme for each family, this is now reduced to a mere 30 square metres. For the families that have over 6 members (the great proportion of inhabitants still have extended families) it is simply impossible to fit into the dwelling. Now young children being forced to live outside the family compound in a nearby village. Recently this resulted in many threats to their wellbeing, as without parental care they are exposed to alcohol, drugs and violence.

Where, in the camps, the outdoor living room was semi-enclosed from the public and in this way partially maintained the privacy of the family, it is now fully exposed to street life (see picture below). In the last observations we can see an increase of time being spent inside the family structure instead of being outside. This could cause a further increase of privacy and has possible negative effects on social transparency within the community, which in itself is a choice that the family or community should make based on the possible social consequences.

Image 20 (source: M. Smits)

Cooking is another very important part of the compound programme that has been forced to move to a different position in the compound. The inhabitants traditionally cooked outside. But the developers perceive this as a fire hazard. For this reason, they provided a kitchen inside the new dwellings. Not only is this socially unacceptable to the inhabitants (as they perceive indoor cooking as ridiculous), they even refuse to use the inside kitchen. Luckily, this provides the family with an additional bedroom, which in most cases they desperately need. In the first weeks in the new dwelling you could see most of the women cooking outside just around the corner from the kitchen on an improvised stove. After this observation, I was able to add an outdoor kitchen to the dwelling design and now all dwellings have an exterior kitchen. Traditionally the kitchen was in a separate structure in the homestead, as this was not allowed by the developers I was forced to attach the program to the dwelling. A comparable development that can be observed in contemporary city life. In the left image below you can see the traditional (Butula, separate kitchen) in the centre the new village project and on the right image the comparable situation in the city (Kitale)

Images 21+22+23 (source: M. Smits)

Another example on how private functions are positioned in the public is sanitation. In the analysis of a neighbouring project of recently developed houses (by the Kenyan authorities), I observed people taking showers and urinating outside. When taking a peek inside the dwellings, they had a proper shower and toilet inside. We asked why they didn't use the indoor sanitation and they explained that this was socially unacceptable. In the garden they made a typical local shower unit made out of thatch just next to the house. In the sanitation units of the new village, the toilet and shower were positioned on the edge of the family compound. Provided with proper sanitation, the developers thought that the inhabitants would be happy with the solution. Nevertheless the same shower units appear as in the above example. As inhabitant are not allowed to pull up any structures they often attach cloths to the dwelling and pull these up to position when they want to shower.

VII. **Obstruction community's social structures & decreasing self-reliance**

Not only the position and privacy of the compound programme is important to the vitality and cohesion of the community but also the role of maintaining dwellings, public buildings and infrastructure. Here children, men and women had their separate roles in maintaining the environmental balance. Passing on knowledge on techniques, materials, and mixtures used are vital in that process, but also cultural values such as singing and dressing. With the new dwellings, the use of external more durable solutions ends these traditions, and by doing so possibly obstructs cultural awareness and control. Any maintenance is performed by builders and is costly. This decreases the inhabitant's self-reliance concerning their built environment and increases capital dependency.

Rural society still largely depends on horticulture and has increasing difficulties in competing with a government that strengthens their own horticulture position and by doing so drives the country's food prices down. With the wide spread of diseases and the by use of vast amounts of insecticides local farmers often struggle to achieve a harvest. This combined with the increasing pressure on capital dependency means that most families choose or are forced to leave their ancestral grounds to find new ways to sustain their lives. It seems that Western history repeats itself in Kenya. Although we can't make a direct comparison with early industrialization, we can observe some of its same actors. People in search of prosperity; a country further urbanizing and a quality of life deteriorating (as seen in Kenya's main slum Kibera).

Under increasing pressure, western society is changing to a more self-reliant (less capital-reliant). Recent developments show that we are seeking to provide ourselves with our everyday needs. In some cases trying to become independent from the global economy and striving for a more local circular economy. This can be achieved by providing ourselves with our own home-produced energy, food, water and such. When compared to current local conditions in Sub-Sahara Africa, we could observe some of these values still intact. The question arises whether we shouldn't strive harder to sustain them.

VIII. **Possible role for the architect: The development aid architect**

This would require a radical change in the development aid industry. It is questionable whether the current changing tendencies in contemporary rural life shouldn't be in the hands of the inhabitants, only gently guided by professionals (developers and architects). Focussing mainly on enabling social and environmental changes made by inhabitants themselves concerning their built environment. As the developer and architect know the possible outcomes of most decisions concerning the built environment, they could advise the community and leave the final decisions to them. In any case, my position (as an architect) and my role in the recent development of Mt. Elgon is transforming but seems to be vital in the decision-making process. As an answer to problems and questions stated by this article, future publications on this research will aim to describe the methodology and tools that the architect should use in comparable situations. Hopefully sustaining the community's self-reliance, communication and social homogeneity.

References:

Davis N. (2006). Planet of Slums. London: Verso.