

# DARE WITH CARE

Collaborative Design for Flood-Resistant Housing Construction in Rural Kenya

Carina Prem  
Spring term 2024

Chalmers University of Technology  
Department of Architecture and Civil Engineering

Examiner: Marco Adelfio  
Supervisor: Emílio da Cruz Brandão  
Co-Supervisor: Shea Hagy



# EROKAMANO

thank you

I am starting my thesis the same way I started all my workshops:  
EROKAMANO

Thank you to everyone who made this possible.  
From my teachers, family, and friends who believed in me and supported me all the time however they could,  
To my research partners and the community that I worked with in Kenya,  
To you, who picked this booklet up and therefore give it purpose.

The list of people I want to thank seems endless and I feel deep gratitude to each and every one!



**CHALMERS**  
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Master Programme of Architecture and Planning Beyond Sustainability [MPDSD]  
Master Thesis Profile: Society Justice Space

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THIS IS NOT A LAKE.  
THIS IS NOT A RIVER.  
THIS IS FLOODED LAND.

LAND.  
FARMS.  
HOMES.

Figure 01: Graphic poetry depicting the flooded land at the site

# THE SHORTCUT *is sometimes a detour*

In response to the pressing challenges posed by climate change, particularly in vulnerable communities, this master thesis project aims to practically test a methodology of community engagement and participatory design in fieldwork for fostering collaboration between local communities and foreign architects. Embracing decoloniality, the thesis confronts biases and preconceptions that inherit power dynamics embedded within the researcher-community relationship. Using a bottom-up approach, it rejects the notion of imposing solutions, facilitating the community's reclaim of agency over their narrative and future. By doing so, it aims to contribute to reshaping the norms of the architectural profession, aligning it more closely with human rights principles and the imperative for systemic transformation.

With a focus on addressing the impacts of flooding in rural Kenya, the primary objective is to co-design innovative housing constructions that prioritize community needs and enhance flood-resilience. The ten participatory actions over the course of eight weeks culminated in a 'workshop workshop', that was organized to collaboratively construct a prototype structure while engaging in traditional crafts. Despite some challenges and adjustments, the event proved highly productive, fostering hands-on learning experiences and mutual enjoyment among participants, demonstrating the efficacy of community-based knowledge exchange and participatory engagement methods.

The journey as a white Austrian migrant from Sweden to Kenya has been a profound exploration of privilege, perception, and power dynamics. Through my experiences in Kenya, I have grappled with the complexities of wealth, race, and cultural exchange, confronting both the privileges afforded to me and the ethical responsibilities they entail. From navigating perceptions of wealth and race to negotiating boundaries and addressing systemic inequalities, this thesis challenges to critically examine the role of the architect in a foreign context and reflect on the impact of their actions. Despite complexities and uncertainties encountered, one thing remains clear: the importance of genuine human connection through respect and empathy in fostering meaningful change.

Keywords: participatory design | fieldwork | flood-resilience | community-based knowledge exchange | role of the architect



# A TURTLE <sup>\*</sup>swimming

From the mountains to the sea,  
To learn about sustainability.  
From a cold place to a hot,  
To de-do what has done my lot.

Nestled in her new apartment, this author finds echoes of her home on another continent – the space adorned with a plethora of books, scattered papers, and an assortment of notes and drawings, creating a familiar haven. The comfort of her literary chaos is situated on an bumpy dead-end road, witnessing the daily gathering of kids of all ages engaging in spirited football matches, infusing the locality with vibrant energy each evening. Amidst this dynamic setting, she marvels at the artistic skills of her small roof-floor neighbor and, she is captivated by the open and inviting personality of the girl residing just one floor above her, forging connections within the shared spaces of their relatively luxurious dwelling. While she misses having a fridge and a laundry machine, her biggest struggle is the attempt to convince her

instincts that a dip in the nearby lake Lolwe might not be perilous. Despite the warnings, her memories of carefree swims in the Achensee during scorching summers, persist. Her daily life unfolds in this interesting setting, blending memories of her past home with the lively interactions in her new community.



Figure 03: The author at the site on February 1<sup>st</sup>, 2024

\* “Opuk ogo e pige. (The tortoise has been immersed in its water) (Miruka, 2001, p. 56).”: The Luo proverb expresses how a familiar or in this case liked situation leads to excellence and joy. [Author’s note (AN): Dholuo does not differentiate between tortoise and turtle (Capen, 2019, p. 123).]

# THE POETIC

- 3 **EROKAMANO** - thank you
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- 39 **IT'S THE HARE** - that begets twins

- 40 **TWIG WEAVING** - the nest-test
- 41 **REVEALING THE PIG** - before selling it
- 42 **ARCHITECT'S ALCHEMY** - a p(a)lace for learning
- 44 **THE POT LEFT ALONE** - became a treasure
- 48 **THE TWINS** - that the hare begot

- 50 **SUMMER** - or just a swallow?
- 52 **TO LIVE WITHOUT MIRRORS** - is to live without the self

- 68 **LIBRARY'S LABYRINTH** - the bibliography
- 72 **GAZE'S GALLERY** - the table of figures
- 74 **WORM EXTENSION** - not necessary, but there

\*The chapters follow a migratory birds journey, as a metaphor for the reaction to climatic changes.

# COMPILATION

or the contents

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# THE WIND'S ORIGIN\*

the what? and the why?

## Aim

The aim of this master thesis project is to test and manifest my personal strategy for approaching collaboration between local communities and foreign architects. The primary objective is to participatorily co-design innovative housing constructions that address the challenges of flooding, prevent displacement, and meet the specific needs of vulnerable households in rural Kenya. The project seeks to encourage co-learning within local communities to facilitate informed decision-making for housing options tailored to their needs, considering factors such as complexity, affordability, and cultural traditions. Ultimately, the goal is to enhance the community's resilience against flooding.

## Purpose

Climate change has underscored the urgent need for systemic shifts across various sectors, including architecture. The disproportionate impact of climate change compels me to take a global approach to address it responsibly. Contributing to the field of emergency architecture, particularly in the context of climate-related challenges like flooding, in this case in rural Kenya, reflects a commitment to effecting meaningful change. By collaboratively designing innovative housing solutions, the project contributes to mitigating the adverse effects of climate change on vulnerable communities. Ultimately, I see this as an opportunity to contribute to reshaping the norms of the architectural profession, aligning it more closely with human rights principles and the imperative for systemic transformation.

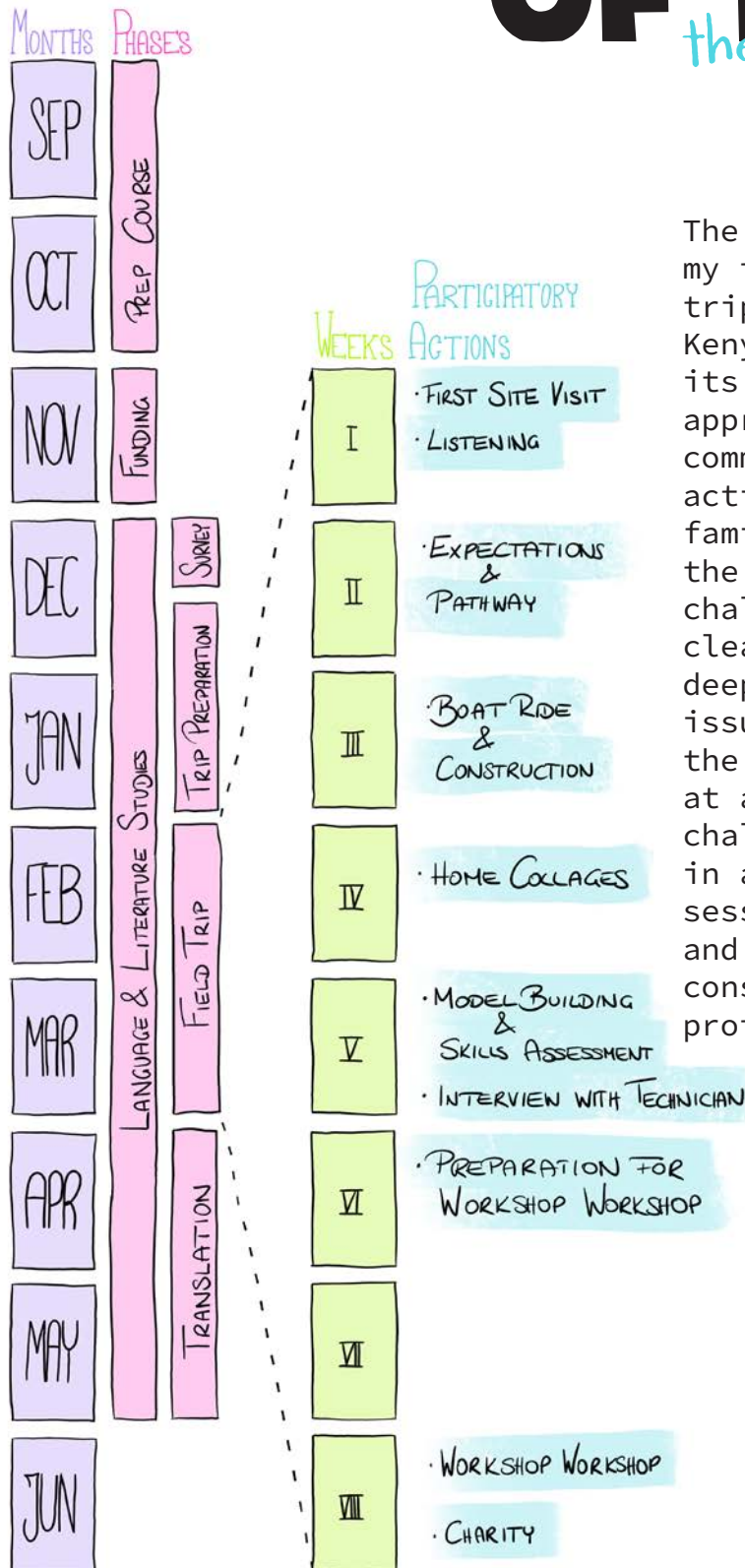
## Research Question

How can architects apply participatory design approaches in an emergency context to address the challenges posed by climate change, specifically, in a community displaced by flooding in rural Kenya?

\*'Daher weht der Wind!' [That is where the wind blows from!]: German saying to express the reason or cause of something.

# WORTH OF TIME

the linear perspective



The pivotal phase of my thesis is the field trip to Kisumu County, Kenya, characterized by its participatory design approach, comprising ten community engagement actions. These involved familiarizing myself with the local context and its challenges, establishing clear objectives, delving deeper into the identified issues, and facilitating the design process aimed at addressing these challenges, culminating in a skills exchange session involving crafts and the collaborative construction of a prototype.

Figure 04: Timeline showing the participatory actions

# DIVE INTO THE

# COLD WATER! \*

*one way of working with this world*

## Finding your spot in the vast sea of challenges

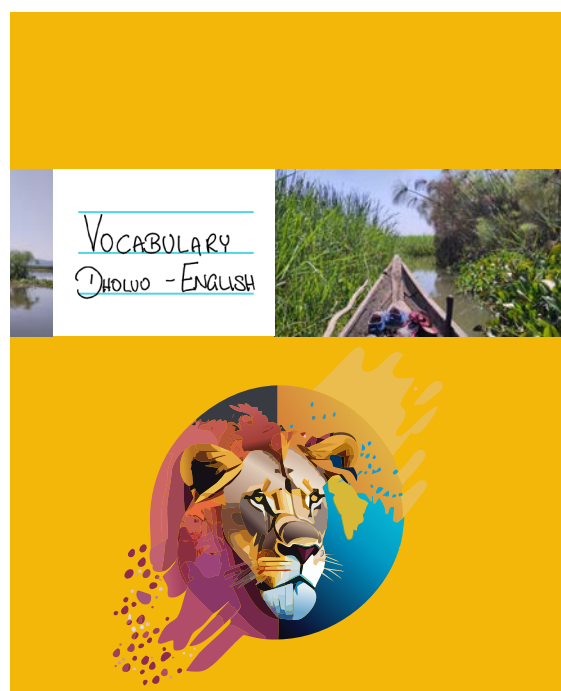
Raised between villages and countries, I've grappled with notions of belonging my entire life. Rejected by some for not fitting into neat categories, I found solace in embracing a broader identity: as European. My time working on a project in a segregated area in Gothenburg confronted me with further questions of belonging and influence. A simple but critical inquiry from a local there

about my residency prompted deep reflection on the impact of proximity and outsider status. This sparked the realization that everyone is a unique child of the world. Transitioning from viewing myself solely as European to embracing the identity of a child of the world signifies my commitment to global citizenship and the belief that everyone, regardless of origin, holds the right to address societal challenges. It's a recognition of the interconnectedness of cultures, histories, and responsibilities in shaping our world, urging thoughtful engagement and empathy in every endeavor. Accordingly, everyone can work in any context. As a first step I therefore looked for a context to work in. I based this decision on my personal expertise in community engagement within participatory design processes, as well as on my interests in identity, migration, climate change, and education. This led me to rural Kisumu County, Kenya.

*Wattnerin  
Schwazerin  
Tirolerin  
European  
Child of the world*

## Approaching the Shore

In preparation for designing for a community unfamiliar to me, my approach prioritizes familiarizing myself with their culture comprehensively. Understanding language as the key to culture, I embarked on learning the community's languages, Dholuo and Swahili, viewing it as a foundational step. Engaging in language classes expanded my understanding beyond mere vocabulary. Drawing inspiration from Edward T. Hall's iceberg model (Hall, 1989 in McLennon, 2021, p. 10), which illustrates that visible events and patterns are just the tip, while underlying structures and mental models below the surface drive those visible outcomes, I delved into surface cultural aspects such as fashion, music, and arts, while also exploring Luo literature, both written and oral. Establishing a foundational comprehension of surface cultural elements prior to fieldwork accelerated the acquisition of deeper cultural insights, including communication styles, self-concepts, and attitudes. This preliminary understanding



is paramount for cultivating meaningful engagement with and within the community. Recognizing the interconnectedness of my personal background with the Kenyan context, I aimed to approach this project in a decolonial way (Boer Cueva et al., 2023). Moved by the anecdote of Minna (Salami, 2023, p. 61) that you can read below, I distinguish between *un*-colonial and *de*-colonial. The former involves reverting to pre-colonial conditions, essentially pushing back to what existed before the impact of colonialism. On

"Because despite asking him to tell me his Ghanaian name—Akvesi—so that I could call him that, I stuck to Anthony. It just seemed forced to suddenly swap the name he had introduced himself with for a name I had requested on semipolitical grounds. I felt as though I'd asked him to put on an Afro wig and a kente robe and act natural."

VOCABULARY  
Dholuo - ENGLISH



This basic set of vocabulary, translating Dholuo words and phrases into English, enables you to exchange greetings and introduce yourself. It also provides you with the most important words related to flood-resistant housing.

amosi

hello

Idhi nade?

How are you?

Adhi ma ber.

I'm fine  
I'm good

To in?

And you?

Anbe adhi ma ber.

me too  
I'm also fine good

oriti

bye

erokamano

Thank you!

mos  
pole

sorry

Anyalo donjo?

May I come in?

karibu

welcome

ayie / ee

yes

adagi / okayie / aa

no

Nyingi ng'a? What's your name?

Nyinga (Corina) My name is (Corina)

Apuonjora dholwo I'm studying two.

(lakini) ok ang'eyo (but) I don't know

dholwo maber.

Dholwo well.

Bende ing'eyo kisungu? Do you speak English?



ot (ute)

house(s)



home <sup>De hoem</sup>  
vs. <sup>Hoamet</sup>



roof



wall



floor



window



door

lwm



grass

mabati



iron sheet

loo



mud

tado gi lwm



thatched roof

korot gi mabati



iron sheet walls

dier dt gi loo



earth floor

ouka 

flood

pi

water

nam 


lake

nam lolwe

lake Victoria


zora 

river

chwodho 

mud

Gatsch

puodho 

farm





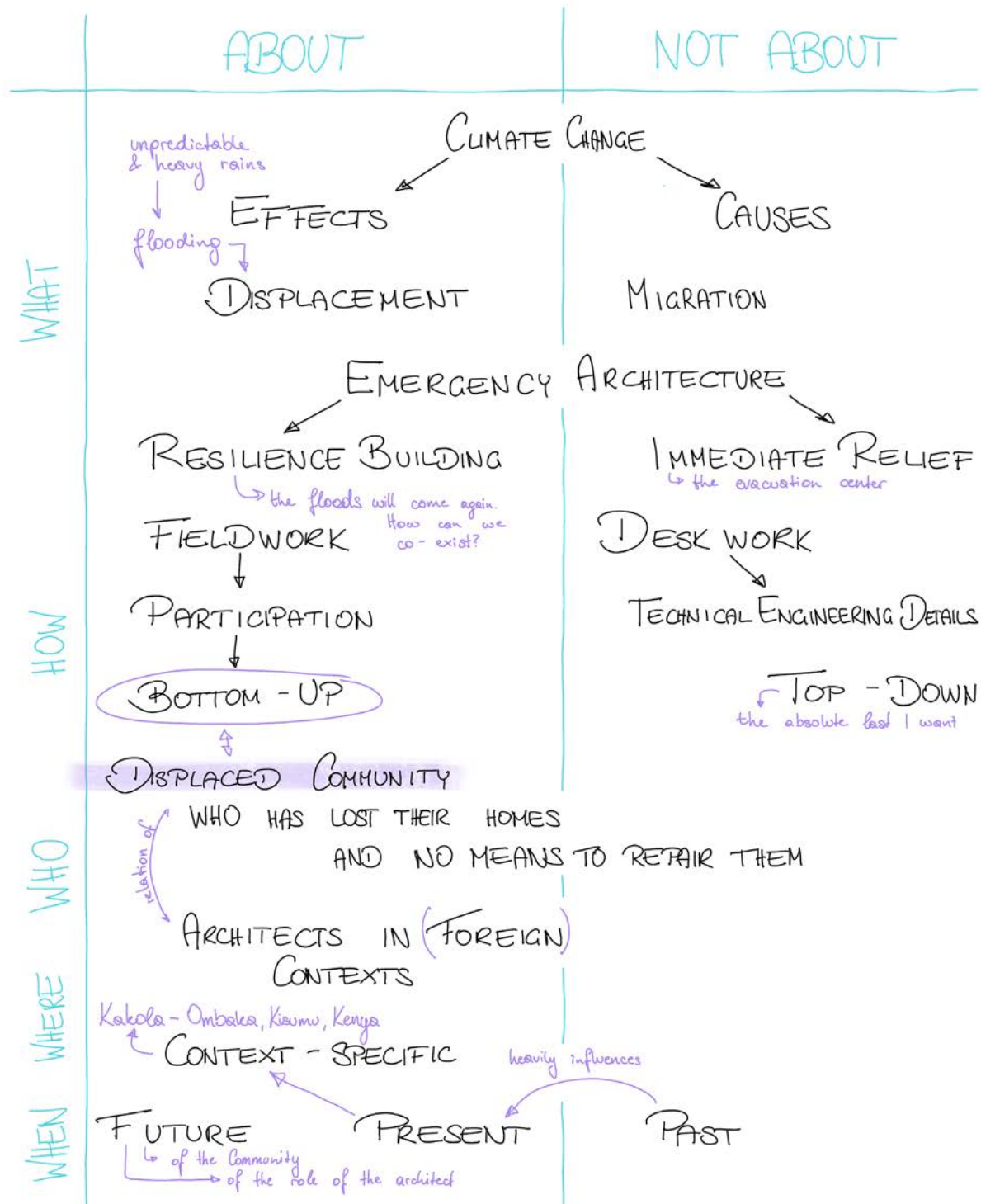
the other hand, the latter, de-colonial, signifies a more nuanced perspective. It entails acknowledging the problematic history in its entirety, recognizing all facets of the narrative, and providing the community with the agency to chart its own path forward. Personally, I aspire to engage in a decolonial feminist approach which Boer Cueva et al. (2023, p. 11) argue as centering “among other things the collectivity of knowledge cultivation; the building of community and kinship; reflexivity and emotional investment; and loving accountability.” Although, feminist approaches aim for a non-hierarchical interaction (Sultana, 2007, p. 375), I implement a bottom-up process, “because the control of power structures is not totally in the hands of researchers (Yu, 2020, p. 273)” and ignoring the existing hierarchies stands in opposition to the principle of reflexivity. Therefore, I position myself as a facilitator, “who effects change through the empowerment of others. Empowerment here stands for allowing others to ‘take control’ over their environment [...] (Schneider & Till, 2009, p. 99).” Hence, supporting the community through the intricate process of understanding and navigating their story. This involves actively seeking and sharing knowledge, all the while recognizing that collaboration and assistance

are crucial components of this transformative journey. By adopting a decolonial perspective, I aim to foster a space for collective introspection and empowerment within the community, allowing them to define their own trajectory for the future. “The story that follows here, therefore, is that of the architect as an anti-hero, someone who co-authors from the beginning [...] (Schneider & Till, 2009, p. 97)”

## **Freediving**

While I diligently prepared by learning the language and studying the culture, I also crafted a comprehensive project plan outlining participatory actions. However, I embraced the understanding that fieldwork is supposed to not unfold as anticipated. Taking inspiration from the collaborative practice of art and architecture called muf, that “suggests frameworks for action rather than determining specific outcomes (Schneider & Till, 2009, p. 102)”: the idea of non-imposition shall inform all my decisions. Thus, I designed my plan with flexibility in mind, expecting it to evolve based on the community’s desires and actions. Recognizing the limitations of remote research, I remained open to the nuances of cultural dynamics and the perceptions of an outsider.

Figure 05: Delimitation diagram



# TEMPERING THE TURTLE\*

that tries to span the world

\*\*"Iyieyo kori ka kor opak madwasi. (You are overenthusiastic like a female tortoise) (Miruka, 2001, p. 70)."

\*\*\*"Nungo piny kirom. (One cannot span the waist of the world) (Miruka, 2001, p. 77).": One cannot solve everything and therefore delimitations must be defined.

# ESCAPING WINTER the migratory birds' southward flight

Like a migratory bird that knows its start and end point, the thesis begins by delving into the context, exploring the terrain, hurdles, and prospects that set the stage for this journey.

# LAKESIDE SORROWS

where the waters weep

## Kenya

While climate migration is already happening in various locations all over the African continent (Bharadwaj & Shakya, 2021), the UN (Mokku, 2023) has identified Kenya as a prominent example of climate-migration risks. Kenya must face the impact of climate change on mountain regions including melting of glaciers, changes in the ecosystem, depletion of fisheries and risk of desertification (International Organization for Migration (IOM), 2015). The country already is highly vulnerable to disasters, with rapid-onset floods causing significant fatalities and drought (Diwakar & Shepherd, 2018, p. 6). Looking at the data provided by Internal Displacement Monitoring Centre (IDMC) (n.d.), current climate migration flows are likely to be found in Kenya (1.6m internal displacements caused by disasters from 2012 - 2022, number of inhabitants: approx. 53m).

## Kisumu

This thesis builds on the long-term relationship that Chalmers has developed with the city of Kisumu, where a solid network of local actors has been established. Kisumu is one of the 47 Kenyan counties and its capital with the same name is the country's third-largest city after Nairobi and Mombasa (City of Kisumu, n.d.). It is nestled along the shores of Nam Lolwe, the largest freshwater lake on the African continent.

According to the expertise of the main stakeholder and collaborating NGO, Hope to Live Charity Organization (O. Owino, personal communication, October 31, 2023), climate migration in Kisumu County is primarily

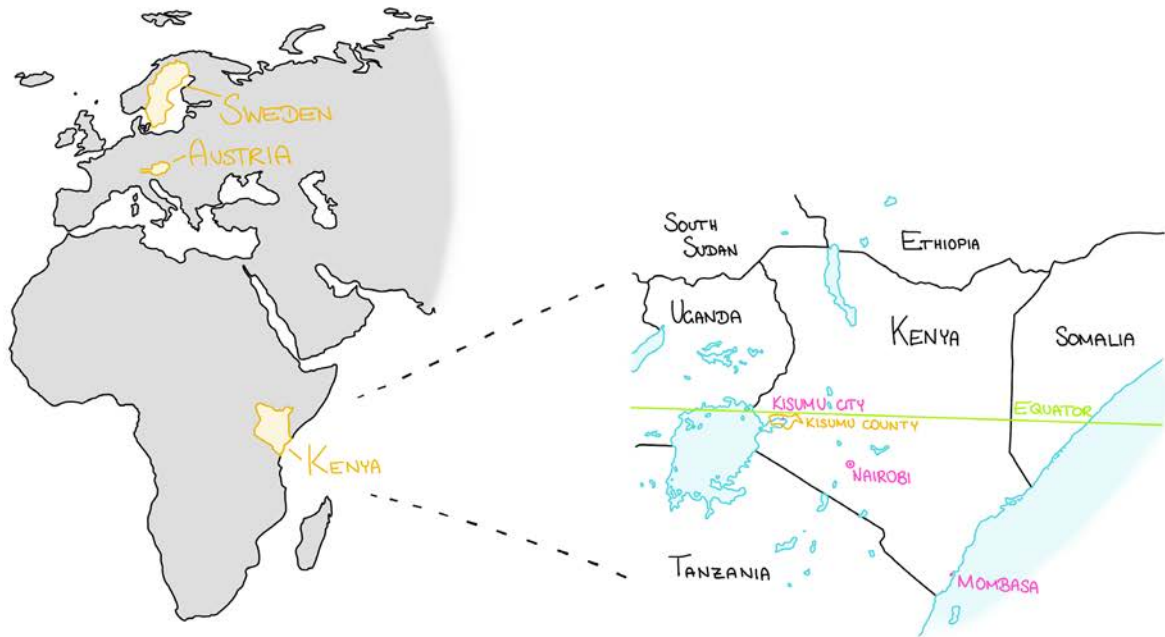


Figure 06: Map of Europe and Africa, zooming in on Kenya, based on maps by Juan35mm (n.d.) and Encyclopædia Britannica, Inc. (2011)

driven by individuals escaping the flooding along the shores of Lake Lolwe, which is a direct consequence of El Niño rainfall patterns. Within the Nyando constituency, two camps, Ogenya Camp and Ombaka Camp, have been established to provide shelter and support to those affected by these climatic events.

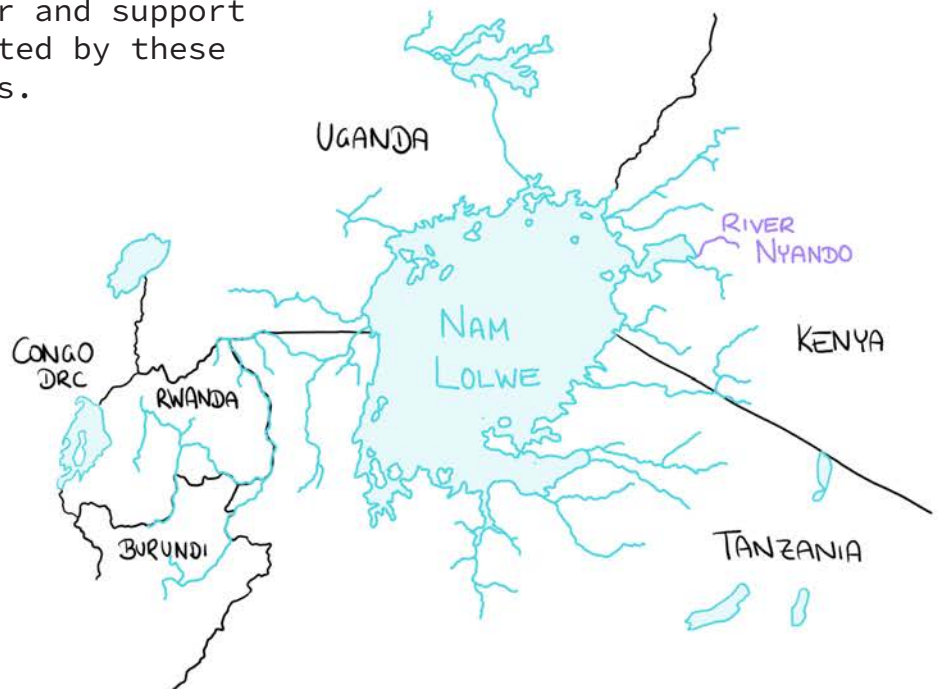


Figure 07: Map of Nam Lolwe Basin with its rivers, based on the map by Vanderkelen et al. (2018)

# HEARTBEAT OF THE EARTH

erratic

Kakola-Ombaka is located in the Lower Nyando Basin, which is highly prone to flooding due to its geographical position between the Nandi Hills, Belgut Hills, Kericho Hills, and Nyabondo plateau (Bloemertz, 2015, p. 113). This lowland area experiences substantial water accumulation, with flood patterns influenced by rainfall in the surrounding hills. Historically, Nyando constituency (formerly called Nyando District) has faced devastating floods since 1948, with notable occurrences in 1962/63 (Uhuru Rainfall Floods) and 1997/98 (El Nino floods) being particularly destructive (Odhiambo/

Ochieng' (2005) and (Omondi 2004) in Bloemertz, 2015). The flat topography of the Kano Plains contributes to low-velocity water flow during floods, posing significant threats to infrastructure such as roads, schools, bridges, and houses, especially those constructed with mud walls, which constitute approximately 89% of all houses in the region (Nyakundi et al. 2010: 354 in Bloemertz p. 112) [AN: 2010 - information might be outdated]. The impact of floods extends to both human populations and the agro-ecosystem, varying based on factors like the time of occurrence,

Figure 08: The floods were still close to some homes during the time of the field study.



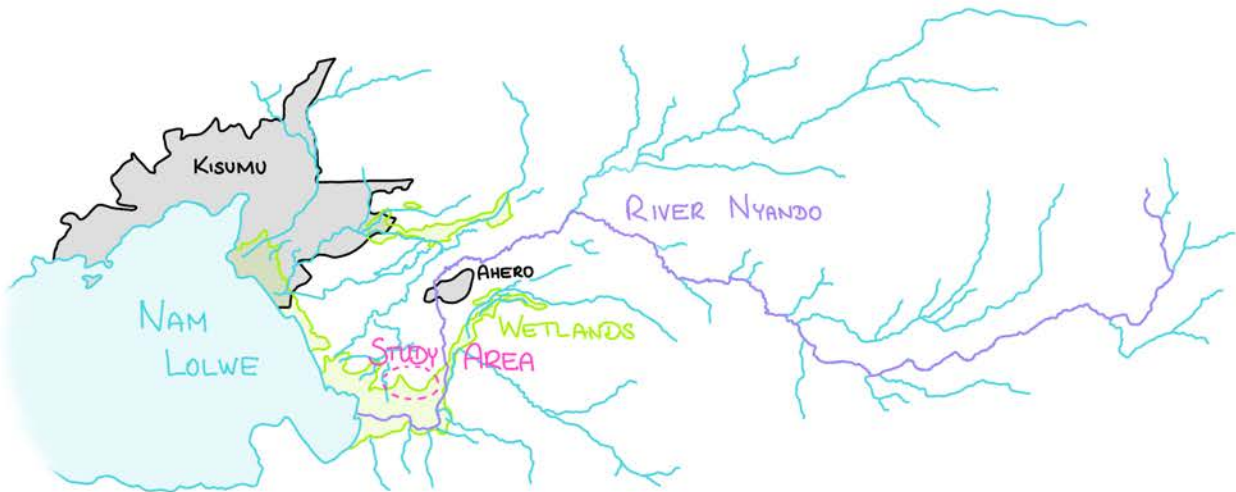


Figure 09: Map of river Nyando showing the location of the site, based on the map by Mutua et al. (2020)

water quality, and flood duration. Beyond immediate consequences, indirect negative effects emerge, including difficulties in transportation leading to food shortages, particularly of fruits and vegetables. The disruption of normal life during floods results in increased commodity prices, affecting the purchasing power of communities and their willingness to invest (Bloemertz, 2015, p. 115).

River bank erosion poses long-term threats to infrastructure, school closures result in significant loss of formal education, river meandering contributes to land conflicts, and challenges with burial services and threats from roaming hippos and snakes further endanger human lives and health (Bloemertz, 2015, p. 115).



# FOUND REFUGE\*

the distance? not huge.

Meeting the main stakeholder, the community living in the evacuation center, in the first week of my stay, I realized that the designated area for the evacuation center was smaller than I anticipated. Its inhabitants possess minimal belongings, relying solely on mats for sleeping and the clothes on their skins, as they have lost most possessions to the floods. Although the government periodically provides food, the quantities are insufficient.

Despite the dryness of the ground surrounding the building, the recent presence of mud is evident, with visible footprints marking its recent wetness. This emphasizes the severity, considering that this location is apparently one of the better spots in the area, but it also raises questions about the effectiveness of the canal that I crossed with a small bridge to enter the compound. Numerous tents, surrounding the non-functional government-owned hospital building, lack flooring, consisting only of muddy soil. These tents are reported to be damaged or non-functional and therefore, they are completely unused. The latrine with four stalls is located close to the street.

Formerly accommodated in the nearby school, Nyamasao Primary, the residents had to move due to the end of the school break and the resumption of classes. The non-functional government-owned hospital building serves as quarters for women, observing cultural norms that dictate strict separation between sleeping arrangements for unmarried men and women. A portion of the building intended as a veranda is now covered with tarpaulin, serving as sleeping quarters for girls under the age of 18. The mats provided are thin, lacking duvets, pillows, and mosquito nets.

Figure 10 (top, left):  
Dissolved mud walls

Figure 11 (top, right):  
Collapsed building  
due to dissolved mud  
walls

Figure 12 (middle):  
The evacuation  
center in February

Figure 13 (left): The  
veranda used as the  
sleeping room for  
females younger than  
18

\*referring to the poem on page 6



# THE PEOPLE

who shaved my hair\*

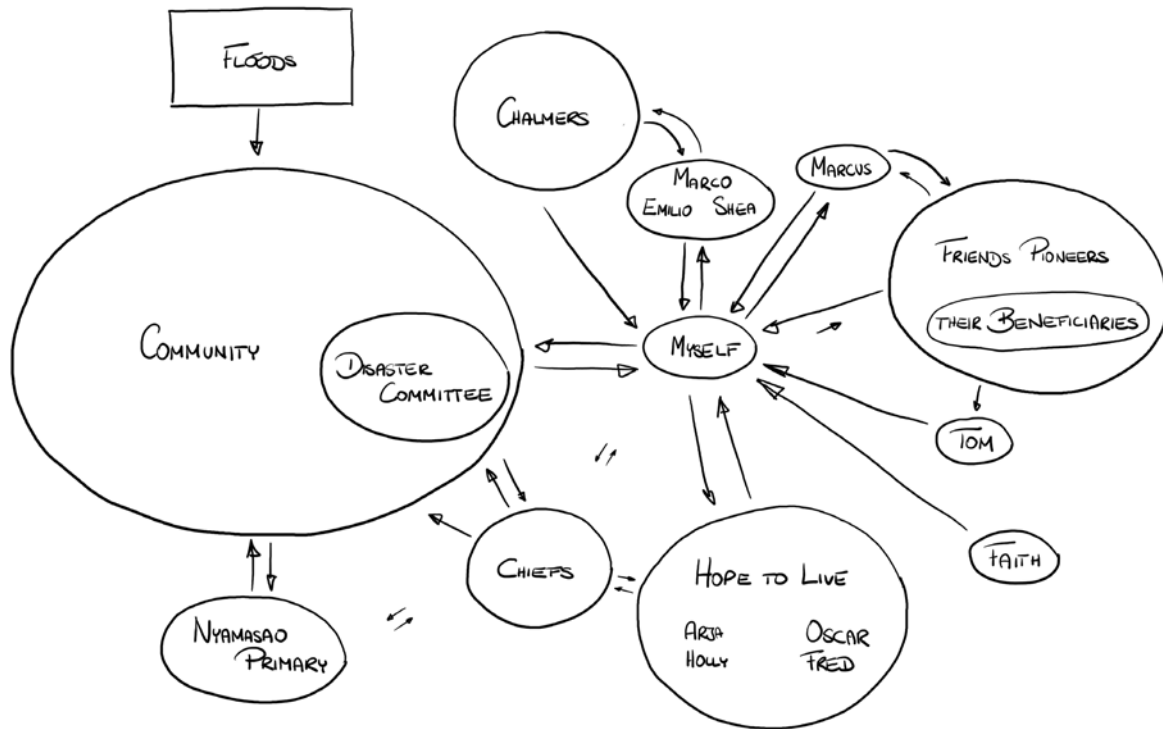


Figure 14: Stakeholder diagram

As it is common for participatory projects, an abundance of stakeholders was involved. The diagram (figure 14) shows the relations and interactions between them.

The **floods** are the displacer of the community. The patterns of the floods are changing because of climate change. While earlier the floods could easily be predicted and were strictly tied to the rain seasons, they are unpredictable today. This causes an abundance of issues and is the reason why I decided to work in this

area as I wanted work with climate change effects. The **community** - the target group of the design - mainly consists of the people living in the evacuation center during the time of the field work since they have lost their homes to the floods. Some engaged neighbors from the surrounding area also joined. This ended up being a group of approximately 100 people of which always between 70 and 80 people showed up. A great majority of them was female and elderly (defined as being 60+ years old).

\*"Janeko ema lielore kende. (It's only the madman who shaves his own hair.) (Miruka, 2001, p. 48)": collaboration is necessary.

The **disaster committee** consists of eight people and is in general responsible for coordinating disaster response like in this case the evacuation center. They actively participated in the workshops and significantly facilitated the communication between me, the rest of the community and the **chiefs**. The area chief of Kakola Ombaka, Jacob Osida Ongudi, welcomed me, provided me with valuable insights and checked in on the process of the project, reporting to higher chief, Amneto Agostino Awich. The non-governmental organization (NGO), **Hope to Live Charity Organization**, was the official partner in Kenya, standing behind the project with their name and helping me with whatever issue occurred. Not only being concerned with the success of the project, they also made sure that I felt safe and welcomed in Kenya from beginning till end. As the chief executive officer of the NGO, **Oscar** was primarily responsible for official decisions such as legal agreements and was my main contact during the preparational phase. **Fred** was responsible for the administration of the cooperation during my stay eg. organizing a driver. **Arja** always accompanied me to the field. She helped me with communicating with the community to overcome linguistic as well as cultural barriers. **Holly** is the community development coordinator of the area I

worked in. She helped out during some workshops and was a connecting point to the community and the officials of the area.

### **Nyamasao Primary School**

was hosting the community during the school holidays in December 2023 and January 2024. In March, at the end of the project, a prototype was built. The school welcomingly agreed to this being built on their grounds.

As a certified technician, **Tom** helped me understand legal restrictions as well as local building techniques and helped me buy the material for the prototype. He constructed a classroom for St. Joseph's Secondary School led by the NGO **Friends Pioneer**, who are friends and partner of my mentor **Marcus**. The NGO has built houses for **their beneficiaries** in the city of Kisumu, who were affected by flooding. This served as a reference project.

The university, **Chalmers**, sets the expectation for the master thesis. The Global Mentorship Program of the university was the main funder of the project. **Emilio**, being the main supervisor, **Shea**, the co-supervisor, and **Marco**, the examiner, gave regular feedback, adjusted expectations, and supported whenever needed. Being my online Luo-teacher, **Faith** (Aoko, 2023 - 2024) helped me understand written answers from the workshops linguistically as well as culturally.

# CELESTIAL CUES

parting the clouds of challenges

While migratory birds use celestial cues for navigation (Wiltshko & Wiltshko, 1991), this chapter explains how the pathway for the participatory project was laid out.

## LISTENING

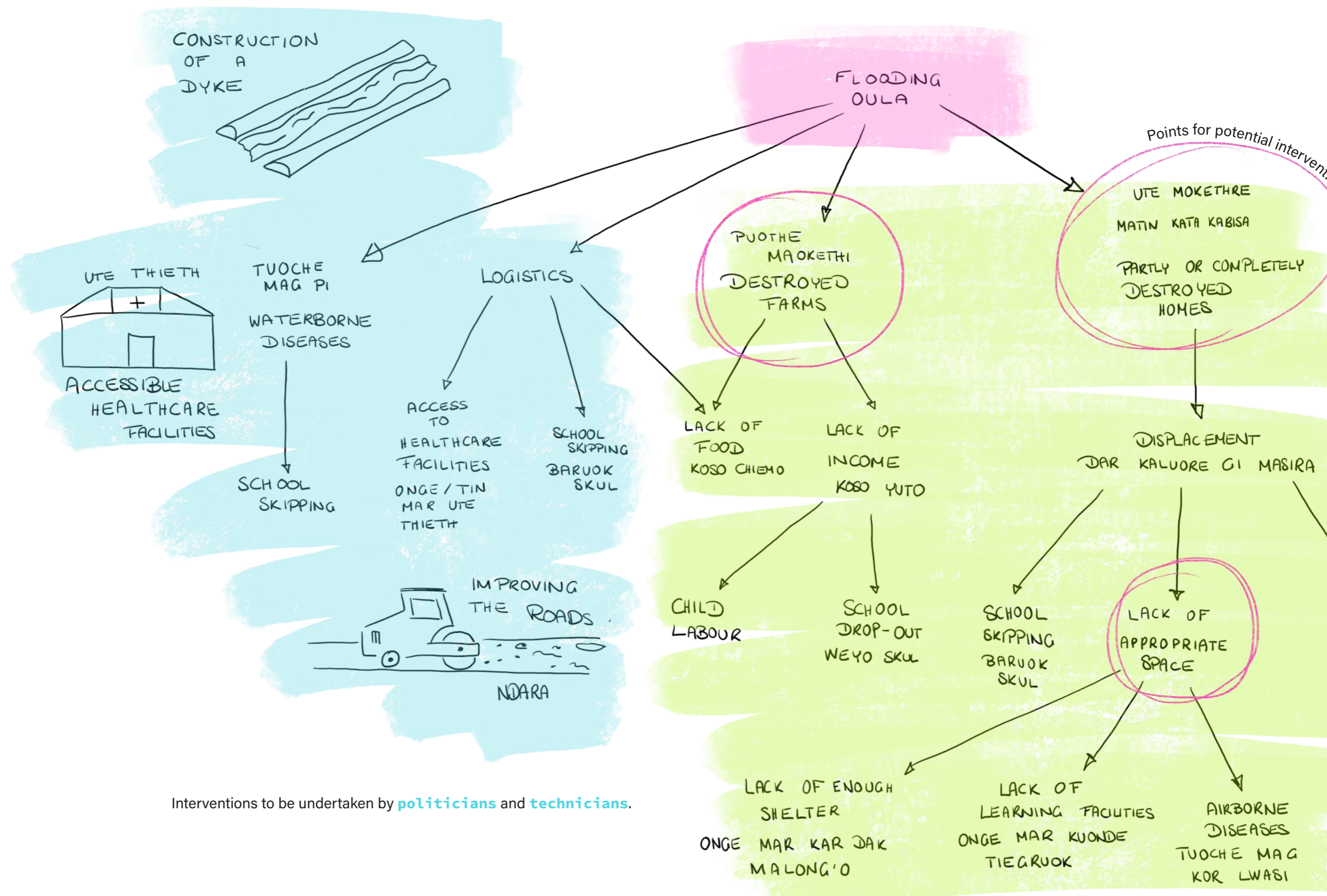
to how the hunchback sleeps\*

While the living conditions revealed a lot of hardships the Community is facing, I got a deeper understanding of the complexity of the problems at two occasions. The first was a survey which was done in December 2023 to assess the target group of the organization and further ask about the problems and needs in the area. The second occasion was a workshop conducted in my first week that aimed to listen to the adversities the floods and the consequent displacement cause for the people still living in the evacuation center. Originally planned to engage 12 - 15 participants, hosting the at this point unexpected amount of 70 and 110 people who showed up led to a sudden change of activities. During the session, the community addressed these issues in speeches directed towards me. People raised their hands and Arja, Holly, and the Chief moderated and translated from Dholuo to English for me. While observing the dynamics of the participants, it became apparent that the majority expressed agreement with the speakers, occasionally applauding, emphasizing collective endorsement. Subsequently, I collected and categorized the identified issues for further analysis. In response to their queries and concerns, I committed to providing an assessment aligned with my capabilities and project limitations, ensuring transparency about what could be realistically achieved.

Figure 15 (right): Members of the community raising their voices

\*“Rakuom ong’e kaka nindo. (The hunchback knows how he/she sleeps.) (Miruka, 2001, p. 50)”: Everyone is the expert of their own life.





Interventions to be undertaken by **politicians** and **technicians**.

Interventions to be undertaken by an **architectural**

Figure 16: Problemtree and delimitations according to roles

# PROBLEMTREE & DELIMITATIONS

needs & ideas

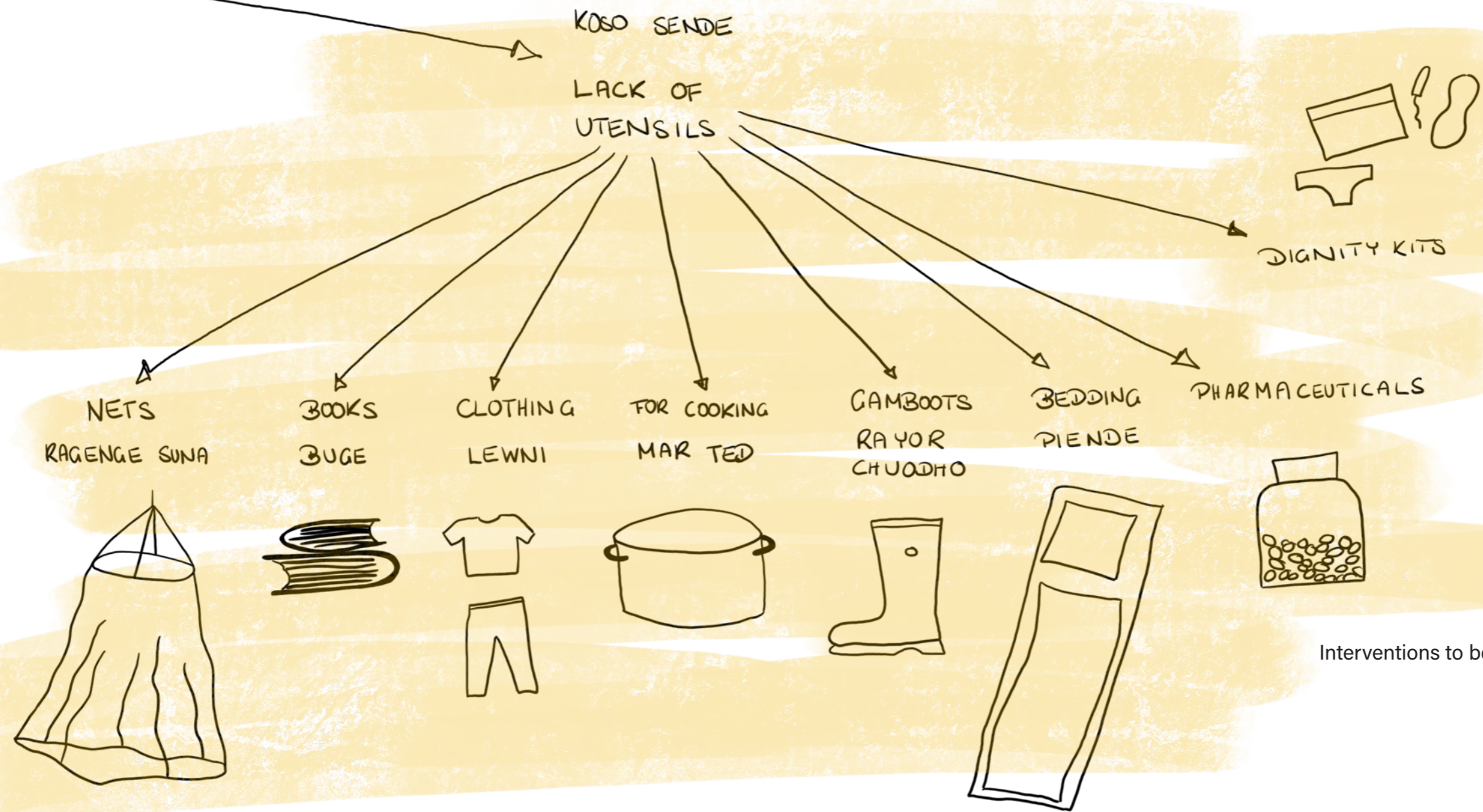
setting expectations

The feasibility of the variety of issues and potential interventions addressed by the community and explored by myself was assessed using criteria involving time, budget, and suitability. The outcomes of the assessment were communicated in week II through the diagram shown here highlighting the various roles different individuals play. The green segment represents what could be addressed by myself within my master's thesis project. Six different potential pathways for the project were then proposed.

I used the diagram presented here to convey the project's constraints, particularly focusing on the delineation of roles. In order to ensure clarity and explicitness, I repeated the phrases 'Ok anyal' (I cannot) and 'Oknyalre' (This is not possible) multiple times. This approach was aimed at clearly articulating the limiting factors. The process involved active listening, thorough analysis, reflection, and subsequently, the establishment of expectations – both personal and communal – taking into consideration the insights gained.

ion

FAMILY SEPARATION  
POGRUOK MAG  
ANYUOLA



Interventions to be undertaken by **charity**.

# THE ITCHY PART\* my arms could reach\*\*

Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

United Nations, 1948, art. 25.1

Subsequently to the analysis of needs and constraints within the scope of my role, I delved into various ideas articulated by the community or conceived by myself. Filtering out the options that were unfeasible due to project constraints such as budget and time, I developed a set of six potential pathways for the

thesis. Because decolonial feminist research is committed to “generating knowledge that is both valid and vital to the wellbeing of individuals [and] communities (Brydon-Miller et al., 2003, p. 11; in Boer Cueva et al., 2023, p. 5),” I strongly believe that the ultimate decision should be community-driven, as they possess firsthand knowledge of their needs. Therefore, I presented these six ideas for communal discussion right after explaining the problem tree diagram. Participants were divided into groups to discuss the proposals, subsequently sharing the outcomes with the larger assembly. These presentations were held in Luo, without translation provided to me, making it challenging for me to follow. However, recognizing that the purpose was to foster mutual understanding among community members for an informed decision-making process during the subsequent democratic sticker voting, my comprehension was not essential. The voting process provided a decisive outcome, reflecting the collective preference of working on the design of flood-proof housing – ute ma oula oknyal ketho.

\*“Kama ili ema igwonyo. (It is the itchy part that you scratch.) (Miruka, 2001, p. 72)”: relevance.

\*\*“Wendo bade boyo. (The visitor has long arms.) (Miruka, 2001, p. 59)”: One should avoid appearing greedy by politely declining offers to move closer to the table when asked by the host. Instead, the visitor should graciously refuse and express contentment with their current position, thereby demonstrating humility and restraint.



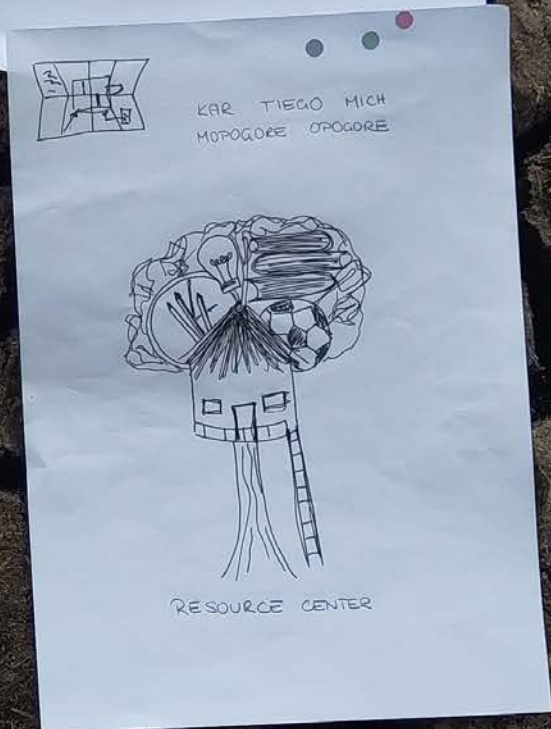
FLOOD-PROOF BUILDING CONSTRUCTION  
UTE MA OULA OKNYAL KETHO



PUOTHE MA OULA OKNYAL KETHO  
FLOOD-PROOF FARMING



PAU TUGO  
MA INYALA DA/  
MA OULA OKNYAL KETHO  
MOBILE/FLOODPROOF PLAYGROUNDS



KAR TIEGO MICH  
MOPOGDEE OPOGORE  
RESOURCE CENTER



TENT MAKING  
WALOSO HEMA



SKUL MA INYALA DA  
MOBILE SCHOOL

# FOLLOW THE FLOCK

embracing communal wisdom

This chapter focuses on the design process that follows participatory principles, embracing the communal wisdom.

# PHOENIX STRUCTURE

from ash to feathers

Tom (Otieno Gawo, personal communication, March 1, 2024) provided invaluable assistance in grasping the fundamentals of construction work in Kenya. The government differentiates between permanent structures, comprising buildings constructed with brick, stone, and blocks, and temporary structures, which encompass buildings made from mud, iron sheets, and wood. No permit is required for one-story temporary buildings. However, for permanent structures, individuals must apply for a permit by submitting documents prepared by a qualified technician at least one month in advance and paying a fee.

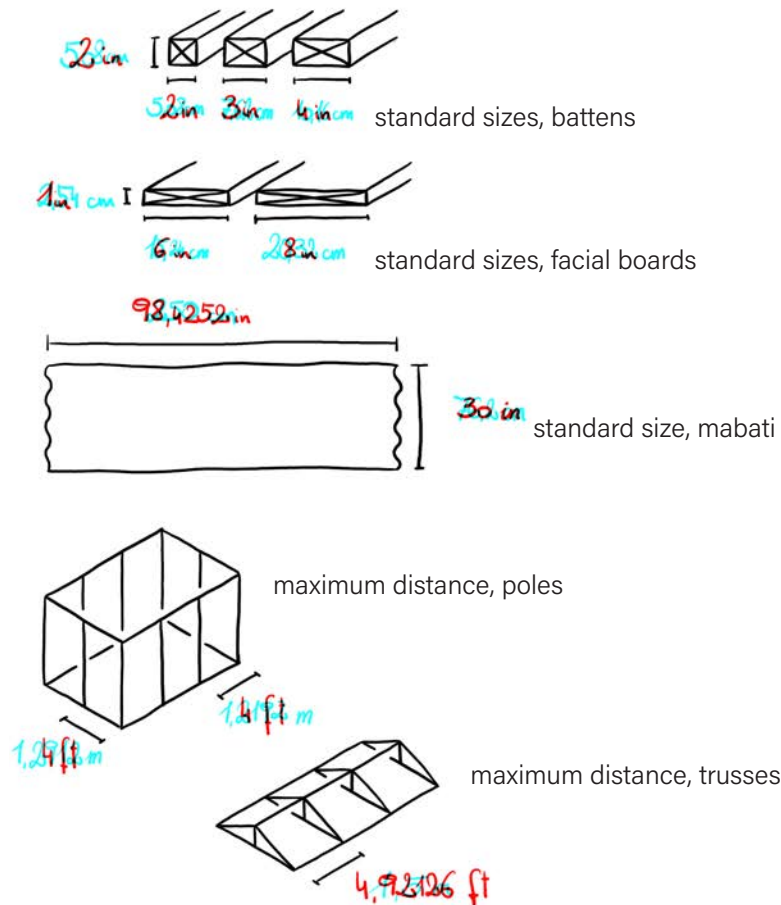


Figure 18: Most important standards for small scale constructions in Kenya

Figure 19: Variations of housing constructions



After grasping the dynamics between houses and floods, I designed a workshop to explore the existing knowledge and practices regarding construction methods, materials, and actions taken during flood events for week III in Kenya.

## Roofs

The **thatched roof** holds traditional significance in Luo culture but poses maintenance challenges due to potential leaks and limited grass availability. However, it offers excellent heat insulation and is environmentally friendly.

**Iron-sheets**, the prevailing roofing material in the area, are durable and affordable but lack effective heat insulation, resulting in uncomfortable temperatures. They are also susceptible to burglary due to easy cutting and contribute to noise pollution during rainfall.

## Walls

**Mud walls**, crafted from ash, cow-dung, soil, and water, represent the traditional and most common construction

method. While cost-effective and providing insulation, they are vulnerable to flooding.

**Iron-sheet walls**, though admired for their resistance to water, are pricier, and compromise security and insulation.

## Floors

**Mud floors**, while inexpensive, are prone to becoming muddy and structurally weak when exposed to water, potentially collapsing wooden structures.

**Cemented floors** offer improved stability and flood resistance, are regulated by governmental standards, and come at a higher cost.

# THE SOUL'S SHELTER

*is more than a house*

Since a home is more than a house, I wanted to understand what makes it a home for this community through collaging. Prior to engaging in the creative process, I facilitated group discussions where participants answered three questions: 1. What is the difference between a house and a home? 2. What makes a house a home? 3. Does the evacuation center feel like home? Why? Why not? Summarizing their answers, the difference between a house and a home lies in their essence and function. A house is merely a structure, a physical shell, while a home is imbued with resilience, providing a profound sense of belonging that cannot be replicated by

mere architecture.

What makes a house a home is the presence of essential elements that breathe life into its walls. A home is enriched by the warmth of family bonds, the lively presence of animals, and the comforting embrace of familiar items like tables and beds. It offers more than just shelter; it fosters companionship, provides opportunities for self-sufficiency through activities like gardening, and offers nourishment both for the body and the soul.

Crucially, a home thrives on the dynamics of domesticity, where love, comfort, safety, and cleanliness abound. It is distinguished by its familial warmth and the resources it

Figure 20 (left): Members of the community creating collages  
Figure 21 (middle) and 22 (right): Selected collages



harbors, such as livestock, which contribute to its self-sufficiency and resilience. In this way, the contributions of family members, especially children and wives, play a crucial role in transforming a house into a home, infusing it with life, purpose, and a sense of belonging that transcends mere physical space.

Watching the participants create collages on the topic of home, I could see them blossom. They enthusiastically explained the meaning behind their works to me and colored them in vigorously.

In the collages, common themes emerged that reflect both practical and emotional aspects of what constitutes a home. The participants' depictions showcase a blend of practical elements and personal touches. The inclusion of items such as chairs, tables, and kitchenware underscores the importance of functionality in the home environment. The kitchen as well as the toilet usually form a separate building each. From the cabinets with pots and jugs to the solar panels powering

electric lights indoors, each element serves a purpose in the daily life of the household.

Yet, alongside the practicalities, there is a visible emphasis on the emotional aspects of home. Pictures on the walls, flowers on the table, and dolls and balls for the children evoke a sense of warmth and belonging. While people are rarely shown in the collages, children and babies are, which emphasizes their centrality in the family and the concept of home.

Moreover, the collages reveal a connection to nature, with trees and flowers outside and a water tank for self-sustaining living. Even the roof is utilized, featuring solar panels and satellite installations.

In essence, these collages encapsulate the multifaceted nature of home – a place where functionality meets emotion, where practicalities intertwine with personal touches, and where the presence of family and the embrace of nature converge to create a haven of comfort and belonging.

1  
3  
3  
1



# A LIGHT BASKET\*

to escape the floods

As a preparation for the next workshop, I generated concrete ideas for alternative building methods aimed at enhancing flood resilience while maintaining the essence of a home based on the knowledge gathered from the previous workshops. Here, I showcase the designs that stayed prominent throughout the process.

## Canals

One simple yet effective measure to mitigate floods, previously implemented and still in use, involves digging canals alongside roads (Bloemertz, 2015, p. 130). Homeowners could expand upon this initiative by excavating canals around their plots, as visualized in figure 23. This measure

effectively manages low-level floods by directing and containing water. However, during high-level floods, their effectiveness diminishes.

## Waterproofing Walls

The most frequently mentioned issue is the erosion of mud walls due to flooding. To address this, various options for waterproofing were explored (see figure 23), including coating walls with hydrated lime, linseed oil, and/or beeswax (Old Lady and the Mud House, 2019; Ontario permaculture, 2021). However, these solutions are costly and unavailable within the current context.

## Raised Floors

To prevent water infiltration

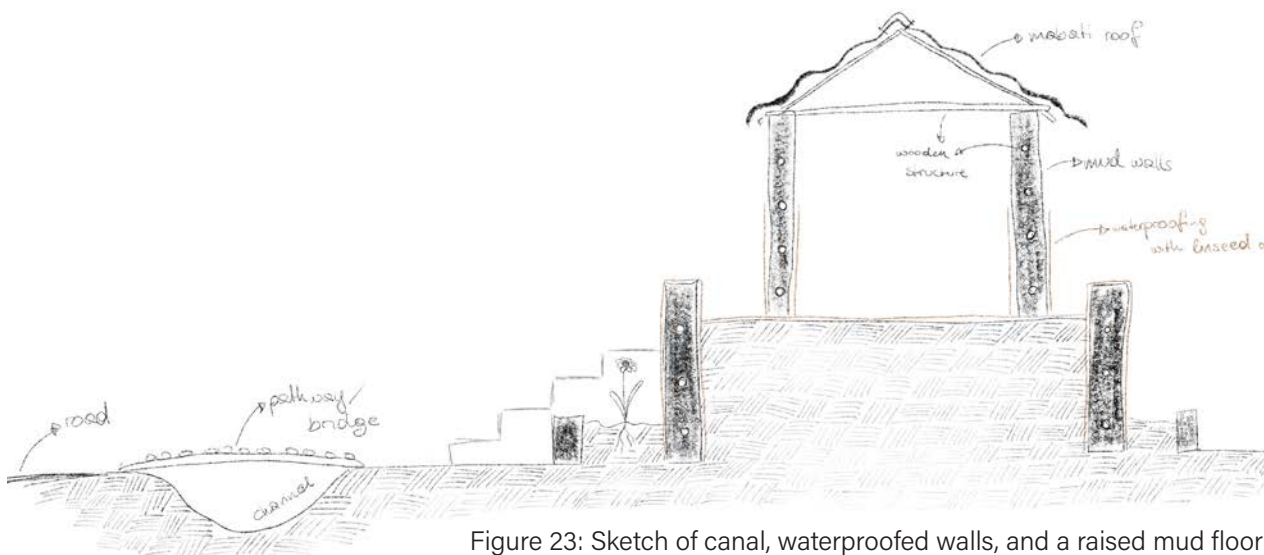


Figure 23: Sketch of canal, waterproofed walls, and a raised mud floor

\*“Atonga mayot ema iyombo go koth. (It is with a light basket that one escapes the rain.) (Miruka, 2001, p. 50)”: be frugal!

and damage to walls and interiors, raising buildings above expected water levels by creating elevated platforms was investigated. Initially, utilizing soil from dug canals for building a hill was considered (see figure 23), but proved insufficient due to limited availability. While incorporating surrounding walls, as depicted in the sketch, reduces material requirements, it introduces structural complexities that warrant further examination.

## Raised Wooden Floor

Inspired by traditional granaries showcased in the Kisumu Museum (2024) and depicted in figure 24, the idea of upscaling the concept of constructing a raised

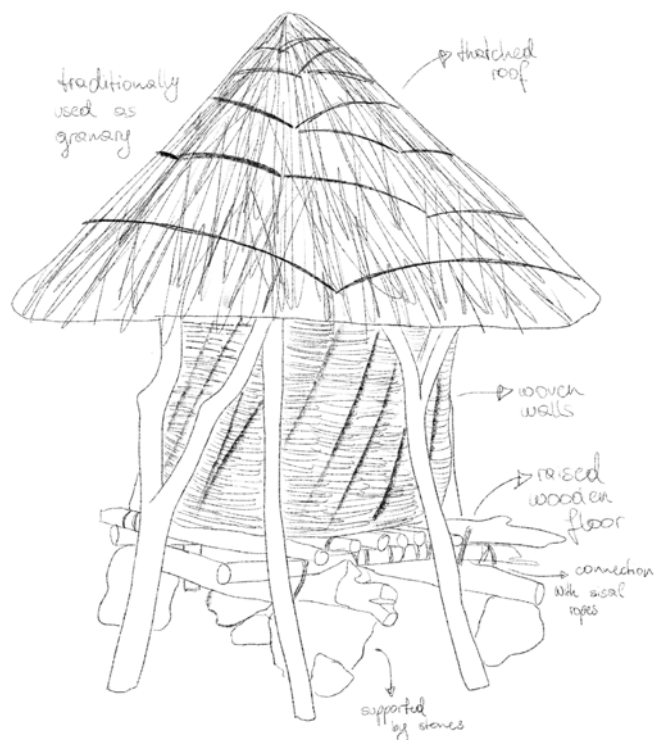


Figure 24: Sketch of a traditional Luo granary

wooden floor to elevate the structures above ground level was introduced. This design allows water to flow underneath, potentially aiding in room ventilation.

## Traditional weaving

Additionally, the woven walls of the granary inspired the consideration of traditional crafts as potential wall materials and insulation for mabati structures.

## Flowers

In the discussions about the collages, the importance of flowers and plants was emphasized. They represent an artistic expression of the residents, and their beauty should warmly welcome guests. Moreover, their presence can be further leveraged as a means of insulation, addressing the primary deficiency of the mabati constructions (see figure 25).

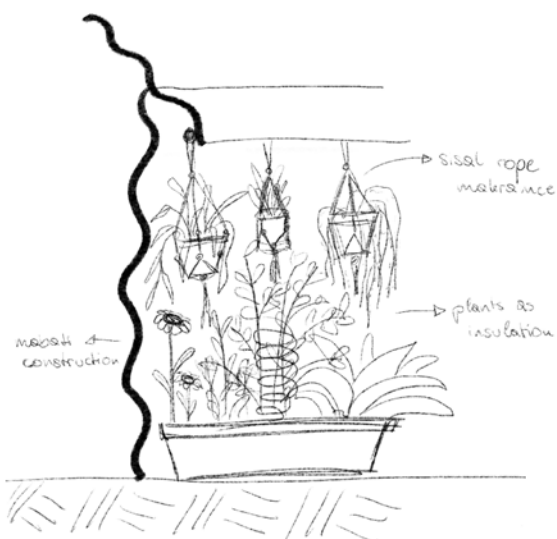


Figure 25: Mabati construction insulated with plants

# BEYOND

# MY PLATTER\*

*lies a garden of possibilities*

To gather insights on addressing the issue of houses being destroyed by floods, I organized a model building workshop. Participants were provided with a diverse selection of materials and tasked with constructing a model representing their ideal flood-resistant home.



## Roofing

The prevailing trend observed among all workshop groups suggests a preference for Mabati roofing. While there remains some uncertainty regarding the roofing material chosen by one group, the consensus suggests that Mabati roofing was the predominant choice among participants.

## Walls

Various approaches to wall construction were proposed by different groups. One group advocated for the use of Mabati walls, expressing confidence in its resilience against flooding and emphasizing the ability to temporarily evacuate during floods with the assurance of returning home afterwards. Another group suggested mud walls supported with stones to enhance stability. An alternative proposal involved

Figure 26 (left): A group presenting their model  
Figure 27 (right): A group modelling with stones

\*‘Über den eigenen Tellerrand schauen’ [to look beyond one’s own platter]: being open to other perspectives.

lifting mud walls using wooden poles for added protection. Some groups opted for wooden walls, citing scarcity of soil and the availability of wood from forests or markets. Additionally, stone walls were proposed by another group, acknowledging the need for a floating foundation, contrasting with Mabati constructions which can be directly erected on the ground due to their lighter weight. Another group considered brick walls, also requiring a floating foundation.

## **Lifting the floor**

Strategies for raising the floor level were also varied. One group, advocating for brick walls, suggested a thickening the concrete slab of the floating foundation to elevate the floor to approximately 75cm. Another participant envisioned a ‘flying’ house raised on concrete poles, inspired by a similar construction observed in another constituency. The choice of flooring material ranged from concrete to wood, depending on cost considerations. Alternatively, one group initially proposed lifting the house three meters above ground level on wooden poles, later opting for a constructed hill made of soil with integrated drainage pipes and supported by wooden poles to prevent soil erosion. Additionally, another group proposed constructing a terrace surrounding the house to further deter water ingress.





mud walls | gero korot gi loo  
gi mabati  
ien kata bao

bati  
| loso tonde mag tworo

gini gi water hyacinth  
eed oil/beewax/lime/ gero ot ma pii aknyal fwalo korot gi dierot  
kunyo aora matin koso nam matin  
dierot loo malo  
loor | gero kata tingo' malo mar dierot gi yien kata bao

After the model workshop, I conducted a brief survey to identify which construction techniques participants were already familiar with and who was interested in learning something new. Inspired by this feedback, I proposed organizing a follow-up session, where individuals could both share their expertise and explore new concepts together.

**IT'S THE HARE**  
*that begets twins*

\*"Apuyo tin to go rude. (The hare might be small, but it begets twins.) (Miruka, 2001, p. 55)": everybody has got their strengths and they can be multiplied by sharing.

# TWIG WEAVING

the next test

The project culminated in a workshop focused on skills exchange through building a housing construction prototype and hands-on learning of traditional crafts.



# REVEALING

# THE PIG\*

before selling it

As an advocate for community-based knowledge exchange, I proposed organizing a ‘workshop workshop’ – a workshop that facilitates others to conduct workshops with different topics simultaneously, so individuals could teach and learn from each other to acquire new skills. Emphasizing hands-on learning as the most effective method, I suggested the idea of collectively building a structure. However, recognizing the need for community input, I presented two options in week VI: building the structure while simultaneously hosting crafting skills workshops, or solely focusing on the crafting skills exchange. Initially, responses were, with few exemptions, divided along gender lines, with men favoring construction and women preferring crafting only, citing safety concerns about climbing roofs. Stressing the importance of individual comfort and safety in all skill exchanges, I encouraged open discussion, which led to a shift in opinion among a great majority of the women. Subsequently, group leaders were determined for each skill workshop, and requirements for teaching were documented. When inquiring about their preferred learning methods, participants responded by emphasizing the importance of having the necessary materials for the specific crafts. This response suggests one interpretation: that they may not have considered alternative learning approaches like lecture-based learning. Alternatively, it is possible that there was a misunderstanding, as I had initially proposed learning by doing.

Figure 29: Woman weaving palm

\*“Köpa grisen i säcken (buy the pig in the sack) (Shenoi, 2017, p. 49)”: buying something without checking it first

# ARCHITECT'S ALCHEMY

a p(a)lace for learning

To maximize the amount of skills taught and learnt within the structure, I designed a combination of techniques discussed, adhering to standard sizes for ease of implementation. The design incorporates two methods of raising the floor: one half comprises a wooden platform, while the other features a mud hill. In order to emphasize that the structure is intended for storage rather than human habitation, due to safety concerns, I opted to leave half of the walls open. Additionally, to facilitate instruction and learning of corner construction techniques,

the walls are planned to enclose them. One corner is designed to be constructed with mabati, while the other utilizes wood. To counteract the mabati's low thermal qualities, I aimed to test the use of traditionally crafted mats as insulation. Originally, the roof plan involved dividing it into thirds: one portion with mabati, another thatched with grass, and the remaining third with wood. However, due to the community's unfamiliarity with wooden roof construction, I decided to combine mabati and grass for this third portion instead.

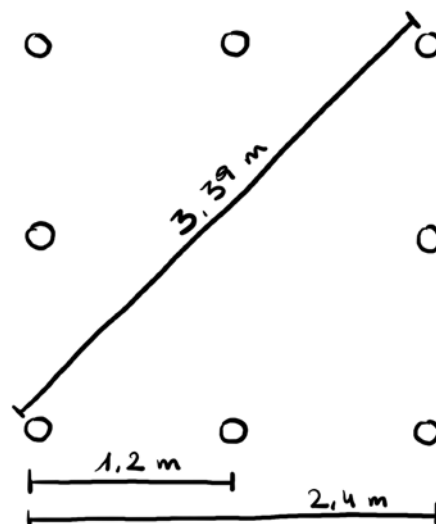


Figure 30: Sketches for the structure used on field



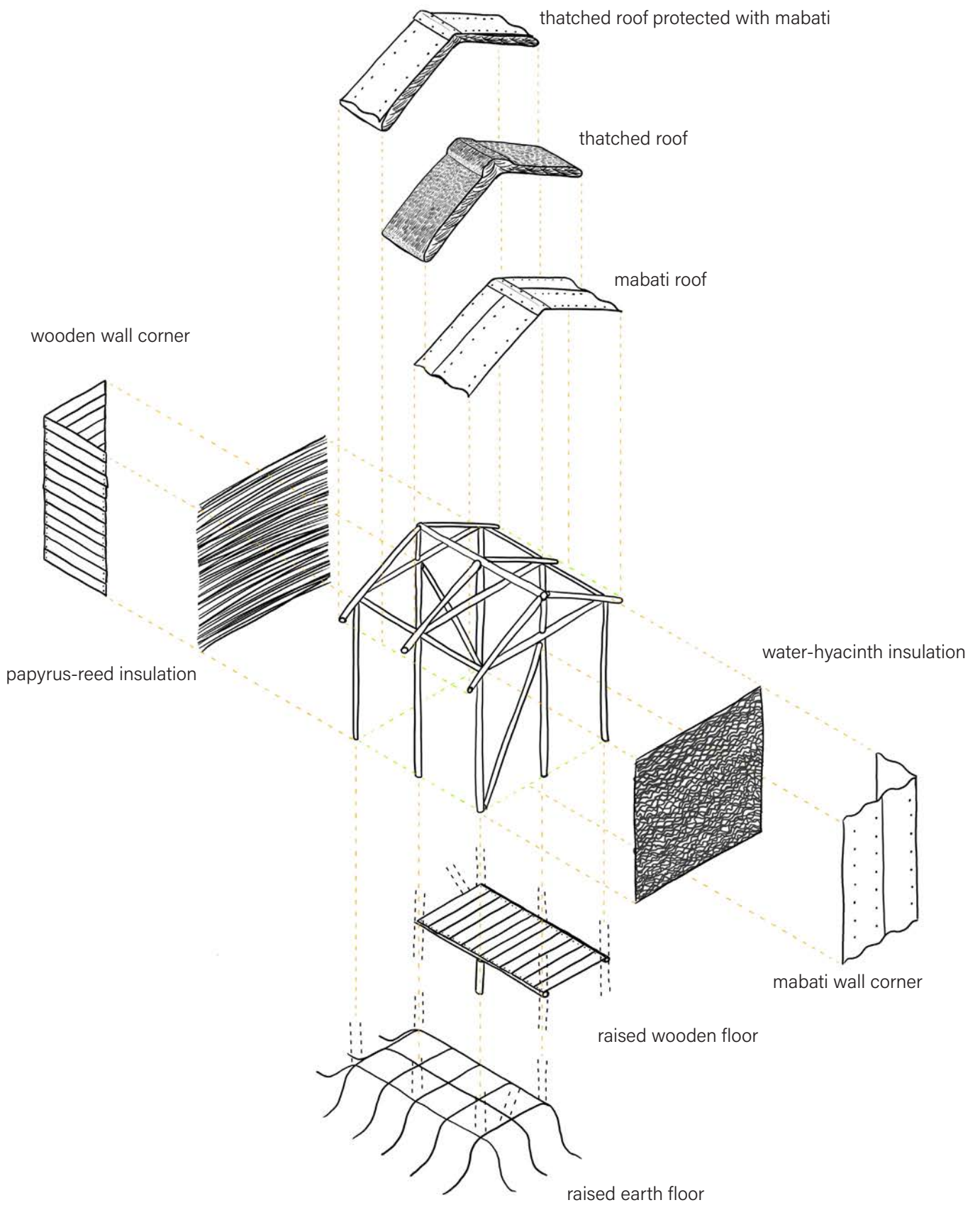


Figure 31: Exploded axonometric of the planned prototype

# THE POT

# LEFT ALONE\*

became a treasure

As the final community engagement action before saying goodbye for an unknown time, it was planned to conduct the workshop workshop, comprising a multitude of teaching and learning opportunities by collaboratively constructing a prototype and creating traditional crafts.

## Preparation

Procuring the necessary materials and tools for both the crafts and the structure presented a myriad of challenges distinct from those encountered in a European context, such as uncertain availability, price negotiations, and limited storage space. However, with the assistance of several partners, these obstacles were overcome. Nevertheless, we faced a setback when we arrived late on the field for the first of the two planned workshop days, prompting us to postpone building and crafting activities to the following day. Additionally, the original location for the workshop was reconsidered.

## Process

In terms of learning and teaching dynamics, while the initial plan involved assigning group leaders for each task with smaller groups of learners, the practical reality saw a single cohesive group of approximately ten individuals, primarily men, working together. Although this deviated from the intended setting, the active engagement of interested participants, including women who intermittently observed the process, demonstrates that learning can take various forms beyond direct participation, contributing to the overall success of the endeavor.

\*“Agulu mirito ok yieny. (A pot being watched over never boils.) (Miruka, 2001, p. 66)”: trust the process with patience.



Figure 32: Members of the community watching their fellows build the prototype



Figure 33: Man trimming the papyrus reed mat used as insulation

## Location and function

The following day, the community had arranged for a new location: the grounds of Nyamasao Primary School. This decision stemmed from the school's curriculum requirement to initiate a project involving the care of small animals in June and July. The community regarded the structure as a valuable gift, and the school expressed their gratitude and planned to use it as the stable. Initially concerned about meeting the perceived high expectations, I was comforted by the school's assurance that they would be grateful for any contributions made during the day. Subsequently, it became evident that both the school and the community deemed the expectations to be realistic, a sentiment that proved to be accurate.

## Difference from plan

While my initially proposed plan for the structure prioritized maximizing learning and teaching opportunities by combining different construction techniques, the community chose specific one for each element. The roof and the walls are constructed with mabati. On the inside papyrus reed mats, crafted by the community during the workshop, were added. I shortly introduced this concept before the model

Figure 34 (top): Pop-up model of the built p

Figure 35 (bottom): The built prototype



prototype



workshop but the community had not discussed afterwards nor is it common to use papyrus reed mats as an insulating layer in the area. Unfortunately, I could not follow the decision-making process behind it.

The floor is constructed as a wooden platform. Though this being an uncommon technique, it was positively reviewed by the community. However, the potential structural implications of the added weight from the wooden floor require further investigation, turning the structure into a potential prototype.

Initially, I anticipated constructing the structure according to my original plan. Consequently, when asked about the location of the door, I responded that there was none, as my plan included half of the walls being open. This miscommunication led to the addition of a door at a later stage, resulting in its placement not in the middle of the wall, contrary to common architectural designs in the area. After having disrupted the process of measuring the base area, I realized that my role for the day was primarily that of a documenter and learner rather than a decision-maker and I refrained from interfering further.

# THE TWINS

that the hare begot

During the prototype being built on the school's grounds, the crafting workshops were held. Some of the crafts were integrated into the structure and others stood alone. While the learning aspect during the construction of the structure unfolded differently than expected, the crafting workshops proved to be a truly hands-on experience. Participants engaged in various activities, including twisting sisal ropes to create macramé, sewing papyrus reed mats, weaving palm into baskets and hats, making pottery and decorating it with patterns. Additionally, they wove water hyacinth ropes into baskets and trivets. The productivity of the day was remarkable. Not only did I acquire these skills, but I also received feedback from those around me indicating that these activities were new to them. In a brief survey asking participants to raise their hands if they had learned something new that day, nearly everyone responded affirmatively. While the accuracy of this response may be subject to scrutiny, it undeniably reflects that many individuals gained new knowledge and thoroughly enjoyed the workshop. Personally, I found it immensely enjoyable and one of the most memorable days of my life.



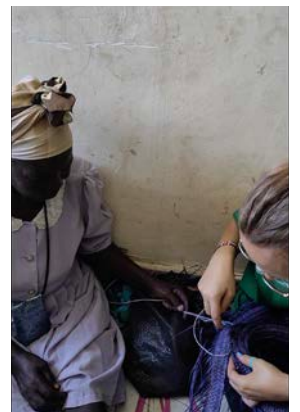
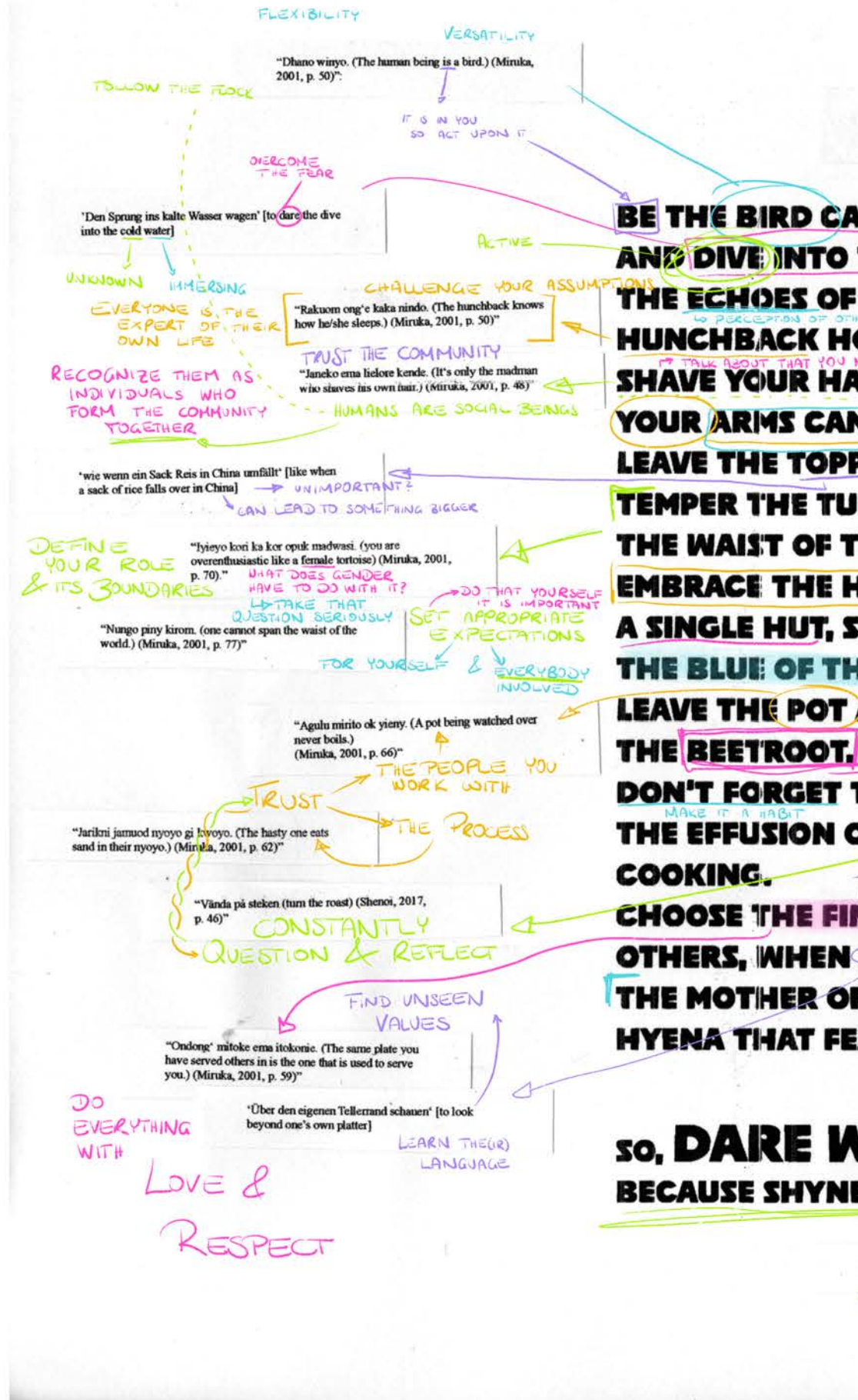


Figure 36: Practical knowledge exchange on traditional Luo crafts

Figure 37: Manifesto

# \* SUMMER of just a swallow?

This chapter discusses the project undertaken in Kenya, looking into what learning can be drawn from it and reflecting on the process from the author's perspective.



\*'Eine Schwalbe macht noch keinen Sommer.' [A swallow doesn't make a summer.]: The German proverb advises against drawing conclusions from a single event without further evidence. It originates from Aesop's fable about a young man who sells his coat after seeing a swallow, thinking winter is over, but both he and the swallow freeze when cold returns (Aesop & Winter, 1919; Daiber, n.d.).

FRUGALITY

"Atonga mayot ema iyombo go koth. (It is with a light basket that one escapes the rain.) (Miruka, 2001, p. 50)"

STILL POSSIBLE?!

**CARRYING A LIGHT BASKET  
THE COLD WATER, LISTEN TO  
YOUR HOME AND ASK THE  
HOW THEY SLEEP. LET THEM EVEN  
AIR. FIND THE ITCHY PART THAT  
IN REACH.**

**PLED SACK OF POTATOES AND  
RTLE THAT TRIES TO SPAN  
HE WORLD. INSTEAD, LET HER  
IARE'S AND THEIR TWINS. STAY IN  
O YOU DON'T GET TEMPTED BY  
IE SKY.**

**ALONE AND GET STRAIGHT TO  
TO AVOID SAND IN YOUR DISH.  
TO TURN THE ROAST, BECAUSE  
OF SMOKE IS NOT NECESSARILY**

**NEST PLATTER FOR SERVING;  
LOOKING BEYOND YOUR OWN.  
F THE PORCELAIN BOX IS A 'TIMID  
ARS THE BEAR.**

**WITH CARE  
ESS KILLED THE HARE IN ITS LAIR**

"Wichkuot nonego Apuoyo gono. (Shyness killed the hare in its lair.) (Miruka, 2001, p. 48)"

BECOME AWARE OF YOUR BASES

"Dalam kirwenyi. (You can never forget your home.) (Miruka, 2001, p. 68)"

- LOCATION?
- UPBRINGING
- HISTORY
- CULTURE
- LANDSCAPE
- PRIVILEGES
- ...

AND THEN LISTEN CAREFULLY

ASK AS MUCH AS POSSIBLE & ASK WHAT YOU ARE GENUINELY INTERESTED IN

"Fragen kostet nichts." [To ask costs nothing.]

"Kama ili ema igwonyo. (It is the itchy part that you scratch.) (Miruka, 2001, p. 72)"

WHAT IS ACUTE & RELEVANT? THAT YOU CAN TACKLE?

"Wendo bade boyo. (The visitor has long arms.) (Miruka, 2001, p. 39)"

BE HUMBLE

YOU AS A FOREIGNER VISITOR

"Apuoyo tin to go rude. (The hare might be small, but it begets twins.) (Miruka, 2001, p. 55)"

STILL IMPORTANT

BE AUTHENTIC STAY TRUE

"Jabudho e duonde ariyo jaded jamriambo. (He who stays in two duonde (hut of the male head) often becomes a liar.) (Miruka, 2001, p. 63)"

MULTIPLIES LIKE KNOWLEDGE THAT IS SHARED SHARING IS CARING

"Das Blaue vom Himmel versprechen" [to promise the blue of the sky]

"Pang pa rödbetan! (Bang on the beetroot!) (Shenoi, 2017, p. 11)"

STRAIGHTFORWARD TO THE POINT

AND IF IN DOUBT: ASK

"Bingo iro ek e tedo. (Effusion of smoke is not necessarily cooking.) (Miruka, 2001, p. 52)"

INVESTIGATE DEEPER

VOR-SICHT(IG)  
FORE-SEEING  
[PRE]CAUTIOUS  
CAREFUL  
ADDING A LITTLE LOVE

"Vorsicht ist die Mutter der Porzellanbox." [Precaution is the mother of the porcelain box.]

"Otoyo molucur ema ru. (It is the timid hyena that lasts the night.) (Miruka, 2001, p. 52)"

"Göra någon en björtjänst (do someone a bear service) (Shenoi, 2017, p. 79)"

# TO LIVE WITH- OUT MIRRORS

*is to live without the self\**

"Understanding—and disclosing—who we are, with whom we relate, and how we relate to our many others is central to our approach. Thus, refusing to efface our selves in our research is not simply a performance of fidelity to the norms of Western social science but an ethical choice."

Boer Cueva et al., 2023, p. 12

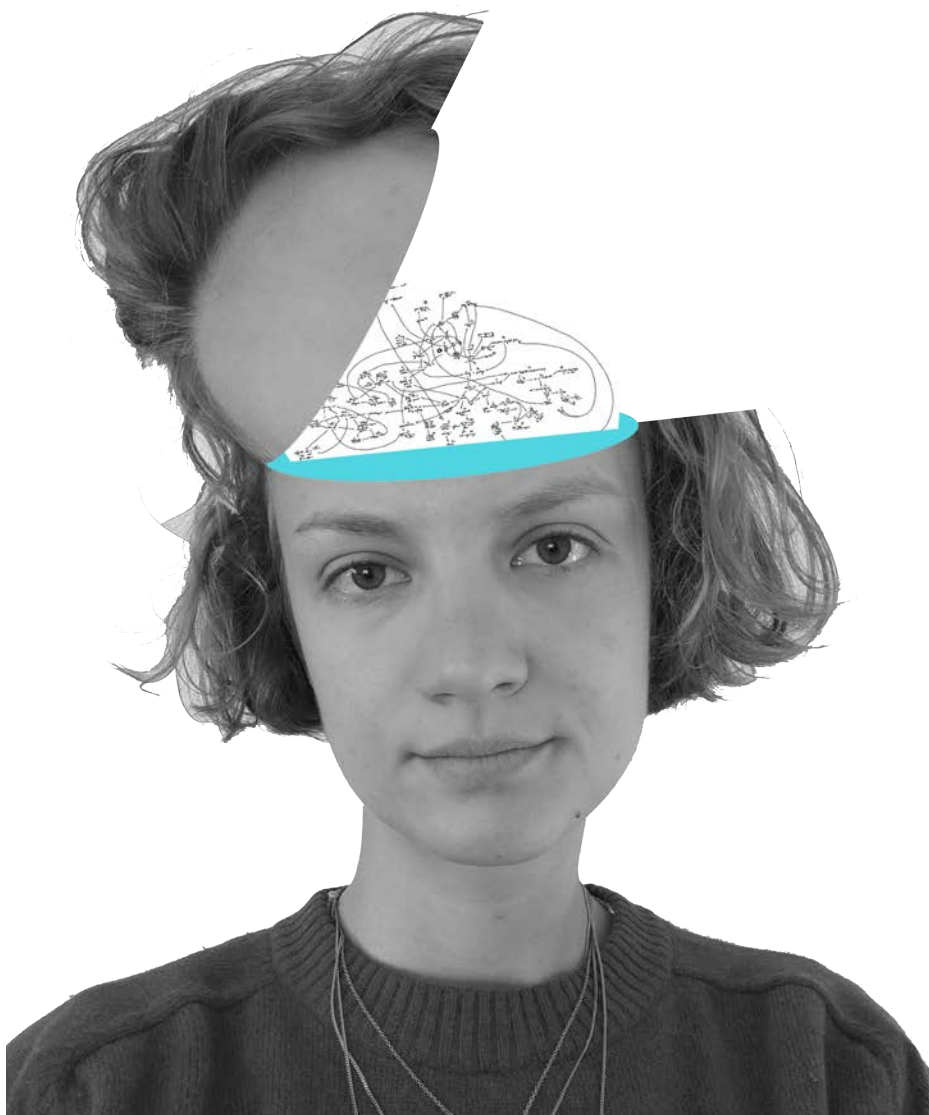


Figure 38: A head full of thoughts

\*"To live in prison is to live without mirrors. To live without mirrors is to live without the self (Atwood, 1981)": Atwood uses the mirror as a metaphor for self-awareness, suggesting that without it, one is lost or trapped (Bottimore, n.d.).

## Echoes of home\*

Apart from my hardworking family, I owe a lot of my privileges to the wealth of the Austrian state – the country I grew up in and which I have my citizenship to. Among other factors, this wealth can be ascribed to the success of the Habsburg Monarchy, which was achieved by strategic marriage (Hare, 1907, p. 48).

*"Bella gerant alii, tu felix Austria  
nube (Hare, 1907, p. 48)."  
[Wars shall be led by others, you,  
happy Austria, marry.]*

– King Matthias Corvinus of Hungary (Ingrao, 2019, p. 4)

Austria's colonial history needs historical reappraisal. In my experience, it is usually ignored: not once was it mentioned in my school education. Kugler (2021) describes it as short, characterized by failures, yet harmful. This regards the endeavors overseas. Austria had powerful internal colonization (Feichtinger et al., 2003) that is often overlooked. This describes the colonial way nations other than Austria were ruled over by the Habsburg Monarchy and can be attributed

to culturism, being the discrimination against a people with a certain way of living that differs from the norm. The peak of Austria's culturism was the genocides during the World War II. The Habsburg Monarchy had great power in Europe during the colonial epoch and therefore also strongly influenced other European nations in their colonial aspirations. Culturism and racism are still present in today's Austria and summarized by the term "Ausländerfeindlichkeit" [hostility towards foreigners or xenophobia, as the term "Ausländer" [foreigner] is not clearly defined]. This has great effects on migrants coming to Austria. As my father is not Austrian, but German, I have experienced a mild and very cynical form thereof myself: Germanophobia. Conversely, I have experienced discriminations against Austrians in different parts of Germany. I want to emphasize that because these forms of discrimination are relatively minor, I can only begin to imagine the extent of harm experienced by groups such as Jews or BIPOC. My closest encounters with racism come from my work in Pretoria, South Africa,

\*"Dalau kirwenyi. (You can never forget your home (Miruka, 2001, p. 68))."



Figure 39: Mob wife referring to Modern Family #2.03 (Spiller, 2010, 17:56) featuring Sir Arthur Henry Hardinge, Commissioner for British East Africa 1895-1900 (Kiereini, 2020), and Franz Josef Karl, emperor of Austria, king of Hungary and ruler of other states of the Habsburg monarchy 1848-1916 (Baron von Aretin, n.d.)

a country still rattled by the effects of the apartheid and my work in Hammarkullen, a segregated, multicultural area of Gothenburg that is subject to racism and culturalistic actions from people of city center and rural areas of Sweden. Now I live in Sweden, where people generally do not differentiate much between Austria and Germany. I am perceived as a German-speaking migrant. Personally, though being a migrant, I have not experienced discrimination against myself, which I ascribe to my white ethnicity and the positive view on the “German culture”.

### **Wish for a donkey\***

As a white person visiting Kenya however, I found myself standing out due to the scarcity of others looking like me. It was apparent that my race led to assumptions about my financial status, often equating whiteness with wealth – a perception not entirely unfounded given the economic disparities between Europe and Kenya. Yet, this apparent abundance of wealth is not without its constraints. While money may hold greater value in Kenya, the cost of living in Europe necessitates a higher income. This discrepancy highlights systemic issues where the worth of money fluctuates based on geographical location.

\*The ‘Goldesel’ [gold donkey] spews gold in the fairy tale “Tischlein deck dich” (Gebrüder Grimm, 2013).

Reflecting on personal circumstances, I recognize my relative privilege as a student in Sweden. While I lack personal income or state support, I benefit from residing in a welfare state that provides a safety net. Additionally, my parents' financial stability affords me further security and opportunities for prosperity. However, this wealth is not devoid of ethical complexities, as it stems from historical exploitation, particularly through colonialism.

Contemplating notions of restitution, I grapple with the idea of returning wealth acquired through exploitation. While there is a moral imperative to undo past injustices, the practicalities and ethics of redistributing wealth are far from straightforward. It raises questions of

accountability and fairness, as well as the culpability of those who may have benefited indirectly.

Despite these complexities, I feel compelled to contribute towards mending injustices. This sentiment, I believe, is shared by many, albeit to varying degrees. Ultimately, the issue of wealth redistribution defies simple categorization, requiring nuanced consideration of historical context, ethical responsibility, and practical feasibility.

## **Their gaze, a mirror to my soul's reflection**

My standpoint on giving back is firm: it's essential, but it requires careful consideration. There are nuances to navigate, including one's own perception of the process

Figure 40: Cow at the beach



and how others perceive it. Reflecting on my time in Kenya, both during my thesis and other situations, I often felt a tug-of-war between the desire to give more and the need to establish boundaries. In Kenya, I encountered the phenomenon of *mzungu*-prices, where goods and services were priced differently for white people, so-called *wazungu* (plural of *mzungu*). While there's a logic to this, given the economic disparities, I recognized the potential for this practice to perpetuate racism, as it leads to choosing white clients being more profitable. Therefore, I made a deliberate choice to negotiate for local prices instead of passively accepting the inflated rates. This decision stemmed from a commitment to contribute to systemic change and promote

fairness.

This dynamic also extended to the project, where initially, they expressed their desires humbly, requesting various items, weekly payments, or a dam – all of which were and still are beyond my capacity to provide. This situation left me feeling overwhelmed. Consequently, during the third meeting, I took decisive action by clearly outlining my capabilities and defining the parameters of my role. I established rules aligned with these constraints and adhered to them diligently. However, despite these measures, I grappled with a persistent sense of inadequacy. I wondered if I could have done more or if exemptions could have been justified, but this remains an unresolved question without a definitive answer.

Figure 41: Dunga Beach, where I encountered the greatest *mzungu*-price difference.



## **The toppled sack of potatoes\***

Moreover, beyond the sensation of merely lacking in contribution, I frequently grappled with a sense of insignificance, stemming from the speculation that the entire process could have been comparable without my presence. This begs the question: would their progress have been proceeded without my involvement? If so, would such a realization be beneficial or detrimental? In an effort to avoid imposing my viewpoints onto their endeavors, given my status as an outsider to their context, I opted for a bottom-up approach. Consequently, I refrained from expressing my opinions extensively, which was the fundamental premise of this approach. However, it presented a challenge for me as I found myself confronted with a topic in which I lacked comfort: construction. My architectural education primarily emphasized artistic expression, graphic design, and participatory actions, with limited focus on engineering. Despite this mismatch, the bottom-up approach mitigated concerns regarding my expertise, as I was not tasked with providing explicit instructions. Nonetheless, I often grappled with the notion that my presence may have been superfluous.

## **Investigating the smoke\*\***

Conversely, I also grappled with the notion that the prototype stemmed from my own wants rather than originating from the community. This feeling arose because I advocated for it to some extent, and ultimately, I made the decisions regarding the actions we pursued in the workshops, prompting me to ponder their motivations. Did they engage in the workshops out of genuine interest, hoping to glean practical knowledge to better navigate recurrent floods? Or were they simply seeking a diversion from boredom? Worst of all, did they view it as a form of labor?

I viewed the skills exchange as a natural progression from my previous efforts, driven by my personal interest and expertise. However, I harbored concerns that I might consistently find myself leading such endeavors. Yet, I sensed genuine interest from the community in participating in the skills exchange. Their ongoing engagement and participation hinted at sincere interest, although the expectation of sodas and biscuits at the outset suggested a potential perception of the workshops as work. In my culture, providing refreshments is customary for gatherings, yet it shouldn't be equated with compensation, especially for those struggling to afford basic necessities.

\*'So wichtig, wie wenn in China ein Sack Reis umfällt [as important as a sack of rice falling over in China.]: German expression for something of no importance, but often in associated with the butterfly-effect in physics, adapted to my European origin.

\*\*'Bingo iro ok e tedo. (Effusion of smoke is not necessarily cooking (Miruka, 2001, p. 52).)'



While sodas and biscuits may have served as an incentive for some, I believe their participation was driven by a genuine desire to learn and engage, as evidenced by the meaningful human interactions I experienced. Ultimately, as humans, we can discern when others are deriving joy and hope from their experiences, regardless of the turnout numbers.

Moreover, towards the conclusion, the chief expressed appreciation for what I started in the area. He specifically used the term “started,” which illustrates that while I may not have the capacity to enact major life changes for them, I was able to initiate something. Although questioning whether I had made any meaningful impact at all, one thing I can confidently affirm is that I cared deeply. Drawing from my own experiences of hardship, I understand the significance of knowing that someone cares.

## **Prism of Perception**

Another instance where perception became evident was when I was asked to represent two charity projects, unrelated to my thesis, as a communicator between funders and the organization. Both charity organizations, Hope to Live and Friends Pioneer, requested my presence at their charity events. Oscar from Hope to Live cited my familiarity with the community as the reason for my inclusion. At this event,

the chief also sought to take photos with me, claiming it would enhance his fundraising efforts. Similarly, Friends Pioneer requested my presence for photo-taking purposes, allegedly essential for their work.

However, I do believe or interpret their motives as aiming to acquire more money, or indeed, gaining more money by taking pictures with me due to the perception associated with seeing a white person present. This perception often involves attributing positive qualities to white individuals. In the book “Was weiße Menschen nicht über Rassismus hören wollen aber wissen sollten”, that I read five years ago, a Alice Hasters (2019) stated that there was no racism against white people because all the attributes ascribed to whites are positive attributes. At the time, I didn’t fully grasp her meaning, and to some extent, I disagreed, particularly within the European context. However, it became clear to me in Kenya. In that context, people attributed very positive qualities to me simply because I’m white. For instance, they perceived me as rich, wealthy, potentially generous, and also as having high status. Whether this constitutes racism or not is, I believe, a matter of definition. It hinges on whether racism is merely the act of attributing characteristics based on race or if it encompasses

discrimination as well. Regardless of how one defines it, I think it is linked to coloniality. Coloniality refers to the knowledge systems and worldviews that persist even after colonialism has ceased.

### **Scalded cats\***

Another attribute I was often given was that of being beautiful or having a smart appearance. Sometimes, even salacious. Before delving into the issue of catcalling, I want to highlight that I never received catcalls, from the community I worked with. Additionally, despite experiencing numerous catcalls, it's important to note that it's not the

majority of men, or women, who behave in this manner, but the loudest segment of the public. Although it felt like a lot, it's not representative of the majority. Based on my personal biases and the perspectives I gained through literature on coloniality, I initially believed that this behavior was connected to coloniality. I thought that being white automatically meant being perceived as beautiful and desired, because people have been manipulated into believing so by colonialists. However, through discussions with various people, I discovered that there's more to it. Tourism plays a significant role in fostering this attitude among people. For instance, my aunt shared with me an incident where she was told that tourists usually appreciate such attention when she intervened to stop catcalling. Many men travel to Thailand for sex tourism. Through my discussions with family members and friends, I discovered that Kenya seems to be the counterpart for women. As I did not get sexualized in the community but by strangers in other rural areas, I now want to shift gears and delve into another aspect: how I was perceived and how I became identified within the community.



Figure 43: Kitten in Nyalenda, living in a house that Friends Pioneer built

\*“Gato escaldado tem medo de água fria (Jordan, 2022).” [A scalded cat is afraid of cold water.]: This expression means that after a bad experience, someone will avoid similar situations to prevent feeling the same way again. It comes from the idea that a cat scalded by hot water will avoid baths, even with cold water, due to the trauma (E. da Cruz Brandão, personal communication, May 5, 2024).



Figure 44: Sunset on the last road trip; in the countryside, white foreigners get called out

## Labels of existence

When the chief was present, he would often test the community by asking them my name, assumingly to be reminded of it himself. While most of them answered with my first name “Carina”, some referred to me with the name of my Christian name patron “Katharina.” While it is uncommon in Europe to differentiate between the first and the Christian name, the priest insisted that “Carina” wasn’t an appropriate name, when I was baptized. Contrarily, having two names is very common in Kenya, stemming from the British struggling to pronounce non-English names, leading to the coloniality of an abundance of Kenyans believing that a Christian name is the necessary ticket to heaven (Kimeria, 2017). Once

however, the chief formulated the question differently, not asking for my name but what the community called me. This led to a moment of uncertainty among them until one person eventually mentioned ‘mzungu’. The chief clarified that he wasn’t seeking a generic term but my actual name. Thus, he suggested giving me a name, and after a discussion, they settled on ‘Adhiambo,’ as I was born in the evening. The term ‘mzungu’ was commonly used to refer to me and other white individuals, almost like a default name. Whenever I ventured into rural areas, whether within my community or elsewhere, I often heard: “Mzungu, mzungu, how are you?” This designation was ingrained in the community’s interaction with white individuals, taught to children as a sign

of respectful curiosity. While some might interpret it as a means to solicit money, it primarily stemmed from the children's fascination with the unfamiliar. It's important to note the distinction between 'mzungu' and the discriminatory N-word used to describe black individuals. While 'mzungu' may sometimes make one feel dehumanized, it's generally used with positive connotations, highlighting a stark contrast in perception.

## **Fearing the bear\***

While it's crucial to consider how one is perceived, what matters most is the impact of one's actions. This applies to both the project I undertook and the charity event. In the discourse on aid, a significant topic is dependency. There's ongoing debate on whether aid perpetuates dependency, raising questions about the ethics of providing assistance. Personally, I believe that addressing dependency is essential before ceasing aid altogether. However, determining whether individuals are truly dependent is complex. Examining the circumstances I encountered, I see indications of dependency, or at least a reliance on aid. But does this mean I am placing myself above them by labeling them as dependent? Or is it a factual observation rooted

in historical systems like colonialism and the legacy of aid? This viewpoint was challenged by a close friend from Kisumu, who argued against dependency in a different context. He spoke of people displaced by floods within the city, suggesting they should simply relocate, which I found difficult to reconcile with my own experiences. This highlights the challenge of understanding dependency from an outsider's perspective. Ultimately, the issue isn't whether dependency exists but whether aid perpetuates it. If aid fosters a sense of learned helplessness, community empowerment becomes crucial to break this cycle. My project embraced a bottom-up approach, engaging the community to drive change. As for the charity withholding aid to prompt systemic change feels ethically ambiguous. It's not a one-size-fits-all solution.

## **In search of the forest\*\***

Considering the limitations of the capacity to help everyone, it raises the question of fairness. How can we ensure fairness in distribution when faced with numerous requests and limited resources? This becomes especially pertinent when encountering random requests or street begging, where discerning genuine need becomes challenging. I believe that charity should

\*"Göra någon en björntjänst (do someone a bear service (Shenoi, 2017, p. 79))": trying to help but making things worse

\*\*"den Wald vor lauter Bäume nicht sehen [not seeing the forest for all the trees]": German metaphor for being unable to see the bigger picture due to being overwhelmed by the individual pieces

\*‘hedi wäri wari [if I had, I would have been, then I would be now]’: Austrian saying to ridicule someone blaming their actions on a series of events, they had no influence on.

be directed towards those most in need, but determining who falls into this category is complex and subjective. To address this challenge, I advocate for the involvement of an organization with the expertise and tools to assess needs effectively. Such an organization can establish transparent criteria and clear objectives to guide decision-making, ensuring logical and justifiable allocation of resources. This approach aligns with my values and intentions moving forward. For the charity event I participated in for the community I worked with, I delegated the responsibility to the charity organization I partnered with, Hope to Live. As a student, I recognized my limitations in organizing a charity event independently and believed it was more appropriate for an established organization to handle such initiatives.

## Hedi wäri wari\*

Entrusting the responsibility for the charity event to my partner organization ultimately resulted in an outcome that differed greatly from my expectations. Initially, I envisioned the event as a farewell gathering. While the charity event was impeccably organized and structured, it primarily targeted a different audience than the project’s target group. Although there was a significant overlap, there were also notable differences.

One of the key issues was that I couldn’t bid a proper farewell to many individuals I had worked closely with, as they weren’t part of the charity event’s audience. Compounded by the fact that I was prominently featured as the face of the charity event, the disappointment expressed by those excluded

Figure 45: Oscar, the CEO of Hope to Live, handing out a mattress and a blanket to a beneficiary



from the target group of the charity fell back on me. Despite my efforts to clarify that the event was organized by the partnering organization afterwards, the misunderstanding persisted among those I had collaborated with. Reflecting on this experience, I realized the importance of taking charge of my farewell arrangements independently and not intertwining them with other initiatives beyond my control.

The discrepancy in target groups stemmed from a miscommunication that originated during the initial survey conducted in December before my arrival. While I intended for the survey to assess the target group I would directly engage with, the organization's interpretation resulted in a larger scope than I could effectively manage. Upon my arrival, I found that the situation had evolved, with many of the initially identified households having relocated. Consequently, I decided to redefine my target group to focus on individuals unable to return to their homes, a decision I believe was logical and practical given the circumstances. This adaptation served me well throughout the project until the discrepancy between the charity event and the intended farewell gathering surfaced, prompting a critical reassessment of planning strategies moving forward.

## **A blur**

The adjustment in defining my target group presented a challenge during the project, particularly in terms of clarity and scientific rigor. Admittedly, I didn't rigorously verify whether all the individuals I directly engaged with in the workshops fell within the parameters of the revised definition. While the majority likely did, there were instances where individuals from neighboring areas, including members of the disaster committee, participated in our activities. While they are part of the broader community, the target group definition pertained specifically to those directly involved in my initiatives. I acknowledge that I didn't thoroughly assess the data to filter out individuals who didn't fit this criterion. In most cases, this oversight didn't pose a significant issue, as everyone involved in the community was aware of the challenges and contributed valuable insights. However, concerning the involvement of the disaster committee, there may have been instances where power dynamics influenced outcomes more than intended, potentially compromising the integrity of the data.

## **Of Azure Skies\* and Grey Veils**

Reflecting on power dynamics, my interactions with the local chiefs sparked

Figure 46: Azuere sky in Kenya

\*'Das Blaue vom Himmel versprechen' [to promise the blue of the sky]: promising something impossible





Figure 47: One group of participants playing a variation of the *Snakes and Ladders* game

insightful reflections on different political systems and their influence on our collaboration. One notable anecdote stands out: during a conversation, the chief asked if I would return to work with the community. I responded honestly, expressing uncertainty and reluctance to make promises. His response, asserting that broken promises were common and urging me to simply say I would return, highlighted cultural differences in communication norms. Despite cultural expectations, I reiterated my commitment to try my best to return, refusing to make empty promises.

### **Breadth not depth?**

Extensively engaging with numerous individuals is inevitably accompanied by missing out on delving

deeply into each person's perspective. Despite my best efforts, the constraints of time and capacity prevented me from thoroughly understanding everyone's thoughts, expressions, and creative outputs. While I believe I achieved a certain level of depth, it's clear that a more focused approach with fewer individuals could have allowed for deeper insights. This dilemma underscores the tension between quantitative and qualitative data in my methodology, where I aimed for qualitative richness but ended up sacrificing depth due to the quantity of participants.

### **Playing by own rules**

This also highlighted occasions where I failed

to fully grasp cultural nuances. For instance, I introduced a game inspired by the popular *Snakes and Ladders* from my own culture, assuming it would be straightforward. However, it quickly became apparent that the simplicity I anticipated didn't translate well. It emerged that board games aren't as usual in their culture. Moreover, they were unfamiliar with this specific game, leading to confusion over the rules despite my attempts to explain. The result was a delightful yet chaotic experience, with each group interpreting the game differently. While it provided valuable insights into their thought processes and creativity, it underscored the need to reassess my cultural assumptions within this context.

### **Beyond words**

The challenge of misunderstandings and shallow understanding also stems from the linguistic barrier. I made earnest efforts to surmount this obstacle by learning the language, and I did make significant progress. However, despite my best efforts, there simply wasn't enough time to achieve a profound level of understanding. While I acknowledge the importance of language as a conduit to deeper cultural understanding, I must confess that within the limited timeframe, attaining that

depth was not feasible. Nonetheless, I consider my language learning journey to be one of the highlights of my experience. It was immensely valued by the community and contributed significantly to my comprehension. The appreciation I received stemmed from their recognition of my genuine efforts to connect and empathize with them, reflecting a profound respect for their culture and language.

### **Love - there is nothing more poetic**

This brings me to a topic often overlooked in scientific discourse but profoundly significant in real-life interactions—the essence of human connection and affection. I'm not referring to romantic love but rather the profound sense of bonding and appreciation that transcends boundaries. While acknowledging that such sentiments can introduce biases, it's essential to recognize their importance and impact.

Allow me to share a poignant encounter with Caren, with whom I share a deeper connection. Following a workshop, Caren paused to express: "They really love you. Do you know that?"

I genuinely hope they know how much I love them too.

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# WORM

# EXTENSION\*

not necessary, but there

They show me the rooms.  
Let me take pictures.  
KARIBU! Is what they said.  
KARIBU! Is what they made me feel.  
I can't believe this is real.  
Can't get it into my head.  
All they have is mats and the clothes on  
their skin.  
Their stomachs like gagi - only spirit  
within.

"Abiro duogi kiny"  
They correct me.  
Akia?  
I return the next day

Gathered under the tree,  
They raise their voices.  
I? Listen.

They need a dyke.  
They need a hospital.  
They need better roads.  
Ok anyal.

They request,  
humbly:  
Food,  
Bedding,  
Clothing,  
Gamboots,  
Pharmaceuticals,  
...  
Please.

Ok anyal.  
Tyvärr. ?

Luo:  
karibu - welcome  
gagi - snail shell  
Abiro duogi kiny -  
I'll return tomorrow  
Akia - I don't know  
Ok anyal - I cannot

Swedish:  
Tyvärr -  
unfortunately

**CEA 1\*\*** 01.02.24

## Introduction

During the initial week of my fieldwork at the evacuation center, I visited the site twice with the aim of familiarizing myself with the key facilities. My objective was to observe and understand the living conditions. This initial interaction provided a snapshot of the challenges and nuances inherent in navigating a setting with a distinct culture and language.

## Welcoming Reception

Upon my arrival, the community showed a warm and welcoming attitude. The assistant chief played a pivotal role in introducing us to the residents, setting a positive tone for our engagement. Arja and Holly, colleagues representing the

\*'Wurmfortsatz' [literally: worm extension] refers to the vermiform appendix, mostly referred to as solely 'appendix.'

\*\*CEA stands for Community Engagement Action

organization, took the opportunity to introduce themselves and explain the purpose of our visit. Language barriers surfaced as I attempted to communicate in Luo, leading to the assistant chief's translation of my message.

## **Intricacies of Cultural Sensitivity**

Despite the goodwill of my colleagues, there were instances where their approach inadvertently clashed with a decolonial framework. Unfamiliar with the nuances of being perceived as 'white' in this context, they inadvertently placed me in situations that felt intrusive and insensitive. The cultural dynamics, marked by locals referring to me as 'mzungu,' underscored the need for a more nuanced understanding of the complex power dynamics at play.

## **Navigating Cultural Boundaries**

As my colleagues urged me to interact with residents, particularly children, I encountered resistance and apprehension. The children's reluctance to engage, perhaps rooted in fear or unfamiliarity, prompted a deeper reflection on the appropriateness of such interactions. A pivotal moment occurred when Arja and Holly suggested I sit with a woman and engage in pretend conversation. Sensing the potential for discomfort, I opted for genuine communication, only to be met with laughter, raising questions about the effectiveness of cross-cultural communication and the potential for misunderstanding.

## **Personal Connections Amidst Challenges**

Amidst these challenges, meaningful connections were forged, exemplified by my interactions with Jane, who resided in the corridor. Her warmth and appreciation for our connection transcended linguistic barriers, highlighting the importance of genuine human connections in cross-cultural settings.

## **Conclusion**

This reflection on my initial experiences at the evacuation center underscores the complexities inherent in conducting fieldwork in unfamiliar cultural and linguistic environments. The episode serves as a reminder of the importance of continuous reflection on power dynamics, cultural sensitivity, and ethical considerations, when engaging with communities in crisis situations. It is imperative to approach such interactions with humility, respect, and a commitment to understanding the multifaceted dimensions.

## **Introduction**

During my second visit to the site, my planned activities deviated significantly from the initial expectations. Initially anticipating collaboration with 12 to 15 individuals, the turnout exceeded projections, with more than 70 participants gathering in the shade of a tree. Unexpectedly, individuals not affiliated with the evacuation center joined the session, enlarging the group further. Consequently, the initially planned activities had to be adjusted.

## **Listening**

The primary activity aimed at mutual understanding involved the participants interviewing me to understand the scope of the project. However, the participants promptly shifted the focus to articulating their issues and challenges within the evacuation center and the surrounding community. Notably, many offered insightful solutions, and the discussions were predominantly moderated by Holly, Aria, and the assistant chief, as Luo was the primary language. Participants, predominantly female (around 75%), actively engaged by raising hands or standing up to deliver brief speeches ranging from one to five minutes. Interestingly, the gender dynamics revealed that while approximately 75% of attendees were female, about 50% of the speakers were male, potentially influenced by either men vocalizing more frequently or moderation favoring male participants.

## **Conclusion**

Observing the dynamics, it became apparent that the majority expressed agreement with the speakers, occasionally culminating in applause, emphasizing collective endorsement. Subsequently, I collected and categorized the identified issues for further analysis. In response to their queries and concerns, I committed to providing an assessment aligned with my capabilities and project limitations, ensuring transparency about what could be realistically achieved.

## CEA 3 07.02.24

During my third visit to the site, I presented a comprehensive assessment of the community's issues, derived from both the listening workshop and survey responses. I meticulously analyzed the interconnected problems, unveiling a complex web of issues, with flooding emerging as a focal point due to its cascading consequences. Distinct solutions were identified, with political interventions on the left side of the problem tree and the role of charity organizations in addressing resource shortages on the right side. Aligning with my project goals, I applied specific criteria to determine feasible and impactful pathways, resulting in six potential directions. In a workshop setting, I shared these options, prompting group discussions and idea generation. Despite unexpected applause for the assessment presentation, language barriers hindered my understanding of the nuanced discussions within each group.

Ok anyal this.  
Ok anyal that.  
But this is what I could try.  
With you.

Applause.

Six options are what I see.  
Six options for them to discuss.  
For them.  
I can't understand.  
For them.  
But that's (not) the point.

And then: the decision  
One sticker each.  
It's clear.

Singing,  
Dancing,  
Having fun,

But.  
Kech kaya!

The children sleep in the camp, the risk of the house collapsing is too high, but we need to protect our belongings.

Da Bodn lei Gatsch.

This used to be a wall.

Luo:  
Ok anyal - I cannot  
Kech kaya! - Hunger bites me!

Tyrolean:  
Da Bodn lei Gatsch - The floor just muddy

Although the decision to focus on group deliberation rather than personal comprehension raises uncertainty, video documentation and written notes may serve as valuable resources for later analysis.

Following group discussions, a voting process was initiated, with participants expressing preferences through stickers on the most promising project ideas. Notably, the community favored a novel approach: developing innovative flood-resistant building techniques. Post-vote, field workers conveyed urgent concerns from the community about insufficient food, emphasizing its critical importance for the next visit. Consequently, plans were adjusted to prioritize food provision in response to their explicit requests. I acknowledged the need for improvement in my preparations, recognizing the importance of addressing local preferences for sustenance.

- 78 -

	needs	ideas		
criteria			multiply	add
	flooding	building of dyke	0	18
		drawings for flood-proof building construction	360000	38
		drawings and prototype for flood-proof farming	625000	41
	lack of tents	provision	0	11
		design and co-production	750000	41
	dependence		0	0
			0	0
	skipping school due to logistics	drawings for a mobile school	1000000	42
		improving road	0	11
		drawings for a resource center	937500	42
			0	0
	skipping school due to teenage pregnancy	sexual education programme	0	11
			0	0
			0	0
	informal education	prototype of mobile playground	1000000	42
			0	0
	provision of...	mosquito nets		
		bedding		
		household items		
		gamboots		
		direct financial support		

enough money	enough time	suitable for thesis	decolonial	participatory	relevance	expertise	suitable for my role	long-term
0	0	1	2	2	5	1	2	5
5	5	5	3	5	4	3	4	4
5	5	5	5	5	5	2	4	5
0	5	0	0	0	3	0	0	3
4	5	5	5	5	3	4	5	5
5	5	5	4	5	4	5	5	4
0	0	0	1	0	5	1	0	4
5	5	5	5	5	3	5	5	4
		0	2	0	4	1	0	4
4	5	5	5	5	4	5	5	4
		no	no	no			no	
		no	no	no			no	
		no	no	no			no	
		no	no	no			no	
no	yes	no	no	no		no	no	depends

## CEA 4 14.02.24

This week's site trip consisted of two parts. In the morning, we embarked on a boat trip with the aim of exploring the dike in the north of the flooded fields and reaching River Nyando, where the dike is situated. However, our plans were hindered as the boat got stuck on a wave, preventing us from reaching the dike. Despite this setback, the three-hour boat journey provided me with a remarkable view of the extensive waterlogged areas, which, just a few months ago, were former farms. The transformation was astonishing, with new plant life flourishing, including water hyacinths, water lilies, and reeds. The area now supports a diverse ecosystem, including an abundance of fish, attracting local fishermen who have ventured into this region for new opportunities.

Encountering five hippos in the flooded areas, which had migrated from Lake Lolwe, added another dimension to the experience. Notably, during the boat trip, I observed a significant language barrier as the other five people conversed predominantly in Luo, often using the term „Mzungu“ to refer to me. This highlighted the reality that discussions about my presence and skin color were taking place, reminding me of the adage that everyone seems nice until you understand the language.

Initially frustrated by the thought of being discussed in this manner, I later realized that Naomi, a member of the team, likely defended or explained my presence. It appeared that my white skin color was often associated with financial wealth, leading to requests for money. This dynamic became more evident when encountering locals cutting plants for mats, repeatedly asking for financial assistance.

In addition to the boat trip, the day included a gathering at the camp for a workshop. Despite the late start, the workshop drew a significant turnout, and I introduced a game, a variation of snake and ladder. The participants, who were unfamiliar with such games, creatively interpreted the rules, leading to diverse outcomes for each group. While some struggled with the complexity of the game, others enjoyed the novelty, contributing to a lively atmosphere.

Despite the language barrier, I managed to collect numerous forms filled out by participants detailing their current building materials, flood response measures, and the damages caused by floods. However, the forms are in Luo, requiring translation assistance.

In summary, yesterday's activities provided valuable insights

into the dynamic changes in the flooded areas, highlighted communication challenges, and offered a unique perspective on introducing games to a community unfamiliar with such recreational activities.

The river is still in the distance.  
The dike is what wants to be seen.  
The skipper shows persistence.  
But we get stuck in the green.

This is not a lake.  
This is not a river.  
This is flooded land.

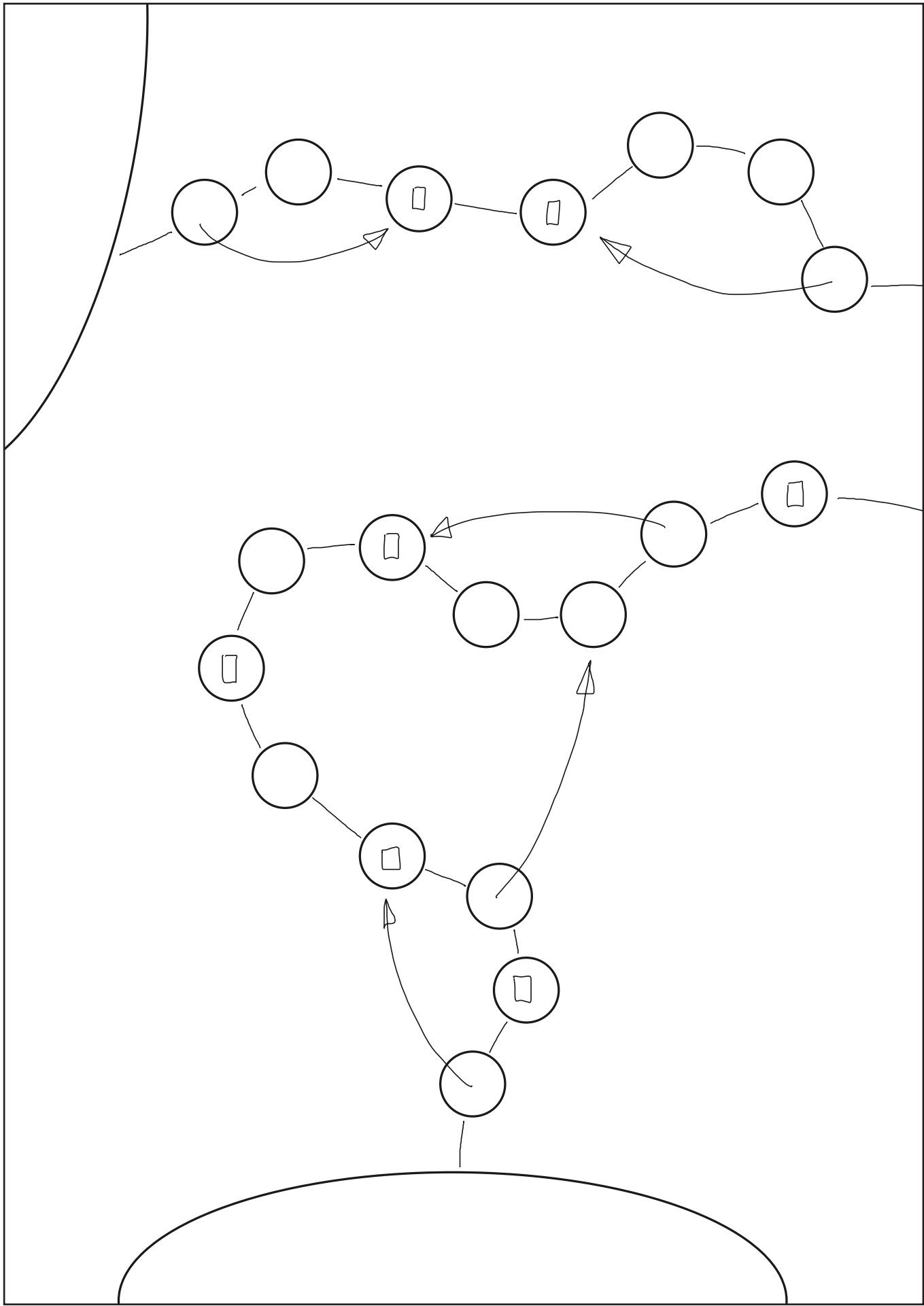
Land.  
Farms.  
Homes.

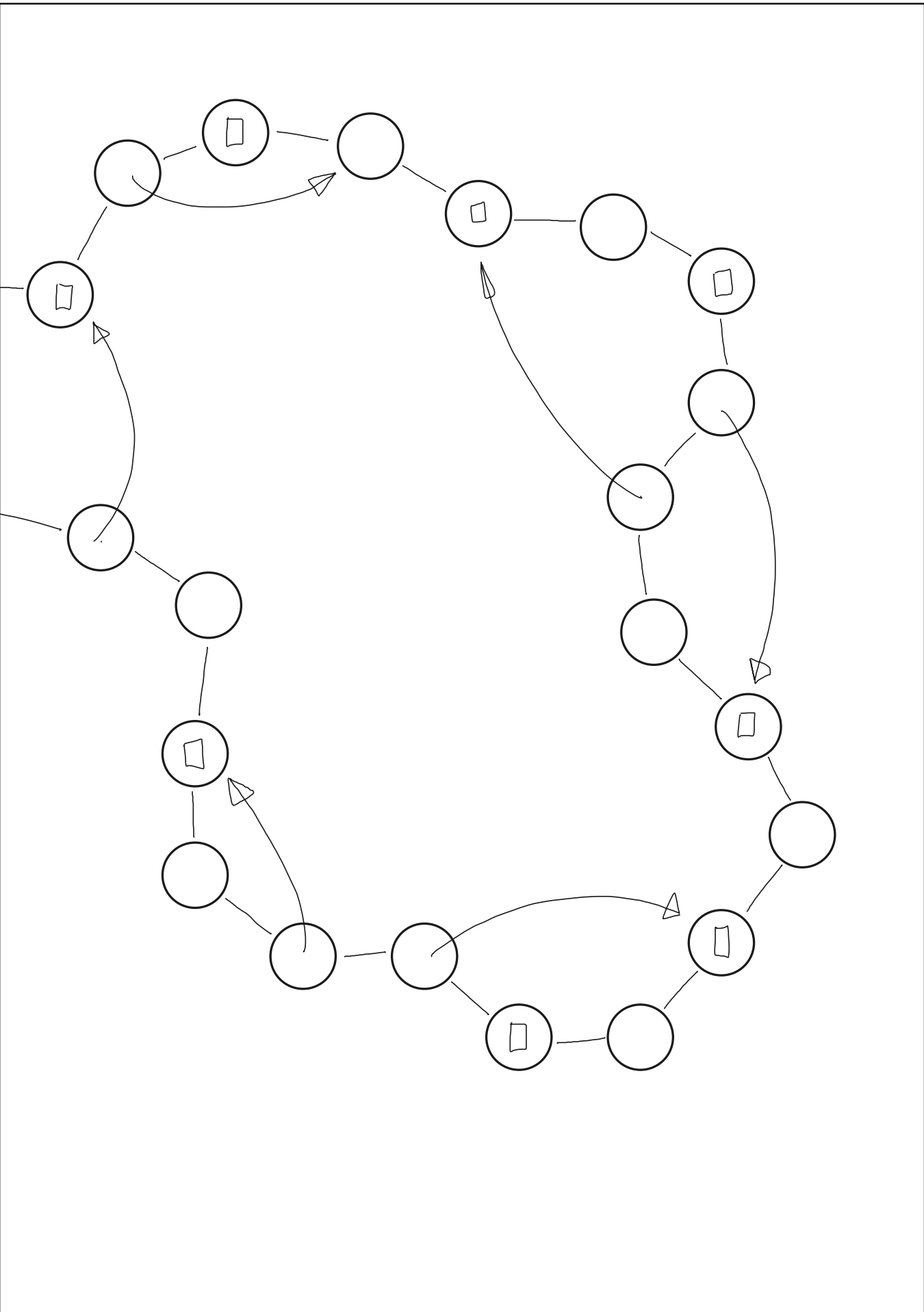
How can something so beautiful be so destructive?

Draw the dice! Auchiel  
Achiel  
Ariyo  
Adek  
Ang'uen  
Abich  
Auchiel

Now it is your turn.  
I turn around.  
The pieces get piled.  
Shopping carts everywhere.  
What a creative  
mess have I made  
them create.  
I learn a lot.  
Period.

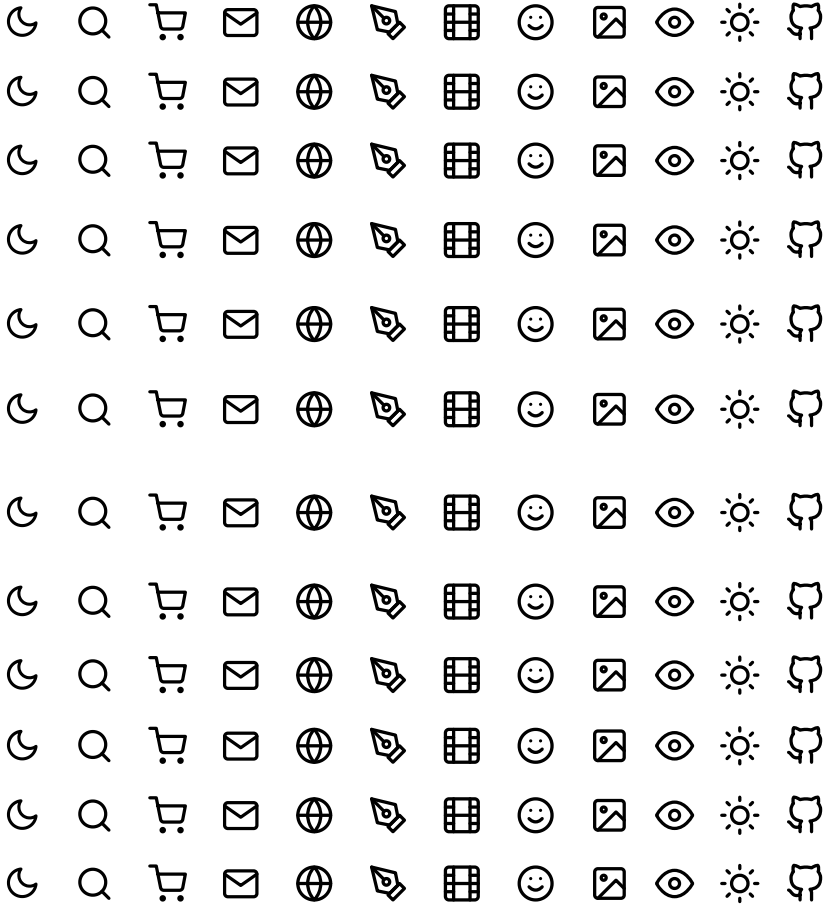
Luo:  
Auchiel - six  
Achiel - one  
Ariyo - two  
Adek - three  
Ang'uen - four  
Abich - five









Fill in 3 boxes of current construction	Fill in 2 boxes of current construction	Fill in 1 boxes of current construction	Fill in 3 boxes of current construction	+1
Fill in 3 boxes of measurements	Fill in 2 boxes of measurements	Fill in 1 boxes of measurements	Fill in 2 boxes of measurements	+2
Fill in 3 boxes of damages	Fill in 2 boxes of damages	Fill in 1 boxes of damages	Fill in 2 boxes of damages	+3
Fill in 3 boxes of current construction	Fill in 2 boxes of current construction	Fill in 1 boxes of current construction	Fill in 3 boxes of current construction	+1
Fill in 3 boxes of measurements	Fill in 2 boxes of measurements	Fill in 1 boxes of measurements	Fill in 2 boxes of measurements	+2
Fill in 3 boxes of damages	Fill in 2 boxes of damages	Fill in 1 boxes of damages	Fill in 2 boxes of damages	+3
-1	-2	-3	+1	+2



1	2	3	4	5
6	6	6	6	6
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
-1	-2	-3	+1	+2

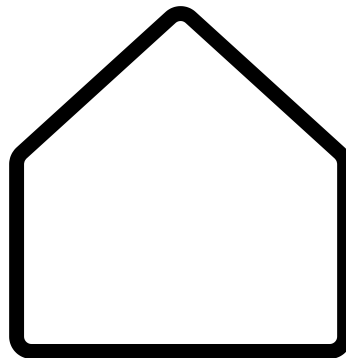


CURRENT CONSTRUCTION



ROOF	MATERIAL	ADVANTAGE 	DISADVANTAGE 



WALL   KOROT	MATERIAL	ADVANTAGE 	DISADVANTAGE 

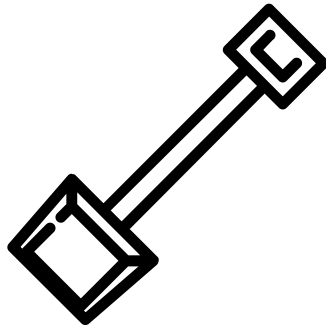
FLOOR   DIER OT	MATERIAL	ADVANTAGE 	DISADVANTAGE 



### MEASUREMENTS

OUTSIDE	WHAT	HOW	ADVANTAGE 	DISADVANTAGE 

INSIDE	WHAT	HOW	ADVANTAGE 	DISADVANTAGE 






ROOF	MATERIAL	ADVANTAGE 	DISADVANTAGE 
	GRASS/THATCHED ROOF		<ul style="list-style-type: none"> <li>when the sun shines on them</li> <li>quickly destroyed</li> </ul>
	iron sheets	<ul style="list-style-type: none"> <li>when it is raining</li> <li>cannot be destroyed immediately</li> </ul>	<ul style="list-style-type: none"> <li>if it stays, it becomes useless</li> </ul>

WALL   KOROT	MATERIAL	ADVANTAGE 	DISADVANTAGE 
	mud		<ul style="list-style-type: none"> <li>danger when water comes and breaks it</li> </ul>
	iron sheets	<ul style="list-style-type: none"> <li>water doesn't destroy</li> </ul>	
	wood and mud		<ul style="list-style-type: none"> <li>if it rains, it collapses</li> <li>it does not stay long</li> </ul>
	iron sheets with wood		
	plastering with soil		

FLOOR   DIER OT	MATERIAL	ADVANTAGE 	DISADVANTAGE 
	painted with iod?		
	buru sho? wuoyo	pi walo kopong	<ul style="list-style-type: none"> <li>easily destroyed</li> </ul>
	mady (muddy?)   sinking	costless	<ul style="list-style-type: none"> <li>when there is flood it sinks</li> </ul>
			<ul style="list-style-type: none"> <li>can put under stress to collapse</li> </ul>

MEASUREMENTS

OUTSIDE	WHAT	HOW	ADVANTAGE 	DISADVANTAGE 
	nail	on wall	it lasts	
	grass			
	pools nails	<ul style="list-style-type: none"> <li>• dig the holes</li> <li>• xxx</li> </ul>	when the flood comes it can not sink	in security
	iron sheets	put the iron sheets	<ul style="list-style-type: none"> <li>• does not break down when water comes</li> </ul>	

INSIDE	WHAT	HOW	ADVANTAGE 	DISADVANTAGE 
	tree		protects	easily damaged by wind
	grass	we plaster it	helps us	chak sentence
	lo gi owuoyo	plastering	protection against the cold	
	face-board and nails	put on the wall to be warm	if it is cemented it can not sink	when there is flood it can crack
	floor cemented		it is not cold at night	

semented floor –  
not cold at night

## DAMAGES THROUGH FLOODS

DAMAGES	WHY?
on the ground	water
building collapses	
damaged iron sheets	<ul style="list-style-type: none"> <li>• pierced house</li> <li>• cracks</li> </ul>
trees become weak	
looting	
cracks	
muddy	
doors	
floors	
windows	
mabati okethore	ot otuch

wagero go (something with grass) building with oliet (disadvantage of iron roof) - it is hot  
berne en ni okoliet (advantage of mud walls) it's not hot  
rach ne en ni ka pi obiro to omukore (disadvantage of mud walls) problem, when the water comes the house gets destroyed  
musmal - nails for buildings  
loo gi owuoyo (material used for plastering to protect from the cold) - soil and cow-dung  
koro koth okgowa (advantage of iron roof) - rain is beating you/being rained on  
ka pi obiro to goye piny (disadvantage of soil-plastered walls) - when water comes, destroys it/beats it down  
pi kondonje (advantage of floor) when water gets into it (adonjo - I am entering)  
oketo ot mokwe (advantage of thatched roof) - keeps the house cool (keto - to put) agulu=clay pots, agulu keto pi mokwe (clay pots keep the water cool)  
obudho (disadvantage of iron sheet walls) - stays longer (rather an advantage)  
buru, chuodho, owuoyo (material for the floor) - ash, mud,

cow-dung + cold water to mix it  
pi walo kopong' (advantage thereof) - -walo either someone is  
joking, or here the water is boiling, kopong' is full  
ka pi opong' to chako ketho ot (disadvantage of plastered  
mud) - when the water is full it starts to destroy the house  
ndalo ma chieng' rieny ong'ich (advantage of thatched roof) -  
when it is hot, the house is cool

dier ot imuono gi loo - the floor is thatched with mud  
berne gik mimuonego iyudo mayot (advantage of ) - iyudo is to  
find, mayot is easy or light, gik mimuonego = things used for  
thatching  
rach ne, ka pi obiro to wale/kethe (disadvantage of ) -  
danger when water comes, it swells (wale) then that parts  
falls off

Sama agero ot aketo mabati (roof material) - when I am  
building the house I put iron sheets  
berne en ni koth ok goya (advantage) - good to not be rained  
on

Shida mantiere en chiemo (roof material) - the problem is  
food  
kata nanga (advantage) - even clothes

rach mawaneno en loo mawamuono godo - the problem is the soil  
they use for thatching  
onge mabati maber - there are no good iron sheets

ot nogore piny - the house fell down  
gima nogoye piny - what made it fall  
nogoye gi musmal - nails were used

kaeto amuono gi loo (how) then thatched with soil  
ot ogore piny - the house fell

chandruok mawango en ot (measurement) - problem we have is  
houses  
kech kata gima waninde/piende (how) - hunger or bedding (gima  
wa ninde or piende)  
chiemo bende onge ga - food is not always there

igere gi yiende (measurement) - it is built with wood  
ber mawaneno kogere gi mabati (how) - the advantage we see,  
when it is built with iron sheets  
to koth ok gowa (advantage) and we are not rained on  
chandruok mawaneno ka pi odonjo (disadvantage) problem we  
see, when water enters

## CEA 5 21.02.24

At the beginning of the session, a limited number of participants attended, initially causing some apprehension. However, this circumstance presented an opportunity to delve deeper into conversations. The workshop was structured in two parts, with the first segment involving three questions that participants addressed in small groups. These questions focused on distinguishing between a house and a home,

understanding what transforms a house into a home, and exploring feelings of belonging in a camp setting. Despite the relatively subdued atmosphere compared to previous activities with the group, the participants displayed concentrated engagement and produced substantial written responses. The low turnout was attributed to a concurrent school meeting requiring the attendance of parents and grandparents. Nevertheless, participants returned within half an hour, contributing their perspectives to the discussion. The subsequent activity involved creating collages, where individuals were provided with pencils and a variety of cut-out symbols. Originally intended for group collages, it evolved into a more individualized endeavor, allowing participants to creatively express

Home:

1. Nyithindo
2. Cow
3. Goat
4. Sheep
5. Cat
6. Table
7. Bed

Nikech jomodak e iye. Ntie jamni. Ntie hera.

Dalani in thuolo kendo in gi kwe.

What is this?, they ask.  
What do you see in it?, I respond.  
They always know.

I siech, wia si aubliahn.

Luo:

Nithindo - children

Nikech jomodal e iye. - Because people are living in it.

Ntie jamni. - There are domestic animals.

Ntie hera. - There is love.

Dalani in thuolo kendo in gi kwe. - At home, you're free and at peace

Tyrolean:

I siech, wia si aubliahn. - I see, how they are flourishing.

their interpretations of home. The collages depicted various aspects, including room layouts, outdoor kitchens, and the presence of children, beds, seating, and household items. While language barriers posed challenges, the explanations received provided valuable insights. Some groups collaborated to create larger collages symbolizing shared living spaces, fostering a sense of communal belonging. Despite difficulties in comprehending every explanation due to language barriers, the information gathered proved insightful and applicable for future analyses and interpretations of similar collages.

## **Answers to the questions**

The distinction between a house and a home, as discussed by the participants, centers on the cultural and emotional dimensions associated with the Luo people's understanding. A house is characterized as a physical structure, often equipped with furniture and utilities, while a home encompasses a broader concept that encapsulates familial bonds, personal connections, and a sense of belonging. What makes a house a home, according to the community, is the presence of family members, domestic animals, and the ability to engage in communal activities like farming or sharing meals. The feeling of home is closely tied to the emotional warmth and shared experiences within the living space. However, when considering the camp setting, individuals do not feel at home due to challenges such as water scarcity, diseases, and a lack of permanence. Despite potential communal support, the transitory nature and hardships of camp life hinder the establishment of a true sense of home.

### Group 1

1. Pogruok mar ot en ni ute oger to owe kanyo: houses are built then left
2. Ot nyalo dhi gi pi: the house can be swept away by water

dala pod en mana dala, ni kata pi odari pod en dalani: home is home even if the floods kick you out of it; it's still your home

3. Ka an asoto to rach nikech onge kata ng'ama anyalo kwayo sabun kata kuon: when I'm broke it's bad because there's no one I can ask to give me soap or ugali

Ber ma aneno ka an e dala en ni anyalo puro alot kamoro: the best thing about being home is that I can plant vegetables somewhere

To ka an asoto, onge gimoro manyalo yudo chuna ni nyaka adhi amany: when I'm broke there's nothing I can get, I'm forced to go find something

Ber ma aneno ka an e dalana en ni anyalo pidho aloda, anyalo dhi uso ma ayud pesa ma anyalo nyiewo go chiemo: the best thing I see is that when I'm in my home, I can plant vegetables, go sell it and get money to buy food

Rach ma aneno ka an asoto en ni anyalo chiemo dichiel e odio-chieng' : the bad thing is that when I'm broke I only eat one meal in a day

\*Ber ma aneno en ni ka an dala wanyalo yudo yien nono, alot bende wanyalo yudo nono, pi bende wanyalo yudo nono, gik modong' to ok wanyal yudo nono: the best thing is that when we are home, we can get..... for free, vegetables for free, water for free, the rest of the things we can't get for free

#### Group 2

Home:

1. Nyithindo: children
2. Cows: dhok
3. Goat: diel
4. Sheep: rombo
5. Cat: paka
6. Table: mesa
7. Bed: otanda

House: ot

Nil: nono

#### House

bedo dala: being at home

1. Ka en kod ji: when he/ she is with people
2. Kopidh yien: when trees are planted
3. Ka dhiang'/dhok nitie: when cows are there
4. Ka diek nitie: when goats are there
5. Ka in e dala to inyalo puro: when you're at home you can do farming
6. Chiemo maber: good food/ eating well

#### Group 3

1. Ot, dala ber: house, good home

Waneno ber nikech okwachandre kawadak e senta: We have an advantage when we stay near the centre/ market/ town

2. Nythindo ntie dala: children are at home

\*3. Kamp rach nikech. En kar jo ot dala pi ema chandowa, dala wanyalo pidho kata alot.

Tuoche bende ng'eny: diseases are also many

#### Group 4

- \*1. Poti beri nekech nyithindo chiaye uchandoru da
- 2. Nikech jomodak e iye: because people living in it. Ntie jamni: there are domestic animals. Ntie hera: there is love.
- \*3. Dala ber nikech, aporo, anindo, kan, eseta, tokimang, wamatek

#### Group 5

1. 1. Ot en gima ochung: house is a standing structure. 2. Dala en gima gik moko ng'enyekaka, gwen, dhok, rombe, nyithindo bende nitie, paka, guok: home is where there are many things like chicken, cows, sheep, children are also there, a cat, a dog.

2. 1. Nyithindo ema miyo ot bedo dala: children are the ones who make a house a home. 2. Miyo bende miyo ot bedo dala, nikech chuo ng'eny, gibayo abaya: wives/ women also make a house a home, because men are many, they're always out/ walking around \*choung ng'eny gi ok rit dala. Omiyo dhako miyo ot bedo dala: That's because a wife makes a house a home

3. Bedo esenta nigiber mane, kata rach mane: being in the centre/ market has which advantage or disadvantage.

bedo e senta onge ber nikech kata kaka wanindo ok ber: living in the centre has no advantage because even how we sleep is not well.

Chiemobende onge eyomaber: there is also not enough food.

Dala ber nikech inyalo kwayo kata wadu gimoro: home is good because you can ask your neighbour for something.

Inyalo pidho kata alot but ot: you can also plant vegetables near the house

Rooms mag ot bende ng'eny: rooms in the house are also many

\*Dala kaintie to in thuolo moloyo kama ji oriwe: You are free at home, unlike where it's crowded

\*Dala inyalo rito moloyo kama ji oriwe: you can keep a home, unlike where people are stranded.

#### Group 6

- 1. Dala, ot, puro, nyithindo, dhiang', rombo, gweno: Home, house, children, a cow, a sheep, chicken
- 2. Ot, kawadake dala, wapidho yien, ka wagedo maber, ka wan

gi nyithindo: House, when we live at home, we plant trees, ,  
we build houses well, when we have children

3. Rach mayudo en tueche, ok wanyal puro, chemo nok, nindo tek, nikech ok en kama ininde pile: the problem that we have is that there are many diseases, we can't do farming, there is limited amount of food, sleeping is difficult because it's not where you sleep everyday

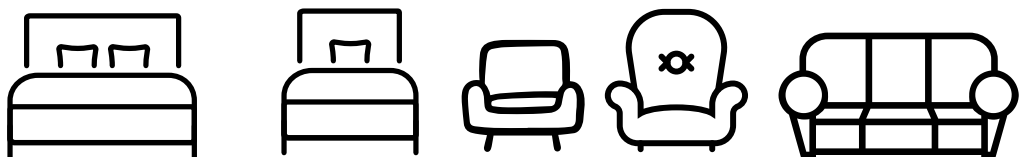
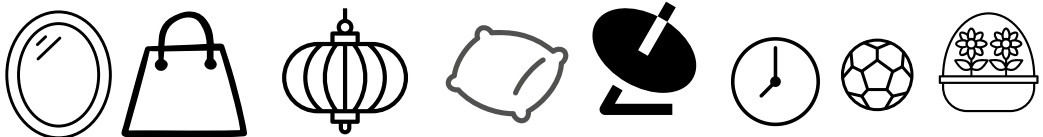
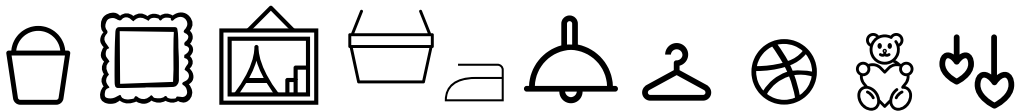
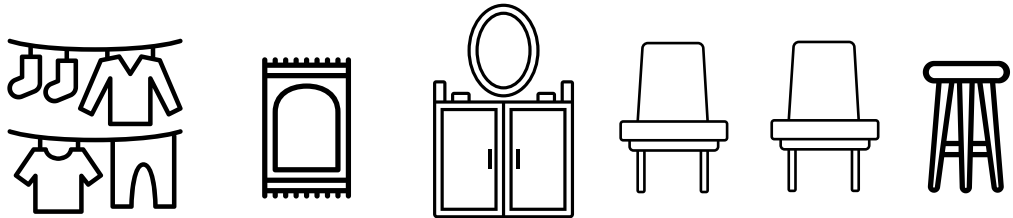
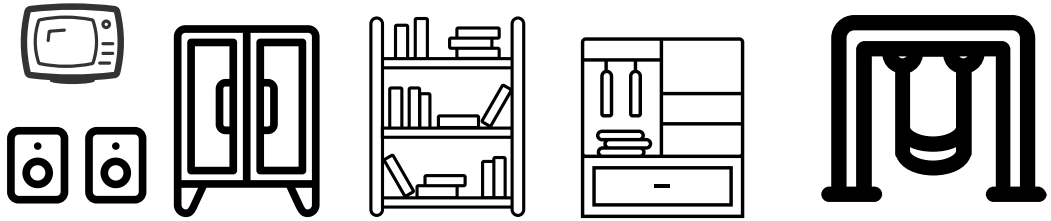
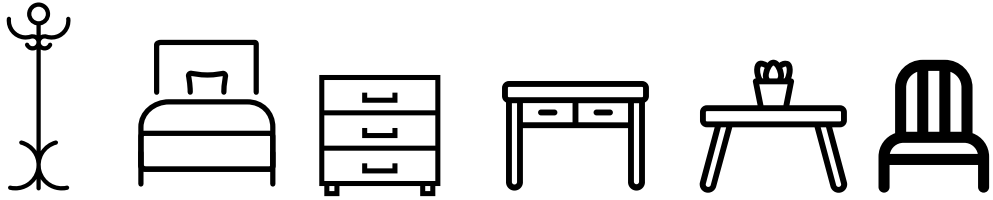
#### Group 7

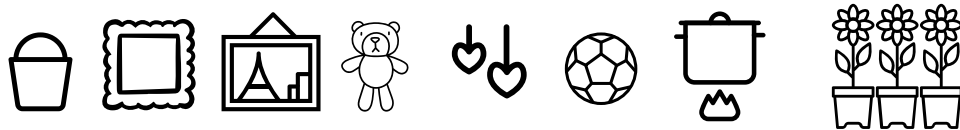
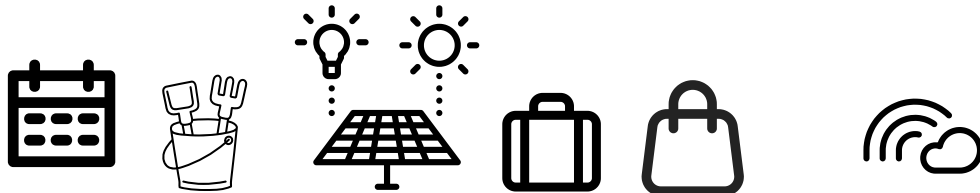
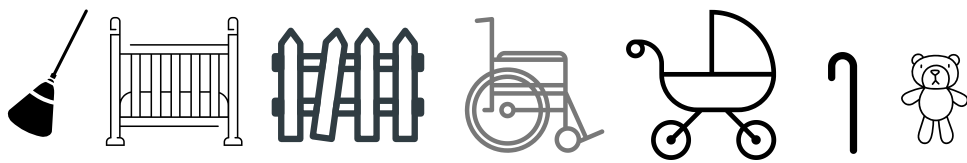
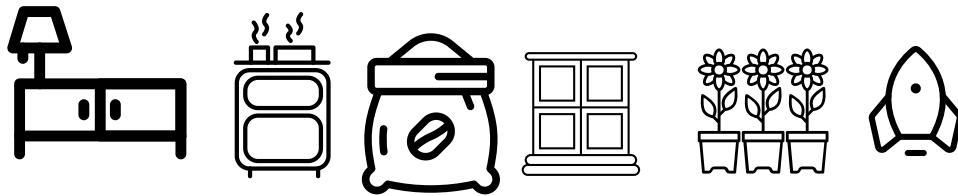
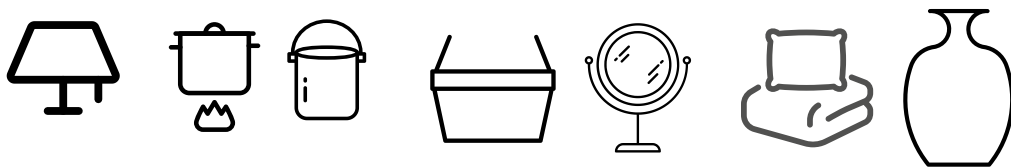
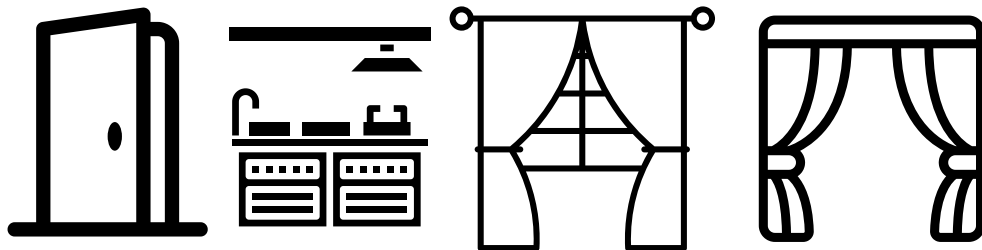
1. Pogruok mar ot gi dala, e dala en dala ot dhok, rombe, ot to kom, mesa kitanda kod kabat: the difference between a home and a house is that a home has a house, sheep, but a house has chairs, a table, and a bed and a cupboard

2. Ot bedo dala, wadake, wachieme, waninde wakene: a house becomes a home, we live there, eat there, sleep there and store things there

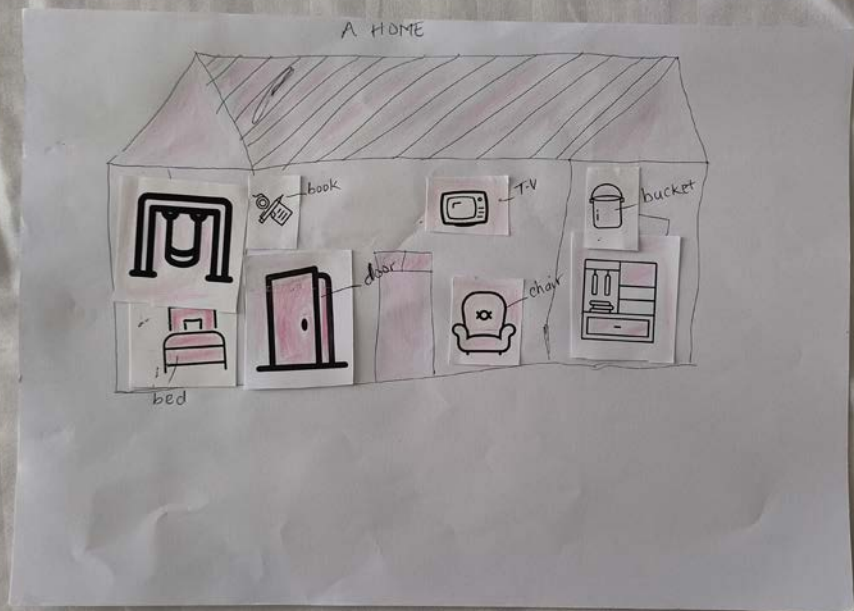
3. Dak e senta ok ber, ka wadak e senta wachiemo ... dichel, waonge mor, wachare, tuoche ng'eny to dala onge tuoche mang'eny: staying in the centre/ market is not good because we eat once, we don't have joy, we look down upon each other, there are many diseases

\*Ka in dala, inyalo puro, inyalo komo alot, inyalo yueyo lachi, koro dalani in thuolo kendo in gi kwe. Dala oting'o nyithindo, jamni, nyaka guok: when you're home, you can plough, plant vegetables, sweep your compound... you're free and at peace. A home has children, domestic animals, even a dog.

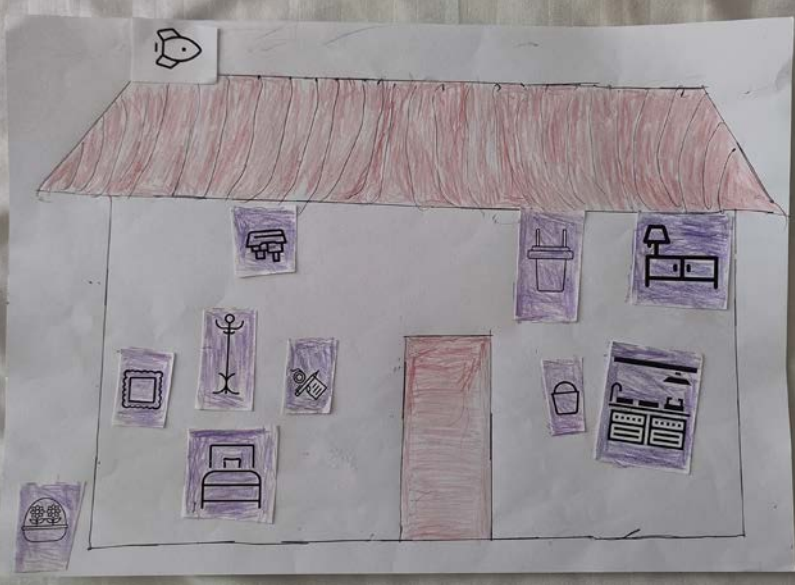


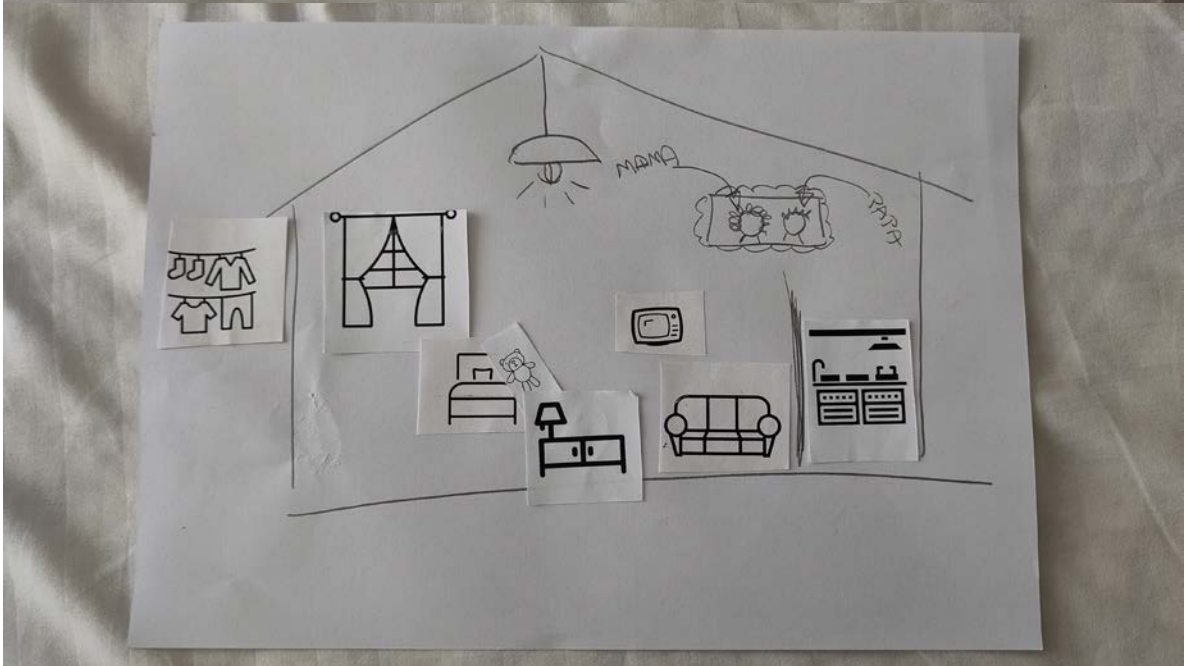
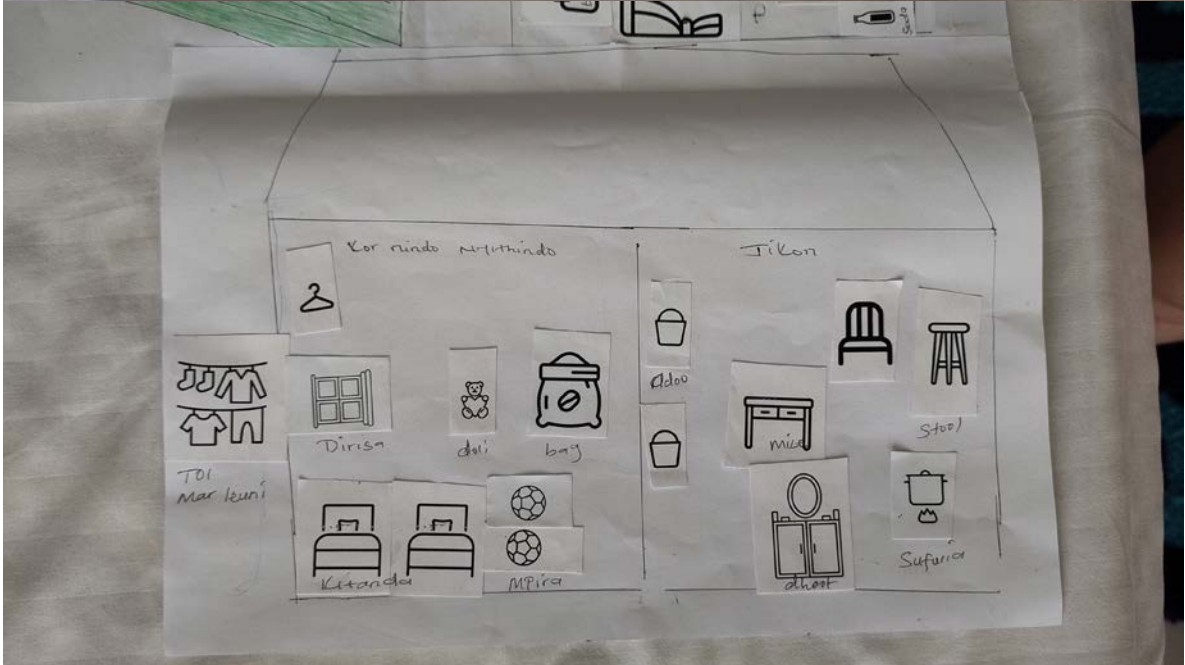
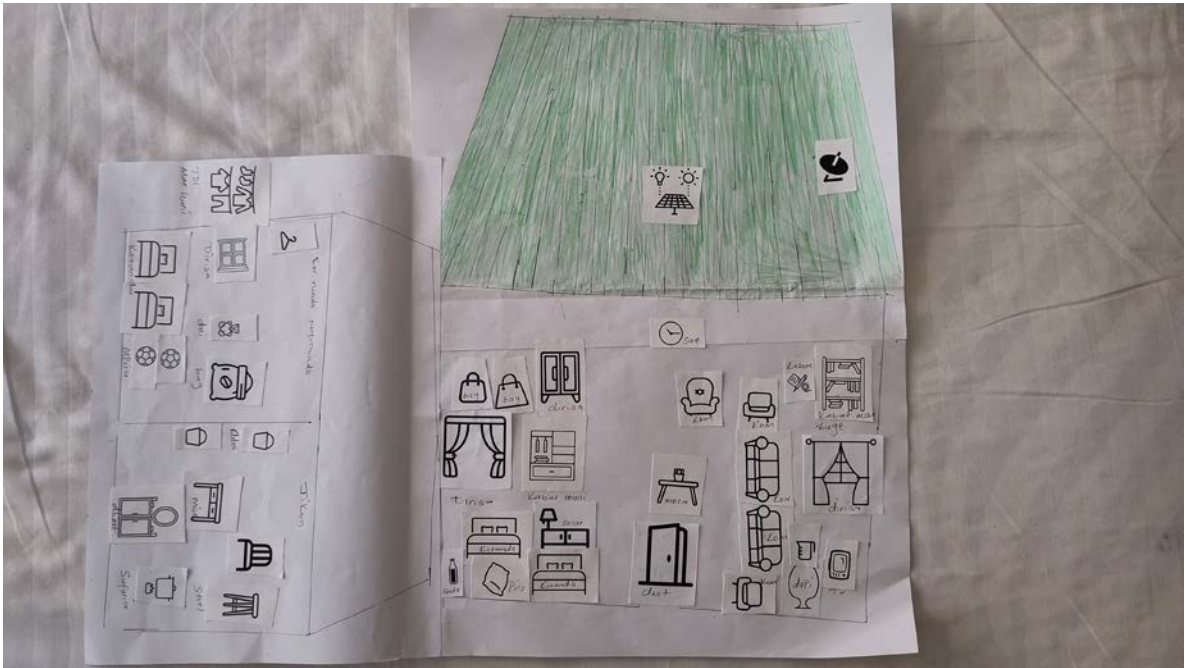








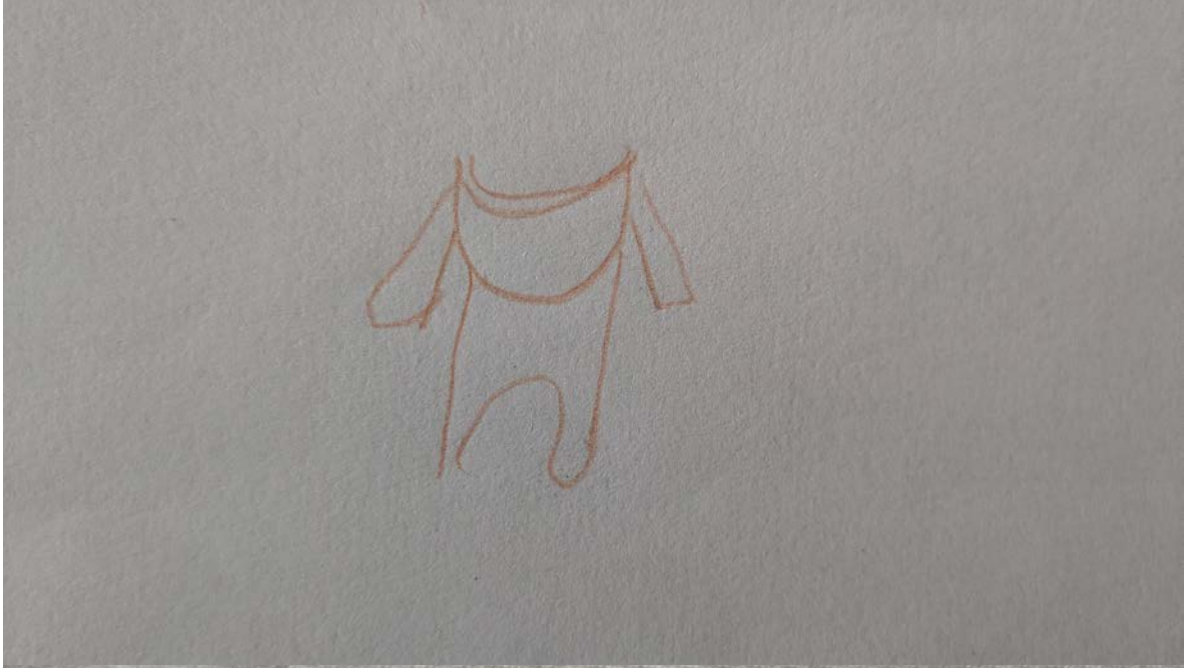
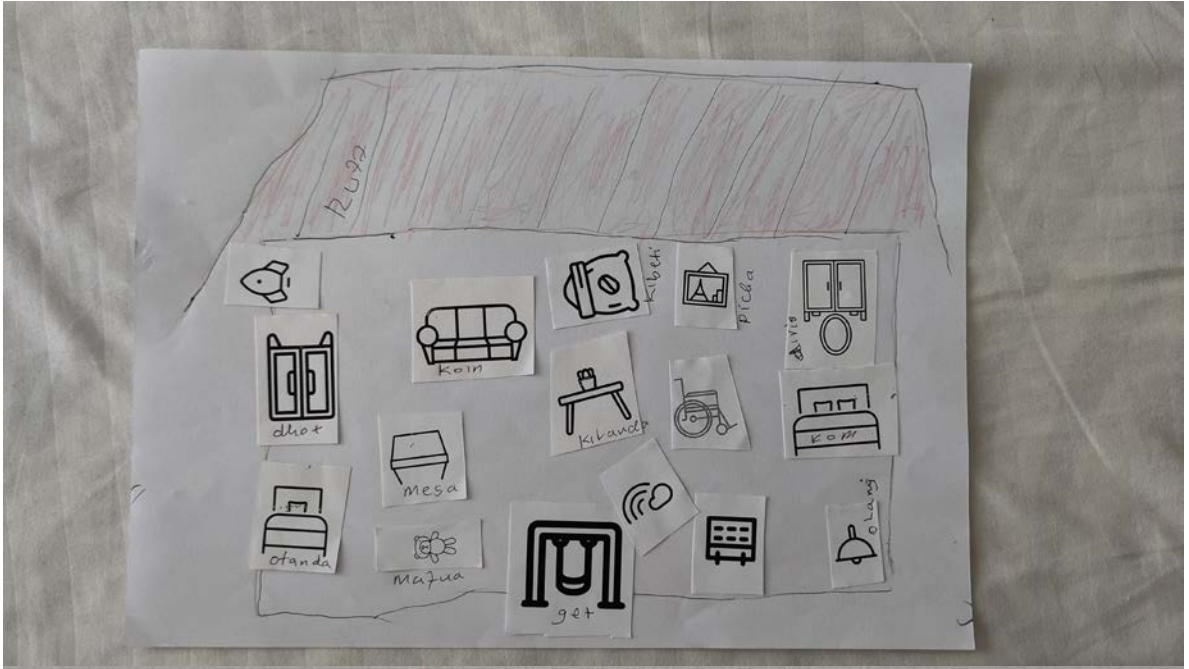












## CEA 6 29.02.24

In this workshop, participants engaged in two key activities. The initial task involved constructing flood-resistant models for their homes. I presented various construction ideas and materials, encouraging creativity beyond the suggestions provided. Participants divided into groups, and while distributing materials, an unintentional clockwise pattern emerged, resulting in certain groups receiving more options initially. Nevertheless, efforts were made to fairly redistribute materials during the workshop.

The second activity aimed to identify participants' existing skills and desired skills acquisition. A survey prompted them to mark their current abilities and aspirations. Analyzing the models created, Group 2 opted for a Mabati house, envisioning resilience against floods. Group 7 faced communication challenges, resolved with assistance from a member of Group 6. They fashioned stones from clay to fortify walls. Group 3, led by Naomi, proposed a „flying house“ on poles to allow water flow underneath. They intended to elevate it with wood due to insufficient soil, incorporating Mabati construction.

Group 4, located next to Naomi's group, initially planned to elevate their house using poles but later adopted soil, suggested by a child who joined the session. They incorporated pipes for water drainage. Group 1 used stones, considering water depth, and planned a torus around the house with trees for water absorption. The foundation was crucial due to weak, wet soil. Mabati constructions, according to Naomi, required large poles connected with nails.

Group 4, using pipes underneath, designed windows with wood blocks and a Mabati roof, aiming to prevent soil erosion with wooden poles. Naomi shared insights into construction costs, emphasizing Mabati's expense. She influenced Group 3's decision to use concrete poles, a concrete wall, and a cemented or wooden floor. Group 6 or 7 proposed using „matafari“ bricks with cement for walls, incorporating a wire to resist floods. The matafari house needed purchasing, raising cost concerns.

Group 8 built a 3D clay model, emphasizing wood and clay for mud walls, facing challenges with soft soil. Their preferred construction was iron sheet for walls and Mabati for the roof. Linseed oil intrigued them. Group 5 aimed for mud walls, wooden pole elevation, mud floor, and Mabati roofing in their flood-resistant house design.

My house should be up  
Up in the sky  
So that below  
The water can flow  
I want it to fly  
Three meters high

"They want the stones"  
The ones that I bought  
"There aren't enough"  
To find more is gonna be tough  
Is his reply  
But oh watch me try

All models are different,  
Not one group the same.

There is not one solution.  
There is options to choose from.

Ong'eyo kaka gi odwaro puonjore kaka

Mabati  
Bao  
Lum  
Matafari  
and much, much more.

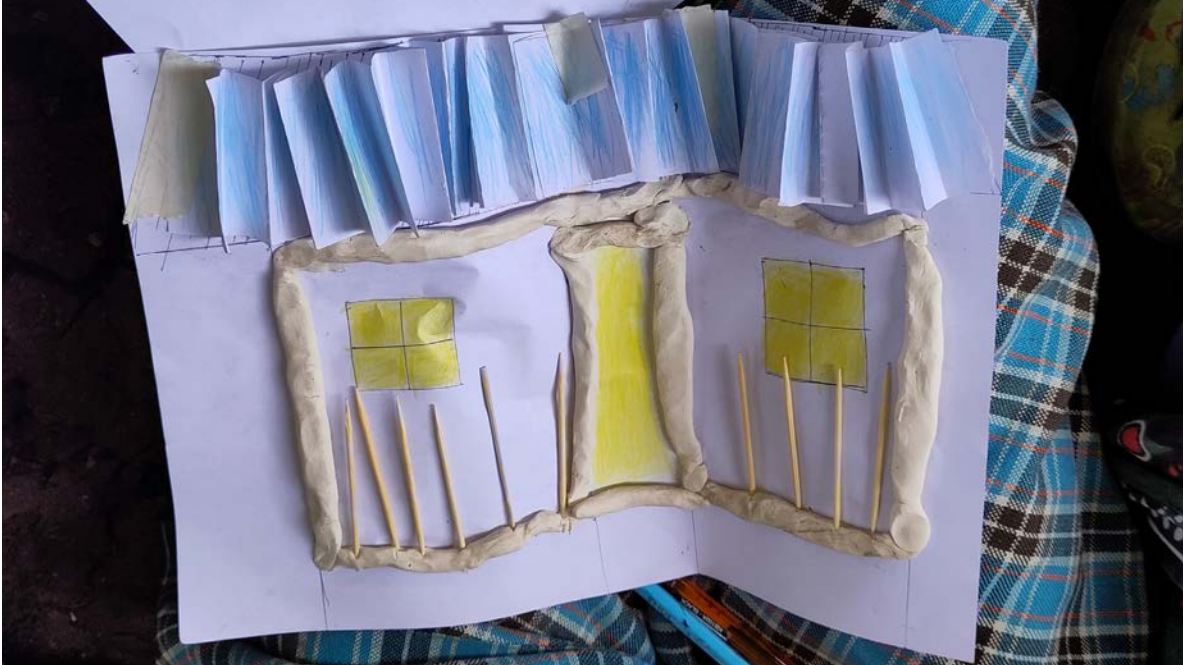
Luo:  
Ong'eyo kaka gi odwaro puonjore kaka -  
He/She know how to and he/she wants to  
learn how to  
Mabati - iron sheet  
Bao - wood  
Lum - grass  
Matafari - bricks

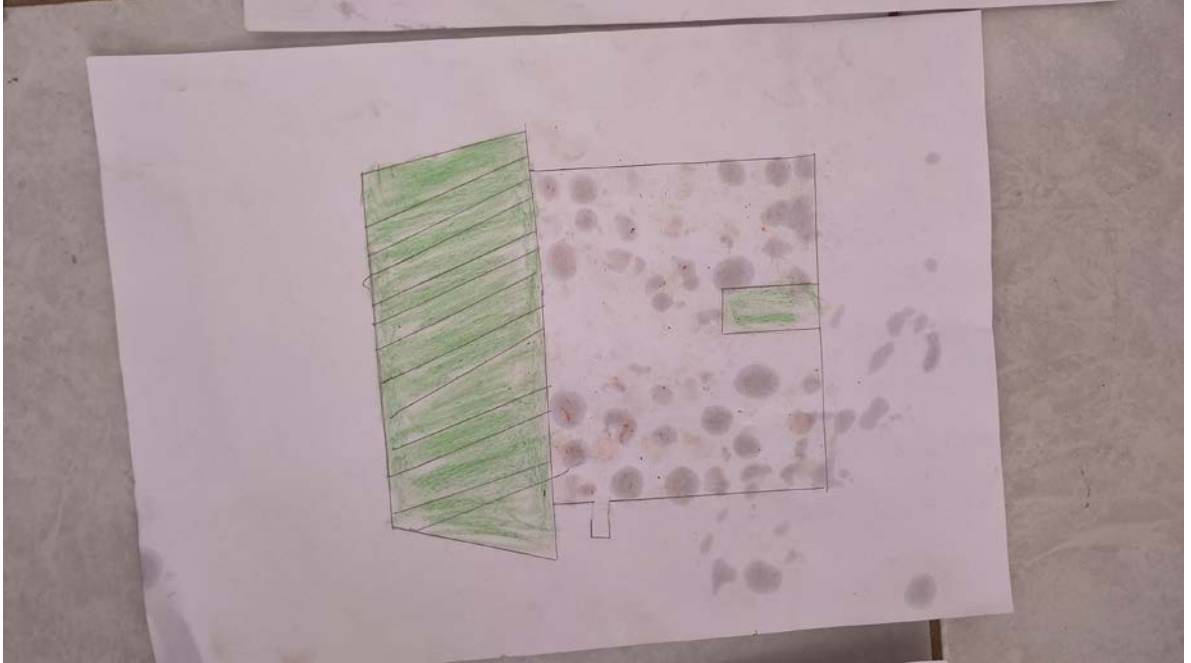
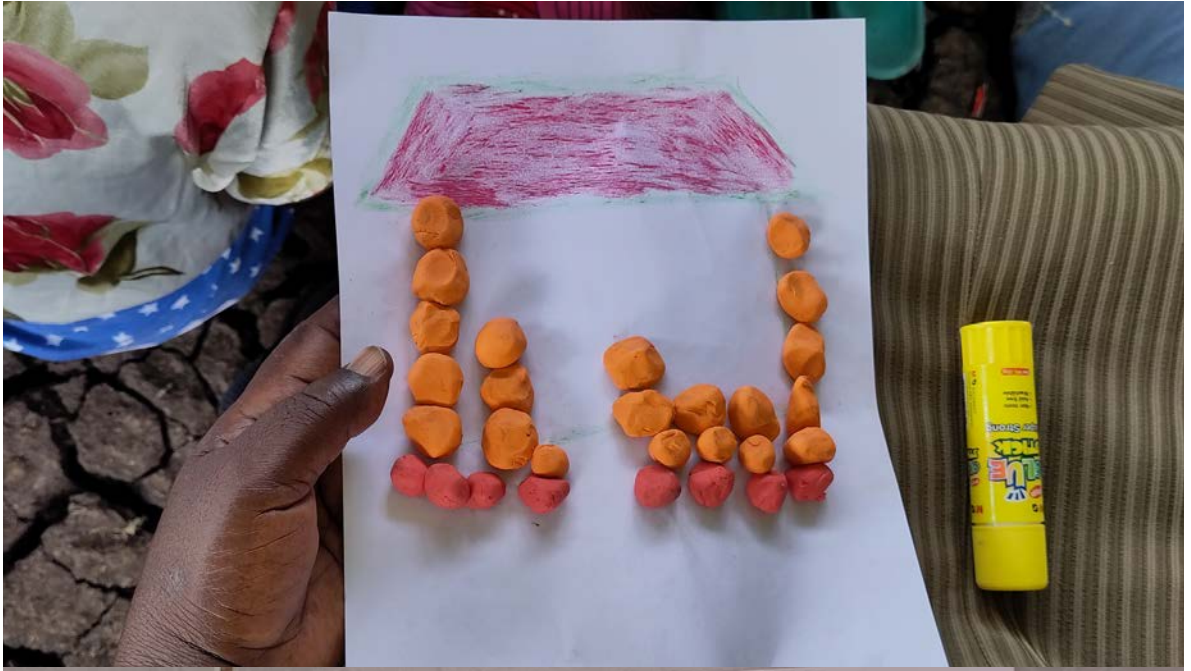


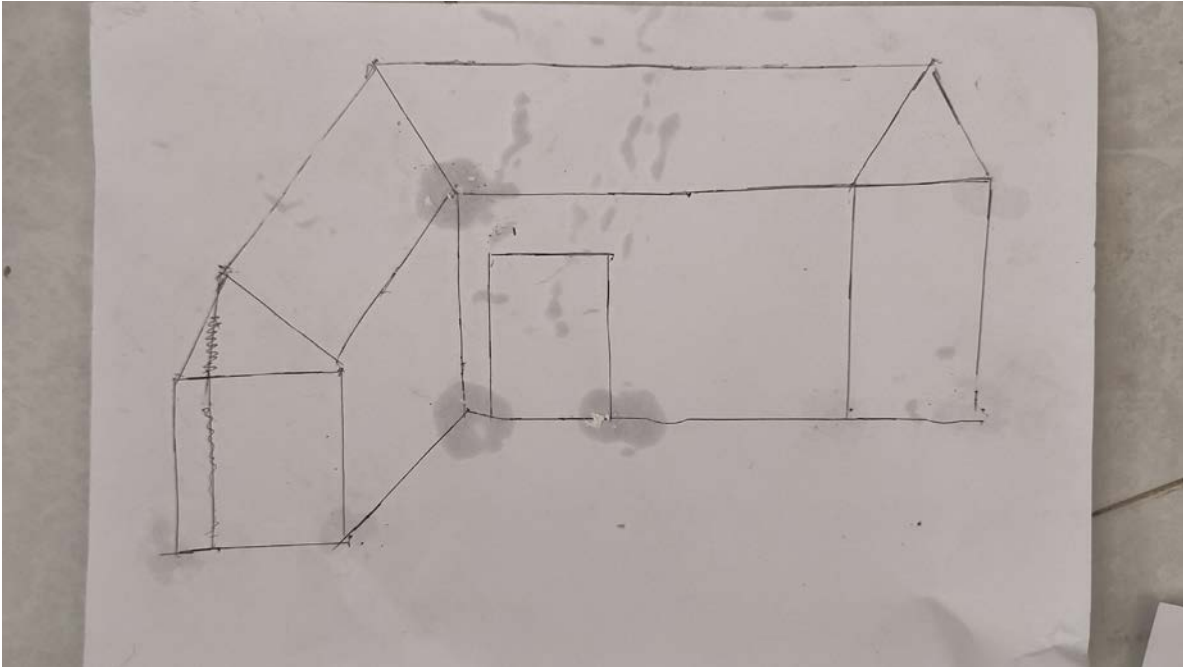












# INTERVIEW WITH TOM THE TECHNICIAN

01.03.24

On a Friday afternoon, I met local technician, Tom (Otieno Gawo, personal communication, March 1, 2024) to talk about how buildings are constructed here, and about the sizes of material and also the prices of the material. So, one sack of cement costs 900 shillings. The box profile Mabati, costs 1,400 shillings per sheet. The length of it is 2.5 meters. Tom is more than 60 years old, and has studied construction in a college in Nairobi, Kenya. That was in the 80s. He was the one who constructed the classroom, the newest classroom, and the office building of St. Joseph's Secondary School. He told me that each of those houses took approximately one month. For these projects, he used four skilled workers and five casuals, which are unskilled workers as helpers. These are paid on a daily basis, and he always uses the same people. For every project he does, he uses skilled and casuals. The construction of a house is always based on the BQ, which stands for Base of Qualities, or something similar, which is a plan of the house, which says what materials to use, and how long, how big, and so forth and needs to be followed. There are three different ways of building permanent houses, which are blocks, bricks, and stones. The BQ needs to be approved by the government, and it is a very detailed plan, which also says how much mortar should be used, and so on. There is a bricks-to-mortar ratio that is talked about. To mix the mortar, he uses one wheelbarrow of cement and three wheelbarrows of sand. To create concrete, he uses one part cement, two parts sand, and two parts ballast. The mortar should be less than one inch between the material, and the rule of thumb is to look that it is as big as your finger. The BQ for the classroom was given by the government. For the office, it was Tom who drew the plan and handed it in to the government. There are two different types of soils in this area. There is either weak or strong soil. For the weak soil, as in Nyalenda and also Kakola-Ombaka, a floating foundation is needed for the whole building. There need to be columns that are 24 inches down into the earth, and then you need a 4-inch slab on top of it. The BRC is a wired mesh that has a grid with 6 x 6 inches. That is then filled with concrete to be a slab. Then there is also a foil against the moisture from the ground, and a foil against the ants entering the construction. For the classroom, six columns were needed. Looking at the walls, there is a ring beam on top of the door, which is also constructed out of metal. Tom is still working. When he buys bricks, he buys them ready-made from the Nyabondo Plateau. He also builds Mabati

buildings, but does not know how to do mud walls. That, he says, is for the unskilled. He has the permission to draw and build bungalows and one-story buildings, and also do the plumbing. But he is not allowed to do multi-story buildings and electrical work. For the Mabati, which is a temporary construction, and contrary to the permanent, which we talked about before, he still does the drawings to see how much material is needed. He first visits the site and then draws a sketch and takes the measurement out of it. The difference is that for a temporary construction, there is no permit from the government needed. He says: "Just do it."

The casuals are doing casual work, for example, digging and so on. They get 500 shillings per day and they're working from 8 till 5 and get one hour lunch break. Tom now has five skilled workers that he has trained and one benefit of working with the skilled is that they come with their own tools. To decide if someone is skilled or not skilled, it's not about degrees or anything. You ask them what they can do and depending on their skills, they're described as skilled or unskilled. The unskilled or the casuals are the ones who need to be instructed and they come bare-handedly. Wooden construction is also considered as a temporary construction and for those, you don't need a permit from the government. But for a multi-story building, even if it is constructed in a temporary construction, then you still need to hand in the drawings and get them approved by the government. To do so, to get the building permit, you need to hand it in one month earlier and you need to pay a fee. There's the land rates to pay and some documents to hand in. Tom works in rural as well as urban areas, so there's a lot of commuting. Last year, for example, he was working in Siaya where he also got paid accommodation from Monday till Friday and went home for the weekend. He lives in Ahero. The project in Siaya took three months. The employees that are paid on a daily basis are not pensionable, so one does not need to notice to the government. He gets his clients through friends. His biggest project was done in 2006 to 2007 and it took more than six months and less than a year. It was an orphanage and there is some connection of this project to North America that I did not understand. There are different ways of payment that he gets from his clients. There are three types that are defined by the government. There is the bill payment, then there is the FUDA payment, which is three installments, for example, and then there is one where the client supplies the materials and pays approximately 10% for the labor or daily. It always depends on the contract and what suits the clients. There is, for example, the version of having a full contract, so the company supplies the tools and the material. A subcontract would be that the client already has the material and is only paying for the labor. One brick costs 10 shillings. For

the blocks, it depends on the size. The price is between 45 shillings to 90 shillings. The biggest ones are nine times nine inches for the foundation. The length for all those blocks is 27 inches. This is standard length. Then there is also the six times nine inches blocks for the walls and four times nine inches bathrooms, because those are smaller rooms. Bricks are created with chips. Stones have the same sizes and they are paid by feet. You put them in a line and then measure and pay by feet. The price ranges from 36 to 55 Kenyan shillings. He gets the materials from different locations, as already mentioned, the Nyabondo Plateau. Then there is something called Kidaka or similar not far from Nakuru. Then there's also Kido Bay in Homa Bay. The bricks are rather cheap. They are also built fast. The workers can do six layers in a day. The stones are heavier, so they can only do three layers in a day. The blocks are done in four layers per day. The classroom, so a house of that size, was done in bricks. It would take three days. What to use is always a choice of the client. The government prefers to use blocks because they have proved to be strong. The blocks are created out of sand, cement and ballast.

The concrete floors are poured on site. Floors that are constructed in the mountains are done without the wired mesh because the soil there is stronger. To get the materials to the site, Tom uses the public transporters. For example, for sand, there is a standard on one truck of 10 tons of sand, and then he pays 8,000 shillings. The distance is irrelevant. For ballast, he pays 1,500 shillings per ton. For maram, which is the foil that is used for the floating foundation, it is a similar price as sand per ton. These public transporters are found everywhere, and they are self-employed, like private transporters. We also discussed timber prices. There is different timber, like cypress or blue gun, and there are different sizes of timber. For trusses, the triangles under the roofing, the size of the timber is 4 times 2 inches, and that costs 27 shillings per feet. Then there is one that is 6 inches times 1 inch, which costs 30 shillings per feet, and it is used for facial boards, for example. Then there is one which is 3 times 2 inches, which is 24 shillings per feet, and it is used for the parallel connections of the triangles. Then there is one which is 2 times 2 inches, which costs 18 shillings per feet, and there is one which is 8 times 1 inch, which costs 45 shillings per feet. The thing is that these prices fluctuate a lot, like all of the material prices that I have mentioned. To acquire a permit, a qualification from the government, one needs to apply for the license by the government, so you need to hand in the papers to open a firm and wait. There are different degrees, like levels of what you are allowed to do then, so his diploma is for bungalow and one-story buildings, but there are also different

diplomas for doing multi-story buildings, for example. It takes approximately one month to get the license, and if you are denied, then the government will give you a reasoning for that, and you need to renew your license once a year and pay a fee of 2000 shillings. The matafaris, the bricks from Nyabondo, are very hard because of the soil there. If you go to Maseno, the soil is too soft. To produce bricks, you need to use soil under sand and water and then burn it. That one inch maximum of mortar is the same for all the different bricks and building constructions. Looking into Mabati constructions, one also needs to look at the size of the house to then calculate how much material is needed. So, for example, if you have a room wall that is 25 feet long, you need to use 6 poles for the Mabati construction, because the standard distance between the poles is 4 feet. To find out how much Mabati you need, you calculate 25 feet times 12, to see how much inches it is, and then divide it by 30, because the Mabatis are 30 inches wide. So, it is 30 inches wide, which is 8 feet, and 2.5 meters high. The box profile Mabati is not used for roof, because it leaks a lot, but it is good for walls. When you look at the Mabati construction, there is nails on one height, and on the inside there is one timber to stabilize it. The trusses under the Mabati roofing, should have a distance of 1.5 meters. If you want to have a tile roofing, then you need to have 2 feet between these triangles.

