

THE FORTRESS

A SAFE HOME FOR PREGNANT TEENAGERS IN KAMPALA, UGANDA



Sarah Blake Elmvall, MPDSD, 2016

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ABSTRACT

The thesis investigates the role of architecture in the process of empowerment, an area which is more commonly addressed by social workers and aid groups. The aim is to show how personal development can be supported by the physical environment.

As a case study a safe-home for pregnant teenagers in Kampala, Uganda, was chosen. Josephine Nambatya, the founder of The Fortress, wants to expand the organization and a new home is to be built in the outskirts of Kampala. The goal is to provide Josephine with a proposal of a new settlement that can be presented to existing and potential future sponsors for the project.

Design strategies are formulated as a result of research through interviews, workshops and observations concerning the process of empowerment as well as the organisation itself. The purpose is to select relevant elements of architecture when creating a safe environment for a highly stigmatized group in society, connected to the four main pillars of empowerment: pride, safety, independence and belonging. The strategies are then implemented in the design proposal, using local materials and building techniques.

THE FORTRESS - A safe home for pregnant teenagers in Kampala, Uganda

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Master thesis within the Master Program for Sustainable Design and Development.

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CHALMERS

INTRODUCTORY SUMMARY

The UN Habitat announced 17 new goals for a future sustainable world on September 25th 2015. The targets are to be achieved within 15 years and addresses aspects such as poverty, protection of the planet and prosperity for all. Number 5 of the goals concerns Gender Equality and Women's empowerment, addressing discrimination and violence towards women in all parts of the world.

The thesis investigates the role and nature of architecture in the process of empowerment. In order to do this background research concerning the theory of empowerment has been carried out. In addition to this it is important to understand the cultural context of Uganda and the culture, climate and social structures of the country have been mapped out. In addition to this the nature of the organisation has been mapped out and analysed. One site was chosen between several visited as a case study for the final design, hopefully it is the one Josephine will purchase in the near future. The final result is a first draft of the

future home for the girls and follows a rectangular structure to give it a modern approach. The following text briefly states what each chapter contains.

Background

Fortress is a home for exposed and pregnant teenagers in Kampala, Uganda. Josephine and The Fortress Sweden want to move the organisation to the countryside, further away from the slum in order to help the girls to create new habits and not fall back into destructive lifestyles. Also the building they live in now is worn down and the rent is expensive.

The thesis aims to understand what factors that are relevant in the process of empowerment and how they can be translated into design elements. The findings will then be applied in a design for the future home of the girls at The Fortress.

Research

The context of Uganda needs to be understood, not only considering local building techniques and material but also the social context. Interviews and workshops with the girls gives a knowledge about what the Fortress needs in terms of space and activities. Furthermore, interviews with professionals within architecture and empowering institutions has been made to give a direction for the design.

Theory

Empowerment

Women in Uganda face a wide range of challenges including discrimination, low social status and lack of economic self-sufficiency along with a greater risk of HIV/AIDS infection. For many women, the gender discrimination means that their power to act independently, become educated, avoid poverty and escape from abusive men is highly limited in most cases.

An important factor to decrease this trend is to empower women through education and job skills. Some organizations offer micro-loans in order for the women to build their own business ventures and allowing them to have some economic independence.

The empowerment of individuals will eventually improve the state of the country itself. Many examples show that when the inhabitants in a country are independent, healthy and enrolled in work, the economy of the nation is at a better level. This as health costs are kept lower, crime rates might be decreased and the economy improves if more people take part of it. By encouraging individuals to be proud and take care of their own situation, they are more likely to live an independent life.

Four pillars

From empirical and theoretical studies four main pillars of empowerment has been selected. They summarise the basic needs for a successful process of em-

powerment for an individual: pride, independence, belonging and safety. They can be used separately and combined in different ways. In order to translate the theories of empowerment into architecture each one of the four are described in a context of design and design tools.

Analysis

This section focuses on the organisation and its needs of some restructuring to be improved. The Fortress works pretty much in isolation from other groups and NGOs and could easily expand the organisations possibilities by connecting to existing networks. This would widen the platform for the girls and make it easier for them to build a stable platform for themselves in the future.

Context

In order to make a proposal suitable for Uganda, the local context needs to be understood. This section focuses on aspects of cultural traditions, building techniques and local materials.

Design Strategies

This section summarises the findings in previous chapters, focusing on the elements relevant for the design proposal.

Design Proposal

The new Fortress is located in Rugi, in the Wakiso district, on the countryside of Kampala. The proposal is shaped with the design strategies in mind and the result is an enclosed compound with additional land for cultivating crops. The final result follows a rectangular structure as a result of the shape of the slot provided. Moreover the girls desire a modern building in order to signal social status to the surroundings, something they do not have today.

The design uses local materials and building techniques and aims to create a safe hub for the pregnant teenagers, using flowers, colored fabric and wooden structures to beautify the space. Energy systems follow local traditions and aim to be economically and energy sufficient.

Comments

This section discusses possible future changes and alternative solutions. The owner of the land wants it to be sliced into straight-line slots of about 1 acre. However, this creates an unnatural shape in an otherwise organic setting. A proposal is made for a more organic structure.

This section also discusses the possibility of The Fortress to expand and become an educational management centre. This would further strengthen their cause to aid young girls in personal development and empowering them into taking charge of their own future.

Process

The idea of the project origins in travels in Asia where I encountered women in vulnerable positions and I wanted to use my knowledge in architecture to help in some way. A trip to Uganda was planned and during five weeks interviews, workshops and site visits gave me a picture

about the context and the nature and needs of the organisation. After returning to Sweden the empirical studies were summarised and analysed. In addition to this further theoretical studies were carried out. Along the way sketching has been one major way to test and discuss ideas.

Conclusion

In the process of personal development and empowerment the home environment is of great importance. It is a place where you should feel safe, relaxed and in context with your surroundings. An organisation that functions as a platform in the process of strengthening vulnerable groups in society, needs to have the proper resources available in terms of space and equipment. By mapping out the needs of its stakeholders and their cultural context, architecture and design can be used to alternate such spaces. The combination of different fields of knowledge such as social work, healthcare and architecture should be

seen to when planning and organising projects with an empowering nature, for the best possible outcome.

UN Habitat - Sustainable Development Goals

17 goals to transform our world.

On September 25th 2015, UN adopted a set of 17 goals to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years. In regards of architecture the 17 goals need to be considered in future design and planning of cities and communities, as well as specific buildings.



Number 5

Number 5 in the list concerns Gender Equality and Women's Empowerment. While the world has achieved progress towards gender equality and women's empowerment under the Millennium Development Goals, women and girls continue to suffer discrimination and violence in every part of the world. Gender equality is not a fundamental right, but a necessary foundation for a peaceful, prosperous and sustainable world.

1. Poverty

End poverty in all its forms everywhere

2. Hunger and Food security

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

3. Health

Ensure healthy lives and promote well-being for all the ages.

4. Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

5. Gender Equality and Women's Empowerment

Achieve gender equality and empower all women and girls.

6. Water and Sanitation

Ensure access to affordable, reliable, sustainable and clean energy for all.

7. Energy

Ensure access to affordable, reliable, sustainable and clean energy for all.

8. Economic growth

Promote sustained inclusive and sustainable economic growth, full and productive employment and decent work for all.

9. Infrastructure, Industrialisation

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

10. Inequality

Reduce inequality within and among countries.

11. Cities

Make cities and human settlements inclusive, safe, resilient and sustainable.

12. Sustainable Consumption and Production

Ensure sustainable consumption and production patterns.

13. Climate Change

Take urgent action to combat climate change and its impacts.

14. Oceans

Conserve and sustainably use oceans, seas and marine resources for sustainable development.

15. Biodiversity, Forests, Deforestation

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

16. Peace and Justice

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

17. Partnerships

Strengthen the means of implementation and revitalise the global partnership for sustainable development.

(UN, 2016).

“Providing women and girls with equal access to education, health care, decent work, and representation in political and economic decision-making processes will fuel sustainable economies and benefit societies and humanity at large.” (UN, 2016).

THESIS QUESTION

- The empowerment of women and architecture

MAIN QUESTION
What is the role of architecture and design in the process of empowerment, a field that is traditionally addressed by other fields of knowledge?

SUBQUESTION
What design elements are appropriate in the process of empowerment at the Fortress in Kampala, Uganda?

How should the compound be structured to support and improve the work of the organisation?

PURPOSE
To strengthen and aid the process of empowering young girls at the Fortress.

HOW?
By identifying what factors are important in the process of empowerment. The next step is to understand what design elements and structures that can be used to address these factors.

One case study,
The Fortress, will be used as an example and reference throughout the thesis.

RESEARCH FOR DESIGN
The discovered research will be used in the design for a new compound for the Fortress.

OTHER REQUIREMENTS:

Local materials

Local building techniques and traditions

Use natural energy sources when possible

1.0

BACKGROUND

The Fortress is placed in one of the suburbs to Kampala, Uganda. It is a safe home for pregnant teenagers from the slums of the capital and founded based on the vision to create a safe place for a few girls during their pregnancy.



The Fortress provides a safe home for the girls during their pregnancy.

1.1 THE FORTRESS - The Organisation

Organisation

Fortress is a home for exposed and pregnant teenagers in Kampala, Uganda and runs under the non-profit organisation "Woman of Purpose International (W.O.P.I). The Fortress was founded in October 2011 and is run by Josephine Nambatya. She is a social worker, mid-wife and also the founder of W.O.P.I. After having worked with pregnant teenage girls in the slums of Kampala a couple of years, Josephine wanted to establish a home for some of the most exposed girls she had met. This became a reality when four Swedish social work students did their internship at W.O.P.I and managed to collect enough funding from friends and family to open the home.

Today the Fortress is established as a home for pregnant teenagers coming from a background that does not provide them with safety, medical treat-

ments or support. The girls have been highly stigmatized and in most cases excluded from their families as a result of their unmarried pregnancies, as it is seen as a disgrace. Not being married, the father of the child usually does not take responsibility and the girl stands alone economically and socially. The girls are usually put under a lot of stress considering the risks of giving birth at such a young age, living in the slum and being kicked out by their families. Some of the most exposed girls get the opportunity to live in a safe and calming environment at The Fortress during their pregnancies. They are taught to take care of themselves and their child and also get some formal education. Some of them go back to high school, join University or learn to make jewellery. The project aims to participate in the process of enabling young women in Uganda to control their own lives and

to allow them to live a life without fear of exploitation. They vision a future for Uganda that includes equality, human rights and a democratic society.

The organization consist of Woman of Purpose International (W.O.P.I), The Fortress Sweden (TFS) and in collaboration with Gothenburg University (GU) that send interns each semester to participate in the work at The Fortress Uganda (TFU). In addition to this there are funders present in Sweden and in the United States. Josephine also have close contacts with the church in Wakisso and a school. (The Fortress, 2016)



Background of the girls

- Pregnant teenagers.
- Many of the girls come from the slum areas in Kampala.
- Many of them have been sexually abused.
- There is no father in the picture.
- The family may have kicked them out.
- The community might be judging them.
- There is no/not enough income.
- Most of them dropped out of school.



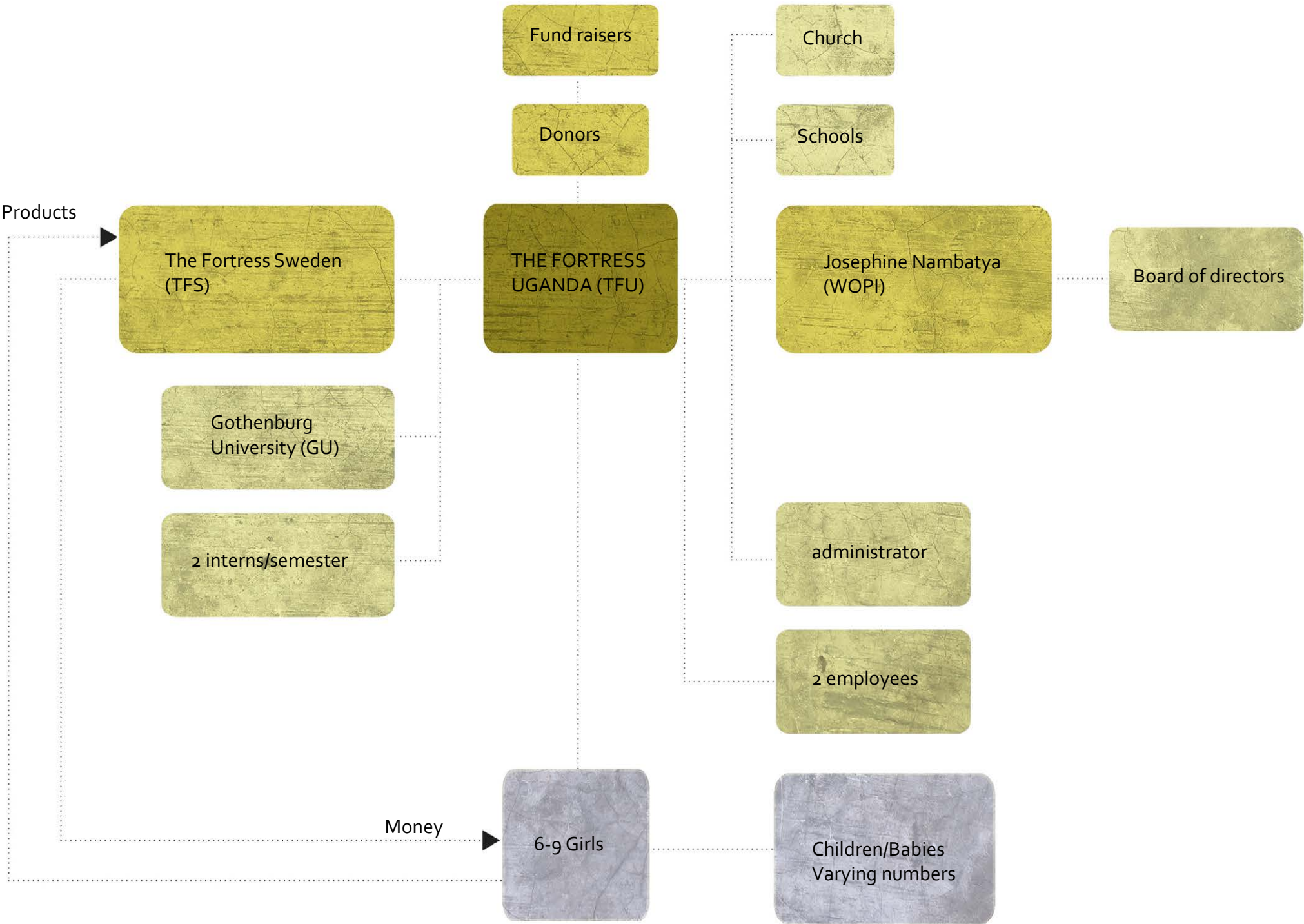
Purpose of the organisation

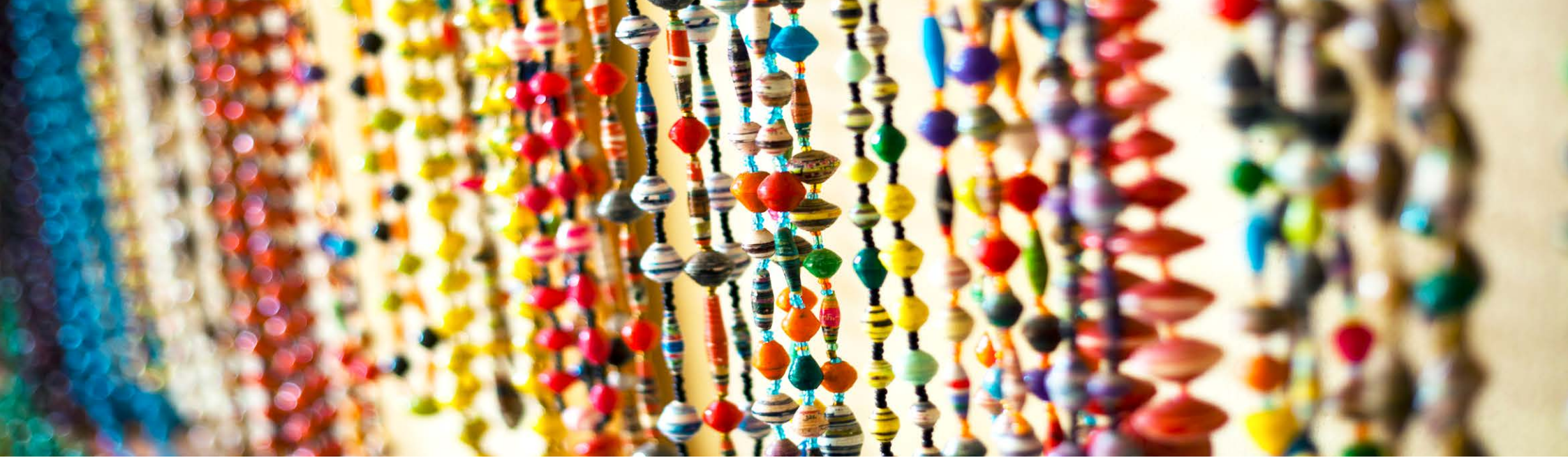
The Fortress is a temporary home that offers a platform for pregnant teenage girls to be empowered in a safe environment. The Fortress aims to reconnect the girls with their families and by the time the baby is born she is hopefully able to move back to them.

Individuals at the Fortress

- Josephine (Housemama) admin.
- 2 assistants running the organisation.
- 6-8 teenage girls
- Their babies/child

1.2 ORGANISATION - Structure

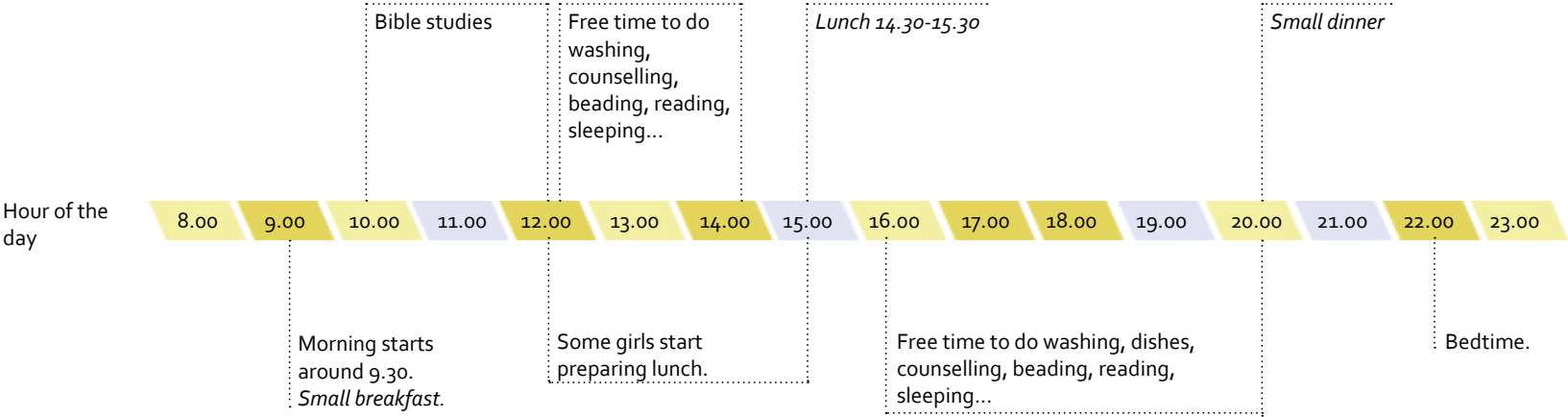




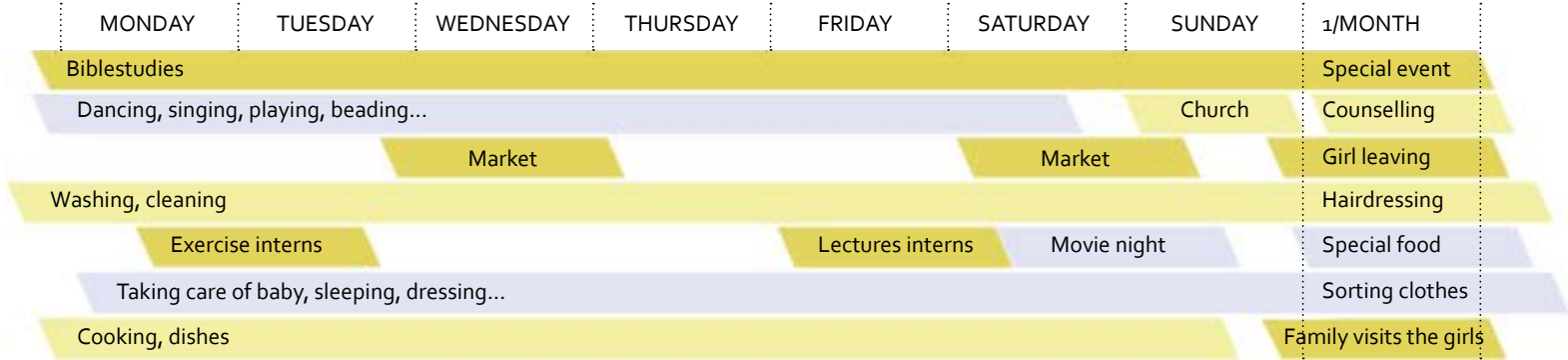
One of the activities at the Fortress is to produce jewelry and clothing for export to Sweden among other places. There are beads and fabrics available and production takes part a couple of times a week.



1.3 DAILY ROUTINES AT THE FORTRESS



A day at The Fortress



A month at The Fortress



Entrance



Kitchen



Dining room



Kitchen



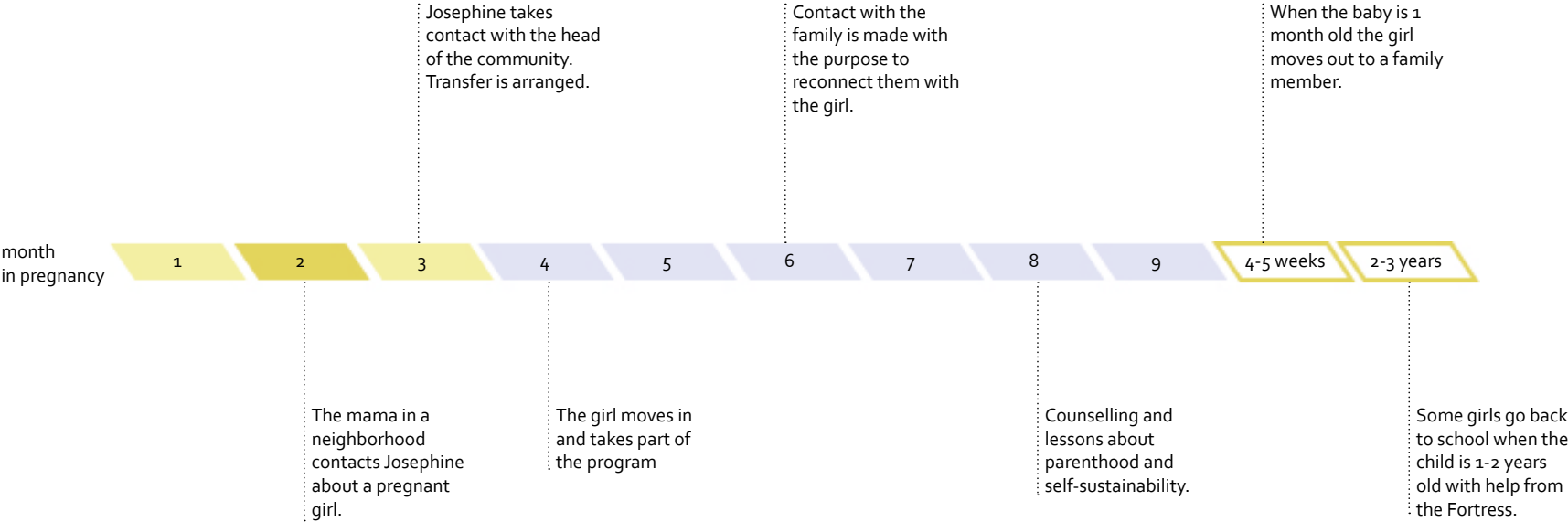
Living room



Compound

The house is expensive to rent and spaces such as the kitchen and toilets are not functioning

1.4 PROGRAM

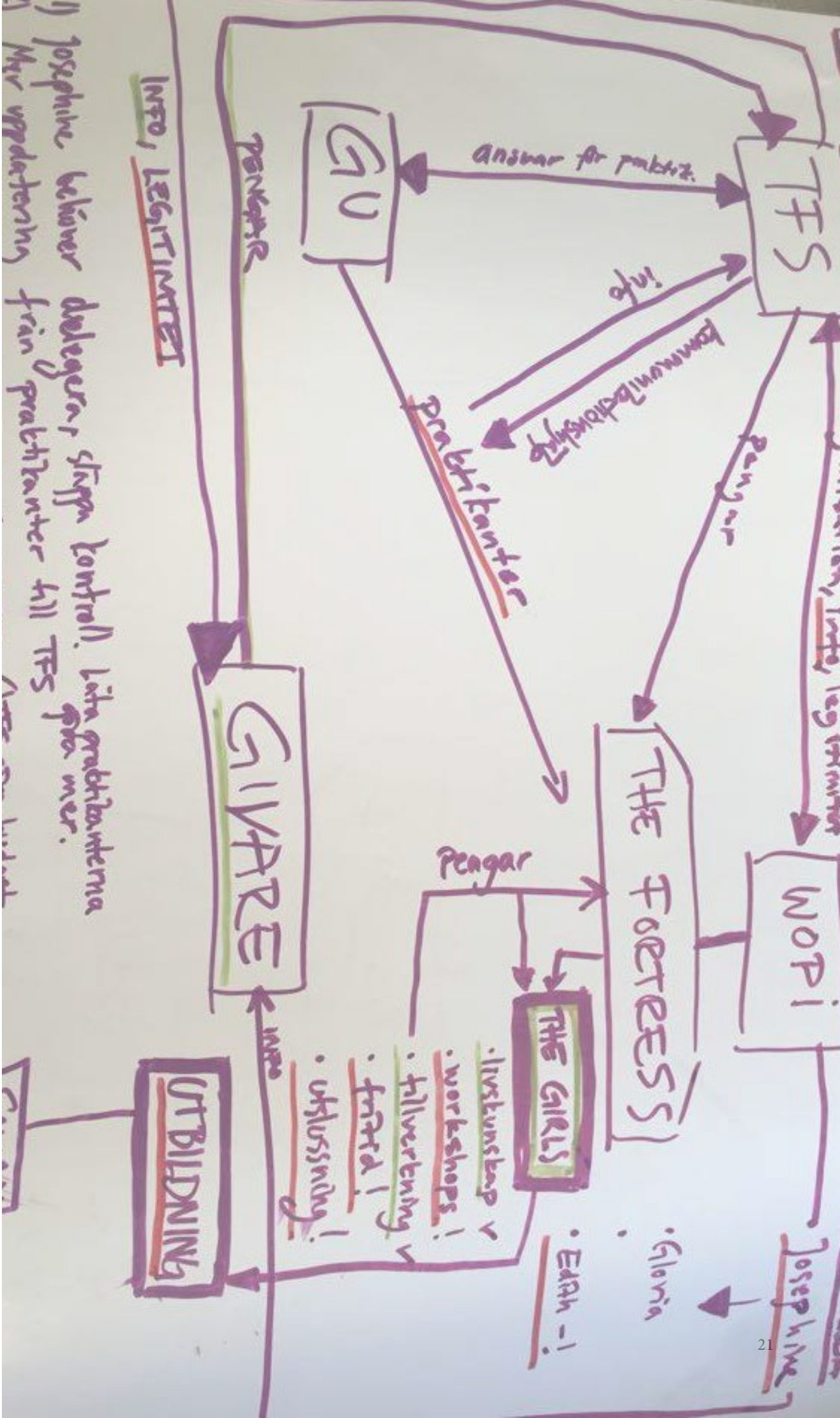


Timeline pregnancy

1.5 CONCLUSION

The Fortress was started four years ago in collaboration between Sweden and Uganda. It has functioned well but some alterations could greatly improve the organisation. The vision today is to provide the girls with a safe home during their pregnancy. This is a short-sighted vision though and the process of empowering the girls could easily continue also after the girls have to move out. One important part of this is to make sure the girls hare placed in the right environment when leaving The Fortress. As it is today Josephine has a lot on her table and do not have time to see to the process of reconnecting the girls to their families in a proper way. The girls living at The Fortress create close bonds and are highly supportive of each other, they should be given the opportunity to keep in contact and also expand their network of useful connections and relationships.

The master thesis will address the issues and faults of the organisation and make suggestions for how it can be improved, both in a physical sense but also in how the organisation should be restructured.







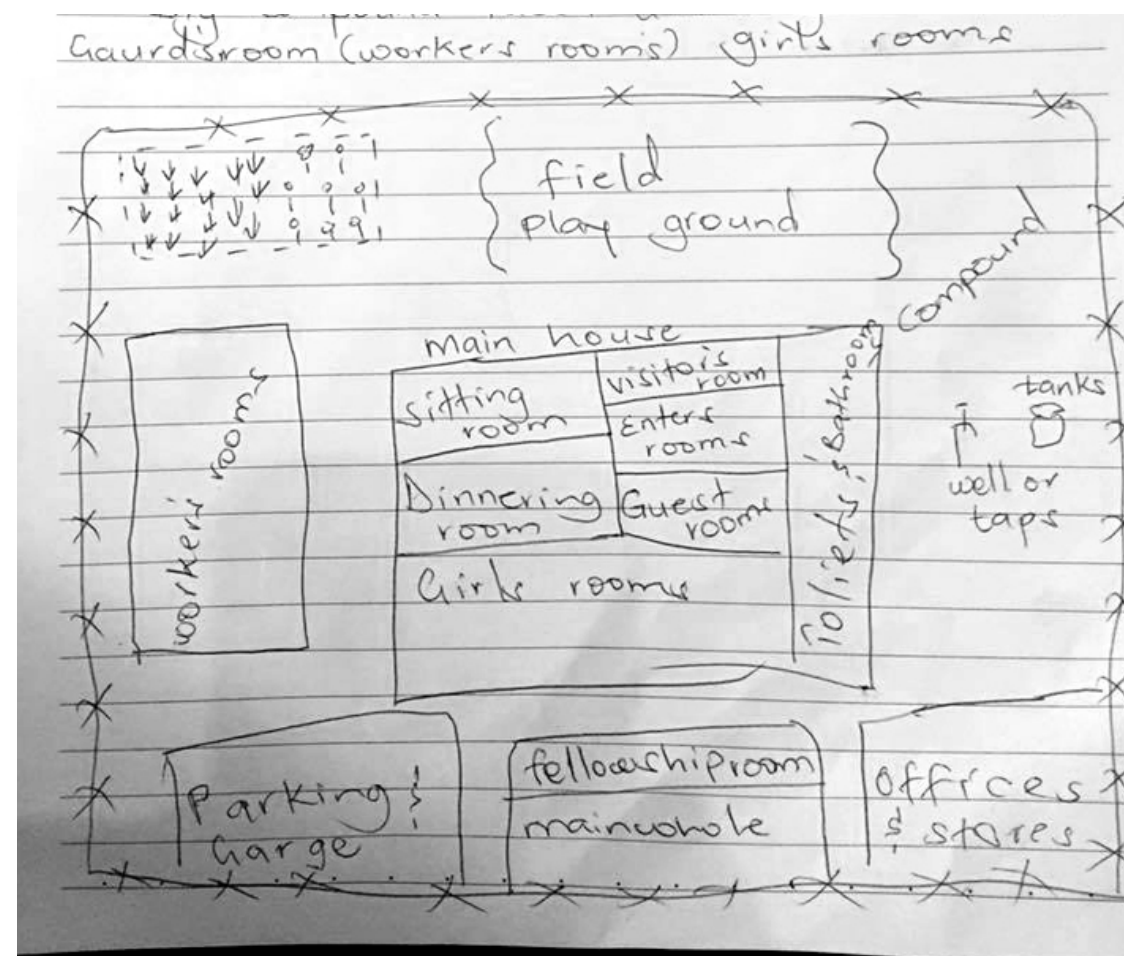
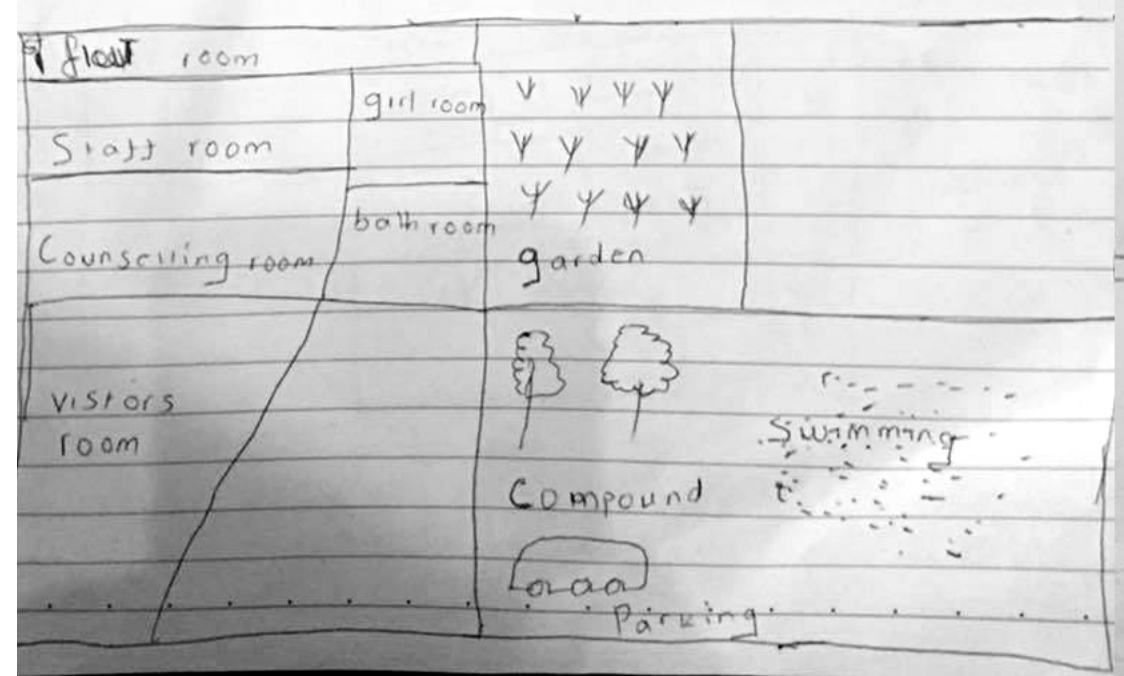
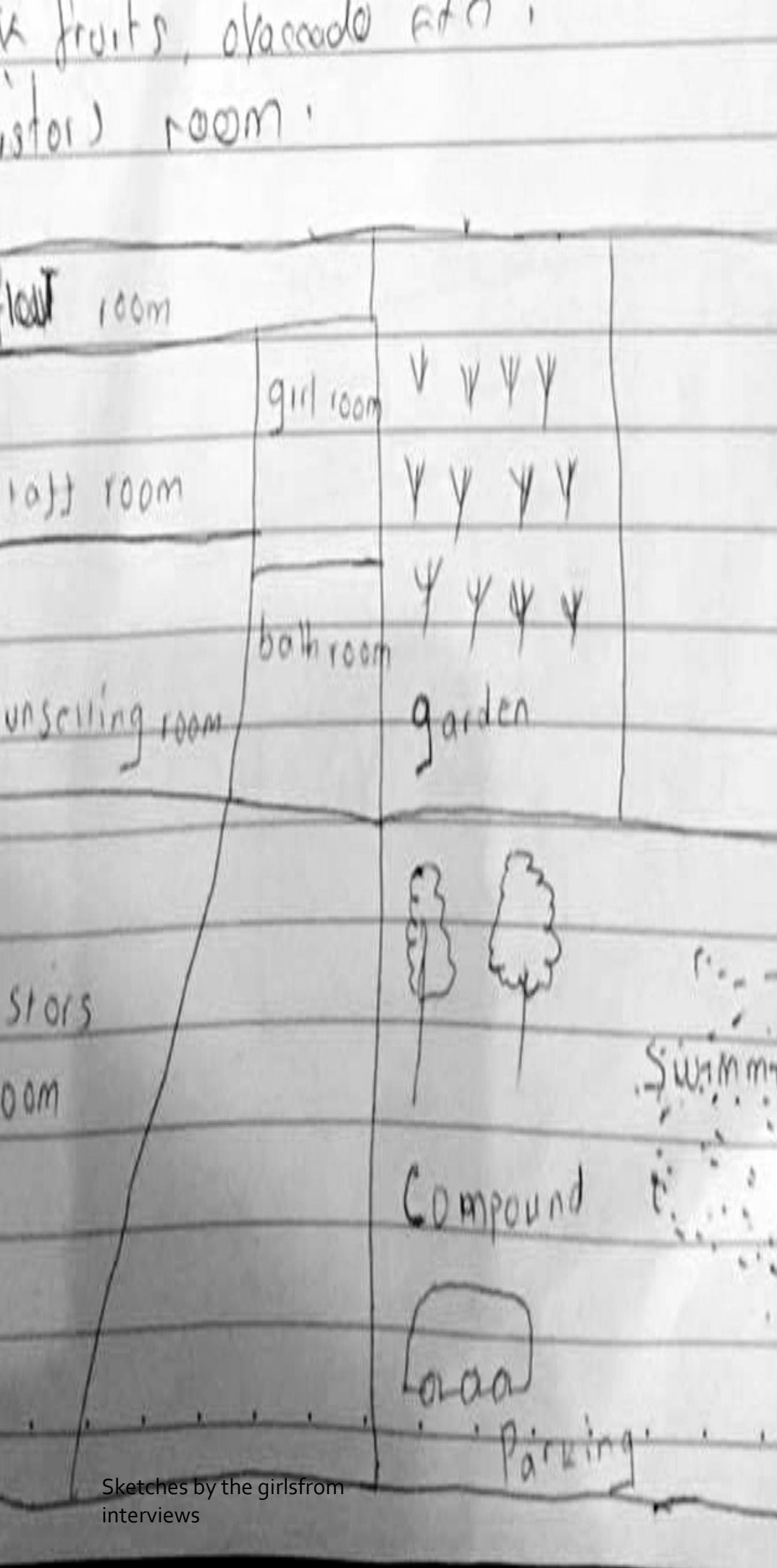
**“Participating in a sisterhood with
other women is hugely important.”**

- Christy Turlington Burns

2.0

RESEARCH

The context of Uganda needs to be understood, not only considering local building techniques and material but also the social context. Interviews and workshops with the girls gives a knowledge about what the Fortress needs in terms of space and activities. Furthermore, professionals within architecture and empowering institutions has been made to give a direction for the design.



2.1 INTERVIEWS WITH THE GIRLS

- What should the new Fortress contain?



Malubega Oliver

- Counselling rooms
- Wardrobe
- A good compound with trees
- Worship room
- Parking
- A big room for girls to have visits in her dorm
- Fun in girls’ room
- Inside bathroom and toilets
- An office for each staff member
- Swimming pool
- Fruits in compound: mango, jackfruit, avocado
- Visitors’ room

Rebecca

- Garden with different kinds of foods.
- Field where girls can play
- Sitting room
- Bath rooms (inside and outside)
- Parking
- Offices
- Storage (for different foods)
- Well and tanks
- Taps (if not too expensive)
- Fellowship room (girls’ meetings and other issues)
- Big compound facing dining room
- Guard’s room
- Girls’ rooms

Auntie Edith

- A Fortress van
- Skilled staff
- Banana tree
- Chicken roaming
- An examination room containing medical equipment:
 - 1.Thermometer
 - 2.Kidney dish
 - 3.BP machine
 - 4.Drug safety box
 - 5.First aid drugs containing: antibiotics, malaria pills, pain killers, drugs for the flu



Immie

Leadership in different departments: devotions, cleaning, studies, home leader, leader for all girls
Girl talks and seminars
School
Hospital
Large garage (parking)
A beautiful compound similar to a garden
A garden for growing food and fruits
More bedrooms and more offices
A Fortress doctor
Kids' ministry
Sitting room
Watch rom (entertainment room)
Inside and outside bathrooms and toilets
Inside and outside kitchen
Devotion room
Counselling room and more counsellors
Inside and outside kitchen sideboard (storage)
Food storage
Dining table and chairs (sofa?)
Topic discussions
Water inside and taps only (maybe tanks if no underground tank)
Playground
Main house: flat with five floors
More Fortress projects: work opportunities, hotel

that might employ the girls?
The girls learn should learn to make products that make loops/coops come true in the future
Seminars in different spaces, especially where the girls at the Fortress comes from
Reach girls that come from faraway places also to give them courage and hope
I hope Fortress will develop branches in areas outside Kampala to build confident women
Project should include: lessons in decision making, self-esteem, confidence, purity to raise moral.
Pregnant girls from the Fortress can speak out to people to raise hope among youth.
Creation of leaders of tomorrow: presidents, lawyers, preachers, counsellors



Shiela

House for interns
Fortress hospital
House for Josephine
Garden with fruits where the girls can be free and enjoy
Garden for different types of food
Outside tap for water
Inside toilets and bathroom
Room for girls with babies separated from pregnant girls
Farm for hens, cows
Visitor's room



Shamim

Apartment building with four stories
Watchman’s house on the side
One bedroom for two girls
Washing machine
Call box where the girls can communicate from
A Fortress gun

Comments

The girls want a beautiful garden with flowers and fruit trees. They also want beautiful materials and important functions such as spacious bedrooms and enough spaces for the staff. They are surprisingly specific about details such as medical equipment, types of trees and other utilities. A lot of them mention a worship room, visitor’s room, watchman’s house and for animals. These demands are quite easy to meet. The wish to have a pool and a four storey building is not as realistic, however spaces for play and a pool table can be of relevance. One interesting section is that of the role of the girls and at least one of them expressed a desire for more responsibility. She wants the girls to be a part of The Fortress program and inspire girls in the slum areas and on the countryside. This desire is highly interesting and stands in contrast to

the perception that the girls need help, they can also share their knowledge and experience with other girls and allow the work of The Fortress to expand. Some of the wishes will be met, with focus on a beautiful garden, functional spaces for staff and for the girls as well as designing utilities such as kitchen and toilets in an easy-to-use fashion.



**“We want a beautiful flower
garden and fruit trees.”**

- The Fortress girls

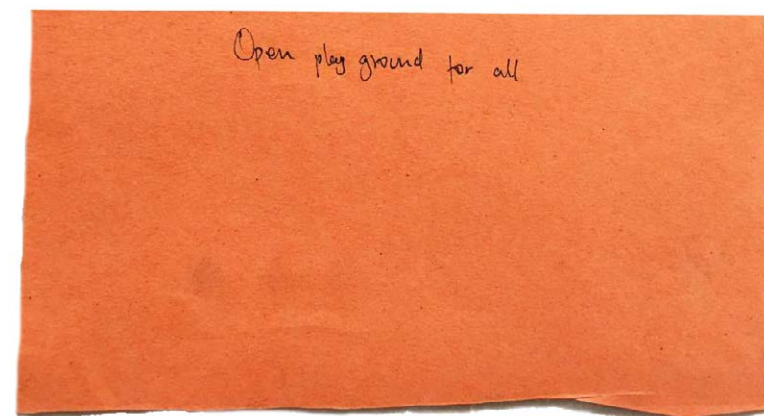
2.2 WORKSHOP

Step 1

Participants: 10 girls from The Fortress

The girls were divided into two groups where they discussed with one another which rooms they want and need in the new house. Also the desired size of the different rooms was discussed. The selected rooms were noted on squares and rectangles of coloured paper to symbolize size and functions.

Result: It took a while for the girls to get started, due to confusion regarding the task and also insecurity towards expressing an opinion. However, after a little while discussions were lively and many ideas for rooms and other spaces such as gardens, compounds and leisure were brought forward. However, the sizes of paper did not really correspond to the desired size of the rooms in most cases and this was taken into account when analysing the result.



Step 2

Participants: 2 girls from The Fortress

Rooms and spaces were selected from the coloured squares from the previous workshop. The task was to place the rooms and spaces in relation to each other.

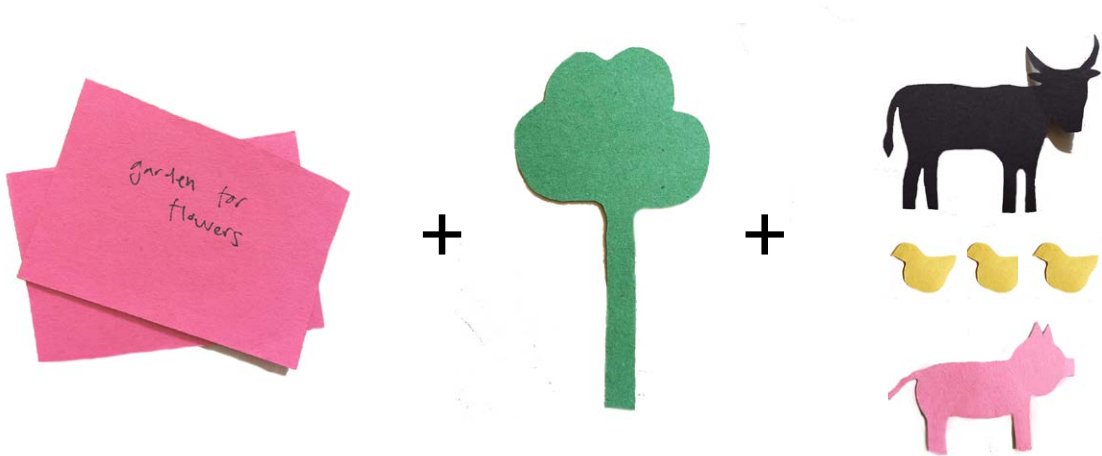
Result: Initially 8 girls were participating, but the process was slow and a bit messy so in the end only two girls were carrying out the workshops. They formed one main building with bedrooms, staff rooms and dining room in addition to a compound with separate outdoor facilities.

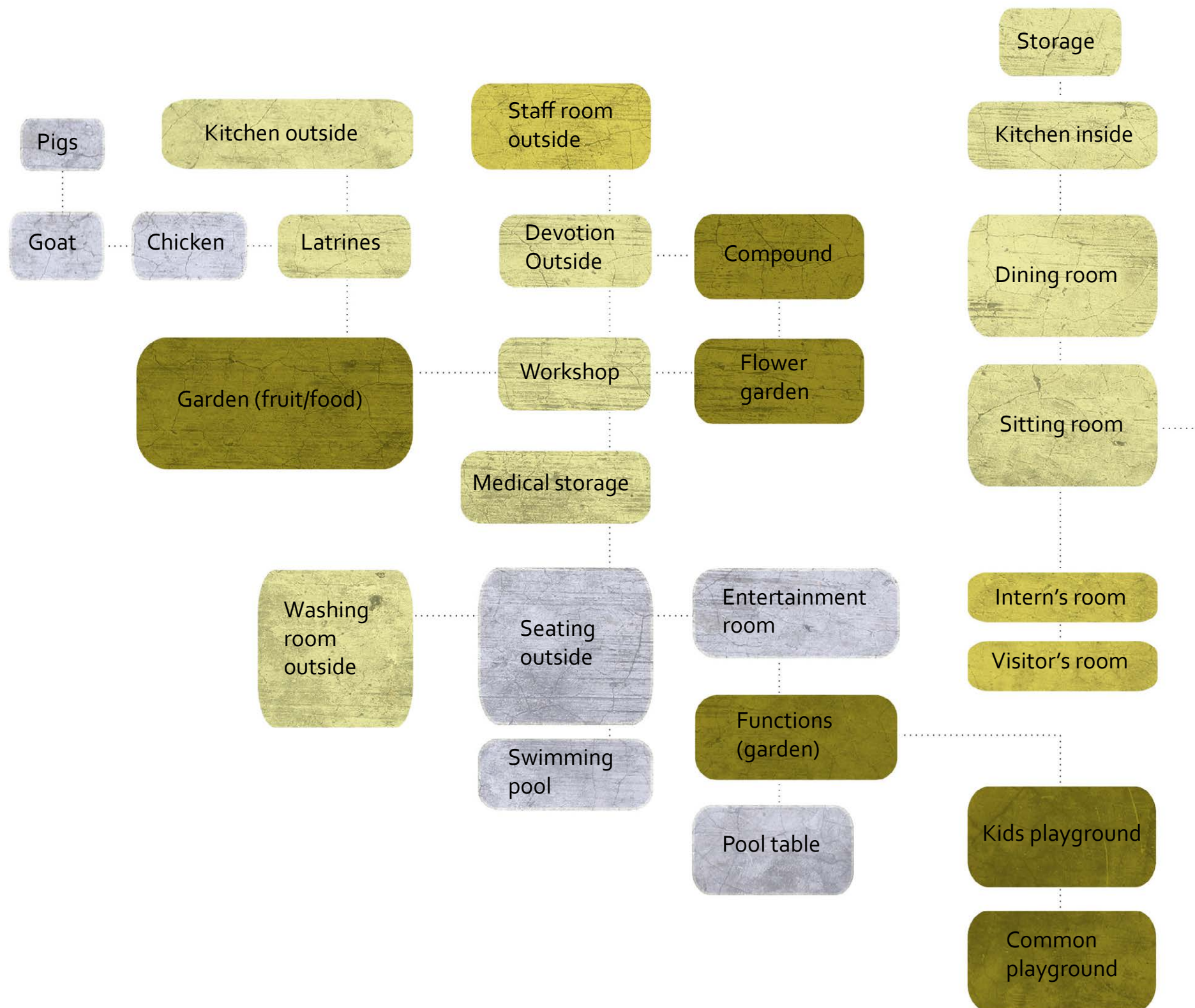


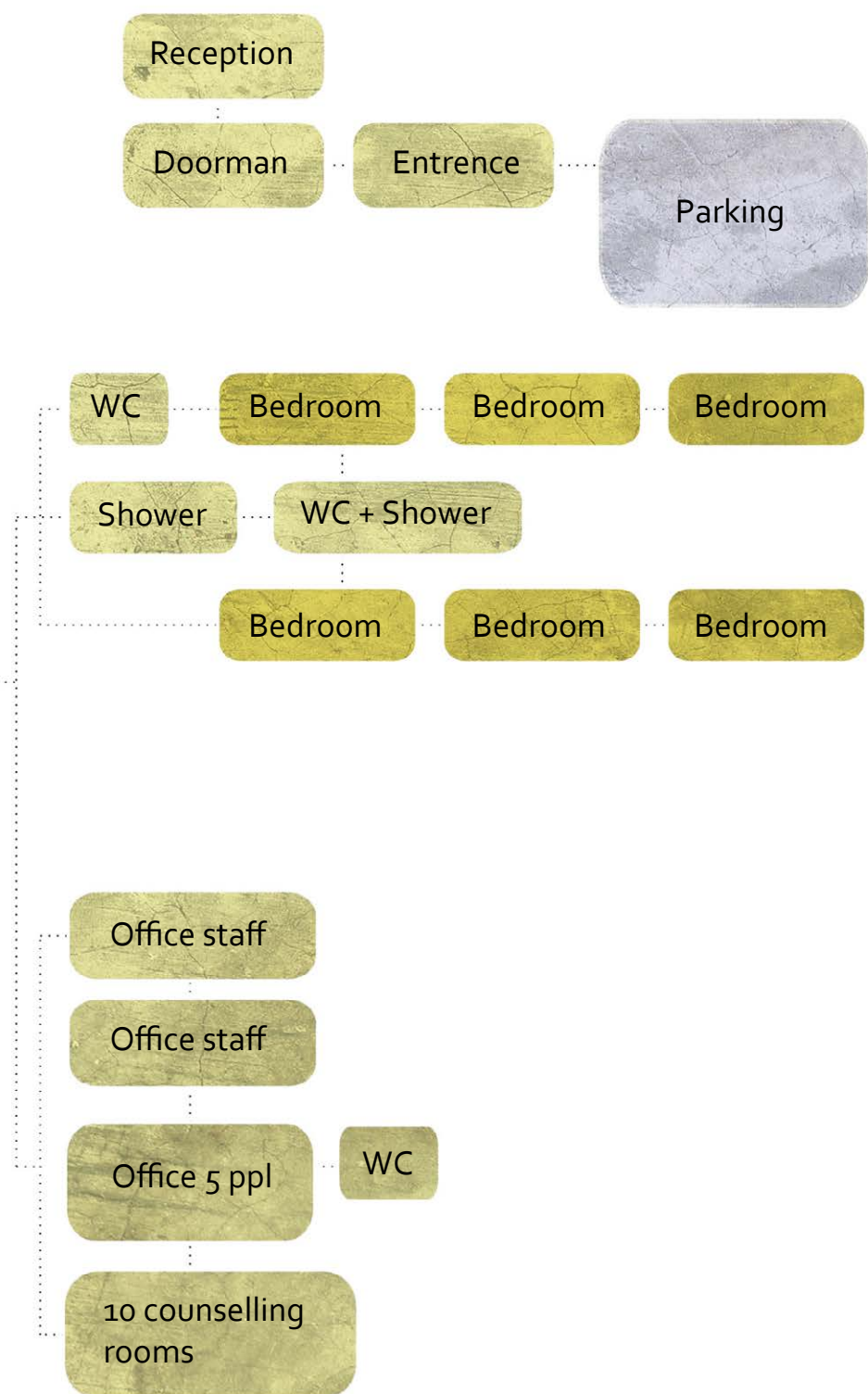
The girls placing the rooms.



The final result.







Result

The structure contains one main building with functions such as kitchen, dining room, sitting room and leisure functions. The main building connects to a compound with a fruit garden, animals, a workshop and entertainment functions. A smaller building contains bedrooms, showers and offices for the staff. The girls participating really highlighted the need of a watchman and a proper entrance.

The girls want to have a multiple story building.

They want color.

They want tiles on floors and walls.

They want a beautiful garden for flowers.

They want a garden for fruits and foods.

They want to have fun: a pool table, music and dancing.

They want a good place for praying.

They want more space in their bedrooms.

They want animals on the farm.

They want more offices for the staff.

2.3 INTERVIEWS WITH ARCHITECTS

-What should I consider in this type of project?

After having done some research I picked out two architects I found inspirational regarding similar types of projects and circumstances. Mr Moses was chosen as he is locally anchored in

Kampala and has valuable knowledge about local traditions. Also, if the project was to be realised a local architect needs to confirm and approve the drawings and design.

Diébédo Francis Kéré
Kéré Architecture, Germany

I think that you trying to use your skills to build a structure for the most fragile group in a society, the pregnant teenager, is great. Regarding the design I salute your idea of getting the future user involved.

But this is a big challenge. Most people in general do not have the education that enables them to have the courage to express their view about architecture. Therefore you will be the one that should find a way to get them to express what they really expect from a structure dedicated to them. It is not an easy task and it's a time consuming process. But if you go through with it you will succeed because the project will take in account the expectation of the user.

The materials I choose depend on my project and their availability. If I had to design a place in Kampala I would check on what is the most available and also cheapest material. Then I will study how to use these materials in the most efficient way.

Be aware about the fact that you could set up a good example. So be aware that it is going to take more time than expected. And you may be surprised that people reject your ideas. Nonetheless, know that you are going to do the most exciting experience in your professional life.

Jenni Reuter
Hollmén Reuter Sandman Architects, Finland

After having worked nearly 20 years with the same kind of project we have a lot of tips of course. Our answer could be a couple of books but to make a long answer short I would say that the most important thing is to find good local partners (the local NGO, users, constructors, local architects, engineers etc.) to make sure that there will be a continuity for the project even when you have left. Work on the grass root level with the common users to prevent misunderstandings and corruption, but also to create a mental ownership.

Mr Moses
Dream Architects, Uganda

Laws and regulations
When submitting drawings you do it to the town council. For example, in the Wakiso district, the Wakiso town council is responsible for planning the urban space. Anyone can make a design and drawings for a construction in Uganda, however the drawings must be controlled by a local and certified architect for submission. The same goes for constructors and a project architect that is local must be involved in the process.

Natural light and ventilation
Every room needs access to have natural light and ventilation, similar to planning in tropical countries in Asia, in order to diminish use of electricity but also to keep the building cool by using the breeze.

Seasons
There are no real seasons, only rainy season and dry season. The climate is tropical humid. The roofs must have an incline to allow water run-off to be efficient. The incline do not need to be as big as they would be on British houses as attics are not used generally, due to heat that collects just under the roof.

Construction
Local constructors are not very technical and the design is to have a simple construction. It is common to use bricks and mortar for structural purposes. Steel is used to some extent, but skills regarding the material are not common enough. Roof is mainly obstructed by timber, iron sheets or tiles. The brick walls are often covered in plaster and then painted.

Windows
Traditionally, buildings in Uganda and other parts of Eastern Africa have thick walls, small windows and tilted roofs. This however is a more suitable building type in tropical dry climates. For a more humid area, large windows would allow a breeze to flow through the building and create a cooler indoor climate. There is now a shift in traditional building design; however windows are often kept small due to costs.

Safety
A lifted roof would be great regarding the climate of the building. The inner roof must be thick and safe enough in order to prevent burglars from breaking in. This is something to take in consideration throughout the design.

2.4 INTERVIEW WITH SPORTS TEACHER

Interview with Nicholas on the bus from Kisumo to Kampala

Nicolas is a teacher and a student at a university outside of Kampala. He uses sports, mainly soccer, as a tool to empower young girls. Traditionally girls do not participate in sports in Uganda as there is a common misconception that it would affect their ability to have healthy children. Nicolas and his team believes that soccer can help to empower girls by building their self-esteem, sense of belonging and feelings of support and structure. Girls that perform well in sports along with their studies have the opportunity to get a scholarship and the program has become popular with students and their families. Apart from soccer practice, Nicolas have private counselling with the girls in order to support them in everyday issues.



Figure 1

2.5 CONCLUSION

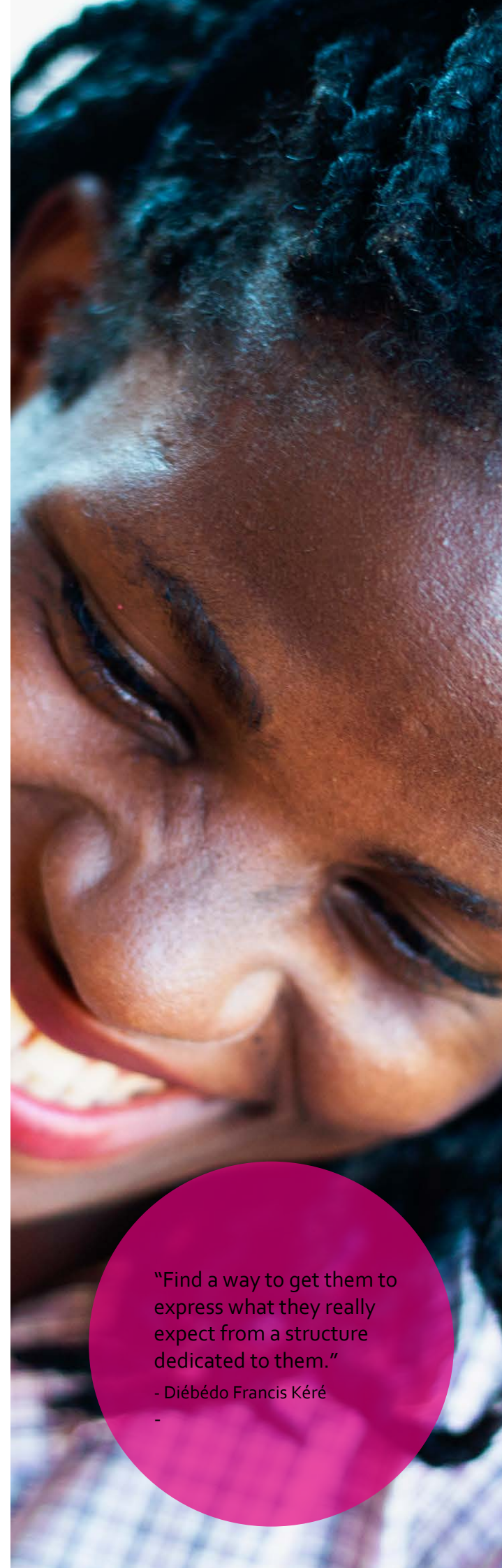
When getting encouraged to express their opinions the girls at the Fortress opened up to themselves and shared their dreams about a new settlement where beauty and engaging activities stand in focus. In addition to this they want to have good spaces for the staff and visitors that might come by. A fruit and flower garden is of great importance for their feelings about a good home, as well as a proper space for praying. This, however, might be a bit influenced by Josephine's great involvement in the church and her encouraging the girls to be active in Bible studies. It should be taken into account that not all girls are protestant Christians and also they need to feel included.

The advice given by the interviewed architects could be summarised in keeping the construction simple, materials local and cheap. They also highlight the importance to involve the stake-

holders. In the process of the thesis multiple meetings were held with the staff of the organisation and also the girls had the opportunity to have an opinion about the design. It was notable that some wishes are based on the desire to show status. This is noted and the design will aim to give a feeling of being luxurious without being expensive. Some of their wishes are not very realistic, such as a swimming pool and a four story building, however others can be altered to meet the notion of beauty while finding a low-cost solution. To name an example, instead of tiles that are expensive, a concrete or mud floor can be polished to give a beautiful surface.

"Find a way to get them to express what they really expect from a structure dedicated to them."

- Diébédo Francis Kéré



3.0

THEORY

Empowerment

The empowerment of individuals will eventually improve the state of the country itself. Many examples show that when the inhabitants in a country are independent, healthy and enrolled in work, the economy of the nation is at a better level. This as health costs are kept lower, crime rates might be decreased and the economy improves if more people take part of it. By encouraging individuals to be proud and take care of their own situation, they are more likely to live an independent life.





“The sense of coherence is essential to a persons’ well-being!” - Antonovsky

3.1 EMPOWERMENT DEFINITION

Empower /ɪmˈpaʊə/

Give (someone) the authority or power to do something

Make (someone) stronger and more confident, especially in controlling their life and claiming their rights

(Oxford Dictionaries, 2016)

"Empowerment is based on the idea that giving individuals skills, resources, authority, opportunity, motivation, as well holding them responsible and accountable for outcomes of their actions, will contribute to their competence and satisfaction."

(Business Dictionary, 2016)

3.2 WHY IS THIS IMPORTANT?

How to change the world?

The prize-winning reporting team Nicholas D. Kristof and Sheryl WuDunn portrays the struggle of women in terrible circumstances in Africa and Asia. They focus on modern slaves: sexually trafficked individuals. Moreover they highlight the ongoing 'gendercide', where girls are being killed only because they are girls. More girls have been killed in the last fifty years than men were killed in wars of the twentieth century in total. And more girls are being murdered in any decade of today than people were slaughtered in all the genocides of the twentieth century.

In this context they tell the story of individuals that manage to stand against oppression and their given life circumstances. In the book, they give examples of women that are given support and encouragement to change their situation. When they succeed, it is showcased how one individual can change not only their own situation, but stand as inspiration to many others. The message of the book is that it is never meaningless to help one individual to improve their life, even if that will not change the system of a country or a community to start with.

The authors also points out that many Asian countries have improved their economy by involving women in an already existing market, almost doubling the workforce. This should stand as an example for other countries. (Kristof, N.D., WuDunn, S., 2010)

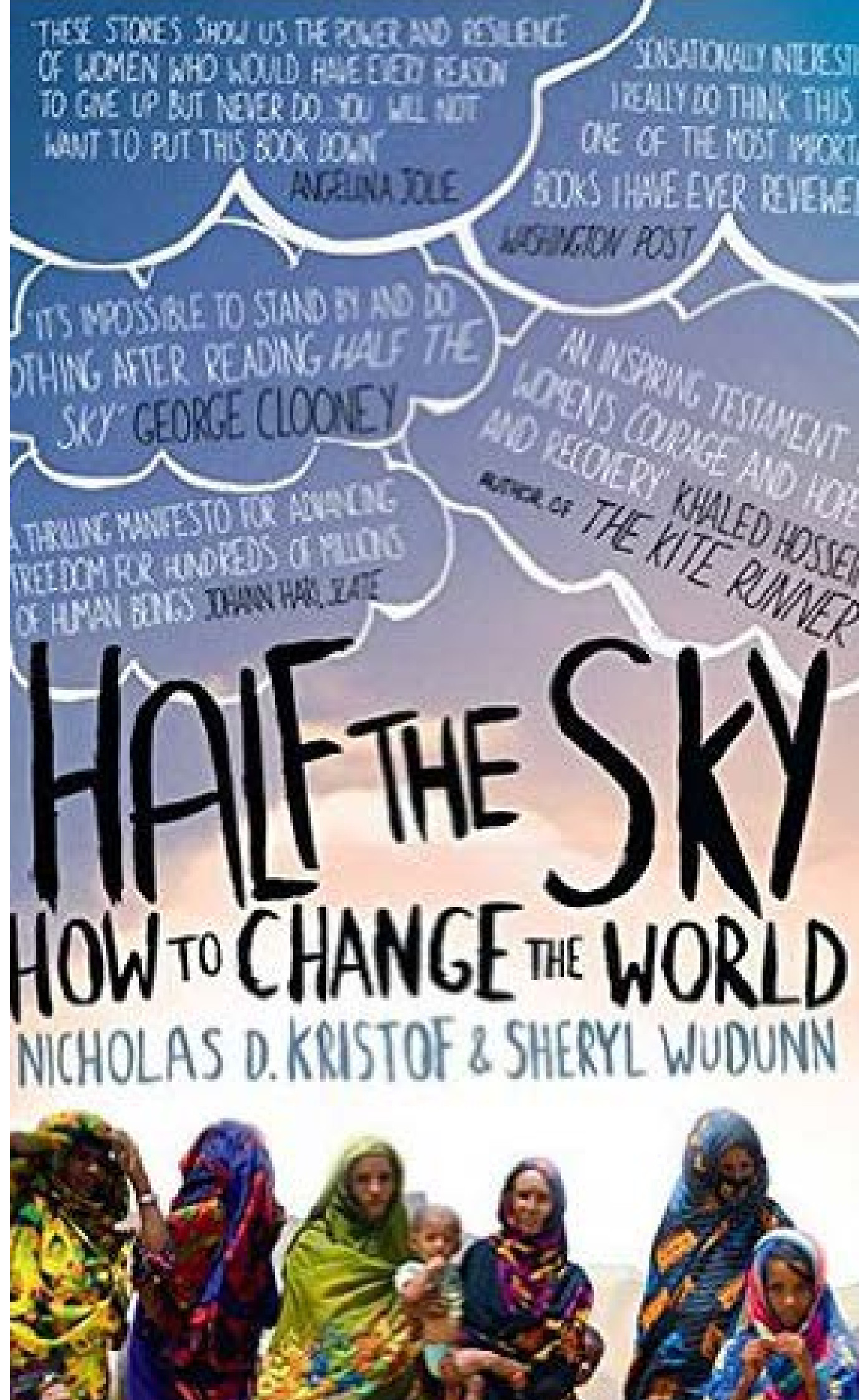


Figure 2

UN HABITAT GOAL 5: Achieve gender equality and empower all women and girls

Facts

About two thirds of countries in the developing regions have achieved gender parity in primary education

In Southern Asia, only 74 girls were enrolled in primary school for every 100 boys in 1990. By 2012, the enrolment ratios were the same for girls as for boys.

In sub-Saharan Africa, Oceania and Western Asia, girls still face barriers to entering both primary and secondary school.

Women in Northern Africa hold less than one in five paid jobs in the non-agricultural sector. The proportion of women in paid employment outside the agriculture sector has increased from 35 per cent in 1990 to 41 per cent in 2015

In 46 countries, women now hold more than 30 per cent of seats in national parliament in at least one chamber.

Goal 5 targets

End all forms of discrimination against all women and girls everywhere

Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation

Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate

Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decisionmaking in political, economic and public life

Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the

Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences

Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws

Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels

(UN, 2016).



UN Habitat
- Sustainable Development Goals

Figure 2

3.3 WOMEN, GENDER & DEVELOPMENT - In Africa/Uganda

History

The political landscape in Africa has changed after a significant number of conflicts since the mid-1980s. As an aftermath women’s organizations pressed for an increased political representation as well as changes in policy and legislations regarding women’s rights. International norms were changing and women began to feel aspiration for greater rights. One of the major aspects of this movement was the change in women’s legislative representation. Countries that suffered from conflicts have a higher rate of female representatives compared to those that had none. In post-conflict Uganda women claim over 30% of the parliamentary seats and the average for Africa is 17%. Apart from national movements, foreign donors and international agencies put pressure on governments in post-conflict Africa to see to women’s rights. New international norms had formulated the need of empowering women in post-conflict countries through consti-

tutional, legislative and other contexts. The prolonged conflicts changed gender roles as women had to take on new activities in the absence of men such as running the family business, taking care of household finances, learning how to drive and playing a more active role in the community. (Visvanathan, N., Duggan L., Wiegersma, N. and Nisonoff, L, 2011)

Uganda

Uganda suffered from years of civil war, internal conflicts and institutionalized violence originating in Idi Amin’s takeover in 1971 that lasted until 1986. After the Decade of Women conference in Nairobi 1985, Ugandan women returned home inspired to mobilize women in the nation. The new president Yoweri Museveni began to see possibilities for promoting his own goals and receiving more support from women by tapping into the new women’s organizations.

By 1989 a new quota system allowed women to run for a minimum of one seat as ministers per district. From 1993 to 2004 a woman, Specioza Kazibwe, served as the first female vice president. The formation of the African Union in 2001 was an important turning point for women’s regional mobilization around peace issues in Africa. One of the major issues addressed was to protect women living in conflict and under foreign occupation. Furthermore, gender equality was one of the founding principles of the AU.

Gender Equality Issues in Uganda

Women in Uganda face a wide range of challenges including discrimination, low social status and lack of economic self-sufficiency along with a greater risk of HIV/AIDS infection. For many women, the gender discrimination means that their power to act independently, become educated, avoid poverty and escape from abusive men is highly limited in most cases.

It happens that girls or young women are pressured to have sex or in the need to trade sex for economic survival. Many girls are sexually active at a younger age than men and the risks of HIV/AIDS come along with that. Furthermore, it has become a practice for older men to break social customs and choose young girls for sexual partners to avoid getting HIV, with the risk that girls are infected instead. In some districts, 13-19 year old girls have 10 times higher rate of HIV compared to males of the same age. (Visvanathan, N., Duggan L., Wiegersma, N. and Nisonoff, L, 2011)

Micro-loan programs

An important factor to decrease this trend is to empower women through education and job skills. Some organizations offer micro-loans in order for the women to build their own business ventures and allowing them to have some economic independence. One of these is the Foundation for Sustainable Development (FSD). (Foundation for Sustainable Development, 2016)

Uganda has a vibrant and successful microfinance industry due to the FSD, and three of the microfinance institutions (MFIs) have between 25,000 and 45,000 clients. Studies demonstrate that the provision of microfinance services reduced the client's vulnerability to economic risks. Some of the aspects of FSD is to connect small-scale producers and micro-service providers with larger organizations to access financial services and business expertise, along with providing programs to create your own business plans and economical knowledge. (Foundation for Sustainable Development, 2016)





**“Powerful women create a
powerful world” - Audrey Hepburn**

3.4 HEALTH

Health

Disease is a major problem in Uganda and the country was hit hard by the outbreak of the HIV/AIDS epidemic in East Africa. Thanks to increased knowledge about the disease the once very high HIV infection rates have decreased somewhat. Malaria is one of the main reason for death in Uganda, other common transmissible diseases are cholera and meningitis many of them caused by inadequate sanitation and poor hygiene. (Barlas, R. & Yong Jui L., 2010)

Other common causes of death are respiratory diseases from air pollution such as smoke, and also injuries from accidents. (WHO, 2014)

Abortion

The Uganda Constitution states that abortion is permitted if the procedure is authorized by law, but the policies are somewhat unclear and often interpreted inconsistently, making it difficult for women to know what is legal and what is not. It states that abortion is permissible in cases of fetal anomaly, rape, incest or if the woman has HIV. There is a need for programs that offer counseling and a wide range of contraceptive methods. The post-abortion care needs to be improved and expanded to treat the serious health complications that follow an unsafe abortion. Also more knowledge about the abortion law needs to be spread in order to encourage more women to make safe abortions.

Unplanned pregnancy is the cause of most abortions. By preventing unintended pregnancy the injury and death

resulting from unsafe abortion would be highly eliminated. In Uganda more than half of the pregnancies are unintended and about one third of these ends in abortion. Contraceptives are used more and more by married women, however still the usage is low. The rate of abortion due to a study in 2003, the only one of its kind so far, shows that every 19th woman has made an abortion in Uganda, which exceeds the average rate by far in Eastern Africa. Women who belong to the wealthier part of the population have access to doctors, nurses and clinical offices, however since abortion is illegal all procedures must be executed with secrecy, compromising the safety and skilled providers charge a lot. Poor and rural women often resort to abortions performed by untrained providers using unsafe methods or attempt to self-induce an abortion, due to financial constraint

and geographic distance. In 2006 the Ugandan Ministry of Health estimated that abortion related causes account for 26 % of the maternal mortality, which is much higher than the number 18 % for all of Eastern Africa. Apart from maternal death, many women suffer from injures from unsafe procedures. Women using the least safe abortion methods suffer from an estimated 68-75 % of abortion experienced complications. The number for non-poor urban women is 17 %. Many women avoid seeking care for post-abortion complications as they fear being exposed to judgement and abusive treatment from health care providers. Nurses and midwives are legally permitted to perform care for post-abortion complications but the majority lack proper training.

According to a recent study the cost to the healthcare system for treating

complications from unsafe abortions is nearly US\$130 per patient. In total post-abortion care is estimated to cost nearly US\$14 million annually in Uganda. (Foundation for Sustainable Development, 2016)

3.5 SALUTOGENESIS - Which factors affects and creates a healthy life?

Salutogenic

Able to cause human health and well-being
The origin of health

Etymology
Latin *Salus* – Health
Greek *Genisis* – Source

(Wiktionary, 2016).

Salutogenesis

Salutogenesis means “the origin of health” and focuses on what factors that can create and sustain health, a concept that was created by Aaron Antonovsky (1923-1994), professor in medicinal sociology at Ben Gurion University of Negev, Israel. He was interested in the human ability to stay healthy in stressful situations and his studies are based on a group of Israeli women who survived the Holocaust. The study took place in 1971 and is called “Twenty five years later”.

In the group of women from the concentration camps about a third perceived themselves to have good health. In a control group about half of the participants had the same feeling. Antonovsky asked himself how it was possible for 30 % of the women with great experiences of horror could be in such a good state. (Social Utveckling, 2014).

From the results of the study Antonovsky formulated the salutogenic model where he focused on resources, maintaining and improvements of a movement towards health. It stands as an opposition to the pathogenic concept which focuses on the obstacles and deficits. (Center of Salutogenesis, 2015)



Figure 4: Aaron Antonovsky (1923-1994)

Challenge or threat?

He further noted that people in developing countries showed a larger number of symptoms for being unhealthy, however they were able to handle everyday life without much difficulties. Antonovsky asked himself how it was possible for people in fragile positions, where life and food sources are threatened, still have the notions of feeling healthy.

Antonovsky further studied what makes us resilient towards mental illness following challenges in life. He highlighted the importance of looking at person from a biological, psychological and sociological perspective. Instead of focusing on factors of stress, Antonovsky tried to find tools people use to handle stressful and threatening situations. He saw that different people found the same situation challenging instead of threatening and difficult. From this he

shaped two core concepts for his salutogenic theory: The Sense of Coherence (SOC) and the Generalized Resistance Resources (GRRs).

The Generalized Resistance Resources (GRRs).

The Generalized Resistance Resources (GRRs) refers to the resources available, to the individual and her capacity, but also her immediate and surrounding environment considering both material and non-material resources. The key factor is not what is available but how you use and re-use the resources you have. The GRRs provide a person with sets of meaningful and coherent life experiences thanks to the resources at the person's disposal. (Center of Salutogenesis, 2015)

The Sense of Coherence (SOC)

Sense of Coherence (SOC) reflects a person's view of life and capacity to respond to stressful situations. It is a global orientation to view life as structured, manageable and meaningful or coherent. Antonovksy writes that the sense of coherence is crucial to how an induvial handles stressful situations, which in its own sense is crucial for the general state of health. No one is fully healthy or unhealthy due to Antonovksy, and all people find themselves in a state somewhere between the two stages. The level of healthiness is defined by the sense of belonging and context which can be divided into three parts (KaSam, 2015)

The three parts of SOC

comprehensibility

The cognitive component: that the surrounding and individual context is structured and comprehensive

manageability

The instrumental or behavioral component: that resources needed to handle situations in life are available

meaningfulness

The motivational component: to feel that your life has purpose and meaning.

(Lindström, B., Eriksson, M., 2006)

It is in the combination of these three parts in an individual’s life that her state of well-being is found. Antonovsky points out that the sense of meaningfulness is the most important of the three. (KaSam, 2015)

Research shows that people and systems that follow a salutogenic way of living have a longer life where they perceive that they are in good health, enjoy a better quality of life and mental wellbeing. Also, they can handle stress better than the average person and have more constructive health behaviors. (Center of Salutogenesis, 2015)

3.6 IMPORTANT FACTORS FOR EMPOWERMENT

System

From empirical and theoretical studies four main pillars of empowerment has been selected. They summarise the basic needs for a successful process of empowerment for an individual: pride, independence, belonging and safety. They can be used separately and combined in different ways. In order to translate the theories of empowerment into architecture each one of the four are described in a context of design and design tools. The following pages will go deeper into depth of the meaning of the four main pillars.

Important factors
The meaning of the four main pillars in the context of empowerment.
In a design process
How these pillars be thought of in a physical space.
Tools
The design elements that can help to create a space that supports the process of empowerment.

Important factors

PRIDE
Feel proud of oneself.
Be confident in your situation.

INDEPENDENCE
Control over your own time.
Have trust in your ability to take care of yourself.
Providing for oneself.

BELONGING
Be part of a community.
Understand that you are not alone in your own fate.

SAFETY
Feel safe in your home environment.
Trust in other people.
Support from surroundings.

In a design process

PRIDE
Feel proud of your home.

INDEPENDENCE
Own space.
Enough barriers to feel safe without feeling strained.

BELONGING
Good common spaces.
Network within the home and outside of it.

SAFETY
Layers of safety that allows free movement without feeling threatened.
Independence.

Tools

PRIDE
A beautiful home regarding design and materials.

INDEPENDENCE
Own space to take care of.
Hierarchy between spaces - private, public and shared.

BELONGING
Spaces for group activities.
Spaces that allows other organisations and individuals to take part of the group.
Inviting spaces.
Connection to outside world.

SAFETY
The level of security is adjusted to the character of the space.
Walls, iron, vegetation, sightlines.

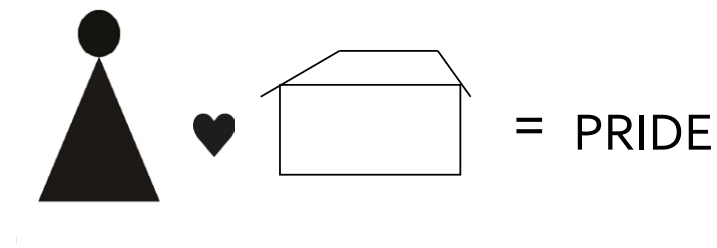
3.7 PRIDE - Self esteem through a physical environment

Ownership

One important part in the process of staying at The Fortress is to increase the girl's sense of self-worth and self-esteem. To achieve this it is not only important that they have support from the organisation and their surroundings but also that they feel proud about who they are and where they live.

As every other person the girls at the home appreciate a beautiful environment which should not be underestimated. By creating a space that is beautiful and that they have a connection to, will have a positive effect on their development.

A soft, welcoming atmosphere that inspires to creativity and playfulness should be prioritized. Materials should be chosen in accordance to this goal.





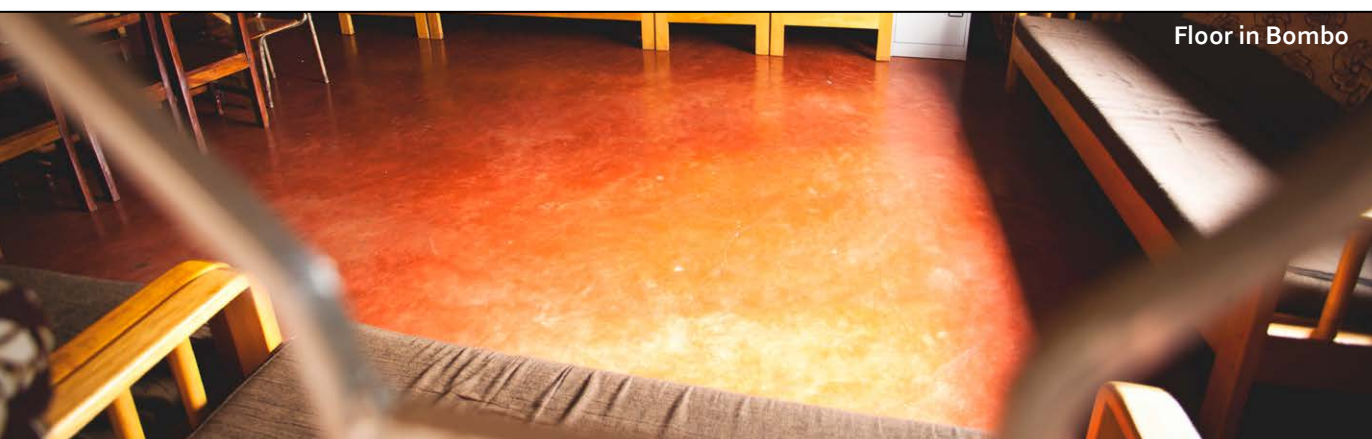
**“We want more color in
our new home!”**

- The Fortress girls

Figure 5: Art in Norway



Figure 6: Old brick wall



Floor in Bombo

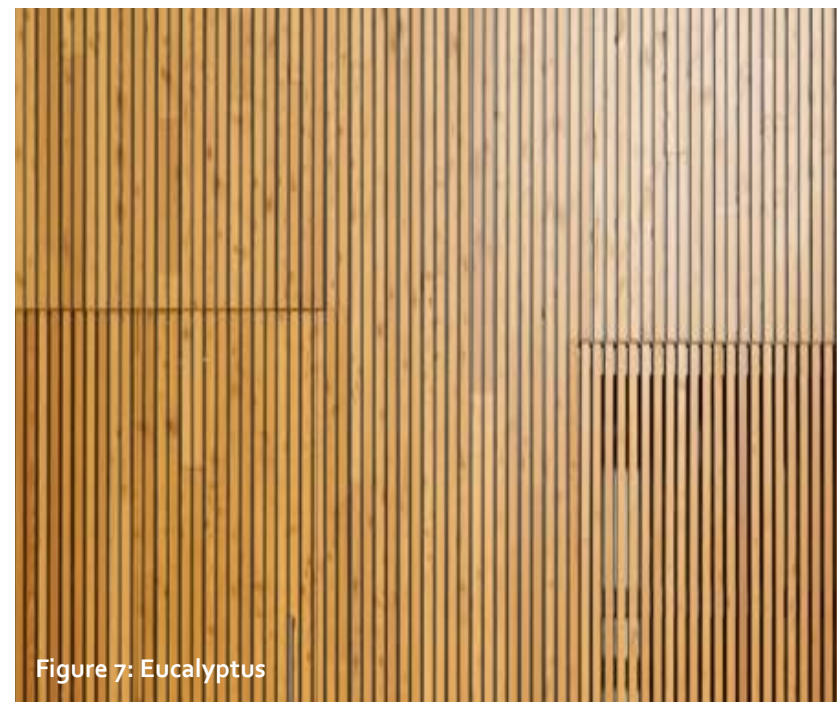


Figure 7: Eucalyptus



Shops in Singapore



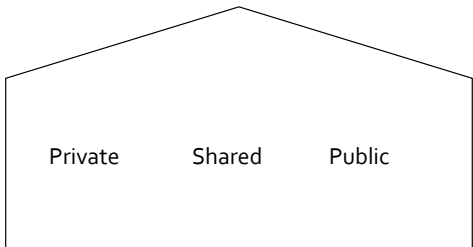
Figure 8: Colored Fabric

3.8 INDEPENDENCE - Private space

Institution - one shared space

Today The Fortress consists of one house where private, shared and public spaces are placed under one roof. One space for all shared and private activities gives little room for an individual to express herself and feel power over her own situation. Many people in one space also creates a stressful environment that is not helping a process of empowerment.

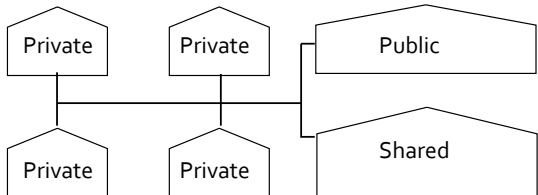
Having all the girls under one roof constantly allows the staff to have an overview. However this can be done in other ways, by keeping the important spaces where it is easy to overview.



Separated activities - freedom of choice

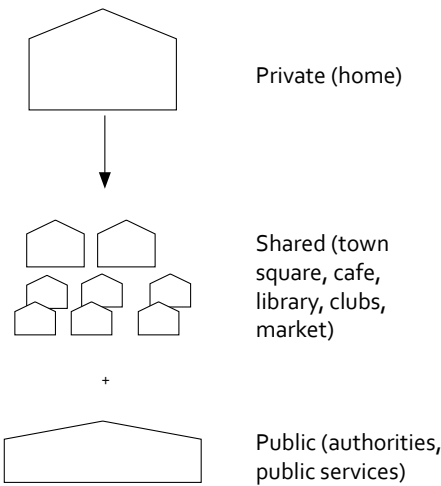
In the process of empowerment a feeling of independence is essential. The Fortress stresses that the girls should learn how to take care of a household as well as herself and her child. In order to learn this she needs her own individual space where this can be practised.

Bedrooms separated from the common spaces and shared among a smaller number of people would provide for this. Also the public spaces such as offices should be separated from the bedrooms to diminish the feeling of being an institution.



Inspiration - The structure of a city

When living in a city you have your own private space in the shape of a home and you go to the city centre for meeting friends and do errands along with visiting public institutions and authorities. This can apply also to a small settlement.



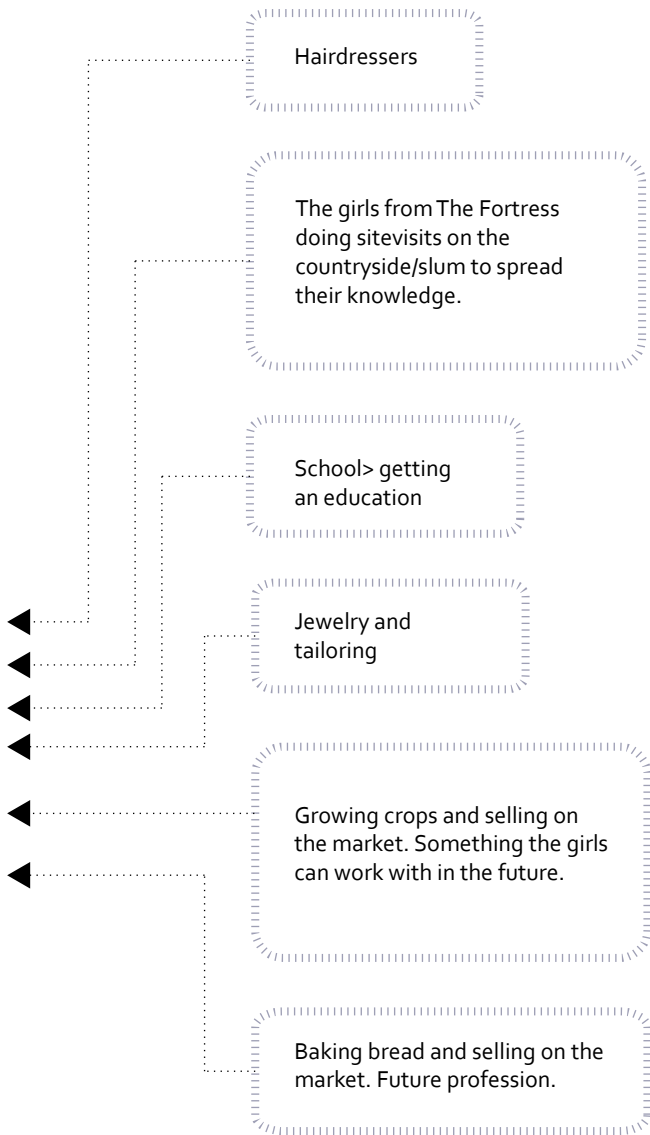
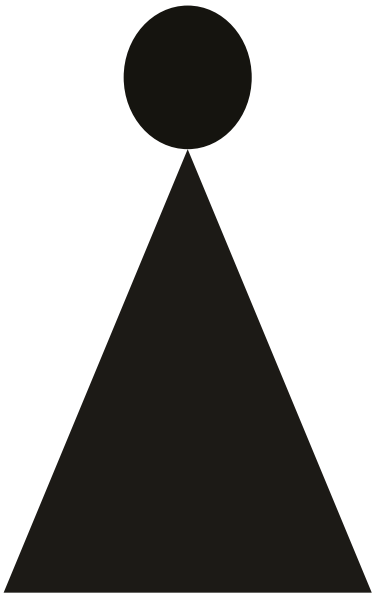
3.8 INDEPENDENCE - Provide for oneself

Having an income

There is statistics showing that the evolvment of women in the workforce is one of the most important factors for a growing economy and a successful strategy for developing countries.

An important part in the process of empowerment is to increase the lev-els of independence and the ability to provide for oneself. Microloan programs allow women all over the world to start a small business of their own.

Space should be provided to take part in activities that leads to the girls be-ing able to take care of themselves. As the home is temporary it might not be enough time for the girls to engage in a full-scale program. However con-nections should be made and contacts with other platforms and organisations provided.



3.9 BELONGING - Being part of a community

Part of a community

One important part in empowerment is the sense of belonging. Of having support and trust in other people in order to not feel isolated in your own fate.

Today the girls leave the home when their babies are born and anonymous to the new girls arriving. To understand that there are others that are a part of the community you need to know they exist.

How:

Apart from talking about the former girls and also reconnecting to them in a bigger scale than what is done today it can easily be demonstrated in a physical way. One suggestion is to have a wall where all the girls leave their handprints when they leave. In this way it is easy to have an overview of the scale of the organisations' work.



GLORIA 2015

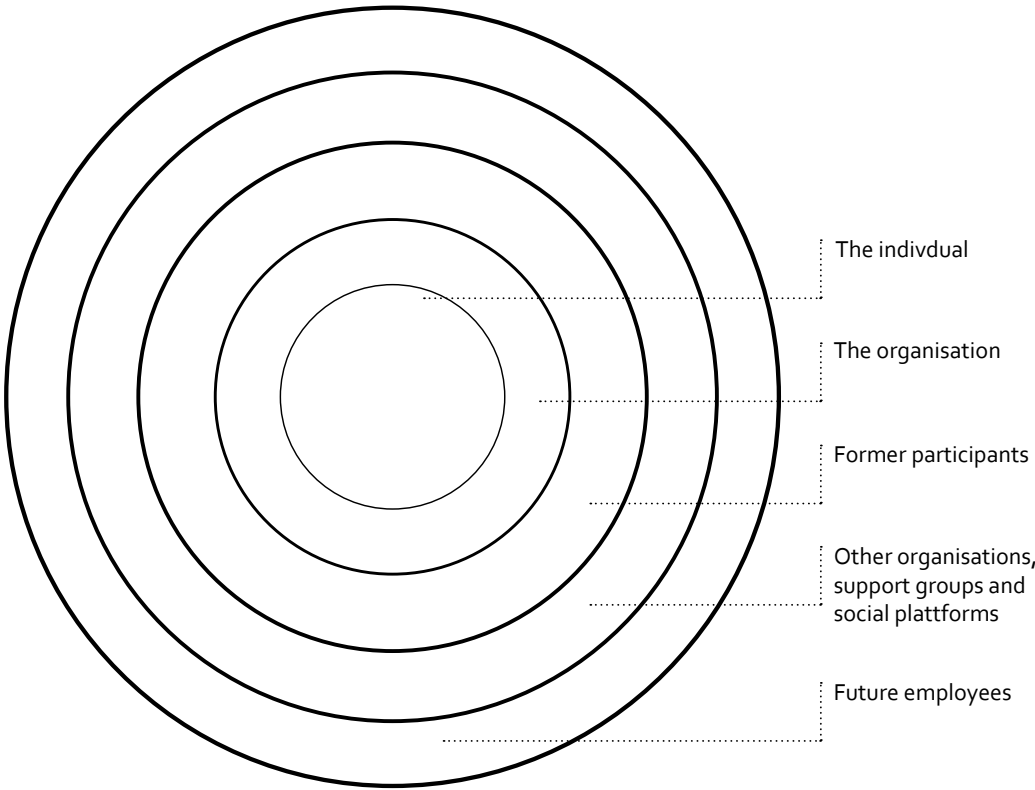


3.9 BELONGING - A social network

Belonging

Today the Fortress works isolated from other organisations and groups. They have some collaboration with a school and also the church. When working on personal development on an individual basis it is important to provide with tools for a future sustainable life.

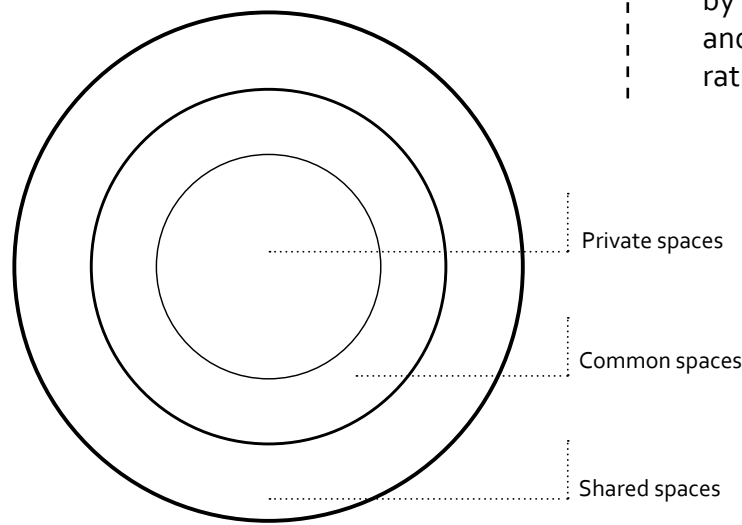
By connecting to other NGOs and organisations, as well as reconnecting to former girls The Fortress can expand its network and provide a platform for the girls to build up their future lives.



3.10SAFETY - In layers and in colors

Steel windows and walls

Theft and vandalism is common in Uganda and there is a strong culture of having your compound and house enclosed by a wall that is wired. At bigger estates a doorman is watching the gate for unwanted visitors all hours of the day. In addition to this most glass windows are complimented by steel bars for extra protection.



Different levels of safety

The stakeholders belong to a very vulnerable part of society and it is necessary to make sure they feel safe and are not harmed by outsiders.

Furthermore it is important to feel safe in the process of empowerment. Thus, the private spaces should be highly protected, such as bedrooms. Different layers of protection can be used in order to create a safe environment where the more public spaces can be less protected.

The elements of safety can be varied and by using features such as color, patterns and different materials they can be decorative elements in the settlement.

“It is important for the girls to feel safe in their home environment.”
- Josephine Nambatya

Figure 10: Patterns in concrete



Figure 11: Glass bottle wall



Figure 12: Compound surrounded by wall

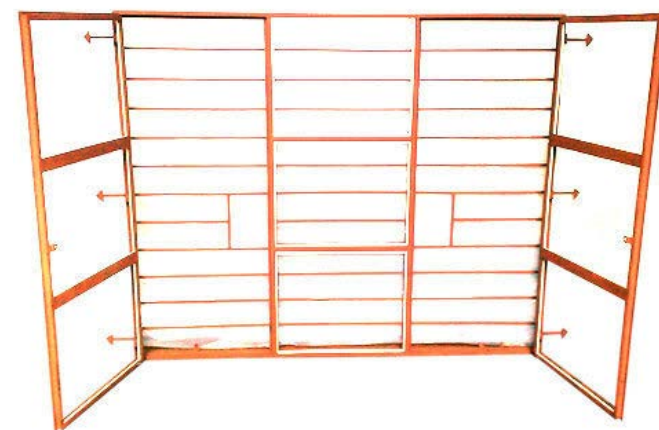


Figure 13: Steel bar window

Door at the Fortress



Figure 14: Colorful wall in South Africa



3.11 PROJECTS EXAMPLES

Challenges of Low Cost Housing

Today most developers target a middle class and on average the rent on housing units are about UGsh 500.000 per month. The Uganda Bureau of Statistics have estimated that by 2025 about 4.8 million people in Kampala will have no houses. Thus it is important to provide possible housing construction solutions for the low income parts of the population.

The Housing Project for Health Workers and Teachers in Lango and Acholi have been introducing environmental-friendly and cost-effective methods for construction by using alternative building materials and technology. The goal of the project is to reintegrate Northern Uganda by support of basic services such as health and schooling, this by providing housing for teachers and health workers.

The Masese Women Housing Project

The Masese Women Housing Project The project is located in Jinja town and was planned using adoptive approaches, being executed by a local NGO including beneficiaries. The project employed participatory methods through the whole process from identification, formulation, design, implementation, monitoring and evaluation. The target group was poor unemployed women who were engrained in skills of producing building materials for the construction of the building. The women were involved in the design as well as the actual construction of the project, resulting in small sized dwelling units with minimum utilities including a pit latrine. Apart from learning the production of building materials the women also learned how to make san plats, culverts and blocks for sale on the open market, providing them with an income.

The result show that the majority of the women are living in their own-constructed dwellings.

BeadforLife Housing Program for Women

The poverty eradication organization is based in Kampala and has helped 700 individuals, most of them women, with income through bead making. Half of the women have HIV, caring for their own and also orphaned children. Others are displaced by war or have serious health problems. The members are taught to make bead jewelry from recycled paper and are paid fair-trade prices for their products when sold in the US or in Europe. Through the program, participants earn 300.00-400.000 per month and are also educated about HIV

prevention, family planning and other things. The members also get training in business planning to enhance a long-term economic self-sustainability apart from bead-making. The women get support for their micro-enterprises after finishing the 18-month program.

In addition to this the BeadforLife has developed a Friendship Village in the Mukono district in order to further improve the participants well-being. In collaboration with Habitat for Humanity the organization developed 130 affordable houses. The mortgages of the house are paid in beads although beneficiaries are required to make a down-payment of USh 1 million in cash. (Shelters and Settlement Alternatives: Uganda Human Settlements Network, 2015).



"Your sole mission is to articulate your suffering in a way that emancipates you and empowers other women."

- Carole Radizwill

-

Women need to make sure that we honour and recognise our foremothers and connect with each other."

- Rosie Ros

"When higher education is disrupted, especially for women and girls, it does affect a country's ability to rebuild after conflict."

-Jennifer L. Windsor

3.12 CONCLUSION

The theory of Antonovsky as well as concluding notions about factors affecting empowerment (pride, independence, belonging and safety) stand as a backbone for the thesis and the design. The process of empowerment is highly important, not only for the individual but for the country where he or she lives. By encouraging a person to feel pride and take charge of her own life a more functional society is created. The situation of women in Africa and Uganda is very poor and they experiences abuse of various sorts. There are examples showing that being inspired by other women in the same situation is an important part in getting confidence in your own life.

When considering empowerment it is important to realise the difficulties of a cultural and social context. Some aspects in an individual's life are shaped by the surroundings and it might not be willing to change. However, the change

need to start somewhere and good examples will inspire people in their own lives. This is something to remember when working with a project such as The Fortress.

4.0

ANALYSIS

Organisation and spaces

With empirical research and theoretical studies in mind the organisation has been mapped out. Focus lies on possible improvements in space and structure of the organisation itself.



Small changes can
improve the
organisation greatly.

4.1 ORGANISATION

Restructuring

The organisation needs some restructuring to be improved. The Fortress works pretty much in isolation from other groups and NGOs and could easily expand the organisations possibilities by connecting to existing networks. This would widen the platform for the girls and make it easier for them to build a stable platform for themselves in the future.

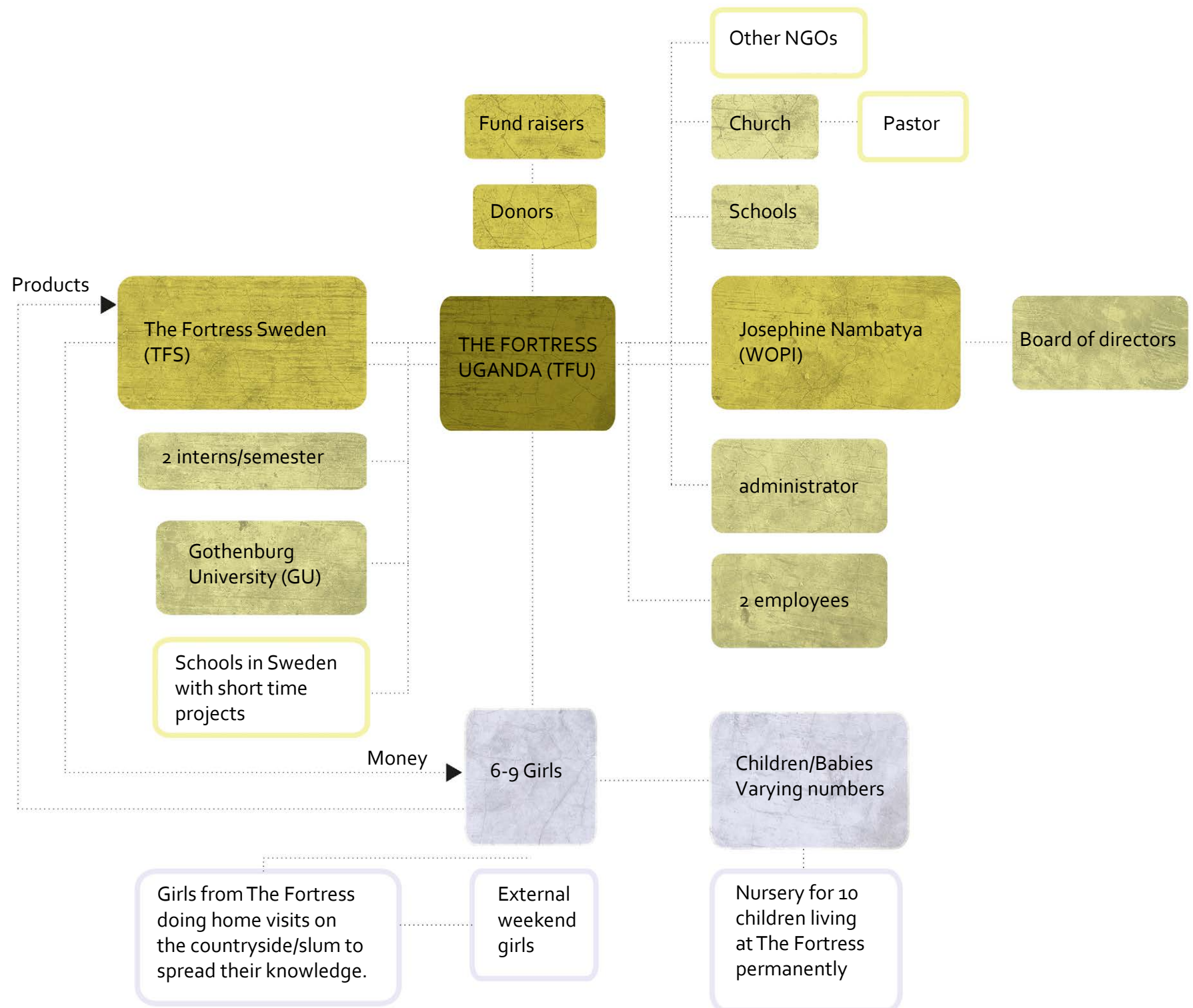
Expanding

One of the major changes is to expand the organisation and also divide the workload among the employees. As it is now Josephine has a lot on her table, making some parts of the program slow as they all require her attention. If some tasks, such as the reconnection to the families and home visits could be taken care of by someone else that has

more time the process would be more efficient and also have better quality. In addition to this the collaboration with other organisations and NGOs that focus on young women, with running programs, would enable The Fortress to help the girls more thoroughly. As it is now many of the girls leave The Fortress and end up where they started. Some of the girls have a drug problem when they move in and by placing them in the same environment it might be a danger for themselves but also for their child. If The Fortress can connect them to existing programs they can get help to shape a more sustainable future and be able to provide for themselves if successful.

Spaces needed

In order to understand what spaces are needed, daily activities have been mapped out. Many of the activities are overlapping and can share spaces, other require specific platforms. The spaces needed have been listed in connection to what the program requires but also what the girls themselves think is necessary to create a good home.



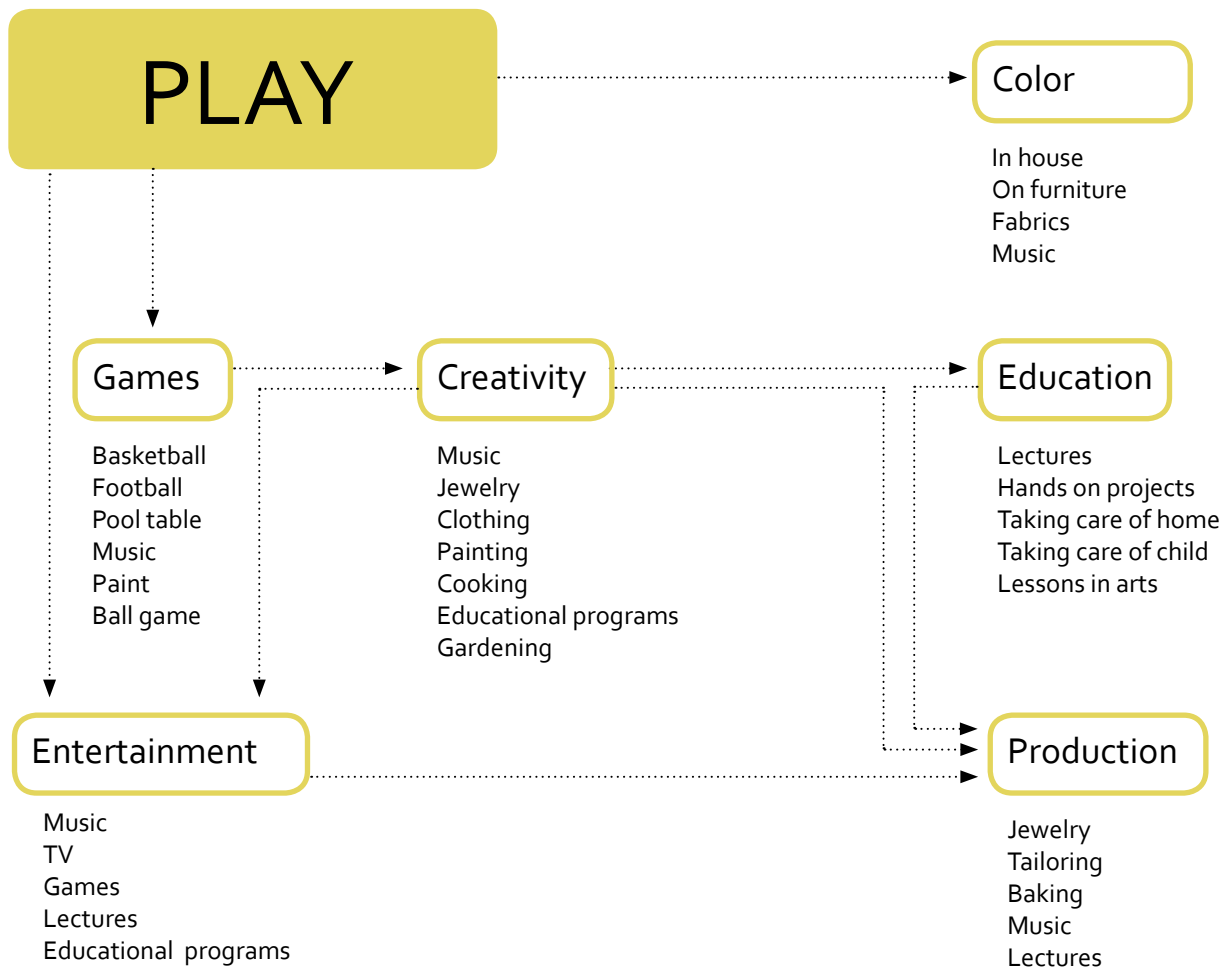
**“We need to have more
things to do, as it is now we
mostly sit around and do
nothing!”**
- The Fortress Girls



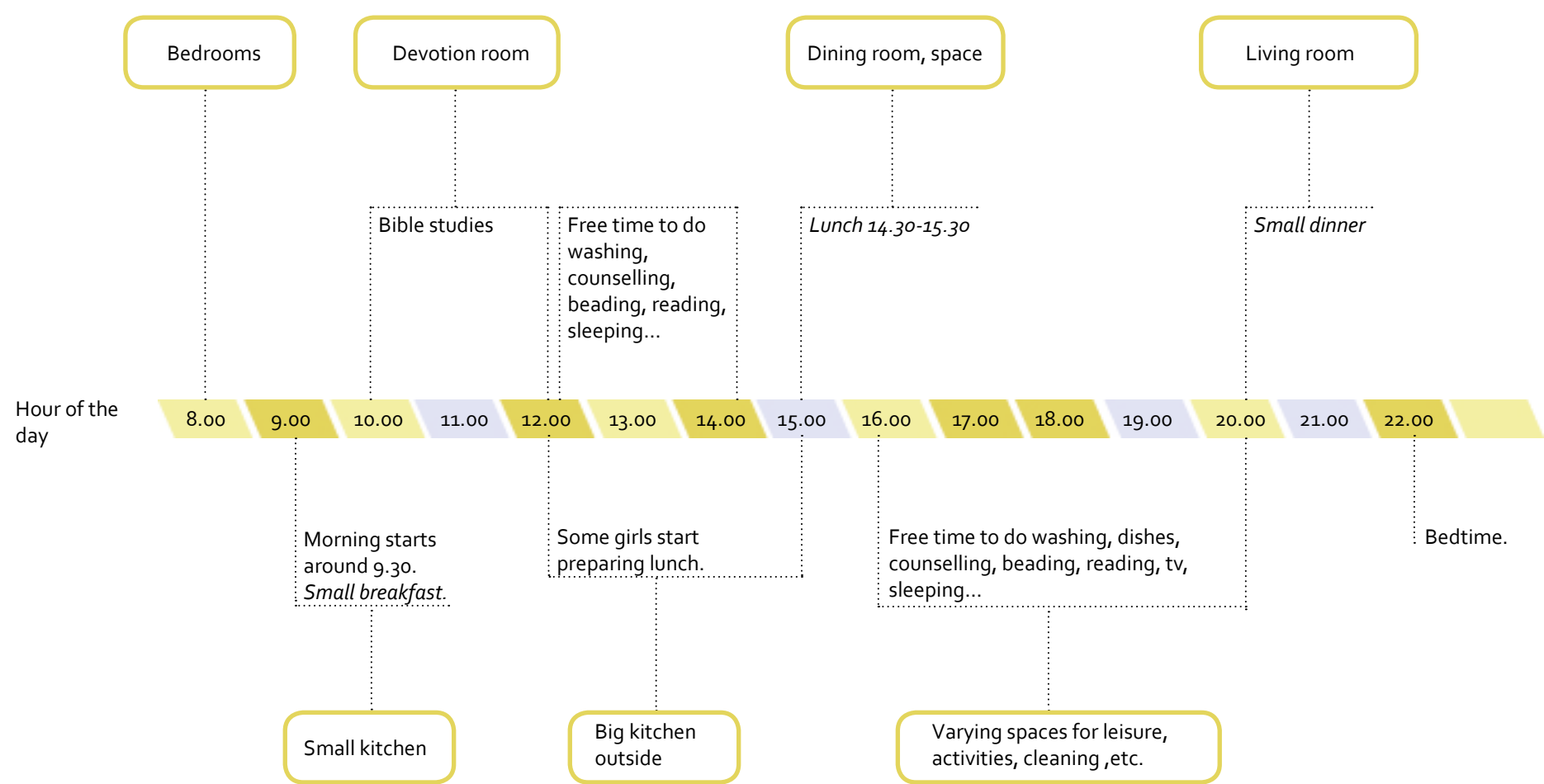


4.2 BOREDOM - Activating the girls

One issue at The Fortress today is that the girls have very little to do. Apart from Bible studies, cooking and production of jewellery there are few daily activities to engage in. To recognise what is lacking the girls were asked to state what they would like to do in their free time. They are young and they still have a desire and need to play despite the fact that they are to become mothers. This will be considered in the design.



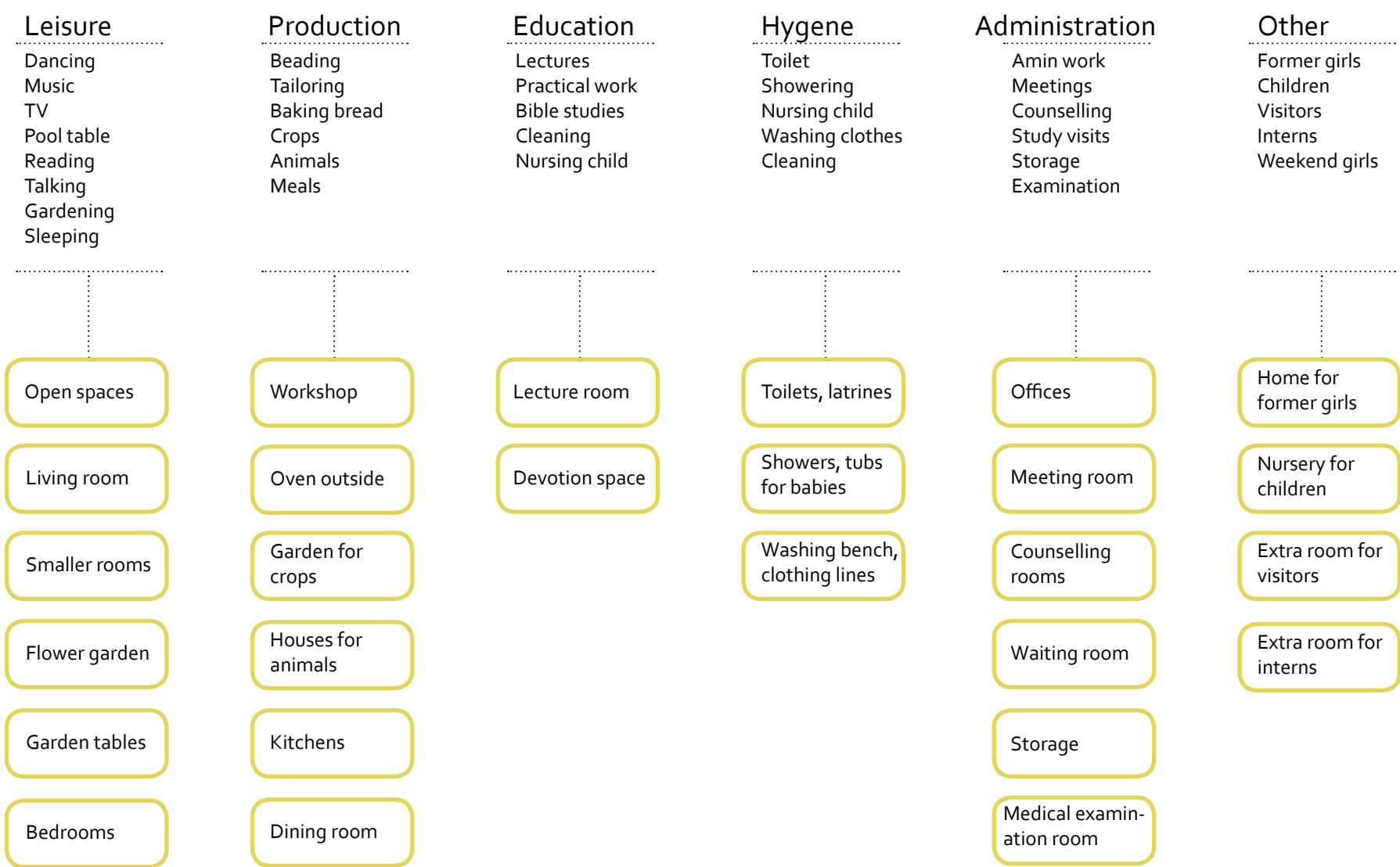
4.3 A DAY AT THE FORTRESS - & spaces needed





"We want to teach
other girls what we
have learnt at The
Fortress." - Shamim

4.4 SPACES NEEDED - Summary



5.0

CONTEXT

Uganda

In order to make a proposal suitable for Uganda, the local context needs to be understood. The following section focuses on aspects of cultural traditions, building techniques and local materials.

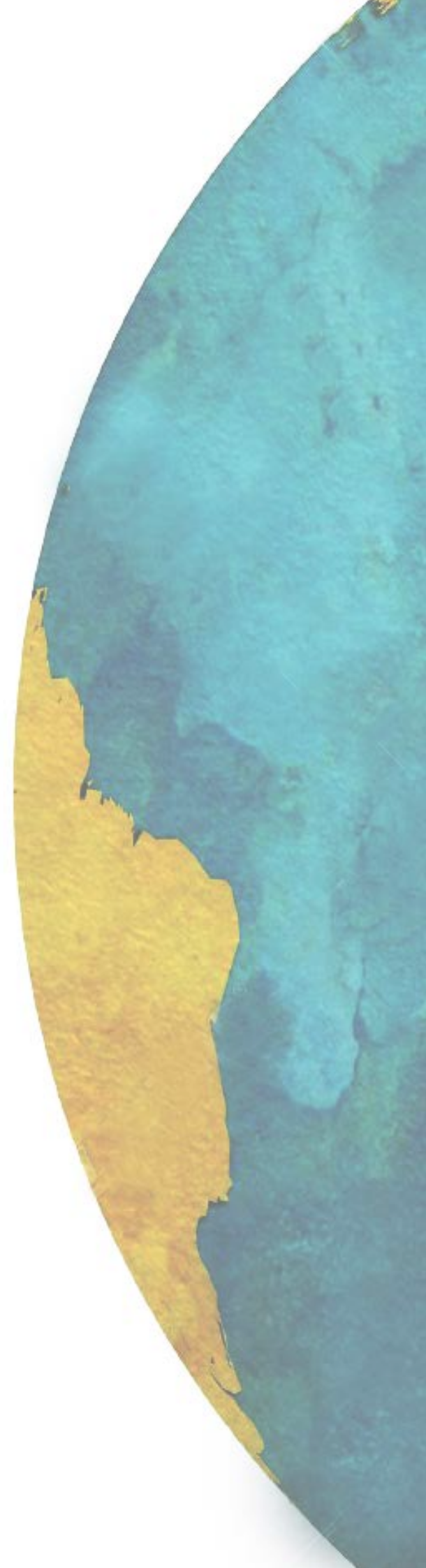




Figure 15: Globe

5.1 UGANDA

Population: 35,918,900

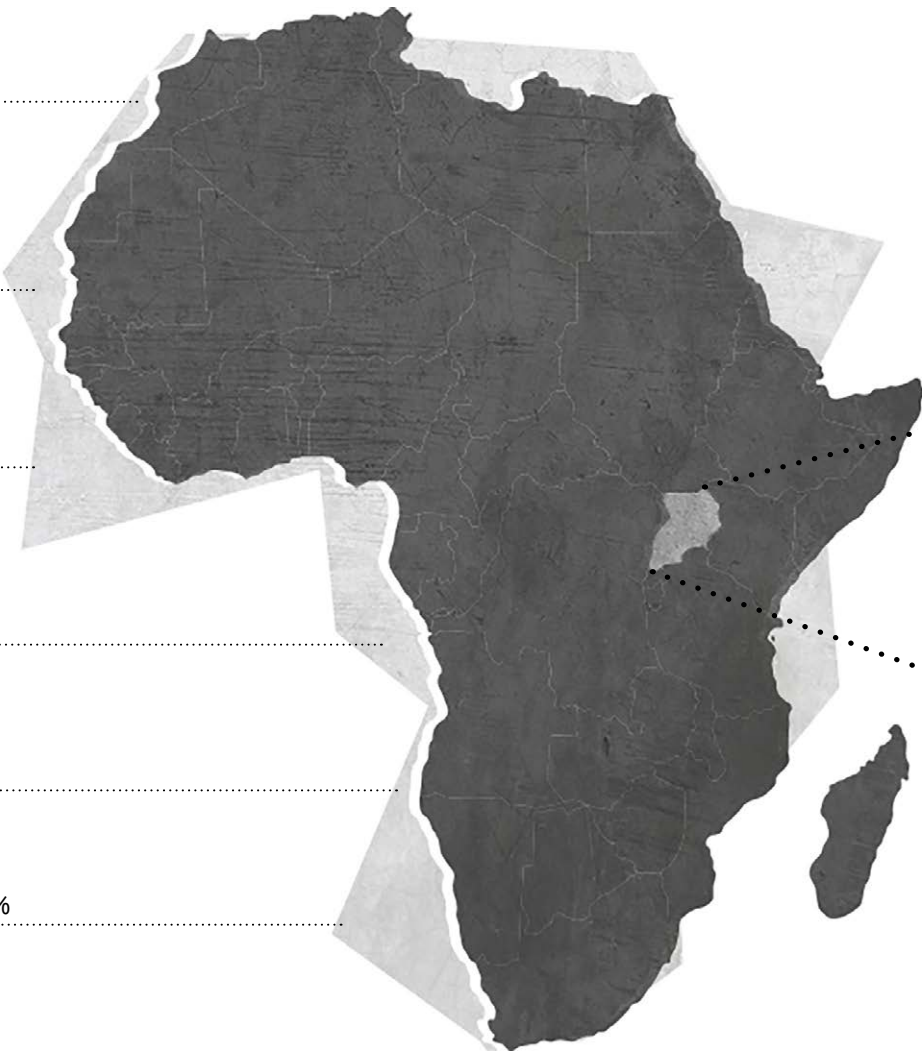
Percentage of population living in urban areas: 15.6 %

Population between ages 30 and 70 years: 22.5 %

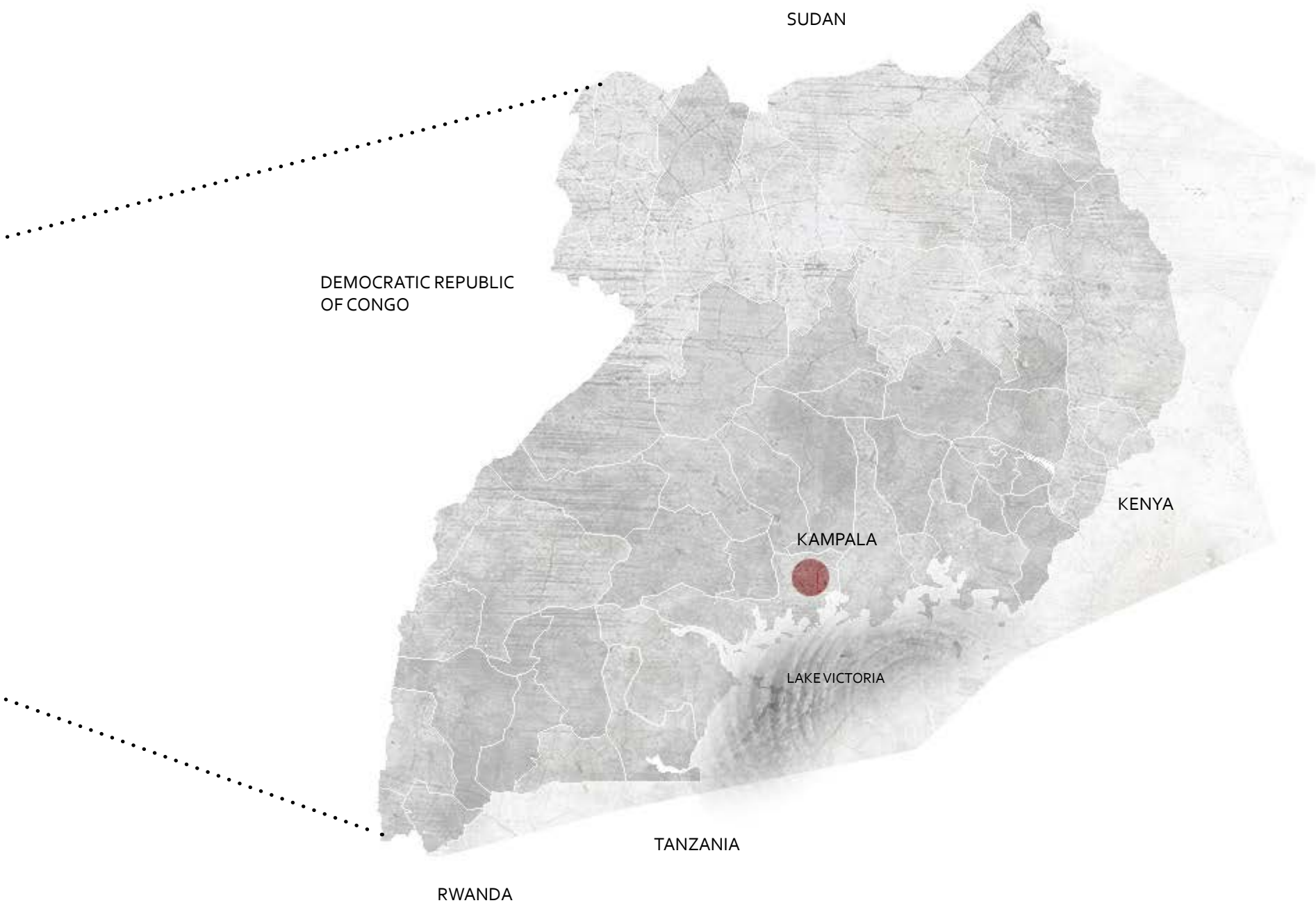
Income level: Low

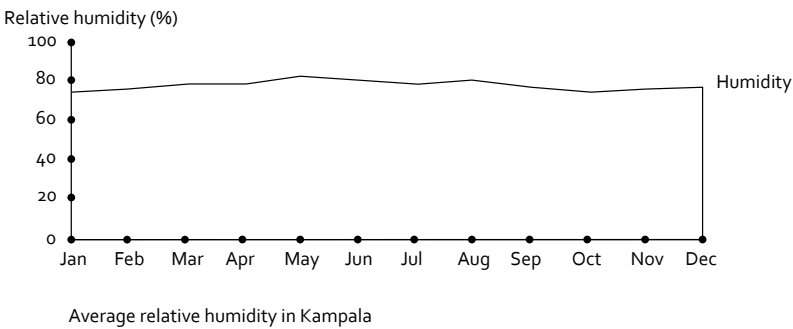
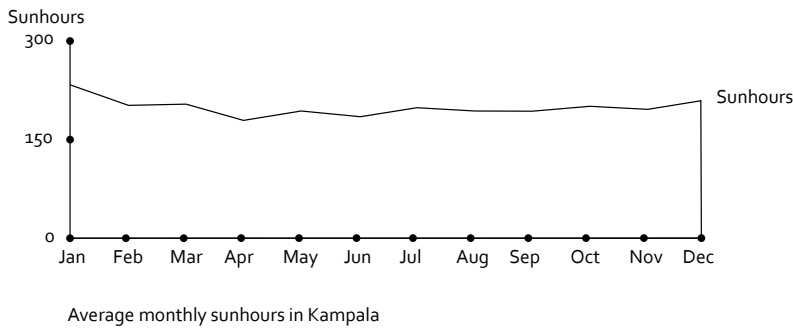
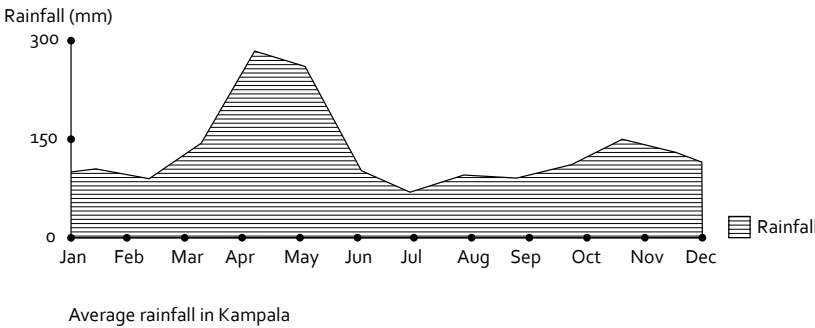
38 Languages

Literacy total population: 73.2 %



(Index Mundi, 2015)





5.2 KAMPALA

History

Kampala is spread out over several hills and dates back to 1981 when the Kabaka (king) of Buganda had his court on Mengo Hill and became a city in 1962. Out of the country's 36 million people about 2 million live in Kampala, the capital of Uganda. Prior to Idi Amin's rule in the 1970s, Uganda had one of the richest economies in Africa. Due to the political instability in 1970s and 1980s there were fewer jobs outside of Kampala. This encouraged a massive movement into the capital and it grew rapidly, also after the revitalization of the economy in 2000s.

Wetlands

Kampala has several wetlands. Some of them have been turned into dumping sites for factories and garages. When it rains effluents are carried into the water

bodies and most of the wetlands have been heavily contaminated by industrial and domestic waste. The pollutants are absorbed by the crops growing in the wetlands and it is illegal to grow food on some of Kampala's wetlands. However this ban is trespassed as the ever-increasing population of the capital is in great need for any food sources. (Barlas, R., Yong Jui, L., 2010)

Climate

Kampala has a tropical rainforest climate and two annual wet seasons (aug-dec and feb-june). And temperature can vary a lot. In general the south of Uganda shares the same tropical climate as Kampala. The city has a slightly milder climate due to its location near Lake Victoria and cooling breezes come down from the mountains. Due to the geographical position of being close to

the equator there is little year round fluctuation in temperature and no real winter or summer. The hottest months are in January and February when the average daytime range is 24-22 °C with peaks up to 40 °C in the north south has two wet seasons: from September- November and also March- May. The dry season in December-February means that is rains less, the gorilla parks remain fairly wet under these months. The second dry season June-July is considerably drier. However with an annual rainfall of 1000-2000 mm it can rain at almost any time. (New World Encyclopedia, 2014)

KAMPALA	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max Temperature °C	27	27	27	26	26	25	25	25	26	26	26	26	26
Average Temperature °C	22	22	22.5	22	22	21	21	20.5	20.5	21	21.5	21.5	21.5
Average Min Temperature °C	17	17	18	18	18	17	16	16	16	17	17	17	17

(Clima Temps, 2015).

The city in relation to Uganda

Kampala is located in Uganda’s most prosperous agricultural section and exports coffee, cotton, team tobacco and sugar. It is the main market for the Lake Victoria region. The city also has numerous food, metal-products and furniture factories. Uganda’s roads, varying in quality, radiate from Kampala. The city lies on the railway from Kasese to Mobasa in Kenya. Boda-boda (moter-cycles) are popular modes of transportation in the capital.
<http://www.newworldencyclopedia.org/entry/Kampala>

Slums in Kampala

The World Bank has cautioned that Kampala could become a mega slum, instead of a mega city, in the next 10 years in no action is taken to improve the quality of infrastructure and commercial investment. The population

of the capital keeps expanding; especially the youth is migrating from the rural areas searching for employment. Today about 6.4 million Ugandans live in urban areas, however The World Bank anticipates that the number will be 21 million by 2040. “The challenge it that this requires integrated urban planning to attract more investments in the city” says the World Bank County Director for Uganda, Tanzania and Burundi, Mr Philippe Dongier, regarding the rapid population growth of Kampala. “By urbanizing effectively with all the necessary infrastructure and increased investments in urban centres Uganda will be more likely to achieve midde income status by 2040.
<http://www.monitor.co.ug/Business/Kampala-mega--slum-10-years--WB/-/688322/2646356/-/hkqoosz/-/index.html>

Wakaliga

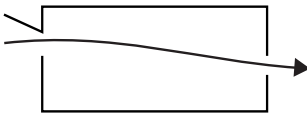
Today The Fortress is placed in Wakaliga which is a suburb to Kampala. Wakaliga is a Local Council Zone and the lowest unit in the governments decentraliza-tion system. Nearby cities are Kampala, Entebbe and Butembo. Coordinates: 0°18’8”N 32°32’32”E

5.3 HOW TO DESIGN IN A TROPICAL CLIMATE

Natural ventilation



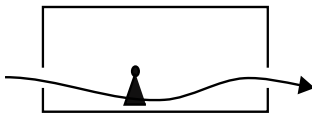
Hot air flows above head.



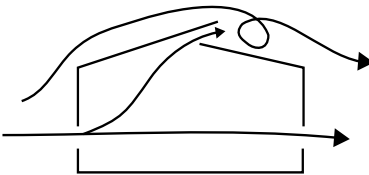
Wind entering under canopy.



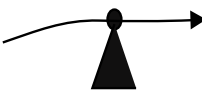
Air from below to above is efficient.



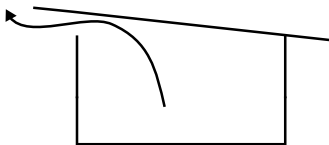
Cool breeze is felt.



Heat exists.



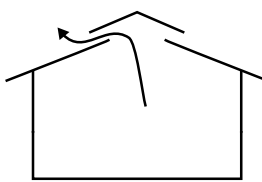
Hot air close to head feels warmer.



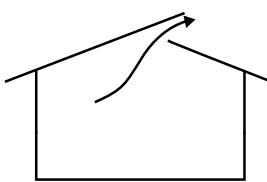
Hot air exists.



Hot air exists.

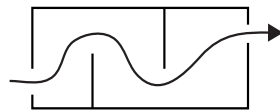


Openings at upper parts of walls/roof allows heat to escape as hot air rises.

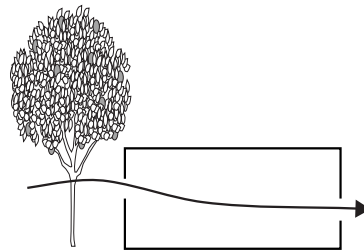


Hot air exists.

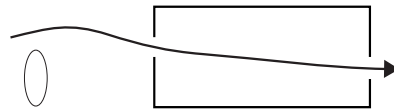
Using obstacles



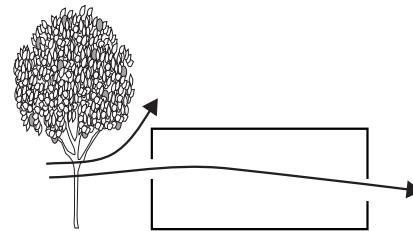
Cross circulation is more efficient such as openings at lower or above parts of doors.



High trees allows the breeze to enter the building to cool it.

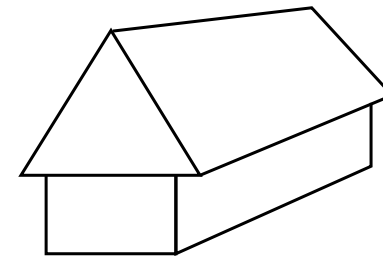


6 m to hedge

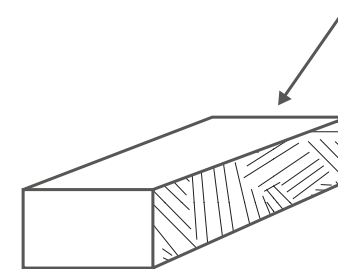


3 m to tree

Sun protection



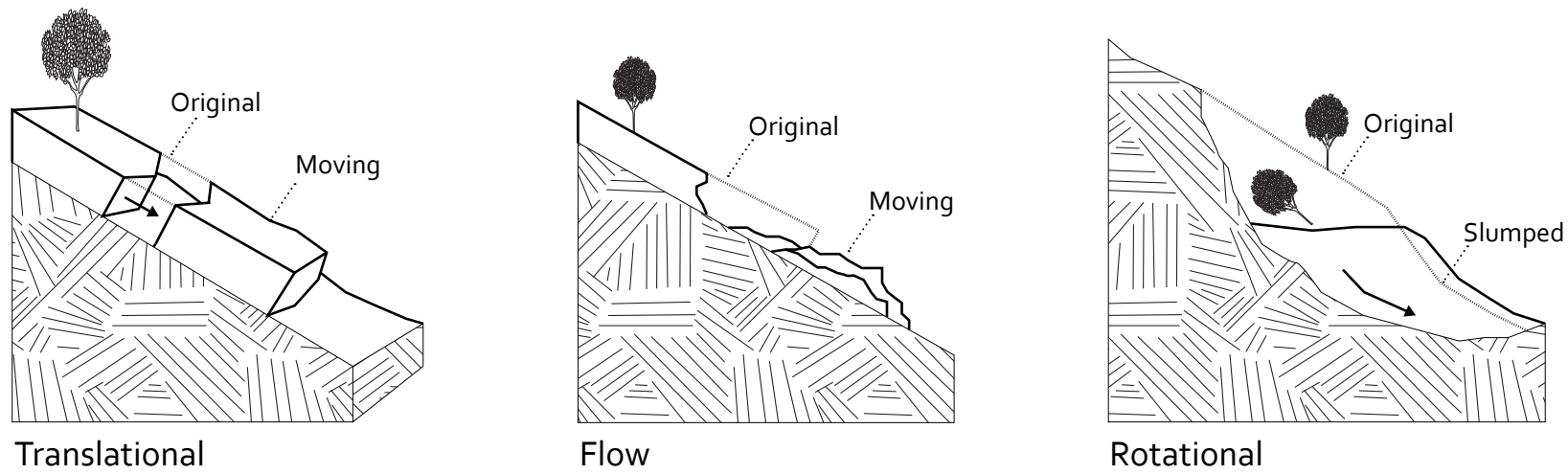
Large tilted roof is better than a flat one, allowing water run-off while also heating only the upper parts of the rooms. The extended roof protects the walls from sunrays.



Protecting the longest walls of the buildings from the sun is important.

5.4 TERRACED SITES ON CLAY IN EARTHQUAKE AREAS

Variations of landslide

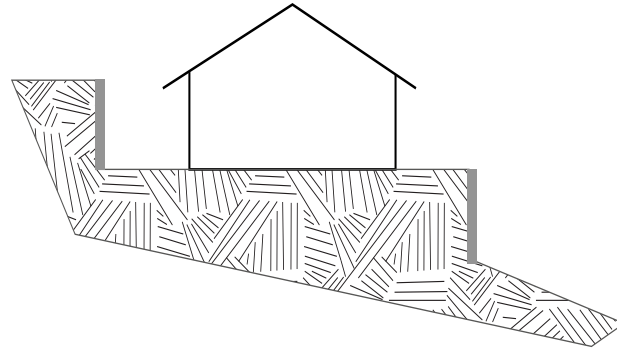


(Geoscience Australia, 2015)

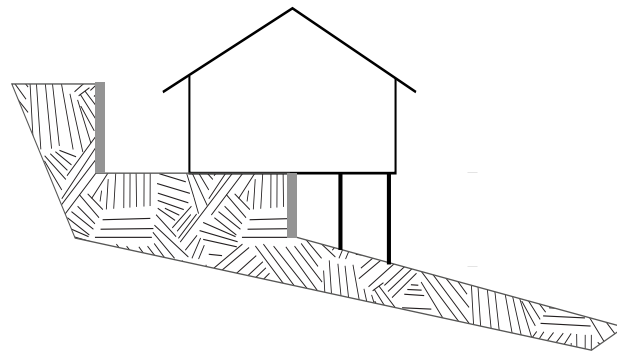
Figure 16: Landslide Kenya



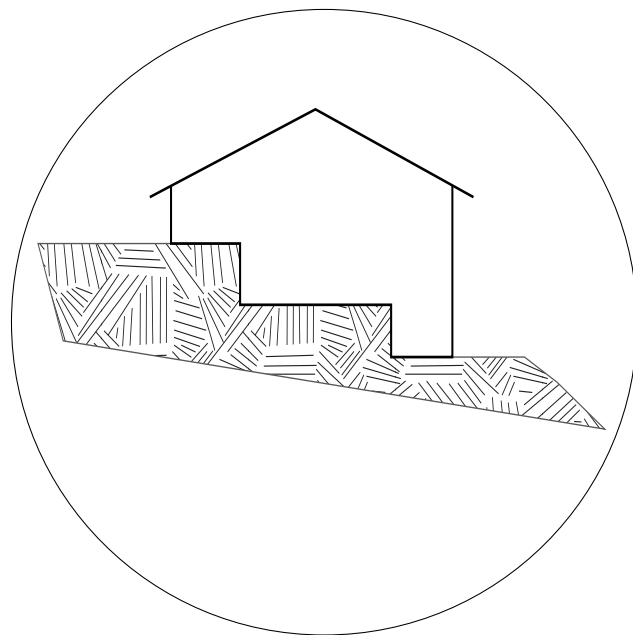
Terraced buildings



To prevent landslide the site needs to be excavated. Excavation is expensive and extension walls would be needed to prevent landslide. This would create a big difference in height if the slope is steep.



Another form of excavation. Still expensive.



Separating the floors and foundations is the cheapest alternative to avoid landslide.

5.5 ENERGY

Energy

Burning renewable resources provides much energy in Uganda and the government plan to become energy self-sufficient. Uganda is at the moment experiencing huge deficit in electricity and a large part of the population does not have access to it at all. Those who do have electricity suffer from frequent power cuts called local shedding. (Barlas, R., Yong Jui, L., 2010)

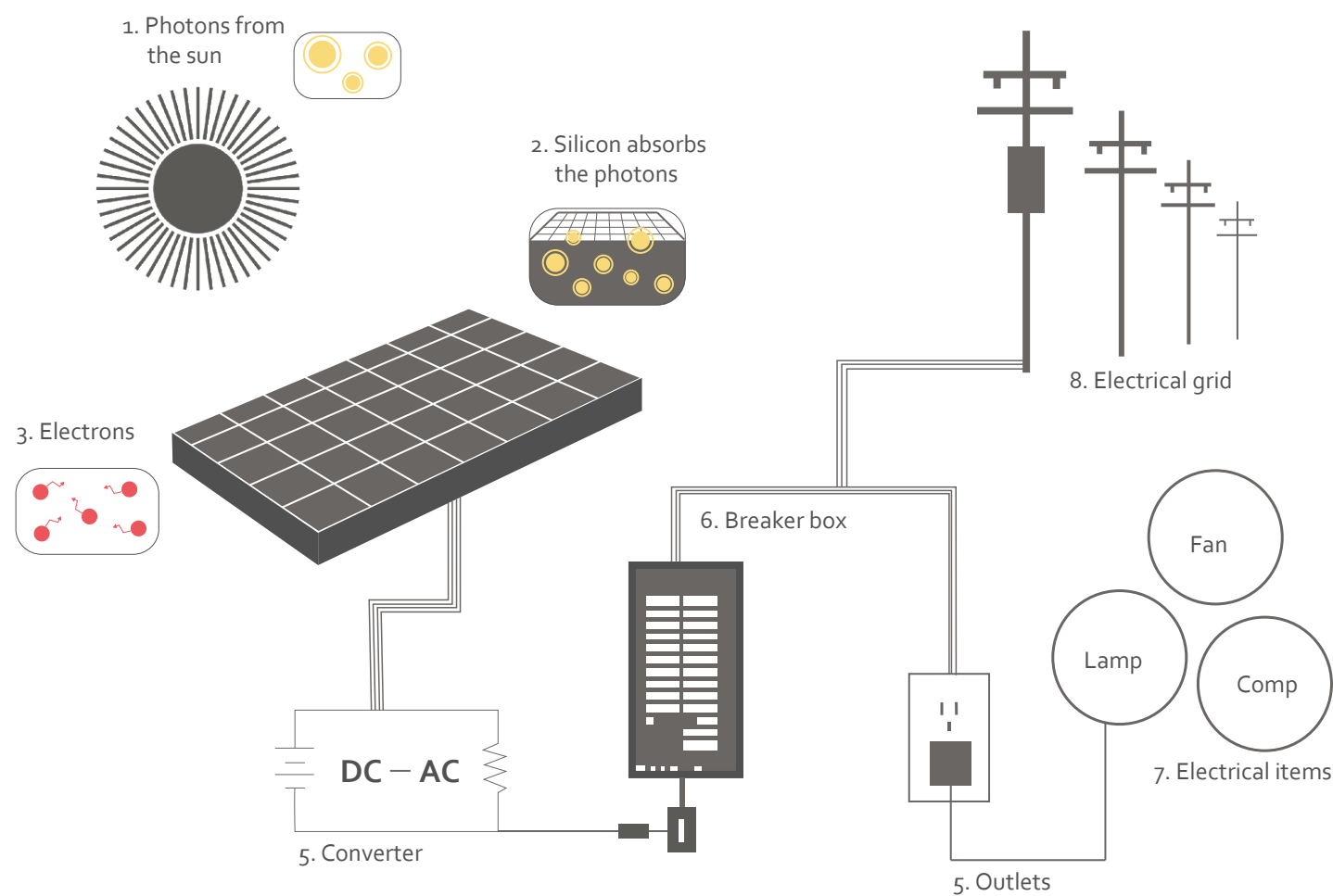
Air pollution

The poorer parts of the population depend on biomass fuels such as firewood, charcoal, solid waste and kerosene for cooking and heating. Firewood and charcoal account for 88 % of Uganda’s total energy consumption and are the leading polluters in these households. Food cooking takes a lot of time due to slow methods and there have been attempts to improve stoves and renewable energy sources such as solar ener-

gy to reduce exposure to indoor pollution. Women and children are exposed greatly as they spend more time near cooking fires. Outdoor pollution in cities such as Kampala is getting worse as the numbers of vehicles keep increasing.

An alternative to burning fuels is biogas. However, the system is not fully developed and available today. (Van Lengen, J. , 2008)

5.6 SOLAR ENERGY



- 1. Sunlight contains tiny particles of energy called photons.
- 2. When the sunrays hit a solar panel, material inside the panel (usually silicon) absorbs the photons.
- 3. The photons excite the electrons inside the silicon until they begin to break away forming an electrical current.
- 4. Copper wiring inside the panel services as a highway for the current.

- 5. The direct current (DC) travels out of the panel through a control device called a converter, which converts it alternating current (AC) which we use.
- 6. The electricity then passes from breaker boxes to outlets throughout the building.
- 7. Electrical items such as lamps, computers and fans can now run on pollution-free energy.
- 8. If anything is not used it can go back to the electrical grid and be used by someone else.

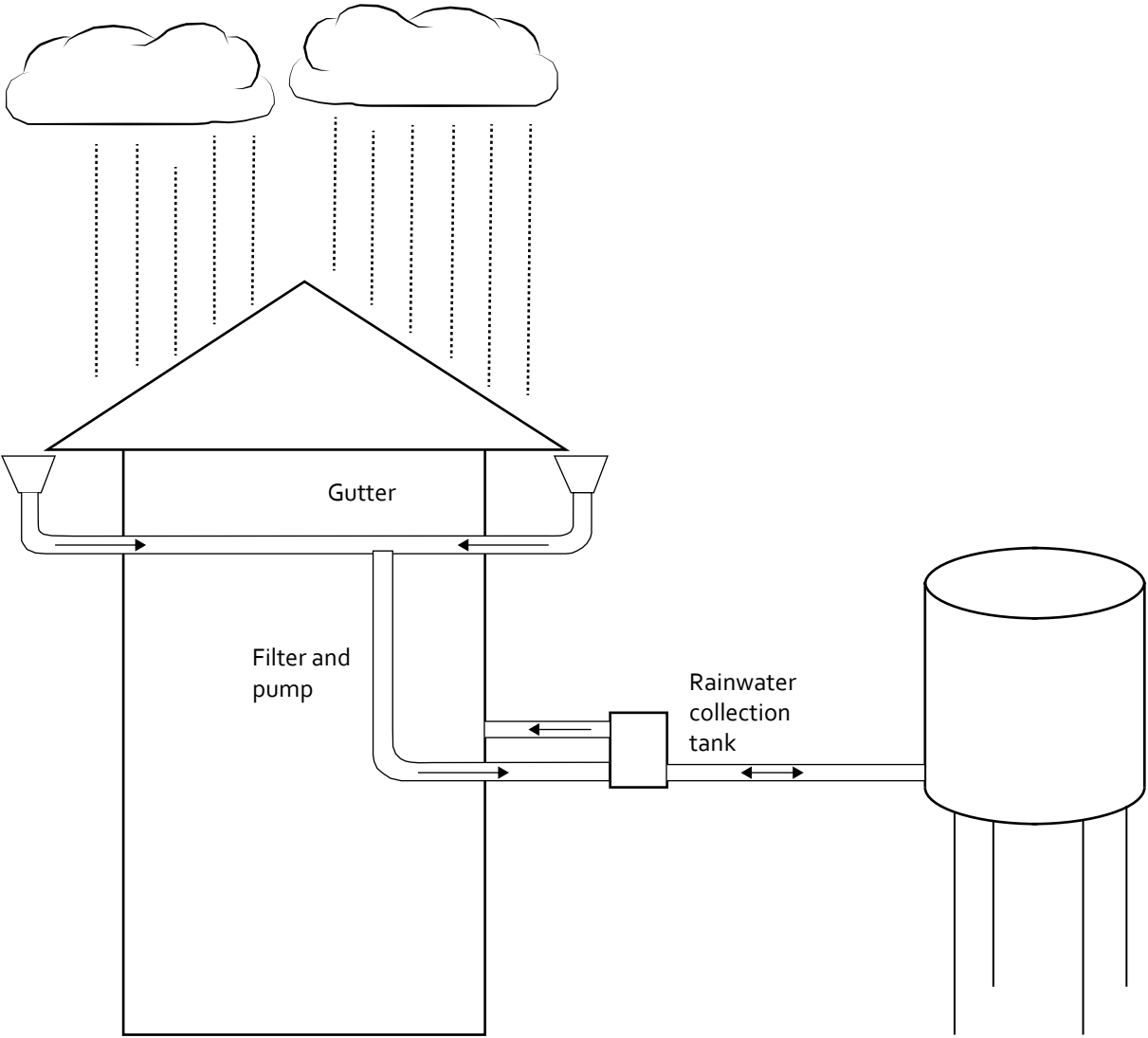
(Solar Power, 2015)
(Joint Energy and Power Projects, 2013).

5.7 WATER

Water

Uganda as a country has a lot of fresh water, however, distribution is uneven and increasing amounts are needed due to population growth, urbanization, agriculture and industrialization. The water level in Lake Victoria has been receding with the results that vast investment to enable water supply to Kampala, Entebbe and Jinja was necessary. Pollution of the lake due to a heavy fish-export industry, growing algae and growing population has affected the ecological health of Lake Victoria. The water supply and sanitation sector did great progress in the 1990s and attracted international attention, although in 2004 only 44 % of the rural population had access to an improved water source. Rural areas do in general have less access to safe water sources than the urban areas.

Wastewater treatment is limited and the National Water and Sewage Corporation (NWSC) carry out a primary and secondary treatment in Kampala and Masaka. If the quality of the water reaches national environmental standards it is released into an artificial or constructed wasteland or directly into the environment.
(Lakota Water Company, 2014).



5.8 RISE PADDIES - Watersystem for terraced plantations

Water is collected at the top of the terraces and led down through the plantations, taking advantage of the differences in heights. (Wonderful Indonesia, 2015).



Figure 17: Rise paddies on Bali

5.9 RECYCLING

Recycling

Uganda has a challenge when it comes to excessive waste, especially in urban areas such as Kampala. Plastic bags are a great environmental threat to Uganda. Most bags are washed into drains, watercourse and ground into the earth and it leaves the soil laced with plastic. In many urban areas a layer of plastic and contaminated soil prevents the rain from soaking through leaving the water stagnating in pools and intense with methane gas bubbles.

The Living Earth Foundation has setup an Enhancing Plastic Waste Collection Program, collecting tons of plastic each year and promoting biodegradable plastics. In Kampala the waste management is carried out in a toxic practice much due to corruption.

Poor areas of the city do not receive any service at all. In slums and shantytowns plastic bags are a breeding ground for disease and people also use plastic bags for toilets and then they are just tossed on the streets. The government has put bans for the usage of some plastics and suggests banana-filter and papyrus baskets as alternatives. (Barlas, R., Yong Jui, L., 2010)

5.10 WASTE MANAGEMENT IN KISUMO

Waste management group of Kibuye

Kibuye is an open air market in Kisumo and is one of the biggest of its kind in Africa and has existed since the colonial period. Traders serve you with almost anything you want from clothing, shoes, bags, grocery, haircuts, furniture among many other things.

A market of this size faces challenges regarding its waste management system, which up until last year was non-existent. However, in 2014 Kibuye Market Waste Management CBO was formed by a group of traders aiming to remove organic waste from the market and make a profit out of it. Some groups are collecting metals and plastics for recycling, however 70 % of the waste that is produced at the market is organic. The group has tried to raise awareness among traders as to how plastics and other waste should be disposed in the dumpsters and sorts and removes

organic waste from the pathways of the market.

The organic waste is placed in a compost pile which is covered with a plastic sheet to keep it moist and warm in order to help the process of decay. Half way along the process the pile should be flipped in order to keep the process even. It takes about three weeks for the process to be completed.

After this the compost is dried before it is to be grinded by hand or by using a machine in order to create the final manure. The product is then packaged in sacks and sold at one of the stalls at the market to be used for growing crops. A mechanical grinder can also make animal feed from food waste.

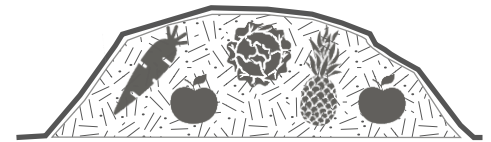




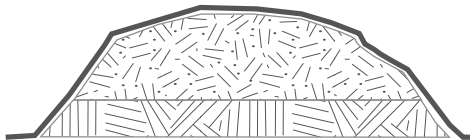
Waste is collected in dumpsters or thrown on the ground.



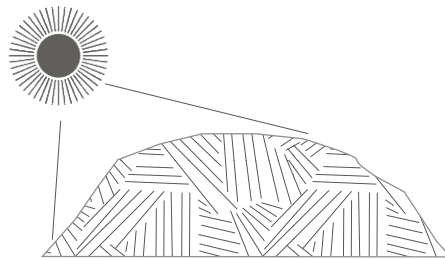
Organic waste is sorted from inorganic waste.



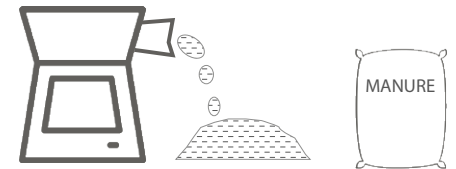
The organic waste is piled together and covered with a plastic sheet to keep it humid and warm.



The pile is turned once at half-time in order to achieve an even compost.



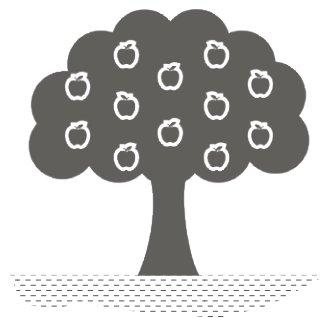
After 3 weeks the process is completed and the compost is dried.



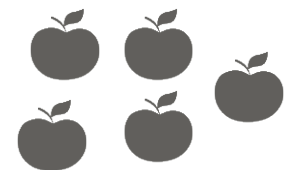
The compost is grinded by hand or by using a machine and the manure is then packed in sacks.



The manure is sold locally at the market.



Costumers use it for gardening and plantations.



The plants produce new organic waste and the cycle is re-started.

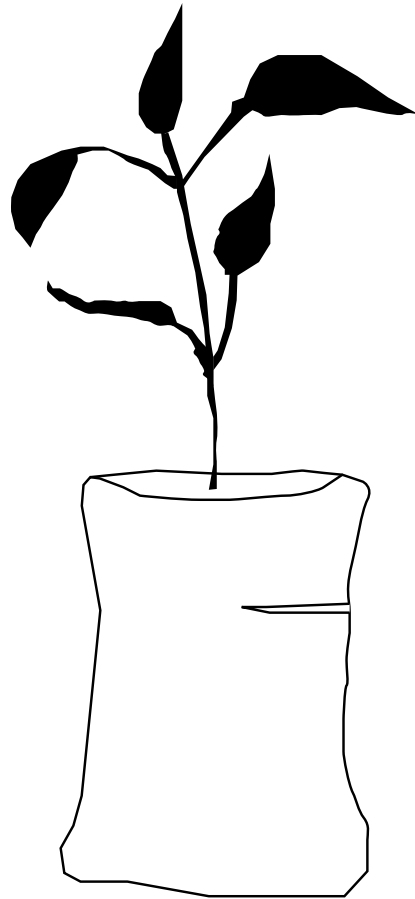
Figure 18: The Noun Project

5.11 FLOWER AND TREE NURSERIES IN KAMPALA

Agriculture

There are many flower and tree nurseries along the roads leading to residential districts in Kampala. They are planted in polythene bags that have been used for milk, fruit drinks and other groceries. Many residents eat vegetables grown in re-used polythene bags. (Levenstone, M, (2008).

The land in Uganda is very lush, and McKinsey & Company's report on Africa's potential projected that the continent could reach about \$880 billion in agricultural output by 2030. In 2009/2010 the agricultural sector made up 24.8 % of the country's GDP. However, some low-technology farming techniques creates low productivity, limited value addition and lack of commercialization. (Afara Global, 2015)



Flower market in Kampala

5.12 PROTECTION AGAINST MOSQUITOS

Malaria

Areas with malaria: All
Estimated relative risk of malaria: High
Drug resistance: Chloroquine
Malaria species: *P. falciparum*> 85 %
P. malariae
P. ovale
P. vivax

Malaria is the leading cause of morbidity and mortality in Uganda and places a huge burden on the country's health system. There are different programs acting in order to prevent malaria and increase knowledge about the disease. Training and supervision of health workers in integrated management of malaria including risks at pregnancy is one important part. Other than this surveillance data is collected, insecticide resistance is managed and monitored, and behavior communication activities. There are several Malaria Operational Plans with detailed one-year implementation plans for President's Malaria Initiative (PMI) focus countries. Each plan reviews the current status of malaria control and prevention policies and interventions. (CDC, 2015). (PMI, 2016).

Protection

The easiest and most important measure to prevent malaria is to protect yourself from mosquitos. Indoor spaces should be protected with mosquito nets and most importantly the area where you sleep. If the house is placed closed to dense green areas or water it is important to have protection not only at night time.

Malaria % 2008-2012:

Antimalarial treatment among febrile children (sleeping under a bednet) : 64.5 %

Children sleeping under an insecticide- impregnated bednet: 42.8 %

Households with at least one child with fever receiving anti-malarial drugs: 59.8 %

(Unicef, 2013).



Figure 19: Mosquito net



Figure 20: Mumbai Studio uses a thin metal net to keep indoor protected against mosquitos while letting airflow and light enter the building.

5.13 LOCAL MATERIALS

Introduction

Materials that are commonly used for construction of houses in Uganda are stone, cement, sand, burnt bricks, mud blocks, mud and wattle, adobe and timber. Mass concrete and cement blocks are mostly used in high class commercial and public buildings. Rarely stabilized soil cement and lime bricks are used, however the technology is not fully developed yet. Integrating new technologies such as interlocking stabilized soil blocks (ISSB) in the educational system is an important feature for the development of the construction industry in Uganda.

There has been a boom in the construction industry in Uganda since the liberalization of the economy in 1990. There are several actors in the construction sector in Uganda including government institutions, parastatal bodies, non-governmental organizations, community

based organizations, local council, opinion leaders, private developers. However the different actors are not well synchronized and the sector is poorly organized. Corruption also affects the process of construction greatly. (Shelters and Settlement Alternatives: Uganda Human Settlements Network, 2015).

Materials

Roof Construction
Iron sheeting is the most common material for roofs. Production of clay tiles is mainly done in formal industries and the costs are too much for low and medium income households.



Figure 21: Steel sheet roof

Timber
Timber species of various kinds are available in Uganda such as mahogany, mvule, pine, elgon, olive, nkoba, eucalyptus among others. In the construction sector timber is used for making roof trusses, shutters, doors, windows, furniture and tools.

Due to problems with termites timber needs to be hardwood and preferably protected on the lower parts towards the bug. There are chemical and bio-based treatments available.



Figure 22: Termites attacked the wood.

5.14 BRICKS

Earth materials

The types of materials available are depending on the conditions of the building site and surrounding areas. In many areas stone is available from the local region such as limestone, marble, granite and sandstone. Ideally stone from the building site can be used for structural blocks, facing blocks, pavers and crushed stone depending on the type. Both brick and stone materials are durable and need little maintenance. Exterior walls weather well and it eliminates the need for constant refinishing and sealing. An interior use of brick and stone provide excellent thermal mass or provide radiant heat. Some stone and bricks are ideal for flowing or exterior paving materials, remaining cool in summertime and also possessing good thermal abilities for passive solar heating.

Most brick plants are located near the clay source where the bricks are mould-

ed and baked of clay. There are structural bricks, face bricks, roof tiles, structural tiles, paving bricks and floor tile.

Rammed earth
Rammed earth consists of walls made of moist and sandy soil or stabilized soil which is tamped into form work. The soil should contain about 30% clay and 70% sand and the walls a minimum of 12cm. Rammed earth is often used for walls, however it can also be used for floors. Rammed earth, as well as Caliches blocks, can be used for structural walls and are low-cost alternatives with a low embodied energy. These materials are also fireproof. Soils for traditional adobe are not found in some areas but other optional soils are available.

Adobe (sun-dried bricks)
Adobe is used in Uganda. The bricks are considered to be temporary, not standardized and varying in their quality. As

a result they are no officially accepted in urban environments. Sun-dried bricks are produced and used mainly by an informal sector for low-cost living. Though not popular in their current form they can be improved by stabilization, compression and standardization and to a great extent help to alleviate the housing problem in Uganda.

The usage of local available earth materials has many advantages in terms of sustainability:

- It reduces energy costs related to transportation
- It reduces material costs due to transportation costs
- It supports local businesses
- Rammed earth and bricks can be produced on site.



Figure 23: Burnt brick wall

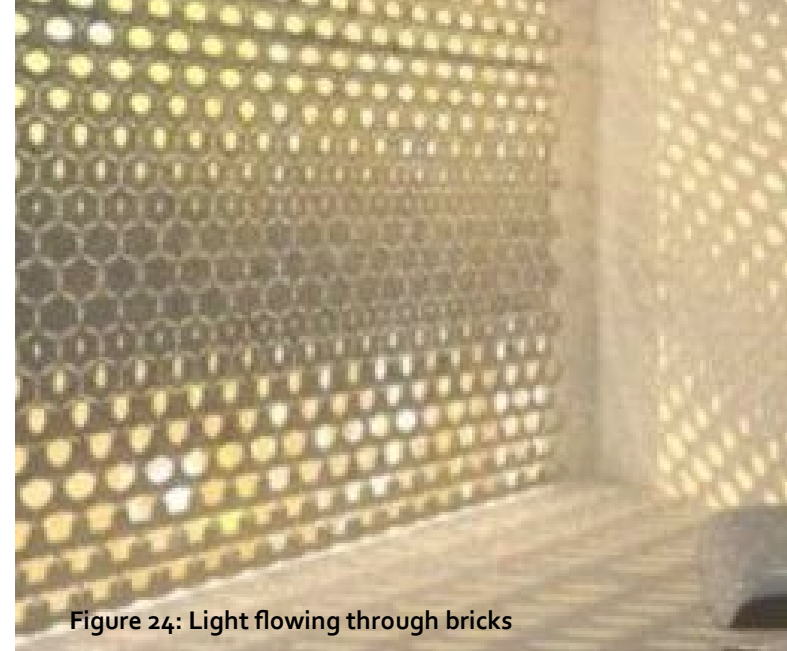


Figure 24: Light flowing through bricks



Figure 25: Floor tiles



Figure 26 Brick building by Zhang

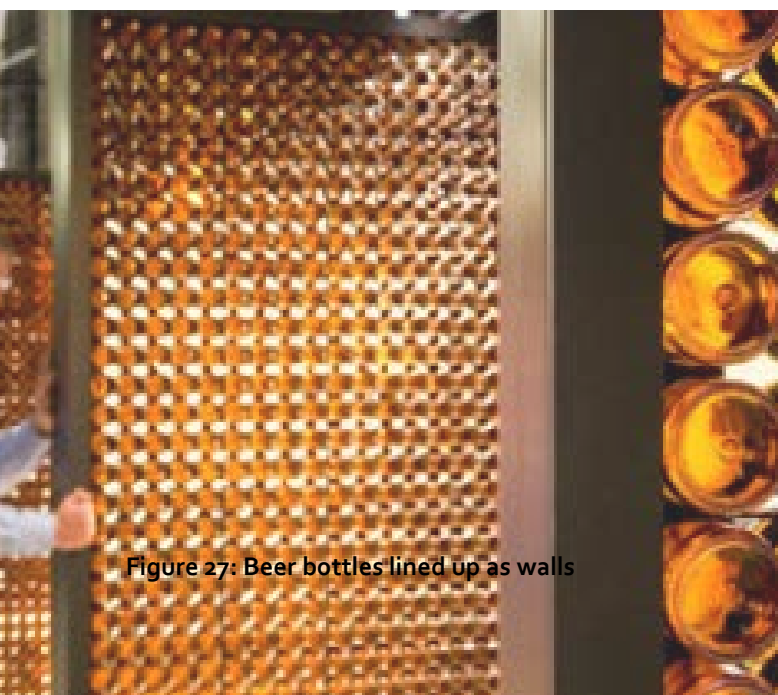


Figure 27: Beer bottles lined up as walls

Bricks can be shaped and arranged in many different ways. Gaps, added materials and production routines provides a great variety for the design.

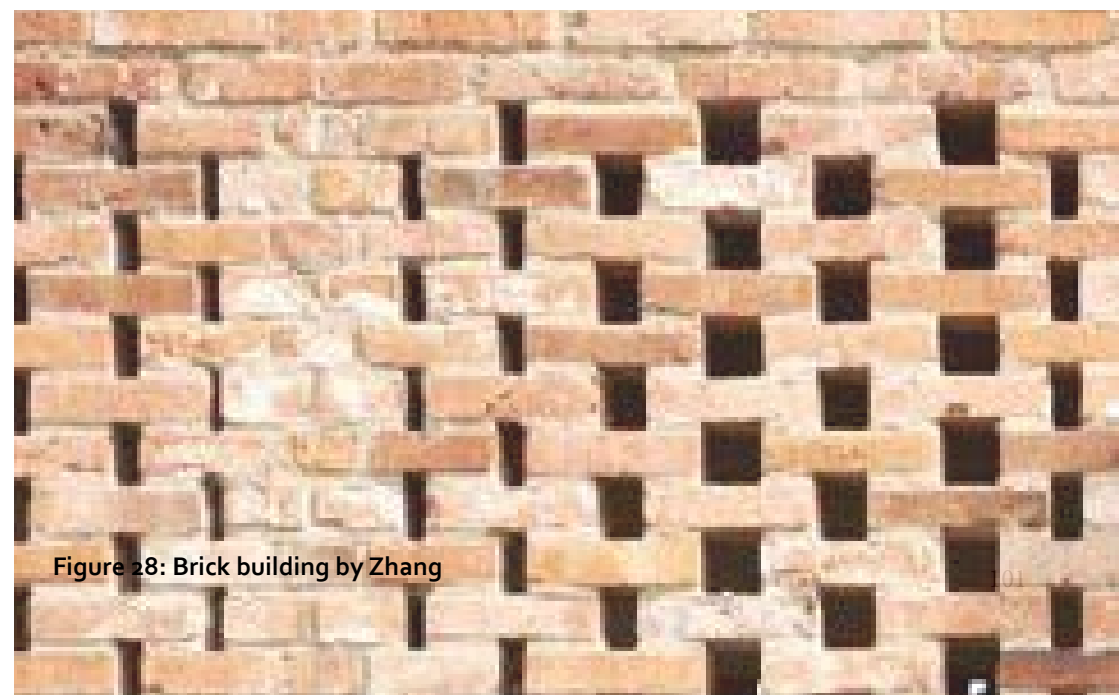


Figure 28: Brick building by Zhang

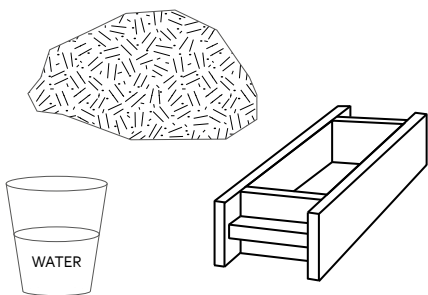
5.15 SHAPING BRICKS

Bricks

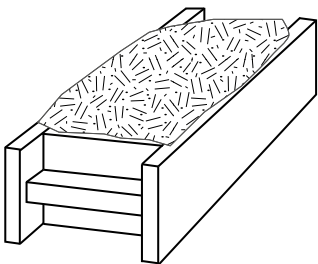
There are many advantages with using adobe and rammed earth. In Uganda bricks are mostly used though and the tradition is strong in construction and production. On the countryside bricks you find bricks stacks burning in front of every second house. If you have clay and water available it is cheap to produce. Despite the high rates of energy it takes to burn bricks, it is the best option in the rural areas of Kampala today.

To produce one brick it costs about 30-40 UGX (0.1 USD) if you have your own clay at hand.

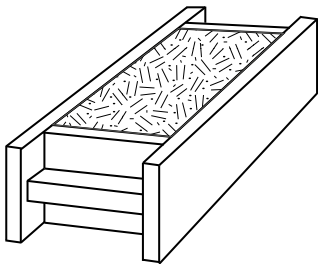
To buy an already produced brick it costs about 300 UGX (10 USD).



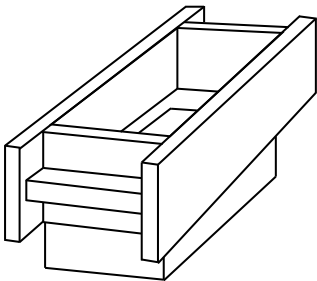
Sand and water is mixed, sometimes cement is added. Water is sprayed on the frame to prevent clay form sticking to it.



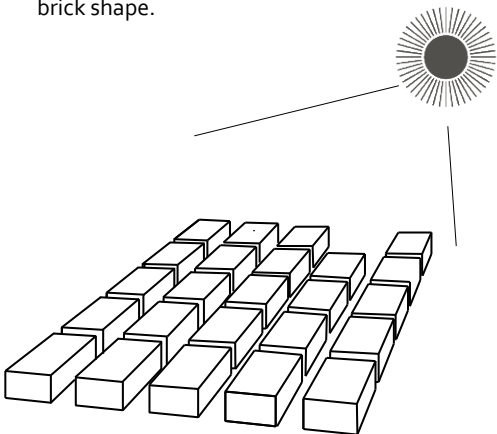
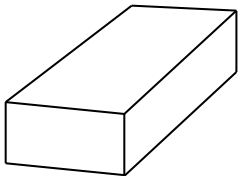
The clay is moulded into the frame and pressed in order to fill out all corners.



The top layer is scraped of by hand in order to get a smooth and regular brick shape.



The finished brick is sensitive regards of losing its shape and should be handled with care.

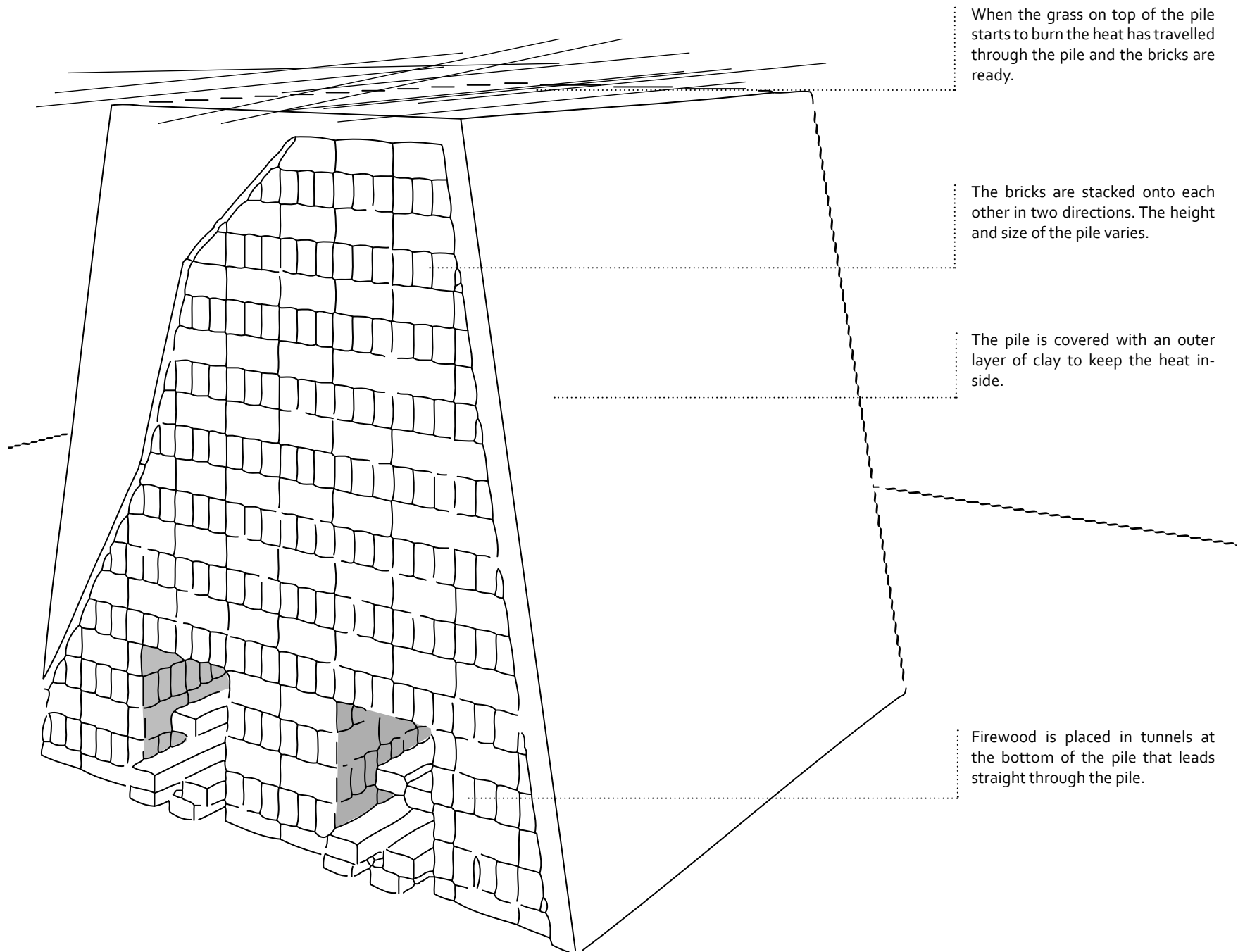


The bricks are left to dry in the sun for minimum 24 hours before they are burnt. They are flipped in order to dry evenly.



Bricks burning in Kampala

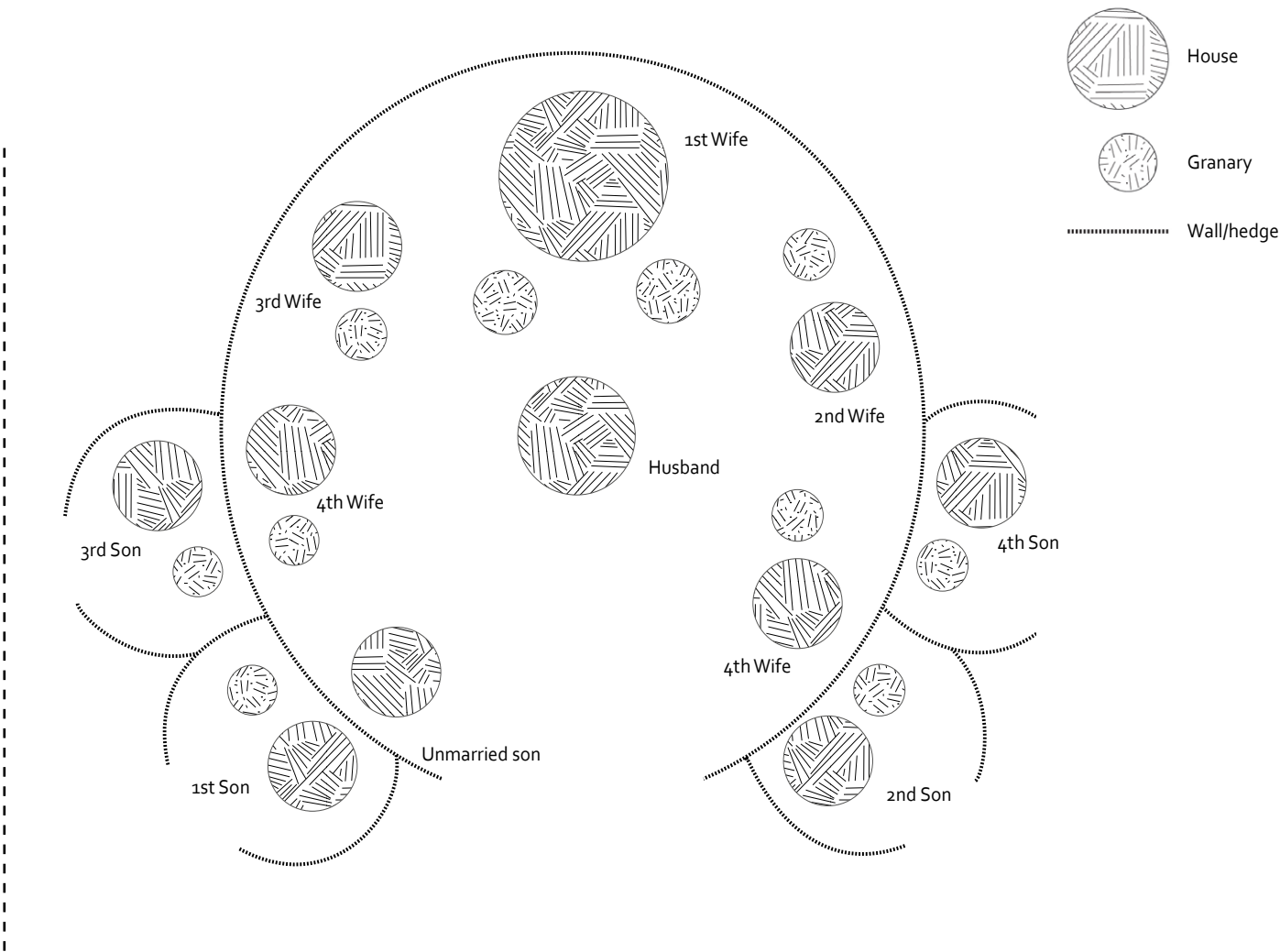
5.16 BURNING BRICKS



5.17 TRADITIONAL VILLAGE STRUCTURE

Polygamist traditions

The pattern of traditional pattern of Ugandan village structures are well-established and in accordance to a polygamist family tradition. When a new home was established the husband decides the position of the fence and gate. Then the house of his first wife is build opposite to the gate and close to the fence, his own house is placed in the middle of the compound. His second wife would be given a house to the right of the first wife and a third wife a house to the left. Every new wife would be given a house according to the same system. Each wife would have at least one granary (storage space) in relation to her house. When his sons were taking families they would be placed around the compound. (Cultures in Context Series, 2013).



5.17 TRADITIONAL VILLAGE STRUCTURE



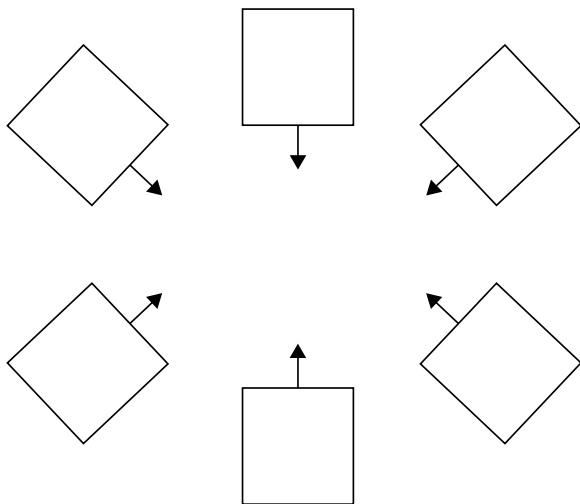
Figure 29: Traditional hut.
Traditionally the village structures are round and made of clay or bricks with a straw roof.



Figure 30: Traditional village
Big families share the same compound where walls divide the area into private and semi-private spaces.



Figure 31: Traditional village
A big wall surrounds the whole village.



5.18 MODERN VILLAGE UGANDA



Modern rural structure
The houses are rectangular and usually made of bricks and mud, covered with an iron sheeting as a roof.



Modern rural village
The buildings are surrounded by vegetation.

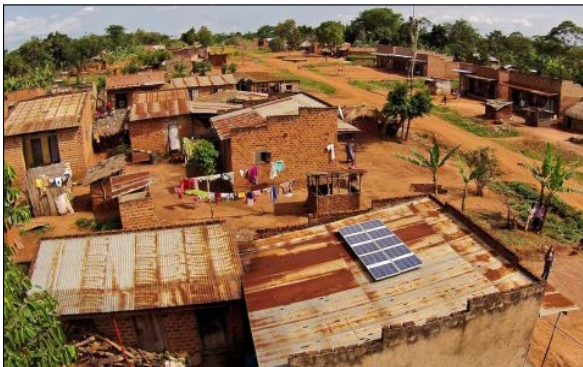
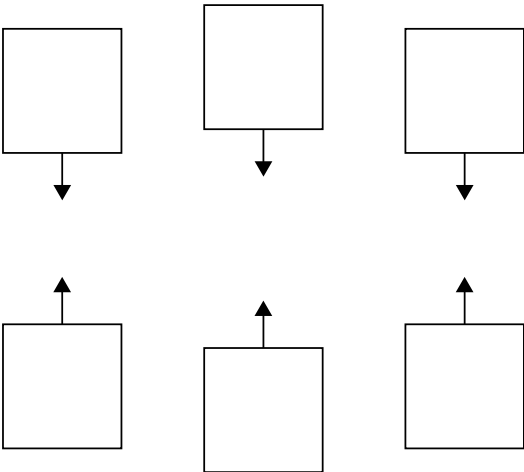
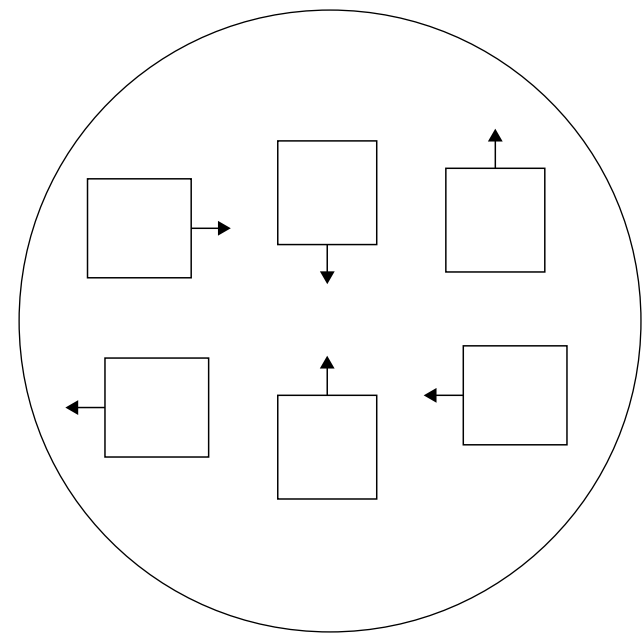
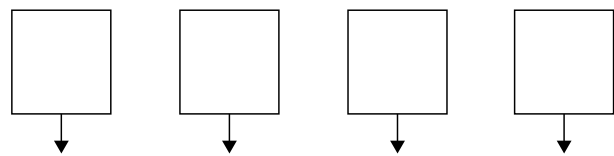
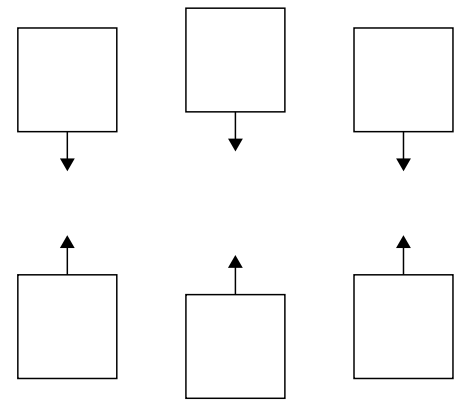
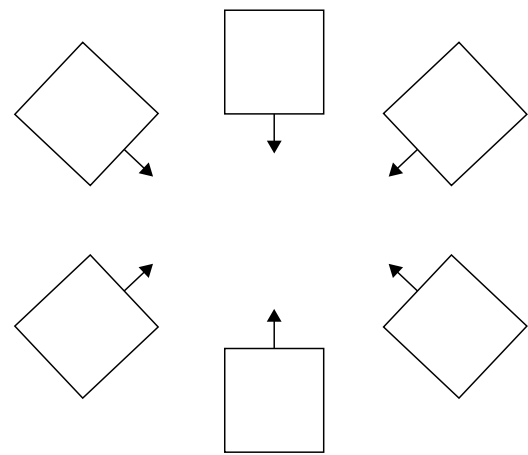


Figure 32: Modern rural village
In a modern village in Uganda the buildings are usually placed beside each other facing a connecting road.



5.19 DIFFERENT WAYS TO ARRANGE BUILDINGS



This structure gives a diverse village structure and flat hierarchy.

Traditional roof construction in Bombo



5.20 A STUDY OF LOCAL KITCHENS STRUCTURES

- Site visits at a school and a Children's home.



Coal and firewood in a mix on a low level. The kitchen is separated from the house but enclosed and does not allow fresh air to flow through.



Firewood is placed at the bottom of big cylinders which enables to the cook to produce food for 5000 students. Placed outdoors.



They use firewood in big stoves, with holes for the pots at the top. The kitchen is placed outside the main building.

5.21 A STUDY OF OUTDOOR SPACES

- Site visits at a school and a Children's home.



A construction made of poles and banana leaves. The space is used for studies and other activities.



A big porch provides an outdoor shaded space for leisure.



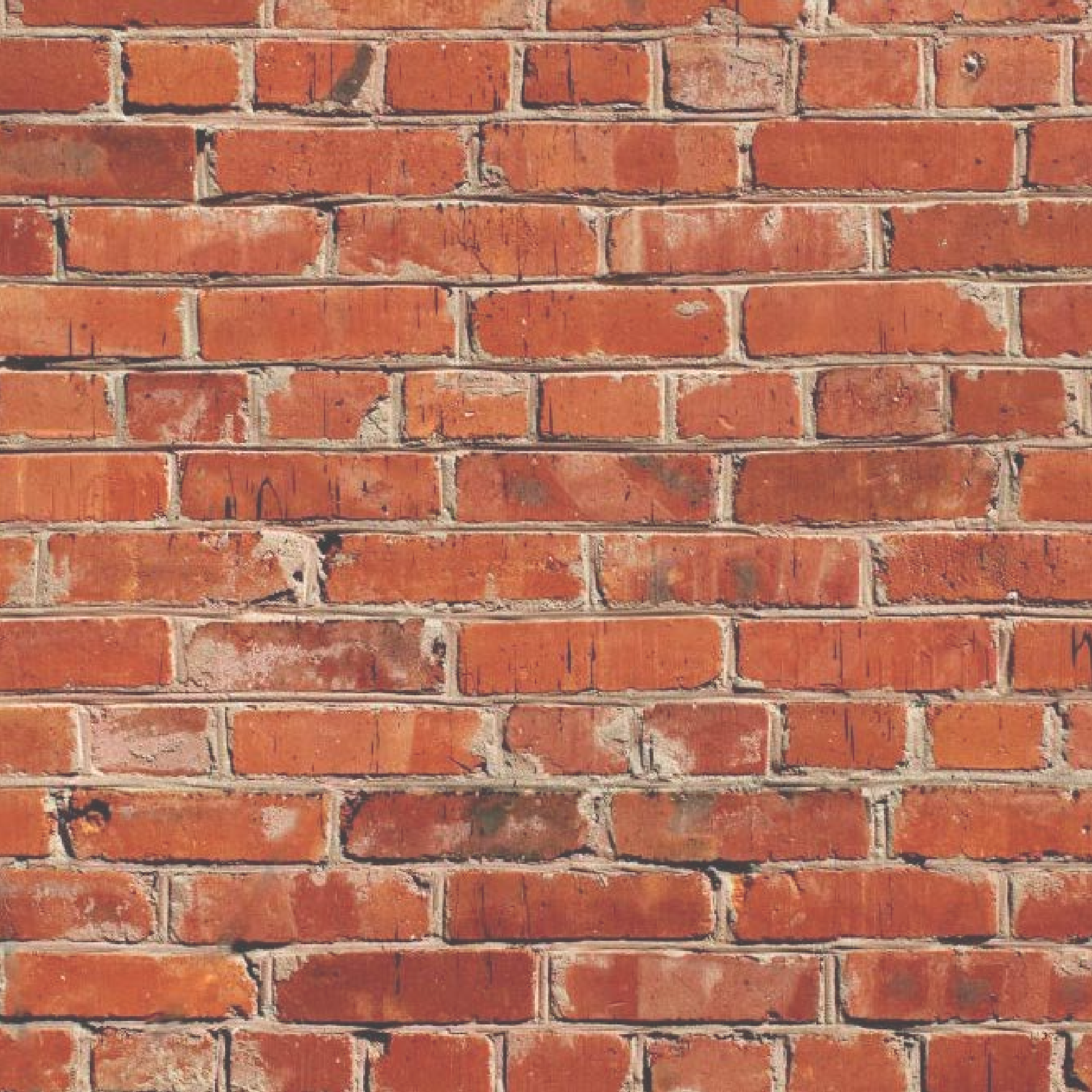
Swings in the yard allows the children to play.

6.0

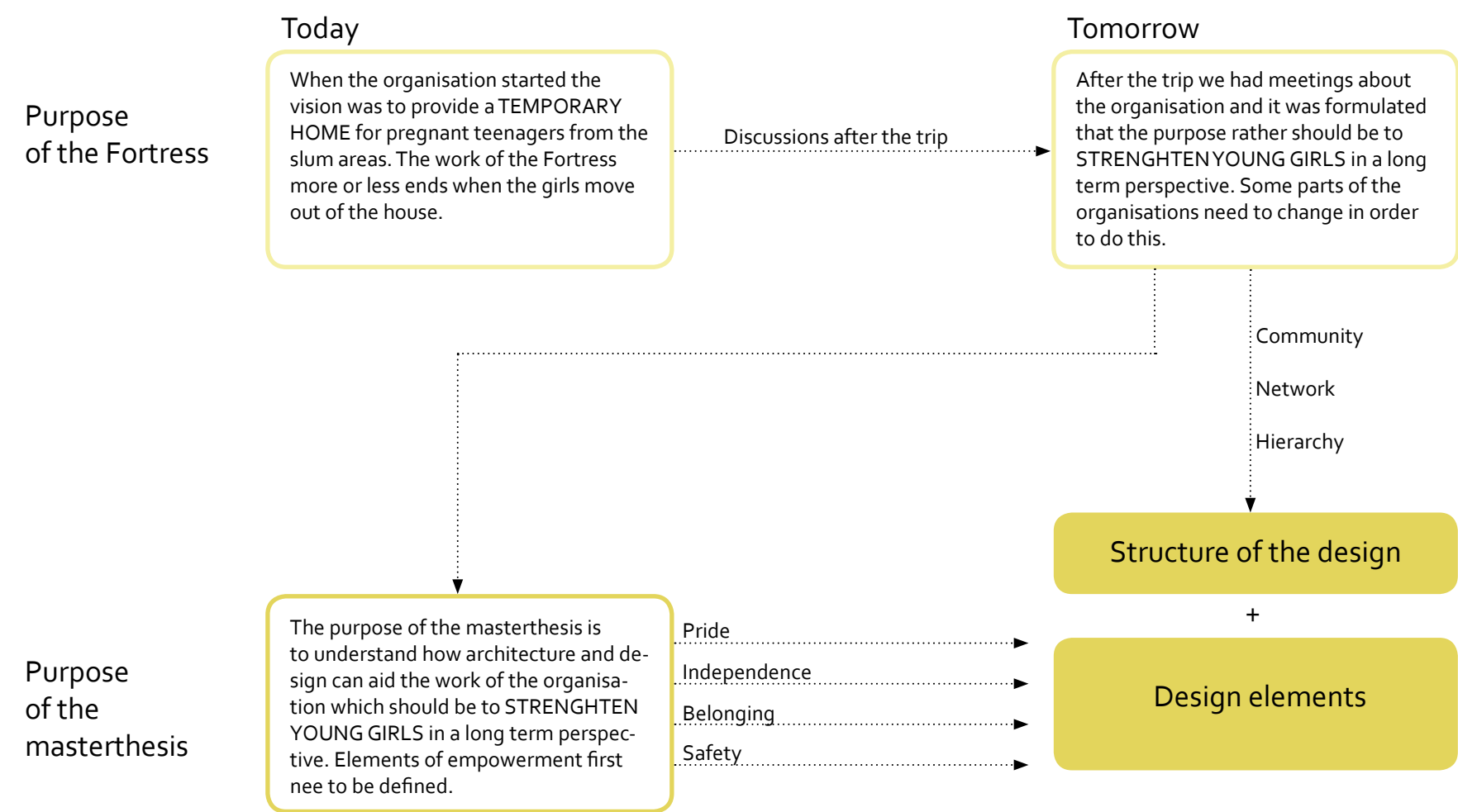
DESIGN STRATEGIES

A summary

The following section will summarise the findings in previous chapters, focusing on the elements relevant for the design proposal.



6.1 STRUCTURE OF WORK



6.2 THE FOUR PILLARS OF EMPOWERMENT

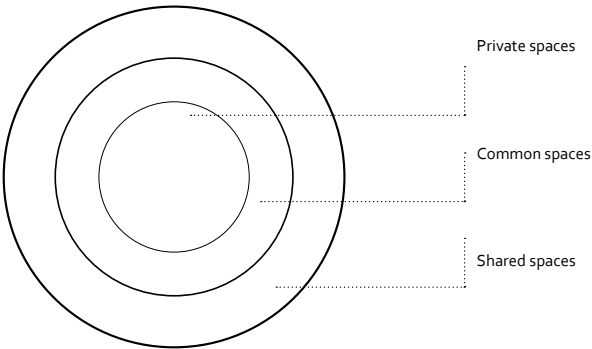
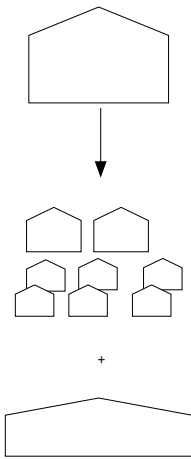
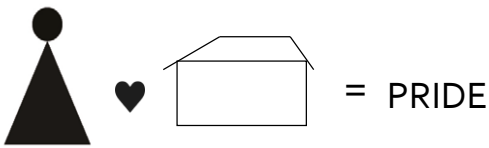
Important factors

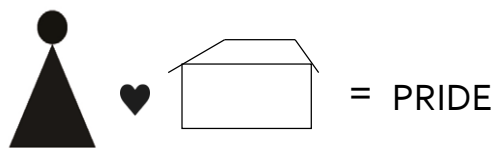
PRIDE
Feel proud of oneself.
Be confident in your situation.

INDEPENDENCE
Control over your own time.
Have trust in your ability to take care of yourself.
Providing for oneself.

BELONGING
Be part of a community.
Understand that you are not alone in your own fate.

SAFETY
Feel safe in your home environment.
Trust in other people.
Support from surroundings.





PRIDE

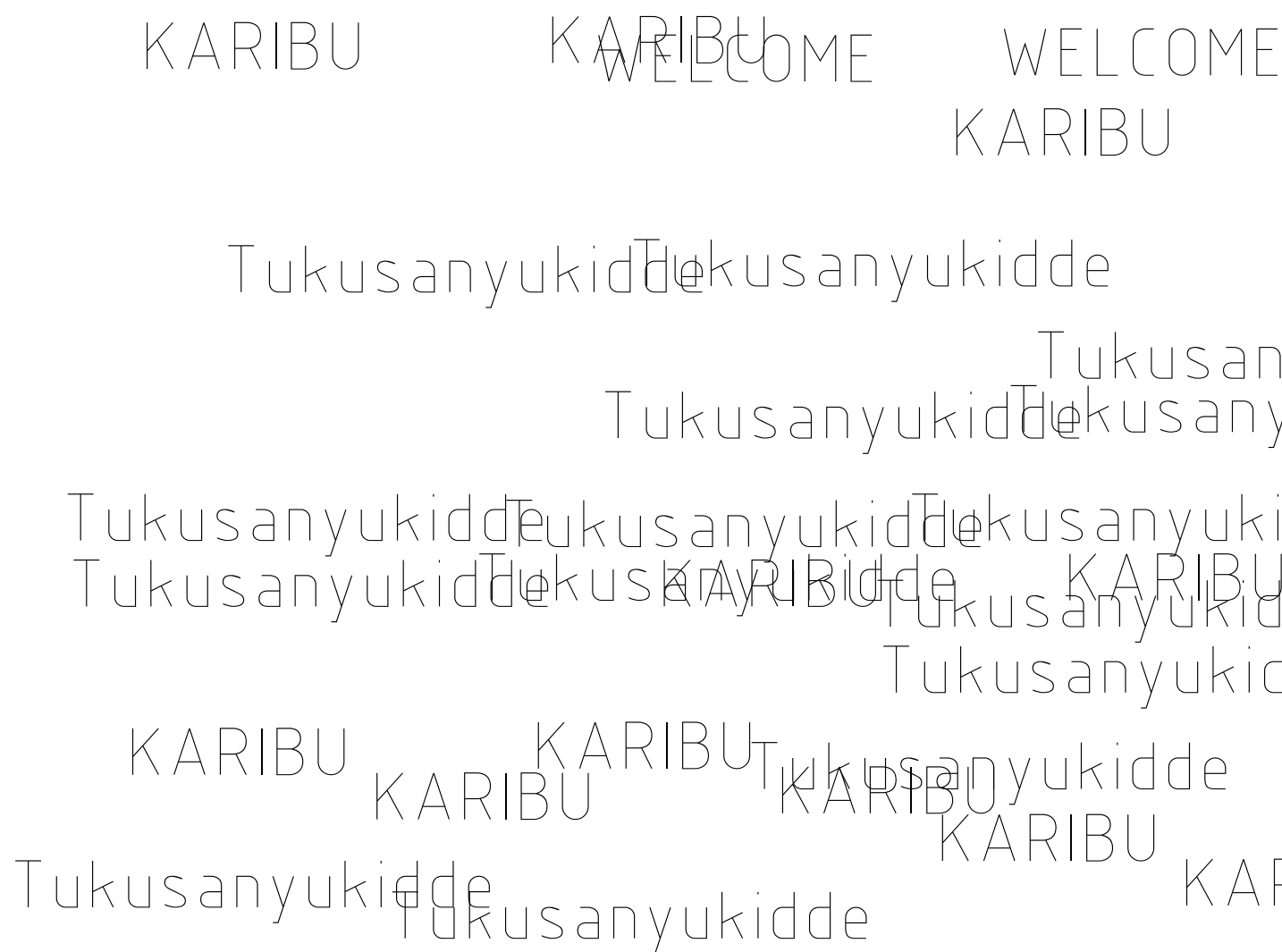
In a design process
Feel proud of your home.

Tools
A beautiful home regarding design and materials.

The girls belong to different tribes and religions and should all feel equally welcome. As it is today bible studies takes up a lot of time at The Fortress, however some girls are muslim and should feel equally important. There should be a neutral space for praying if one wants to.

Being proud of your origin
Still today there is a great division between the tribes and some are seen to have more power and status than others. The main one would be Baganda. As a symbol of inclusion and equality between the tribes, each of them should be highlighted. There are 38 different languages in Uganda and the word WELCOME is commonly used to greet people. One way to make this statement is to write the word welcome in all the 38 languages at the front gate.

Apart from this the spaces will be created with care and beauty. There will be handprints on one wall from former girls, giving the girls and understanding of their context.



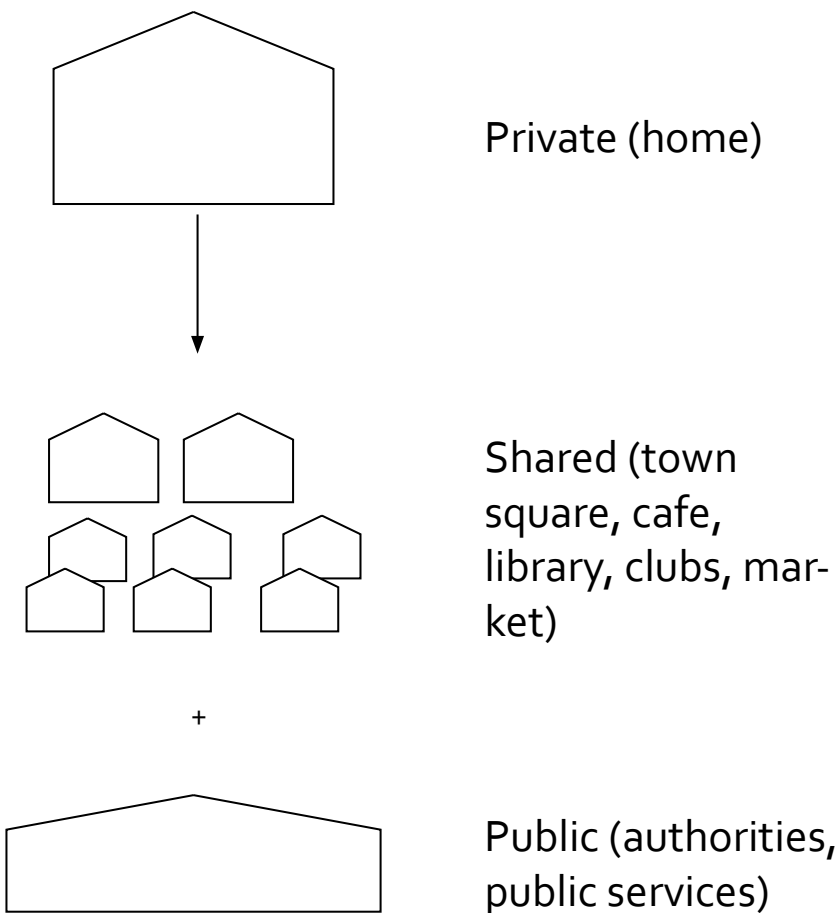
A word cloud with the words 'KARIBU' and 'WELCOME' repeated in various sizes and orientations. The Swahili phrase 'Tukusanyukidde' is also present in several instances. The words are arranged in a way that they overlap and fill the space, with 'KARIBU' and 'WELCOME' being the most prominent. The background is a solid light gray.

INDEPENDENCE

In a design process
Own space.
Enough barriers to feel safe without
feeling strained.

Tools
Own space to take care of.
Hierarchy between spaces - private,
public and shared.

Divided spaces
The buildings and functions will be
separated, however with a close dis-
tance in order to still be functioning for
the organization. Small porches by each
bedroom assists the girls with extra
private space.



BELONGING

In a design process

Good common spaces.
Network within the home and outside of it.

Tools

Spaces for group activities.
Spaces that allows other organisations and individuals to take part of the group.
Inviting spaces.
Connection to outside world.

Choice of activity

Scattered around the compound small spaces for sitting and taking part in different group activities, enabling the girls to choose if they want to be in a big group or wander off to a more private space.

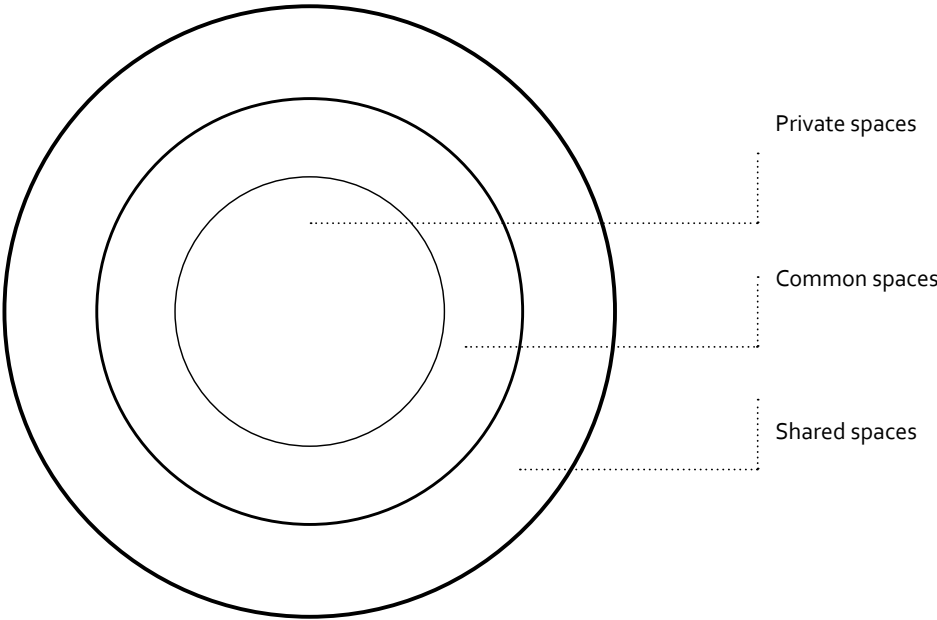


SAFETY

In a design process
Layers of safety that allows free movement without feeling threatened. Independence.

Tools
The level of security is adjusted to the character of the space. Walls, iron, vegetation, sightlines.

Layers
The compound with bedrooms, day-rooms and offices is enclosed by a wall with gates. This to allow the stakeholders to move freely in their everyday lives without feeling unsafe. The bedrooms have steel bars covering windows for extra protection, whilst day rooms have a more open structure.



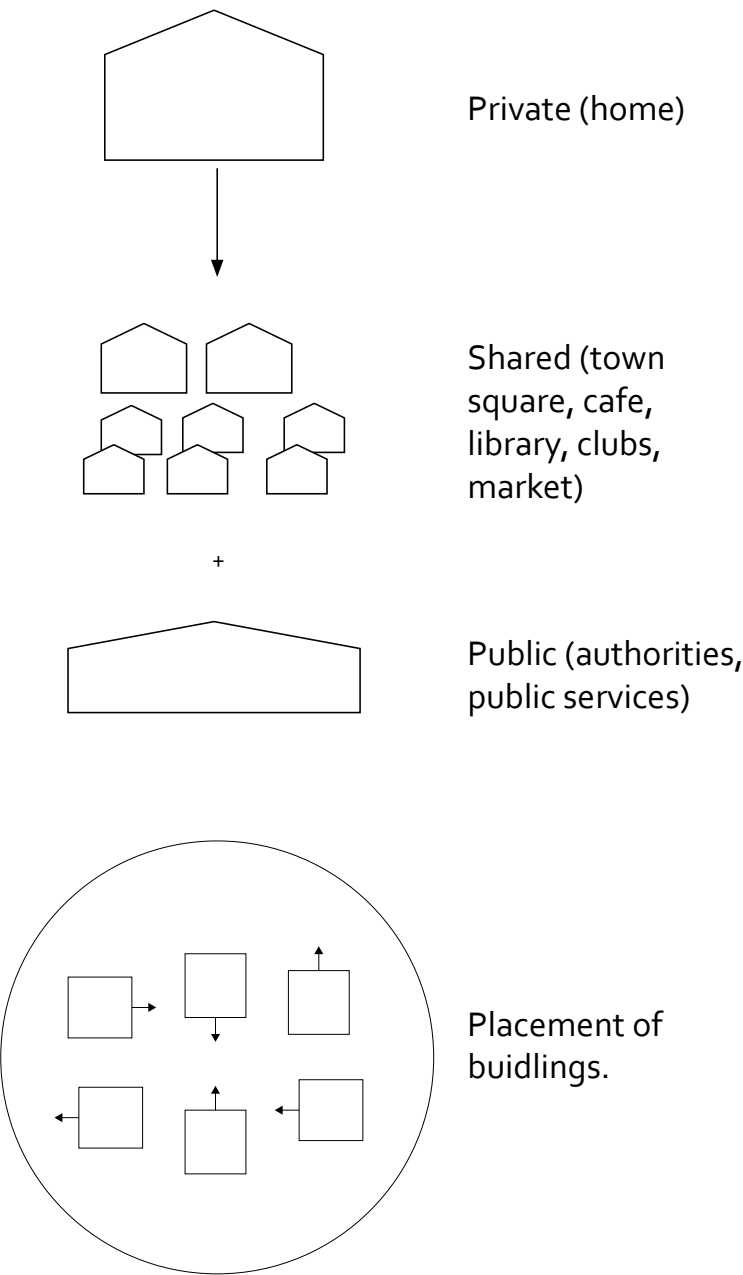
6.3 STRUCTURE OF COMPOUND

Placement of buildings

The compound is structured around a yard, with the main buildings facing towards it. The lower part of the plot is dedicated to growing of crops and functions such as kitchen and compost toilets that need to be placed with some distance to the main buildings due to smell and pollution.

Shape of buildings

Traditionally buildings were shaped as round forms. However, the modern village of Uganda displaced a more rectangular style. It is important that the new compound feels modern and meets the girls desire to show social status. Therefore the final design will be shaped in straight lines in order to move away from the traditions of polygamy and give it a modern feeling.

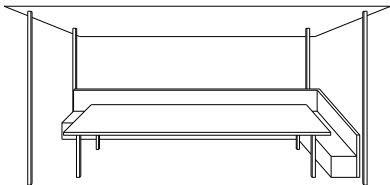


6.4 SPACES THAT NEED TO BE CHANGED TO MEET STRATEGIES

Devotion



For almost two hours each morning the girls do bible studies. Today two small sofas are the only furniture and most of the pregnant girls have to sit on the floor or a small bench.

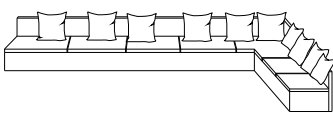


Comfortable sitting areas under shade.

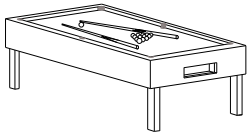
Leisure



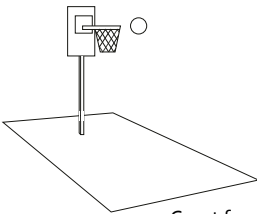
The dining table is the only space to sit down at apart from the two small sofas. In their free time the girls stay in their beds or sit on the porch.



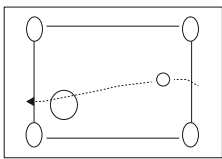
Spaces for leisure



Pool table



Court for ballgames

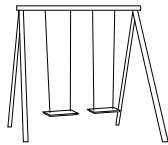


Court for ballgames

Compound



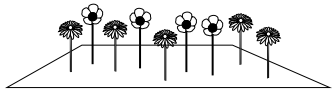
Many of the girls express that they want a beautiful compound with flowers and trees. Today tiles and one tree is what they have.



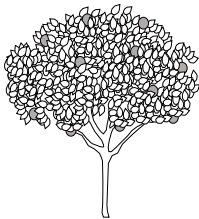
Swings



Seats in the garden



Flower garden

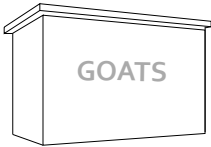
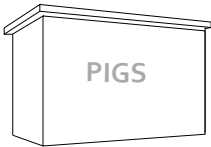
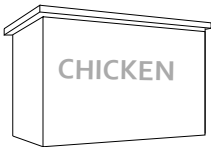


Fruit tree

Animals



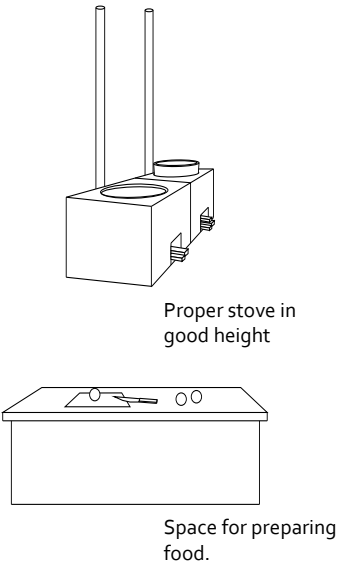
The Fortress sometimes have chickens, which they breed to eat. In the future they want more space for the animals that should be placed further from the house.



Kitchen



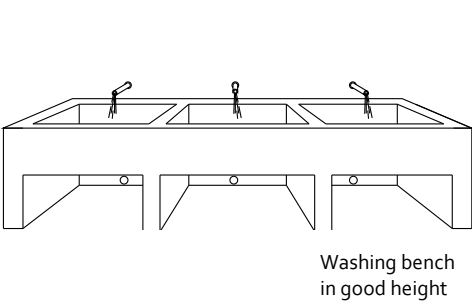
Food is cooked on a small coal stove outside which the girls stand in a bent position over for hours. There is little bench space to prepare the food and the girls sit on the floor.



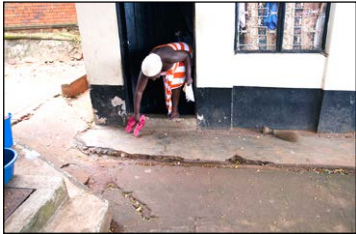
Washing



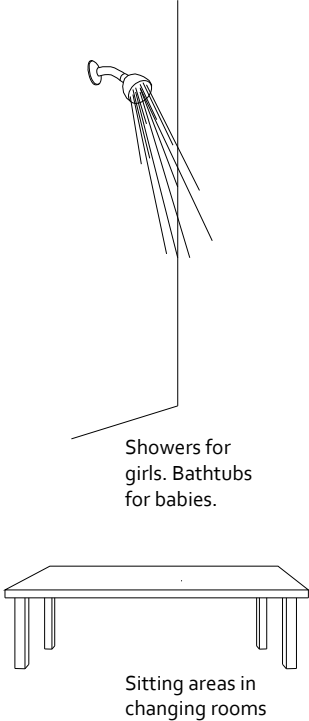
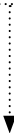
Washing clothes is a heavy task if you are pregnant and today the girls use a small plastic tub to rinse and wash. The bent position is bad for their backs.



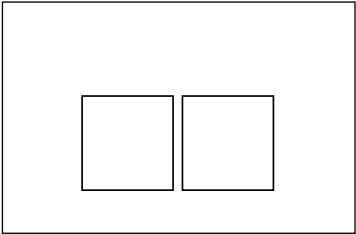
Showering



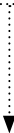
There are bathtubs inside the house but they are not used. The girls use buckets to shower themselves with outdoors and would need an easier system for cleaning themselves and babies.



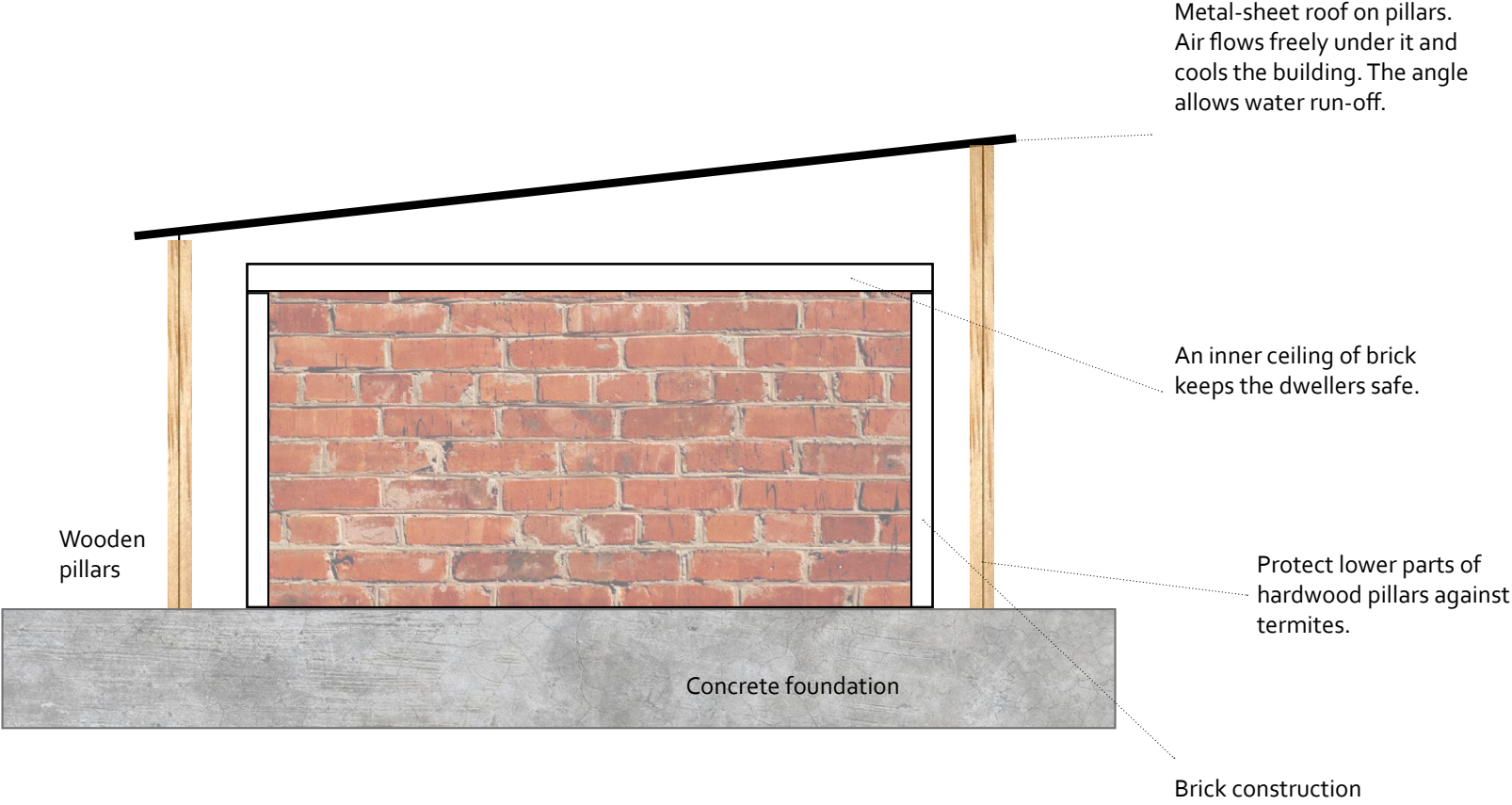
Storage



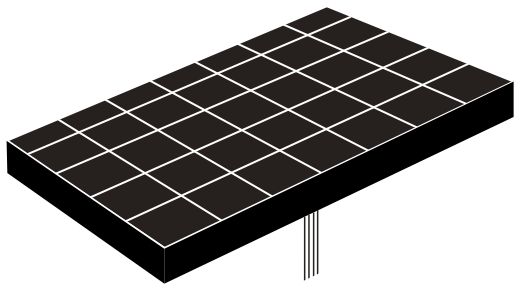
The girls have their private closets and apart from that donated clothes and other items are stored in an old bathroom. It is difficult to organise and there is a need for more space and structure.



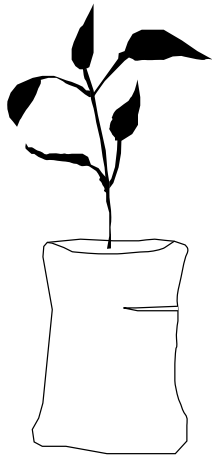
6.5 CONSTRUCTION



6.6 ENERGY SYSTEMS



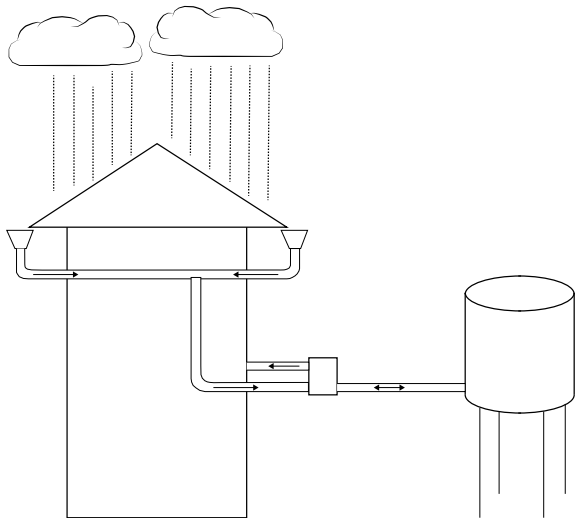
Solar power



Production of food



Waste management

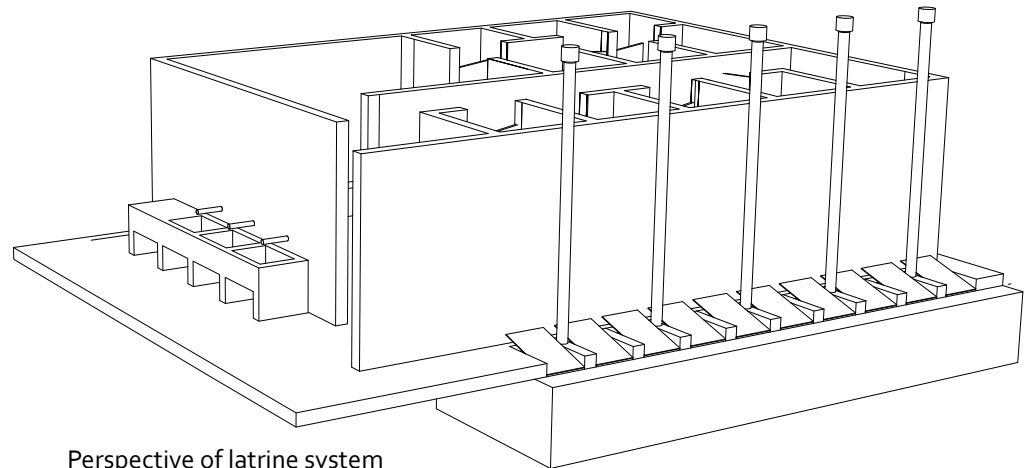


Water collection

6.7 UTILITIES - Toilets and kitchen

Today the most efficient and economical fuel is firewood in Uganda. Biogas is less harmful to the environment, as of pollution and energy emission, however, it is not yet fully available in the country. Big stoves with burning fires in the bottom allows the girls to cook efficiently.

The most economic and sustainable version of toilets are compost toilets. The defecation is separated into two different tanks and the process of decay turns parts of it into manure.



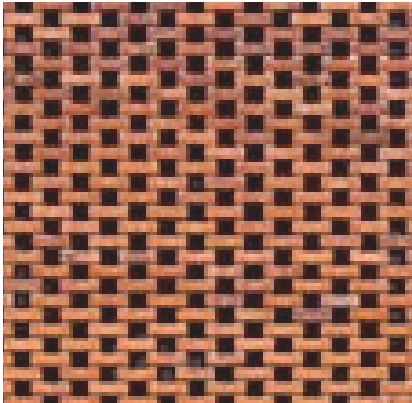
Perspective of latrine system

Firewood kitchens in Kampala



6.8 MATERIALS USED

Walls



Doors and windows



Details

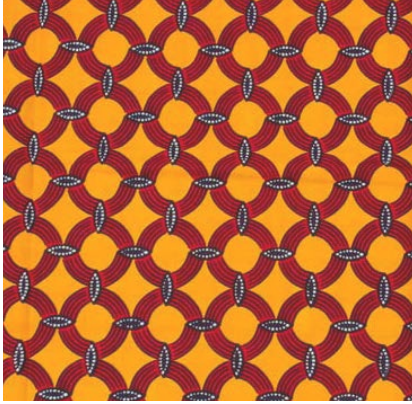


Figure 33-41

7.0

DESIGN PROPOSAL

The Fortress Rugi

The new Fortress is located in Rugi, in the Wakiso district, on the countryside of Kampala. The proposal is shaped with the design strategies in mind and the result is an enclosed compound with additional land for cultivating crops.



Wakiso

Kira Town

Mulago Hospital

Northern Bypass

Jinja Rd

RUGI

Kampala

Bombo Rd

Wakaliga

Masaka Rd

Kampala-Entebbe Rd

Lake Victoria

7.1 WAKISO DISTRICT

Criteria for the site

It is preferable on the same side of the city as The Fortress is today, that is west of central Kampala. If the Northern Bypass or any other major road is easy to access it enables movability. Also the Mulago Hospital should not be too far in order to get the girls there for delivery or other issues without too much time. There is a desire to grow foods and fruits and in the future, for self-consumption but also enough to sell at the local markets. Thus, some agricultural land is needed. Lastly, the price should be affordable and the community inviting. All these things are found in the district of Wakiso and this is where Josephine and her husband have been looking at land. The plan is to purchase 1 acre initially and start the building process. When more money is raised there is a wish to by 3-4 acres more for crops.

About Wakiso

Wakiso District encircles all of Kampala and is named after the town Wakiso, 20 km northwest of Kampala, where the headquarters of the district is found and is made up by 17 subcounties, 135 parishes and 1446 villages. Kira, the country's second largest suburb is found in the district among other counties and communities. In 2002 children below 18 years made up 53% of the population and 17 % were orphans. The district is rapidly becoming urbanized and is turning away from agriculture to trade and industry. Wakiso district is made up of two counties and a municipality and further subdivided into smaller administrative units.

Population of Wakiso: 2.007.700
Density: 1.100/km2

(The Conflict Mapping Tool, 2013).

Character of the site

Josephine and her husband are still looking at land and have not decided on which one to buy yet. However, the plots that they have in mind are all rural with a setting in a small village. The sites all have a slope of varying incline and have some or a lot vegetation around it. In order to complete the project one of the sites will be chosen to design a prototype for the home to be. Thus some changes will be necessary when the site is finally determined.



The slot is placed in a beautiful valley with rich soil and surrounded by lush vegetation.

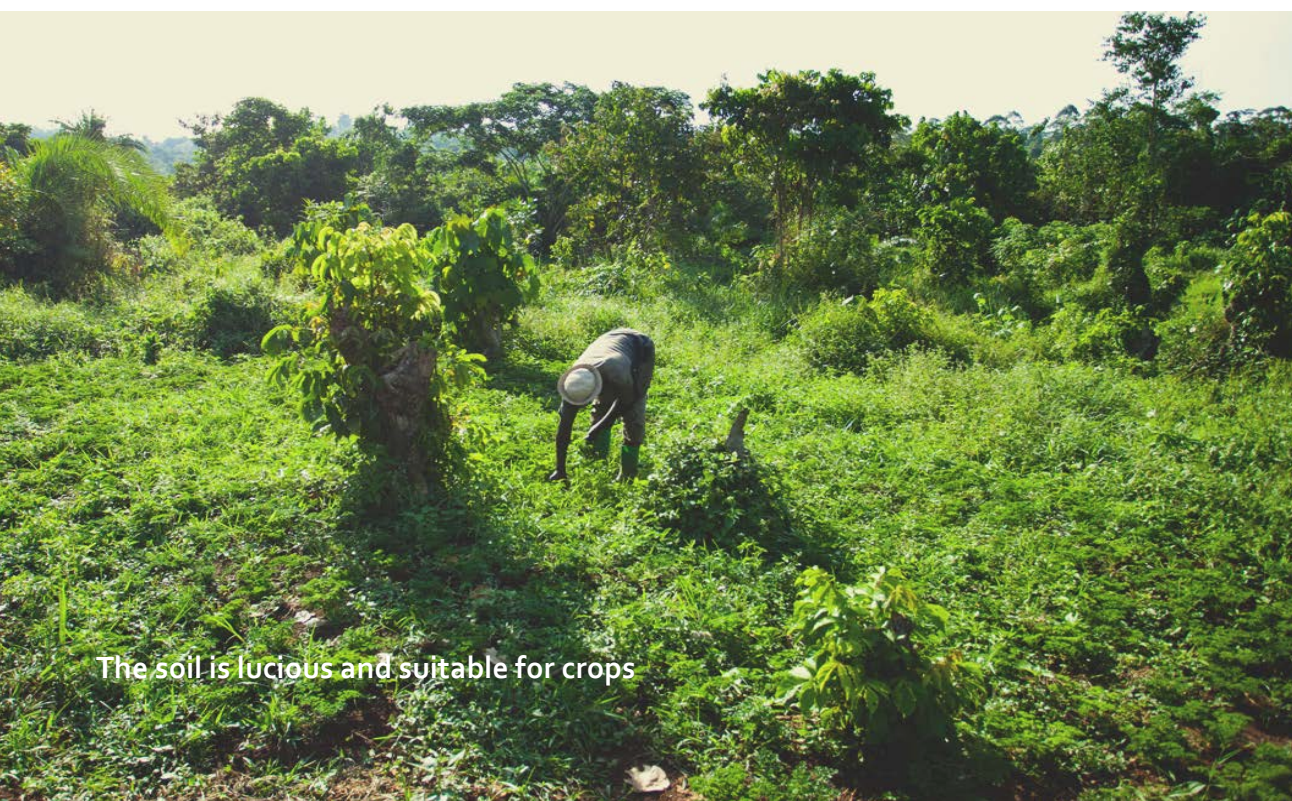


The view over the valley is breathtaking



The slot is surrounded by a thick treeline





The soil is luscious and suitable for crops



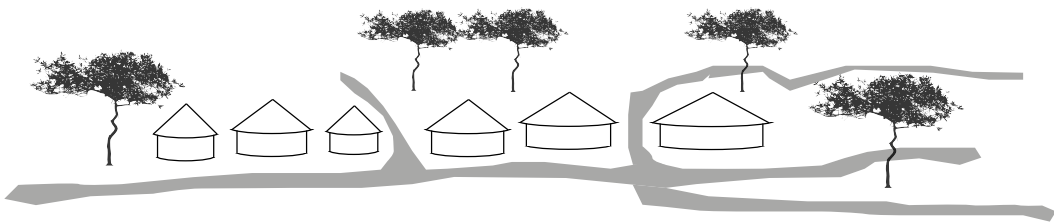
7.2 PARAMETERS OF THE SITE



The site has a slope along the longest direction of the land. The incline varies along the site. This is good for water run-off and collection. The buildings will have a terraced character to suit the terrain.



Placed in the rich agricultural land of Kampala the site has varying vegetation and is highly suitable for growing crops for consumption and selling. The plants are of tropical character. There is also clay available for brick making and the swamp at the bottom of the site will provide for water for the production. The clay will make the bricks strong and a bit lighter than sand would.

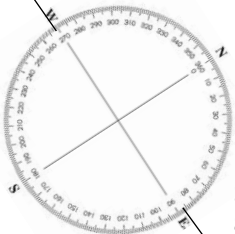


The site is found in a village connected to agricultural land but with good connections to the capital city. The community around the new compound is of great importance.

7.3 RUGI



Sunset 19.04
269 W

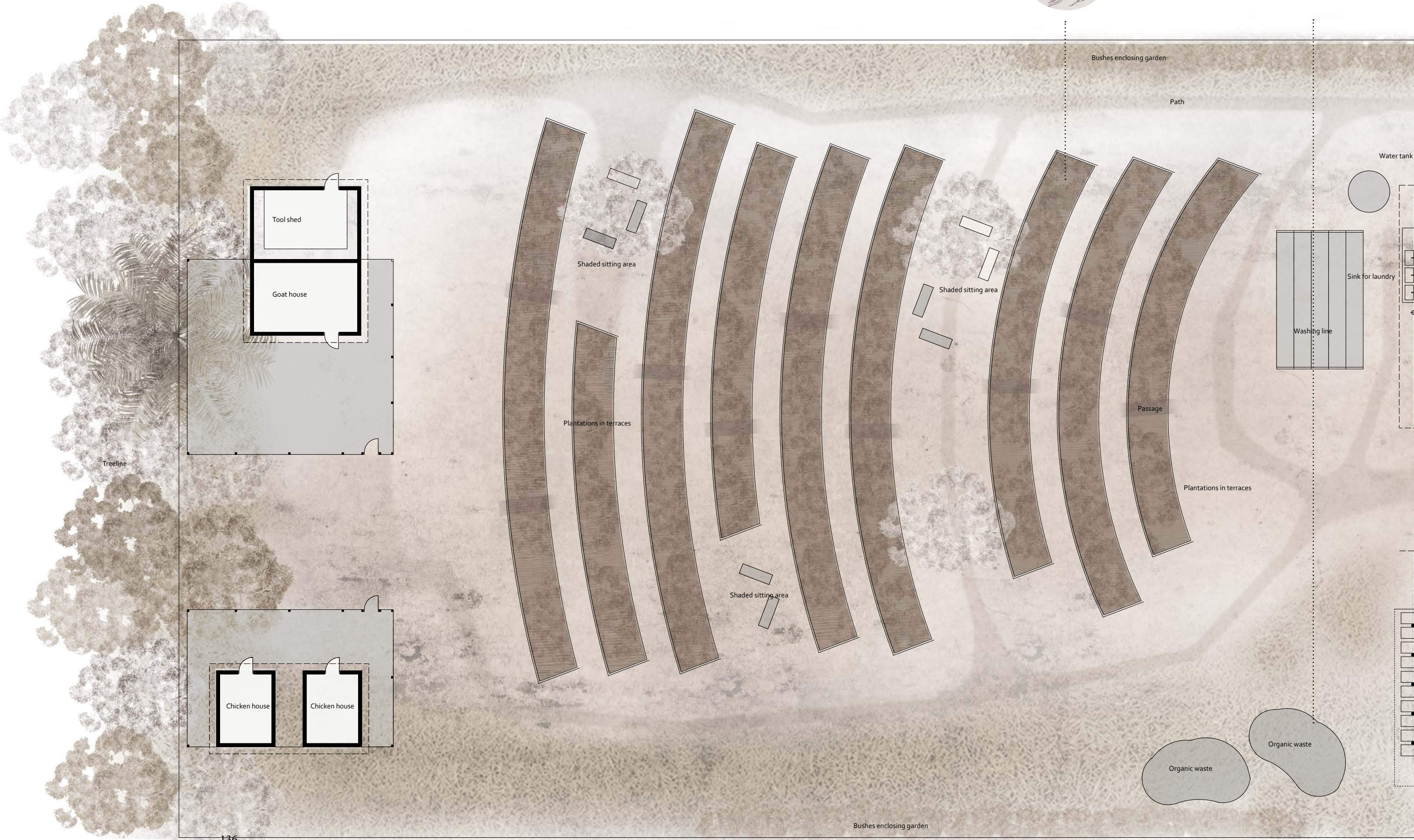
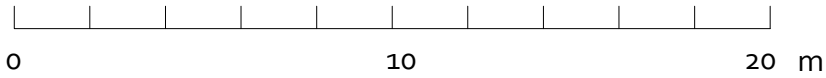


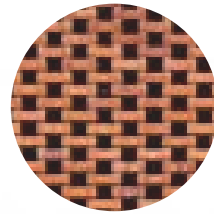
Sunrise 06.58
86 E

Initially 1 acre will be purchased as funds are not big. In the future up to 4 acres are planned to be invested in.

First stage: essential elements

- Main building with common areas
- Administration block
- Kitchen
- Toilets and showers
- Animal houses
- Watchman House



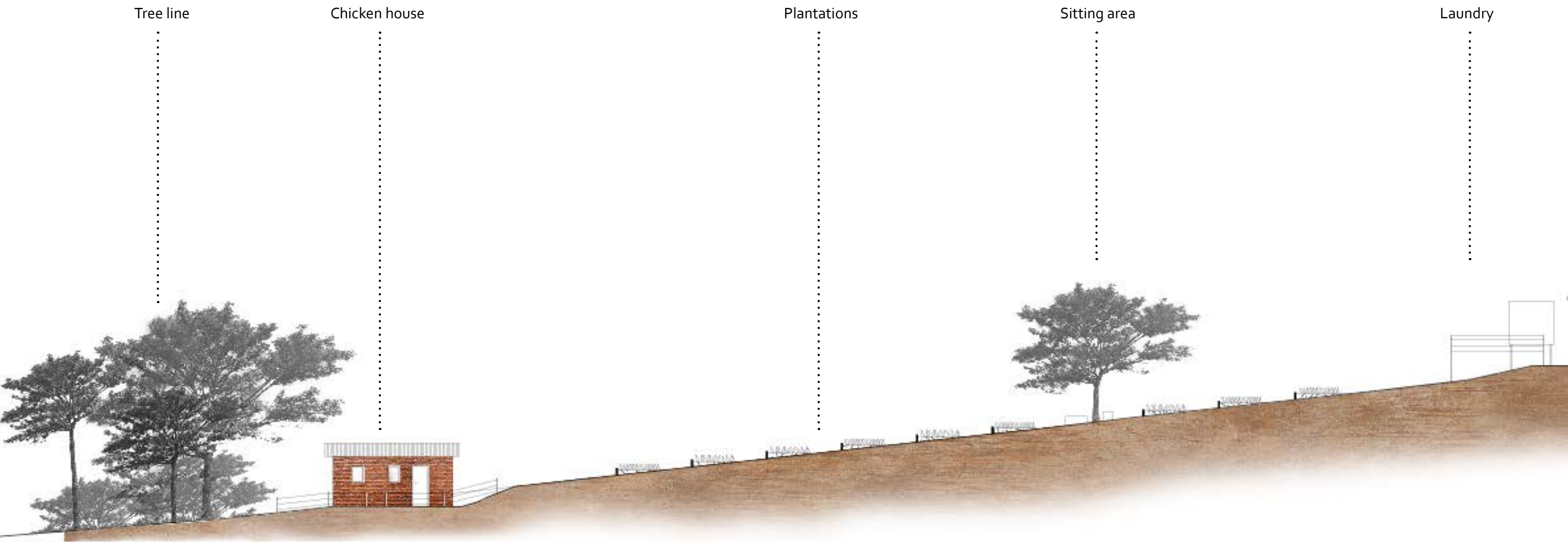


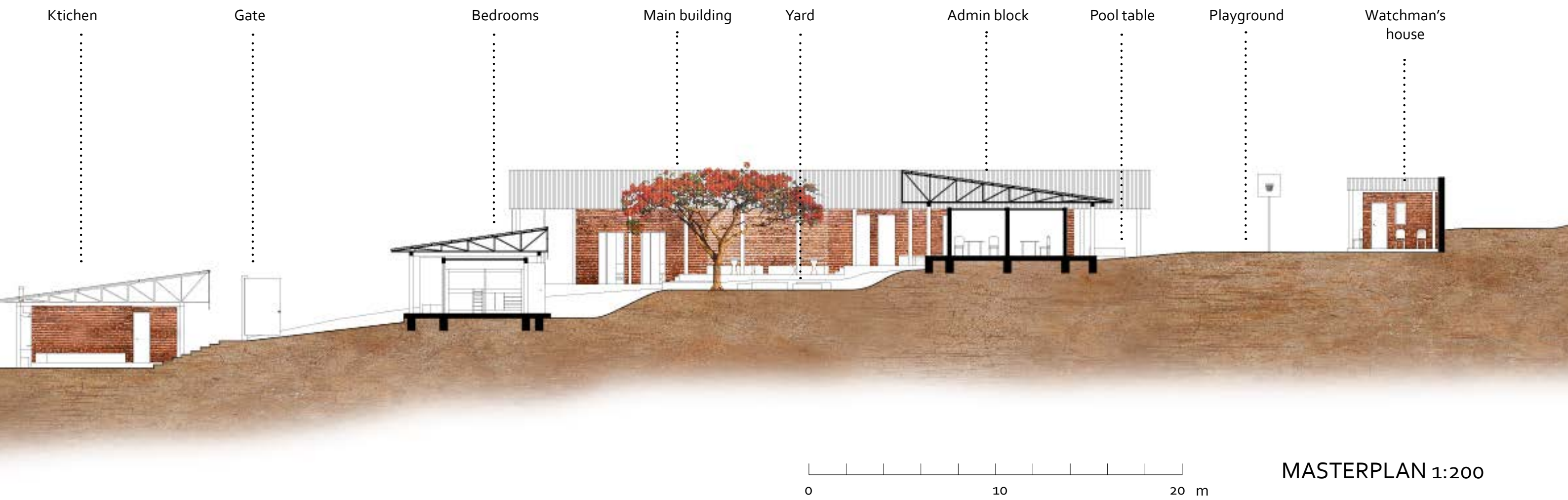
VIEW COMPOUND



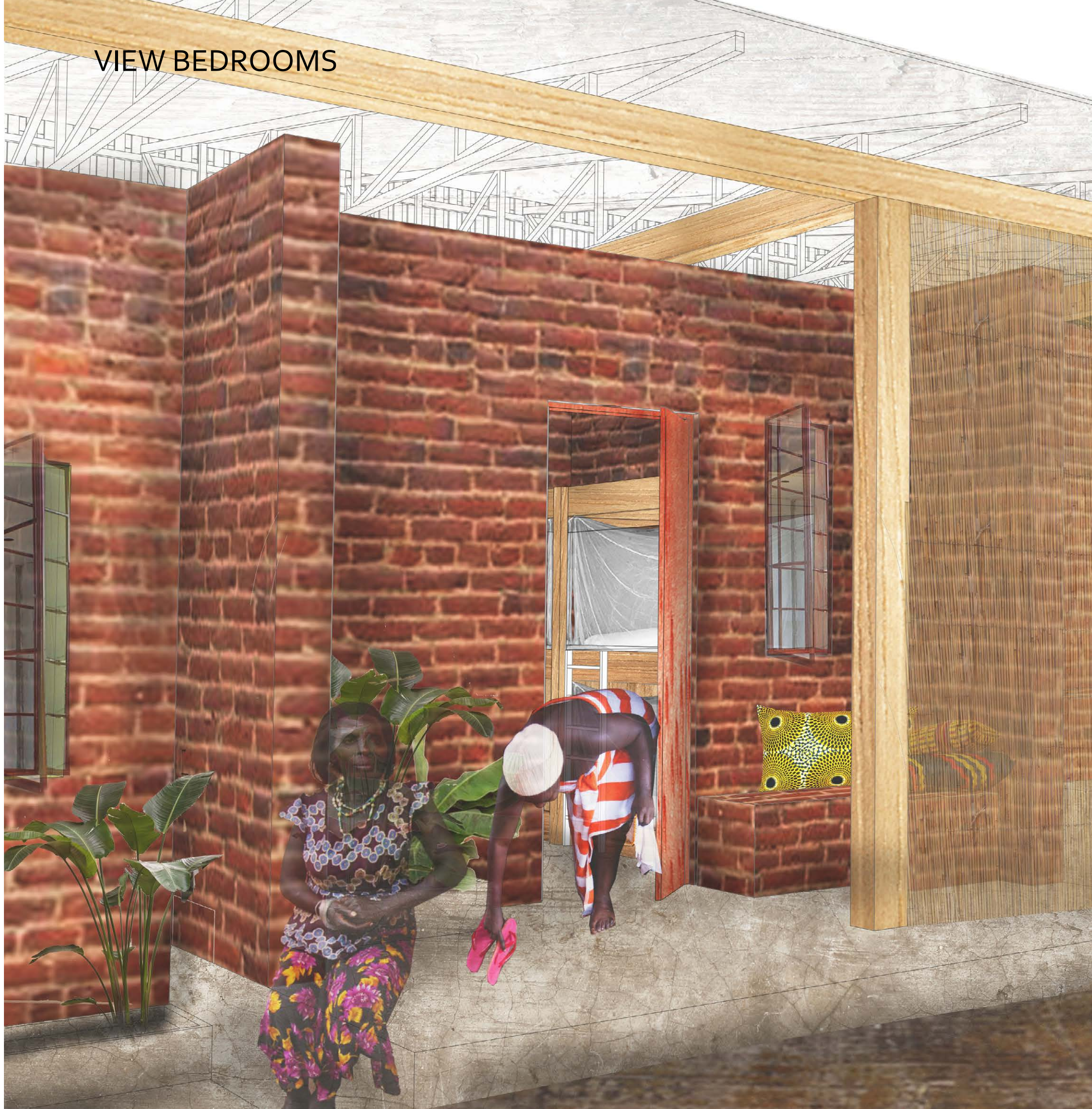


SECTION 1:200



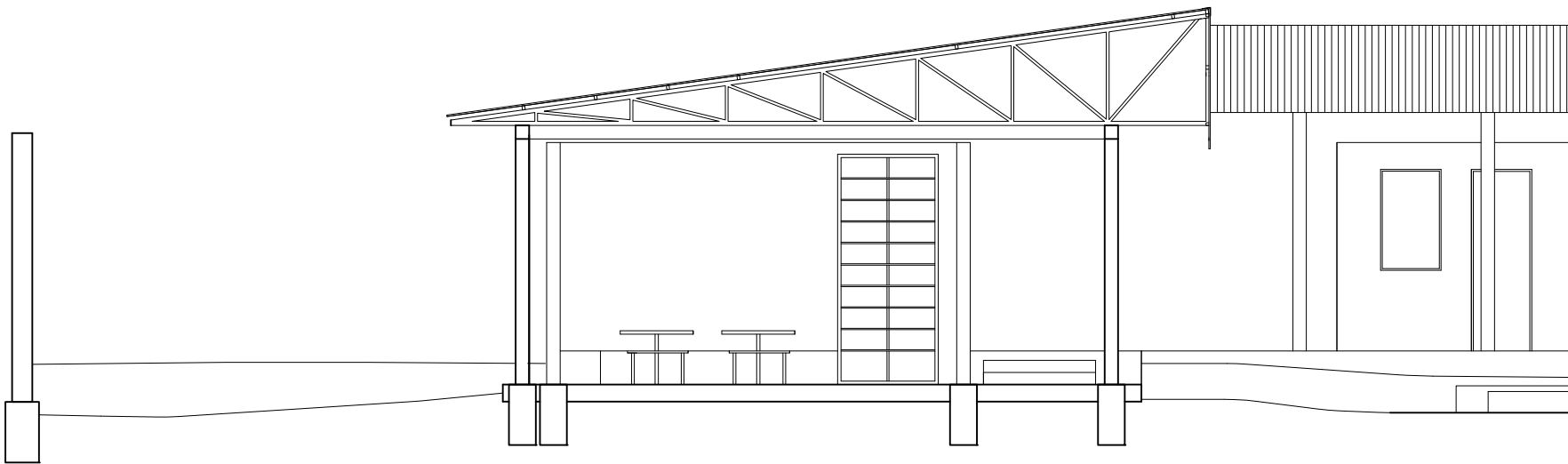


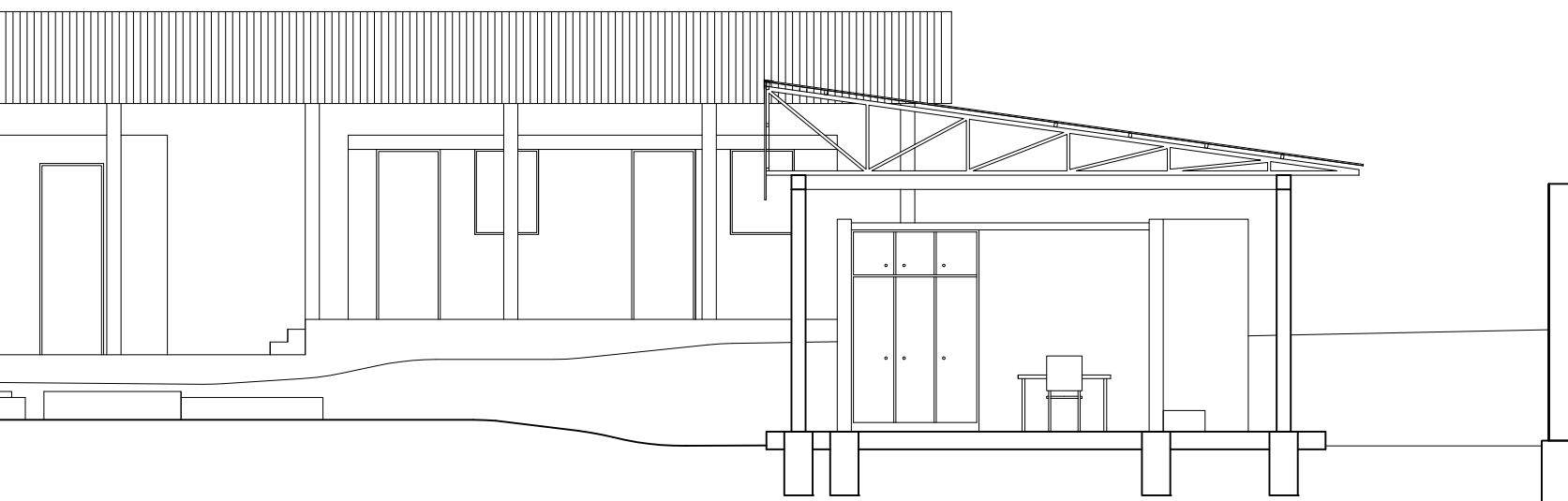
VIEW BEDROOMS



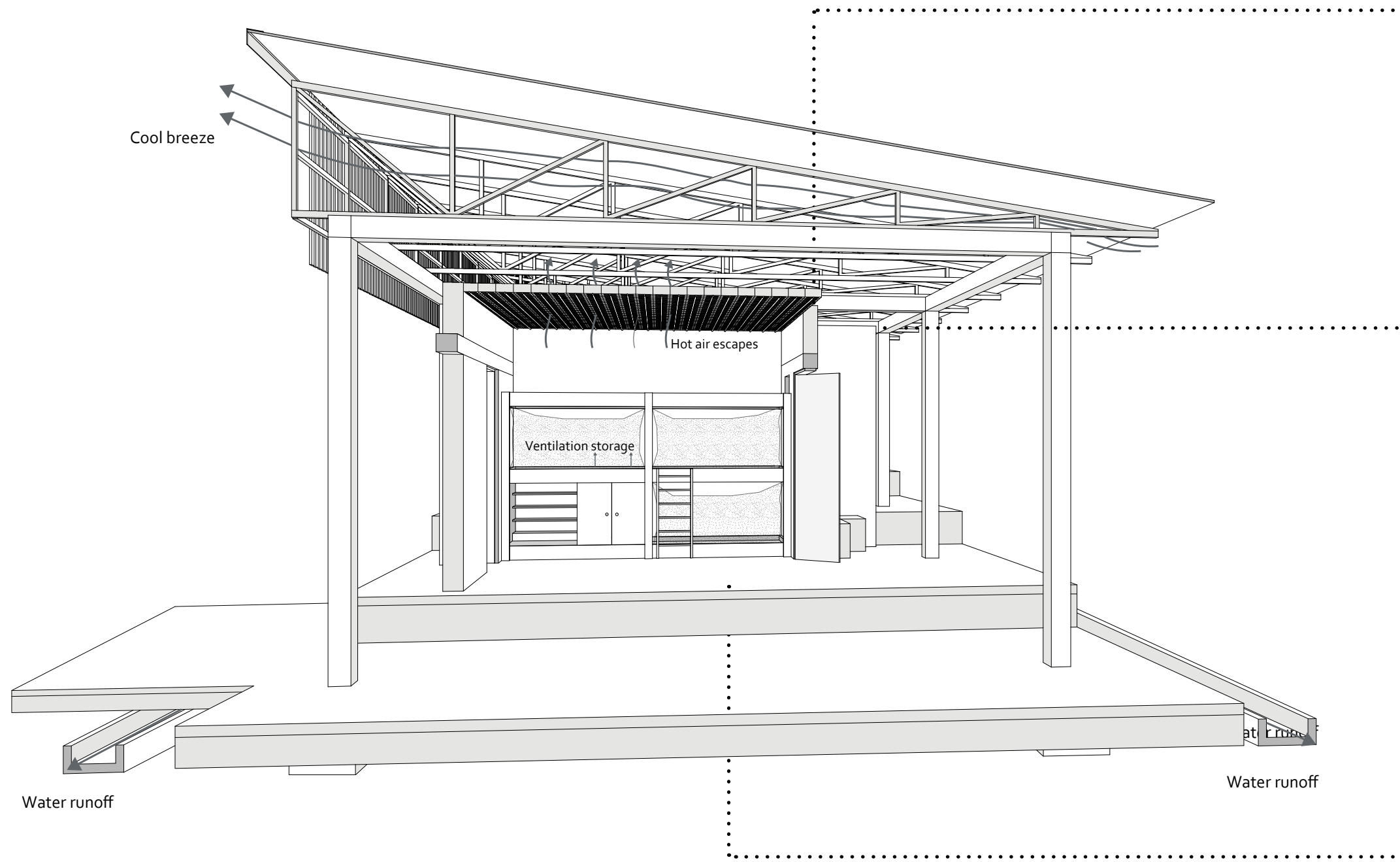


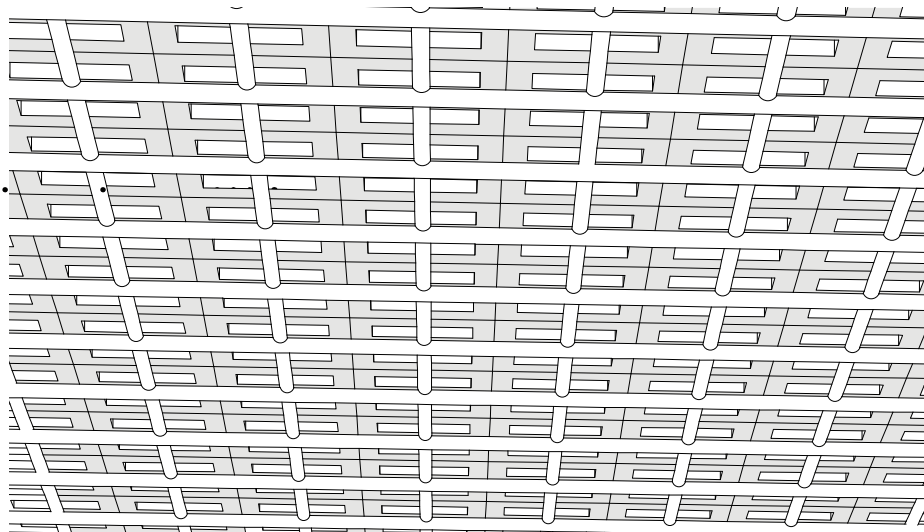
CONSTRUCTION VIEW BEDROOM





CONSTRUCTION VIEW BEDROOM



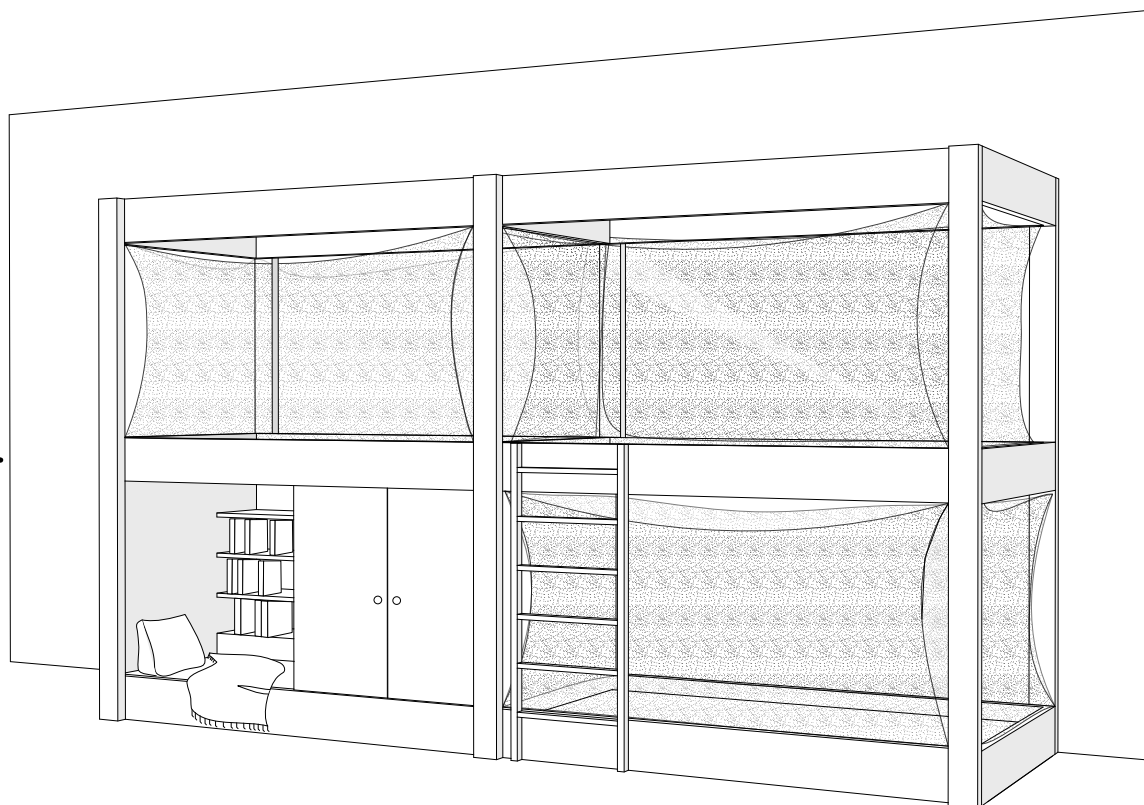


A thin metal net carries bricks with openings allows air to flow through.



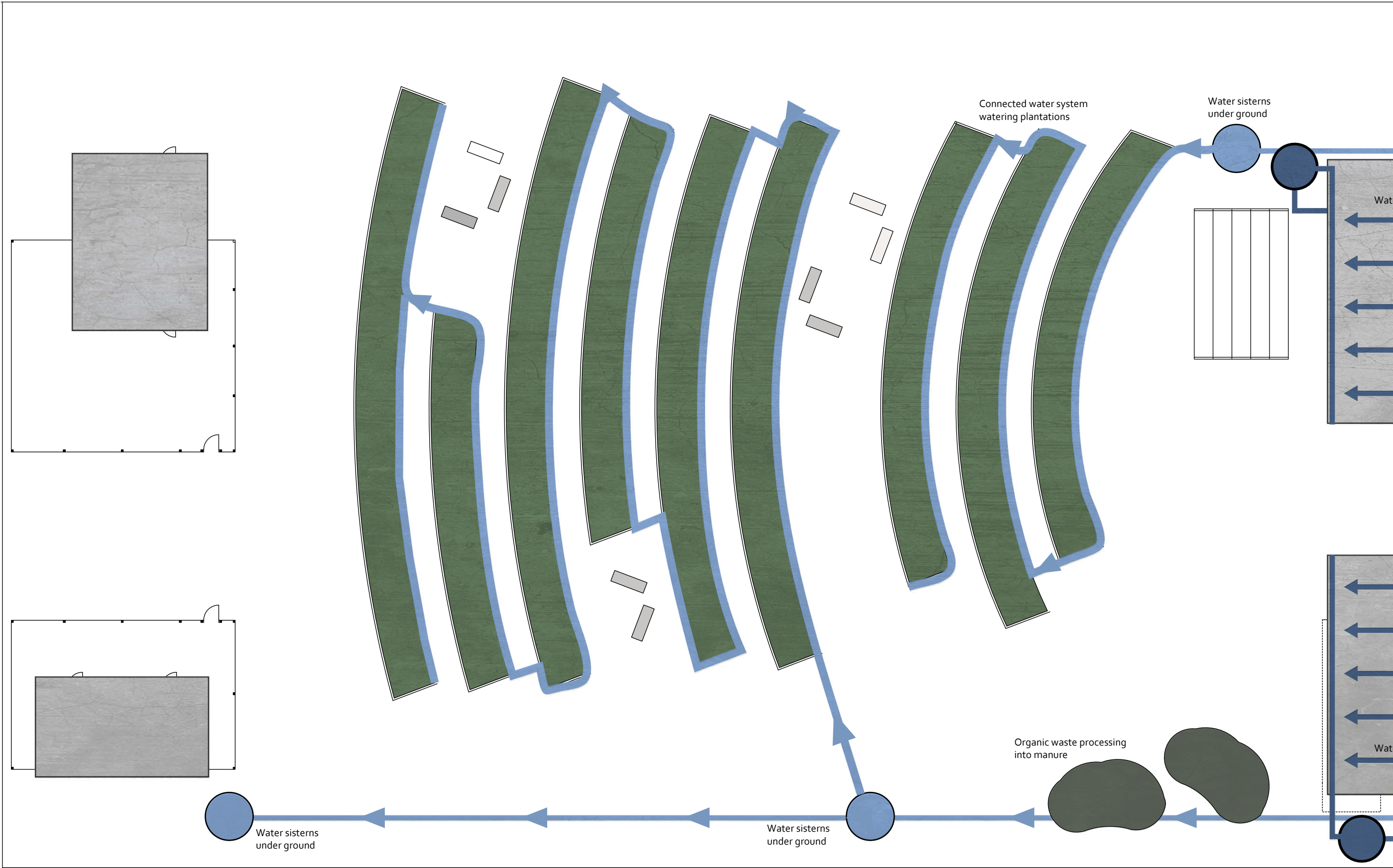
Some walls have ventilation holes in upper corner that allows air to flow through if the ceiling is not allowing air to flow.

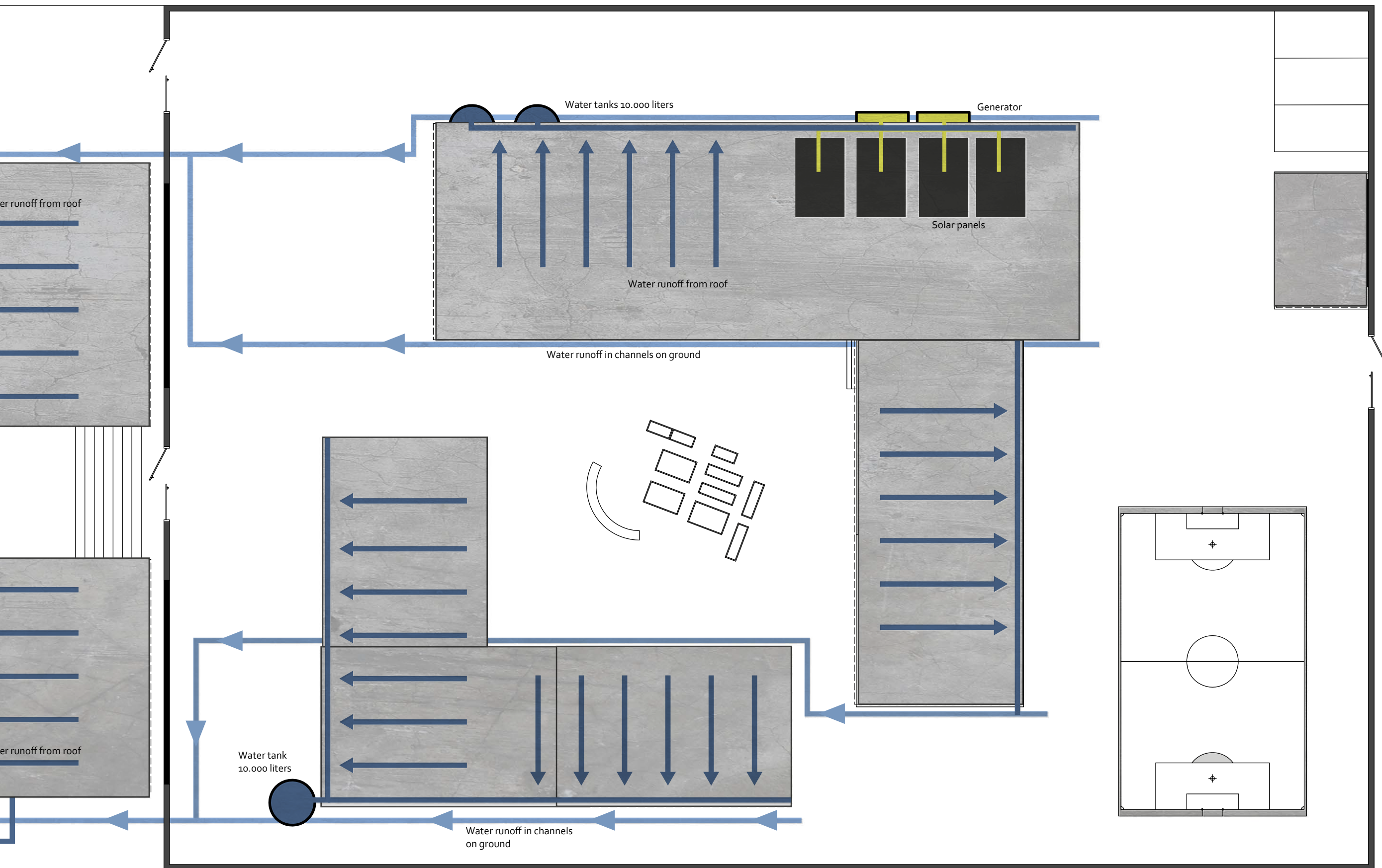
Figure 42



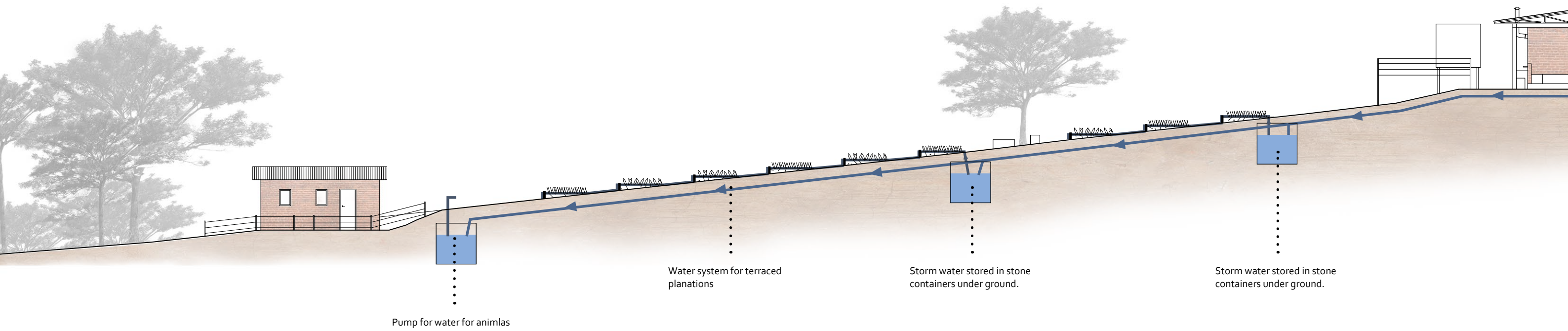
The beds are robust and have space for storage and reading or breastfeeding, also the child can sleep on the bottom bed.

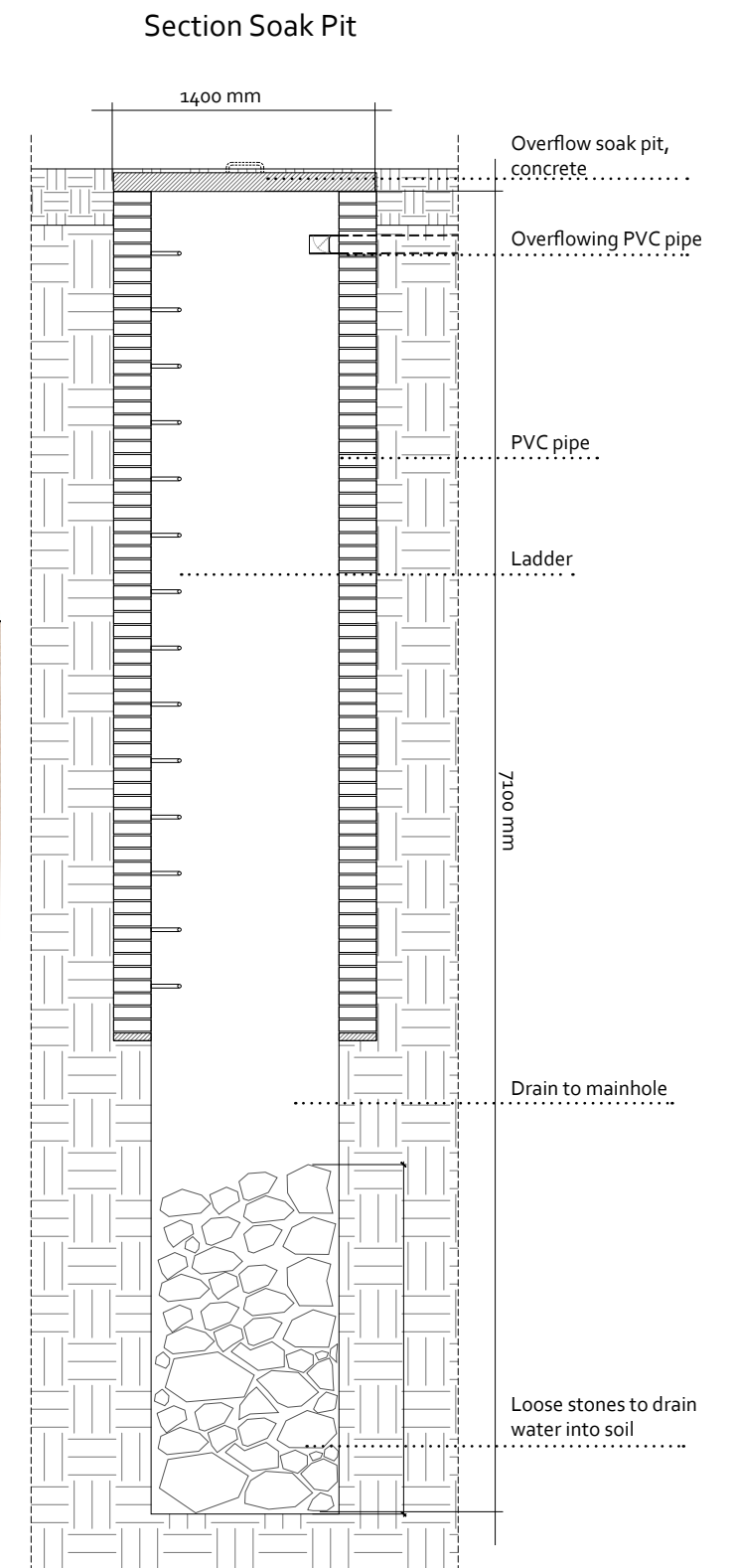
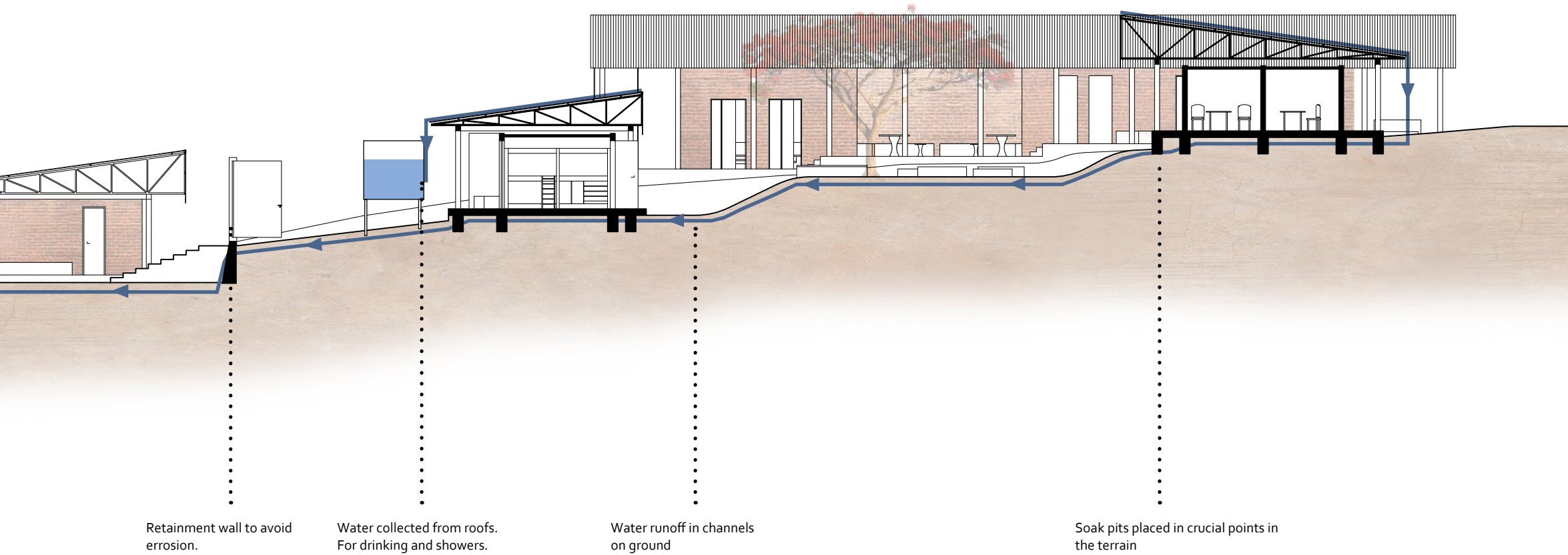
ENERGY PRINCIPLES



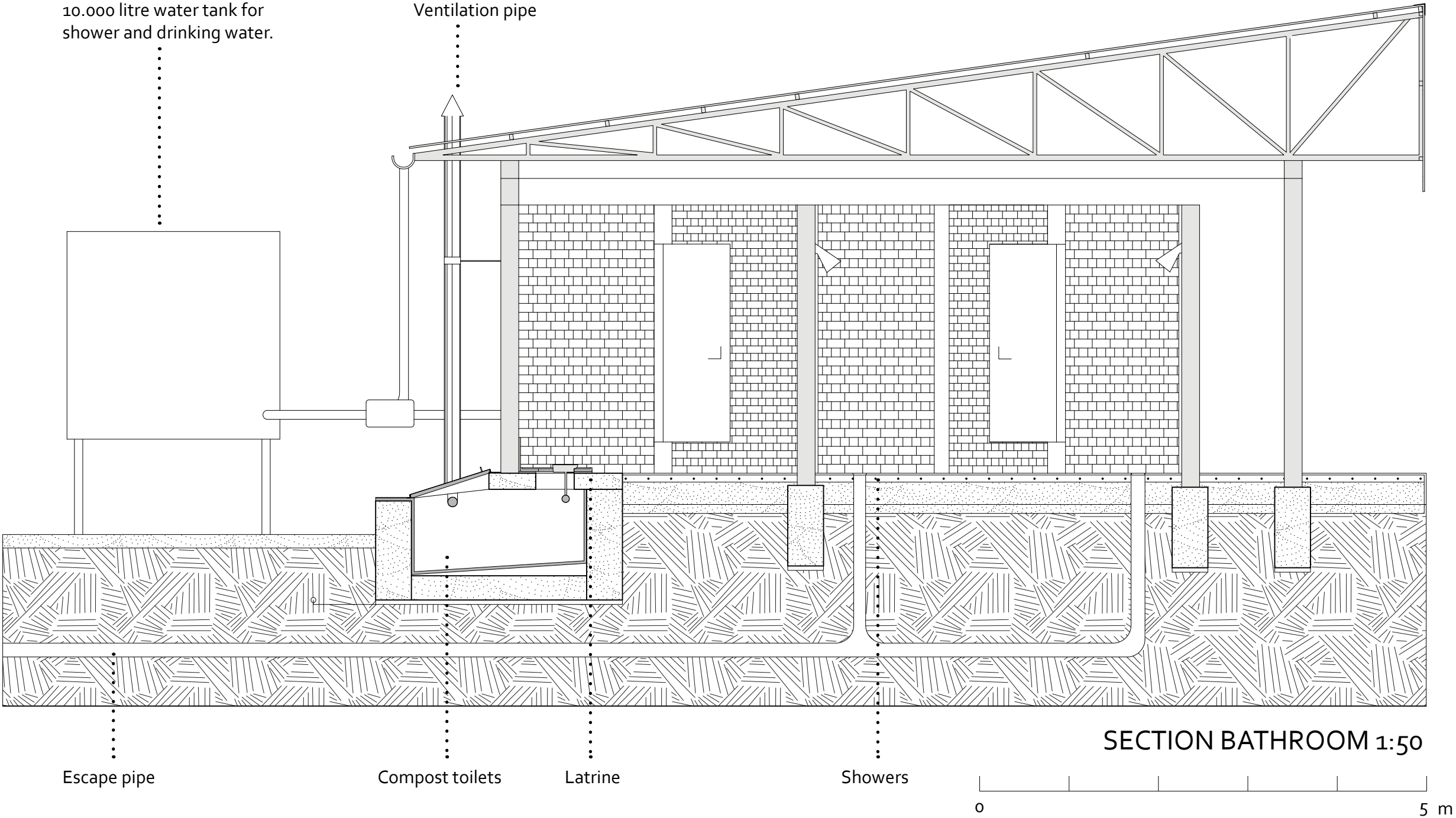


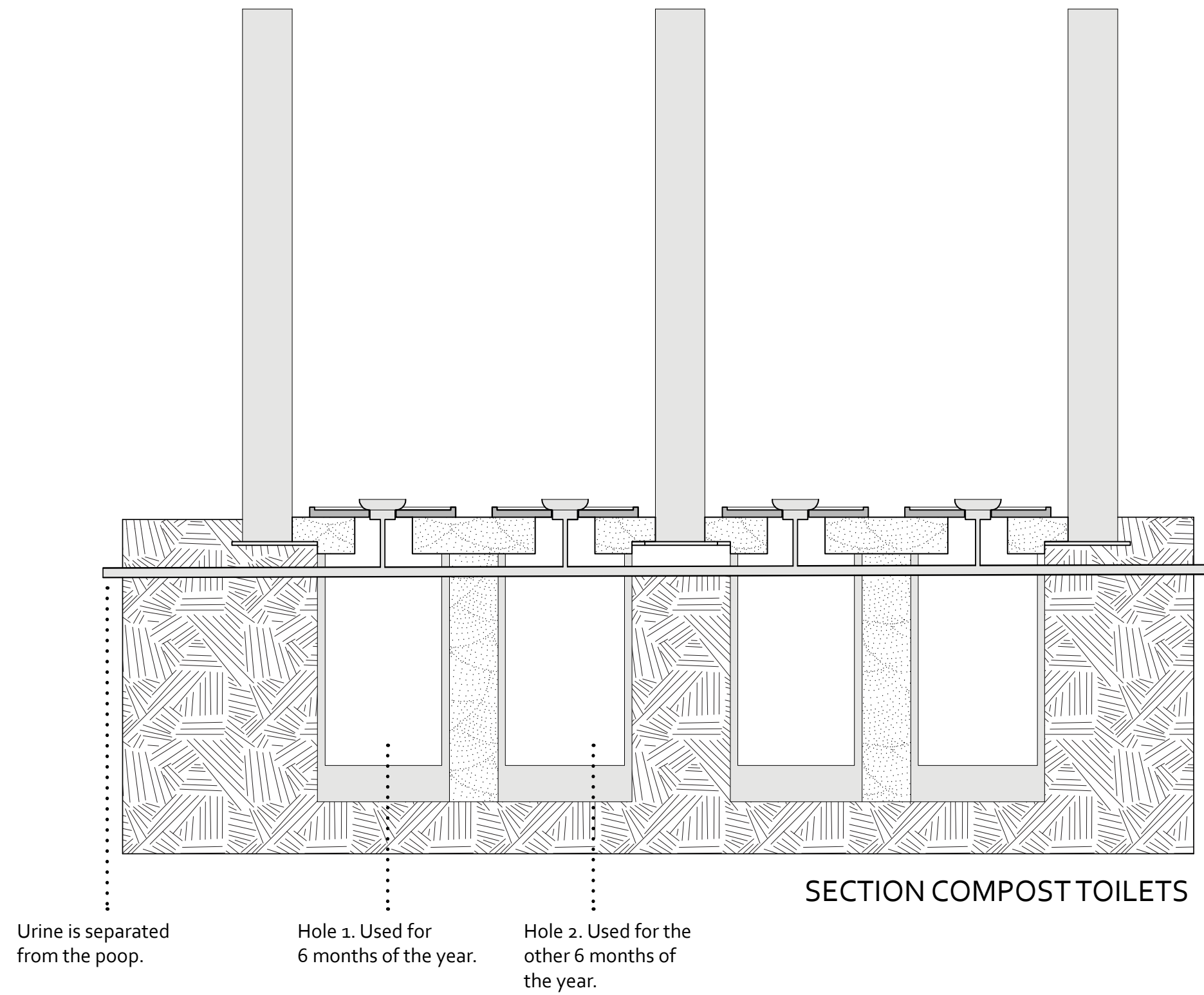
WATER COLLECTION SECTION



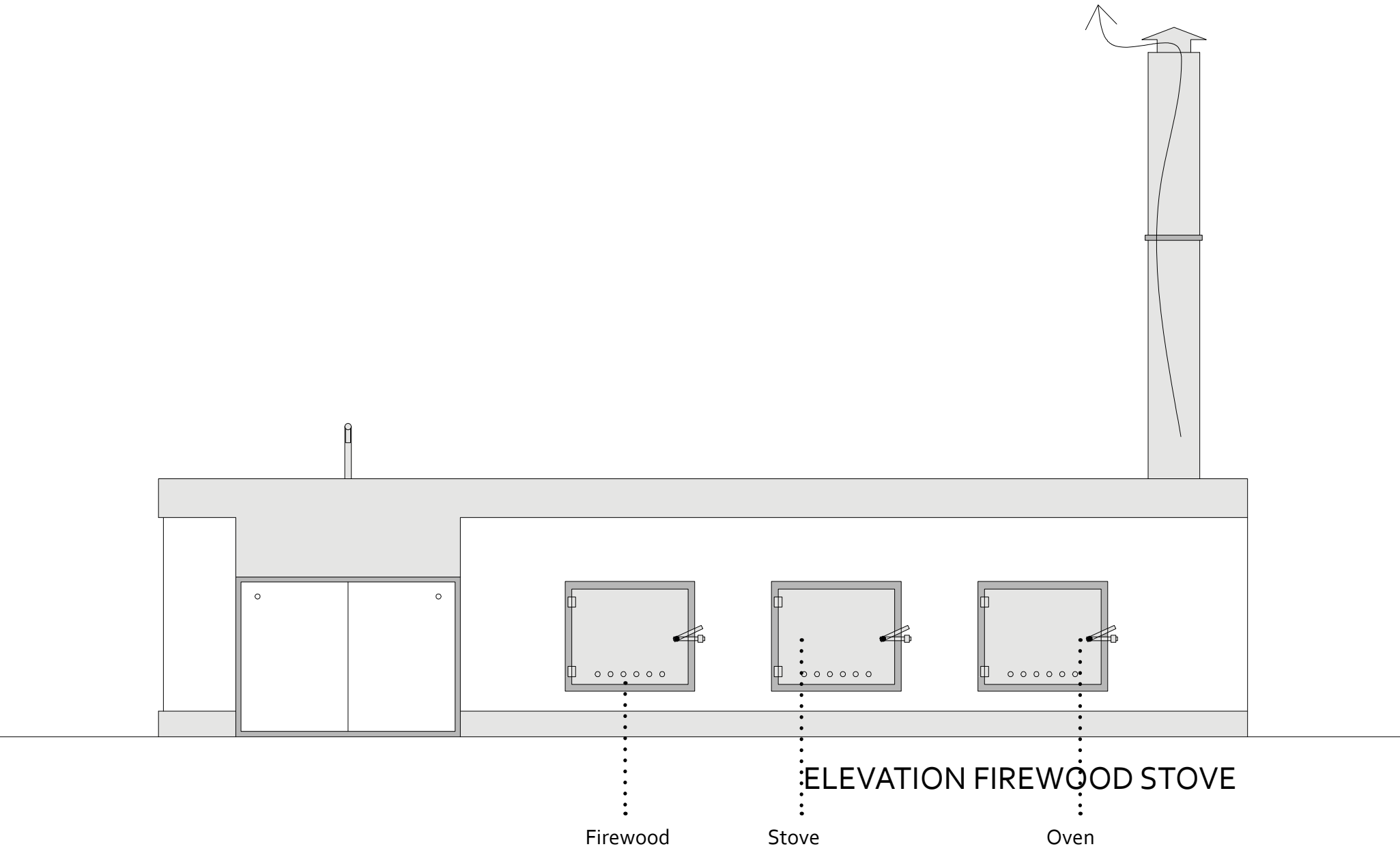


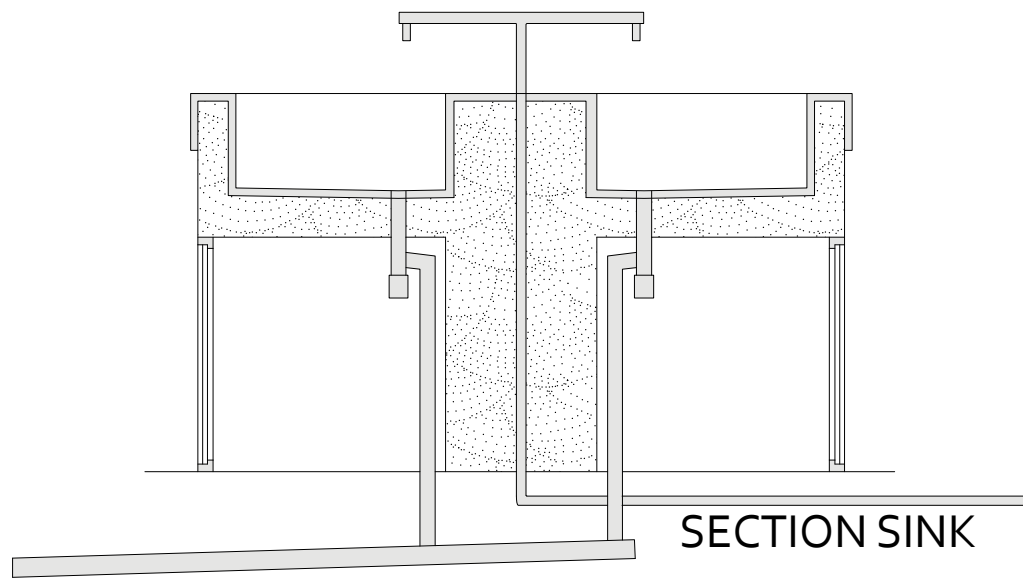
BATHROOM SECTION



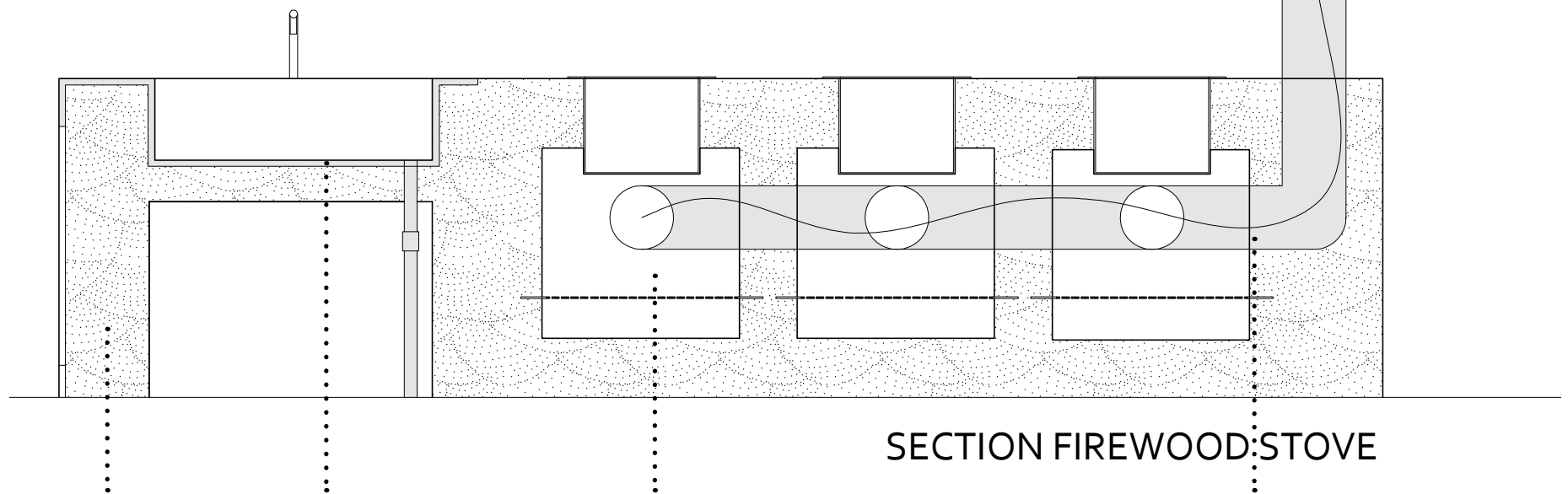
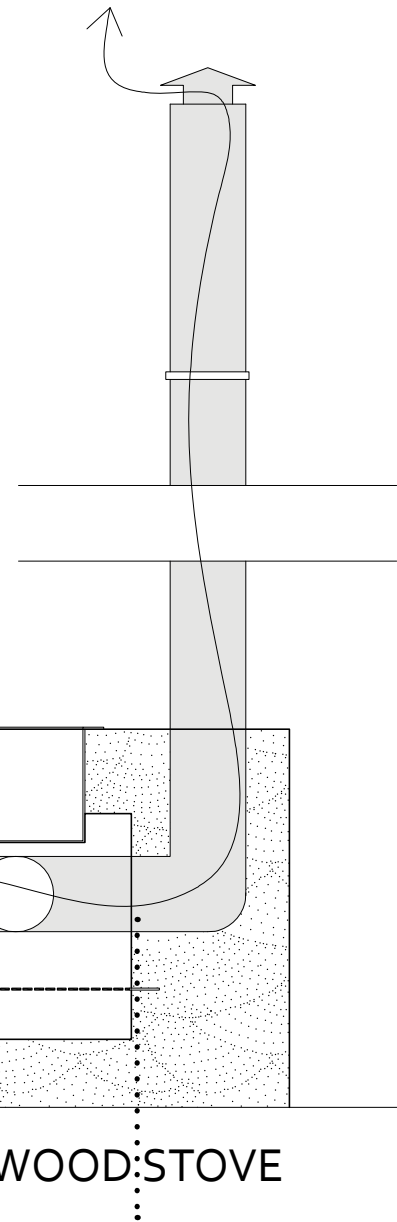


KITCHEN DETAILS





SECTION SINK



SECTION FIREWOOD STOVE

Bricks

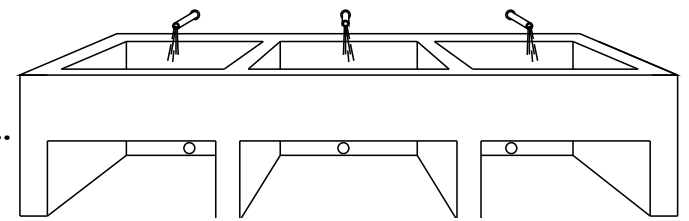
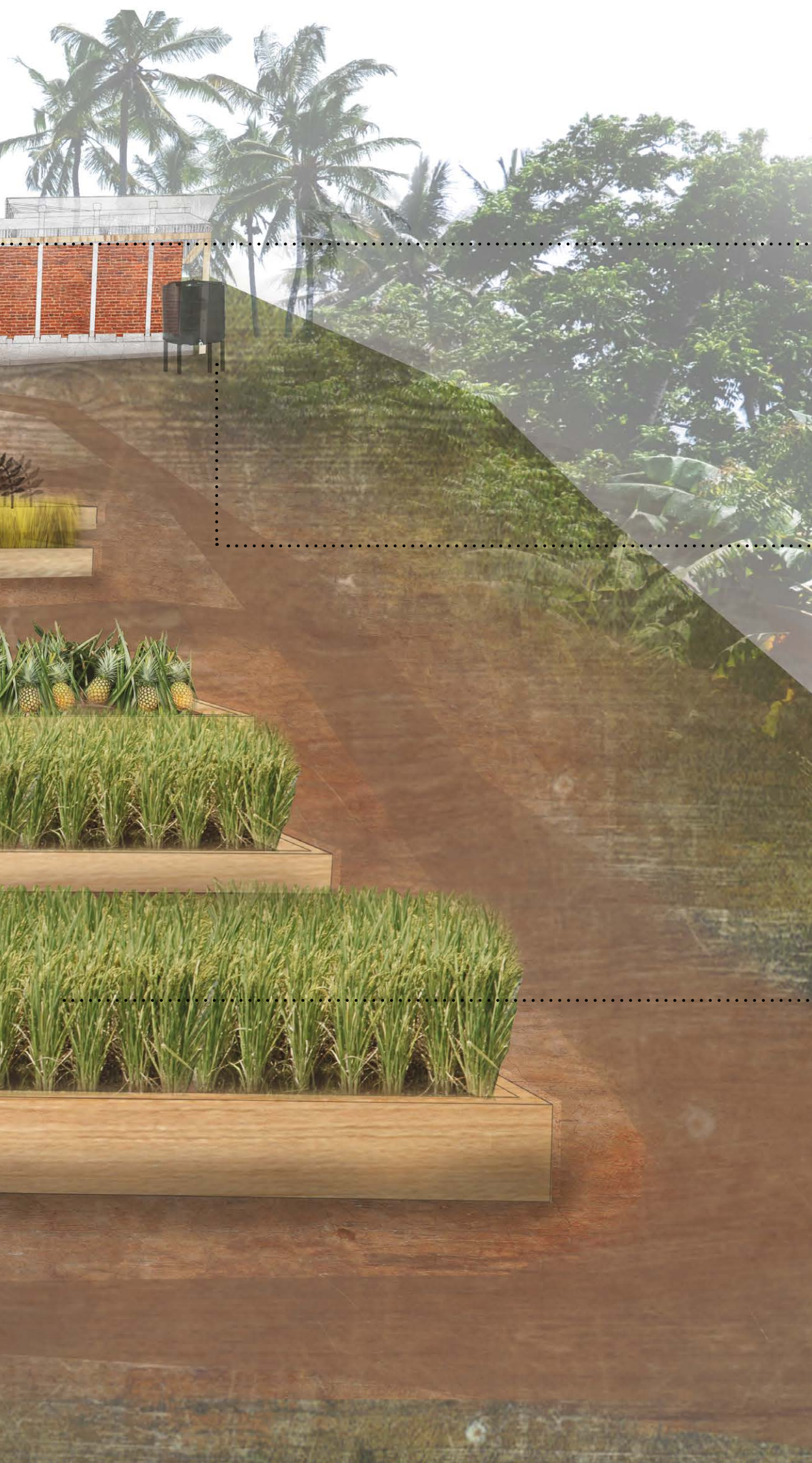
Sink

Firewood heats the
pots from underneath.

Ventilation pipe

VIEW PLANTATIONS





Washing bench in suitable heights.



Rainwater is collected from roofs and stored in tanks around the compound.

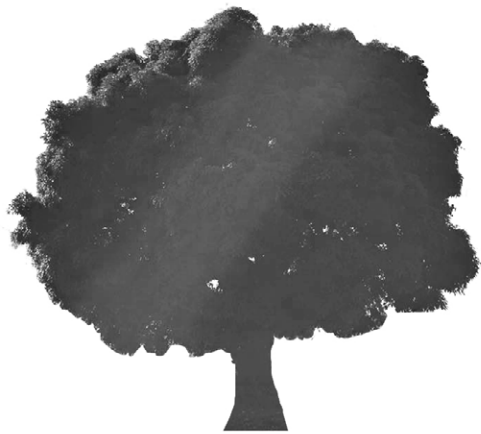
Figure 43



Plantation in terraces provides The Fortress with crops.

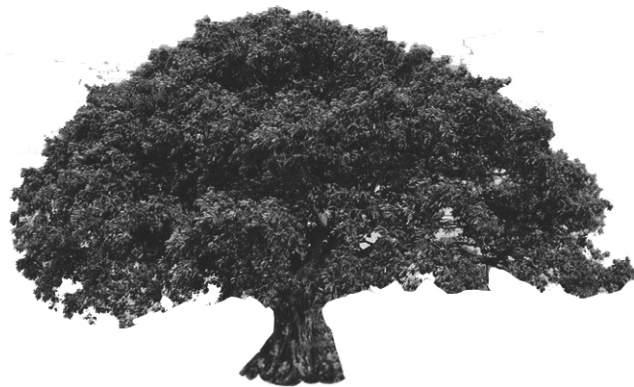
Figure 43

EXAMPLES OF CROPS AND TREES



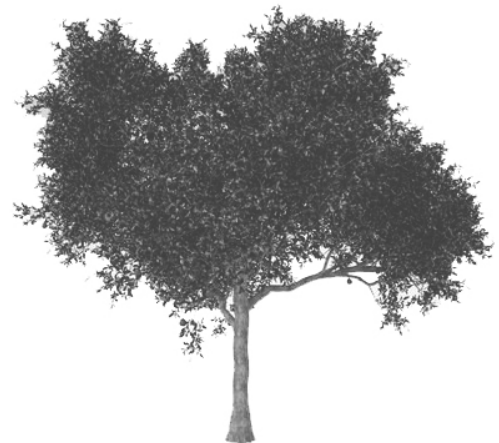
Mango tree

Good for shading due to dense leaf structure. Also provides fruit.



Fid tree

Good for shading due to dense leaf structure. Also provides fruit.



Avocado tree

Provides fruit.
Figure 45



Flame tree

Strong tradition in Uganda.
Beautifying space.
Figure 46



Pineapple

Fruit production.
Can be sold.
Figure 47



Zucchini

Fruit production.
Can be sold.
Figure 48



Jack fruit

Fruit production.
Can be sold.
Figure 49

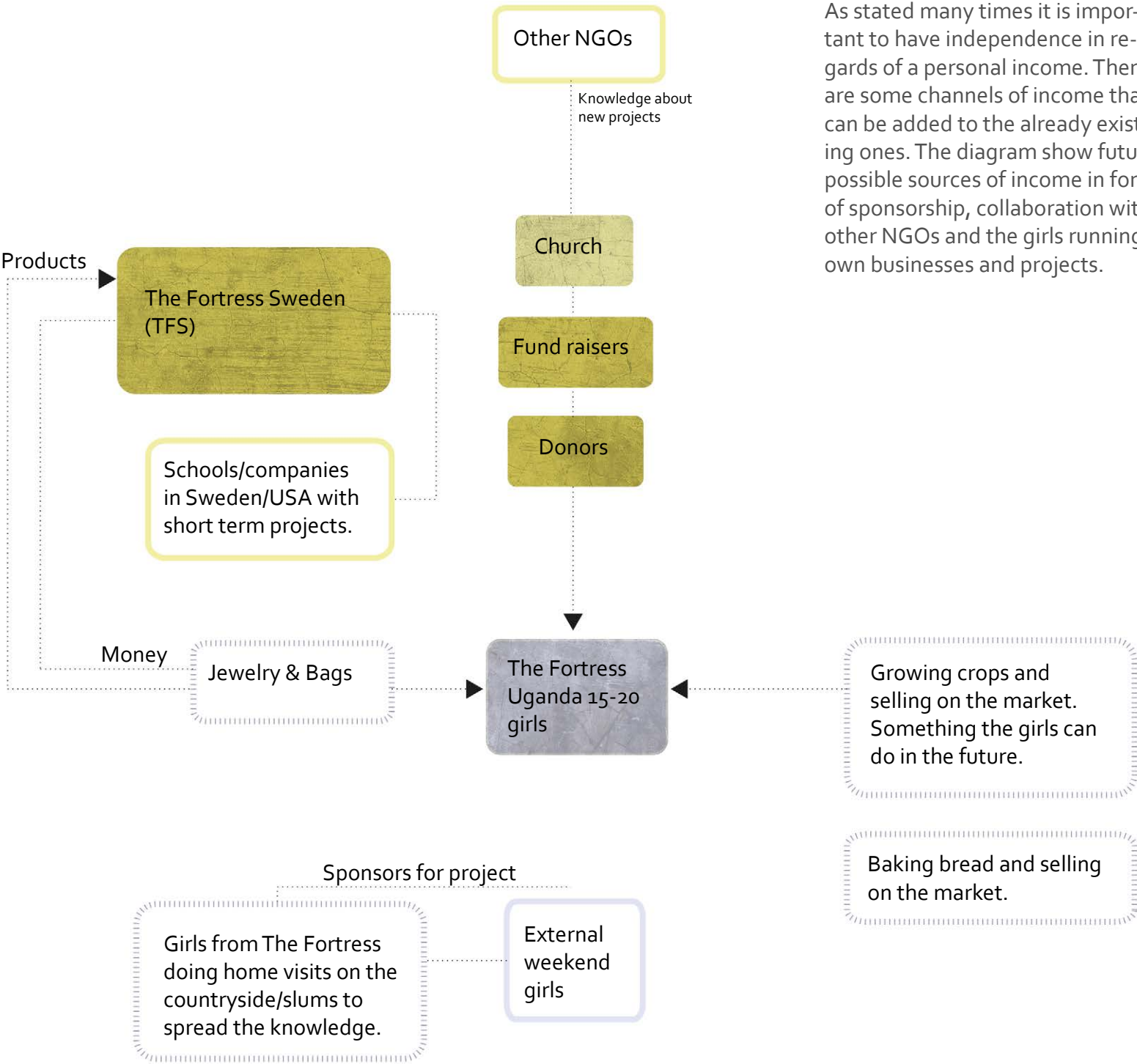
8.0

COMMENTS

Future changes

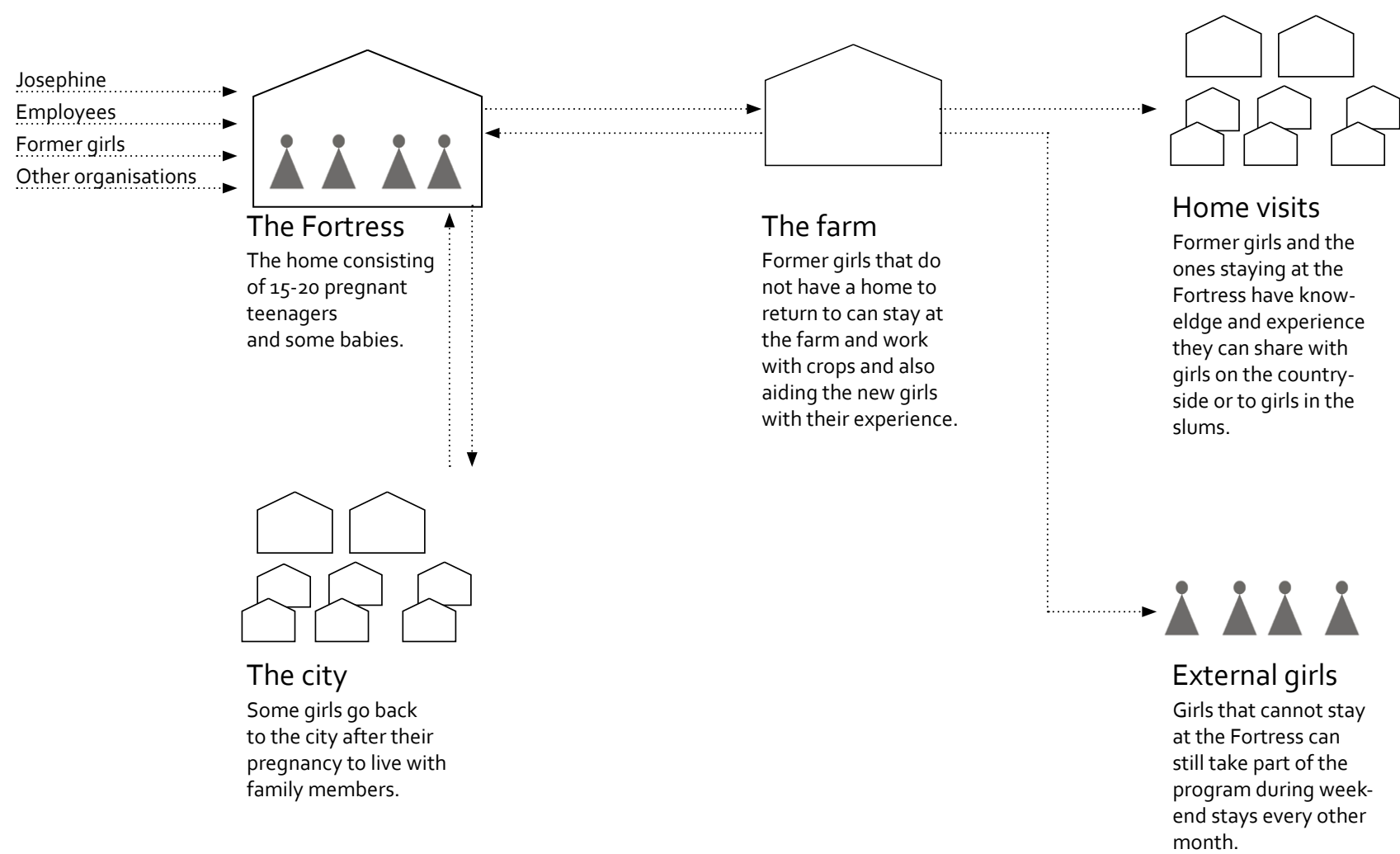
This section discusses possible future changes and solutions. The Fortress has a great potential to expand their platform and turn into an educational centre and become a hub for learning and empowerment.

8.1 NEW WAYS OF INCOME



As stated many times it is important to have independence in regards of a personal income. There are some channels of income that can be added to the already existing ones. The diagram show future possible sources of income in form of sponsorship, collaboration with other NGOs and the girls running own businesses and projects.

8.2 ORGANISATION FUTURE - Strenghtening young girls



8.3 FUTURE STRUCTURE COMPOUND



1
Essentials for operating
The Fortress
Some land for crops

2
Guest house for interns
Guest house for external girls
Nursery for kids and babies
Some land

3
More land for growing crops
to sell.
More space for animals.

4
More land for growing crops
to sell.
More space for animals.
The farm can expand and the
girls learn farming properly

8.4 A MORE ORGANIC STRUCTURE

A hub for educational manegement

The owner of the land wants it to be sliced into straight-line slots of about 1 acre. However, this creates an unnatural shape in an otherwise organic setting. The diagram shows a more organic division of the land, creating a softer character for each slot of land.

In the future The Fortress might have the possibility to expand and become an educational management centre. This would further strengthen their cause to aid young girls in personal development and empowering them into taking charge of their own future. In the suggested proposal there is room for a kid's nursery, where the girls that want to go back to school after leaving The Fortress can leave their child.

There is also space for former girls to stay on the land, while waiting to find a functioning and safe place to live. The former girls can participate in and aid the program at The Fortress, as well as taking care of the farming.

There is also space for a centre for pre-paratory education and classes for girls from the city about economy, practical professions and personal healthcare. A big part of the land is devoted to the production of crops that can be sold at the market, a way to fund the program.



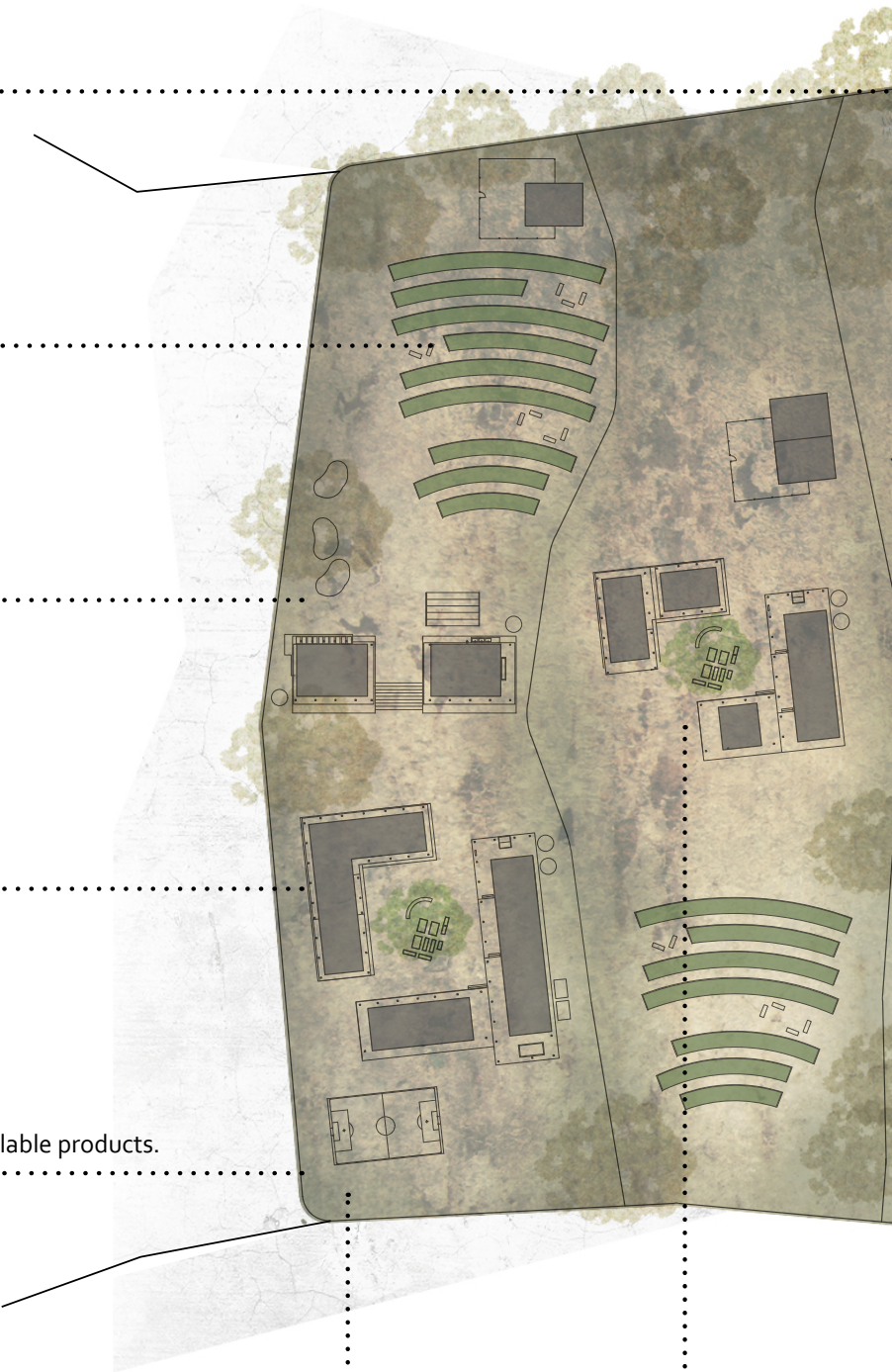
Learning centre for fruit production.

Learning centre to produce crops.

Learning centre for bakery

Animal care

Learning centre for production of sellable products.



The Fortress

Fromer gilrs. Child nursery



Figure 50-54

8.5 BIOGAS

Biogas in Uganda

Biogas is a good alternative to firewood. You use organic and human waste to produce the gas in a closed circuit. The system requires some space to living areas due to smell. If constructed properly it is energy efficient and also cost saving. Moreover, the risk of nearby forests being cut down diminishes. The only reason not to use it is that it needs to be manured properly in order to work. The same goes for latrines where the waste is decomposed. (WEICU, 2015).

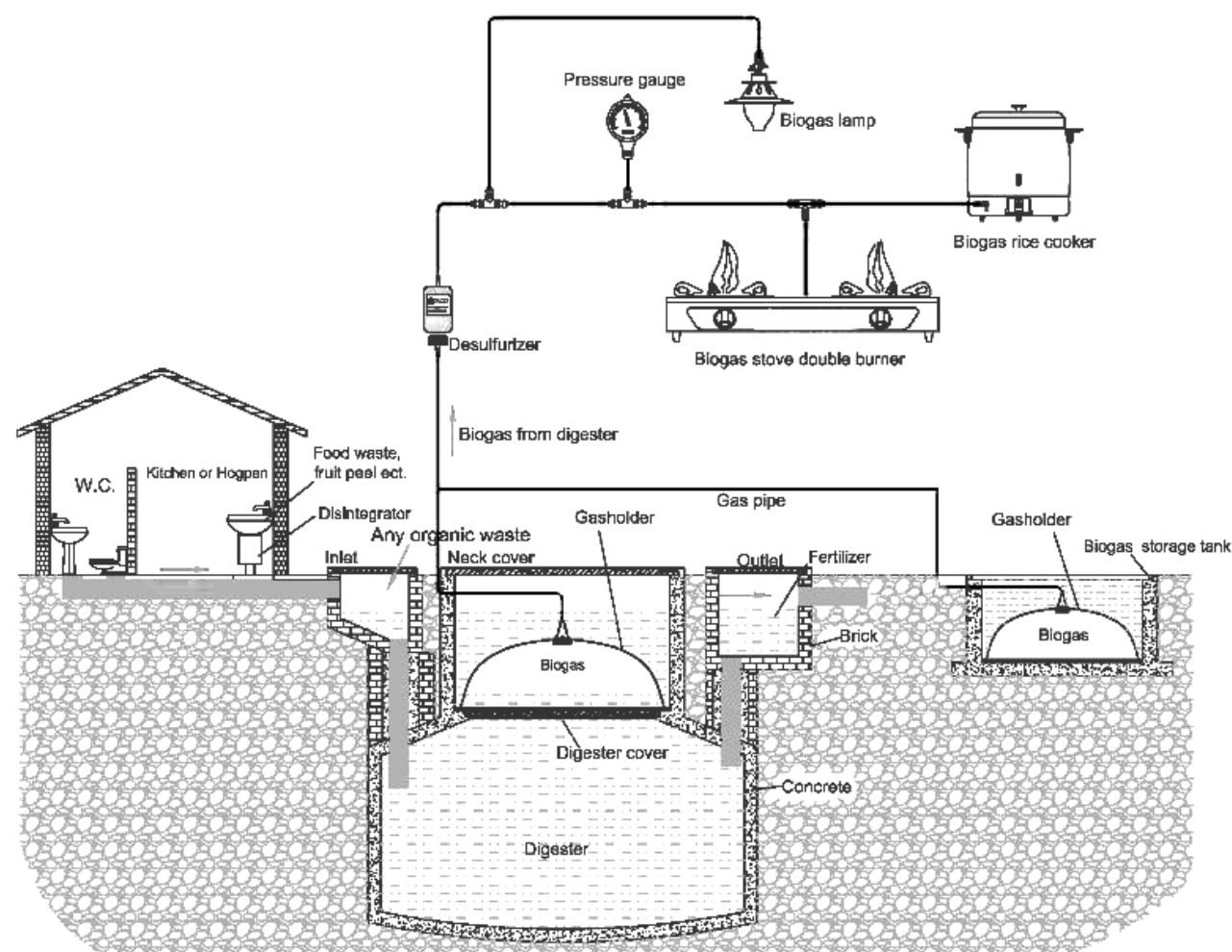


Figure 55

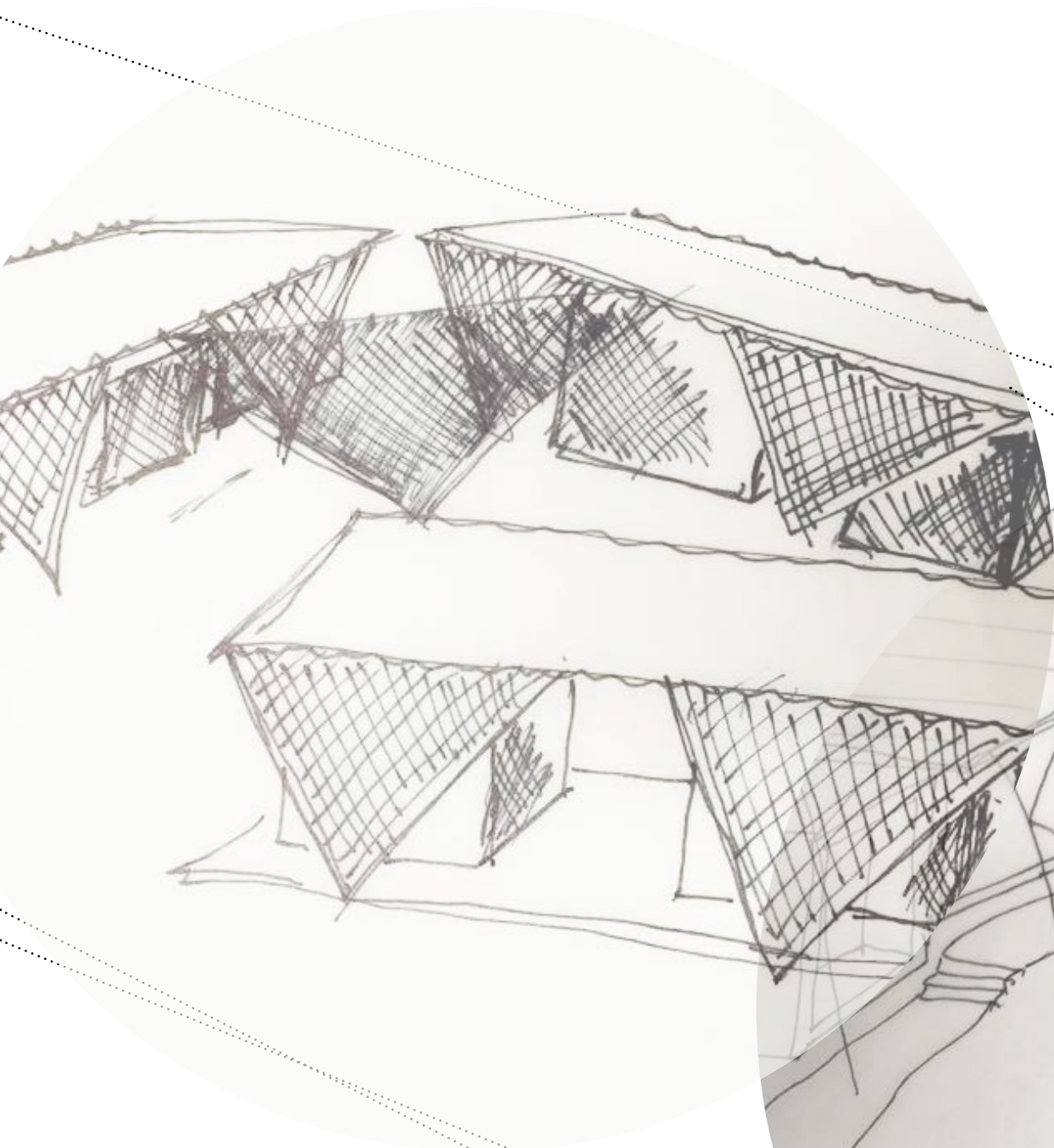
8.6 UN HABITAT GOALS

More than one goal

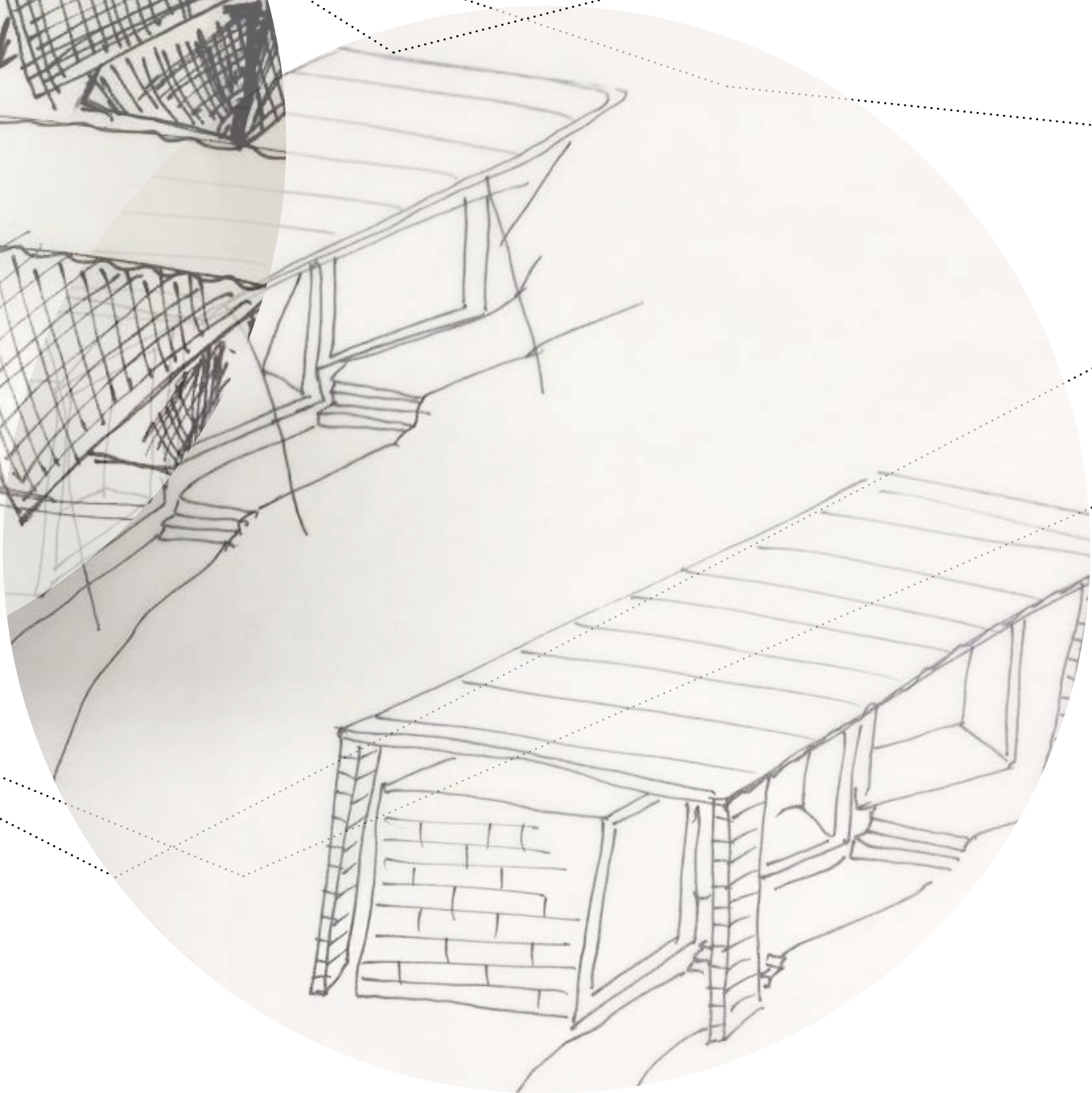
The nature of the project and the final results apply to more than one of the UN habitat goals. Apart from point 5, regarding empowerment, also goals such as poverty reduction, sanitation, renewable energy and responsible consumption is addressed. The project also addresses factors of good health and education as well as the reduction of inequalities. (UN, 2016).

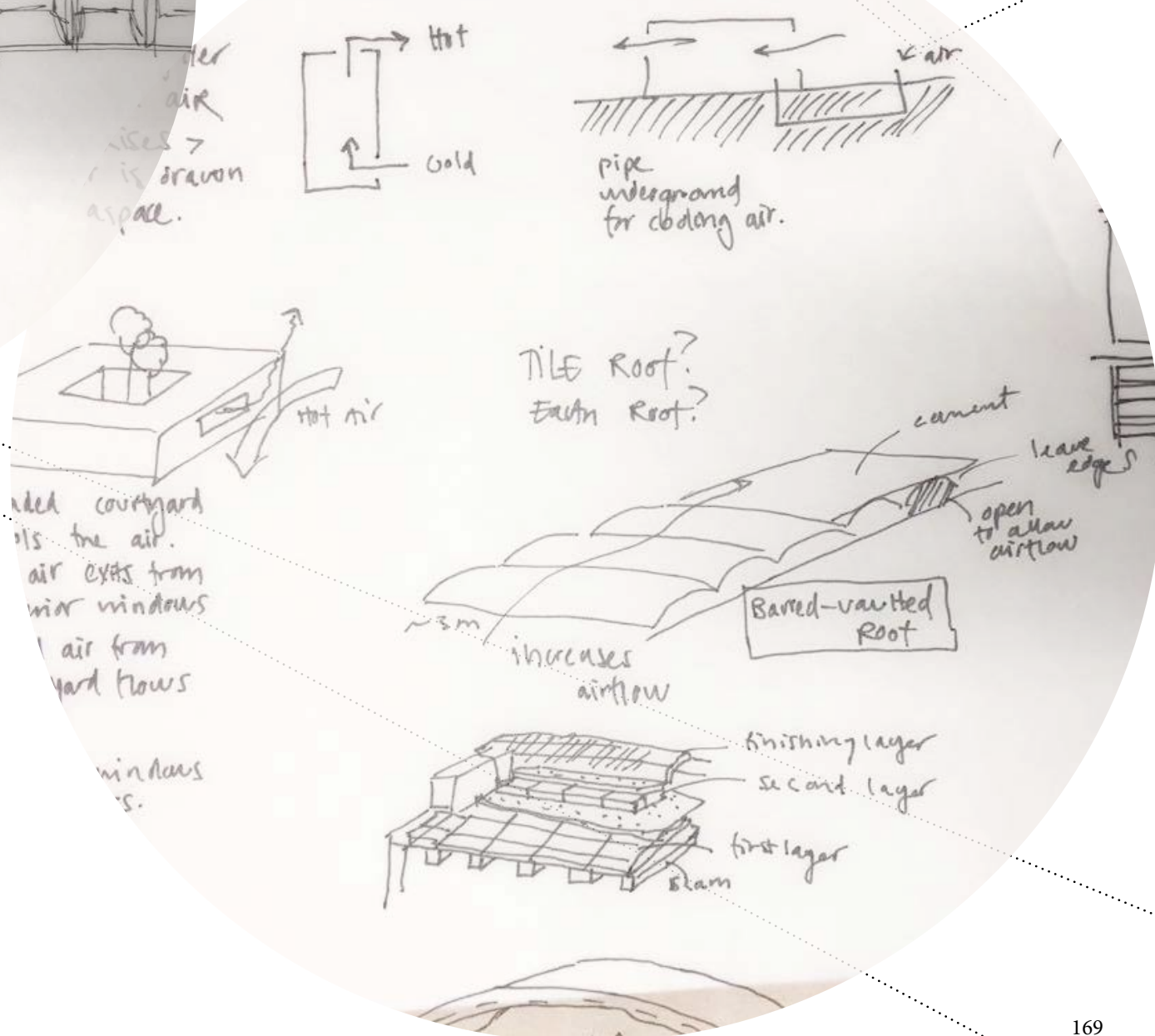
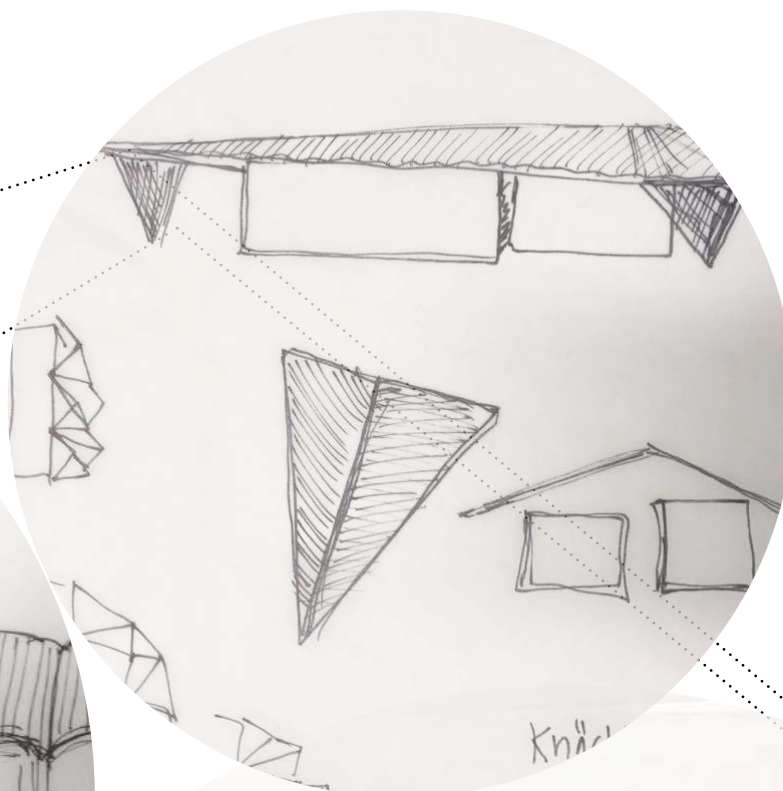
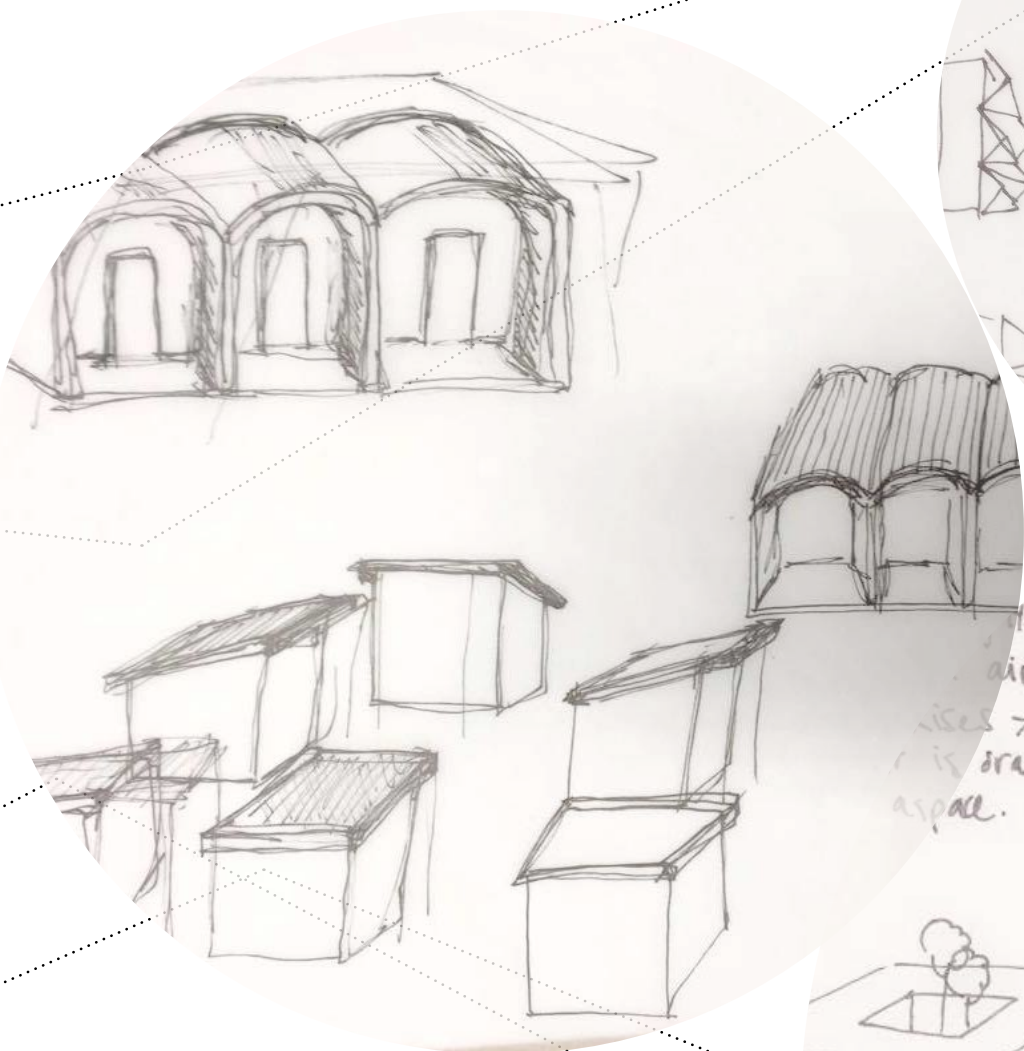


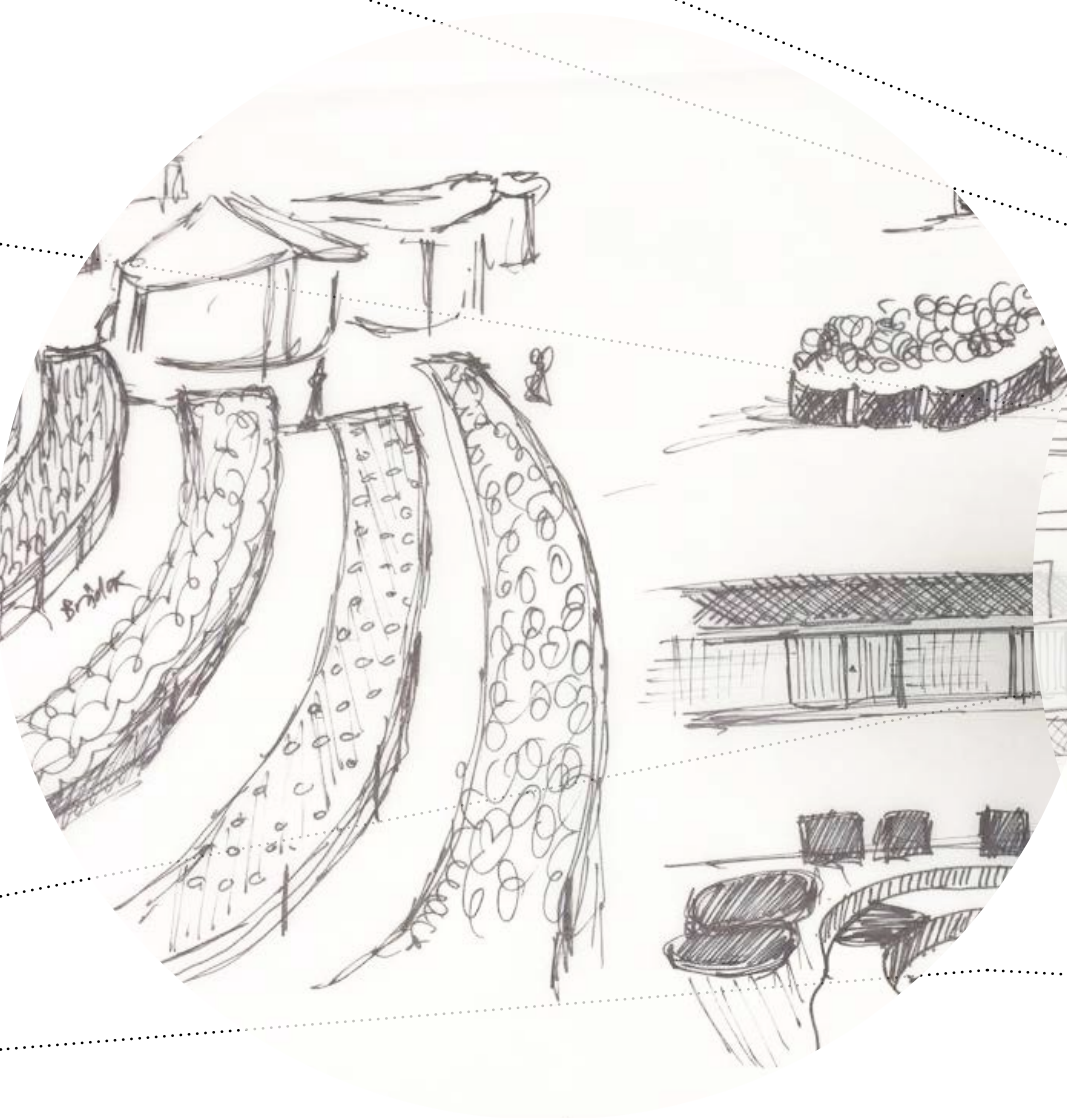
Figure 56: UN Habitat- Sustainable Development Goals



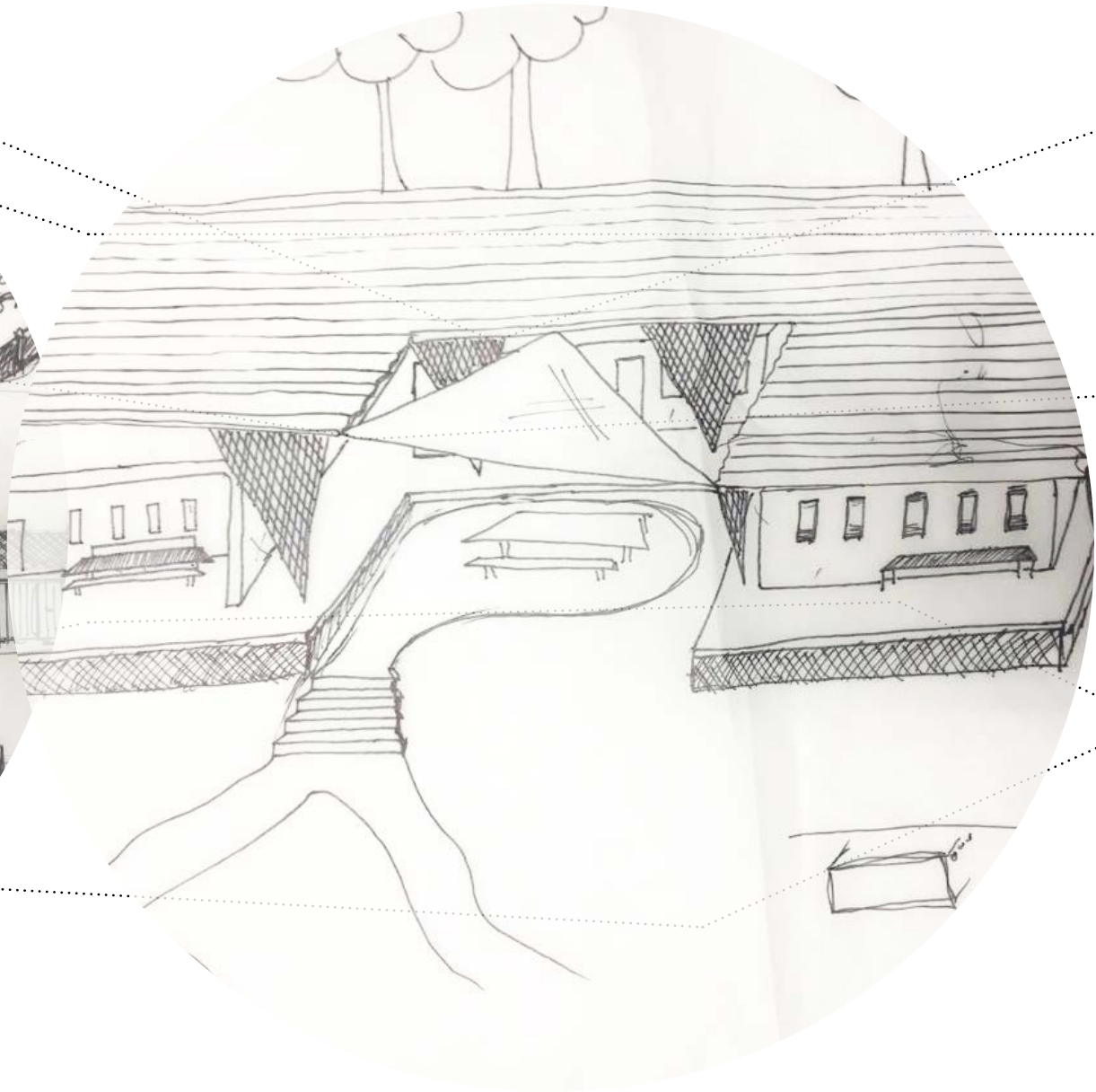
Roof structures



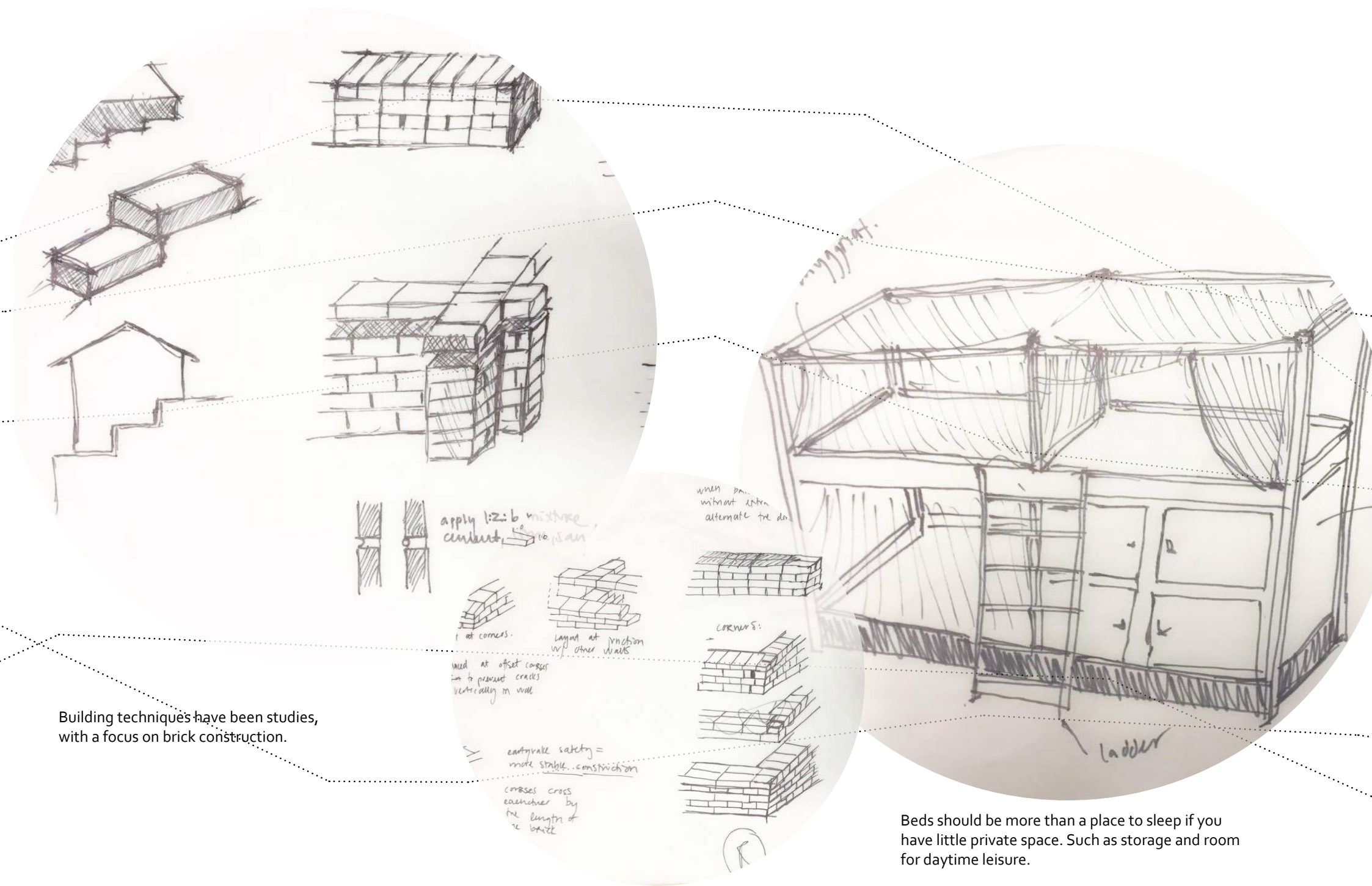




Plantations in terraces



Moving towards the final design
with an encircled yard.



Building techniques have been studied, with a focus on brick construction.

Beds should be more than a place to sleep if you have little private space. Such as storage and room for daytime leisure.

10.1 INSPIRATION

Light

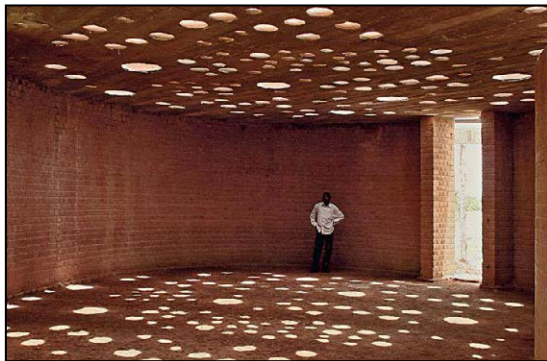
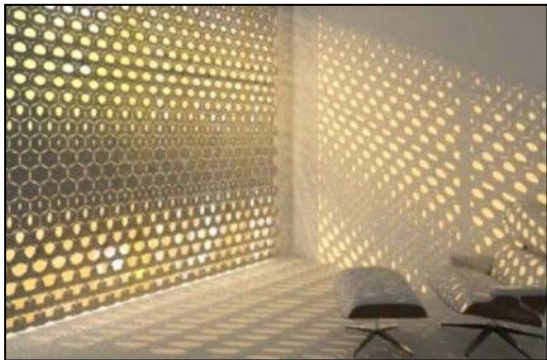


Figure 57-61

Space

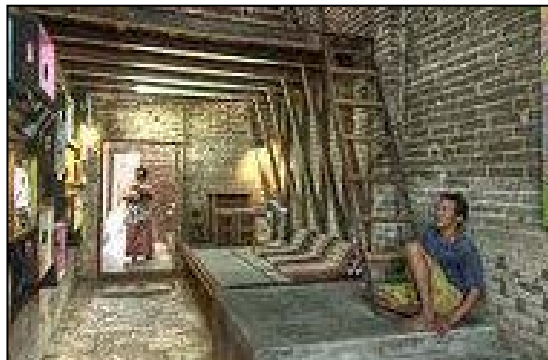


Figure 62-67

Details



Figure 68-72

Construction



Figure 72-76

10.2 ARCHITECTURAL REFERENCES

Dano Secondary School

Burkina Faso
By Diébèbo Francis Kéré

Diébèbo Francis Kéré, an internationally recognized African architect from Burkina Faso and also participant of the Venice Architecture Biennial works with a new kind of development in Africa that involves the local population. He creates new solutions taking into account the scarcity of available resources and of the extreme climate in the region. “In my country, Burkina Faso, if you manage to build a wall that is still standing after the wet season people are happy” he says. He studied architecture in Berlin after having received a scholarship, also the whole community of his home village was supporting his studies. In 1998 he founded the Schulbausteine für Gando association with the aim to collect funds in order to build a school in his home village. In his own words “The African tradition

gave me respect for nature and taught me to strive to use the minimum possible to obtain the maximum”. What you would call sustainable.” He strives to present simple solutions that address the people that are supposed to use the buildings. “The idea of working with the people, knowing how to win over their trust, for me, derives from the African tradition.” He involved everyone in the village: men, women, the elderly and the kids and claims that building is a social event. Also he points out that you need other tools of communication than books and designs.

The building is constructed by sun dried raw bricks, a way to reduce the energy costs. However the villagers were not convinced of the design until it proved to survive the first wet season. The walls and the roof of the school are made from raw mud bricks. A second roof of

sheet metal is supported by an iron network. This design allows natural ventilation of the building and this in combination with the regenerative energy of the sun the difference between internal and external temperature increases. Allowing air to flow through the building is the only way to deal with the heat. (Kere Architecture, 2016)



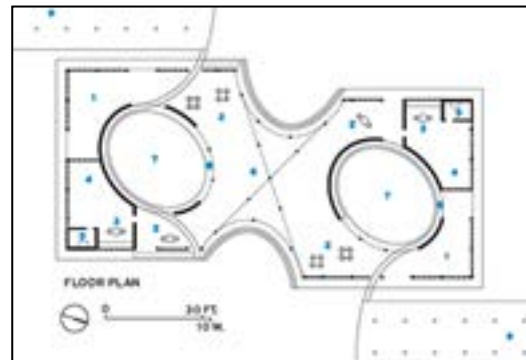
THREAD: Artists' Residence & Cultural Center

"Shinthian" Senegal
By Toshiko Mori

THREAD is crowned with a roof designed by German engineers Schlaich Bergermann und Partner in collaboration with Toshiko Mori, and constructed by local workers with native bamboo and thatch. Its sloped surface enables rainwater to drain into canals and storage cisterns for village consumption

The architect uses open spaces to create a flexible arena for cultural activities such as dancing and other social gatherings. This and the use of local materials such as clay, straw and seeing to local building traditions inspire me greatly.

The activities take place under open air and the structure of the roof gives the building its character while also taking care of water and shading. (Artist Residency and Cultural Center, THREAD, 2016).



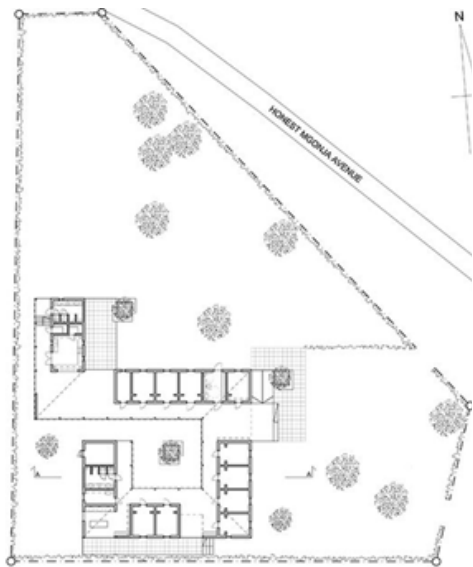
KWIECO Shelter House

Tanzania
By Hollmen Reuter Sandman architects

The project is a home for women that have been abused by their husbands and are awaiting legal advice, which is similar to my topic. The compound is of simple nature, using local materials and strong colors and covered open outdoor spaces for common activities. The architects have seen to the daily needs of women with focus on cooking and washing, using models as a tool for discussion with the stakeholders. Anna Heringer has inspired the design and the architects are part of an organization called "South of North", a network for Nordic architects that are working with similar topics, using architecture as a tool for change.

The simplicity of the project in combination for the respect to local traditions

and materials stands as a role model for my project. Also the methods used by the architects to define the problem and design solutions are inspiring. Simple structures, local materials and strong colors define KWIECO. (ArchDaily, 2016)



METI Handmade School

Bangladesh

By Anna Heringer and Eike Roswag

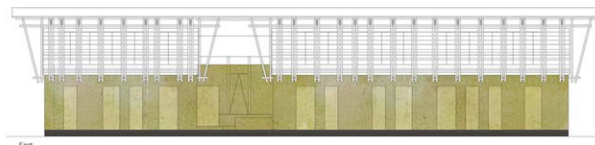
Rudrapur is found north of Bangladesh. Poverty and the lack of infrastructure drive many people from the countryside into the cities. The local NGO Dipshikha wants to help people to learn about the value of the village and give the rural population perspectives.

The buildings use of materials, techniques and design elements reflect the philosophy of the school where children are to develop to their own potential and use it in a creative and responsible way. The aim of the project was to improve local building techniques, and using local potential and strengthen regional identity. Architecture is more than shelter and "intimately connected with the creation of identity and self-confidence."

The school offers the children different spaces and atmospheres for learning. More intimate classrooms are found

on the bottom floor. The first floor is airy, built in light bamboo construction where sunlight shines through. The ceiling is draped in colourful floating saris. The school building was built by experts and volunteers from Germany and Austria led by Anna Heringer and Eike Roswag, together with local craftsmen, teachers and students.

Part of the school concept is to strengthen the children's self-confidence and independence with the aim of strengthening their sense of identity. (Wan Awards, 2009).



10.3 UGANDA STATISTICS

Uganda Demographics: Population: 35, 918, 915 Note: the estimates for Uganda takes into account the effects of excess mortality due to AIDS which can lower the life expectancy, higher infant mortality, higher death rates, lower population growth and changes in distribution of population by age and sex. Age Structure: 0-14 years: 48.7% (male 8,714,354/female 8,765,900) 15-24 years: 21.2% (male 3,775,679/female 3,833,574) 25-54 years: 25.7% (male 4,618,088/female 4,615,616) 55-64 years: 2.4% (male 405,740/female 447,118) 65 years and over: 2.1% (male 327,771/female 415,075) (2014 est.)	Dependency ratio: total dependency ratio: 102.4 % youth dependency ratio: 97.5 % elderly dependency ratio: 4.9 % Median age: total: 15.5 years male: 15.5 years female: 15.6 years (2014 est.) Population growth rate: 3.24 % (2014 est) Birth rate: 22.15 births/1.000 population (2014 est.) Death rate: 10.97 deaths/1.000 population (2014 est) Rate of urbanization: 5.74 % annual rate of change (2010-15 ets.) Mother's mean age at first birth: 18.9 Infant mortality rate: total: 60.82 deaths/1,000 live births	male: 70.17 deaths/1,000 live births female: 51.18 deaths/1,000 live births (2014 est.) Total fertility rate: 5.97 children born/woman (2014 est.) Contraceptive prevalence rate: 30 % (2011) HIV/AIDS-adult prevalence rate: 7.2 % (2012 est.) Life expectancy at birth: total population: 54.46 years male: 53.1 years female: 55.86 years (2014 est.) People living with HIV/AIDS: 1,549,200 (2012 est.) Maternal mortality rate: 310 deaths/100,000 live births (2010) Drinking water source: improved: urban: 94.8% of population rural: 71% of population total: 74.8% of population
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unimproved:
urban: 5.2% of population
rural: 29% of population
total: 25.2% of population (2012 est.)

Sanitation facility access:
improved:
urban: 32.8% of population
rural: 34.1% of population
total: 33.9% of population
unimproved:
urban: 67.2% of population
rural: 65.9% of population
total: 66.1% of population (2012 est.)

Ethnic groups:
Baganda 16.9%, Banyankole 9.5%,
Basoga 8.4%, Bakiga 6.9%, Iteso 6.4%,
Langi 6.1%, Acholi 4.7%, Bagisu 4.6%,
Lugbara 4.2%, Bunyoro 2.7%, other
29.6% (2002 census)
Religion:
Roman Catholic 41.9%, Protestant 42%

(Anglican 35.9%, Pentecostal 4.6%,
Seventh-Day Adventist 1.5%), Muslim
12.1%, other 3.1%, none 0.9% (2002
census)

Languages:
English (official national language,
taught in grade schools, used in courts
of law and by most newspapers and
some radio broadcasts), Ganda or
Luganda (most widely used of the
Niger-Congo languages, preferred for
native language publications in the cap-
ital and may be taught in school), other
Niger-Congo languages, Nilo-Saharan
languages, Swahili, Arabic

Literacy:
definition: age 15 and over can read and
write
total population: 73.2%
male: 82.6%
female: 64.6% (2010 est.)

School life expectancy: 11 years (2009)

Child labor children 5-14:
total number: 117,266
percentage: 25 %
note: data represents children ages 5-17
working in the (2010 est.)

(Index Mundi,2015)

10.4 UGANDA - An introduction

Geography

The Republic of Uganda is one of the East African countries and borders to Kenya, South Sudan, Democratic Republic of Congo, Rwanda and Tanzania. The southern part includes a substantial portion of Lake Victoria and also lies within the Nile basin and has a varied but generally modified equatorial climate. Most of Uganda is lush and fertile and the vegetation is extremely diverse. The country is affected by global warming and hailstorms along with massive flooding and prolonged drought occasionally destroys the agricultural production.

The whole country lies in a cradle of mountains, with the volcanic Muhavura Range rising over the Great Rift Valley. 20 % of the country is covered by lakes, rivers and other waterways providing the country with excellent fishing. (Barlas, R., Yong Jui, L., 2010)

History & Politics

Bantu people engaged in agriculture in what is now Uganda as early as 1000 BC. By the 19th century the kingdom of Buganda (the biggest area in Uganda) together with Zanzibar ruled neighbouring kingdoms. The king Mutesa I ruled for many years, uniting many tribes and people of different ethnic groups in the area of Uganda. He set up important trade relations with the Arabs and invited the first English explorer Captain John Speke in 1862. After him missionaries followed and Buganda's loyalties split up into French (Catholic), English (Protestant) and Muslim parties. By 1894 Buganda was declared a British protectorate. (New World Encyclopedia, 2014).

Uganda gained independence again 9th of October in 1962 and Milton Obote was elected as the leader of the country. He abolished the traditional kingdoms and declared Uganda a republic, ruling in a dictatorial way until 1971 when Ida Amin Dad gained power after a military

coup. Amin's rule depended heavily on violence and murder, destruction of property and rape became hallmarks for his troops. Uganda's economy was greatly battered when Amin ordered the expulsion of the country's Asian community in 1972 as they were responsible for the commercial expertise in Uganda. Tanzanian troops defeated Amin in 1978 and Obote was again proclaimed president in 1980. After this many years of violence and a civil war against the Lord's Resistance Army followed, displacing more than a million people and caused tens of thousands casualties. In 1986, after the six-year guerilla war, Yoweri Kaguta Museveni from the National Resistance Movement (NRM) stepped in as the president of Uganda. Museveni comes from a nomadic background and early decided to fight against political and social injustices. He formed a broad-based government and unified former hostile groups under NRM. (Barlas, R., Yong Jui, L., 2010)

Economy

Uganda began its economic recovery in 1981 after the turmoil of Amin’s ruling, receiving help from other countries. One important factor was the discovery of oil in western Uganda that increased the numbers of foreign investors. However, Uganda is vulnerable to oil-price stocks as it imports almost all of its oil from Kenya.

Uganda has substantial natural resources including fertile soils, regular rainfall and sizable mineral deposits of copper, cobalt, gold and other minerals. Agriculture is an important component of the economy, creating jobs and regenerating revenue from exports. 82 % of Uganda’s labour force is employed in the agricultural sector and it provides for 29 % of Uganda’s GDP. Tourism, fishing and mining are other developing areas. The infrastructure is being rebuilt since 1986. (New World Encyclopedia, 2014).

Uganda’s number- one export is coffee, followed by fish and tea. The leading nonagricultural exports are gold, iron, steel and electrical products. Uganda is a member of the African Economic Community (AEC) where the nations have established mutual grounds for economic development. The goals of AEF is to create free-trade areas, custom unions, a single market, a central bank and common currency to establish an economic and monetary union. (Barlas, R., Yong Jui, L., 2010)

Corruption

Bribery and corruption are still a major feature in the way things run in Uganda. This is a problem in for example the construction business where money is invested in high quality project but along the way a lot of the money disap-

pear and the final building or road is not as good as it was meant to be. (Barlas, R., Yong Jui, L., 2010)

Working life

Uganda has one of the best educational systems in Africa, however wages are low by international standards and due to inflation official wages do not meet cost of living. Cheap food supplies are generally plentiful most of the year luckily. An employer has to give the National Social Security Fund (NSSF) an equal 10 % of the employee’s salary. An additional 5 % is drawn from the salary.

Education

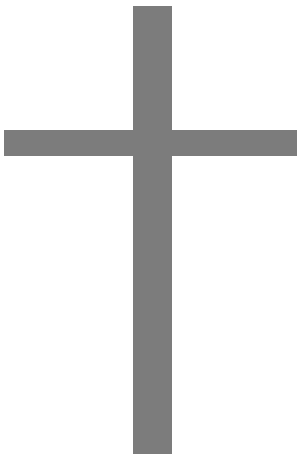
Literacy: age 15 % and over can read and write
Total population: 73.2 %
Male: 82.6 %
Female: 64.6 %
Low levels of literacy and education in general can impede the economic development of a country in a currently changing and technology-driven world.

(Index Mundi, 2015)

10.5 DEMOGRAPHICS

Ethic Groups

There are a vast number of ethnic and tribal groups in Uganda. Most of Uganda’s people can be divided into four groups: the Bantu, the Lou, the Nilo-Hamitic and the Sudanic. The Bantu people are largest ethnic group in Uganda and make up 46 % of the population.



Languages

With a multicultural society, Uganda is home to 38 spoken languages, however only English and Swahili are the two official ones. English was introduced in the 19th century and is mostly used in major towns and cities along with politics and economics. English is essential for those in power but Swahili is the most widely used. Luganda is the second most spoken language in Uganda and is the language of the largest tribal group, the Baganda. In 1947 the language was standardized and can now be communicated also in written form. Other common languages are Lusoga, Lugwere, Gwere, Acholi, Adhola, Hindi and Gujarati. Religion in Uganda

Religion

was changed dramatically as a result of becoming a British protectorate and traditional religions are less practiced today. Religious tolerance exists in the country allowing Christians, Muslims, Jews, Bahaier and Hindus to practice their religions.

Conservative American free churches has affected the view on homosexuality in a negative way. The Muslim communities are mainly found in the north where the Sunni-Muslims is the dominant group. The Baganda people still practice their traditional religion to a large extent and have many followers. Many Ugandans also mix Christianity or Islam with traditional religious beliefs and customs. In school that are state-run it is mandatory to study religions. (Landguiden, Utrikespolitiska Institutet, 2016).

10.6 TRADITION & LIFESTYLES

Lifesyle

Among agricultural people the traditional living arrangements was scattered homesteads with round hoses of wooden frames, mud walls and grass-thatched roofs. Banana-fibre thatch was used in areas where banana is common. Each household raised own food supply and made its own clothes and houses. In tribal settlements each household is ruled by a family head, living with his wives, married sons and their wives and children. Even if a man has only one wife he commonly have an additional house where he keeps his possessions and entertains visitors. Today women in urban areas have their own jobs and juggle home life with their career. Women in Uganda are seen to be politically empowered but struggle with educational rights and the literacy rate is quite low. However, more than 50 % of Uganda’s workforce is women. In the village women are usually responsible

for basketry, pottery, childcare and other tasks in relation to house holding. Among the tribes it is considered an evidence of wealth to have many children. She is given a lot of respect if she conceives a boy that will be the heir of his father. Today only 40 % of the women are aided by professional health workers when giving birth. Working women are usually given eight weeks of maternity leave. Traditionally the parents choose a wife for their son when they are of early age. In some settlements polygamy is still common. Having a child outside of marriage is still frowned upon In Uganda and the girl is often excluded from family and society. (Barlas, R., Yong Jui, L., 2010)

Meat from goat or chicken is a common

Cooking

dish in Uganda, along with matoke (type of green banana) and coconuts. In villages cooking is done mainly on open fires heated by animal dung. In cities heating by paraffin, coal, electricity or gas is more common.

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