

HEALING THROUGH HUMANITARIAN DESIGN: UNDERSTANDING THE REFUGEE  
CRISIS AND DESIGNING FOR THE FUTURE

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**Title**

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## **ABSTRACT**

This project is an exploration into understanding the qualities of the built environment to attain a level of dignity for refugees in their healing process. Architecture cannot solve these social issues but seeks to understand the impact of the built environment on individual people. This research will focus on the humanitarian design response method and how it can be improved in the future. Can healing take place through design created by architects and does the design of a refugee camp have anything to do with that healing process? This research will use the global refugee situation as a vehicle to understand humanitarian design response. This research will interrogate global partners that are working towards the goal to support the healing process in refugee camps and understand how this process is approached within those companies and to further gain an understanding if the structure of a camp could influence the ability for people to heal. What if humanitarian design response was something that planners, designer and architects were prepared for, rather than something designers are always trying to catch up with. This research will reveal what strategies have been currently achieved as a humanitarian response in order to uncover any gaps that could provide a holistic solution in the future.

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## INTRODUCTION

This research will explore and understand the influence of architecture on social issues around the world. This research will focus on refugee camp design and how the design of the camps influences the people living in them. The United Nations {UN} is currently the leader in creating solutions for what happens to people who have been forcibly displaced and making plans for the refugee camps. This research intends to understand the qualities of the built environment that impact the healing process and understand how those qualities could be utilized within the structure and design of future refugee camps. This thesis will work closely with Tutapona a private non-profit company that is providing mental and physical support in healing directly at locations in refugee camps in Africa, Ukraine, and the Middle East. This research will explain sustainability and circular design and why those are important for refugee camp design.

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### 1.1 The Problem Statement

“As of May 2023, more than 110 million individuals were forcibly displaced worldwide. This marks the largest ever single-year increase in forced displacement in United Nations High Commissioner for Refugees {UNHCR’s} history...”(*Refugee Statistics | USA for UNHCR*, n.d.). The refugee crisis has been an issue in the world and will continue to be something that needs to be rethought. People across the world are fleeing the countries they were born in, and seeking refuge in areas where they can find safety. As designers of the built environment, we seek to provide basic needs to all people (*THE AMERICAN INSTITUTE OF ARCHITECTS*, 2020). Architects must care primarily about the people they are designing for and the importance of their safety and security. I think the refugee crisis is something that we have distanced ourselves

from, but the reality is that people are dying and suffering every day. The hope is that through design, these camps could provide spaces for people to heal and live full lives.

### **1.1.1. Research Question(s)**

How can the healing process be influenced by the built environment?

How can architects create humanitarian design that supports the healing process while also using sustainable practices?

### **1.1.2. Proposed Outcome(s)**

My goal with this research is to understand how my solution is related to the United Nation's {UN} goals. This research will reveal the current strategies being used to deal with the refugee crisis and will look to refine some of those solutions.

An architect's job is to design for capital gain. The intent of this research is to create awareness for other architects to act upon. Are there ways to use the existing systems we have in place to bring significant help and hope to these communities?

## **1.2 Objective**

The objective of this project is to rethink how humanitarian design is currently done. This will be done by researching what the current model looks like and finding the gaps that could be improved in the future. The goal will be to explore how good qualities of design can be implemented even into disaster/crisis relief designs to improve the quality of life for people. Another main goal will be to rethink the current narrative and push a new idea of humanitarian hedonism. Not holding ourselves back from proving good design solutions from the parameters that have been put into place that appear constricting. This will be done in hope to provide proactive crisis relief design rather than reactive.

## **BACKGROUND**

According to the AIA code of ethics, Ethical Standard 1.5 states this: “Design for Human Dignity and the Health, Safety, and Welfare of the Public: Members should employ their professional knowledge and skill to design buildings and spaces that will enhance and facilitate human dignity and the health, safety, and welfare of the individual and the public.” (*THE AMERICAN INSTITUTE OF ARCHITECTS*, 2020). The discipline of architecture has been turned into a profession that seeks to make the most amount of money rather than help the most amount of people. Shigeru Ban stated in a Ted Talk,

“I was very disappointed at my profession as an architect, because we are not helping, we are not working for society, but we are working for privileged people, rich people, government, developers. They have money and power. Those are invisible. So, they hire us to visualize their power and money by making monumental architecture... For example, earthquakes never kill people, but collapses of the buildings kill people. That’s responsibility of architects. Then people need some temporary housing, but there are no architects working there because we are too busy working for privileged people. So, I thought, even as architects we can be involved in the reconstruction of temporary housing. We can make it better” (TED, 2013).

## 2.2 Literature Review

### 2.2.1. Global Context

“More than 110 million individuals have been forcibly displaced worldwide as a result of persecution, conflict, violence or human rights violations. We are now witnessing the highest levels of displacement on record.” (*What Is a Refugee?*, n.d.) 110 million people is 1.5% of the worlds population. To put that into perspective the entire United States accounts for only 4.23% of the worlds population (*United States Population (2023) - Worldometer*, n.d.). Looking at the graph below, the amount of forcibly displaced people has been consistently increasing.

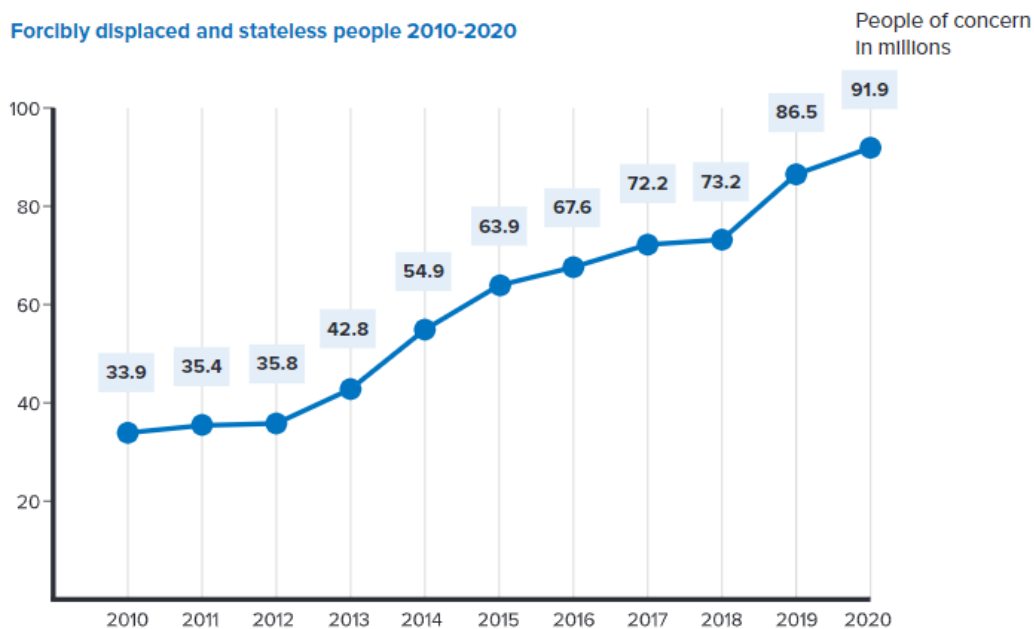


Figure 1: Forcibly and stateless people 2010 - 2020 – UNHCR

Credit: UNHCR Strategic Directions 2022-2026

All around the globe people are being forced to leave the countries they were born in. Families leave behind anything they have acquired and abandon their “homes” as they flee from persecution and seek refuge. There are many different reasons why people might be forced to leave their country. The term forcibly displaced represents many different groups of people that

fall into different categories. These categories include, but not exclusive to, refugee's, internally displaced, stateless, asylum seekers, or migrants. Figure 2 is a graph that displays these different people groups across seven regions.

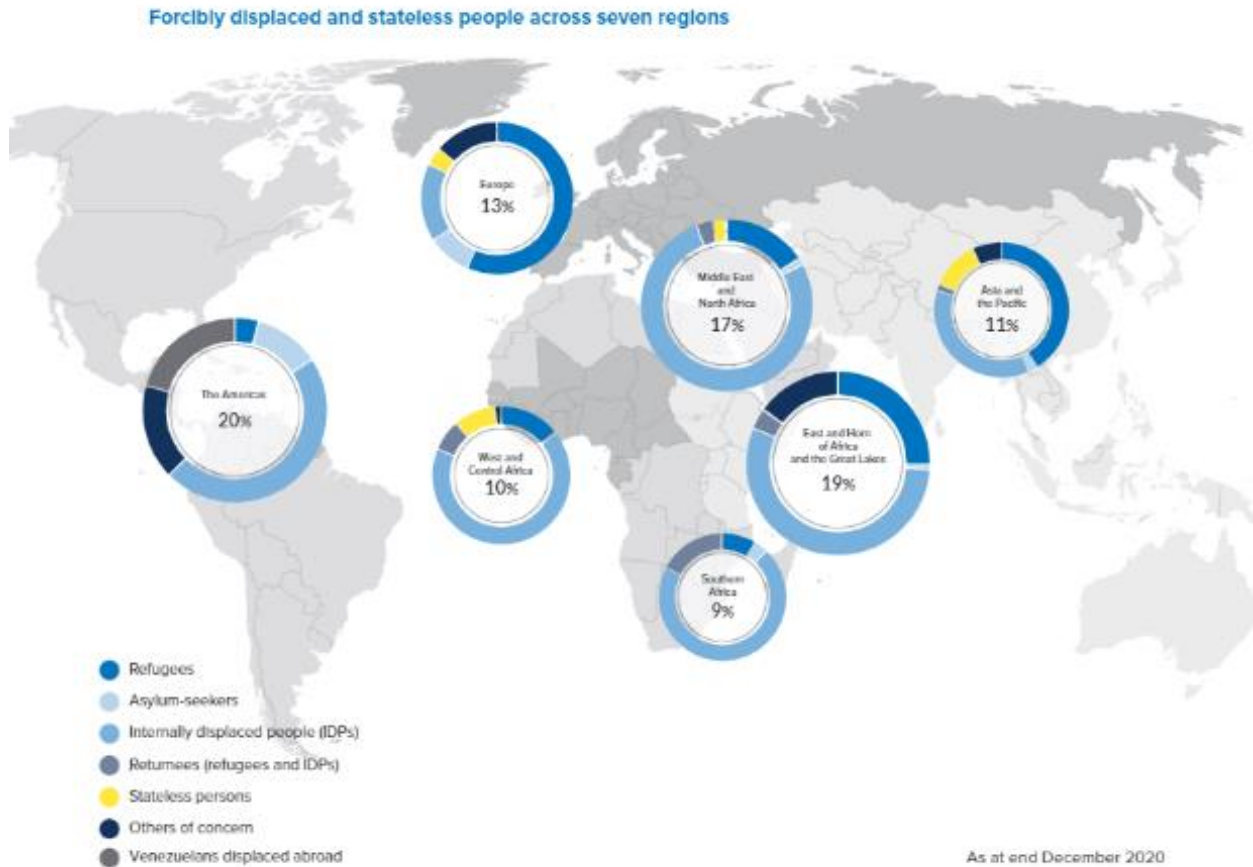


Figure 2: Forcibly displaced and stateless people across seven regions  
Credit: UNHCR Strategic Directions 2022 - 2026

“A refugee is someone who has been forced to flee his or her country because of persecution, war or violence. A refugee has a well-founded fear of persecution for reasons of race, religion, nationality, political opinion or membership in a particular social group. An internally displaced person, or IDP, is someone who has been forced to flee their home but never cross an international border. A stateless person is not a citizen of any country. An asylum seeker is a person who

flees his or her own country to seek sanctuary in another country, he or she would apply for asylum – the right to be recognized as a refugee and receive legal protection and material assistance. (*What Is a Refugee?*, n.d.)

“A migrant is a person who voluntarily leaves their home country to live in another country with ostensibly better working or living conditions. (*Global Migration and Refugee Crisis*, n.d.)

These different groups of people all represent and help create an understanding of what a forcibly displaced person is. Across the globe families and individuals are being torn away from their reality of life and are forced to live in some of the most unimaginable places and situations. This is not a new crisis but has been a part of our world for generations. This issue has gained traction in the last 70 years when the “UNHCR was established by the General Assembly of the United Nations in 1950 in the aftermath of the Second World War to help the millions of people who had lost their homes.” (*About UNHCR*, n.d.)

The UNHCR is constantly creating policies and plans to help displaced people. The most recent Strategic Direction plan is for 2022 through 2026. The Strategic Direction plan contains five pillars to keep the plan focused. These pillars include: protect, respond, include, empower, and solve. According to the UNHCR executive summary this pillars are described like this:

According to the UNHCR Strategic Directions 2022-2026,

Protect, secure, and defend the rights of people of concern to UNHCR – refugees and asylum seekers, returnees, internationally displaced people, and stateless persons (hereafter referred to as forcibly displaced and stateless people). Respond rapidly and effectively in emergencies and beyond. Promote inclusion and self-reliance. Empower the people we serve to determine and build their futures.



Pursue solutions to address the consequences of displacement and problems of statelessness.(*UNHCR Strategic Directions 2022-2026*, n.d.)

The UNHCR has expanded on the five pillars to further articulate what their actions will be within these five areas. To ensure protection for these individuals UNHCR has written this,

According to the UNHCR Strategic Directions 2022-2026,

Wherever people are forcibly displaced or stateless, we will seek to uphold their basic human rights and ensure they are not returned to a country where they may face danger or persecution. People have a right to dignity. Ultimately, the best form of protection is a sustainable solution of displacement and statelessness.

(*UNHCR Strategic Directions 2022-2026*, n.d.).

The UNHCR desires that the solutions to the refugee crisis are not temporary. The current response to humanitarian crisis continues to be temporary dwellings that make up a temporary camp. Issues arise when the camps are needed for many years and the solutions for the people living in them were never intended to last long periods of time. This is why the UNHCR desires that there must be a sustainable solution to what happens to people that are displaced from their homes.



Figure 3: Strategic Direction, Protect  
Credit: UNHCR Strategic Directions 2022 - 2026

As the UNHCR works to respond efficiently they will,  
According to the UNHCR Strategic Directions 2022-2026,  
work to anticipate emergencies, and when they occur, they will respond rapidly  
and stay the course to ensure that people are safe from harm, their fundamental  
rights are respected, and that they can meet their needs. They will bolster  
preparedness process and capacities. They will pre-position and deliver lifesaving  
assistance, protection, and solutions across the globe rapidly and reliably, and  
transition from short term to longer term focused approaches. (13)



Figure 4: Strategic Direction, Respond

Credit: UNHCR Strategic Directions 2022 - 2026

As the UNHCR works on inclusion they will,

According to the UNHCR Strategic Directions 2022-2026,

Advocate for the inclusion of refugees, displaced and stateless people in economic growth and poverty reduction efforts and in national local services. They will help connect affected people to their local communities and support them to engage in economic opportunities. They will also support forcibly displaced and stateless people to contribute to the communities where they live and promote the use of modalities to support their inclusion and benefit local communities. (14)



Young women enrolled in an auto mechanics training programme in a stigmatized neighbourhood in San Salvador, El Salvador. Job schemes help keep young people out of the clutches of gangs. © UNHCR/CELESTINO FILIPPO ROSSO

Figure 5: Strategic Direction, Include

Credit: UNHCR Strategic Directions 2022 - 2026

As the UNHCR works to empower people these qualities will keep them focused, People are at the center of what we do. Being forced to flee or stateless does not mean losing one's rights, nor should it mean losing one's agency – the ability to make decision and choices. Our programs and interventions will be based on upholding the rights of the people we serve, and we will seek to involve them in decisions about their own future and the development of their communities. We will draw on their own resilience, knowledge, and capacity for action, and hold

ourselves accountable to them for our actions. Empowerment cannot coexist with discrimination. We will be forthright in demanding that all members of society have an equal opportunity to enjoy their rights. Invariably, women and girls constitute the biggest group at risk of being disadvantaged. Empowerment also runs in opposition to marginalization and stigmatization. Displaced and stateless people will never be able to enjoy their rights if they face a constant barrage of prejudice and xenophobia. We will combat hate speech against them, speak out on their behalf and amplify their voices through our global presence and our networks of supporters. (*UNHCR Strategic Directions 2022-2026*, n.d.)



Figure 6: Strategic Directions, Empower  
Credit: UNHCR Strategic Directions 2022 - 2026

As the UNHCR works to solve these issues, they recognize how things are going but also have hope for the future. In their strategic directions they say,

According to the UNHCR Strategic Directions 2022-2026,  
Solutions have not kept pace with the number of people being displaced and becoming stateless. We reinforce cooperation and strengthen partnerships among humanitarian, political, development and peace actors to move beyond short term

approaches, which often limit planning for solutions, to longer term ones.

*(UNHCR Strategic Directions 2022-2026, n.d.)*



Figure 7: Strategic Directions, Solve  
Credit: UNHCR Strategic Directions 2022 - 2026

The UNHCR recognizes that,

According to the UNHCR Strategic Directions 2022-2026,

the traditional humanitarian toolkit cannot stretch across the gaps. There has been a growing appetite for a revamped approach and a reaffirmation of international solidarity and anticipate that the Global compact on Refugees would be central to our strategy. The benefits of investing in comprehensive responses have become increasingly recognized, with stepped-up collaboration by governments, development partners, international financial institution and the private sector.

*(UNHCR Strategic Directions 2022-2026, n.d.)*

### 2.2.2. What is a Refugee?

As described above,

“A refugee is someone who has been forced to flee his or her country because of persecution, war or violence. A refugee has a well-founded fear of persecution for reasons of race, religion, nationality, political opinion or membership in a particular social group. Most likely they cannot return home or are afraid to do so. War and ethnic, tribal and religious violences are leading causes of refugees fleeing their countries. 52% of all refugees and other people in need of international protection come from just three countries: Syria, Ukraine, and Afghanistan” (*What Is a Refugee?*, n.d.)

Millions of people are leaving their countries but **where are they going?** When we are separated from this issue, we assume that the governments and the local authorities must be helping these people. While they are helping to the best of their abilities millions of refugees are left homeless struggling to survive. These people did not choose the situation they have been forced into. A quote from an anonymous person from the film *Human Flow*,

I have been roaming aimlessly with my son for 60 days now. Nobody has shown us the way. If I want to apply for asylum, how exactly should I go about it?

Where am I supposed to start my life? I cannot live here. **How many more days can I live like this**” (*Prime*, 2023)

“Being a refugee is much more than a political status, it is the most pervasive kind of cruelty that can be exercised against a human being. You are forcibly robbing this human being of all aspects that would make human life, not just tolerable but meaningful in many ways. The more immune you are to people’s suffering.

That's very dangerous. Its critical for us to maintain this humanity" (Prime, 2023).

### **2.2.3. Humanitarian Design**

Humanitarian Design is a term that can be used to describe the process of designing products, services, or systems for populations affected by natural and/or human-made disasters (Nielsen, 2020). Humanitarian design seeks to provide people with their basic needs as individuals. This form of design looks different based on the needs of the refugee community that it is happening in. Another writer defines humanitarian design like this, "The adjective 'humanitarian' designates the quality of making a commitment to the welfare of one's fellow human beings and humanity as a whole." (Leite, 2016). This type of designing is triggered by a sense of sympathy from the situations we see in the world around us. It appears that it would be the role of every designer to help in these situations, but most designers end up working with clients of much less need (Leite, 2016).

In 2022 20,500 people died of starvation (*Utah, New Mexico, South Carolina See Highest Death Rates*, n.d.). In 2022 31,000 people died of natural disasters worldwide (*Fatalities from Natural Disasters Worldwide 2022*, n.d.). "In 2008 100,000 people died in the Chinese province of Sichuan when buildings collapsed during an earthquake" (Aquilino, 2001, p. 7). People are dying every year because they do not have basic needs to sustain a human life. The purpose of Humanitarian design is to create solutions that can help the people being affected by the disasters.

Humanitarian aid is the primary way that refugee camps get developed and produced. One of the largest issues with trying to design healing spaces in these types of designs comes

down to cost. The demand for more and more emergency response continues to grow and the ability to add design elements that are “extra” does not even get considered. This research is arguing that adding design elements such as: courtyards, public space, recreational space, toilets, hygiene facilities, etc... can facilitate the healing process into these immediate responses and will create more impactful designs and refugee settlements that can grow and develop into the future. The UN is only capable of providing minimal resources to the people seeking refuge. What would it look like if design projects got implemented at the heart of the refugee camps, so that, the UN resources could be used to grow the camps outwardly? If design firms around the world proactively created designs for these settlements it could prevent the sudden need and crisis’s that happen when people are suddenly displaced.

### ***2...1. Why is it Important***

The need for humanitarian design continues to grow every single year. in 2020 there were 80 million forcibly displaced people. In 2023 there are 110 million forcibly displace people.

*(About UNHCR, n.d.)*

In Humanitarian design it is important to improve situations that are directly affecting people’s lives. Why is humanitarian design important? It is important because it deals with the issues that are prevalent within a community such as providing: shelter, food and water to people in need. It seeks to improve the conditions of people’s lives and works towards meeting their basic human needs while also allowing them to flourish. The root word for humanitarian is human. This type of designing helps us focus our efforts on making sure all people can experience value.



There are countless issues affecting people's life on a daily basis, these issues range from natural disasters, authoritative oppression, and so much more. There are people all around the world, struggling to have what they need to live a dignified life. A question arises, should comfortability and a nice life be a right for every human? Our society Has chosen to value money and status as a means to live a comfortable life. Currently all around the world people are starving, lost, hopeless, and scared. Millions of people die every year because they do not have what they need to live. The need to meet people's needs is not new, but it is not an area of design that gets enough attention.

### ***2...2. Empowered Empathy***

Empathy is the ability to enter into the life of another person, to accurately perceive his/her current feelings and their meanings (Kalisch, 1973). For empathy to increase an emotional connection needs to be made with the people being affected by the refugee crisis. How do we do this other than story telling. Tutapona is a company that works directly with the people living in refugee camps across the world and shares their stories of how people have found healing in these places. What they have found is that healing does not happen because of the walls that surround you but walking through these situations with other people.

It is easy to apply this to the environments that surround us. Attempting to apply this to other parts of the world becomes much more difficult to do. People are living in conditions that are barely considered humane. The demand for emergency response continues to grow rapidly and the solutions that are provided become almost nothing. Over the last decade the UN has helped almost one million refugees rebuild their lives in new countries, as part of their work to find long term solution (*What We Do*, n.d.).

The UN is constantly trying to create solutions to help these people, but the demand for aid continues to outgrow how quickly they can provide enough help. Through architecture and design, firms around the world can begin design projects at the heart of refugee settlements. This would allow the strategies that the UN has in place: tarps, bamboo, foil blankets, etc.. to be used as the immediate response method but not the long-term solutions. The refugee settlements are expected to sustain life with barely any resources. This needs to be rethought and a discussion in places such as architecture firms to think about what a response to these situations could be.

#### **2.2.4. Healing**

Healing is the act or process of regaining health (*HEALING Definition & Usage Examples*, 2023). Every person in the world experiences healing at some point in their life. Depending on context and situation's the magnitude of that healing is different for every person. No matter what causes the pain, every person in the world deserves to heal. Within the context of this project healing will be looked at in the context of the refugee crisis. Millions of people have experienced physical, emotional and spiritual wounds. Much of the harm within these groups is mental. People within these refugee camps have experienced firsthand, murder, rape, starvation, and death. Healing is of utmost importance for all people in refugee camps.

#### **2...3. What is Holistic Health**

Holistic healing is an approach to wellness that simultaneously address the physical, mental, emotional, social, and spiritual components of health (*What Is Holistic Health?*, 2022). Holistic health derives its name from Holism, "which refers to the theory that all parts of a whole are intimately interconnected. Applied to health, holism means treating the whole person –

taking into account more than just the physical symptoms of disease or injury (*What Is Holistic Health?*, 2022). There are six main areas within holistic health. These areas include body, mind, spirit, people, culture, and environment.

The six areas of holistic health, according to the article, What is Holistic Health from St. Catherine's University in 2022,

Body, what are the body's needs for nutrition, sleep, exercise, and rejuvenation?

What are the underlying causes of physical pain, and what steps can be taken to ameliorate this pain – or live with it? What actions can be taken to prevent body injuries, illness, and disease? Mind, what are the mind's needs for stimulation, curiosity, wonder, and creative expression? What information and lessons do our emotions provide? What is an embodied account of the mind and spirit. What are

its interdependent connections with others and the environment? Spirit, What practices, and rituals connect us with something larger than ourselves? How can

we connect with the divine, with nature, with ancestors, and with other sources of deep purpose and meaning beyond oneself? People, how is one connected to

others? In what ways can ties with kin, friends, loved ones, neighbors, and strangers be strengthened, renewed, and repaired? How can one give time and

resources generously, draw healthy boundaries, and cultivate community?

Culture, what is one's cultural inheritance? What values and traditions – including

art, performances, ceremonies, rites, rafts, and ways of life – would one like to bring into the present and preserve for the future? What can one's culture teach us

about living healthily and well? Environment, What are the unique feature of the

space one lives in – neighborhood, geography, flora and fauna? Who lives nearby,

and how has this place changed overtime? What is the history of this place? How does this place affect one's health – Is it clean, welcoming, loud, harsh, disruptive, joyful, or peaceful? What healing and help does this environment need to be healthy? (*What Is Holistic Health?*, 2022).

Holistic health should be addressed in the healing process for all people. The issue on the outside is providing housing and shelter for people seeking refuge in other countries, but for people to heal the other areas of their lives need to be accommodated. With current strategies it is everything the UN can do to help people heal their bodies and environments this research will ensure that the mind, spirit, people, and culture are equally designed for.

#### ***2...4. Tutapona***

Tutapona is a company that seeks to support and improve the mental health of refugees within these camps. “Tutapona exists to respond to the mental health needs of these individuals.”(*Tutapona*, 2023) This company is built around five core values which are: Christ Centered, People-focused, courage, excellence, and integrity. These five values ensure that Tutapona continues to focus on what is important and ensure they are constantly reminding themselves why they are doing what they are doing.

Tutapona is a Swahili word meaning, ‘We will be healed’. The founders of this company wrote this about their company, “We held hope that a community, once unified by pain, can become a community unified in healing through group-based mental health programming.”(*Tutapona*, 2023)

The company Tutapona has a presence in five of the refugee camps within Uganda. See figure 8 for the locations. Tutapona equips people to become teachers to help people heal from

mental health struggles in these camps. Their vision is to see “individuals restored, hope renewed, relationships transformed, and communities living in peace, for the glory of Christ.” (Tutapona, 2023) The five locations listed below will become a framework for which site will be looked at for this project.

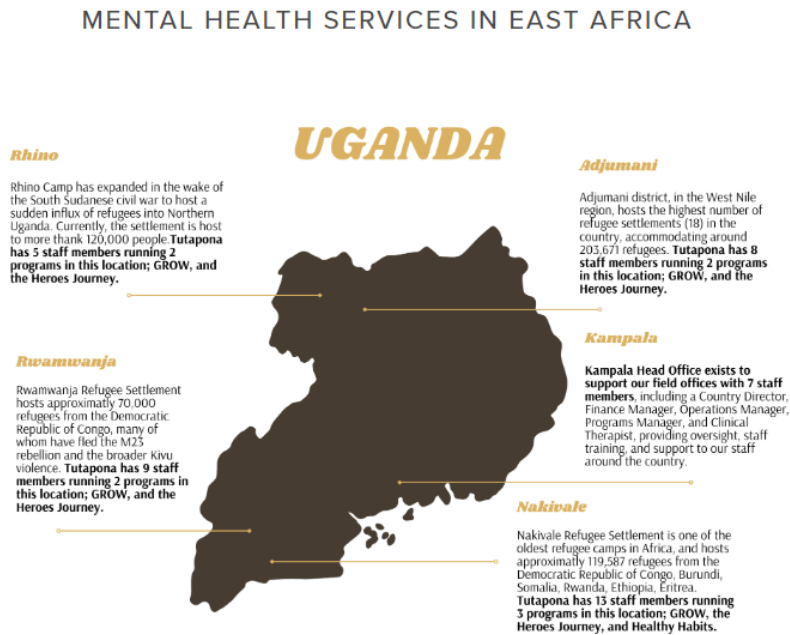


Figure 8: This map shows the places that Tutapona as staff members in Refugee Camps  
Credit: Tutapona

### 2.2.5. Gap Identification

This research has provided an understanding of the gaps that have appeared. Because the policies and plans currently in place do not provide the amount of need required to provide sustained help for the communities there needs to be response strategies that provide more holistic solutions. An understanding of how architects and planners can focus on design solutions that allow for growth and inclusion from the host countries and the asylum seekers must continue to develop. Show in Figure 22, refugee camps look like small cities but are completely isolated. Compare this image of the Zaatari Refugee camp to the city of Venice, Italy. Both are pictures of

places that were designed for people fleeing to a new place but one of them is a humanitarian response in the hopes that it is temporary, and the other is a city planned to sustain for a long time. After the fall of the Roman Empire the Lombard people began forcing the mainland Italian people off the land to live on islands in Northern Italy. (*Venice - Maritime, Republic, Lagoon / Britannica*, n.d.) Many of the refugee camps become dwelling places for multiple generations but still only receive temporary shelters and solutions.



Figure 9: Zaatari Refugee Camp  
Credit: Flickr



Figure 10: The City of Venice, Italy  
Credit: Horst-schlaemma

Another gap that has been found through this research are qualities of the built environment that facilitate the healing process within these humanitarian design responses. For most design responses in the world, it is common to think about how the designs will impact peoples wellbeing. The humanitarian response methods do not provide ways for people to have access to spaces to heal properly. Companies like Tutapona work inside these camps to support healing, but what if the structure and layout of these camps helped accelerate the healing process.

### **2.3 Project Type**

The project type will be master planning and exploring emergency response methods. The UNHCR is constantly responding to refugee needs all around the world and providing them the absolute minimum requirements because the demand for their help is so high. This project will investigate the master planning of a refugee camp to understand the hierarchy of different spaces and to understand how to optimize the space in a camp. There have been many design

reponses to this issue. Some of these responses have been tent designs, prefabricated concrete shelters, prefabricated wooden shelters, wooden lattice structure see figure 11, and many more.



Figure 11: Other Refugee Camp Design Ideas

Credit: Cutwork (left), Rizvi Hassan (Middle), and Victoria Tanto (Right)

The UNHCR's main design response for shelter in a refugee camp are tents. See figure 12. There are issues with this type of design response. The hope is that the camps will be temporary, but the reality is that most of these camps end up being generational solutions and the tents just do not work long term. These tents also allow for no expression of culture through the dwelling place for these individuals. And incredibly interesting aspect of healing in the camps is owner ship. These people deserve to at least get to live in a space they can call their own and can make decisions about how their home looks.





Figure 12: UNHCR Refugee Tents in Venezuela  
Credit: John Otis via Getty Images

This project will propose a master plan of a refugee camp as well as building materials and shelter design. This project will seek ways to use materials that are locally sourced and can allow the design of these shelters to reflect the cultures that they are being implemented in. That means that this project will be specifically focused on one site. This project will create a set of goals and outcomes that will be universal to other emergency responses that happen in other locations.

## **METHODOLOGY**

### **3.1 Project Approach**

This research paper will compare three primary research methods: Interviews, case studies, and peer reviewed journals. A site location has been chosen in Uganda, Africa for the development of a holistic health refugee settlement. The design of this camp will review the layout and current design approaches to refugee camps around the world including Kenya, Jordan, and India. All these camps have the same goal of housing displaced people, but not all of them are created to sustain life. This project will investigate how the emergency response methods for refugee camps can be improved in the future.

### **3.2 Project Location – Uganda, Africa**

Uganda is home to 1.4 million refugees (the most in Africa), it is the fourth largest refugee hosting country in the world and the seventh largest in the world on a per capita basis (UNHCR, 2020). Today, Uganda is the top refugee receiving nation in Africa.(*Tutapona*, 2023) Uganda is unique with their hosting policies utilizing an “open door” policy. This means that refugees are allowed to freely move and participate in economic activities; granting plots of land for permanent shelters and farming: and, with the help of humanitarian aid agencies, providing access to health care and education services (Ronald, 2022). Uganda is finding success intermingling the displaced people with the residents of Uganda. This allows the humanitarian aid for the refugees to help benefit the lives of the citizens.



Figure 13: Pictures Taken from Tutapona in Africa Refugee Camps  
Credit: Tutapona Website

In Uganda there are 28 refuge settlements. In the figure below the refugee density is mapped out. The darker the orange the higher the density and the lighter the orange the lower the density is. Figure 26 shows that the highest density is in the West Nile subregion.

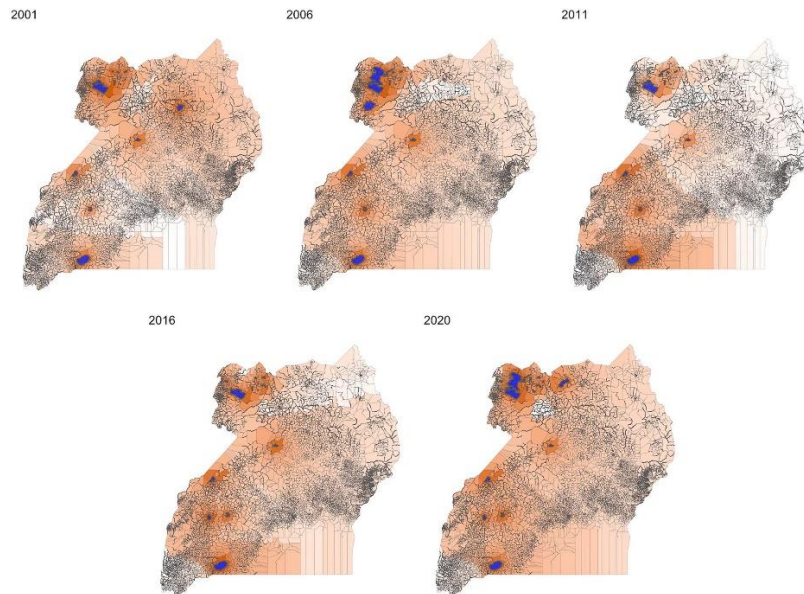


Figure 14: Refugee Density Map in Uganda  
Credit: Yang-Yang Zhou, 2023



Figure 15: This map shows the west Nile region.  
Credit: Yang-yang Zhou, 2023

What can be observed further in figure 28 is the impact of the World Bank near the refugee settlements. The image below shows the areas that are affected by the livelihood grants, environmental projects, and infrastructural improvements from the World Bank. Infrastructural improvements include (bridges, roads, schools, health clinics), environmental projects include (Forestry, agriculture, solar panels). The figure below shows that the strategies are in and near the refugee settlements and thereby benefit the host communities that are housing the refugee camps (Zhou et al., 2023).

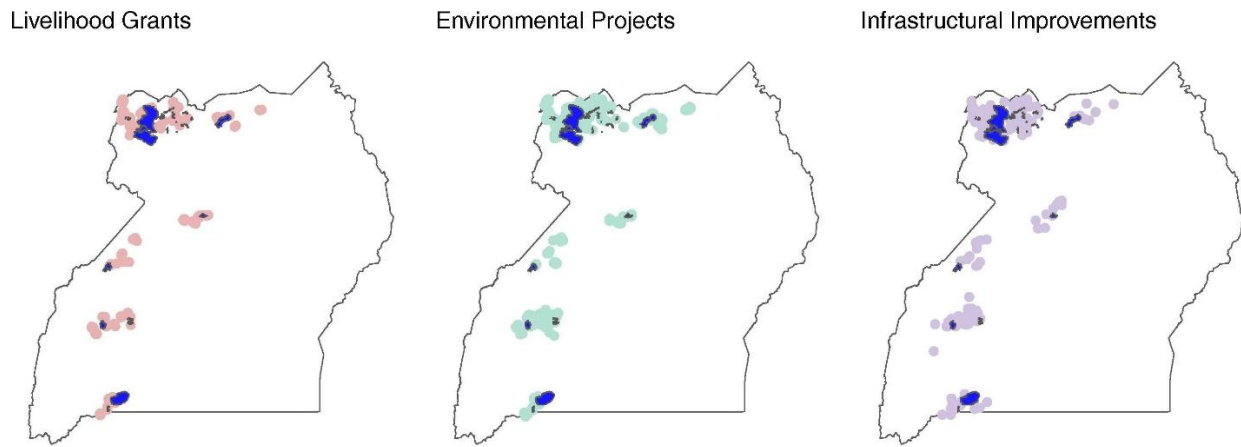


Figure 16: The work zones of the world bank in Uganda  
Credit: Yang-Yang Zhou, 2023



Figure 17: Pictures Take from Tutapona in Africa  
Credit: Tutapona Website

### 3.3 Site Selection



Figure 18: Location of Uganda in Africa  
Credit: Matthew Peikert

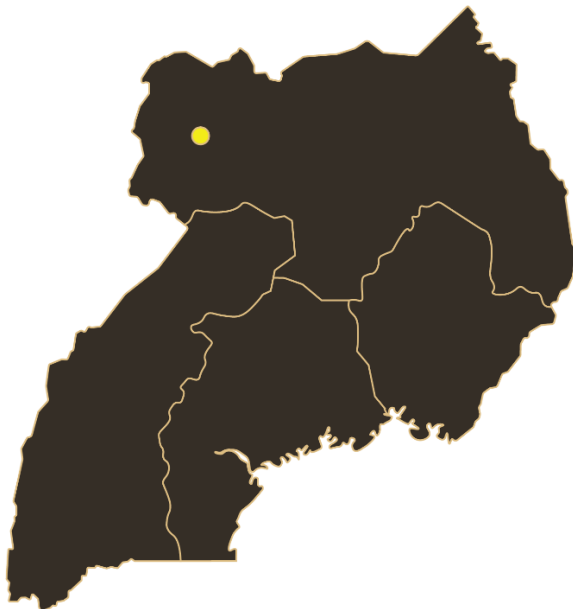


Figure 19: Rhino Camp in the West Nile Region  
Credit: Matthew Peikert



Figure 20: Ariel View of Rhino Camp in Uganda  
Credit: Google Maps



Figure 21: Ariel View of Rhino Camp in Uganda  
Credit: Google Maps





Figure 22: Grid Analysis  
Credit: Matthew Peikert

### 3.4 Sun Diagrams – Summer and Winter Solstice

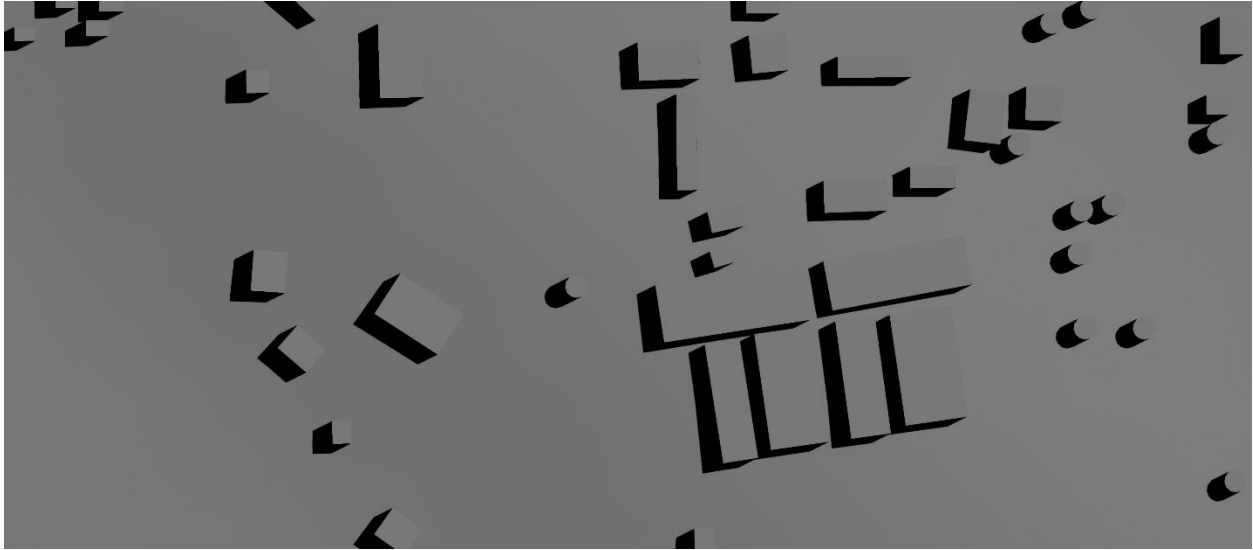


Figure 23: Summer Solstice - Rhino Uganda - 9 A.M.  
Credit: Matthew Peikert



Figure 24: Winter Solstice - Rhino Uganda - 9 A.M.  
Credit: Matthew Peikert



Figure 25: Summer Solstice - Rhino Uganda - 12:00 P.M.  
Credit: Matthew Peikert



Figure 26: Winter Solstice - Rhino Uganda - 12:00 P.M.  
Credit: Matthew Peikert

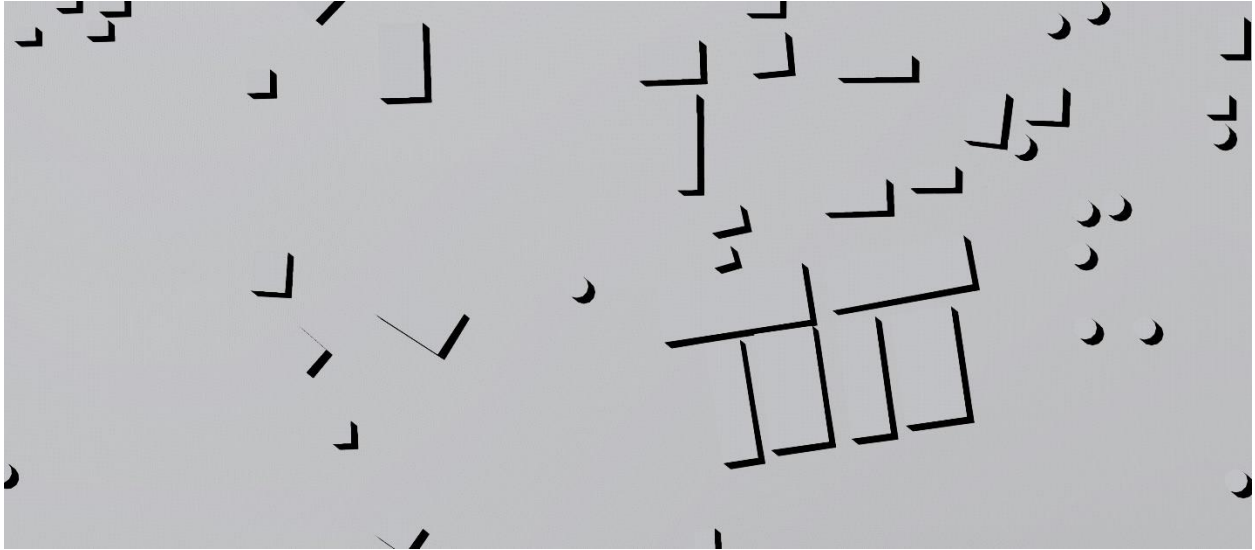


Figure 27: Sumer Solstice - Rhino Uganda - 3 P.M.  
Credit: Matthew Peikert

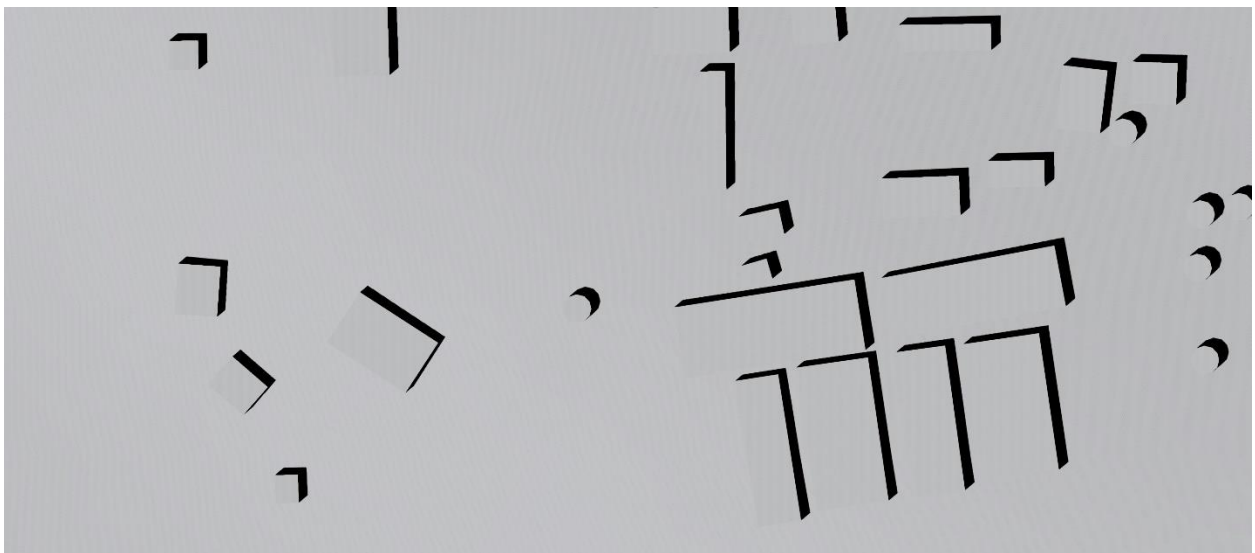


Figure 28: Winter Solstice - Rhino Uganda - 3 P.M.  
Credit: Matthew Peikert



Figure 29: Rhino Camp Terrain  
Credit: Lomornald

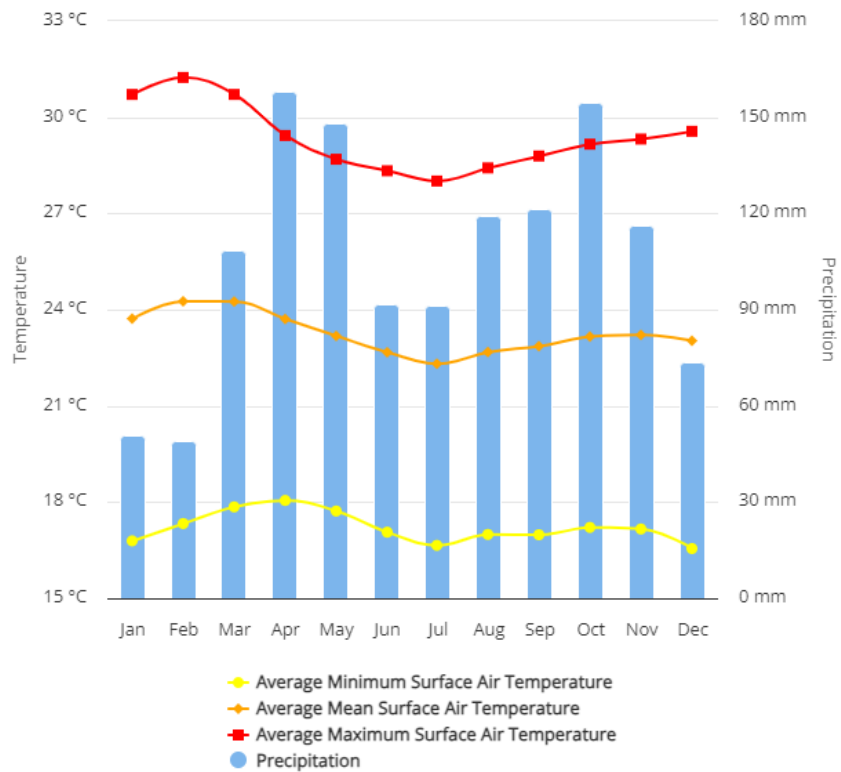


Figure 30: Average Precipitation - Average Mean, Min, and Max Surface Air Temperature  
Credit: World Bank Group

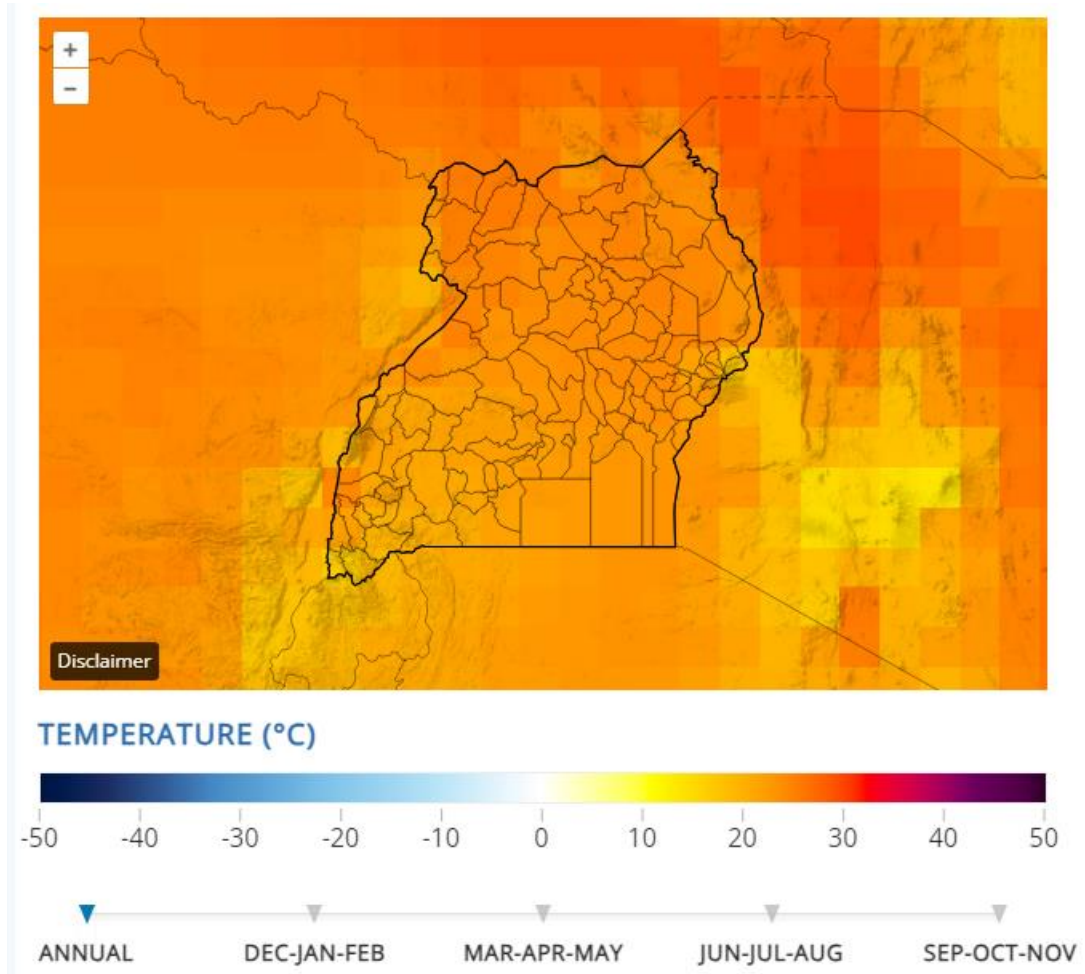


Figure 31: Average Surface Temperatures  
Credit: World Bank Group

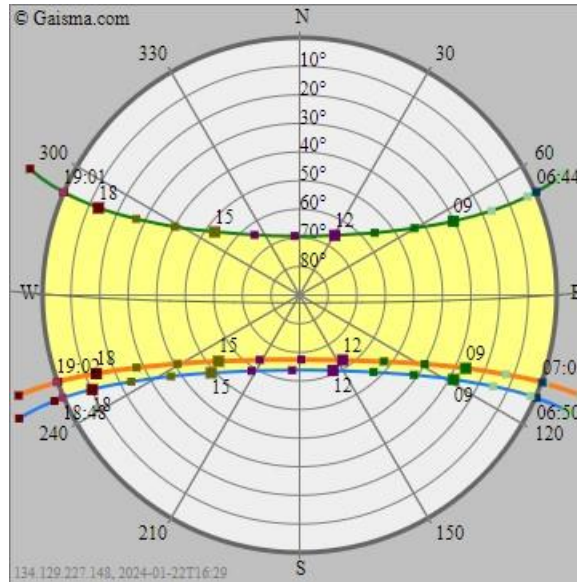


Figure 32: Sun Path Diagram, Gulu, Uganda  
 Note: Picture Taken From GAISMA

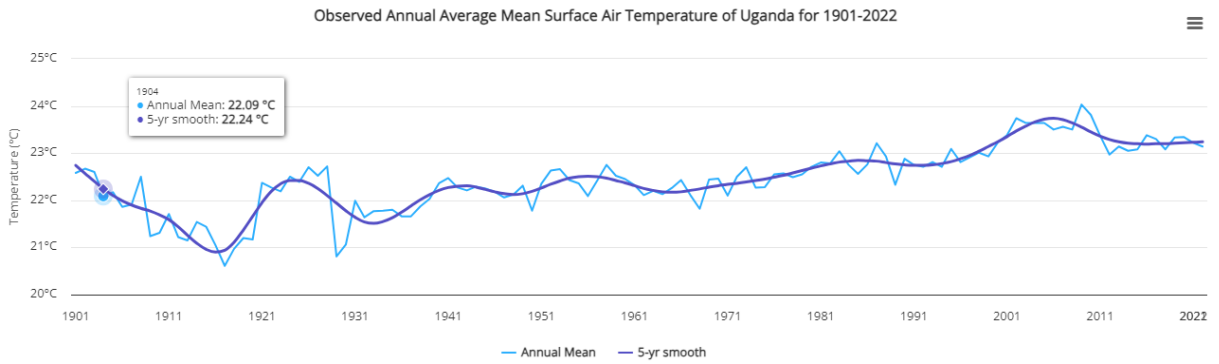


Figure 33: Average Surface temperature of Uganda  
 Credit: World Bank Group

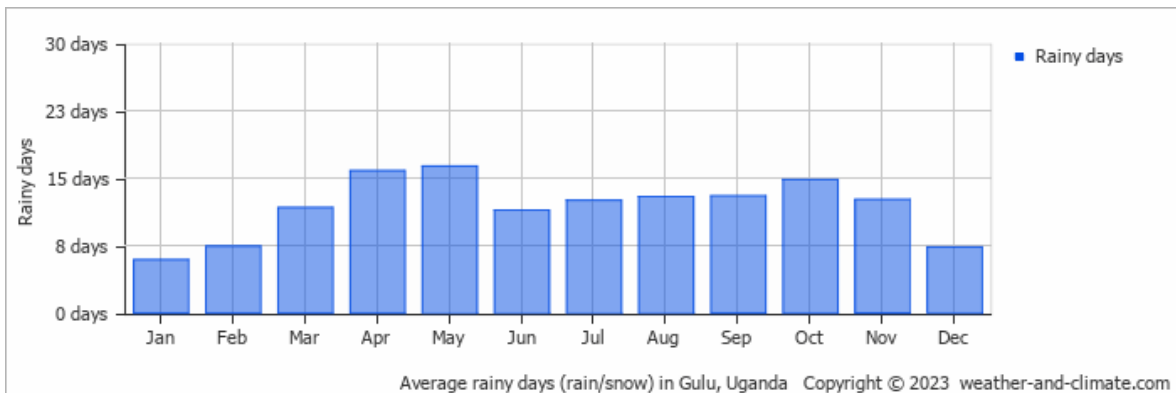


Figure 34: Average Rainy Days in Gulu, Uganda  
 Credit: Climateandweather.com

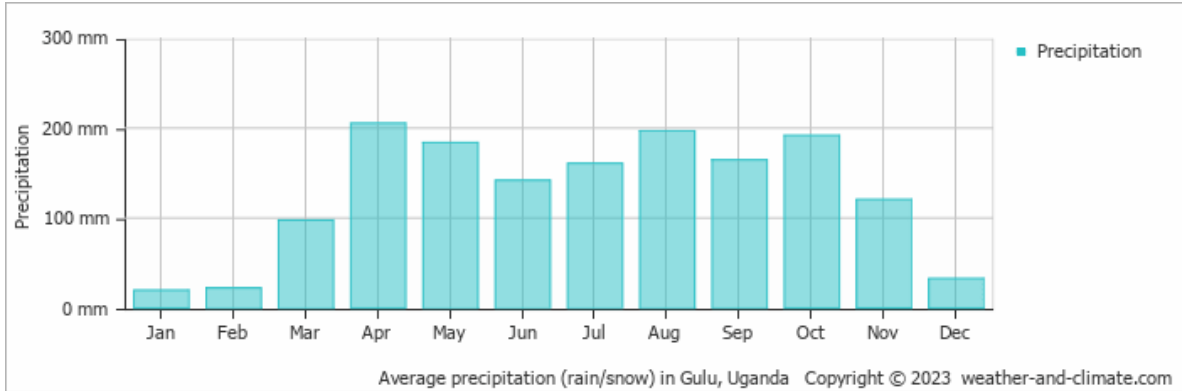


Figure 35: Average Precipitation in Gulu, Uganda  
 Credit: Climateandweather.com

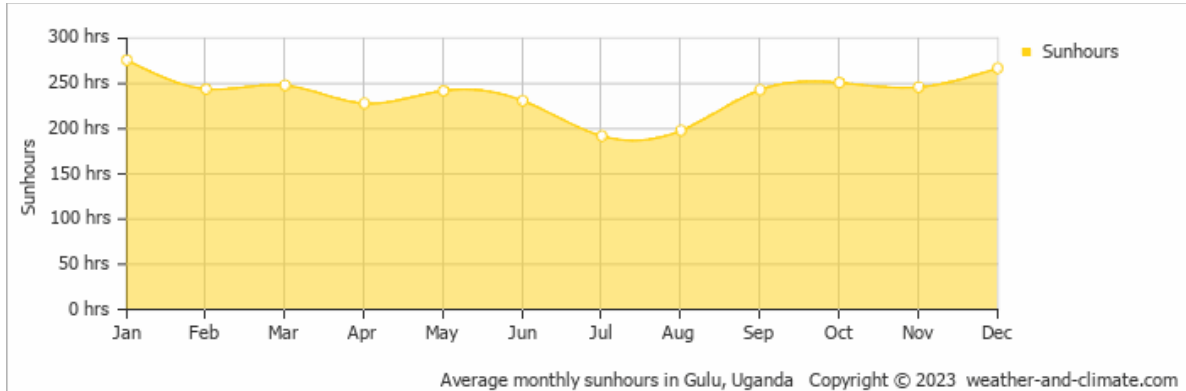


Figure 36: Average Monthly Sunshine Hours in Gulu, Uganda  
 Credit: Climateandweather.com

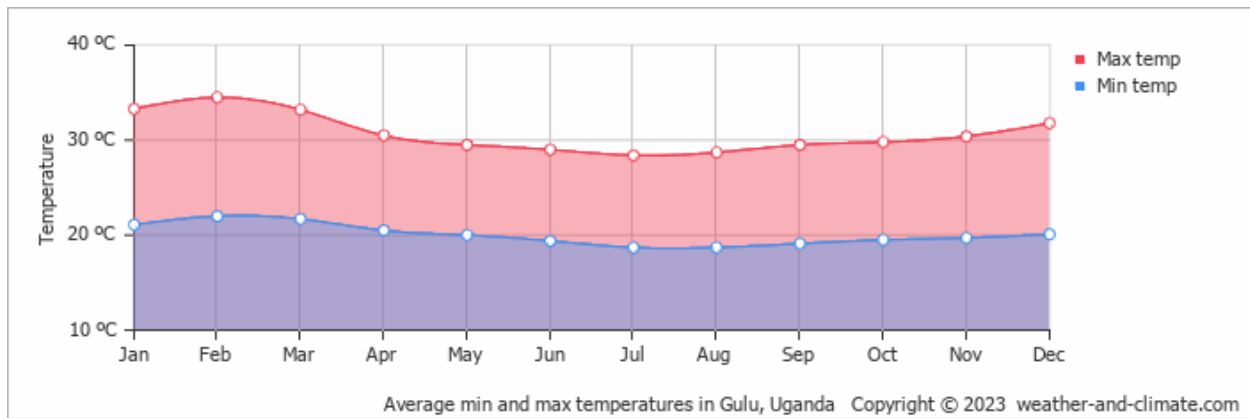


Figure 37: Average Min and Max Temperature in Gulu, Uganda  
 Credit: Climateandweather.com



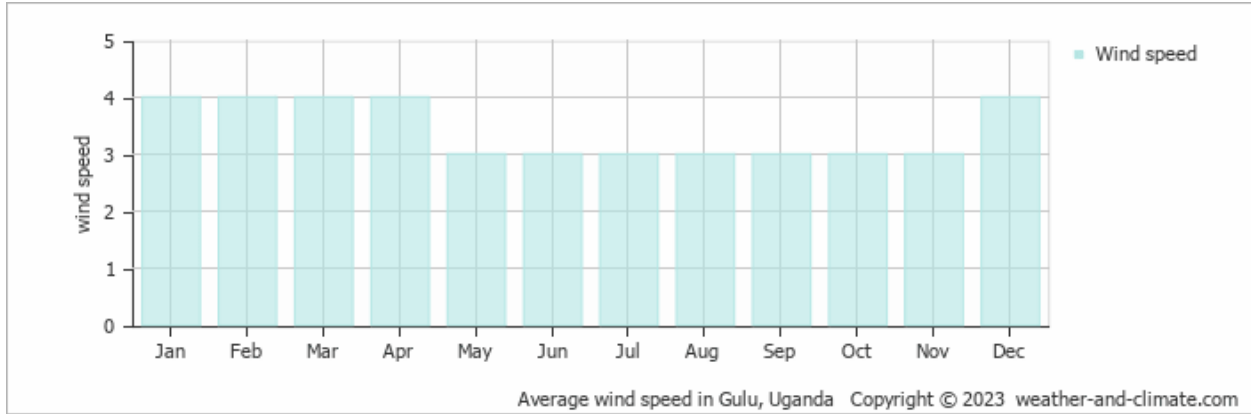


Figure 38: Average Wind Speed in Gulu, Uganda  
Credit: Climateandweather.com

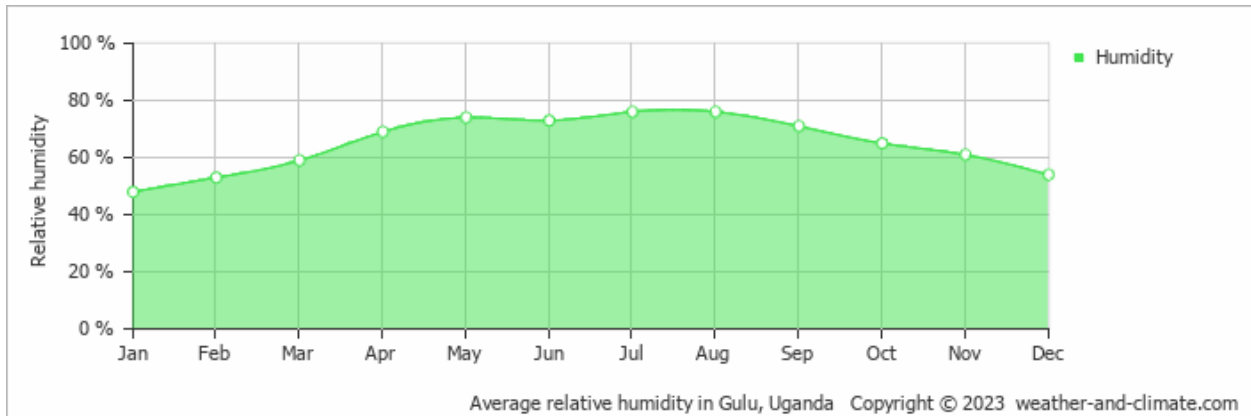


Figure 39: Average Relative Humidity in Gulu, Uganda  
Credit: Climateandweather.com

Table 1: Average Precipitation in Gulu, Uganda

Credit: World Climate Guide

<b>Gulu - Average precipitation</b>			
<b>Month</b>	<b>Millimeters</b>	<b>Inches</b>	<b>Days</b>
<b>January</b>	10	0.4	1
<b>February</b>	40	1.6	3
<b>March</b>	80	3.1	6
<b>April</b>	170	6.7	9
<b>May</b>	200	7.9	9
<b>June</b>	140	5.5	9
<b>July</b>	160	6.3	10
<b>August</b>	220	8.7	12
<b>September</b>	170	6.7	10
<b>October</b>	160	6.3	10
<b>November</b>	90	3.5	6
<b>December</b>	40	1.6	3
<b>Year</b>	1480	58.3	88

Table 2: Average Temperature in Gulu, Uganda

Credit: World Climate Guide

<b>Gulu - Average temperatures</b>						
<b>Month</b>	<b>Min (°C)</b>	<b>Max (°C)</b>	<b>Mean (°C)</b>	<b>Min (°F)</b>	<b>Max (°F)</b>	<b>Mean (°F)</b>
<b>January</b>	17	31	24	63	88	75.2
<b>February</b>	17	32	24.5	63	90	76.1
<b>March</b>	17	30	23.5	63	86	74.3
<b>April</b>	17	29	23	63	84	73.4
<b>May</b>	17	28	22.5	63	82	72.5
<b>June</b>	17	27	22	63	81	71.6
<b>July</b>	16	26	21	61	79	69.8
<b>August</b>	16	27	21.5	61	81	70.7
<b>September</b>	16	27	21.5	61	81	70.7
<b>October</b>	17	28	22.5	63	82	72.5
<b>November</b>	16	29	22.5	61	84	72.5
<b>December</b>	16	30	23	61	86	73.4
<b>Year</b>	16.6	28.6	22.55	61.8	83.6	72.5

Table 3: Sunshine Hours in Gulu, Uganda

Credit: World Climate Guide

<b>Gulu - Sunshine hours</b>		
<b>Month</b>	<b>Average</b>	<b>Total</b>
<b>January</b>	9	280
<b>February</b>	9	255
<b>March</b>	8	250
<b>April</b>	8	240
<b>May</b>	8	250
<b>June</b>	8	240
<b>July</b>	6	185
<b>August</b>	6	185
<b>September</b>	8	240
<b>October</b>	8	250
<b>November</b>	8	240
<b>December</b>	9	280
<b>Year</b>	7.9	2890

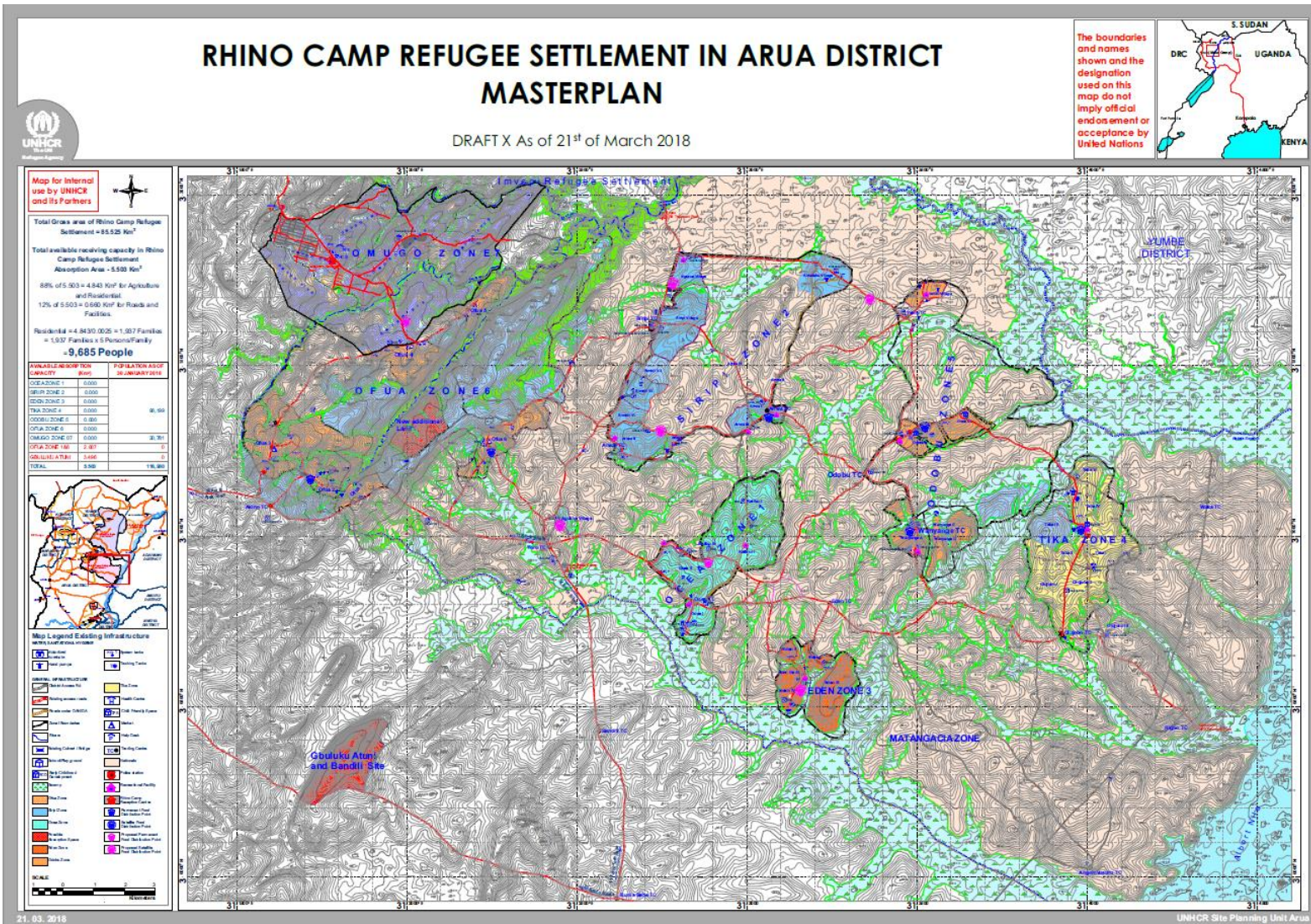


Figure 40: Rhino Camp Refugee Settlement Masterplan  
Credit: UNHCR Operational Data Portal

### 3.5 Case Studies and Precedents

#### 3.5.1. Rhino Camp

LOCATION: Rhino, Uganda

SIZE: 85.525 Km<sup>2</sup>

POPULATION: 123,243 People

ESTABLISHED: 1980



Figure 41: Uganda Location in Africa  
Credit: Matthew Peikert

Rhino Camp is in Northwestern Uganda. This camp opened in 1980 due to the South Sudanese civil war.

This camp has continued to function and receive new arrivals to this day. Rhino camp is facing many gaps and challenges. These gaps and challenges include areas of farm land that are



Figure 42: Ariel Photo of Rhino Refugee Camp  
Credit: Lomornald

infertile, overcrowded classrooms and few teachers, limited staffing, inadequate medicines, and lack of emergency medical support, materials are worn out, few water sources and difficult to pump boreholes, environmental degradation is increasing (*Uganda Refugee*

*Response*, n.d.). The UNHCR has provided documentation to identify these gaps and challenges by displaying what the camp currently has and what the camp requires in many different areas see appendix 1. This camp is using materials for shelters that have not been updated in many

years and is in need of repair and restoration. Much of the land used for farming and agriculture is contaminated and not usable for food production.

Uganda is unique because they allot land for incoming refugees and allow the refugees to farm. Jeje Odongo, the Ugandan Minister of Foreign Affairs, said: “Here, refugees are given land to live on and farm; they are enabled to move freely,

access social services such as education, start businesses and find employment.” (*Uganda’s Open-Door Policy / D+C - Development + Cooperation*, 2023) Many countries believe that

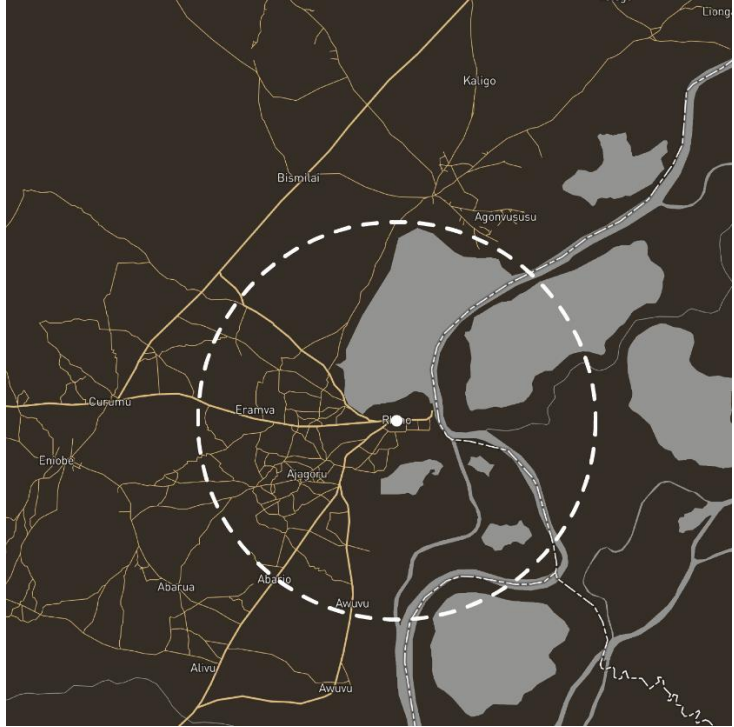


Figure 43: Proximity to nearest cities  
Credit: Map Box



Figure 44: Layout of the Rhino Camp with building functions  
Credit: Cadmapper

models like this will create tension between the host countries and the incoming refugees but what Uganda has found is more success with this method.

Uganda has updated the refugee hosting policies to allow for humanitarian aid to benefit both the refugee communities and the host communities. “This approach is designed to prevent host communities from carrying a

disproportionate burden for hosting refugees and to ensure that public services made available by the international humanitarian community do not disproportionately favor refugees at the expense of locals.”(Zhou et al., 2023). This can be understood from the above figure 10 by seeing how much closer Rhino camp is to the surrounding towns compared to the other case studies. This allows for the improvements that the world bank creates to benefit more than just one people group.

### **Conclusion**

Rhino camp has been able to house refugees for almost 40 years but is still in need of major improvements. Being able to update the building materials and farmland are two major aspects of the camp to improve. One of the most important characteristics to focus on with this camp is the amount of usable farmland. How can food production happen more efficiently and be available to all the residents? This camp has provided many solutions but as time goes on the camp will need to be able to grow and accommodate the needs of the community living there. Right now the camp is aging and the used materials of the camp will not last forever.

### 3.5.2. Dadaab Camp

LOCATION: Dadaab, Kenya

SIZE: 8 km radius

POPULATION: 223,420 People

ESTABLISHED: 1992



Figure 45: Kenya Location in Africa  
Credit: Matthew Peikert

Dadaab is a town in northeast Kenya. Within the region of Dadaab there are six refugee camps within an eight-kilometer radius. These camps originally started in the

1990's due to an influx of Somalis fleeing their homes due to civil war. (*Dadaab Camps / Living, Learning and Teaching in Dadaab*, n.d.) This camp was originally designed to house 90,000



Figure 46: Dadaab Refugee Camp Ariel  
Credit: UNHCR Kenya, year? Photo unknown or if internet please provide link to the image according APA style

refugees and currently houses half a million. Dadaab is located in a semi-arid area with some torrential rain throughout the year. The camp is broken down into sections and blocks. There is a maximum of 30 blocks per section.

Each block has a male and a female leader.

Those two leaders elect a male and female

section leader. The section leaders will then elect chairmen and chairladies that deal the most with communication to agencies such as the UNHCR.

There has been an increase in animosity between the refugee population and the Kenyan population.? This happens primarily over the distribution of the scarce resources. These resources could include water, land use for business, and firewood.



Education is extremely important for the camps in this region. Students who complete primary education in the camps can finish four years of secondary education and receive an opportunity to study at a Kenyan University or Canadian University. An article by the University of British Columbia said, “People in Dadaab refugee camps consider education as the only tool to combat and eradicate any kind of obstacle in life. They believe that if higher education is brought to Dadaab it will liberate them from the dark and give them hope.” (*Dadaab Camps / Living, Learning and Teaching in Dadaab*, n.d.)

As shown in the picture to the right. This is the IFO Refugee camp one of the camps located within the network of camps in the Dadaab region. The white circle indicates that the IFO camp is located 7.5 km or 4.6 mi away from the city of Dadaab. This is different from the camps located in Uganda. The camps are completely different settlements separate from the city. This could be a cause of why it is hard to supply both the residence and the refugees with enough

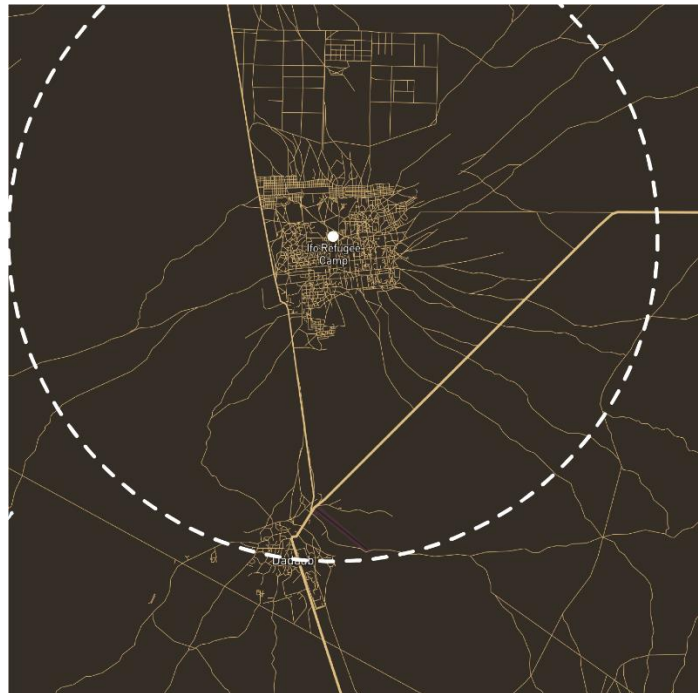


Figure 47: Proximity map of IFO Camp to City of Dadaab

Credit: Mapbox

resources. What if these gaps shrank and the people were able to live intermingled?

## Conclusion

It is apparent that in the Dadaab refugee camps there is competition for scarce resources from the local communities. The camps in this region are unique with the education

opportunities available to the refugees. The leadership within these camps have decided that being able to educate the refugees is a solution to provide opportunities for them. With more people receiving education there will be more opportunities for people to either leave the camps to attend a university or be able to start business and join the local communities.

### 3.5.3. Zaatari Camp

LOCATION: Zaatari, Jordan

SIZE: 5.2 Km<sup>2</sup> or 2 mi<sup>2</sup>

POPULATION: 80,000 People

ESTABLISHED: 2012



Figure 48: Jordan Located in The Middle East  
Credit: Matthew Peikert

The Zaatari camp was first opened in 2012 due to Syrians fleeing the violence in the ongoing Syrian War. This camp quickly outgrew its capacity, and a second camp was created 20 kilometers away in the Marjeb Al

Fahood plains. In the camp the tents have been replaced by 25,000 prefabricated shelters from the UNHCR. (*Jordan's Za'atari Refugee Camp*, n.d.) These shelters includes a toilet and kitchen and has a six year lifespan.(Staff, n.d.) Zaatari also has a market with 1800 shops. The

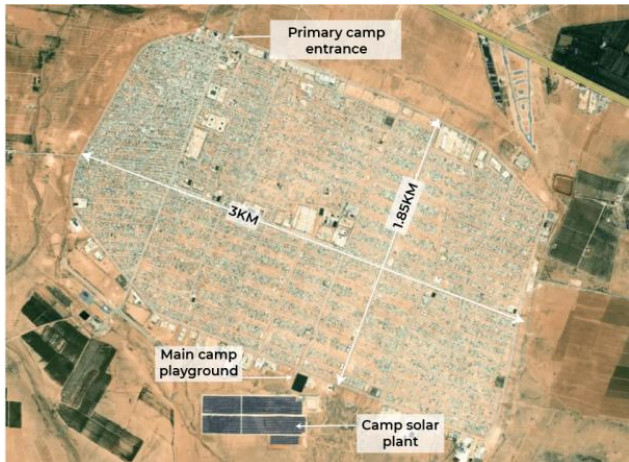


Figure 49: Ariel Photo of Zataari Camp  
Credit: Aljazeera, January 2022  
<https://www.aljazeera.com/news/2022/7/28/map-ping-the-largest-syrian-refugee-camp-in-the-world>

entrepreneurship of refugees within the camp is known throughout the world. This gives the refugees an ability to create an income and provides the people in the camp with a sense of purpose and dependency on them to help the camp function. This idea of entrepreneurship is extremely important and a great quality to allow for sustained health within camps. In 2017 the Zaatari camp was equipped with a solar farm to produce

electricity for the camp. This resulted in the ability for the market to function during the night as well as streetlights to illuminate the streets. This increased the sense of safety and security within the camp. (Jordan's Za'atari Refugee Camp, n.d.)

The Zaatari camp is located in the semi arid climate southeast of the city of Mafraq. The camp is located 13.4 km or 8.3 mi from the city of Mafraq. This makes it more difficult for the citizens of Mafraq to live among the refugees. There is a road that directly connects the camp to the city.

### Conclusion

Zaatari camp is unique with some of the characteristics in the camp. Zaatari is equipped with a solar farm. That provides energy to

the camp to power their main buildings and lights. This allows the market in this camp to operate for more hours of the day. The market in Zaatari camp is extremely important for the refugees to be able to make money. This idea of entrepreneurship is extremely healthy for the lives of the refugees. The idea of making the most with what you have is important for people who are living in the camps. It will be interesting to see how some of these concepts could influence future camp design.



Figure 50: Proximity Map Zaatari Camp to Closest town Mafraq  
Credit: Mapbox

### 3.5.4. Kutupalong Camp

LOCATION: Kutupalong, Bangladesh

SIZE: 13 Km<sup>2</sup> OR 5 mi<sup>2</sup>

POPULATION: 598,545 People

ESTABLISHED: 1991



The camp originally began when thousands of Rohingyas fled from the Burnese military operations.



Figure 52: Before and After Picture of the 2017 Refugee Crisis  
Credit: Google Earth, 2019

This Figure 51: Bangladesh Located in Asia  
Credit: Matthew Peikert  
resulted in

a camp size of 34,000 registered refugees. As extensive attacks began at Myanmar's Rohingya in 2017 hundreds of thousands of people began fleeing their homes and headed for the Kutupalong Camp.

The image below shows the before and after of the

crisis in 2017. Thousands of acres of land was forced to be used for shelters. This camp

continues to grow at a rate so fast people can

hardly receive what they need to live. At the early stages of the crisis the UNHCR sent 1500 tons of life saving aid to Bangladesh including blankets, plastic

sheets, sleeping mats, family tents, plastic rolls,



Figure 53: Starving People in Kutupalong Camp  
Credit: UN World Food Program USA, 2022

kitchen sets, jerry cans and buckets.

(*Rohingya Emergency*, n.d.).

Many people are left starving waiting for more resources to come. See figure 20. It took time for more food programs to become established in the camps. Incentives have been created to provide students with high calories meal packs to create a stronger desire to go to the education buildings.

## Conclusion

Kutupalong is the largest refugee camp in the world. It has grown at such a fast rate the people living in the camps have hardly received what they need to be healthy. The shelters have been put up so fast to accommodate the influx of people and now there is very high risk for natural disasters to destroy parts of the camp. This camp has grown to be so large it has become like a network of camps that covers a ton of land area. A camp of this scale deserves to be planned more like a city rather than a temporary refugee settlement.

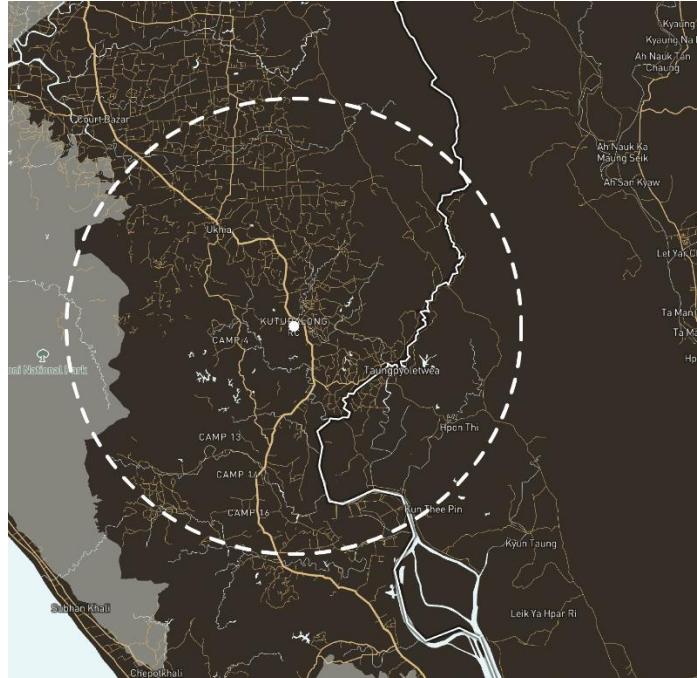


Figure 54: Proximity Map of Kutupalong to Surrounding Cities

Credit: Map Box, 2023

### 3.5.5. Cortex Shelter by Cutwork

Cutwork has been creating a concept for refugee camps but utilizing textile concrete structures. This concrete can be rolled into structures. This concrete can be rolled into placed and set into a permanent form in just 24 hours. These materials can last up to 30 years. The CEO of Cutwork Kelsea Crawford said this, "Our mission is to create stability and security for people who have lost the most – essential safety a place to call home, and the simple foundations to rebuild communities and hope." These images show how this



Figure 56: Ariel Render of Living Modules  
Credit: Dezeen | India Block, 2019



Figure 55: Ariel Render of a Community Center Space  
Credit: Dezeen | India Block, 2019



Figure 57: Ariel Render of Village Layout  
Credit: Dezeen | India Block, 2019 <https://www.dezeen.com/2019/09/17/cortex-shelter-cutwork-refugee-architecture/>

material can be used in many different orientations. These shelters do not require skilled labor and would take two people just one day to erect.(Block, 2019)



Figure 58: Exterior of One Living Pod

Credit: Dezeen | India Block, 2019 <https://www.dezeen.com/2019/09/17/cortex-shelter-cutwork-refugee-architecture/>



Figure 59: Interior of One living Pod



Credit: Dezeen | India Block, 2019 <https://www.dezeen.com/2019/09/17/cortex-shelter-cutwork-refugee-architecture/>

### 3.5.6. Balbek Burea Refugee Village

In this study Balbek Burea has developed a concept for emergency shelters for internally displaced people. These housing modules are based on standardized timber-framed boxes that can be assembled in various patterns. This sort of modular design allows for many of the basic needs to be met, all with the use of the same structural box. The different uses could include living quarters, communal kitchens, bathrooms, and public spaces. The units can be put into configurations to accommodate 100 people or up to 8,200. This modular construction helps to meet a set of guidelines to ensure every person has access to certain amenities. (Hahn, 2022)



Figure 60: Exterior Render of Modules

Credit: Dezeen | Balbek Bureau, 2022, <https://www.dezeen.com/2022/03/22/re-ukraine-balbek-bureau-refugee-village/>



Figure 61: Ariel Render of Modular Village

Credit: Dezeen | Balbek Bureau, 2022, <https://www.dezeen.com/2022/03/22/re-ukraine-balbek-bureau-refugee-village/>



Figure 62: Courtyard in One Complex

Credit: Dezeen | Balbek Bureau, 2022 <https://www.dezeen.com/2022/03/22/re-ukraine-balbek-bureau-refugee-village/>



Figure 63: Main Courtyard with Playground for Children

Credit: Dezeen | Balbek Bureau, 2022 <https://www.dezeen.com/2022/03/22/re-ukraine-balbek-bureau-refugee-village/>



Figure 64: Proposed Combination of Modules

Credit: Dezeen | Balbek Bureau, 2022 <https://www.dezeen.com/2022/03/22/re-ukraine-balbek-bureau-refugee-village/>

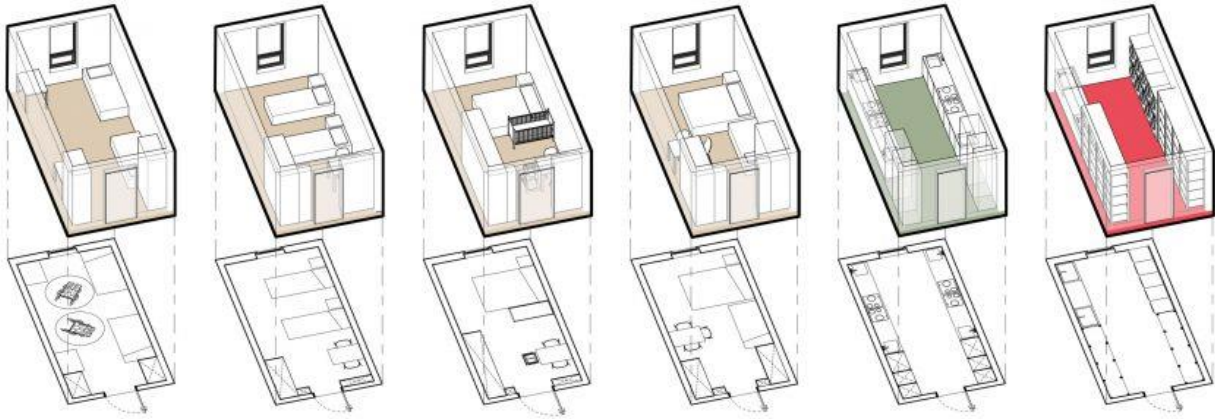


Figure 65: The Different Modules with Different Functions

Credit: Dezeen | Balbek Bureau, 2022 <https://www.dezeen.com/2022/03/22/re-ukraine-balbek-bureau-refugee-village/>

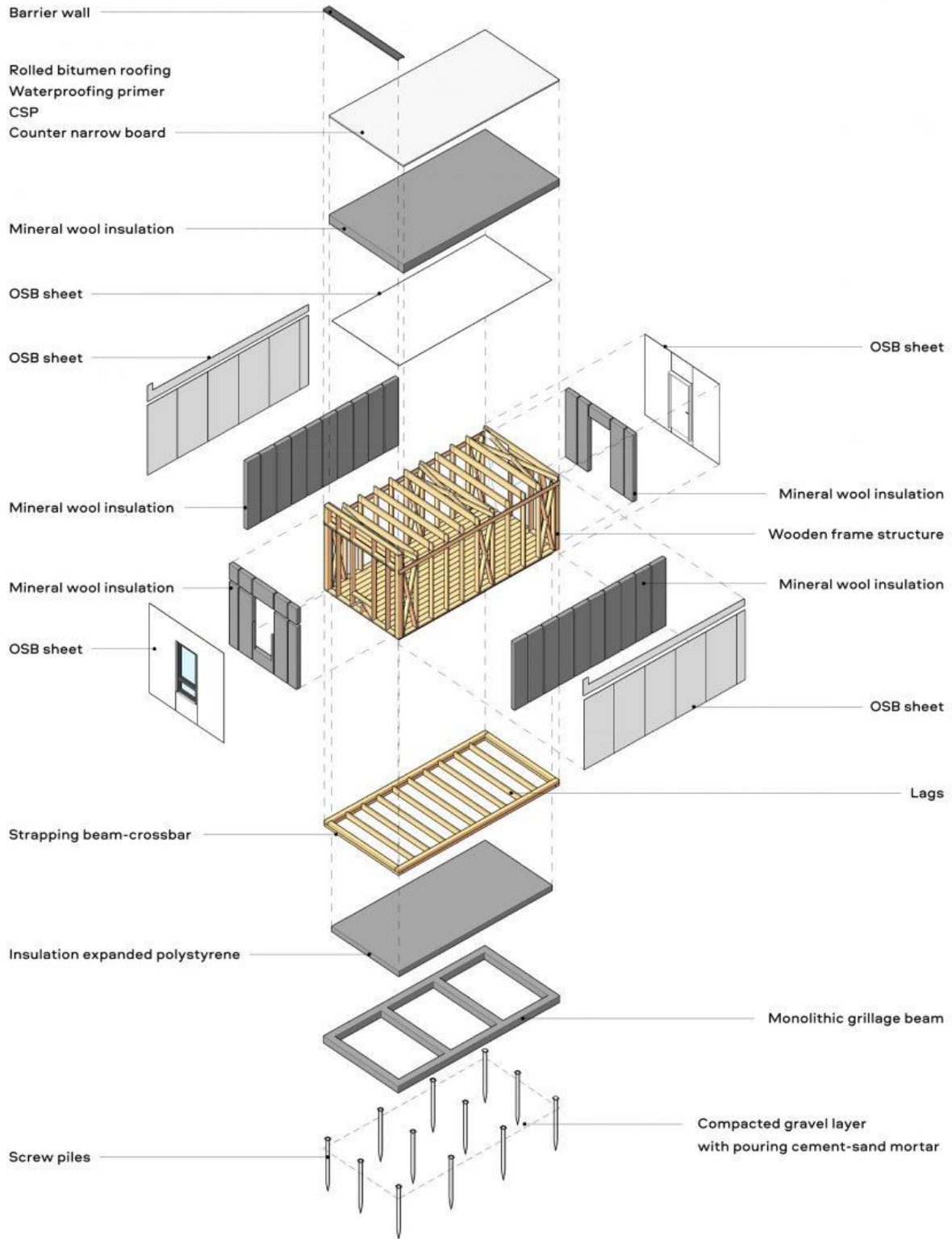


Figure 66: Exploded Axonometric to Show Building Materials and Construction  
Credit: Dezeen | Balbek Bureau, 2022 <https://www.dezeen.com/2022/03/22/re-ukraine-balbek-bureau-refugee-village/>

### 3.6 Space Programming

Table 4: Spatial Programming

Credit: Matthew Peikert | UNHCR Data

Room Name	Room Size
Communal Latrine	1 per 20 persons
Shower	1 per 50 persons
Health Center	1 per 50 persons
Referall Hospital	1 per 200,000 persons
School	1 per 5,000
Distribution Centre	1 per 5,000 Persons
Market Place	1 per 20,000 Persons
Feeding Centre	1 per 20,000 Persons
Storage Area	5 to 20 Sqm. Per 100 persons 1
Lighting	As Appropriate
Registration Area	As Appropriate
Administration / Office	As Appropriate
Securiy Post	As Appropriate

Table 5: Number of People per Spaces

Credit: Matthew Peikert | UNHCR Data

Module	Structure	Approximate Numer
Family	1 x family	4 - 6 persons
Community	16 x family	80 persons
Block	16 x communities	1,250 persons
Sector	4 x blocks	5,000 persons
Settlement	4 x sectors	20,000 persons

## **RESULTS AND CONCLUSIONS**

### **4.1 Final Project Description**

The final project will be the masterplan of a refugee camp that will provide amenities that facilitate the process of holistic healing. The camp will be designed to house the 120,000 current residents as well as provide solutions for growth if needed in the future. This camp will have the primary requirements based on the UNHCR requirements. This will include housing shelters, restrooms, showers, health centers, schools, market place, etc... The camp will be designed to improve the well-being of the people of the camp while also providing more long-term solutions to the residents' living situations. The designs will first commit to meeting the basic needs of the individuals and then seek to create spaces for social interaction and community.

### **4.2 Project Objective**

The objective of this project is to rethink how humanitarian design is currently done. This will be done by researching what the current model looks like and finding the gaps that could be improved in the future. The goal will be to explore how good qualities of design can be implemented even into disaster/crisis relief designs to improve the quality of life for people. Another main goal will be to rethink the current narrative and push a new idea of humanitarian hedonism. Not holding ourselves back from proving good design solutions from the parameters that have been put into place that appear constricting. This will be done in hope to provide proactive crisis relief design rather than reactive. This project aims to provide three well designed building types that will be used for multiple things to provide the correct number of amenities. This project aims to Decrease fear, incorporate holistic health strategies, use circular design, be sustainable, create walkable distances and increase equity to all people living in the camp. These goals will be met in various ways throughout the project.

### 4.3 Project Design and Documentation

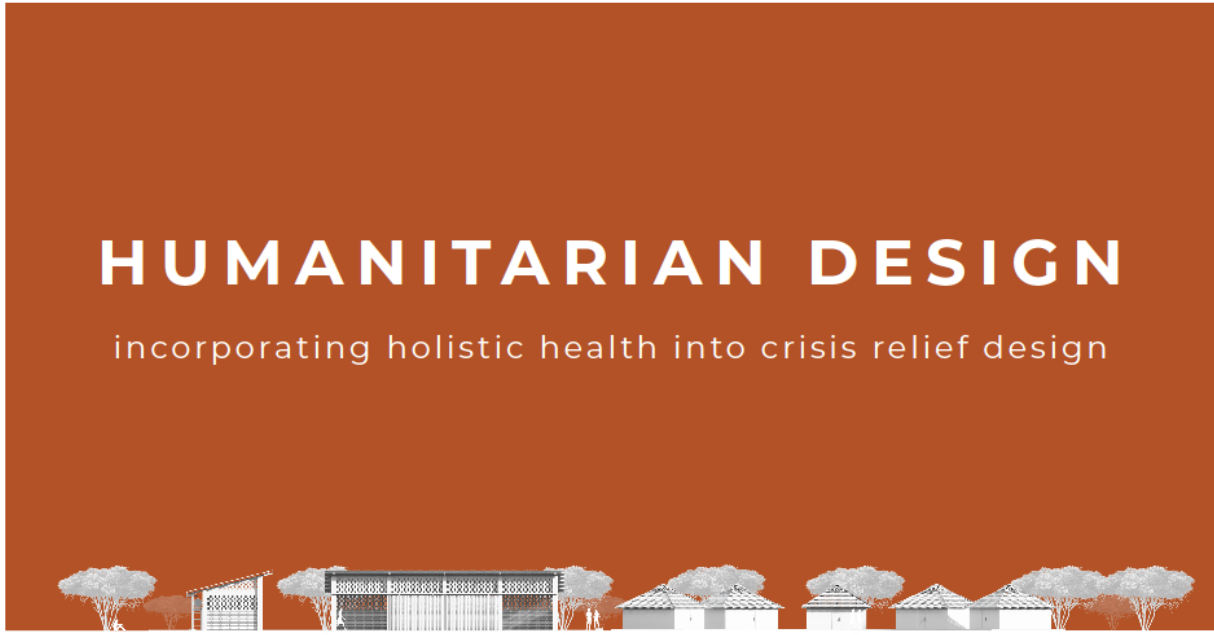


Figure 67: Title for Project Presentation  
Credit: Graphic Done by Matthew Peikert



Figure 68: Project Goals  
Credit: Graphics Done by Matthew Peikert





Figure 69: Site Plan/Master Plan of Rhino Camp Re Development  
Credit: Graphic Done by Matthew Peikert

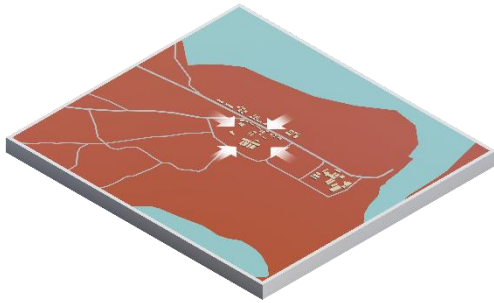


Figure 70: Process Diagram One – Consolidation  
Credit: Graphic Done by Matthew Peikert



Figure 71: Process Diagram Two – Vegetation  
Credit: Graphic Done by Matthew Peikert

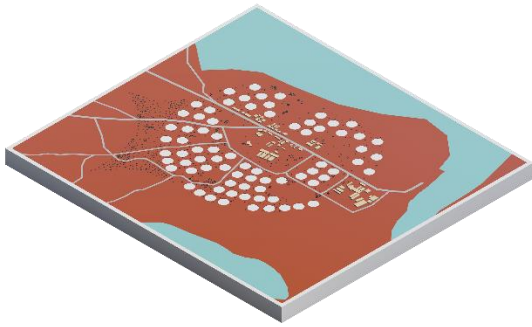


Figure 72: Process Diagram Three - Cluster Placement  
Credit: Graphic Done by Matthew Peikert

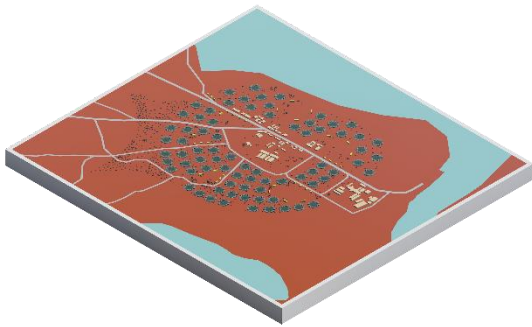


Figure 73: Process Diagram Four - Open Spaces  
Credit: Graphic Done by Matthew Peikert

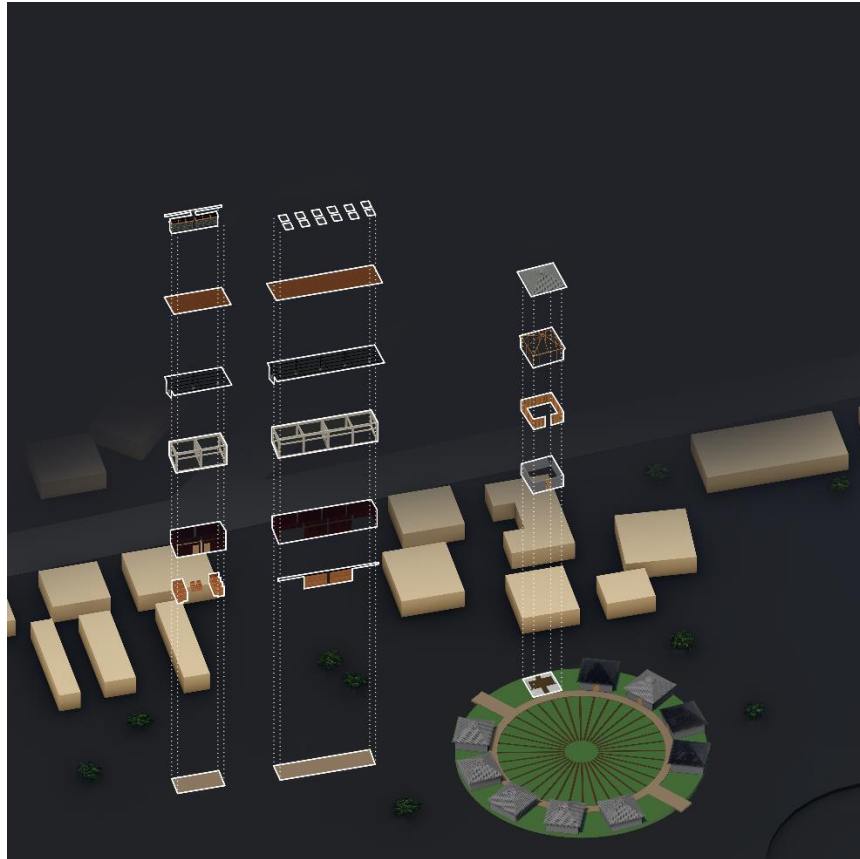


Figure 74: Exploded Axonometric Composition Diagram  
Credit: Graphic Done by Matthew Peikert



Figure 75: Decreased Embodied Energy  
Credit: The Noun Project

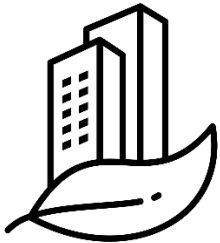


Figure 76: Passive Design Strategies  
Credit: The Noun Project



Figure 77: Locally Sourced Materials  
Credit: The Noun Project

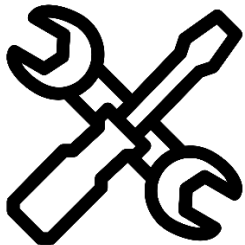


Figure 78: Simple Construction  
Credit: The Noun Project



Figure 79: One to One Model - Primitive Technology  
Credit: Built and Photographed by Matthew Peikert



Figure 80: One to One Model - Primitive Technology  
Credit: Built and Photographed by Matthew Peikert



Figure 81: One to One Model - Primitive Technology  
Credit: Built and Photographed by Matthew Peikert



Figure 82: One to One Model - Primitive Technology  
Credit: Built and Photographed by Matthew Peikert



Figure 83: One to One Model - Primitive Technology  
Credit: Built and Photographed by Matthew Peikert



Figure 84: Render of a Housing Cluster  
Credit: Render Done by Matthew Peikert



passive/sustainable design

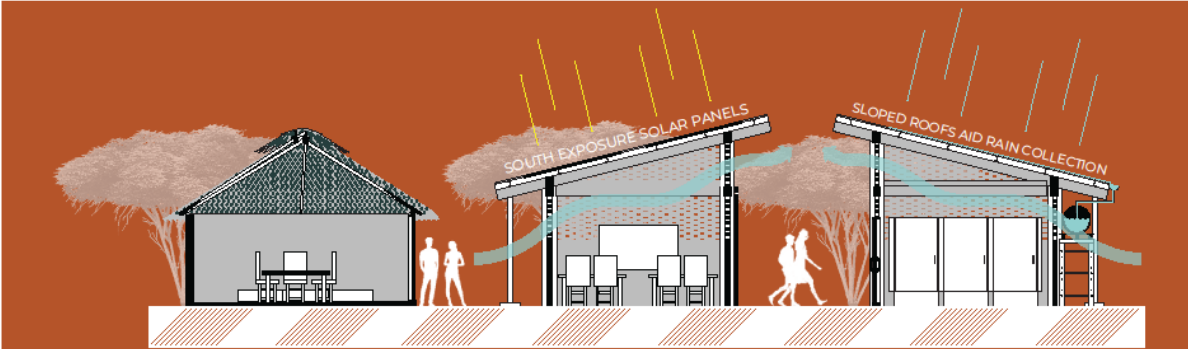


Figure 85: Section Diagrams - Sustainability and Passive Design Strategies  
Credit: Done by Matthew Peikert

floor plans

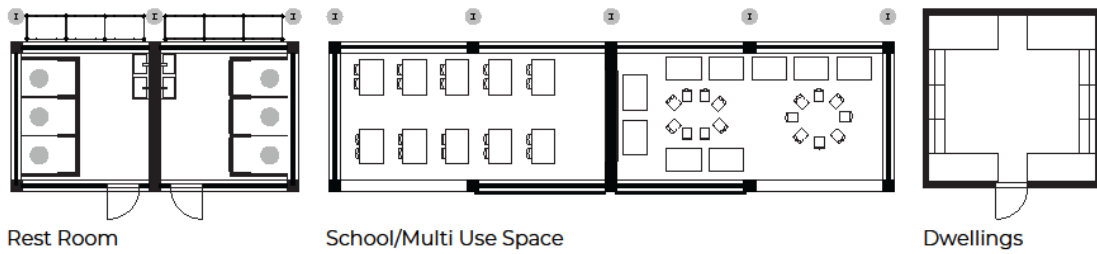


Figure 86: Floor Plans Restrooms (Left), School/Multi Use (Middle), Dwelling Units (Right)  
Credit: Done by Matthew Peikert



Figure 87: Interior Render of School Building  
Credit: Render Done by Matthew Peikert



Figure 88: Exterior Render of Support Group  
Credit: Render Done by Matthew Peikert



Figure 89: Final Board  
Credit: Done by Matthew Peikert

#### 4.4 Conclusion

This project was successful in looking for ways to locally source materials and utilize building construction technologies that would allow for the growth of this camp to be realistic. In conclusion this project provided one way this camp could be organized and laid out and recognizes that there are many other options that could be explored. There are many more avenues of research that could be further explored to increase the success of this project. These include incorporating more recycled materials, potential fabric for a city in the future, developing exterior spaces more, designing moments where people would really interact with the design of the camp.

Another conclusion of this project is a question of ‘What if’? What if we stopped putting boxes around what we thought was possible in disaster relief situations and began being motivated by empathy and compassion over people who need help. What if humanitarian design became the most beautiful expression of architecture that we have seen in the 21<sup>st</sup> century. It’s not going to happen naturally or by the systems that we have put into place but is genuinely going to take people getting in touch with their emotions and growing empathetic hearts for people who are suffering. This does not mean that we stop designing everything in the United States and put all of our focus into these disaster relief situations but a call to action to take a first step towards proactively designing to help in these situations.

A truth that I submit my life to is that out of the abundance of my life I desire to give to those who are in need. And when and if I am in need, I can rely on other people who have an abundance to help me. I just imagine a world fueled by generosity and love. What could come of these situations? Imagine the impact that we could have if we were not only motivated by money, and a comfortable lifestyle, a white picket fence, a two-stall garage but gave out of the

incredible abundance that we have been blessed with in order to help people in need. I just imagine our cities being transformed and our neighborhoods completely restored and made new.

What if humanitarian design was not just a focus for the West Nile region of Uganda Africa but became a focus and a lifestyle for all of us. These passions and motivations could transform south Fargo, Grand Rapids, St. Louis Park, so many of the places we are all moving. So, let us stop separating ourselves from the need for empathetic humanitarian design and open our eyes to see the incredible needs of the people around us.

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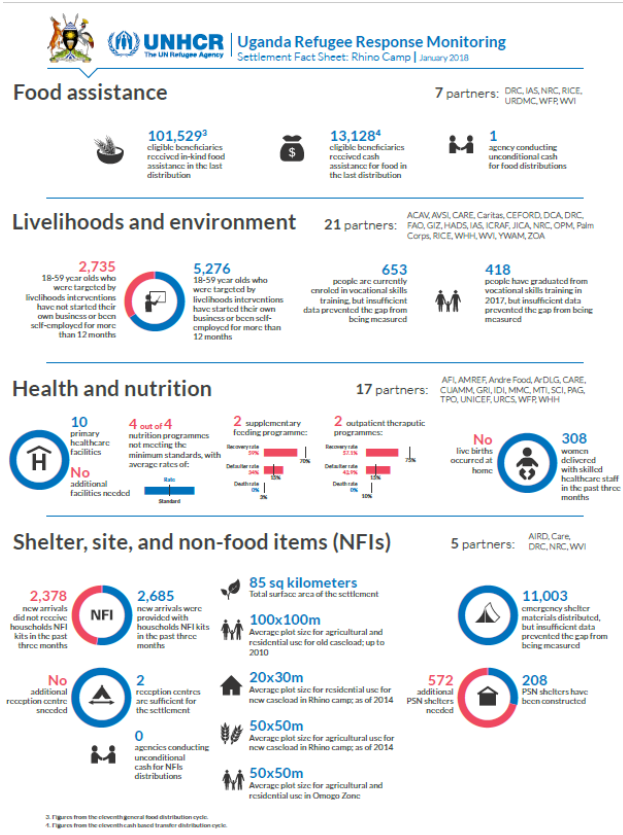
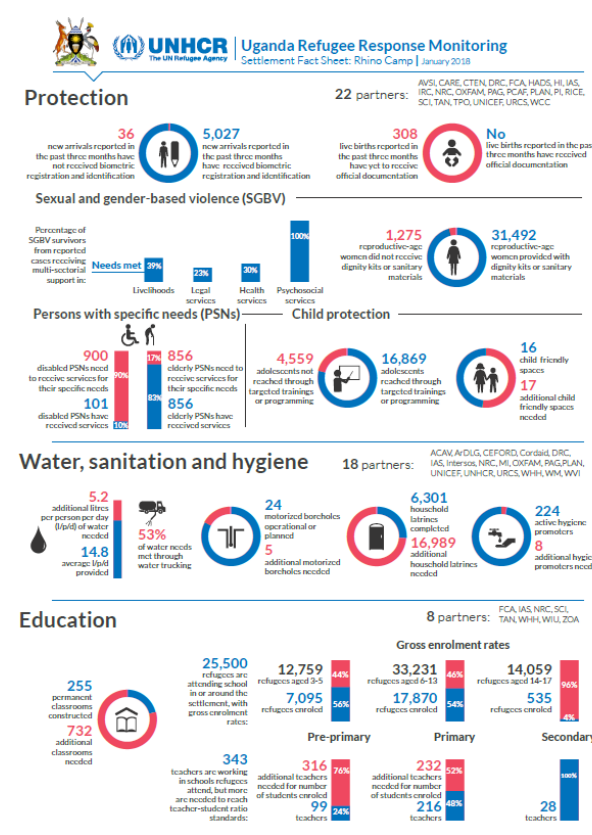
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# APPENDIX A. HEADING FOR APPENDIX USING “GS – MAJOR HEADING” STYLE

## UNHCR Fact Sheet – Rhino Camp



## APPENDIX B. ADDITIONAL INFORMATION

### Tutapona Interview with Carl Gaede on September 21, 2023



Tutapona  
Transcript.docx



Tutapona  
Transcript.docx.pdf

### Lutheran immigration and Refugee Service Interview on December 1, 2023



Refugee Center  
Transcript.docx



Refugee Center  
Transcript.pdf