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Das Flüchtlingslager – Architektur des Exils; mit besonderem Schwerpunkt auf dem Sammellager Mihatovici

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Das Flüchtlingslager – Architektur des Exils;

mit besonderem Schwerpunkt auf dem Sammellager Mihatovici

Abstrakt (Deutsch)

Palästina. Syrien. Thailand. Tschad. Pakistan. Die ganze Welt. Der Krieg, politische Unruhen, Überschwemmungen, Erdbeben, Feuer ...

Nach Angaben der UN-Flüchtlingsagentur gibt es etwa 45,2 Million Menschen auf der ganzen Welt, die gewaltsam aus ihren Häusern vertrieben wurden. Davon sind etwa 15,4 Millionen als Flüchtlinge angesehen - Menschen, die aus ihrem Herkunftsland durch Krieg, Angst vor Verfolgung oder nationalen Katastrophen gezwungen ware, um in oft unzureichenden Strukturen mit begrenztem Zugang zu menschlichen Grundbedürfnissen befristete Aufenthalte aufzunehmen.

Flüchtlingslager werden als temporäre Architektur angesehen. In der Regel sind sie von Zelten und Unterschlupf aufgebaut, um die schnelle und einfache Montage zu ermöglichen und um in Notfällen reagieren zu können. Wegen ihrer kurzfristigen Form der Architektur sind sie nicht für die Ewigkeit gebaut. Aber die Realität ist anders. Die Flüchtlingslager sind selten von kurzer Dauer - die durchschnittliche Lebensdauer eines Flüchtlingslagers ist von 7 bis 17 Jahren (Berichte variieren) und oft noch länger. Immer öfter werden diese Camps in Orten, wo die Menschen geboren sind und sterben, während sie warten, sich nach Hause zurückzukehren.

Was sind Flüchtlingslager? Wie sind sie aufgebaut? Wo? Wer sind Flüchtlinge? Wie leben sie, arbeiten, bewegen sich und ihre Zeit verbringen? Wie sehen die Räume und Strukturen, die für diese Zwecke erstellen sind, aus und was verbessert werden kann? Diese und viele andere Fragen sind Ausgangspunkt dieser Arbeit, die auf eine ganz bestimmte Art von Architektur, die vor allem aus den gemeinsamen Auge verborgen ist, konzentriert ist.

Refugee camps - Architecture of an Exile;

with special emphasis on the collective center Mihatovici

Abstract (Englisch)

Palestine. Syria. Thailand. Chad. Pakistan. The whole world. War, political unrest, floods, earthquakes, fire...

According to the UN refugee agency, there are around 45.2 million people around the world who have been evicted from their homes. Of these, approximately 15.4 million are considered refugees - people who are forced to flee from their home country due to war, fear of persecution or national disasters and accommodated temporary in often inadequate structures with limited access to basic human needs.

Refugee camps are seen and conceived as temporary architecture. Mostly, they are constructed of tents and shelter, so to allow quick and easy installation, and to respond to immediate emergencies. Because of their short-term form of architecture, they are not built to last. But the reality is different. The refugee camps are rarely of short duration - the average life-span of a refugee camp is 7 to 17 years (reports vary), and often longer. Increasingly, these camps become places where people are born and die while waiting to return home.

What are refugee camps? How are they built? Where? Who are refugees? How do they live, work, move and spend their time? How do spaces and structures created for this purposes look like and what can be improved? This and many other questions are starting point of this work, focused on a very specific type of architecture, mostly hidden from the common eye.

REFUGEE CAMPS

ARCHITECTURE OF AN EXILE

With special emphasis on the collective center Mihatovici

Master thesis

REFUGEE CAMPS

ARCHITECTURE OF AN EXILE

with special emphasis on the collective center Mihatovići

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Vienna, 2015

The final master thesis on the topic Refugee camps: Architecture of an Exile, with special emphasis on the collective center Mihatovići

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Dadaab refugee camp, photo by Brendan Bannon

“Shirin-Gol can’t remember what she thought a refugee camp would be like. Maybe she thought a refugee camp would be a friendly place where there were people who looked after the refugees, welcomed them and comforted them and told them everything would be fine. Maybe she thought a refugee camp was a clean place where every family had a hut or a room, where there where schools, doctors, nurses. Maybe she thought that in the refugee camp you would get everything you had lost in the war, clothes, beds, blankets, pots, shoes, combs, exercise books, books and all the other things that people need when they have fled their home. At any rate Shirin-Gol had not imagined that a refugee camp was a place where they scream and spit, a place where she had to live in a tent with holes and tears in it, which stank, which had no floor so that you had to sit and sleep on God’s bare earth. At any rate Shirin-Gol had not thought that in a refugee camp there would be no food, no water, no groceries, no pots and nothing else unless you paid for it, unless an aid organisation registered you and gave you a food card, a blanket card, a mattress card, a pot card, a doctor card, a whatever-else-you-can-think-of card.”

from the novel ***Afghanistan, Where God Only Comes To Weep,*** by the Iranian author Siba Shakib,
Century, 2002, p. 48

When I was three years old, my home country was struck by war. My family had to choose between two fears and uncertainties - to stay or to flee. Acting mostly by instinct, they decided to leave their lives, that they have been creating the past 30 years, their homes, jobs, everything they had, trying to save their bare lives.
During the four years of war, we have changed three countries, five cities, five types of accommodation and many life threatening situations. But, we stayed alive.

My choice of topic for the final student work was partly based on my memories of this period, but also present-day experiences I and many like me, go through every day, as "abstract refugees", caused by our nationality. People suffer unmeasurably because of something they have no influence on - where they were born. The situations they have never thought of find them unprepared, striking like lighting, and leaving them below the basic human level.
My war-torn childhood, though not filled with toys and marked with compromises, taught me valuable lessons. Anything can be rebuilt but lost life, people and animals matter - not things, anyone may need help at some point and thus, any human can and should help. We have gotten used to the thought that sympathy for the ones in need, is all we need to do. After all, its not us causing their pain and we have our own problems to worry about. At the same time our powers, knowledge and skills are staying unused, going to waste, and we forget how much we can do and how little is needed to change somebody's life.

Through my studies, my desired profession has been influenced by many words, sculptured with many hands and shaped through many pictures. And now, it is highly ruled by my desire to use all I have learnt for someone elses' needs. Architecture is a beautiful tool that should serve people in all its aspects,essentially focusing on human well-being. If used properly, it can make a big diference, life changing even, but as many other elements of our lives, we witness it being ruled by some other elements, that shift its focus in a very different direction.
Through my work ,I have tried to show an architecture hidden from our eyes, one that we are not used to. Architecture which was initially conceived as a way to help, has been through pollitical and economical manipulation, turned into something almost completely opposite. This paper investigates how someone's life can unexpectedly be changed completely, and how architecture is and can be used.

During the eight months of my master thesis development, the number of people who deserve a Thank you, has grown constantly. Having said that, the first place belongs to my family, starting with my mother and father who supported me selflessly throughout this period, but also my whole life. Additionally I would like to thank my advisor who has patiently guided me to my goala, and lastly, all my friends and colleagues, who helped and advised me in many different ways.
To all of you, thank you for being in my life.
Lejla Deljkic

Recognize yourself in he and she who are not like you and me.
Carlos Fuentes, source: http://www.goodreads.com/quotes/497760-recognize-yourself-in-he-and-she-who-are-not-like

Syrian refugees on their way to Za'atari refugee camp, photo by J.Kohler

Palestine. Syria. Thailand. Chad. Pakistan. The whole world. War, political unrest, floods, earthquakes, fire...
According to the UN refugee agency, there are around 45,2 million people around the world who have been evicted from their homes - people identified as a refugees.
If environmental conditions worsen and large-scale, social problems continue to affect our societies, some experts believe, the world will have hundreds of millions of refugees by the second half of this century. But what is even more alarming is how little we know about this issue. Who are these people and where do they come from? Where and how do they live, how do they cope with their traumas and what do they have? Who is responsible for all of these people and how are they being assisted?
Through news and reports, we are familiar with the term«refugees» as a people who, due to various reasons, were forced to leave their homes and find refuge, most usually in specially made settlements known as refugee camps. All of the reports created reassure us that these people are safe and their refuge is of a short term. But what we don't see is that most often, months after the last TV crews leave the site of their interest, short-term refuge turns into a long-lasting-way of life. Children are still being taught under plastic sheeting, waterborn diseases are spreading throught the camps, due to poor sanitation and inadequate infrastructure and tents that represent the refugee's new homes, are dete-

quate infrastructure and tents that represent the refugee's new homes, are deteriorating to that point that refugees start to deforestsurrounding areas for materials to build and repair the housing.
Refugee camps are seen and conceived as temporary architecture. Mostly, they are constructed of tents and shelter, so to allow quick and easy installation and to respond to immediate emergencies. Because of their short-term form of architecture, they are not built to last. But the reality is different. The refugee camps are rarely of short duration - the average life-span of a refugee camp is 7 to 17 years (reports vary), and often longer. Increasingly, these camps become places where people are born and die while waiting to return home.
Also, the number of refugee camps is growing constantly, currently there are more than 700. Most of the camps provide shelter for hundreds of thousands of people - the worlds largest refugee camp Dadaab in Kenya has more than 450 000 inhabitants - and they are slowly transforming into a new kind of cities. With the increase in population within these places, the demand for infrastructure and various services - schools, hospitals, employment opportunities –naturally increases. However, the fulfilment of these needs is very slow and on a small scale, turning all these spaces into the disgrace of our civilization in the 21st century - a miserable solution to a complex political and natural crisis.

The goal of this paper is to investigate and analyse various problems that are associated with the term of «refugee camps» and to determine what and how it can be improved. Refugee camps will be analysed in different aspects such as social life, ecology and economy and in the context of urban planning and architecture.
The work will question, amongst other things, how people live in refugee camps, how they work, move and entertain, how the spaces and structures that are created in this process look like, and what can be improved in all areas. The term «refugee camps» will be examined on the global scale (location, size, etc.) and on the small scale (individual life). Furthermore, the important role of planners and architects in the actual creation and improvement of these refugee camps will be highlighted.
Through a more detailed analysis of four existing refugee camps, the differences and particularities of each space will be shown, arising from cultural, political and economic differences. Special focus will be put on more than 20 years of the existing collective center for displaced persons in Bosnia and Herzegovina, for which the reconstruction and revitalization will be suggested through the conceptual design, with a goal of improving the living conditions. Particular attention is placed on the creation of opportunities for economic development of the entire camp, but also the individuals as a foundation for their future life. The pragmatic and sustainable ideas for housing, infrastructure, community, education and employment will be suggested, with an intention to creat better homes and spaces for better lives. Also, the project will focus on encouraging communities to be active participants in rebuilding their own lives, while creating sustainable solutions. Through this it will be illustrated how important collaboration of all involved is, in the matter. Relief and reconstruction need to be approached holistically and openly, or we risk just masking the problem instead of solving it.

For the sole purpose of this paper, data from UNHCR (The UN Refugee Agency), data and studies of existing refugee camps, works by Manuel Herz, recent architectural projects of the refugee camps and private statements of the residents of the refugee camps in Bosnia and Herzegovina will be used.

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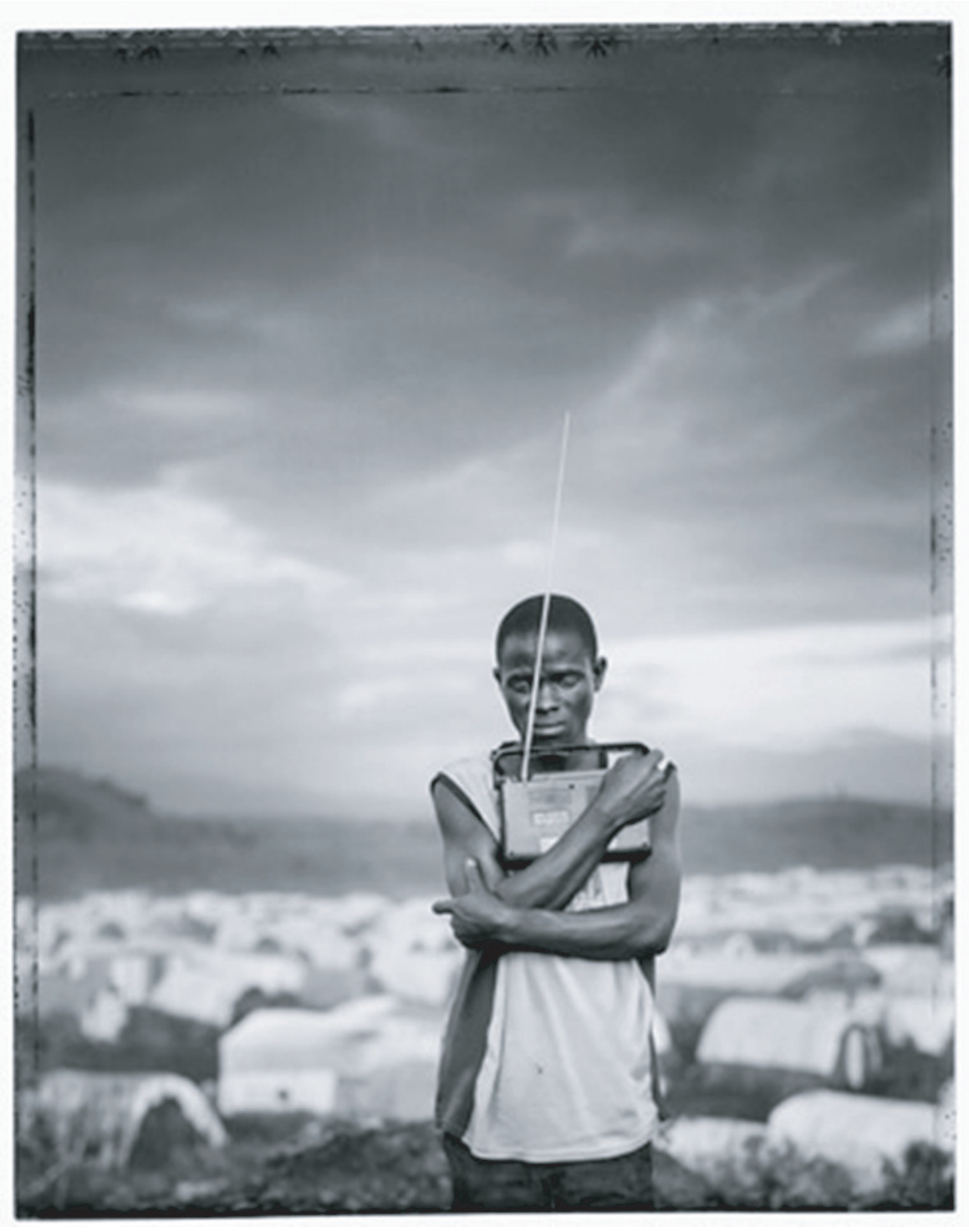
INTRODUCTION

Imagine that your life, as you know it, disappears in the blink of an eye. War, violence or fear for your family's safety forces you to flee your home. After hours or even days of a torturous journey, you find shelter far away, in a squalid tent. You sleep on a hard floor, dirty matrace, you share the space with others, some of them you even don't know, you eat the same portion and amount of food every day from a rusted pot. You are dependent on handouts of food, possibly have no clean drinking water or access to health care that prevents outbreaks of deadly diseases. You become just a number, part of the statistics. Your hope for a better future, your pride and 'normal' life you are accustomed to is disappearing with every day of your new life as a refugee. Not a very nice image, is it?
But the fact is that millions of people around the world, in countries big and small, people of all ages and many nationalities, have been living in such a desolated and precarious conditions for years. These people are called refugees and internally displaced persons.

There are a million people who are refugees, ... Life goes on, and if it didn't impact you directly, you may not realize how devastating this is.

Ellen Lee DeGeneres, an American comedian, television host, actress, writer, and television producer

According to the UNHCRs statistics from 2014 more than 51,2 million people worldwide are currently uprooted from their homes. Of that number, 21 million are



refugees and asylum seekers living in refugee camps or other type of accommodation in countries other than their own, and 30 million are Internally Displaced Persons or shortly IDP, people fleeing inside the borders of their own country.

The story of world refugees starts with a life threatening incident, man-made or natural. They are forced to flee their homes because their lives and security are at risk and/or their basic human rights are violated. They are compelled to leave familiar surroundings in search of safety and stability. When they flee their homes, they leave behind most of their belongings. Sometimes they manage to grab a few basics, but most of the time they are just happy to escape with their lives intact. After a long journey, the first phase of their new life commences and they usually end up with thousands of others in a settlement that can stretch for miles - areas where they will most likely spend next few years of their lives.
These are refugee camps, places that no one would willingly chose to inhabit. Having fled a danger of unimaginable proportions – massacre, genocide, and other atrocities - they are relieved to have found a safe place. So they construct tents and other makeshift shelters from whatever materials happen to be available - sticks, plastic sheeting, mud and stones. In the best of cases, humanitarian aid agencies will provide the basics: food, clean drinking water, and rudimentary health care. The hope among the refugees is that they will be resettled quickly to a safe place, or, even better, return to the homes they had left behind.
Unfortunately, many millions of them end up living in the camps for much longer than expected because they have no safe home to return to, or cannot be resettled in other countries due to restrictive asylum policies of other nations. Over 3 million Palestinian refugees have been in camps for over 50 years, more than 1 million Afghanis have been in Pakistan for 26 years. Daadab - the biggest refugee camp in the world for Somalian refugees – is in operation since 1991. Generations of these people have never seen their homelands.

In the last few years as passive observers, we became very familiar with the term refugee. Various reports, articles and news made us well aware of existence and alarming situation of those who had lost their homes due to different disasters. In recent years, the notion of refugee camps has also gained importance in the field of spatial studies and social sciences. References about the camps appear in different texts and discourses. They have became an integral part of the books about the theory of architecture and reports about the processes of urbanization where they are often mentioned in the context of violence and conflict, slums,as well as man-made and natural catastrophes. We see them regulary in news reports and documentaries. But still we know and understand very little about the concept of the refugees - people in the lowest layer of our society and refugee camps, spaces that are home to several million people in many parts of the world.

Who are refugees? What exactly are refugee camps? For whom are they made and who invests interest and resources in them? How are they planned? What kinds of spaces exist in them? How are refugees living in them?

Different conceptions are related to the refugee camps. We hear about descriptions of specific camps in eastern Chad, Kenya and Jordan. They are mentioned in the reports on natural disasters and the attempts of the victims to establish new livelihoods. They are often compared with the slums and shanty towns on the fringes of many African and South American cities. But the image of refugee camps is also evoked when describing areas of control auch as prison, Guantanamo Bay, labor camps, or even gated communities. All of them have similar biopolitical operations, but what sets them apart, are the individual problems that triggered them and the very specific nature of the refugee camps, which is rarely considered.
Nevertheless, they are three main notions in contemporary discourse of how refugee camps are understood. First, they are seen as spaces where lives are saved. Also, they are understood as spaces of control where all aspects of refugees' lives are monitored. Finally, they are represented as spaces of poverty and misery.
Refugee camps are made as humanitarian spaces, constructed to protect and save lives. They offer accommodation, water, food, health care, and basic education for refugee population in a very efficient way. But giving refugees shelter, food, water and health care, means at the same time that these aspects of their lives will be constantly controlled and monitored. They are kept in one place, usually without freedom to move and settle elsewhere. They are not allowed to express themselves politically, they do not have the right to work and employment outside the camp, limited to receiving help, sentenced to life in waiting and dependent on the actions of others.
In some cases refugee crisis' last several decades, located in remote places, away from the all economic, cultural and social events. And it is with these notions that refugee camps become the places of desperation, with refugees as victims, unnamed – without z history or future, biography or personal detail. This in turn represents pure suffering.

These three ways of understanding refugee camps represent mostly Western idea of these places, which we can not ignore, but rather acknowledge in our presence. What it truly means to be a refugee and spend years living in a tent or other type of temporary shelter is hard to imagine whilst we are only sitting, hearing and watching about them on the news.

This paper aims to inquisite questions associated with the term of a refugee and

Rwandan refugee camp with mother and child, Tanzania, 1994, photo by Sebastiao Salgado

refugee camps. Different aspects of refugees' lives will be investigated and presented. Through a spetial represantion of a notion of refugees - a refugee camp - diferent social, cultural, economical, physical and psychological aspects of a life as a refugee will be defined and represented.

Through the definition and explanation of the term refugees and the causes of their existence, historical reflection, and a description of refugee camps as a spatial representation of this notion, it is my aim to give an insight as detailed as possible in all aspects of refugees' lives. I will also try to answer the question of whether the refugee camps as we know today are solution and what is needed to improve the situation. Can we still treat refugee camps as a temporary place or as a new forms of permanent urbanization? Are refugee camps becoming new cities and how should this new form of spatial development be approached? Is providing minimum standards enough and what is needed to attain life for human beings?
Four existing refugee camps were analyzed, in order to demonstrate the difference of each space that arises, due to cultural, geographical, climatic and other specificities of the area where the camp is located.
The last part of the paper presents conceptual design for the reconstruction of the already 20 years existing collective center for displaced persons Mihatovici in Bosnia and Herzegovina. Although built with the aim of closing after 10 years, the center is still in operation and is one of the examples that encourage the question: what is happening with the refugee camps after the end of the crisis. The project seeks to answer the question of how to create a link between spatial planning that has goal to create permanent spaces and refugee camps with a preconceived plan of being temporal and planned with the principles of spatial planning, constrained with the uncertainties of their evolution as human settlements.

The work methodology is a combination of research and analysis of existing texts, reports, data, guidlines and personal observations. The first hand research has been made only for the collective center Mihatovici, due to lack of any documentation for this area. All of the data and informations has been collected from many sources. The reliability of all of these sources has its own limits due to several reasons - personal observations of some other parties, data collection, monitoring and emergency conditions are complicated and therefore, the margin of error may be increased, and additionally, the restricted accessibility of the camps further limits the scope of research, etc.

In sum, the present work provides a brief analysis of refugee camps from the moment of constructiion (generated need for these areas) to the moment between temporary and permanent living, as well as a proposal for possible improvements including ways to address these spaces after their planned period has expired.


NOBODY
CHOSE
TO
BE
A
REFUGEE
!

WHO / WHAT

Displaced person

Someone who has been forced to leave their home, especially because of war or a natural disaster such as an earthquake, flood, etc.

http://dictionary.cambridge.org/dictionary/british/displaced-person

A person forced from his or her home or country, especially by war or revolution.

http://www.collinsdictionary.com/dictionary/english/displaced-person

Refugee

Any person who: owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country.

The 1951 United Nations Convention Relating to the Status of Refugees

A person who has been forced to leave their country in order to escape war, persecution, or natural disaster.

http://www.oxforddictionaries.com/definition/english/refugee

A person who seeks shelter especially in another country, from war, disaster, or persecution.

http://dictionary.cambridge.org/us/dictionary/english-french/refuge

A person who has fled from some danger or problem, especially political persecution.

http://www.collinsdictionary.com/dictionary/english/refugee

Internally displaced people

People who are forced to flee their homes, often for the very same reasons as refugees - war, civil conflict, political strife, and gross human rights abuse - but who remain within their own country and do not cross an international border.

http://www.unesco.org/new/en/social-and-human-sciences/themes/international-migration/glossary/displaced-person-displacement/

Refugees on their way to a refugee camp

Refugee camp

A place where people who have escaped their own country can live, usually in bad conditions and only expecting to stay for a limited time.

http://dictionary.cambridge.org/dictionary/british/refugee-camp

A camp for sheltering and protecting people who have fled from some danger or problem, especially political persecution.

http://www.collinsdictionary.com/dictionary/english/refugee-camp

Shelter for persons displaced by war or political oppression or for religious beliefs.

http://www.wordwebonline.com/en/REFUGEECAMP

A temporary settlement built to receive refugees.

http://en.wikipedia.org/wiki/Refugee_camp

Natural disaster

Any event or force of nature that has catastrophic consequences, such as avalanche, earthquake, flood, forest fire, hurricane, lightning, tornado, tsunami, and volcanic eruption.

http://dictionary.reference.com/browse/natural+disaster

Man-made disaster

A disastrous event caused directly and principally by one or more identifiable deliberate or negligent human actions.

http://www.businessdictionary.com/definition/man-made-disaster.html

Conflict

1. A state of open, often prolonged fighting; a battle or war.
2. A state of disharmony between incompatible or antithetical persons, ideas, or interests.

http://www.thefreedictionary.com/conflict

Arial view of Za'atari refugee camp in Jordan

It was a nice and sunny day... The 2nd May 1992. Saturday. People enjoying the beginning of spring, walking, drinking coffee, talking to a friends. And then it all changed.

Most of the tragedies affecting human lives, occur unexpectedly and surprisingly, inevitably confronting unprepared people with a sudden change of their everyday lives. Its immediate aftermath is as unforeseen as the catastrophe itself. And in the end, the results have an enormous global impact.
The Bosnian War (1992-1995) started as described above – something that would last for the next four years, began as a day like any other. What it has caused is the biggest refugee crisis since the immediate aftermath of the Second World War. It was one of the most destructive conflicts of the 20th century. Of a population of around four million people in 1992, two million were made refugees, more than 100,000 were killed, many were raped, tortured, mutilated, whereby the capital, Sarajevo, suffered the longest siege of any city in modern times, spanning the duration of the war.

A catastrophe of any kind, natural or man-made can affect human lives in many ways. People loose their lives, homes, close ones, everything they have, and they are physically, psychologically and mentally wounded.
The World War I and WWII took more than 90 million lives and made several millions homeless. In the Rwandan genocide between 500,000 and 1,000,000 people were killed and more than 2 million people were made refugees. The 7.0 earthquake that rocked Haiti on January 12, 2010, had led to over 200,000

deaths, 2 million homeless, and 3 million people in need of emergency aid. Hurricane Katrina, one of the largest and 3rd strongest hurricane ever in the US, killed around 2,000 people and affected over 15 million people in different ways - varying from having to evacuate their homes, rising gas prices, and the economy suffering.

In modern time, it is impossible to have at least a 24 hours time-span without some type of human tragedy happening somewhere in the world. In the time of big global, natural, economical, cultural and other changes, both humans and nature are all the more losing their patience and causing deadly fights. Floods, earthquakes, hurricanes or armed battles for land, religious beliefs or any other type of disagreement, are the cause of thousands of deaths every year, but also millions of them in search for new home, causing one of the biggest present global challenges - the question of refugees.

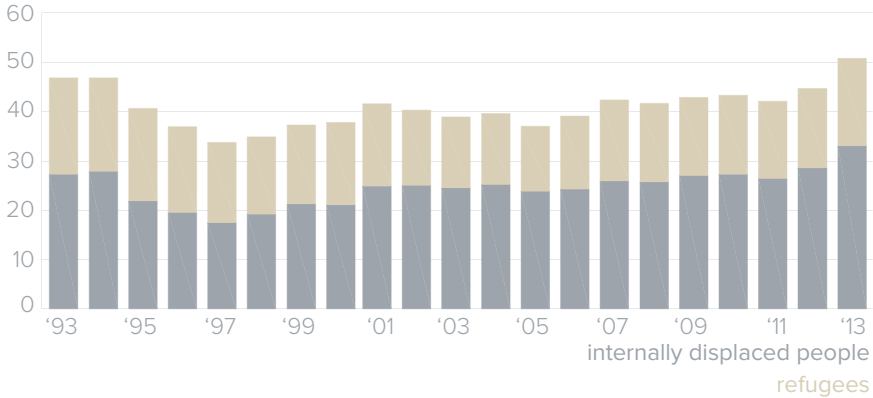
We live in the age of refugee, the age of the exile.

Vladimiro Ariel Dorfman, Argentine-Chilean novelist, playwright, essayist, academic, and human rights activist

The number of people forced to flee their homes across the world has in 2013, exceeded 50 million for the first time since the Second World War - an exponential rise that is stretching host countries and aid organizations to breaking point. With a total of 51,2 million registered refugees in 2013, we are now witnessing a quantum leap in forced displacement in the world. The number increased to 6 million over the 2012 figures, mainly because of the war in Syria - in the end of 2012 and 2013 more than 2,5 million Syrians have fled across the country's borders and 6,5 million were internally displaced – more than 40% of the population. The 51,2 million forcibly displaced people in desperate need for help, shelter, food, compassion. All of them have experienced exodus, an experience whose meaning appears more clearly if it is approached in its three stages – the founding moments of a new kind of wandering life.

Global forced displacement _1993-2013

http://www.unhcr.org/53a155bc6.html



First of all, the stage of destruction – namely land, houses and towns, as well as the broken trajectories of lives and the irreducible mark of physical and moral wounds. Then that of confinement – months of waiting, years or whole life-cycles spent in transit on the fringes of cities or in camps trying to become towns without ever managing to do so. Finally, the moment of actions, still uncertain and hesitant: the search for a right of life and speech.

Forcible displacement of people can be caused by human conflict or natural disaster and it appears in one of three forms - asylum seeking, refuge (in urban or rural areas) and internal displacement.

Conflicts like international, guerrilla or civil wars, revolts and battles are human reality. Since there were humans, there were conflicts, over food, land, woman, for different opinions, religious beliefs, power, absolutely anything. But in the last few decades, conflicts are taking another direction. Through history, armed conflicts meant wars between states, now they involve different ethnic and religious groups, combining political, communitarian and criminal violence. The agents of violence have multiplied so next to uniformed forces and non-states actors, who take control over territory and people, today's conflicts often involve multiple private actors who often have little responsibility towards local populations. Some include violent criminal organizations that are trying to take control over the land and territory for economic reasons, or individuals associated with violent international ideological movements, that are trying to take advantage of local difficult situations. The distinction between combatant and civilian is blurred. Although wars are taking less lives than in the past, a number of civilians exposed to violence, especially where the state provides little protection for the population has increased. They suffer the impacts of government dysfunction, loss of livelihoods, shortages of basic necessities - all of which contributes to their insecurity, displacement and vulnerability.

However, even more people are displaced annually by natural disasters than by conflict, and the long term effects of climate change are expected to trigger large-scale population movements within and across borders. Climate changes also accelerate other global trends that create or affect refugees and IDPs such as conflict, urbanization and economic inequality. Predictions about the potential scale of movements caused by natural disasters range from 25 million to one billion by 2050. Different categories of population movement could occur or

intensify as a result of climate change:

• People may be displaced by hydro-meteorological disasters, such as flooding, hurricanes, typhoons and cyclones, or mudslides. These movements are usually temporary in nature and may cross borders.

• Displacement may be caused by environmental degradation and slow onset disasters. These could result in people moving to other regions of their country or to other countries if no options are available for internal relocation, and most likely on a permanent basis.

• In the case of flooding of small island states by rising sea levels, the entire population of an island might be forced to move permanently elsewhere.

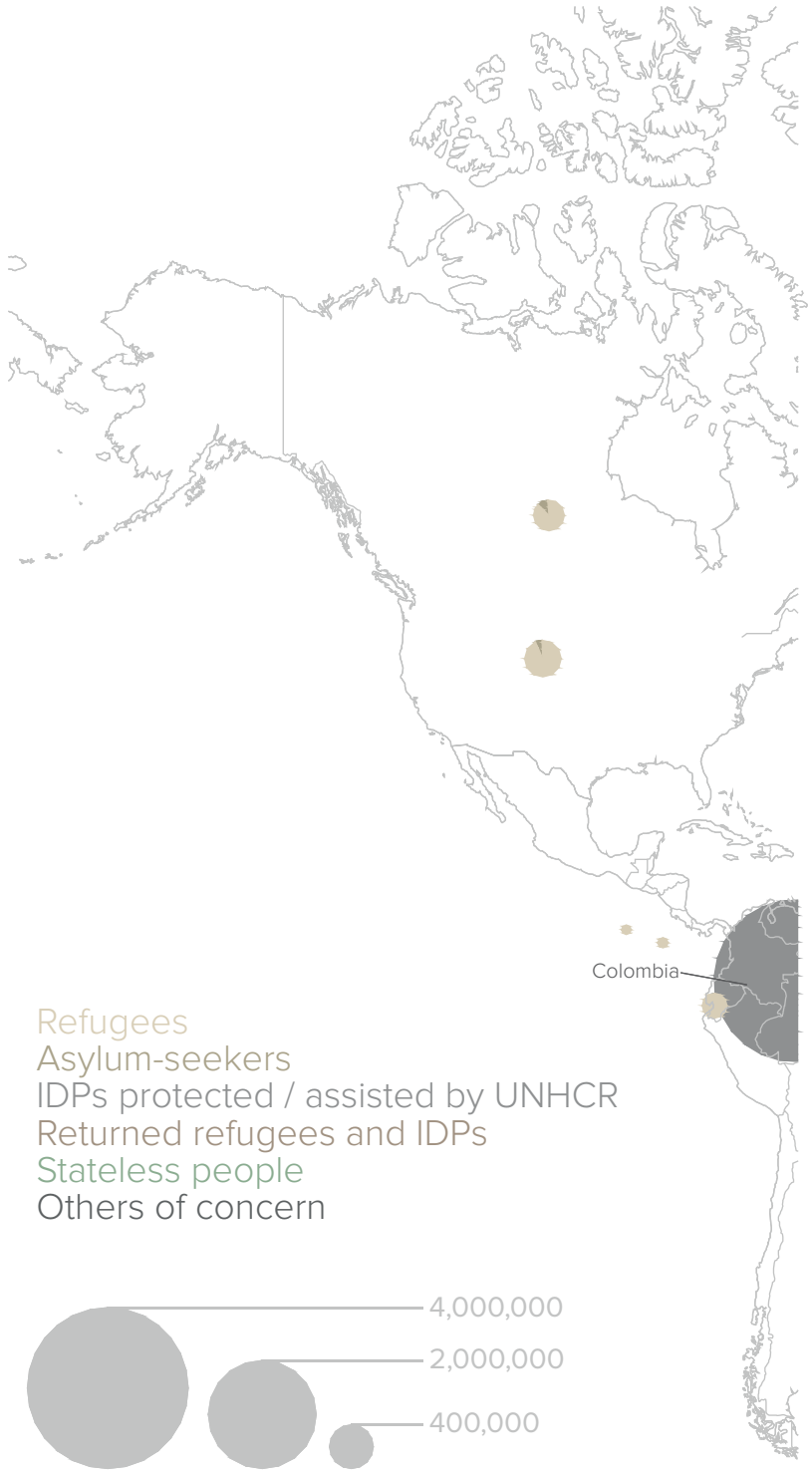
• Where some areas become uninhabitable because of sudden or slow-onset disasters, evacuation and relocation of people to safe areas may be needed. Such movements may be temporary or permanent, depending on conditions in the area of origin.

• Displacement of varying duration may occur when armed conflict and violence are triggered by a shortage of essential resources (water, food) due to climate change.

Number of sudden natural disasters has increased dramatically in recent decades. In the opinion of many experts, it is the result of global warming and the effect on rainfall patterns, causing an increase in hydro-meteorological disasters. In 1980 they were 133 recorded natural disasters, and in recent years the number is greater than 350 per year.
The impact of natural disasters is a function of both the severity of the natural hazard and the capacity of a population to deal with it. People who are displaced across borders because of the natural disasters and the effect of climate change face a potential legal protection gap. The 1951 Convention does not cover people fleeing natural disasters, as law courts around the world and UNHCR have made clear. States frequently grant permission to remain, or a stay of deportation, to people whose country of origin has been struck by a natural disaster or an extreme event, but legally seen they represent a different category of refugees.

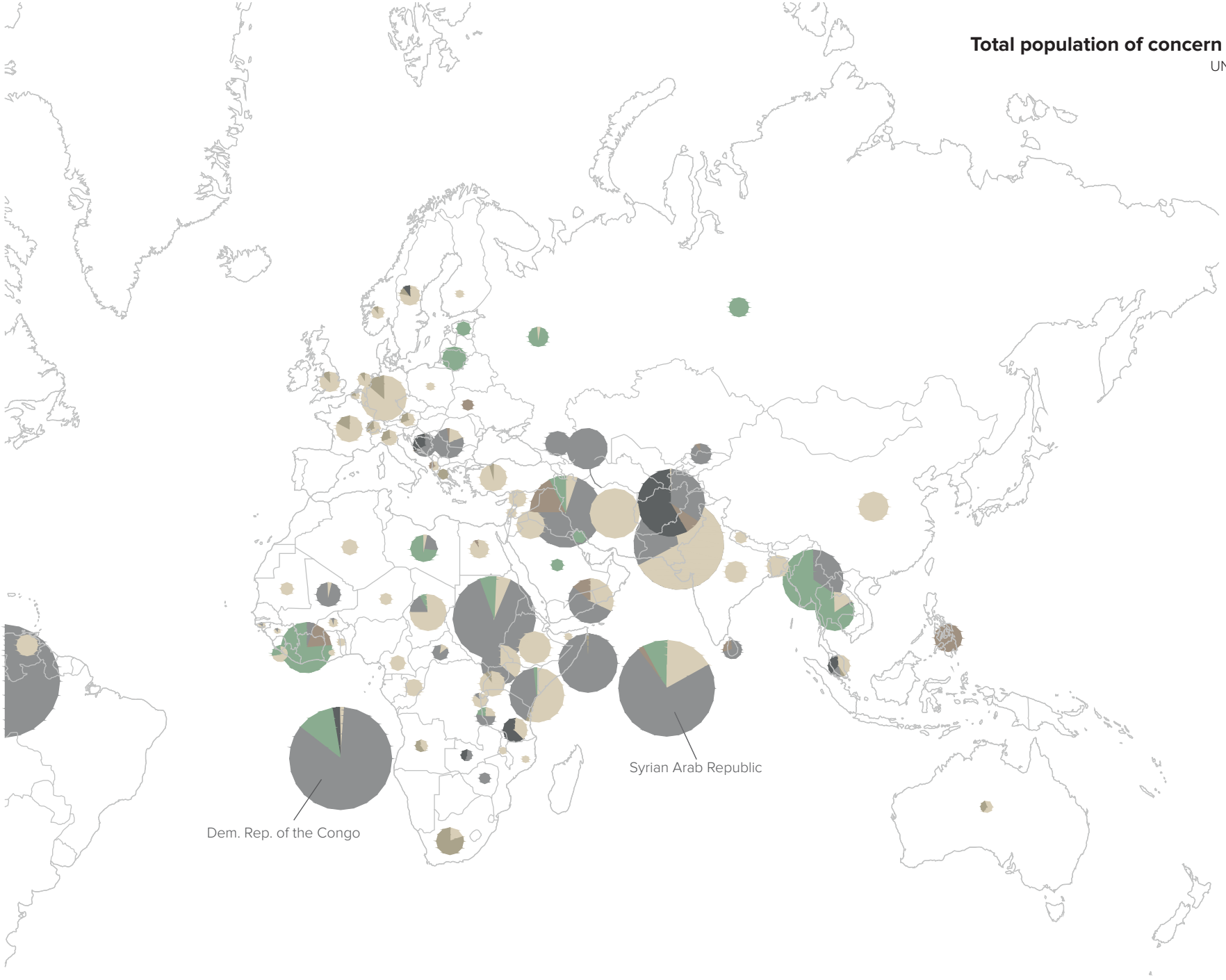
The term refugee was first defined through the 1951 United Nations Convention Relating to the Status of Refugees as:
"Any person who: owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is willing to avail himself of the protection of that country".

International refugee law defines a refugee as someone who seeks refuge in a



Total population of concern to UNHCR _end 2012

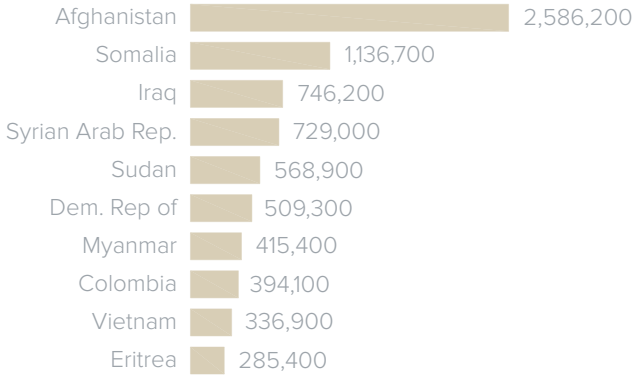
UNHCR Statistical Yearbook 2012



foreign country, because of war and violence, or out of fear of persecution. The United States recognizes persecution on account of race, religion, nationality, political opinion, or membership in a particular social group as grounds for seeking asylum.
Until a request for refuge has been accepted, the person is referred to as an *asylum seeker*. Only after the recognition of the asylum seekers protection needs is he or she officially referred to as a refugee and enjoys refugee status. This carries certain rights and obligations according to the legislation of the receiving country.
People displaced by the effects of climate change have been termed *'climate refugees'* or *'environmental refugee'* and an estimate 25 million people can currently be classified as such, but, as mentioned above, they are not covered with Convention.

UNHCR recognizes several types of *People of Concern (PoC)*[1]. The most common two groups are refugees - people who have crossed the border of the country of their origin, and internally displaced - people who are fleeing inside the borders of their country. In further text the common term 'displaced persons'

Major source countries of refugees_end 2012
http://www.unhcr.org/53a155bc6.html



[1] A generic term used to describe all persons who are protected under the mandate of UNHCR. These include refugees, internally displaced persons IDPs, asylum-seekers, returnees, stateless persons and persons threatened with displacement.

[2] The Office of the United Nations High Commissioner for Refugees (UNHCR), also known as the UN Refugee Agency, is a United Nations agency mandated to protect and support refugees at the request of a government or the UN itself and assists in their voluntary repatriation, local integration or resettlement to a third country. Its headquarters are in Geneva, Switzerland and is a member of the United Nations Development Group. The UNHCR has won two Nobel Peace Prizes, once in 1954 and again in 1981.

The United Nations High Commissioner for Refugees - UNHCR[2] is the main agency responsible for coordination of international actions for the protection of all PoCs. One of its duties is to coordinate several million existing aid agencies and organizations that are focused on the question of displaced people. Different non-governmental organizations (NGO), international and national organizations aim their work at helping refugees in various ways, from providing basic life needs (food, shelter, health care) to focusing on certain sub-groups of Peoples of Concern. The biggest and mostly mentioned are The International Committee of the Red Cross (ICRC)[3] and Cooperative for Assistance and Relief Everywhere (CARE)[4] . As humanitarian agencies, they try to offer their services based on the principle of humanity and the humanitarian imperative, recognizing the rights of all people affected by disaster or conflict. Founded on international humanitarian law, human rights and refugee law, they build their efforts around three basic points:

the right to life with dignity
the right to receive humanitarian assistance
the right to protection and security.

Those affected by disaster or conflict have a right to life with dignity and, therefore, a right to assistance and all possible steps should be taken to alleviate human suffering arising out of a disaster or a conflict.

[3] The International Red Cross and Red Crescent Movement is an international humanitarian movement with approximately 97 million volunteers, members and staff worldwide, which was founded to protect human life and health, to ensure respect for all human beings, and to prevent and alleviate human suffering. The movement consists of several distinct organizations that are legally independent from each other, but are united within the movement through common basic principles, objectives, symbols, statutes and governing organizations.
The International Committee of the Red Cross (ICRC) is a private humanitarian institution founded in 1863 in Geneva, Switzerland, by Henry Dunant and Gustave Moynier. Its 25-member committee has a unique authority under international humanitarian law to protect the life and dignity of the victims of international and internal armed conflicts. The ICRC was awarded the Nobel Peace Prize on three occasions (in 1917, 1944 and 1963).

[4] Cooperative for Assistance and Relief Everywhere (CARE) is a major international humanitarian agency delivering broad-spectrum emergency relief and long-term international development projects. Founded in 1945, CARE is nonsectarian, impartial, and non-governmental. It is one of the largest and oldest humanitarian aid organizations focused on fighting global poverty. In 2013, CARE reported working in 87 countries, supporting 927 poverty-fighting projects and humanitarian aid projects, and reaching over 97 million people. CARE's programs in the developing world address a broad range of topics including emergency response, food security, water and sanitation, economic development, climate change, agriculture, education, and health. CARE also advocates at the local, national, and international levels for policy change and the rights of poor people. Within each of these areas, CARE focuses particularly on empowering and meeting the needs of women and girls and on promoting gender equality.

Of the world's refugees
49% are female
47% are children under 18
"Protracted Refugee Situation", UNHCR, June 2004

Every **4 seconds** someone is forced to flee
"Protracted Refugee Situation", UNHCR, June 2004

The average duration of major refugee situations has increased
from 9 years (1993) to 17 years (2003)
"Protracted Refugee Situation", UNHCR, June 2004

The besieged Palestinian camp of Yarmouk, queuing to receive food supplies, in Damascus, Syria

The first step of humanitarian organizations, after the outbreak of a crisis, is to meet the basic necessities of life (food, shelter, health). As the crisis usually affects large numbers of people, this first answer is unprepared and includes every possible solution as well as providing basic shelter, food and health care - all measures taken in this phase are oriented around simply saving lives. As the initial crisis uproar settles down, more profound solutions are needed, usually with a rule - the longer the duration of the crisis the more complex solution needed.

The principle of international protection guides the interventions in situations of mass displacement. Protection for UNHCR takes many dimensions including the legal physical and psychological aspects. The multiplicity of actors involved in the situations of mass displacement and the increasingly complexity of the humanitarian interventions is making the politics and management of this interventions more complicated every time.

On a spatial dimension, UNHCR Handbook for emergency (UNHCR 2007, p.207.) divides the settlements for displaced persons in three categories: dispersed, mass shelter and camps, which can be spontaneous or planned.

Most of the Palestinian refugees live in refugee camps inside the urban areas like in this Shatila refugee camp in Beirut, photo by Yann Renoult

Dispersed or self settlement

In this case, displaced persons find accommodation within the households of families who already live in the area or self settle in urban or rural areas. People settled in this way are rarely registered and therefore it is almost impossible to know their precise number. They struggle to survive in impoverished and crowded urban or rural neighborhoods, where governments provide few basic services and communities for their presence. In some cities, their presence is accelerating urbanization and transforming the composition of populations. In 1997, UNHCR formulated its first policy on urban-refugees. The policy acknowledged that refugees have a right to freedom of movement under international law, but it implied that flows of refugees to cities were undesirable and reflected the priority of placing refugees in camps. Refugees outside the camps face a wide range of protection risks: prohibitions on movement and residence, lack of documentation, threat of arrest and detention, harassment and exploitation, hunger; inadequate shelter, limited access to formal health and education systems, vulnerability to sexual and gender-based violence and to HIV/AIDS, human smuggling and trafficking. Refugees who lack documentation in urban areas face many protection problems. They struggle to sign a lease, cash a cheque, receive remittances or obtain credit; they also live in fear of state actors and remain vulnerable to arrest, detention, solicitation of bribes and intimidation. Displaced people in urban environments face particular housing and property

Malaysian refugees in urban areas; in this flat lives 50 refugees, photo by Zalmai

challenges. Many refugees and IDPs are forced to settle on peripheral land which is not suitable for residential development, exposed to risks of natural disasters. They all compete in the low-cost housing market, but they rarely have enough money for a deposit or adequate local references.
Refugees in many cities face difficulties in obtaining health care; many refugees suffer post-traumatic stress disorder and can suffer unnoticed from malnutrition without receiving food assistance. Most urban refugees survive by working in the informal economy, competing with local people for poorly-paid and hazardous manual labor jobs. In many cities, women usually find employment easier than men, typically as household servants. In some cases, refugee women engage in survival sex in order to support their families. The laws and policies of host governments also limit refugees' access to work permits and their ability to meet some of their own needs. Children have restricted access to education, and many of primary school age do not attend school.

Mass shelters or collective centers

In this case displaced persons are accommodated in per-existing facilities like schools, public buildings, hotels or warehouses. These are mostly the type of accommodation for internally displaced persons, who represent the biggest group of PoCs.
The situation of IDPs is fundamentally different from that of refugees, because they remain within their own country, and the primary responsibility for protecting and assisting them rests with their government, even if the government lacks capacity to do so, or was responsible for their displacement in the first place. Previously, the principle of state sovereignty was enough to silence the international community in response to internal displacement. Following important developments in recent years, the UN General Assembly and other bodies now recognize that the international community should also be involved in matter of IDPs and the protection of their rights.
Internal displacement is a very complicated matter that is often linked to politics and therefore can last unaddressed for years. In at least 40 countries, people have lived in internal displacement for more than five, 10 and even 15 years.
The humanitarian organizations distinguish four categories of protection activities relating to IDPs. First, activities to address past, present or future harm that contravenes human rights guarantees, including actions aimed at providing security and preventing and stopping violence. A second category of protection activities addresses lack of physical access to goods and essential services such as food, water and sanitation, shelter, health and education. A third category of activities addresses the lack of possibilities for IDPs to exercise their rights. Finally, a category of protection activities that addresses discrimination against certain IDPs.
But in many cases IDPs remain socially and economically marginalized, with a standard of living below that of the non-displaced poor, living in harsh conditions and unable to enjoy their human rights, in particular their economic, social and cultural rights.
A comprehensive response to IDPs requires solidarity on three levels. One dimension of solidarity is required from the host community for the IDPs. A second dimension of solidarity is required of governments with their displaced citizens; the primary responsibility of national authorities to assist and protect IDPs is widely accepted, but situations where national authorities are willing but unable to fully fulfill their responsibilities call for international solidarity. A third dimension of solidarity is required of the international community with IDPs in need of assistance and protection.

Self-settled or spontaneous camps

In this case the displaced people build the camp independent from government or the international community, often on state or communal land, setting with the assistance, permission or acceptance of the authorities, with permission negotiated locally, or informally. Generally, spontaneous camps have more disadvantages than advantages and should be avoided (UNHCR, 2007, p.208). But the most camps are initially self-settled.

Planned camps

This type of settlement can be explained as follows: "...when refugees are accommodated in purpose-built sites where a full range of services, within possible means, are provided" (UNHCR, 2007, p.208).
The advantages of planned camps are that services can be provided to a large population in a centralized and efficient way, and people can be easily identified and communicated with. Mostly under the control and assistance of humanitarian organizations the people in camps are mostly registered with basic information such as age, gender, origin, religion, abilities. People may stay in these camps, receiving emergency food and medical aid, until it is safe to return to their homes or until they are retrieved by other people outside the camps. These places have special requirements and their design must be approached in a unique way, which will be later described in a detail.

Both types of camps are typically conceived as a temporary solution to an emergency where a mass influx of displaced population searches a safer environment. The camps can take variety of shapes and configurations, but they are meant to disappear after the purpose for which they were created ceases to exist. However, the emergencies mostly last longer, for several years, leaving displaced persons in a state between the emergency and waiting time for the continuation of their lives. The camps therefore do not disappear, but continue to evolve into a variety of shapes, being neither a permanent city nor a camp but an

extra-territorial enclave that is difficult to define.

Regardless of the category of displaced person and the way they are accommodated, to be displaced is a devastating experience, resulting in the sudden loss of homes, livelihoods and community ties.

While the ultimate goal of humanitarian agencies is to help find durable solutions that will allow them to rebuild their lives in dignity and peace. There are three solutions open to displaced persons: voluntary repatriation, local integration, or resettlement to a third country in situations where it is impossible for a person to go back home or remain in the host country.

There are four conditions necessary for displaced people to achieve a durable solution:

- long-term safety, security and freedom of movement;
- an adequate standard of living, including adequate food, water, housing, health care and basic education;
- access to employment and livelihoods;
- access to effective mechanisms that restores their housing, land and property or provide them with compensation.

A durable solution, by definition, removes the objective need for refugee status by allowing the refugee to acquire or reacquire the full protection of a state. For many refugees, none of these solutions is available. By 2011, the number of refugees under UNHCR's responsibility who remained trapped in protracted exile reached 7,2 million.

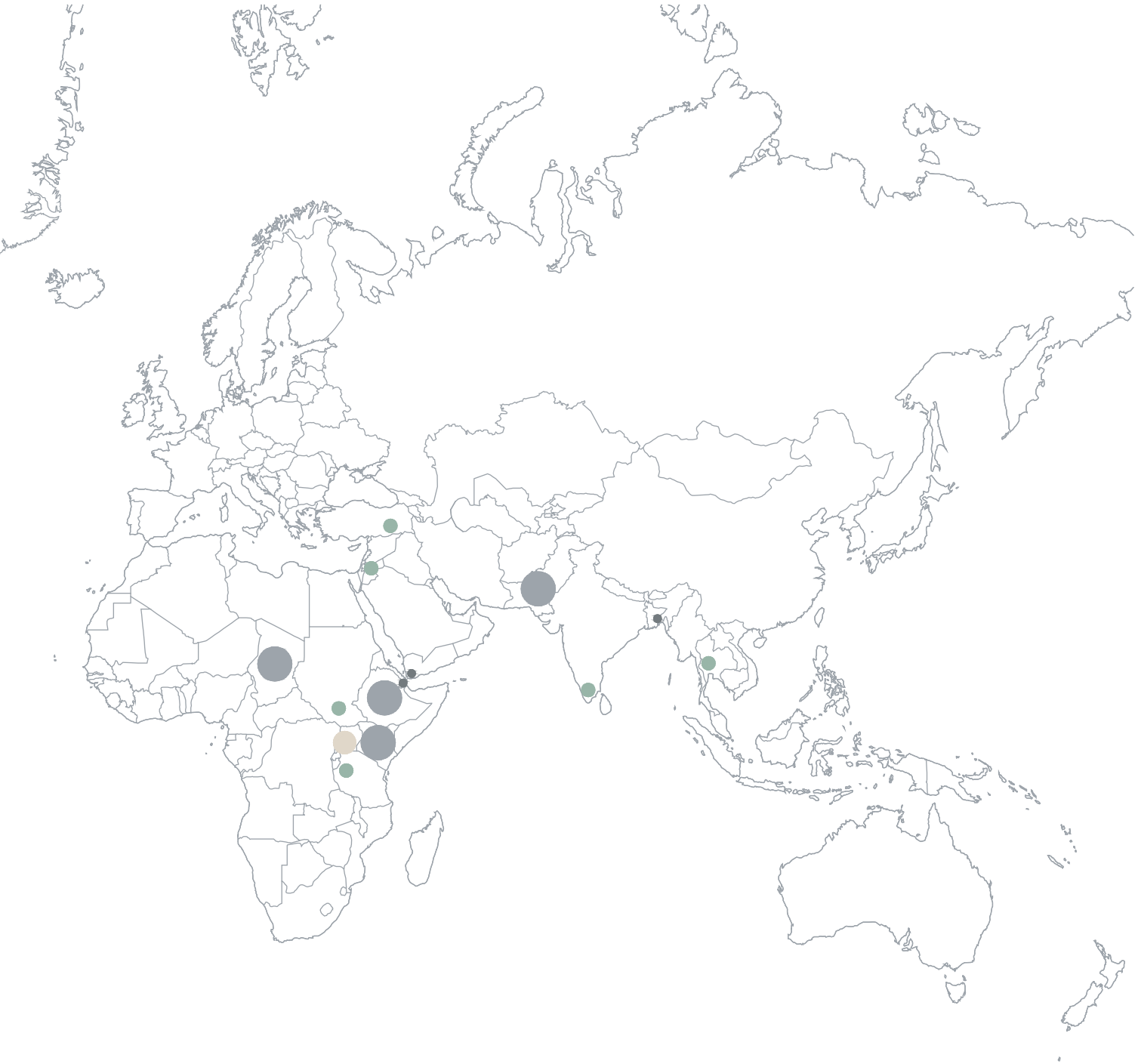
Voluntary repatriation or going back home

Repatriation is the process of returning a person to their place of origin or citizenship. This includes the process of returning refugees or military personnel to their place of origin following a war.

For millions of displaced people around the world, going home remains the strongest hope of finding an end to an exile. As the durable solution of choice for the largest number of refugees, voluntary repatriation in safety and dignity, requires the full commitment of the country of origin to help reintegrate its own people. It also needs the continuing support of the international community through the crucial post-conflict or post-disaster phase to ensure that those who make the brave decision to go home can rebuild their lives in a stable environment.

But the overall number of refugees repatriating voluntarily declined highly in the first decade of the 21st century and reached a 20-year low in 2010. For many refugee populations, repatriation is not possible because of continuing conflict in their country of origin, localized violence persists, infrastructure and markets are damaged or destroyed, and livelihoods and access to basic services are limited.

The worlds largest refugee camps_end 2014



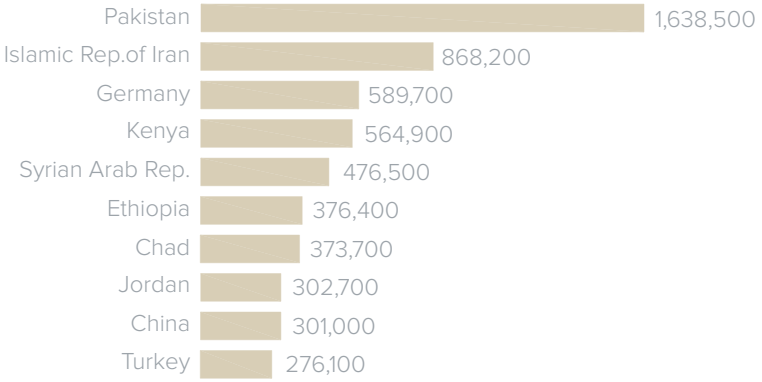
1. Dadaab, Kenya
5 camps, 488,972 registered refugees
2. Za'atari, Jordan
82,818 registered refugees
3. Nyarugusu, Tanzania
67,817 registered refugees
4. Tamil Nadu, India
67,165 registered refugees
5. Urfa, Turkey
66,388 registered refugees

source: http://storymaps.esri.com/stories/2013/refu-

When conflict has involved inter-communal violence, it is often difficult to establish mechanisms for transitional justice and restore viable community relations.

Major refugee-hosting countries_end 2012

http://www.unhcr.org/53a155bc6.html



Local integration

In case where voluntary repatriation is not possible, finding home in the country of asylum and integrating into the local community could be another type of durable solution and the opportunity for people in refuge camps to start a new life. Local integration is a complex and gradual process which comprises distinct but related legal, economic, social and cultural dimensions and imposes considerable demands on both the individual and the receiving society. In many cases, acquiring the nationality of the country of asylum is the culmination of this process. UNHCR estimates that, during the past decade, 1.1 million refugees around the world became citizens in their country of asylum.

Resettlement

The third type of durable solution is resettlement. In some cases, refugees are unable or unwilling to return to place of origin and also have specific needs that cannot be addressed in the country where they have sought protection. In these cases, the resettlement of refugees in a third country is considered as their only safe and viable durable solution.
However, very few states accept this form of inflow of new population. Mostly the United States, Australia, Canada and the Nordic countries provide a sizable number of places annually. The resettlement country provides the refugee with legal and physical protection, including access to civil, political, economical, social and cultural rights similar to those enjoyed by nationals. It should allow for refugees to become naturalized citizens. Providing for their effective reception and integration is beneficial for both the resettled refugee and the receiving country. Governments and non-governmental organization partners provide services to facilitate integration, such as cultural orientation, language and vocational trainings as well as programs to promote access to education and employment.

In today's society forcefully displaced people represents one of the biggest challenges. Global social and economic trends indicate that displacement will continue to grow in the next decade, exacerbated by population growth, urbanization, natural disasters, climate change, rising food prices and conflicts over scarce resources.
At the same time an international refugee protection system founded in 1951 on the principles of national responsibility and international solidarity, required to provide protection and assistance to populations of concern, but also to address the evolving patterns of forced displacement is under considerable pressure from the growing numbers and categories of people in need of protection. Pressure on the international protection system is compounded by threats to the institution of asylum and the declining availability of traditional solutions to refugee problems. Humanitarian space - the conditions that enable people in need to have access to protection and assistance, and for humanitarian actors to respond to their needs - is shrinking. People who seek asylum in another country face a widely varying protection environment, characterized by countries with divergent approaches, inconsistent practices, barriers to mixed migration and restrictions on rights. Many people are forced to flee their homes to destinations that are insecure, to urban areas, to countries where access to asylum is restricted, and to distant new destinations. And these displacements have far-reaching impacts on world population, particularly on the vulnerable ones: children, woman, people living with disabilities and older people.
The refugees often refer to themselves as 'forgotten people' and feel they are living in a hostile environment where their basic human rights are not represented or protected. Caught in the middle of an unsettled political conflict beyond their control, they manage to survive with limited resources and a restricted legal, economic and social system. They face discrimination, isolation and social exclusion, more often than not they live in conditions that do not satisfy minimal standards, in extreme poverty, overcrowded places, with minimal opportunities to improve their lives. They represent a marginal group of humanity, exposed to violence, injustice, poor health care and epidemics, the meager opportunities for education, employment and future development of some kind of 'normal' life.

Though the matter of displaced people is connected with several aspects, such as politics, social, cultural, economical and other aspects, through this work I will examine social, economical and ecological facets in the context of urban planning and architecture. The work will focus on refugee camps, common and

only planned form of accommodating displaced people, and a unique type of architecture. Through the analysis of existing refugee camps it will be shown where and how are camps built, how do people placed in camps live, work, move, amuse and what and how can this be improved? Also the paper will examine what happens when the camp has reached its planned limits, but continues to exist, becoming a type of a settlement hard to define. Do camps disappear or do they become permanent cities through a process of urbanization?

As a conclusion, the paper will also offer a suggestion in a form of conceptual design of how an already 20 year existing camp in Bosnia and Herzegovina, can be reconstructed and turned into permanent rural settlement with a possibility of further urbanization and development.

HOW DOES IT FEEL TO BE A REFUGEE?

HISTORY

The idea that a person who seeks sanctuary in a holy place must not be violated was developed contemporaneously in ancient Greece and ancient Egypt. However, the right to seek sanctuary or asylum in a church or other sacred place was for the first time defined by the law of King Æthelberht of Kent around 600 AD.
In Europe, the phrase 'country of nationality' first gained signifcanceonly in the 18th century, as it was then that it first become necessary to provide an identification document when crossing boarder. However, the first groups of people to be considered refugees were thousands of Huguenots (members of the Protestant Reformed Church of France), who in 1685 fled France for England, Holland, Switzerland, South Africa, Germany and Prussia after the Edict of Fontainebleau outlawed Protestantism in 1685.
However, it was not until after the First World War, when over a million people were forced to leave their homes, that there was a need to seriously address the problem of refugees. In 1921 the *League of Nations of High Commissioner for Refugees* with Fridtjof Nansen as its head was founded. It was the first attempt at international coordination on refugee issues, particularly those related to the Russian Revolution of 1917 and the subsequent civil war. Nansen and the Commission were charged with assisting the approximately 1,500,000 people who had fled the Communist government. In 1923, the mandate of the Commission was expanded to include more than one million Armenians who left Turkish Asia in 1915 and 1923 due to a series of events now known as the Armenian Genocide.
In all these cases, a refugee is defined as a person for whom the League of Nations had approved a mandate, as opposed to a person to whom a general definition applied.
In 1930 the Nansen International Office for Refugees (Nansen Office) as the

successor to the Commission was established. Its most significant achievement was the Nansen passport, an internationally recognized refugee travel document. Although the Nansen Office led 14 nations to accept the 1933 Refugee Convention, an early and modest attempt as securing human rights for refugees, which ultimately did bring assistance to several million refugees worldwide, the Nansen Office was soon faced with the problems of financing, an increasing number of refugees and a lack of cooperation among some member states.

The rise of Nazism led to such an increase in the number of refugees from Germany that in 1933 the League created a High Commission for Refugees coming from Germany. Beyond the measures of the Nazis which incited fear and flight, Jews were stripped of German citizenship by the Reich Citizenship Law of 1935. On 31 December 1938, both the Nansen Office and the High Commission were dissolved and replaced by the *Office of the High Commissioner for Refugees* under the Protection of the League. The conflict and political instability during World War II led to massive numbers of refugees, the greatest in human history. In 1943, the Allies created the *United Nations Relief and Rehabilitation Administration (UNRRA)* to provide aid to liberated areas, which included parts of Europe and China. By the end of the War, Europe had more than 40 million refugees. The UNRRA was involved in the repatriation and relocation of over seven million refugees, then commonly referred to as displaced persons or DPs. For the one million refugees who refused to be repatriated the UNRRA set up displaced persons camps. Even two years after the end of War, some 850,000 people still lived in DP camps across Western Europe. Though, only established in 1948, Israel had accepted more than 650,000 refugees by 1950. Yet in 1953, over 250,000 refugees were still in Europe, most of them old, infirm, crippled, or otherwise disabled. To the exacerbation of the post-wae refugee situation, the division of Germany and the Cold War each played a significant part and by the end of the 1940s more than 15 milion people were affected.

Consequently on the December 14, 1950 the *Office of the United Nations High Commissioner for Refugees (UNHCR)* was established. The agency is mandated to lead and co-ordinate international action to protect refugees and resolve refugee problems worldwide. Its primary purpose is to safeguard the rights and well-being of refugees. It strives to ensure that everyone can exercise the right to seek asylum and find safe refuge in another State, with the option to return home voluntarily, integrate locally or to resettle in a third country. At first, the UNHCR dealt mostly with European refugees, but it soon become clear that refugees were not solely restricted to Europe. In 1957 UNHCR was tasked with dealing with Chinese refugees in Hong Kong, while also responding Algerian refugees who had fled to Morocco and Tunisia in the wake of Algeria's war for independence. Decolonization in the 1960s triggered large refugee movements in Africa, posing a massive challenge that would transform UNHCR. Unlike the refugee crises in Europe, there were no durable solutions in Africa; many refugees who fled one country only found instability in their new country of asylum. By the end of the 1960s, two thirds of UNHCR's budget was focused on operations in Africa. In just a single decade, the organization's focus had departed from the almost exclusively European focus it had held since its inception. In the 1970s, UNHCR refugee operations continued to spread around the globe, with the mass exodus of East Pakistanis to India shortly before the birth of Bangladesh. Adding to the woes in Asia was the Vietnam war, with millions fleeing the war-torn country. The 1980s saw new challenges for the UNHCR, with many member states unwilling to resettle refugees due to the sharp rise in refugee numbers through the 1970s. Often, these refugees were not fleeing wars between states, but inter-ethnic conflict in newly independent states. The targeting of civilians as a military strategy added to the displacement in many nations, so even 'minor' conflicts could result in a large number of displaced persons. Whether in Asia, Central America or Africa, durable solutions of thesee conflicts, fueled by superpower rivalry and aggravated by socio-economic problems within the concerned countries, continued to prove a massive challenge for the UNHCR. As a result, the UNHCR became more heavily involved with assistance programs within refugee camps, often located in hostile environments. The end of the Cold War marked continued inter-ethnic conflict and contributed heavily to refugee flight. In addition, humanitarian intervention by multinational forces became more frequent and the media began to play a significant role, particularly in the lead up to the 1999 NATO mission in Yugoslavia, in contrast to the 1994 Rwandan Genocide which receivedattention. The genocide in Rwanda caused a massive refugee crisis, again highlighting the difficulties for UNHCR to uphold its mandate, and the UNHCR continued to battle against restrictive asylum policies in so called 'rich' nations.

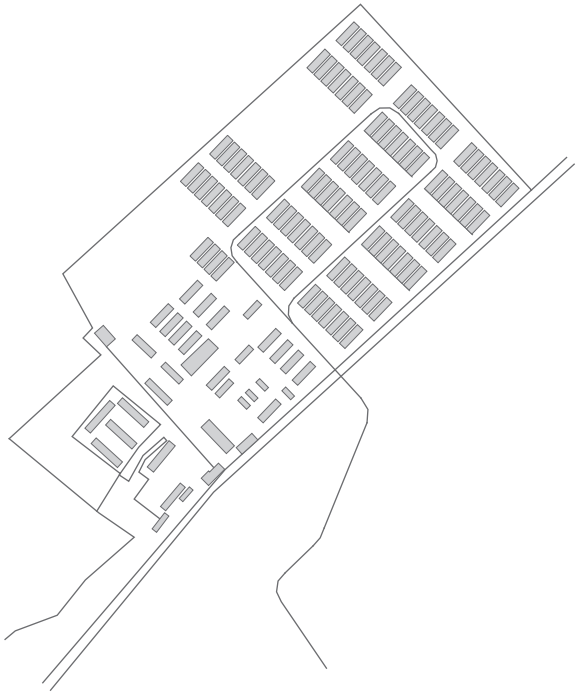
In contrast to the scope and focus of the UNHCR’s attentions, the way to accommodate the ever rising number of refugees has show little change throughout history. The following examples show how the typology of the refugee camps has changed very little over time. From the first known refugee camp in Norval’s Point, South Africa, some 100 years ago, the grid and modules have remained the main planning principles. The gridded layout seems to be a constant in refugee camp appearance, signifying balance and a desire for order and stability in time of insecurity and trauma. Built in very different areas and periods the following examples illustrate the same design pattern - roads network and basic shelter as primary elements of the design, with tents in more convenient climatic conditions and simple, one-story masonry buildings in areas with lower annual temperature. They also signify that at that time ideas of improving the well-being of refugees, providing better health conditions or personal security were principle and very questionable issues, as they remained till present day.

SOUTH AFRICA, 1900

The first 2 'refugee' camps were established in Pretoria and Bloemfontein during South African War (Second Anglo-Boer War) by a military notice. The initial aim of the establishment of these camps was to provide protection to the families of Boers who had surrendered voluntarily during the war. As the 'scorched earth'[5] policy of the British forces proceeded, families of the combatant burghers were driven into these and other camps, whichslowly turned into concentration camps. By the end of the war 4 177 women, 22 074 children and 1 676 elderly men had died in these camps. The death toll in Black concentration camps, housing Africans who had been rounded up by British forces, was nearly as high.

The conditions in the camps were disastrous. No proper provision had been made for their housing. Most of them had to live in tents. Though, there had been a tent serving as a hospital, the help from the British authorities was minimal, especially when a measles epidemic struck, followed by scarlet fever and diphtheria.

[5] In March 1901 Lord Kitchener, the commander of the British forces, decided to cut off the supply of food to the Boer soldiers. They were being supported by the people on the farms, so he initiated the "scorched earth" policy. About 30 000 Boer farmhouses and more than 40 towns were burnt to the ground and destroyed. He also had animals such as horses, cattle and sheep, slaughtered. Children, women and black people were put in concentration camps. Towards the end of the war there were more than 40 camps housing 116 000 white women and children, with another 60 camps housing 115 000 black people. The conditions in these camps were poor, they were overcrowded, and the captives they held were underfed.



AUSTRIA, 1915

By the end of September 1914, less than two months after the outbreak of the First World War, between 60,000 and 70,000 refugees had arrived in Vienna from the Russian - occupied eastern front. By 1915, the Austrian Ministry for the Interior estimated that the number of refugees who were eligible for state support had reached 600,000, of whom 450,000 came from Galicia and Bukovina on the eastern front and 150,000 from the southwestern front on the Italian border. Transported by train to refugee camps in the German-speaking hinterlands, the Austrian War Ministry sought to group refugees according to nationality for ease and speed of repatriation, and to prevent their assimilation into the surrounding communities.

One of the largest camps was in the town of Gmünd, Lower Austria (Niederösterriech), some 120 km northwest of Vienna. In September of 1914, Gmünd was designated as the site of a refugee camp for Ruthenian (Ukrainian) evacuees from the eastern Austrian crown-lands, and a barracks camp (Barackenlager) was hastily constructed south of the town. Gmünd was a major railway center, which made it an ideal site for such a camp. Around 30,000 people were housed in this camp, while approximately another 60,000 people were interned in other camps in the Austrian area (Wolfsberg and St. Andra, Carinthia (Kärnten); Leibnitz, Styria (Steiermark); Chotzen, Bohemia; Nikolsburg, Pohrlitz; Gaya in Moravia; Leitha, Lower Austria. Those inhabiting the camps, were mainly Ukrainians, Poles and Jews. Ukrainian refugees underwent all sorts of hardships in seeking to flee from the ravages and misery of the war. The hardest part for many was getting from their relatively isolated villages to towns or cities where they could sometimes board trains to take them safety. Many of them had to make a journey of hundreds kilometers to make their escape.

The building of large barrack living quarters in Gmünd began in December 1914 and by September 1915, 144 units were complete. When construction began, the barracks were hastily thrown together and of generally poor quality, as no one expected the war to go on as long as it did. Originally, the buildings had no floors. Eventually, all of the barracks had to be renovated to some extent. Each barrack was 40 meters long and 12 meters wide and constructed of wood. Each had four entrances with 12 high-set windows along its length. The camp was divided into 15 sections, each with eight housing barracks and one large additional building, half of which served as a kitchen barrack and the other half for camp institutions. In addition to these accommodations for shelter and board, there were other camp buildings dedicated to camp organization, security, maintenance, and support. Electricity and water were provided to the camp. The living-quarters barracks were each designed to hold 200-250 persons. Some 25,000 to 30,000 inhabitants were regularly accommodated in the camp; but at one point the number reached 70,000. A section was built in the western portion of the camp in 1917 for "superior-status refugees"; these included minor nobility and intelligentsia as well as administrative staff. Doing so was an attempt to meet the needs of this more privileged stratum of society. Thus, each house was allotted a bit of acreage where a vegetable patch could be grown and a storage shed could be set up. Behind the camp gate was a section devoted to the camp security. Three barracks housed guards and the gendarmerie, which was composed entirely of Czech-speakers. In addition to the main street into the camp, two side streets were paved; the others were covered with gravel. Separate buildings existed for post, telegraph, telephone, a cantina, and administration; behind the latter was a warehouse and a group of buildings which included a storehouse, a bakery, the electric station, a butcher, the cold-storage depot, stables, disinfection chemicals depository, and a fire department. Additionally, 11 clothes washing kitchens were set up. For the elderly, children, and orphans, separate residences, nurseries, and play centers were constructed. Across from the administration building was the hospital section with 15 hospitals, an apothecary, a hospital warehouse, an apothecary storehouse, an outpatient center, and a building for disinfecting the sick, and new arrivals. In the middle of the camp was a large, open area some 200 meters square, and in the center of this site was a covered stage where school children and camp residents could present various programs. Facing onto the open area was a large wooden church designed to meet the people's spiritu-

al needs. A camp school provided rudimentary education for the youngsters as well as advanced training courses for adults. By the time the camp closed in 1918, 1,628 children had taken advantage of this educational system. Although strict sanitary rules and procedures were enforced, the crowded conditions of the camp left the refugees susceptible to a variety of illnesses; periodic outbreaks of disease did occur, particularly typhus. These epidemics contributed to a fairly high death rate in the camp. During the course of 1916 a drainage system was set up for the camp's sewerage. Many of the able-bodied males in the camp, as well as some females, went to work in jobs outside the camp. They were employed working in fields (planting or harvesting), in forests (harvesting timber), in factories (industrial or munitions plants), or as household servants. During the years that the camp functioned, some 22,000 internees found work in the surrounding towns and villages; all of their labor was recompensed. In early 1918, Austria-Hungary and Germany signed the Treaty of Brest-Litovsk with Soviet Russia ending the war in the east. During the course of the year the Gmünd Camp was emptied as people simply went home or left to start new lives elsewhere. After the war, numerous Austrian companies bought up the cheap plots of land and settled into the abandoned buildings in this new part of the town. Many factories and industries moved in the remaining buildings, and various housing developments have been built along some of the streets that formerly ran alongside the barracks.

NETHERLANDS, 1939

The Westerbork camp was a World War II Nazi refugee, detention, and transit camp in Hooghalen, ten kilometers north of Westerbork, in the northeastern Netherlands.

Near the village of Westerbork, in the province of Drente, the Dutch Government owned a tract of heath and marsh land surrounded by dense woods. This isolated piece of real estate appeared to be the ideal place to build a camp for German Jewish refugees. It was far enough from the village of Westerbork so that refugees could not interfere with the daily business concerns of the villagers. Initially 50 barracks capable of housing about 1,800 people were built. The camp was constructed as a long-term solution with a time-plan of 15 years. It had no boarders and had an open square. The concept was to build an open camp, since it was situated in the middle of a forest with a long walking distance to the next village. In 1940 the Germans invaded Holland, and in 1942 the refugee camp had been converted into a transit camp. They built a frontier around the camp and destroyed the original concept. The only function of the camp became the deportation of Jews and gypsies (Sinti and Roma) to the east. In comparison to most other Nazi concentration camps Westerbork was relatively humane. There were no gas chambers or mass graves and people lived in Westerbork with relatively little fear of harassment or death. The first transport of Jews took place on 15 July, and was followed by 92 others. Most of the prisoners died in Auschwitz-Birkenau or Sobibor. A total of 101,525 Jewish prisoners passed through the transit camp, the vast majority of whom spent no more than a few weeks there, and sometimes only a few hours. More than two hundred Jews escaped from the camp. After the war it had a few other functions until it was torn down.

GERMANY, 1939

The Föhrenwald Displaced Persons camp was one of the largest DP camps in post-World War II Europe and the last to close (in 1957). It was located in the area now known as Waldram in Wolfratshausen in Bavaria, Germany. After WW II it became a temporary home to Jews, but also some Non-Jewish persons. The camp consisted of solid houses which belonged to Germans before the war. They abandoned them, so the US Army installed the DP camp. The living conditions had been superior to other camps. Residents lived in small but solid, centrally heated homes. For this very reason it was overpopulated. In response, American president Eisenhower decided to make it a Jewish-only camp.

The camp facilities were originally built in 1939 by IG Farben as housing for its employees. During the war it was used to house slave laborers. In June 1945, the camp was appropriated by the US Army administration of postwar Germany's American sector, for the purpose of housing international refugees. From 1946 to 1948, Föhrenwald grew to become the third largest DP camp in the American sector, after Feldafing and Landsberg (both in Germany). By January 1946, its population had reached 5,600.

Föhrenwald was a center of orthodoxy. The inhabitants of the camp had very little contact with the outside. Föhrenwald had a rich educational and cultural life. There was a school for children, a vocational training institute, and a yeshiva (religious academy) with 150 students. The Föhrenwald yeshiva also served as the administrative headquarters for all the yeshiva in the American zone. The camp supported theatrical and musical activity and published a weekly newspaper. Föhrenwald had a police force, fire brigade, youth home, disciplinary commission, post office, and a hospital. The camp committee supervised an extensive educational system as well as a camp court. The courts, sometimes called "courts of honor", had only a moral and advisory role. They did not have any real jurisdiction or power of enforcement. They dealt with cases of violence between DPs and those between DPs and Germans or Americans. To provide for the many youngsters in the camp, Foehrenwald organized summer camps and many kibbutzim (Zionist communes). The kibbutzim and agricultural training farms represented nearly every platform of postwar Jewish politics.

After the founding of Israel many emigrated in the year 1950. The camp was supposed to have closed by then, but the old, the sick, and their families remained. In 1951 the camp was taken over by the German administration. By that time, the remaining residents of other camps that were closed were transferred to Föhrenwald which continued its operation until 1957. After that the houses were renovated and sold cheaply to expelled and local people. Today it is part of the town Wolfratshausen. Streets in Föhrenwald were typically named for American states and individuals, but these have been renamed. For example, Rooseveltstrasse is now Thomasstrasse; Pennsylvianastrasse has become Faulhaberstrasse, etc.

CONG, TANZANIA, 1994

In 1990 the Rwandan Patriotic Front (RPF) began military operations against the ruling Habyarimana regime in Rwanda, causing a civil war that would last until 1994. The RPF's victory ended the mass killings of Tutsi and moderate Hutu between April and July of 1994. These events created one of the biggest refugee crises, The Great Lakes refugee crisis, with more than 2 million people crossing the borders to neighboring Tanzania and Zaire (now the Democratic Republic of Congo).

An estimated 500,000 Rwandans fled east into Tanzania in April 1994. During 28—29 April, 250,000 people crossed Tanzania border in a 24 hour period in what the UNHCR agency called "the largest and fastest refugee exodus in modern times". The refugees settled in massive camps almost directly on the Rwandan border, organized by their former leaders in Rwanda. By the end of August, UNHCR estimated that there were 2.1 million Rwandan refugees in neighboring countries, situated in 35 camps. Around Goma, the capital of North Kivu in Zaire, five huge camps: Katale, Kahindo, Mugunga, Lac Vert and Sake, which collectively held at least 850,000 people. To the south, around Bukavu and Uvira, thirty camps held about 650,000 people. A further 270,000 refugees were located in nine camps in Burundi, and another 570,000 in eight camps in Tanzania. Over 40,000 of these refugees were ex-Forces Armées Rwandese (FAR) and Interahamwe génocidaires – those responsible for ground-level implementation of the mass killings.

The five camps around Goma, among others, would eventually take on a certain permanence, eventually containing 2,323 bars, 450 restaurants, 589 shops, 622 hairdressers, 51 pharmacies, 30 tailors, 25 butchers, five iron-smiths and

mechanics, four photo studios, three movie theaters, two hotels and one slaughterhouse. Cramped, crowded conditions in camps led to the rapid spread of cholera, causing the death of more than 50,000 within a few weeks. In the first week of July, deaths among the refugee community were occurring at a rate of 600 per week, and two weeks later had reached 2000 per week as the refugee population increased and the health situation worsened. In the camps near Goma mortality rates peaked during a 24-hour period in late July when the death toll from cholera, diarrhea and other diseases was 7000. The humanitarian relief effort was vastly compromised by the presence of many of the Interahamwe and government officials in the camp, precisely those who had carried out the genocide. They would then use the refugee camps as bases to launch attacks against the new government led by Paul Kagame. The camps in Zaire became particularly politicized and militarized. The knowledge that humanitarian aid was being diverted to further the aims of the genocidaires led many humanitarian organizations to withdraw their assistance. The conflict escalated until the start of the First Congo War in 1996, when RPF-supported rebels invaded Zaire and sought to repatriate the refugees.

Most of the refugees went back to Rwanda from both Zaire and Tanzania in 1996. However, until the end of 2002, Tanzania hosted an estimated 24,000 Rwandan refugees, in addition to more than 400,000 from Burundi and the Democratic Republic of the Congo. In September 2002, Rwanda, Tanzania and UNHCR reached an agreement to repatriate the remaining Rwandans by the end of the year.

PLANNING / ARCHITECTURE OF REFUGEE CAMPS

In addition to health, water, nutrition, and sanitation, shelter is an essential component of survival in a post-disaster environment. Shelter not only provides physical protection from the elements, but also privacy, dignity, and psychosocial refuge. Therefore, the planning of the shelter is as important as, for example, the plan for food assistance.
In this part the basic guidelines for assessment, site planning, site design, shelter planning, and construction management are described. The methodology is intended to portray the best living conditions possible for refugees and internally displaced persons while supporting family life, fostering personal and cultural dignity, and minimizing environmental impact.
A combination of similar instructions from the UNHCR Handbook for Emergencies and The Sphere Project - Humanitarian Charter and Minimum Standards in Disaster Response, as well as experiences of various non-government organizations and my own observations will be presented.

The moment a crisis has occurred, the term refugee starts to mark more and more people. Driven by fear and the desire to survive, they leave their homes, cross borders and enter into the unknown.
Refugees arriving in an area tend to settle down in one of several different ways: often, they concentrate on an unoccupied site and create a 'camp'; at other times, they spread out over a wide area and establish rural settlements; and sometimes

they are hosted by local communities (rural or urban). The latter two situations, also called “open situations”, occur less frequently than the first. There is always a lot of discussion as to whether the formation of a refugee camp is acceptable, or whether resources would be better directed to supporting local communities who host refugees. The two main types of refugee settlement - camp or integration into the local population –each have their respective advantages and disadvantages.

CAMP ADVANTAGES: provides asylum and protection; more suitable for temporary situation; easier to estimate population numbers, assess needs and monitor health status; some basic services are easier to organize (e.g. distributions, mass vaccinations); allows visibility and advocacy; repatriation is easier to plan.

CAMP DISADVANTAGES: overcrowding increases risk of outbreaks of communicable diseases; dependence on external aid, lack of autonomy; social isolation; little possibility of realizing farming initiatives; degradation of the surrounding environment; security problems within the camp; not a durable solution.

INTEGRATION ADVANTAGES: favors refugee mobility, easy access to alternative food, jobs, etc.; encourages refugee survival strategies; possibility of refugee access to existing facilities (water, health etc.); enhances reconstruction of social/economic life and better integration in the future.

INTEGRATION DISADVANTAGES: population more difficult to reach leads to difficulties in monitoring health needs; implementation of relief programs more complex and requires knowledge of local situation; risks destabilizing the local community; risk of tensions between local community and refugees.

Humanitarian agencies are generally not involved in deciding between the two options. Each refugee situations determined by a variety of factors. The main factors influencing the way in which they eventually settle are the number of refugees, the capacity for the local community to absorb them, the ethnic and cultural links between the refugees and local communities, and the political and military situation.

REFUGEE CAMPS

Even though the morphology of refugee camps can be traced back to the roman military camps, UNHCR mass refugee operations started in the 1960s. From the 1960s to 1980s, open door policies[6] allowed a large proportion of refugees to

[6] From 1960s to late 1980s African states admitted all those in search of safety and hardly ever rejected any refugee. The standards of treatment of refugees were good, even though they were normally required to remain in camps.

HOW DOES IT FEEL TO BE STATELESS?

refugees to self-settle in rural villages under the policy that was known as *local settlements*. This notion refers to a practice, mostly in Africa, where the host governments responded to a large-scale influx of refugees by recognizing the new arrivals on *prima facie basis*[7] and provided the land where refugees can make new settlements and engage in farming and other economic activities.

As already mentioned in previous section, the first planed refugee camps appeared at the beginning of the 20th century - Norval Post in South Africa, or San Franciso camp after the earthquake in 1906[8]. Those camps were made in military-style camp, very rapid and efficient, arranged on an equidistant grid with little consideration for community, privacy, or ownership of the settlements by the resident families.

Between 1906 and World War II, despite the increase in large-scale movements of refugees, there were only few written and drawn documents on the subject of the planned camps. The interest in the design of camps has appeared at the beginning of the seventies, when several aid agencies published the first technical manuals about the camp design. At the same time, the number of NGOs and aid agencies started growing rapidly, inputting knowledge and ideas from other fields - logistics, transportation, health care, urban planning.

The most important name in this period was Fred Cuny, who developed the model of the camp design, based on the community approach. In 1971, after personal experiences in Biafra war in Nigeria, he founded *Interect Relief and Reconstruction Corporation* - a multi-disciplinary organization which dealt with technical issues of humanitarian aid. He transferred his work in written form, which became very important methodological and a theoretical tool for the design of the camp. Unlike the documents created by the humanitarian organizations, presenting a “finished product” and not the process, Cunys archives are the only document in the world that illustrates work in the field. His approach merged political and humanitarian dimension, and developed a holistic cross-sectoral interventions based on the aims of the affected community and its ability to develop its own self-support tools. With his colleague Ian Davis, Cuny developed terminology for refugee camps introducing concepts such as shelter cluster design rather than the They considered that grouping of family housing units in the space configuration allows people to create social configurations, based on existing relationships in the community. Although this approach is not universal, it takes into account the social and cultural aspects, as well as the context and the use of public space in different cultures. It is believed that this approach has a number advantages (strong sense of community, a small number of social problems and costs 37% less to operate, compared with the modern camps) (Kennedy, 2004, p. 29).

However, in the late seventies, the focus gradually moved to a process of rationalization based on quantitative minimum standards, triggered partly by the need to achieve the best possible distribution of resources and space. The most important text from this period is *Urbanization example* by Caminos and Goethert 1978, where authors used mathematical calculations and provided advices on the shortest possible routes or the minimum acceptable standards per person or per household.

Another important factor that had impact on the change in thinking about the design of refugee camps was the idea of public health. This was especially the case after the publication of *Guide to Sanitation in Natural Disasters* in 1971 by the World Health Organization, which in the beginning of the eighties has become one of the most important concepts in the manuals for the construction of refugee camps. During this UNHCR published its first edition of Handbook for Emergencies. The first draft was edited by Fred Cluny, who again promoted the concept of community. His idea was that camps should be planned like towns, focusing not on the size or density, but whether or not it can satisfy its residents needs. The design of the camp should reflect the community structure and materialize the relationship between the clusters and the community. The open-plan shelter cluster modules arranged around a central administrative block with space for community activities were promoted. Very important concept of the book was universality, but little or no references were made to any relationship between the camp and its surroundings, or - the issue still present - how camps may develop over time.

However, this draft was rejected, and the final edition was published in 1982, focusing mainly on minimal standards and quantitative aspects of the camps. The book clearly stated that refugee camps should be considered as a last resort and temporal solution. Any terms which could depict the camp as a space that might become permanent were removed from the handbook, and the UNHCR made a clear distinction between temporary camps and permanent settlements. It was stated that: "Camps are planned to address basic survival needs, regional integration is a low priority, and they assume that refugees are short-term and temporary.“

During the nineties humanitarian aid started to grow in terms of budget, actors, but also beneficiary populations. This has led to the need for determining the responsibilities and ways to assess the work of humanitarian organizations. After the refugee crisis in Rwanda 1994-1995 due to disastrous conditions of the overcrowded camps, several guidelines and handbooks have been published. Today most widely known and used are internationally recognized UNHCRs

[7] Prima-Facia Basis (at first sight) refers to the automatic recognition of refugee status by the belonging of the individual to a certain group or nationality. The majority of the refugee’s status worldwide is determined on Prima-Facia basis.

[8] The Army Corps of Engineers built around 5000 shelters to accommodate over 40,000 displaced people.

Handbook for Emergencies (second and third edition), and The Sphere Project Humanitarian Charter and Minimum Standards in Humanitarian Response (1997). In 400 and something pages, both books deal with all issues connected with humanitarian aid. But only two chapters within every book are devoted to camp design. The emphasis is almost completely shifted to short lifespan of camps, providing basic services and spaces, without spaces or processes that could enable refugees to create their own livelihoods and modify their living environment.
The lack of official specific manual to guide the planning and spatial organization of refugee camps, forces the operators to gather information's from a variety of documents that have been written by different humanitarian agencies, international NGOs, and UN bodies with who UNHCR collaborate. Through years, creation of many handbooks from different parties has resulted in a mixture of concepts, contradictions or misinterpretation of the terminologies.

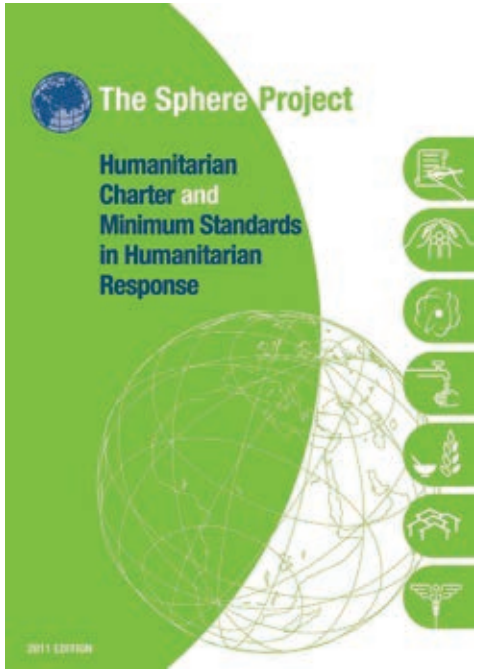
The key planning principles for refugee camps as stated in UNHCRs Handbook for Emergencies, third edition are:

- a methodology for site selection for a new planned refugee camp
- a brief description regarding the location or design process
- a programmatic list of services that a camp should have

Relief agencies are usually faced with one of two possible situations: either the camp is already established with a refugee population that has spontaneously settled on a site prior to the arrival of relief agencies, or site planning is possible prior to their arrival, the ideal but less frequent situation. Also, UNHCR states that spontaneously settled camps should be "...avoided to the extent possible..." and "in cases where refugees have already self-settled; if resources are available, a re-design of the camp would be necessary; while in clearly unsuitable sites, every effort must be made to move the refugees to a better site as quickly as possible" (UNHCR 2007, p.208).
Whichever is the case, efficient action must be undertaken to improve the site and its-facilities; poor organization in the early stages may lead to a chaotic and potentially irreversible situation in regard to camp infrastructure, with consequent health risks. A poorly planned refugee settlement is one of the most pathogenic environments possible. Overcrowding and poor hygiene are major factors in the transmission of diseases with epidemic potential (measles, meningitis, cholera, etc.). The lack of adequate shelter means that the population is deprived of all privacy and constantly exposed to the wetter elements (rain, cold, wind, etc.). Therefore, as early as possible organization and planning are crucial.

As every planning process asks for certain basic principles, the following princi-

Handbook for Emergencies - UNHCR



Humanitarian Charter and Minimum Standards in Humanitarian Response - The Sphere Project

should be applied to shelter sector activities:

Participation - representatives from all social and economic groups within the disaster-affected community should be consulted from initial assessment and through the construction management phase.

Community based initiatives - ideas and suggestions expressed by the affected community should be incorporated into site and shelter design.

Cultural appropriateness - shelter programs need to consider the religious, cultural, social, and historical backgrounds of the affected population.

Accountability - the actions of the shelter sector need to be accountable to the disaster-affected community, host community, donors, coordinating agencies, and all participating partners.

Transparency - All shelter actions need to be carried out with full disclosure of information to the affected community, host government, UN agencies, and other implementing partners.

Impartiality - Assistance will be allocated in a manner that does not discriminate on the basis of nationality, race, ethnicity, religion, class, gender, or politics and is supplied in proportion to need and not as a factor of demographics.

Sustainability - Shelter programs should be implemented with a long-term rehabilitation plan for the disaster-affected community. Although some interventions are short-term in nature, all actions should form a part of an overall scheme for economic and social recovery for the affected region and population.

Self-reliance - Shelter projects should empower the members of the affected populations by encouraging engagement in self-help activities and discouraging dependency. Incentives should include and reward self-motivation and promote self-reliance.

Further, if early warning mechanisms indicate a probable population movement, relevant information must be collected and analyzed immediately to develop a profile of the displaced population. Timeliness is essential so that humanitarian actions can be taken before the population reaches its destination. In the absence of early warning mechanisms, analysis of the affected population needs to be conducted in the earliest possible stages of the emergency. Thoughtful and timely evaluations of affected groups are crucial to an effective humanitarian response. In preliminary preparation and contingency planning, activities planned or implemented by other agencies should be investigated, integrated, and coordinated. The location of potentially suitable sites based on possible scenarios and the identification of ownership, assessment of infrastructure, and other essential parameters are also very important. Preliminary contacts with authorities and the investigation of available resources should be undertaken. Local acceptance and possible actions to benefit the host community should be analyzed and the legal and logistical procedures, required for humanitarian intervention, identified. Analysis should deal with the fundamental structural, political, security-related, economic, historic, demographic, and environmental issues underlying the displacement. It should also include planning for the post-emergency situation, considering resettlement and/or the self-sustainability of the refugee community that is about to be established. The profile of the affected population should be developed. The information should be gathered through staff fluent in the appropriate languages.

PROFILE

For purposes of planning and distribution assistance

Number of people
Place of origin
Gender distribution
Age distribution
Vulnerable groups
Assessment of physical/mental/nutritional well-being and special needs
Identification of community leaders

For purposes of construction

Social grouping/household unit
National/cultural standards for shelter
Type of shelter adopted by the displaced population
Traditional building skills and construction methods
Traditional means of support
Traditional rural or urban lifestyle
Traditional household lifestyle in terms of public/private use of space, cooking and food storage, child care, hygiene practices, and other activities of daily living
Assets people have brought with them

For purposes of determining security needs

Nationality/ethnicity/religion/community identity
Actual/potential threats to the security of this displaced population, both externally and internally

Also, possible beneficiaries should be analyzed before assistance is supplied. The displaced community can often provide an effective list itself. When this is not possible, interviewing beneficiaries and submitting the list to a formal or informal public hearing may be an effective way to ensure that the most pressing needs are met. Special attention should be given so that those who are particularly vulnerable - the elderly, unaccompanied minors, physically or mentally disabled, widows/female-headed households, HIV/Aids afflicted, isolated cases unaffiliated with a household - receive assistance. It should also be maintained that even those extremely marginalized within a community are represented and

TWO CAMP OPTIONS

People coming to camp

Camp coming to people

Site and shelter planning prior arrival of refugees

Adjusting site and shelters chosen and made by refugees

Camp size max. **20.000** people
Area available per person **30m²**
Shelter space per person **3.5m²**
Number of people per water point **250**
Number of people per latrine **20**
Distance to water-point max. **15m**
Distance to latrine **30m**
Distance between water-point and latrine **100m**
Firebreaks **75m** every **300m**
Distance between two shelters min. **2m**

have someone to speak for them.
Another very important factor in a refugee situation is a host community. The introduction of a massive new population into an area requires substantial regard for the host community and their needs. Frequently, the offer of new infrastructure for the host community, mitigates the sudden impact of change and works as an incentive toward acceptance of the displaced population. New schools, road construction, wells, electricity or food supplies can make the difference between the acceptance and rejection of a shelter initiative. All projects should incorporate elements that help the host community, including the hiring of local labor as well as support for the local economy.

Site selection

The first step in planning refugee camps is site planning. The plan must ensure the most rational organization of space, shelters, and facilities required for the provision of essential goods and services. This requires supervision by experts (e.g. in sanitation, geology, construction, etc.) which must be integrated into the planning of other sectors, especially water and sanitation. It is therefore essential that there is coordination from the beginning between all the agencies involved and between the different sectors of activity, especially in an emergency situation when time is generally in short supply.
Site planning in refugee situations is normally the responsibility of UNHCR (or an agency delegated by UNHCR) that gives guidelines for site selection and organization. The ideal site, responding to all requirements, is rarely available. The choice is generally limited, as the most appropriate areas will already be inhabited by local communities or given over to farming. However, there are certain criteria in regard to site selection which must still be taken into account. Evaluation of a site should include the following:

FACTORS FOR SITE SELECTION

Political Geography

Sufficient distance from all borders, war zones, military installations, and land mine fields
Free and exclusive use of the site
Clarification of land ownership/lease
Respect for local and traditional land rights
Proximity to communities with cultural resources (health care, schools, markets)
Proximity to communities with economic resources (labor, markets)

Topography

Ground water table minimum 3m below surface

GIHEMBE CAMP, BYUMBA, RWANDA
Operational since: **1997**
Nationality of Refugees: **Dem.Rep of Congo**
Number of Refugees (end 2007): **19,027**
Estimated Housing Units per km^2: **119,000**
Average Housing Unit Area: **30,4 m^2**

Camp is situated in a hilly area, with very high altitude, a temperate tropical highland climate, with lower temperatures than are typical for equatorial countries because of its high elevation and relatively fertile land and developed vegetation.

BELDANGI II CAMP, URALBARI, NEPAL
Operational since: **1991**
Nationality of Refugees: **Bhutan**
Number of Refugees (end 2007): **21,245**
Estimated Housing Units per km^2: **9,700**
Average Housing Unit Area: **36,1 m^2**

Camp is situated in forests located south of the outer foothills of the Himalaya, also including marshy grasslands and savannas, with moderate climate and seasonal monsoons. Due to its alluvial soil it is suited for agriculture.

OURÉ CASSONI CAMP, BAHAI, CHAD
Operational since: **2004**
Nationality of Refugees: **Sudan**
Number of Refugees (end 2007): **28,430**
Estimated Housing Units per km^2: **1,200**
Average Housing Unit Area: **19,1 m^2**

Camp is situated in Ennedi Plateau, a sandstone bulwark in the middle of the Sahara. It is surrounded by the sands on all sides. It is a very dry area with almost no precipitations where only occasional spontaneous palms can survive.

Reasonable microclimate (seasonal temperature, rain, snow, wind, hurricanes)
Slope of 2% to 4% for drainage
Slope maximum 10% for erosion
Outside of flood plain and wetlands
Altitude, distance above sea level
Soil strength suitable for foundations and construction
Soil for pit latrines to provide good infiltration which will remain above ground water table
Potential for agricultural growth, access to outlying grazing and agricultural lands
Seismic assessment
Clear of endemic disease, vectors, and pest
Clear of exposure to radiation and pollution

Environment
Selection of an open site to minimize the bulldozing and clearing required
Preservation of existing vegetation, forest cover and topsoil to prevent erosion
Respect of existing contours and natural views
Use of natural environmental protection such as hills that offer shelter from winds or trees that provide shade from sun.
Preserve adjacent forest reserves, natural parks, wildlife reserves, range land, open water courses, and other fragile areas
Location of the site a day's walk (15km) from protected areas, or use greenbelts, canals and terraces to isolate them
Location of the site at least 15km from wildlife migration routes and corridors
Identification of sustainable forest areas for the collection of firewood
Identification of areas for agriculture and animal husbandry
Location of site downstream from drinking water collection points and upstream from washing, bathing, and defecation areas.

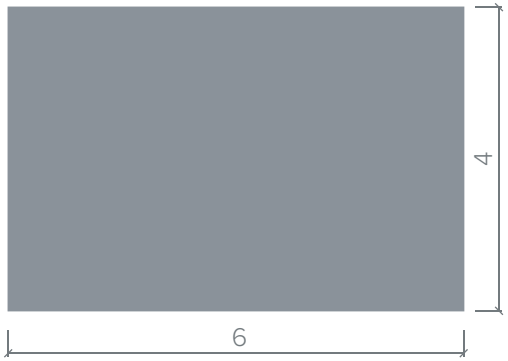
Generally, it is wiser to plan smaller camps (ideally less than 10,000 people) rather than one large camp (20,000 people maximum). Smaller camps are easier to manage and facilitate self-sufficiency. Also, camps should be established some distance apart from one another to minimize pressure to land and natural resources (15km, one day walking). Sufficient space must be provided for everybody: space for every family to settle with the provision of amenities (water and latrines) and other services, and access to every sector. High-density camps should be avoided because they present a higher risk for disease transmission, fire, and security problems. They should be perceived as small towns and not penal or military institutions. Symbolic centers such as areas for religious institutions, schools, gardens, and markets should be assigned. As basic organizational unit cluster of houses should be used, with avoiding long, repetitive stretches or rows of housing units. The room for expansion of the settlement through migration and birth should be planned for about 3% to 4% annually.

One of the most important criteria's for site selection is water availability on a year round basis; the adequate provision of water is essential for the prevention of diseases. Also, UNHCR recommends that the site should be above flood prone areas, preferably on gentle slope (2-4%), on soils that allow swift surface water absorption. Another important criterion is accessibility and distance to sources of necessary supplies such as food, cooking fuel, and shelter material. This includes the existence of roads that can guarantee the transit of trucks for the delivery of aid. Further control of environmental and health hazards should be taken into account while selecting the site.
However, the final decision regarding the site selection relies on the host government. It is clearly affirmed that "...UNHCR neither purchases nor rents land for refugee settlements..." (UNHCR 2007, p. 211). Consequently, sites are often provided on public land arranged by the host government. This leaves self-settled camps with an unclear resolution of the land rights, subject to constant threat of evictions, and in a way excluded from the direct intervention of international agencies.
Land ownership and land rights must therefore be clarified and refugees should have exclusive use of the site through agreement with national and local authorities. The right of use should include right to collect fuel wood and timber for construction, graze animals and engage in agricultural or other subsistence activities (UNHCR 2007, p. 211).

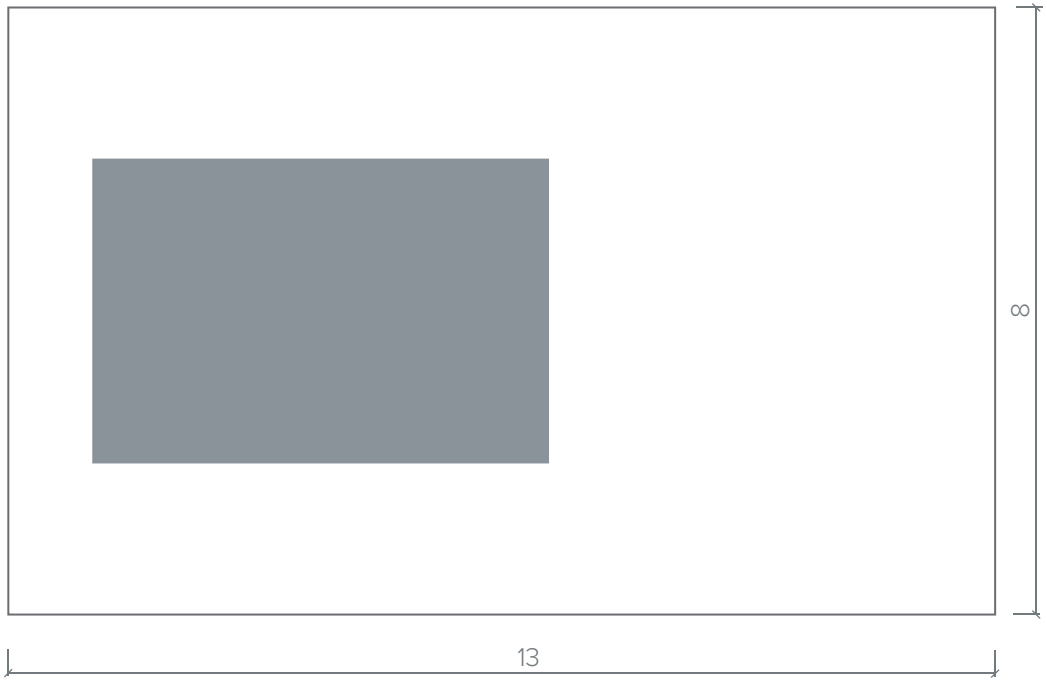
Layout

Once the site has been secured, the planning and location of the required infrastructure must be worked out. A map should be used and the road network drawn onto it. The area should then be divided into sections, and locations decided for the different facilities. Good access by road to every section and each installation is essential for the transport of staff and materials (e.g. food and drugs) in order to ensure the different services are able to function. Several factors should be taken into account in deciding the spatial organization of facilities and shelters (location and layout), like space required per person and for each installation, accessibility of services, minimum distance required between facilities and shelters, cultural habits and social organization of the refugee population (clans and extended families), ethnic and security factors, relationships among different sections/members of the community, etc.
Cultural and social traditions are a determining factor in ensuring refugee acceptance of the infrastructure and services provided, particularly in regard to housing, sanitation, burial places, etc. However, as the layout that might be preferred by the refugees is not always the one that would allow the most efficient delivery of aid, site planning generally requires compromise solutions that take into

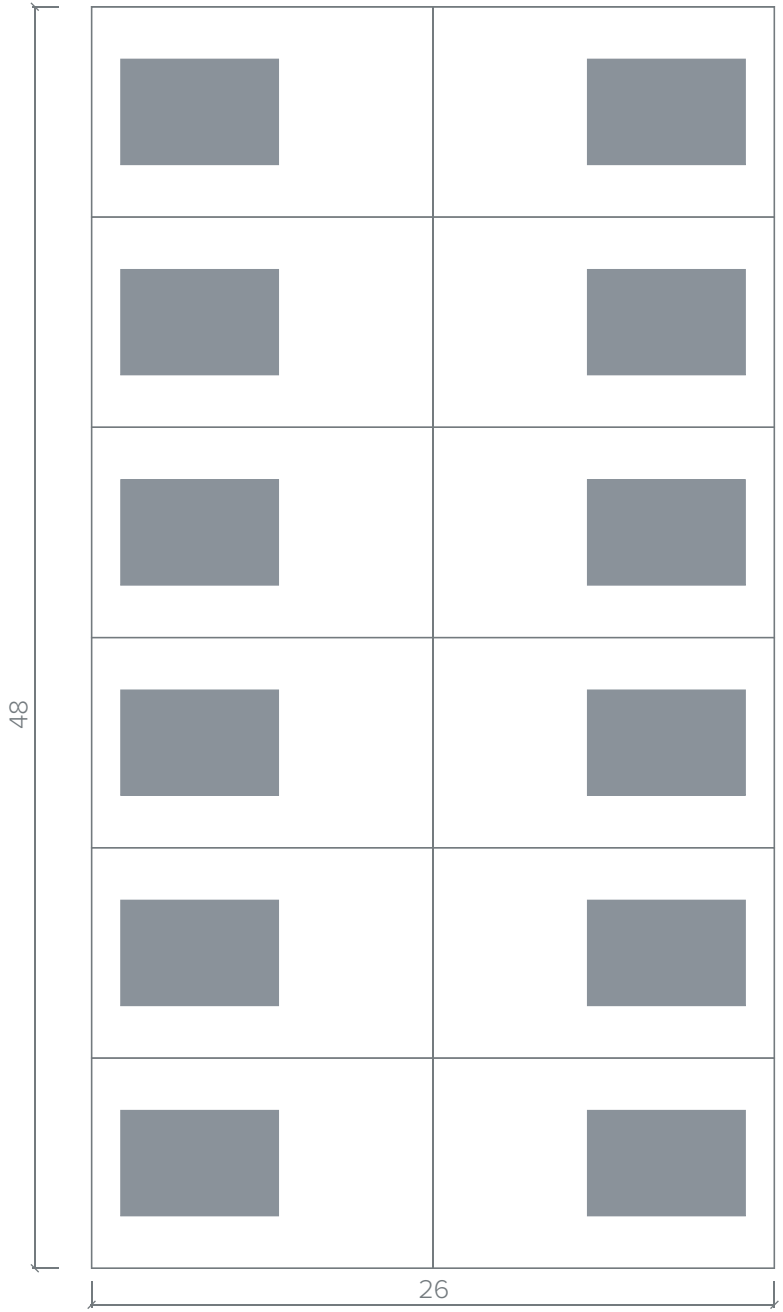
BASIC PRINCIPLE FOR CAMP LAYOUT



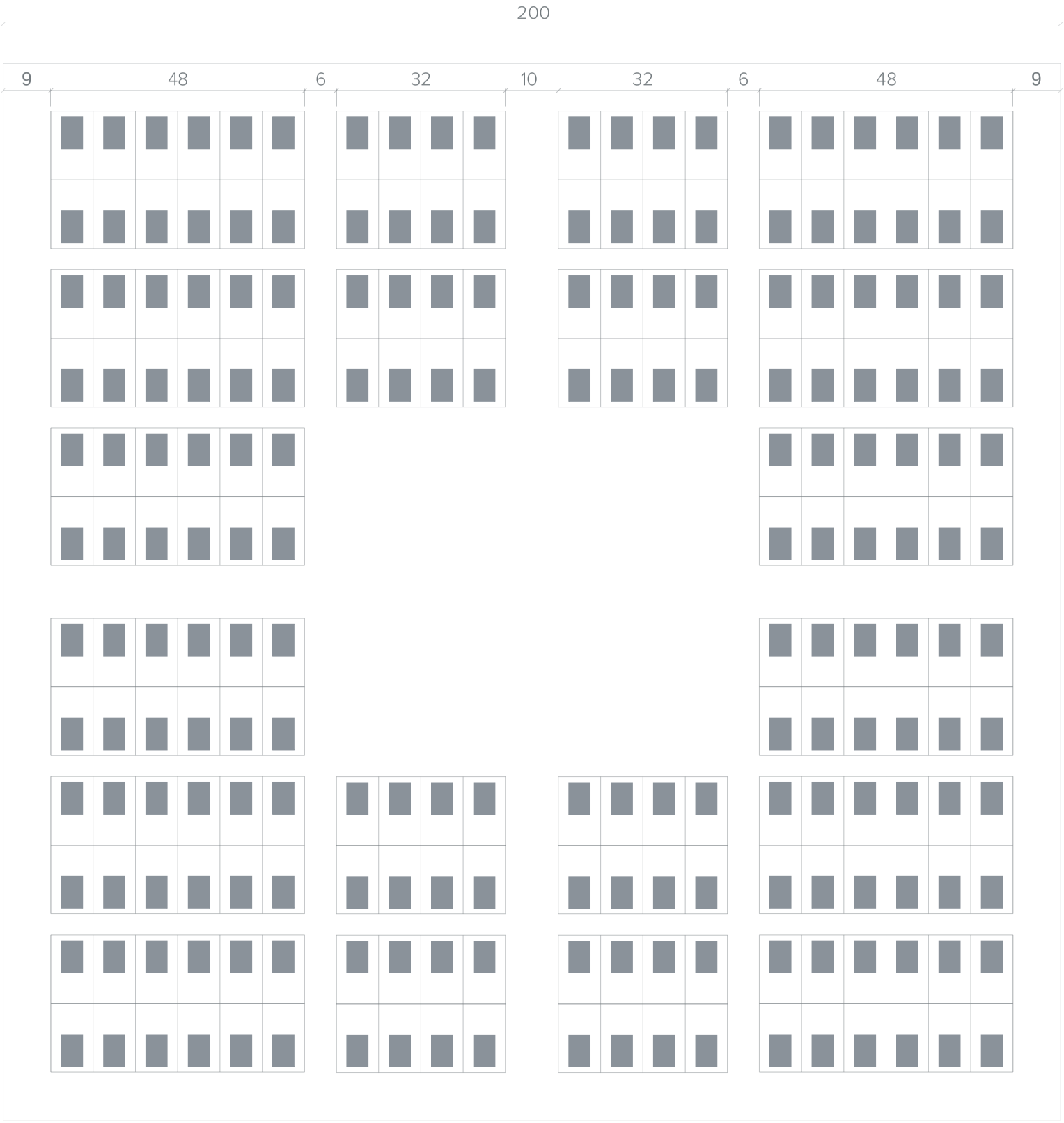
Shelter (usualy tents) ca. 4x6m



One family plot ca. 8x13m



Cluster/group/community = 12 plots
48x26m



Block = 20 cluster/groups/communities
200x200m


Schools, sport areas, community areas blocks
Administration block
Camp for 10,000 people = 6 blocks 600x800

tions, school, recreation areas, commercial areas including space for shops and account the different points of view.
A program for building which reflects all of the immediate and projected needs for the camp needs to be developed. The building program is a technical drawing that determines camp layout. The program may include guard/security checkpoint, administrative/reception center, meeting place for visitors, distribution site and storage facilities, health facilities (these may be located on the periphery to allow for camp expansion, and may include an isolation area, and specially designed water and sanitation facilities), latrines, water points, bathing centers, laundry facilities, communal cooking facilities, waste containers, waste disposal area where sight and smells are concealed, community center, religious institutions, school, recreation areas, commercial areas including space for shops and markets, areas for animal husbandry, areas for gardens and agriculture, graveyard.
Concerning the site design, the Handbook for Emergencies suggests a *bottom up approach* - starting from the smallest unit - family and than building bigger units - a community (16 families); a block (16 communities); a sector (4 blocks) and camp module (4 sectors). The planning process should start from the characteristics and needs of the individual family and reflect wishes of the community, as much as possible.
When it comes to the design of the modular layout of community, different manuals have different understandings of what is the best layout disregarding socio-cultural appropriateness of each group. For example, the Sphere Project handbook (2011, p. 257) advises that households, in order to maintain privacy and dignity, should open on common space or screened area rather than being opposite the entrance of another shelter. UNHCR in its Handbook for emergencies recommends H or U shaped shelters instead of square shaped, so that both sides are open for better interaction with other communities. Also it advises the avoidance of a grid layout whenever possible, even though all previously planned camps had this as a main principle of their design.

Total surface area of settlement is calculated with 45 m^2 per person , including infrastructure (e.g. roads, sanitation, schools, offices, water systems, security/fire breaks, markets, storage facilities, shelter locations), but excluding land for agriculture (crops and livestock). Covered area available should average from 3,5m^2 to 4,5m^2 per person. The distance between dwellings should be 2x height of the shelter or building.
When it comes to sanitation units, toilets should be arranged by households and/or segregated by sex with maximum of 20 people per toilet and a distance from dwellings no more than 30m. Distance of latrines and soak ways (i.e. gray water, wash water runoff) from water sources should be at least 30m from any groundwater source and the bottom of any latrine must be at least 1,5m above the water table. The placement of the latrines is a vital issue. Experience indicates that public sanitation facilities are not appropriate to all camp situations. Encouraging refugees to build a private latrine to be shared by one or more household units can promote better care of the facility and lead to improved sanitation. Drainage or spillage from toilets should not run towards surface water or ground water sources. Public toilets for markets, distribution centers, health centers and other public spaces should be separated for women and men. No dwelling should be more than 15m from a refuse container or household refuse pit, or 100m from a communal refuse pit. Water collection points should be planned with a minimum of one tap per 250 people, a minimum of one tap per community of 80-100 people and 100m to 150m maximum distance from each house.
From the early design stages cultural needs of both the host and displaced communities should be taken into account. Sensitivity to cultural factors and practices is vital to project implementation. Representatives of all involved groups should participate in order to communicate the needs and desires of each group. Also, local, customary building techniques should be respected. The local environmental context, natural landscape, and the vernacular housing type of the region provide a picture of appropriate land use.

Climate		Strategy
Warm	→	Low thermal building mass, maximum ventilation, north-south facing windows and doors
Hot, dry	→	High thermalbuilding mass, minimal, well-controlled openings, ventilated or insulated
Cold	→	High thermal building mass, minimal, well-controlled openings, heating system, insulated at all surfaces, including floor

As mentioned already above, a bottom up approach could be the most convenient approach – starting with the individual shelter needs, developing the grouping or cluster of family shelters, multiplying cluster arrangements into a block, and then replicating block designs. The site plan which supports the natural life of the community should be developed. It is particularly useful to consider the social organization of the refugee populations, their clans and extended families, in the site-planning phase. It is also important to examine the vernacular housing as an option for the building technology to be employed. Generally, this technology is the most efficient and economical way to build in a

particular area. The materials and methods of construction respond to the local climate, local resources, and skills available within the community. When designing a typical shelter it is also important to select materials that can be procured locally. This guarantees easy availability and also ensures that they are appropriate to the climate and the culture. Importing materials requires additional time, coordination, and expense, and may call for construction skills not available in the local work force. Whenever possible, materials should be environmentally benign and gathered in a sustainable manner. Suitable substitutes should be found for materials which fail to meet these criteria. Simple, passive solar strategies should be considered and used for shelter design, determined by the climate zone.
Also, when possible, green spaces should be integrated into the campsite design. Vegetation improves a microclimate by providing shade, windbreaks, dust control, and moderation of humidity.

The shelter design should be planned so that it can be added to or adapted as the needs of the beneficiary change. As families grow and expand and local migration occurs, families take it upon themselves to build additions onto the original standard plan. Particularly vulnerable populations, such as the young, the elderly, female-headed households, and the physically disabled, may require special features. For people who cannot climb stairs or cross trenches, site planning should provide clear passage to water points, latrines and other amenities. A typical shelter design should be adapted to suit special needs. The physically impaired may require entries with ramps instead of stairs, wider doorways, larger toilets and level access where possible. For the elderly, shelters that require little or no maintenance should be provided. Female-headed households might require shelters that are especially secure, or located in parts of the settlement which are more closely monitored.

As mentioned above, every refugee situation is different and therefore leads to very specific solutions for each camp. All the principles and guidelines mentioned above should be applied, as they are considered to offer best possible opportunities for developing something close to normal life, but how exactly they are applied, accepted, adapted, and changed depends on outside factors that cannot be controlled. But what should be kept in mind throughout the whole duration of a crisis is that refugee camps are places created by people for people, and more often than not, people with completely different backgrounds and understandings of the space and living. Furthermore, a camp is occupied for an indeterminate period and starts by affording basic living conditions, it must also see proportional improvements over the time.
Even though refugee camps are conceived as temporary places, planned to disappear at some point, shelter interventions should always be conceived in the long-term. During planning and design stages, circumstances should be considered as far as possible into the future, including years of possible occupation and the eventual return of the site to its original conditions. Out of respect for the dignity of the beneficiaries, it is necessary to consider that although the situation is urgent, the time frame may be prolonged. While shelter communities are often designed as temporary solutions, these structures are often occupied for many years, sometimes even permanently. Since 1947, Palestinians in the West Bank and Gaza have resided in what technically remains of emergency refugee camps that have become de facto cities. The “temporary” mentality may promote inappropriate shelter solutions. Plastic sheeting for tents, installed as an emergency solution, often remains in use for years in cold climates. Plastic sheeting provides little to no thermal insulation degrades from prolonged exposure to sunlight and eventually becomes vulnerable to weather. Successful shelter programs require a functioning infrastructure. Accessible roads and electricity, a sufficient potable water supply, sources of adequate fuel for cooking and heating, and access to income-generating activities are as essential as the construction materials. Sustainable income-generating activity must be paired with shelter initiatives in order for the initiative to succeed over time. Sufficient, but minimal, rather than maximum support can sometimes be conducive to leading the affected community to a rapid and pro-active involvement in the quest for an enduring solution. The longer the dependency on humanitarian support, the more difficult it becomes to achieve self-sufficiency.

Shelter design

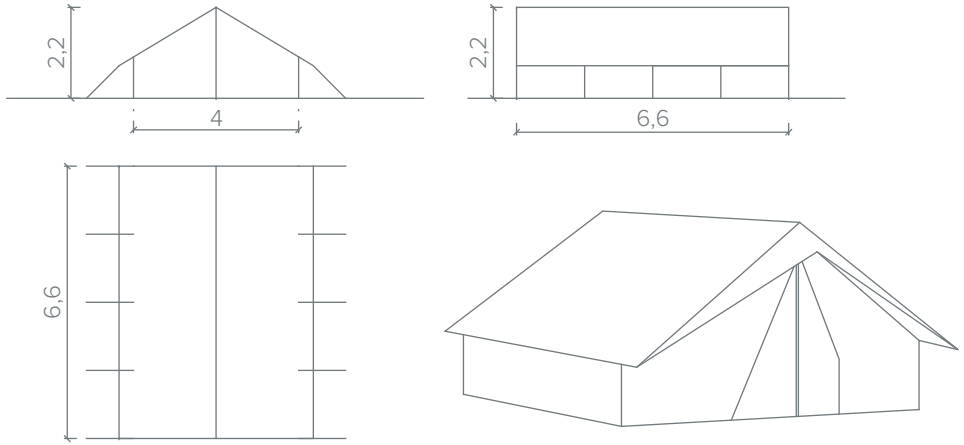
The most important part of every refugee camp is the shelter or the housing unit, where refugees spend most of their time and life. Through history, the common type of shelter was the tent, which provided single, undivided space, suitable for a short period of time. But with the increasing number of people who must leave their homes and the consequent number of refugee camps, the problem of providing quality, healthy and comfortable, yet temporary, environmentally and economically reasonable accommodation is becoming increasingly serious. Following fast development in technology and materials, there are now several hundred new designs for refugee camp shelters. The next pages are a brief presentation of 10 shelter designs, sorted by year of origin. They each have very different approaches considering materials and techniques used, leading to wide specter of innovative designs. The last pages of this section consist of my personal comparisons, based on the price and comfort of each design, with the aim of finding the most profitable one.

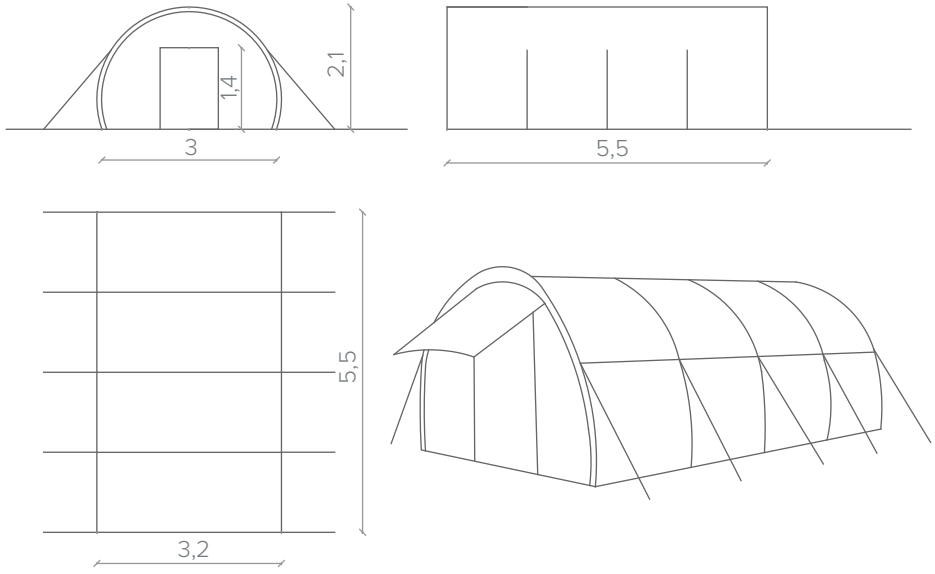
“Everybody has the right to a standard of living adequate for the health and well-being of himself and of his family, includin food, clothing, housing and medical care and necessary social services, and the right to security in the vent of unemployment, sickness, disability, widowhood, old age or other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

Article 25(1), Universal Declaration of Human Rights (Un, 1948)

UNHCR Tents

Location_ Various
Organization_ Office of the United Nation High Commissioner for Refugees (UNHCR)
Design_ Various (Canves Tent); Ghassem Fardanesh (Lightweight Emergency Tent)
Manufacturer_ Various (Canves Tent); H.Sheikh Noor-ud-Din&Sons, Lahore, Pakistan (Lighweight Emergency Tent)
Cost per unit_ approx.US$300 (Canves Tent); US$100 (Lightweight Emergency Tent)
Measurments_ 4x6.6x2.2m, 23m^2, 50-110kg, for 4.5people (Canves Tent); 5.5x3x2.1m 16.5m^2, 41.5kg, for 4-5 people (Lightweight Emergency Tent)






UNHCR

In areas affected by war or other types of disasters, the presence of UNHCR tents is the first sign of aid. For the first emergency, agencies first send plastic sheeting. Depending on the complexity and size of crisis, this type of accommodation may be the first and last. However, in the case of larger and longer crisis, one of the most common forms of accommodation is in one of the UNHCER tents. There are two types of tents, which must be at all times stored in one of three UNHCR centers (Dubai, Copenhagen and Durban) for possible new 250,000 refugees.

The most common type of shelter in refugee camps are canvas tents used by UNHCR / ICRC / IFRC. Previously mostly traditional tents were used, manufactured in Pakistan and India - ridge type, heavy cotton cover, single and double fly. But these tents were impractical due to the weight of components and had a poor quality, especially when used in area with a lot of rain. After the crisis in Rwanda, where a large number of these tents collapsed just in a few days, it was decided to use a polyester-cotton blend canvas with more advanced rot proof treatments. The weight of units was reduced by 20kg and lifespan was significantly extended for both warm and humid regions. It is ridge tent with elevated walls. External dimensions of the tent are 4x6,6m including the porch, and the highest point is at 2,2m, with an area of 16m^2 plus 3.5m^2 vestibule, the total area of 23m^2. In hot and humid contexts, tents provide shade from the sun. They should be well ventilated and have appropriate drainage. The tent is able to withstand a 75 km/h wind without any damage and remain securely attached to the ground without any loss of tension.

In 2002 UNHCR began with tests of a new type of a tent. The new tent had to be lightweight, durable and have a longer lifespan than its predecessor. But since shipping of the tents can cost more than its production, the primary concern was the volume (size and weight). The new design has a tunnel shape to maximize headroom and usable space, with an inner tent that is used for insulation and flooring. The entrance opening is placed on the front and back side, and window flaps lined with mosquito nets on the sides. The air circulates through these holes and vents on top of the tent. Tents are made from synthetic material (outer shell-waterproof, rot proof and UV stabilize polyester fabric; inner tent-cotton/polyester blend dyed fabric and min 12cm space between them) and tents can be stockpiled in greater quantities and have smaller volume and weight (41,5kg) compared to traditional canvas tents. They come in their own 'handbag', reduce costs of shipping and allowed easier handling. Also, the design introduces the idea of privacy. Designers divided the tent using fabric partition, and created a semi-private space where women can change their clothes and parents sleep separately from the children, or it can be used as a semi-public workspace. UNHCR has made an initial production run of 10,000 units, and the tents were since tested in Chad (Darfur crisis) and Indonesia (tsunami 2004).

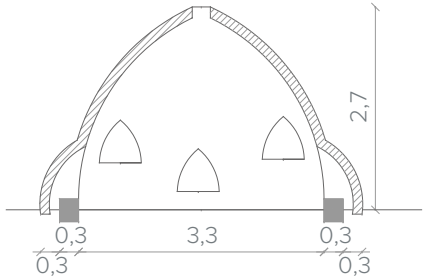
Both types of tents come with all accessories and instructions in a single package. Before being put into use, both must pass many tests of technical details and materials, and both UNHCR and ICRC provide guidelines for their production and use. Although they represent a good response to primary need and crisis, the question arises as to which moment is pleasant, comfortable and healthy to live in a tent.

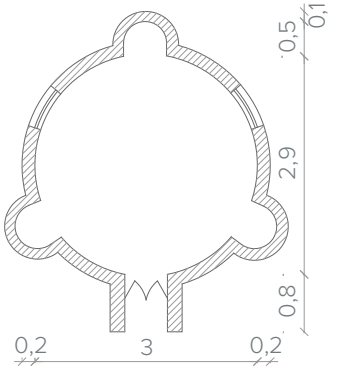
_easy to assemble and disassemble
_easy to transport
_cheap

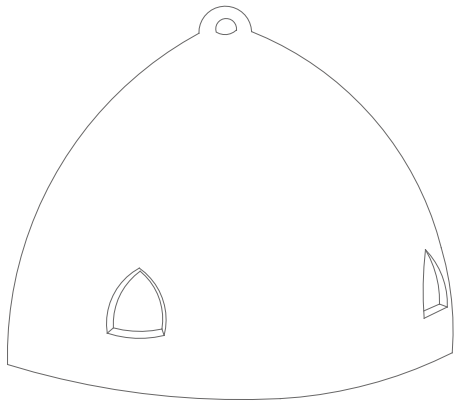
_heavy
_poor material quality
_not resistant to extreme weather conditions

Super Adobe

Location_ Baninajar Refugee Camp, Khuzestan, Iran
Date_ 1995
Organization_ UNDP/UNHCR
Design_ Nader Khalili, Hamid, California Institute of Earth Art and Architecture (Cal-Earth)
Cost per unit_ US$625
Measurments_ 14.6m^2



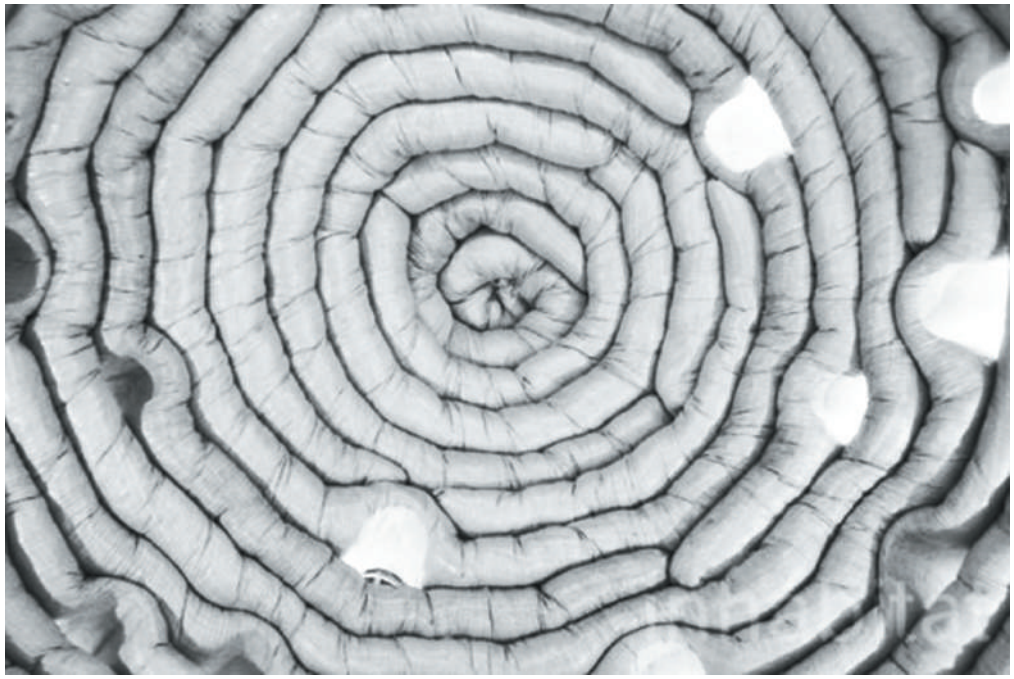




Superadobe is a form of earth bag construction that was developed by Iranian architect Nader Khalili[8]. The technique uses layered long fabric tubes or bags filled with adobe[9] to form a compression structure. The resulting beehive shaped structures employs corbelled arches, corbelled domes, and vaults to create single and double-curved shells that are strong and aesthetically pleasing.

Although it is not known exactly how long, earth bag shelters have been used for decades, primarily in times of war. Military has used sand filled sacks to create bunkers and barriers for protection prior to World War I. In the last century other earth bag buildings have undergone extensive research and are slowly beginning to gain worldwide recognition as a plausible solution to the global epidemic of housing shortages. Nader Khalili originally developed the superadobe system in 1984 in response to a NASA call for housing designs for future human settlements on the Moon and on Mars. His proposal was to use moon dust to fill the plastic Superadobe tubes and velcro together the layers (instead of barbed wire). Consequently in 1995 15 refugee shelters were built in Iran, by Nader Khalili and the *United Nations Development Programme* (UNDP) and the United Nations High Commissioner for Refugees (UNHCR) in response to refugees from the Persian Gulf War. According to Khalili the cluster of 15 domes that was built could have been repeated by the thousands. The government dismantled the camp a few years later. Since then, the Super Adobe Method has been put to use in Canada, Mexico, Brazil, Belize, Costa Rica, Chile, Iran, India, Siberia, Mali, and Thailand, as well as in the US.

Many different materials can be used to construct Superadobe. Ideally it is made of earth or sand, cement or lime, and Superadobe polypropylene tubing (available from Cal-Earth or other suppliers); bags can be polypropylene, or burlap.



[8] Nader Khalili the Iranian architect who spent much of his career in the United States and received awards from the Aga Khan Foundation, NASA, and the United Nations, was always interested in housing poor populations and refugees. Inspired by the mystic poet Rumi, timeless principles, and timeless materials, Khalili was renowned for his fixation on creating earth-based architecture with lunar and space applications, according to Arch1Design. In 1984, he described to scientists at a NASA symposium called ""Lunar Bases and Space Activities of the 21st Century" how to build "magma structures" based on the Geltaftan earth-and-fire ceramic system he founded. In addition to writing six books and translating over 300 Rumi poems into English, Khalili found time to initiate the Geltaftan Foundation in 1986 and the California Institute of Earth Art and Architecture – Cal Earth – in 1991. He is also responsible for a many uber-sustainable designs including a futuristic community for 5,000 people in New Cuyama, California, a 20,000 strong community in Isfahan, Iran, and several earth-bag shelters, in addition to well over 100 "normal" commercial and residential projects. Khalili's earth bag constructions are incredibly simple to build and within reach of people with even the most limited resources, which was always his aim. Despite being made from earth, air, water, and fire – the elements so crucial to Khalili's metaphysics – these homes also include aesthetically-pleasing domes and arches and perform well in seismic conditions.

[9] Adobe is the Spanish word for mud brick, a natural building material made from sand, clay, water, and some kind of fibrous or organic material (sticks, straw, and/or manure), usually shaped into bricks using molds and dried in the sun.

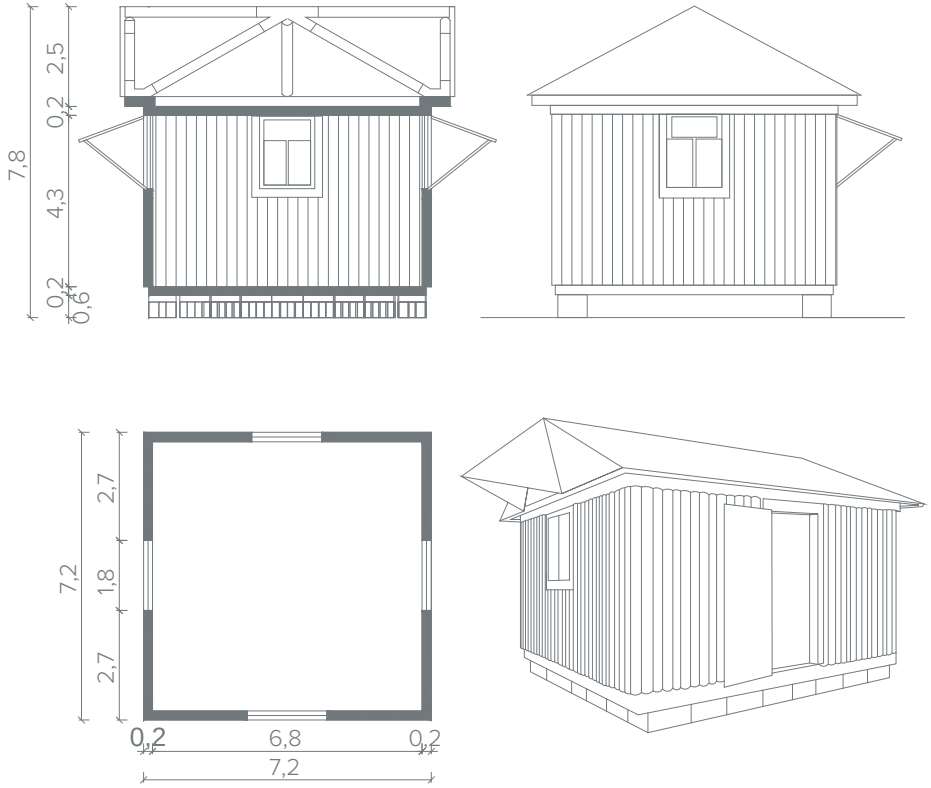
What is important is that they are UV resistant or else quickly covered in plaster. The foundation for the structure is formed by digging a 30 cm deep circular trench with a 2 to 4 m diameter. Two or three layers of the filled polypropylene sand tubes are set below the ground level in the foundation trench. A chain is anchored to the ground in the center of the circle and used like a compass to trace the shape of the base. Another chain is fastened just outside the dome wall: this is the fixed or height compass and gives the interior measurement for every single layer of superadobe bags as they corbel ever higher. The height compass is exactly the diameter of the dome. On top of each layer of tamped, filled tubes, a tensile loop of barbed wire is placed to help stabilize the location of each consecutive layer and it plays a crucial role in the tensile strength of the dome. Window voids can be placed in several ways: either by rolling the filled tube back on itself around a circular plug (forming an arched header) or by waiting for the earth mixture to set and sawing out a Gothic or pointed arch void. A round skylight can even be the top of the dome. Once the corbelled dome is complete, it can be covered in several different kinds of exterior treatments, usually plaster. Although technology has brought much progress and should not be discounted, Nader Khalili's low cost and low-tech architecture is accessible to a greater portion of the population and may even be useful on the moon and out in a space.

_easy to assemble
_good insulation
_natural, local materials
_cheap

_not easy to disassemble
_not sutable for every location

Paper Tube Emergency Shelter / Paper Log House

Location_ Various
Date_ 1995
Organization_ UNHCR, Vitra
Design_ Shigeru Ban Architects
Cost per unit_ / US$2000 (Paper Log House)
Measurments_ / 52m² (Paper Log House)



After working for wealthy costumers year after year Japanese architect Shigeru Ban[10] started to question his contribution to society and decided to give his career another direction with a very different clientele. He decided to create and build emergency shelters that help people in need in disaster struck areas with nothing so simple but paper.

The main components of Shigeru Ban's shelters are cardboard tubes. Almost 30 years ago, when he first experimented with these long paper tubes, he was surprised to discover how easily they could be water- and fireproofed. Moreover, they turned out to be inexpensive, easy to transport, versatile, extremely durable, and, therefore, a perfect source of construction material when natural and man-made disasters occur. Since he set up his first prototypes in Rwanda in 1995 Ban has built emergency shelters made from paper all over the world, giving people much more than a roof in Japan, Haiti, Sri Lanka, India and many other places. His constructions not only serve their intended purpose in the most desirable way but often remain a beloved part of the landscape, turning houses into homes.

When in 1994 Rwanda's civil war displaced more than two million people, following the standard protocol the UNHCR sent the standard supply of plastic sheeting and aluminum poles to be used as a temporary shelters, but the agency failed to foresee the local value of aluminum. Refugees sold the poles and then cut down trees for structural supports instead, thus contributing to an already pressing deforestation crisis. Just as the UNHCR was grappling with this problem, the Japanese architect Shigeru Ban approached the agency with a proposal to

[10]Shigeru Ban is a Japanese and international architect, most famous for his innovative work with paper, particularly recycled cardboard tubes used to quickly and efficiently house disaster victims. For Ban, one of the most important themes in his work is the "invisible structure". That is, he does not overtly express his structural elements, but rather chooses to incorporate them into the design. Ban is not interested in the newest materials and techniques, but rather the expression of the concept behind his building. He deliberately chooses materials to further this expression.

Ban's work encompasses several schools of architecture. First he is a Japanese architect, and uses many themes and methods found in traditional Japanese architecture (such as shōji) and the idea of a "universal floor" to allow continuity between all rooms in a house. By choosing to study under Hejduk, Ban opted to do something different. Hejduk's rationalist views on architecture provided a way of revisiting Western modernism and gaining a richer appreciation than the reductive vision of it as a rationalized version of the traditionalist—yet ultra-modern—Japanese space. With his Western education and influences, Ban has become one of the forerunning Japanese architects who embrace the combination of Western and Eastern building forms and methods. Perhaps most influential from Hejduk was the study of the structure of architectural systems. Ban is most famous now for his innovative work with paper and cardboard tubing as a material for building construction. He was the first architect in Japan to construct a building primarily out of paper with his paper house, and required special approval for his building to pass Japan's building code. Ban is attracted to using paper because it is low cost, recyclable, low-tech and replaceable. The last aspect of Ban's influences is his humanitarianism and his attraction to ecological architecture.

construct emergency shelter using the paper tubes as a material. Commissioned by the UN, Ban developed a frame of paper tubes and plastic connectors that could transform standard plastic sheeting into tents. The tubes had no monetary value, thereby ensuring they would be used for shelter. With support from Vitra, Ban designed three prototype shelters, and in 1998 he worked with refugees and relief agencies to build 50 emergency shelters in Rwanda. However, the frame proved too costly and difficult to replicate, according to the UNHCR.

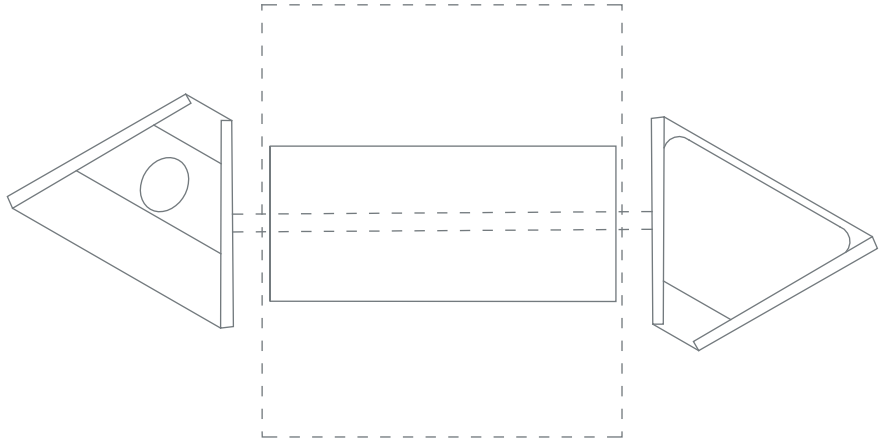
In the meantime the Great Hanshin Earthquake of 1995 gave Ban the opportunity to channel his ideas toward humanitarian work closer to home. Working with university students Ban built 21 temporary homes from paper and plastic beer creates donated by Kirin. Each home took volunteer and student workers six hours to construct. Indigenous and sustainable, the homes enabled families to remain near their jobs while waiting for permanent housing. Most of the material Ban used came from trash. Some were donated by firms and some were collected - he used sand-filled beer cases for the foundation of the houses and paper tubes for the walls. For the insulation, an adhesive waterproof sponge tape is sandwiched between the tubes. The units are easy to dismantle and the materials are appropriate for recycling. His Paper Log House design was adapted for Turkey and India after earthquakes in 1999 and 2001, respectively. But once again the process proved too cumbersome to replicate on a large scale.

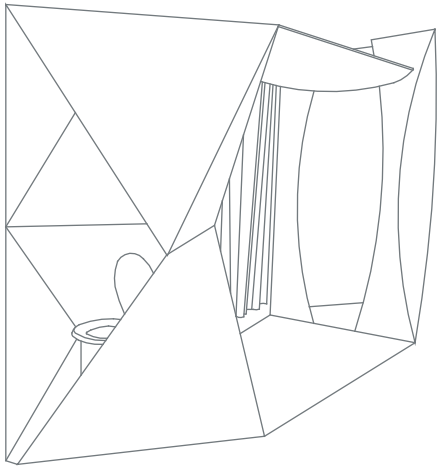
_easy to assemble and disassemble
_recycled materials used
_easy to transport

_expensive
_difficult to replicate on a large scale

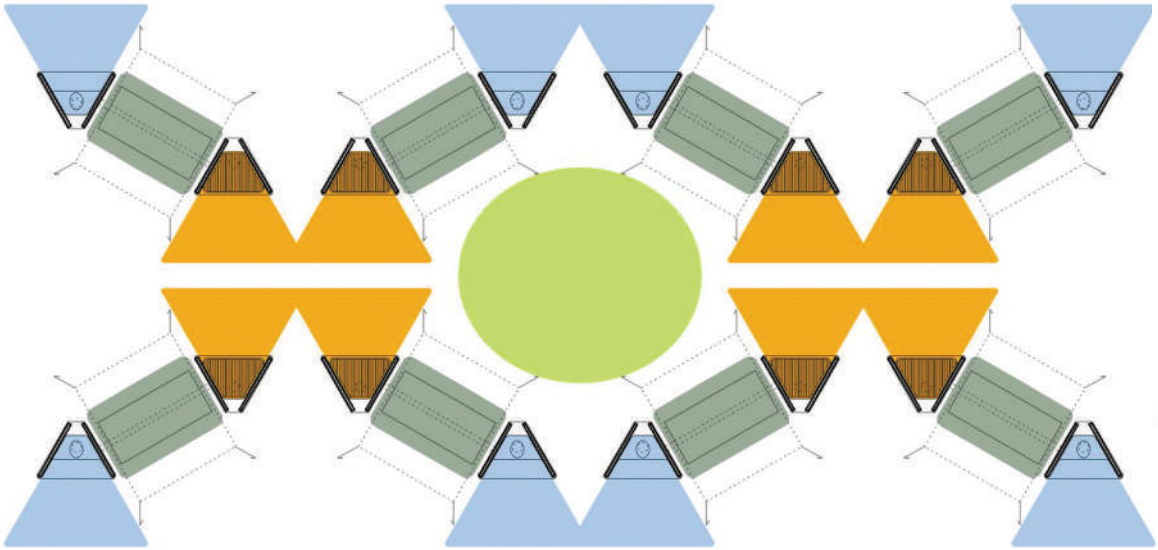
Extreme Housing

Location_ Kosovo
Date_ 1999
Organization_ Johnnie Walker „Keep Walking“ Found
Design_ Deborah Gans and Matt Jelacic
Cost per unit_ / US$2000 (Paper Log House)
Measurments_ 2,2m^2





Architect Matthew Jelacic[11] believes that people displaced by complex emergencies such as wars or natural disasters deserve better living spaces. In 1999, together with his design partner and fellow architect Deborah Gans[12], he entered an international competition sponsored by *Architecture for Humanity*, *WarChild*, and the *United States Agency for International*



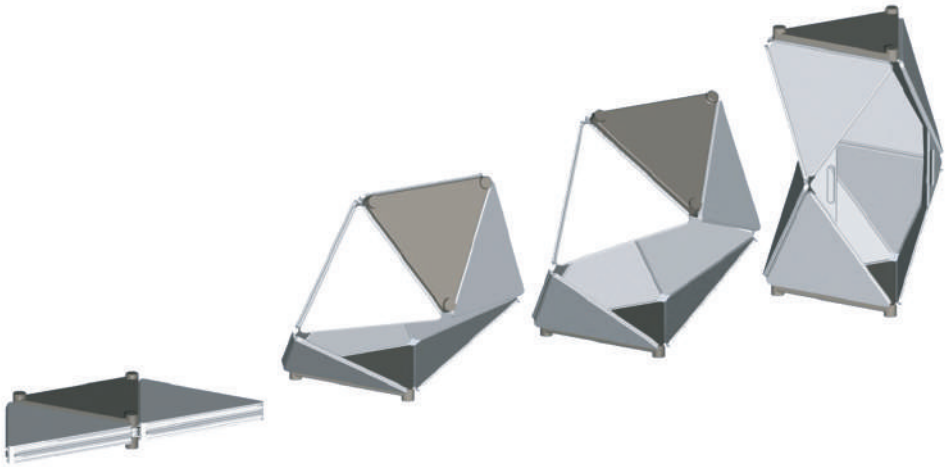
Development that sought proposals for transitional housing for thousands of refugees returning to Kosovo. Jelacic and Gans won—not by designing a new tent, like many other entrants, but by submitting an idea for two highly functional tent poles.

The box-like structures, initially made with steel frames and fiberglass-reinforced concrete tops and bottoms, are roughly the size of telephone booths. One pole is a bathroom, intended to limit the spread of communicable diseases common in group latrines, and the other is a kitchen with a fireplace and storage for water. Between the two poles is a sleeping space. The boxes can be assembled in less than 24 hours, and, with a tarp overhead, create a temporary shelter. They are relatively lightweight—the newest versions weigh about 22kg each—but strong enough to form the core structures for a permanent house later. Refugees around the globe can take them along when they leave a host country, and even-

[11] Matthew Jelacic is an Assistant Professor of Environmental Design and an Adjunct Faculty member of the Mortenson Center in Engineering for Developing Communities at the University of Colorado. His research includes improving the design of shelter and planning for displacement caused by natural disasters, climate change and other conflicts.

[12] Deborah Gans is the founder and principal architect of Gans studio. Her firm's projects include architecture, industrial design, and community-based urban planning, where she continuously tackles extreme sites and programs. Through writing, design research and inventive public advocacy, Deborah has spearheaded the revitalization of socially responsible architecture for a new generation. Educated at Princeton, Gans has spent her career seeking new forms for architecture's social participation and engagement. From her masters' thesis for a workers' club in a shrinking post-industrial town to her current involvement in coastal resiliency, she has had tremendous impact on the contemporary community-based design movement. Much of Gans' design work focuses on the challenges of housing, especially in relation to the underserved, where she has used her design speculation as a platform for policy change and the revitalization of communities.

tually enclose them with materials from their new settlement site — adobe in Africa, bamboo in the Philippines, or concrete blocks in Siberia.
With a grant from the Keep Walking Fund of Johnnie Walker, Jelacic traveled to Bosnia to research refugee housing firsthand, enabling him and Gans to improve their original design. They replaced steel in the frames with fireproof ceramic, making the poles even lighter—and, in some areas, like Nigeria, less likely to be sold on the open market. The architects also made the bases and tops triangular instead of square so they would be more stable on uneven terrain. And because women, children, and old men often erect the housing in refugee camps, they simplified the assembly process.

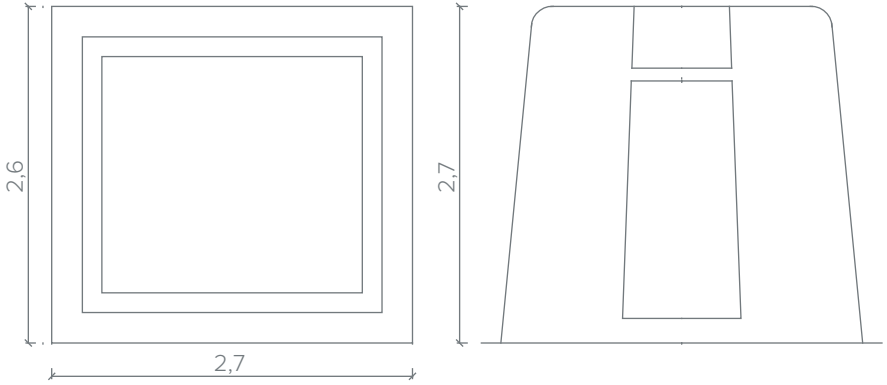


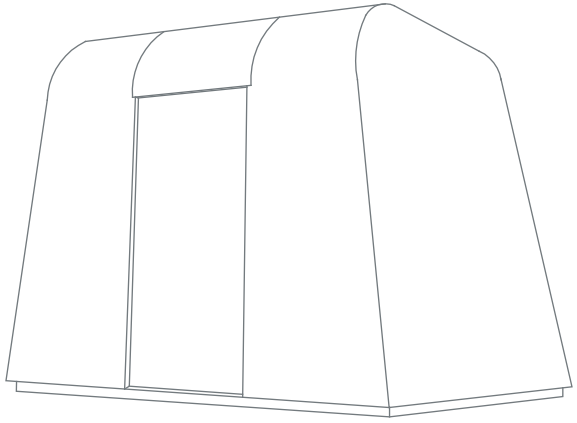
_easy to assemble and disassemble
_easy to transport
_light
_possible later use

_expensive
_small - not suitable for longer living

Stackable Exo emergency shelters

Location_ Various
Date_ 2005
Organization_ Reaction / Maram Foundation, Syria
Design_ Michael McDaniel, Graeme Waitzkin, Thomas Q Brady
Cost per unit_ approx. US$5000
Measurments_ 7,5m²; 180kg



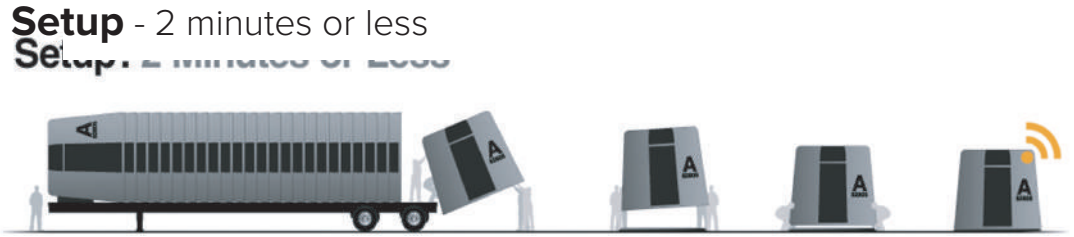



exo

In 2005 Michael McDaniel[13] witnessed how Hurricane Katrina forced people out of their homes and into crowded, poorly equipped shelters. Devastated with the aftermath of Katrina, he knew that there must be a better solution. A few days after hurricane and the humble coffee cup as inspiration, the Exo was born. It has simple but also study structure, that can be stacked, while also protecting its inhabitants from the exterior environment. The design of unit allows easy packing and transport - each unit can be easily put on the previous, like a stack of coffee cups. The unit can be assembled in minutes by four people without any tools or equipment. Units can be organized in different ways, and if one unit is not sufficient to meet the needs of occupants, several Exos can be linked to create more space. Inside the units are fitted with 4 fold down bunks which provide comfortable sleeping quarters for four adults and with the ability to quickly change interior - changing floor plates means a unit can become a bedroom, an office, a kitchen and living area. Made of aircraft-grade aluminum, they are durable, safe and reusable. it has and is: energy efficient doors and skylights for natural lighting, digital door locks to keep secure and safe housing for women and children, rugged composite skins, insulated for climate control, capable of connecting to electricity, heat and air conditioning. The translucent panels provide a natural day lighting. Exos are wired for electricity and connectivity - so the units can be lit at night and different electric devices can be charged. The Exo units themselves form a wireless mesh network, recognizing the units around them and connecting to a single digital platform. Through one dashboard, aid organizations can monitor entire fleets of Exos to see which units are online, offline or in transit, while also monitoring for temperature or fire.

The project is being funded through their *Reaction campaign* on *IndieGoGo*. Michael and his team set themselves a target of US$50,000 and in little over a week they've almost attained half of the funding necessary and are shipping 5 unites to provide housing for the refugees of Syria.

Even though Exos provide some sense of security and ownership to the person who owns them, they are currently very costly and use new materials that are not well known.



[13] Michael McDaniel is a highly prized designer, strategist, and inventor whose work has been recognized with numerous design awards, patents, and has been captured in a variety of publications. He routinely speaks on the topic of design with multiple appearances at TED, PSFK, PopTech!, and Creative Mornings.

Multiple Configurations

Communal

Interconnected

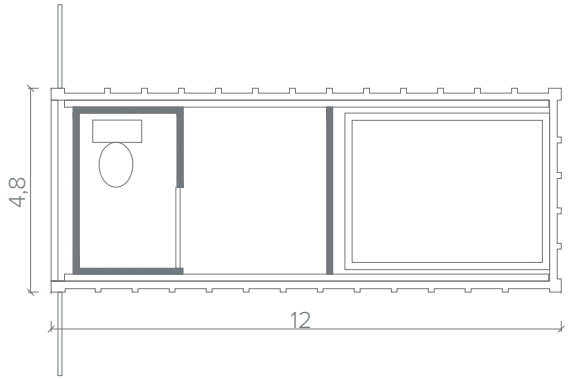
Rows

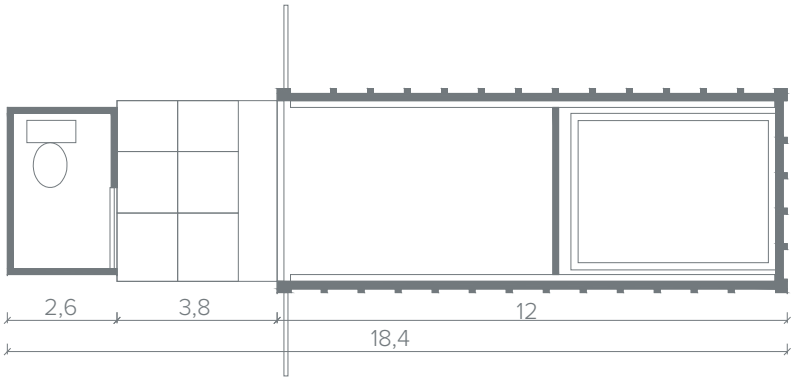
_easy to assemble and disassemble
_easy to transport
_safe
_reusable

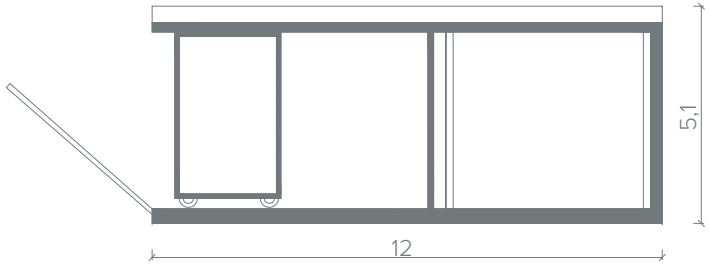
_expensive
_used materials are not well known

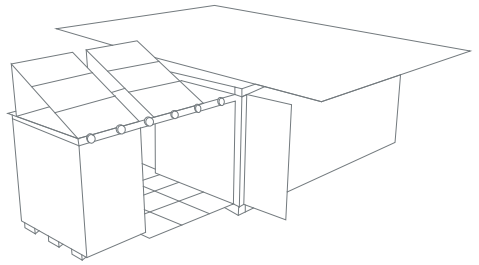
The Clean Hub

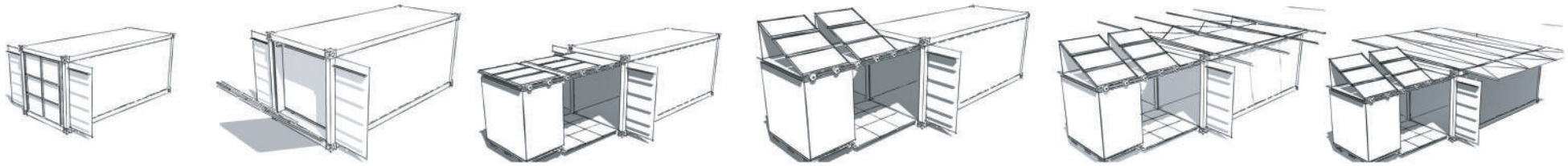
Location_ New Orleans, Louisiana
Date_ 2007
Organization_ Shelter Architecture
Design_ Shelter Architecture, Architecture for Humanity, Studio 4284
Cost per unit_ US$15000
Measurments_ 14.8m²









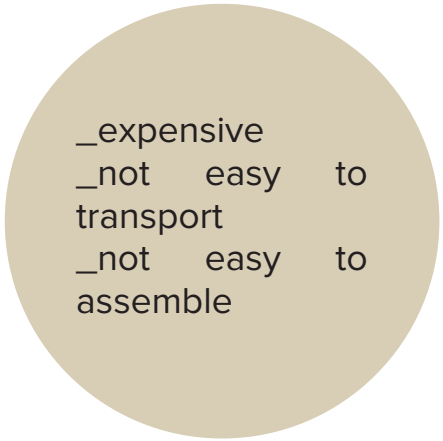


The Clean Hub is a new prototype for sustainable infrastructure conceived by *Shelter Architecture* in collaboration with *Architecture for Humanity*[14], designed and built by architecture students from the University of Minnesota. One of the finalists in *American Express' Members Project*, the freestanding module delivers completely off-the-grid infrastructure, from clean water and sanitation to renewable power to disaster areas or rural locations without access to such resources. The Clean Hub is an architectural solution for post-emergency demographics and rural locations in need of off-the-grid power and water. The Clean Hub is also scalable to its specific human and natural ecosystem responding to population density, rainfall, sunlight and soil conditions. Even though the first prototype focuses on disaster response and refugee camps, the Clean Hub should reach all those who live without adequate supply of water, sanitation or power.

The Clean Hub is a portable, self sustaining source for clean water, electricity and sanitation. Designed within an intermodal shipping container, the Clean Hub can be fabricated, shipped and deployed anywhere in the world in a matter of days. In keeping with all policies, it can be deemed portable, but since it is self sustaining, it can function in one place for as long as necessary with minimal maintenance. The Clean Hub uses a photovoltaic array with battery storage, a 4,400 gallon water reservoir, a rainwater catchment system, ceramic and reverse osmo

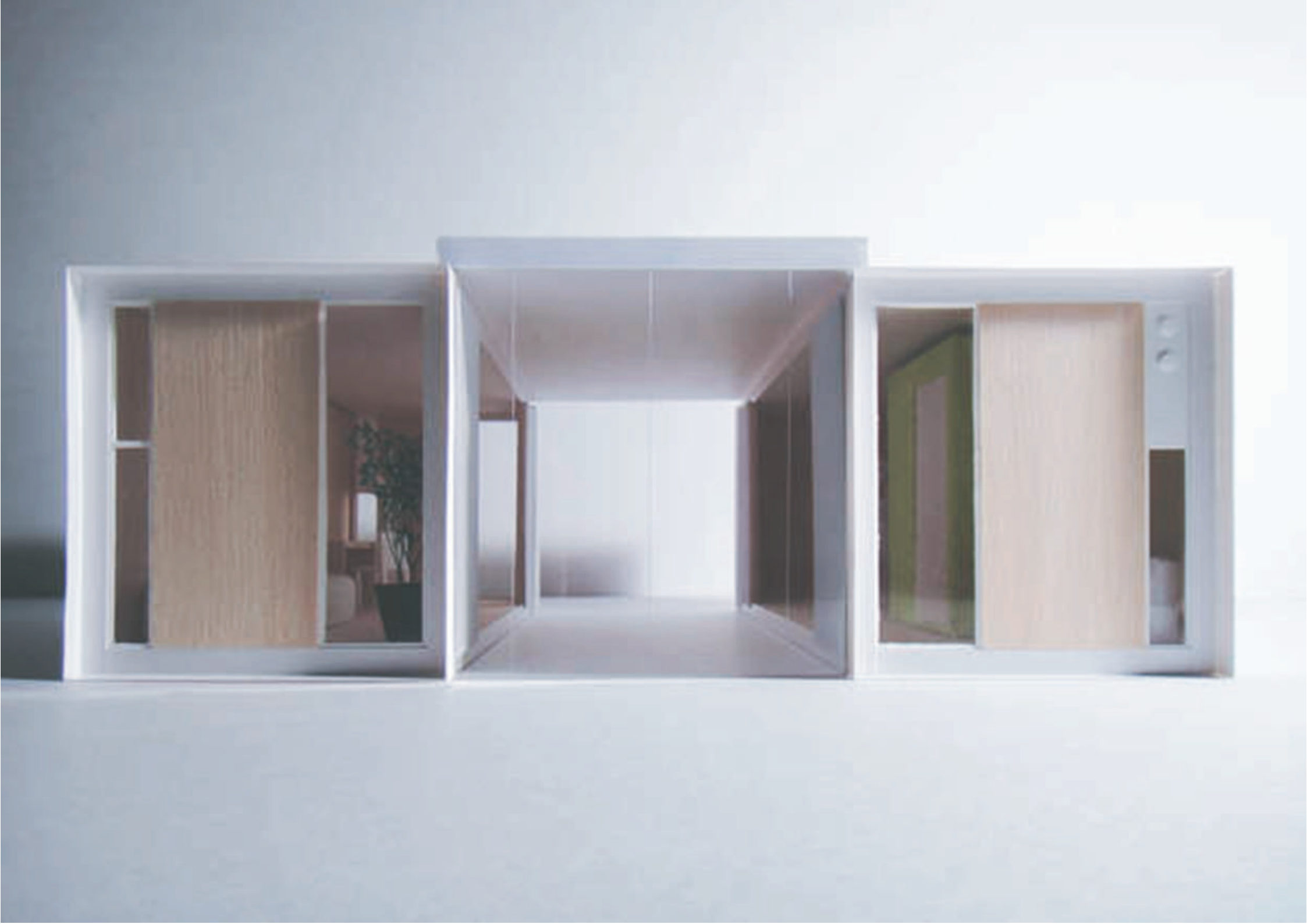
[14] Architecture for Humanity is a charitable organization that seeks architectural solutions to humanitarian crises and brings professional design services to communities in need. They believe that where resources and expertise are scarce, innovative, sustainable and collaborative design can make a difference.
The organization was founded on April 6, 1999 by Cameron Sinclair and Kate Stohr in response to the need for immediate long-term shelter for returning refugees in Kosovo after the region's bloody conflict. After hosting a series of open design competitions the organization then began taking on a number of built projects, pairing local communities with design professionals to develop a ground up alternative to development and reconstruction.
In 2005 they adopted an 'open source' model and were the first organization to utilize Creative Commons licensing system on a physical structure.[2] To date it has worked in twenty eight countries around the world and has completed over 245 projects. The organization provides pro-bono design and construction management services and funding for projects around the world.
Architecture for Humanity aims to promote humanitarian and social design through partnerships, advocacy and education based programs.

sis filtration, and composting toilets.
Clean hub is made of the former shipping container, can be trucked into an affected area, and set up quickly. The V-shaped rooftop has a rainwater collection on top of it, then water goes inside where a filter and a rainwater storage tank are located (underground reverse-osmosis filtration system to recycle and store gray water from showers and laundry facilities). On the inside there is a bathroom that rolls out, with a composting toilet in it, and solar panels (16 rooftop adjustable photovoltaic panels that can generate up to 2,600 watts of energy) attach to the bathroom that will provide the power for the filtering system and the toilet.
Even though it addresses all the problems that emerge with catastrophe sheltering, the idea is still very costly and takes a lot of time to be produced, so it is not applicable for immediate response and bigger number.



Ex-Container

Location_ Japan
Date_ 2009
Organization_ Shelter Architecture
Design_ _ Yasutaka Yoshimura Architects
Cost per unit_ $
Measurments_ 6x6m, approx 30m²



In response to calls for disaster relief housing after the 2011 earthquake and tsunami in Japan, architect Yasutaka Yoshimura[15] has created a series of shipping container shelters that remain low-cost and high-quality. The design is part of a greater aim to use existing materials while maintaining sensitivity to communities. The idea of using containers as refugee shelters came from Bayside Marina Hotel that Yasutaka Yoshimura Architects designed using shipping containers that had been pre-assembled in Thailand. That way they were able to achieve an astonishingly low-cost structure that was both stylish and unique. Dimensions of the container are 6x6m and can be paired to contain a program of kitchen, living room, bathroom and sleep spaces. The project showed that shipping containers can actually be quite elegant solution for disaster relief situations. They are sturdier than regularly used temporary housing, are inexpensive to acquire and easy to transport so they can be quickly relocated to house people anywhere around the world. They are also stackable and can create multi-level buildings safely and easily, if necessary.

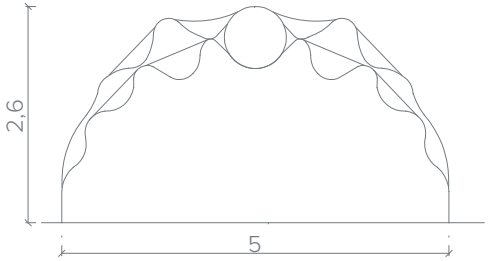
[15] Yasutaka Yoshimura Architects is an architecture and urban design firm globally operating based in Tokyo, Japan. They aim to realize a new form of architecture and cities with regarding market, laws and norms which transform itself dynamically as opportunities of their design.

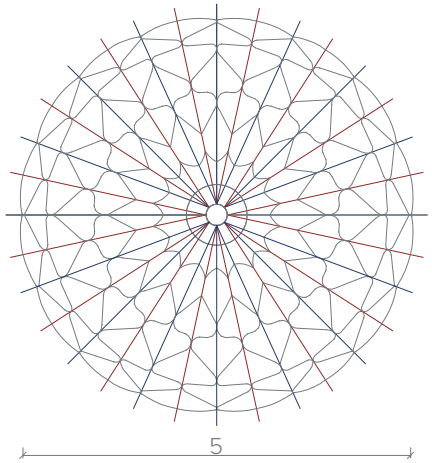
_easy to transport
_stackable
_low cost
_high quality

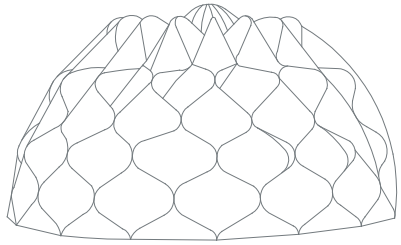
_not suitable for larger number of people

Collapsible woven refugee shelters

Location_ Various
Date_ 2013
Organization_
Design_ Abeer Seikaly
Cost per unit_ $
Measurments_ diameter 5m





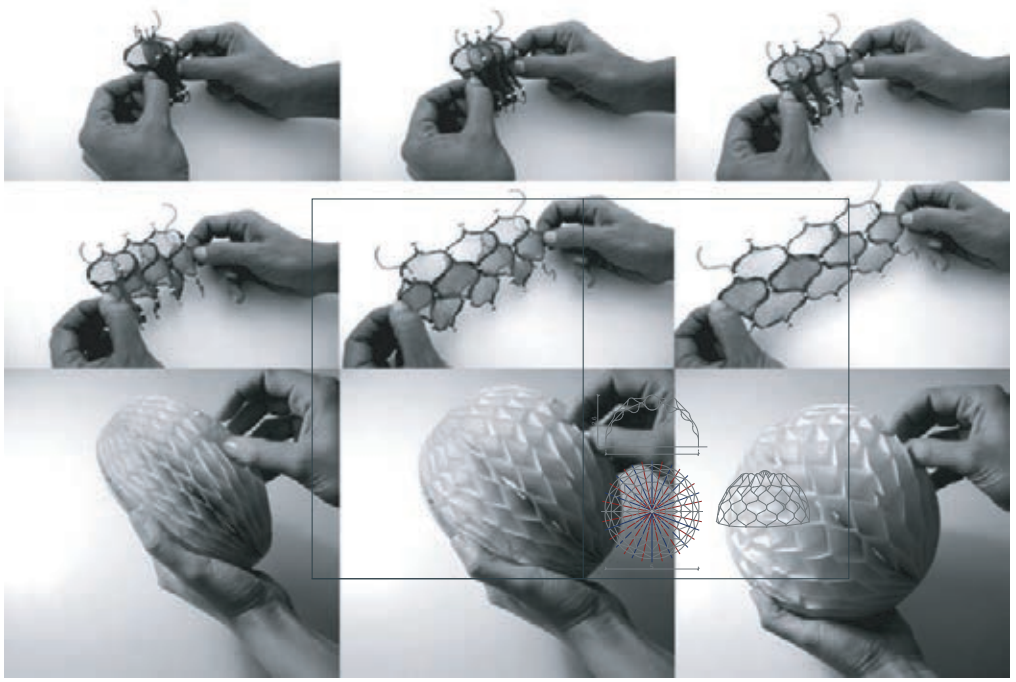


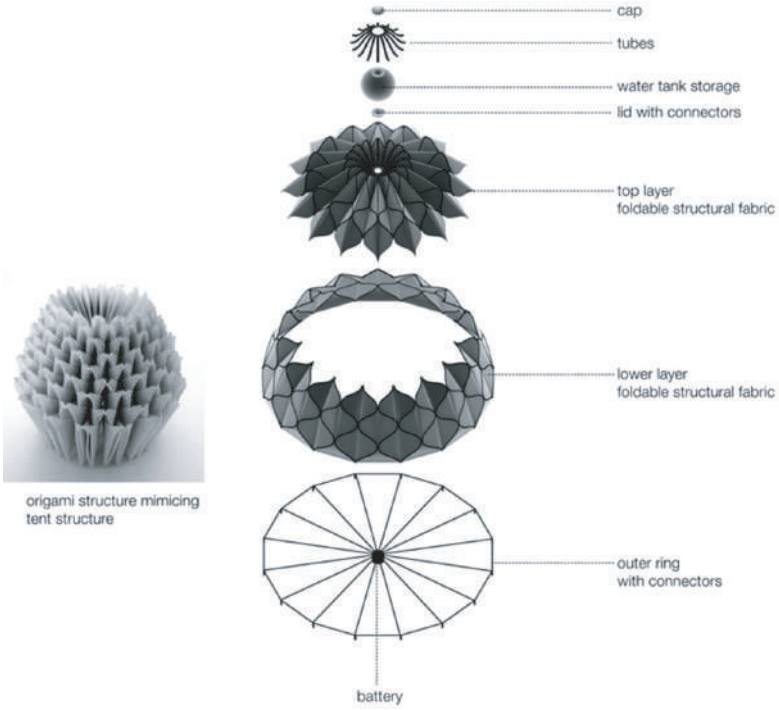
A new style of shelter has been designed and produced by Jordanian-Canadian architect and designer Abeer Seikaly[16]. It is inspired by temporary huts of nomadic tribes in Jordan.

Comprised of a structural woven fabric that blurs the distinction between structure and fabric, the shelter expands to create a private enclosure. It also comes with some fundamental amenities required by modern people, including water and renewable electricity.

The use of structural fabric references ancient traditions of joining linear fibers to make complex three-dimensional shapes – the resulting pattern is easy to erect and scale into various functions, from a basket to a tent. The project incorporates technological advances and new methods of assembly of the material, envisioning a system composed of durable plastic members that are threaded to form a singular unit. These flexible envelopes fold across a central axis, with the hollow structural skin enabling necessities such as water and electricity to run through it, similar to a typical stud wall. The outer solar-powered skin absorbs solar energy that is then converted into usable electricity, while the inner skin provides pockets for storage – particularly at the lower half of the shelters. And a water storage tank on the top of the tent allows people to take quick showers. Water rises to the storage tank through a thermo siphoning system and a drainage system ensures that the tent is not flooded. Well ventilated and lit, the shelter opens up in the summer and closes down during cold winters. But most importantly, it allows refugees to have some feeling of security and home.

Although a small space, it is the perfect solution for displaced people, from refugees to those who have lost their homes to storms and our increasingly unpredictable weather.





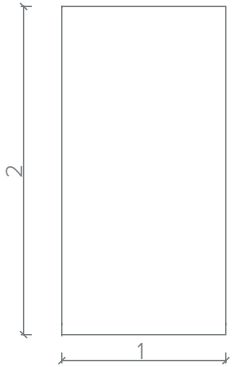
[16] Abeer Seikaly is an architect, artist, designer and cultural producer. She received her Bachelor of Architecture and Fine Arts from the Rhode Island School of Design in 2002. Over the span of 10 years, she has built a foundation of interdisciplinary skills that span architecture, design, art, fashion, textile design, and curation. She joined Villa Moda, a lifestyle and luxury retail concept in Kuwait and the Gulf as a senior architect and project manager in 2005 and directed the first contemporary art fair in Jordan in 2010. In addition to her independent practice, Abeer is also the production manager of Adel Abidin, the internationally recognized Iraqi/Finnish video artist.
Abeer's work is rooted in the process of memory - journaling, documenting, archiving, and collecting, to create objects, spaces, and experiences that exist in the realm of her narratives.

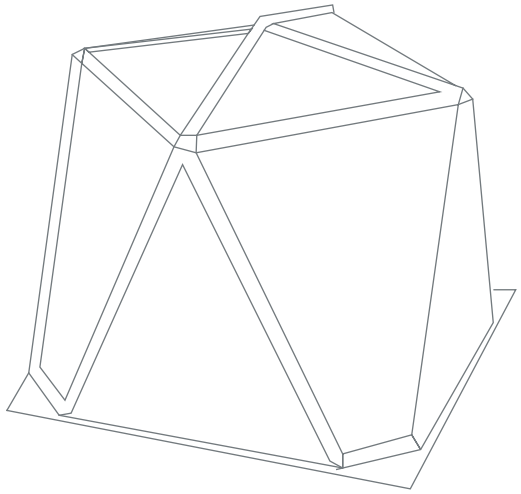
_easy to transport
_sustainable
_renewable energy
_suitable for different climats

_still just a prototype
_used materials are not well known

Life Box

Location_ Varius
Date_ 2013
Organization_ Shelter Architecture
Design_ Adem Onalan
Cost per unit_ $
Measurments_





Life Box is an air-droppable, rapid-response emergency shelter that can be quickly inflated to provide housing for four people. *The Red Dot Award* - winning shelter contains supplies to provide relief to victims of natural disasters such as floods, tsunamis, or earthquakes.

Turkish industrial designer Adem Onalan conceived of the Life Box as a holistic solution that can be quickly deployed after natural disasters when relief providers are unable to reach the disaster zone due to distance, weather conditions, and the destruction of roads.

The air-droppable, foldable polyethylene box houses two cardboard boxes that contain relief goods such as food, water and sleeping bags. When it is unfolded, it turns into an inflatable shelter. The outer layer of the shelter functions as a parachute during the airdrop, while the polyethylene foam interior provides insulation.

The Life Box is available in three different classes: ‘air’, ‘land’ and ‘water’. The ‘air’ type is for disaster areas that can be only reached by aircraft. The ‘land’ type is for disaster areas that can be reached by road with Life Box packed into vehicles (the foldable design means it doesn't take up too much space and eight fit into commonly used 120 x 120cm transportation pallets). The ‘water’ type is for flood-affected areas. All of the boxes provide shelter on water and land thanks to two inflatable rings around the base of the shelter. The Life Box can be set up in less than one minute, and multiple units can be combined to accommodate large families. They can also be used to create temporary hospitals or offices.

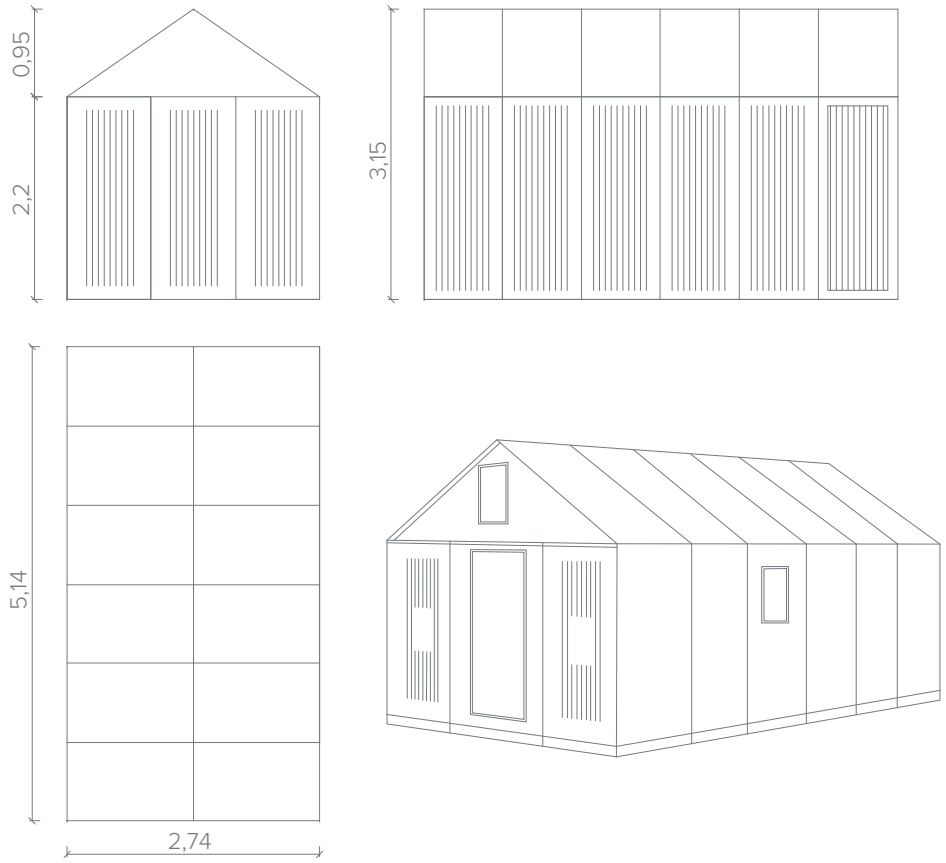
The whole design was inspired by one of the most simple but effective products commonly used in emergencies: a life vest. Nods to the design can be found in Life Box's bright colors, and line-drawing picture instructions.

_easy to transport
_easy to assemble
_suitable for different climats

_still just a prototype
_used materials are not well known

IKEA's flat-pack refugee shelter

Location_ Varius
Date_ 2013
Organization_ IKEA, UNHCR
Design_
Cost per unit_ US$ 7.500
Measurments_ 17,5m²




UNHCR
30
UNHCR

The IKEA Foundation[17], the Swedish furniture maker's philanthropic branch, worked with the United Nations High Commissioner for Refugees and a team of designers from the Refugee Housing Unit (RHU) to completely change the current housing situation for millions of refugees. Much like bed or shelving unit, Ikea's flat-pack shelter comes deconstructed in cardboard boxes.

Ikea's prototype is simple - the rectangular unit is built from plastic panels that clip into a metal wire and pipe frame. The hut-like shelters are an upgrade in nearly every way from canvas and plastic tents. At 17,5m^2, Ikea's shelter is about twice as large as tents and can comfortably house five people. And thanks to hardened wall panels, its lifespan is expected to be three years, though they could last even longer depending on weather conditions.

The unit's walls are where much of the innovation took place. Made of Rhulite, a lightweight polymer that was developed specifically for this project, the material needed to be light enough to transport cost-efficiently, but strong enough to withstand the harsh climates of refugee camps. It also needed to address the issue of privacy. Rhulite was designed so that light could get in during the day but shadows wouldn't be cast at night.

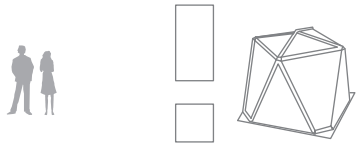
The shelters take around four hours to construct, which is more than the single hour a tent requires, but Ikea's units require no additional tools, which gives it a functional edge over a tent. Each shelter has a metallic fabric shading cover that reflects sun during the day but retains heat at night, plus a solar panel that will generate electricity for a light and USB port inside the unit. Eventually, the design team wants to increase solar electricity capacity and make the shelter capable of water harvesting and purification. They also would have preferred to include lockable doors and windows. At the moment, Ikea's units reportedly cost around US$7,500, but the designers are hopeful that they can settle on a cost of around US$1,000 once in mass production.

Around 50 prototypes are currently being tested in Iraq, Lebanon and at the Dollo Ado refugee camp in Ethiopia. Though it is still too early to make any judgments from the field testing, but inevitably, there will be design tweaks and improvements to be made. Still, at the prototype phase, Ikea's shelters are a vast improvement on many of the housing options available to refugees.

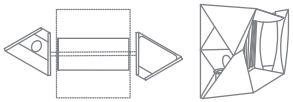
[17] IKEA is a multinational group of companies that designs and sells ready-to-assemble furniture (such as beds, chairs and desks), appliances and home accessories. As of January 2008, it is the world's largest furniture retailer. Founded in Sweden in 1943 by then-17-year-old Ingvar Kamprad, who was listed as one of the world's richest people in 2013. The company is known for its modern architectural designs for various types of appliances and furniture, and its interior design work is often associated with an eco-friendly simplicity. In addition, the firm is known for its attention to cost control, operational details, and continuous product development, corporate attributes that allowed IKEA to lower its prices by an average of two to three percent over the decade to 2010 during a period of global expansion. The IKEA group has a complex corporate structure and is controlled by several foundations based in the Netherlands, Luxembourg and Liechtenstein.

_easy to transport
_easy to assem-
ble
_suitable for
different climats

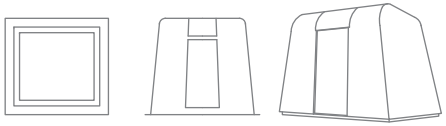
_expensive



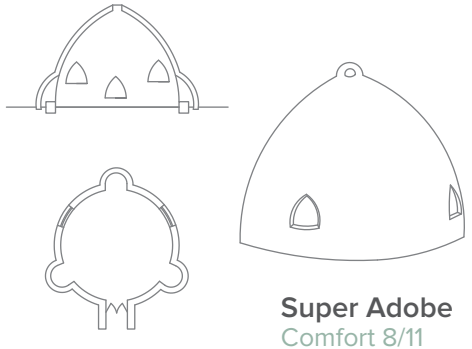
Life Box
Comfort 2/11
Price 8/11



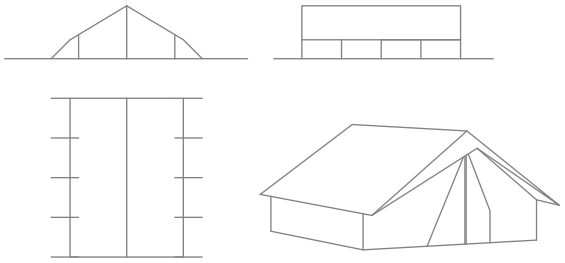
Extreme Housing
Comfort 1/11
Price 6/11



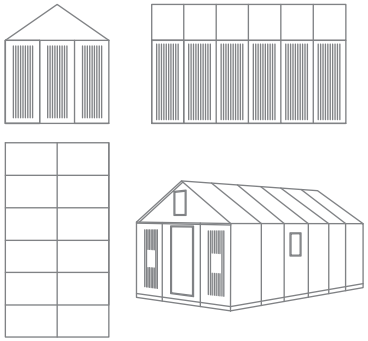
Exo Shelter
Comfort 5/11
Price 4/11



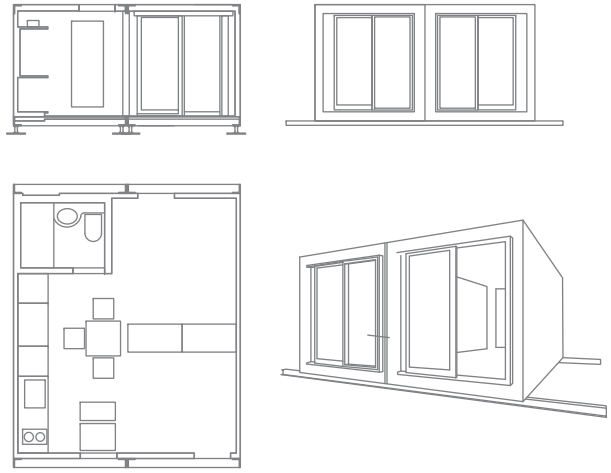
Super Adobe
Comfort 8/11
Price 9/11



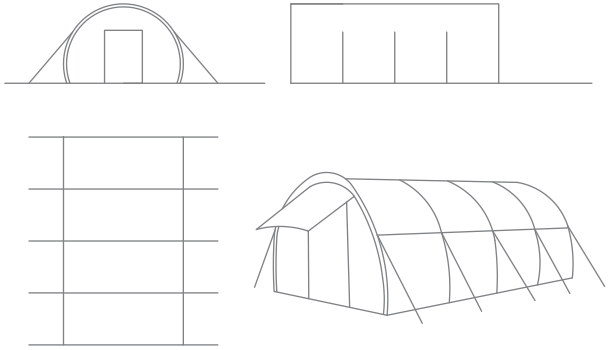
UNHCR's Canves Tent
Comfort 3/11
Price 10/11



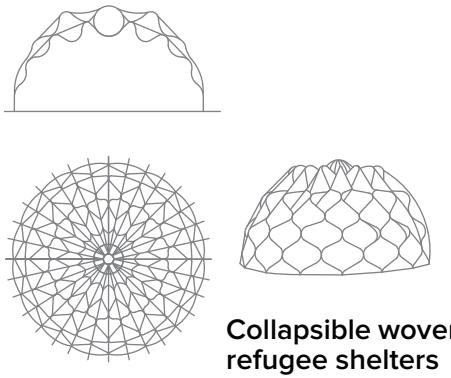
IKEA's Shelter
Comfort 7/11
Price 3/11



Ex Container
Comfort 11/11
Price 2/11



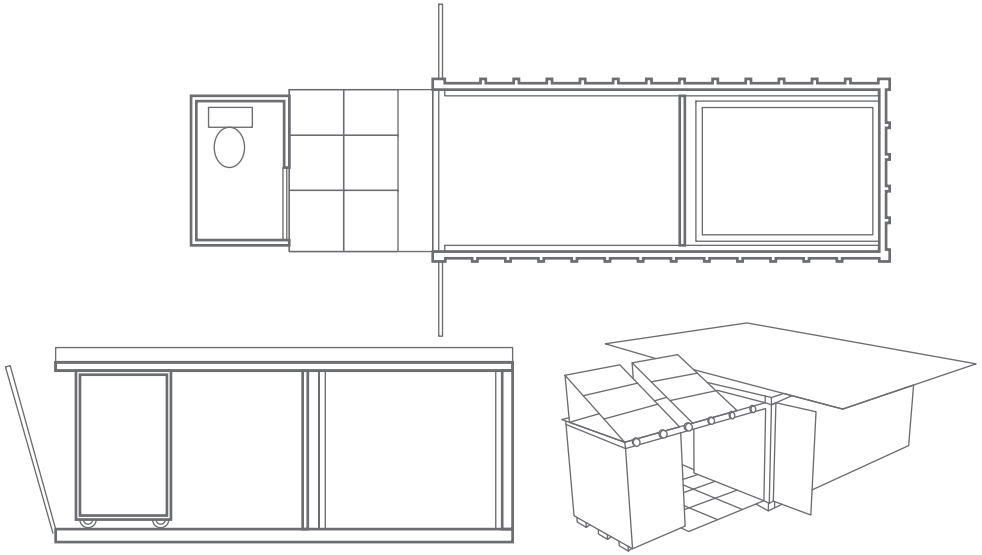
UNHCR's Lightweight Tent
Comfort 4/11
Price 11/11



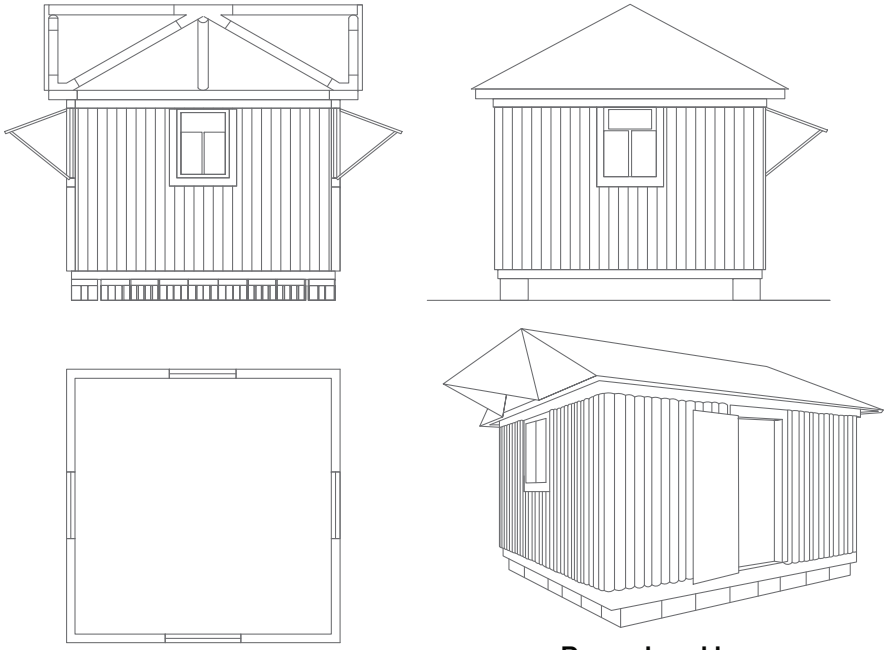
Collapsible woven refugee shelters
Comfort 6/11
Price 5/11

*11 comparable shelters
comfort **11=best, 1=worst**
price **11=cheapest, 1=most**

0 1 2 3 4 5 10



The Clean Hub
Comfort 9/11
Price 1/11



Paper Log House
Comfort 10/11
Price 6/11

HOW DOES IT FEEL TO LOSE HOME?

REFUGE CAMP PROFILES

Sand. Sea of tents. Colors of one blurring into another. No tree, no water, just ground, sky and sheeting in between. Motionless people staring at the sky, still trying to understand what happened to them. Generations of people being born and dying in place without proper bed, road, hospital. One moment very hectic and just second later silence, with almost only sound of heat. Shelters arranged so to create a perfect line, as if trying to impose the sense of stability and control. Places built to help, turning into specific kind of a prison.

In previous part the guidelines and regulations for design of these places were presented. But into what do these guidelines and regulations transform in reality? To what extant can the approach 'Do it by the book' actually be implemented? How do the refugee camps look like, how do they manifest in the nature? What kind of places do they incorporate and what do they offer for their residents?

In this part of the paper this and many other questions will be addressed through analysis of four refugee camp examples. First being Dadaab in Kenya, the largest existing refugee camp in the world, followed by Zaatari in Jordan as fastest and most urbanized camp, and Mae La in Thailand as most dense refugee camp. This will be finalized with general conclusion, which aims to present how politics affect the development of refugee camps and when and how refugee camps end. Further collective centers for internally displaced persons in Bosnia and Herzegovina - a rare example of this type of spatial development in Europe, will be analyzed and a project for revitalization of one of them will be presented. The principles and ideas of the project can to some extent be applied on other similar places. Because, even though they all serve the same purpose - accommodating refugees and providing for their basic needs, they still represent very different and specific creations. Strictly planned architecture arose from a necessity, combined with a combination of hope and despair can be marked as a common characteristic of this places. But what separates them from one another are natural, cultural, political and economical specifities.

Camp for displaced people Karaula, Bosnia and Herzegovina


DADAAB, Kenya

Stranded in the desert of Kenya's northeastern province, surrounded by mile upon mile of sand and scrubby bushes, almost 500,000 people are living in camps the size of a city. Dagahaley, Hagadera, Ifo, Ifo 2 and Kambioos, divided smaller camps, make today's largest refugee camp complex - Dadaab.

Dadaab, a semi-arid town, located approximately 100 kilometers from the Kenya – Somali border, hosts the complex of camps with total area of 50km^2, within an 18km radius of a city centre. It hosts people that have fled various conflicts in the larger Eastern Africa region. Most have come as a consequence of the civil war in southern Somalia, including both Somalis and members of Somalia's various ethnic minority groups such as the Bantu.
Three of today's 5 Dadaab camps (Ifo, Dagahaley, Hagadera) were constructed in the early 1990s. Ifo camp was first settled by refugees from the civil war in Somalia, and later efforts were made by UNHCR to improve the camp. As the population expanded, UNHCR contacted German architect Werner Shellenberg who drew the original design for Dagahaley Camp and Swedish architect Per Iwansson who designed and initiated the creation of Hagadera camp. For many years the camps were managed by CARE - UNHCR's lead implementing partner responsible for managing the camp - and later environmental and waste management issues were overseen by GTZ.


SOMALIA
ETHIOPIA
KENYA
Mogadishu
Dhoobley
Dadaab
Nairobi
DAGAHALEY
To Somali border
IFO 2
IFO
Dadaab
UNHCR
HAGADERA
To Garissa
KAMBIOOS


IFO


Hagadera

In 2006, flooding severely affected the region. More than 2,000 homes in the Ifo camp were destroyed, forcing the relocation of more than 10,000 refugees. The sole access road to the camp and to the town was also cut off by the floods, effectively cutting off the town and camp complex from essential supplies. Humanitarian agencies present in the area worked together to bring vital goods to the area. This effort resulted in the creation of the Ifo 2 camp extension in 2007 by the Norwegian Refugee Council. However, legal problems with the Kenyan Government prevented Ifo 2 from fully opening for resettlement until 2011. With camps filled to capacity, NGOs have worked to improve camp conditions. However, as most urban planners frequently lack the tools to contend with such complex issues, there have been few innovations to improve Dadaab.
In 2011, the East Africa drought caused a dramatic swell in the camps' population. In July 2011, it was reported that more than 1000 people per day were arriving in desperate need of assistance. The influx reportedly placed great strain on the base's resources, as the capacity of the camps was about 90,000 whereas the camps hosted 439,000 refugees in July 2011 according to the UNHCR. The number was predicted to increase to 500,000 by the end of 2011 according to estimates from Médecins Sans Frontières.
According to the Lutheran World Federation, military operations in the conflict zones of southern Somalia and a scaling up of relief operations had by early December 2011 greatly reduced the movement of migrants into Dadaab. Rainfall had also surpassed expectations and rivers were flowing again, improving the prospects of a good harvest in early 2012.

On arrival, the refugees – most of whom are women and children – have no money, no food, no water and no shelter. On average it takes 12 days to receive a first ration of food, and 34 days to receive cooking utilities and blankets from the UNHCR. Most of people live in UNHCR tents, many of which date from the beginning of the refugee camp existence. After the flood, large number of the standard canvas tents were destroyed and replaced with new lightweight tent type, but not many additional improvements were made since.
Refugees aren't allowed to leave the camps unless they receive special movement passes. If caught without a pass, they risk arrest, detention or expulsion. Special buses can be taken between each of the complex's five camps, which are separated from one another by a few kilometers of dust and dry heat.

Few years ago, the UN refugee agency declared the Dadaab complex full, and it continued to lobby Kenyan authorities for access to new land to extend it. Plots ran out in August 2008. New arrivals had to set up camp where they can, gathering on the outskirts of the complex, doubling up, with two families per plot, or seek land not officially cleared for settlement. More than 18,000 people have settled on the edges of the camps, on land that technically belongs to local communities. Additionally, camps in Kenya are in “invisible” areas of the country because the government fears refugees would use valuable agricultural lands if they were allowed to locate in fertile areas. The northwest of Kenya is infertile, arid land populated by Somali people, who generally are regarded by the government with racially-motivated contempt. Receiving little to no development, the north of Kenya is an area the government has ignored for decades. The government has neither extended effective courts nor jurisdiction to the camps, and, also, it does not necessarily recognize the protection cards UNHCR hands out to refugee.

For Elizabeth Campbell, of Refugees International, a US-based advocacy group, Dadaab represents a double failure – a failure of the international community to help bring stability to Somalia and to support the hundreds of thousands who have fled the crisis.
"Though Somalis constitute the largest protracted and unfolding refugee crisis, they are not a priority for anyone and do not garner the political attention necessary to change the situation," says Campbell. "There's no sense of urgency. Instead, there's a sense that Somalia's a disaster and that's it. The political imperative is counterterrorism, and nobody seems to care about an entire generation that has known nothing but war."

Two decades after the first refugees settled in and around Dadaab, the camps continue to operate on an emergency basis. Part of the problem is that the Dadaab camps and the hundreds of thousands of refugees they house are caught in the middle of a complex institutional problem: when should emergency relief end and development assistance begin? For those in the field, this is sometimes called the *"relief-to-development"* gap. What happens to those caught in crises that persist for decades? Camps can be extremely efficient in delivering aid quickly after emergencies, but they fail to mobilize the resources required for medium- and long-term development. According to Campbell "The humanitarian funding structure is simply not set up to deal with people who have been living in crisis for 20 years. At the same time, the entire development industry is simply not responsive to what they consider a humanitarian situation."

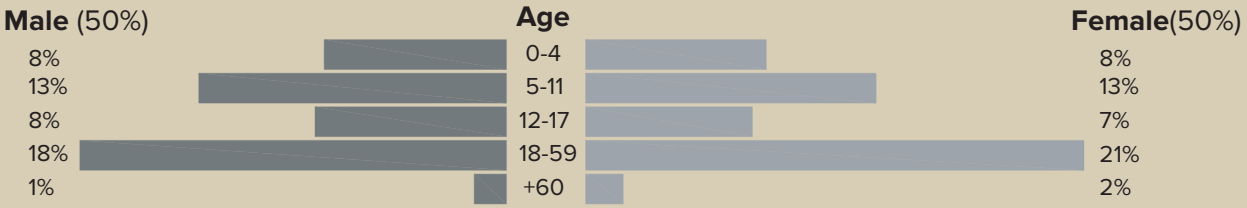
Health, food, education and security, all represent urgent problems which humanitarian agencies and people living inside the camps face every day. Health posts are inadequate, overcrowded, understaffed and under-equipped. Overworked clinicians are unable to serve all the patients or provide timely, quality healthcare to ailing refugees. Congested waiting lines at health posts increase the risk of spreading infectious airborne diseases within health facilities. The minimum emergency standard is 1 health care unit for 10,000 people. In Hagade-

428,067
Registered Somali Refugees

118,094
Households

130,000 refugees without adequate shelter in Dadaab

http://www.care.org/emergencies/dadaab-refugee-camp-kenya/human-costs-funding-shortfalls-dadaab-refugee-camps



More than **58,000** refugees are without access to adequate health in Hagadera camp

http://www.care.org/emergencies/dadaab-refugee-camp-kenya/human-costs-funding-shortfalls-dadaab-refugee-camps

20% of refugee households face threats, harassment and discrimination

http://www.care.org/emergencies/dadaab-refugee-camp-kenya/human-costs-funding-shortfalls-dadaab-refugee-camps

More than **70%** of the **221,000** children in the camps are out of school

http://www.care.org/emergencies/dadaab-refugee-camp-kenya/human-costs-funding-shortfalls-dadaab-refugee-camps

No water supply and sanitation services to **50,000** refugees in IFO II and Kambioos

http://www.care.org/emergencies/dadaab-refugee-camp-kenya/human-costs-funding-shortfalls-dadaab-refugee-camps

two health posts serve the needs of 78,000 people. In the last year, the malnutrition rate in the camps rose to over 20 percent. Nutrition programs providing 24-hour care to the malnourished, as well as food, water, hygiene and healthcare, reduced the levels of severe acute malnutrition, but the most recent nutritional survey in the camps identified a high percentage of children who are still at risk and continue to need care to recover. There is an average of 60 severely acutely malnourished children with medical complications per month.

Children and youth constitute 52 percent of the total population in Dadaab, but many are not enrolled in school. Education is crucial for the development and mental health of refugee children and is a fundamental tool for their protection. The large number of out-of-school children and youth, and the limited employment and livelihood opportunities for them, lead to abuse, sexual and gender-based violence, idleness and potential recruitment by militias. For the 57,000 children who enjoy access to education, conditions are extremely difficult as classrooms are congested: there is only one textbook for every 13 pupils, there are over 100 children per classroom, classes run in two shifts per day, and only one in five teachers has any formal teacher training. Though the quality of education is already compromised, funding shortfalls for construction of schools, payment of salaries of qualified teachers and running costs have resulted in lower enrolment and lower quality education for those attending school.

The camps of Dadaab continue to be the scene of significant insecurity, violence and protection concerns for the refugee population. While attempts are being made to strengthen police presence in the camps, the police are not trusted by the refugee population and are sometimes regarded as perpetrators of the violence. Inside the camps, there have been shootings, rapes, murders, assaults, and gender-based violence. Outside the camps, Kenyan police often harass the refugees when they leave. Sexual assault, domestic violence, inter-ethnic and clan violence and assaults against vulnerable persons such as Albinos, single mothers and those living with HIV/AIDS are also common. Twenty-five percent of the refugee population are elderly, living with a disability or unaccompanied children. These vulnerable groups struggle to access basic services and protection.

But the situation in Dadaab also raises questions about the response of host governments to protracted refugee settlements. More than US$12m of donor funding had been committed for the extension of the Dadaab camps, to provide space for 80,000 refugees and relieve overcrowding in the complex. But Kenyan government told the UNHCR to stop construction. The security ministry is loath to see too much development in terms of infrastructure and improved conditions, for fear this might encourage Dadaab's refugees to stay in the country.

The current situation of Dadaab is untenable: there are more than 500,000 refugees, camps have existed for more than 20 years, and from 2012, the needs of the refugees are greater than ever before. Since then, aid agencies had shifted their emphasis to recovery efforts, including digging irrigation canals and distributing plant seeds. In November 2013, the Foreign Ministries of Somalia and Kenya signed a tripartite agreement in Mogadishu paving the way for the voluntary repatriation of Somalian nationals living in Dadaab. Both governments also agreed to form a repatriation commission to coordinate the return of the refugees. By February 2014, around 80,000 to 100,000 residents had voluntarily repatriated to Somalia. But, change in approach to Dadaab is urgently needed. Donors, humanitarian agencies and the Kenyan authorities should develop a long-term vision for Dadaab, in which refugees are no longer dependent on subsistence-level assistance. However, while such a vision is desperately needed, it will realistically take many years to realize and is almost entirely dependent on the generosity of the Government of Kenya, with support from donors, to continue to host such large numbers of refugee populations.

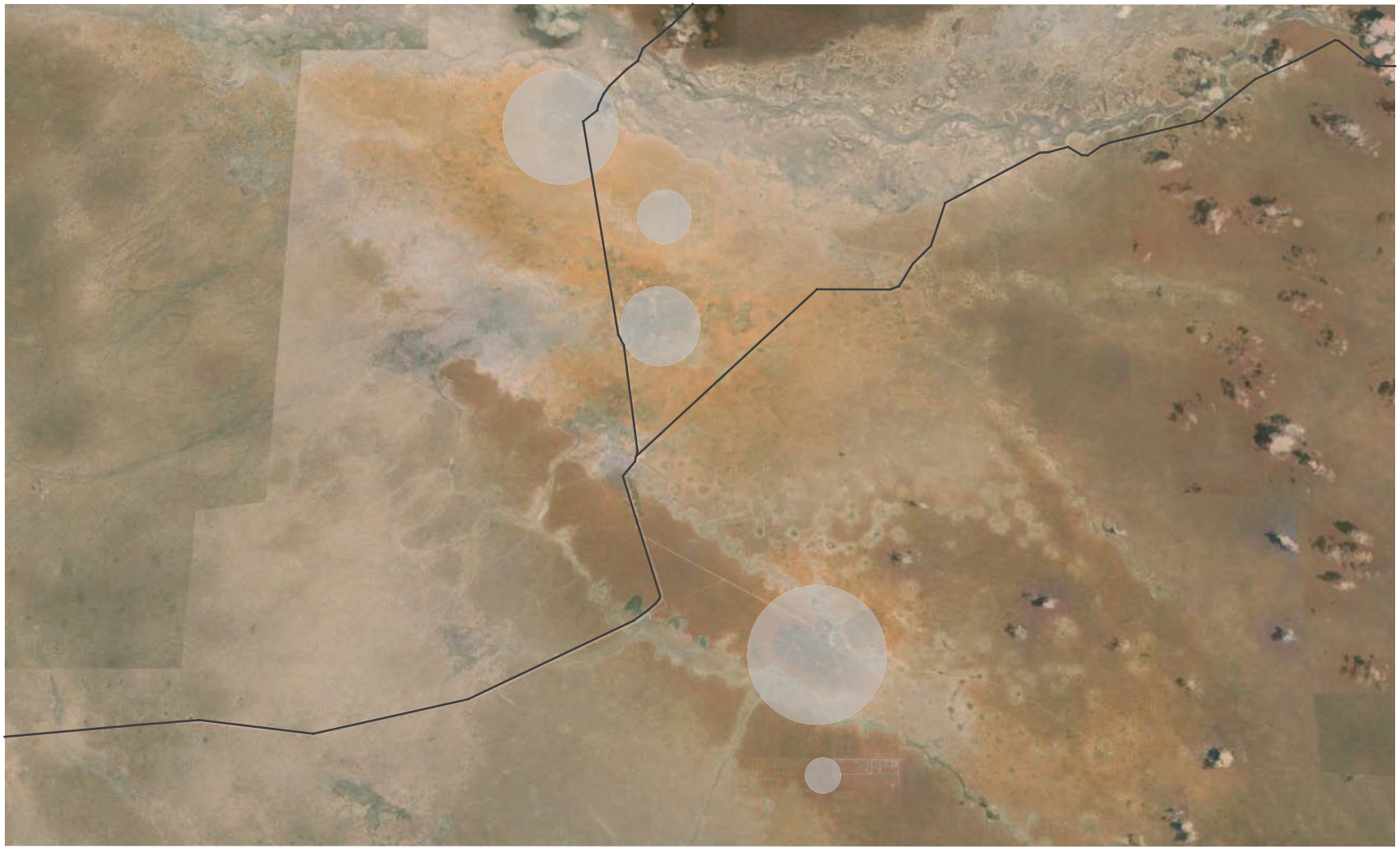
SITE

Dadaab, refugee camp complex, is located in the Kenya North-Eastern Province between Chalbi desert and Lorian Swamp. It is around 100 km away from Somalia border on the north-east, and Provinces capital Garissa on the south-west. North Eastern Province has a semi-arid and hot desert climate. Rain falls infrequently, usually only around April or October, and quite sporadically from year to year. Although Dadaab is prone to flooding during rainy season, it does not receive enough water to maintain the environment and its inhabitants.

There are no major rivers, aside from a few tributaries of the Jubba River. This causes very dry and infertile area with small and dull amount of vegetation consisted mostly of wild bushes. Wildlife in the area includes the gazelle and giraffe.

North Eastern Province is served by the Wajir Airport. It handles about seven flights per day. Camp complex is located some 230 km away from Wajir, and has road connection with several cities in Kenya and Somalia. The main road in the camp is Habaswein - Dadaab road, connecting all complex parts.

The whole area of the Dadaab refugee camp doesn't have paved roads - all are dirt roads. Also, not one family owns a personal car; all cars in the camps belong to visitors and humanitarian-aid workers.



LAYOUT

The complex is divided into 5 parts in a radius of around 30 km. Three - Dagahaley, Hagadera and Ifo are in operation since 1990s, Ifo 2 inhabited since 2012 and Kambioos, the newest complex part, officially recognized by the Kenyan government in January 2013. All parts consist of the sections divided further into blocks and individual plots, with dirt roads between each section and block.

Dagahaley camp was established in 1992. It has 87,963 registered residents, on the area of 8,2 km^2 divided into nine sections with an average of ten blocks per section and an average plot size 12m x 15m per household. Lack of land is a big challenge, sometimes leading to three families living in plots meant for one family, which leads to boundary conflicts and encroachment into public spaces - often roads - making traffic more difficult. It is the densest camp of all five, with new shelters being built individually by refugees on the outside of the complex borders, and distinction between sections becoming very blurry and not easy to distinguish.

Established in 1991, **Ifo** is the oldest of the five refugee camps in Dadaab, currently accommodating refugees from eleven countries. It has 84,565 registered refugees, 20,916 households on the area of 12,3 km^2 and an average plot size 12m x 15m per household. Ifo is divided into nine sections, all of which are overcrowded. Half of the camp is considered a flood-prone area. The shelters in this part of the camp are very poor and some of them have not been replaced since the founding of the camp in 1991.

The neighboring **Ifo 2** camp was established in 2011 to decrease population pressure in Ifo. Ifo 2 is one of the newest refugee camps in Dadaab. It was opened in July 2011 to decongest Ifo and Dagahaley camps. Ifo 2 is divided into two sub-camps, Ifo 2 East and Ifo 2 West, and demarcated into 18 sections comprising of four to nine blocks each. Ifo 2 camp was planned with special consideration towards protection of the environment. Green belts were established between sections within the camps and between Ifo 2 East and West. It has 52,356 registered refugees in 11,290 households, on the area of 10 km^2 and an average plot size per household 12m x 15m in Ifo 2 East, 10m x 12m in Ifo 2 West.

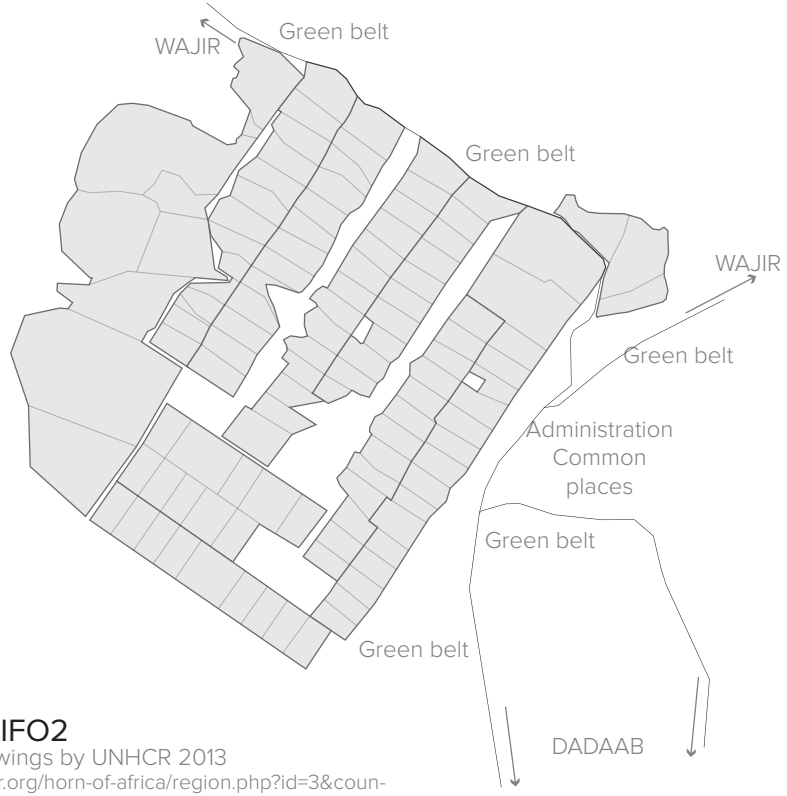
Hagadera was established in 1992 and is the third oldest and largest camp in the Dadaab operation. The camp is highly congested, with 106,926 registered refugees on the area of 8,7 km^2. In order to decongest Hagadera, relocation exercises in 2011, 2012 and 2014 have moved around 2,000 families of about 10,000 individuals to Kambioos camp. It consists of 8 sections with an average of 16 blocks. It has a very clear structure with larger space between the sections than other camps.

Kambioos is the newest of the five Dadaab camps. It was established in August 2011 and officially recognized by the Kenyan government in January 2013. The camp was originally planned for a population of 100,000 and can help reduce the population pressure in other camps.
Observing the layout of this camp one can clearly discern the principles for refugee camp planning, with its linear structure and orthogonal plan, roads intersecting at 90 degrees, creating perfect rectangular space for blocks.

All parts of the camp have a relatively well defined spatial structure consisting of sections and blocks separated by roads, and it is obvious that the complex was planned using the basic instructions and guidelines for the planning of refugee camps. However, it is also very obvious that it is difficult, almost impossible to control the further expansion and development of settlements, especially this type, once the people have inhabited it.

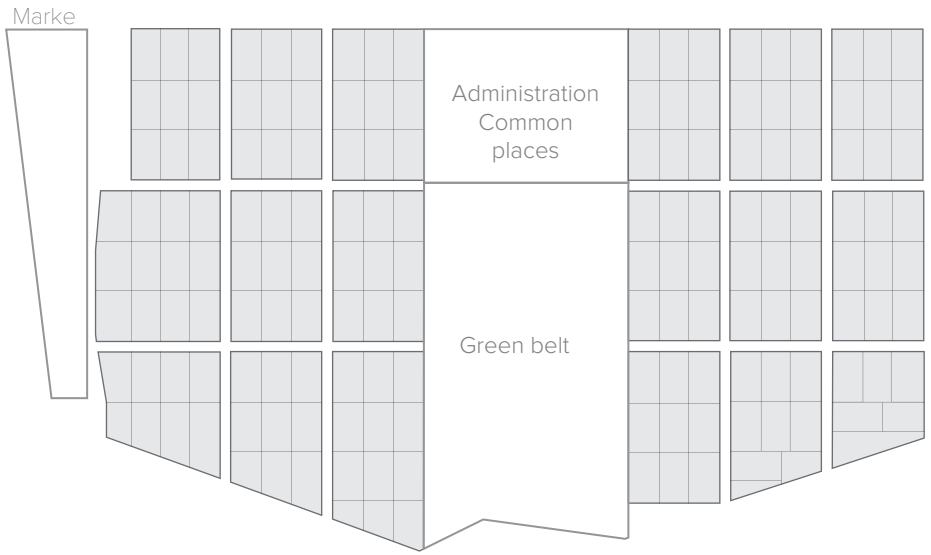
LAYOUT - DAGAHALEY

Based on drawings by UNHCR 2013
http://data.unhcr.org/horn-of-africa/region.php?id=3&country=110



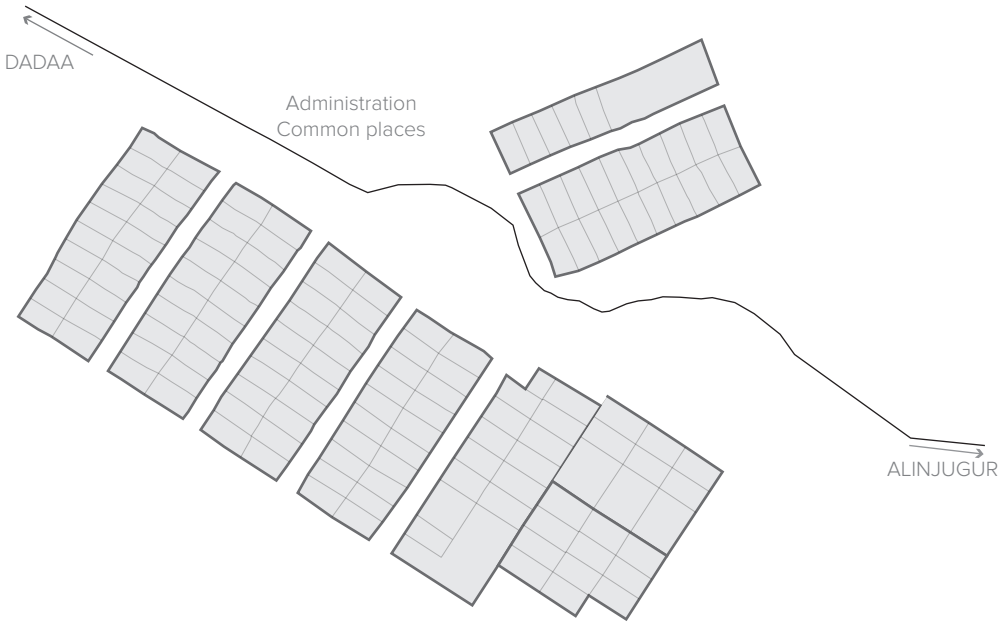
LAYOUT - IFO2

Based on drawings by UNHCR 2013
http://data.unhcr.org/horn-of-africa/region.php?id=3&coun-



LAYOUT - IFO

Based on drawings by UNHCR 2013
http://data.unhcr.org/horn-of-africa/region.php?id=3&country=110



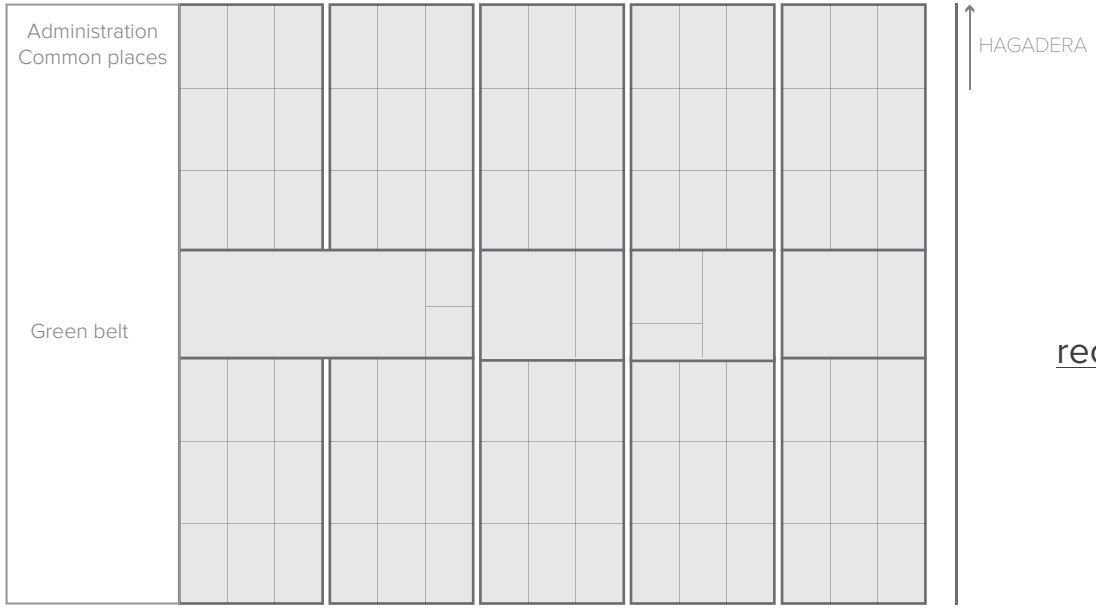
LAYOUT - HAGADERA
Based on drawings by UNHCR 2013
http://data.unhcr.org/horn-of-africa/region.php?id=3&country=110

5 CAMPS

largest Hagadera **8 sectors** **16 blocks** per sector

106,926 registerd refugees

LAYOUT - KAMBIOOS
Based on drawings by UNHCR 2013
http://data.unhcr.org/horn-of-africa/region.php?id=3&country=110



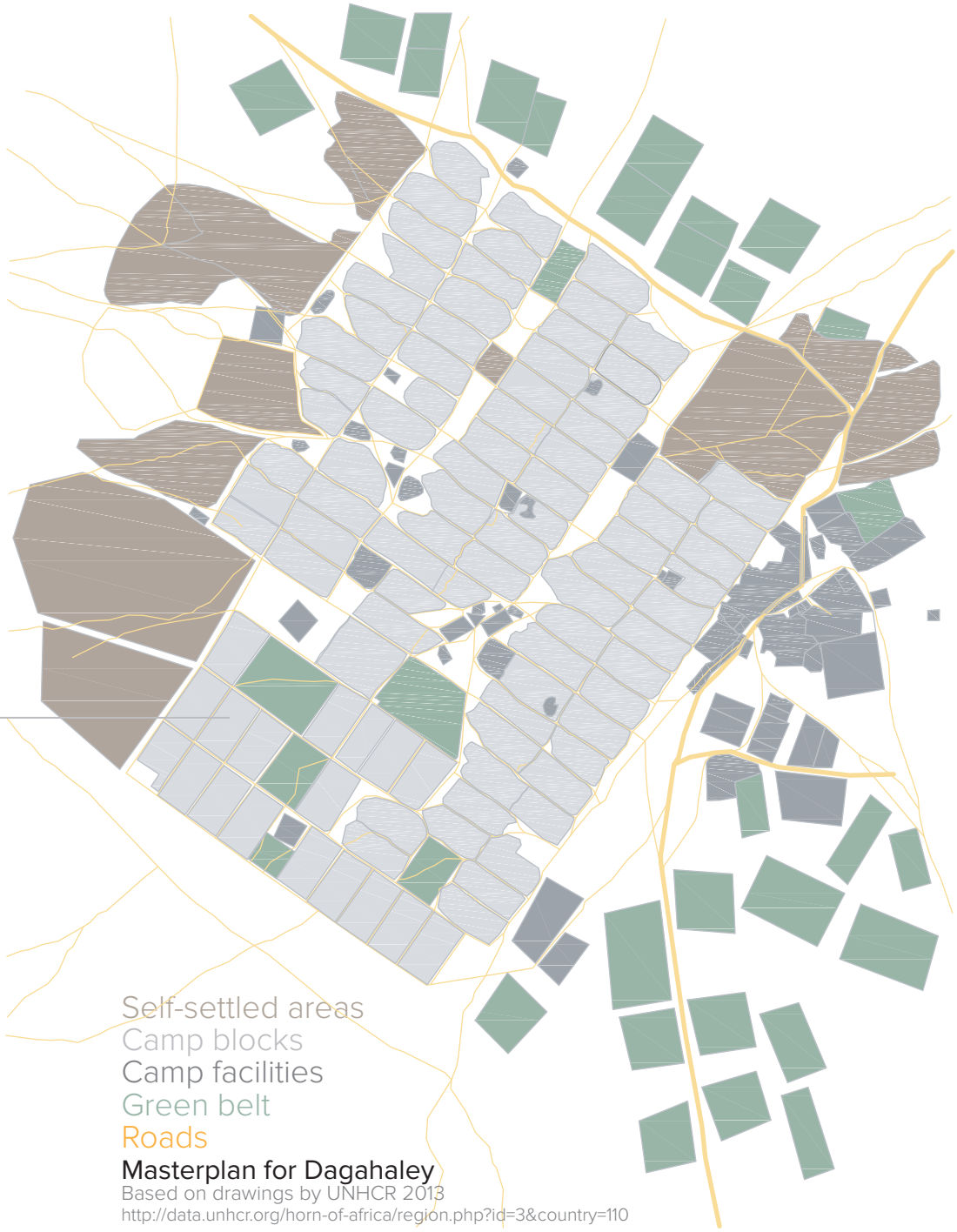
smallest IFO 2 **18 sectors** **4-6 blocks** per sector

52,356 registerd refugees

recommended **4 sectors** **4-6 blocks** per sector

20,000 refugees

Closer view of one block
Based on drawings by UNHCR 2013
http://data.unhcr.org/horn-of-africa/region.php?id=3&country=110



Masterplan for Dagahaley
Based on drawings by UNHCR 2013
http://data.unhcr.org/horn-of-africa/region.php?id=3&country=110

SHELTER

Most common type of shelter in complex are UNHCR tents. Most of the shelters are in a very poor condition and some of them have not been replaced since the founding of the camp in 1991. UNHCR planned to provide refugees with more protective shelters but different designs were rejected by the Kenyan Government stating that these were permanent structures rather than temporary refugee shelters.

Instead temporary shelters with a timber structure covered by canvas (T-shelters) are being constructed to resolve this situation. This type of shelter offers only one room and provides very little protection and security.

Also, quiet common case are shelters on the outskirts of camps constructed by refugees themselves and constructed from literally anything refugees come across and collect - tree branches, mud, pieces of plastic and canvas sheeting. It has absolute no comfort value and represents only a basic cover.

Woman constructing her new home in Dadaab refugee camp, photo by Roberto Schmidt

Self-made sheters of Dadaab refugee camp, photo by Roberto Schmidt

HEALTH AND EDUCATION

The whole complex has 35 primary schools, 7 secondary schools and several adult literacy centres and a youth vocational centre. The primary school enrolment rate is around 30% and the secondary school enrolment below 20%, with more male students and highest enrolment rate in Ifo 2 part. A major challenge are the high drop-out rates due to a shortage of teaching and learning materials, school uniforms and stationary as well as the lack of qualified teachers. There are limited services for children with specific needs, between 100 to 120 students in each classroom and the teacher-pupil ratio 1:53.

The area has 1-5 health posts per camp, which is below standard of one health post for 10,000 residents. Except Kambioos, all other camp parts have hospital level 4 or 5, which provide surgical service. Usually, health clinics are overcrowded and clinicians have little time for each patient, which is negatively impacting on service quality. On average, 400 outpatient consultations are made per day with 60 consultations per clinicians.

Mostly all schools and hospitals are solid buildings, constructed with wooden support, cement brick and metal roof. They are simple ground floor buildings, usually consisting of only one space inside, with openings on both opposite sides so to improve natural ventilation.

Inside one of the camps hospitals

New school and library building in Dagahaley, Dadaab refugee camp

ORGANISATION AND WORK

All camps have leadership structure comprising of a chairman, chairlady, section leaders and block leaders who are democratically elected by the residents in the general elections. The refugee leaders have been trained in leadership skills as well as roles and responsibilities and have signed a Code of Conduct which is used as a guide while serving the community. Although the leadership structure is gender balanced, women's participation in decision making is generally poor. This is influenced by strong cultural traditions. However, following numerous training sessions in leadership skills after the elections in 2013, significant improvement in women's active participation is realized.

There is very little opportunities for formal employment of refugees, which is further restricted to camp boundaries, because Kenya government doesn't permit movement of refugees outside the camp. Refugees are mostly employed by humanitarian agencies - for example CARE, known as the biggest NGO in the area, employs more than 1,000 refugees and consequently releases a purchasing power of about half a million US dollars per year. Refugees are employed as translators, drivers, nurses, teachers and administration and organization assistants. But qualified jobs with good wages tend to be taken by expatriates or by Kenyans who are not from the province. Local people account for only one fifth of the full-time employees working with CARE, despite an official attempt to increase the proportion to one third, after inhabitants of Dadaab have held demonstrations and organized petitions in support of their case for having more jobs in the camps.

There are few capital generating mechanisms - family sources of funding, credit from traders, sale of food rations, and loans by NGOs.
The family unit is a major source of capital for refugee traders. Some family members are employed as incentive workers by UNHCR and the NGOs. A number of the refugees at Dadaab brought money and machinery with them from Somalia. Also, many of them receive financial support from their relatives working in the richer Western European asylum countries. The money is transferred through Somali companies called *hawilad*. This system relies overwhelmingly on the telephone and is responsible for the massive growth in telephone communication between the Dadaab and the outside world, not only abroad but also Kenya's main cities, especially Nairobi and Mombasa. The post offices which previously provided only local calls began to offer international calls and had to upgrade its services by installing modern telecommunication technology.
Beside family resources, refugees also receive credit from local Kenyan traders. Refugees in Dadaab who have established trading relations are able to obtain their supplies on credit from Garissa's Somali wholesalers and pay once the

Man making sand bricks for construction

A women's group makes baskets to sell in Hagadera camp

goods have been sold. This greatly boosts their business and enables them to overcome the obstacle of under-capitalization.
One of the most controversial means of capital accumulation in the camps is through the sale of the food ration given to refugees by humanitarian organizations. All camp parts have a market. The trading networks of the camps supply the surrounding areas as far away as the refugees' countries of origin. Some sell in order to buy other necessities which UNHCR or its NGO partners do not provide such as shoes, clothes, meat, milk, pasta, kerosene, matches. Others sell their entire food ration because it is not part of their traditional diet, and use the proceeds to purchase foods which they consider more appropriate. Whatever is distributed can be sold, including the products of development projects around the camps, such as trees planted to provide firewood for refugees. This form of trade allows also the native population to benefit from humanitarian aid. The Hagadera market, whose site benefited from careful preparation, is considered to be the largest and has a reputation for being run by businessmen of urban origin. Their network extends up to Somalia, especially for *khat*, a stimulant plant which is widely chewed in the Horn of Africa. Kenyans operate as wholesalers, whereas refugees are retailers, and supply the camp's markets.
A fourth source of capital generation are the small loans given to traders and craftsmen by NGOs operating in the camps. From August 1997, CARE International began running a credit facility which has since provided cash and materials to a wide range of income generating activities. The funding system takes two forms: women's group activities and community revolving fund. Activities funded under the women's group arrangement include slaughtering of goats, poultry keeping, roofing, thatching and selling cereals, vegetables, hides and skins. The women's group activities are all concentrated in Hagadera camp which is said to have a high percentage of former urban dwellers. The community revolving fund concentrates on the Dagahaley and Ifo camps. Income generating activities funded under this program are posho milling, mat making, selling of cereals, handicraft and cloth making. The loan repayment rate in the initial months was an impressive 100 per cent. However, the rate fell sharply to 63 per cent and 54 per cent when business in the camps was seriously disrupted by El-Nino floods. Business revived in January 1998 when the repayment rate reached an all time record of 266 per cent before collapsing for a second time in February when no repayments were made, again because of the El-Nino rains. After the rains business conditions returned to normal the loan repayments by refugee grantees stood at 90 per cent.

Also, one of the new ways of earning money is brick production and, although it is not in the Somalis' tradition and it uses a fair amount of water, brick ‘factories’ can be found all over the place. Some residents keep goats, or other animals, but but without water this is not easy. Those with donkeys serve as transport companies, whether for food sacks on distribution days or for the sick and the pregnant women who need to be rushed to the hospital.

In recent years few agricultural projects have been developed from several NGOs in order to strengthen self-sustainability and improve environment conditions. Current activities include the establishment of green belts, rearing of tree seedlings and the cultivation of basic sorts of fruits and vegetables.

WATER

One of the most important issues in Dadaab is supplyment of water. Located in a very dry area and with regular droughts, water is single most important, indispensable resource.
CARE is responsible for the water and sanitation systems in the camp, and together with other aid organizations have created an infrastructure, consisting of network pipes, wells and cisterns, for the storage and distribution of water. Distribution points have been set around the camps and are supplied by water trucks. Water is storaged into black, above-ground cisterns, which are usually raised off the ground floor to minimize heat absorption. Daily water ration is around 12-15 liters per day, which is used for both consumption and sanitation. Due to large number of refugees aid organizations are struggling to meet the demand for a large part of the population in Dadaab.

Although the development of main urban structures is limited due to natural surrounding and political situation, and residents of the camp still highly dependent on humanitarian aid, while observing and analyzing the physical, economic and social structure of the Dadaab refugee camp, it is clear that there is a strong contradiction event between desired and stimulated temporality and natural permanence. Over the years of its existence the camp started becoming a virtual city, with all its qualities in a new form.

Somali refugees drive a herd of goats in Ifo camp

Somali children attend an outdoor class in Dagahaley camp

Newly arrived Somali refugees wait to be registered by the UNHCR

A woman displays her UN food assistance card in Dadaab

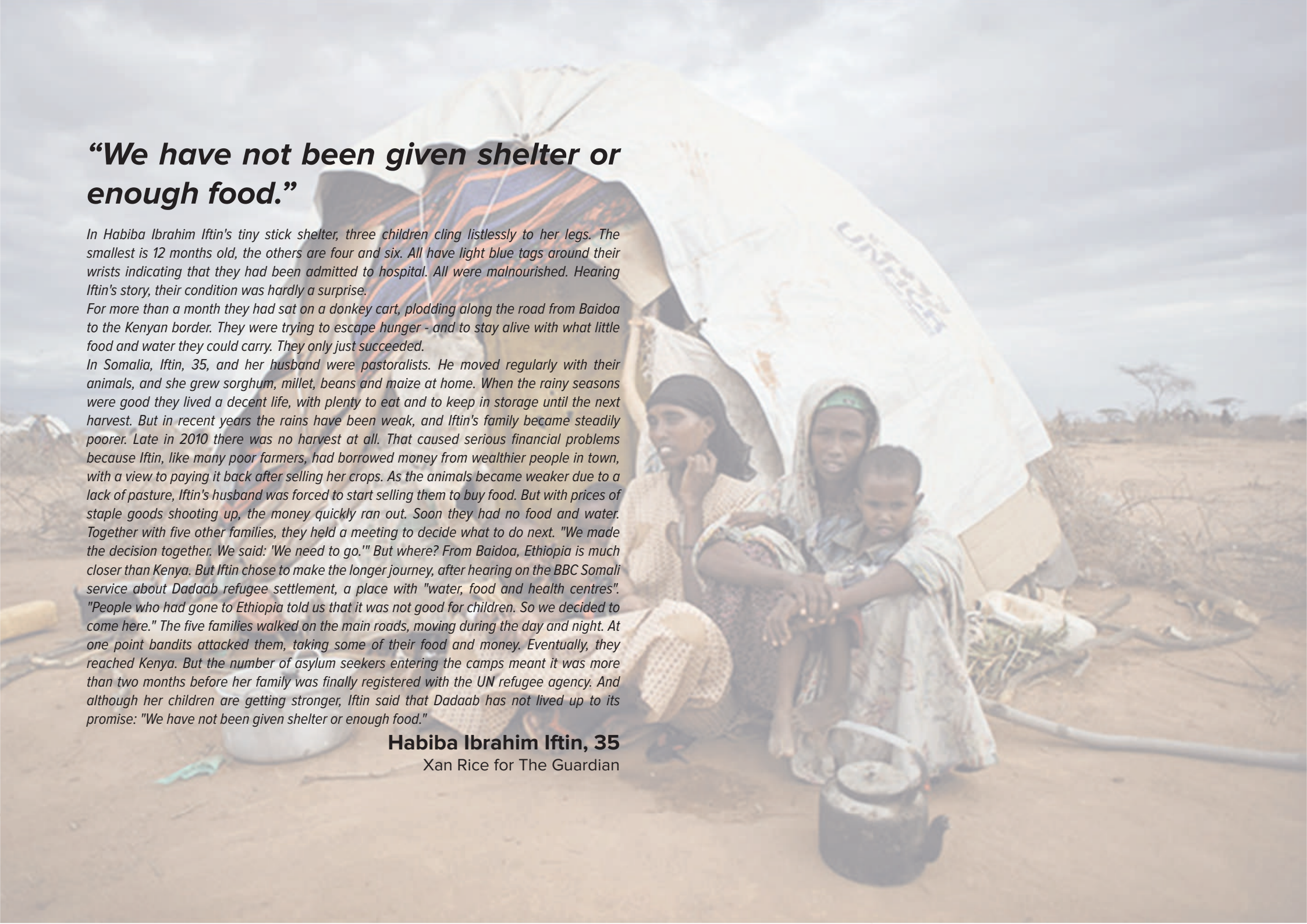
Fatuma Sankos and her children, both malnuourished, live in Kambioos section of Dadaab in a house made of plastic bags. She had nothing when she arrived.

Mohamed Hassan Aden and his son are camel butchers. The animals are slaughteres under Strict regulations in an abattoir at 03:00 and transported by donkey to the market for 07:00

BeautySalon in Ifo camp is run by Asha Mohamed who arrived in Dadaab in 2008. She braides and cuts hair, and applies henna tattoos.

Somali refugees work on a seedling nursery run by GTZ, the German agency for international co-operation

A man helps to distribute flour at a UN food distribution centre in Dadaab



“We have not been given shelter or enough food.”

In Habiba Ibrahim Iftin's tiny stick shelter, three children cling listlessly to her legs. The smallest is 12 months old, the others are four and six. All have light blue tags around their wrists indicating that they had been admitted to hospital. All were malnourished. Hearing Iftin's story, their condition was hardly a surprise.

For more than a month they had sat on a donkey cart, plodding along the road from Baidoa to the Kenyan border. They were trying to escape hunger - and to stay alive with what little food and water they could carry. They only just succeeded.

In Somalia, Iftin, 35, and her husband were pastoralists. He moved regularly with their animals, and she grew sorghum, millet, beans and maize at home. When the rainy seasons were good they lived a decent life, with plenty to eat and to keep in storage until the next harvest. But in recent years the rains have been weak, and Iftin's family became steadily poorer. Late in 2010 there was no harvest at all. That caused serious financial problems because Iftin, like many poor farmers, had borrowed money from wealthier people in town, with a view to paying it back after selling her crops. As the animals became weaker due to a lack of pasture, Iftin's husband was forced to start selling them to buy food. But with prices of staple goods shooting up, the money quickly ran out. Soon they had no food and water. Together with five other families, they held a meeting to decide what to do next. "We made the decision together. We said: 'We need to go.'" But where? From Baidoa, Ethiopia is much closer than Kenya. But Iftin chose to make the longer journey, after hearing on the BBC Somali service about Dadaab refugee settlement, a place with "water, food and health centres". "People who had gone to Ethiopia told us that it was not good for children. So we decided to come here." The five families walked on the main roads, moving during the day and night. At one point bandits attacked them, taking some of their food and money. Eventually, they reached Kenya. But the number of asylum seekers entering the camps meant it was more than two months before her family was finally registered with the UN refugee agency. And although her children are getting stronger, Iftin said that Dadaab has not lived up to its promise: "We have not been given shelter or enough food."

Habiba Ibrahim Iftin, 35

Xan Rice for The Guardian

Some say they feel like they are living in an "open prison".

"One day in 1991, gunmen from the Hawiye clan attacked my father's shop in Qoryooley, a city in southern Somalia. When my father, who belonged to one of the main clans fighting the Hawiye escaped, he told us we had to flee. We got into a car, and after driving for about five days, arrived at the city of Ogorchi Libo in northeastern Kenya. There, United Nations officials registered us and brought us to the Dadaab refugee camp, the world's largest refugee complex where I now live.

As a child, life in the Dadaab refugee camp was full of hardship and difficulties. We were family of five: my parents, myself and two siblings, who were later born at the camp. Lack of clean water was common, and our only shelter was a plastic sheet. That sheet protected us from the hot sun during the day and the cold at night. In the early days, the camp was not overcrowded but food shortages were common because the handouts given by the World Food Programme in the camp were never enough.

Both my parents had no jobs at that time. Two years after we arrived in Dadaab, my mother, who was a nurse, delivered two of my siblings in the camp. She stared working as a midwife at a hospital in the camp operated by the aid group, Doctors Without Borders. Life improved somewhat, though my mother's wages were never enough. It was better than nothing. In 1994, my father became sick and died of diabetes-related illnesses, when I was only six years old.

During that year, I started primary education. When I first enrolled in school, I already knew some letters of the alphabet such as U-N-H-C-R, because I could always see them on the plastic sheets and other items the UN refugee agency provided to us. Those are the first five letters all refugee children here in Dadaab learn. Those years stretched on, and eventually, I graduated from high school. I later became an interpreter for the aid agencies working in Dadaab covering the drought in south and central Somalia - which the UN termed as the worst in more than 60 years.

The crisis triggered an international humanitarian response and Somalis marched in their thousands in search of help and protection. It was at this time that I started working as a fixer and stringer for various international media. Then, when it was announced that Kenyatta University would open a branch of its campus at Dadaab, I joined. My happiest moment was in April this year, when I graduated with a diploma in public relations and journalism - from the first university in the world situated within a refugee camp.

I am now 27, but cannot not go back to Somalia. There is no strong government in place in my country to protect me. In addition, being a journalist puts me at risk, as Somalia is among the world's most dangerous place for reporters. There are a lot of youth like me who have spent their whole lives in the camps. Some say they feel like they are living in an "open prison". But there is no possibility of movement beyond the camps now. And there is no chance of getting a job or integrating into "the real Kenya", as the Kenyan government doesn't want Somali refugees to integrate. The Kenyan government offers no freedom of movement as described in the UNHCR's 1951 Refugee Convention.

To me, the one thing I would love most is to see a peaceful Somalia. But I still hold out hope that I will be repatriated to a third country one day and fulfill my dream of becoming a journalist abroad."

Abdullahi Mire, Somali fixer and journalist,
Kenya's Dadaab camp

ZA’ATARI, Jordan

If the severity of a conflict can, at least in part, be measured by the number of refugees it creates, the Za'atari camp in Jordan is a disturbing reflection of just how bad the civil war in Syria has gotten. When it opened, Za'atari had just 100 families. Today, it has around 120,000 residents. Located 30 km south of the Syrian border, it's the fourth largest city in Jordan and the second largest refugee camp in the world.

Since July 2012, when the camp was opened by the United Nations High Commissioner for Refugees and the Jordanian government, Za'atari has become home for the huge numbers of Syrians who have fled the violence and trauma of their country's civil war since it began in March 2011. More than 90% of Za'atari residents are from Daraa and its neighboring villages, which was home to a conservative and devout Sunni population. They have fled the brutal Syrian conflict and with that their homes in search for peace, safety, and normalcy. Za'atari has become their new home, a 7,000,000 m^2 piece of land located in the desolated Jordanian desert. Camp, which was initially designed to host a maximum of 60,000 inhabitants, long ago exceeded its planned capacity. But the more alarming fact for humanitarian agencies and host government is that refugees are changing the standard form of refugee camp into new, unique form of urbanization. Za'atari is becoming an informal city, a sudden, do-it-yourself


TURKEY
SYRIA
Mediterranean Sea
LEBANON
Damascus
IRAQ
Mafraq
Za'atari
Amman
ISRAEL
JORDAN
SAUDI ARABIA
Syria-Jordan border
Al Mafaq
Al Thughra
ZA'ATARI

Novembar 2012

January 2013

February 2013

metropolis, with the emergence of neighborhoods, gentrification, a growing economy and, under the circumstances, something approaching normalcy, though every refugee longs to return home. The change, accelerated by regional chaos and enterprising Syrians, illustrates a basic civilizing push toward urbanization that clearly happens even in desperate places — people leaving their stamp wherever they live, making spaces they occupy their own. The oldest parts of Za'atari now have streets, one or two paved, some lined with electric poles, the most elaborate houses cobbled together from shelters, tents, cinder blocks and shipping containers, with interior courtyards, private toilets and jerry-built sewers. The camp is made up of 30,000 shelters and administration buildings, 3 hospitals, 3 schools, and a market-like structure of 3,000 makeshift shops on the so-called 'Champs Elysees', selling a wide range of food, household goods, and clothes.

As an attempt to have the camp organized as a city, Za'atari was divided into 12 districts, with representatives chosen from each district. Leadership in the camp remains an issue with the presence of gang leaders, which is why UNHCR is hoping to have traditional Syrian leaders, who were previously involved in their communities, stepping up as positive leaders in the districts. The oldest part of the camp, Districts 1 and 2, is surnamed the 'Old City', and whilst it benefits from close access to services such as schools and hospitals, it is one of the highest densely populated area of Za'atari refugee camp. UNHCR is trying as much as possible to regroup refugees from the same previous Syrian communities into the same district, as an attempt to foster a sense of community within each district.

Camp has 10,000 sewage pots and private toilets, 3,000 washing machines, 150 private gardens, 3,500 new businesses and shops, a pet store, a flower shop and a homemade ice cream business and market-like structures. There are also coffee shops where shisha can be smoked, a travel agency that will provide a pickup service at the airport, and pizza delivery, with an address system for the refugees that camp officials are scrambling to copy. People live mostly in tents, which are slowly being replaced with sturdier mobile-home units. These units known as caravans with floor surface of 18m^2, donated by more than half a dozen countries, have windows, floors and doors that lock and are the most precious commodity, separating those who have little from those who have less.

Common to certain life level, Syrian refugees are trying to take charge of their new lives. Aid agencies are faced with new, empowered type of refugees that don't want to leave their lives to chance. So rather than emphasizing physical control and keeping resentful recipients dependent on food and other handouts, UN workers had begun distributing vouchers, which enabled the refugees to buy what they wanted. More cost-effective, direct cash assistance was now being extended by the use of ATM machines, backed by improved registration and refugee ID using iris recognition isometric technology.
Also, to cope with the ballooning numbers of children in the camp, the Jordanian Ministry of Education, together with UNICEF and partner agencies, opened three schools, which run double shifts — girls come in the morning, boys in the afternoon. More employment opportunities for refugees are being created, and there are many programs for private-sector partnerships and investment. Companies, including Google, and universities and colleges such as Massachusetts Institute of Technology, were interested in camp projects. Uefa set up a football club and oversaw a tournament that attracted 500 children. The camp's expansion and organization has been beneficial to many refugees.

However, socio-economic inequalities can be observed in Zaatari, with a widening gap between those whose economic situation improved by the renewed economic market of the camp, and those who are still highly dependent on international aid. Also, one very alarming issue is camp's constantly more developing black market. Smugglers traffic in camp vouchers and goods, undermining legitimate Jordanian businesses, profiting criminal gangs in and out of the camp. Since the opening of the camp in July 2012 there have repeatedly been demonstrations held by the camp population. The main concern relates to the lack of sufficient food supplies and better accommodation. The camp has had alarming number of reports of crime, including prostitution and drug-dealing. Furthermore demonstrations are used as a forum to create awareness of the conflict and to express political views against the current government lead by Basher al-Assad and the violence inflicted by the Syrian Armed Forces.

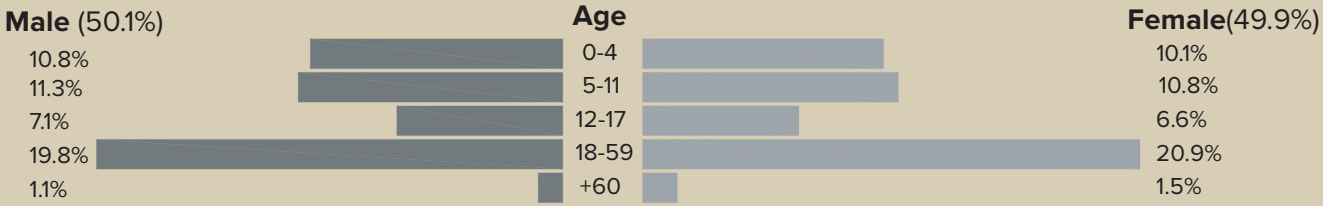
The crisis is also affecting Jordan, which already had a large refugee population. Aside from more than 300,000 Palestinians living in refugee camps, many Iraqis remain in Jordan as a result of the US-led invasion and occupation of their country. The refugee crisis is costing the Jordanian government 2,500 Jordanian Dinars (approximately US$3,500) per refugee per year, and its government has already spent US$826 million on the current crisis. They never turn any refugee away, but are not being fully compensated by the international community for their costs.
Just on the other side of Za'atari camp for Syrian refugees lies another Za'atari - a poor village inhabited by some 12,000 Jordanians. Only road separates them. Refugees do not by any means live lives of luxury, camp life is harsh and unlike the locals, they have had to endure the long journey of displacement and the psychological trauma of losing loved ones. But while trucks carry food, blankets,

82,818
Registered Syrian Refugee

14,000
Households

Between **2,000** and **4,000** refugees come to Zaatari every day

http://www.aljazeera.com/humanrights/2013/05/20135136445430108.html



500,000 pieces of bread and **4,2 million** litres of water are distributed daily

http://www.bbc.com/news/world-middle-east-23801200

42% of the families in Zaatari are female-headed households

http://www.al-monitor.com/pulse/originals/2014/08/jordan-zaatari-schools-syrian-refugess.html

Approximately **57%** of the camp's population is under 18

www.al-monitor.com/pulse/originals/2014/08/jordan-zaatari-schools-syrian-refugess.html

Camp costs approximately **US$500,000** a day to run

http://www.bbc.com/news/world-middle-east-23801200

There are up to **66 births** daily inside Zaatari

http://www.aljazeera.com/humanrights/2013/05/20135136445430108.html

clothes and medicine to Syrian refugees in the camp, the other Za'atari remains forgotten. It creates tensions of special kind between those people. They cannot blame each other for the situation they found themselves in, but in a fight for a basic life it is hard to act beyond envy. Jordanian people are feeling neglected, losing their jobs and aid, while Syrian refugees are trying to create some kind of a hope in better future. In a sad twist, some Syrian refugees are now donating to poor Jordanians, or selling them extra food they receive from aid agencies at a discounted price.

And so this sprawling, messy camp in the Jordanian desert, with its unique, organic development, driven by refugees, is becoming one of the most compelling studies in urban development. Za'atari is no longer temporary, it became home. Not that it is like downtown of some big city. It is a squalid, barren, crime-ridden place. Most of the businesses and shops inside the camp are unauthorized. Much of the site remains a tent city. But it's a far cry from a camp like Azraq, which Jordan and the United Nations refugee agency opened to Syrians recently, or camps in Turkey, run by the Turkish government, that have state-of-the-art facilities but are designed to suppress the sort of ground-up urbanism that has altered Zaatari. Azraq, located miles from anywhere, is strictly policed, with fixed, corrugated metal shelters in military order, dirt floors and shameful public toilets, and it has no electricity. So far about 11,000 Syrians are marooned there. The camp is planned to house more than 100,000. By contrast, what is happening at Zaatari, while causing lots of problems, also presents opportunities as the camp evolves into a complex ecosystem that could be even called a city or a slum. It's a dynamic place, unforeseen by the humanitarian actors running it, which is giving refugees a sense of ownership and dignity.

SITE

Za'atari is located in the north part of Jordan, 10 km away from the city Al Mafraq, some 80 km away from capital Amman and 30 km away from Syrian - Jordanian border. It is placed at the boundary between the Hauran plateau and the Syrian Desert, in the very arid and dry area. Due to lack of water resources the vegetation is very poor, consisting mostly of low growth. The climate is semi-dry in summer with average temperature 30 °C and is relatively cool in winter averaging around 13 °C.

Camp is connected to the road network by a short road which leads to international highway that connects the area all the way to Damascus. International airport King Hussein, with air traffic constantly increasing since the opening of the camp is located some 8 km away from the camp.

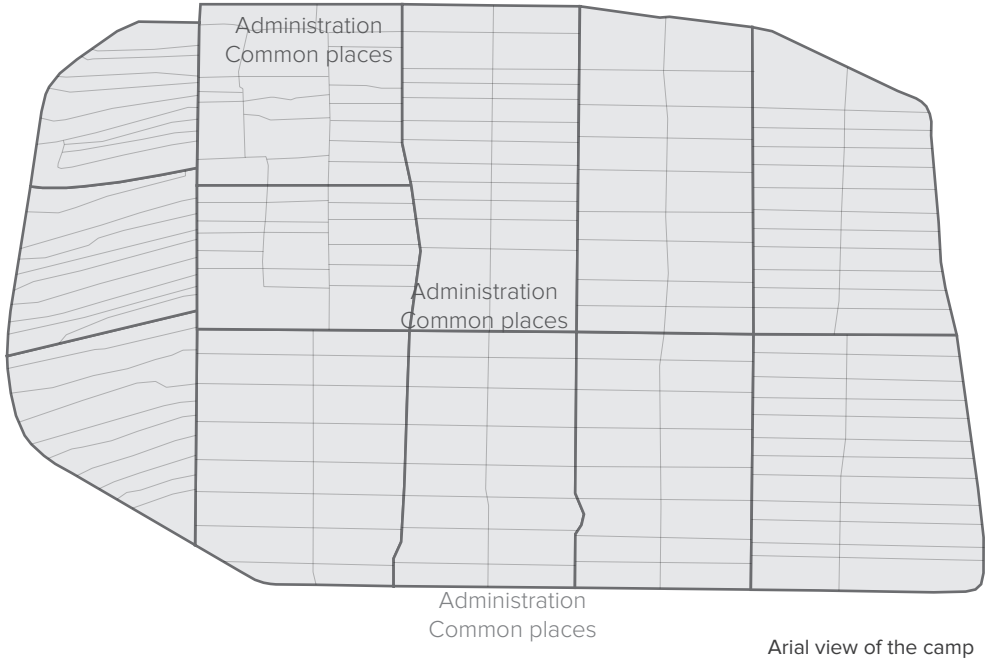
A piece of land in the desert area believed by the local Bedouins that prior to the refugees only resident was the devil; due to inhospitable climate, not even scorpions chose to live there. It is not very clear why this area was chosen for refugee camp site, but it is obvious that it does not meet the minimum standards set out in UNHCRs Handbook for Emergencies. It is fenced area with barbed wire, with a population 10 times bigger than recommended and completely excluded and segregated from the outside world.

LAYOUT

Za'atari, camp on land that has been obtained by the Jordanian government, occupies 530 hectares of land surrounded with 8,3 km ring road and 3,5 km east-west side length. The western part or 'Old Za'atari' was first opened in July 2012 and now includes downtown and slums of Za'atari. In the structure of the camp it is possible to notice two forms of layout - the formal and informal layout.
The formal layout is a grid system with tents or caravans arranged in rows with space between units designed as a space for vehicles, fire protection and improvement of hygienic conditions. The camp is divided into 12 sectors with fairly regular shape, each with 8-16 blocks. Sector supervisor decides where the caravans should be placed. Given that the first forms of shelters were tents which require less space than caravans, replacement of tents with caravans leaves far less space between units.
Also, the emergence of caravans in the camp led to the development of informal layout. Rather than maintaining the row shape, residents relocate units forming 'little compounds', typically with a U-shape or a courtyard shape, so that they can live together with their extended families. Other rearrangements of the camp allow refugees to move closer to people from their villages; these unsanctioned modifications result in a redrawn, maze-like map.

The notion of a permanent infrastructure is highly limited with strict regulations and natural surroundings. Due to arid characteristics of the area, camp has no vegetation or any green surfaces.
All sections in the camp are divided by dirt roads, which further spread into smaller roads within the sections. The only paved road in the camp is the 8,3 km long belt - road around the camp. With most of the non-residential facilities located close to entrance, transitional spaces between facilities and housing are almost non-existing. The number of public facilities is clearly calculated based on minimum standards. Due to rapid increase in population, it is clear that this approach is not sufficient.

LAYOUT - ZA'ATARI
Based on drawings by UNHCR 2013
http://data.unhcr.org/syrianrefugees



Arial view of the camp

SHELTER

Tents and caravans are the two major building types, both arriving fully constructed at Za'atari.

In July 2012, almost entire population lived in canvas tents. Caravans, or better known shipping containers turned into shelter, were introduced later, as it became clear that the displacement will last longer than expected. This type of a shelter is far superior due to their protection against weather and vermin, increased privacy and overall structural stability and tenure. Donors, primarily Saudi Arabia, have spent US75 millions to construct 24,000 caravan units at roughly US$3,125 per unit. The caravans are built in Saudi Arabia and other Gulf States including Kuwait, Qatar, and Oman. Distribution of the caravans has been slow. Even though the caravan distribution should be uniform, differences in space allocated per person are frequent. This is due to abuse of process of humanitarian aid of both sides – refugees and officials, so even suspension of donations can occur.

Aftermarket improvements to the caravans and their arrangements are commonplace. Illegal electricity connections power 73 percent of homes, while 40 percent of households have televisions. Residents often steal components from communal facilities to improve their personal spaces. This results in highly unequal housing. As an example, in November 2013, one family of 10 had four caravans while another still lived in a tent after 11 months. Also in spite of the legal structure, refugees regularly undertake construction and improvement of their shelters, and there is no organizing body that would oversee these activities. Scrap wood and aluminum siding can be purchased at a relatively cheap price, but residents also purchase already used old toilets, water tanks, fence posts, or make improvised sand bricks. Some residents paved their courtyards with concrete to create setups similar to those they left in Syria.

Tents as first shelters

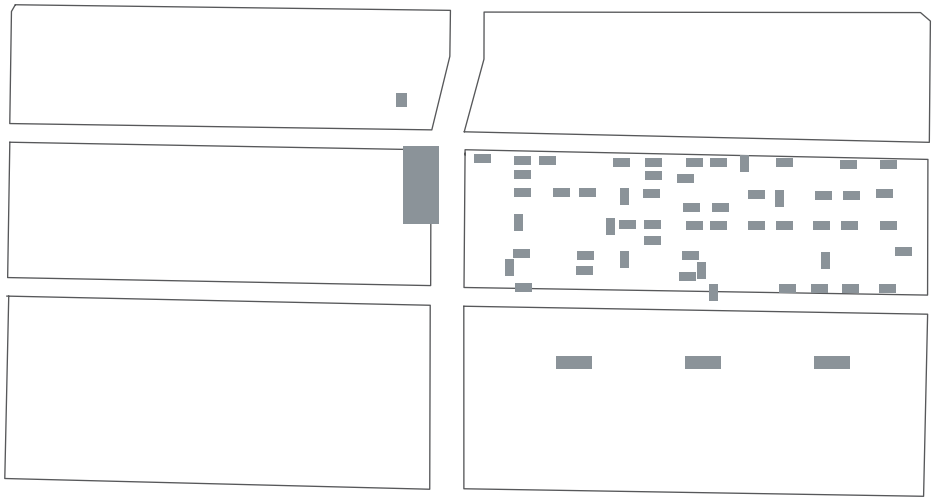
Replacment of tents with caravans

Za'atari

12 sectors

8-16 blocks
per sector

82,818
registerd refugees



Closer view of one block
Based on drawings by UNHCR 2013
http://data.unhcr.org/syrianrefugees/settlement.php?id=176&re

recommended

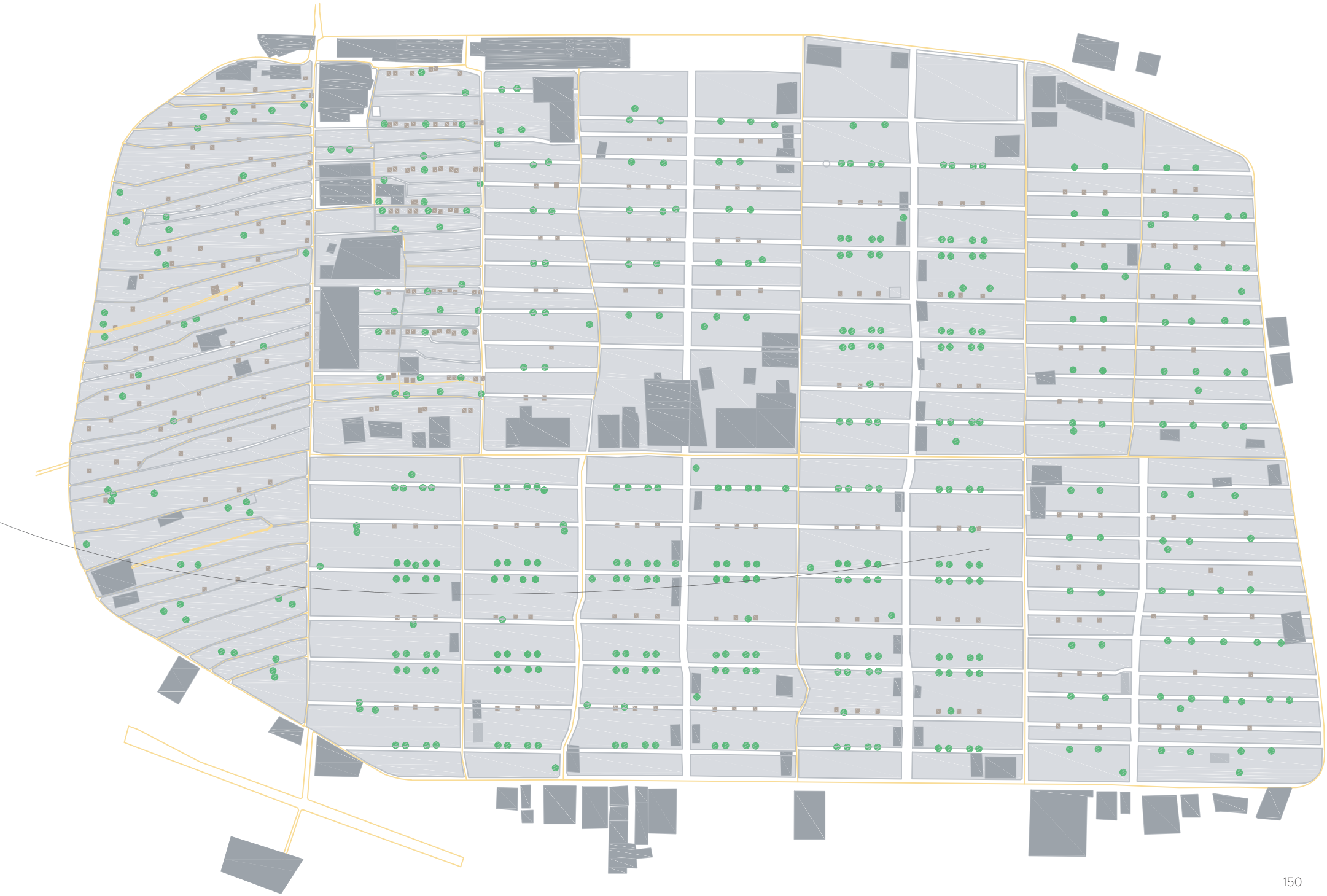
4 sectors

4-6 blocks
per sector

20,000
refugees

Kitchens
Toilets
Camp blocks
Camp facilities
Roads

Masterplan for Za'atari
Based on drawings by UNHCR 2013
http://data.unhcr.org/syrianrefugees/settlement.php?id=176&re-



EDUCATION AND HEALTH

There are three schools in Za'atari. The Jordanian Ministry of Education promotes quality by certifying schools; only schools taught by Jordanian teachers can be certified, but Syrian teachers can work as assistants. Donor countries or organizations are responsible for the physical construction of schools. The Bahrain Educational Complex, a U.S. $2 million construction project is made of four mobile schools. The other school is a group of wooden huts from Saudi Arabia surrounding a courtyard with a water cooler. In April 2013, approximately 36,000 refugees were school-aged children, however only 22 percent of them enrolled in school. Education for children ages 6 to 17, segregated by sex, is provided free of charge. Each of the three schools has a capacity of roughly 5,000 students, and double shifts are used to provide better access to education. Girls attend in the morning and boys in the afternoon, with 60 boys enrolled for every 40 girls. Reasons children do not attend school include harassment and violence to, from, and during school, abuse and punishment from teachers, desire to remain with family, employment needed to support the family, travel distance, and insufficient toilet facilities. The result is a generation of children coping with boredom even though the majority reports a desire to attend school.

The camp has also three main hospitals that on the beginning operated in tents but from summer 2013 all hospital rooms ale placed in caravans to increase security and stability. The Za'atari medical system provides in-patient treatment for a variety of conditions. As of April 2014, 73 full-time physicians provided primary healthcare – averaging 33 consults per day – at the following facilities: the IMC Clinic, the JHAS Clinic, the Jordan Italian Field Hospital, the MDM Clinics 1 and 2, the Moroccan Field Hospital, and the Saudi Clinic. Treatment ranges from vaccinations – all refugee children are vaccinated immediately upon arrival – to conflict-related injury treatment. Not surprisingly, mental health is a major concern for the camp residents. Psychological trauma is common in adults and children who operate in survival mode after coming from conflict zones. Camp residents suffered the psychological impact of traveling kilometers in the dark, the risks that come from traveling in a war zone and serious human rights violations in the war, including the public rape of men, women, and children.

School tent

Refugees waiting in front of the health centre

ORGANISATION AND WORK

The Za'atari camp, new and rapidly expanding 'city' is the product of a collaborative effort headed by the UNHCR and the Kingdom of Jordan. The implementing and operational partners in the process include government agencies, over 50 UN agencies and some 139 NGOs.

Za'atari has both formal and informal components in its legal system. The current legal system began with the arrival of Camp Manager Kilian Kleinschmidt on March 11, 2013. Kleinschmidt, an employee of UNHCR, oversees the camp and often refers to himself as the mayor of Za'atari. A series of informal leaders run a parallel legal system. There are seven major tribal leaders or 'chiefs' that had important influence in Syria and kept this influence inside the camp. Informal leaders control key streets and are known as 'street leaders'. Informal leaders have formal responsibilities in the camp, such as deciding who will receive a caravan or official camp employment. Officially, leaders are chosen by people, but in reality they are often self-appointed, disreputable, underground leaders, involved in organized crime. Often they use exploitation, violence, and theft to keep their positions in-tact.

When Kleinschmidt arrived in March 2013, the aid workers did not know the informal leaders and the informal leaders did not know the aid leaders. Even among themselves, the aid workers shared little information about their responsibilities and jurisdictions. Kleinschmidt has tried to change this, he attempted to gain the trust of the leaders by moving into the camp, borrowing their showers, and sharing their living conditions. He also included informal leaders in the planning process through meetings.

Kleinschmidt organized twelve districts for Za'atari, daily meetings with street leaders and neighborhood council, a governing body, and police force for each district - these officials must be appointed by the UNHCR because elections are illegal.

The Jordanian Public Security Department (PSD) provides the police, security, fire and emergency medical forces for Za'atari as part of its agreement with UNHCR, with Jordanian law in effect in the camp. The code of conduct is an ongoing problem, as refugee leaders, police, and security work with the refugees to determine which behaviors are acceptable and how laws should be enforced.

In November 2013, Kleinschmidt arranged for the training of 600 Syrians, 50 for each of the 12 districts, to act as a refugee police force that would supplement the Jordanian security. This is part of the long-term plan for self-governance of Za'atari.

Aid organizations document refugees upon their arrival into the camp. This docu-

Market street Champs-Elysées

Sellers in refugee camp

mentation provides access to all of the assistance provided in the camp. NGOs and aid organizations provide water and hot tea to arriving refugees, and two blankets per person. When the camp opened in July 2012, refugees received prepackaged food in pizza boxes twice a day. From September 2013 instead of food, vouchers are being given to refugees. The vouchers, valued at US$8.50, are distributed every two weeks to the residents, and there are strict rules on what camp residents can and cannot buy. The World Food Programme still provides four pitas per person per day, made in one of five Za'atari's bread centers. Other free foods include rice, bulgur, lentils, oil, sugar, and date biscuits – totaling 2,100 calories per day and US$4 million per month (US$30 per refugee).

The refugee communities in Za'atari camp have developed mechanisms to cope with life in the camp in the longer term. Although Syrian refugees in Jordan can only work under limited conditions, many camp residents have developed income-generating activities which have led to a thriving informal economy. At the centre of this economy are the market areas, spanning across four distinct streets in the camp and offering a diverse range of goods and services including tailors, pet stores, mini markets, blacksmiths and electronic repairs.
The camp management of Zaatari hires only 1,500 refugees to conduct cleaning and orderly tasks for US$1.40 per hour. Most refugees earn a living by monetizing whatever they have. A select few use their education, while children are often forced to work - more than 680 shops in Za'atari are known to employ children and one in two households depends in part or in whole on the income of children.
Those refugees who gather enough capital become merchants. Often, successful merchants and restaurant-owners from Syria adapt quickly to running shops in Za'atari, sometimes having even better profits than they did at home due to the larger market base. Restaurant owner Abu Mohammed who was one of Daraa's largest restaurant owners now owns the restaurant chains Arabi and Turki in refugee camp.
Merchants sell goods both for daily living and special occasions. The main commerce street, Champs-Elysées, includes vegetable stands, butchers, clothing stores, footwear stores, rotisseries, falafel restaurants, and pet shops. One Za'atari bridal shop provides dress rental, hair, and makeup.
The market area of the camp, known as the *souq* in Arabic, evolved within months of the opening of Za'atari in July 2012. A small number of refugees began to sell coffee, snacks and drinks near the main entrance of the camp, while others moved around the area using mobile stalls selling similar items. The owners of these small businesses then settled in fixed places, developing permanent structures using tents, caravans, and other available materials. Now there are 1,438 businesses across the market, with a large majority - 63,6% - operating from caravans. The most common types of business are prepared, fresh and pre-packaged food and drink items (14,8%), mini markets (14,4%) and shops and stalls selling clothes, shoes and jewellery (12,4%).

But the main driver of Za'atari economy is trade in caravans. Refugees generally sell caravans they no longer need and even though they don't own any land legally, they sell stalls along the shopping streets for prices ranging from US$635 to US$2,120.

Refugee child sweping in front of the shop

WATER, LIGHTING, WASTE AND SANITATION

Water must be trucked into the region to supplement water available from the local aquifer. *The Agency for Technical Cooperation and Development* (ACTED), in partnership with the *United Nations Children's Fund* (UNICEF), is the main water provider. In May 2013, they trucked 3,8 million liters of water into the region each day.

Water consumption per capita is approximately 35 - 53 liters per day, which is more than the 15 liters Sphere recommended minimum standard. The number of water tankers needed to service the camp reached the point where Jordanians have started to have long - term fears regarding the over - pumping and pollution of the aquifer beneath Za'atari, one of the most important water sources in one of the ten most water - poor nations on Earth. The majority of residents access water through communal water tanks and taps, though as of June 2013, eight percent of residents had private water tanks. While there are plans to provide piped water to every household, it's not clear when or how these infrastructure improvements will be implemented.

The United Nations funds, installs, and maintains the electricity used for street-lights and other key infrastructure in the camp. However, due to the high costs of this service, the UN is unable to provide equal lighting service to all areas. The result is a section that has full street lighting in the old part of the city, and a section that lives with sporadic street lighting.

As of November 2013, an estimated 73 percent of the camp illegally tapped the streetlight grid for private electrical connections. These self-made electrical connections are very hard to follow because the identity of the lead electrician is unknown and residents are very good at hiding their constructions. This spaghet-ti-like grid of illegal connections makes maintenance very difficult for engineers and creates a safety hazard. Currently, the UN pays for all of the costs associated with electricity at roughly US$500,000 per month during the summer and US$700,000 per month during the winter.

Waste disposal is primarily accomplished by trucks - 200 tankers transport dirty water out of the camp every day. Assuming the same capacity as the trucks arriving, this would indicate 2,7 million liters of daily waste water. Since the camp lacks a sewer system, the camp is designed for residents to rely on common blocks of latrines for their sanitation needs. However, by the end of 2013, roughly 60 to 70 percent of residents had built in-home pit latrines that could be individu-ally pumped, or dug out; this creates drainage and sanitation challenges with the rainwater runoff system.

Water tanks

Camp after floods

SECURITY AND CRIMINAL ACTIVITY

One of the most alarming issues within the camp is low security level and rising rate of criminal activities. Camp Manager Kleinschmidt explains three main reasons for the high level of criminal activity in Za'atari – Syrians´ historical mistrust of aid workers who often constrict freedom of refugees inside the camps; the anger at the international community's failure to end the fighting; organized crime.

Thus, the situation has significally improved since the opening of the camp. In the early operation of the camp, aid workers lived outside the camp boundaries in fenced structures, leaving Za'atari for the evening due to night-time safety issues. By June 2013, aid workers began moving into the boundaries, and by December 2013, the camp manager could walk the camp at night unguarded. Meetings between refugees and aid workers enabled better understanding, increased cooperation, and established common goals and concerns, which resulted in some relief from crime.

But camp is still far from safe place, mostly due to very developed informal power structure and high percentage of smuggling of goods and people.

Violence is also a big concern. Fights between refugees and refugees and aid workers are a common thing, and were on an especially high rate from April 2014 when even more people poured into Za'atari. Refugees use rocks, knifes and their bodies as weapons.

Although health reports do not indicate a substantial sexual violence problem, it is believed that rape, gender - based violence and organized crim, managed brothels are very often. One trend indicates that women will admit to seeing other women raped but will not admit to being victims themselves, while others have indicated a cultural preference to see many situations as adultery rather than rape.

Also one cause of violence presence is refugees' wish to leave the camp. To legally leave Zaatari and live elsewhere in Jordan, Syrian refugees must obtain a bailout guarantee, which costs US$7,060, and requires a location of a guarantor or a person over 35 years with Jordanian residence and close ties to the refugee. A forged bailout guarantee costs from US$106 to US$212, but sometimes lacks key elements like an official seal, which makes it impossible for refugees to obtain authorized work. Residents not authorized to leave can only legally leave the camp for three days at a time, and only 50 to 100 refugees can obtain this permission at any given time. This results in refugees escaping the camp on a daily base, due to lack of sanitary facilities, infrastructure and safety as main reasons. This leads to constant need for improvement of fence that encloses the camp. Fence consists of few layers of barbed wire, with electrical part on the top, and strictly controlled main and only entrance to camp.

Camp fence

View on the sign showing distance to Champs-Elysees street in Paris

SOCIAL INFRASTRUCTURE

Communal facilities are constructed under authority of the sponsoring government or NGOs. When these contributions are insufficient or non-existent in some areas of the camp, refugees develop parts of social infrastructure on their own.

Because only father can pass Syrian citizenship to his children and children born in unregistered marriages or to unmarried woman are not considered Syrian citizens, marriages are an important part of Syrian culture and ask for certain social infrastructure. The Syrians are eligible for marriage between 15 and 18 years for boys and 13 and 17 years for girls. Marriage to foreigners is a common concern in the camp. A Syrian family marries their own teenage girl off to a much older man outside the camp, in the hopes of giving her a better life and reducing their own financial burden. But marriages rarely results in a happy life for a girl - many foreign marriages last only a few days to a month, leading to exploitation, human-trafficking, slavery and sex trade.

The other important part of Syrian culture is religion. As in Syria, religion and the mosque are an integral part of the Zaatari community. There are at least 120 mosques in Zaatari, and religious services and celebrations continue despite the displacement.

Donors and refugees provide enrichment activities in Za´atari. *Clowns without Borders* and a *Dutch guitar group* provided performances, and a Syrian music teacher attempts to build community and offers solace with his *oud*, a lute-like instrument common in Arab countries. The South Korean ambassador arranged Taekwondo lessons for the children in the camp, while refugees convert many spaces into private open spaces with fountains and courtyards paved with cement. Very important parts of public spaces are football fields and game areas. Several donors and organizations use football to bring people together and to educate children about the dangers of former warzones, such as landmines. Also Netherlands-based Association of Municipalities plans to create green public spaces in future.

View on the football field in the refugee camp

Wedding dress rental shop

Main street in the camp

Distribution of water

Supermarket inside the camp

Distribution of food

Shop owned by a refugee

Children collecting water

Child on the streets in front of the UNHCR tents

Men drinking tea

Camp at night

Arial view onf the tents

Woman coming back from the washing point

Children inside on of the refugees' tents

View on the camp which extends into infinity

Night image on Zaatari reminiscent of a panorama of some city

Sunset above shelters

Football match organised by UEFA

Football field inside the Za'atari camp

Children playing on one of the playgrounds

“We don’t have water, we don’t have electricity, in the evening we are left in the dark...”

“They were shelling us. Every day mortar shells would fall – on our neighbours, around our house! In our neighbourhood there were snipers. They would shoot at whoever walked in the streets. If they captured any men, they would kill them. They cut us off from electricity and water. If anyone tried to help the wounded, they would shoot at him! Whoever wanted to bury a dead person, they would bury three others with him! A crime, a crime!”

Listening to Umm Omar’s stories is very hard. She is restless, she talks agitatedly, she gets confused, she skips from one topic to another, she looks to be on the verge of crying. She arrived only three days ago, and she is still in shock. She speaks of her experiences as if she were still living them:

“We had our own house: three floors built for the families of our sons. We lost it with a single blow. We lost everything we had accumulated in it during our lives. Explosive drums fall upon us, and we don’t have weapons. This is what happened, what can we do? Our house was destroyed, so we spent a night in our neighbours’ house, and then we fled...”

Umm Omar fled to Jordan with hundreds of other people from Deraa governorate and suddenly found herself in Zaatari camp. The arrival was not easy:

“We came directly to Zaatari and they put us in the big reception tent. Cold, intense cold! My son [who has a disability] risked dying! We stayed there one night. There was humidity here, there... We did everything we could to warm him up. He nearly died in my arms! Then we came here...”

And here she is, Umm Omar, inside a light tent where she never thought she would be forced to live one day. This is her first time in Jordan in her fifty-year life. She doesn’t yet understand where she is. She has not accepted it yet. For the time being, her husband is still in Syria. She is here with her children and some relatives from her extended family. She spends most of her time in the tent looking after her disabled son. She can’t accept anything, not what happened to her in Syria, nor what she found here in Jordan:

“They gave us some canned food. Do we need canned food? We need real food... look at the conditions of the communal kitchens! ...the toilets are at the end of the world. It’s a real trip, and they are awful, their value is zero... We don’t have water, we don’t have electricity, in the evening we are left in the dark...”

Until the end of the conversation, Umm Omar continues complaining and wailing: against the Syrian government, against the Jordanian authorities, against the Arab countries, against her bitter fate. Listening without being able to help her is embarrassing. In her current condition, no kind words, no advice could really be helpful. The only hope is that, in time, Umm Omar will grow acclimated to camp life, obtain the services that her family needs, calm down and stabilize her life as she waits to go back to her country.

Story collected in Zaatari refugee camp, Jordan, in January 2013, and taken from http://www.focusonsyr-

“It’s hard to get used to life here when there is no hope of return. All I can do now is dream of peace, of going back home and sitting under the trees with Khaled”.

35-year-old Dima feeds her youngest son, Khaled. A rusty frame holding the image of a loved one lines the top of her, her husband Ahmed's and their six children’s unfurnished, yet immaculately clean, tent.
‘The day after my brother died, we were hiding in our basement, waiting for the right time to escape the war. It was then that I got my first contractions’, she explains with a calm demeanor which belies her loss and grueling escape from Syria.
“We were getting ready to leave but I knew I had to find a midwife before crossing into the desert. We drove for hours to nearby villages and finally found a woman who could help me give birth to Khaled. I honestly thought he was dead because he didn’t cry for twenty minutes”, she says.
Hours after giving birth, Dima and her family made their week-long journey into Jordan. Having spent his first year in the world in a refugee camp, one-year-old Khaled experiences his surroundings in the camp differently to his five other siblings.
“Khaled learned to crawl on stones so he bruised himself a lot. This is all he’s ever known. The other children remember their life before and they remember the war so it has taken them time to adapt to life here.”. Dima’s older sons, both of whom are under the age of ten, became troublesome in their first few months in the camp.
“They have a lot more freedom here and boredom to satisfy so it became hard for me to know where they were at any time.”. Her teenage daughters, however, became extremely shy and reclusive.
“The girls seem more confident and the activities calm the boys down for the rest of the day. I know they enjoy it because they make sure they go to every lesson without me telling them to”, says Dima.
“We feel safe here and for that I am grateful”, says Dima with a smile. The Youssef family's basic needs are met in the camp. Still, Ahmed, Dima's 36-year-old husband, works as a fruit picker a few times a week for 1,5 $ an hour. With the intermittent salary he earns, he can provide his children with clothes that fit and can begin to earn back all of the money they spent to get to Jordan, for which they sold most of their possessions.
“It’s hard for him”, says Dima, “we argue a lot because of how stuck we feel here. We share a tent with our six children so we have no time alone and I think Ahmed feels frustrated because he can’t provide for all of us.”
Before the war in Syria, the Yousef family had their own house and farm. They were not rich but they lived a comfortable and stable life. Their extended family lived close by and Dima would take her children to see their aunts, uncles and cousins for tea when she wasn’t relaxing beneath one of the fruit trees outside of their house. Now, the only communication she and Ahmed have with their family are the sporadic phone calls to their siblings in Syria who have to rely on meagre crops alone for sustenance.
“We knew we weren’t coming back from the moment we left our home in Syria. The damage from the war is too much. It’s hard to get used to life here when there is no hope of return. All I can do now is dream of peace, of going back home and sitting under the trees with Khaled”.

Story taken from http://www.acted.org/en/syrian-refugee-stories-life-limbo


MAE LA, Thailand

The decades-long conflict between Myanmar's military and the country's ethnic armed groups has created one of the most protracted refugee situations in the world. First established in the 1980s, an estimated 120,000 Myanmar refugees currently live in the nine camps along the Thailand-Myanmar (erstwhile Burma) border. They face restrictions on movement and have limited opportunities for formal employment and further education

The vast majority of the refugees come from five states/regions in south-east Myanmar, close to or on the border with Thailand: Kayin (also known as Karen) State, Kayah (Karenni) State, Taninthayi (Tenasserim) Region, Bago (Pegu) Region and Mon State. Some 66,5 percent of the refugees in the camps fled their homes in Kayin State, making them the largest group among the refugee population.

Until 1995, refugees lived in village-type settlements and were allowed to travel outside the camps to get food and shelter materials. Camp life changed dramatically in 1995 after the Burma Army and *DKBA (The Democratic Karen Benevolent Army or Democratic Karen Buddhist Army)* attacked the refugee camps, which led to the reorganization of the camps. The village-type settlements were merged to form large, sprawling camps that became increasingly dependent on outside aid as residents became more and more restricted in terms of space and


MYANMAR
Mae Sot
THAILAND
MAE LA
Mae Sot

Refugee children in Mae La camp, photo by Radosław Jacek Gryglas

movement. Recently the Thai junta restricted refugees' movement even more; there is a wire around every camp to marker that residents are supposed to stay inside. But the Thai guards and officials stretch these boundaries as far as logistically possible. The Thai people who work in this area, the guards and officials, they all see the many difficulties and hardships the refugees encounter. No one wants to deny the refugees food, a chance to grow crops or trade for food, so the rules are often stretched, albeit at the personal risk of those who do so. The refugees also forage in the forest for all kinds of things: bamboo and materials for weaving baskets and making clothes, insects to add to the menu, and if lucky small game. There is a strong degree of trust between these people and their Thai guards. As both parties live and work next to one another as closely as any neighbors do, they try to develop as normal relationships as possible. And refugee camp Mae La is no difference.

With a population of over 40,000, Mae La, also referred to as BehKlaw, meaning 'cotton field' in the Karen language, is the largest of the nine refugee camps in Thailand. Situated approximately one hour's drive from the Thai border town of Mae Sot in Tak Province, north-west Thailand, and just eight kilometers from the Myanmar border, it has a surface area of 1,84 km^2 and is divided into three zones, which are further separated into sections.
Originally established in 1984 with a population of 1,100 near the Thai village of Mae La, the camp was transferred to its current location soon afterward due to the risk of shelling. It has grown dramatically in size since then. In April 1995, Mae La increased in size from 6,969 to 13,195 due to the closure of five camps to the north – Mae Ta Waw, Mae Salit, Mae Plu So, Kler Kho and KaMawlay Kho and the move of Huay Heng later in October of the same year. During the following year, the camp doubled in size again to 26,629 as those lost in the move came back into the camp. As well as taking in refugees who have relocated from other camps that have closed, the services available at Mae La – access to healthcare, training and educational facilities, and the possibility of resettlement to a third country – have attracted some from within Myanmar to cross the border and move to the camp.

Driving past the camp in a private car takes about 10 minutes at 80KPH with a couple of places where one has to slow for checkpoints. It is long and fairly thin area, squeezed between the road and the steep cliff that rises on the other side of the river. The camp is formally divided into "sections". The refugees live in small, densely packed huts made of locally grown trees and use leaves for roof shingles, primarily of bamboo. These are put on pilings in the mud and packed as close together as possible. The size of the Mae La camp is startling. As far as the eye can see these meager 'homes' are packed in side by side, front to back. There are no running water or sewage facilities in these homes and trash is often piled in large mounds awaiting disposal.
The building materials used to construct the homes in Mae La are highly flammable, making fire a constant danger. A fire broke out in the camp in December 2013, destroying 130 shelters and causing 600 refugees to become homeless. The camp was again struck by fire in March 2014, leaving 300 people without homes.

The camp has few distribution centers where residents can take their portion of the food for the week or month. The exact amounts seem to vary, but the items distributed are mostly the same. A small amount of rice, fish paste and cooking oil. These are the absolute minimum essentials to ward off starvation and the menu never changes. For these portions only registered camp residents are eligible, and because the new arrivals are registered only once per year, many have no right to food. This leads to further sharing of already very small portions - less food, less nourishment, more diseases and poorer health.

That being said, people have become very self-sufficient through years. They fabricate clothes and appliances from the local flora and they grow and harvest the food inside the camp. There isn't a lot of extra ground because the huts are crammed in so close together, but what areas there are, are used to grow small pockets of vegetables and crops. It's common to raise pigs or goats in pens directly under their huts using the pilings as fence posts. Residents and locals also organize a few markets, small stores, and trading centers.

Most of the camp population was born in camp and has already lived there 20-30 years. Even though education is very important for these people, there are limited education and training opportunities and no official means of earning income or gaining employment. While education in the camps is far better than any education available to civilians inside Myanmar, there are limited opportunities for higher education, and education available for refugees largely remains unrecognized outside the camps. There are several schools in Mae La providing the children who live in the camp with primary and secondary education. The schools are also attended by young refugees from other camps, as well as children living inside Myanmar who don't have access to educational facilities in their villages. Unaccompanied students sleep in dormitories during the school term. The issue for many young students is what happens after they finish a post-ten school, the highest level of education available in most of the camps. There are only a small number of schools on the Thailand-Burma border these young students can apply for, leaving thousands of talented and dedicated aspiring university students with no access to further education. Additionally, as 45,711

or 38% of the refugees remain unregistered with the UNHCR, they are also unable to apply for most university scholarships abroad. Education in the camps is provided by CBOs such as the *Karen Refugee Committee – Education Entity* (KRC-EE), backed by international NGOs such as *ZOA Refugee Care and World Education*. Many schools in the camps have foreign teachers and volunteers, the majority of whom stay illegally in the camps as permits remain largely unattainable. These foreigners teach refugees English as well as other subjects while hiding from Thai authorities, risking fines or even deportation.

The camp has no hospital and is a 1,5 hour drive away from the nearest urban area. The camp has a huge problem with space, with an almost complete lack of personal space or privacy. Diseases such as malaria, dengue fever, and tuberculosis are still common among the refugees.

TBC[18] is the main agency organizing food and other aid to Burmese refugees in Thailand. Because Thailand is non-signatory of the 1951 Convention, or its 1967 Protocol, residents of the camp, but also International organizations such as UNHCR and UNICEF face many restriction that have made it difficult or impossible to provide even rudimentary protection. Thai authorities have taken measures that sharply limit UNHCR's role in Thailand - they have not allowed the UN refugee agency to have an operational role in administering the camps and the vast majority of encamped refugees go without any direct protection from UNHCR. Although UNHCR normally promotes three durable solutions for refugees; repatriation to their home countries, local integration in the host country, or resettlement to third countries, none of these solutions had been available in Thailand until 2004, twenty years after the first refugees have arrived from Burma. Thai authorities allowed refugees to register with the UNHCR periodically during 2004 and 2005, and since 2005, all officially registered refugees have been eligible for resettlement to third countries. In June 2014, 96,206 had been resettled, the majority (75%) of them to the US, followed by Australia, Canada, Finland, and Norway. Departures for resettlement have declined each year since 2008, mainly because the majority of those who were able to register in 2004 and 2005 have already left. The group settlement program to the US has now closed, but a significant number remain in the pipeline and are expected to depart in 2015. Thailand has allowed the registration of very few refugees in the camps since mid-2006 and more than a third of the camp population is currently unregistered and thus ineligible for resettlement.

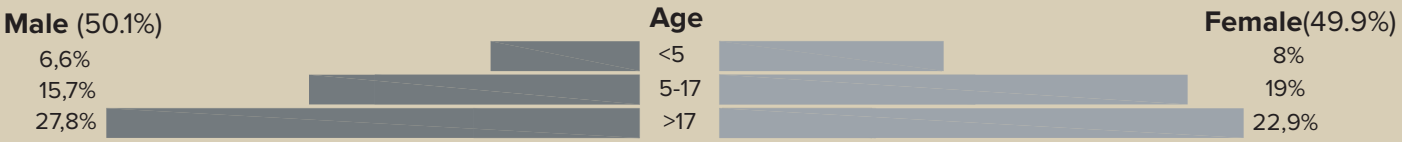
As a result of inadequate protection and registration of refugees, as well as the highly restricted life in refugee camps in Thailand, many Burmese live in the country as illegal aliens. Due to the refugees in the camps being forced to be nearly completely dependent on outside help for food, shelter, protection and other basic needs, their coping mechanisms have been severely eroded. Travel and work restrictions have had adverse psychological and social effects on the refugees, decreasing their self-sufficiency, morale, and mental health. When the refugees eventually return to Burma, many of them will need assistance not only in skills to sustain themselves but also in changing their thinking from short-term survival to long-term development.

Considering the often traumatic backgrounds as well as the challenging circumstances that refugees face in Thailand, many people who visit the camps are impressed by the significant effort refugees make in order to maintain dignity and hope in the camp communities. Despite severe restrictions and depressive realities, refugees strive to remain active by building all the houses, schools, religious institutions and other public buildings in the camps, and by serving their communities as nurses, teachers, monks, and pastors. Refugees celebrate their respective religious holidays in churches, temples and mosques, and strive to maintain their cultural traditions through practices such as teaching their locally native languages and dances. People marry and have children, play sports, and organize festivals and other celebrations. Despite the devastating reality, life goes on. Thousands of people of Burma have come to consider these enclosed areas as their homes, trying to lead their lives as the best they can.

[18]TBC - The Border Consortium was originally formed by TBC's former Executive Director Jack Dundorf who was among the first people to witness and respond to the urgent needs of thousands of refugees who fled to Thailand in 1984. TBC gradually evolved into a multi-membership aid organization, currently a consortium of ten international NGOs, that provides food, shelter and non-food items for all the refugees in the camps with a mandate from the Royal Thai Government. TBC is one of the 20 NGO Executive Members of the Committee for Coordination of Services to Displaced Persons in Thailand (CCSDPT) that works together with the UNHCR to coordinate all humanitarian service and protection activities in Thailand. TBC's program has evolved over the years, with an increased emphasis placed on promoting self-reliance of displaced people to reduce aid-dependency.

46,133
Registered Burmese Refugee

?
Households



50% of adult camp residents suffer from mental health problems and anti-depressants constituted one of the most common drug prescriptions for refugees

http://www.burmalink.org/background/thailand-burma-border/displaced-in-thailand/refugee-camps/

Religions in Mae La: Buddhists **54,5%** Christians **34%** Muslims **10,5%** Animists **0.7%** of the camp's population

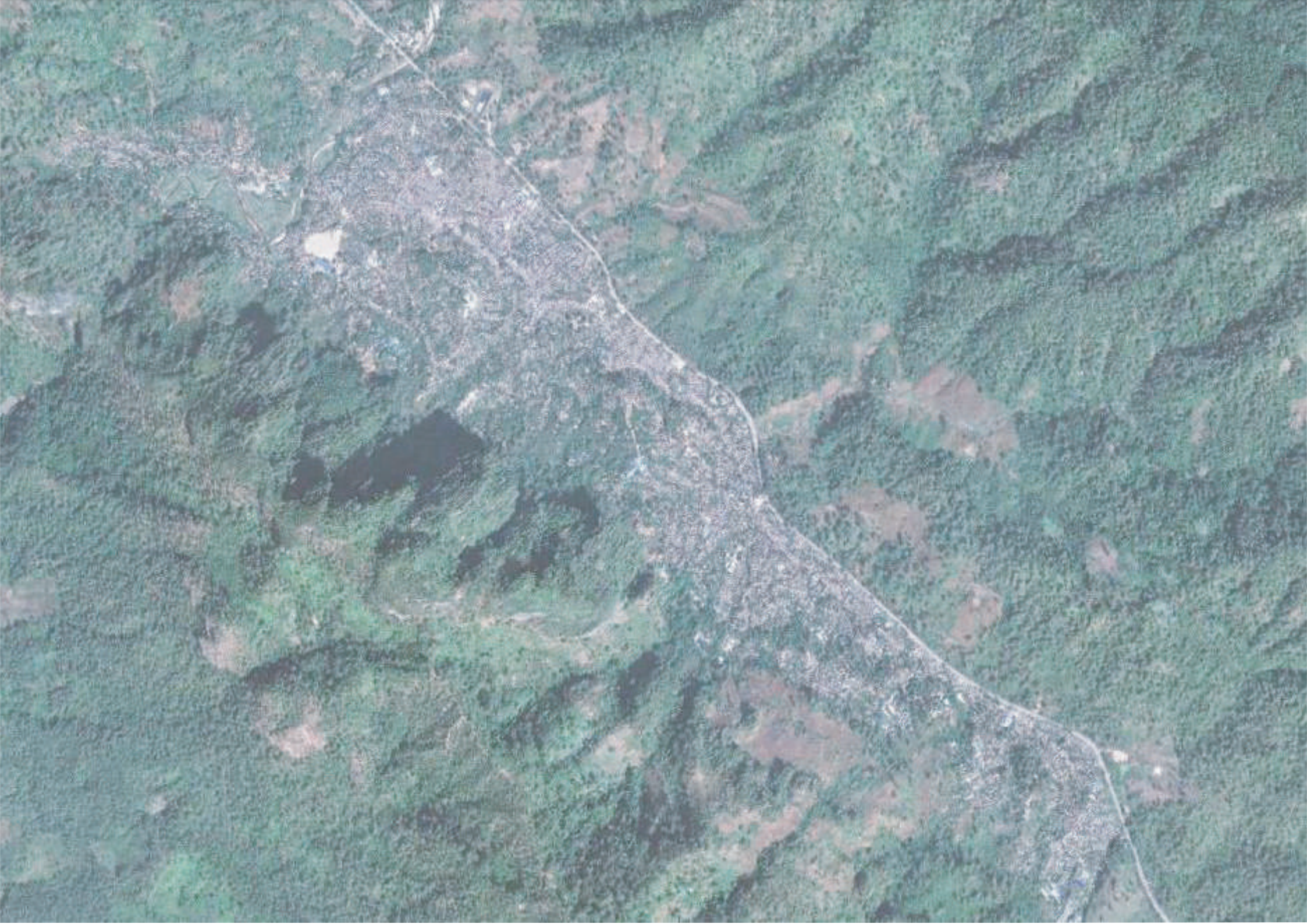
http://theelders.org/article/pictures-life-thailand-myanmar-border

Literacy rate in the camp is around **60%**

http://www.burmalink.org/background/thailand-burma-border/displaced-in-thailand/refugee-camps/

There are over **200 NGOs** non-stop in the camp

http://www.bangkokimages.com/Articles/Featured-Destinations/entryid/253/Mae-La-Refugee-Camp-Thailand.aspx



SITE

Mae La, the largest of 9 refugee camps in Thailand, is located in north-west part of Thailand, some 8km from border with Myanmar, around 60km from closest urban area Mae Sot and approximately 550km from capital Bangkok.

The area has a tropical savanna climate. Winters are dry and very warm with temperatures rising until April, which is very hot with the average daily maximum at 36.8 °C. The monsoon season runs from May to October, with heavy rain and somewhat cooler temperatures during the day, although nights remain warm. Due to heavy rains the area is very green and rich with vegetation, consisting mostly of bamboo trees. It was established in 1984 in Tha Song Yang District, Tak Province - a vast, mountainous province with a complex history and unique cultural mix. The province is situated in the Dawna Range, also known as Dawna Hills, a mountain range in eastern Burma and northwestern Thailand. It is a very narrow, steep-sided range, covered with tropical and subtropical moist broadleaf forests.

The camp is connected with Myanmar and rest of Thailand through regional road 105, which intersects with Asian highway AH1 in Mae Sot. Also the nearest airport Mae Sot Airport is located in Mae Sot.

LAYOUT

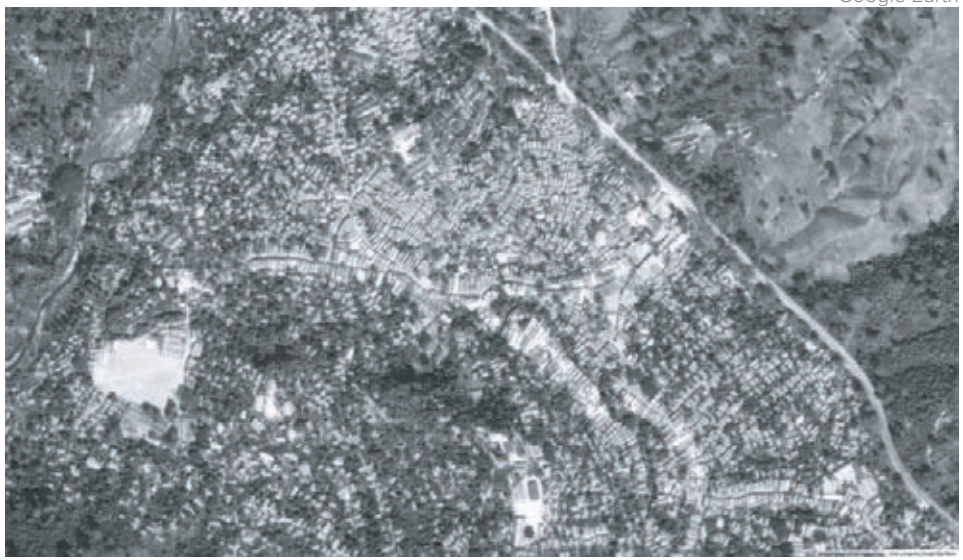
Prior to 1995, Mae La refugee camp had a traditional village-like atmosphere. It was planned and built by refugee communities, with a very free layout and houses built in clusters around a network of paths. Several clusters made a section, but without barriers between sections. Communal buildings like schools and distribution centers were located in the middle of the section. Located near streams, the water could be easily collected for bathing and washing. Most of the houses had a space to plant small vegetable gardens or even to rear animals. Due to size, location, and openness refugees were able to gather building materials, firewood and food from the surrounding forests. They collected edible forest vegetables, such as bamboo shoots, wildbeans and leaves, to supplement their diets. They could also earn cash by selling forest vegetables, leaf thatch, or charcoal.

This style of the camp had many advantages for both host government and refugees – it is located in an under populated area, refugees could use water and forest products without placing a strain on local resources, at the same time maintaining their traditional foraging, cultivation and building skills, without needing to rely entirely on NGO assistance. The refugees were in large part self-sufficient; the majority of children attended primary school, there were few social-problems or conflicts, malnutrition was rare, and the communities could live according to their own traditions. There fugees and the ethnic minority opposition along the border formed a convenient buffer between the Thaiand Burmese armies. For NGOs, the organization and comparative self-sufficiency of the refugees allowed for an extremely cost-effective program. Until 1994, the food relief programf or the whole border was handled by only two expatriate field staff. However, between 1995 and 1997, the territory along the border was captured by the Burmese army, which led to several attacks on the camp, carried out by what wasf ormerly one of the largest opposition groups in Burma, the Democratic Kayin Buddhist Army (DKBA). The result was the drastic deterioration in security in the camp. With some camps being closed, the number of refugees in Mae La grew rapidly, reaching 30,800 in 1998. This had a big impact on the layout of the camp, with building new shelters on free space and highly increases in density. The distinction between sections became very unclear, one blurring into another one, and with houses being packed one next to another privacy become a big issue. There are no data on exact number of sections, blocks, communities or households. The camp was fenced, restricting the movement of refugees, and equally so, their self-sufficiency, which led to more administrative and service facilities in order to distribute aid.

Without a master plan available, drawings, or data, it is hard to establish the main layout elements. But what is obvious is that the layout is significantly different different from the two previous examples, partly because it arose relatively spontaneously, built almost entirely by refugees, and partly because of it is located on the very steep terrain.

SITE VIEW - MAE LA

Google Earth



View on the camp

SHELTER

Almost all shelters inside the camp are made in the same way. They are houses, with single or several rooms, accommodating from 4 to 10 people. They are marked as temporary shelters, with the walls and floors of the house constructed out of split bamboo and roofs out of leaf thatch. The floor is lifted above the ground as a protection in case of a flood.

Compared to common shelter used in refugee camps - tents and caravans, these houses provide significantly greater comfort and correspond to refugees' building tradition. However, through the years of existence and with little or no intervention, these shelters started slowly to deteriorate. Due to loads, some collapsed, and being built with very small distance between houses, it became very hard to protect them against the fire.

With restrictions on movement and refugees not being allowed to cut bamboo, NGOs have to Provide the building materials and in some cases shelter, most usually the UNHCR tent. Also, with an increase in housing units, almost all shelters lost space used for gardens and opportunities to forage, while having to expend more energy in moving and re-building.

Shelter type in Mae La refugee camp

Back side of the bamboo roof

ORGANISATION, HEALTH AND EDUCATION

As it is the case with layout and shelters of the camp, organization and opportunities for education, employment, and self-sufficiency have changed dramatically in the last two decades inside and around the camp.

Prior to 1995 the camps were administered by camp committees with a camp leader and section leaders from the camp community. These committees were responsible for all aspects of camp administration, including the registration of the population, birth records, maintenance and sanitation, resolution of disputes, transport and referral of medical emergencies, and camp security. The responsibility for accountability and transparency in aid distribution, particularly food aid, was also in their control. This system of administration maintained by the refugee communities themselves, rather than imposed by the Thai authorities or relief agencies, has been integral to refugee autonomy and self-sufficiency.

The Royal Thai Government (RTG), somewhat involved in camp activities, has always insisted that NGOs activities remain low-profile and that there be no permanent expatriate presence in the camps. TheNGOs were also focused on creating non-intrusive programmes, promoting refugee self-sufficiency, and minimising aid dependency. Assistance to the camps is sent through the refugee committees which, in conjunction with the camp committees, oversee the distribution of supplies.

An unusual aspect of this camp is that UNHCR has played little or no role in assistance until recently. As Thailand is not signatory to the United Nations 1951 Convention on the Status of Refugees, UNHCR cannot provide aid without official invitation form the RTG. RTG has always maintained that the people in Mae La camp are not refugees but displaced persons, to whom the RTG is offering temporary shelter.

Since 1995 the situation changed greatly. In order to save refugees and increase security, the camp is now completely closed and controlled; refugees are not allowed to go out of the camps and access is strictly limited. The camp is guarded by Thai police and military. To get out one has to give a bribe or pass through the forest unnoticed. The drastic increase in population led to a need for outside administration and the reduction of refugees' self-administration system. Now the committees have a very restricted role in decision making.

Several markets and shops have been drastically scaled back; no 'luxury' items can be sold, only small, inexpensive items, which further restricts the residents of the camp in the economic development and preparations for the future. Small shops are common throughout the camp. Most of them are run as small businesses in which the refugees would have to pull some strings or contact their relatives outside of camp to bring in the goods and products from nearby towns. While a

One of the camp schools from the outside

One of the camp schools from the inside

small percentage of shops are run in collaboration with NGOs who provide basic training and technical assistance for locals to grow their own agricultural products.

There are several schools in the camp (there are no data on the exact number of schools). They offer education for refugee children from the camp, but also others who have no access to education in the areas they live in. Several NGOs have developed different teaching programs focused on practical as well as theoretical programs, with an aim to provide students with useful skills for them and their community, while also preparing them for potential future studies. However, only a small number of children are actually enrolled in school, mainly due to large number of refugees. And even smaller number of them has a chance for further education.
Schools are located in different types of buildings, but the most common are placed in bamboo huts, that have the same structure as the housing units.

There are no exact information's about health care in the camp. Camp has no hospital; the closest one is in Mae Sot, some 60km away from the camp. Camp has several health posts that provide basic, daily health care. These services are most likely placed in the same type of building as previously described facilities.

Myanmar is a deeply religious country, which plays a very important role in the camp as well. It is common to see monks and religious structures like churches, temples and pagodas, made mostly in the same way as housing units.

Mae La is a very good example of another approach to refugee crisis - providing only basic necessities and allowing people to develop and decide about their lives. But it also shows how big influence global politic has in this matter and how something as simple as restriction of movement or ability to build and grow food can bring drastic changes in somebody's life.

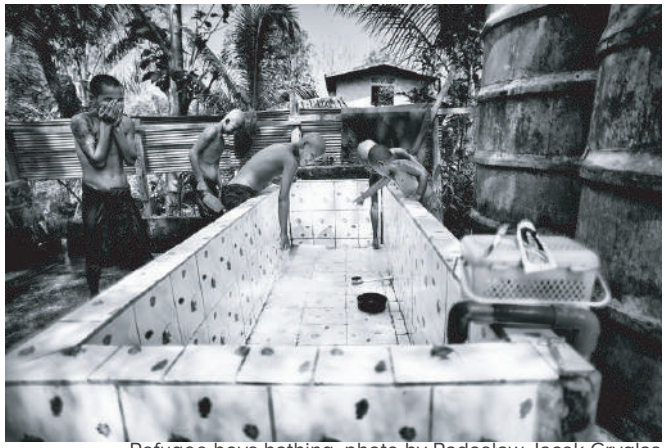
Calsroom

Man preparing bamboo for construction

View on the camp, photo by Radosław Jacek Gryglas

Refugee children in Mae La camp, photo by Radosław Jacek Gryglas

Shelter for refugees in the camp, photo by Radosław Jacek Gryglas



Refugee boys bathing, photo by Radosław Jacek Gryglas

Children sitting in the shade of the blossom tree

Buddhist children, photo by Radosław Jacek Gryglas

Woman sawing - on of the businesses in the camp, photo by Radosław Jacek

One of the market streets, photo by Radosław Jacek Gryglas

Owner inside his shop, photo by Radosław Jacek Gryglas

“I’m telling you the truth, you don’t want to live like that.”

Bebe is a young Karen woman whom I met in Oakland. She began by telling me about how her father first came to Thailand from Burma by accident. At sixteen years old, he and some friends crossed the border, then were not allowed back in. He left his old life behind without his family having any clue about his whereabouts. Later, he and Bebe's mother met at the Thai/Burma border and Bebe was subsequently born in the Mae La refugee camp in Thailand. Bebe explained how in the camp, families received food every fifteen days, and would get donated clothes, mostly from Japan. When it came to housing, Bebe recalled how, unlike America where “you can live forever,” they had to build a house every year because the homes were made out of bamboo that had to be replaced due to damage caused by heavy rains. She also explained that the UN didn't provide income for the refugees; they were just given food and a place to live. As a result, her parents worked in the fields to make money. Since there weren't many jobs available outside the camp, people often worked in the fields planting vegetables. Generally though, there weren't really jobs available on the outside, so most young people would work inside the camps after graduating high school. Bebe said that many young people would also marry early because they don't know what else to do.

"I’m telling you the truth, you don’t want to live like that. At night you just want to sleep and you want to go to school, if you walk one hour and a half or two hours you get to the border and the Burmese soldiers would shoot over. The camp was in a valley, and the soldiers would climb up in the mountains and shoot down.” She described how shells would get thrown in, and that one of her uncles got struck with shrapnel near his hip. One of her friends, who was thirteen at the time, also got hit and was unable to go to school for a very long time. "A lot of people have been hurt, some have no legs, hands, eyes, most Karen people you see are hurt like that," she said. The soldiers would also come into the camps, and sometimes burn down homes. "They came into the camp when they know that there are no people to fight them."

Bebe immigrated to the United States along with her father and two brothers in 2007. Her mother had to come separately with Bebe's grandmother, who had been ill. When immigrating to other nations, refugees often have to satisfy strict criteria. These include things like health, or if someone is truthfully telling their story in order to leave the country. Bebe's older sister also arrived separately since she was over 21, which is the legal age limit to file for refugee status on your own. Today, Bebe speaks great English, and is waiting to hear back from the colleges that she has applied to for next year. During her time in the US, she has had some amazing experiences. However, she still holds a very special place in her heart for her culture and her people. She hopes to find a way to go back to Thailand, to help the Karen there. As for Burma, Bebe says, “I really don't want to go to Burma at all, because I heard that when people go there bad things happen."

Story by S.Nadia taken from http://usordinarypeople.blogspot.co.at/2011/03/bebes-story_15.html

COLLECTIVE CENTRES BIH

BOSNIA AND HERZEGOVINA

A country in Southeastern Europe located on the Balkan Peninsula. Sarajevo is the capital and largest city. It is bordered by Croatia to the north, west and south, Serbia to the east, and Montenegro to the southeast. Bosnia and Herzegovina is a region that traces permanent human settlement back to the Neolithic age, during and after which it was populated by several Illyrian and Celtic civilizations. Culturally, politically, and socially, the country has one of the richest histories in the region, having been first settled by the Slavic peoples that populate the area today from the 6th through to the 9th centuries CE. Today, the country maintains high literacy, life expectancy and education levels and is one of the most frequently visited countries in the region, projected to have the third highest tourism growth rate in the world between 1995 and 2020. Bosnia and Herzegovina is regionally and internationally renowned for its natural beauty and cultural heritage inherited from six historical civilizations, its cuisine, winter sports, its eclectic and unique music, architecture and its festivals, some of which are the largest and most prominent of their kind in Southeastern Europe. The country is home to three ethnic groups or, officially, constituent peoples, a term unique for Bosnia and Herzegovina. Bosniaks are the largest group of the three, with Serbs second and Croats third.

THE WAR IN BOSNIA AND HERZEGOVINA

The war in Bosnia and Herzegovina is a generally accepted name for the international armed conflict in Bosnia and Herzegovina, which took place between 1 October 1991 and 14 December 1995. It is considered a part of one of the conflicts that led to dissolution of the Socialist Federal Republic of Yugoslavia. Opposing forces were the Republic of Bosnia and Herzegovina and the self-proclaimed Serbian and Croatian entities within Bosnia and Herzegovina, the Republic of Serbia and Croatian Republic of Herceg-Bosna, who were led and supplied by Serbia and Croatia respectively..

All three parties have used a different name and date for the start of the war. Croats name it Homeland war (Domovinski rat) and as the beginning of the war considered, 1 October 1991, when the Yugoslav National Army JNA destroyed the Croatian village of Ravno in eastern Herzegovina. The Serbs call it the Focus-Patriotic war (Obrambeno-otadžbinski rat), and attack on the wedding procession, when the groom's father was killed in Bascarsija, Sarajevo on March 1st 1992, is taken as the beginning of the war. In Bosnia it is called Aggression on Bosnia and Herzegovina (Agresija na Bosnu i Hercegovinu), and 1 April 1992, when Serbian paramilitary units crossed the border on the orders of head of the Serbian secret service Jovica Stanisic and attacked the town of Bijeljina is considered as the beginning of the war.

The war was part of the disintegration of Yugoslavia. After the Slovenia and Croatia have left the Socialist Federal Republic of Yugoslavia in 1991 and became independent, multiethnic Socialist Republic of Bosnia and Herzegovina, which was inhabited by the Muslim Bosniaks (44%), Orthodox Serbs (31%) and Catholic Croats (17%), opted for independence on the referendum on 29 February and 1 March 1992. The political representatives of the Serb Democratic Party (SDS), which boycotted the referendum, rejected it and prevented its maintenance in some parts of the country, which were in January declared part of the Serbian Republic of Bosnia and Herzegovina. After the declaration of independence (EC and the United States have acknowledged the RBH on the 6th and 7th of April), the Bosnian Serbs backed by the Serbian government of Slobodan Milosevic and the Yugoslav National Army (JNA), mobilized their forces within the Republic Bosnia and Herzegovina to impropriate as much space as possible and proclaim it as the Serbian territory. The conflict soon turned into a Serbian aggression across the country, with ethnic cleansing of Muslims in the Drina valley (Podrinje), the Croats in Bosanska Posavina and Muslims and Croats in the Bosnian Krajina. After the genocide in Srebrenica and other massacres in Markale, The North Atlantic Treaty Organization (NATO) intervened in the conflict, shelling important positions of the Serbian army and releasin western part of Bosnia. This action proved to be crucial in ending the war.

The war was brought to an end after the signing of the General Framework Agreement for Peace in Bosnia and Herzegovina in Paris on 14 December 1995. Peace negotiations were held in military airport Right-Peterson, Dayton, Ohio and were finalized on 21 December 1995. The main participants in the peace conference were former presidents of Bosnia and Herzegovina, Croatian and Serbian (Alija Izetbegovic, Franjo Tudjman and Slobodan Milosevic), and chief US mediator Richard Holbrooke and General Wesley Clark. The accords are now known as the Dayton Agreement, which determined today's Bosnia and Herzegovina and is an integral part of the Constitution of Bosnia and Herzegovina.

The war was marked by violent attacks, excessive and indiscriminate shelling, ethnic cleansing, concentration camps, mass murder and rape. Events such as the siege of Sarajevo and the Srebrenica genocide, have become symbols of this war. The most recent figures suggest that around 100,000 people were killed during the war. In addition, an estimated total of 20,000 to 50,000 women, the vast majority Bosniak, were raped, and over 2,2 million people were displaced, making it the most devastating conflict in Europe since the end of World War II.

REFUGEE CRISIS CAUSED BY WAR IN BOSNIA AND HERZEGOVINA

At the beginning of the war and ethnic conflicts most of the inhabitants of Bosnia and Herzegovina did not want and were not ready for a long-lasting armed conflict. People thought that it was a political disagreement and sporadic clash that will not last long, because Bosnia and Herzegovina has always been a multi-ethnic country in which people of different nationalities lived and worked together.

Because in Bosnia and Herzegovina there were generally no ethnically pure areas, armed inter-ethnic conflicts between the Serbs, Croats and Bosniaks have caused mass migrations and displacement of the population inside and outside of Bosnia and Herzegovina. According to the available data of the Ministry for Human Rights and Refugees of Bosnia and Herzegovina during the war from the beginning of 1992 until the end of 1995, from Bosnia and Herzegovina migrated around 1,2 million inhabitants outside the country, and around one million was internally displaced. Those were people of different nationalities, among which were mostly Bosniaks. The largest number of refugees from Bosnia and Herzegovina was accepted by Germany 28%, Serbia 25%, Croatia 14%, Austria 7%, and the remaining 26% by the Nordic countries, the United States, Canada, Australia and other countries. Leaving their homes, the refugees and displaced persons have left their movable and immovable property, and carried with them only what they could, a few personal belongings and money if they had it.

Refugees from Bosnia and Herzegovina lived in difficult conditions in the countries that have accepted them, at the beginning mainly in unconditional collective centers, because countries that have accepted them, could not provide an optimal accommodation and favorable conditions for refugees in that short period of time. Over time, conditions in collective accommodation centers have improved, children of refugees have started going to kindergartens and schools, within the centers schools on Bosnian/Croatian/Serbian language were organized, and food, clothes,, toiletries, medicines, etc. were given to refugees from humanitarian agencies. The refugees had health care, and some families have received accommodation in individual housing units and financial assistance. The existence of refugees has not been compromised, they lived far away from war destruction and the danger, but it was not enough for a normal and happy life because most of the refugees survived terrible inhumane events in war-torn Bosnia and Herzegovina, many were raped, imprisoned and tortured in concentration camps, families were separated, some have lost family members and friends or they were wounded, deprived of their property and employment, they did not have their livelihood, were not familiar with the environment, languages, nor the customs of the state which has accepted them and had difficulties to adapt to an unfamiliar environment, felt fear and concern for the fate of their country, family members and friends who remained in Bosnia and Herzegovina.

It was even harder for internallydisplaced persons in Bosnia and Herzegovina. Fleeing from war and persecution, many had to often change often locations, struggled to survive without property, without means of subsistence, with constant shelling and snipers, in fear and severely traumatized by the separation of families, the loss of family members and friends, due to injury, rape, torture, detention in concentration camps and the loss of human dignity. The largest number of displaced people was initially housed in inadequate collective centers which were organized in major halls of schools, kindergartens, community and sports centers. In some areas, a few hundred people were accommodated together, without proper bathroom, with a few dozen people using the same sink and a toilet and with makeshift beds of sponges and mats. Governmental and non-governmental organizations have with limited resources provided help in form of food, clothes and medical supplies, minimum health care, medication and psychological help. The hardest time was in the winter, when due to lack of electricity and gas it was impossible to heat large spaces with small wood-burning stoves. Displaced persons have somehow tolerated the lack of sufficient food and often lived just of one poor-quality meal per day, but the most difficult was the sense of loss of dignity, loss of intimacy, a sense of humiliation and helplessness because they survived different forms of torture and were dependent on the help of others.

Children were gradually included in school programs. Teachers, in addition to education had a task to provide children with the necessary assistance in adapting to the new environment and living conditions as many children have changed more residence in a short time and witnessed the horrors of war, many have lost one or more family members and were wounded. Governmental and non-governmental organizations have implemented and developed special programs for the care of children whose parents have died, been captured or missing in the war. Gradually, some families received accommodation in individual housing units in abandoned properties and new, specially built collective centers.

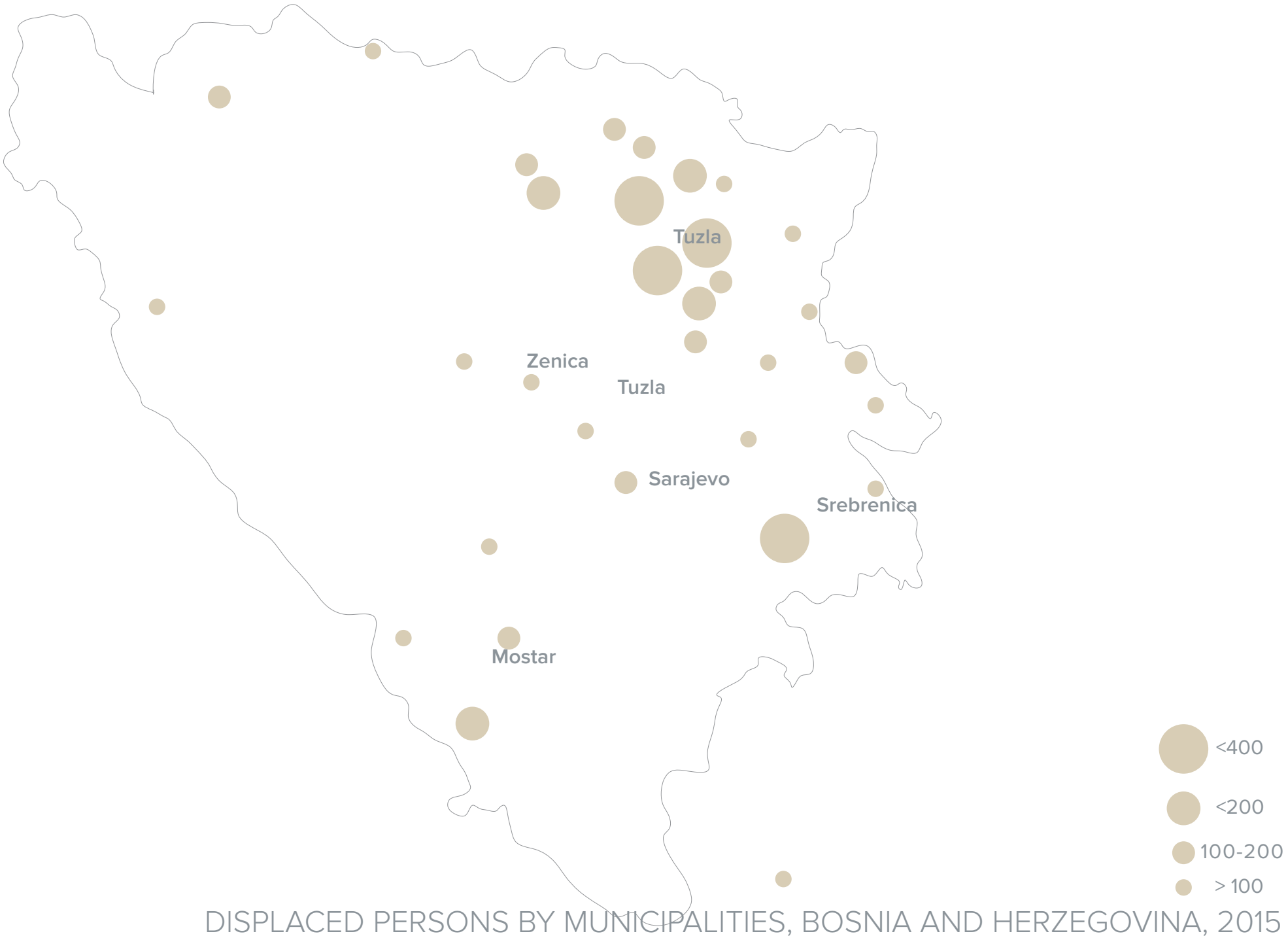
COLLECTIVE CENTRES IN BOSNIA AND HERZEGOVINA

During 1993 the UNHCR and non-governmental organizations of some states (mostly Norway and the Netherlands) started building projects of new, more human collective centers. In different areas of the country (mostly in north-west part, around city of Tuzla) new, temporary settlements with prefabricated residential buildigns, schools and clinics. The goal was to improv living conditions of vaste number of still internally displaced persons.

After the war, UNHCR, in cooperation with governmental and non-governmental organizations began funding and realization of return of refugees and displaced persons to their pre-war homes in Bosnia and Herzegovina. Initially, the projects were focused on the reconstruction of war-damaged and destroyed houses and apartments. It was planned that the collective centers remain to the local community to accommodate socially disadvantaged local residents when the displaced persons move out and return to their pre-war homes. However, projects of returning the refugees and displaced persons could not be quickly implemented because the war has damaged and destroyed a lot of country and its infrastructure. Also, due to unemployment most displaced persons had no fixed income and were unable to equip their reconstructed homes and to provide for their family existence.

The economy of Bosnia and Herzegovina was recovering very slow, because most of the companies stopped working during the war, industrial facilities were damaged or destroyed, the market relationships were lost, outdated technology was slowly replaced by modern, farms were destroyed, so that large number of working-age people was and still is without jobs and fixed income.

These are all reasons why today, 20 years after the war, there are still 88 registered with approximately 1,830 housholds and some 7,000 members. In recent years, significant efforts and resources are aimed at implementation projects *"sustainable return"*, which consists in renovation of houses for displaced persons and refugees, providing assistance to rebuild agricultural, help in finding employment, stimulation of foundation of various independent activities, like



DISPLACED PERSONS BY MUNICIPALITIES, BOSNIA AND HERZEGOVINA, 2015

source: http://www.uzopibih.com.ba/kolektivni-centri-u-2011.html

handicrafts and similar, all in order to help returnees develope sustainable livelihoods.

In spite of the difficulties, according to data from the Ministry of Human Rights and Refugees in Bosnia and Herzegovina, after the war to date to their pre-war homes in Bosnia and Herzegovina has returned around 450,000 refugees who were located abroad and about 600,000 internally displaced people who were housed in various parts of Bosnia and Herzegovina. Many refugees from Bosnia and Herzegovina have permanently resolved their status and livelihoods in the receiving states or in third countries and will not return to Bosnia and Herzegovina, and 58,578 refugees from Bosnia and Herzegovina have yet to permanently resolve their status abroad, but will not be returned in Bosnia and Herzegovina. Many displaced persons have permanently resolved their status and livelihoods in places in Bosnia and Herzegovina where they stayed during the war and will not be returned to their original homes. But around 113,000 internally displaced persons who were accommodated in collective centres still have not permanently resolved their status and are waiting for the opportunity to return to their original homes.

4 YEARS 100,000 DEAD 2,000,000 REFUGEES !

Destroyed city of Mostar

Serb snipers shooting at Bosnian houses, photo by Jean-Claude Coutaussse

Destroyed city of Sarajevo, photo by Ron Haviv

Old man walking through destroyed city, photo by Ron Haviv

Old man cleaning broken windows, photo by Jean-Claude Coutaussse

People hiding from snipers s, photo by Ron Haviv

A woman in Sarajevo crosses the street under the Serb snipers' fire, photo by Jean-Claude Coutaussse

Bosnian refugees, photo by Jean-Claude Coutaussse

Bosnian refugees' car, photo by Jean-Claude Coutaussse

COLLECTIVE CENTRE MIHATOVICI

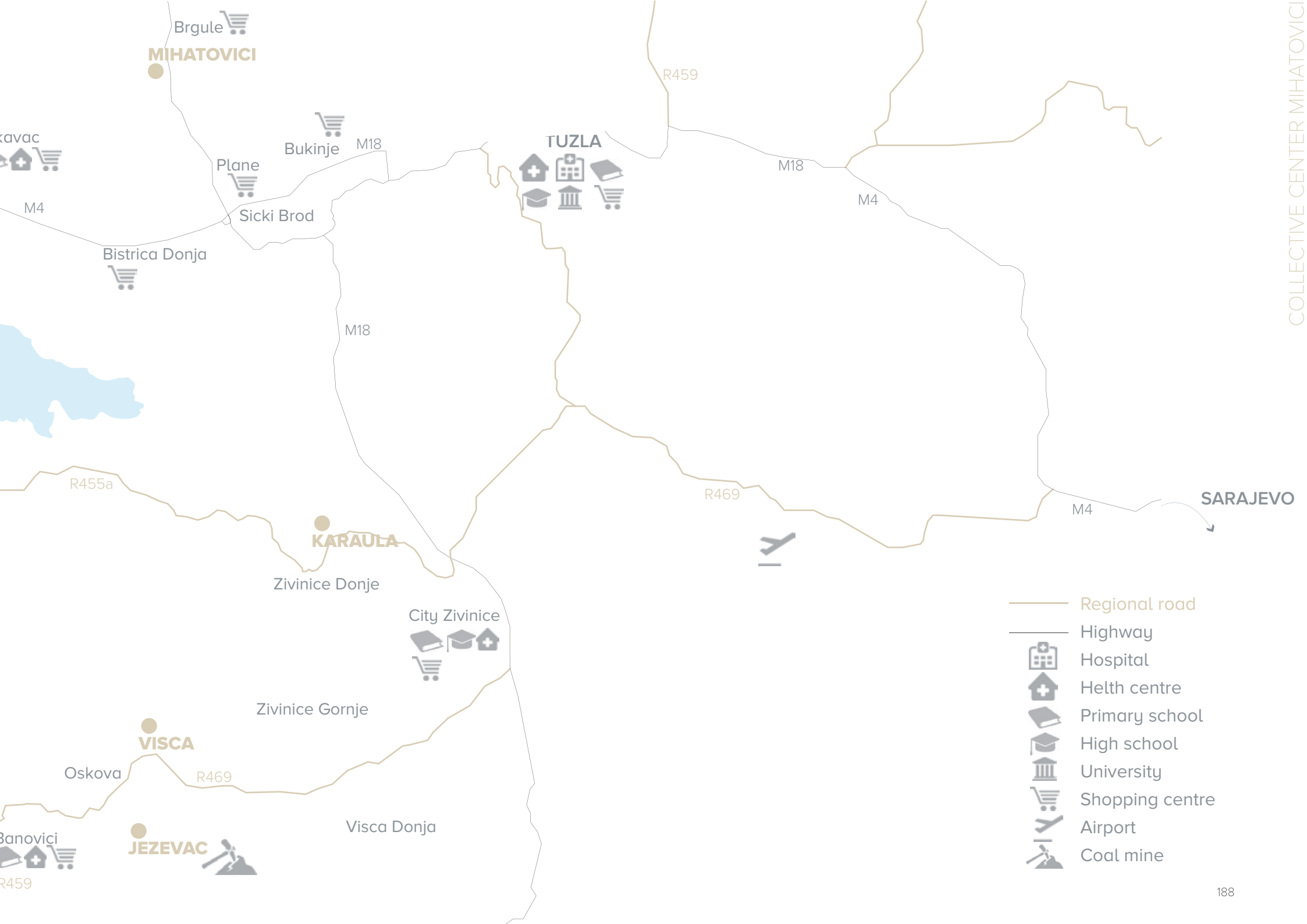
CANTON TUZLA

Canton Tuzla is the third of 10 cantons in the Federation of Bosnia and Herzegovina, one of two entities in Bosnia and Herzegovina. It comprises of the municipalities of Banovici, Celic, Doboj Istok (Doboj East), Gradacac, Gracanica, Kladanj, Kalesija, Lukavac, Sapna, Srebrenik, Teocak and Zivinice, as well as the city of Tuzla. The canton was created by the Washington Agreement in 1994, and its boundaries were defined by the Dayton Agreement in 1995. It is located in the north eastern part of Bosnia and Herzegovina with main city Tuzla. The total area is 2,649 km^2, or 10,14% of the Federation of Bosnia and Herzegovina.
This area has a lot of different potentials. After capital city Sarajevo and city Banja Luka, it is third biggest industrial centre in Bosnia and Herzegovina. Coal and rock salt are the two most important mineral resources of the region. Also it has big touristic and natural potentials. But, as in other areas of Bosnia and Herzegovina, none are fully exploited. That partly leads to evident lack of development with very high unemployment rate - 67, 77%.

The canton has 44 collective centers, all in operation since 1993/1994. The biggest and most important four are Mihatovici – the biggest in BiH, Jezevac, Karaula and Visca. They provide home for around 1000 internally displaced people. They consist of houses, built by the Norwegian or Holland government, and in the cases of Mihatovici and Jezevac - also a primary school. All other services (hospitals, shops) are located outside the camp. All the camps are relatively isolated and not easily accessible. People in the camps live in very hard conditions, completely neglected from the authorities. Even though the camps have solid houses, are connected to public electricity and have a sewage system, and when compared to the previous three examples (Dadaab, Za'atari, Mae La), they are a fairly better approach to the accommodation of displaced people. This is due to the lack of employment opportunities, isolation and little or no help from the outside, whereby people inside the camps are still struggling on the same level as the other refugees around the world.

Mihatovici has been solely been chosen for a case study due to its size, but all camps are in more or less the same situation, so analysis made for Mihatovici can, to some extent, be used for all camps.

*Due to lack of data, the informations here presented are the result of personal research and observations.


Brgule
MIHATOVICI
Bukinje
M18
Plane
Sicki Brod
M4
Bistrica Donja
M18
TUZLA
R459
M18
M4
SARAJEVO
R455a
KARAULA
R469
M4
Zivinice Donje
City Zivinice
Zivinice Gornje
VISCA
Oskova
R469
Visca Donja
JEZEVAC
Regional road
Highway
Hospital
Helth centre
Primary school
High school
University
Shopping centre
Airport
Coal mine

SITE

Mihatovici is a collective center for displaced persons within the village with the same name, 13,1 km away from the city Tuzla. It is located in the northeastern part of Bosnia, settled just underneath the Majevica mountain range. It is around 300m above sea level, with a very hilly surrounding. The main river in the area is Jala, with tributaries Solin and Josevica. The area is the only one in Europe with a salt lake – the Pannonian Lake. There are several other lakes in the immediate neighborhood of the camp, some artificial, some natural. The area is very rich with vegetation, and is surrounded with large green areas as well as forest areas. There are abundant coal deposits in the region around Tuzla and camp is located on the land that belongs to one of 6 coal mines.

The climate is moderately continental, with significant annual variation in temperature. Winters are cold, often with snow, springs with a lot of rain, very hot summers and moderate autumns. The soil is very fertile, offering vast opportunities.

ARIAL VIEW OF THE WIDER SURROUNDING

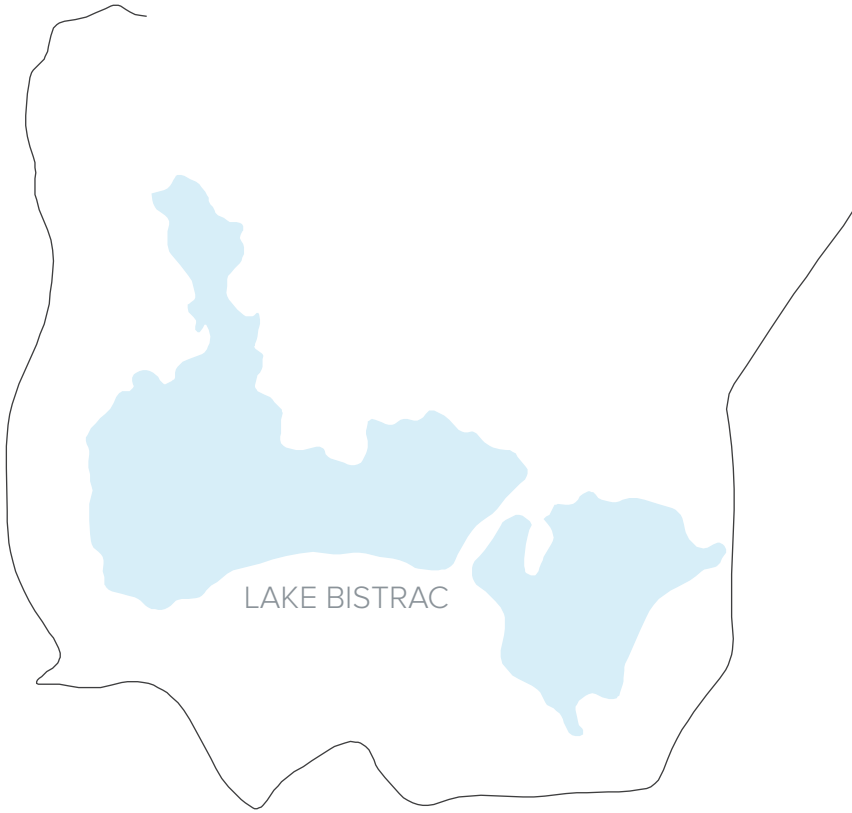
source: google earth

PATHS

The camp is located some 5 km from the regional road M 18, which connects the capital with the northern border of the country. The path to the camp site leads a very narrow and steep paved road, which first passes through the village Mihatovici, with which camp borders without apparent transition. The village has about 700 residents, who are primarily engaged in agriculture. The area has a supplying center and religious object.

After passing through the camp, the road continues north towards further smaller settlements and a large forest area, and to the north-west, towards Lake Bistrac, which is a significant potential in this area. The area of the lake is a tourist complex in development, offering very clear water, auto-camp, swimming, picnic surfaces, fishing and similar activities.

Inside the camp, the road branches into several smaller, internally paved roads and pedestrian, dirt roads.



Camp Mihatovici
Village Mihatovici
Main, regional road
Road to the camp and lake
Streets inside the camp

SCHEMATIC ILLUSTRATION OF TRAFFIC

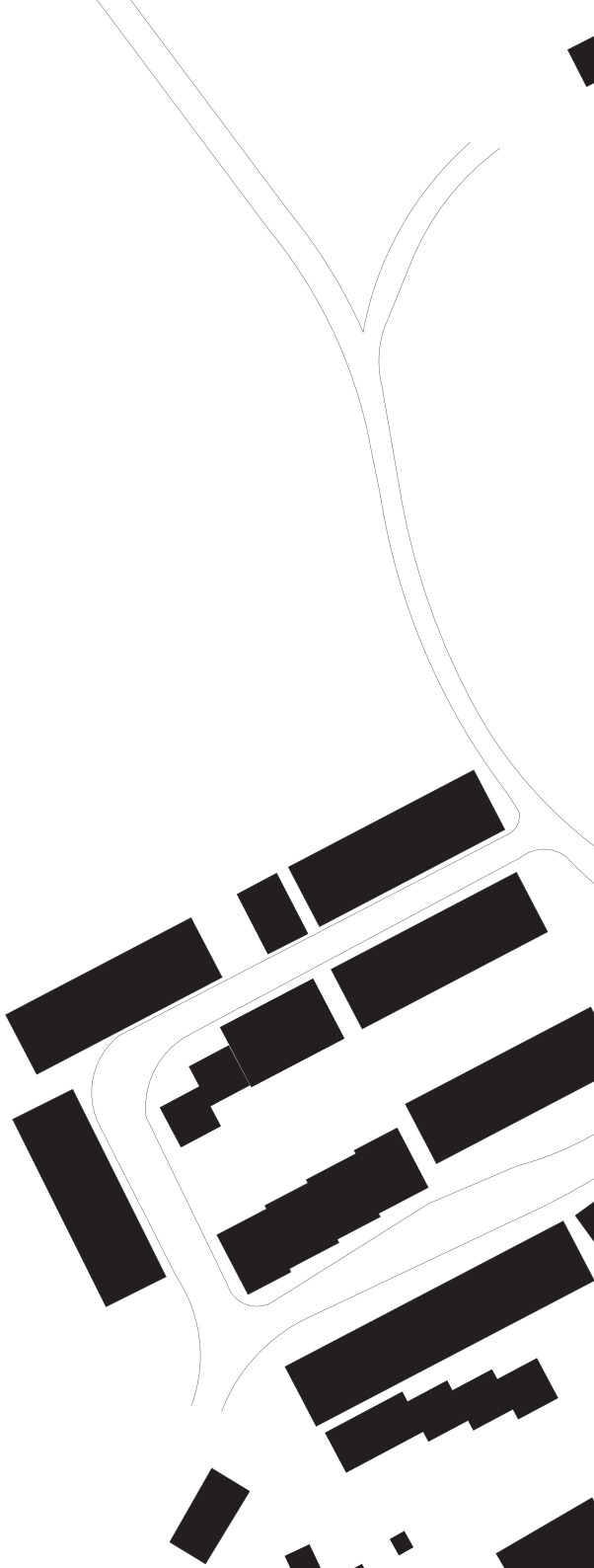
M 1:2000

LAYOUT

Camp Mihatovici represents unique example of this type of architecture. Because it is built for internally displaced people and not for refugees, UNHCR was not involved in its construction. It is relatively small compared to usual refugee camps, people live in solid houses instead of temporally shelters such as tent or container, it has a school and an integrated infrastructure and resembles more to a village than to a refugee camp. The climate with very cold winters played a big role in the construction of Mihatovici, but it is also very clear that particular attention was paid to cultural aspects and the building tradition of the area. It partly resembles to refugee camp of Mae La, with more natural layout and a focus creating a more human place rather than temporal place.

Layout is very simple, with two-story houses lined up along the road. Due to the size of the camp, there is no need for a division into sections and blocks.

Compared with others, the camp represents a good example of dealing with the sudden need of accommodation in emergency situations. But as with all other cases, due to lack of investment, maintenance and further development, there is again a question of what happens to these places after the crisis is over.



BLACK AND WHITE PLAN

M 1:1000

One block in Dagahaley part of Dadaab refugee camp
Based on drawings by UNHCR 2013
http://data.unhcr.org/horn-of-africa/region.php?id=3&country=110

106,926
registerd refugees

Approximately the same size

Collective center Mihatovici
Drawing made from and arial view from Google earth

491
registerd residents


Image © 2015 CNES / Astrium

Houses
Public (school and a shop)
Side objects
Houses outside the camp

SITUATION

M 1:1000

COLLECTIVE CENTER MIHATOVICI

The Center was built by the Norwegian People's Aid and opened in 1992. Majority of the population consisted of displaced persons from the town Srebrenica, which during the war in Bosnia and Herzegovina suffered urbicide. The camp was planned fora duration of 10 years. However, 22 years since its opening, the center is still in operation. Most of the population are still the same persons and families who saw its opening. Minorities are social cases from Canton Tuzla. With 491 users, today it is the largest collective center of the 88 remaining in Bosnia and Herzegovina. It is relatively isolated without access for public transport. The center consists of two-story houses in a row, each house offering accommodation for 4 families. In the center there is a primary school up to fourth grade. It is connected to the electrical and sewer system. The center has no supplying or health center, people usually have to walk up to 5km to reach these services, the complete population is unemployed or employed through the illegal sector. Due to isolation and lack of skills, it is hard to obtain income. Whole families live with only 110 KM (aprox.55 €) per month. The residents have no health or pension insurance, and find it very difficult to provide for basic living needs. Children attend four years of elementary school within the center, but due to lack of connectivity and money, further education is for most, just a dream.

491 registered residents

164 households

NO formal employment

YES primary school

10km high school

2,5km health centre

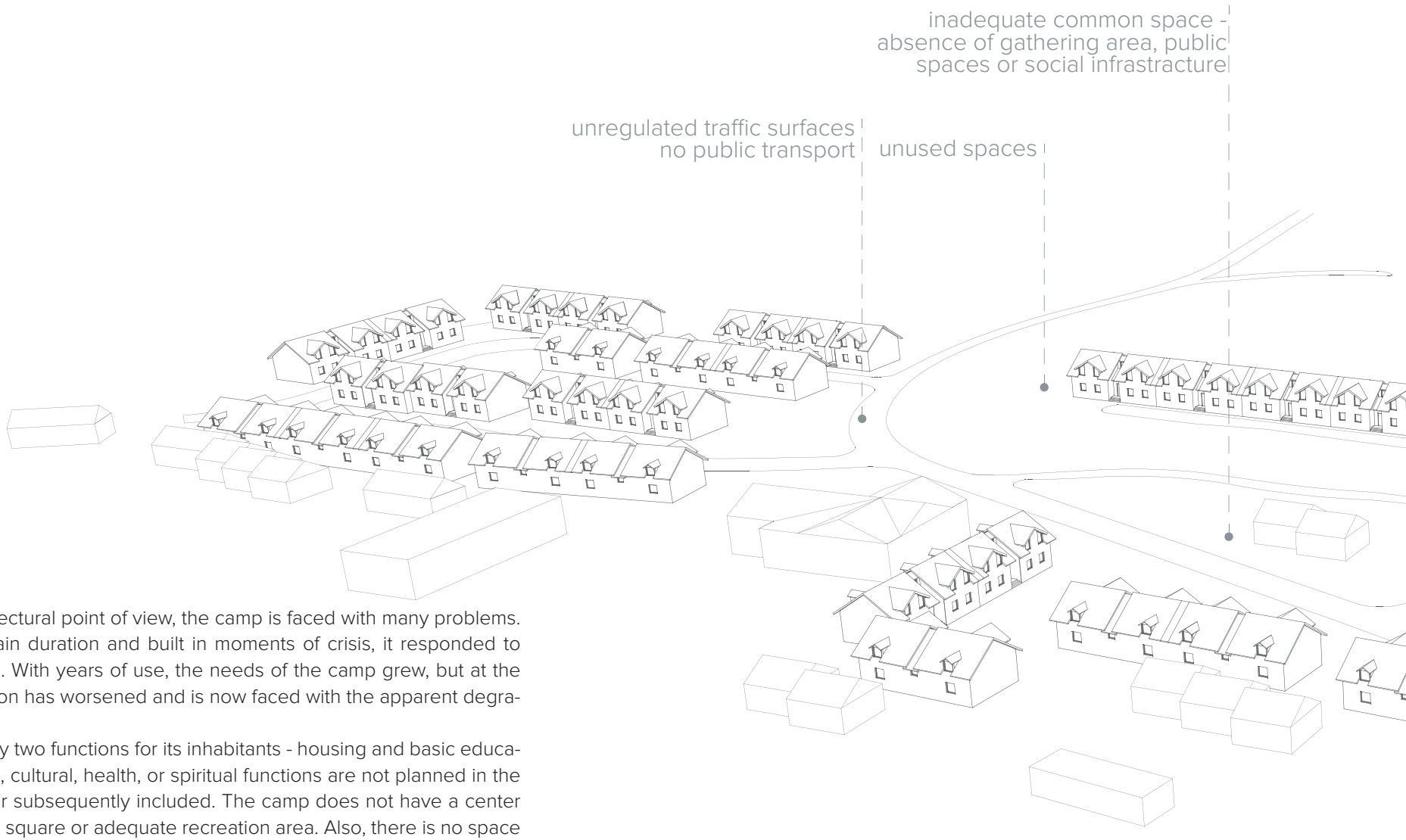
25-30km hospital school

3km public transport station

Opened in **1995;** in **2015** still in operation

People living of **50$** per month

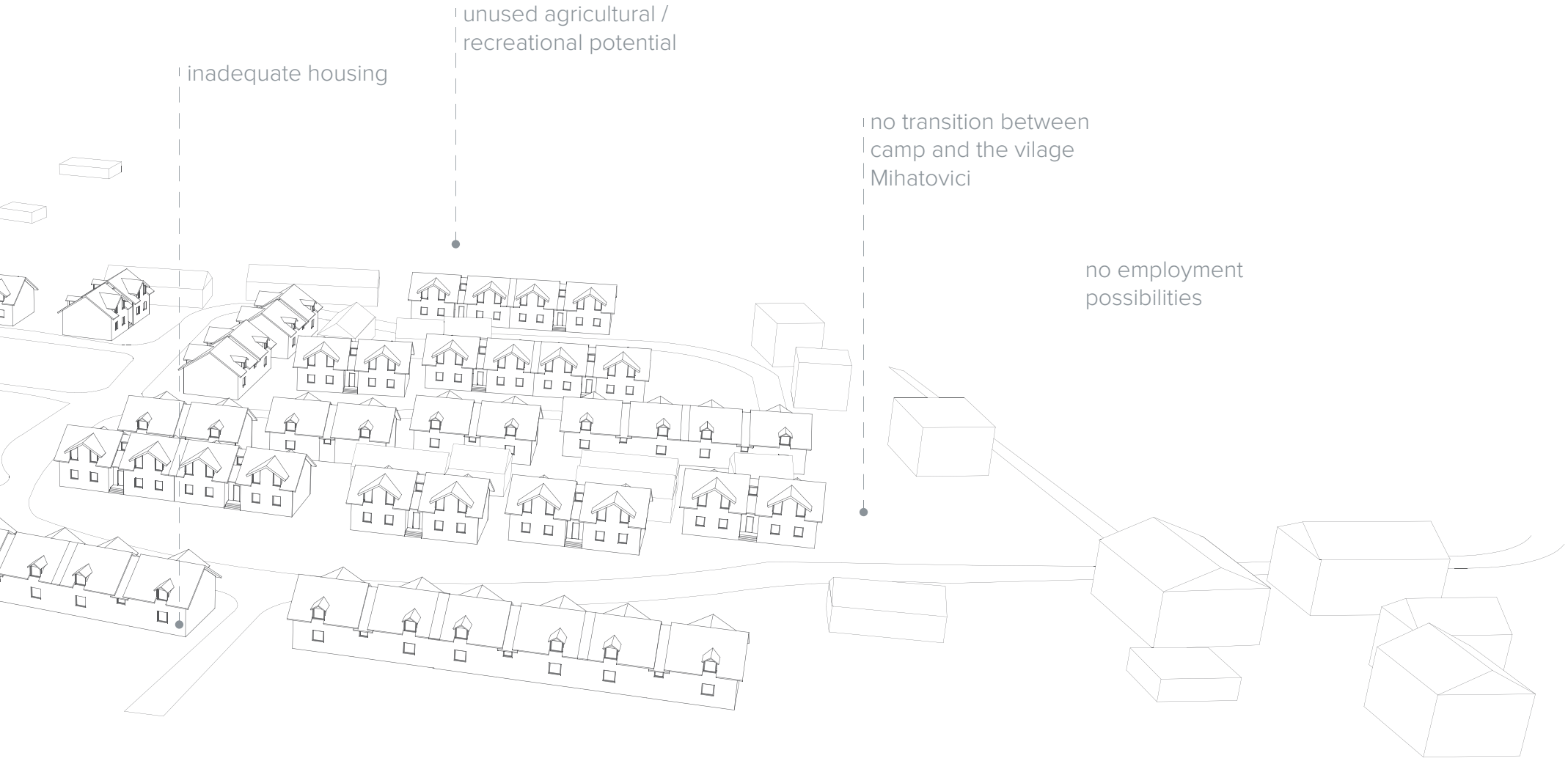
No employment, health insurance, adequate housing, opportunity for self-development!



Seen from an architectural point of view, the camp is faced with many problems. Intended for a certain duration and built in moments of crisis, it responded to basic, urgent needs. With years of use, the needs of the camp grew, but at the same time its situation has worsened and is now faced with the apparent degradation.

The camp offers only two functions for its inhabitants - housing and basic education. All other public, cultural, health, or spiritual functions are not planned in the original plan, or ever subsequently included. The camp does not have a center for supplying, public square or adequate recreation area. Also, there is no space for the possible development of small business and the gradual introduction of formal employment in the camp. The camp has a character of the “sleeping neighborhood”, with absence of important functions and large unused areas between housing units. Although located on the surfaces suitable for agricultural development, this potential is completely unused. In addition to the primary school, which does not have an adequate recreation area or playground, the camp does not provide any opportunity for development of its inhabitants. Without a connection to the public transport, the camp is only accessible by private vehicle, which further limits the possibilities for camp residents.

Considering the generally poor physical condition of the facilities, and the lack of functions for social, spiritual, cultural expression, it is obvious that the camp is in desperate need for physical intervention that will make a difference, revitalize existing facilities, as well as create new contents that will allow further development in various aspects of life.


inadequate housing
unused agricultural /
recreational potential
no transition between
camp and the vilage
Mihatovici
no employment
possibilities

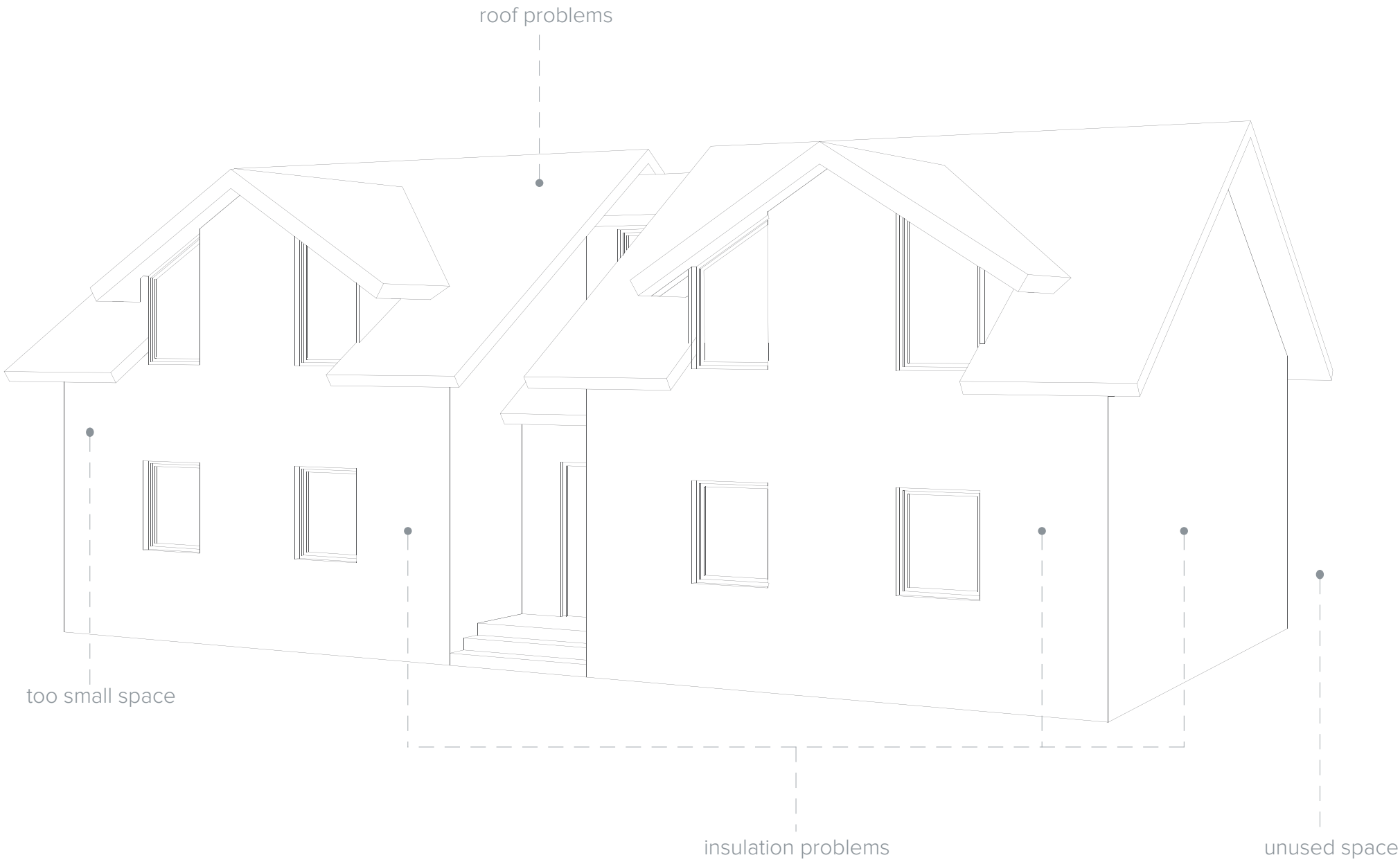
1995

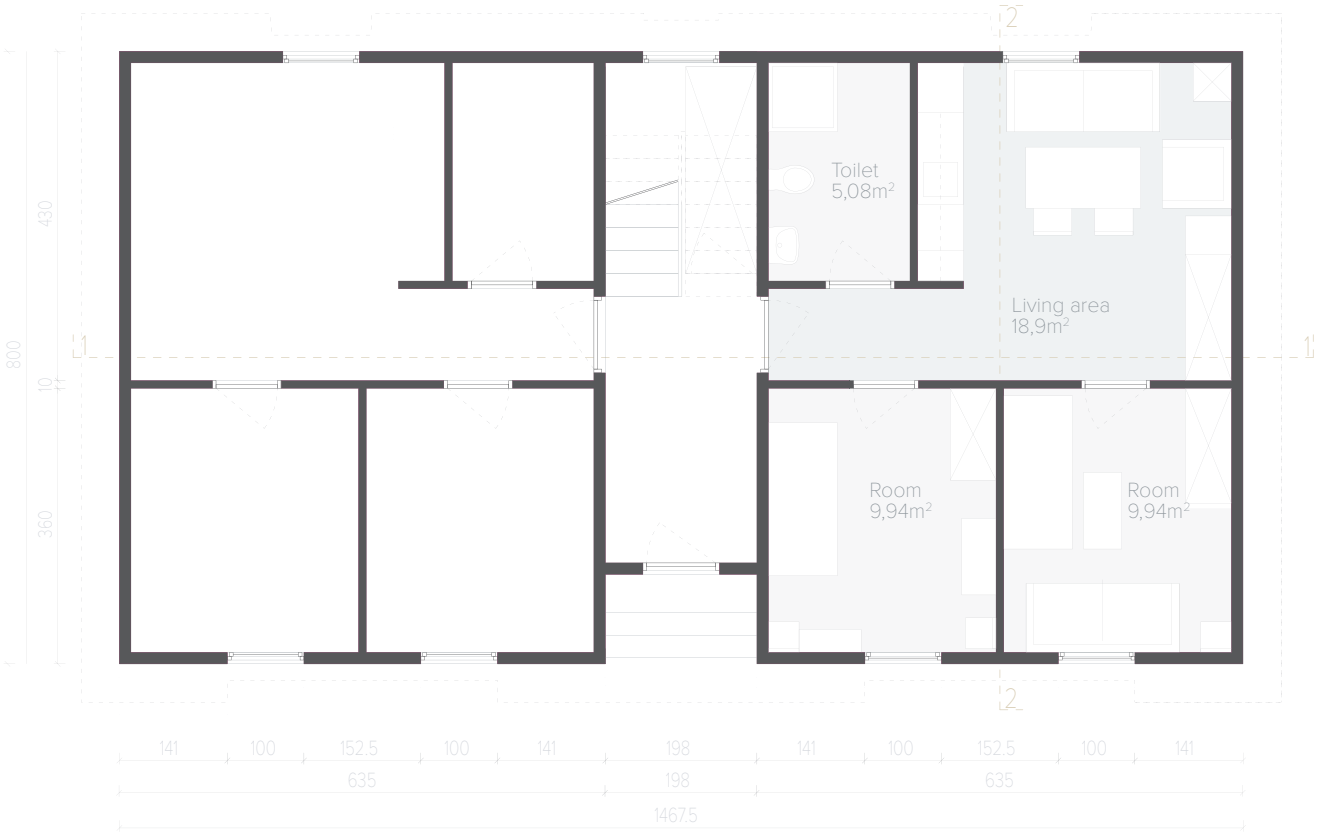
2015

HOUSES

All the houses in the camp have the same structure. One entrance connects two units, each of which has two floors and the apartments on each floor. Floors are connected with a staircase which can be accessed directly from the entrance. Each house has a hip roof covered with tiles. Due to lack of information, the materialization and construction of houses is unknown, but the assumption is that it consists of brick blocks for load-bearing walls, siporex panels for partition walls, wooden ceiling and plaster and wood panels as wall finishes. Houses do not have heat or sound insulation.

Each apartment has the same layout and the size, regardless of the number of members - two bedrooms, kitchen and dining / living room and bathroom. The total surface area is about 45m2. The apartments are connected to the power grid and water supply, with bathrooms connected to local septic tank. The majority of the population does not have enough money, to use and maintain electrical and sanitary facilities, and often live without electricity water or heating. Most of the population is dissatisfied with their housing –apartments are too small in case of larger families with more members, there is no privacy, heating, and houses are generally in a very bed condition.

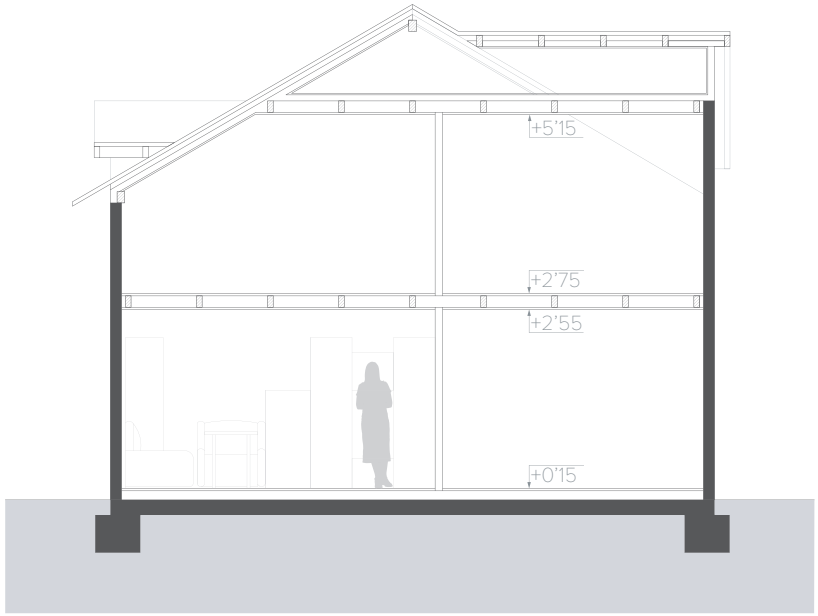

roof problems
too small space
insulation problems
unused space

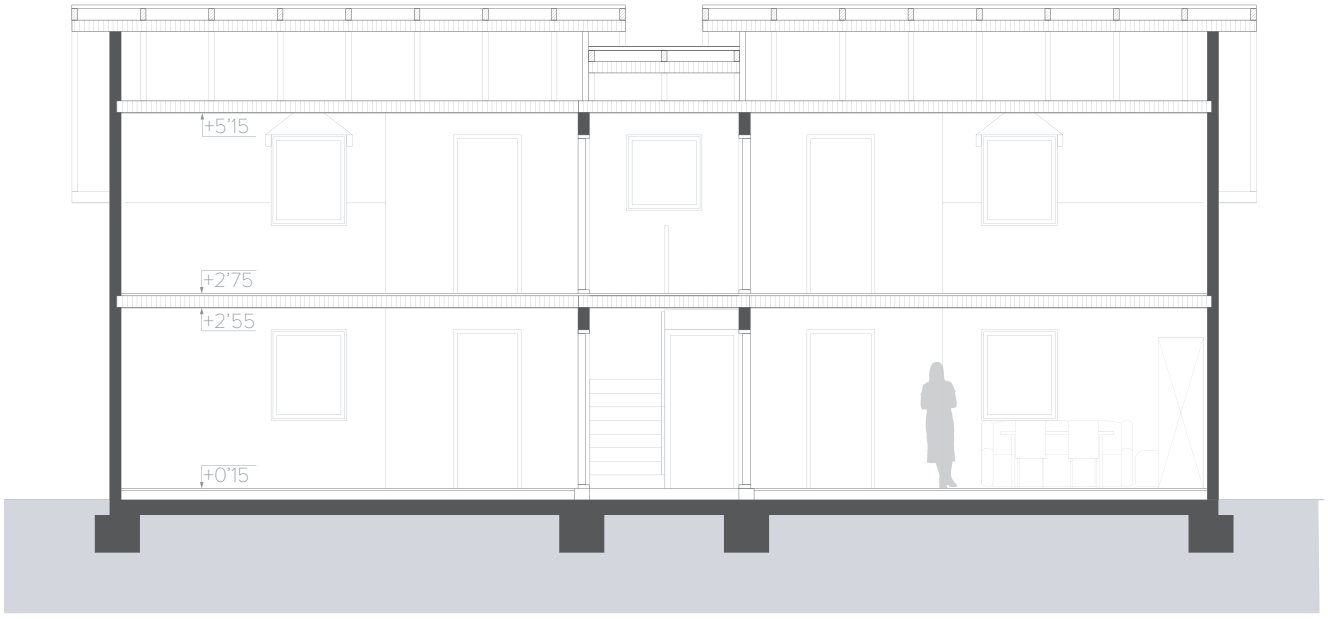


PLAN

M 1:100

*construction of the houses is assumed, dimensions were measured





SECTIONS

M 1:100

*construction of the houses is assumed, dimensions were measured

EXAMPLE OF A TYPICAL FACADE

M 1:100

*construction of the houses is assumed, dimensions were measured

HANIFA, 58

Born in Srebrenica in northeastern Bosnia, where she lived in the house with her husband and a son. They worked in agriculture, kept animals and had a steady income and a normal life. When the war started, they could not leave blocked Srebrenica until July 1995. In Srebrenica they have experienced the horrors of shelling, hunger, cold and lack of basic means of subsistence. They left Srebrenica in 1995, had to walk through forests and managed to get to Tuzla where they were initially placed in a school with other displaced persons from Srebrenica. Later they were moved to the collective center Mihatovići, where they still live. During the war, she and her husband have lost several family members, some of their relatives have moved abroad or in other places in Bosnia and Herzegovina so that in Srebrenica they have no one left. She and her husband are unemployed, and because her husband is a demobilized soldier, he has health insurance, free health care and receives social assistance in the amount of 110 KM (approx. 55€) per month. It is their only steady income, and occasionally they receive assistance from the Dutch government in form of packed food and hygiene products and clothes. Housing unit in which they live in the camp is unsuitable because they lack the funds to invest in its maintenance. Her husband occasionally does physical labor for wages, while she occasionally with other women from the camp is going to open pit lignite mine near the camp to collect the remains of coal. They use the coal to heat the apartment, but also to sell it. Her son graduated from high school with good grades, had no founds to continue his education and has not been able to obtain a job. Hanifa's only wish is that her son has a permanent job. She would like to think that they will have opportunity to once again have a decent and dignified life, but doesn't believe in it anymore.

DŽEVAD, 65

Born in Zvornik in northeast Bosnia where, before the war started, he lived with his mother, wife and two children in a family house and was employed in the company for wood processing. He says he had a good life, he was able to provide for his family, and worked and socialized with otherswho lived in Zvornik and had no problems. He did not believe that the armed conflicts would last long and did not want to take part in the war. However, soon he was fired from his job just because he was Bosniak. When conflicts become fiercer, and when others, who did not participate in the war, were taken into concentration camps, he realized he could no longer stay in Zvornik. With his family and little personal things they managed to take, he left to Tuzla, which at that time was under the control of legal authorities of Bosnia and Herzegovina. They were placed in the collective reception center in the hall of a school. The conditions were bad because in one room many families who fled from the occupied territories were accommodated. His wife did not want to stay there, and they managed to register for the convoy that was organized by the humanitarian organization for refuge abroad. His mother remained in Tuzla, and he left to Germany with his wife and children. They were given accommodation in a refugee camp where conditions were somewhat better than in Tuzla, and soon moved to a separate housing unit. They got financial assistance sufficient to meet basic needs, and the children started going to school and quickly learned the German language. He founded hard to adjust in new environment, not knowing German and not being able to find a job. This caused frequent disagreements in the family and he divorced from his wife. In 1993 he returned to Tuzla, while his children stayed in Germany with their mother. In Tuzla he met his current wife, who was a refugee from Bratunac and remarried. They changed several places before they finally got accommodation in the collective center Mihatovići. His daughter was born in the camp. She is now 12 years old and attending primary school, which is part of the camp. Unfortunately, the daughter suffers from epilepsy, and his mother is old and sick. It is hard to take care of them because none of them has health insurance. For medicines and everything else they need to go to Tuzla and other places. The bus station is not close and often they have no enough money to buy a ticket and have to walk. His life is hard because he has no permanent job, occasionally earning by helping others with moving. One meal a day they get from *National kitchen* (Narodna kuhinja) in Tuzla is the only help they get. He does not have the means to visit his children in Germany and feels that the residents of this camp are forgotten, abandoned by everyone and left to fend for themselves. He doesn't know if and when his house in Zvornik will be repaired. He would like to go back even though he knows that life will not be the same as before the war. He thinks that all his problems would be solved when he and his wife would have an income security, but he is slowly starting to lose his faith and hope.

HOW TO IMPROVE THE WAY SOMEONE LIVES ?

HOW TO USE ARCHITECTURE TO HELP SOMEONE ?

APPROACH

MAKE IMPROVMENTS IN HOUSING

Existing houses need to be repaired and made adequate for dignified living - better sound and termic insulation, possible extensions, introduction of incremental and people's opinion about the place they inhabit. This would give people a chance to express their desires, and then later to adjust the physical structure to their ever-changing, living needs. This would create desire between people to stay and embrace the place as their home.

MAKE IT RECYCLABLE = MAKE IT CHEAP AND AFFORDABLE

Currently, construction and deconstruction industry produces great amount of material waste, which can be easily and cheaply reused instead of being disposed of in landfills. Even though it is marked as trash, the choice is very big, offering the chance to come in possession of higher-quality materials from potentially purchased ones.

MAKE A PLACE PEOPLE WANT TO BE IN

Creating a place where people want to live and visit is not about creating highly luxurious areas with the most expensive materials, furniture and contents. It's about creating what people need and want in the most economically, sustainable and human way. Giving people a chance to be involved in creation of space they inhabit makes them love that place and wish to further improve it. Also it makes the place more approachable, bringing other people to enjoy it as well.

MAKE IT SUSTAINABLE

Bosnia and Herzegovina offers countless ways for a sustainable approach. Its natural resources and still very unaffected quality, could be used in many ways. Using local materials, natural energy resources (collection of sun and wind energy, rain, snow), potential for growing vegetables and fruits and making high quality food and goods (honey, teas, jams, things made of wood, etc), the area could make benefits not only for its residents, but a more widespread area.

MAKE IT SIMPLE

With utilization of simple construction and building methods, it becomes easy to make and reproduce for everyone.

MAKE PEOPLE FEEL INTEGRATED

Feeling of belonging is very important, especially in unpleasant life situations like a refuge. It is two dimensional perspectives - where a person feels like they are at home, is where a person feels integrated and other way around. In order to make people feel physically and mentally comfortable in a place they inhabit, they need to feel like they belong and matter. At the same time, people already integrated in the place need to realize the importance of presence of others through creation of benefits with build structure for both parties.

MAKE OPPORTUNITIES FOR EMPLOYMENT

One more very important aspect of people feeling comfortable about their life is being able to provide for themselves and use their skills. Focusing on potentials of the area, the camp can stimulate development of small businesses like carpentry, food and cloths production, accommodation, gastronomy and tourism attractions for possible visitors.

MAKE OPPORTUNITIES FOR EXTENSIONS

Considering the area the camp is constructed in it could be easily expanded, offering new homes for the ones in desperate need for housing. This would also redefine the camp for displaced people into a real settlement, with a focus on the permanence instead of temporality.

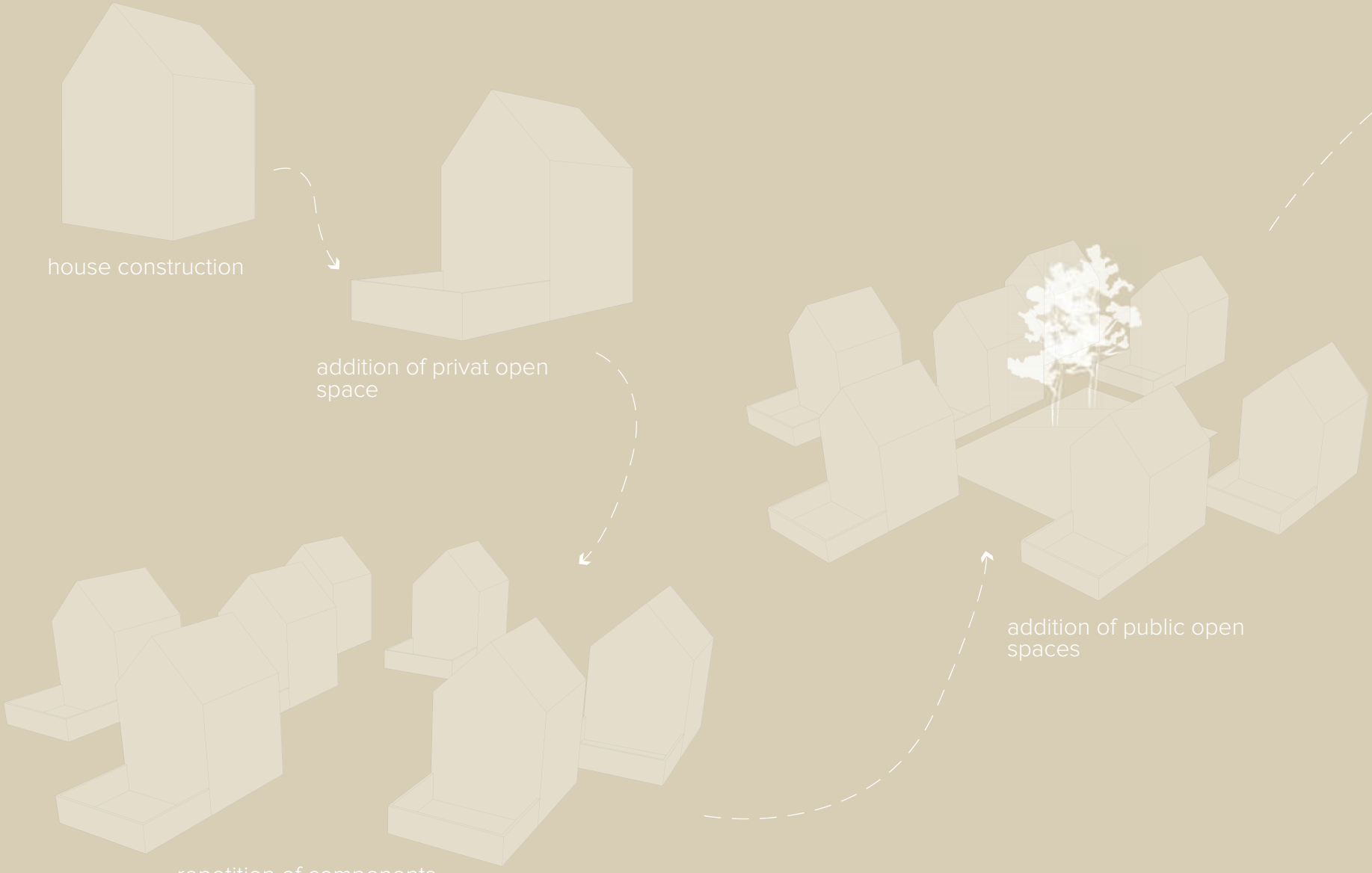
MAKE USE OF POSITIVES

Every situation and area has its positives that should be recognized and used. The camp is built in a very attractive area with many potentials that if could put to use, may bring many advantages to it.

MAKE NEW FUNCTIONS

With introduction of new functions like small scale market, workshop, public square, possible infrastructure for rural tourism, health post, the area would be enlivened, employment opportunities created and people attracted to stay and to come and visit, which will successively lead to possible complete sustainability of the area.

THE DEVELOPMENT OF SETTLEMENTS

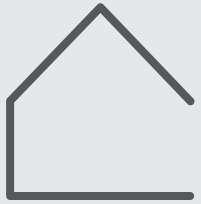


addition of public functions

repetition

PROGRESSIVE IMPROVEMENTS IN TIME

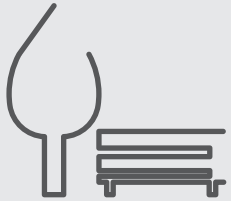
involvemt of residents in decision making



house improv-ments for every family

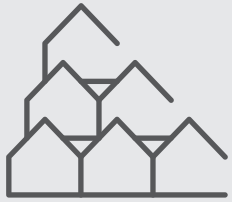
acquiring new skills

gardens



new public places and facilities

employment/income



new houses, new residents

the development of touristic potential, attracting people

1 Housing improvements with addition of a garden for a private use

roof replacement, addition of a possible extra floor, adapting housing units to residents needs, insulation improvement, installation of a composite toilets, installation of solar panels for solar energy collection, installation of a system for rainwater collection, with a focuse on improvment of living standard

2 Creation of a public square and new functions

development of a place for gathering, construction of new facilities such as workshop buildings for training and developing small scale businesses focused on local potentials - woodworking, hand-crafts, food processing, production of honey, jam, sales, custom production, establishment of trade fairs and seasonal markets.

3 Creation of a public garden

cultivation of seasonal vegetables and fruits, bea keeping, all for food production that could satisfy needs of camp and also be used for businesses development

4 Traffic infrastructre reconstruction

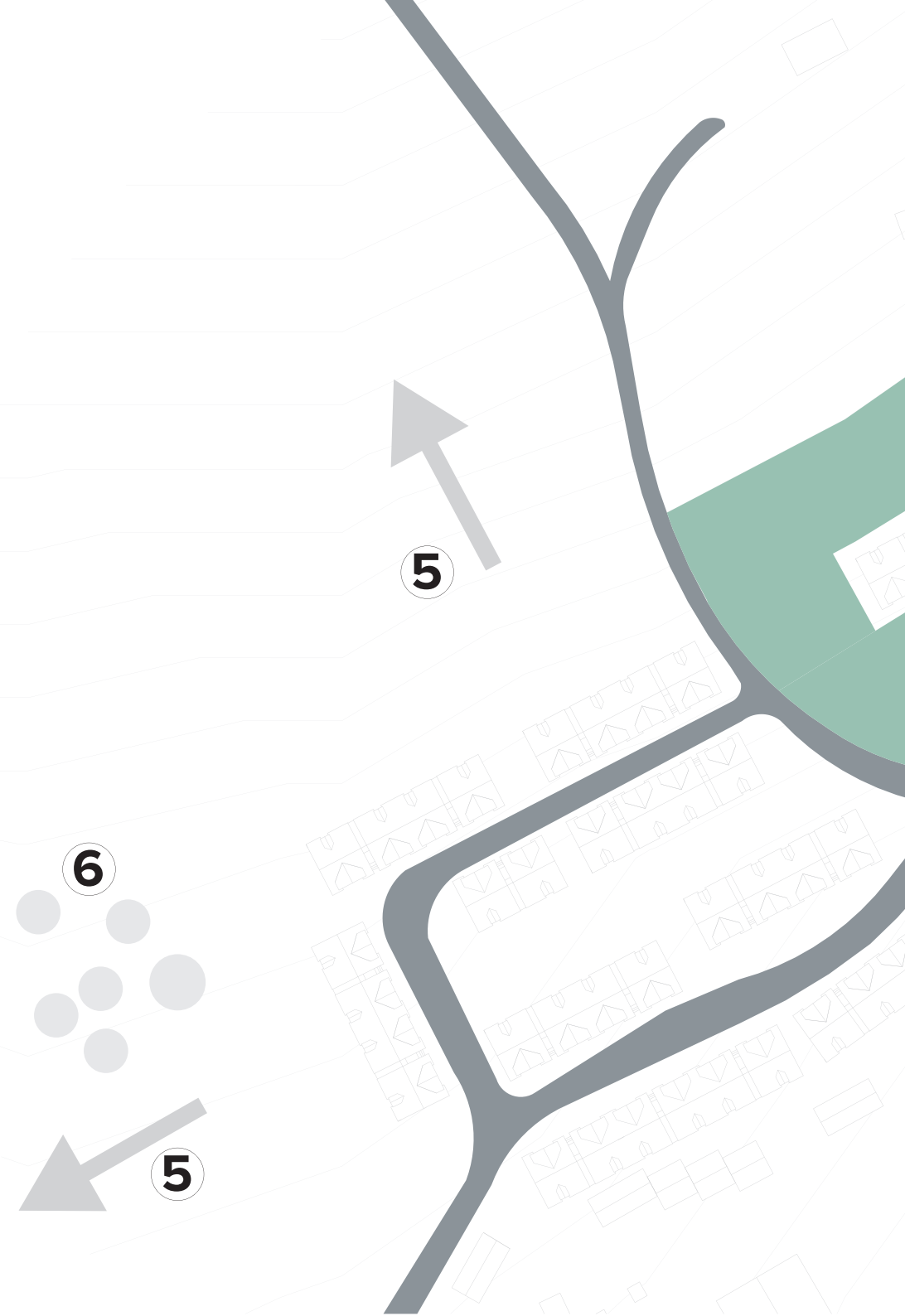
improvement of traffic infrastructure in order to make place more accessible and safe, creation of 'shared spaces', where same surfaces are used by pedestrians and drivers possible extension of public transport system, making it easier for people to move and possibly find employment outside the camp, with skills they already have or they acquired in the camp

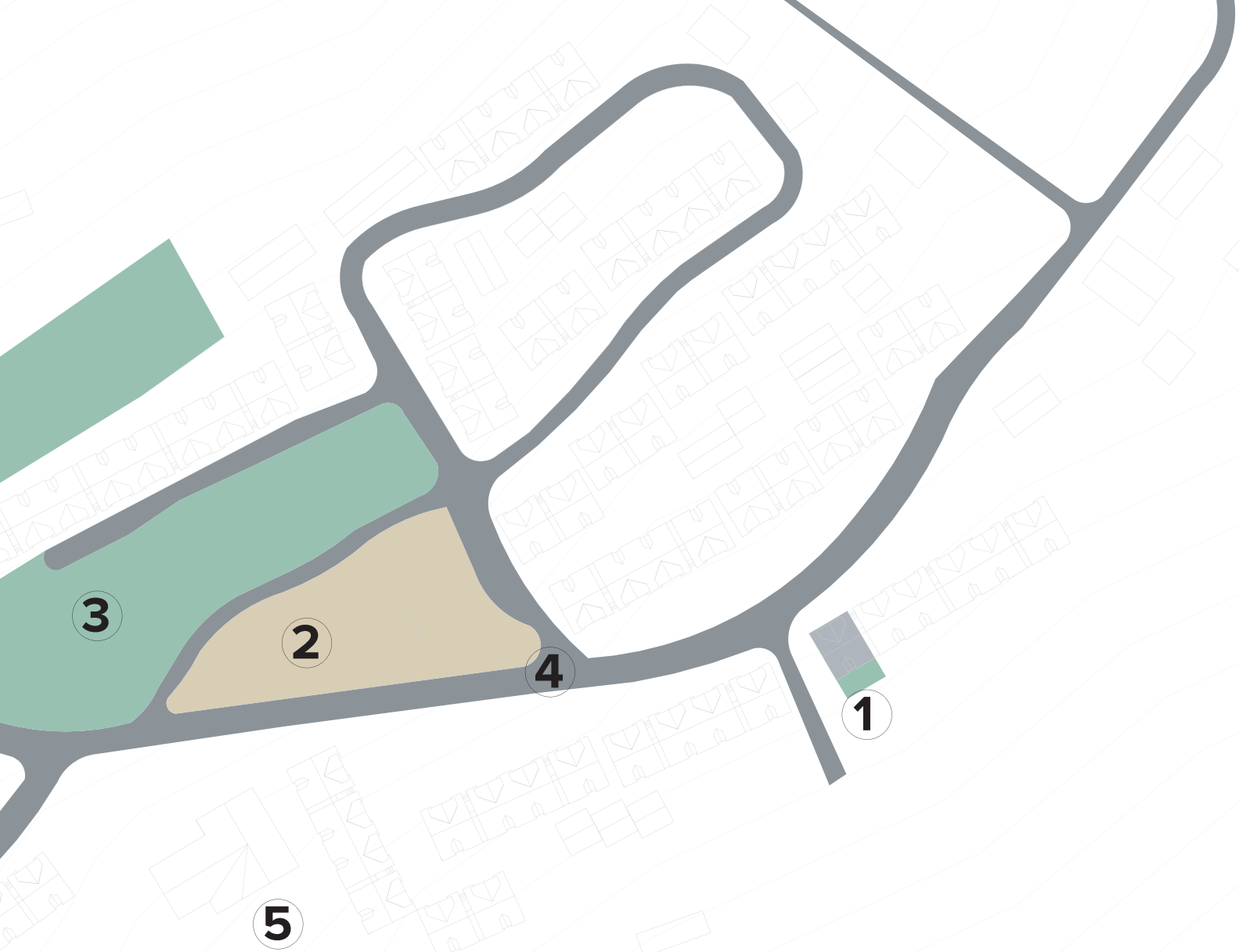
5 Future extension of the settlement

The area provides quality space for further development of the settlement, especially in the north-west direction, toward the forest on the north, and lake on the west. This could offer new affordable, cheap but quality homes to people in need

6 Development of the tourism potential

Creation of accommodation facilities for short period stays, promoting rural tourism potential of the area, and facilitating integration process, minimizing the effect of isolation





SCHEMATIC ILLUSTRATION OF INTERVENTIONS

M 1:1000

1st PHASE

In the first phase, interventions are focused on improving the physical structure of the housing units, with the aim of improving living conditions. Each house acquiresa new floor with a simple construction of wooden frames.

With a simple design and construction program, residents can build themselves, thus significantly reducing costs, and gaining new skills that they can use to improve their employment opportunities.

Each house acquires new insulation, compost toilet, and the possibility of installing solar panels and rainwater (each block has a reservoir to collect rainwater). These interventions improve the quality of housing, reduce costs (electricity, heating, sewage), and contribute to the development of self-sustaining population.

The materials used are recycled wood and insulation (insulation wool, cork), which makes the intervention very affordable.

At this stage the interventions in public space begine, including the creation of a public square and public facilities.

Houses
Private gardens
School
Side objects
1.Public square

SITE - 1st phase
M 1:1000

2nd PHASE

In the second phase, the focus is shifted from the individual to the global, with interventions aimed to improve public spaces.
The area receives a public garden and orchard, for growing vegetables and fruits. Growned food residents can use for themselves or for further processing with an aim of selling it. This produced fruit and vegetables are seasonal and organic, which can be used as a device for drawing attention to "forgotten" camp and a magnet for potential visitors.
Also, at this stage starts the construction of the first public facilities - a multifunctional space, which can be used as a classroom for different workshops, or gathering center.
Very important part in this phase is education and information of residents on what and how they can do to improve their lives.

Houses
Private gardens
School
Side objects
Public facilities
1.Public square
2. Public garden
3. Bee keeping

SITE - 2nd phase
M 1:1000

3rd PHASE

In the third phase, improvements on the public space continues. All spaces (square, streets) and turning into shared spaces. New facilities are added - kitchen, with home- made products (honey, teas, preserves, meals) which can be used by residents or visited by people who live outside the camp; workshop which can be used to construct and build furniture and building elements, for the needs of the camp or resale; storage rooms for tools and food products.

The garden and orchard are expanded, adding greenhouses, in order to meet the possible increased demand. The settlement also acquires new buildings with living spaces which could be sold for cheap prices or given to socially vulnerable groups. In this phase, the focus is placed on attracting visitors and new people in the camp, which could lead to investment and money inflow.

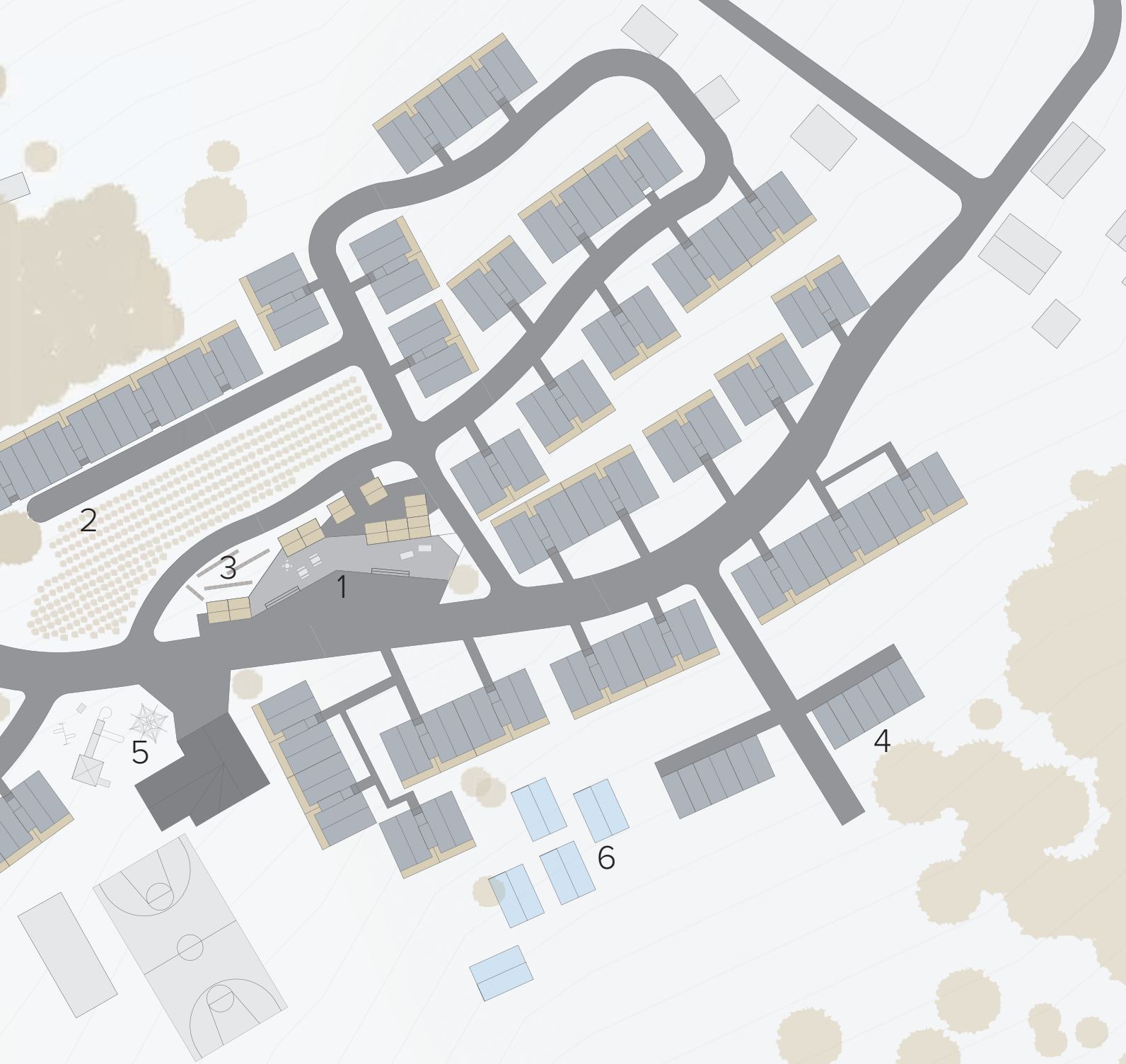
Houses
Private gardens
School
Side objects
Public facilities
1.Public square
2. Public garden
3. Bee keeping
4. New houses
5. School playground
6. Greenhouses

SITE - 3rd phase

M 1:1000

4th PHASE

In the fourth phase continues building of new facilities - new houses and guest-houses, all with the aim of further development of the settlement.
In this phase the focus is placed on development of new services - development and promotion of touristic strengths such as lake Bistrac or big forest areas. The settlemet and its residents can use their potentials and skills, to develop a camp in a new direction - ethno village, which people want to visit, stay a while, or even choose to live in.

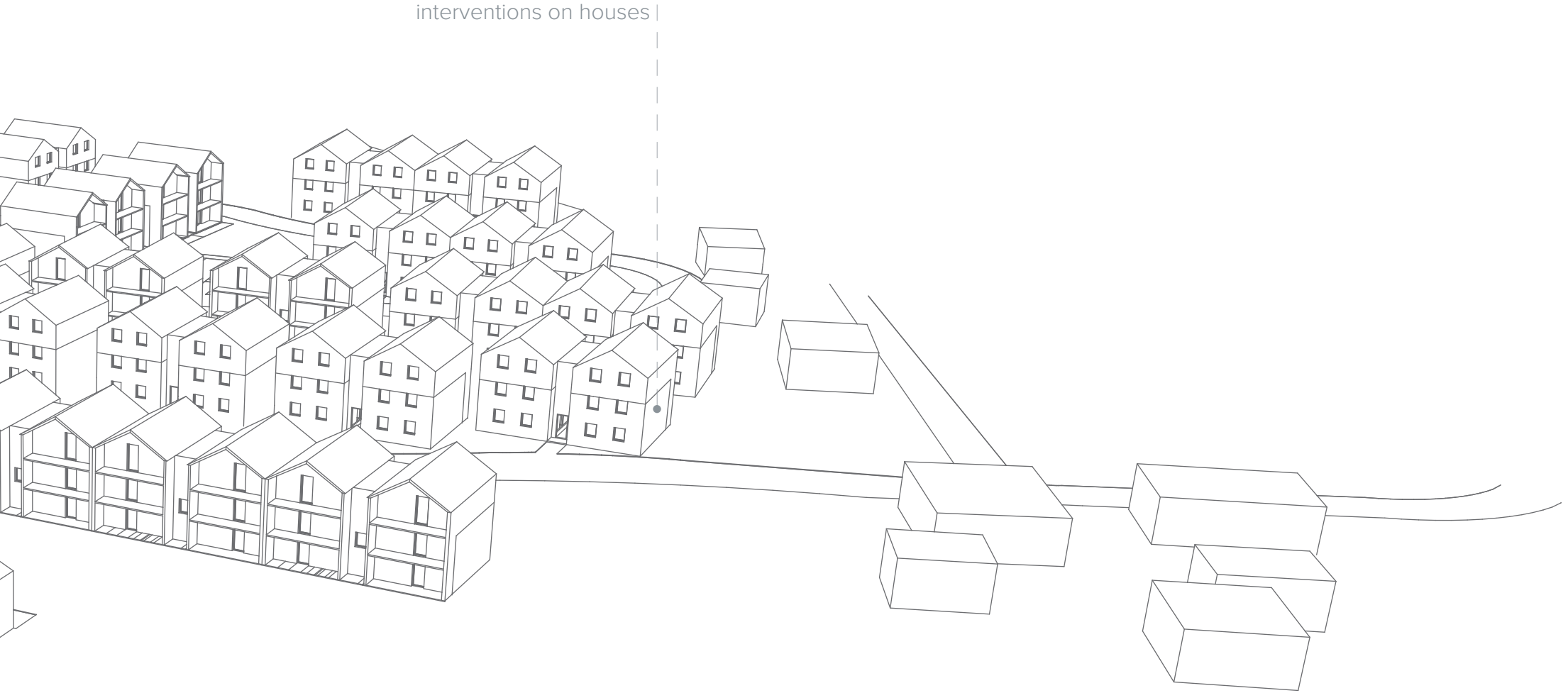


Houses
Private gardens
School
Side objects
Public facilities
1.Public square
2. Public garden
3. Bee keeping
4. New houses
5. School playground
6. Greenhouses
7. Guesthouses

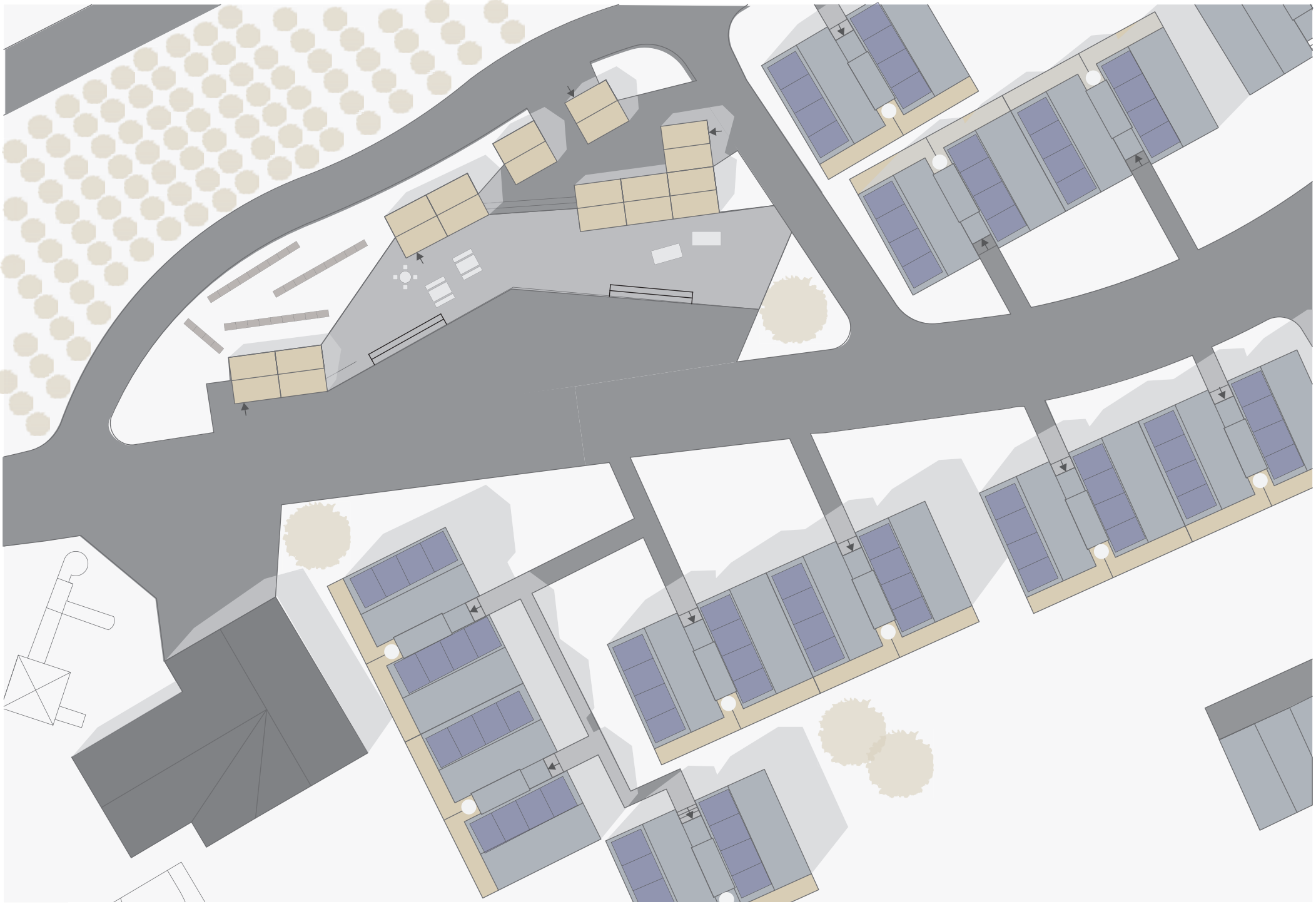
SITE - 4th phase

M 1:1000


public square with public facilities
spaces or social infrastructure
guesthouses
public garden and orchard
school playgrounds
new houses

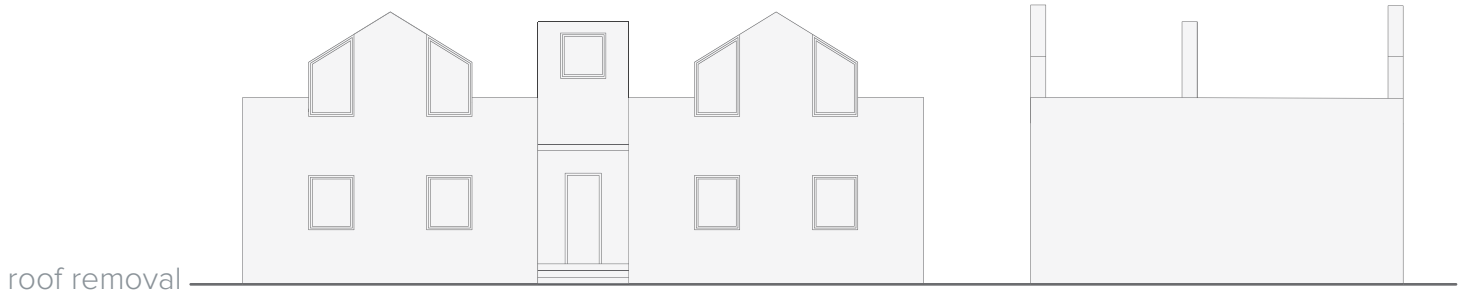


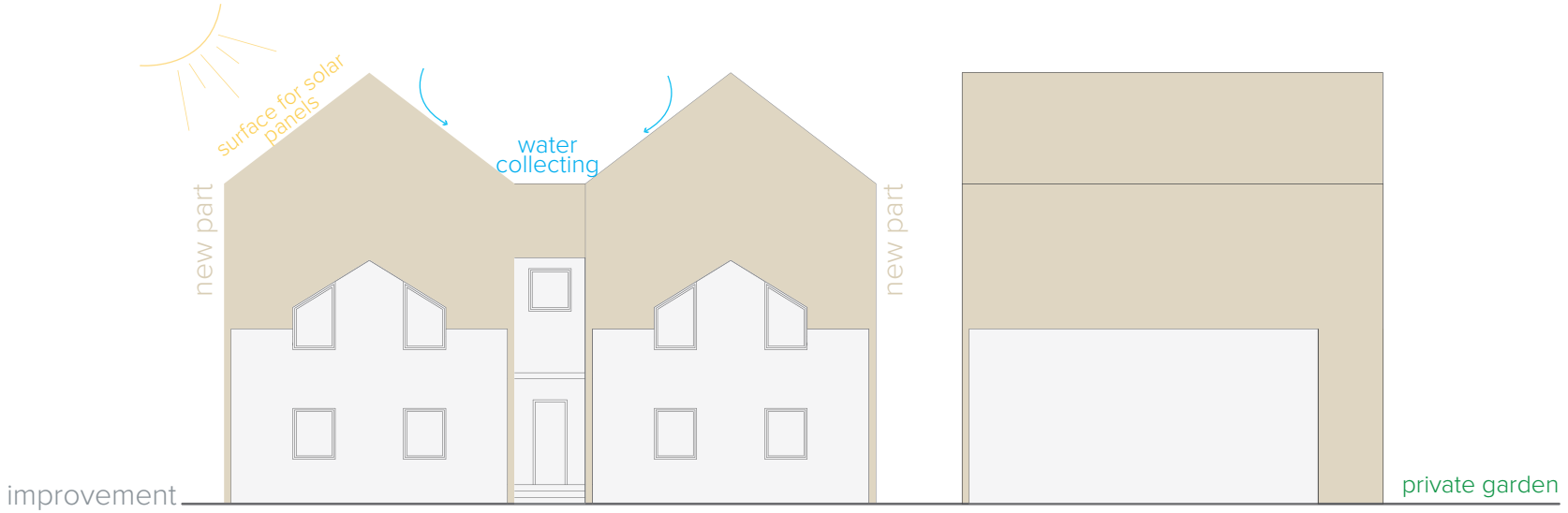
SCHEMATIC REPRESENTATION OF INTERVENTIONS

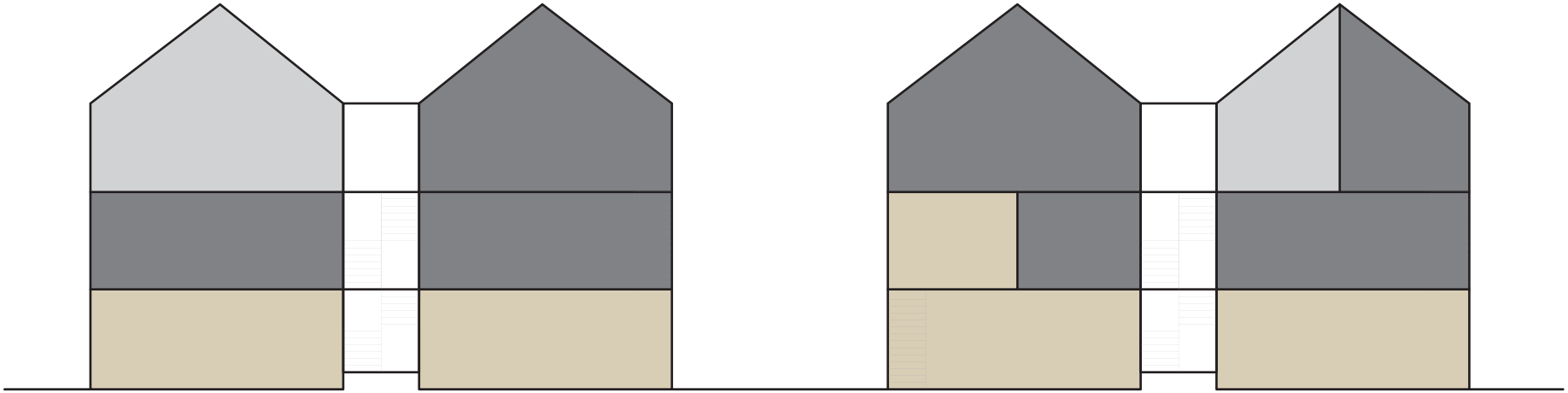


SITE DETAIL
M 1:400


existing state


roof removal


surface for solar panels
water collecting
new part
new part
improvement
private garden

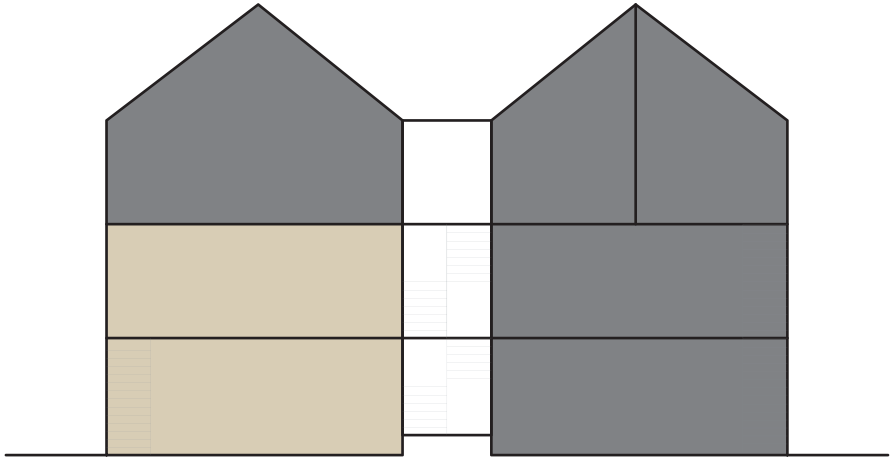


3 apartmants
approximately the same size

2 apartmants
one big and one small

2 apartmants
approximately the same size

3 apartmants
one big and two small

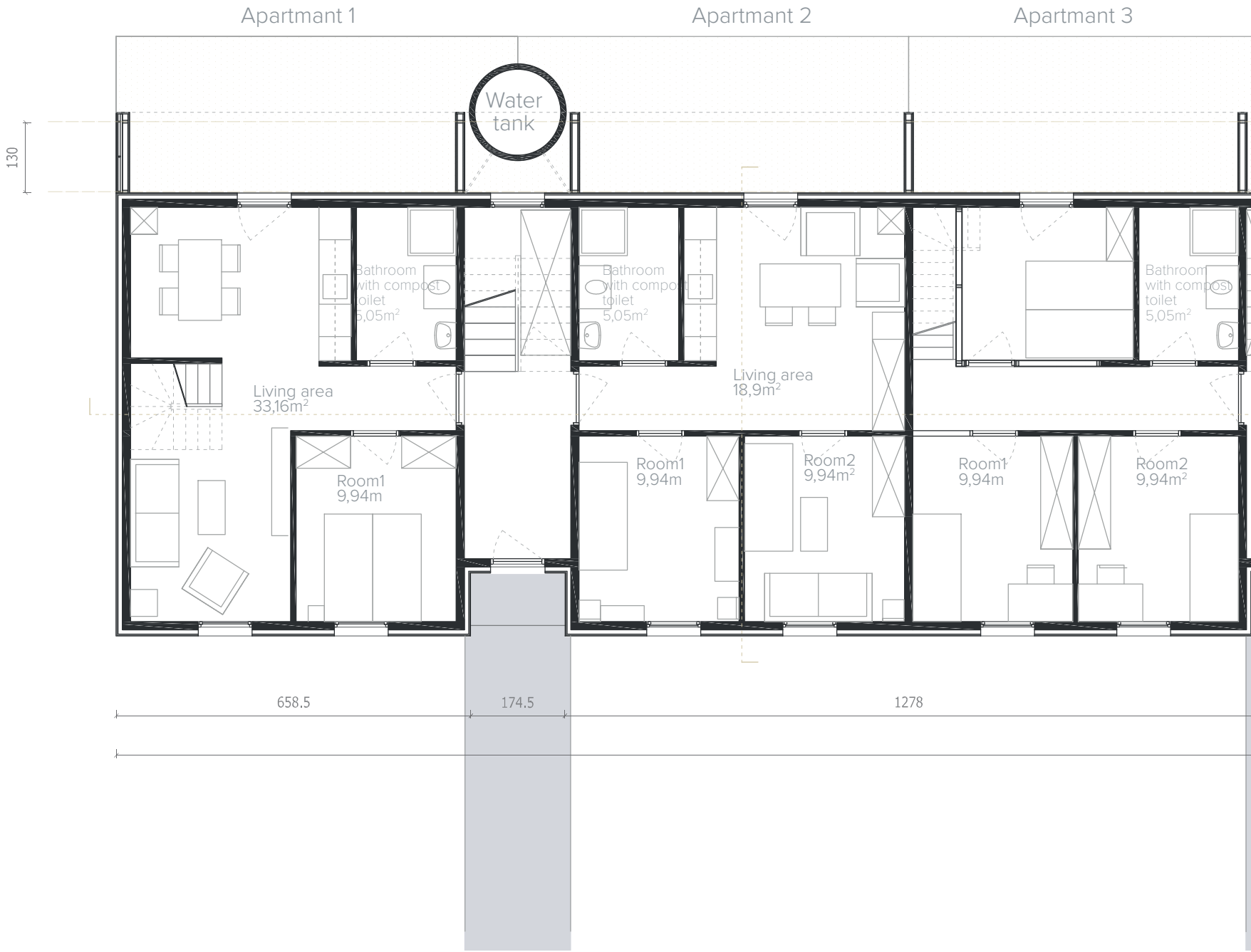


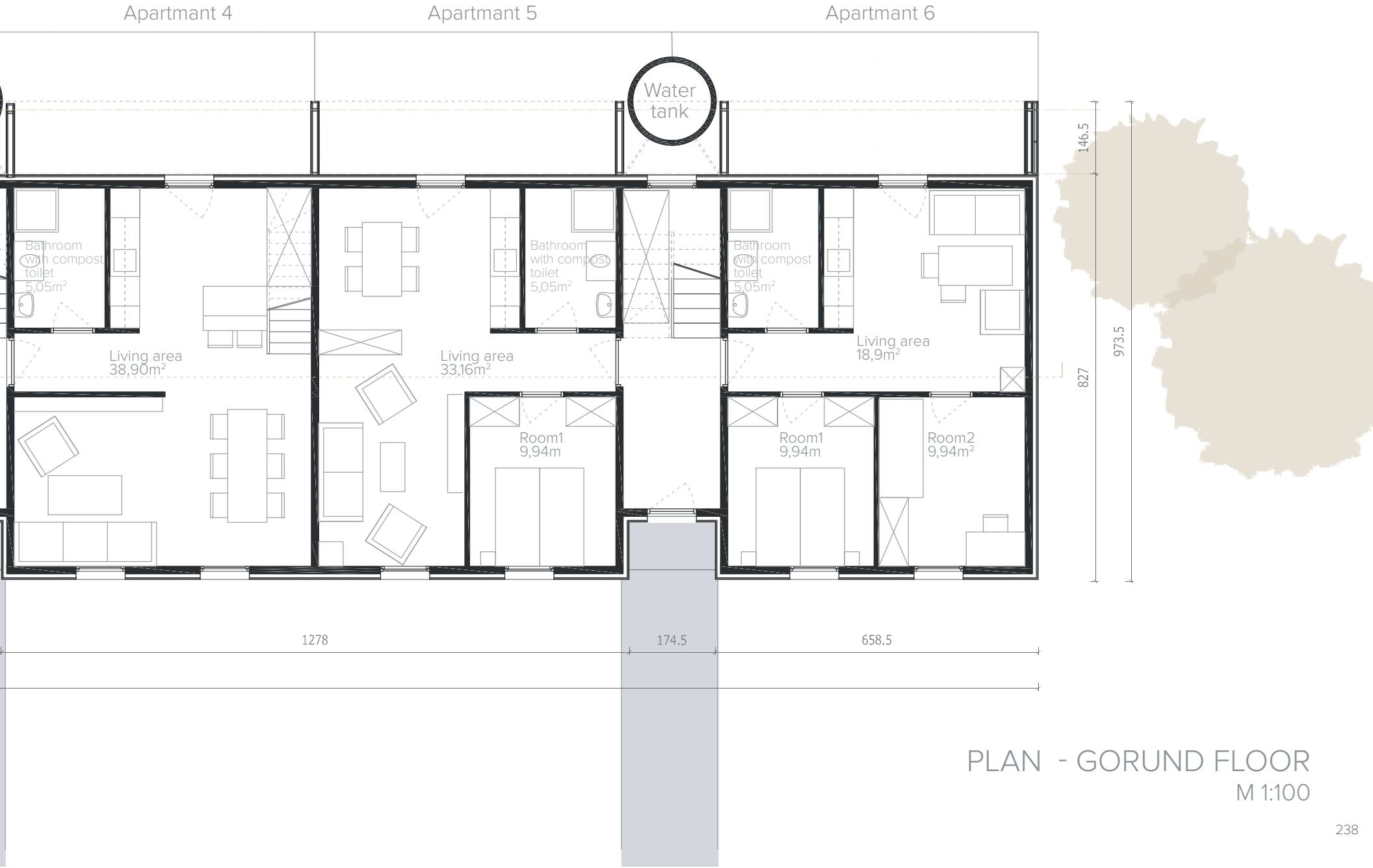
2 apartmants
one big and one small

1 big apartmant

CONCEPT FOR HOUSING UNITS

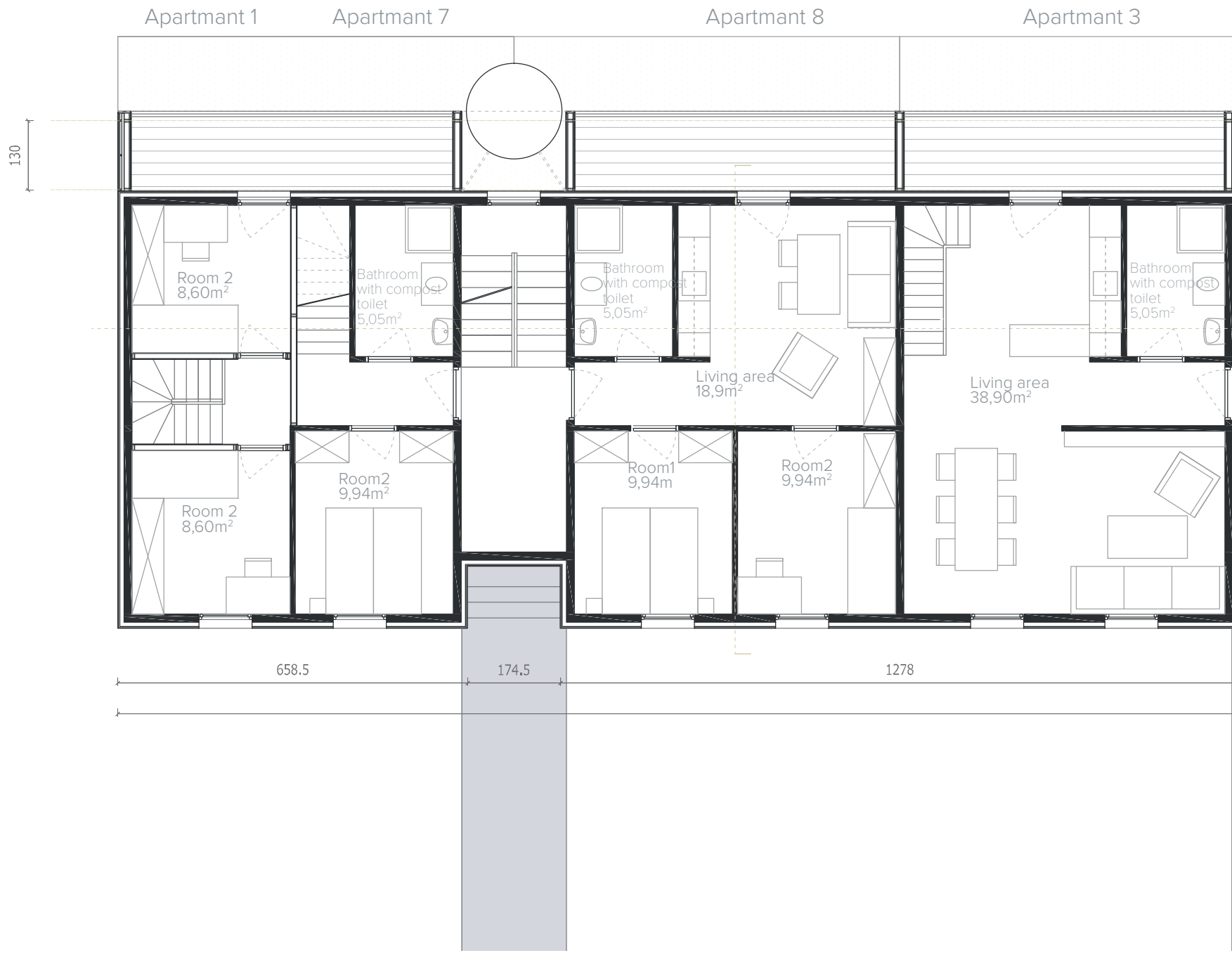
M 1:1000

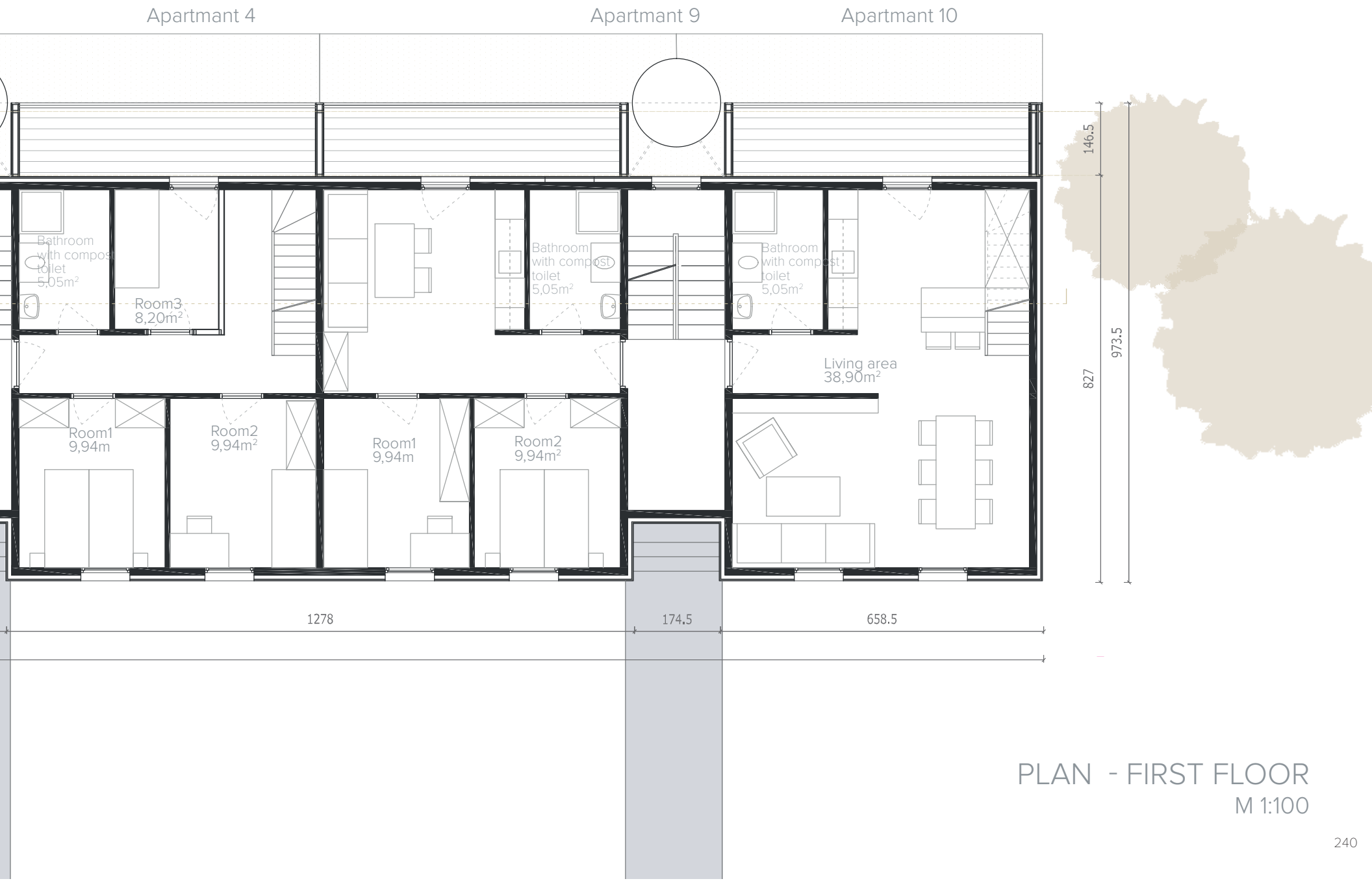

Apartmant 1
Apartmant 2
Apartmant 3
Water tank
130
Bathroom with compost toilet 5,05m²
Bathroom with compost toilet 5,05m²
Bathroom with compost toilet 5,05m²
Living area 33,16m²
Living area 18,9m²
Room1 9,94m
Room1 9,94m
Room2 9,94m²
Room1 9,94m
Room2 9,94m²
658.5
174.5
1278



PLAN - GORUND FLOOR

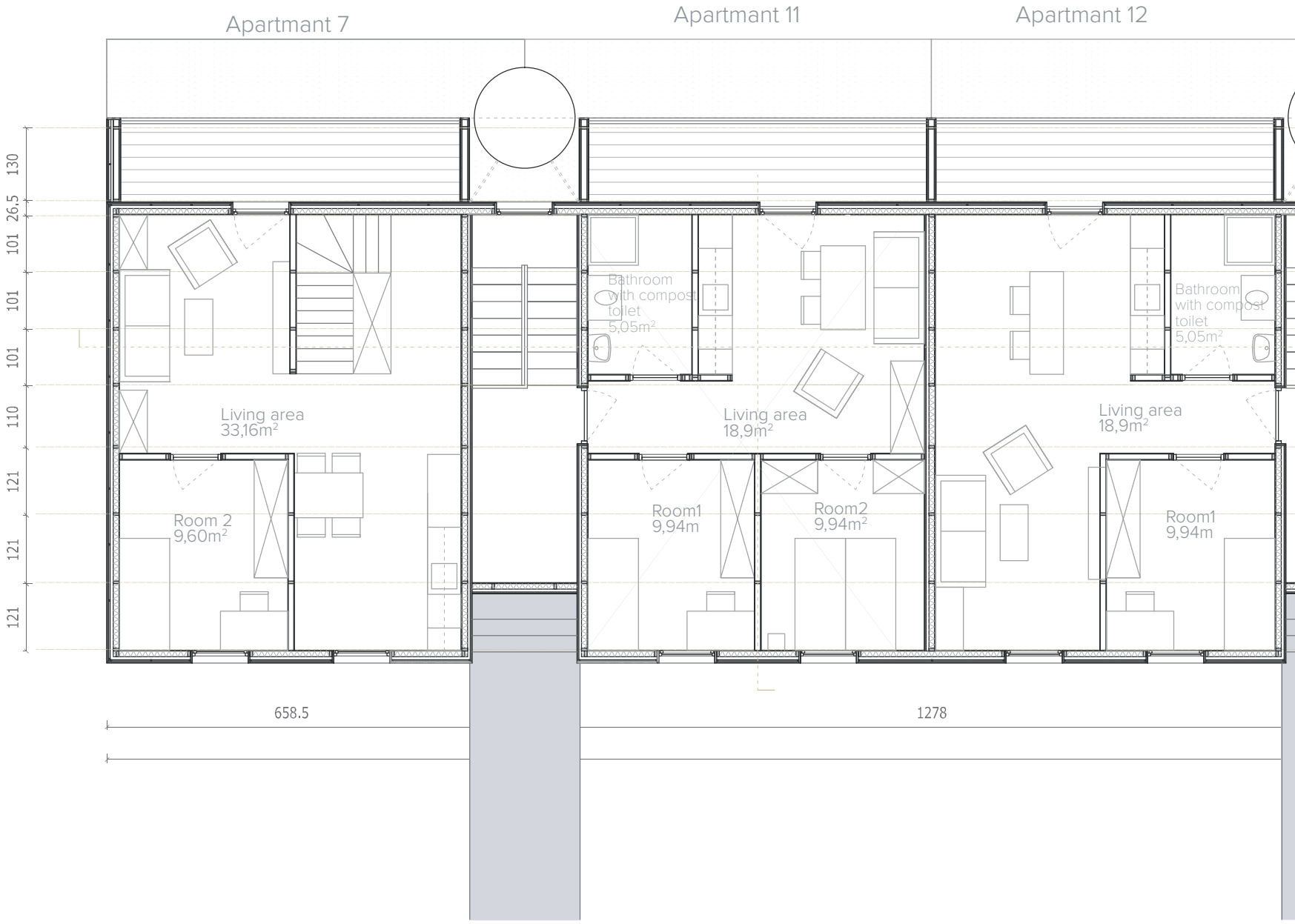
M 1:100

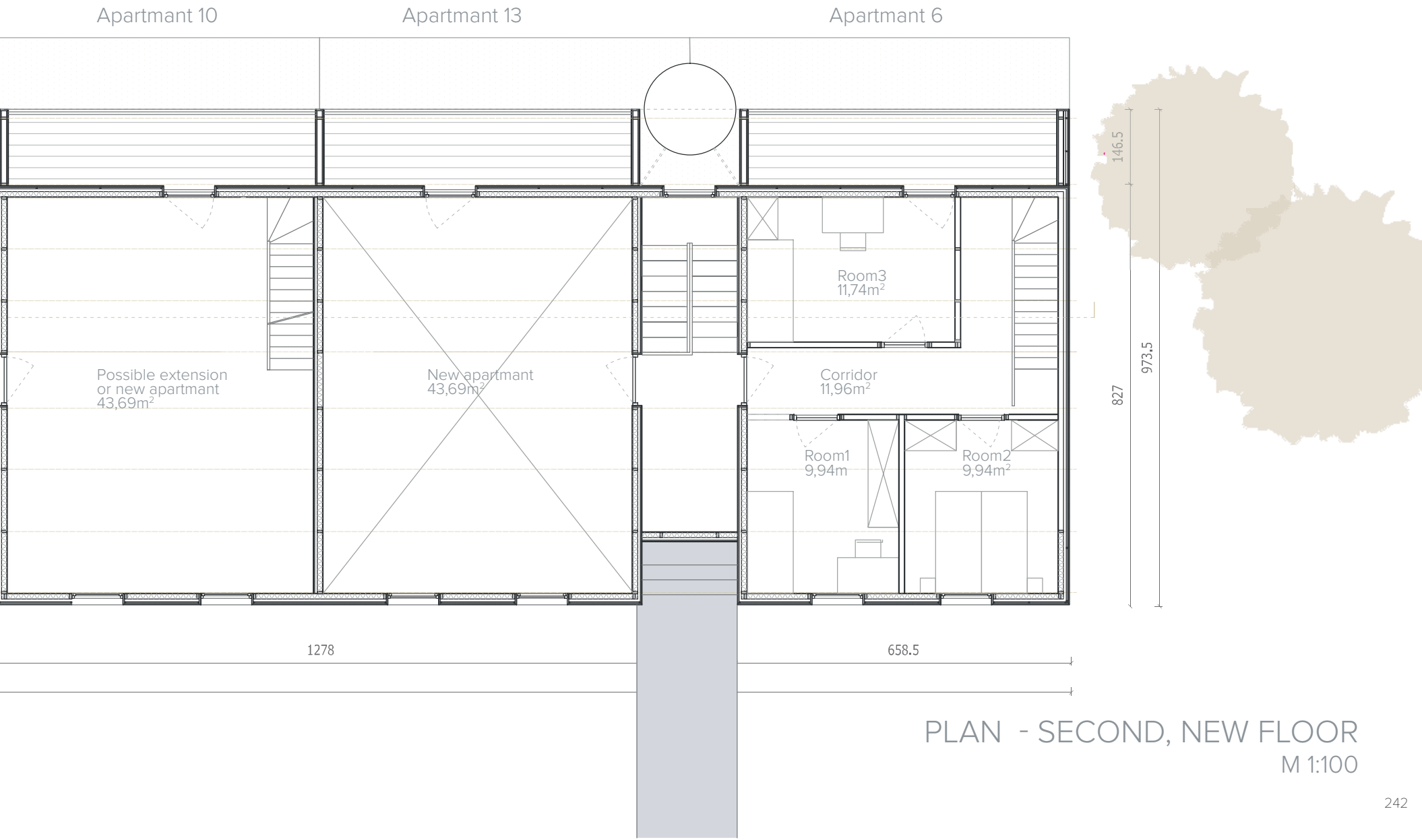

Apartmant 1
Apartmant 7
Apartmant 8
Apartmant 3
130
Room 2
8,60m²
Bathroom
with compost
toilet
5,05m²
Bathroom
with compost
toilet
5,05m²
Living area
18,9m²
Bathroom
with compost
toilet
5,05m²
Living area
38,90m²
Room 2
8,60m²
Room2
9,94m²
Room1
9,94m
Room2
9,94m²
658.5
174.5
1278



PLAN - FIRST FLOOR

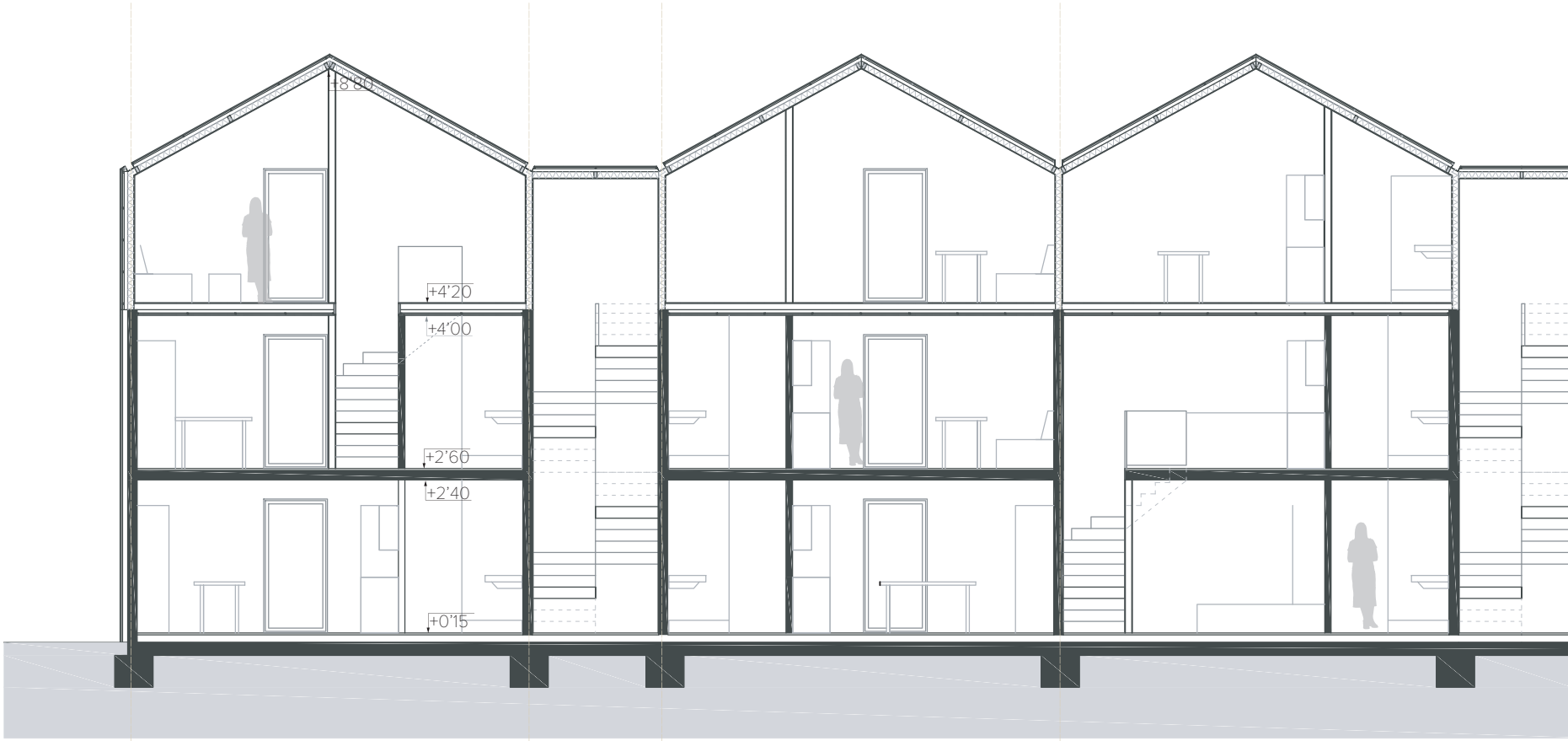
M 1:100

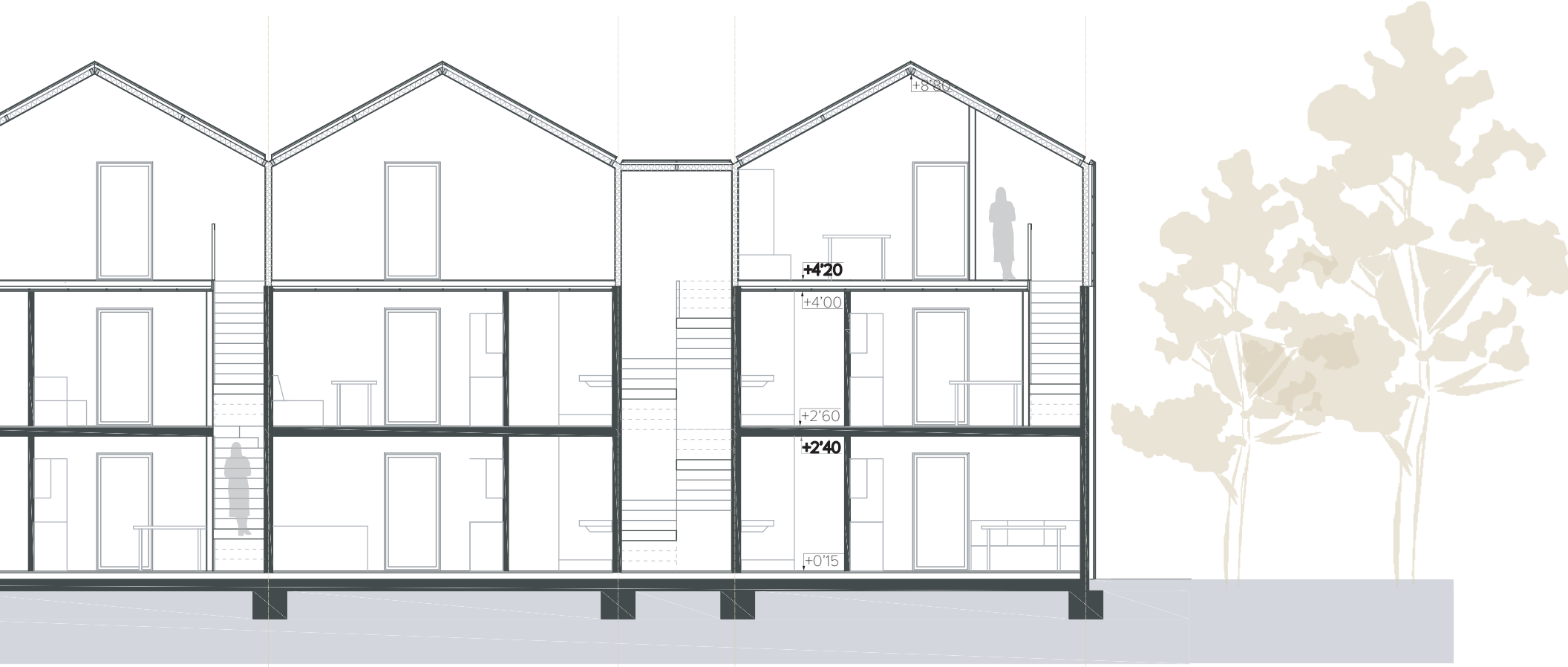

Apartmant 7
Apartmant 11
Apartmant 12
130
26.5
101
101
101
110
121
121
121
Living area
33,16m²
Room 2
9,60m²
Bathroom
with compost
toilet
5,05m²
Living area
18,9m²
Room1
9,94m
Room2
9,94m²
Bathroom
with compost
toilet
5,05m²
Living area
18,9m²
Room1
9,94m
658.5
1278



PLAN - SECOND, NEW FLOOR

M 1:100


+8'80
+4'20
+4'00
+2'60
+2'40
+0'15



SECTION

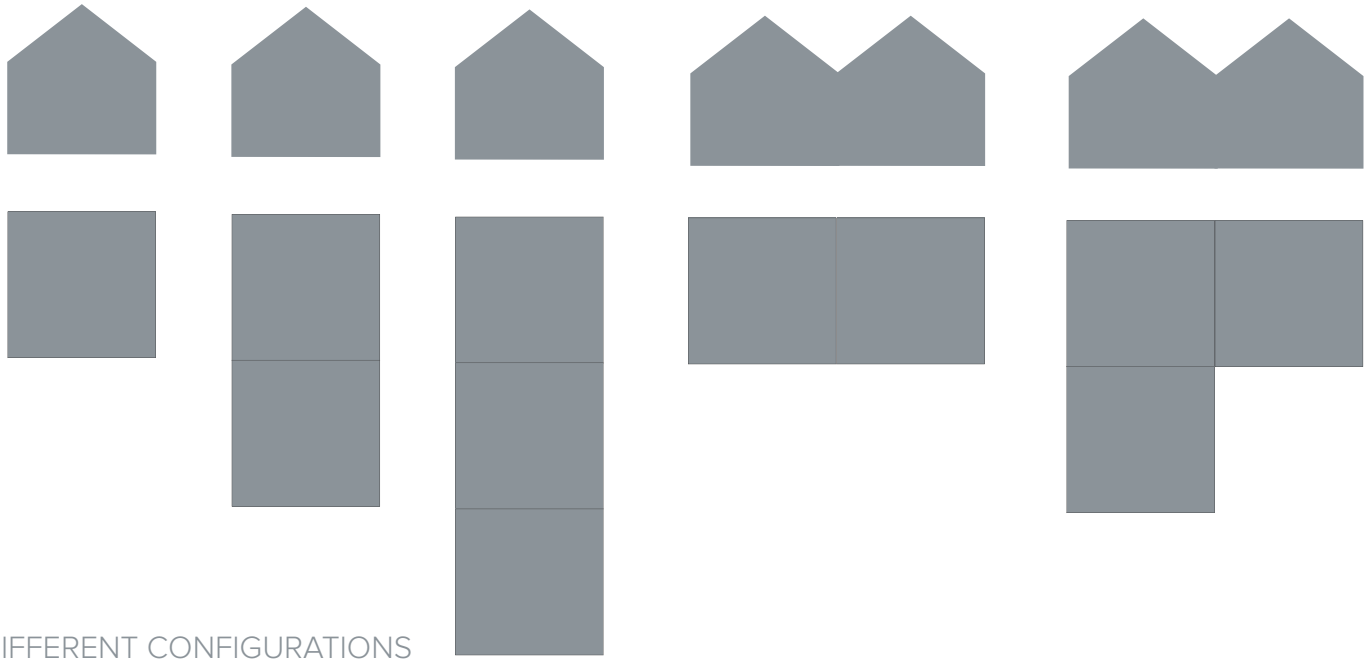
M 1:100

4

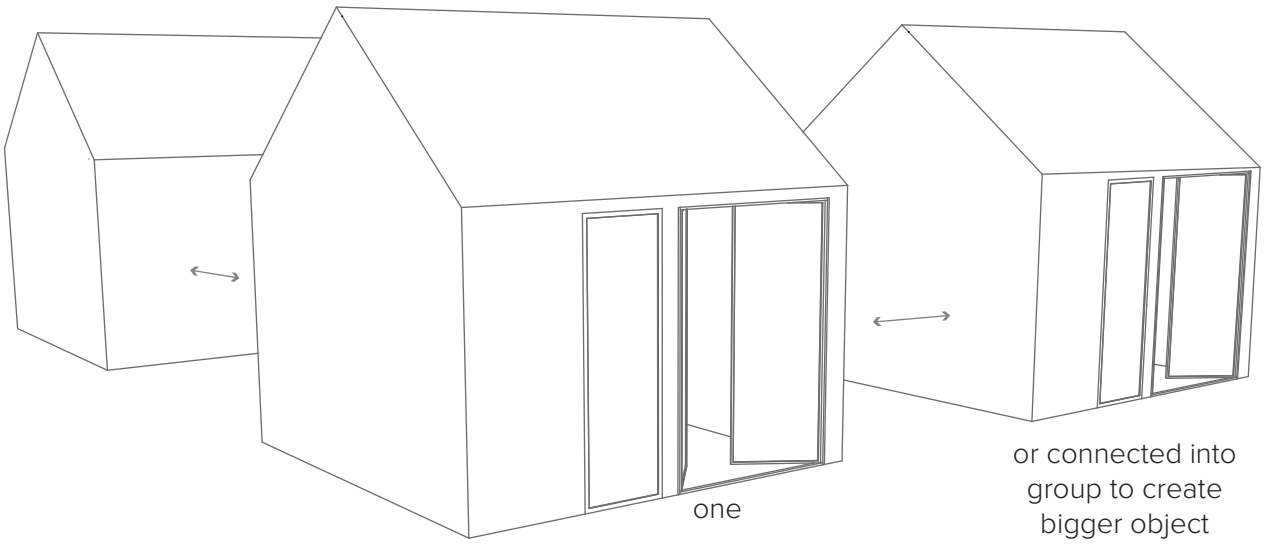
4

4

modular
easy to make
recycled material
different configurations possible
different functions possible (room, kitchen, workshop)



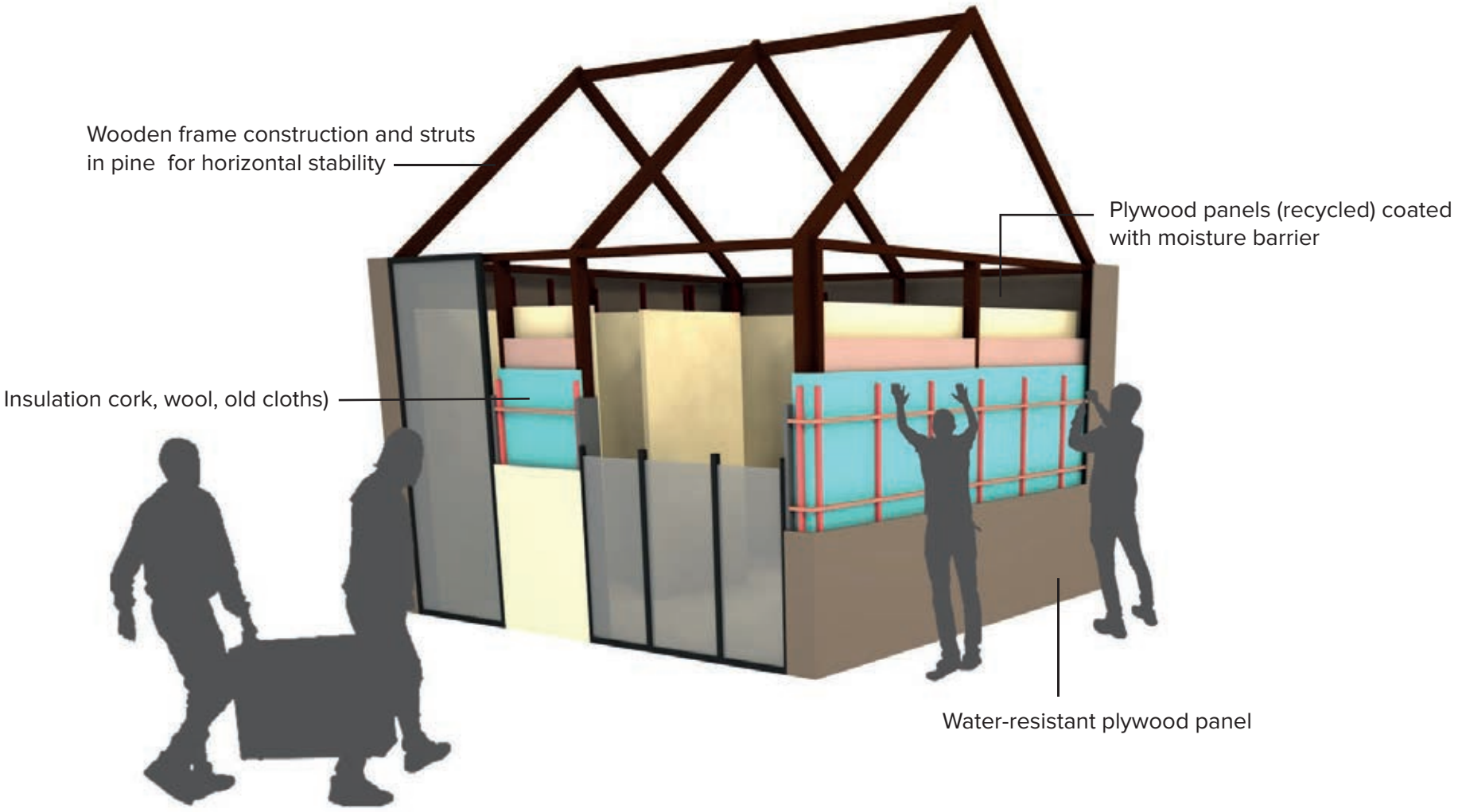
DIFFERENT CONFIGURATIONS



one

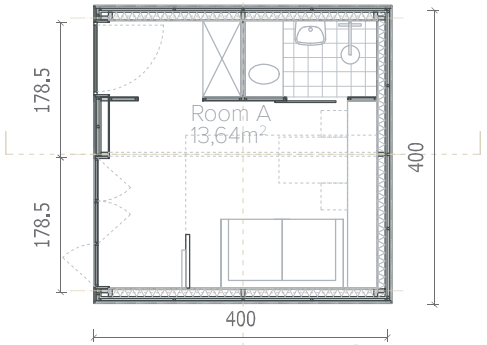
or connected into group to create bigger object

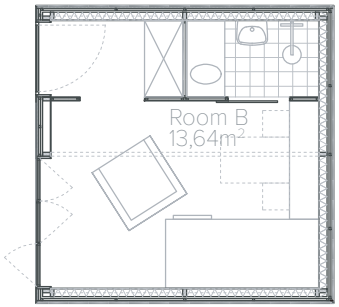
!THROUGH EDUCATIONAL PROGRAMS RESIDENTS LEARN ABOUT THE CONSTRUCTION AND LATER CAN BUILD BY THEM-SELVES ACCORDING TO THEIR NEEDS!

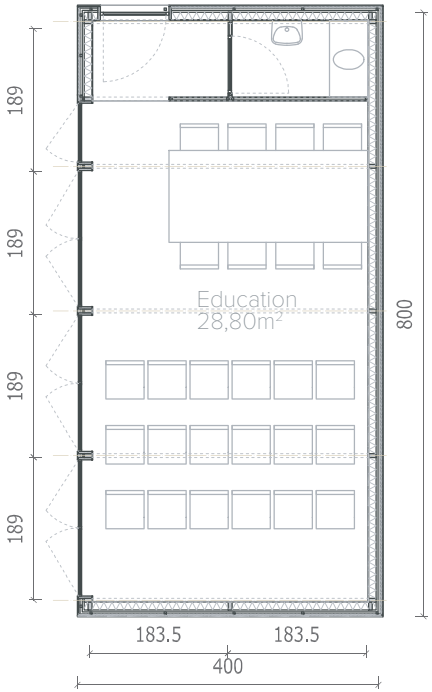


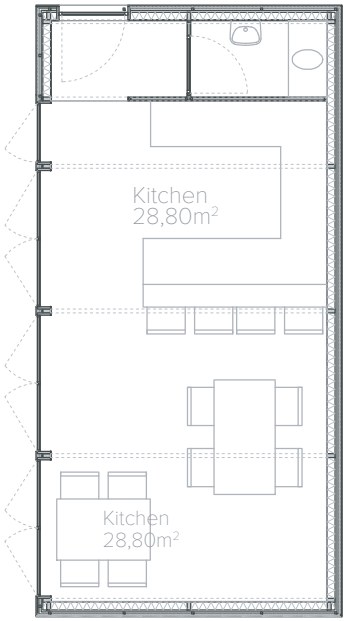
CONCEPT FOR PUBLIC BUILDINGS

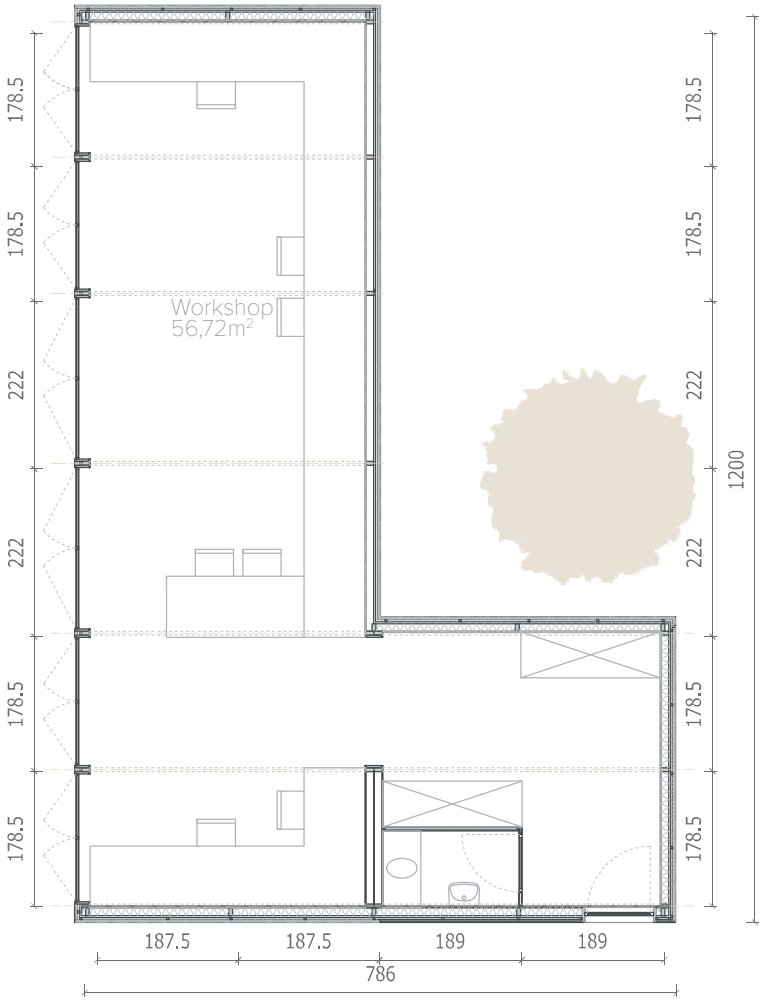
Rooms for rent

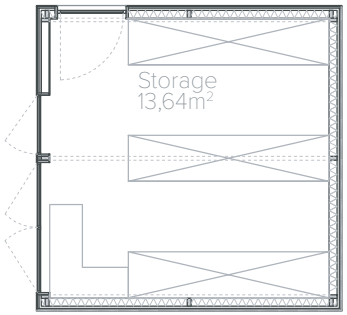






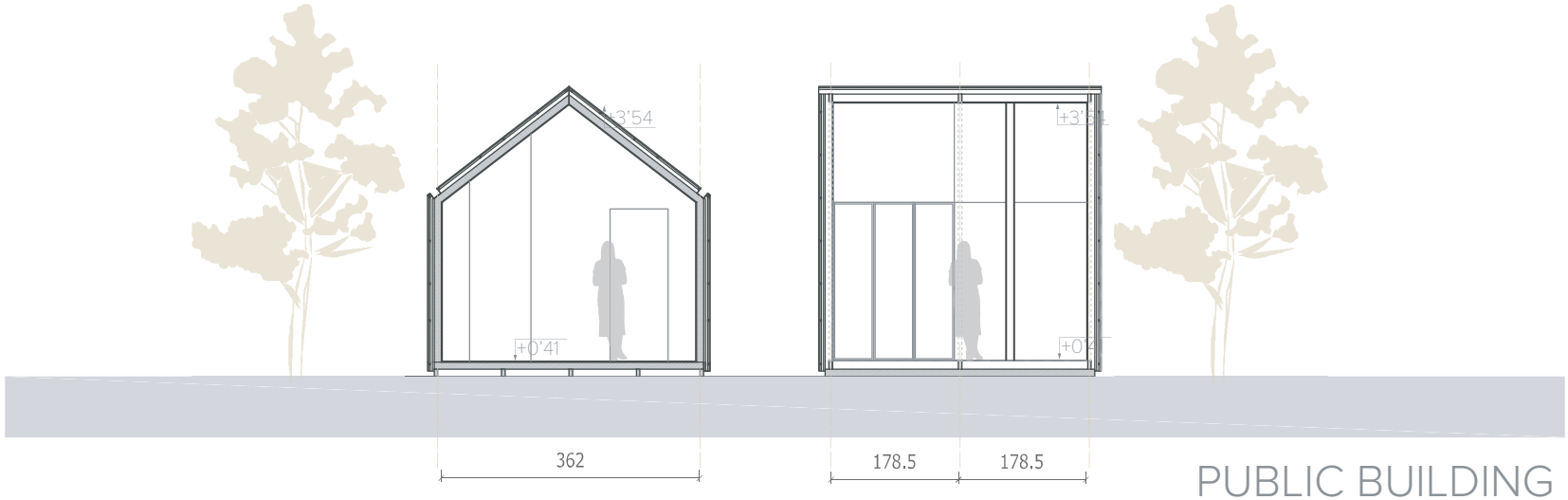






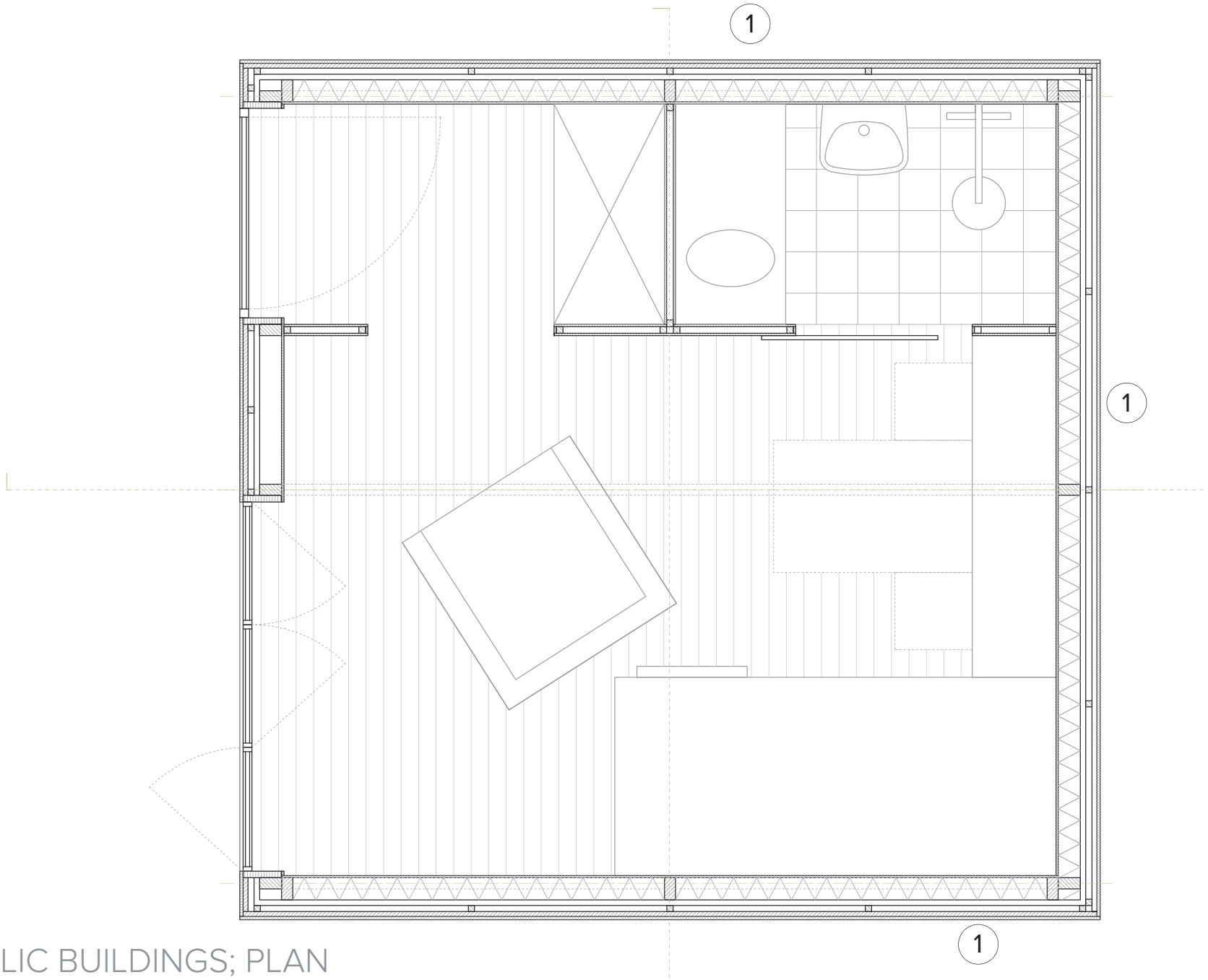
PUBLIC BUILDINGS -PLANS

M1:100



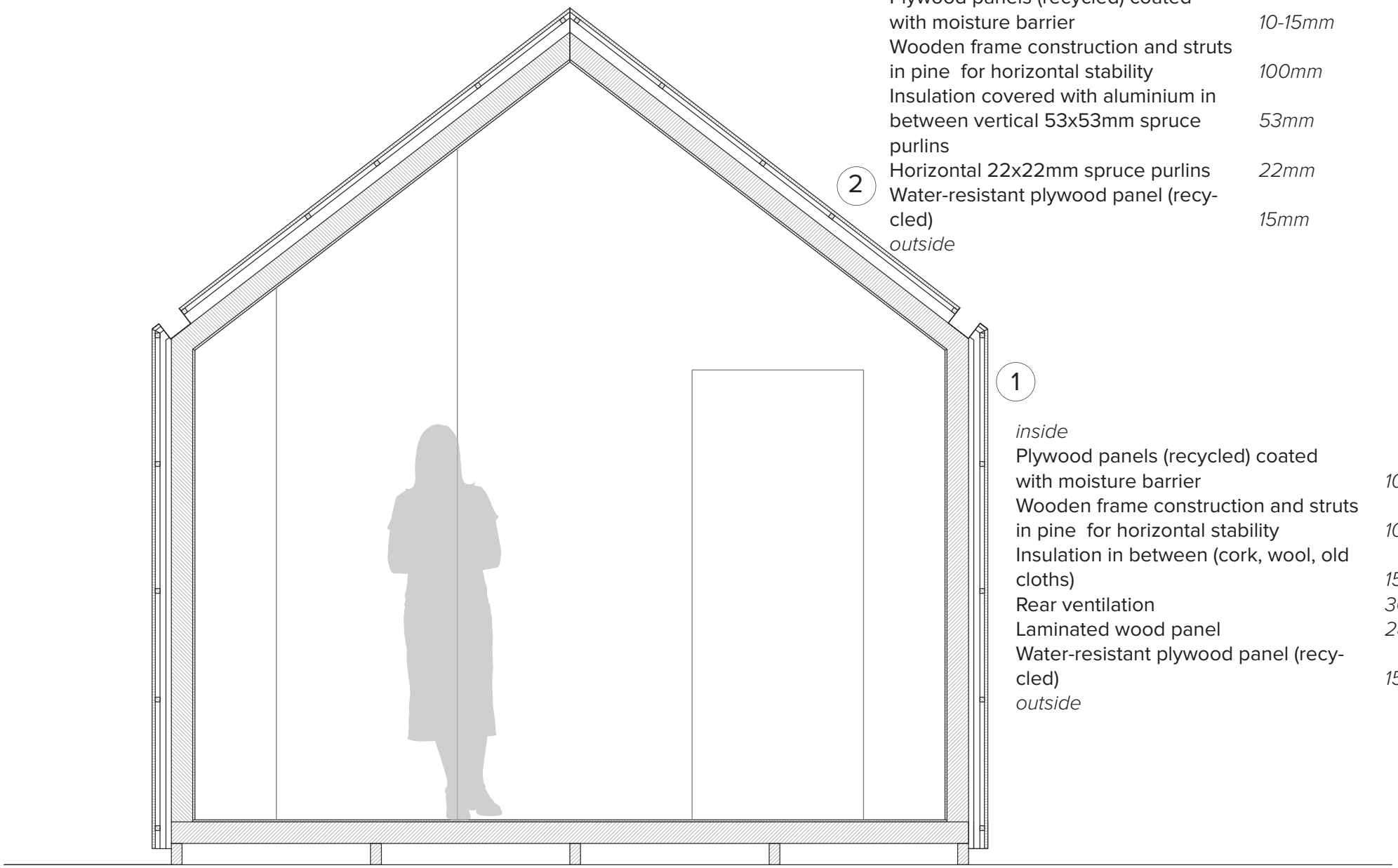
PUBLIC BUILDING SECTIONS
M 1:100

SECTION THROUGH SITE
M 1:1000



DETAILS - PUBLIC BUILDINGS; PLAN

M 1:40



2

inside

Plywood panels (recycled) coated with moisture barrier	*10-15mm*
Wooden frame construction and struts in pine for horizontal stability	*100mm*
Insulation covered with aluminium in between vertical 53x53mm spruce purlins	*53mm*
Horizontal 22x22mm spruce purlins	*22mm*
Water-resistant plywood panel (recycled)	*15mm*

outside

1

inside

Plywood panels (recycled) coated with moisture barrier	*10-15mm*
Wooden frame construction and struts in pine for horizontal stability	*100mm*
Insulation in between (cork, wool, old cloths)	*150mm*
Rear ventilation	*30mm*
Laminated wood panel	*28mm*
Water-resistant plywood panel (recycled)	*15mm*

outside

DETAILS - PUBLIC BUILDINGS; SECTION

M 1:40

REGISTE

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